



City of Sacramento City Council

915 I Street, Sacramento, CA, 95814

www.CityofSacramento.org

Meeting Date: 2/7/2012

Report Type: Consent

Title: Contracts: Cold Water Meters

Report ID: 2012-00079

Location: Citywide

Recommendation: Pass a motion: 1) awarding one-year contracts, each with four one-year renewal options, for the purchase of cold water meters and accessories, to (a) Sensus USA, Inc., in an amount not-to-exceed \$2,277,363 for the maximum five year term, (b) Elster/AMCO Water, Inc., in an amount not-to-exceed \$254,024 for the maximum five year term, (c) Badger Meter, in an amount not-to-exceed \$957,459 for the maximum five year term, and (d) Mueller Systems, in an amount not-to-exceed \$282,445 for the maximum five year term; and 2) authorizing the City Manager or the City Manager's designee to approve the one year renewals provided that funding for the renewals is available in the budget adopted for the applicable budget year(s).

Contact: Michael Malone, Field Services Manager, (916) 808-6226; Ken Swartz, Stores Administrator, (916) 808-6276 - Department of Utilities

Presenter: None

Department: Department Of Utilities

Division: Field Services Administration

Dept ID: 14001451

Attachments:

- 1- Description/Analysis
- 2- Background
- 3- Attachment.
- 4- Bid Sensus
- 5- Bid Elster
- 6- Bid Badger
- 7- Bid Mueller

City Attorney Review

Approved as to Form
Joe Robinson
2/1/2012 5:33:36 PM

City Treasurer Review

Reviewed for Impact on Cash and Debt
Russell Fehr
1/27/2012 4:15:22 PM

Approvals/Acknowledgements

Department Director or Designee: Dave Brent - 2/1/2012 12:20:12 PM

Description/Analysis

Issue: California State Assembly Bill 2572 (AB 2572) requires the installation of water meters on all water service connections not later than 2025. To comply with AB 2572, the Department of Utilities (DOU) is continuing its Meter Retrofit Program, which includes residential water meter installation, back yard main relocation, and replacement of undersized and deteriorated steel water mains. The DOU needs to purchase cold water meters and accessories for the Meter Retrofit Program as well as furnishing new water meter installations and end-of-life meter replacement.

Policy Considerations: The recommendations in this report are in accordance with the provisions of City Code Section 3.56, providing for the award of supply contracts to the lowest responsible bidder.

Environmental Considerations:

California Environmental Quality Act (CEQA): The Environmental Services Manager has determined that the proposed project is exempt from CEQA under Section Number 15302(c) of the CEQA Guidelines. Exemption 15302(c) consists of replacement of existing facilities involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination.

Sustainability: The supplies that will be purchased under these contracts comply with the City's Sustainability Master Plan Goal to conserve the use and protect the sources of water. The installation of cold water meters promotes sustainability by collecting meter reads accurately and billing our customers based on water consumption, thereby providing a financial and ecological incentive to reduce water consumption.

Commission/Committee Action: Not Applicable

Rationale for Recommendation: The Department of Utilities has a need to purchase water meters to comply with California State Assembly Bill 2572 (AB 2572) and to ensure continuation of services to its customers.

In November 2011, DOU, Field Services, in accordance with City Code Chapter 3.56, issued Invitation for Bid No. B123351012 for the purchase of cold water meters. Four (4) responses were received (see Attachment 1).

The bid was a competitive bid process, consistent with the City's rules for purchasing. Each bidder was the lowest responsive and responsible bidder for at least one bid item. By making multiple awards for the different bid items, the City will save an estimated \$775,127.90 over the life of the potential five year contracts. The bid results and the calculation of each contract's not-to-exceed amount are provided on Attachment 1.

Financial Considerations: This report recommends awarding one-year contracts with four one-year renewal options to Sensus USA, Inc., Elster/AMCO Water, Inc., Badger Meter, and Mueller Systems for the purchase of water meters, in a total amount not to exceed \$3,771,291 for the maximum five-year term. Sufficient funding is available in the Department of Utilities FY2011/12 operating budget for the purchase of cold water meters through June 30, 2012. Purchases after June 30, 2012, are subject to funding availability in the adopted budget of the applicable fiscal year. The estimated annual amounts for all four contracts are as follows:

Year 1	Year 2	Year 3	Year 4	Year 5	Total Amount
\$ 250,000	\$ 550,000	\$ 750,000	\$1,000,000	\$ 1,221,291	\$ 3,771,291

The not-to-exceed amounts for each contract for the maximum five-year term are as follows:

Sensus USA, Inc.	\$ 2,277,363
Elster/AMCO Water	254,024
Badger Meter	957,459
Mueller Systems	282,445

Pricing for the first year will be fixed; however, if the contract(s) is/are renewed for any of the subsequent years pricing will not increase more than 5% in any subsequent year. There is sufficient funding for this purchase within the fund's multiyear operating and capital projects.

Emerging Small Business Development (ESBD): None of the vendors recommended for award are certified with the City of Sacramento as an Emerging/Small Business Enterprise (ESBE).



Background

The City of Sacramento provides water service to the residents, businesses, and industries within the City. The cost of this service is recovered through the water rates. The City has traditionally billed residential customers water use on a flat rate based on property size, regardless whether a water meter is installed on the property. State Assembly Bill 2572 (AB 2572) mandates the installation of water meters for all water customer services by the year 2025. Therefore, to comply with State law, the City will be required to install meters on homes which do not already have one in place.



Attachment No. 1

Cold Water Meter Bid No. B123351012							
Bid Evaluation							
Bidding Companies							
Item No.	Description	Quantity	Sensus	Elster/AMCO	Badger Meter	Mueller Systems	Multiple Award Savings
1	3/4" No Moving Parts Meter	1000	\$ 111,488.00	\$ 137,918.00	\$ 149,998.00	No Bid	\$ 26,430.00
2	1" No Moving Parts Meter	2500	358,370.00	375,035.00	426,515.00	No Bid	16,665.00
3	1" Positive Displmt Meter	2750	No Bid	382,937.50	361,476.50	379,005.00	17,528.50
4	1 1/2" Positive Displmt Meter	950	No Bid	374,174.60	284,450.90	282,444.50	2,006.40
5	2" Positive Displmt Meter	1500	No Bid	714,138.00	595,983.00	613,206.00	17,223.00
6	2" Turbine Cold Water Meters	100	44,384.40	60,229.20	50,392.60	No Bid	6,008.20
7	3" Turbine Cold Water Meters	80	57,933.28	69,667.20	73,830.88	No Bid	11,733.92
8	4" Turbine Cold Water Meters	80	99,981.60	87,083.84	98,151.20	No Bid	11,067.36
9	6" Turbine Cold Water Meters	30	67,149.96	57,979.86	60,302.46	No Bid	2,322.60
10	8" Turbine Cold Water Meters	30	93,971.82	78,209.82	95,855.34	No Bid	15,762.00
11	10" Turbine Cold Water Meters	5	24,676.85	13,261.52	22,674.28	No Bid	9,412.76
12	12" Turbine Cold Water Meters	5	No Bid	17,488.61	26,796.37	No Bid	12,307.76
13	2" Compound Cold Water Meter	300	280,640.40	397,515.00	422,260.20	No Bid	116,874.60
14	3" Compound Cold Water Meter	350	348,225.50	655,230.10	597,127.30	No Bid	248,901.80
15	4" Compound Cold Water Meter	350	521,782.10	771,654.10	631,392.30	No Bid	109,610.20
16	6" Compound Cold Water Meter	150	344,828.70	518,857.20	463,664.40	No Bid	118,835.70
17	8" Compound Cold Water Meter	50	209,711.10	309,047.90	242,149.20	No Bid	32,438.10
							775,127.90

Low bid amounts for each item are indicated in “bold” font. Award of Contracts for low bid items to the respective bidders are recommended to:

**Sensus
Elster/AMCO
Badger Meter
Mueller Systems**

Total of Contract Amounts (maximum 5 year term): \$3,771,291.00

Using Department: Department of Utilities

No. of Bids Received	No. of E/SBE Bids Solicited	No. of E/SBE Responses	Award to E/SBE Vendor?
4	0	0	No



PO Box 487
Bailey & Gallatin Aves
Uniontown, PA 15401 USA

T: 724-430-3970
F: 724-430-3959
www.sensus.com



December 5, 2011

City of Sacramento
City Clerk's Office
9151 St, Ste 122391
Sacramento, California 95814-2604

<input type="checkbox"/> Properly Signed	<input type="checkbox"/> Improperly Signed
<input type="checkbox"/> Not Included	<input checked="" type="checkbox"/> Not Required
Type of Deposit	
<input type="checkbox"/> Bid Bond	<input type="checkbox"/> Cashier/Certified Check
Other _____	Initial: <u>VF</u>
Bid Bond Security _____	

RE: INVITATION FOR BID
BID NUMBER B123351012
FOR COLD WATER METERS
OPENING WEDNESDAY, DECEMBER 14, 2011, 2:00 PM

Ladies and Gentlemen:

In accordance with your Invitation For Bid, Sensus is pleased to enclose our completed bid with prices indicated thereon.

Sensus does not qualify as a federal contractor subject to Executive Order 11246 for Affirmative Action Plans.

Descriptive literature has been enclosed. Please note Sensus will meet the warranty requirements as stated in the City of Sacramento meter specifications. The iPERL meter meets the performance requirements of AWWA C-700 and C-713.

Part prices are enclosed for the OMNI meters proposed. Discount from List prices shown is 45%.

Please note that if the tax percentage changes during the contract period invoicing will be adjusted accordingly.

Yours truly,

Arthur Burns
Director of Sales

/gcm

Enclosures



CERTIFICATE OF LIABILITY INSURANCE

12/17/2011

DATE (MM/DD/YYYY)

11/29/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies, LLC-1 Kansas City 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	CONTACT NAME: _____	
	PHONE (A/C No. Ext): _____	FAX (A/C No.): _____
E-MAIL ADDRESS: _____		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Liberty Mutual Insurance Company		23043
INSURER B: _____		
INSURER C: _____		
INSURER D: _____		
INSURER E: _____		
INSURER F: _____		

COVERAGES SENME01 XN **CERTIFICATE NUMBER:** 11533812 **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EBL \$1MILL/\$1000 DED GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y	N	TB2-641-439060-020	12/17/2010	12/17/2011	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y	N	AS2-641-439060-030	12/17/2010	12/17/2011	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$ XXXXXXXX
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WA7-64D-439060-040 (AOS) WC7-641-439060-010 (WI)	12/17/2010 12/17/2010	12/17/2011 12/17/2011	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
 THE CITY, ITS OFFICIALS, EMPLOYEES AND VOLUNTEERS ARE ADDITIONAL INSURED WITH RESPECT TO THE GENERAL LIABILITY COVERAGE, WHICH IS PRIMARY COVERAGE TO THE ADDITIONAL INSURED AND OTHER AVAILABLE INSURANCE WILL BE NON-CONTRIBUTORY AS REQUIRED BY CONTRACT, SUBJECT TO THE TERMS AND CONDITIONS OF THE POLICY.

CERTIFICATE HOLDER 11533812 CITY OF SACRAMENTO 9151 ST, STE 122391 SACRAMENTO CA 95814-2604	CANCELLATION See Attachments SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED

This endorsement modifies insurance provided under the following

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

SECTION II - WHO IS AN INSURED is amended to include as an insured any person or organization for whom you have agreed in writing to provide liability insurance. But

The insurance provided by this amendment:

1. Applies only to "bodily injury" or "property damage" arising out of (a) "your work" or (b) premises or other property owned by or rented to you;
2. Applies only to coverage and minimum limits of insurance required by the written agreement, but in no event exceeds either the scope of coverage or the limits of insurance provided by this policy; and
3. Does not apply to any person or organization for whom you have procured separate liability insurance while such insurance is in effect, regardless of whether the scope of coverage or limits of insurance of this policy exceed those of such other insurance or whether such other insurance is valid and collectible.

The following provisions also apply:

1. Where the applicable written agreement requires the insured to provide liability insurance on a primary, excess, contingent, or any other basis, this policy will apply solely on the basis required by such written agreement and Item 4. Other Insurance of SECTION IV of this policy will not apply.
2. Where the applicable written agreement does not specify on what basis the liability insurance will apply, the provisions of Item 4. Other Insurance of SECTION IV of this policy will govern.
3. This endorsement shall not apply to any person or organization for any "bodily injury" or "property damage" if any other additional insured endorsement on this policy applies to that person or organization with regard to the "bodily injury" or "property damage".
4. If any other additional insured endorsement applies to any person or organization and you are obligated under a written agreement to provide liability insurance on a primary, excess, contingent, or any other basis for that additional insured, this policy will apply solely on the basis required by such written agreement and Item 4. Other Insurance of SECTION IV of this policy will not apply, regardless of whether the person or organization has available other valid and collectible insurance. If the applicable written agreement does not specify on what basis the liability insurance will apply, the provisions of Item 4. Other Insurance of SECTION IV of this policy will govern.

This endorsement is executed by the **LIBERTY MUTUAL FIRE INSURANCE COMPANY**

Premium \$

Effective Date

Expiration Date

For attachment to Policy No.

TB2-641-439060-020

Attachment Basis

Issued To

Counterigned by _____

Authorized Representative

Insured

Sales Office and No.

Ext. Serial No. 23

LN 20 01 06 05

Miscellaneous Attachment: M469950

Certificate ID: 11533812

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED

This endorsement modifies insurance provided under the following:

**BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
TRUCKERS COVERAGE FORM**

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" under the Who Is An Insured Provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

SCHEDULE

Name of Person(s) or Organization(s):

Any person or organization whom you have agreed in writing to add as an additional insured, but only to coverage and minimum limits of insurance required by the written agreement, and in no event to exceed either the scope of coverage or the limits of insurance provided in this policy.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to the endorsement.)

Each person or organization shown in the Schedule is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in Section II of the Coverage Form.

Policy No: AS2-641-439060-030
Effective Date: 12/17/2010
Expiration Date: 12/17/2011
Sales Office: 0448

Issued By: Liberty Mutual Fire Insurance Co.

Endt Serial No: 2



CITY OF SACRAMENTO

PROCUREMENT SERVICES DIVISION

Bid Number: B123351012

**INVITATION FOR BID
And
Contract Specifications For
FOR: COLD WATER METERS**

***Bids Must Be Received Up To The Hour of 2:00 P.M. on
Wednesday December 14, 2011***

Bids Must Be Submitted To: City Clerk's Office
P.O. Box 122391
Sacramento, CA 95812-2391

Pre-Bid Conference: Thursday December 8, 2011 at 1:30PM
Mandatory: Yes 5730 24th Street Corp Yard
 No Bldg # 22- The Copper Room
Sacramento, CA 95822

**NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID:
(Bidder to complete the following information)**

Name of Bidder: Sensus USA Inc.

Address: 450 North Gallatin Avenue

City, State, Zip Code: Uniontown, Pennsylvania 15401

Phone Number: 800-638-3748

Email Address: h2oinfo@sensus.com, arthur.burns@sensus.com

CITY OF SACRAMENTO

Bid No. B123351012

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SECTION I REQUIREMENTS

SECTION I – REQUIREMENTS

A. "NO BID" RESPONSE FORM

NOTE: COMPLETE AND RETURN THIS FORM

ONLY IF YOU DO NOT WANT TO SUBMIT A BID

If you do not want to submit a bid for this requirement, we are interested in knowing why. Please remove this form, complete the requested information, and **FAX your response to Ken Swartz at (916) 421-4596**. If you have questions, please call the Field Services Administrative Office at (916) 808-6276. Thank you for your cooperation.

"NO BID" QUESTIONNAIRE
(Please complete all items that apply)

- We do not sell the products/services called for in this invitation for bid, but we want to stay on the City's Bid List. Please send necessary information so that the products/services we do provide can be updated on the City's Bid List.

- We are not interested in doing business with the City of Sacramento, because _____

- Other reasons/comments: _____

- Please send application forms for certification as an emerging and/or small business enterprise (E/SBE):
(Note: Application forms and information about becoming certified as an emerging and/or small business can be obtained via the Internet at: <http://www.cityofsacramento.org/esbd>).

(Business Name)

(Street Address/P.O. Box)

(City, State, Zip)

(E-mail address)

Date: _____

Phone: _____

Contact: _____

SECTION I – REQUIREMENTS

B. BID INSTRUCTIONS AND REQUIREMENTS

No Bid Is In Legal Form Unless the Following Instructions Are Fully Complied With

1. **Additional Copies.** VENDORS ARE REQUIRED TO SUBMIT AN ORIGINAL BID AND ONE (1) ADDITIONAL COPY OF THIS BID, INCLUDING ALL REQUIRED ATTACHMENTS SUCH AS BROCHURES AND CATALOGS, TO THE CITY CLERK ON THE DATE AND AT THE TIME AND LOCATION SPECIFIED ON THE COVER SHEET. FAILURE TO DO SO MAY CAUSE YOUR BID TO BE REJECTED.
2. **Bid Forms.** Bid must be submitted on these printed forms and sealed in an appropriate envelope or package.
 - a) To obtain an electronic version of this bid go to Procurement's website at www.cityofsacramento.org/generalservices/procurement/bids.
 - b) Bidders are invited to be present at the opening of bids. Bids will be opened, in public, in the City Clerk's Hearing Room, 915 "I" Street, Second Floor, Sacramento, CA, at or after 2:00 P.M. on, 12/14/2011. After opening, Bids may be inspected in the City Clerk's Office.

(Note: Bids must be submitted up to 2:00 P.M. on the above date)

- c) All bids shall be clearly and distinctly written without erasure or modification, and properly signed by an authorized party, who shall indicate the capacity in which the signature is executed.
3. **Alternate Bids.** Alternate bids are invalid unless invited and covered by the specifications. Please note all submissions are subject to rejection when unsolicited alternate bids are submitted.
4. **Bid Security.** Bid Security is: Required Not Required

If required, bid security approved by the City must accompany the bid, in the amount of ___ % of the total amount of the bid. Bid security can be in the form of a cashier's check, certified check, or a bid bond from a surety company authorized to do business in the State of California. Bid securities will be returned to all except the three lowest Bidders within ten days after the opening of bids. The bid security of the two unsuccessful Contractors will be returned after the successful Contractor has executed the contract. Bid security of the successful Contractor will be returned when the contract is signed and all other contract award requirements have been met.

5. **Interest in More Than One Bid.** No bidder shall be interested in more than one bid (submit more than one bid for this solicitation) as provided by City Code Section 3.56.130(D).
6. **Rejection of Bids.** The right to reject any and all bids is reserved by the City, in its absolute discretion.
7. **Right to Waive.** The City reserves the right to waive any informalities or minor irregularities, as determined in its sole discretion, in connection with bids received.

7A. City's Options. City reserves the following options:

1. The right to award in whole or in part.
2. The right to reject all partial bids.
3. The right to reject any or all bids or make no award.
4. The right to issue subsequent Invitation For Bids (IFB).
5. The right to approve or disapprove the use of particular subcontractors and/or suppliers.
6. The right to waive any informality or irregularity in the bidding process and any bids.
7. The right to accept a bidder's signed offer and issue a purchase order directly to the bidder based on the IFB.

8. **City Code.** All provisions of Chapter 3.56 of the City Code are applicable to any bid submitted or contract awarded.
9. **Equipment.** If equipment is bid, it shall be the newest and latest model in current production. Used, re-manufactured, shopworn, demonstrator, prototype or discontinued models are not acceptable unless otherwise stipulated by the City.
10. **Faithful Performance Bond.** A faithful performance bond is: Not Required Required
- If required, the successful bidder must submit a performance bond in a form approved by the City Attorney, in the amount of _____.
11. **Payment Discounts.** Payment discounts offered for payment in less than twenty (20) days will not be considered as a basis of award. Payment discounts offered for payment in twenty (20) or more days will be subtracted from the total bid price for the purposes of bid evaluation. Any payment discount offered by the successful bidder will be accepted by the City of Sacramento, whether or not it was considered as a basis of award.
12. **Mandatory Pre-Bid Conference.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, all bidders are required to attend the conference. Failure to attend this conference will result in rejection of your bid. If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, bid packages will be made available only through the time and date of the conference. Subsequent addenda, if applicable, will be furnished only to those bidders who attended the Mandatory Pre-Bid Conference.
13. **Bid Inquiries.** Questions regarding this bid should be referred to:

Contractual Questions
 Field Services Division
 Ken Swartz
 Stores Administrator
kswartz@cityofsacramento.org
 Phone: 916-808-6276

Technical Questions
 Water Distribution
 Oscar Alcantar
 Water Meter Supervisor
oalcantar@cityofsacramento.org
 Phone: 916-808-6901

These inquiries must be submitted at least 10 days prior to the bid opening date. Any interpretations by the City will be made in the form of a written amendment. The receipt of such an amendment must be acknowledged in accordance with the directions on the amendment. Oral explanations or instructions given before the award of the contract will not be binding.

14. **Bid Evaluation.** In determining the amount bid by each bidder, the City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Bid. When such a mathematical error appears on the face of the Bid, the City shall have the right to correct such error and to compute the total amount bid by the bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Bid, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the City's estimate of the quantity to be provided or performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the intent of the bid process. The total paid for each such item of work shall be based upon the item price and not the total price.

Should the Bid contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by City's estimate of the estimated quantities to be provided or performed.

If the Bid contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Bid shall be disregarded.

If prospective bidders are bidding an item "or equal" the bidders shall list the manufacturer's name and product number of the item offered in the space provided. If such information is not provided, it will be assumed that the bidder is offering the exact item specified. The City's decision as to whether an item is an equal to the item specified shall be final.

15. **Determination of Lowest Responsible Bidder.** Sacramento City Code '3.56.020 provides that the lowest responsible bidder shall be determined as follows:
 - a. In determining whether a bidder is responsible, consideration shall be given to: (i) the quality and performance of the supplies to be provided by the bidder; (ii) the ability, capacity and skill of the bidder to perform the contract or effectuate the transaction; (iii) the ability of the bidder to perform the contract or effectuate the transaction within the time specified, without delay; (iv) the character, integrity, reputation, judgment, experience and efficiency of the bidder; (v) the quality of the bidder's performance on previous purchases by, or contracts with, the City; (vi) the ability of the bidder to provide future maintenance, repair parts and services for the supplies provided.
 - b. Based on the information provided in the bids, the City Council or the City Manager, as the case may be, shall identify those bids that are subject at the time of bid opening to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. This deduction shall be in addition to the application of any bid price preferences authorized by subsection c, below.
 - c. The City Council may by resolution, from time to time, adopt programs or procedures for providing bid price preferences, including but not limited to, preferences to promote the participation and utilization of small business enterprises, energy conservation and sustainability in the City's contracting for supplies and nonprofessional services. The lowest responsible bidder shall be the responsible bidder whose bid price is the lowest after all bid prices are calculated to include any such preferences. The calculation of such preferences shall be in addition to any deduction of sales or use tax required by subsection b, above.
16. **Pre-Award Conference.** The apparent lowest responsible bidder may be required to attend a pre-award conference at a mutually acceptable time at which requirements of the Contract will be reviewed. At that time, samples of forms, reports etc., will be submitted by the Contractor for final approval.
17. **Award by Item or Group.** The City reserves the right to increase or decrease quantities listed, make separate awards for any item, line-item or category/group of items to the lowest responsible bidders for such items or category/groups of items.
18. **Multiple Awards.** The City reserves the right to make multiple awards in order to provide alternate sources to insure continuity of supply if meeting the City's requirements within an acceptable time period exceeds the capacity or capability of the primary contractor(s).
19. **Contract Award.** Within ninety (90) days after the bid opening, a contract will be awarded by the City to the lowest responsible bidder, subject to the right of the City to reject all bids or waive informalities or minor irregularities, as it may deem proper. The time for awarding a contract may be extended in the sole discretion of the City, if required to evaluate bids or for such other purposes as the City may determine, unless the Bidder objects to such extension in writing with his/her bid. The City may accept this bid offer by issuance of a Notice of Award Letter, Contract and/or a Purchase order covering award of said bid to Bidder at any time on or before the 90th day following the day of this official bid is opened by the City. This offer shall be irrevocable for 90 days after bid opening or 90 days after City Council awards the bid, whichever comes last, however this period may be extended by mutual agreement of both parties.
20. **Emergency/Declared Disaster Requirements.** In the event of an emergency or if a City facility is declared a disaster area by the county, state or federal government, this contract may be subjected to unusual usage. The consultant/vendor/supplier shall service the City during such an emergency

or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by the consultant/vendor/supplier shall apply to serving the City's needs regardless of the circumstances. If the consultant/vendor/supplier is unable to supply the goods/services under the terms of the contract because of a disruption in its chain of supply or service, then the consultant/vendor/supplier shall provide proof of such disruption which may include, but not be limited to a copy of a letter from the source of supply or service stating reason for the disruption. Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted.

21. **Acceptable bid format.** All bids must show the full name of the firm bidding and must be on forms furnished by the City of Sacramento. All responses must be written in ink, printed by typewriter or computer generated. Responses made in pencil will not be considered.
22. **Submission of Bids.** The City is not responsible for misaddressed bids. Please assure that you utilize the address appropriate for the method of delivery. Bid submissions made via commercial express courier (FedEx, United Parcel Svs.) must be addressed as follows:

**City of Sacramento
City Clerk's Office
915 I St., Ste. 122391
Sacramento, CA. 95814-2604**

Bid submissions made via personal delivery shall be delivered to:

**City of Sacramento
City Clerk's Office
Historic City Hall
915 I St., Ste. 116
Sacramento, CA. 95814**

23. **Bid Protest.** Bid protests must be filled and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing to be considered valid in accordance with City of Sacramento Resolution No. 2003-231 dated April 29, 2003. As used herein, the term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, or (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. Sections 3.60.460 - 3.60.560 of the Sacramento City Code are available at: <http://www.qcode.us/codes/sacramento/>.

24. **City of Sacramento Boycott of Arizona-Headquartered Businesses.** On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents. Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that "where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ..."

**SUBJECT TO PARAGRAPH 7 ABOVE, THE CITY CANNOT ACCEPT A
BID FAILING TO COMPLY WITH ANY OF THE ABOVE REQUIREMENTS.**

SECTION I – REQUIREMENTS

C. BID SIGNATURE PAGE

BID NO. B123351012

FOR SERVICES/SUPPLIES: Cold Water Meters

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the bidder or the Contractor) submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefore, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents, referred to herein as the Contract Documents, are fully incorporated herein by this reference and are collectively referred to as the Contract. By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

To Be Filled Out By Bidder

NAME OF CONTRACTOR: Sensus USA Inc.

ADDRESS: 450 North Gallatin Ave, Uniontown, PA 15401

PHONE #: 800-638-3748 FAX #: 800-888-2403 EMAIL: h2oinfo@sensus.com

STATE TAX I.D. #: 2807409 FED. TAX I.D. #: 51-0338883

City of Sacramento Business Operation Tax Certificate #: pending
(Contract award will not be processed without a valid and current Certificate Number.)

TYPE OF BUSINESS ENTITY (check one): Individual/Sole Proprietor Partnership
 Corporation Limited Liability Company.

BY: (signature of authorized person) Michael S. Buchanan

PRINT NAME: Michael S. Buchanan TITLE: Vice President -Tax

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information.

FOR CITY USE ONLY

The Bid was opened on _____.

Bid Bond Required: [] No; [] Yes - Amount: \$ _____

Received: [] Cashiers or Certified Check drawn on a California bank; [] Surety Bond

City Clerk

CONTRACT AWARD

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: _____

Contract Not-to-Exceed Amount: \$ _____

Award Date: _____

CONTRACT APPROVAL

Approved as to Form:

Approved:

Attest:

City Attorney

City Manager
(Or Authorized Designee)

City Clerk

D. EQUAL BENEFITS ORDINANCE (EBO) REQUIREMENTS

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form, signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as Attachment "A."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as Attachment "B."

ATTACHMENT A



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

On (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination in Employee Benefits Code (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
 - Reinstatement, injunctive relief, compensatory damages and punitive damages- Reasonable attorney's fees and costs

ATTACHMENT B



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS
ORDINANCE**

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822

- Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

You May Also . . .

Submit a written complaint to the City of Sacramento, Procurement Services Division, at the same address, containing the details of the alleged violation.

SECTION II CONTRACT DOCUMENTS

SECTION II – CONTRACT DOCUMENTS

A. GENERAL CONDITIONS

1. Independent Contractor.

- A. It is understood and agreed that CONTRACTOR (including CONTRACTOR's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither CONTRACTOR nor CONTRACTOR's assigned personnel shall be entitled to any benefits payable to employees of CITY. CITY is not required to make any deductions or withholdings from the compensation payable to CONTRACTOR under the provisions of this Agreement, and CONTRACTOR shall be issued a Form 1099 for its services hereunder. As an independent contractor, CONTRACTOR hereby agrees to indemnify and hold CITY harmless from any and all claims that may be made against CITY based upon any contention by any of CONTRACTOR's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any Services under this Agreement. (As used in this Exhibit D, the term "Services" shall include both Services and Additional Services as such terms are defined elsewhere in this Agreement.)
- B. It is further understood and agreed by the parties hereto that CONTRACTOR, in the performance of its obligations hereunder, is subject to the control and direction of CITY as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by CONTRACTOR for accomplishing such results. To the extent that CONTRACTOR obtains permission to, and does, use CITY facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the CONTRACTOR's sole discretion based on the CONTRACTOR's determination that such use will promote CONTRACTOR's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the CITY does not require that CONTRACTOR use CITY facilities, equipment or support services or work in CITY locations in the performance of this Agreement.
- C. If, in the performance of this Agreement, any third persons are employed by CONTRACTOR, such persons shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR. It is further understood and agreed that CONTRACTOR shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of CONTRACTOR's assigned personnel and subcontractors.
- D. The provisions of this Section 1 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between CITY and CONTRACTOR. CONTRACTOR may represent, perform services for, or be employed by such additional persons or companies as CONTRACTOR sees fit provided that CONTRACTOR does not violate the

provisions of Section 5, below.

2. **Licenses; Permits, Etc.** CONTRACTOR represents and warrants that CONTRACTOR has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature that are legally required for CONTRACTOR to practice its profession or provide any services under the Agreement. CONTRACTOR represents and warrants that CONTRACTOR shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals that are legally required for CONTRACTOR to practice its profession or provide such Services. Without limiting the generality of the foregoing, if CONTRACTOR is an out-of-state corporation, CONTRACTOR warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.
3. **Time.** CONTRACTOR shall devote such time and effort to the performance of Services pursuant to this Agreement as is necessary for the satisfactory and timely performance of CONTRACTOR's obligations under this Agreement. Neither party shall be considered in default of this Agreement, to the extent that party's performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.
4. **CONTRACTOR Not Agent.** Except as CITY may specify in writing, CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to bind CITY to any obligations whatsoever.
5. **Conflict of Interest.** CONTRACTOR covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of CITY or that would in any way hinder CONTRACTOR's performance of Services under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of CITY. CONTRACTOR agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of CITY at all times during the performance of this Agreement. If CONTRACTOR is or employs a former officer or employee of the CITY, CONTRACTOR and any such employee(s) shall comply with the provisions of Sacramento City Code Section 2.16.090 pertaining to appearances before the City Council or any CITY department, board, commission or committee.
6. **Confidentiality of CITY Information.** During performance of this Agreement, CONTRACTOR may gain access to and use CITY information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the CITY. CONTRACTOR agrees to protect all City Information and treat it as strictly confidential, and further agrees that CONTRACTOR shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of CITY. In addition, CONTRACTOR shall comply with all CITY policies governing the use of the CITY network and technology systems, as set forth in applicable provisions of the City of Sacramento Administrative Policy Instructions # 30. A violation by CONTRACTOR of this Section 6 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

7. CONTRACTOR Information.

- A. CITY shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostating, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. CONTRACTOR shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by CITY.
- B. CONTRACTOR shall fully defend, indemnify and hold harmless CITY, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. CITY shall make reasonable efforts to notify CONTRACTOR not later than ten (10) days after CITY is served with any such claim, action, lawsuit or other proceeding, provided that CITY's failure to provide such notice within such time period shall not relieve CONTRACTOR of its obligations hereunder, which shall survive any termination or expiration of this Agreement.
- C. All proprietary and other information received from CONTRACTOR by CITY, whether received in connection with CONTRACTOR's proposal to CITY or in connection with any Services performed by CONTRACTOR, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to CITY, CITY shall give notice to CONTRACTOR of any request for the disclosure of such information. The CONTRACTOR shall then have five (5) days from the date it receives such notice to enter into an agreement with the CITY, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by CITY in any legal action to compel the disclosure of such information under the California Public Records Act. The CONTRACTOR shall have sole responsibility for defense of the actual "trade secret" designation of such information.
- D. The parties understand and agree that any failure by CONTRACTOR to respond to the notice provided by CITY and/or to enter into an agreement with CITY, in accordance with the provisions of subsection C, above, shall constitute a complete waiver by CONTRACTOR of any rights regarding the information designated "trade secret" by CONTRACTOR, and such information shall be disclosed by CITY pursuant to applicable procedures required by the Public Records Act.

- 8. Standard of Performance.** CONTRACTOR shall perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of CONTRACTOR's profession in California. All products of whatsoever nature that CONTRACTOR delivers to CITY pursuant to this Agreement shall be prepared in a professional manner and conform to the standards of

quality normally observed by a person currently practicing in CONTRACTOR's profession, and shall be provided in accordance with any schedule of performance specified in Exhibit A. CONTRACTOR shall assign only competent personnel to perform Services pursuant to this Agreement. CONTRACTOR shall notify CITY in writing of any changes in CONTRACTOR's staff assigned to perform the Services required under this Agreement, prior to any such performance. In the event that CITY, at any time during the term of this Agreement, desires the removal of any person assigned by CONTRACTOR to perform Services pursuant to this Agreement, because CITY, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, CONTRACTOR shall remove such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person.

9. Term; Suspension; Termination.

- A. Termination for Cause. If the City determines that the Contractor's performance is not satisfactory, and notifies the Contractor of such determination in writing, the Contractor shall correct the unsatisfactory condition(s) within 5 days after receiving such notification. If the Contractor fails to correct the unsatisfactory condition(s) within 5 days, the City may declare the Contract terminated upon 30 days written notice and may, in the City's sole discretion, demand performance by the Contractor's surety, if any, or contract for performance of all or part of the remainder of Contract with another contractor. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that Contractor shall again fail to satisfactorily perform pursuant to the Contract, City may thereupon terminate the Contract immediately, with no prior notice. In the event of termination hereunder, the Contractor and/or its surety shall be liable and assessed for any and all costs for re-procurement and completion of the Contract.
- B. Termination for Convenience. The City may terminate the Contract, in whole or in part, for its convenience and without cause upon giving written notice to the Contractor. The City shall pay all reasonable costs associated with the Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with such termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned, or any other costs, which have not been incurred, as of the date of termination.
- C. Termination After Completion Date. If the Contractor fails to complete its performance of the Contract within the time specified in the Contract (including any approved extension of such time), if any, the Contract may be terminated and, in the event of such termination, the Contractor shall not be paid or allowed any further compensation for any costs incurred after such termination. The City may thereafter proceed to complete the Contract either by rebidding or otherwise, the Contractor and its surety, if any, shall be liable to the City for all loss or damage that the City may suffer on account of the Contractor's failure to complete the Contract on time. This Agreement shall become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

10. Indemnity.

- A. Indemnity: CONTRACTOR shall defend, hold harmless and indemnify CITY, its officers and employees, and each and every one of them, from and against any

and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by CITY's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform this Agreement by CONTRACTOR, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from the sole negligence or willful misconduct of CITY, its agents, servants, or independent contractors who are directly responsible to CITY, except when such agents, servants, or independent contractors are under the direct supervision and control of CONTRACTOR.

- B. Insurance Policies; Intellectual Property Claims: The existence or acceptance by CITY of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of CITY's rights under this Section 10, nor shall the limits of such insurance limit the liability of CONTRACTOR hereunder. This Section 10 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 7.B., above. The provisions of this Section 10 shall survive any expiration or termination of this Agreement.

11. **Insurance Requirements.** During the entire term of this Agreement, CONTRACTOR shall maintain the insurance coverage described in this Section 11.

Full compensation for all premiums that CONTRACTOR is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Services provided by CONTRACTOR under this Agreement. No additional compensation will be provided for CONTRACTOR's insurance premiums.

It is understood and agreed by the CONTRACTOR that its liability to the CITY shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the CONTRACTOR in connection with this Agreement.

A. **Minimum Scope & Limits of Insurance Coverage**

- (1) **Commercial General Liability Insurance**, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.
- (2) **Automobile Liability Insurance** providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the CONTRACTOR.

No automobile liability insurance shall be required if CONTRACTOR completes the following certification:

"I certify that a motor vehicle will not be used in the performance of any work or services under this agreement." _____
(CONTRACTOR initials)

- (3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Workers' Compensation waiver of subrogation in favor of the City is required for all work performed by the CONTRACTOR.

No Workers' Compensation insurance shall be required if CONTRACTOR completes the following certification:

"I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers' Compensation insurance." _____
(CONTRACTOR initials)

B. Additional Insured Coverage

- (1) Commercial General Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects general liability arising out of activities performed by or on behalf of CONTRACTOR, products and completed operations of CONTRACTOR, and premises owned, leased or used by CONTRACTOR. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

- (2) Automobile Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officials, employees and volunteers. Any insurance or

self-insurance maintained by CITY, its officials, employees or volunteers shall be in excess of CONTRACTOR's insurance and shall not contribute with it.

- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, its officials, employees or volunteers.
- (3) Coverage shall state that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- (4) CITY will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 11 must be declared to and approved by the CITY Risk Management Division in writing prior to execution of this Agreement.

E. Verification of Coverage

- (1) CONTRACTOR shall furnish CITY with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the CITY representative named in Exhibit A. Copies of policies shall be delivered to the CITY on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.
- (2) The CITY may withdraw its offer of contract or cancel this Agreement if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The CITY may withhold payments to CONTRACTOR and/or cancel the Agreement if the insurance is canceled or CONTRACTOR otherwise ceases to be insured as required herein.

F. Subcontractors

CONTRACTOR shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

12. **Equal Employment Opportunity.** During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

A. ~~Compliance With Regulations. CONTRACTOR shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment" as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60) hereinafter collectively referred to as the Regulations.~~

B. Nondiscrimination: CONTRACTOR, with regards to the work performed by it after award and prior to completion of the work pursuant to this Agreement, shall not

discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in discrimination prohibited by the Regulations.

C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by CONTRACTOR for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by CONTRACTOR of CONTRACTOR's obligation under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.

D. Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of noncompliance by CONTRACTOR with the nondiscrimination provisions of this Agreement, the CITY shall impose such sanctions as it may determine to be appropriate including, but not limited to:

(1) Withholding of payments to CONTRACTOR under this Agreement until CONTRACTOR complies;

(2) Cancellation, termination, or suspension of the Agreement, in whole or in part.

F. Incorporation of Provisions: CONTRACTOR shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. CONTRACTOR shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, CONTRACTOR may request CITY to enter such litigation to protect the interests of CITY.

13. **Entire Agreement.** The Contract Documents contain the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Contract. No alteration to the terms of this Contract shall be valid unless approved in writing by Contractor, and by City, in accordance with applicable provisions of the Sacramento City Code. In the event of any conflict among the provisions of different Contract Documents, the conflict shall be resolved by giving precedence to the Contract Documents in the following order:

- A. Post-Award Amendments.
 - B. Pricing Schedule(s), as corrected by City, if applicable.
 - C. Pre-Award Addenda
 - D. Special Provisions.
 - E. Bid Instructions and Requirements
 - F. General Conditions
 - G. Technical Specifications and/or Plans
14. **Severability.** If any portion of this Agreement or the application thereof to any person or circumstance shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be enforced to the greatest extent permitted by law.
 15. **Waiver.** Neither CITY acceptance of, or payment for, any Service or Additional Service performed by CONTRACTOR, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.
 16. **Enforcement of Agreement.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.
 17. **Assignment Prohibited.** The expertise and experience of CONTRACTOR are material considerations for this Agreement. CITY has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on CONTRACTOR under this Agreement. In recognition of this interest, CONTRACTOR shall not assign any right or obligation pursuant to this Agreement without the written consent of the CITY. Any attempted or purported assignment without CITY's written consent shall be void and of no effect.
 18. **Binding Effect.** This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 17, above.
 19. **Compliance with Laws.** The Contractor shall be responsible for strict compliance with all applicable laws, regulations, court orders and other legal requirements applicable to the work to be accomplished pursuant to the Contract, including without limitation the California Occupational Safety and Health Act and all applicable safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, and all applicable requirements of Underwriters Laboratories and the Federal Communication Commission.
 20. **Inspection.** Merchandise will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of the Contract. If deficiencies are found, it shall be the responsibility of the Contractor to pick up the merchandise, make necessary correction and redeliver the merchandise for re-inspection and acceptance. Payment and/or commencement of discount period (if applicable) will not be made until corrective action has been made.

- 21. Funding Availability.**
- A. The Contract is subject to the budget and fiscal provisions of the Charter and City Code of the City of Sacramento.
 - B. The City's payment obligation under the Contract shall not at any time exceed the amount of funds appropriated and approved for such purpose by the Sacramento City Council.
 - C. The Contract shall terminate without penalty at the end of the fiscal year in the event funds to make payment under the Contract are not appropriated and approved for such purpose by the City Council for the succeeding fiscal year. If such funds are appropriated for only a portion of the fiscal year this Contract shall terminate, without penalty, at the end of the term for which funds have been appropriated. In the event of such termination, the Contractor shall not be entitled to recover any costs incurred after termination, subject, further, to the limitation in subsection 11.B. of these General Conditions.
 - D. Notwithstanding any provision of the Contract Documents to the contrary, this section shall govern over any other provision of the Contract.
- 22. Inspection of Facilities.** If requested by the City, the Contractor shall provide City with an inspection tour of Contractor's facilities at the location where the work under the Contract will be accomplished.
- 23. Material Safety Data Sheets (MSDS).** It is mandatory for a manufacturer, Contractor or distributor to supply a MSDS with the first shipment of any hazardous material. Also at any time the content of an MSDS is revised, the Contractor shall provide new information relevant to the specific material.
- 24. Notification of Material Changes in Business.** Contractor agrees that if it experiences any material changes in its business including, without limitation, a reorganization, refinancing, restructuring, leveraged buyout, bankruptcy, loss of key personnel, etc., it will immediately notify the City of the changes. Contractor also agrees to immediately notify the City of any condition which may jeopardize the scheduled delivery or fulfillment of Contractor's contractual obligations to the City. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Procurement Services Division reserves the right at its sole discretion to terminate the Contract either for cause or for convenience as provided in Section 9 of these General Conditions.
- 25. Payment and Invoicing.** Unless otherwise specified in the Contract Documents, payment for services rendered or materials provided and accepted by City will be made monthly, in arrears, after receipt of a proper invoice.
- 26. Protection of Existing Facilities.** Contractor shall take every precaution to protect all public and private property during the performance of the Contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

27. **Guarantee.** By submitting its bid, the Contractor guarantees that all merchandise delivered and/or work or services performed under the Contract shall meet the minimum requirements set forth herein. If it is determined by the City that the merchandise delivered or work or services performed do not meet the minimum requirements of the Contract, the Contractor shall be required to correct the same at Contractor's sole expense.
28. **Use Tax Requirements.** During the performance of this Agreement, Contractor, for itself, its assignees and successors in interest, agrees as follows:
- A. **Use Tax Direct Payment Permit:** For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Contract or Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.
 - B. The above provisions shall apply in all instances unless prohibited by the funding source for the Contract or Agreement.

SECTION II – CONTRACT DOCUMENTS

B. SPECIAL PROVISIONS

ENVIRONMENTALLY PREFERABLE PROCUREMENT

The City has adopted a "Sustainable Procurement Policy (SPP) and program. The goal is to encourage the procurement of products and services that help minimize environmental impact resulting from use and disposal of these products. Contractors are encouraged to offer Energy Star, Green Seal, EcoLogo, EPEAT, or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. City also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this IFB. Contractors will offer products that have minimal virgin materials and maximum use of recycled products. Contractor must work with the City to attain these goals.

Notwithstanding the above, the Contractor agrees to supply the City of Sacramento with environmentally preferable and effective products in compliance with the specifications in this solicitation and provide services that help minimize environmental impact resulting from use and disposal of products specified in this bid. The Contractor further agrees that its products specified in this bid do not contain any items, ingredients or components prohibited under the City's SPP Policy.

The City may terminate this contract or take other appropriate actions if the contractor fails to comply or provide adequate supporting documentation to substantiate compliance with the City's SP Policy and requirements specified in the bid.

The City's SPP Policy is available on line at:

[http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable Purchasing Policy SPP.pdf](http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable_Purchasing_Policy_SPP.pdf) or by contacting the Procurement Services Division at (916) 808-6240.

Guarantee

- a. The manufacturer and/or dealer delivering the water meters against these specifications shall guarantee that they meet the minimum requirements set forth herein. If it is found that the equipment delivered does not meet the minimum requirements of this specification, the manufacturer and/or dealer will be required to correct the same at its expense. Failure of the manufacturer and/or dealer to bring the equipment into full compliance with all the requirements set forth in this specification within their 30 days of delivery shall constitute cause for rejection of the equipment. In case the equipment is rejected, it shall be removed promptly from the City's premises at the manufacturer's and/or dealer's expense. The manufacturer and/or dealer delivering the water meters will use only the manufacturer and the brand/models specified in the bid.
- b. In case of default by supplier, the City reserves the right to procure the articles or services from other sources and to hold the supplier responsible for any excess costs /occasioned to the City thereby.

F.O.B.

All items are to be supplied F.O.B., City of Sacramento, California, full freight allowed.

Payment and Invoicing

Invoices, in duplicate, shall be mailed or delivered to the City of Sacramento, Department of Utilities, Water Distribution 5730 24th Street, Bldg # 22 Sacramento, Ca 95822

Payment Terms

Payment terms are net 30 days unless Contractor offers a prompt payment discount. All prompt payment discounts if taken shall be computed from the date of delivery or completion and acceptance of material, or from date of receipt of invoice, whichever is latest. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery and acceptance of goods and on receipt of Contractor's invoice.

Prices

Prices are maximum for the 1st year of the contract. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

Quantities

The quantity specified is based upon current known requirements and is subject to increase or decrease at the same terms and conditions.

Contract Period

The contract shall be effective for a period of 1 year from the date of award by City Council.

Contract Extension

Any resultant contract may be extended on a year to year basis under the same terms and conditions. However, in no case shall the contract term extend beyond five (5) years from the date of award of the original contract.

Cooperative Purchasing

The use of any resulting contract may be extended to other government agencies. It shall be understood that all terms and conditions as specified herein shall apply. The City of Sacramento will not be an agent, partner or representative of any other government agency as it relates to this specification; and is not obligated or liable, including, but not limited to, payment for an order placed by any other government agency.

Modification of Contract

The City may order changes in the work herein required and may order extra work in connection with the performance of the contract and the Contractor may comply with such orders, except that:

- A. If changes in requirements, reports, or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract will be increased or decreased by such amount as the Contractor and Water Distribution/Field Services Division may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of work.
- B. No order for any alteration, modification, or extra work which will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Procurement Services Manager. No oral statement of any person whatsoever shall in any manner or degrees modify or otherwise affect the terms of this contract, including the requirements of the specifications.

SECTION II – CONTRACT DOCUMENTS

C. TECHNICAL SPECIFICATIONS/PLANS/OTHER REQUIREMENTS

1 Registers- Bidders shall supply absolute encoder type registers.

1.1 Absolute Encoder Type Registers for No Moving Parts, Positive Displacement, Compound and Turbine Meters

1.1.1 General Description

Registers furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in the manufacture of absolute encoder-based registers. The registers shall have the capability of providing encoded meter information as described in the following specification. Specifications for the required cold-water meters can be found below in separate specifications. Registers provide low voltage conversions are acceptable; however, registers utilizing generator pulses are not acceptable under this standard.

1.1.2 Construction

Registers shall be of the absolute encoder type and permanently, hermetically sealed in a copper or stainless steel can to provide protection from moisture, high strength, and resistance to handling damage. Similar size, type and registration or registers shall be interchangeable.

All registers 1 ½" and above must be removable without disassembly of the water meter or the service line. Registers must be free of opening to protect the internal electronics of the register.

Registers shall be equipped with low flow indicators. Registers shall read in cubic feet. The register is independent of the meter. Therefore, register's Manufacture Date and Identification Number shall be printed on the face of the register. The manufacturer of the meter and register shall provide meter serial numbers with barcodes on the meter, register lid and shipping box. In addition, the contractor will supply for each shipment an electronic spreadsheet providing meter serial numbers for the City to expedite tracking and inventory purposes.

Register lenses constructed of minimum 1/4" tempered are preferred but not required; glass domed (non-tempered) register lenses are acceptable for durability in pit installations. All other register assembly and material requirements stated herein shall also apply. Registers shall be equipped with a hinged lid to completely protect the register lens.

The absolute Encoder Register output shall be a factory-potted NICOR Hydroconn AMR Series III in-line male connector with female metal contacts and Hydroconn AMR Series II End Cap (No Substitute). The register cable shall be Nicor's three (3) conductor cable and measure 36" long from surface of the register to the end of the connector for 5/8" through 2" meters and 6 feet long for all meters 3" and above.

1.1.3 Operation

Upon inquiry from a remote location, the absolute encoder register shall disclose the exact position of the six most prominent number rollers. All power necessary for data transmission shall be supplied from the interrogation device. All registers shall be fully compatible with Datamatic Firefly meter interface unit (MIU).

All registers shall employ a device to offer a reliable transfer of the roller bank assembly to ensure accuracy and to prevent ambiguous readings. For reliability and durability, the position of each roller shall NOT be determined by using any type of mechanical contacts which can wear out over time. Optical character recognition (OCR) is the preferred technology, but is not required, for determining roller position, as this method reads the actual position of the index odometer wheels when interrogated by a Datamatic Firefly (MIU) Meter Interface Unit.

Data transmission shall be instantaneous and supplied in an ASCII format without conversion or modification. Registers must operate reliably down to at least 4.5 volts.

Pin out connection: When meter side connector is viewed end-on with the molded arrow at the 12 o'clock position, the contacts occupy the 2, 6 and 10 o'clock positions.

<u>O'clock Position</u>	<u>Function</u>
2	Power/Clock
6	Ground/common/return
10	Encoder Data

1.1.4 Warranties

All encoded registers shall be free from defects in materials and workmanship for ten (10) years from the date of purchase.

2 METERS

2.1 Residential Meters- No Moving Parts- 5/8" through 1"

2.1.1 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, no moving parts technology for cold-water service. Multi-jet meters are not acceptable under this specification. Meters shall comply with AWWA C713 performance requirements in the latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufactures will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61, including annex G and F requirements. They shall be designed for use with potable water below 80 degrees F.

2.1.2 Type

Cold water service meter for measuring potable water in residential services with no moving parts, sealed register with an absolute encoder permanently attached to the meter.

2.1.3 Main cases: 5/8" through 1"

All meters shall have a non-corrosive body main case made of high quality copper alloy, thermo plastic or other suitable material with an integral flow tube. The meter casing shall have characters denoting the meter size and the direction of water flow. The casing shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from top down. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.1.4 Measuring Chambers

The measuring chamber shall be a measuring element or flow tube to calculate volume. The meter shall determine volume within the flow tube based on a volumetric measurement such as fluid oscillation or time and flow rate such as electro-magnetic or ultrasonic flow measurement. The measuring system will have no moving parts and will be specific for each size meter. Measuring elements or flow tubes shall be manufactured from an engineered polymer, low lead alloy brass or stainless steel. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case.

2.1.5 Laying Length

Meters must conform to AWWA C713 standard as most recently revised. The laying length of No Moving Parts meter assemblies shall be as follows:

Meter Size	Meter	Strainer
5/8"	7 1/2" Max	N/A
5/8" X 3/4"	7 1/2" Max	N/A
3/4"	9"	N/A
1"	10 3/4" Max	N/A

2.1.6 Register Construction

Register housing's for all meters in this specification shall be constructed of an engineered polymer and provide full protection of the register assembly including a composite lid. All register components shall be contained in an encapsulated weatherproof UV-resistant housing. The register must have a visual indicator for meter reading, leak detection and battery indicator. Registers shall have a published battery warranty lasting a minimum of twenty (20) years. The first 10 years is a full replacement warranty and the second 10 years is prorated according to manufacturer proration schedule. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.1.7 Register Performance

The register output data format shall be 7-bit ASCII (American Standard Code for Information Interchange) digital, plus an even parity bit. Upon interrogation from a Datamatic product, the register will transmit an odometer reading containing from 1 to 8 digits and a user defined alphanumeric identification of up to 10 characters. Meters must be capable of transmitting a minimum of 8 digits to the utility's reading system. The register's ASCII digital output is to be capable to interfacing directly to a Datamatic endpoint.

2.1.8 Registration Accuracy

Meters must conform to AWWA C713 standard as most recently revised. All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8 GPM	1/8 to 20 GPM	20
5/8"X 3/4"	1/8 GPM	1/8 to 20 GPM	20
3/4"	1/4 GPM	1/8 to 30 GPM	30
1"	3/8 GPM	1/2 to 50 GPM	50

2.1.9 Meter Performance

Meters shall conform minimally to current AWWA C-713 specifications as current revisions, test flows, head loss and accuracy standards. Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.1 Positive Displacement Type Meters 5/8" -2"

2.2.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, positive displacement type cold water service. Meters must be of the oscillating piston or nutating disc type. Multi-jet and Single-jet meters are not acceptable under this specification. Meters shall comply with AWWA Standard C700 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.2.3 Type

Cold water service meter for measuring potable water in residential services, positive displacement meters only, sealed register.

2.2.4 Cases: 5/8" through 1"

All meters 5/8" through 1" shall have an NSF approved, low lead bronze outer main case body with a separate, removable measuring element. The low lead bronze case shall not have less than 85% copper content. The meter case casting shall have raised characters denoting the meter size and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. All bottom plates shall be isolated from the potable water by a full rubber liner. Meters shall be provided with bronze bottom plate and held in place with stainless steel bolts with integral washer heads. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.2.5 Length

Meters must conform to AWWA C700 standard as most recently revised.

2.2.6 Main cases: 1 1/2" through 2"

All meters 1 1/2" through 2" shall have a body main case made of high quality copper alloy, with a separate, removable measuring element. The meter casting shall have raised characters denoting the size meter and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. Meters shall be of the split case design.

2.2.7 Laying Length

Meters must conform to AWWA C700 standard as most recently revised. The laying length of PD meter and/or strainer assembly shall be as follows:

Meter Size	Meter
1 1/2"	13" Max
2"	17" Max

2.2.8 Register Housings

Register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Registers shall comply with AWWA C700 section 4.1.3 performance requirements in the latest revision. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.2.9 Measuring Chambers

The measuring chamber shall be of the two-piece oscillating piston or nutating disc design. No inferential-type meters will be allowed. Chambers shall be manufactured from an engineered polymer. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case. All wear prone surfaces shall be reinforced with a nylon material. All measuring chamber assemblies shall operate smoothly and be capable of sustaining long-term accuracy.

All motion from the piston shall be transferred to the register via magnetic drive. Piston oscillations or disc nutations must not exceed the figure recommended in Table one (1) of AWWA Standards C-700 latest version for the size of the meter being bid.

2.2.10 Registration Accuracy

All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8	1-20	15
3/4"	1/4	2-30	15
1"	3/4	3-50	25
1 1/2"	1 1/2	5-100	50
2"	2	8-160	80

2.2.11 Magnetic Coupling

The piston oscillations will be transferred to the sealed register through the use of a magnetic coupling. Meters with stuffing boxes, spindles and packing glands will not be acceptable.

2.2.12 Headloss

Meters shall conform to AWWA C-700 specifications as currently revised.

2.2.13 Pressure Capability

Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.14 Strainers

All meters shall be provided with a strainer screen installed in the meter. Strainer screens shall be rigid, fit securely, be easy to remove and have an effective straining area at least two times that of the main case inlet.

2.2.15 Warranties

Meters shall be warranted by the manufacturer to meet AWWA new meter accuracy standards according to the following time periods and registered usage amounts, whichever occurs first:

Size Meter	Years Guaranteed	Registered Usage
5/8" C700	5 years from date of shipment	750,000 US Gallons
3/4" C700	5 years from date of shipment	750,000 US Gallons
1" C700	5 years from date of shipment	1,100,000 US Gallons
1 1/2" C700	5 years from date of shipment	1,600,000 US Gallons
2" C700	5 years from date of shipment	2,100,000 US Gallons

2.3.1 Turbine Type Meters 1 1/2" through 12"

2.3.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, turbine type for cold-water service. Meter sizes shall be inclusive and shall comply with the Class II AWWA Standard C701 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F

2.3.3 Registration Accuracy

All Turbine Type Meters shall meet or exceed the AWWA latest standard, as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
1 1/2"	3	4-160	200
2"	3	4-200	250
3"	4	8-450	550
4"	7	15-1000	1200
6"	15	30-2000	2000
8"	25	50-3000	3000
10"	55	75-6500	7000

2.3.4 Main Cases

The body main case shall be of bronze composition of a high tensile strength or epoxy coated ductile iron on 1 1/2" - 12" sizes and be capable of resisting distortion under pressure up to one hundred and fifty (150) psi. All meters shall have the size and direction of flow indicated on the case and shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.3.5 Register Housings

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamperproof screws, or other locking devices are also acceptable.

2.3.6 Measuring Chambers

The measuring elements or chamber for all meters shall be of engineered polymer and shall be separate from the case and easily detached and removed there from.

Rotor spindles shall be of tungsten carbide, stainless steel or titanium alloy supported by radial bearings made of PTFE graphite compounds, synthetic sapphire, or sapphire/ceramic jewel..

2.3.7 Laying Length

The laying length of Turbine meters and/or strainer assembly shall be as follows:

Meter Size	Meter/Meter & Strainer	Strainer	* Test Plug
1 1/2"	13"	7" Max	1" NPT
2"	17"	7" Max	1 1/2" NPT
3"	12"	7" Max	2" NPT
4"	14"	9" Max	2" NPT
6"	18"	9" Max	2" NPT
8"	20"	10 1/4" Max	2" NPT
10"	26"	16" Max	2" NPT

*Spool pieces with a test port are acceptable

2.3.8 Rotors

The measuring impellers, vanes or rotors for all meters shall be polypropylene, nylon, hard rubber or engineered polymers and shall be mounted on a horizontal axis in the center of the measuring element with rotations of the turbine transmitted to the register by means of magnets. Straightening vanes of corrosion resistant material as required shall precede the rotor.

2.3.9 Strainers

Integrally-cast stainless steel plate type strainers are required on sizes 1 1/2" through 6" turbine meters. Separate external epoxy coated steel plate strainers are acceptable on sizes 8" to 12". Strainers shall be rigid, easily removable, and have an effective straining area at least double that of the meter main case inlet. External strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.3.10 Warranties

At a minimum, all meters shall carry the following published warranties; Meters shall be guaranteed to be free from defects in materials and workmanship for a period of 24 months after installation and to meet AWWA C-701 Accuracy Standards for two (2) years from date of shipment.

2.4.1 Compound Type Meters 2" through 8"

2.4.2 General Description

Meters combining turbine and displacement meters furnished under these specifications shall meet or exceed the performance specifications of AWWA C702, latest revision. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.4.3 Laying Length

The laying length of Compound meters and/or strainer assembly shall be as follows:

Meter Size	Meter or Meter with Strainer	Strainer
2"	15 1/4"	7" Max
3"	17"	7" Max
4"	20"	9" Max
6"	24"	9" Max
8"	42" Max	14" Max

2.4.4 Registration Accuracy

All Compound Meters shall meet or exceed the AWWA's flow standards as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
2"	1/4	2-160	170
3"	1/2	4-325	450
4"	3/4	6-575	1000
6"	1 1/2	10-1500	2000
8"	2 1/2	16-1875	3000

Minimum accuracy through changeover shall be no less than 95% of actual throughput.

2.4.5 Main Cases

The body main case shall be of bronze composition or epoxy coated cast iron on 2" through 8" models. Cases must be capable of withstanding working pressure of one hundred and fifty (150) psi. Outer cases shall permit separate removal of measuring chambers. Meters shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.4.6 Automatic Valves

Automatic valves shall be as specified in Section 2.10 of the AWWA Standard unless the meter design does not require a crossover valve to meet meter accuracy or other performance specifications of AWWA C702.

Spring-loaded valves shall be a Poppet-type suitable for such purpose. Spring tension shall offer sufficient resistance to the incoming water to divert all small rates of flow through the bypass meter until such time as the pressure loss is great enough to ensure efficient operation of the main measuring section. Spring-loaded valves shall have components made of the following or approved equal: Valve cages made of copper alloy or stainless steel are preferred but NOT required, springs and screws of stainless steel, and spindles and cones of engineered polymer. Spring-loaded valves shall be self-flushing and fast opening and closing. They shall be easily detached and removed from the case.

Valve assemblies utilizing gates are acceptable if the manufacturer can assure an accuracy level of at least 97% at changeover.

2.4.7 Register Housing

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locking devices are acceptable.

2.4.8 Measuring Unit Assemblies

Measuring chambers and cages shall be bronze or engineered polymer. They shall be easily detached and removed from the case. Rotor spindles shall be of tungsten carbide steel or titanium alloy, and must be supported by PTFE, graphite radial, or sapphire/ceramic jewel bearings. Replaceable thrust bearings shall be provided. The main line and bypass chambers shall be interchangeable in all meters of the same size and model. Intermediate gear trains shall be made of non-corrosive materials or synthetic polymer. The bypass chamber assemblies shall be positive displacement type and shall not be cast as part of the outer case.

2.4.9 Strainers

Meters shall be provided with a strainer. All strainers shall be stainless steel plate type. Separate external bronze or integrally cast epoxy coated strainers on meters 2" through 6". Steel plate epoxy coated strainers on 8" and above. Strainers shall be rigid, and have an effective straining area at least double that of the meter main case inlet. Strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.4.10 Connections and Companion Flanges

Main case connections and flanges shall meet or exceed AWWA Standard as specified in Table 4 of the AWWA Standard.

2.4.11 Warranties

All meters shall carry the following published warranties:

Meters shall be guaranteed to be free from defects in materials and workmanship and to meet AWWA Accuracy Standards for two (2) years from date of installation.

3. Meter Replacement Parts

3.1.1 Parts Availability

Meter replacement parts, such as measuring chambers, rotor assemblies, gear train assemblies, calibration vane stem gears, spindles, inlet and outlet assembly parts, drive pinions, ect., shall be made available for at least five (5) years after a meter purchase.

3.1.2 Prices of Repair Parts

The prices of repair parts will be calculated as a discount off an existing price list in effect at the time of shipment, FOB Sacramento with freight prepaid..

**SECTION III
BIDDER RESPONSE
DOCUMENTS**

SECTION III – BIDDER RESPONSE DOCUMENTS

A. ITEMS REQUIRING BIDDER RESPONSE

NOTE: Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.

1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Economic Development, at (916) 808-6747.

A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as a small business enterprise? Check the appropriate block below:

- YES – Our firm is certified by the City of Sacramento as a small business enterprise.
- NO -Our firm submitting is not certified by the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number

B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise? Check the appropriate block below:

- YES - Our firm is certified by the City of Sacramento as an emerging business enterprise.
- NO - Our firm is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number:

2. LOCAL BUSINESS SALES/USE TAX DEDUCTION

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid

price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? Yes; or No

If the answer to Question above is "Yes":

a) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

Specify: fixed office location or distribution point(s): _____

b) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number: _____

3. DELIVERY GUARANTEE

Contractor guarantees delivery within 70 days after receipt of order (ARO).

4. PAYMENT DISCOUNT

Will you offer a prompt payment discount? Yes or No (Net 30 days)

If Yes, the Payment Discount is _____% for payment within _____ calendar days, which will be computed from the date delivery is made and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

5. ELECTRONIC FUNDS TRANSFER (EFT) (informational only):

Do you have the ability to accept electronic payments (EFT)? Yes or No
If Yes, what percentage discount would you offer the City to be paid through EFT? none%

6. CITY OF SACRAMENTO BOYCOTT OF ARIZONA-HEADQUARTED BUSINESSES:

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

North Carolina
State Where Bidder is Headquartered

7. Repair Parts Price List

Bidder is to provide a complete list of all necessary repair parts and should indicate the percentage discount OFF LIST PRICE allowed to the City. As the City of Sacramento has water service meters of various manufactures in its system, the City reserves the right to purchase repair parts from any bidder at the stated discount. BIDS WILL NOT BE ACCEPTED FROM BIDDERS WHO FAIL TO INDICATE THE DISCOUNT ALLOWED.

1. Please Attach a Separate Pricing Sheet for Replacement Parts for Meters.
2. Discount: Bidder will offer 45 % off list price on all parts?

SECTION III – BIDDER RESPONSE DOCUMENTS

B. ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL BIDDER PRIOR TO START OF CONTRACT

The following documents are required to be completed and submitted by the successful bidder prior to the award of contract of the contract:

1. CERTIFICATE OF INSURANCE

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

2. BUSINESS OPERATIONS TAX CERTIFICATE

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

SECTION III – BIDDER RESPONSE DOCUMENTS

C. DECLARATION OF COMPLIANCE
Equal Benefits Ordinance

Name of Contractor: Sensus USA Inc.

Address: 450 North Gallatin Avenue, Uniontown, PA 15401

The above-named Contractor ("Contractor") hereby declares and agrees as follows:

1. Contractor has read and understands the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") attached hereto as Exhibit F.
2. As a condition of receiving this Contract, Contractor agrees to fully comply with the Requirements, as well as any additional requirements that may be specified in the City of Sacramento's Non-Discrimination In Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. Contractor understands, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

Contractor agrees that if Contractor offers any of the above-listed employee benefits, Contractor will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. Contractor understands that Contractor will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. If the actual cost of providing a benefit to a domestic partner or spouse exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, Contractor will not be required to provide the benefit, nor shall it be deemed discriminatory, if Contractor requires the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. If Contractor is unable to provide a certain benefit, despite taking reasonable measures to do so, if Contractor provides the employee with a cash equivalent Contractor will not be deemed to be discriminating in the application of that benefit.

- c. If Contractor provides employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If Contractor provides employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If Contractor submits written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies that will be enacted before the first effective date after the first open enrollment process following the date this Contract is executed by the City of Sacramento ("City"). Contractor understands that any delay in the implementation of such policies may not exceed one (1) year from the date this Contract is executed by the City, and applies only to those employee benefits for which an open enrollment process is applicable.
 - f. Until administrative steps can be taken to incorporate nondiscrimination in employee benefits. The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date this Contract is executed by the City.
 - g. Until the expiration of a current collective bargaining agreement(s) if employee benefits are governed by such collective bargaining agreement(s).
 - h. Contractor takes all reasonable measures to end discrimination in employee benefits by either requesting that the union(s) involved agree to reopen the agreement(s) in order for Contractor to take whatever steps are necessary to end discrimination in employee benefits or by ending discrimination in employee benefits without reopening the collective bargaining agreement(s).
 - i. In the event Contractor cannot end discrimination in employee benefits despite taking all reasonable measures to do so, Contractor provides a cash equivalent to eligible employees for whom employee benefits, are not available. Unless otherwise authorized in writing by the City Manager, Contractor understands this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or not longer than three (3) months after the date this Contract is executed by the City.
5. Contractor understands that failure to comply with the provisions of Section 4(a) through 4(i), above, will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full and/or for up to two (2) years; and/or the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
 6. Contractor understands and agrees to provide notice to each current employee and, within ten (10) days of hire, to each new employee, of their rights under the Ordinance. Contractor further agrees to maintain a copy of each such letter provided, in an appropriate file for inspection by authorized representatives of the City. Contractor also agrees to prominently display a poster informing each employee of these rights.
 7. Contractor understands that Contractor has the right to request a waiver of, or exemption from, the provisions of the Ordinance by submitting a written request to the City's Procurement Services Division prior to Contract award, which request shall identify the provision(s) of the Ordinance authorizing such waiver or exemption and the factual basis for such waiver or exemption. The City shall determine in its sole discretion whether to approve any such request.

8. Contractor agrees to defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by Contractor. The undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that he or she is authorized to bind the Contractor to the provisions of this Declaration.

Michael Tracy

Signature of Authorized Representative

November 30, 2011

Date

Michael Tracy

Print Name

Executive Vice President - Sensus North America

Title

SECTION III – BIDDER RESPONSE DOCUMENTS

D. PRICING SCHEDULE FOR WATER METERS

For furnishing to the City of Sacramento, pricing, in accordance with the provisions and specifications contained herein. Quantities and types are estimates only and subject to increase or decrease over this potential five (5) year contract. Orders will be placed on an as needed basis. The following quantities are the City's anticipated requirements for the next five (5) years. All registers shall be fully compatible with various brands of interrogation equipment as part of the program will be to capture meter information electronically.

ALL WATER METER PRICING MUST INCLUDE THE STRAINER

Group I				
Item	Quantity	Description	Unit Price	Extension
1	1,000	3/4" No Moving Parts Cold Water Sensus iPERL <u>(Manufacture/Model Proposed)</u>	\$ <u>105.00</u>	\$ <u>105,000.00</u>
2	2,500	1" No Moving Parts Cold Water Sensus iPERL <u>(Manufacture/Model Proposed)</u>	\$ <u>135.00</u>	\$ <u>337,500.00</u>
3	2,750	1" Positive Displacement Cold Water <u>(Manufacture/Model Proposed)</u>	\$ <u>no bid</u>	\$ <u>no bid</u>
4	950	1.5" Positive Displacement Cold Water <u>(Manufacture/Model Proposed)</u>	\$ <u>no bid</u>	\$ <u>no bid</u>
5	1,500	2.0" Positive Displacement Cold Water <u>(Manufacture/Model Proposed)</u>	\$ <u>no bid</u>	\$ <u>no bid</u>
			Sales Tax @ 7.75%	\$ <u>34,293.75</u>
			Total Group I	\$ <u>476,793.75</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group II

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
6	100	2.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 418.00</u>	<u>\$ 41,800.00</u>
7	80	3.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 682.00</u>	<u>\$ 54,560.00</u>
8	80	4.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 1,177.00</u>	<u>\$ 94,160.00</u>
9	30	6.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 2,108.00</u>	<u>\$ 63,240.00</u>
10	30	8.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 2,950.00</u>	<u>\$ 88,500.00</u>
11	1	10.0" Turbine Cold Water Meter Sensus T2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 4,648.00</u>	<u>\$ 4,648.00</u>
12	1	12.0" Turbine Cold Water Meter <u>(Manufacture/Model Proposed)</u>	<u>\$ no bid</u>	<u>\$ no bid</u>

Sales Tax @ 7.75% \$ 26,885.37**Total Group II** \$ 373,793.37Total Price is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group III

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
13	300	2.0" Compound Water Meter Sensus C2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 881.00</u>	<u>\$ 264,300.00</u>
14	350	3.0" Compound Water Meter Sensus C2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 937.00</u>	<u>\$ 327,950.00</u>
15	350	4.0" Compound Water Meter Sensus C2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 1,404.00</u>	<u>\$ 491,400.00</u>
16	150	6.0" Compound Water Meter Sensus C2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 2,165.00</u>	<u>\$ 324,750.00</u>
17	50	8.0" Compound Water Meter Sensus C2 <u>(Manufacture/Model Proposed)</u>	<u>\$ 3,950.00</u>	<u>\$ 197,500.00</u>
			Sales Tax @ 7.75%	<u>\$ 124,457.25</u>
			Total Group III	<u>\$ 1,730,357.25</u>

Total Price is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

GRAND TOTAL PAGE

(Group I, II, and III) **GRAND TOTAL OF ALL GROUPS** **\$ 2,580,944.37**

Provide the following information on price increases in the years 2, 3, 4, and 5:

Year 2 3 **% Price Increase**

Year 3 3 **% Price Increase**

Year 4 3 **% Price Increase**

Year 5 3 **% Price Increase**

Bidders must provide the increase percentages for years 2 through 5 to accurately assess total five (5) year contract evaluation. Bidders not providing this detail will be considered non-responsive and will not be considered for award.

Sensus Limited Warranty

I. General Product Coverage

Sensus USA Inc. ("Sensus") warrants its products and parts to be free from defects in material and workmanship for one (1) year from the date of Sensus shipment and as set forth below. All products are sold to customer ("Customer") pursuant to Sensus' Terms of Sale, available at: <http://na.sensus.com/TC/TermsConditions.pdf>.

II. SR II@ 5/8", 3/4" & 1" Meters...

are warranted to perform to AWWA New Meter Accuracy Standards for five (5) years from the date of Sensus shipment or until the registration shown below, whichever occurs first. Sensus further warrants that the SR II meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	New Meter Accuracy	Repair Meter Accuracy
5/8" SR II Meter	500,000 gallons	1,500,000 gallons
3/4" SR II Meter	750,000 gallons	2,250,000 gallons
1" SR II Meter	1,000,000 gallons	3,000,000 gallons

III. SR@ 5/8", 3/4" & 1" Meters...

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 5/8", 3/4" and 1" SR meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter Accuracy
5/8" SR Meter	1,500,000 gallons
3/4" SR Meter	2,250,000 gallons
1" SR Meter	3,000,000 gallons

IV. SR 1-1/2" & 2" and accu-RTM...

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 1-1/2" and 2" SR and accu-RTM meter will perform to at least AWWA Repaired Meter Accuracy Standards for ten (10) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter Accuracy
1-1/2" SR & accu-RTM Meter	5,000,000 gallons
2" SR & accu-RTM Meter	8,000,000 gallons

V. PMM@ 5/8", 3/4", 1" Meters...

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 5/8", 3/4", and 1" PMM meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter Accuracy
5/8" PMM	1,500,000 gallons
3/4" PMM	2,000,000 gallons
1" PMM	3,000,000 gallons

VI. PMM 1-1/2", 2" Meters...

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 1-1/2", and 2" PMM meter will perform to at least AWWA Repaired Meter Accuracy Standards for ten (10) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter Accuracy
1-1/2" PMM	5,000,000 gallons
2" PMM	8,000,000 gallons

VII. iPERL™ Water Management Systems...

that register water flow are warranted to perform to the accuracy levels set forth in the iPERL Water Management System Data Sheet (IPL-110), available at www.sensus.com/ipperl or by request from 1-800-METER-IT, for twenty (20) years from the date of Sensus shipment. The iPERL System warranty does not include the external housing.

VIII. Maincase...

of the SR, SR II and PMM in both standard and low lead alloy meters are warranted to be free from defects in material and workmanship for twenty-five (25) years from the date of Sensus shipment. Composite and E-coated maincases will be free from defects in material and workmanship for fifteen (15) years from the date of Sensus shipment.

IX. Sensus "W" Series Turbo Meters, OMNI™ Meters and Propeller Meters...

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment.

X. Sensus accuMAG™ Meters...

are warranted to be free from defects in material and workmanship, under normal use and service, for 18 months from the date of Sensus shipment or 12 months from startup, whichever occurs first.

XI. Sensus Registers...

are warranted to be free from defects in material and workmanship from the date of Sensus shipment for the periods stated below or until the applicable registration for AWWA Repaired Meter Accuracy Standards, as set forth above, are surpassed, whichever occurs first:

5/8" thru 2" SR, SR II, PMM, Standard Registers	25 years
5/8" thru 2" SR, SR II, PMM, Encoder Registers	10 years
Electronic Communication Index (ECI)	10 years
All HSPU, IMP Contactor, R.E.R. Elec. ROFI	1 year
Standard and Encoder Registers for: "W" Turbo and Propeller Meters	1 year
OMNI Register with Battery	10 years

XII. Sensus Electric Meters...

are warranted to be free from defects in material and workmanship for one (1) year from the date of Sensus shipment. Spare parts and components are warranted to be free from defects in material and workmanship for one (1) year from the date of Sensus shipment. Repaired or refurbished equipment repaired by Sensus is warranted to be free from defects in material and workmanship for ninety (90)



Sensus Limited Warranty

days from the date of Sensus shipment or for the time remaining on the original warranty period, whichever is longer.

XIII. Batteries, iPERL System Components, AMR and FlexNet™ System AMI Interface Devices...

are warranted to be free from defects in material and workmanship from the date of Sensus shipment for the period stated below:

Electronic TouchPad	10 years
RadioRead® MXU (Model 505C, 510R or 520R) and Batteries	20 years*
Act-Pak® Instrumentation	1 year
TouchRead® Coupler and AMR Equipment	1 year
FlexNet Water or Gas SmartPoint™ Modules and Batteries	20 years*
Tower Gateway Base Station	1 year
FlexNet Network Portal	1 year
iConA and FlexNet Electricity SmartPoint Module	1 year
iPERL System Battery and iPERL System Components	20 years*

* Sensus will repair or replace non-performing:

- RadioRead® MXU (Model 505C, 510R and 520R) and Batteries,
- FlexNet Water or Gas SmartPoint Modules (configured to the factory setting of six transmissions per day) and batteries,
- iPERL System Batteries, and/or the iPERL System flowtube, the flow sensing and data processing assemblies, and the register ("iPERL System Components")

at no cost for the first ten (10) years from the date of Sensus shipment, and for the remaining ten (10) years, at a prorated percentage, applied towards the published list prices in effect for the year product is accepted by Sensus under warranty conditions according to the following schedule:

Years	Replacement Price	Years	Replacement Price
1 – 10	0%	16	55%
11	30%	17	60%
12	35%	18	65%
13	40%	19	70%
14	45%	20	75%
15	50%	>20	100%

Note: Software supplied and licensed by Sensus is warranted according to the terms of the applicable software license agreement. Sensus warrants that network and monitoring services shall be performed in a professional and workmanlike manner.

XIV. Return...

Sensus' obligation, and Customer's exclusive remedy, under this Sensus Limited Warranty is, at Sensus' option, to either repair or replace the product, provided the Customer (i) returns the product to the location designated by Sensus within the warranty period; and (ii) prepays the freight costs both to and from such location.

For more information, visit us at sensus.com



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h2oinfo@sensus.com

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The return of products for warranty claims must follow Sensus' Returned Materials Authorization (RMA) procedures. Water meter returns must include documentation of the Customer's test results. Test results must be obtained according to AWWA standards and must specify the meter serial number. The test results will not be valid if the meter is found to contain foreign materials. If Customer chooses not to test a Sensus water meter prior to returning it to Sensus, Sensus will repair or replace the meter, at Sensus' option, after the meter has been tested by Sensus. The Customer will be charged Sensus' then current testing fee. Sensus SmartPoints modules and MXU's returned must be affixed with a completed return evaluation label. For all returns, Sensus reserves the right to request meter reading records by serial number to validate warranty claims.

THE FOREGOING REMEDIES ARE THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES FOR THE FAILURE OF THE PRODUCTS, SERVICES OR LICENSED SOFTWARE TO CONFORM TO THEIR RESPECTIVE WARRANTIES.

XV. Limits of Warranty...

This Limited Warranty does not include costs for removal or installation of products, or costs for replacement labor or materials, which are the responsibility of the Customer. Furthermore, this Limited Warranty does not apply to products which have been: installed improperly or in non-recommended installations; tampered with; modified or repaired with parts or assemblies not certified in writing by Sensus, including without limitation, communication parts and assemblies; converted; altered; damaged; read by equipment not approved by Sensus; subjected to misuse, improper storage, care, maintenance, or improper periodic testing.

SENSUS' LIABILITY SHALL BE LIMITED TO DIRECT DAMAGES. SENSUS SHALL NOT BE LIABLE FOR (I) ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, NOR (II) ANY REVENUE LOST BY CUSTOMER, IRRESPECTIVE WHETHER SUCH LOST REVENUE IS CATEGORIZED AS DIRECT DAMAGES OR OTHERWISE, NOR (III) DAMAGES ARISING FROM MAINCASE OR BOTTOM PLATE BREAKAGE CAUSED BY FREEZING TEMPERATURES, WATER HAMMER CONDITIONS, OR EXCESSIVE WATER PRESSURE, WHETHER CATEGORIZED AS DIRECT DAMAGES OR OTHERWISE. THIS LIMITATION APPLIES WHETHER THE CAUSE OF ACTION ARISES IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), IN CONTRACT, UNDER STATUTE OR OTHERWISE. THIS LIMITATION OF LIABILITY IS A FUNDAMENTAL INDUCEMENT TO SENSUS SELLING THE PRODUCTS. IT SHALL APPLY UNCONDITIONALLY AND IN ALL RESPECTS. IT SHALL BE INTERPRETED BROADLY TO GIVE SENSUS THE MAXIMUM PROTECTION PERMITTED UNDER LAW.

XVI. No Implied Warranties...

THE WARRANTIES SET FORTH IN THIS SENSUS LIMITED WARRANTY ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. THE CUSTOMER ASSUMES SOLE RESPONSIBILITY FOR DETERMINING THAT THE PRODUCTS, SERVICES AND SOFTWARE LICENSES PURCHASED ARE SUITABLE FOR THEIR INTENDED APPLICATION AND USE.

iPERL™ Water Management System

Electromagnetic Flow Measurement System

5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes

DESCRIPTION

MODEL: With no moving parts, the Sensus iPERL water management system is based on innovative electromagnetic flow measurement technology. The iPERL system family has an operating range of 0.03 gpm (0.007 m³/hr) @ 95% minimum to 55 gpm (12.5 m³/hr) @ 100% ± 1.5% registration of actual throughput.

CONFORMANCE TO STANDARDS: The iPERL system far exceeds the most recent revision of ANSI/AWWA Standard C-700 and C-710 for accuracy and pressure loss requirements. All iPERL systems are NSF Standard 61 Annex G compliant and tested to AWWA standards.

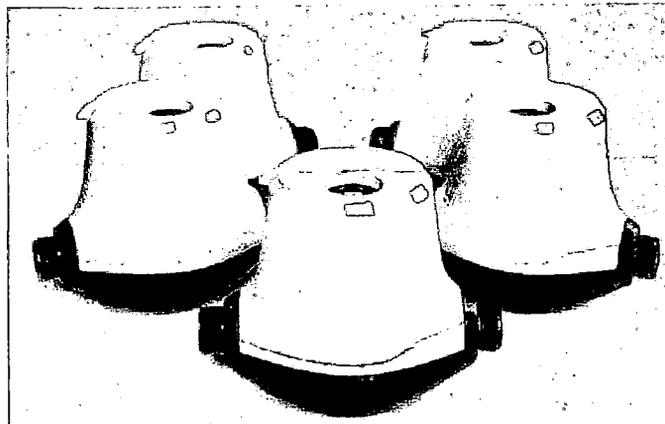
PERFORMANCE: The patented measurement technology of the iPERL system allows enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product as well as the full measurement range.

CONSTRUCTION: The iPERL system is an integrated unit that incorporates an electronic register and measuring device encased in an external housing. The measuring device is comprised of a polyphenylene sulfide alloy flowtube with externally-threaded spud ends. Embedded in the flowtube are magnetic flow sensors and a replaceable strainer screen. The all electronic programmable register is hermetically sealed with a tempered glass cover. The iPERL system has a 20 year life cycle, along with a 20 year battery life guarantee. At the end of this life cycle, you do not have to be concerned about repairing the iPERL system since the design is not meant to be repaired but is easily replaceable.

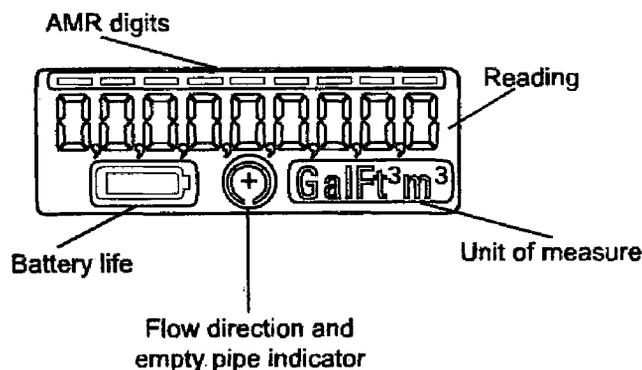
ELECTRONIC REGISTER: The high resolution 9-digit hermetically sealed electronic register with LCD display was designed to eliminate dirt, lens fogging issues and moisture contamination in pit settings with built in tamper protection. The tempered glass register cover displays readings with the AMR digits highlighted. Direction of flow and units of measure are also easily readable on the register display. The register is programmable using the UniPro programming package to display in either gallon, cubic feet or cubic meter totalization. The large, easy to read display also includes battery life and empty pipe indicators.

TAMPERPROOF FEATURES: The ingenious integrated construction of an iPERL system prevents removal of the register to obtain free water. The magnetic tamper and low field alarms will both indicate any attempt to tamper with the magnetic field of the iPERL system.

AMR/AMI SYSTEMS: iPERL systems are compatible with current Sensus AMR/AMI systems.

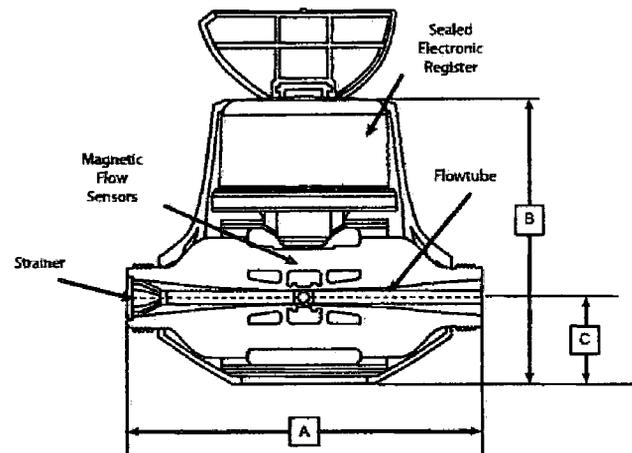
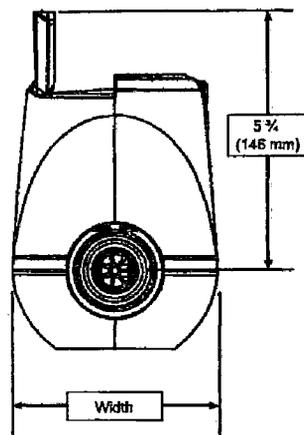


Electronic Register LCD Display



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iPERL is a trademark of Sensus USA Inc.

Technology for the iPERL system is licensed from Sentec Limited.



DIMENSIONS AND NET WEIGHTS

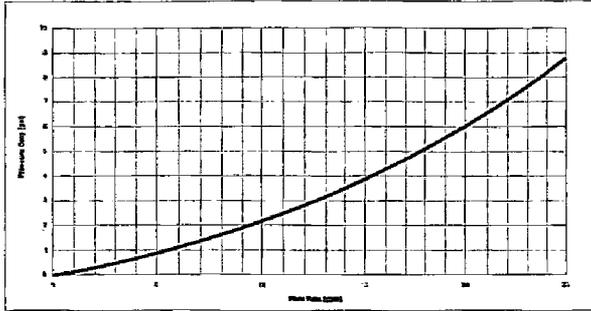
Size	A (lay length)	B	C	Spnd Ends	NPSM Thread Size	Width	Net Weight
5/8" (DN 15 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	5/8" (15 mm)	3/4" (19 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4" S (5/8" x 3/4") (DN 20 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4" (DN 20 mm)	9" (229 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.2 lb. (1.5 kg)
1" (DN 25 mm)	10-3/4" (273 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	1" (25 mm)	1-1/4" (32 mm)	4-1/2" (114 mm)	3.3 lb. (1.6 kg)

SPECIFICATIONS

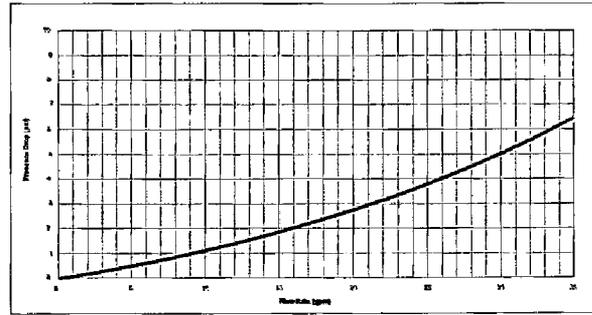
SERVICE	Measurement of cold water with flow in one direction only.
NORMAL OPERATING FLOW RANGE (100%±1.5% of actual throughput)	5/8" (DN 15mm) size: 0.11 to 25 gpm (0.02 m ³ /h to 5.7 m ³ /h) 3/4" (DN 20mm) size: 0.11 to 35 gpm (0.02 m ³ /h to 8.0 m ³ /h) 1" (DN 25mm) size: 0.4 to 55 gpm (0.09 m ³ /h to 12.5 m ³ /h)
LOW FLOW REGISTRATION (95%-101.5%)	5/8" (DN 15mm) size: 0.03 gpm (0.007 m ³ /h) 3/4" (DN 20mm) size: 0.03 gpm (0.007 m ³ /h) 1" (DN 25mm) size: 0.11 gpm (0.025 m ³ /h)
MAXIMUM PRESSURE LOSS	5/8" (DN 15mm) size: 4 psi at 15 gpm (0.3 bar at 3.4 m ³ /h) 3/4" (DN 20mm) size: 2 psi at 15 gpm (0.1 bar at 3.4 m ³ /h) 1" (DN 25mm) size: 2 psi at 25 gpm (0.1 bar at 5.7 m ³ /h)
MAXIMUM OPERATING PRESSURE	200 psi (13.8 bar)
MEASUREMENT TECHNOLOGY	Solid state electromagnetic flow

REGISTER	Hermetically sealed, tempered glass covered 9-digit programmable electronic register AMR/AMI compatible iPERL system register programmable using the UniPro programming package iPERL systems are shipped in active mode
MATERIALS	External housing – Thermal plastic Flowtube – Polyphenylene sulfide alloy Electrode – Silver/silver chloride Strainer – Synthetic polymer Register cover – Tempered soda lime glass
ALARM DEFAULTS	Alarm Duration – 90 days Leak Duration – 24 hours Datalog Interval – 1 hour Alarm Mask – All alarms reported History Mask – All event types reported

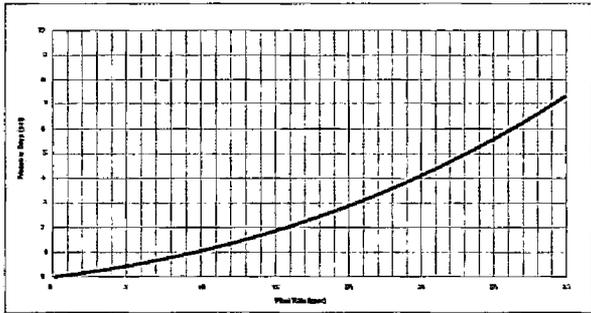
HEADLOSS CURVES



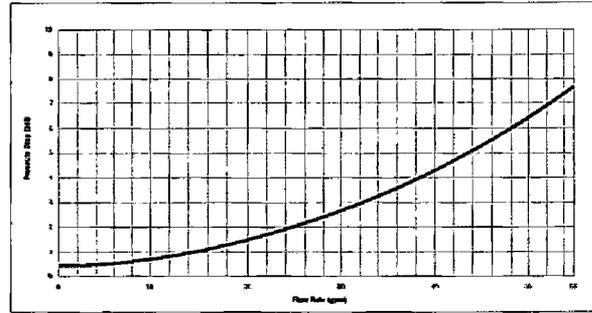
5/8" Headloss Curve



3/4" Short Headloss Curve



3/4" Headloss Curve



1" Headloss Curve

OMNI™ T²

2" OMNI T² Meter

DESCRIPTION

Model: The OMNI^{T2} meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 1.0 GPM (.23 m³/hr) @ 95% min. to 250 GPM (57 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 200 GPM (45 m³/hr).

Conformance to Standards: The OMNI^{T2} meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

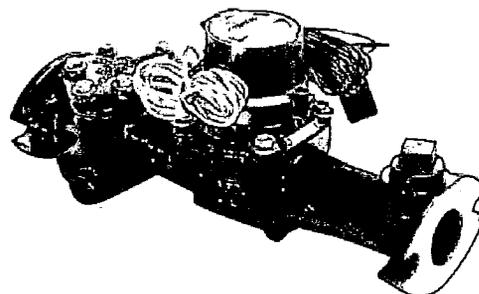
Performance: The patented measurement principles of the OMNI^{T2} meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

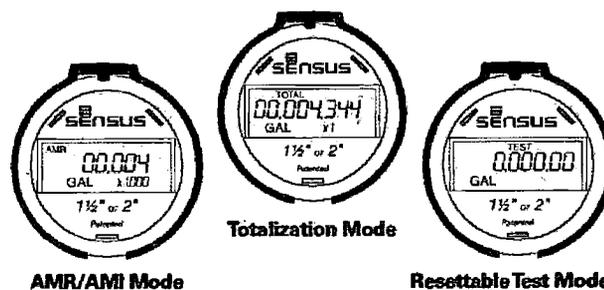
OMNI Electronic Register: The T² electronic register consist of a hermetically sealed register with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI^{T2} meter.



2" OMNI^{T2}



AMR/AMI Mode

Totalization Mode

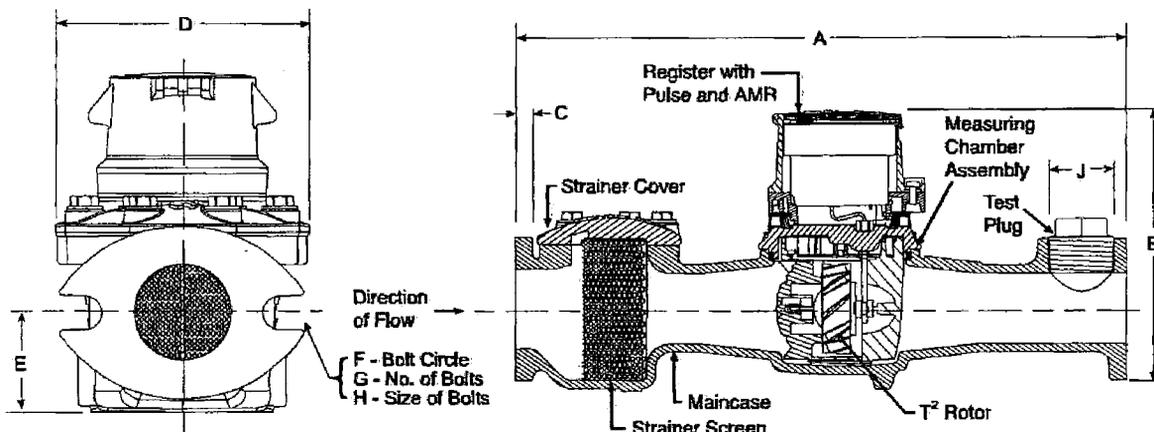
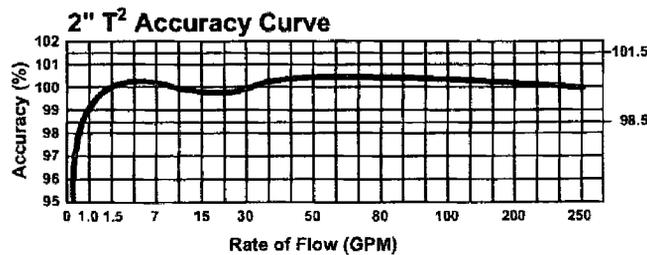
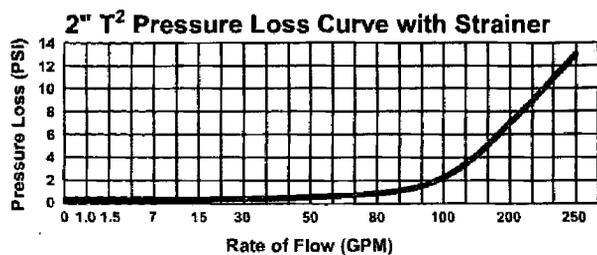
Resettable Test Mode

Strainer: The OMNI^{T2} with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI^{T2} meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI^{T2} Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	Dimensions							Net Weight	Shipping Weight		
	1.0 gpm	250 gpm		A	B	C	D	E	F	G			H	J
2" / DN 50mm	.23 m ³ /hr	57 m ³ /hr	Flanged	17"	7-7/8"	1"	5-3/4"	2-5/16"	4-1/2"	2	3/4"	1-1/2"	27.4 lbs.	34.5 lbs.
				432mm	200mm	25mm	146mm	59mm	114mm	2	19mm	40mm	12.42 kg	15.65 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 1.5 – 250 GPM (.34 – 57 m ³ /hr)
LOW FLOW	95% – 101.5% @ 1.0 GPM (.23 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	200 GPM (45 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	250 GPM (57 m ³ /hr)
PRESSURE LOSS	7.0 psi @ 200 GPM (.48 bar @ 45 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	2" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal. / Cu. Ft. / Cu. Mtr. / Imp. Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Maincase:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Measuring Chamber:</td> <td>Thermoplastic</td> </tr> <tr> <td>Rotor "Floating Ball":</td> <td>Thermoplastic</td> </tr> <tr> <td>Radial Bearings:</td> <td>Hybrid Thermoplastic</td> </tr> <tr> <td>Thrust Bearings:</td> <td>Sapphire/Ceramic Jewel</td> </tr> <tr> <td>Magnets:</td> <td>Ceramic Magnet</td> </tr> <tr> <td>Strainer Screen:</td> <td>Stainless Steel</td> </tr> <tr> <td>Strainer Cover:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Test Plug:</td> <td>Coated Ductile Iron</td> </tr> </table>	Maincase:	Coated Ductile Iron	Measuring Chamber:	Thermoplastic	Rotor "Floating Ball":	Thermoplastic	Radial Bearings:	Hybrid Thermoplastic	Thrust Bearings:	Sapphire/Ceramic Jewel	Magnets:	Ceramic Magnet	Strainer Screen:	Stainless Steel	Strainer Cover:	Coated Ductile Iron	Test Plug:	Coated Ductile Iron
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 www.sensus.com/water
 h2oinfo@sensus.com

OMNI™ T²

3" OMNI T² Meter

DESCRIPTION

Model: The OMNI T² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 1.5 GPM (.34 m³/hr) @ 95% min. to 650 GPM (148 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 500 GPM (114 m³/hr).

Conformance to Standards: The OMNI T² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

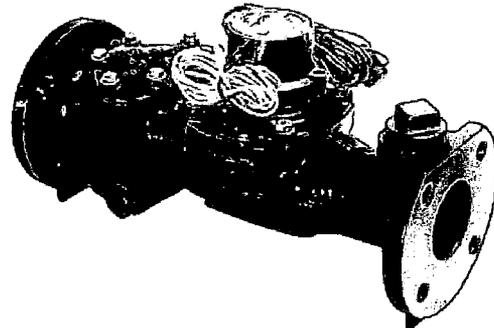
Performance: The patented measurement principles of the OMNI T² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

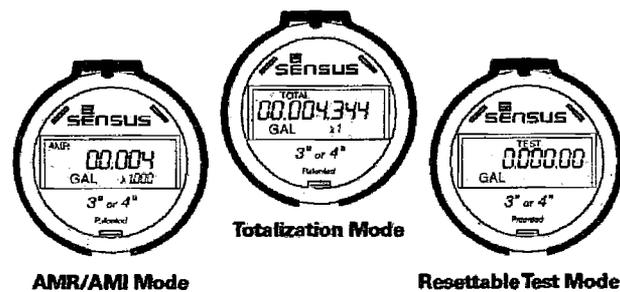
OMNI Electronic Register: The T² electronic register consist of a hermetically sealed register with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI T² meter.



3" OMNI T²



AMR/AMI Mode

Totalization Mode

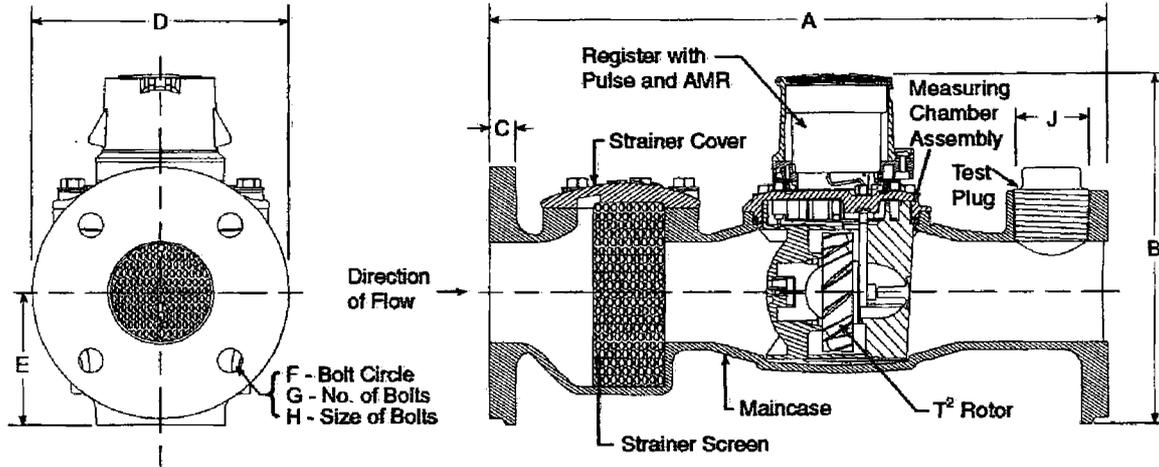
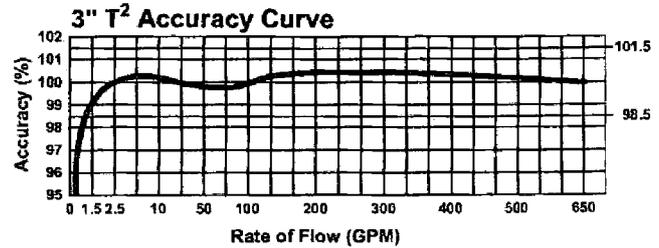
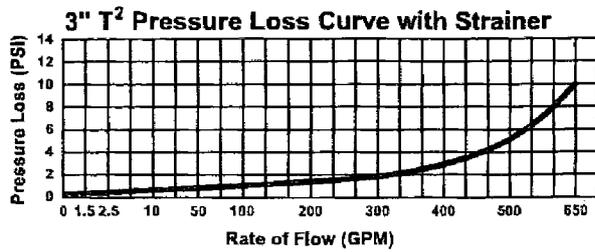
Resettable Test Mode

Strainer: The OMNI T² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI T² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI T² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions					Net Weight	Shipping Weight				
			A	B	C	D	E	F	G	H	J		
3" DN 80mm	1.5 gpm 57 m ³ /hr 650 gpm 148 m ³ /hr	Flanged	19" 483mm	8-3/4" 222mm	3/4" 19mm	7-7/8" 200mm	4-1/8" 105mm	6" 153mm	4	5/8" 16mm	2" 50mm	48.5 lbs. 22.00 kg	57.4 lbs. 26.04 kg

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 2.5 – 650 GPM (.57 – 148 m ³ /hr)
LOW FLOW	95% – 101.5% @ 1.5 GPM (.34 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	500 GPM (114 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	650 GPM (148 m ³ /hr)
PRESSURE LOSS	5.1 psi @ 500 GPM (.35 bar @ 114 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	3" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft/ Cu. Mtr. / Imp. Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
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 www.sensus.com/water
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OMNI™ T²

4" OMNI T² Meter

DESCRIPTION

Model: The OMNI T² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 2.0 GPM (.45 m³/hr) @ 95% min. to 1250 GPM (284 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 1000 GPM (227 m³/hr).

Conformance to Standards: The OMNI T² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

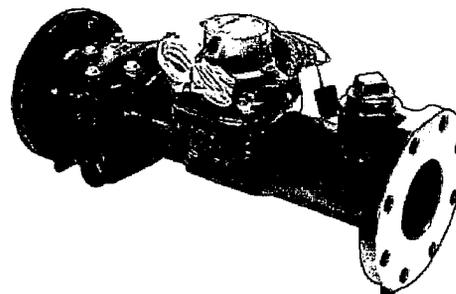
Performance: The patented measurement principles of the OMNI T² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

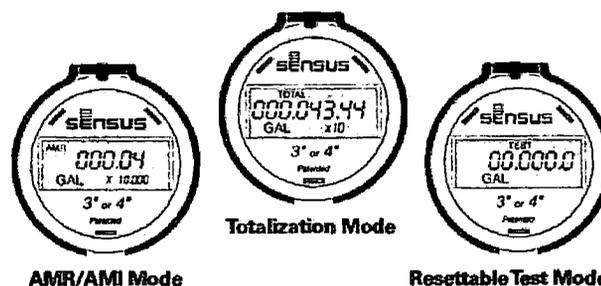
OMNI Electronic Register: The T² electronic register consist of a hermetically sealed register with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI T² meter.



4" OMNI T²



AMR/AMI Mode

Totalization Mode

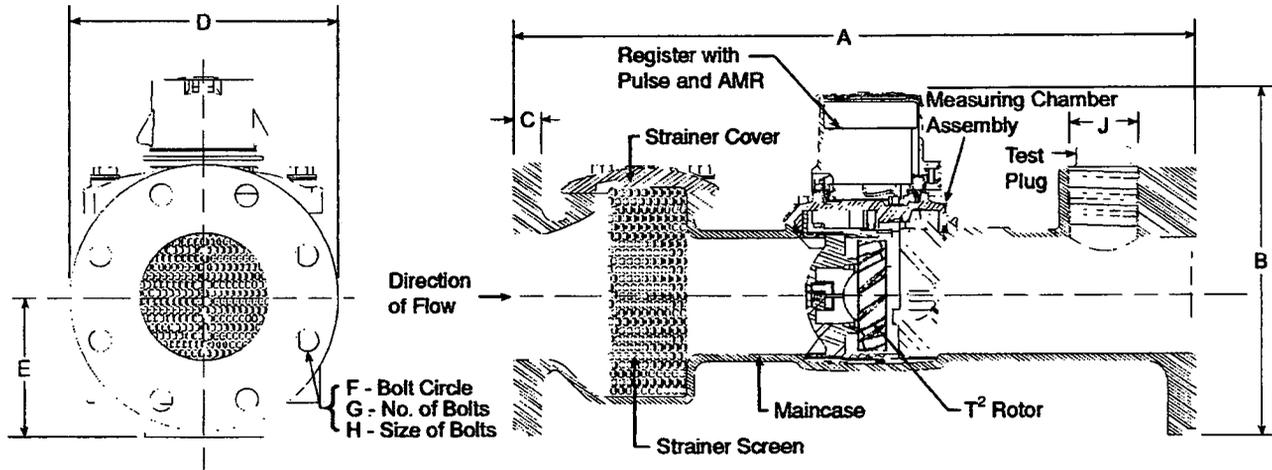
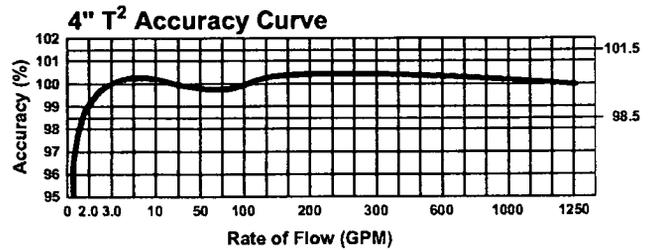
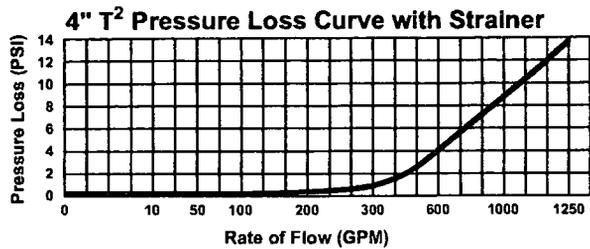
Resettable Test Mode

Strainer: The OMNI T² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI T² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI T² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions								Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J		
4"	2.0 gpm 1250 gpm	Flanged	23"	11-3/16"	15/16"	9-1/8"	4-3/4"	7-1/2"	8	5/8"	2"	67.9 lbs.	75.8 lbs.
DN 100mm	.45 m ³ /hr 284 m ³ /hr		584mm	284mm	24mm	232mm	121mm	191mm	8	16mm	50mm	30.80 kg	34.38 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 3 – 1250 GPM (.68 – 284 m ³ /hr)
LOW FLOW	95% – 101.5% @ 2.0 GPM (.45 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	1000 GPM (277 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	1250 GPM (284 m ³ /hr)
PRESSURE LOSS	8.7 psi @ 1000 GPM (.60 bar @ 277 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	4" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Maincase:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Measuring Chamber:</td> <td>Thermoplastic</td> </tr> <tr> <td>Rotor "Floating Ball":</td> <td>Thermoplastic</td> </tr> <tr> <td>Radial Bearings:</td> <td>Hybrid Thermoplastic</td> </tr> <tr> <td>Thrust Bearings:</td> <td>Sapphire/Ceramic Jewel</td> </tr> <tr> <td>Magnets:</td> <td>Ceramic Magnet</td> </tr> <tr> <td>Strainer Screen:</td> <td>Stainless Steel</td> </tr> <tr> <td>Strainer Cover:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Test Plug:</td> <td>Coated Ductile Iron</td> </tr> </table>	Maincase:	Coated Ductile Iron	Measuring Chamber:	Thermoplastic	Rotor "Floating Ball":	Thermoplastic	Radial Bearings:	Hybrid Thermoplastic	Thrust Bearings:	Sapphire/Ceramic Jewel	Magnets:	Ceramic Magnet	Strainer Screen:	Stainless Steel	Strainer Cover:	Coated Ductile Iron	Test Plug:	Coated Ductile Iron
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OMNI™ T²

6" OMNI T² Meter

DESCRIPTION

Model: The OMNI^{T2} meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 2.5 GPM (.57 m³/hr) @ 95% min. to 2500 GPM (568 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 2000 GPM (454 m³/hr).

Conformance to Standards: The OMNI^{T2} meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

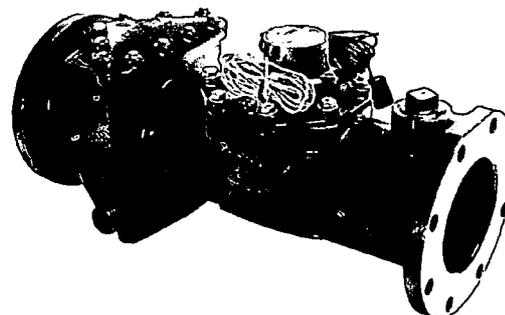
Performance: The patented measurement principles of the OMNI^{T2} meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

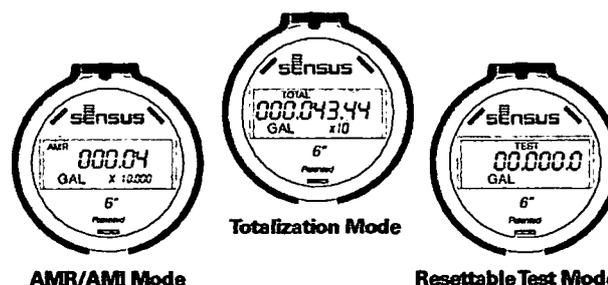
OMNI Electronic Register: The T² electronic register consist of a hermetically sealed register with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI^{T2} meter.



6" OMNI^{T2}



AMR/AMI Mode

Totalization Mode

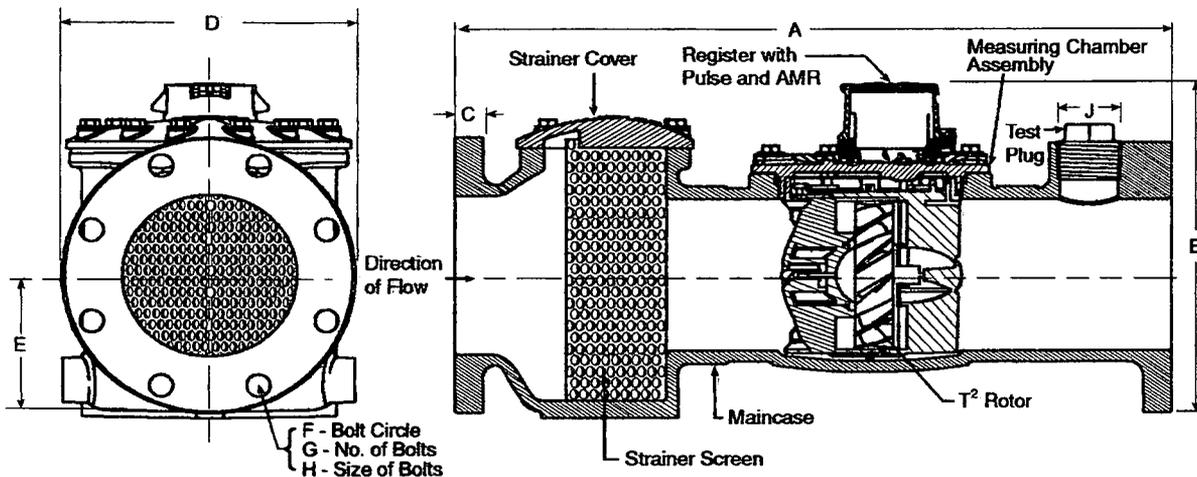
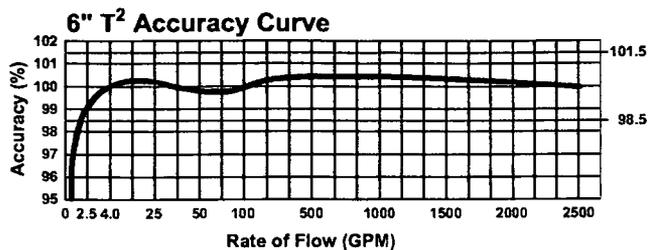
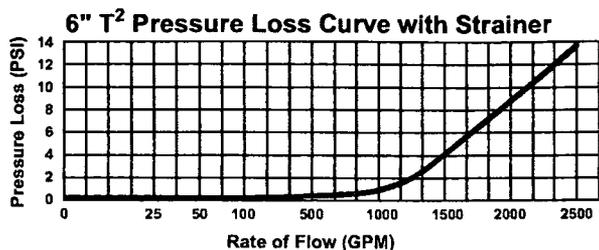
Resettable Test Mode

Strainer: The OMNI^{T2} with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI^{T2} meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI^{T2} Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	Dimensions								Net Weight	Shipping Weight	
	Operating Range	Operating Range		A	B	C	D	E	F	G	H			J
6" / DN 150mm	2.5 gpm / .57 m ³ /hr	2500 gpm / 568 m ³ /hr	Flanged	27" / 685mm	13-1/4" / 336mm	15/16" / 24mm	11" / 279mm	5-3/4" / 146mm	9-1/2" / 242mm	8 / 8	3/4" / 19mm	2" / 50mm	140 lbs. / 52.3 kg	165 lbs. / 61.6 kg

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (5.6°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 4 – 2500 GPM (.91 – 568 m ³ /hr)
LOW FLOW	95% – 101.5% @ 2.5 GPM (.57 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	2000 GPM (454 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	2500 GPM (568 m ³ /hr)
PRESSURE LOSS	8.2 psi @ 2000 GPM (.56 bar @ 454 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	6" U.S. ANSI B16.1 / AWWA Class 125	
REGISTER	Fully electronic sealed register with programmable registration (Gal. / Cu. Ft. / Cu. Mtr. / Imp. Gal. / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life	
NSF APPROVED MATERIALS	Maincase:	Coated Ductile Iron
	Measuring Chamber:	Thermoplastic
	Rotor "Floating Ball":	Thermoplastic
	Radial Bearings:	Hybrid Thermoplastic
	Thrust Bearings:	Sapphire/Ceramic Jewel
	Magnets:	Ceramic Magnet
	Strainer Screen:	Stainless Steel
	Strainer Cover:	Coated Ductile Iron
	Test Plug:	Coated Ductile Iron

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OMNI™ T²

8" OMNI^{T2} Meter

DESCRIPTION

Model: The OMNI^{T2} meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 4 GPM (.91 m³/hr) @ 95% min. to 4700 GPM (1067 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 3500 GPM (795 m³/hr).

Conformance to Standards: The OMNI^{T2} meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

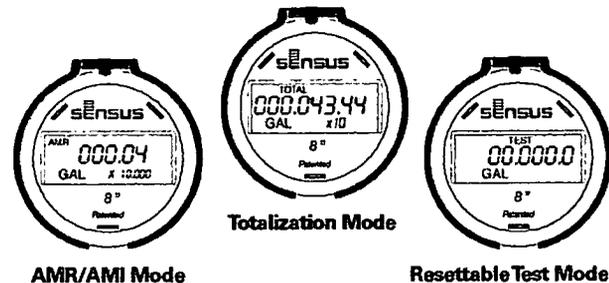
Performance: The patented measurement principles of the OMNI^{T2} meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and an AWWA compliant strainer.

OMNI Electronic Register: The T² electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with UniPro Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI^{T2} meter.

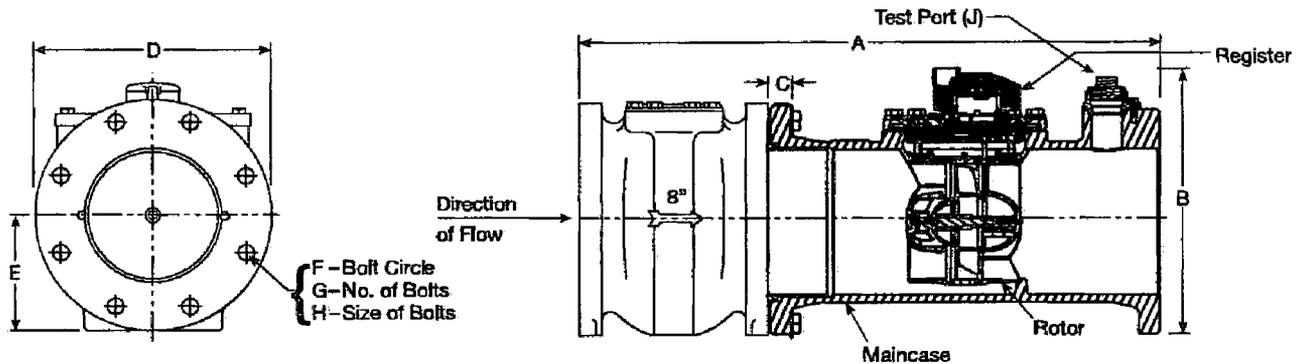
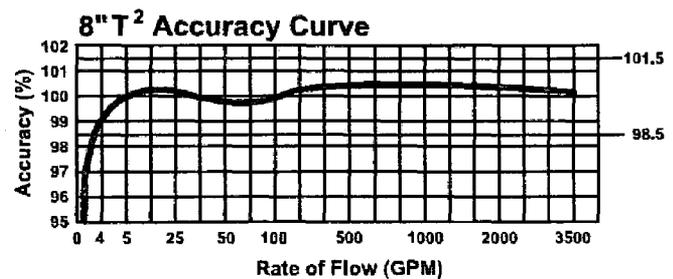
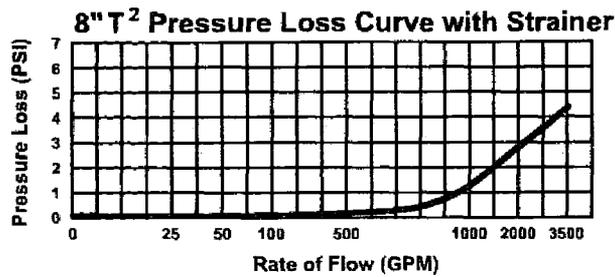


Strainer: The OMNI^{T2} with the AWWA compliant "V" shaped strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI^{T2} meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI^{T2} Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions										Net Weight	Shipping Weight
			A	B	C	D	E	F	G	H	J			
8" DN 200mm	5 gpm - 3500 gpm 1.1 m ³ /hr - 795 m ³ /hr	Flanged	30-1/8" 765 mm	15" 381 mm	11/16" 17 mm	13-1/2" 343 mm	6-3/4" 172 mm	11-3/4" 300 mm	8	3/4" 19 mm	2" NPT	471 lbs. 214 kg	521 lbs. 236 kg.	

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 5 - 3500 GPM (1.1-795 m ³ /hr)
LOW FLOW	95% – 101.5% @ 4 GPM (0.9 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	3500 GPM (795 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	4700 GPM (1067 m ³ /hr)
PRESSURE LOSS	5.1 psi @ 3500 GPM (.35 bar @ 795 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	6" U.S. ANSI B16.1 / AWWA Class 125	
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life	
NSF APPROVED MATERIALS	Maincase:	Coated Ductile Iron
	Measuring Chamber:	Thermoplastic
	Rotor "Floating Ball":	Thermoplastic
	Radial Bearings:	Hybrid Thermoplastic
	Thrust Bearings:	Sapphire/Ceramic Jewel
	Magnets:	Ceramic Magnet
	Strainer Screen:	Stainless Steel
	Strainer Cover:	Coated Ductile Iron
	Test Plug:	Stainless Steel

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OMNI™ T²

10" OMNI T² Meter

DESCRIPTION

Model: The OMNI T² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 5 GPM (1.1 m³/hr) @ 95% min. to 7000 GPM (1590 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 5500 GPM (1249 m³/hr).

Conformance to Standards: The OMNI T² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

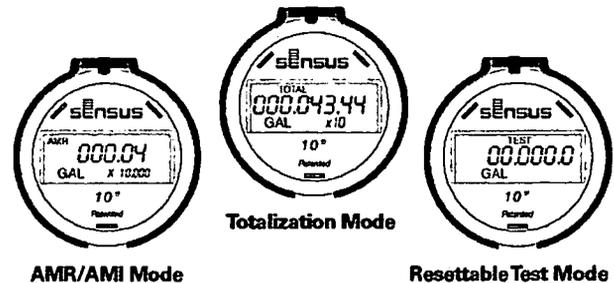
Performance: The patented measurement principles of the OMNI T² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The T² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation.

Construction: The T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and an AWWA compliant strainer.

OMNI Electronic Register: The T² electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with UniPro Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

Measuring Element: The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI T² meter.

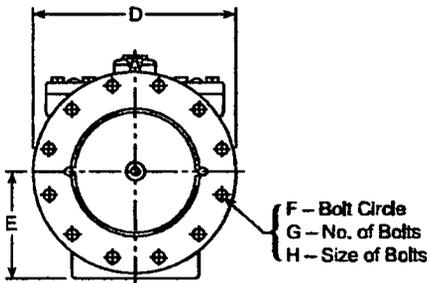
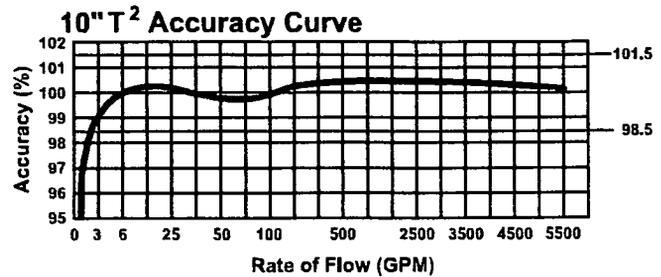
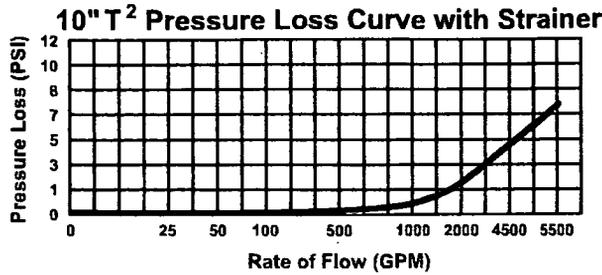


Strainer: The OMNI T² with AWWA compliant "V" shaped strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

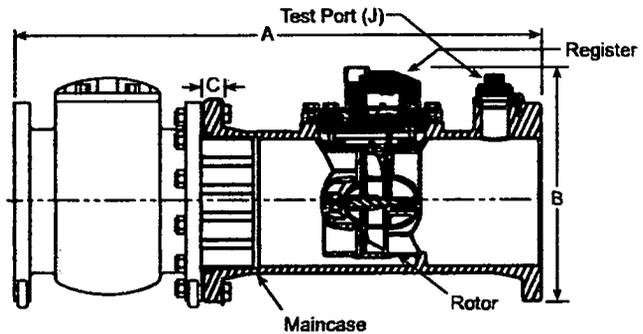
Maintenance: The OMNI T² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the T² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI T² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



Direction of Flow



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions								Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J		
10" DN 250mm	6 gpm 1.4 m ³ /hr 5500 gpm 1249 m ³ /hr	Flanged	41-1/8" 1045 mm	19" 485 mm	11/16" 17 mm	16" 406 mm	8-1/2" 216 mm	14-1/4" 362 mm	12 12	7/8" 22 mm	2" NPT	685 lbs. 311 kg	745 lbs. 338 kg

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 6 - 5500 GPM (1.4 - 1249 m ³ /hr)
LOW FLOW	95% – 101.5% @ 5 GPM (1.1 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	5500 GPM (1249 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	7000 GPM (1590 m ³ /hr)
PRESSURE LOSS	7.2 psi @ 5500 GPM (.50 bar @ 1249 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	10" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Maincase:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Measuring Chamber:</td> <td>Thermoplastic</td> </tr> <tr> <td>Rotor "Floating Ball":</td> <td>Thermoplastic</td> </tr> <tr> <td>Radial Bearings:</td> <td>Hybrid Thermoplastic</td> </tr> <tr> <td>Thrust Bearings:</td> <td>Sapphire/Ceramic Jewel</td> </tr> <tr> <td>Magnets:</td> <td>Ceramic Magnet</td> </tr> <tr> <td>Strainer Screen:</td> <td>Stainless Steel</td> </tr> <tr> <td>Strainer Cover:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Test Plug:</td> <td>Stainless Steel</td> </tr> </table>	Maincase:	Coated Ductile Iron	Measuring Chamber:	Thermoplastic	Rotor "Floating Ball":	Thermoplastic	Radial Bearings:	Hybrid Thermoplastic	Thrust Bearings:	Sapphire/Ceramic Jewel	Magnets:	Ceramic Magnet	Strainer Screen:	Stainless Steel	Strainer Cover:	Coated Ductile Iron	Test Plug:	Stainless Steel
Maincase:	Coated Ductile Iron																		
Measuring Chamber:	Thermoplastic																		
Rotor "Floating Ball":	Thermoplastic																		
Radial Bearings:	Hybrid Thermoplastic																		
Thrust Bearings:	Sapphire/Ceramic Jewel																		
Magnets:	Ceramic Magnet																		
Strainer Screen:	Stainless Steel																		
Strainer Cover:	Coated Ductile Iron																		
Test Plug:	Stainless Steel																		

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OMNI™ C²

2" OMNI C² Meter

DESCRIPTION

Model: The OMNI C² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of .25 GPM (.06 m³/hr) @ 95% min. to 200 GPM (45 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 160 GPM (36 m³/hr).

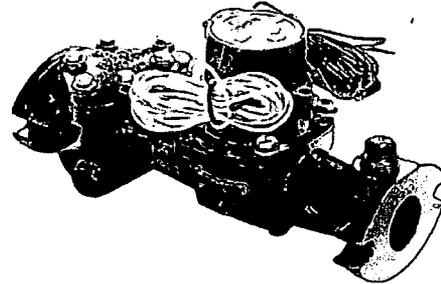
Conformance to Standards: The OMNI C² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

Performance: The patented measurement principles of the OMNI C² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The C² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without undue wear or accuracy degradation.

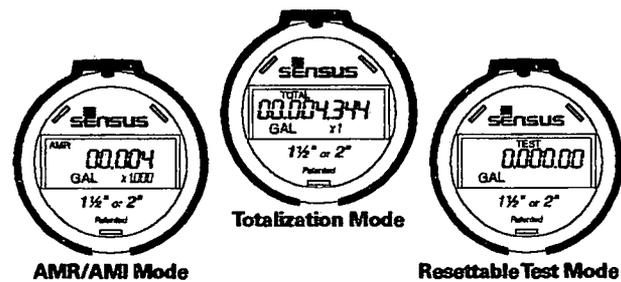
Construction: The C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

OMNI Electronic Register: The C² electronic register is hermetically sealed with electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.



2" OMNI C²



AMR/AMI Mode

Totalization Mode

Resettable Test Mode

Measuring Element: The revolutionary thermoplastic, hydrodynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI C² meter.

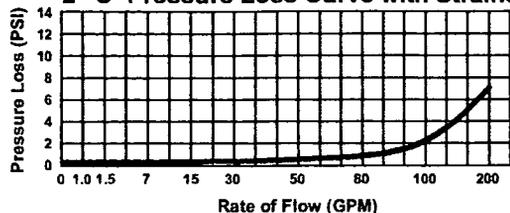
Strainer: The OMNI C² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the C² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

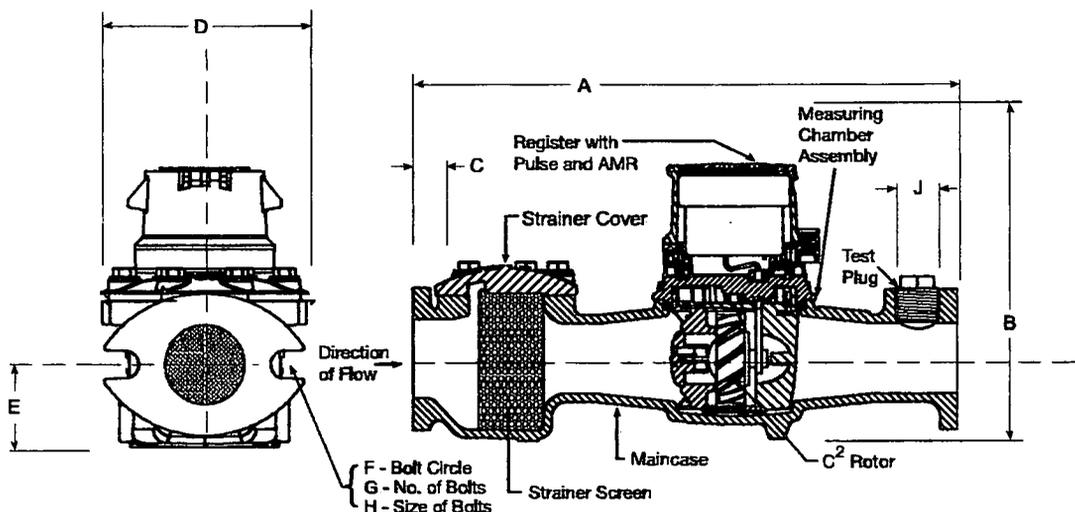
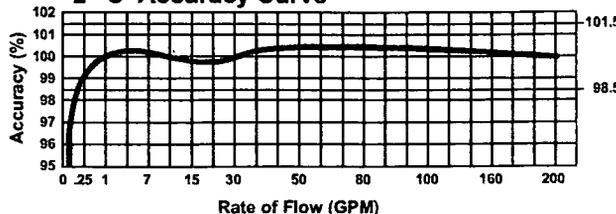
AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI C² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.

2" C² Pressure Loss Curve with Strainer



2" C² Accuracy Curve



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions								Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J		
2"	.25 gpm - 200 gpm	Flanged	15-1/4"	7-7/8"	1"	5-3/4"	2-5/16"	4-1/2"	2	3/4"	1"	25.4 lbs.	32.5 lbs.
DN 50mm	.06 m ³ /hr - 45 m ³ /hr		387mm	200mm	25mm	146mm	59mm	114mm	2	19mm	25mm	11.39 kg.	14.74 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from .5 – 200 GPM (.11 - 45 m ³ /hr)
LOW FLOW	95% – 101.5% @ .25 GPM (.06 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	160 GPM (36 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	200 GPM (45 m ³ /h)
PRESSURE LOSS	4.3 psi @ 160 GPM (.30 bar @ 36 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	2" U.S. ANSI B16.1 / AWWA Class 125
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life
NSF APPROVED MATERIALS	Maincase: Coated Ductile Iron Measuring Chamber: Thermoplastic Rotor "Floating Ball": Thermoplastic Radial Bearings: Hybrid Thermoplastic Thrust Bearings: Sapphire/Ceramic Jewel Magnets: Ceramic Magnet Strainer Screen: Stainless Steel Strainer Cover: Coated Ductile Iron Test Plug: Coated Ductile Iron

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OMNI™ C²

3" OMNI C² Meter

DESCRIPTION

Model: The OMNI C² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of .5 GPM (.11 m³/hr) @ 95% min. to 500 GPM (114 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 400 GPM (91 m³/hr).

Conformance to Standards: The OMNI C² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

Performance: The patented measurement principles of the OMNI C² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The C² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without undue wear or accuracy degradation.

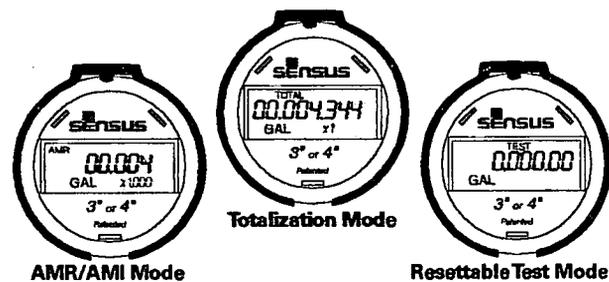
Construction: The C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

OMNI Electronic Register: The C² electronic register is hermetically sealed with electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.



3" OMNI C²



AMR/AMI Mode

Totalization Mode

Resettable Test Mode

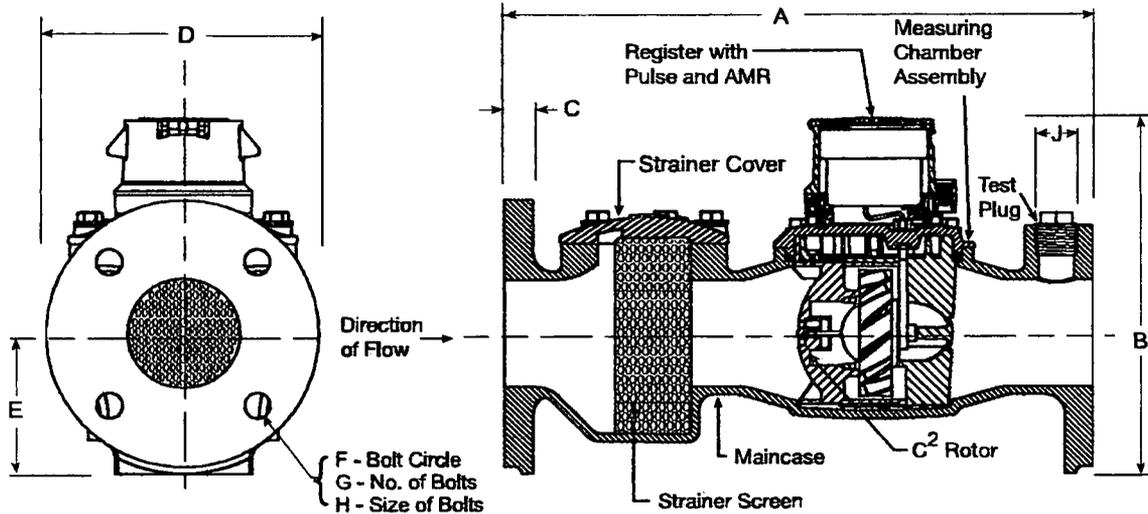
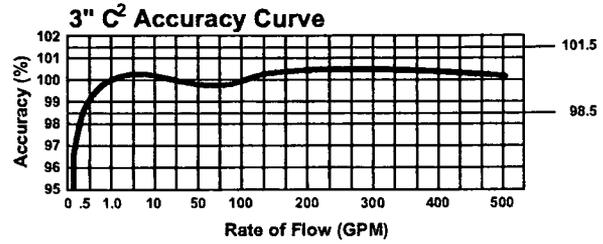
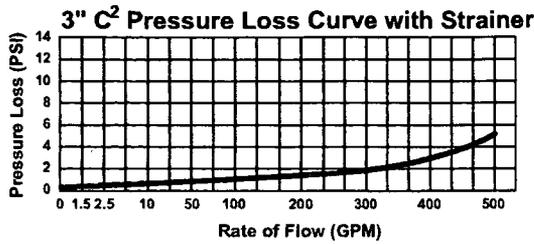
Measuring Element: The revolutionary thermoplastic, hydrodynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI C² meter.

Strainer: The OMNI C² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the C² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI C² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	Dimensions								Net Weight	Shipping Weight	
	Operating Range	Connections		A	B	C	D	E	F	G	H			J
3" DN 80mm	.5 gpm .11 m ³ /hr	500 gpm 114 m ³ /hr	Flanged	17" 432mm	8-3/4" 222mm	3/4" 19mm	7-7/8" 200mm	4-1/8" 105mm	6" 153mm	4	5/8" 16mm	1" 25mm	45 lbs. 20.41 kg.	53.9 lbs. 24.45 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (5.6°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 1.0 – 500 GPM (.23 - 114 m ³ /hr)
LOW FLOW	95% – 101.5% @ .5 GPM (.11 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	400 GPM (91 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	500 GPM (114 m ³ /h)
PRESSURE LOSS	3.2 psi @ 400 GPM (.22 bar @ 91 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	3" U.S. ANSI B16.1 / AWWA Class 125	
REGISTER	Fully electronic sealed register with programmable registration (Gal./Cu.Ft/ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life	
NSF APPROVED MATERIALS	Maincase:	Coated Ductile Iron
	Measuring Chamber:	Thermoplastic
	Rotor "Floating Ball":	Thermoplastic
	Radial Bearings:	Hybrid Thermoplastic
	Thrust Bearings:	Sapphire/Ceramic Jewel
	Magnets:	Ceramic Magnet
	Strainer Screen:	Stainless Steel
	Strainer Cover:	Coated Ductile Iron
	Test Plug:	Coated Ductile Iron

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OMNI™ C²

4" OMNI C² Meter

DESCRIPTION

Model: The OMNI C² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of .75 GPM (.17 m³/hr) @ 95% min. to 1000 GPM (227 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 800 GPM (182 m³/hr).

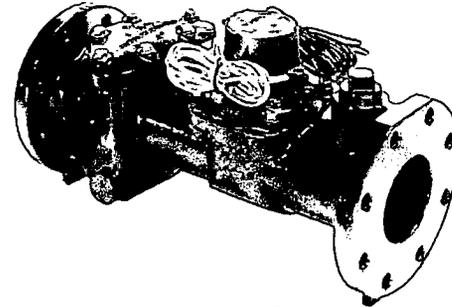
Conformance to Standards: The OMNI C² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

Performance: The patented measurement principles of the OMNI C² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The C² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without undue wear or accuracy degradation.

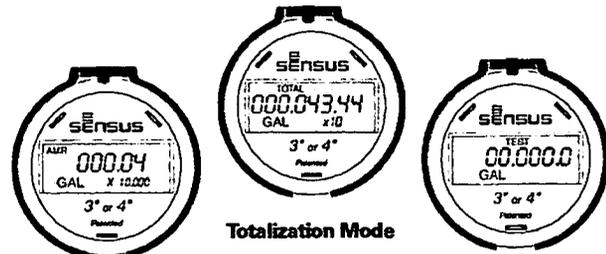
Construction: The C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

OMNI Electronic Register: The C² electronic register is hermetically sealed with electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.



4" OMNI C²



AMR/AMI Mode

Totalization Mode

Resettable Test Mode

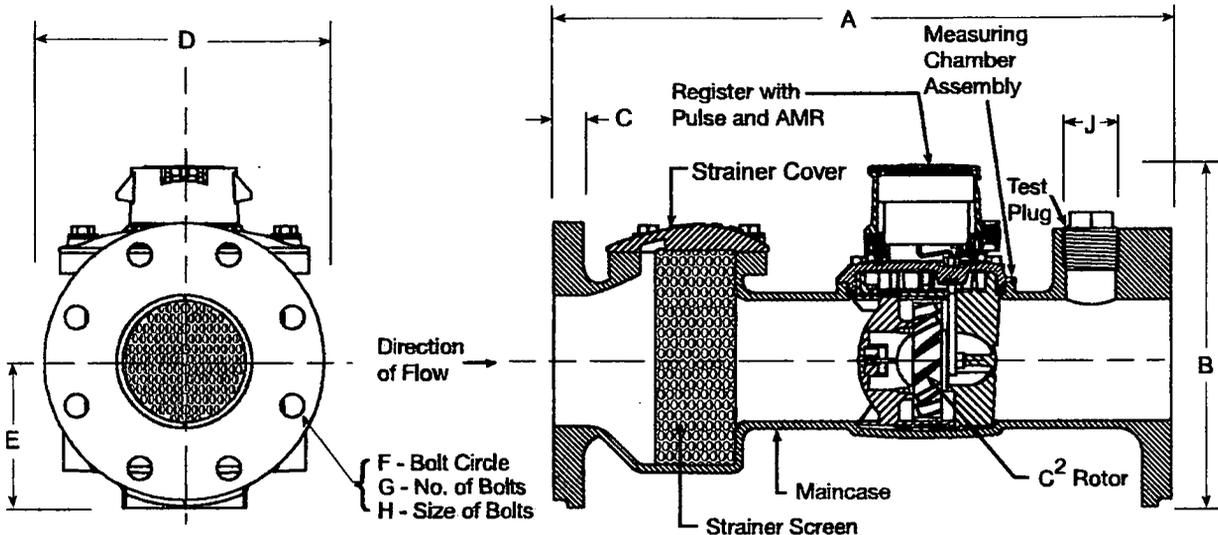
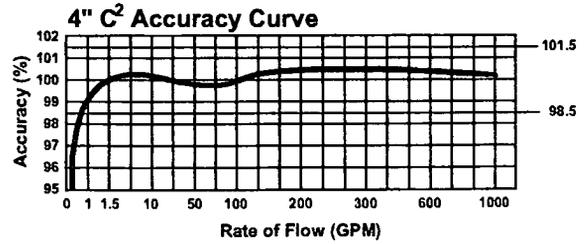
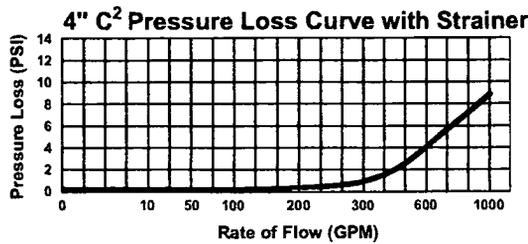
Measuring Element: The revolutionary thermoplastic, hydrodynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI C² meter.

Strainer: The OMNI C² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the C² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI C² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions								Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J		
4"	.75 gpm - 1000 gpm	Flanged	20"	11-3/16"	15/16"	9-1/8"	4-3/4"	7-1/2"	8	5/8"	1-1/2"	64.9 lbs.	72.8 lbs.
DN 100mm	.17 m³/hr - 227 m³/hr		508mm	284mm	24mm	232mm	121mm	191mm	8	16mm	40mm	29.44 kg.	33.02 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 1.5 – 1000 GPM (.34 - 227 m³/hr)
LOW FLOW	95% – 101.5% @ .75 GPM (.17 m³/hr)
MAXIMUM CONTINUOUS OPERATION	800 GPM (182 m³/hr)
MAXIMUM INTERMITTENT OPERATION	1000 GPM (227 m³/h)
PRESSURE LOSS	6.4 psi @ 800 GPM (.51 bar @ 182 m³/hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	4" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal./Cu.Ft./Cu. Mtr./ Imp.Gal./Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Maincase:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Measuring Chamber:</td> <td>Thermoplastic</td> </tr> <tr> <td>Rotor "Floating Ball":</td> <td>Thermoplastic</td> </tr> <tr> <td>Radial Bearings:</td> <td>Hybrid Thermoplastic</td> </tr> <tr> <td>Throat Bearings:</td> <td>Sapphire/Ceramic Jewel</td> </tr> <tr> <td>Magnets:</td> <td>Ceramic Magnet</td> </tr> <tr> <td>Strainer Screen:</td> <td>Stainless Steel</td> </tr> <tr> <td>Strainer Cover:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Test Plug:</td> <td>Coated Ductile Iron</td> </tr> </table>	Maincase:	Coated Ductile Iron	Measuring Chamber:	Thermoplastic	Rotor "Floating Ball":	Thermoplastic	Radial Bearings:	Hybrid Thermoplastic	Throat Bearings:	Sapphire/Ceramic Jewel	Magnets:	Ceramic Magnet	Strainer Screen:	Stainless Steel	Strainer Cover:	Coated Ductile Iron	Test Plug:	Coated Ductile Iron
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OMNI™ C²

6" OMNI C² Meter

DESCRIPTION

Model: The OMNI C² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 1.5 GPM (.34 m³/hr) @ 95% min. to 2000 GPM (454 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 1600 GPM (363 m³/hr).

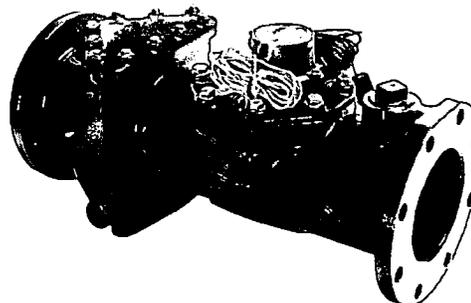
Conformance to Standards: The OMNI C² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

Performance: The patented measurement principles of the OMNI C² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The C² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without undue wear or accuracy degradation.

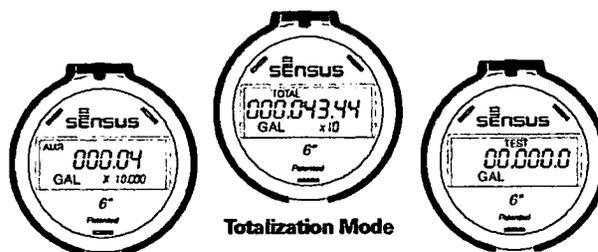
Construction: The C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

OMNI Electronic Register: The C² electronic register is hermetically sealed with electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with AR-5000 Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.



6" OMNI C²



AMR/AMI Mode

Totalization Mode

Resettable Test Mode

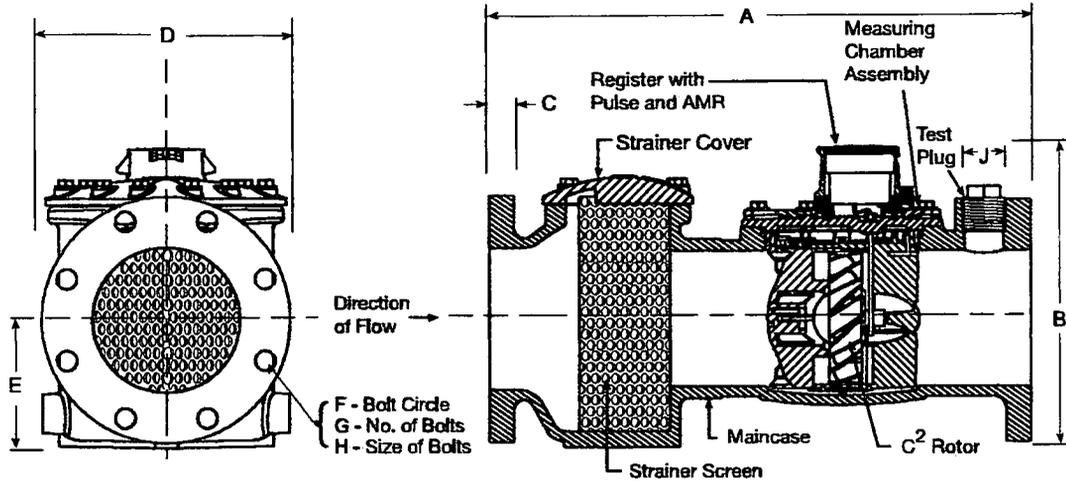
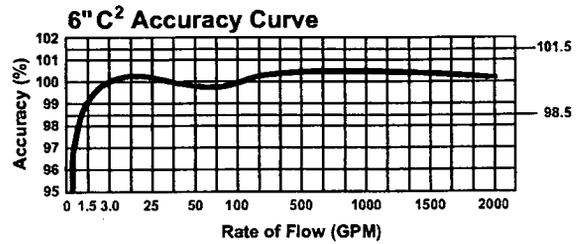
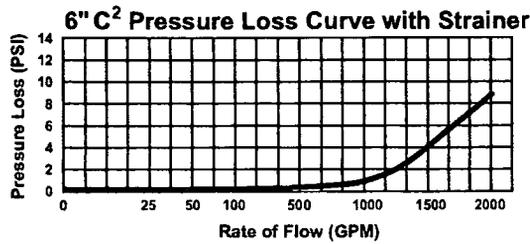
Measuring Element: The revolutionary thermoplastic, hydrodynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI C² meter.

Strainer: The OMNI C² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the C² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI C² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions								Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J		
6" / DN 150mm	2.5 gpm / 577 m³/hr 2500 gpm / 5687 m³/hr	Flanged	24" / 610mm	13-1/4" / 336mm	15/16" / 24mm	11" / 279mm	5-3/4" / 146mm	9-1/2" / 242mm	8	3/4" / 19mm	1-1/2" / 40mm	130 lbs. / 48.5 kg.	155 lbs. / 57.8 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 3 – 2000 GPM (.68 - 454 m³/hr)
LOW FLOW	95% – 101.5% @ 1.5 GPM (.34 m³/hr)
MAXIMUM CONTINUOUS OPERATION	1600 GPM (363 m³/hr)
MAXIMUM INTERMITTENT OPERATION	2000 GPM (454 m³/h)
PRESSURE LOSS	5.5 psi @ 1600 GPM (.56 bar @ 363 m³/hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	6" U.S. ANSI B16.1 / AWWA Class 125																		
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life																		
NSF APPROVED MATERIALS	<table border="0"> <tr> <td>Maincase:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Measuring Chamber:</td> <td>Thermoplastic</td> </tr> <tr> <td>Rotor "Floating Ball":</td> <td>Thermoplastic</td> </tr> <tr> <td>Radial Bearings:</td> <td>Hybrid Thermoplastic</td> </tr> <tr> <td>Thrust Bearings:</td> <td>Sapphire/Ceramic Jewel</td> </tr> <tr> <td>Magnets:</td> <td>Ceramic Magnet</td> </tr> <tr> <td>Strainer Screen:</td> <td>Stainless Steel</td> </tr> <tr> <td>Strainer Cover:</td> <td>Coated Ductile Iron</td> </tr> <tr> <td>Test Plug:</td> <td>Coated Ductile Iron</td> </tr> </table>	Maincase:	Coated Ductile Iron	Measuring Chamber:	Thermoplastic	Rotor "Floating Ball":	Thermoplastic	Radial Bearings:	Hybrid Thermoplastic	Thrust Bearings:	Sapphire/Ceramic Jewel	Magnets:	Ceramic Magnet	Strainer Screen:	Stainless Steel	Strainer Cover:	Coated Ductile Iron	Test Plug:	Coated Ductile Iron
Maincase:	Coated Ductile Iron																		
Measuring Chamber:	Thermoplastic																		
Rotor "Floating Ball":	Thermoplastic																		
Radial Bearings:	Hybrid Thermoplastic																		
Thrust Bearings:	Sapphire/Ceramic Jewel																		
Magnets:	Ceramic Magnet																		
Strainer Screen:	Stainless Steel																		
Strainer Cover:	Coated Ductile Iron																		
Test Plug:	Coated Ductile Iron																		

AUTHORIZED SENSUS DISTRIBUTOR



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 h2oinfo@sensus.com

OMNI™ C²

8" OMNI C² Meter

DESCRIPTION

Model: The OMNI C² meter operation is based on advanced Floating Ball Technology (FBT) with an operating range of 2.5 GPM (0.57 m³/hr) @ 95% min. to 3400 GPM (773 m³/hr) @ 100% +/- 1.5% registration of actual throughput. The meter is also rated for continuous flows up to 2700 GPM (614 m³/hr).

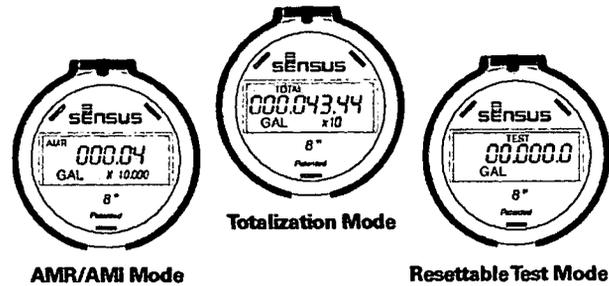
Conformance to Standards: The OMNI C² meter meets and far exceeds the most recent revision of ANSI / AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF Approved to the latest standards.

Performance: The patented measurement principles of the OMNI C² meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The C² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without undue wear or accuracy degradation.

Construction: The C² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and an AWWA compliant strainer.

OMNI Electronic Register: The C² electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features; AMR resolution units that are fully programmable, Pulse output frequency that are fully programmable, Integral customer data logging capability, Integral resettable accuracy testing feature compatible with UniPro Testing Assistant Program, Large, easy-to-read LCD also displays both forward and reverse flow directions and all with a 10-year battery life guarantee.

Magnetic Drive: Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.



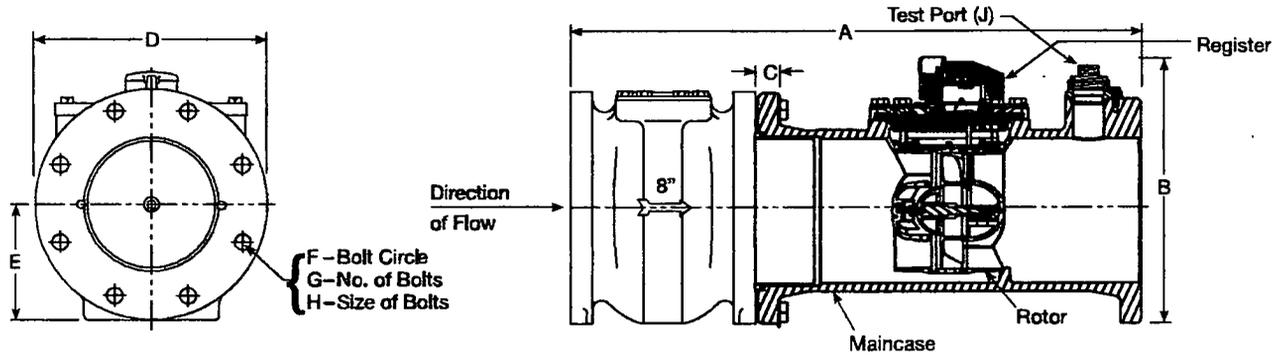
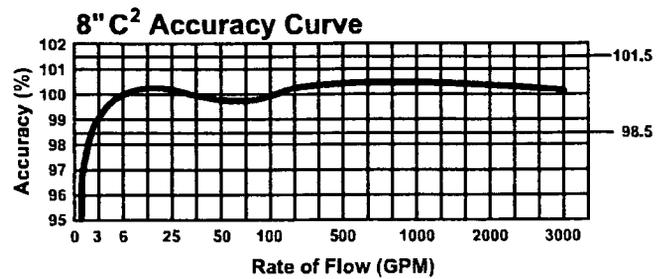
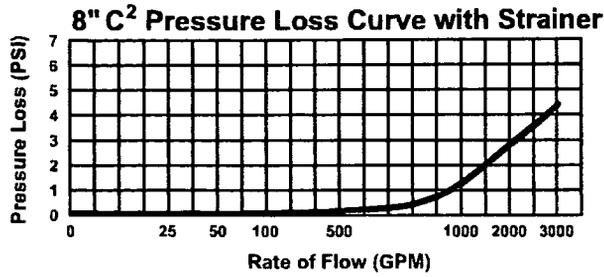
Measuring Element: The revolutionary thermoplastic, hydrodynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI C² meter.

Strainer: The OMNI C² with the AWWA compliant "V" shaped strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

Maintenance: The OMNI C² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement and Measuring Chamber Exchange are available under the Sensus MMP Program for the C² meters and this program may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.

AMR / AMI Systems: Meters and encoders are compatible with current Sensus AMR/AMI systems.

Guarantee: Sensus OMNI C² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range	Connections	Dimensions									Net Weight	Shipping Weight	
			A	B	C	D	E	F	G	H	J			
8" DN 200mm	4 gpm .91 m ³ /hr	2700 gpm 614 m ³ /hr	Flanged	30-1/8" 765 mm	15" 381 mm	11/16" 17 mm	13-1/2" 343 mm	6-3/4" 172 mm	11-3/4" 300 mm	8 8	3/4" 19 mm	2" NPT	471 lbs. 214 kg.	521 lbs. 236 kg.

SPECIFICATIONS

SERVICE	Measure of potable water. Operating temperature range of 33°F (.56°C) – 150°F (65.6°C).
OPERATING RANGE	100% ± 1.5% from 4-2700 GPM (0.91 – 614 m ³ /hr)
LOW FLOW	95% – 101.5% @ 2.5 GPM (0.57 m ³ /hr)
MAXIMUM CONTINUOUS OPERATION	2700 GPM (614 m ³ /hr)
MAXIMUM INTERMITTENT OPERATION	3400 GPM (773 m ³ /hr)
PRESSURE LOSS	4 psi @ 2700 GPM (.27 bar @ 614 m ³ /hr)
MAXIMUM OPERATING PRESSURE	200 PSI (13.8 bar)

FLANGE CONNECTIONS	8" U.S. ANSI B16.1 / AWWA Class 125	
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft/ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading and pulse outputs Guaranteed 10 year battery life	
NSF APPROVED MATERIALS	Maincase:	Coated Ductile Iron
	Measuring Chamber:	Thermoplastic
	Rotor "Floating Ball":	Thermoplastic
	Radial Bearings:	Hybrid Thermoplastic
	Thrust Bearings:	Sapphire/Ceramic Jewel
	Magnets:	Ceramic Magnet
	Strainer Screen:	Stainless Steel
	Strainer Cover:	Coated Ductile Iron
	Test Plug:	Stainless Steel

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 h2oinfo@sensus.com



PD-303 R6 SR11 WATER METERS

No.	Description	Prefix #	List Price		
			5/8"	3/4"	1"
001A	Register Lid - Bronze ¹	7505	\$5.42	\$5.42	\$5.42
001B	Register Lid - Plastic ¹	7506	\$3.19	\$3.19	\$3.19
001C	Register Lid - Plastic (ICE-Opto)		\$3.19	\$3.19	\$3.19
002A	Hinge Pin - Bronze Lid ¹		\$0.21	\$0.21	\$0.21
002B	Hinge Pin - Plastic Lid ¹		\$0.21	\$0.21	\$0.21
003A	Register Bonnet - Bronze ¹		\$12.48	\$12.48	\$12.48
003B	Register Bonnet - Plastic Screw ¹		\$7.29	\$7.29	\$7.29
003C	Register Bonnet - Plastic Pin ¹		\$7.29	\$7.29	\$7.29
003D	Bayonet Ring		\$5.25	\$5.25	\$5.25
004	Tamper Resistant Screw ²		\$1.23	\$1.23	\$1.23
006	Sealed Register ⁴ (DR)		\$31.20	\$31.20	\$31.20
006A	Register (ICE-Opto)		Refer to Conversion Kit Pricing		
007	Register Retaining Ring		\$2.66	\$2.66	\$2.66
008	Maincase ⁵		\$54.72	\$109.25	\$154.77
009	Connection Gasket - Leather		\$0.12	\$0.27	\$0.45
010	Connection - Straight 1/2 set		Contact Sensus		
011	Connection - Bent 1/2 set		Contact Sensus		
013	Strainer		\$1.44	\$2.02	\$2.66
014A	Measuring Chamber, Complete Tested (Rocksyn) w/rubber division plate		\$28.46	\$51.71	\$75.58
014B	Measuring Chamber, Complete Tested (Rocksyn) w/plastic division plate		\$28.46	\$51.71	\$75.58
015	Measuring Chamber Top Rocksyn Assembly w/Drive Dog and Magnet (Rocksyn) ⁶		\$15.80	\$21.85	\$25.54
016	Piston ⁶		\$9.59	\$12.21	\$14.55
017A	Division Plate - rubber ⁶		\$1.38	\$1.58	\$2.48
017B	Division Plate - plastic ⁶		\$1.38	\$1.58	\$2.48
018	Control Roller ⁶		\$1.75	\$1.75	\$1.75
019	Measuring Chamber Bottom w/Pin (Rocksyn) ⁶		\$16.37	\$21.85	\$25.54
020	Measuring Chamber Outlet Gasket ⁶		\$0.84	\$1.38	\$2.30
021	Bottom Plate Gasket		\$1.50	\$1.75	\$2.30
022	Bottom Plate Liner		\$1.50	\$2.02	\$2.59
023A	Bottom Plate - Cast Iron		\$6.43	\$8.15	\$11.84
023B	Bottom Plate - Plastic		\$6.43	\$0.00	\$0.00
023C	Bottom Plate - Bronze		\$14.55	\$21.85	\$36.39
024A	Maincase Cap Screw - Stainless, Washer		\$1.18	\$2.22	\$2.22
024B	Maincase Cap Screw - Stainless, Washer, Drilled		\$1.38	\$2.48	\$2.48
025A	Maincase Cap Screw - Bronze, Washerhead		\$1.58	\$2.48	\$2.48
025B	Maincase Cap Screw - Bronze, Washerhead, Drilled		\$1.88	\$2.66	\$2.66

Accessory Equipment

No.	Description	Prefix #	List Price
			7505
026	Spanner Wrench		\$26.39
027	1/4" Drive Security Socket		\$19.97
028	Test Ring for Standard Register		\$2.23
029	Thread Protectors-5/8"-1"		\$0.12
030	Sealing Tool		\$182.07
031	Sealing Tool Die		\$45.50
032	Register Tester		\$294.51
033	Seal Wire 24" Length		\$0.39
034	Lead Seal		\$0.05
035	Seal Wire 1000 ft Spool, not shown		\$109.25
036	SR II Bonnet Wrench		\$8.15

¹ - Bronze lids must be used with bronze bonnets and plastic lids with plastic bonnets.

² - Requires a 1/4" drive tool (order separately) for use.

³ - Can be used only with plastic register bonnet.

⁴ - Specify registration by letter designation:

A. US Gallon B. Cubic Feet C. Cubic Meters D. Other

⁵ - Specify spud size by letter designation:

A. 5/8" B. 5/8"x3/4" C. 3/4" D. 3/4"x1" E. 1" F. 1"x1-1/4"

For 3/4" maincase specify 9" or 7-1/2" laying length; 7-1/2" length available only with 3/4" spud

⁶ - Included in measuring chamber complete (No. 014)

Please order parts by part number. Use the prefix at the top of the column (size) along with the item number.

Example: 7505001A, to order 5/8" Bronze Register Lid.



OMNI-204 T² Meter Parts - 1-1/2" - 10"

No.	Description	List Price						
		1 1/2"	2"	3"	4"	6"	8"	10"
001	T ² Bonnet Lid	\$9.14	\$9.14	\$9.14	\$9.14	\$9.14	\$9.14	\$9.14
002	Hinge Pin	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11
003	Bonnet	\$14.82	\$14.82	\$14.82	\$14.82	\$14.82	\$14.82	\$14.82
004	Bonnet Seal Screw	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35
005A	Register Probe O-Ring	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47
005B	Register w/AMR and Pulse Wire ¹	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35
005C	Register w/ERT Cable and Pulse Wire ¹	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90
005D	Register w/AMR and Pulse - Reclaimed ¹	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78
005E	Register w/ERT Cable and Pulse - Reclaimed ¹	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23
006	Locking Ring Screw	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26
007	Locking Ring	\$16.08	\$16.08	\$16.08	\$16.08	\$16.08	\$16.08	\$16.08
008	Flaring Ring	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77
009A	Chamber Cover Bolt Stainless Steel	\$3.89	\$3.89	\$3.89	\$3.89	\$11.08	\$12.88	\$12.88
009B	Chamber Cover Bolt 316 S. S.	\$6.33	\$6.33	\$6.33	\$6.33	\$14.42	\$16.80	\$16.80
010A	Chamber Cover Bolt Washer Stainless Steel	\$1.76	\$1.76	\$1.76	\$1.76	\$4.73	\$4.73	\$4.73
010B	Chamber Cover Bolt Washer 316 S. S.	\$2.89	\$2.89	\$2.89	\$2.89	\$10.84	\$10.84	\$10.84
011A	Chamber Cover	\$185.85	\$185.85	\$207.95	\$207.95	\$371.78	\$381.88	\$381.88
011B	Screw, Spring Hold Down	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40
011C	Spring	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63
012	Chamber Cover O-Ring	\$7.92	\$7.92	\$9.43	\$9.43	\$10.62	N/A	N/A
012	Chamber Cover Gasket	N/A	N/A	N/A	N/A	N/A	\$10.82	\$10.82
013	Measuring Insert w/Brg. and Thrust Assy.	\$58.45	\$58.45	\$169.20	\$169.20	\$244.92	N/A	N/A
013	Measuring Insert with rear bearing shaft	N/A	N/A	N/A	N/A	N/A	\$558.89	\$574.44
014	Measuring Chamber Screw	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82
015	Chamber Seal Gasket	\$7.49	\$7.49	\$8.65	\$8.65	\$11.02	\$11.02	N/A
016	T ² Rotor and Shaft Assembly	\$493.53	\$493.53	\$774.45	\$888.24	\$972.74	N/A	N/A
016	T2 Rotor and Bearing Assembly	N/A	N/A	N/A	N/A	N/A	\$1,012.52	\$1,012.52
017	OMNI Balance Flate w/Eng and Thrust Assy.	\$79.08	\$79.08	\$147.10	\$147.10	\$224.05	N/A	N/A
017	OMNI Balance Flate w/Eng and Thrust Assy.	N/A	N/A	N/A	N/A	N/A	\$558.89	\$574.44
018A	Measuring Chamber Assy. - TRPL / Pulse ^{2,3}	\$748.22	\$748.22	\$836.94	\$836.94	\$1,585.38	\$2,051.18	\$2,051.18
018B	Measuring Chamber Assy. - ERT / Pulse ^{2,3}	\$778.77	\$778.77	\$867.49	\$867.49	\$1,615.93	\$2,081.73	\$2,081.73
018C	Measuring Chamber Assy. - Reclaim Water/No Drink - TRPL/Pulse ^{2,3}	\$782.97	\$782.97	\$871.69	\$871.69	\$1,620.13	\$2,085.93	\$2,085.93
018D	Measuring Chamber Assy. - Reclaim Water/No Drink - ERT Cable/Pulse ^{2,3}	\$813.52	\$813.52	\$902.24	\$902.24	\$1,650.68	\$2,116.48	\$2,116.48
019A	Strainer Cover Cap Screw Stainless Steel	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77
019B	Strainer Cover Cap Screw 316 S. S.	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94
020A	Strainer Cover Washer Stainless Steel	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71
020B	Strainer Cover Washer 316 S. S.	\$3.63	\$3.63	\$3.63	\$3.63	\$3.63	\$3.63	\$3.63
021	Strainer Cover	\$95.21	\$109.83	\$118.83	\$132.15	\$148.34	\$208.99	\$242.41
022	Strainer Cover Gasket	\$3.42	\$3.88	\$7.43	\$7.71	\$8.93	\$9.02	\$9.02
023	Strainer Screen	\$47.11	\$50.54	\$53.90	\$87.34	\$70.78	\$73.53	\$112.83
024	Test Plug - Stainless Steel	\$20.09	\$24.35	\$36.53	\$36.53	\$38.53	\$38.53	\$38.53
025	T ² Maincase - ONLY	\$318.78	\$431.37	\$619.36	\$1,528.59	\$3,037.80	\$2,333.27	\$3,248.90
026	Drain Plug - NOT AVAILABLE AT THIS TIME	N/A	N/A	N/A	N/A	N/A	N/A	N/A
027	Strainer Body	N/A	N/A	N/A	N/A	N/A	\$1,220.52	\$2,811.80
028	Test Port Cap	\$18.55	\$28.78	\$38.49	\$38.49	\$38.49	\$38.49	\$38.49
029	Test Port Adapter	\$27.45	\$38.46	\$48.53	\$48.53	\$48.53	\$48.53	\$48.53
030	Test Port Cap Screws	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20
031	Test Port O-Ring	\$0.75	\$1.22	\$3.30	\$3.30	\$3.30	\$3.30	\$3.30
032	Test Port Washer	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85
033	Chamber Cover Washer - Black Nylon	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08

OMNI METER BLANK COVERS

No.	Description	List Price
5731200206052	CVR CHB MEAS 1.5-2" BLNK	\$185.65 \$185.65
5731400206052	CVR CHB MEAS 3-4" BLNK	\$222.78 \$222.78
5731800206052	CVR CHB MEAS 6" BLNK	\$371.32
5731900206052	CVR CHB MEAS 8" - 10" BLNK	\$392.44 \$392.44

Information on OMNI Communicator with UniPro Software, REFER TO OTHER PRICE BOOK DISTRIBUTOR METERS & AMR/AMI PRICE LIST

NOTE:

- ¹ - Replacement register part orders require meter serial number for original meter calibration.
- ² - OMNI ReNew program requires purchase of a new OMNI ReNew program license (renew OMNI ReNew program license every 5 years) and a new OMNI ReNew program license key (renew OMNI ReNew program license key every 5 years).
- ³ - OMNI ReNew program requires purchase of a new OMNI ReNew program license (renew OMNI ReNew program license every 5 years) and a new OMNI ReNew program license key (renew OMNI ReNew program license key every 5 years).
- ⁴ - OMNI ReNew program requires purchase of a new OMNI ReNew program license (renew OMNI ReNew program license every 5 years) and a new OMNI ReNew program license key (renew OMNI ReNew program license key every 5 years).
- ⁵ - Badger Record® Turbo Series: OMNI ReNew replacement chambers will retrofit Badger Turbo of like sizes (latest series only).

Please order parts by part number. Use the prefix at the top of the column (size) along with the item number.

Example: T1001 is a 1-1/2" T² bonnet lid
T3021 is a 3" strainer cover

OMNI-404 C² Meter Parts - 1-1/2" - 10"

Link to C2 Data Sheets

No.	Description	List Price							
		1 1/2"	2"	3"	4"	6"	8"	10"	
Prefix #		C1	C2	C3	C4	C6	C8	C10	
001	C ² Bonnet Lid	\$8.14	\$9.14	\$9.14	\$9.14	\$9.14	\$9.14	\$9.14	
002	Hinge Pin	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11	\$3.11	
003	Bonnet	\$14.62	\$14.62	\$14.62	\$14.62	\$14.62	\$14.62	\$14.62	
004	Bonnet Seal Screw	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35	\$1.35	
005A	Register Probe O-Ring	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47	\$0.47	
005B	Register w/AMR and Pulse Wire ¹	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35	\$294.35	
005C	Register w/ERT Cable and Pulse Wire ¹	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90	\$324.90	
005D	Register w/AMR and Pulse - Reclaimed ¹	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78	\$305.78	
005E	Register w/ERT Cable and Pulse - Reclaimed ¹	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23	\$336.23	
006	Locking Ring Screw	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	
007	Locking Ring	\$18.08	\$18.08	\$18.08	\$18.08	\$18.08	\$18.08	\$18.08	
008	Filing Ring	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77	\$8.77	
009A	Chamber Cover Bolt Stainless Steel	\$3.89	\$3.89	\$3.89	\$3.89	\$11.08	\$12.99	\$12.98	
009B	Chamber Cover Bolt 316 S. S.	\$8.33	\$8.33	\$8.33	\$8.33	\$14.42	\$18.00	\$18.80	
010A	Chamber Cover Bolt Washer Stainless Steel	\$1.78	\$1.78	\$1.78	\$1.78	\$4.73	\$4.73	\$4.75	
010B	Chamber Cover Bolt Washer 316 S. S.	\$2.89	\$2.89	\$2.89	\$2.89	\$10.84	\$10.84	\$10.84	
011A	Chamber Cover	\$185.85	\$185.85	\$297.95	\$297.95	\$371.78	\$391.86	\$391.89	
011B	Screw, Spring Hold Down	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40	
011C	Spring	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63	\$7.63	
012	Chamber Cover O-Ring	\$7.92	\$7.92	\$9.43	\$9.43	\$10.62	N/A	N/A	
012	Chamber Cover Gasket	N/A	N/A	N/A	N/A	N/A	\$10.82	\$10.82	
013	Measuring Insert w/Bg. and Thrust Assy.	\$89.45	\$89.45	\$188.20	\$188.20	\$244.92	N/A	N/A	
013	Measuring Insert with rear bearing shell	N/A	N/A	N/A	N/A	N/A	\$558.89	\$574.44	
014	Measuring Chamber Screw	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82	\$1.82	
015	Chamber Seal Gasket	\$7.49	\$7.49	\$8.85	\$8.85	\$11.02	\$11.02	N/A	
016	C ² Rotor and Shaft Assembly	\$493.53	\$493.53	\$774.44	\$888.28	\$972.74	N/A	N/A	
016	C ² Rotor and Bearing Assembly	N/A	N/A	N/A	N/A	N/A	\$1,812.52	\$1,012.52	
017	OMNI Balance Plate w/Bg. and Thrust Assy.	\$78.88	\$79.88	\$147.10	\$147.10	\$234.05	N/A	N/A	
017	Balance Plate with front bearing shaft	N/A	N/A	N/A	N/A	N/A	\$588.89	\$574.44	
018A	Measuring Chamber Assy. - TRPL / Pulse ^{2,3}	\$1,295.16	\$1,295.16	\$1,785.25	\$1,721.46	\$2,543.01	\$2,501.18	\$2,501.18	
018B	Measuring Chamber Assy. - ERT / Pulse ^{2,3}	\$1,525.71	\$1,525.71	\$1,815.80	\$1,752.01	\$2,271.70	\$2,531.73	\$2,531.73	
018C	Measuring Chamber Assy. - Reclaim Water/No Drink - TRPL/Pulse ^{2,3}	\$1,306.59	\$1,306.59	\$1,708.68	\$1,732.89	\$2,252.58	\$2,535.83	\$2,535.83	
018D	Measuring Chamber Assy. - Reclaim Water/No Drink - ERT Cable/Pulse ^{2,3}	\$1,337.14	\$1,337.14	\$1,827.23	\$1,763.44	\$2,283.13	\$2,586.48	\$2,586.48	
019A	Strainer Cover Cap Screw Stainless Steel	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	\$3.77	
019B	Strainer Cover Cap Screw 316 S. S.	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94	\$7.94	
020A	Strainer Cover Washer Stainless Steel	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71	\$1.71	
020B	Strainer Cover Washer 316 S. S.	\$3.83	\$3.83	\$3.83	\$3.83	\$3.83	\$3.83	\$3.83	
021	Strainer Cover	\$95.21	\$106.83	\$115.83	\$132.15	\$149.34	\$208.99	\$242.41	
022	Strainer Cover Gasket	\$3.42	\$3.86	\$7.43	\$7.71	\$8.93	\$8.02	\$8.35	
023	Strainer Screen	\$47.11	\$50.54	\$53.90	\$67.34	\$70.78	\$73.53	\$112.63	
024	Test Plug - Stainless	\$20.09	\$24.35	\$35.53	\$38.53	\$38.53	\$38.53	\$38.53	
025	C ² Maincase - ONLY	\$318.78	\$431.37	\$610.36	\$1,528.58	\$3,037.80	\$2,333.77	\$3,249.90	
026	Drain Plug - NOT AVAILABLE AT THIS TIME	N/A							
027	Strainer Body	N/A	N/A	N/A	N/A	N/A	\$1,220.52	\$2,511.80	
028	Test Port Cover	\$18.55	\$18.55	\$18.55	\$28.78	\$28.78	\$38.49	\$38.49	
028	Test Port Adapter	\$27.45	\$27.45	\$27.45	\$38.48	\$37.48	\$48.53	\$48.53	
030	Test Port Cap Screws	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20	
031	Test Port O-Ring	\$0.75	\$0.75	\$0.75	\$1.22	\$1.22	\$3.30	\$3.30	
032	Test Port Washer	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	
033	Chamber cover washer - black nylon	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08	\$3.08	

OMNI METER BLANK COVERS

No.	Description	List Price	
5731200208052	CVR CHB MEAS 1.5-2" BLNK	\$185.85	\$185.85
5731400206052	CVR CHB MEAS 3-4" BLNK	\$222.78	\$222.78
5731800206052	CVR CHB MEAS 6" BLNK		\$371.32
5731800208052	CVR CHB MEAS 8" -10" BLNK		\$382.44 \$382.44

Information on OMNI Communicator with UniPro Software,
 REFER TO OTHER PRICE BOOK DISTRIBUTOR METERS & AMR/AMI PRICE LIST

NOTE:

- ¹ - Replacement register part orders require meter serial number for original meter calibration.
- ² - "OMNI ReNew Replacement Chamber Program". OMNI ReNew replacement chambers are new OMNI measuring chambers that have been accuracy tested to the appropriate AWWA standard, with the chamber seal o-ring included and ready for installation into your main case (NO old chamber return is necessary with the OMNI ReNew Program). Simply identify the type and size chamber that you require by type (T², C² or P²) which is displayed on the register lid and size displayed on side of OMNI meter. T² and C² chambers are interchangeable for five sizes. P² chambers must only be used in P² main cases due to the LUFM and Fire Protection facilities.
- ³ - Badger Recordall™ Turbo Series: OMNI ReNew replacement chambers will retrofit Badger Turbos of like sizes (latest series only).

Please order parts by part number. Use the prefix at the top of the column (size) along with the item number.

Example: C1001 is a 1-1/2" C² bonnet lid
 C3021 is a 3" strainer cover



Bid Bond Security

Properly Signed Improperly Signed

Not Included Not Required

Type of Deposit

Bid Bond Cashier/Certified Check

Other _____ Initial: VE

Bid Bond Security

Elster AMCO Water, Inc.
 1100 SW38th Ave
 Ocala, FL 34474
 United States
 T +1 352 732 4670
 F +1 352 368 1950
 www.elster.com

CERTIFIED COPY OF RESOLUTION AUTHORIZING EXECUTION OF CONTRACTS AND CERTIFICATE AS TO CORPORATE OFFICERS

I hereby certify that I am duly appointed President of Elster AMCO Water, LLC, a Corporation doing business under the laws of the State of Florida.

I further certify that the following is a true copy of a Resolution adopted at a meeting of the Board of Directors of Elster AMCO Water, LLC, which was properly called in accordance with the by- laws of said Corporation on December 2, 2008.

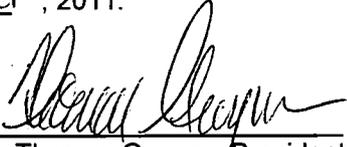
"RESOLVED that the following employees of the Corporation: Katherine Manning- Bid and Proposals Coordinator, Gaylon M. Williams - Customer Service Manager, and Alistair Vaughn Edwards- Vice President, Quality & Engineering, are hereby authorized, each when acting in his of her official capacity, to execute any and all bids, bid bonds, contracts and/or other documents reasonably relating to or required to be executed in connection with proposal responses, requests for proposal answers or similar documents.

I further certify that the said Resolution is in full effect.

I further certify that the following are the duly qualified and elected officers of Elster AMCO Water, LLC, a Florida Corporation, as reflected in records of the Corporation at the office of the Secretary of the State of Florida, To-wit:

President THOMAS GWYNN

IN WITNESS WHEREOF, I have executed this Certificate and place the seal of Elster AMCO Water, LLC hereon this 12th day of December, 2011.



 Thomas Gwynn - President



December 12, 2011

Elster AMCO Water LLC.
1100 SW 38th Ave
Ocala, FL 34474
United States
T +1 352 732 4670
F +1 352 368 1950
www.elster.com

City of Sacramento
City Clerk's Office
915 I St., Ste. 122391
Sacramento, CA 95814-2604

RE: Bid No. 123351012 – Cold Water Meters
Due: December 14, 2011 at 2:00 pm

To Whom It May Concern:

We appreciate receiving your invitation to bid on cold water meters due December 14, 2011 at 2:00 pm. Our bid is enclosed, in duplicate, on the forms provided.

We are bidding Elster AMCO Models SM700 Smart Meters, C700 positive displacement, C4000/C3000 compound and T4000i/T4000 turbine meters. These meters completely comply with AWWA Standards C713, C700, C702 and C701 Class II, latest revision respectively and your detailed specifications.

All prices are F.O.B. Sacramento with payment terms of net thirty (30) days. Delivery will be from stock or not to exceed (30) days after receipt of order.

Descriptive literature on all meters being proposed, including pressure drops, accuracy curves, parts/price lists, guarantee certificates, NSF certificate, Meter Repair Plan and notarized Affidavit of Compliance are enclosed and made a part of our proposal.

Please be advised that Elster AMCO Water, LLC. will extend a twenty percent (20%) discount off all parts purchased under this proposal. All parts will be shipped F.O.B. City of Sacramento.

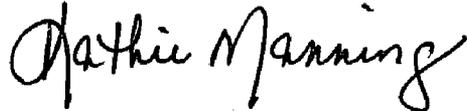
In the event you have any questions concerning this proposal or the enclosures, please feel free to call on our Territory Sales Manager, Mr. Rey Agbayani, or the undersigned located in Ocala, Florida toll free at 1-800-874-0890.

Enclosed you will find a self-addressed, stamped envelope. We would appreciate a complete itemized tabulation of proposals received at your earliest convenience.

Again, we thank you for sending this invitation and hope that you will find our proposal in the best interest of the City of Sacramento.

Sincerely,

Elster AMCO Water, LLC.

A handwritten signature in black ink that reads "Kathie Manning". The signature is written in a cursive, flowing style.

Kathie Manning
Bid & Proposals Coordinator

cc: Rey Agbayani - Territory Sales Manager

Enclosures



Elster AMCO Water, LLC.
1100 SW 38th Avenue
Ocala, FL 34474
United States
T +1 352 732 4670
F +1 352 368 1950
www.elster.com

AFFIDAVIT OF COMPLIANCE

This is to certify that Elster AMCO model SM700 Smart Meters, C700 positive displacement, C4000/C3000 compound and T4000i/T4000 turbine meters supplied to the, City of Sacramento, completely comply with AWWA Standards C713, C700, C702 and C701 Class II, latest revision respectively with the following exception(s).

SM700

- 2.1.3. Bronze body has less than 85% copper content
- 2.1.6. Current product only has 15 year battery life expectancy.
- Factory potting of nicor connectors to be available Q2 of 2012

Turbines

- 2.3.7 1.5" TS4000 includes 1.5" test port
 - 2.4.8 Thrust Bearings not provided as repair part
 - 3.1.1 Repairs available as tested unitized measuring elements.
- T4000 meters are not currently Annex F certified but are Annex G and are in compliance with California's Code section 116875 (AB1953)

Elster AMCO Water, LLC.

A handwritten signature in black ink that reads "Kathie Manning". The signature is written in a cursive, flowing style.

Kathie Manning
Bid & Proposals Coordinator

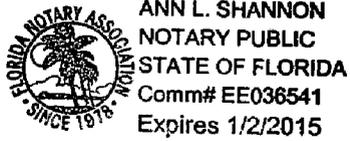
STATE OF FLORIDA
COUNTY OF MARION

Before me, an officer duly authorized to take acknowledgements, personally appears Kathie Manning, to me known and known to be the person who executed the foregoing affidavit and acknowledged that she executed the same for the purpose therein expressed.

WITNESS my hand and official seal this 12 day of December, 2011.



NOTARY PUBLIC
My Commission Expires: 1/2/2015



ORIGINAL



CITY OF SACRAMENTO

PROCUREMENT SERVICES DIVISION

Bid Number: B123351012

**INVITATION FOR BID
And
Contract Specifications For
FOR: COLD WATER METERS**

***Bids Must Be Received Up To The Hour of 2:00 P.M. on
Wednesday December 14, 2011***

Bids Must Be Submitted To: City Clerk's Office
P.O. Box 122391
Sacramento, CA 95812-2391

Pre-Bid Conference: Thursday December 8, 2011 at 1:30PM
Mandatory: Yes
 No
5730 24th Street Corp Yard
Bldg # 22- The Copper Room
Sacramento, CA 95822

**NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID:
(Bidder to complete the following information)**

Name of Bidder: ElsterAMCO Water, LLC

Address: 1100 SW 38th Ave

City, State, Zip Code: Ocala, FL 34474

Phone Number: 800-874-0890

Email Address: kathie.manning@us.elster.com

SECTION I – REQUIREMENTS

C. BID SIGNATURE PAGE

BID NO. B123351012

FOR SERVICES/SUPPLIES: Cold Water Meters

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the bidder or the Contractor) submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefore, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents, referred to herein as the Contract Documents, are fully incorporated herein by this reference and are collectively referred to as the Contract. By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

To Be Filled Out By Bidder

NAME OF CONTRACTOR: ElsterAMCO Water, LLC

ADDRESS: 1100 SW 38th Ave Ocala, FL 34474

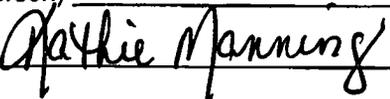
PHONE #: 800-874-0890 FAX #: 352-369-6581 EMAIL: kathie.manning@us.elster.com

STATE TAX I.D. #: 30-621691 FED. TAX I.D. #: 59-1212543

City of Sacramento Business Operation Tax Certificate #: _____
(Contract award will not be processed without a valid and current Certificate Number.)

TYPE OF BUSINESS ENTITY (check one): _____ Individual/Sole Proprietor _____ Partnership
_____ Corporation XX Limited Liability Company

BY: (signature of authorized person) _____

PRINT NAME: Kathie Manning  TITLE: Bid & Proposals Coordinator

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information.

FOR CITY USE ONLY

The Bid was opened on _____.

Bid Bond Required: [] No; [] Yes - Amount: \$ _____

Received: [] Cashiers or Certified Check drawn on a California bank; [] Surety Bond

City Clerk

CONTRACT AWARD

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: _____

Contract Not-to-Exceed Amount: \$ _____

Award Date: _____

CONTRACT APPROVAL

Approved as to Form:

Approved:

Attest:

City Attorney

City Manager
(Or Authorized Designee)

City Clerk

**SECTION III
BIDDER RESPONSE
DOCUMENTS**

SECTION III – BIDDER RESPONSE DOCUMENTS

A. ITEMS REQUIRING BIDDER RESPONSE

NOTE: *Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.*

1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Economic Development, at (916) 808-6747.

A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as a small business enterprise?
Check the appropriate block below:

- YES – Our firm is certified by the City of Sacramento as a small business enterprise.
- NO -Our firm submitting is not certified by the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number

B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise?
Check the appropriate block below:

- YES - Our firm is certified by the City of Sacramento as an emerging business enterprise.
- NO - Our firm is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number:

2. LOCAL BUSINESS SALES/USE TAX DEDUCTION

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid

price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? ___ Yes; or xx No

If the answer to Question above is "Yes":

a) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

Specify: fixed office location or distribution point(s): _____

b) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number: 30-621691

3. DELIVERY GUARANTEE

Contractor guarantees delivery within ^{Stock} to 30 days after receipt of order (ARO).

4. PAYMENT DISCOUNT

Will you offer a prompt payment discount? Yes [] or No (Net 30 days)

If Yes, the Payment Discount is _____% for payment within _____ calendar days, which will be computed from the date delivery is made and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

5. ELECTRONIC FUNDS TRANSFER (EFT) (informational only):

Do you have the ability to accept electronic payments (EFT)? Yes or No []
If Yes, what percentage discount would you offer the City to be paid through EFT? _____%

6. CITY OF SACRAMENTO BOYCOTT OF ARIZONA-HEADQUARTED BUSINESSES:

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

Florida
State Where Bidder is Headquartered

7. Repair Parts Price List

Bidder is to provide a complete list of all necessary repair parts and should indicate the percentage discount OFF LIST PRICE allowed to the City. As the City of Sacramento has water service meters of various manufactures in its system, the City reserves the right to purchase repair parts from any bidder at the stated discount. BIDS WILL NOT BE ACCEPTED FROM BIDDERS WHO FAIL TO INDICATE THE DISCOUNT ALLOWED.

1. Please Attach a Separate Pricing Sheet for Replacement Parts for Meters.
2. Discount: Bidder will offer 20 % off list price on all parts?

SECTION III – BIDDER RESPONSE DOCUMENTS

B. ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL BIDDER PRIOR TO START OF CONTRACT

The following documents are required to be completed and submitted by the successful bidder prior to the award of contract of the contract:

1. CERTIFICATE OF INSURANCE

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

2. BUSINESS OPERATIONS TAX CERTIFICATE

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

SECTION III – BIDDER RESPONSE DOCUMENTS

C. DECLARATION OF COMPLIANCE Equal Benefits Ordinance

Name of Contractor:

ElsterAMCO Water, LLC

Address:

1100 SW 38th Ave Ocala, FL 34474

The above-named Contractor ("Contractor") hereby declares and agrees as follows:

1. Contractor has read and understands the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") attached hereto as Exhibit F.
2. As a condition of receiving this Contract, Contractor agrees to fully comply with the Requirements, as well as any additional requirements that may be specified in the City of Sacramento's Non-Discrimination In Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. Contractor understands, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

Contractor agrees that if Contractor offers any of the above-listed employee benefits, Contractor will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. Contractor understands that Contractor will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. If the actual cost of providing a benefit to a domestic partner or spouse exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, Contractor will not be required to provide the benefit, nor shall it be deemed discriminatory, if Contractor requires the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. If Contractor is unable to provide a certain benefit, despite taking reasonable measures to do so, if Contractor provides the employee with a cash equivalent Contractor will not be deemed to be discriminating in the application of that benefit.

- c. If Contractor provides employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If Contractor provides employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If Contractor submits written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies that will be enacted before the first effective date after the first open enrollment process following the date this Contract is executed by the City of Sacramento ("City"). Contractor understands that any delay in the implementation of such policies may not exceed one (1) year from the date this Contract is executed by the City, and applies only to those employee benefits for which an open enrollment process is applicable.
 - f. Until administrative steps can be taken to incorporate nondiscrimination in employee benefits. The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date this Contract is executed by the City.
 - g. Until the expiration of a current collective bargaining agreement(s) if employee benefits are governed by such collective bargaining agreement(s).
 - h. Contractor takes all reasonable measures to end discrimination in employee benefits by either requesting that the union(s) involved agree to reopen the agreement(s) in order for Contractor to take whatever steps are necessary to end discrimination in employee benefits or by ending discrimination in employee benefits without reopening the collective bargaining agreement(s).
 - i. In the event Contractor cannot end discrimination in employee benefits despite taking all reasonable measures to do so, Contractor provides a cash equivalent to eligible employees for whom employee benefits, are not available. Unless otherwise authorized in writing by the City Manager, Contractor understands this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or not longer than three (3) months after the date this Contract is executed by the City.
5. Contractor understands that failure to comply with the provisions of Section 4(a) through 4(i), above, will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full and/or for up to two (2) years; and/or the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
6. Contractor understands and agrees to provide notice to each current employee and, within ten (10) days of hire, to each new employee, of their rights under the Ordinance. Contractor further agrees to maintain a copy of each such letter provided, in an appropriate file for inspection by authorized representatives of the City. Contractor also agrees to prominently display a poster informing each employee of these rights.
7. Contractor understands that Contractor has the right to request a waiver of, or exemption from, the provisions of the Ordinance by submitting a written request to the City's Procurement Services Division prior to Contract award, which request shall identify the provision(s) of the Ordinance authorizing such waiver or exemption and the factual basis for such waiver or exemption. The City shall determine in its sole discretion whether to approve any such request.

8. Contractor agrees to defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by Contractor. The undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that he or she is authorized to bind the Contractor to the provisions of this Declaration.



Signature of Authorized Representative

December 12, 2011

Date

Kathie Manning

Print Name

Bid & Proposals Coordinator

Title

SECTION III – BIDDER RESPONSE DOCUMENTS

D. PRICING SCHEDULE FOR WATER METERS

For furnishing to the City of Sacramento, pricing, in accordance with the provisions and specifications contained herein. Quantities and types are estimates only and subject to increase or decrease over this potential five (5) year contract. Orders will be placed on an as needed basis. The following quantities are the City's anticipated requirements for the next five (5) years. All registers shall be fully compatible with various brands of interrogation equipment as part of the program will be to capture meter information electronically.

ALL WATER METER PRICING MUST INCLUDE THE STRAINER

Group I Item No.	Quantity	Description	Unit Price	Extension
1	1,000	3/4" No Moving Parts Cold Water Elster AMCO SM700 (Manufacture/Model Proposed)	\$ <u>124.80</u>	\$ <u>124,800.00</u>
2	2,500	1" No Moving Parts Cold Water Elster AMCO SM700 (Manufacture/Model Proposed)	\$ <u>135.74</u>	\$ <u>339,350.00</u>
3	2,750	1" Positive Displacement Cold Water Elster AMCO C700 (Manufacture/Model Proposed)	\$ <u>126.00</u>	\$ <u>346,500.00</u>
4	950	1.5" Positive Displacement Cold Water Elster AMCO C700 (Manufacture/Model Proposed)	\$ <u>356.40</u>	\$ <u>338,580.00</u>
5	1,500	2.0" Positive Displacement Cold Water Elster AMCO C700 (Manufacture/Model Proposed)	\$ <u>430.80</u>	\$ <u>646,200.00</u>
			Sales Tax @ 7.75%	\$ <u>139,145.83</u>
			Total Group I	\$ <u>1,934,575.83</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group II

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
6	100	2.0" Turbine Cold Water Meter Elster AMCO T4000i <u>(Manufacture/Model Proposed)</u>	\$ <u>545.00</u>	\$ <u>54,500.00</u>
7	80	3.0" Turbine Cold Water Meter Elster AMCO T4000i <u>(Manufacture/Model Proposed)</u>	\$ <u>788.00</u>	\$ <u>63,040.00</u>
8	80	4.0" Turbine Cold Water Meter Elster AMCO T4000i <u>(Manufacture/Model Proposed)</u>	\$ <u>985.00</u>	\$ <u>78,800.00</u>
9	30	6.0" Turbine Cold Water Meter Elster AMCO TS4000 <u>(Manufacture/Model Proposed)</u>	\$ <u>1,749.00</u>	\$ <u>52,470.00</u>
10	30	8.0" Turbine Cold Water Meter Elster AMCO T4000 with strainer <u>(Manufacture/Model Proposed)</u>	\$ <u>2,359.00</u>	\$ <u>70,770.00</u>
11	1	10.0" Turbine Cold Water Meter Elster AMCO T4000 with strainer <u>(Manufacture/Model Proposed)</u>	\$ <u>2,400.00</u>	\$ <u>2,400.00</u>
12	1	12.0" Turbine Cold Water Meter Elster AMCO T4000 with strainer <u>(Manufacture/Model Proposed)</u>	\$ <u>3,165.00</u>	\$ <u>3,165.00</u>

Sales Tax @ 7.75% \$ 25,198.74

Total Group II \$ 350,343.74

Total Price is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group III

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
13	300	2.0" Compound Water Meter Elster AMCO C4000 with strainer (Manufacture/Model Proposed)	\$ <u>1,199.00</u>	\$ <u>359,700.00</u>
14	350	3.0" Compound Water Meter Elster AMCO C4000 with strainer (Manufacture/Model Proposed)	\$ <u>1,694.00</u>	\$ <u>592,900.00</u>
15	350	4.0" Compound Water Meter Elster AMCO C4000 with strainer (Manufacture/Model Proposed)	\$ <u>1,995.00</u>	\$ <u>698,250.00</u>
16	150	6.0" Compound Water Meter Elster AMCO C3000 with strainer (Manufacture/Model Proposed)	\$ <u>3,130.00</u>	\$ <u>469,500.00</u>
17	50	8.0" Compound Water Meter Elster AMCO C3000 with strainer (Manufacture/Model Proposed)	\$ <u>5,592.99</u>	\$ <u>279,649.50</u>
			Sales Tax @ 7.75%	\$ <u>185,999.96</u>
			Total Group III	\$ <u>2,585,999.46</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

GRAND TOTAL PAGE

(Group I, II, and III) **GRAND TOTAL OF ALL GROUPS** **\$4,870,919.03**

Provide the following information on price increases in the years 2, 3, 4, and 5:

Year 2 5 % Price Increase

Year 3 5 % Price Increase

Year 4 5 % Price Increase

Year 5 5 % Price Increase

Bidders must provide the increase percentages for years 2 through 5 to accurately assess total five (5) year contract evaluation. Bidders not providing this detail will be considered non-responsive and will not be considered for award.



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 United States
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 F +1 352 368 1950
 www.elsteramcowater.com

COMMENTS AND MODIFICATIONS TO

REQUEST FOR BID OF
 CITY OF SACRAMENTO, CA.
 FOR COLD WATER METERS

AND

GENERAL PROVISIONS FOR BIDS
 BID NO. 8123351012

Set forth below are general comments and modifications to (a) the City of Sacramento's Invitation for Bid for Cold Water Meters (the "RFB"), and (b) the General Provisions for Bids (the "Agreement"). The comments and modifications set forth below are provided in accordance with the RFB. These comments do not constitute the complete, definitive comments and modifications of Elster AMCO Water, LLC ("Contractor") concerning the prospective agreements between the parties but, instead, highlight certain key issues Contractor has identified regarding the RFB and the prospective Agreement between the parties upon successful award of the project to Contractor.

Contractor reserves the right to modify its comments to the agreements at any time. Further, Contractor's provision of the comments and modifications below shall not commit Contractor to agreeing to any agreements or terms and conditions as amended by the comments and modifications set forth below or otherwise. The rights, responsibilities, duties and obligations of Contractor concerning the agreements and the subject matter thereof are subject to the negotiation, execution and delivery of a final, definitive Agreement and ancillary documents among the parties. Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such terms in the applicable agreements between the parties.

COMMENTS / CLARIFICATIONS
Elster AMCO Water, LLC ("Contractor")
City of Sacramento, CA ("City")

<u>Section/ Clause</u>	<u>Request For Bid</u>
Section II Contract Documents	Contractor proposes modifying this Section to read as follows

SECTION II — CONTRACT DOCUMENTS

A. GENERAL CONDITIONS

1. Independent Contractor.

A. It is understood and agreed that neither CONTRACTOR nor CITY (including CONTRACTOR's and CITY's employees) is an independent contractor and that no relationship of employer- employee exists between the parties hereto for any purpose whatsoever. Neither CITY, CONTRACTOR nor CITY's nor CONTRACTOR's assigned personnel shall be entitled to any benefits payable to employees of the other party. Neither CITY nor CONTRACTOR is not required to make any deductions or withholdings from the compensation payable to CONTRACTOR under the provisions of this Agreement, and CONTRACTOR shall be issued a Form 1099 for its services hereunder. As independent contractors, CITY and CONTRACTOR hereby agree, to indemnify and hold the other harmless from any and all claims that may be made based upon any contention by any of CITY's or CONTRACTOR's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any Services under this Agreement. (As used in this Exhibit D, the term "Services" shall include both Services and Additional Services as such terms are defined elsewhere in this Agreement.)

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B. It is further understood and agreed by the parties hereto that CONTRACTOR, in the performance of its obligations hereunder, is subject to the control and direction of CITY as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by CONTRACTOR for accomplishing such results. To the extent that CONTRACTOR obtains permission to, and does, use CITY facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the CONTRACTOR's sole discretion based on the CONTRACTOR's determination that such use will promote CONTRACTOR's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the CITY does not require that CONTRACTOR use CITY facilities, equipment or support services or work in CITY locations in the performance of this Agreement.

C. If, in the performance of this Agreement, any third persons are employed by CONTRACTOR, such persons shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR. It is further understood and agreed that CONTRACTOR shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of CONTRACTOR's assigned personnel and subcontractors.

The provisions of this Section 1 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between CITY and CONTRACTOR. CONTRACTOR may represent, perform services for, or be employed by such additional persons or companies as CONTRACTOR sees fit provided that CONTRACTOR does not violate the

provisions of Section 5, below.

- 2. **Licenses; Permits, Etc.** CONTRACTOR represents and warrants that CONTRACTOR has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature that are legally required for CONTRACTOR to practice its profession or provide any services under the Agreement. CONTRACTOR represents and warrants that CONTRACTOR shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals that are legally required for CONTRACTOR to practice its profession or provide such Services. Without limiting the generality of the foregoing, if CONTRACTOR is an out-of-state corporation, CONTRACTOR warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.

- 3. **Time.** CONTRACTOR shall devote such time and effort to the performance of Services pursuant to this Agreement as is necessary for the satisfactory and timely performance of CONTRACTOR's obligations under this Agreement. Neither party shall be considered in default of this Agreement, to the extent that party's performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.

- 4. **CONTRACTOR Not Agent.** Except as CITY may specify in writing, CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to bind CITY to any obligations whatsoever.

- 5. **Conflict of Interest.** CONTRACTOR covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of CITY or that would in any way hinder CONTRACTOR's performance of Services under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of CITY. CONTRACTOR agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of CITY at all times during the performance of this Agreement. If CONTRACTOR is or employs a former officer or employee of the CITY, CONTRACTOR and any such employee(s) shall comply with the provisions of Sacramento City Code Section 2.16.090 pertaining to appearances before the City Council or any CITY department, board, commission or committee.

- 6. **Confidentiality of CITY and CONTRACTOR Information.** During performance of this Agreement, CITY and CONTRACTOR may gain access to and use information of the other party regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "Information") that are valuable, special and unique assets of the party. Both parties agree to protect all such Information of the other party and treat it as strictly confidential, and further agree that they shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any Information of the other party to any third party without its prior written consent. In addition, CONTRACTOR shall comply with all CITY policies governing the use of the CITY network and technology systems, as set forth in applicable provisions of the City of Sacramento Administrative Policy Instructions # 30. A violation by CONTRACTOR of this Section 6 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

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7. CONTRACTOR Information.

A. CITY shall have full ownership and control, ~~of all information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement. In this Section 7, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostating, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. CONTRACTOR shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by CITY.~~

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B. CONTRACTOR shall fully defend, indemnify and hold harmless CITY, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. CITY shall make reasonable efforts to notify CONTRACTOR not later than ten (10) days after CITY is served with any such claim, action, lawsuit or other proceeding, provided that CITY's failure to provide such notice within such time period shall not relieve CONTRACTOR of its obligations hereunder, which shall survive any termination or expiration of this Agreement.

C. All proprietary and other information received from CONTRACTOR by CITY, whether received in connection with CONTRACTOR's proposal to CITY or in connection with any Services performed by CONTRACTOR, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to CITY, CITY shall give notice to CONTRACTOR of any request for the disclosure of such information. The CONTRACTOR shall then have five (5) days from the date it receives such notice to enter into an agreement with the CITY, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by CITY in any legal action to compel the disclosure of such information under the California Public Records Act. The CONTRACTOR shall have sole responsibility for defense of the actual "trade secret" designation of such information.

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D. The parties understand and agree that any failure by CONTRACTOR to respond to the notice provided by CITY and/or to enter into an agreement with CITY, in accordance with the provisions of subsection C, above, ~~may constitute a waiver by CONTRACTOR of any rights regarding the information designated "trade secret" by CONTRACTOR, which in the subject of the notice, and such information may be disclosed by CITY pursuant to applicable procedures required by the Public Records Act.~~

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8. Standard of Performance. CONTRACTOR shall perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of CONTRACTOR's profession in California. All products of whatsoever nature that CONTRACTOR delivers to CITY pursuant to this Agreement shall be prepared in a professional manner and conform to the standards of

quality normally observed by a person currently practicing in CONTRACTOR's profession, and shall be provided in accordance with any schedule of performance specified in Exhibit A. CONTRACTOR shall assign only competent personnel to perform Services pursuant to this Agreement. CONTRACTOR shall notify CITY in writing of any changes in CONTRACTOR's staff assigned to perform the Services required under this Agreement, prior to any such performance. In the event that CITY, at any time during the term of this Agreement, desires the removal of any person assigned by CONTRACTOR to perform Services pursuant to this Agreement, because CITY, in its sole discretion, reasonably determines that such person is not performing in accordance with the standards required herein, CONTRACTOR shall remove such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person.

9. Term; Suspension; Termination.

A. Termination for Cause. If the City reasonably determines that the Contractor's performance is not materially satisfactory, and notifies the Contractor of such determination in writing, the Contractor shall correct the unsatisfactory condition(s) within 30 days after receiving such notification. If the Contractor fails to correct the unsatisfactory condition(s) within 30 days, the City may declare the Agreement terminated upon 30 days written notice and may, in the City's sole discretion, demand performance by the Contractor's surety, if any, or contract for performance of all or part of the remainder of the Agreement with another contractor. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that Contractor shall again fail to satisfactorily perform pursuant to the Agreement, City may thereupon terminate the Agreement in writing immediately, with no prior notice. In the event of termination hereunder, the Contractor and/or its surety shall be liable and assessed for any and all reasonable costs for re-procurement.

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B. Termination for Convenience. The City may terminate the Agreement, in whole or in part, for its convenience and without cause upon giving written 30 days notice to the Contractor. The City shall pay all reasonable costs associated with the Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with such termination, including any anticipatory profits that have not yet been earned, but no other costs which have not been incurred, as of the date of termination.

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C. Termination After Completion Date. If the Contractor fails to complete its performance of the Agreement within the time specified in the Agreement (including any approved extension of such time), if any, the Agreement may be terminated and, in the event of such termination, the Contractor shall not be paid or allowed any further compensation for any costs incurred after such termination. The City may thereafter proceed to complete the Agreement either by rebidding or otherwise, the Contractor and its surety, if any, shall be liable to the City for all reasonable loss or damage that the City may suffer on account of the Contractor's failure to complete the Agreement on time. This Agreement shall become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

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10. Indemnity.

A. Indemnity: CONTRACTOR and CITY shall defend, hold harmless and indemnify the other, its officers and employees, and each and every one of them, from and against any

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and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by ~~the indemnified party's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform this Agreement, to the extent such Liabilities are not caused in part by a party indemnified hereunder. Notwithstanding anything herein, neither party shall be liable for any special, indirect or consequential damages and each party's liability hereunder shall not exceed the greater of (i) the amount paid by CITY to CONTRACTOR in the twelve months (12) immediately preceding the event(s) giving rise to the liability(-ies) or (ii) One Million Dollars (\$1,000,000).~~

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Deleted: or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from the sole negligence or willful misconduct of CITY, its agents, servants, or independent contractors who are directly responsible to CITY, except when such agents, servants, or independent contractors are under the direct supervision and control of CONTRACTOR.

B. Insurance Policies; Intellectual Property Claims: The existence or acceptance by CITY of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of CITY's rights under this Section 10, nor shall the limits of such insurance limit the liability of CONTRACTOR hereunder to the extent such Liabilities are not covered by insurance. This Section 10 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 7.B., above. The provisions of this Section 10 shall survive any expiration or termination of this Agreement.

11. **Insurance Requirements.** During the entire term of this Agreement, CONTRACTOR shall maintain the insurance coverage described in this Section 11.

Full compensation for all premiums that CONTRACTOR is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Services provided by CONTRACTOR under this Agreement. No additional compensation will be provided for CONTRACTOR's insurance premiums.

It is understood and agreed by the CONTRACTOR that its liability to the CITY shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the CONTRACTOR in connection with this Agreement.

A **Minimum Scope & Limits of Insurance Coverage**

- (1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.
- (2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of **not** less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the CONTRACTOR.

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No automobile liability insurance shall be required if CONTRACTOR completes the following certification:

"I certify that a motor vehicle will not be used in the performance of any work or services under this agreement."
(CONTRACTOR initials)

- (1) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Workers' Compensation waiver of subrogation in favor of the City is required for all work performed by the CONTRACTOR.

No Workers' Compensation insurance shall be required if CONTRACTOR completes the following certification:

"I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers' Compensation insurance."
(CONTRACTOR initials)

B Additional Insured Coverage

- (1) Commercial General Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects general liability arising out of activities performed by or on behalf of CONTRACTOR, products and completed operations of CONTRACTOR, and premises owned, leased or used by CONTRACTOR. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

- (2) Automobile Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officials, employees and volunteers. Any insurance or

self-insurance maintained by CITY, its officials, employees or volunteers shall be in excess of CONTRACTOR's insurance and shall not contribute with it.

- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, its officials, employees or volunteers.
- (3) Coverage shall state that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- (4) CITY will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

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D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 11 must be declared to and approved by the CITY Risk Management Division in writing prior to execution of this Agreement.

E. Verification of Coverage

- (1) CONTRACTOR shall furnish CITY with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the CITY representative named in Exhibit A. Copies of policies shall be delivered to the CITY on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.
- (2) The CITY may withdraw its offer of contract or cancel this Agreement if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The CITY may withhold payments to CONTRACTOR and/or cancel the Agreement if the insurance is canceled or CONTRACTOR otherwise ceases to be insured as required herein.

F. Subcontractors

CONTRACTOR shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

12. Equal Employment Opportunity. During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

A. Compliance With Regulations: CONTRACTOR shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment", as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), hereinafter collectively referred to as the "Regulations".

B. Nondiscrimination: CONTRACTOR, with regards to the work performed by it after award

and prior to completion of the work pursuant to this Agreement, shall not
Cold Water Meters- Bid B123351012

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discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in discrimination prohibited by the Regulations.

C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by CONTRACTOR for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by CONTRACTOR of CONTRACTOR's obligation under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.

D. Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be reasonably determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of a verified noncompliance by CONTRACTOR with the nondiscrimination provisions of this Agreement, the CITY may impose such sanctions or take such steps as it may reasonably determine to be appropriate for CONTRACTOR to achieve compliance.

F. Incorporation of Provisions: CONTRACTOR shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. CONTRACTOR shall take such action with respect to any subcontract or procurement which are reasonably intended and designed to achieve compliance.

13. **Entire Agreement.** The Contract Documents contain the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Agreement. No alteration to the terms of this Agreement shall be valid unless approved in writing by Contractor, and by City, in accordance with applicable provisions of the Sacramento City Code. In the event of any conflict among the provisions of different Contract Documents, the conflict shall be resolved by giving precedence to the Contract Documents in the following order, unless otherwise set forth:

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Cancellation, termination, or suspension of the Agreement, in whole or in part.¶
- Deleted:** as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, CONTRACTOR may request CITY to enter such litigation to protect the interests of CITY.
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- A. Post-Award Amendments.
- B. Pricing Schedule(s), as corrected by City, if applicable.
- C. Pre-Award Addenda
- D. Special Provisions.
- E. Bid Instructions and Requirements
- F. General Conditions
- G. Technical Specifications and/or Plans

14. **Severability.** If any portion of this Agreement or the application thereof to any person or circumstance shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

15. **Waiver.** Neither CITY acceptance of, or payment for, any Service or Additional Service performed by CONTRACTOR, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

16. **Enforcement of Agreement.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

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17. **Assignment Prohibited.** The expertise and experience of CONTRACTOR are material considerations for this Agreement. CITY has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on CONTRACTOR under this Agreement. In recognition of this interest, CONTRACTOR shall not assign any right or obligation pursuant to this Agreement without the written consent of the CITY. Any attempted or purported assignment without CITY's written consent shall be void and of no effect.

18. **Binding Effect.** This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 17, above.

19. **Compliance with Laws.** The Contractor shall be responsible for strict compliance with all applicable laws, regulations, court orders and other legal requirements applicable to the work to be accomplished pursuant to the Contract, including without limitation the California Occupational Safety and Health Act and all applicable safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, and all applicable requirements of Underwriters Laboratories and the Federal Communication Commission.

20. **Inspection.** Merchandise will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of the Agreement. If deficiencies are found, it shall be the responsibility of the Contractor to pick up the merchandise, make necessary correction and redeliver the merchandise for re-inspection and acceptance. Payment and/or commencement of discount period (if applicable) will not be made until corrective action has been made. Merchandise not rejected within thirty (30) days of receipt shall be deemed accepted by the City.

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21. Funding Availability.

A. The Agreement is subject to the budget and fiscal provisions of the Charter and City Code of the City of Sacramento.

Deleted: Contract

B. The City's payment obligation under the Agreement shall not at any time exceed the amount of funds appropriated and approved for such purpose by the Sacramento City Council.

Deleted: Contract

C. The Agreement shall terminate without penalty at the end of the fiscal year in the event funds to make payment under the Agreement are not appropriated and approved for such purpose by the City Council for the succeeding fiscal year. If such funds are appropriated for only a portion of the fiscal year this Agreement shall terminate, without penalty, at the end of the term for which funds have been appropriated. In the event of such termination, the Contractor shall not be entitled to recover any costs incurred after termination, subject, further, to the limitation in subsection 11.B. of these General Conditions.

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D. Notwithstanding any provision of the Contract Documents to the contrary, this section shall govern over any other provision of the Contract.

22. Inspection of Facilities. If requested by the City, the Contractor shall provide City with an inspection tour of Contractor's facilities at the location where the work under the Contract will be accomplished.

23. Material Safety Data Sheets (MSDS). It is mandatory for a manufacturer, Contractor or distributor to supply a MSDS with the first shipment of any hazardous material. Also at any time the content of an MSDS is revised, the Contractor shall provide new information relevant to the specific material.

24. Notification of Material Changes in Business. Contractor agrees that if it experiences any material changes in its business including, without limitation, a reorganization, refinancing, restructuring, leveraged buyout, bankruptcy, loss of key personnel, etc., it will immediately notify the City of the changes. Contractor also agrees to immediately notify the City of any condition which may jeopardize the scheduled delivery or fulfillment of Contractor's contractual obligations to the City. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Procurement Services Division reserves the right at its sole discretion to terminate the Agreement either for cause or for convenience as provided in Section 9 of these General Conditions.

Deleted: Contract

25. Payment and Invoicing. Unless otherwise specified in the Contract Documents, payment for services rendered or materials provided and accepted by City will be made monthly, in arrears, after receipt of a proper invoice.

26. Protection of Existing Facilities. Contractor shall take every precaution to protect all public and private property during the performance of the Contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

27. **Guarantee.** By submitting its bid, the Contractor warrants that all merchandise delivered and/or work or services performed under the Agreement shall meet the minimum requirements set forth herein in accordance with its Warranties as attached hereto and made a part hereof.

Deleted: guarantees

Deleted: Contract

Deleted: .

Deleted: If it is determined by the City that the merchandise delivered or work or services performed do not meet the minimum requirements of the Contract, the Contractor shall be required to correct the same at Contractor's sole expense.

28. **Use Tax Requirements.** During the performance of this Agreement, Contractor, for itself, its assignees and successors in interest, agrees as follows:

A. **Use Tax Direct Payment Permit:** For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.

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B. The above provisions shall apply in all instances unless prohibited by the funding source for the Agreement.

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SECTION II — CONTRACT DOCUMENTS

B. SPECIAL PROVISIONS

ENVIRONMENTALLY PREFERABLE PROCUREMENT

The City has adopted a "Sustainable Procurement Policy (SPP) and program. The goal is to encourage the procurement of products and services that help minimize environmental impact resulting from use and disposal of these products. Contractors are encouraged to offer Energy Star, Green Seal, EcoLogo, EPEAT, or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. City also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this IFB. Contractors will offer products that have minimal virgin materials and maximum use of recycled products. Contractor must work with the City to attain these goals.

Notwithstanding the above, the Contractor agrees to supply the City of Sacramento with environmentally preferable and effective products in compliance with the specifications in this solicitation and provide services that help minimize environmental impact resulting from use and disposal of products specified in this bid.

The Contractor further agrees that its products specified in this bid do not contain any items, ingredients or components prohibited under the City's SPP Policy.

The City may terminate this contract or take other appropriate actions if the contractor fails to comply or provide adequate supporting documentation to substantiate compliance with the City's SP Policy and requirements specified in the bid.

The City's SPP Policy is available on line at:

[http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable Purchasing Policy SPP.pdf](http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable_Purchasing_Policy_SPP.pdf) or by contacting the Procurement Services Division at (916) 808-6240.

Guarantee

- a. The manufacturer and/or dealer delivering the water meters against these specifications shall guarantee that they meet the minimum requirements set forth herein. If it is found that the equipment delivered does not meet the minimum requirements of this specification, the manufacturer and/or dealer will be required to correct the same in accordance with its Warranty as attached hereto and made a part hereof. Failure of the manufacturer and/or dealer to bring the equipment into full compliance with all the requirements set forth in this specification within their 30 days of delivery shall constitute cause for rejection of the equipment. In case the equipment is rejected, it shall be removed promptly from the City's premises at the manufacturer's and/or dealer's expense. The manufacturer and/or dealer delivering the water meters will use only the manufacturer and the brand/models specified in the bid.
- b. In case of default by supplier, the City reserves the right to procure the articles or services from other sources and to hold the supplier responsible for any excess direct costs occasioned to the City thereby.

Deleted: at its expense

F.O.B.

All items are to be supplied F.O.B., City of Sacramento, California, full freight allowed.

Payment and Invoicing

Invoices, in duplicate, shall be mailed or delivered to the City of Sacramento, Department of Utilities, Water Distribution 5730 24th Street, Bldg # 22 Sacramento, Ca 95822

Payment Terms

Payment terms are net 30 days unless Contractor offers a prompt payment discount. All prompt payment discounts if taken shall be computed from the date of delivery or completion and acceptance of material, or from date of receipt of invoice, whichever is latest. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery and acceptance of goods and on receipt of Contractor's invoice.

Prices

Prices are maximum for the 1st year of the contract. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

Quantities

The quantity specified is based upon current known requirements and is subject to increase or decrease at the same terms and conditions.

Contract Period

The contract shall be effective for a period of 1 year from the date of award by City Council.

Contract Extension

Any resultant contract may be extended on a year to year basis under the same terms and conditions other than cost, which the parties agree to reasonably adjust prior to any extension. However, in no case shall the contract term extend beyond five (5) years from the date of award of the original contract.

Cooperative Purchasing

The use of any resulting contract may be extended to other government agencies. It shall be understood that all terms and conditions as specified herein shall apply. The City of Sacramento will not be an agent, partner or representative of any other government agency as it relates to this specification; and is not obligated or liable, including, but not limited to, payment for an order placed by any other government agency.

Modification of Contract

The City may order changes in the work herein required and may order extra work in connection with the performance of the Agreement, and the Contractor may comply with such orders, except that:

Deleted: contract

- A. If changes in requirements, reports, or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract will be increased or decreased by such amount as the Contractor and Water Distribution/Field Services Division may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of work.

- B. No order for any alteration, modification, or extra work which will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Procurement Services Manager. No oral statement of any person whatsoever shall in any manner or degrees modify or otherwise affect the terms of this contract, including the requirements of the specifications.



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
01/13/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services South, Inc. Charlotte NC Office 1111 Metropolitan Avenue, Suite 400 Charlotte NC 28204 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (847) 953-5390		
	E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: 570000034906		
INSURED Elster AMCO Water, Inc. 1100 Sw 38th Avenue Ocala FL 34474 USA	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Travelers Property Cas Co of America		25674
	INSURER B: Phoenix Ins Co		25623
	INSURER C: HDI-Gerling America Insurance Co.		41343
	INSURER D:		
	INSURER E:		
INSURER F:			

COVERAGES **CERTIFICATE NUMBER:** 570041420401 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	GENERAL LIABILITY			GLD1053003 SIR applies per policy terms & conditions	01/01/2011	01/01/2012	EACH OCCURRENCE \$1,000,000	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000	
	CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$5,000	
	<input checked="" type="checkbox"/> SIR Per Company						PERSONAL & ADV INJURY \$1,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$2,000,000	
<input checked="" type="checkbox"/> POLICY	<input type="checkbox"/> PRO-JECT	<input type="checkbox"/> LOC				PRODUCTS - COMP/OP AGG \$1,000,000		
A	AUTOMOBILE LIABILITY			TJCAP-473D8458-11 Business Auto	01/01/2011	01/01/2012	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000	
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person)	
	<input checked="" type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident)	
	<input type="checkbox"/> SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)	
	<input checked="" type="checkbox"/> HIRED AUTOS							
<input checked="" type="checkbox"/> NON OWNED AUTOS								
C	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR		CUD1053103 SIR applies per policy terms & conditions	01/01/2011	01/01/2012	EACH OCCURRENCE \$1,000,000	
	<input checked="" type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$1,000,000	
	<input type="checkbox"/> DEDUCTIBLE						Deductible or Retent \$500,000	
	<input checked="" type="checkbox"/> RETENTION							
B A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N	N/A	TC2NUB449J807911 Workers Comp - All OS TRJUB449J808011 Workers Comp (AZ, MA,OR,W)	01/01/2011	01/01/2012	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER	
	ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. EACH ACCIDENT \$1,000,000
								E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

For General Purpose Only.

CERTIFICATE HOLDER

CANCELLATION

Elster AMCO water, Inc. 1100 Sw 38th Avenue ocala FL 34474 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>Aon Risk Services South Inc</i>

NSF International

RECOGNIZES

ELSTER AMCO WATER INC.

Facility: OCALA, FL

AS COMPLYING WITH NSF/ANSI 61 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



NSF/ANSI 61
PRODUCT CERTIFICATION
Certification Program
Accredited by the
American National
Standards Institute



Certification Program
Accredited by the
Standards Council
of Canada

This certificate is the property of NSF International and must be returned upon request. For the most current and complete information, please access NSF's website (www.nsf.org).

April 2, 2009
Certificate# 21751 - 02

David Purkiss, General Manager
Water Distribution Systems



NSF Product and Service Listings

These NSF Official Listings are current as of **Monday, December 12, 2011** at 12:15 a.m. Eastern Time. Please contact [NSF International](http://www.nsf.org) to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://www.nsf.org/Certified/PwsComponents/Listings.asp?Company=21750&Standard=061&>

NSF/ANSI STANDARD 61

Drinking Water System Components - Health Effects

NOTE: Unless otherwise indicated for Materials, Certification is only for the Water Contact Material shown in the Listing. Click here for a list of [Abbreviations used in these Listings](#).

Elster Amco Water Inc.

1100 Southwest 38th Avenue
Ocala, FL 34474-9174
United States
800-874-0890
352-732-4670

Facility : Ocala, FL

Mechanical Devices

Trade Designation	Size	Water Contact Temp	Water Contact Material
Water Meters [1]			
AMCO-C700 Polymer[G]	5/8" x 1/2"	CLD 23	MLTPL
AMCO-C700 Polymer[G]	3/4" x 3/4" x 9"	CLD 23	MLTPL
AMCO-C700 Polymer[G]	3/4" x 1"	CLD 23	MLTPL
AMCO-C700 Polymer[G]	5/8" x 3/4"	CLD 23	MLTPL
AMCO-C700 Polymer[G]	3/4 x 3/4 x 7 1/2"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	5/8" x 1/2"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	2"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	1 1/2"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	1"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	3/4" x 1" long	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	5/8" x 3/4"	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	3/4" x 3/4" long	CLD 23	MLTPL
AMCO-C700 Water Meter[2] [G]	3/4" x 3/4" short	CLD 23	MLTPL

AMCO-M700 Water Meter[1] [G]	[5]	CLD 23	MLTPL
C3000 Combination Meter[G]	2", 3", 4", 6", 8"	CLD 23	MLTPL
C4000[G]	2" - 4"	CLD 23	MLTPL
C700 Polymer (C7R) Water Meter[G]	[4]	CLD 23	MLTPL
T3000 Water Meter[G]	4"	CLD 23	MLTPL
T3000 Water Meter[G]	1 1/2"	CLD 23	MLTPL
T3000 Water Meter[G]	3"	CLD 23	MLTPL
T3000 Water Meter[G]	8"	CLD 23	MLTPL
T3000 Water Meter[G]	6"	CLD 23	MLTPL
T3000 Water Meter[G]	2"	CLD 23	MLTPL
T4000[G]	1 1/2" - 12"	CLD 23	MLTPL
T4000i Coated Cast Iron[G]	1 1/2" - 4"	CLD 23	MLTPL
T4S Strainer[G]	1 1/2" - 8"	CLD 23	MLTPL
TS4000[G]	1 1/2" - 6"	CLD 23	MLTPL
evoQ4 Water Meter[G]	[3]	CLD 23	MLTPL

[1] Only products bearing the NSF Mark are Certified.

[1] Only products bearing the NSF Mark are Certified.

[2] Bronze bodied water meters.

[3] Certified sizes are:

- 1.5" x 13" overall length
- 2" x 10" overall length
- 2" x 15 1/4" overall length
- 2" x 17" overall length
- 3" x 12" overall length
- 4" x 14" overall length
- 6" x 18" overall length
- 8" x 20" overall length
- 10" x 18" overall length
- 12" x 20" overall length

[4] Certified for the following sizes:

- 5/8" x 1/2"
- 5/8" x 3/4"
- 3/4B
- 5/8" x 1/2" with BFP
- 5/8" x 3/4" with BFP
- 3/4B with BFP
- 3/4" x 3/4" x 7.5"
- 3/4" x 3/4" x 7.5" with BFP
- 3/4" x 3/4" x 9"
- 3/4" x 3/4" x 9" with BFP
- 3/4" x 1" x 9"
- 3/4" x 1" x 9" with BFP

BFP indicates meter with backflow preventer.

[5] Sizes include:

- 5/8" x 1/2"
- 5/8" x 3/4"
- 3/4" x 3/4" x 9"
- 3/4" x 3/4" x 7.5"
- 3/4" x 1"
- 1"
- 1.5" FLG
- 1.5" NPT
- 2" FLG
- 2" NPT

[G] Product also Certified to NSF/ANSI 61, Annex G and is in compliance with California's Health & Safety Code Section 116875 (commonly known as AB1953) and Vermont Act 193. Weighted average lead content <=0.25%; Solder and flux lead content <=0.2%.

Facility : Isabela, Puerto Rico

Mechanical Devices

Trade Designation	Size	Water Contact Temp	Water Contact Material
Water Meters			
V100 Water Meter	[1]	CLD 23	MLTPL
V100-T Water Meter	[1]	CLD 23	MLTPL

[1] Certified for the following sizes:

15 x 115 mm (1/2")
 15 x 190 mm (1/2")
 20 x 115 mm (5/8")
 20 x 165 mm (5/8")
 20 x 190 mm (5/8")

Number of matching Manufacturers is 1

Number of matching Products is 30

Processing time was 0 seconds

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SM700

SmartMeter™

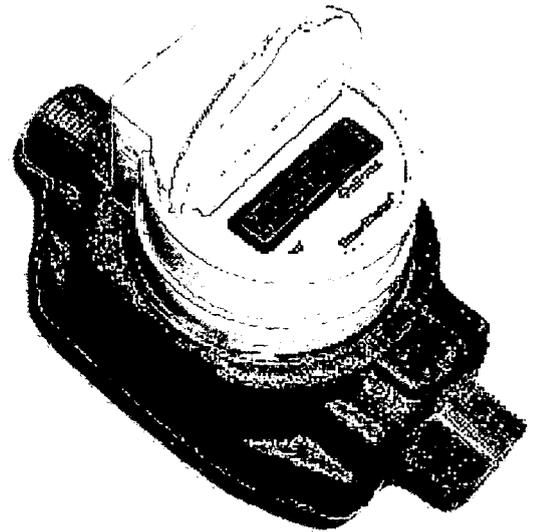
Solid State Electronic Water Meters

The Elster AMCO Water SmartMeter™ water meter addresses the global need for economic smart metering solutions. The no-moving-parts SM700 water meter provides accurate measurement of water flows throughout the entire product lifetime using tried and tested technology.

The SmartMeter SM700 is not affected by the wear and subsequent accuracy problems that are caused by sand and grit. Extended operational life, along with a replaceable battery option on the SM700 ensures that the SmartMeter guarantees excellent whole life cost savings.

The unique air detection system prevents measurement of air flow, which can occur at high points in the water network and at the start of water delivery.

The SmartMeter SM700 is available as a visual read meter or in a fully AMR-enabled format using inductive pads, radio communications device or any form of automatic meter reading technology (AMR device) connecting to the direct read interface through the encoded or pulse meter application. ►



Features

- Uses fluidic oscillation technology
- Clear LCD display and / or advanced communication technology versions available
- Replaceable battery

Benefits

- No moving parts to jam or wear - unaffected by grit, sand or particulates
- Does not measure air
- Retains accuracy throughout its entire lifetime
- Outlasts more conventional meters
- Economically brings smart technology benefits to metering systems — SmartMeter features ensure reductions in whole life costs
- Visual read or AMR

Extended Data Features

- Tamper / fraud / leakage / air / no flow detection
- Meter diagnostics
- High resolution measurement by volumetric unit

Approvals

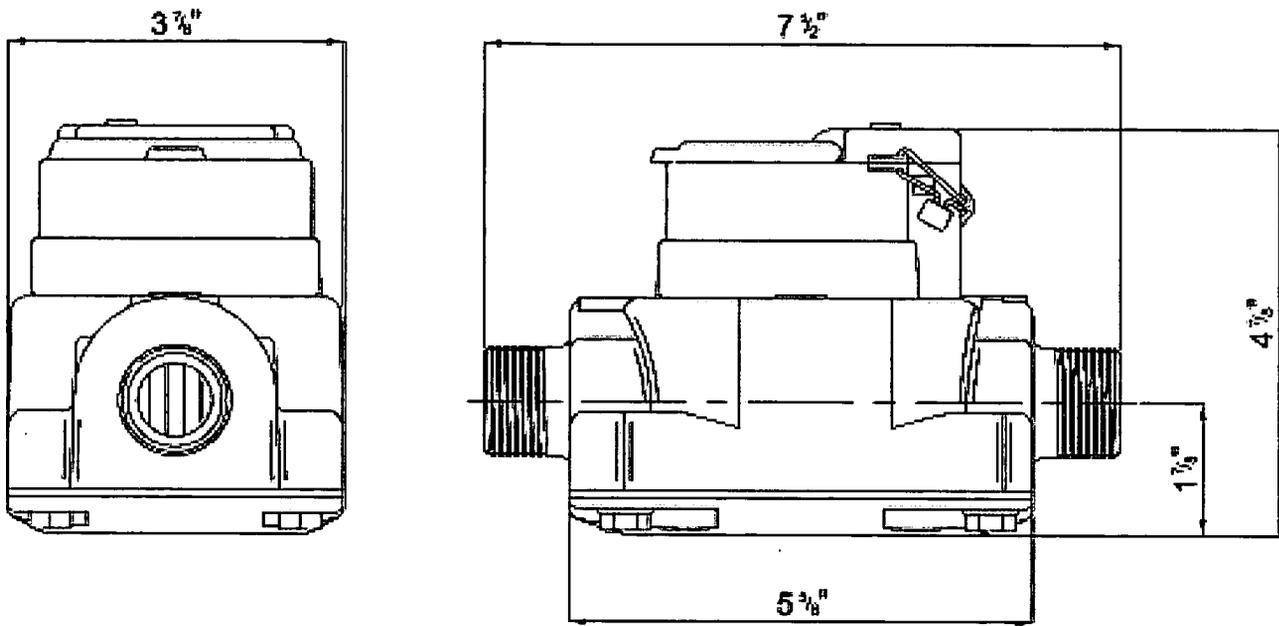
- Certified to NSF61
- ISO 9001 manufacturing certification
- ISO 14001 environmental compliance certification
- Exceeds requirements of AWWA Standard C713

- Accurate meter data - No under-reporting of consumption at a cost to the water company.
- No lost revenue through progressive loss of accuracies - SmartMeter retains its accuracy for the whole product life.
- Replaceable battery extends the life of the meter - no capital cost to replace meters.
- AMR-compatible meters allow actual meter readings to be taken electronically - avoiding estimations and manual input errors.

SM700 Technical Specifications								
Model	Thread Size (NPSM)	Meter Length	Weight (lb)	Ingress Protection	Ambient Temp (°F)	Max Water Temp (°F)	Display Orientation	Battery Life (years)
SM700 (20gpm) 5/8"	3/4"	7 1/2"	4.2	IP68	14°-185°	140°	90° to flow direction	>15 *
SM700 (20gpm) 5/8" x 3/4"	1"	7 1/2"	4.2	IP68	14°-185°	140°	90° to flow direction	>15 *
SM700 (30gpm) 3/4"	1"	7 1/2"	4.2	IP68	14°-185°	140°	90° to flow direction	>15 *
*Replaceable battery								
Due to our policy of continual improvement, Elster AMCO Water reserves the right to change the specification without prior notice.								

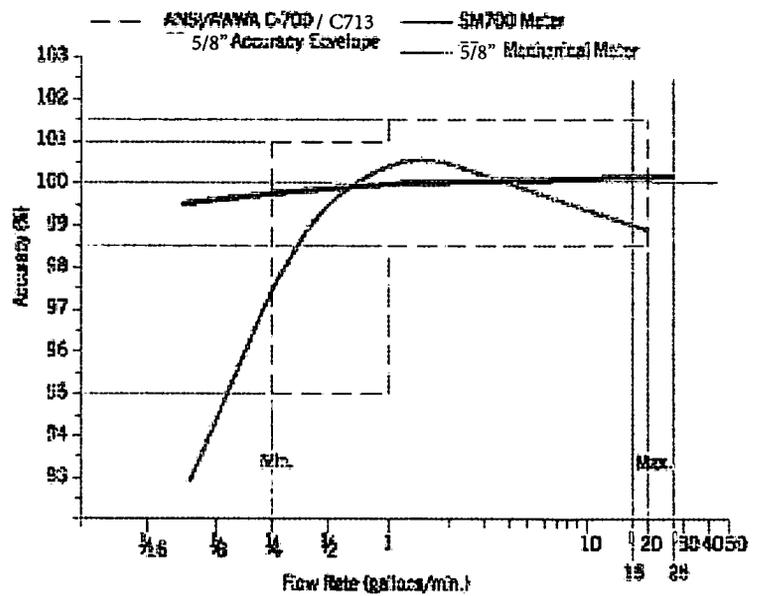
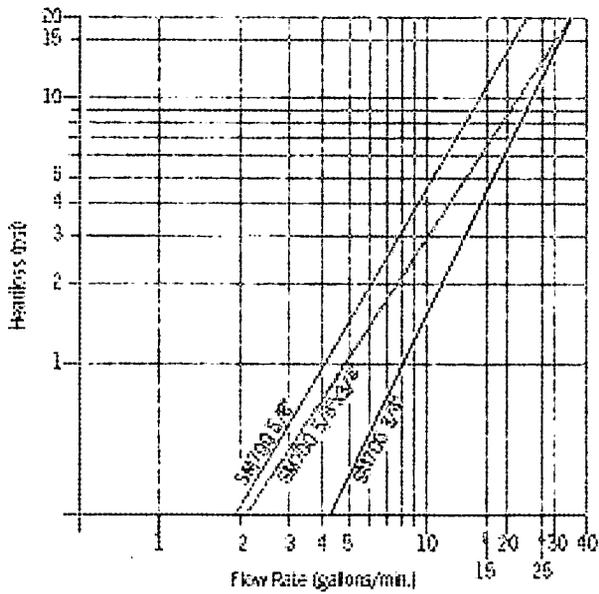
Performance Data - SM700 (All Models)	20 gpm 5/8"	20 gpm 5/8" x 3/4"	30 gpm 3/4"
Pressure Rating (psi)	150	150	150
Pressure Loss at 10 gallons / minute (psi)	<4.2	<3	<1.5
Pressure Loss at 20 gallons / minute (psi)	<15	<9	<6.5
Pressure Loss at 30 gallons / minute (psi)	na	na	<15
Normal Flow Limits (gallons / minute)	1 - 20	1 - 20	2 - 30
Low Flow Accuracy >95% (gpm)	1/8	1/8	1/4
Starting Flow (gallons / minute)	<0.1	<0.1	<0.15

	Minimum display indication	Maximum display indication
Gallons	0.01	9,999,999.99
Cubic Feet	0.001	999,999.999
Cubic Meters	0.0001	99,999.9999



SM700 Head Loss Curve

SM700 Meter Accuracy



About Elster AMCO Water, Inc.

Located in Ocala, Florida, Elster AMCO Water is part of Elster, the world's largest metering and smart metering system solution company. Elster AMCO Water is an industry leader in the development and implementation of innovative metering and system solutions and is committed to delivering superior customer service, quality products, solutions and services to the water utility industry.

About Elster

Elster has delivered over 1.5 million smart metering devices worldwide with systems located in North America, Central America, Europe, Australia, New Zealand and the Caribbean. Elster smart metering systems allow utilities to implement energy conservation measures, demand response programs, smart grid initiatives, and smart home solutions as well as achieve operational efficiencies resulting in significant value creation across the utility enterprise. Elster has over 7,500 staff and operations in 38 countries, focused in North and South America, Europe, and Asia.

United States
Elster AMCO Water, Inc.
1100 SW 38th Avenue
Ocala, FL 34474
T 800 874 0890
F 352 368 1950
watermeters@us.elster.com
www.elsteramcowater.com

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The policy of Elster AMCO Water, Inc. is one of continuous improvement and the right is reserved to modify the specifications without notice.

Warranty for SM700 Fluidic Oscillator Water Meters

Scope of Warranty

The warranties below apply exclusively to SM700 fluidic oscillator water meters ("SM700 Meters") manufactured by Elster AMCO Water, Inc. ("Elster AMCO Water"), that are purchased and shipped on or after June 1, 2010, when used in potable water below 120° F in accordance with Elster AMCO Water's published Technical Specifications and when installed, operated and maintained in accordance with applicable instructions, both as in effect as of the date of Elster AMCO Water's shipment of such meters. This warranty applies exclusively to the original utility purchaser ("Customer") that purchases such SM700 Meters directly from either Elster AMCO Water or an Elster AMCO Water authorized distributor ("Distributor").

Materials and Workmanship Warranty

If installed, operated and maintained as described above, Elster AMCO Water warrants SM700 Meters covered by this warranty to be free from defects in materials and workmanship for a period of the earlier of 12 months after installation or 18 months after shipment by Elster AMCO Water or its authorized Distributor.

Case Integrity Warranty

If installed, operated and maintained as described above, Elster AMCO Water warrants that the main case of the SM700 Meter will retain its structural integrity for a period of 15 years from date of Elster AMCO Water's shipment. Please note the main case of the SM700 Meter is an integral part of the water meter and does not allow for repair or replacement of the such meter's measuring unit

Register Functionality Warranty

If installed, operated and maintained as described above, Elster AMCO Water warrants the SM700 Meter covered by this Register Functionality Warranty will function for 5 years from date of manufacture by Elster AMCO Water, provided the register model is appropriate to installation environment as specified by Elster AMCO Water.

New Meter Accuracy Warranty

If installed, operated and maintained as described above, Elster AMCO Water warrants that SM700 Meters covered by this New Meter Accuracy Warranty will meet or exceed AWWA new meter accuracy standards, per AWWA specification C713, until the first occurring event as specified below and as applicable to the size referenced below:

- 5/8" 5 years from date of Elster AMCO shipment or registered usage of 2,500,000 U.S. gallons; or
- 3/4" 5 years from date of Elster AMCO shipment or registered usage of 2,500,000 U.S. gallons;

Remedies

If any SM700 Meter covered by the warranties above does not conform to the terms of the applicable warranty, then Elster AMCO Water shall, at its option, repair or replace such meter without additional charge to the Customer. The Customer is responsible for and the warranty is subject to the provision of written notice by Customer to Elster AMCO Water of any warranty issue or claim promptly following discovery thereof, the removal by Customer of the meter in question, the shipment of such meter, including the payment of shipping costs, by Customer to the service center designated by Elster AMCO Water and the inspection of such meter and confirmation by Elster AMCO Water of the non-conformity. Elster AMCO Water shall not be liable for any costs associated with the removal or installation of any meters or products.

Extended Warranty Period

After the expiration of the five (5) year warranty period above but before the tenth anniversary of the date of shipment from Elster AMCO Water, for any SM700 Meter that fails to operate or to meet AWWA new meter accuracy standards per AWWA specification C713, until the first occurring event as specified below and as applicable to the size referenced below:

- 5/8" 10 years from date of Elster AMCO shipment or registered usage of 5,000,000 U.S. gallons; or
- 3/4" 10 years from date of Elster AMCO shipment or registered usage of 5,000,000 U.S. gallons;

Elster AMCO Water will offer Customer the option of purchasing, at a discount, a replacement SM700 Meter with substantially similar features in accordance with the following table with the Customer paying the percentage of the then applicable list price set forth on the column on the right that corresponds to the year from the date of shipment from Elster AMCO Water in which a claim is made hereunder set forth in the column on the left below:

Years from Shipment	Percentage Discount of Current List Price to be Paid by Customer
Year 6	90%
Year 7	80%
Year 8	70%
Year 9	60%
Year 10	50%
Year 11	40%
Year 12	30%
Year 13	20%
Year 14	10%
Year 15	5%

New Meter Accuracy Warranty Claims

If a SM700 Meter is claimed to breach the New Meter Accuracy Warranty as stated herein, the Customer shall promptly provide written notice to Elster AMCO Water and submit a certified copy of test results at the time the meter is returned to Elster AMCO Water that evidence the breach of this warranty. Customer testing of the meter in question shall be performed with a test meter or test equipment of equal or greater accuracy and have an up to date calibration certification that is traceable to National Institute of Standards and Technology (NIST). This warranty as to accuracy shall be void if an examination of the Customer's water supply shows an unusually adverse effect on metering equipment. If foreign material causes the meter not to perform appropriately, all such material shall be removed prior to the Customer conducting the test. If the SM700 Meter is returned to Elster AMCO Water without a copy of the test results, or if the Elster AMCO Water test shows such meter to meet current AWWA standards, then the Customer may be charged a nominal testing fee by Elster AMCO Water.

Limits of Liability

The warranties set forth herein shall not apply to any failure, non-conformity or defect of a meter or component thereof caused by aggressive water conditions, foreign matter in the environment, alteration, vandalism, theft, mishandling, repair by unauthorized personnel, misuse, battery defect, installation errors or installation not in accordance with Elster AMCO Water's installation instructions, mis-application or other use not as described above, acts of God, the negligent acts or omissions or malfeasance of Customer or any third party, damage to a meter caused by Customer or any third party or other conditions beyond the control of Elster AMCO Water.

The warranties herein shall be void if an examination of the Customer's water supply shows an unusually adverse effect on metering equipment. No claim of breach of warranty shall constitute a cause for cancellation of a contract or agreement between Elster AMCO Water and Customer. Products or components thereof supplied by Elster AMCO Water, but manufactured by others are warranted only to the extent of the manufacturer's warranty, and only the remedies, if any, provided by the manufacturer will be allowed. For the warranties herein to be valid, the applicable SM700 Meter cannot be connected and interrogated by equipment that (i) is not approved by Elster AMCO Water for use with SM700 Meters, and (ii) interrogates the SM700 Meter in question more than once per hour. For any warranty provided herein to be valid, any funds due and owing to Elster AMCO Water must be paid in accordance with the applicable terms of payment at the time any claim is made by Customer. Elster AMCO Water disclaims any liability hereunder for failures, non-conformities, interference or defects caused by ground clutter or other environmental conditions that impair, hinder or otherwise adversely impact SM700 meter operation.

Any description of a Elster AMCO Water product, including the SM700 Meter whether in writing or made orally by Elster AMCO Water or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee or warranty unless confirmed to be such in writing by Elster AMCO Water.

The laws of the State of Florida, excluding its conflicts or choice of law rules, shall exclusively govern the terms hereof. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

THE FOREGOING EXPRESS WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES WHATSOEVER, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER ASSUMES SOLE RESPONSIBILITY FOR DETERMINING THAT THE PRODUCTS, INCLUDING THE SM700 METERS, PROVIDED BY ELSTER AMCO WATER OR ANY DISTRIBUTOR ARE SUITABLE FOR THEIR INTENDED APPLICATION AND USE.

NOTWITHSTANDING ANYTHING HEREIN, (A) CUSTOMER'S EXCLUSIVE REMEDY AND ELSTER AMCO WATER'S AND ITS DISTRIBUTORS' SOLE LIABILITY HEREUNDER OR RELATING TO ANY PRODUCT WHETHER IN TORT (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT AND (B) IN NO EVENT SHALL ELSTER AMCO WATER AND/OR ITS DISTRIBUTORS BE LIABLE FOR INCIDENTAL, SPECIAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, OR DELAYS AND CLAIMS OF CUSTOMERS OR OTHER THIRD PARTIES.

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1100 SW 38th Avenue
Ocala, Florida 34474

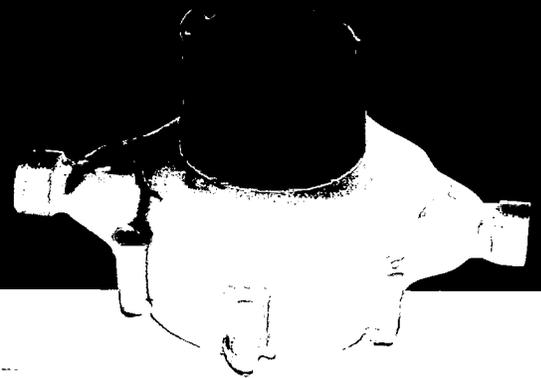
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SM700-UG-200/11-10

C700 Positive Displacement Meter

Waterworks or Low-Lead Bronze, Magnetic Drive, External Threaded Spuds

Size: 1"



Size:	1"
95%-101% Accuracy GPM	3/4
98.5% -101.5% Accuracy GPM	3-50
Continuous Flow GPM	25
Maximum Flow GPM	50
Operating Pressure psi	150
Operating Temperature °F	120

Sweep Hand Registers:

US Gallons	10
Cubic Feet	1
Cubic Meters (Canada)	1/10
Cubic Meters (Intl.)	1/10

Capacity of Register (millions):

US Gallons (millions)	10
Cubic Feet (millions)	10
Cubic Meters (Canada)	1/10
Cubic Meters (Intl.)	1

Register Type:

Permanently sealed direct reading

Materials:

Main Case	Standard waterworks or optional low-lead Bronze
Bottom Plate Options	Waterworks or low-lead Bronze or Cast Iron
Bottom Gasket-Liner	Nitrile
Body Bolts	Stainless Steel
Measuring Chamber	Compounded Polymer
Division Plate	Loaded Nylon
Piston	High Impact Polymer
Thrust Bearing Insert	Loaded Nylon
Driving Bar	Loaded Nylon
Strainer	Polypropylene
Register Can	90% Copper Alloy
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze

Operation. The C700 is an oscillating piston style, positive displacement water meter. The product utilizes a piston that water use rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by a magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing.

Compliance to Standards. The C700 fully complies with American Water Works Association Standard C700, latest revision, and is California Department of Weights and Measures approved. C700 low-lead bronze models are NSF-61 certified and comply with California Proposition 65.

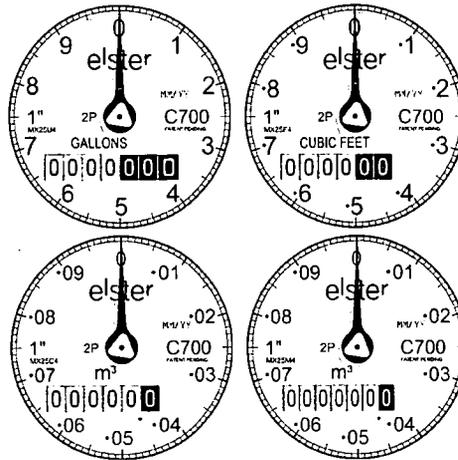
Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal, vertical or inclined lines.

Application. The meter is for use only with POTABLE COLD WATER up to 120°F (50°C) and

working pressures up to 150 psi. The meter will register accurately to 100% ± 1 1/2% within the normal flows. Accuracy tests are made before shipment, so no adjustments need to be made before installation.

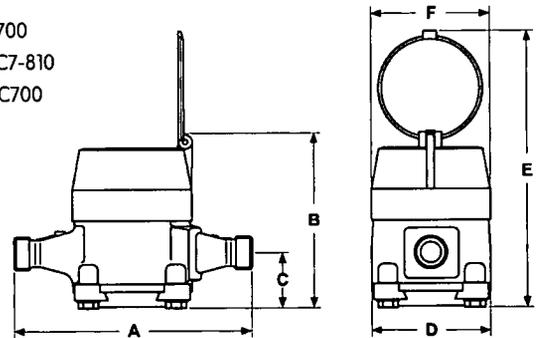
Construction. The meter consists of a straight through-flow main case, dual inlet measuring chamber, vertically grooved oscillating piston, high capacity strainer, removable bottom plate, full rubber liner, body bolts with integral washers and a magnetically driven register. The main case is cast in waterworks or low-lead bronze with raised characters designating model, size and direction of flow. Maincase bottom plates are available in a choice of waterworks or low-lead bronze or, if frost protection is desired, in cast iron. The 2-piece snap-fit measuring chamber is of a top and bottom inlet, side output design and features a unique self-flushing sediment well. Other features include a removable, contoured division plate, captive drive bar and high torque magnet complete with a nylon bushing. The flow-stream balanced piston has a unique thrust bearing insert and features a Turbulence Seal™ system which passes debris while sustaining the most linear accuracy curve in the industry. Each register is secured to the main case with a tamperproof plug to eliminate tampering.

Register. The register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 5 mm true tempered glass lens is secured with an "L" shaped gasket, then roll sealed to produce a permanently sealed design. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra-thin center sweep hand does not interfere with meter reading, and the 1:1 piston ratio low-flow indicator gives visual indication of plumbing leaks. For accurate meter testing, 100 clear graduations appear at the register's circumference.



Register Reading Options. C700 meters are available with Absolute Encoder, Generator and Digital register options to provide water usage output to the entire spectrum of meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Refer to the following documents for more information:

- Absolute Encoder Register EC-C700
- Generator Register RR-C7-810
- Digital Register DR-C700



Dimensions and Net Weights

Meter Size	Dimensions (Inches)					Weight (lbs.)
	A	B	C	D	E	
1"	10 3/4	6 5/8	2 1/8	6 15/16	9 3/4	3 3/4

Magnetic Drive. The magnetic drive design facilitates coupling between the measuring chamber and the external register. The coupling is absolute at all rated flows.

Connections. Meter casing spuds have external straight threads conforming to ANSI B.1.20.1. Bronze coupling nuts and tailpieces are available. Tailpieces have external taper pipe threads conforming to ANSI B.1.20.1. Their lengths and thread sizes are as specified by AWWA Standards.

Maintenance. The measuring chamber assembly can be removed, repaired or replaced. Pretested measuring chamber assemblies are available for exchange or purchase, and spare parts are available from our central warehouse or designated regional locations. Elster AMCO Water staffs and operates a repair facility at its U.S. manufacturing plant in Ocala, Florida.

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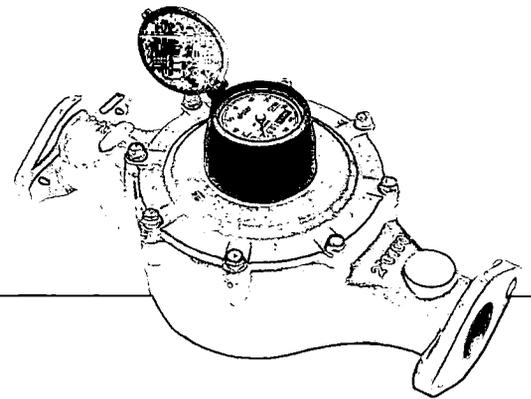
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The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.

C700 Positive Displacement Meter

Waterworks or Low-lead Bronze, Magnetic Drive, Flanged or NPT Ends

Sizes 1 1/2" and 2"



Sizes:	1 1/2"	2"
<u>Accuracy (GPM):</u>		
95% - 101%	1 1/2	2
98.5%-101.5%	5-100	8-160
Continuous Flow GPM	50	80
Maximum Flow GPM	100	160
Operating Pressure psi	150	150
Operating Temperature °F	120	120
<u>Sweep Hand Registers:</u>		
US Gallons	100	100
Cubic Feet	10	10
Cubic Meters (Canada)	1/10	1
Cubic Meters (Intl.)	1/10	1/10
<u>Capacity of Register (millions):</u>		
US Gallons	100	100
Cubic Feet	10	10
Cubic Meters (Canada)	1/10	1
Cubic Meters (Intl.)	1	1

Register Type: Permanently sealed direct reading

<u>Materials:</u>	
Main Case	Standard waterworks or optional low-lead Bronze
Top Cover	Standard waterworks or optional low-lead Bronze
Body O-ring	Neoprene Rubber
Body Bolts	Stainless Steel
Measuring Chamber	Thermoplastic
Division Plate	Loaded Nylon
Piston	High Impact Polymer
Thrust Bearing Insert	Loaded Nylon
Driving Bar	Glass Bead Loaded Nylon
1 1/2" Strainer	Polypropylene
2" Strainer	Stainless Steel
Register Can	90% Copper Alloy
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze
Test Plugs	1" NPT test plug

Operation. The C700 is an oscillating piston style, positive displacement water meter. The product utilizes a piston that water use rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by a magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing.

Compliance to Standards. The C700 fully complies with American Water Works Association Standard C700, latest revision, and is California Department of Weights and Measures approved. C700 low-lead bronze models are NSF-61 certified and comply with California Proposition 65.

Installation. The meter must be installed in a clean pipe line, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines.

Application. The meter is for use only with POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter



will register between 98.5% and 101.5% at normal and high flows and between 95% and 101% at the AWWA specified low flow. Accuracy tests are made before shipment, so no adjustments need to be made before installation.

Construction. The meter consists of a main case, an oscillating piston measuring chamber, a strainer, a bolted top plate and O-ring, and a magnetically driven register assembly. The main case is cast in bronze with raised characters showing model, size and direction of flow. The measuring chamber is a bottom-in and side-out design and consists of the measuring chamber with division plate and thrust roller insert, the piston, and chamber top assembly with drive bar and magnet. The main case and the bronze top plate are assembled with an O-ring gasket and bolts threaded into the body. A test port is available as an option. The test-port hole is threaded 1" NPT, fitted with a 1" NPT plug. Each register assembly is secured to the meter with a tamperproof plug, is protected by a hinged lid and is positioned over the inlet throat.

Register. The register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 5 mm true tempered glass lens is secured with an "L" shaped gasket, then roll sealed to produce a permanently sealed design. To assure easy reading, the totalizer wheels are large and color coded. The applicable size,

model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra-thin center sweep hand does not interfere with meter reading, and the 1:1 piston ratio low-flow indicator gives visual indication of plumbing leaks. For accurate meter testing, 100 clear graduations appear at the register's circumference.

Maintenance. The measuring chamber assembly can be removed, repaired or replaced without removing the main case from the service line. Pretested measuring chamber assemblies are available for exchange or purchase, and spare parts are available from our central warehouse or designated regional locations. Elster AMCO Water Metering Systems staffs and operates a repair facility at its U.S. manufacturing plant in Ocala, Florida.

Register Reading Options. C700 meters are available with Absolute Encoder, Generator and Digital register options to provide water usage output to the entire spectrum of meter reading systems, giving flexibility to utilities

implementing or upgrading reading technologies. Refer to the following documents for more information:

Absolute Encoder Register	EC-700
Generator Register	RR-C7-810
Digital Register	DR-C700

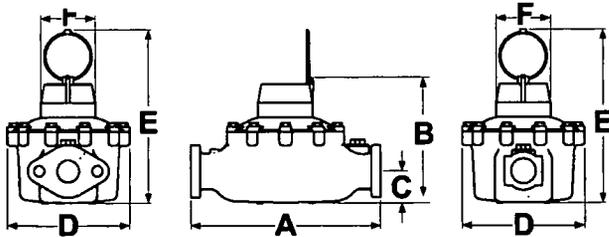
Magnetic Drive. The magnetic drive design facilitates coupling between the measuring chamber and the external register. The coupling is absolute at all rated flows.

Connections. The meter is available with two-bolt oval, internal threaded end connections. Both bronze and cast iron oval companion flanges are available. The companion flanges are faced, drilled and tapped, 1 1/2" or 2" as required, with ANSI B.1.20.1 internal taper pipe thread. Also available are bronze coupling nuts and tailpieces for threaded end meters. Both coupling nuts and tailpieces have external taper pipe threads conforming to ANSI B.1.20.1. Their lengths and thread sizes are as specified by AWWA Standards.

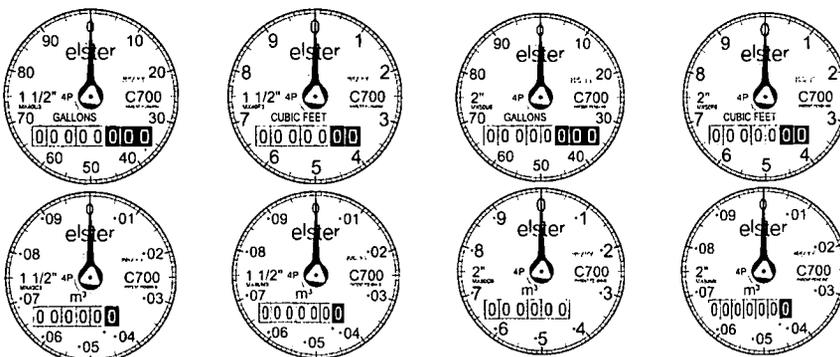
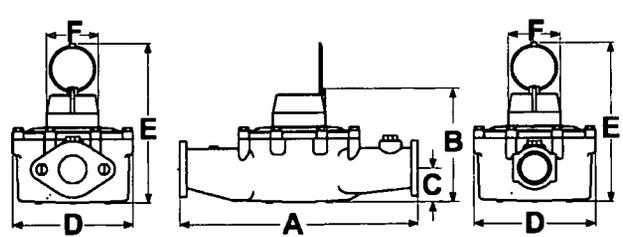
Dimensions & Net Weights

Meter Size	Dimensions (Inches)						Weight (lbs.)	Bolt Hole Dia.
	A	B	C	D	E	F		
1 1/2" Oval (Flanged)	13	8 7/8	2 1/8	8 1/2	11 3/8	3 3/4	23.7	3/4"
1 1/2" Threaded	12 5/8	8 7/8	2 1/8	7 1/2	11 3/8	3 3/4	21.7	
2" Oval (Flanged)	17	8 1/8	1 3/4	8 3/4	1 3 3/4	3 3/4	38.7	3/4"
2" Threaded	15 1/4	8 1/8	2 15/16	8 3/4	11	3 3/4	36.7	

C700 1 1/2":



C700 2":



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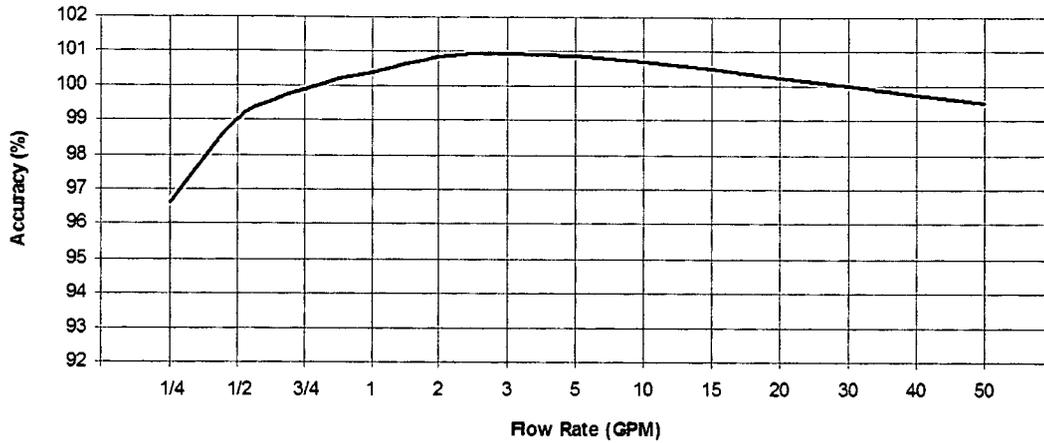
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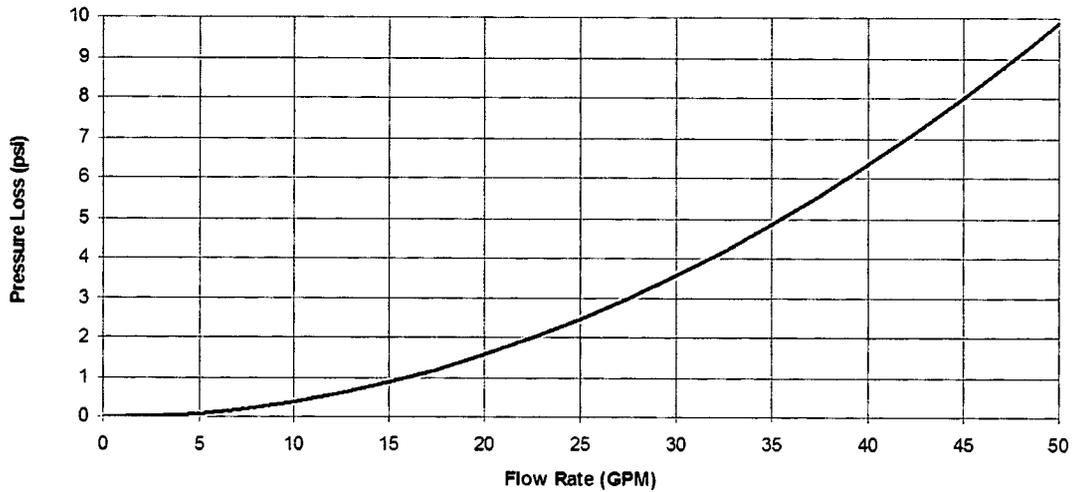
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C700 Positive Displacement Meters 1"

ACCURACY



PRESSURE LOSS



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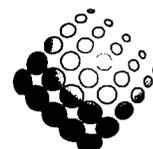
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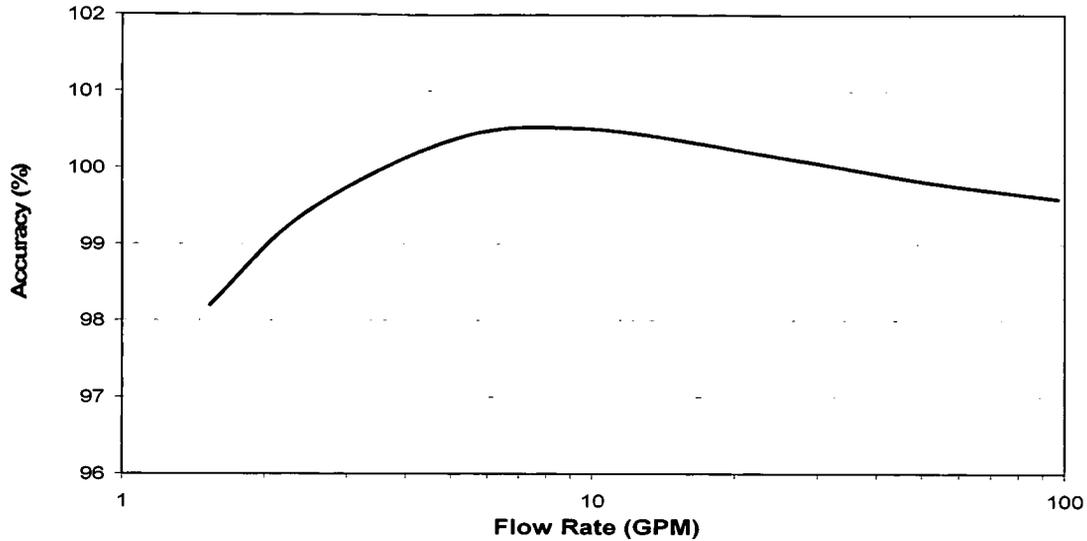


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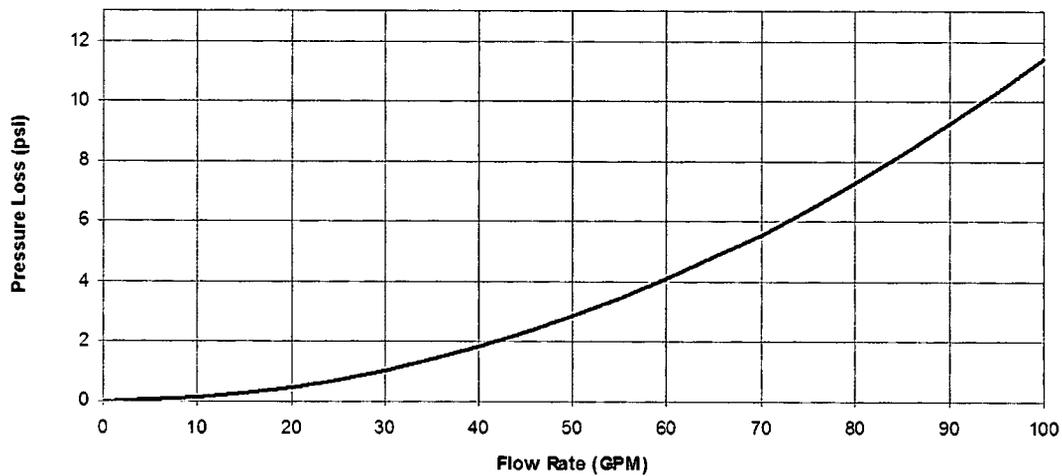
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C700 Positive Displacement Meters 1 1/2"

ACCURACY



PRESSURE LOSS



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1100 SW 38th Avenue
Ocala, FL 34474
United States

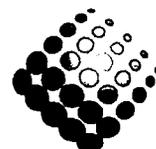
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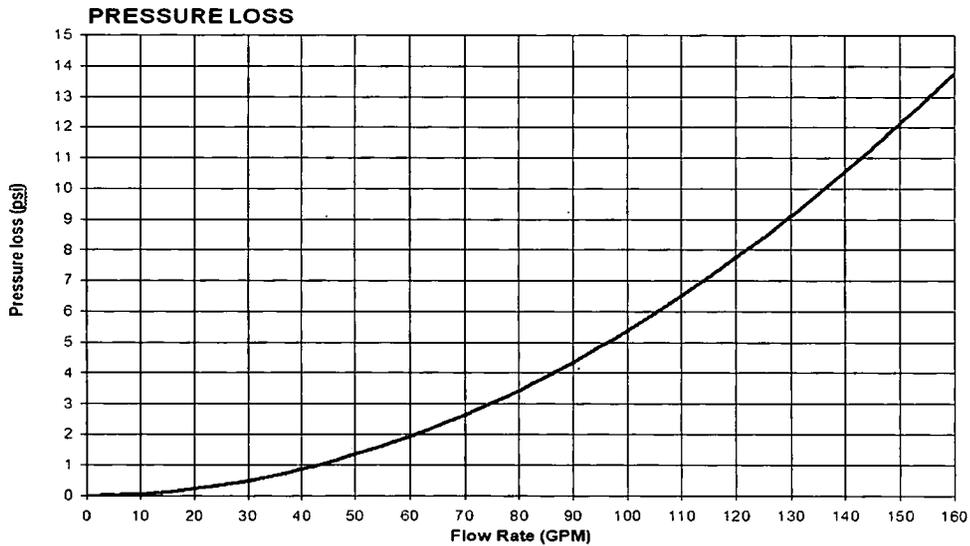
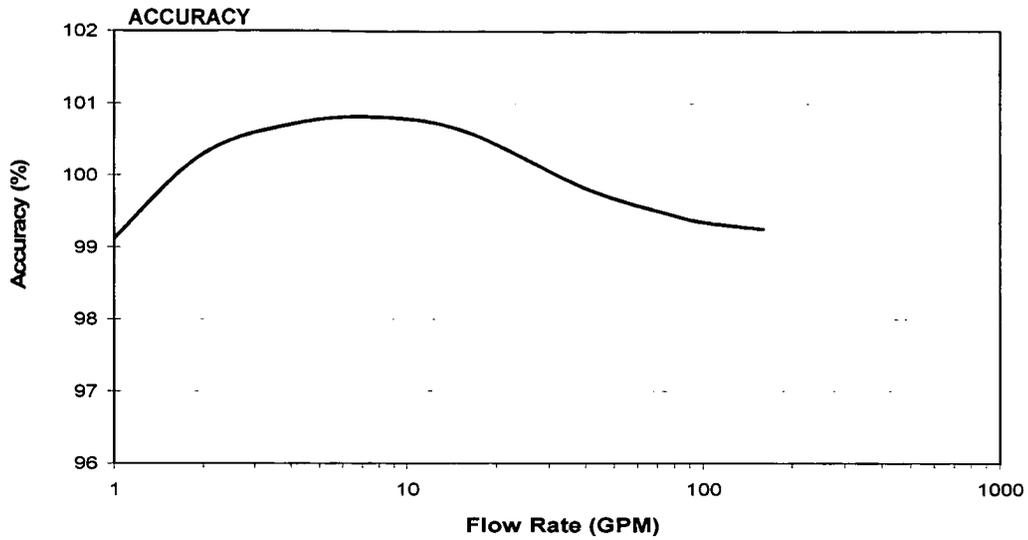
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C700 Positive Displacement Meters 2"



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Utility Guarantee for Waterworks or Low-Lead Bronze Case C700 Water Meters

Scope of Guarantee

This guarantee applies exclusively to Elster AMCO Water waterworks or low-lead bronze case C700 water meters and direct read or generator registers purchased therewith shipped on or after July 1, 2007, when used in potable water below 120° F in accordance with Elster AMCO'S published Technical Specifications and when installed in accordance with ELSTER AMCO'S published installation instructions, both as in effect as of the date of Elster AMCO'S shipment of the product. This guarantee applies exclusively to the original utility purchaser when product is purchased from either Elster AMCO or an Elster AMCO-authorized distributor ("Business Partner").

Materials and Workmanship

If used and installed as described above, Elster AMCO guarantees product covered by this guarantee to be free from defects in materials and workmanship for a period of 12 months after installation or 18 months after shipment by Elster AMCO or its authorized Business Partner, whichever occurs first.

Case Integrity

If used and installed as described above, Elster AMCO guarantees that the waterworks or low lead bronze main cases of C700 meters will retain their structural integrity for a period of 25 years from date of Elster AMCO'S shipment.

Register Functionality

If used and installed as described above, Elster AMCO guarantees that its direct read registers will function for 25 years from date of manufacture by Elster AMCO, and guarantees that its pulse generator registers will function for 15 years from date of manufacture by Elster AMCO, provided they are installed indoors and not subjected to flooding during the guarantee term. Encoder and Digital register warranties are specified separately, in Elster AMCO's documents Enc-UG-200 and Dig-UG-200, respectively.

New Meter Accuracy

If used and installed as described above, Elster AMCO guarantees that C700 meters covered by this guarantee will meet or exceed AWWA new meter accuracy standards, per AWWA specification C700-02, until the first occurring event as specified below:

5/8"	5 years from date of Elster AMCO shipment or registered usage of 750,000 U.S. gallons;
3/4"	5 years from date of Elster AMCO shipment or registered usage of 750,000 U.S. gallons;
1"	5 years from date of Elster AMCO shipment or registered usage of 1,100,000 U.S. gallons;
1 1/2"	5 years from date of Elster AMCO shipment or registered usage of 1,600,000 U.S. gallons;
2"	5 years from date of Elster AMCO shipment or registered usage of 2,100,000 U.S. gallons;

Repaired Meter Accuracy

If used and installed as described above, ELSTER AMCO further guarantees that C700 meters covered by this guarantee will meet or exceed repaired meter accuracy standards, as published in AWWA Manual M-6 Fourth Edition (1999), Chapter 5, Table 5.3, until the first occurring event as specified below:

5/8"	15 years from date of Elster AMCO shipment or registered usage of 2,500,000 U.S. gallons;
3/4"	15 years from date of Elster AMCO shipment or registered usage of 2,500,000 U.S. gallons;
1"	15 years from date of Elster AMCO shipment or registered usage of 3,250,000 U.S. gallons;
1 1/2"	15 years from date of Elster AMCO shipment or registered usage of 5,600,000 U.S. gallons;
2"	15 years from date of Elster AMCO shipment or registered usage of 10,400,000 U.S. gallons.

Extended Low Flow Accuracy

If used and installed as described above, ELSTER AMCO further guarantees that C700 meters covered by this guarantee will meet or exceed low flow accuracy, as specified in AWWA Specification C700-02, until the first occurring event as specified below:

5/8"	5 years from date of Elster AMCO shipment or registered usage of 675,000 U.S. gallon;
3/4"	5 years from date of Elster AMCO shipment or registered usage of 675,000 U.S. gallons;
1"	5 years from date of Elster AMCO shipment or registered usage of 1,100,000 U.S. gallons;
1 1/2"	5 years from date of Elster AMCO shipment or registered usage of 1,440,000 U.S. gallons;
2"	5 years from date of Elster AMCO shipment or registered usage of 1,890,000 U.S. gallons.

Claims

Any meter or register covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of Elster AMCO, without additional charge to the customer. The customer is responsible for removing the meter or register from service, returning it to the factory service center designated by Elster AMCO, providing a written or electronic (facsimile or e-mail) claim notice, and for freight costs to and from the service center. Customer is also responsible for reinstalling repaired or replaced product.

Limits of Liability

This guarantee does not apply to meters or registers damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Elster AMCO'S installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of Elster AMCO. This guarantee is null and void if a meter is altered by the addition of any register not manufactured by or on behalf of Elster AMCO for its specific model and size. If a meter is claimed to breach the accuracy guarantees as stated herein, the customer shall submit a certified copy of the test results at the time the meter is returned to Elster AMCO. The guarantees as to accuracy shall be void if an examination of the customer's water supply shows an unusually adverse effect on metering equipment.

Any description of product, whether in writing or made orally by Elster AMCO or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee unless confirmed to be such in writing by Elster AMCO.

The laws of the State of Florida, excluding its conflicts of law rules shall exclusively govern this guarantee. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

THE FOREGOING EXPRESS GUARANTEE IS IN LIEU OF ALL OTHER GUARANTEES OR WARRANTIES WHATSOEVER, WHETHER EXPRESS, IMPLIED OR STATUTORY (EXCEPT FOR WARRANTY OF TITLE), INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CUSTOMER'S EXCLUSIVE REMEDY AND ELSTER AMCO'S AND ITS BUSINESS PARTNERS' SOLE LIABILITY ON ANY CLAIM, WHETHER IN TORT (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, FOR ANY METER OR REGISTER WHICH FAILS TO MEET THE TERMS OF THE GUARANTEE STATED ABOVE, SHALL BE LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE. IN NO EVENT SHALL ELSTER AMCO AND/OR ITS BUSINESS PARTNERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, DELAYS AND CLAIMS OF CUSTOMERS OF THE CUSTOMER OR OTHER THIRD PARTIES.

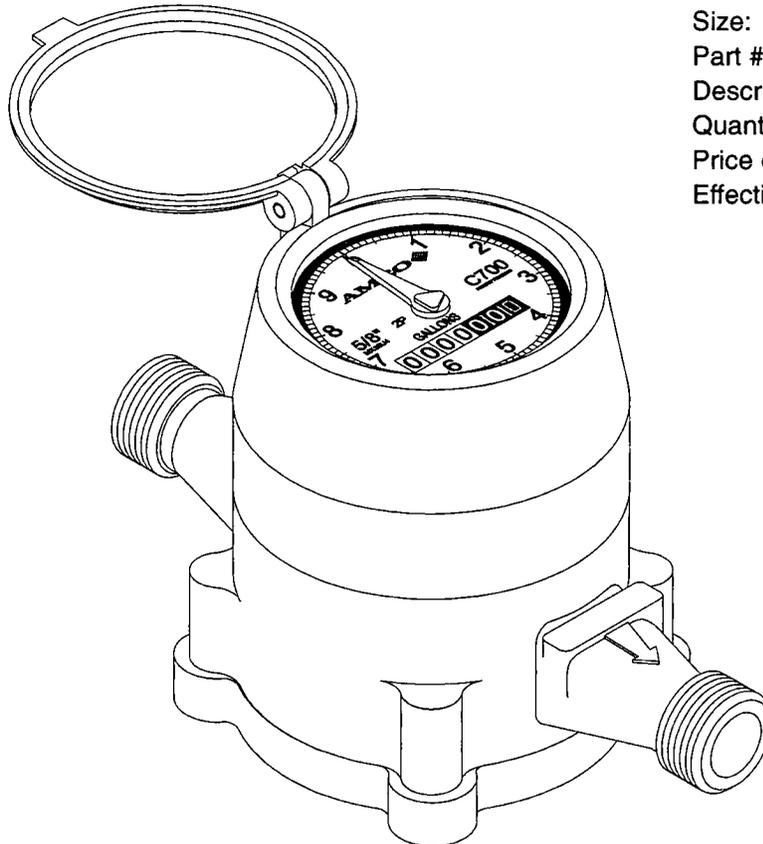
Elster AMCO Water, Inc.
PO Box 1852
Ocala, Florida 34478-1852

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C7BZ-UG-200/07-07

**C700 Waterworks and Low-lead Bronze
Positive Displacement Cold Water Meters**

5/8", 3/4" and 1"



When ordering parts, please include:

Model: C700

Size:

Part #

Description

Quantity of each part

Price of each part

Effective Date: January 15, 2003

AMCO Water Metering Systems Inc.
www.amcowater.com

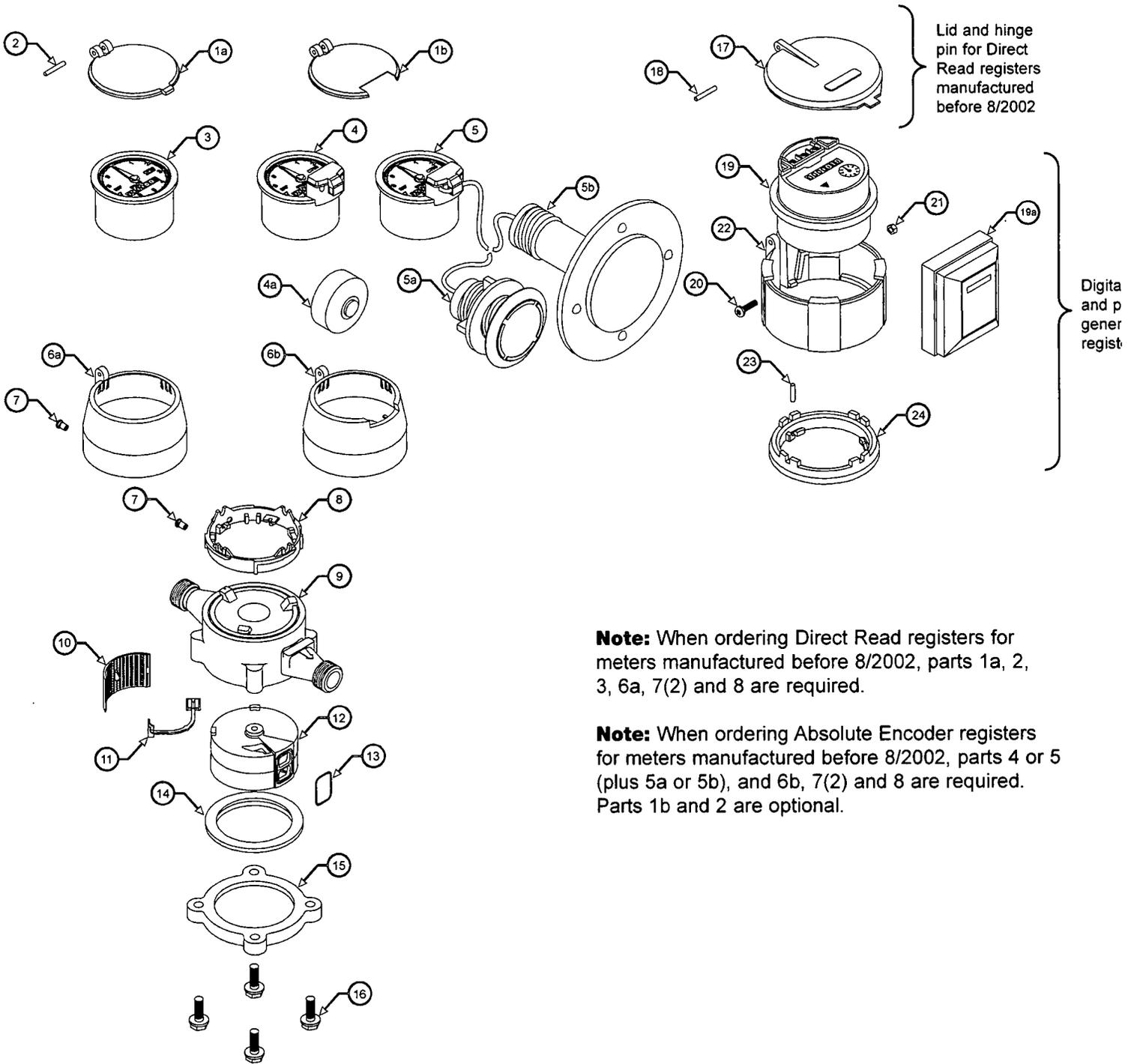
United States – ISO 9002 Registered
AMCO Water Metering Systems
P.O. Box 1852
Ocala, FL 34478-1852
352-732-4670 FAX 352-368-1950
Outside Florida: 800-874-0890
Inside Florida: 800-356-6829
e-mail: watermeters@amcowater.com

Caribbean
AMCO Water Metering Systems
P.O. Box 225
Carretera 112 KM 2.3
Isabela, PR 00662
787-872-2006
FAX 787-872-5427
e-mail: prwatermeters@amcowater.com

Canada
Elster Water
3450 Harvester Road
Burlington, Ontario L7N 3W5
866-703-7582
905-634-4895
FAX 905-634-6705
e-mail: watermeters@ca.elster.com

Mexico
Elster Medidores
Lago Onega #281
Col. Modelo Pensil.
Del. Miguel Hidalgo
C P 11460
525 55 203 8002
FAX 525 55 203 8270
e-mail: amcowater@prodigy.net.mx

C7-PIP-58341/01-03



Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

Bronze C700 Parts/Prices - 5/8" to 1"

Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

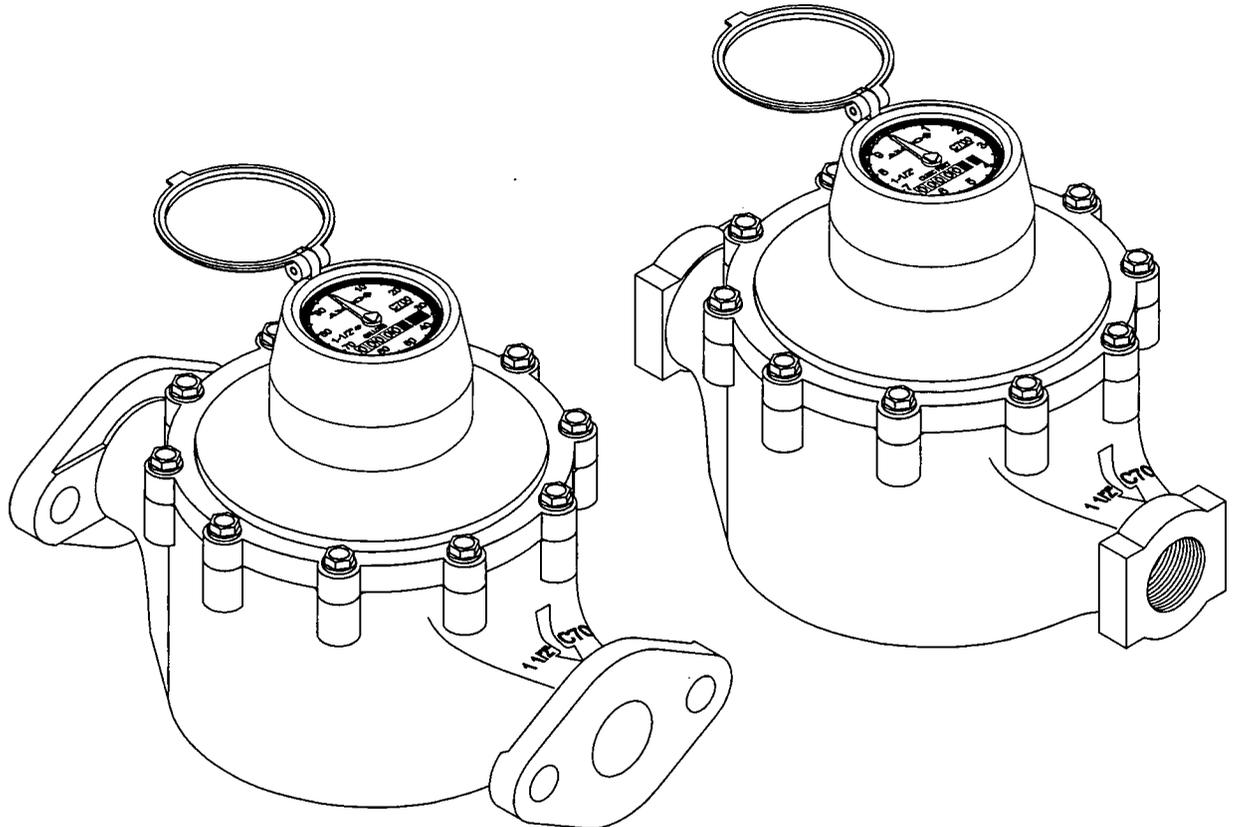
ILL. NO.	Description		5/8"x 1/2"	5/8"x 3/4"	3/4"x 3/4"(7.5)	3/4"x 3/4"(9)	3/4"x 1"	1"
1a	Direct Read Lid: Polymer	Price Part #	\$1.00 BQA0008	\$1.00 BQA0008	\$1.00 BQA0008	\$1.00 BQA0008	\$1.00 BQA0008	\$1.00 BQA0008
	Direct Read Lid: Bronze	Price Part #	\$3.45 RQA0098	\$3.45 RQA0098	\$3.45 RQA0098	\$3.45 RQA0098	\$3.45 RQA0098	\$3.45 RQA0098
1b	Encoder Register Lid: Polymer	Price Part #	\$1.00 RQA0003	\$1.00 RQA0003	\$1.00 RQA0003	\$1.00 RQA0003	\$1.00 RQA0003	\$1.00 RQA0003
	Encoder Register Lid: Bronze	Price Part #	\$3.45 RQA0004	\$3.45 RQA0004	\$3.45 RQA0004	\$3.45 RQA0004	\$3.45 RQA0004	\$3.45 RQA0004
2	Hinge Pin	Price Part #	\$0.10 2287M2695	\$0.10 2287M2695	\$0.10 2287M2695	\$0.10 2287M2695	\$0.10 2287M2695	\$0.10 2287M2695
3	Direct Read Register Gallons Cubic Feet Other Units	Price Part #	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
4	Encoder Register (not potted) Gallons Cubic Feet Other Units	Price Part #	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
4a	Wall Scan Pad	Price Part #	\$10.95 ECA4157	\$10.95 ECA4157	\$10.95 ECA4157	\$10.95 ECA4157	\$10.95 ECA4157	\$10.95 ECA4157
5	Encoder Register (potted w/ 12' cable) Gallons Cubic Feet Other Units	Price Part #	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
5a	Pit Pad	Price Part #	\$10.95 ECA4156-012	\$10.95 ECA4156-012	\$10.95 ECA4156-012	\$10.95 ECA4156-012	\$10.95 ECA4156-012	\$10.95 ECA4156-012
5b	Pit ERT	Price Part #	\$290.00 2972M6281	\$290.00 2972M6281	\$290.00 2972M6281	\$290.00 2972M6281	\$290.00 2972M6281	\$290.00 2972M6281
6a	Direct Read Register Housing: Polymer	Price Part #	\$3.10 BTA0111	\$3.10 BTA0111	\$3.10 BTA0111	\$3.10 BTA0111	\$3.10 BTA0111	\$3.10 BTA0111
	Direct Read Register Housing: Bronze	Price Part #	\$6.30 BTA0113	\$6.30 BTA0113	\$6.30 BTA0113	\$6.30 BTA0113	\$6.30 BTA0113	\$6.30 BTA0113
6b	Encoder Register Housing: Polymer	Price Part #	\$3.10 BTA8030	\$3.10 BTA8030	\$3.10 BTA8030	\$3.10 BTA8030	\$3.10 BTA8030	\$3.10 BTA8030
	Encoder Register Housing: Bronze	Price Part #	\$6.30 BTA0112	\$6.30 BTA0112	\$6.30 BTA0112	\$6.30 BTA0112	\$6.30 BTA0112	\$6.30 BTA0112
7	Tamper-Resistant Plug*	Price Part #	\$0.30 RQA0024	\$0.30 RQA0024	\$0.30 RQA0024	\$0.30 RQA0024	\$0.30 RQA0024	\$0.30 RQA0024
8	Adapter Ring	Price Part #	\$1.60 RQA0023	\$1.60 RQA0023	\$1.60 RQA0023	\$1.60 RQA0023	\$1.60 RQA0023	\$1.60 RQA0023
9	Body: Waterworks Bronze	Price Part #	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
	Body: Low-lead Bronze	Price Part #	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
10	Strainer	Price Part #	\$1.00 MEN0634	\$1.00 MEN0634	\$1.00 CAB0020	\$1.00 CAB0020	\$1.00 CAB0020	\$1.70 CAB0089
11	Chamber Locking Tab	Price Part #	\$0.15 MEN0633	\$0.15 MEN0633	\$0.15 MEN0633	\$0.15 MEN0633	\$0.15 MEN0633	\$0.20 CAB0090
12	Measuring Chamber (complete)	Price Part #	\$13.34 MEN4079	\$13.34 MEN4079	\$41.33 LAB0243	\$41.33 LAB0243	\$41.33 LAB0243	\$66.89 LAB0593
13	Chamber Port O-ring	Price Part #	\$0.20 2412M4001	\$0.20 2412M4001	\$0.25 2412M4002	\$0.25 2412M4002	\$0.25 2412M4002	\$0.25 2412M4003
14	Bottom Liner	Price Part #	\$1.30 MEN0080	\$1.30 MEN0080	\$1.30 MEN0080	\$1.30 MEN0080	\$1.30 MEN0080	\$2.40 CAB0103
15	Bottom Plate: Polymer	Price Part #	\$3.85 MEN0635	\$3.85 MEN0635	\$3.85 MEN0635	\$3.85 MEN0635	\$3.85 MEN0635	None None
	Bottom Plate: Cast Iron	Price Part #	\$3.85 MEN0834	\$3.85 MEN0834	\$3.85 MEN0834	\$3.85 MEN0834	\$3.85 MEN0834	\$7.30 CAB0079
	Bottom Plate: Waterworks Bronze	Price Part #	\$6.80 MEN0637	\$6.80 MEN0637	\$6.80 MEN0637	\$6.80 MEN0637	\$6.80 MEN0637	\$15.50 CAB0081
	Bottom Plate: Low-lead Bronze	Price Part #	\$7.80 BTA0044	\$7.80 BTA0044	\$7.80 BTA0044	\$7.80 BTA0044	\$7.80 BTA0044	\$16.50 BTA0045
16	Bottom Bolts **	Price Part #	\$0.40 2137M3210	\$0.40 2137M3210	\$0.40 2137M3210	\$0.40 2137M3210	\$0.40 2137M3210	\$0.50 2137M3237

* 2 required

ILL. NO.	Description		5/8"x 1/2"	5/8"x 3/4"	3/4"x 3/4"(7.5)	3/4"x 3/4"(9)	3/4"x 1"	1"
17	Lid: Polymer	Price	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
		Part #	MEN0832	MEN0832	MEN0832	MEN0832	MEN0832	MEN0832
	Lid: Bronze	Price	\$3.45	\$3.45	\$3.45	\$3.45	\$3.45	\$3.45
		Part #	MEN0636	MEN0636	MEN0636	MEN0636	MEN0636	MEN0636
18	Hinge Pin-Polymer Lid	Price	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
		Part #	2287M3198	2287M3198	2287M3198	2287M3198	2287M3198	2287M3198
	Hinge Pin-Bronze Lid	Price	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
		Part #	2287M2695	2287M2695	2287M2695	2287M2695	2287M2695	2287M2695
19	Digital Register: Glass Lens	Price	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
		Gallons Part #						
		Cubic Feet Part #						
		Other Units						
	Digital Register: Plastic Lens	Price	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
		Gallons Part #						
		Cubic Feet Part #						
		Other Units						
	Pulse Generator Register	Price	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
		Gallons Part #						
		Cubic Feet Part #						
		Other Units						
Other Register Types			Contact Customer Service					
19a	Remote Wall Unit	Price	CONTACT CUSTOMER SERVICE FOR PRICING INFORMATION					
		Gallons Part #						
		Cubic Feet Part #						
		Other Units						
20	Locking Screw Bronze Housing: TORX Screw	Price	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30
		Part #	2138M3168	2138M3168	2138M3168	2138M3168	2138M3168	2138M3168
	Locking Screw Polymer Housing: TORX Screw	Price	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
		Part #	2138M3177	2138M3177	2138M3177	2138M3177	2138M3177	2138M3177
	Locking Screw Polymer Housing: Drilled Screw	Price	\$0.80	\$0.80	\$0.80	\$0.80	\$0.80	\$0.80
		Part #	2133M6177	2133M6177	2133M6177	2133M6177	2133M6177	2133M6177
21	Locking Nut	Price	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05
		Part #	2173M6051	2173M6051	2173M6051	2173M6051	2173M6051	2173M6051
22	Register Housing: Polymer	Price	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10
		Part #	MEN0950	MEN0950	MEN0950	MEN0950	MEN0950	MEN0950
	Register Housing: Bronze	Price	\$6.30	\$6.30	\$6.30	\$6.30	\$6.30	\$6.30
		Part #	MEN0833	MEN0833	MEN0833	MEN0833	MEN0833	MEN0833
23	Locking Pin	Price	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
		Part #	2287M3128	2287M3128	2287M3128	2287M3128	2287M3128	2287M3128
24	Adapter Ring - Registers Other than Direct Read or Absolute Encoder	Price	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60
		Part #	MEN0831	MEN0831	MEN0831	MEN0831	MEN0831	MEN0831
Accessories (not shown):								
	Torx T-15 Screwdriver	Price	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
		Part #	T-15	T-15	T-15	T-15	T-15	T-15
	Torx T-25 Screwdriver	Price	\$18.75	\$18.75	\$18.75	\$18.75	\$18.75	\$18.75
		Part #	T-25	T-25	T-25	T-25	T-25	T-25

**C700 Waterworks and Low-lead Bronze
Positive Displacement Cold Water Meters**

1 1/2"



When ordering parts, please include:

Model: C700

Size: 1 1/2"

End Type

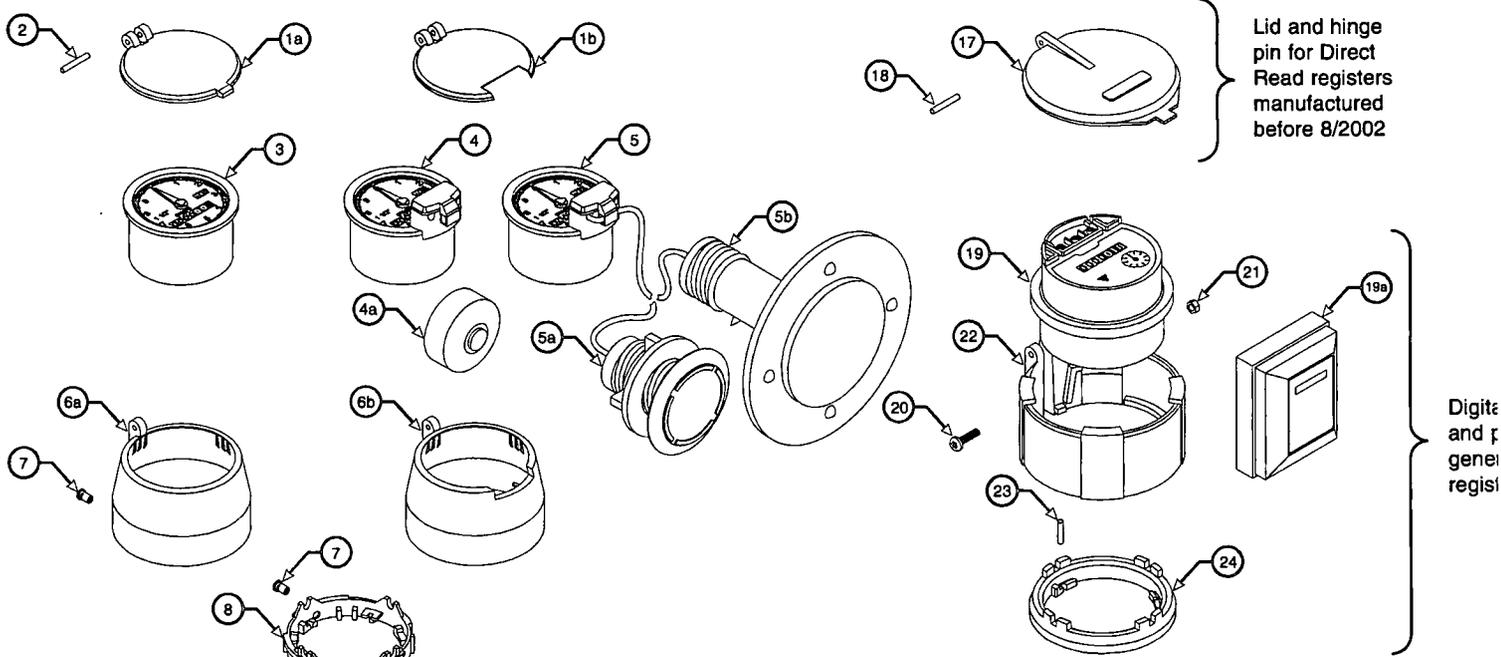
Part #

Description

Quantity of each part

Price of each part

Effective Date: March 1, 2003



Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

Bronze C700 Parts/Prices - 1 1/2"

Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

ILL. NO.	Description	Price	1 1/2"
1a	Direct Read Lid: Polymer	Price Part #	\$1.00 BTA8028
	Direct Read Lid: Bronze	Price Part #	\$3.45 BTA0114
1b	Encoder Register Lid: Polymer	Price Part #	\$1.00 BTA8034
	Encoder Register Lid: Bronze	Price Part #	\$3.45 BTA8035
2	Hinge Pin	Price Part #	\$0.10 2287M2695
3	Direct Read Register Gallons Cubic Feet Other Units	Price Part #	\$16.30 MX40U3
		Price Part #	MX40F3 Contact Customer Service
4	Encoder Register (not potted) Gallons Cubic Feet Other Units	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information
4a	Wall Scan Pad	Price Part #	\$10.95 ECA4157
5	Encoder Register (potted w/12' cable) Gallons Cubic Feet Other Units	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information
5a	Pit Pad	Price Part #	\$10.95 ECA4156-012
5b	Pit ERT	Price Part #	\$290.00 2972M6281
6a	Direct Read Register Housing: Polymer	Price Part #	\$3.10 BTA0111
		Price Part #	\$6.30 BTA0113
6b	Encoder Register Housing: Polymer	Price Part #	\$3.10 BTA8030
		Price Part #	\$6.30 BTA0112
7	Tamper-Resistant Plug *	Price Part #	\$0.30 BTA8029
8	Adapter Ring	Price Part #	\$1.60 BTA8027
9	Body Bolts (10 required)	Price Part #	\$0.70 2137M3237
10	Upper Body Plate	Price Part #	\$42.05 CAB0360
11	Chamber O-Ring	Price Part #	\$4.20 2411M2313
12	Measuring Chamber (complete)	Price Part #	\$164.25 BTA4018
13	Strainer	Price Part #	\$8.60 MERO603
14	Body O-ring	Price Part #	\$6.80 2411M231
15	Body - Oval Flanged End Waterworks Bronze	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information
16	Body - Threaded End Waterworks Bronze	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information

ILL. NO.	Description	Price	1 1/2"
17	Lid: Polymer	Price Part #	\$1.00 MEN0832
		Price Part #	\$3.45 MEN0636
18	Hinge Pin - Bronze Lid	Price Part #	\$0.10 2287M3198
		Price Part #	\$0.10 2287M2695
19	Digital Register: Glass Lens Gallons Cubic Feet Other Units	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information
Other Register Types		Contract Customer Service	
19a	Remote Wall Unit Gallons Cubic Feet Other Units	Price Part #	Contact Customer Service for pricing information
		Price Part #	Contact Customer Service for pricing information
20	Locking Screw Bronze Housing: TORX Screw	Price Part #	\$0.30 2138M3168
		Price Part #	\$0.20 2138M3177
21	Locking Screw: Drilled Screw	Price Part #	\$0.80 2133M6177
		Price Part #	\$0.05 2173M6051
22	Register Housing: Polymer	Price Part #	\$3.10 MEN0950
		Price Part #	\$6.30 MEN0833
23	Locking Pin	Price Part #	\$0.10 2287M3128
		Price Part #	\$1.60 MEN0831
Accessories (not shown):			
	Torx T-15 Screwdriver	Price Part #	\$16.00 T-15
	Torx T-25 Screwdriver	Price Part #	\$18.75 T-25

* 2 required.



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www.amcowater.com

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Inside Florida: 800-356-6829
e-mail: watermeters@amcowater.com

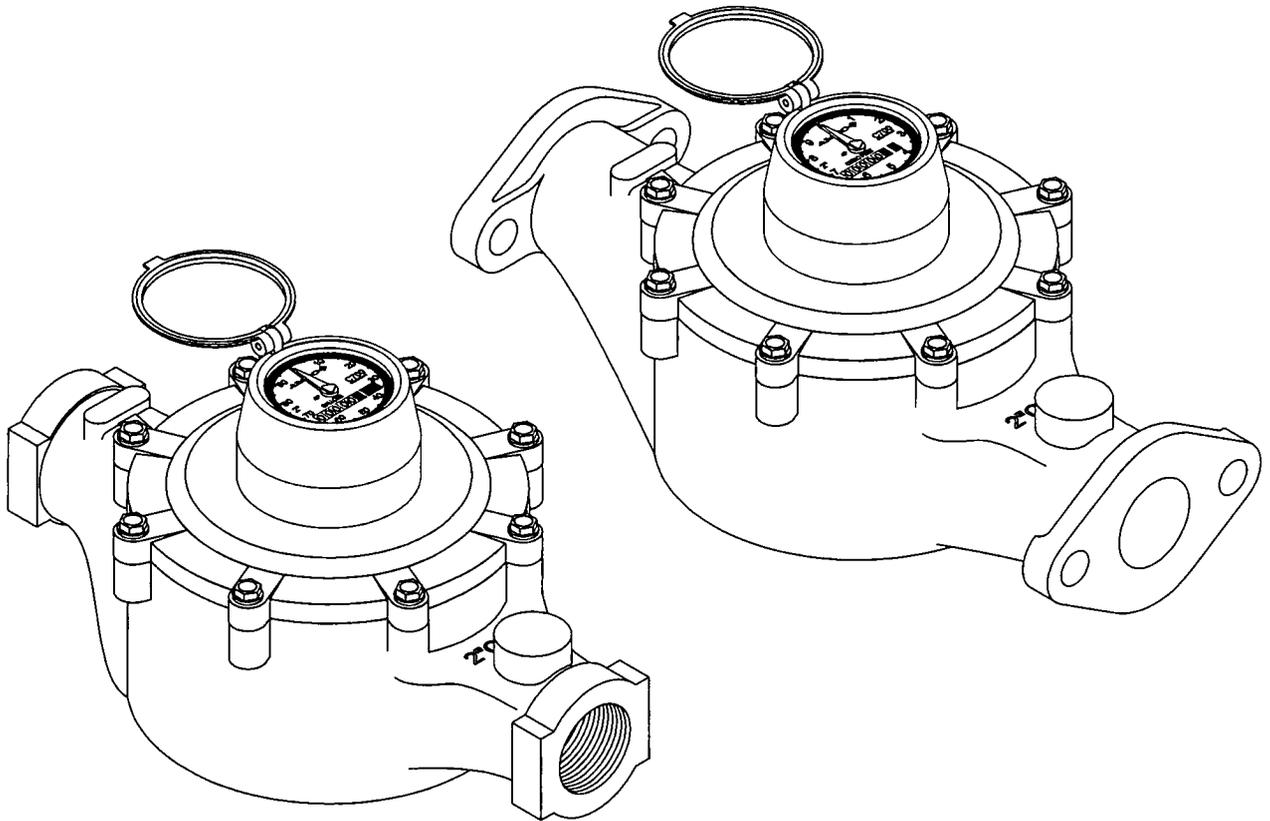
Caribbean
AMCO Water Metering Systems
P.O. Box 225
Carretera 112 KM 2.3
Isabela, PR 00662
787-872-2006
FAX 787-872-5427
e-mail: prwatermeters@amcowater.com

Canada
Elster Metering
3450 Harvester Road
Burlington, Ontario L7N 3W5
866-703-7582
905-634-4895
FAX 905-634-6705
e-mail: watermeters@ca.elster.com

Mexico
Elster Medidores
Lago Omega #281
Col. Modelo Pensil.
Del. Miguel Hidalgo
C P 11460
525 55 203 8002
FAX 525 55 203 8270
e-mail: amcowater@prodigy.net.mx

**C700 Waterworks and Low-lead Bronze
Positive Displacement Cold Water Meters**

2"



When ordering parts, please include:

Model: C700

Size: 2"

End Type

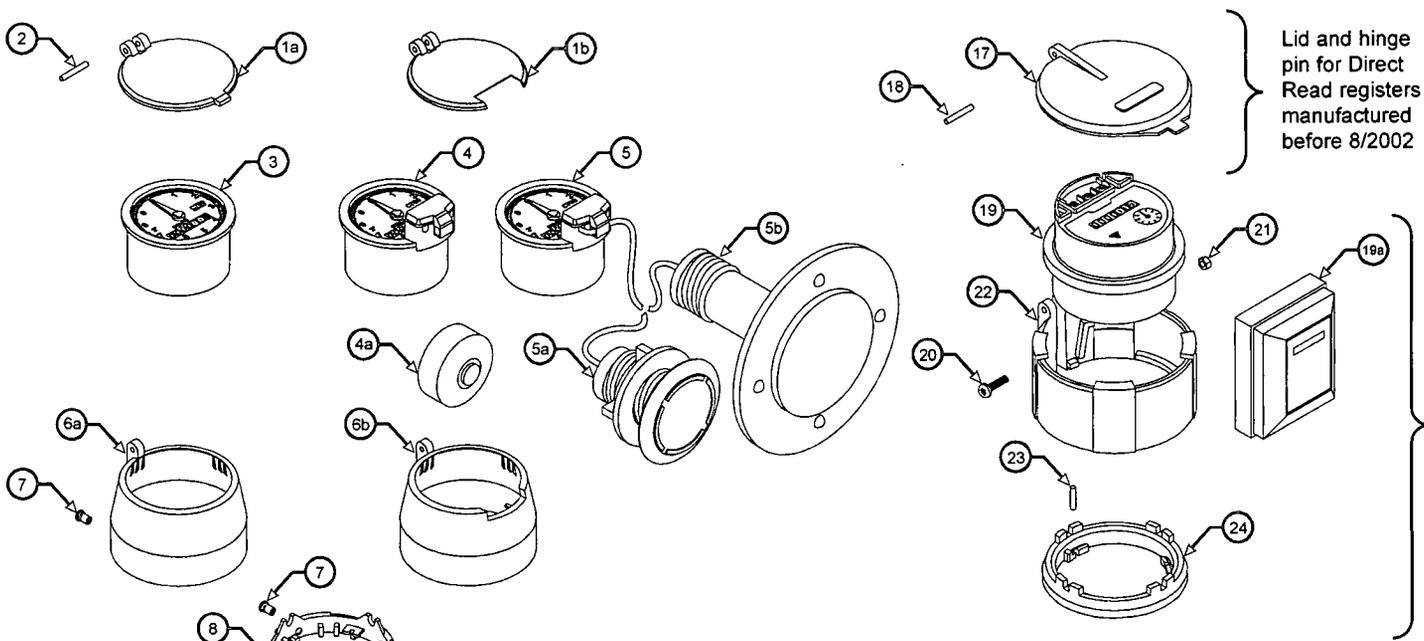
Part #

Description

Quantity of each part

Price of each part

Effective Date: January 15, 2003



Lid and hinge pin for Direct Read registers manufactured before 8/2002

Digit and pulse generator register

Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

Bronze C700 Parts/Prices - 2"

Note: When ordering Direct Read registers for meters manufactured before 8/2002, parts 1a, 2, 3, 6a, 7(2) and 8 are required.

Note: When ordering Absolute Encoder registers for meters manufactured before 8/2002, parts 4 or 5 (plus 5a or 5b), and 6b, 7(2) and 8 are required. Parts 1b and 2 are optional.

ILL. NO.	Description	2"
1a	Direct Read Lid: Polymer	Price \$1.00 Part # BTA8028
	Direct Read Lid: Bronze	Price \$3.45 Part # BTA0114
1b	Encoder Register Lid: Polymer	Price \$1.00 Part # BTA8034
	Encoder Register Lid: Bronze	Price \$3.45 Part # BTA8035
2	Hinge Pin	Price \$0.10 Part # 2287M2695
3	Direct Read Register	Price \$16.30 Part # MX50U6 Gallons Cubic Feet Other Units Part # MX50F6 Contact Customer Service
4	Encoder Register (not potted)	Price Contact Customer Service Part # for pricing information Gallons Cubic Feet Other Units Part #
4a	Wall Scan Pad	Price \$10.95 Part # ECA4157
5	Encoder Register (potted w/12' cable)	Price Contact Customer Service Part # for pricing information Gallons Cubic Feet Other Units Part #
5a	Pit Pad	Price \$10.95 Part # ECA4156-012
5b	Pit ERT	Price \$290.00 Part # 2972M6281
6a	Direct Read Register Housing: Polymer	Price \$3.10 Part # BTA0111
	Direct Read Register Housing: Bronze	Price \$6.30 Part # BTA0113
6b	Encoder Register Housing: Polymer	Price \$3.10 Part # BTA8030
	Encoder Register Housing: Bronze	Price \$6.30 Part # BTA0112
7	Tamper-Resistant Plug *	Price \$0.30 Part # BTA8029
8	Adapter Ring	Price \$1.60 Part # BTA8027
9	Body Bolts (8 required)	Price \$0.55 Part # 2137M3239
10	Upper Body Plate	Price \$50.15 Part # CAB0347
11	Chamber O-Ring	Price \$4.20 Part # 2411X2648
12	Measuring Chamber (complete)	Price \$203.10 Part # LAB0944
13	Strainer	Price \$15.00 Part # CAB0359
14	Not Used	—
15	Body - Oval Flanged End Waterworks Bronze	Price Contact Customer Service Part # for pricing information
	Body - Oval Flanged End Low-lead Bronze	Price Contact Customer Service Part # for pricing information
16	Body - Threaded End Waterworks Bronze	Price Contact Customer Service for pricing information Part #
	Body - Threaded End Low-lead Bronze	Price Contact Customer Service for pricing information Part #

ILL. NO.	Description	2"
17	Lid: Polymer	Price \$1.00 Part # MEN0832
	Lid: Bronze	Price \$3.45 Part # MEN0636
18	Hinge Pin - Bronze Lid	Price \$0.10 Part # 2287M3198
	Hinge Pin - Polymer Lid	Price \$0.10 Part # 2287M2695
19	Digital Register: Glass Lens	Price \$89.00 Part # IT50U6GOP012 Gallons Cubic Feet Other Units Part # IT50F6GOP012 Contact Customer Service
	Digital Register: Plastic Lens	Price Contact Customer Service Part # for pricing information Gallons Cubic Feet Other Units Part #
	Pulse Generator Register	Price Contact Customer Service for pricing information Part # Gallons Cubic Feet Other Units Part #
	Other Register Types	Contract Customer Service
19a	Remote Wall Unit	Price Contact Customer Service Part # for pricing information Gallons Cubic Feet Other Units Part #
20	Locking Screw Bronze Housing: TORX Srew	Price \$0.30 Part # 2138M3168
	Locking Screw Polymer Housing: TORX Srew	Price \$0.20 Part # 2138M3177
	Locking Screw Polymer Housing: Drilled Srew	Price \$0.80 Part # 2133M6177
21	Locking Nut	Price \$0.05 Part # 2173M6051
22	Register Housing: Polymer	Price \$3.10 Part # MEN0950
	Register Housing: Bronze	Price \$6.30 Part # MEN0833
23	Locking Pin	Price \$0.10 Part # 2287M3128
24	Adapter Ring - Registers Other than Direct Read	Price \$1.60 Part # MEN0831
	Accessories (not shown):	
	Torx T-15 Screwdriver	Price \$16.00 Part # T-15
	Torx T-25 Screwdriver	Price \$18.75 Part # T-25

* 2 required.



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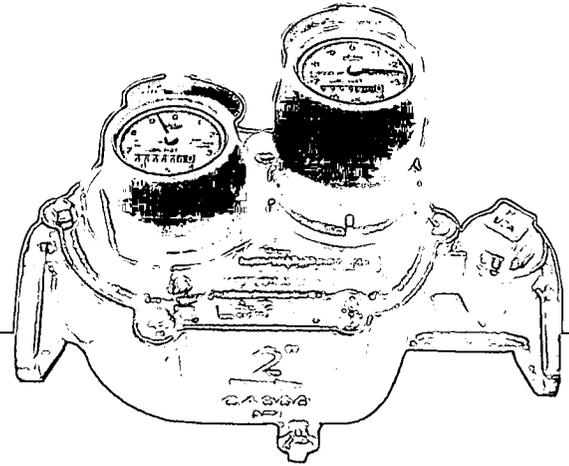
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Col. Modelo Pensil.
Del. Miguel Hidalgo
C P 11460
525 55 203 8002
FAX 525 55 203 8270
e-mail: amcowater@prodigy.net.mx

C4000 Single Body Compound Meter

Bronze, Magnetic Drive

Sizes 2", 3", 4"



Size	2"	3"	4"
> 95% Accuracy GPM	1/8	1/8	1/8
98.5%-101.5% Accuracy GPM	1-220	1-900	1-1100
Continuous Flow GPM	160	325	575
Maximum Flow GPM	220	900	1100
Operating Pressure psi	150	150	150
Operating Temperature °F	120	120	120

Sweep Hand Registers	Turbine	Bypass
US Gallons	100	10
Cubic Feet	10	1
Cubic Meters	1	1/10

Capacity of Registers	Turbine	Bypass
US Gallons (millions)	100	10
Cubic Feet (millions)	10	1
Cubic Meters (millions)	1	1/10

Register Type Permanently sealed direct read, InVISION and digital registers, available in polymer or bronze register housing and lids

Materials		Materials	
Main case	Bronze	Element security clip	Noryl
Cover	Bronze	Check valve assembly	Acetal, stainless steel, SBR
Valve chamber	Bronze	Changeover valve assembly	Brass, nylon, EPDM, stainless steel
Diaphragm	Glass loaded noryl	Rotor journal bearings	Synthetic sapphire
By-pass insert housing	Glass loaded noryl	Rotor bearing spacers	Noryl
Measuring element	Glass loaded noryl	Stub spindles	Tungsten carbide
Mask	Glass loaded noryl	Thrust pads	Tungsten carbide
Diaphragm support	Glass loaded noryl	Stub spindle box	Stainless steel
Rotor support	Glass loaded noryl	Worm wheel spindle	Stainless steel
Regulator blade	Glass loaded noryl	Magnet carrier	Glass loaded noryl
Front bearing unit	Glass loaded noryl	Magnets	Samarium cobalt
Rotor	Glass loaded polypropylene	Seals and gasket	Synthetic rubber
Rotor pin	Stainless steel	Fasteners	Stainless steel
Rotor worm	Glass loaded polypropylene	Body & cover finish	Epoxy powder coated
Worm wheel	Carbon fiber/PTFE loaded polyphenylene sulfide	Bypass meter assembly	Brass, ceramic, nylon

Operation. The C4000 Compound Meter is designed for installations where large variations in flow rate can be expected. These flow ranges are measured by utilizing the low flow capability of a positive displacement meter and the higher flow efficiency of a Class II turbine meter. The bypass is a highly accurate positive displacement meter with initial sensitivity of 1/32 GPM. The measuring element of the large meter is a standard T4000 turbine meter. Located on the downstream side of the turbine measuring chamber, a changeover valve operates on differential pressure. Before the valve opens, all flow is directed through the bypass meter. After the valve opens, flow goes through both measuring chambers.

Compliance to Standards. The C4000 Compound Meter fully complies with the American Water Works Association Standard C702 as most recently revised.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined



lines. The AWWA M6 manual recommends 10 pipe diameters upstream and 5 pipe diameters downstream of straight pipe for optimal accuracy of all inferential type flowmeters. It is recommended that a plate strainer be used to protect the turbine and help reduce the effects of turbulence. Optional bypass trim valves are available to facilitate in-line bypass meter replacement while under pressure.

Application. The meter is for use with POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1 1/2% within its normal flows. Both pressure and accuracy tests are made before shipment. No adjustments are necessary before installation.

Register. Each register is contained within a 90% copper seamless can which is oven-cured to eliminate condensation. The 1/4" true tempered glass lens is domed and secured with an "L" shaped gasket, then roll sealed. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, extra thin

sweep hands do not interfere with meter reading, and the low-flow indicator will detect plumbing leaks.

Connections. The 2" is provided with 2-bolt oval flanged end connections and is also available with 4-bolt round flanged ends. The 3" is provided with 4-bolt holed flanged ends. The 4" is provided with 8-bolt holed flanged ends. Both bronze (1 1/2" and 2" only) and cast iron companion flanges are available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread.

Maintenance. The C4000 unit features an easy-change metering insert, carrying both primary and secondary metering modules. For calibration, maintenance or replacement, this can be removed as a complete assembly - leaving the meter housing in the pipe. Alternatively, access to the bypass meter can be gained by removing it from the metering insert, without taking the meter out of service.

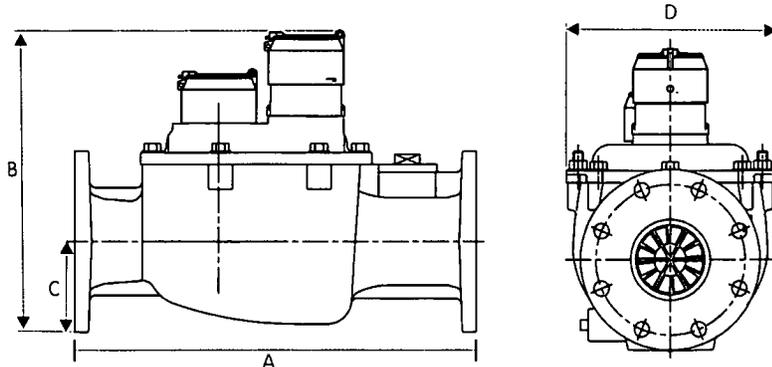
Reading Options. C4000 meters are available with Absolute Encoder and Digital register options to provide water usage output to the entire spectrum of electronic meter reading

systems, giving flexibility to utilities implementing or upgrading reading technologies. Elster AMCO Water's Encoder and Digital registers interface to a variety of automated meter reading systems, allowing technology upgrade without register replacement.

Automatic Meter Reading (AMR). Elster AMCO Water offers the full spectrum of RF technology alternatives - Walk-by, Drive-by and Fixed Network, to reduce reading cost beyond electronic meter reading, while further increasing personnel safety. RF Transmitters accept input from the Elster AMCO's Encoder or Digital Register for reliable measurement inputs. RF Systems from Elster AMCO Water are designed for reading both pit and inside set meter installations, and are to perform in the extremes of service conditions they will encounter.

Dimensions and Net Weight

Meter Size	Dimensions (Inches)				Weight (lbs.)
	A	B	C	D	
2"	15 1/4	14	4	10	52
3"	17	17	5	12	86
4"	20	16	5	12	90



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The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.

C4000 Accuracy and Pressure loss performance

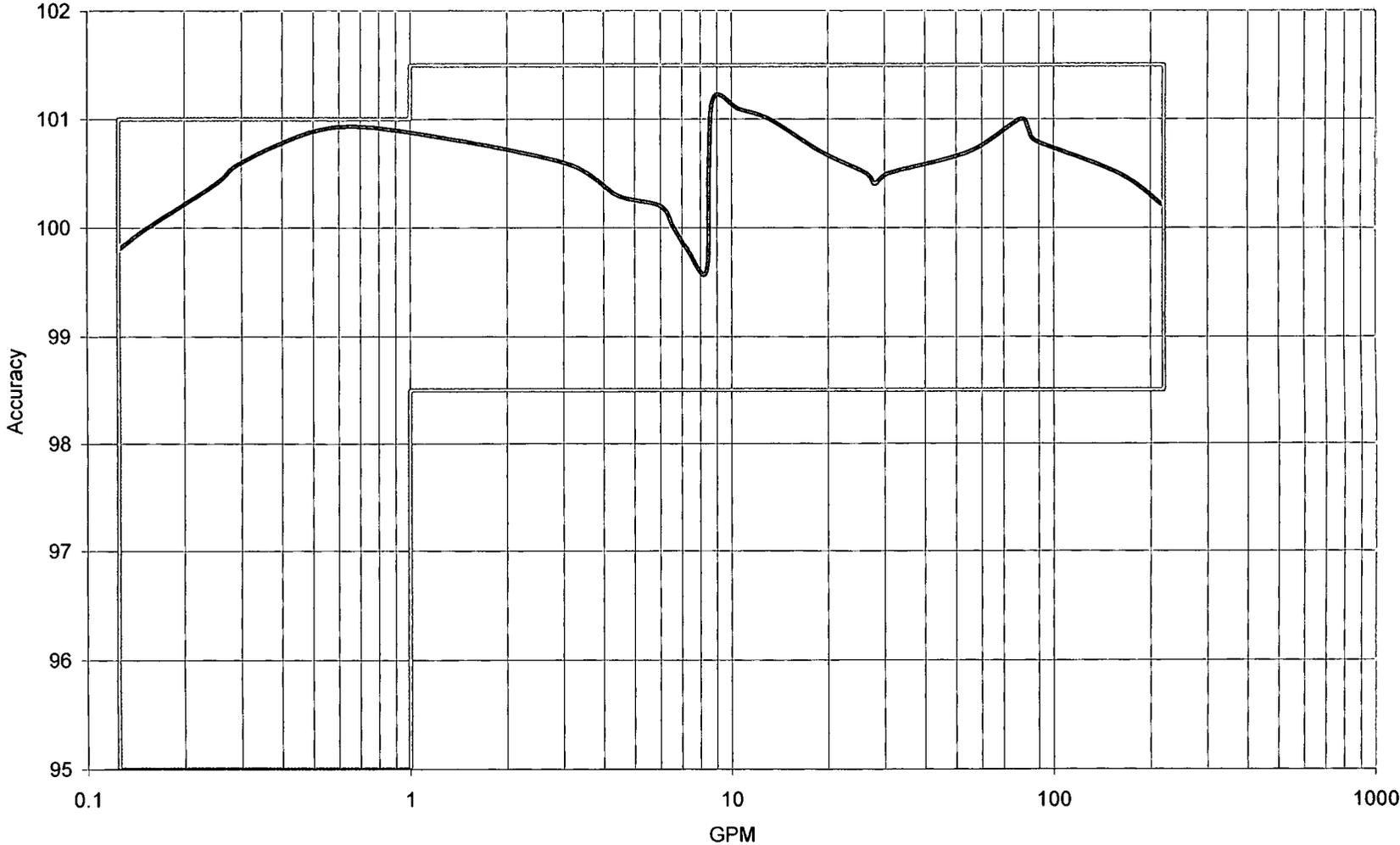


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2" C4000 Accuracy



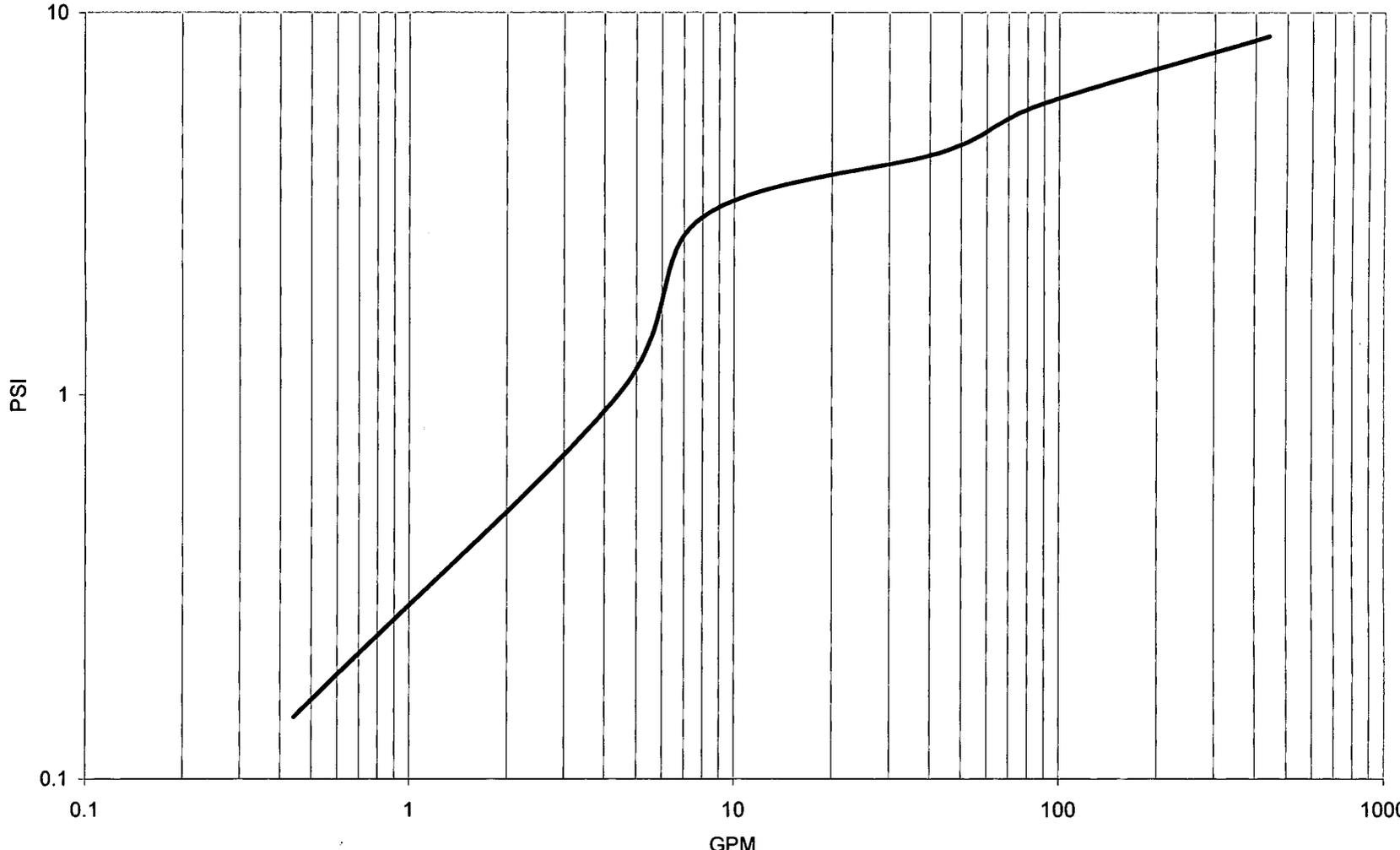
Typical 2" Accuracy



2" C4000 Pressure loss



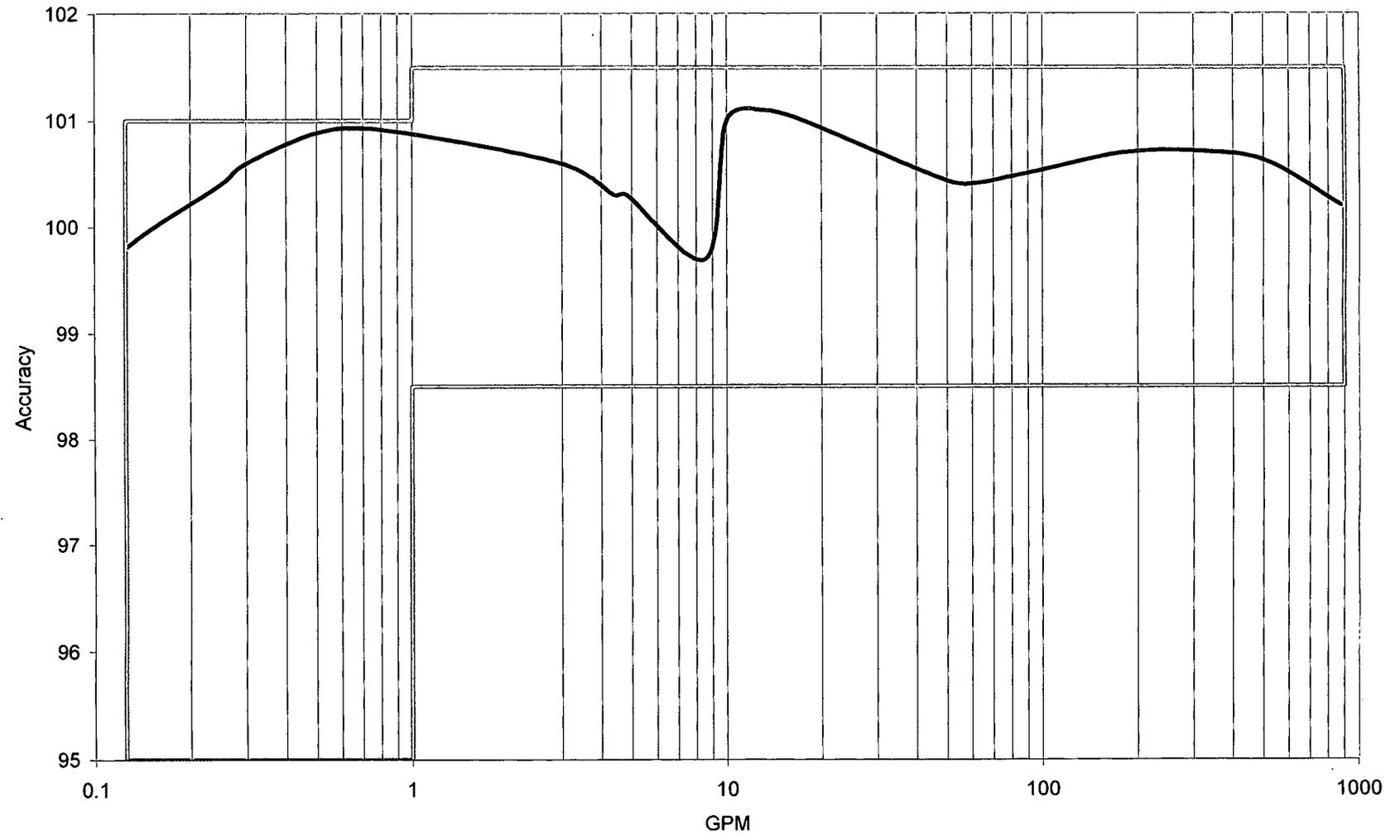
Typical 2" Pressure Loss



3" C4000 Accuracy



Typical 3" Accuracy

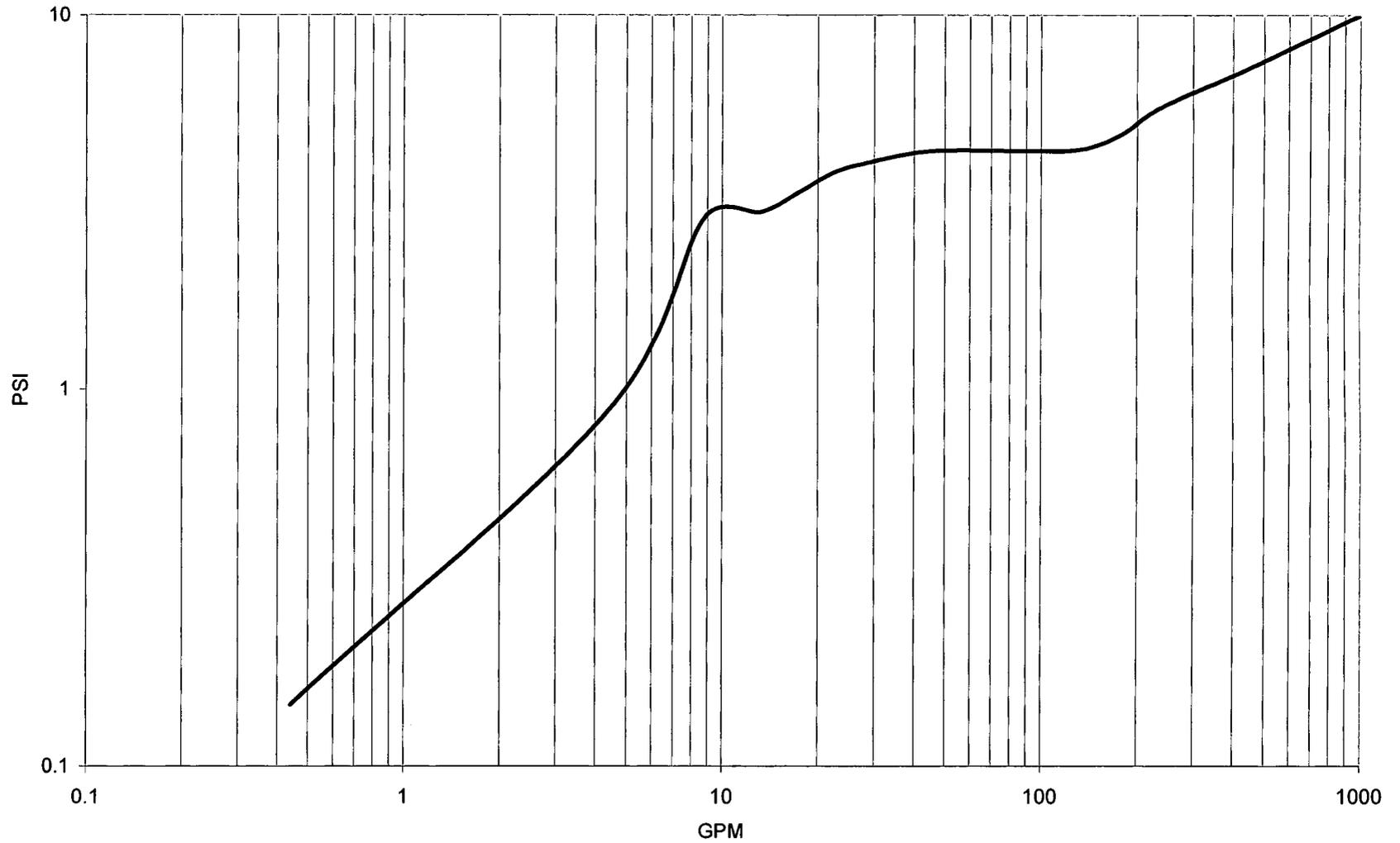


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3" C4000 Pressure loss



Typical 3" Pressure Loss

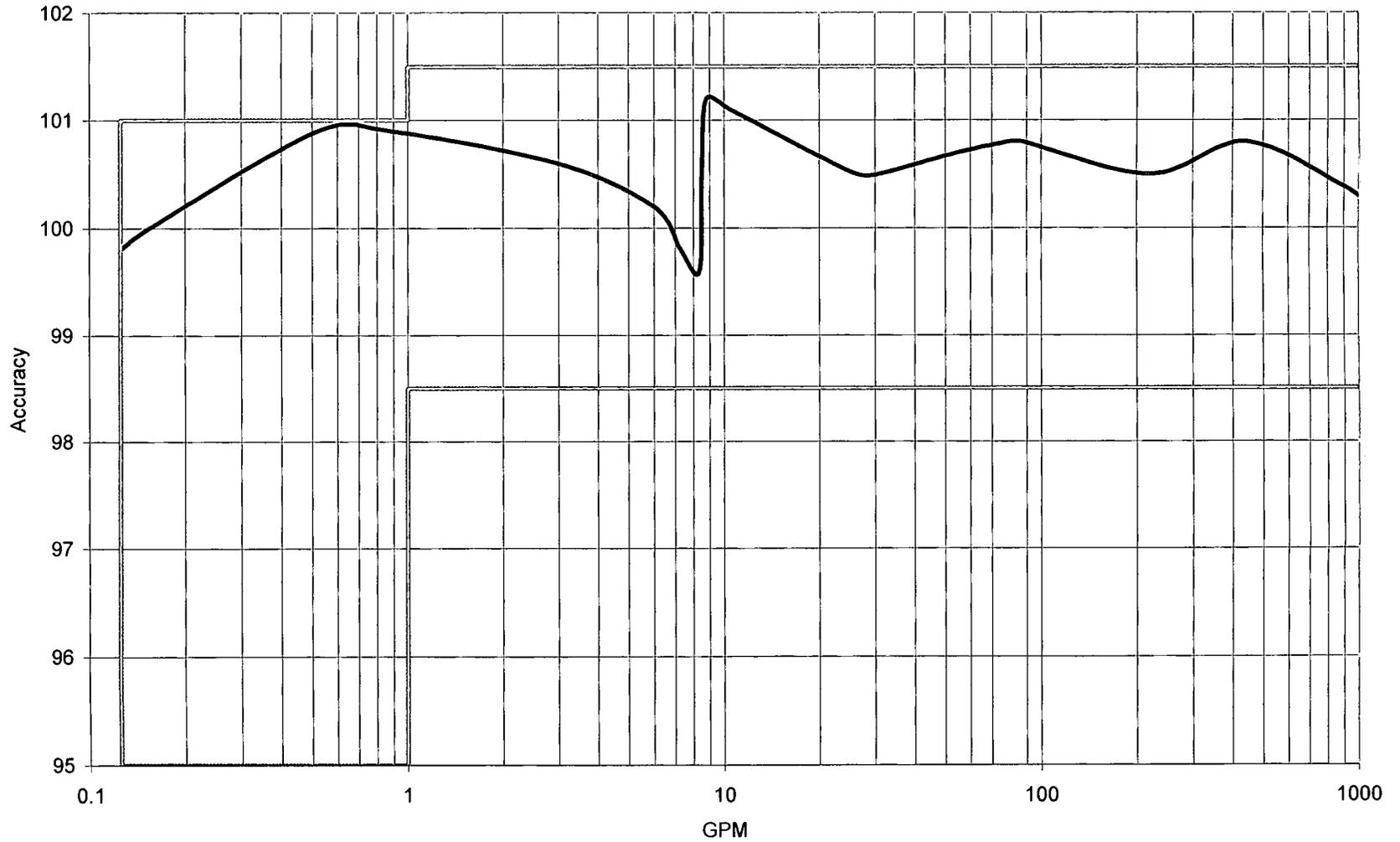


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4" C4000 Accuracy



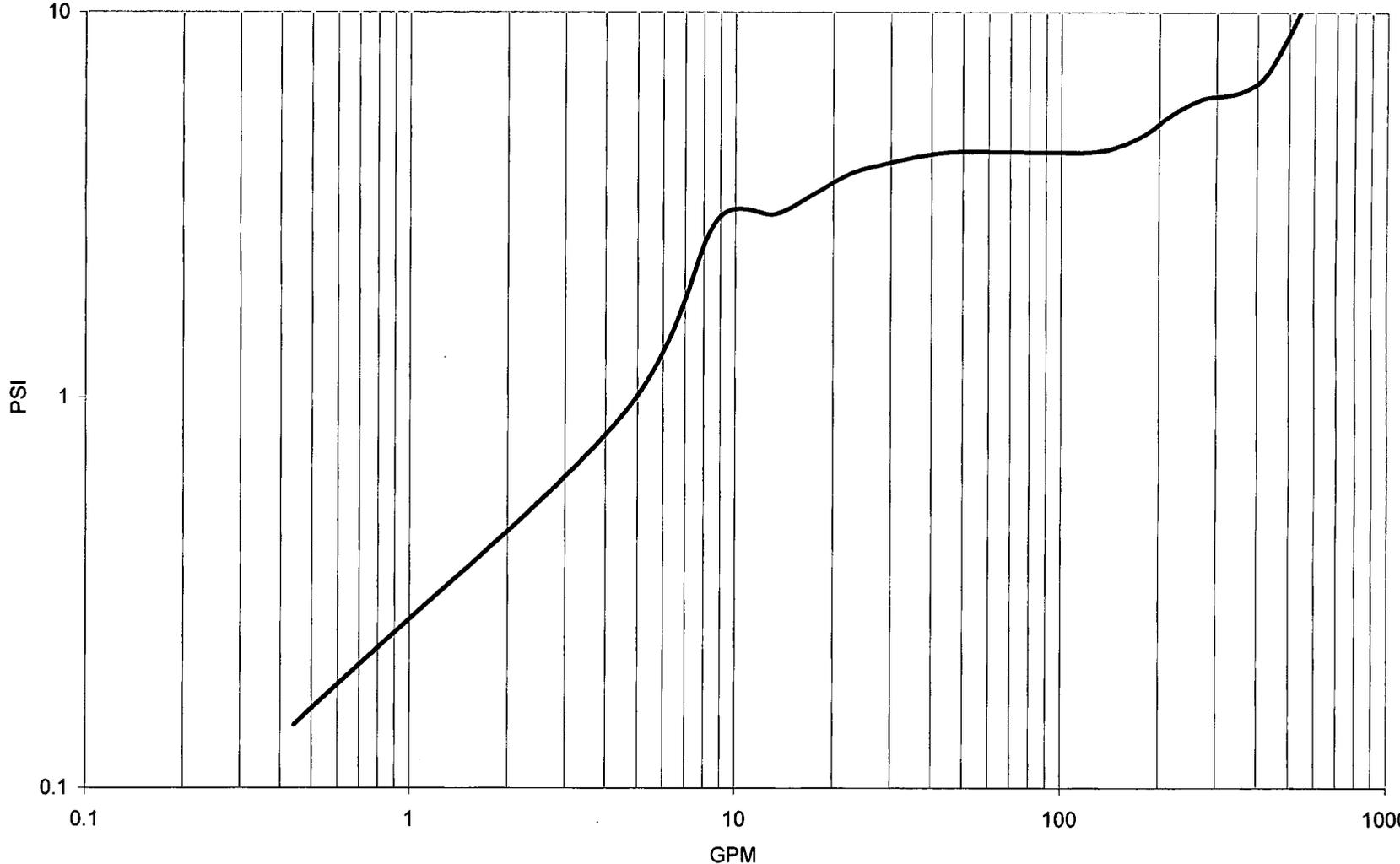
Typical 4" Accuracy



4" C4000 Pressure loss



Typical 4" Pressure Loss





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Utility Guarantee for Model C4000 Compound Meters

Scope of Guarantee

This guarantee applies exclusively to Elster AMCO Water C4000 Compound Meters and direct read registers purchased therewith manufactured after April 1, 2008, when used in potable water below 120° F in accordance with Elster AMCO's published Technical Specifications and when installed in accordance with Elster AMCO's published installation instructions, both as in effect as of the date of Elster AMCO's shipment of the product. This guarantee applies exclusively to the original utility purchaser when product is purchased from either Elster AMCO or an Elster AMCO-authorized distributor ("Business Partner").

Materials and Workmanship

If used and installed as described above, Elster AMCO guarantees product covered by this guarantee to be free from defects in materials and workmanship for a period 12 months after installation or 18 months after shipment by Elster AMCO or its authorized Business Partner, whichever occurs first.

Case Integrity

If used and installed as described above, Elster AMCO guarantees that the main cases of product covered by this guarantee will retain their structural integrity of a period of 5 years from date of shipment by Elster AMCO or its authorized Business Partner.

Register Functionality

If used and installed as described above, Elster AMCO guarantees that direct read registers purchased with C4000 meters will function for 10 years from date of manufacture by Elster AMCO. Encoder and Digital register warranties are specified separately, in Elster AMCO's documents Enc-UG-200 and Dig-UG-200, respectively.

Meter Accuracy

If used and installed as described above, Elster AMCO guarantees that product covered by this guarantee will meet or exceed AWWA accuracy standards, per AWWA specification C702-01, for 2 years from date of shipment by Elster AMCO or its authorized Business Partner.

Claims

Any meter or register covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of Elster AMCO, without additional charge to the customer. The customer is responsible for removing the meter or register from service, returning it to the factory service center designated by Elster AMCO, providing a written or electronic (facsimile or e-mail) claim notice, and for freight costs to and from the service center. Customer is also responsible for reinstalling repaired or replaced product.

Limits of Liability

This guarantee does not apply to meters or registers damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Elster AMCO'S installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of Elster AMCO. If a meter is claimed to breach the accuracy guarantees as stated herein, the customer shall submit a certified copy of the test results at the time the meter is returned to Elster AMCO. The guarantees as to accuracy shall be void if an examination of the customer's water supply shows an unusually adverse effect on metering equipment.

Any description of product, whether in writing or made orally by Elster AMCO or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee unless confirmed to be such in writing by Elster AMCO.

The laws of the State of Florida, excluding its conflicts of law rules shall exclusively govern this guarantee. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other

provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

THE FOREGOING EXPRESS GUARANTEE IS IN LIEU OF ALL OTHER GUARANTEES OR WARRANTIES WHATSOEVER, WHETHER EXPRESS, IMPLIED OR STATUTORY (EXCEPT FOR WARRANTY OF TITLE), INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CUSTOMER'S EXCLUSIVE REMEDY AND ELSTER AMCO'S AND ITS BUSINESS PARTNERS' SOLE LIABILITY ON ANY CLAIM, WHETHER IN TORT (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, FOR ANY METER OR REGISTER WHICH FAILS TO MEET THE TERMS OF THE GUARANTEE STATED ABOVE, SHALL BE LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE. IN NO EVENT SHALL ELSTER AMCO AND/OR ITS BUSINESS PARTNERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, DELAYS AND CLAIMS OF CUSTOMERS OF THE CUSTOMER OR OTHER THIRD PARTIES.

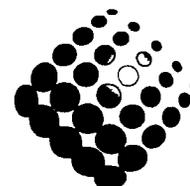
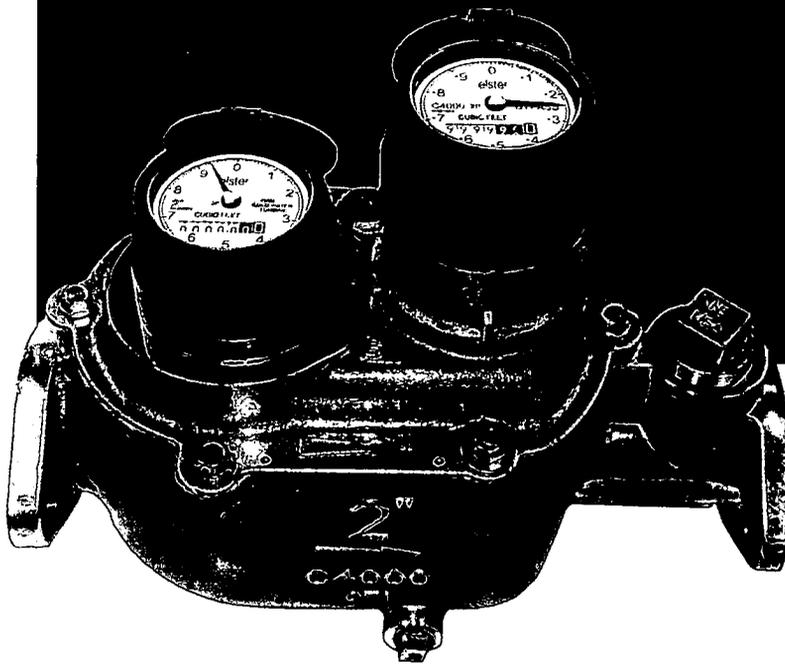
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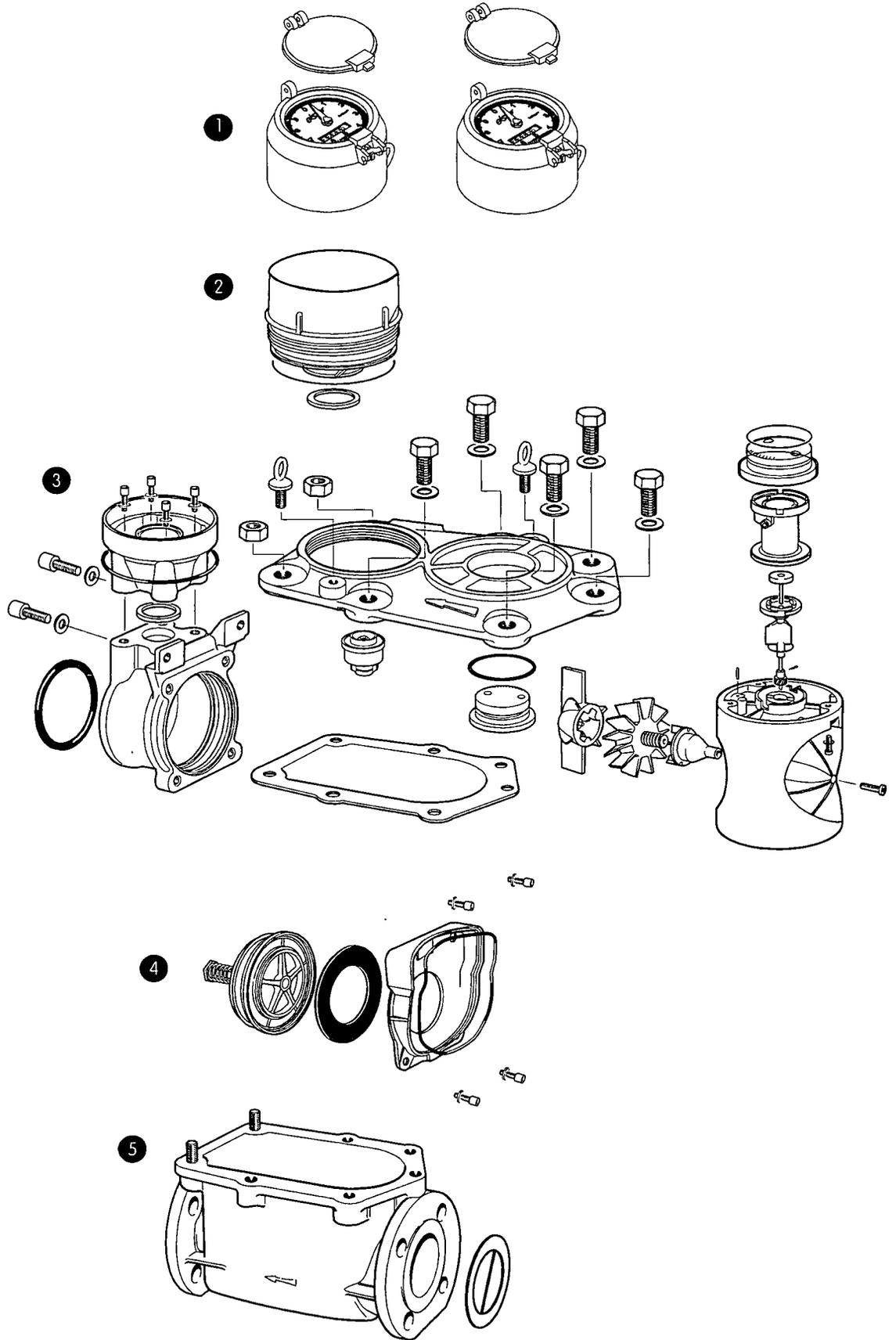
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C4000-UG/04-08

C4000 Compound water meter

Parts/price list





Ill. no.	Size	Description	Part number	Price
1	2" - 4"	Register, lid and housing	contact customer service	contact customer service
2	2" - 4"	Standard bronze bypass housing and chamber assembly kit	BQA5310	\$ 204.00
	2" - 4"	Low lead bronze bypass housing and chamber assembly kit	BQA5311	\$ 277.00
3*	2"	Standard bronze top cover assembly	BQA5302	\$ 997.00
	2"	Low lead bronze top cover assembly	BQA5303	\$ 1,174.00
	3" - 4"	Standard bronze top cover assembly	BQA5304	\$ 1,215.00
	3" - 4"	Low lead bronze top cover assembly	BQA5305	\$ 1,503.00
4	2"	Standard bronze main line change over valve kit	BQA5306	\$ 407.00
	2"	Low lead bronze main line change over valve kit	BQA5307	\$ 429.00
	3" - 4"	Standard bronze main line change over valve kit	BQA5308	\$ 562.00
	3" - 4"	Low lead bronze main line change over valve kit	BQA 5309	\$ 688.00
5	2"	Low lead bronze oval meter body	CPA0025	\$ 941.00
	2"	Standard bronze oval meter body	CPA0026	\$ 758.00
	2"	Low lead bronze round meter body	CPA0002	\$ 888.00
	2"	Standard bronze round meter body	CPA0012	\$ 899.00
	3"	Low lead bronze meter body	CPA0003	\$ 1,404.00
	3"	Standard bronze meter body	CPA0013	\$ 1,093.00
	4"	Low lead bronze meter body	CPA0004	\$ 1,825.00
	4"	Standard bronze meter body	CPA0011	\$ 1,412.00

The above kits include required screws, bolts and seals

* Item 3 includes the change over valve kit in item 4.

About Elster AMCO Water, Inc.

Elster AMCO Water, Inc. is an industry leader and world-class provider of advanced metering products and intelligent metering solutions. Highly experienced and knowledgeable, Elster AMCO's direct sales force and nationwide distributor network provides exceptional, turnkey project management, and on-site/after sale support. With an established record of superior product quality and performance as well as an extensive product offering that conforms to AWWA standards, Elster's investment in technology and people benefits its customers by helping them reduce operating cost, improve service capabilities and create new revenue streams.

About Elster Group

Elster Group is a world leader in Advanced Metering Infrastructure (AMI) and integrated metering and utilization solutions to the gas, electricity and water industries. Elster's high quality AMI and AMR products, systems, and solutions reflect the wealth of knowledge and experience gained from over 170 years of dedication to measuring precious resources and energy. Elster provides world class solutions and advanced technologies to help utilities more easily, efficiently and reliably obtain and use advanced metering intelligence to improve customer service, enhance operational efficiency, and increase revenues. Elster's AMI solutions enable utilities to cost-effectively generate, deliver, manage and conserve the life-essential resources of gas, electricity and water. The group has over 7,500 staff and operations in 38 countries, focused in North and South America, Europe, and Asia.

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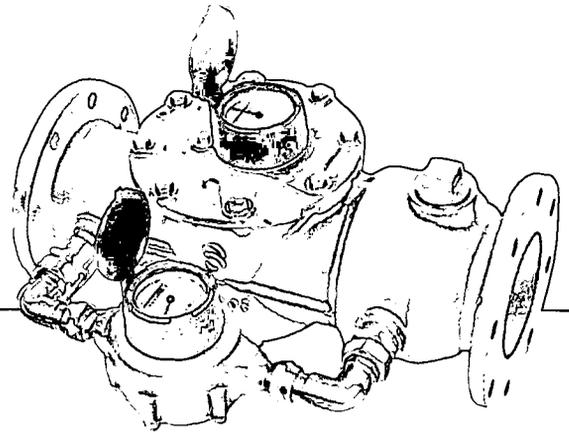
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Lit Ref: C4-P-P-234/03-08

C3000 Compound Meter

Bronze, Magnetic Drive, Round Flanged Ends

Size 6"



<u>Size</u>	<u>6"</u>	
95%-101% Accuracy GPM	3/4	
98.5%-101.5% Accuracy GPM	1 1/2 - 2500	
Continuous Flow GPM	1560	
Maximum Flow GPM	2500	
Operating Pressure psi	150	
Operating Temperature °F	120	
<u>Sweep Hand Registers</u>	<u>Turbine</u>	<u>Bypass</u>
US Gallons	1000	10
Cubic Feet	100	1
Cubic Meters	10	1/10
Imperial Gallons	100	10
<u>Capacity of Registers</u>	<u>Turbine</u>	<u>Bypass</u>
US Gallons (millions)	1000	100
Cubic Feet (millions)	100	10
Cubic Meters (millions)	10	1
Imperial Gallons (millions)	1000	100

Register Type Permanently sealed direct reading registers.

Materials

Main Case	Bronze
Top Cover Plate	Bronze
Case Bolts	Stainless Steel
Measuring Element	Polyphenylene Oxide
Rotor	Polypropylene
Rotor Bushings	PTFE Compound
Rotor Thrust Bearing	Ceramic Jewel
Rotor Spindle	Tungsten Carbide
Undergearing	Polyacetal Resin
Changeover Valve	Polymer, Bronze, Stainless Steel & Rubber
Bypass Meter	Bronze
Measuring Chamber	Compounded Thermoplastic
Register Lens	Tempered Glass
Register Housing & Lid	Polymer or Bronze
Register Can	90% Copper Alloy
Body O-Rings	Rubber & Nitrile

Operation. The C3000 Compound Meter is designed for installations where large variations in flow rate can be expected. These flow ranges are measured by utilizing the low flow capability of a positive displacement meter and the higher flow efficiency of a Class II turbine meter. The small meter is a standard C700. The measuring element of the large meter is a standard T3000 turbine meter. Located on the downstream side of the turbine measuring chamber, a changeover valve operates on differential pressure. Before the valve opens, all flow is directed through the C700 bypass meter. After the valve opens, flow goes through both measuring chambers.

Compliance to Standards. The C3000 Compound Meter fully complies with the American Water Works Association Standard C702 as most recently revised.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines. The AWWA M6 manual recommends 10



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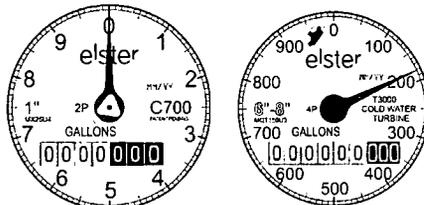
pipe diameters upstream and 5 pipe diameters downstream of straight pipe for optimal accuracy of all inferential type flowmeters. It is recommended that a plate strainer be used to protect the turbine and help reduce the effects of turbulence. Optional bypass trim valves are available to facilitate in-line bypass meter replacement while under pressure.

Application. The meter is for use with POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1½% within its normal flows of 1fi-2500 GPM. Both pressure loss and accuracy tests are made before shipment. No adjustments are necessary before installation.

Construction. The meter consists of a main case, turbine measuring element, changeover valve, main case cover, oscillating piston bypass meter and magnetically driven register assemblies. Both the main case and bypass meter are cast in bronze with raised characters showing model, size and direction of flow. The main case has a throated inlet. A case dowel pin is inserted for locating the bronze cover plate. There are tapped bosses for 3/4" drain and 2" test plugs. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears, filters and undergear assembly. The measuring element is attached to the underside of the main cover with four stainless steel screws and washers, one insert of which is placed eccentrically in the cover. The internal regulator assembly is interconnected to an external regulator shaft located on top of the cover, allowing meter calibration without depressurizing the test bench or meter service. The main case and cover are assembled with an O-ring gasket and stainless steel bolts. The bypass consists of 1" piping and a 1" meter with an oscillating piston measuring chamber and a polymer strainer. A non-return valve installed in the meter's bypass arm, downstream of the bypass meter, prevents backflow from the high flow chamber being registered on the bypass meter. Each register assembly is secured with a screw and is protected by a hinged lid bearing the same serial number.

Register. Each register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is domed and secured with an "L" shaped gas-

ket, then roll sealed. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, extra thin sweep hands do not interfere with meter reading, and the low-flow indicator will detect plumbing leaks.



Connections. This meter has 8-bolt round flanged end connections. Both bronze and cast iron companion flanges are available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread.

Maintenance. The unitized turbine measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Blank cover plates are available for the utility's use. Pretested and calibrated turbine measuring elements with cover plates and registers are available for exchange or purchase. The C3000 may be repaired with standard T3000

and C700 parts available from our warehouses in the U.S. and Canada. In addition, Elster AMCO Water maintains a fully equipped and staffed repair facility in Ocala, Florida.

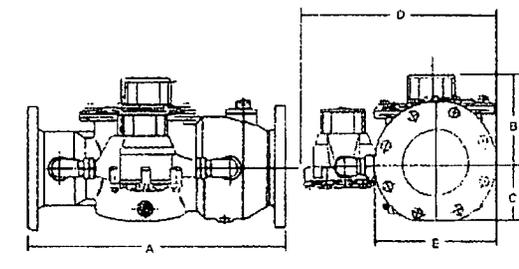
Reading Options. C3000 meters are available with Absolute Encoder and Digital register options to provide water usage output to the entire spectrum of electronic meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Elster AMCO Water's Encoder and Digital registers interface to a variety of automated meter reading systems, allowing technology upgrade without register replacement.

Automatic Meter Reading (AMR).

Elster AMCO Water offers the full spectrum of RF technology alternatives - Walk-by, Drive-by and Fixed Network, to reduce reading cost beyond electronic meter reading, while further increasing personnel safety. RF Transmitters accept input from the Elster AMCO Water's Encoder or Digital Register for reliable measurement inputs. RF Systems from Elster AMCO Water are designed for reading both pit and inside set meter installations, and are to perform in the extremes of service conditions they will encounter.

Dimensions and Net Weight

Meter Size	Dimensions (Inches)					Weight (lbs.)
	A	B	C	D	E	
6"	24	8 1/8	5 5/16	17 9/16	11 3/16	145



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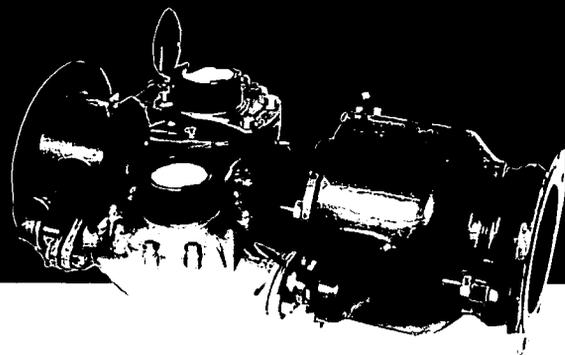
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C3000 Compound Meter

Cast Iron or Bronze, Magnetic Drive, Round Flanged Ends

Size 8"



<u>Size</u>	<u>8"</u>
97%-101% Accuracy GPM	1 1/2
98.5%-101.5% Accuracy GPM	5-3000
Continuous Flow GPM	1875
Maximum Flow GPM	3000
Operating Pressure psi	150
Operating Temperature °F	120

<u>Sweep Hand Registers</u>	<u>Turbine</u>	<u>Bypass</u>
US Gallons	1000	100
Cubic Feet	100	10
Cubic Meters	10	1/10
Imperial Gallons	1000	10

<u>Capacity of Registers</u>	<u>Turbine</u>	<u>Bypass</u>
US Gallons (millions)	1000	100
Cubic Feet (millions)	100	10
Cubic Meters (millions)	10	1/10
Imperial Gallons (millions)	1000	10

Register Type Permanently sealed direct reading registers.

<u>Materials</u>	
Main Case	Cast Iron or Bronze
Top Cover Plate	Bronze
Case Nuts and Bolts	Stainless Steel
Measuring Element	Polyphenylene Oxide
Rotor	Polypropylene
Rotor Bushings	PTFE Compound
Rotor Thrust Bearing	Ceramic Jewel
Rotor Spindle	Tungsten Carbide
Undergearing	Polyacetal Resin
Valve Main Case	Cast Iron
Changeover Valve	Polymer, Bronze, Stainless Steel & Rubber
Bypass Meter	Bronze
Measuring Chamber	Compounded Polymer
Register Lens	Tempered Glass
Register Housing & Lid	Polymer or Bronze
Register Can	90% Copper Alloy
Body O-Rings	Rubber & Nitrile

Operation. The C3000 Compound Meter is designed for installations where large variations in flow rate can be expected. These flow ranges are measured by utilizing the low flow capability of a positive displacement meter and the higher flow efficiency of a Class II turbine meter. The small meter is a standard C700. The measuring element of the large meter is a standard T3000 turbine meter. Located on the downstream side of the turbine measuring chamber, a changeover valve operates on differential pressure. Before the valve opens, all flow is directed through the C700 bypass meter. After the valve opens, flow goes through both measuring chambers.

Compliance to Standards. The C3000 Compound Meter fully complies with the American Water Works Association Standard C702 as most recently revised.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines. The AWWA M6 manual recommends 10

pipe diameters upstream and 5 pipe diameters downstream of straight pipe for optimal accuracy of all inferential type flowmeters. It is recommended that a plate strainer be used to protect the turbine and help reduce the effects of turbulence. Optional bypass trim valves are available to facilitate in-line bypass meter replacement while under pressure.

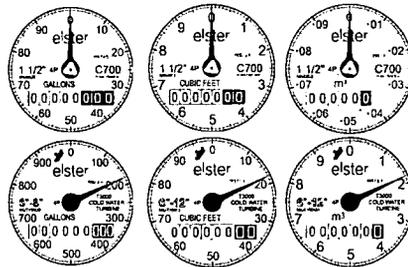
Application. The meter is for use with POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1 1/2% within its normal flows of 5-3000 GPM. Both pressure loss and accuracy tests are made before shipment. No adjustments are necessary before installation.

Construction. The meter consists of a main case, turbine measuring element, changeover valve, main case cover, oscillating piston bypass meter and magnetically driven register assemblies. The main case is cast iron or bronze and the bypass meter is bronze. Each has raised characters showing model, size and direction of flow. The main case has a throated inlet. A case dowel pin is inserted for locating the bronze cover plate. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears, filters and undergear assembly. The measuring element is attached to the underside of the main cover with four stainless steel screws and washers, one insert of which is placed eccentrically in the cover. The internal regulator assembly is interconnected with a shaft located on top of the cover and secured with a seal plug. The main case and cover are assembled with an O-ring gasket and stainless steel nuts, bolts and washers. The changeover valve is encased in a separate housing bolted to the downstream turbine flange. Its outlet flange is adjustable by 1 3/8". There is a check valve installed for the bypass meter. The bypass consists of 1 1/2" piping, elbows, couplings and a C700 1 1/2" oval flanged meter. A non-return valve installed in the meter's bypass arm, downstream of the

bypass meter, prevents backflow from the high flow chamber being registered on the bypass meter. The register assemblies are secured with tamperproof screws and are protected by hinged lids bearing the same serial number.

Register. Each register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is domed and secured with an "L" shaped gasket, then roll sealed. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, extra thin sweep hands do not interfere with meter reading, and the low-flow indicator will detect plumbing leaks.

Connections. This meter has 8-bolt round flanged end connections. Both bronze and cast iron companion flanges are available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread.



Maintenance. The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Blank cover plates are available for the utility's use. Pretested and calibrated turbine measuring elements with cover plates and registers are available for exchange or purchase. The bypass meter may be repaired with standard C700 parts available from our warehouses in the U.S. and Canada. In addition, Elster AMCO Water maintains a fully equipped and staffed repair facility in Ocala, Florida.

Reading Options. C3000 meters are available with Absolute Encoder and Digital register options to provide water usage output to the entire spectrum of electronic meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Elster AMCO Water's Encoder and Digital registers interface to a variety of automated meter reading systems, allowing technology upgrade without register replacement.

Automatic Meter Reading (AMR). Elster AMCO Water offers the full spectrum of RF technology alternatives - Walk-by, Drive-by and Fixed Network, to reduce reading cost beyond electronic meter reading, while further increasing personnel safety. RF Transmitters accept input from the Elster AMCO Water's Encoder or Digital Register for reliable measurement inputs. RF Systems from Elster AMCO Water are designed for reading both pit and inside set meter installations, and are to perform in the extremes of service conditions they will encounter.

Dimensions and Net Weight

Meter Size	Dimensions (Inches)					Weight (lbs.)
	A*	B	C	D	E	
8" Iron	34 1/2	16	6 7/8	20 1/2	13 7/8	20 1/2 285
8" Bronze	34	16	6 7/8	20 1/2	13 7/8	20 227

*Length is adjustable by 1 3/8" from 33 1/8" minimum to 34 1/2" maximum for cast iron and 32 5/8" minimum to 34" maximum for bronze.

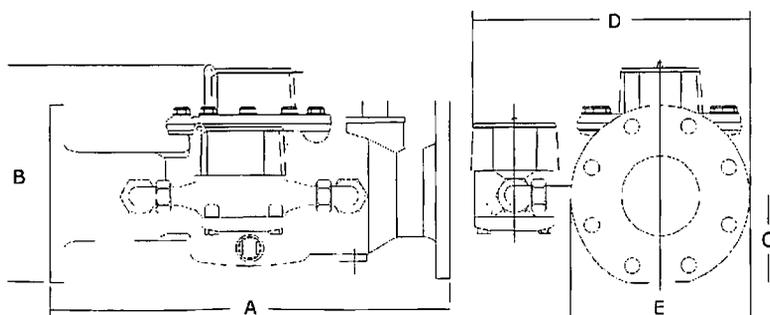
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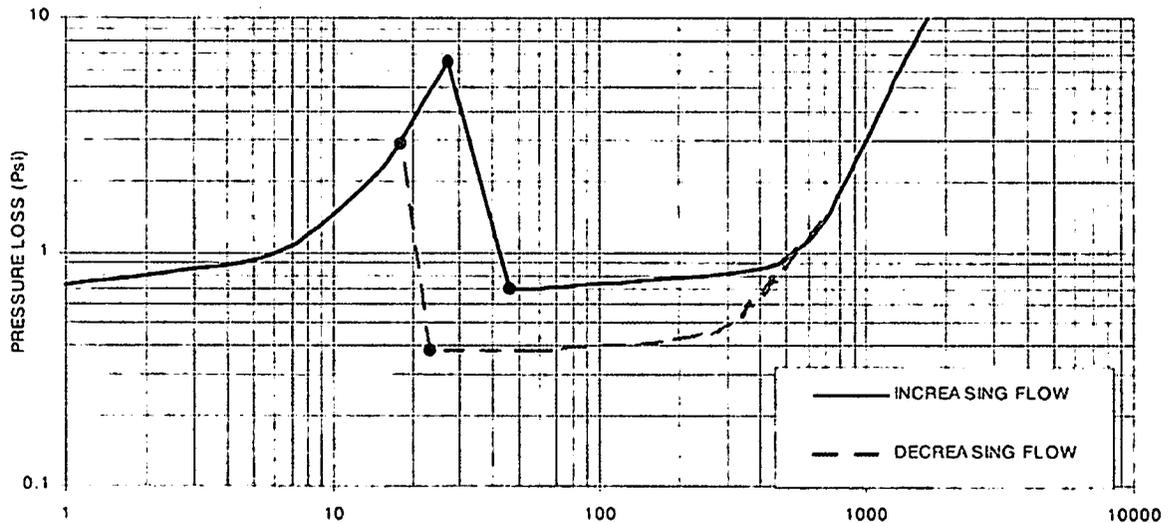
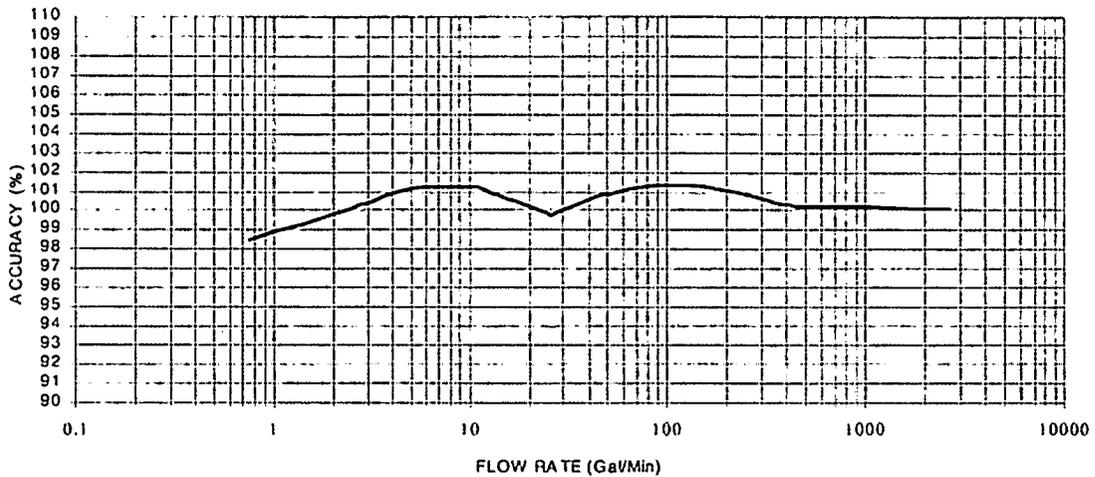
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The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.



Accuracy/Pressure Loss 6" C3000 Compound Meter



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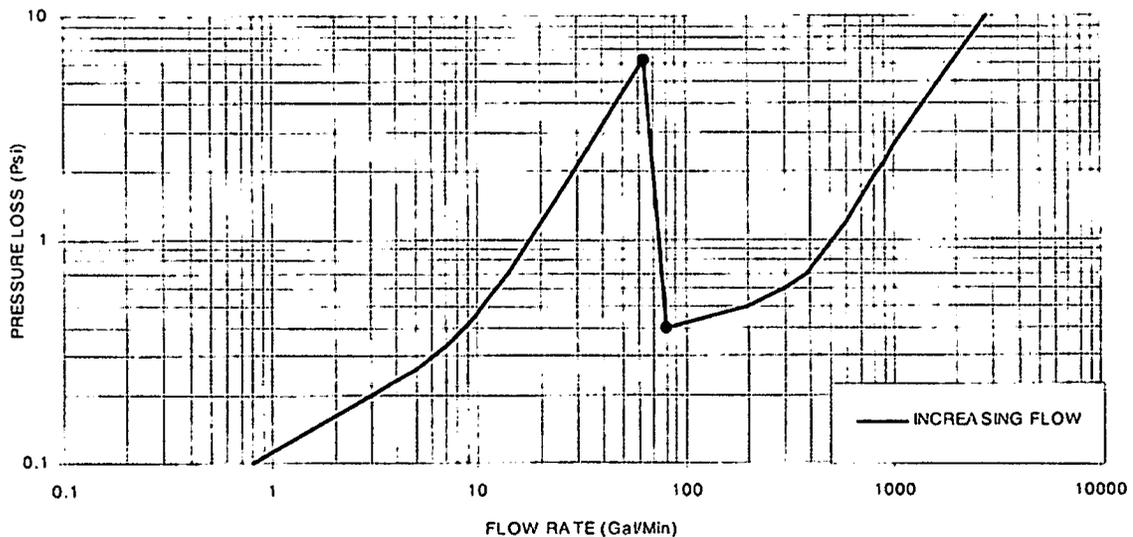
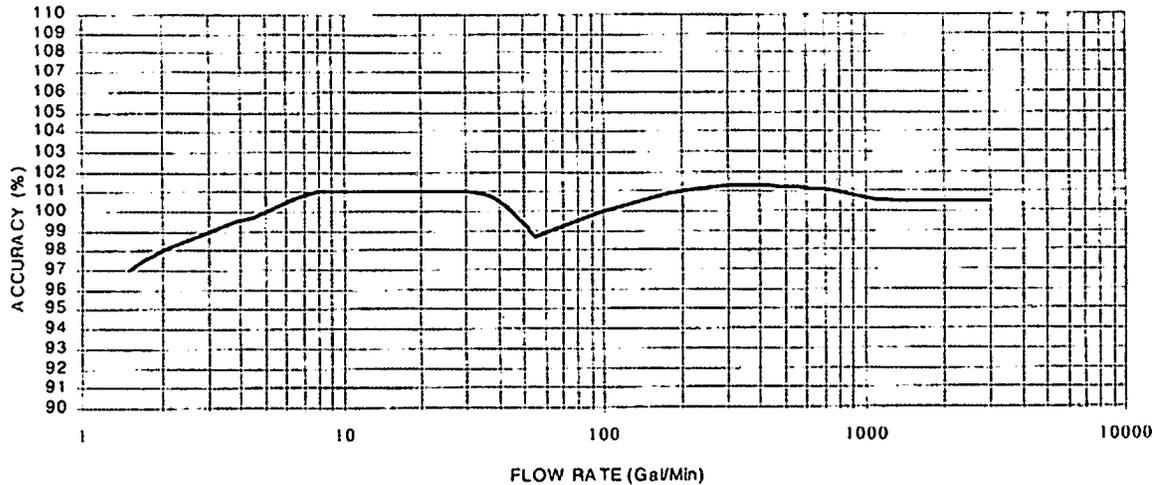
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Accuracy/Pressure Loss 8" C3000 Compound Meter



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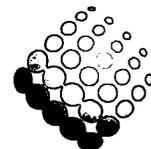
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C3-A-P-8/06-07



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Utility Guarantee for Model C3000 Compound Meters

Scope of Guarantee

This guarantee applies exclusively to Elster AMCO Water C3000 Compound Meters and direct read registers purchased therewith manufactured after July 1, 2007, when used in potable water below 120° F in accordance with Elster AMCO'S published Technical Specifications and when installed in accordance with Elster AMCO'S published installation instructions, both as in effect as of the date of Elster AMCO'S shipment of the product. This guarantee applies exclusively to the original utility purchaser when product is purchased from either Elster AMCO or an Elster AMCO-authorized distributor ("Business Partner").

Materials and Workmanship

If used and installed as described above, Elster AMCO guarantees product covered by this guarantee to be free from defects in materials and workmanship for a period 12 months after installation or 18 months after shipment by Elster AMCO or its authorized Business Partner, whichever occurs first.

Case Integrity

If used and installed as described above, Elster AMCO guarantees that the main cases of product covered by this guarantee will retain their structural integrity of a period of 5 years from date of shipment by Elster AMCO or its authorized Business Partner.

Register Functionality

If used and installed as described above, Elster AMCO guarantees that direct read registers purchased with C3000 meters will function for 10 years from date of manufacture by Elster AMCO. Encoder and Digital register warranties are specified separately, in Elster AMCO'S documents Enc-UG-200 and Dig-UG-200, respectively.

Meter Accuracy

If used and installed as described above, Elster AMCO guarantees that product covered by this guarantee will meet or exceed AWWA accuracy standards, per AWWA specification C702-01, for 2 years from date of shipment by Elster AMCO or its authorized Business Partner.

Claims

Any meter or register covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of Elster AMCO, without additional charge to the customer. The customer is responsible for removing the meter or register from service, returning it to the factory service center designated by Elster AMCO, providing a written or electronic (facsimile or e-mail) claim notice, and for freight costs to and from the service center. Customer is also responsible for reinstalling repaired or replaced product.

Limits of Liability

This guarantee does not apply to meters or registers damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Elster AMCO'S installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of Elster AMCO. If a meter is claimed to breach the accuracy guarantees as stated herein, the customer shall submit a certified copy of the test results at the time the meter is returned to Elster AMCO. The guarantees as to accuracy shall be void if an examination of the customer's water supply shows an unusually adverse effect on metering equipment.

Any description of product, whether in writing or made orally by Elster AMCO or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee unless confirmed to be such in writing by Elster AMCO.

The laws of the State of Florida, excluding its conflicts of law rules shall exclusively govern this guarantee. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

THE FOREGOING EXPRESS GUARANTEE IS IN LIEU OF ALL OTHER GUARANTEES OR WARRANTIES WHATSOEVER, WHETHER EXPRESS, IMPLIED OR STATUTORY (EXCEPT FOR WARRANTY OF TITLE), INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CUSTOMER'S EXCLUSIVE REMEDY AND ELSTER AMCO'S AND ITS BUSINESS PARTNERS' SOLE LIABILITY ON ANY CLAIM, WHETHER IN TORT (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, FOR ANY METER OR REGISTER WHICH FAILS TO MEET THE TERMS OF THE GUARANTEE STATED ABOVE, SHALL BE LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE. IN NO EVENT SHALL ELSTER AMCO AND/OR ITS BUSINESS PARTNERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, DELAYS AND CLAIMS OF CUSTOMERS OF THE CUSTOMER OR OTHER THIRD PARTIES.

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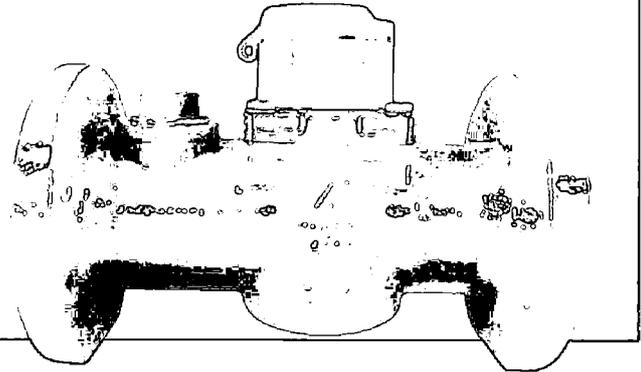
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C3000-UG-200/07-07

T4000i Turbine Meter

Epoxy coated cast iron

Sizes: 1 1/2" - 8"



Performance:

Size	Inches	1 1/2	2	3	4	*6	*8
	mm	40	50	80	100	150	200

Performance

95% - 101.5% Accuracy	GPM	1.5	1.5	2.	2.6	8	16
	m3/hr	.34	.34	.5	.6	1.8	3.6
98.5% - 101.5% Accuracy	GPM	3-400	3-400	7.5-900	7.5-1250	13-2600	18-4500
	m3/hr	.68-90	.68-90	1.7-200	1.7-285	3-600	4-1000
Continuous flow	GPM	220	220	600	1000	2000	3500
	m3/hr	50	50	140	225	450	800
Maximum flow	GPM	400	400	900	1250	2600	4500
	m3/hr	90	90	140	290	550	1000

Performance (all sizes): Operating Pressure 150 psi, (1034 kPa) Operating Temperature 120°F (50°C)

*Check availability

Sweep Hand Registers				Register Capacity (millions):			
Size	USG	Cu Ft	m3	Size	USG	Cu Ft	m3
1 1/2" - 4"	100	10	1	1 1/2" - 4"	100	10	1
6" - 8"	1000	100	10	6" - 8"	1000	100	10

Register Type

Choice of permanently sealed direct reading register, INVISION Absolute Encoder register, Digital register, Industrial HSP register.

Materials

Main Case (1.5" - 8")	Epoxy Coated Cast Iron
Top Cover Plate (1.5"-8")	Epoxy Coated Cast Iron
Body O-Ring	Synthetic Rubber
Case Bolts	Stainless Steel
Measuring Element	Glass Loaded Noryl
Rotor	Glass Loaded Polypropylene
Rotor Thrust Bearing	Synthetic Sapphire
Rotor Spindle	Tungsten Carbide
Thrust Pads	Tungsten Carbide
Register Lens	Tempered Glass
Register Housing and Lid	Polymer
Register Can	90% Copper Alloy or stainless steel

Operation

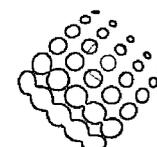
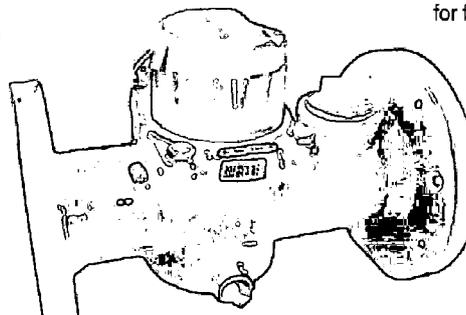
T4000i Turbine Meters are designed for installation where occasional low and moderate to high sustained flows are demanded. Water passes through the meter without a change in flow direction, driving a helix rotor in direct proportion to the quantity of water passing through the meter. Rotor revolutions are transferred to a register by a magnetic drive.

Compliance to Standards

The T4000i Turbine Meter complies with all performance and material requirements of the American Water Works Association Standard C701, class II In-Line (High-Velocity), as most recently revised, listed to NSF61, annex G.

Installation

The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal, inclined or vertical lines. Elster AMCO Water recommends that all turbine meters be installed with 10 pipe diameters of undisturbed flow upstream of the meter, and five pipe diameters of undisturbed flow downstream of the meter. It is highly recommended that a plate strainer be used to protect the turbine and help reduce the effects of turbulence. Furthermore, the addition of a strainer reduces the required pipe diameters of undisturbed flow to five upstream and three downstream. The installer should consider a bypass pipe with gate valves for use during maintenance and a downstream test tee for future field-testing.



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Application

T4000i meters are for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% + 1 1/2% within the AWWA recommended flow ranges*. Both pressure loss and accuracy tests are made before shipment. No adjustments need be made before installation.

Construction

The meter consists of a main case, a measuring element, a case cover and a magnetically driven register assembly. In sizes 1 1/2" through 8" the main case is epoxy coated cast iron with raised characters showing model, size and direction of flow. The case has a throated inlet. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears. The measuring element is attached to the underside of the cover with stainless steel screws and washers. The internal accuracy regulator vane is interconnected with an external regulator assembly located underneath the register. This allows meter calibration without depressurizing the test bench or meter service. The regulator is protected by the register assembly, assuring tamperproof performance. The main case and cover are assembled with an O-ring gasket and stainless steel bolts. The register assembly is attached to the main case and can be rotated 340°. Sizes 4" through 8" come standard with integral test ports.

Register

The register is contained within a 90% copper or 304 stainless steel seamless can which is oven cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is secured in an "L" shaped gasket, and then roll sealed to produce a permanent sealed design. To assure easy reading, the totalizer wheels are large and color-coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra thin sweep hand does not interfere with meter reading, and the flow indicator will detect plumbing leaks.

Connections

The 3" through 8" meters are available with round flanged end connections. The 1 1/2" and 2" meters are available with 2-bolt oval flanged-end connections. Both flanged connections conform to ANSI B16.1 cast iron pipe flange, Class 125 with companion flanges available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread and conform to ANSI B16.1 cast-iron pipe flange, Class 125.

Maintenance

The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Pretested and calibrated measuring elements with cover plates and registers are

available for exchange or purchase. In addition, Elster AMCO Water maintains a fully equipped and staffed repair facility in Ocala, Florida.

Reading Options

T4000i meters are available with Absolute Encoder and Digital register options to provide water usage output to the entire spectrum of electronic meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Elster AMCO Water's Encoder and Digital registers interface to a variety of automated meter reading systems, allowing technology upgrade without register replacement.

Electronic Meter Reading (EMR)

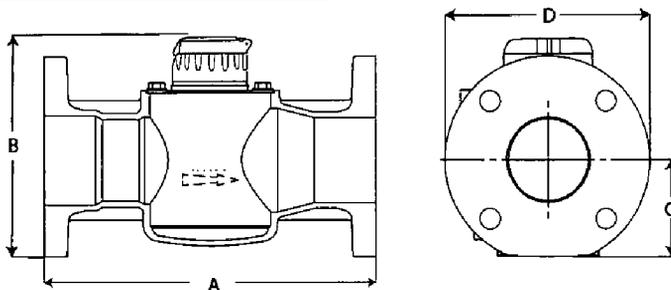
The T4000i is available with InVision Absolute Encoder technology that allows electronic interrogation of the meter's register via inductive coupled touch pads. Elster AMCO Water's pit version of the InVision encoder utilizes a fully potted glass lens, permanently sealed to eliminate any chance of moisture penetration. The InVision register features a programmable ID number, leak detector that provides visual indication of plumbing leaks, factory potted touch pads for wall or pit-lid mounting, and low power consumption for AMR applications.

Automatic Meter Reading (AMR)

Elster AMCO Water offers the full spectrum of RF technology alternatives - Walk-by, Drive-by and Fixed Network, to reduce reading cost beyond electronic meter reading, while further increasing personnel safety. RF Transmitters accept input from the Elster AMCO Water's Encoder or Digital Register for reliable measurement inputs.

Dimensions and Net Weight

Meter Size	A		B		C		D		Weight	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lbs.)	(kg.)
1 1/2" Oval	10 1/8	259	7 7/8	200	1 3/4	45	5 5/8	142	15	6.8
2" Oval	10	258	7 7/8	200	2	51.5	6	154	20	9
2" Round	10	258	8	201	2 7/8	72	6	152	25	11
3" Round	12	308.5	9	228	3 1/2	88.5	7 1/2	190	33	15
4" Round	14	360	9 5/8	245	4 1/8	106	9	229	50	23
6" Round	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
8" Round	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD



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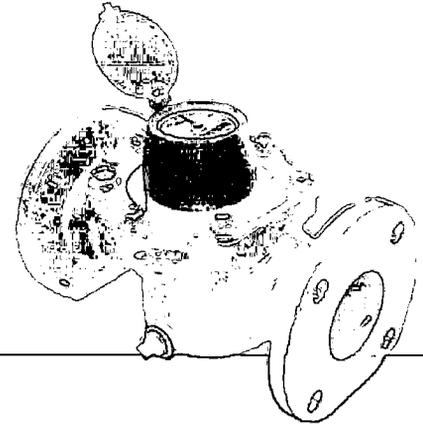
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T4000 Turbine Meter

Sizes: 1 1/2" - 12"



Performance:

Size	Inches	1 1/2	2	3	4	6	8	10	12
	mm	38.1	50.8	76.2	101.6	152.4	203.2	254.0	304.8

Performance

> 95% - 101.5%	GPM	1.5	1.5	2.2	2.6	8	16	20	40
Accuracy	m3/hr	.3	.3	.5	.6	1.8	3.6	4.5	9.1
98.5% - 101.5%	GPM	3-400	3-400	7.5-900	7.5-1250	13-2600	18-4500	27-7000	50-9000
Accuracy	m3/hr	.7-91	.7-91	1.7-204	1.7-284	3.0-590	4.1-1022	6.1-1590	11.4-2044
Continuous flow	GPM	220	220	600	1000	2000	3500	5500	6500
	m3/hr	50	50	140	225	450	800	1250	1500
Maximum flow	GPM	400	400	900	1250	2600	4500	7000	9000
	m3/hr	90	90	200	290	550	1000	1600	2000

Register Resolution

Sweep Hand Registers	USG	100	100	100	100	1000	1000	1000	1000
	cu ft	10	10	10	10	100	100	100	100
	m3	1	1	1	1	10	10	10	10
Capacity of Registers (millions)	USG	100	100	100	100	1000	1000	1000	1000
	cu ft	10	10	10	10	100	100	100	100
	m3	1	1	1	1	10	10	10	10

Performance (all sizes): Operating Pressure 150 psi (1034kPa), Operating Temperature 120°F (50°C)

Register Type

Choice of permanently sealed direct reading register, InVISION Absolute Encoder register, Digital register, Industrial registers.

Materials

Main Case (1 1/2" - 8")	Waterworks Bronze or Low-lead Bronze
Main Case (10" - 12")	Epoxy Coated Cast Iron
Top Cover Plate (1 1/2"-12")	Waterworks Bronze or Low-lead Bronze
Body O-Ring	Synthetic Rubber
Case Bolts	Stainless Steel
Measuring Element	Glass Loaded Noryl
Rotor	Glass Loaded Polypropylene
Rotor Thrust Bearing	Synthetic Sapphire
Rotor Spindle	Tungsten Carbide
Thrust Pads	Tungsten Carbide
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze
Register Can	90% Copper Alloy or stainless steel

Operation

T4000 Turbine Meters are designed for installation where occasional low and moderate to high sustained flows are demanded. Water passes through the meter without a change in flow direction, driving a helix rotor in direct proportion to the quantity of water passing through the meter. Rotor revolutions are transferred to a register by a magnetic drive.

Compliance to Standards

The T4000 Turbine Meter complies with all performance and material requirements of the American Water Works Association Standard C701, class II In-Line (High-Velocity) Type, as most recently revised.

Installation

The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal, inclined or vertical lines. Elster AMCO Water recommends that all turbine meters be installed with ten pipe diameters of undisturbed flow upstream of the meter, and five pipe diameters of undisturbed flow downstream of the meter. It is highly recommended that a plate strainer be used to protect the turbine and help reduce the effects of turbulence. Furthermore, the addition of a strainer reduces the required pipe diameters of undisturbed flow to five upstream and three downstream. The installer should consider a bypass pipe with gate valves for use during maintenance and a downstream test tee for future field-testing.



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Application

T4000 meters are for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1 1/2% within the AWWA recommended flow ranges*. Both pressure loss and accuracy tests are made before shipment. No adjustments need be made before installation.

Construction

The meter consists of a main case, a measuring element, a case cover and a magnetically driven register assembly. In sizes 1 1/2" through 8" the main case is cast in either traditional waterworks bronze or low-lead bronze, the 10" and 12" main case is epoxy coated cast iron, all with raised characters showing model, size and direction of flow. The case has a throated inlet. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears. The measuring element is attached to the underside of the cover with stainless steel screws and washers. The internal accuracy regulator vane is interconnected with an external regulator assembly located underneath the register. This allows meter calibration without depressurizing the test bench or meter service. The regulator is protected by the register assembly, assuring tamperproof performance. The main case and cover are assembled with an O-ring gasket and stainless steel bolts. The register assembly is secured to the main case with a tamperproof screw or tamperproof punch pin. Sizes 4" through 8" come standard with integral test ports.

Dimensions and Net Weight

Meter Size	A		B		C		D		E		Weight	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lbs.)	(kg.)
1 1/2" Oval	10	259	8 3/16	208	1 7/8	47.6	5 5/8	142	11 1/2	292.1	22 1/2	10.2
2" Oval	10	258	8 1/8	206.4	2 1/8	54	6 1/16	154	11 1/2	292.1	24	10.9
3" Round	12	308.5	9 3/8	238	3 3/16	93.6	7 1/2	190	12 11/16	322.3	37 1/2	17
4" Round	14	360	9 3/4	247.6	4 3/16	106.4	9 1/16	229	13 1/16	331.8	51	23.1
6" Round	18	457.2	13	330.2	5 1/2	139.7	11	279.4	16 5/16	414.3	101 1/2	46
8" Round	20	508	15 1/8	384.2	6 1/2	165.1	13 3/16	344.5	18 1/2	469.9	136 1/2	61.9
10" Round	17 3/4	451	17 1/4	438.2	7 3/4	197	16 1/10	406	21 1/2	546.1	181	82
12" Round	19 3/4	502	18 1/3	466	8 4/5	224	18 1/10	457	22 1/2	571.5	230	104

Register

The register is contained within a 90% copper or 304 stainless steel seamless can which is oven cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is secured in an "L" shaped gasket, and then roll sealed to produce a permanent sealed design. To assure easy reading, the totalizer wheels are large and color-coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra thin sweep hand does not interfere with meter reading, and the flow indicator will detect plumbing leaks.

Connections

The 3" through 12" meters are available with round flanged end connections. The 1 1/2" and 2" meters are available with 2-bolt oval flanged-end connections. Both flanged connections conform to ANSI B16.1 cast iron pipe flange, Class 125 with companion flanges available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread and conform to ANSI B16.1 cast-iron pipe flange, Class 125.

Maintenance

The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Pretested and calibrated measuring elements with cover plates and registers are available for exchange or purchase. In addition, Elster AMCO Water maintains a fully equipped and staffed repair facility in Florida.

Reading Options

T4000 meters are available with Absolute Encoder and Digital register options to provide water usage output to the entire spectrum of electronic meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Elster AMCO Water's Encoder and Digital registers interface to a variety of automated meter reading systems, allowing technology upgrade without register replacement.

Electronic Meter Reading (EMR)

The T4000 is available with InVision Absolute Encoder technology that allows electronic interrogation of the meter's register via inductive coupled touch pads. Elster AMCO Water's pit version of the InVision encoder utilizes a fully potted glass lens, permanently sealed to eliminate any chance of moisture penetration. The InVision register features a programmable ID number, leak detector that provides visual indication of plumbing leaks, factory potted touch pads for wall or pit-lid mounting, and low power consumption for AMR applications.

Automatic Meter Reading (AMR)

Elster AMCO Water offers the full spectrum of RF technology alternatives - Walk-by, Drive-by and Fixed Network, to reduce reading cost beyond electronic meter reading, while further increasing personnel safety. RF Transmitters accept input from the Elster AMCO Water's Encoder or Digital Register for reliable measurement inputs.

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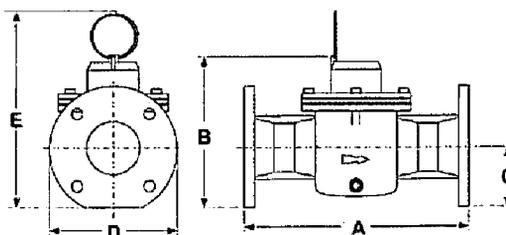
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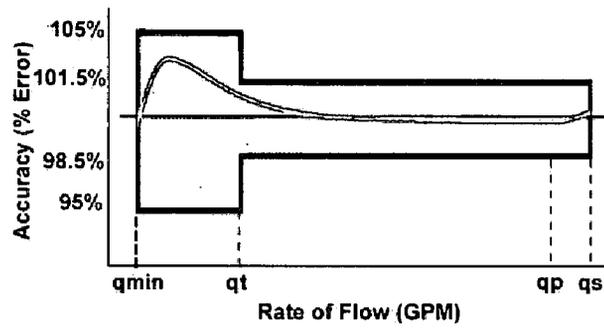


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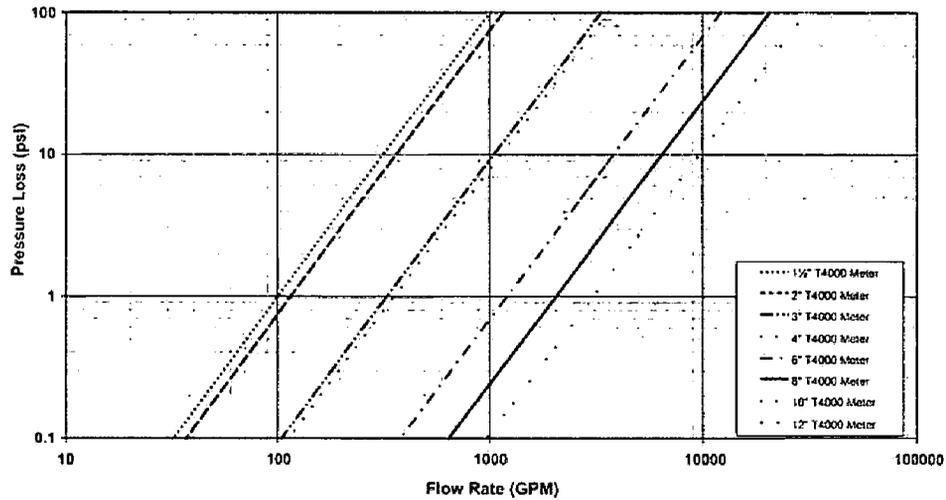
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T4000 Turbine Meters 1 1/2" – 12"

ACCURACY



PRESSURE LOSS



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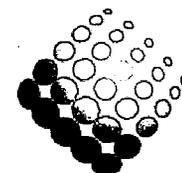
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T4000-A-P/06-07



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Utility Guarantee for Model T3000, T4000, T4000i & TS4000 Turbine Meters

Scope of Guarantee

This guarantee applies exclusively to Elster AMCO Water T3000/T4000/T4000i/TS4000 Turbine Meters and direct read registers purchased therewith manufactured after July 1, 2007, when used in potablewater below 120° F in accordance with Elster AMCO's published Technical Specifications and when installed in accordance with Elster AMCO's published installation instructions, both as in effect as of the date of Elster AMCO's shipment of the product. This guarantee applies exclusively to the original utility purchaser when product is purchased from either Elster AMCO or an Elster AMCO-authorized distributor ("Business Partner").

Materials and Workmanship

If used and installed as described above, Elster AMCO guarantees product covered by this guarantee to be free from defects in materials and workmanship for a period of 12 months after installation or 18 months after shipment by Elster AMCO or its authorized Business Partner, whichever occurs first.

Case Integrity

If used and installed as described above, Elster AMCO guarantees that the main cases of product covered by this guarantee will retain their structural integrity of a period of 1 year from date of shipment by Elster AMCO or its authorized Business Partner.

Register Functionality

If used and installed as described above, Elster AMCO guarantees that direct read registers purchased with T3000/T4000/TS4000 meters will function for 10 years from date of manufacture by Elster AMCO. Encoder and Digital register warranties are specified separately, in Elster AMCO's documents Enc-UG-200 and Dig-UG-200, respectively.

Meter Accuracy

If used and installed as described above, Elster AMCO guarantees that turbine meters covered by this guarantee will meet or exceed AWWA accuracy standards, per AWWA specification C701-02, for 2 years from date of shipment by Elster AMCO or its authorized Business Partner.

Claims

Any meter or register covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of Elster AMCO, without additional charge to the customer. The customer is responsible for removing the meter or register from service, returning it to the factory service center designated by Elster AMCO, providing a written or electronic (facsimile or e-mail) claim notice, and for freight costs to and from the service center. Customer is also responsible for reinstalling repaired or replaced product.

Limits of Liability

This guarantee does not apply to meters or registers damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Elster AMCO's installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of Elster AMCO. If a meter is claimed to breach the accuracy guarantees as stated herein, the customer shall submit a certified copy of the test results at the time the meter is returned to Elster AMCO. The guarantees as to accuracy shall be void if an examination of the customer's water supply shows an unusually adverse effect on metering equipment.

Any description of product, whether in writing or made orally by Elster AMCO or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee unless confirmed to be such in writing by Elster AMCO.

The laws of the State of Florida, excluding its conflicts of law rules shall exclusively govern this guarantee. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect another provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

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Bulk Internal Mech Changeout Program		List Price				
T3000, T4000, TS4000, C3000, HT4000	1 1/2" - 2"	3***	4"	6"	8"	10" - 12**
No Register	414.00	640.00	794.00	1,184.00	1,605.00	3,300.00
w/ Direct Read Register	494.00	720.00	874.00	1,264.00	1,685.00	3,380.00
w/ Encoder Plastic Lens (PL) w/ Wall Pad	570.00	796.00	950.00	1,340.00	1,761.00	3,456.00
w/ Encoder PL (no pad)	564.00	790.00	944.00	1,334.00	1,755.00	3,450.00
w/ Encoder Glass Lens (GL) w/ Pit Pad	690.00	906.00	1,070.00	1,460.00	1,881.00	3,576.00
w/ Encoder Glass Lens (GL) w/25' cable	680.00	1068.00	1,060.00	1,450.00	1,871.00	3,566.00
w/ Encoder PL with Direct/Remote 60W-R ERT*	842.00	1111.00	1,222.00	1,612.00	2,033.00	3,728.00
w/ Encoder GL with 60W 25' ILC	885.00	1111.00	1,265.00	1,655.00	2,076.00	3,771.00
w/ Encoder GL with 60W Direct Wire or Integral Mount*	852.00	1078.00	1,232.00	1,622.00	2,043.00	3,738.00
w/ Encoder GL w/ 25' Itron or Nicor ILC	686.00	912.00	1,066.00	1,456.00	1,877.00	3,572.00
w/ Digital Register PL	531.00	757.00	911.00	1,301.00	1,722.00	3,417.00
w/ Digital Register GL w/25' cable	601.00	827.00	981.00	1,371.00	1,792.00	3,487.00
w/ Digital Register PL with Direct/Remote 60WP-R ERT*	831.00	1057.00	1,211.00	1,601.00	2,022.00	3,717.00
w/ Digital Register GL 60WP 25' ILC	845.00	1071.00	1,225.00	1,615.00	2,036.00	3,731.00
w/ Digital Register GL 60WP Direct Wire or Integral Mount*	837.00	1063.00	1,217.00	1,607.00	2,028.00	3,723.00
w/ Digital Register GL w/ 25' Itron or Nicor ILC	632.00	858.00	1,012.00	1,402.00	1,823.00	3,518.00

* Only available for T4000

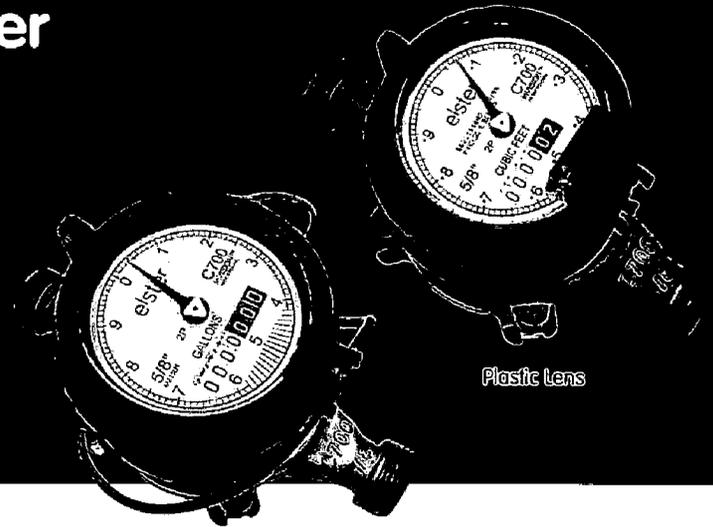
**Includes HT4000 Change out Kit

Add on Options for Bulk Internal Mech T4000/TS4000/C3000		List Price			
	1 1/2" - 2"	3" - 4"	6" - 8"	10" - 12**	
Low Lead Top Plate	48.00	48.00	120.00	240.00	
	2"	3"	4"	6"	8"
C3000 Changeover Valve Kit	410.00	533.00	596.00	1,176.00	5,643.00
Low Lead Bypass Arm Kit	274.20	280.00	280.00	278.20	call for pricing

*T4000 Only

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Absolute Encoder Register

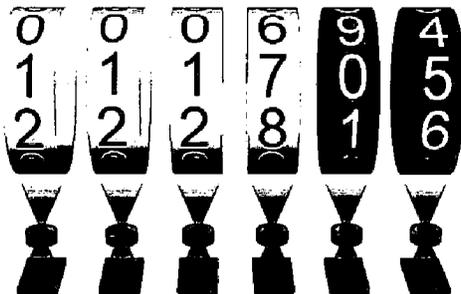


Glass Lens

Plastic Lens

Encoder Register Features

- No contact encoding extends register life
- InVISION technology for virtually error-free absolute reading
- Full six wheel encoding
- Reprogrammable 10-digit register ID
- No batteries; reading power provided by reading device
- Permanently sealed glass or plastic lens register
- Factory-potted, waterproof terminal sealing for pit-set devices
- Standard ASCII protocol for reading system compatibility
- Clear, 100 gradation 360° test circle
- High-sensitivity low-flow/leak indicator
- Large odometer wheels for easy visual reading
- Diagnostic codes for troubleshooting
- Low profile, durable and unobtrusive wall and pit pads
- Cable length up to 200 feet



Materials

Register Lens	Glass or Plastic
Register Can	Copper
Remote Cable	3-lead #22 AWG
Wall and Pit Pads	ABS

Encoder Benefits. The Elster AMCO Water absolute encoder interfaces to electronic and Automatic Meter Reading systems to reduce meter reading and customer service costs. Encoder reading increases efficiency by reducing reading time and eliminating human error. Encoder reading significantly improves meter reader safety by eliminating the need to enter residences or hazardous confined spaces to take meter readings.

Compliance to Standards. The Elster AMCO Water encoder exceeds the requirements of American Water Works Association Standard C707, most recent revision.

Operation. The Elster AMCO Water encoder incorporates Elster AMCO Water InVISION™ technology employing Optical Character Recognition (OCR) to read the odometer digits of C700, M700, T4000, TS4000, C4000, S2000, and F4000 meters. Powered by interrogation equipment, Elster AMCO Water encoders utilize strategically positioned light emitting diodes (LEDs) that illuminate the register's odometer digits for reading. A powerful microprocessor receives and processes images from strategically positioned retinas focusing on the digits through polymer lenses. Readings are passed to the hand-held or AMR device.

Size:	PD Meters				Turbine Meters			
	5/8-3/4"	1"	1 1/2"	2"	1 1/2-2"	3-4"	6-8"	10-12"
<u>1 Rev of Sweep Hand</u>								
US Gallons	10	10	100	100	100	100	1000	1000
Cubic Feet	1	1	10	10	10	10	100	100
Cubic Meters (Canada)	1/10	1/10	1/10	1	NA	NA	NA	NA
Cubic Meters (Intl.)	1/100	1/10	1/10	1/10	1	1	10	10
<u>Totalizer Capacity (millions)</u>								
US Gallons	10	10	100	100	100	100	1000	1000
Cubic Feet	1	1	10	10	10	10	100	100
Cubic Meters (Canada)	1/10	1/10	1/10	1	NA	NA	NA	NA
Cubic Meters (Intl.)	1/100	1/10	1/10	1/10	1	1	10	10

Compatible Reading Equipment

- Standard ASCII protocol can be read by all major hand-held devices
- Protocol is compatible with major AMR systems including:
 - Itron Walk-by, Drive-by and Fixed Network RF
 - Hexagram Fixed Network RF

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Utility Guarantee for Absolute Encoder Registers for C700, C3000, T3000, T4000, TS4000, F4000 and S2000 Water Meters

Scope of Guarantee

This guarantee applies exclusively to Elster AMCO Water Absolute Encoder Registers manufactured for C700 Positive Displacement Meters, C3000 Compound Meters, T3000/T4000/TS4000 Turbine Meters, F4000 Fire Service Meters and S2000 Single Jet Meters manufactured after February 1, 2008, when used in potable water below 120° F in accordance with Elster AMCO's published Technical Specifications and when installed in accordance with Elster AMCO's published installation instructions, both as in effect as of the date of Elster AMCO's shipment of the product. This guarantee applies exclusively to the original utility purchaser when product is purchased from either Elster AMCO Water or an Elster AMCO Water-authorized distributor ("Business Partner").

Materials and Workmanship

If used and installed as described above, Elster AMCO Water guarantees product covered by this guarantee to be free from defects in materials and workmanship for a period of 12 months after installation or 18 months after shipment by Elster AMCO Water or its authorized Business Partner, whichever occurs first.

Register Functionality

If used and installed as described above, Elster AMCO Water guarantees that Absolute Encoder Registers for C700, C3000, T3000/T4000/TS4000 and S2000 meters will function for 10 years from date of manufacture by Elster AMCO Water, provided register model is appropriate to installation environment as specified by Elster AMCO Water.

Claims

Any meter or register covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of Elster AMCO, without additional charge to the customer. The customer is responsible for removing the meter or register from service, returning it to the factory service center designated by Elster AMCO, providing a written or electronic (facsimile or e-mail) claim notice, and for freight costs to and from the service center. Customer is also responsible for reinstalling repaired or replaced product.

Limits of liability

This guarantee does not apply to meters or registers damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Elster AMCO's installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of Elster AMCO. This guarantee is null and void if a meter is altered by the addition of any register not manufactured by or on behalf of Elster AMCO for its specific model and size.

Any description of product, whether in writing or made orally by Elster AMCO or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied guarantee. Any suggestions by Elster AMCO or its agents regarding use, application or suitability of product shall not be construed as an express or implied guarantee unless confirmed to be such in writing by Elster AMCO.

The laws of the State of Florida, excluding its conflicts of law rules shall exclusively govern this guarantee. If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

THE FOREGOING EXPRESS GUARANTEE IS IN LIEU OF ALL OTHER GUARANTEES OR WARRANTIES WHATSOEVER, WHETHER EXPRESS, IMPLIED OR STATUTORY (EXCEPT FOR WARRANTY OF TITLE), INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CUSTOMER'S EXCLUSIVE REMEDY AND ELSTER AMCO'S AND ITS BUSINESS PARTNERS' SOLE LIABILITY ON ANY CLAIM, WHETHER IN TORT (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, FOR ANY METER OR REGISTER WHICH FAILS TO MEET THE TERMS OF THE GUARANTEE STATED ABOVE, SHALL BE LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE. IN NO EVENT SHALL ELSTER AMCO AND/OR ITS BUSINESS PARTNERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, DELAYS AND CLAIMS OF CUSTOMERS OF THE CUSTOMER OR OTHER THIRD PARTIES.

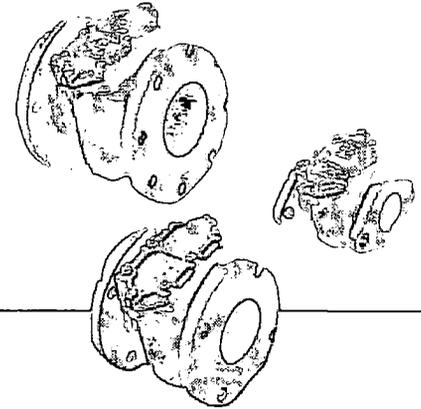
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ENC-UG-200/02-08

Z-Plate Strainers Bronze and Galvanized Plate Steel, Oval and Round Flanged Ends

Sizes 1 1/2" - 12"



	Size: 1 1/2"-2"	3"	4-8"	10-12"
No. of Flange Bolt Holes	2	4	8	12
No. of Top Plate Bolts	6	8	8*	20*
Optional Drain Plug Inches	1/2	3/4	3/4	1
Operating Pressure psi	150	150	150	150
Operating Temperature °F	120	120	120	120
	* 6"=10,	8"=18,	12"=24	

Strainer Type: Z -Plate with top plate flushing feature

Strainer Performance: Protects turbine and compound meters from debris and cancels effects of velocity distortion

Removable Drain Plug: For sizes: 1 1/2" - 6" only

Materials:

1 1/2"-6" Main Case	Bronze
1 1/2"-6" Top Plate	Bronze
8"-12" Main Case	Coated Galvanized Plate Steel
8"-12" Top Plate	Coated Galvanized Plate Steel
Strainer Plate	304 Stainless Steel
Top Plate Gasket	Rubber
Top Plate Bolts	Stainless Steel

Elster AMCO Water Strainer/Meter Laying Lengths (Inches)

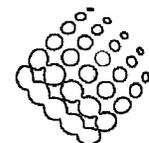
Size	T3000 Turbine			C3000 Compound		
	Meter	Strainer	Total	Meter	Strainer	Total
1 1/2"	10	5	15	-	-	-
2"	10	7	17	17	7	24
3"	12	6	18	17	6	23
4"	14	7 1/2	21 1/2	20	7 1/2	27 1/2
6"	18	9	27	24	9	33
8"	20	9	29	34	9	43
10"	17 3/4	10	27 3/4	-	-	-
12"	19 3/4	12	31 3/4	-	-	-

Operation. The strainer is a vertical Z-plate design to protect cold water meters from the damaging effects of debris and foreign matter. The strainer improves the velocity profile of the water being metered and minimizes the effects of velocity distortion caused by upstream valves and fittings. Consequently, the meter's accuracy is maximized by the elimination of debris and turbulence.

Compliance to Standards. The Z-plate strainer complies with all material and design requirements of the American Water Works Association Standards C701 and C702 as most recently revised.

Installation. The strainer should be installed immediately upstream from the meter it is protecting. It is preferable that the strainer be installed with the removable top plate vertically accessible for underpressure flushing and maintenance.

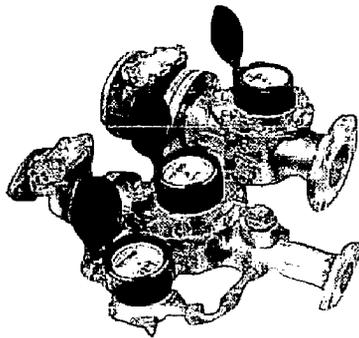
Application. The strainer is recommended for use with the Elster AMCO Water T3000 and C3000 meters. Its application ahead of these meters will maximize revenue and extend the



life of the measuring element. The strainer is for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. Working pressure tests are made before shipment. No adjustments need be made before installation.

Construction. The strainer consists of a main case, a removable perforated strainer, a flat gasket, a removable top cover and stainless steel bolts. The 1 1/2" - 6" main case and top plate are bronze and are supplied with a removable drain plug. The 8" - 12" main case and top plate are coated galvanized plate steel. The plate strainer is 304 stainless steel with 5/32" perforations, and the Z-configuration assures an effective open area 2 1/2 times greater than the size water meter case it precedes. The main case and top cover are assembled with a full-face flat gasket and stainless steel bolts.

Z-Plate Strainers With T3000 Turbine and C3000 Compound Meters



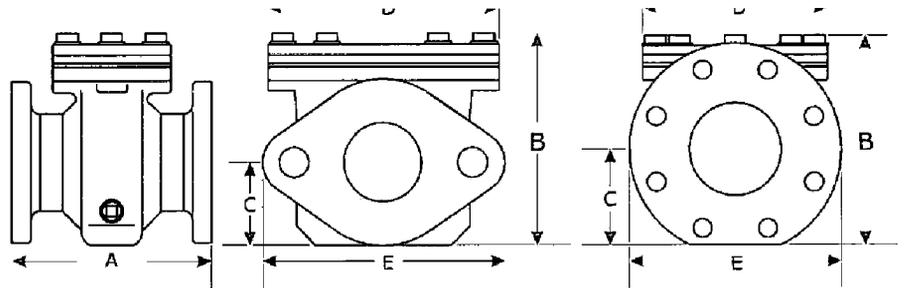
Connections. Standard 1 1/2" and 2" strainers have 2-bolt oval flanged end connections. The 3" strainer has 4-bolt round flanged end connections. The 4"-8" have 8-bolt round flanged end connections, and the 10"-12" have 12-bolt round flanged end connections. All end connections are fully compatible to ANSI B 16.1 Class 125 flanges.

Maintenance. The Z-plate strainer can be removed, cleaned or replaced without removing the main case from the service line.

For plate removal, the strainer main case must be isolated from line pressure. After depressurizing, simply loosen and remove the bolts and lift the top plate cover and gasket from the main case. Remove the strainer. Reassembly is the reverse. Maintenance should include a regular underpressure flushing program. Without isolating the strainer from line pressure, simply loosen the top cover bolts, allowing internal pressure to lift the full-face gasket and top plate for flushing. To reset the top plate, simply tighten the top cover bolts.

Dimensions & Net Weights

Strainer Size/Ends	Dimensions (Inches)					Weight (lbs)
	A	B	C	D	E	
1 1/2" Oval	5	5 7/16	2 1/8	5 13/16	5 5/8	9 3/4
2" Oval	7	5 1/4	2 1/8	5 13/16	6	11 1/2
3" Round	6	7 3/4	3 9/16	6 7/8	7 1/2	24 3/4
4" Round	7 1/2	8 13/16	4 3/16	8 1/16	9	39 3/4
6" Round	9	11	5 1/4	11 1/8	11	65 1/2
8" Round	9	13 1/2	6 1/2	13	13 1/2	66
10" Round	10	17	8 1/2	14 1/2	17	105
12" Round	12	19	9 1/2	17	19	132



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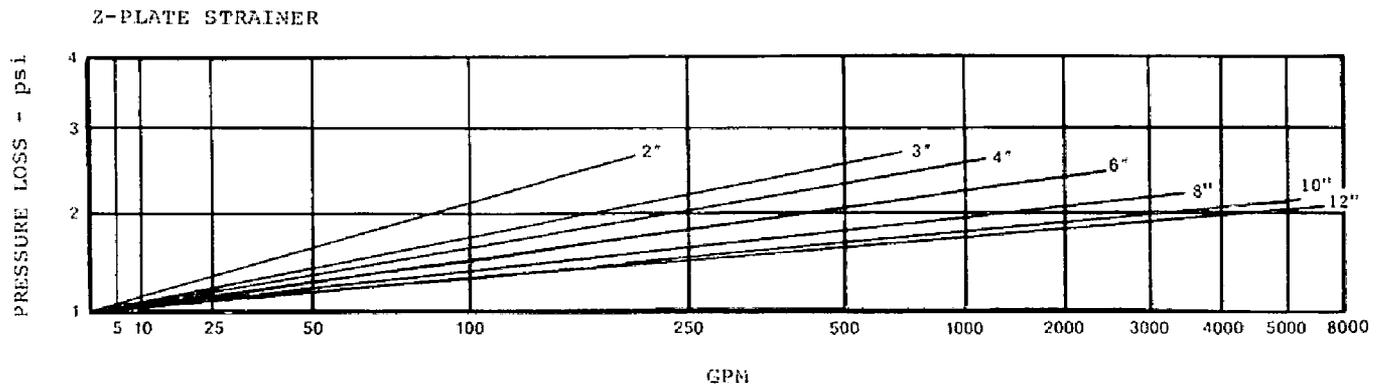
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Model Z-Plate Strainers



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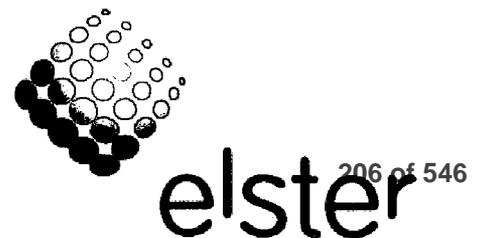
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STR-P-720/06-07



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ELSTER AMCO WATER, INC. METER REPAIR PLAN



STANDARD REPAIR PROCESS:

All meters repaired will be completely disassembled, cleaned and inspected. All worn parts will be replaced with new original equipment parts. The meter will be tested to AWWA M6* new meter accuracy standards. Meters will be tested on calibrated equipment per ANSI M1 1996**.

The completed meter shall be returned to the customer with a certified test tag attached and guaranteed for one (1) year.

Warranty items shall follow the above procedure.

Note: The prices quoted herein are dependent upon the following:

1. All Turbine, Hydrant and Compound measuring elements must be returned complete with top cover and register assembly.
2. All Turbine, Hydrant and Compound measuring element frames and top covers must be in reusable condition.
3. All Compound differential pressure valves must be in reusable condition.
4. Only meters returned from the original purchaser/user are to be covered under this plan. Authorized distributors must list the customer to which the meter is to be returned, as per Customer Returns Process, WNR824-02.
5. If a register is warranty, however, a chamber needs to be replaced, the above charges apply.

CLEAN & TEST ONLY:

All meters returned for test will be cleaned and tested at the recommended AWWA test flows.

All meters will be returned complete with certified test results.

EVALUATION:

Evaluation charges apply to all meters returned for repair. Evaluation process includes, but is not limited to, visual inspection for obvious damage or defects; internal meter components for functionality with air flow, register operational verification of advancement, indexing and read/pulse output when applicable. AMR devices will be read to verify functionality if available. Evaluation for customer specific complaints and/or factors that may be unique to the customer application. All EVALUATION CHARGES will be waived on warranty failures and meters repaired under the Standard Repair Plan, as stated above.

Customers returning products to Ocala must contact Elster Amco Water (EAW) Customer Service, Sales representative or Return Service Center for a Work Order for Returned Goods, a copy of the confirmation E-Mail must be included with returned materials or complete a Work Order for Returned Goods Instruction Sheet and return original form with materials. Upon receipt of goods, approval must be given to charge for all non-warranty repairs, test or evaluation. All prices are F.O.B. Ocala, Florida.

* M6 - water meter, installation, selection and testing

** ANSI/ASQC M1-1996: American National Standard for Calibration Systems

Elster AMCO Water, Inc.
1100 SW 38th Avenue
Ocala, FL 34474-9374
United States
T +1 352 732 4670
F +1 352 368 1950
www.elster.com

ELSTER AMCO WATER, INC. METER REPAIR PLAN



POSITIVE DISPLACEMENT

<u>SIZE</u>	<u>C700</u>	<u>TEST ONLY</u>
5/8"	20.00	10.00
3/4"	34.00	12.00
1"	50.00	20.00
1.5"	125.00	50.00
2"	180.00	50.00

For Generator Remote, add \$25.00
 For Encoder, add \$35.00
 For Type A or B Pulser, add \$36.00
 Type SF, add \$63.00
 * Includes 1/2" x 1/2" x 4-1/2"
 V100 with pulse output, add \$10.00

T3000 BULK METERS

<u>SIZE</u>	<u>T3000 TURBINE</u>	<u>C3000 COMPOUND</u>	<u>H3200 HYDRANT</u>	<u>TEST ONLY</u>
1.5" & 2"	160.00	230.00	N/A	50.00
3"	175.00	340.00	175.00	75.00
4"	260.00	500.00	N/A	100.00
6"	450.00	890.00	N/A	150.00
8"	560.00	1,330.00	N/A	200.00
10"		N/A		
12"		N/A		

T4000 BULK METERS

<u>SIZE</u>	<u>T4000 TURBINE</u>	<u>C4000 COMPOUND</u>	<u>TEST ONLY</u>
1.5" & 2"	160.00	230.00	50.00
3"	175.00	340.00	75.00
4"	260.00	500.00	100.00
6"	450.00	N/A	150.00
8"	560.00	N/A	200.00
10"	1,330.00	N/A	250.00
12"	2,210.00	N/A	300.00

ELSTER AMCO WATER, INC. METER REPAIR PLAN



**STANDARD REPAIR CHARGES
EFFECTIVE JUNE 1, 2009**

OIL METERS

<u>SIZE</u>	<u>METER</u>	<u>CLEAN & EVALUATE ONLY</u>	<u>CLEAN & 2 POINT TEST</u>
1/8"	AMCO 4	50.00	105.00
1/4"	AMCO 8	50.00	105.00
1/2"	AMCO 15	50.00	105.00
3/4"	AMCO 20	50.00	105.00
1"	AMCO 25	50.00	105.00
1.5" - 2"	AMCO 40/50	50.00	105.00

Note: Additional accuracy test points available at \$50.00 per point.

HOT WATER

3/4"	S130	22.50
1"	M150 & M190	33.00
1.5"	M150 & M190	86.25

Note: S130 is not repairable. Only the register with reed switch is replaceable.

CLEAN ONLY

EVALUATE ONLY

2"	H4300 & H4400	57.50	28.75
3"	H4300 & H4400	86.25	43.15
4"	H4300 & H4400	115.00	57.50
6"	H4300	143.75	71.90

INDUSTRIAL METERS - Hot Water and Oil meters - list price for parts, plus \$50.00 per hour labor and testing (\$25.00 minimum labor). Elster AMCO Water, Inc. will determine if oil meters require cleaning before evaluation.



4545 W Brown Deer Road
PO Box 245036
Milwaukee, Wisconsin 53224-9536
414-355-0400 | 800-876-3837
www.badgermeter.com

December 12, 2011

City of Sacramento
City Clerk's Office
915 I Street, Ste. 122391
Sacramento, CA 95814-2604

Properly Signed Improperly Signed
 Not Included Not Required
Type of Deposit
 Bid Bond Cashier/Certified Check
Other _____ Initial: VE
Bid Bond Security

Subject: Sealed Bid for Cold Water Meters - No. B123351012
Due: December 14, 2011 – 2:00 PM

Dear Sir or Madam:

This letter is attached to and becomes a part of our bid to furnish cold water meters.

Prices quoted in this bid, if awarded to Badger, will remain firm for one (1) year if acceptance is made within ninety (90) days. Extension year price increases are stated on page 52 of your bid documents.

Payment terms are net 30 days.

We wish to clarify the following:

- 11 Insurance Requirements Badger Meter, Inc. has ample insurance coverage to satisfy the City of Sacramento's concerns for supply only contracts. The requirement that the City of Sacramento be named as additionally insured is more appropriately utilized in circumstances other than a supply contract. Enclosed is a sample of our Certificate of Liability Insurance.
- 1.1.2 We will supply register cables with nicor[®] connectors 18" long for meter sizes up through 2" and register cables 120" long for meter sizes 3" and larger;
- 2.1 Our E-Series meters with nicor connectors will be available upon release of this product option. The estimated release date for the nicor connector option is second quarter 2012;
- 2.2.4 Our 1" Model 55 meter includes a bronze bottom with a bottom gasket instead of a full rubber liner;
- 2.3.7 Our 8" strainer has a 14 inch lay length; and
- 2.3.9 Our 6" turbo meter is offered with a low lead bronze plate strainer since it is not available with an integrally cast strainer.

Badger Meter provides a certification file for utilities to help manage their meter and endpoint inventory and to maintain their meter accuracy data in an electronic format. The electronic certification file data will be provided upon request to the utility's designated user via e-mail, in our standard format. Any deviations or custom file formats required will be considered on a time and material basis. Please contact Badger Meter's technical support group for information on custom electronic certification file formats.

Badger Meter, Inc.

City of Sacramento, CA
December 12, 2011
Page 2

In the event you have any questions concerning this bid please contact Pamela G. Stokke-Ceci, Assistant Secretary, at the above address or:

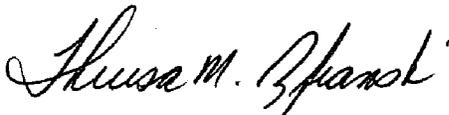
Telephone - 1-800-876-3837 Ext. 15895
Fax - 414-371-5981
Email - bids@badgermeter.com

We would appreciate a copy of the bid tabulation. For this purpose, I have enclosed a self-addressed stamped envelope for return of the bid tabulation.

Badger appreciates this opportunity to meet the metering needs of the City of Sacramento.

Sincerely,

BADGER METER, INC.



Theresa M. Szafranski
Assistant Secretary

TMS/rl1

enclosures

cc: Eric Foley – Badger Meter, Inc.

**CITY OF SACRAMENTO, CA
5-YEAR DELIVERY SCHEDULE
FOR BID #B123351012**

GROUP I – NO MOVING PARTS & POSITIVE DISPLACEMENT METERS			
ITEM	QTY.	DESCRIPTION	DELIVERY
1	1,000	3/4" stainless steel E35 w/ ADE and nicor® connector	120 meters every 32 days after product release*
2	2,500	1" stainless steel E55 w/ ADE and nicor® connector	120 meters every 32 days after product release*
3	2,750	1" low lead RCDL 55 bronze w/ ADE and nicor® connector	120 meters every 28 days after receipt of order
4	950	1-1/2" low lead RCDL 120 ELL w/ ADE and nicor® connector	120 meters every 32 days after receipt of order
5	1,500	2" low lead RCDL 170 ELL w/ ADE and nicor® connector	120 meters every 32 days after receipt of order
GROUP II – TURBINE METERS			
ITEM	QTY.	DESCRIPTION	DELIVERY
6	100	2" low lead RCDL T-200 ELL, integral strainer, test plug, w/ ADE and nicor® connector	up to 6 meters every 28 days after receipt of order
7	80	3" low lead RCDL T-450, integral strainer, test plug, w/ ADE and nicor® connector	up to 6 meters every 30 days after receipt of order
8	80	4" low lead RCDL T-1000, integral strainer, test plug, w/ ADE and nicor® connector	up to 6 meters every 30 days after receipt of order
9	30	6" low lead RCDL T-2000 w/ ADE and nicor® connector w/ low lead external strainer	up to 6 meters every 36 days after receipt of order
10	30	8" low lead RCDL T-3500 w/ ADE and nicor® connector w/ ML-MS fabricated steel external strainer	up to 6 meters every 36 days after receipt of order
11	1	10" low lead RCDL T-5500 w/ ADE and nicor® connector w/ ML-MS fabricated steel external strainer	28 days after receipt of order
12	1	12" low lead head RCDL T-6200 w/ ADE and nicor® connector w/ ML-MS fabricated steel external strainer	28 days after receipt of order

GROUP III – COMPOUND METERS			
ITEM	QTY.	DESCRIPTION	DELIVERY
13	300	2" low lead RCDL Compound Series Meter w/ (2) ADEs and nicor® connectors w/ low lead external strainer	up to 6 meters every 30 days after receipt of order
14	350	3" low lead RCDL Compound Series Meter w/ (2) ADEs and nicor® connectors w/ low lead external strainer	up to 6 meters every 30 days after receipt of order
15	350	4" low lead RCDL Compound Series Meter w/ (2) ADEs and nicor® connectors w/ low lead external strainer	up to 6 meters every 32 days after receipt of order
16	150	6" low lead RCDL Compound Series Meter w/ (2) ADE and nicor® connectors w/ low lead external strainer	up to 6 meters every 32 days after receipt of order
17	50	8" low lead bypass RCDL Combo Meter w/ (2) ADEs and nicor® connectors w/ ML-MS fabricated steel external strainer	up to 4 meters every 32 days after receipt of order

**please see cover letter related to projected product release*

MUST BE POSTED IN CONSPICUOUS PLACE



CITY OF SACRAMENTO
BUSINESS OPERATIONS TAX CERTIFICATE

86746

86746

Business Name	BADGER METER, INCORPORATED	FROM	TO
Business Address	4545 W BROWN DEER RD	Mo. Day Yr.	Mo. Day Yr.
Owner	- BADGER METER, INCORPORATED	10/01/2011	09/30/2012
Type of Business	WATER METER MFG.		Expires
Tax Classification	401		

TOTAL
PAID: \$417.15

BADGER METER, INCORPORATED
TAX DEPT.
4545 W BROWN DEER RD
MILWAUKEE, WI 53223

CITY OF SACRAMENTO

VOID
IF NOT
VALIDATED
PAID
OCT 2 11 AM

THIS STUB MAY BE
FOLDED/DETACHED
BEFORE POSTING

This certificate is not to be construed as a business license or imply that the City of Sacramento has investigated, or approves or recommends, the holder of this certificate. Any representation to the contrary is fraudulent. (This certificate must be renewed within 30 days of expiration).



April 15, 2011

Badger Meter
P.O. Box 245036
Milwaukee, WI 53224-9536

Re: Compliance with NSF/ANSI 61, Annex F

Dear Badger Meter,

NSF International has reviewed the latest lead extraction results for the following Badger Meter products, which are currently Certified by NSF to NSF/ANSI Standard 61, and we have found that these results comply with the reduced lead extraction criterion contained in NSF/ANSI Standard 61, Annex F.

Water Meters

M-Series® M5000 Flanged (G)	½" - 24"
M-Series® Mag Meter M5000 Flanged (G)	½" - 24"
M-Series® Mag Meter Model M2000 Flanged (G)	½" - 54"
M-Series® Mag Meter Model M3000 (G)	½" - 24"
M-Series® Mag Meter Model M4000 (G)	½" - 12"
MagnetoFlow® 7500P (G)	½" - 4"
MagnetoFlow® Mag Meter Flanged (G)	½" - 54"
MagnetoFlow® Mag Meter 7500P (G)	½" - 4"
MagnetoFlow® Mag Meter Flanged (G)	½" - 54"
MagnetoFlow® Mag Meter Wafer (G)	1" - 4"
MagnetoFlow® Wafer (G)	1" - 4"
M25 PN (G)	⅝" x 7 ½"
M25 PN (G)	⅝" x ¾" x 7 ½"
M25 PN (G)	¾" x 9"
M40 PN (G)	1" x 10 ¼"
M40 PN (G)	1" x 10 ¾"
PA M25 PN (G)	¾" x 9"
PA M25 PN (G)	⅝" x 7 ½"
PA M25 PN (G)	⅝" x ¾" x 7 ½"
M25 LL (G)	⅝" x ¾" x 7 ½"
M25 LL (G)	⅝" x 7 ½"
M35 LL (G)	¾" x 7 ½"
M35 LL (G)	¾" x 9"



M55 LL (G)	1" X 10 3/4 "
M70 LL (G)	1" x 10 3/4 "
MLP LL (G)	5/8" x 3/4 " x 7 1/2"
MLP LL (G)	5/8" x 7 1/2"
PA M25 LL (G)	5/8" x 7 1/2"
PA M25 LL (G)	5/8" x 3/4 " x 7 1/2"
PA M35 LL (G)	3/4 " x 7 1/2"
PA M35 LL (G)	3/4 " x 9"
M120 LL (G)	3" - 10"
M120 LL (G)	1 1/2" x 13"
M170 LL (G)	2" x 17"
M170 LL (G)	2" x 15 1/4"
E-Series® Ultrasonic Meter (G)	5/8" - 1"
Combo-01 (G)	8"
FSAA-01 (G)	4" - 10" x 12"
FSMA-01 (G)	3" - 10"
Compound Series LL-NS (G)	2" - 6"
Turbo Series LL-NS (with integral strainer) (G)	1 1/2" - 4"
Turbo Series LL-NS (G)	1 1/2" - 10"

Strainers

Steel Plate Strainer (G)	8" - 20"
Plate Strainer LL-NS (G)	2" - 10"

Couplings

Spool Assembly (57335-001) (G)	2" x 5.19"
Spool Assembly (57335-002) (G)	2" x 8.44"
Spool Assembly (57335-003) (G)	3" x 11.94"
Spool Assembly (57335-004) (G)	4" x 9.94"
Spool Assembly (57335-005) (G)	4" x 14.94"
Spool Assembly (57335-006) (G)	6" x 5.94"
Spool Assembly (57335-007) (G)	6" x 17.94"
Spool Assembly (57335-015) (G)	8" x 6.69"
Spool Assembly (57335-018) (G)	4" x 5.94"
Spool Assembly (57335-019) (G)	6" x 8.94"
Spool Assembly (57335-027) (G)	10" x 25.88"
Spool Assembly (57335-028) (G)	8" x 18.69"
Spool Assembly (57335-029) (G)	6" x 9.38"
Spool Assembly (57335-030) (G)	4" x 5.83"
Spool Assembly (57335-031) (G)	3" x 4.84"
Spool Assembly (57335-032) (G)	4" x 8.94"



Spool Assembly (57335-033) (G)	3" x 4.50"
Spool Assembly (57335-034) (G)	8" x 18.94"
Spool Assembly (57335-035) (G)	10" x 25.94"
Spool Assembly (57335-036) (G)	12" x 21.25"
Spool Assembly (57335-039) (G)	4" x 4.94"
Spool Assembly (57335-040) (G)	6" x 11.94"
Spool Assembly (57335-041) (G)	3 mm x 6.94 mm
Spool Assembly (57335-042) (G)	4" x 11.88"
Spool Assembly (57335-043) (G)	4" x 11.50"
Spool Assembly (57335-045) (G)	8" x 15.97"
Spool Assembly (57335-046) (G)	10 m x 23.50 m
Spool Assembly (57335-047) (G)	4" x 14.60"
Spool Assembly (57335-048) (G)	6" x 3.44"
Spool Assembly (57335-049) (G)	6" x 3.21"
Spool Assembly (57335-050) (G)	4" x 8.85"
Spool Assembly (57335-051) (G)	3" x 6.85"
Spool Assembly (57335-052) (G)	6" x 9.22"
Spool Assembly (57335-053) (G)	6" x 2.63"

Annex F is due to take effect on July 1, 2012. Please feel free to contact me directly if you have any questions or concerns.

Best Regards

Sincerely,

Dave Purkiss
General Manager
Water Treatment and Distribution Systems
NSF International
Phone: 734-827-6855
Email: Purkiss@nsf.org



CITY OF SACRAMENTO

PROCUREMENT SERVICES DIVISION

Bid Number: B123351012

**INVITATION FOR BID
And
Contract Specifications For
FOR: COLD WATER METERS**

***Bids Must Be Received Up To The Hour of 2:00 P.M. on
Wednesday December 14, 2011***

Bids Must Be Submitted To: City Clerk's Office
P.O. Box 122391
Sacramento, CA 95812-2391

Pre-Bid Conference: Thursday December 8, 2011 at 1:30PM
Mandatory: Yes 5730 24th Street Corp Yard
 No Bldg # 22- The Copper Room
Sacramento, CA 95822

**NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID:
(Bidder to complete the following information)**

Name of Bidder: Badger Meter, Inc.

Address: 4545 West Brown Deer Rd.

City, State, Zip Code: Milwaukee, WI 53223

Phone Number: 800-876-3837

Email Address: bids@badgermeter.com

CITY OF SACRAMENTO

Bid No. B123351012

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SECTION I REQUIREMENTS

SECTION I - REQUIREMENTS

A. "NO BID" RESPONSE FORM

**NOTE: COMPLETE AND RETURN THIS FORM
ONLY IF YOU DO NOT WANT TO SUBMIT A BID**

If you do not want to submit a bid for this requirement, we are interested in knowing why. Please remove this form, complete the requested information, and **FAX your response to Ken Swartz at (916) 421-4596**. If you have questions, please call the Field Services Administrative Office at (916) 808-6276. Thank you for your cooperation.

"NO BID" QUESTIONNAIRE
(Please complete all items that apply)

- We do not sell the products/services called for in this invitation for bid, but we want to stay on the City's Bid List. Please send necessary information so that the products/services we do provide can be updated on the City's Bid List.

- We are not interested in doing business with the City of Sacramento, because _____

- Other reasons/comments: _____

- Please send application forms for certification as an emerging and/or small business enterprise (E/SBE):
(Note: Application forms and information about becoming certified as an emerging and/or small business can be obtained via the Internet at: <http://www.cityofsacramento.org/esbd>).

(Business Name)

(Street Address/P.O. Box)

(City, State, Zip)

(E-mail address)

Date: _____

Phone: _____

Contact: _____

SECTION I – REQUIREMENTS

B. BID INSTRUCTIONS AND REQUIREMENTS

No Bid Is In Legal Form Unless the Following Instructions Are Fully Complied With

1. **Additional Copies.** VENDORS ARE REQUIRED TO SUBMIT AN ORIGINAL BID AND ONE (1) ADDITIONAL COPY OF THIS BID, INCLUDING ALL REQUIRED ATTACHMENTS SUCH AS BROCHURES AND CATALOGS, TO THE CITY CLERK ON THE DATE AND AT THE TIME AND LOCATION SPECIFIED ON THE COVER SHEET. FAILURE TO DO SO MAY CAUSE YOUR BID TO BE REJECTED.
2. **Bid Forms.** Bid must be submitted on these printed forms and sealed in an appropriate envelope or package.
 - a) To obtain an electronic version of this bid go to Procurement's website at www.cityofsacramento.org/generalservices/procurement/bids.
 - b) Bidders are invited to be present at the opening of bids. Bids will be opened, in public, in the City Clerk's Hearing Room, 915 "I" Street, Second Floor, Sacramento, CA, at or after 2:00 P.M. on, _____. After opening, Bids may be inspected in the City Clerk's Office.

(Note: Bids must be submitted up to 2:00 P.M. on the above date)

- c) All bids shall be clearly and distinctly written without erasure or modification, and properly signed by an authorized party, who shall indicate the capacity in which the signature is executed.
3. **Alternate Bids.** Alternate bids are invalid unless invited and covered by the specifications. Please note all submissions are subject to rejection when unsolicited alternate bids are submitted.
4. **Bid Security.** Bid Security is: Required Not Required

If required, bid security approved by the City must accompany the bid, in the amount of ___ % of the total amount of the bid. Bid security can be in the form of a cashier's check, certified check, or a bid bond from a surety company authorized to do business in the State of California. Bid securities will be returned to all except the three lowest Bidders within ten days after the opening of bids. The bid security of the two unsuccessful Contractors will be returned after the successful Contractor has executed the contract. Bid security of the successful Contractor will be returned when the contract is signed and all other contract award requirements have been met.
5. **Interest in More Than One Bid.** No bidder shall be interested in more than one bid (submit more than one bid for this solicitation) as provided by City Code Section 3.56.130(D).
6. **Rejection of Bids.** The right to reject any and all bids is reserved by the City, in its absolute discretion.
7. **Right to Waive.** The City reserves the right to waive any informalities or minor irregularities, as determined in its sole discretion, in connection with bids received.
- 7A. **City's Options.** City reserves the following options:
 1. The right to award in whole or in part.
 2. The right to reject all partial bids.
 3. The right to reject any or all bids or make no award.
 4. The right to issue subsequent Invitation For Bids (IFB).
 5. The right to approve or disapprove the use of particular subcontractors and/or suppliers.
 6. The right to waive any informality or irregularity in the bidding process and any bids.
 7. The right to accept a bidder's signed offer and issue a purchase order directly to the bidder based on the IFB.

8. **City Code.** All provisions of Chapter 3.56 of the City Code are applicable to any bid submitted or contract awarded.
9. **Equipment.** If equipment is bid, it shall be the newest and latest model in current production. Used, re-manufactured, shopworn, demonstrator, prototype or discontinued models are not acceptable unless otherwise stipulated by the City.
10. **Faithful Performance Bond.** A faithful performance bond is: Not Required Required
 If required, the successful bidder must submit a performance bond in a form approved by the City Attorney, in the amount of _____.
11. **Payment Discounts.** Payment discounts offered for payment in less than twenty (20) days will not be considered as a basis of award. Payment discounts offered for payment in twenty (20) or more days will be subtracted from the total bid price for the purposes of bid evaluation. Any payment discount offered by the successful bidder will be accepted by the City of Sacramento, whether or not it was considered as a basis of award.
12. **Mandatory Pre-Bid Conference.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, all bidders are required to attend the conference. Failure to attend this conference will result in rejection of your bid. If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, bid packages will be made available only through the time and date of the conference. Subsequent addenda, if applicable, will be furnished only to those bidders who attended the Mandatory Pre-Bid Conference.
13. **Bid Inquiries.** Questions regarding this bid should be referred to:

Contractual Questions
 Field Services Division
 Ken Swartz
 Stores Administrator
kswartz@cityofsacramento.org
 Phone: 916-808-6276

Technical Questions
 Water Distribution
 Oscar Alcantar
 Water Meter Supervisor
ocalcantar@cityofsacramento.org
 Phone: 916-808-6901

These inquiries must be submitted at least 10 days prior to the bid opening date. Any interpretations by the City will be made in the form of a written amendment. The receipt of such an amendment must be acknowledged in accordance with the directions on the amendment. Oral explanations or instructions given before the award of the contract will not be binding.

14. **Bid Evaluation.** In determining the amount bid by each bidder, the City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Bid. When such a mathematical error appears on the face of the Bid, the City shall have the right to correct such error and to compute the total amount bid by the bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Bid, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the City's estimate of the quantity to be provided or performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the intent of the bid process. The total paid for each such item of work shall be based upon the item price and not the total price.

Should the Bid contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by City's estimate of the estimated quantities to be provided or performed.

If the Bid contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Bid shall be disregarded.

If prospective bidders are bidding an item "or equal" the bidders shall list the manufacturer's name and product number of the item offered in the space provided. If such information is not provided, it will be assumed that the bidder is offering the exact item specified. The City's decision as to whether an item is an equal to the item specified shall be final.

15. **Determination of Lowest Responsible Bidder.** Sacramento City Code '3.56.020 provides that the lowest responsible bidder shall be determined as follows:
 - a. In determining whether a bidder is responsible, consideration shall be given to: (i) the quality and performance of the supplies to be provided by the bidder; (ii) the ability, capacity and skill of the bidder to perform the contract or effectuate the transaction; (iii) the ability of the bidder to perform the contract or effectuate the transaction within the time specified, without delay; (iv) the character, integrity, reputation, judgment, experience and efficiency of the bidder; (v) the quality of the bidder's performance on previous purchases by, or contracts with, the City; (vi) the ability of the bidder to provide future maintenance, repair parts and services for the supplies provided.
 - b. Based on the information provided in the bids, the City Council or the City Manager, as the case may be, shall identify those bids that are subject at the time of bid opening to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. This deduction shall be in addition to the application of any bid price preferences authorized by subsection c, below.
 - c. The City Council may by resolution, from time to time, adopt programs or procedures for providing bid price preferences, including but not limited to, preferences to promote the participation and utilization of small business enterprises, energy conservation and sustainability in the City's contracting for supplies and nonprofessional services. The lowest responsible bidder shall be the responsible bidder whose bid price is the lowest after all bid prices are calculated to include any such preferences. The calculation of such preferences shall be in addition to any deduction of sales or use tax required by subsection b, above.
16. **Pre-Award Conference.** The apparent lowest responsible bidder may be required to attend a pre-award conference at a mutually acceptable time at which requirements of the Contract will be reviewed. At that time, samples of forms, reports etc., will be submitted by the Contractor for final approval.
17. **Award by Item or Group.** The City reserves the right to increase or decrease quantities listed, make separate awards for any item, line-item or category/group of items to the lowest responsible bidders for such items or category/groups of items.
18. **Multiple Awards.** The City reserves the right to make multiple awards in order to provide alternate sources to insure continuity of supply if meeting the City's requirements within an acceptable time period exceeds the capacity or capability of the primary contractor(s).
19. **Contract Award.** Within ninety (90) days after the bid opening, a contract will be awarded by the City to the lowest responsible bidder, subject to the right of the City to reject all bids or waive informalities or minor irregularities, as it may deem proper. The time for awarding a contract may be extended in the sole discretion of the City, if required to evaluate bids or for such other purposes as the City may determine, unless the Bidder objects to such extension in writing with his/her bid. The City may accept this bid offer by issuance of a Notice of Award Letter, Contract and/or a Purchase order covering award of said bid to Bidder at any time on or before the 90th day following the day of this official bid is opened by the City. This offer shall be irrevocable for 90 days after bid opening or 90 days after City Council awards the bid, whichever comes last, however this period may be extended by mutual agreement of both parties.
20. **Emergency/Declared Disaster Requirements.** In the event of an emergency or if a City facility is declared a disaster area by the county, state or federal government, this contract may be subjected to unusual usage. The consultant/vendor/supplier shall service the City during such an emergency

or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by the consultant/vendor/supplier shall apply to serving the City's needs regardless of the circumstances. If the consultant/vendor/supplier is unable to supply the goods/services under the terms of the contract because of a disruption in its chain of supply or service, then the consultant/vendor/supplier shall provide proof of such disruption which may include, but not be limited to a copy of a letter from the source of supply or service stating reason for the disruption. Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted.

21. **Acceptable bid format.** All bids must show the full name of the firm bidding and must be on forms furnished by the City of Sacramento. All responses must be written in ink, printed by typewriter or computer generated. Responses made in pencil will not be considered.
22. **Submission of Bids.** The City is not responsible for misaddressed bids. Please assure that you utilize the address appropriate for the method of delivery. Bid submissions made via commercial express courier (FedEx, United Parcel Svs.) must be addressed as follows:

**City of Sacramento
City Clerk's Office
915 I St., Ste. 122391
Sacramento, CA. 95814-2604**

Bid submissions made via personal delivery shall be delivered to:

**City of Sacramento
City Clerk's Office
Historic City Hall
915 I St., Ste. 116
Sacramento, CA. 95814**

23. **Bid Protest.** Bid protests must be filed and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing to be considered valid in accordance with City of Sacramento Resolution No. 2003-231 dated April 29, 2003. As used herein, the term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, or (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. Sections 3.60.460 - 3.60.560 of the Sacramento City Code are available at: <http://www.qcode.us/codes/sacramento/>.

24. **City of Sacramento Boycott of Arizona-Headquartered Businesses.** On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents. Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that "where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ..."

**SUBJECT TO PARAGRAPH 7 ABOVE, THE CITY CANNOT ACCEPT A
BID FAILING TO COMPLY WITH ANY OF THE ABOVE REQUIREMENTS.**

SECTION I – REQUIREMENTS

C. BID SIGNATURE PAGE

BID NO. B123351012

FOR SERVICES/SUPPLIES: Cold Water Meters

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the bidder or the Contractor) submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefore, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents, referred to herein as the Contract Documents, are fully incorporated herein by this reference and are collectively referred to as the Contract. By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

To Be Filled Out By Bidder

NAME OF CONTRACTOR: Badger Meter, Inc.

ADDRESS: 4545 West Brown Deer Rd. Milwaukee, WI 53223

PHONE #: 800-876-3837 FAX #: 414-371-5981 EMAIL: bids@badgermeter.com

STATE TAX I.D. #: _____ FED. TAX I.D. #: 39-0143280

City of Sacramento Business Operation Tax Certificate #: 86746
(Contract award will not be processed without a valid and current Certificate Number.)

TYPE OF BUSINESS ENTITY (check one): Individual/Sole Proprietor Partnership
 Corporation Limited Liability Company

BY: (signature of authorized person) Theresa M. Szafranski

PRINT NAME: Theresa M. Szafranski TITLE: Assistant Secretary

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information.

FOR CITY USE ONLY

The Bid was opened on _____.

Bid Bond Required: [] No; [] Yes - Amount: \$ _____

Received: [] Cashiers or Certified Check drawn on a California bank; [] Surety Bond

City Clerk

CONTRACT AWARD

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: _____

Contract Not-to-Exceed Amount: \$ _____

Award Date: _____

CONTRACT APPROVAL

Approved as to Form:

Approved:

Attest:

City Attorney

City Manager
(Or Authorized Designee)

City Clerk

D. EQUAL BENEFITS ORDINANCE (EBO) REQUIREMENTS

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form, signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directly on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as Attachment "A."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as Attachment "B."

ATTACHMENT A



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

On (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits Code (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
 - Reinstatement, injunctive relief, compensatory damages and punitive damages- Reasonable attorney's fees and costs

ATTACHMENT B



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS
ORDINANCE**

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- | | |
|---|---|
| - Bereavement leave | - Moving expenses |
| - Disability, life and other types of insurance | - Pension and retirement benefits |
| - Family medical leave | - Vacation |
| - Health benefits | - Travel benefits |
| - Membership or membership discounts | - Any other benefits given to employees |

If you feel you have been discriminated against by your employer . . .

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822

- Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

You May Also . . .

Submit a written complaint to the City of Sacramento, Procurement Services Division, at the same address, containing the details of the alleged violation.

SECTION II CONTRACT DOCUMENTS

SECTION II – CONTRACT DOCUMENTS

A. GENERAL CONDITIONS

1. Independent Contractor.

- A. It is understood and agreed that CONTRACTOR (including CONTRACTOR's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither CONTRACTOR nor CONTRACTOR's assigned personnel shall be entitled to any benefits payable to employees of CITY. CITY is not required to make any deductions or withholdings from the compensation payable to CONTRACTOR under the provisions of this Agreement, and CONTRACTOR shall be issued a Form 1099 for its services hereunder. As an Independent contractor, CONTRACTOR hereby agrees to indemnify and hold CITY harmless from any and all claims that may be made against CITY based upon any contention by any of CONTRACTOR's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any Services under this Agreement. (As used in this Exhibit D, the term "Services" shall include both Services and Additional Services as such terms are defined elsewhere in this Agreement.)
- B. It is further understood and agreed by the parties hereto that CONTRACTOR, in the performance of its obligations hereunder, is subject to the control and direction of CITY as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by CONTRACTOR for accomplishing such results. To the extent that CONTRACTOR obtains permission to, and does, use CITY facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the CONTRACTOR's sole discretion based on the CONTRACTOR's determination that such use will promote CONTRACTOR's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the CITY does not require that CONTRACTOR use CITY facilities, equipment or support services or work in CITY locations in the performance of this Agreement.
- C. If, in the performance of this Agreement, any third persons are employed by CONTRACTOR, such persons shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR. It is further understood and agreed that CONTRACTOR shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of CONTRACTOR's assigned personnel and subcontractors.
- D. The provisions of this Section 1 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between CITY and CONTRACTOR. CONTRACTOR may represent, perform services for, or be employed by such additional persons or companies as CONTRACTOR sees fit provided that CONTRACTOR does not violate the

provisions of Section 5, below.

2. **Licenses; Permits, Etc.** CONTRACTOR represents and warrants that CONTRACTOR has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature that are legally required for CONTRACTOR to practice its profession or provide any services under the Agreement. CONTRACTOR represents and warrants that CONTRACTOR shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals that are legally required for CONTRACTOR to practice its profession or provide such Services. Without limiting the generality of the foregoing, if CONTRACTOR is an out-of-state corporation, CONTRACTOR warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.
3. **Time.** CONTRACTOR shall devote such time and effort to the performance of Services pursuant to this Agreement as is necessary for the satisfactory and timely performance of CONTRACTOR's obligations under this Agreement. Neither party shall be considered in default of this Agreement, to the extent that party's performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.
4. **CONTRACTOR Not Agent.** Except as CITY may specify in writing, CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to bind CITY to any obligations whatsoever.
5. **Conflict of Interest.** CONTRACTOR covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of CITY or that would in any way hinder CONTRACTOR's performance of Services under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of CITY. CONTRACTOR agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of CITY at all times during the performance of this Agreement. If CONTRACTOR is or employs a former officer or employee of the CITY, CONTRACTOR and any such employee(s) shall comply with the provisions of Sacramento City Code Section 2.16.090 pertaining to appearances before the City Council or any CITY department, board, commission or committee.
6. **Confidentiality of CITY Information.** During performance of this Agreement, CONTRACTOR may gain access to and use CITY information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the CITY. CONTRACTOR agrees to protect all City Information and treat it as strictly confidential, and further agrees that CONTRACTOR shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of CITY. In addition, CONTRACTOR shall comply with all CITY policies governing the use of the CITY network and technology systems, as set forth in applicable provisions of the City of Sacramento Administrative Policy Instructions # 30. A violation by CONTRACTOR of this Section 6 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

7. CONTRACTOR Information.

- A. CITY shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostating, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. CONTRACTOR shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by CITY.
- B. CONTRACTOR shall fully defend, indemnify and hold harmless CITY, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. CITY shall make reasonable efforts to notify CONTRACTOR not later than ten (10) days after CITY is served with any such claim, action, lawsuit or other proceeding, provided that CITY's failure to provide such notice within such time period shall not relieve CONTRACTOR of its obligations hereunder, which shall survive any termination or expiration of this Agreement.
- C. All proprietary and other information received from CONTRACTOR by CITY, whether received in connection with CONTRACTOR's proposal to CITY or in connection with any Services performed by CONTRACTOR, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to CITY, CITY shall give notice to CONTRACTOR of any request for the disclosure of such information. The CONTRACTOR shall then have five (5) days from the date it receives such notice to enter into an agreement with the CITY, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by CITY in any legal action to compel the disclosure of such information under the California Public Records Act. The CONTRACTOR shall have sole responsibility for defense of the actual "trade secret" designation of such information.
- D. The parties understand and agree that any failure by CONTRACTOR to respond to the notice provided by CITY and/or to enter into an agreement with CITY, in accordance with the provisions of subsection C, above, shall constitute a complete waiver by CONTRACTOR of any rights regarding the information designated "trade secret" by CONTRACTOR, and such information shall be disclosed by CITY pursuant to applicable procedures required by the Public Records Act.

- 8. Standard of Performance.** CONTRACTOR shall perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of CONTRACTOR's profession in California. All products of whatsoever nature that CONTRACTOR delivers to CITY pursuant to this Agreement shall be prepared in a professional manner and conform to the standards of

quality normally observed by a person currently practicing in CONTRACTOR's profession, and shall be provided in accordance with any schedule of performance specified in Exhibit A. CONTRACTOR shall assign only competent personnel to perform Services pursuant to this Agreement. CONTRACTOR shall notify CITY in writing of any changes in CONTRACTOR's staff assigned to perform the Services required under this Agreement, prior to any such performance. In the event that CITY, at any time during the term of this Agreement, desires the removal of any person assigned by CONTRACTOR to perform Services pursuant to this Agreement, because CITY, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, CONTRACTOR shall remove such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person.

9. Term; Suspension; Termination.

- A. **Termination for Cause.** If the City determines that the Contractor's performance is not satisfactory, and notifies the Contractor of such determination in writing, the Contractor shall correct the unsatisfactory condition(s) within 5 days after receiving such notification. If the Contractor fails to correct the unsatisfactory condition(s) within 5 days, the City may declare the Contract terminated upon 30 days written notice and may, in the City's sole discretion, demand performance by the Contractor's surety, if any, or contract for performance of all or part of the remainder of Contract with another contractor. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that Contractor shall again fail to satisfactorily perform pursuant to the Contract, City may thereupon terminate the Contract immediately, with no prior notice. In the event of termination hereunder, the Contractor and/or its surety shall be liable and assessed for any and all costs for re-procurement and completion of the Contract.
- B. **Termination for Convenience.** The City may terminate the Contract, in whole or in part, for its convenience and without cause upon giving written notice to the Contractor. The City shall pay all reasonable costs associated with the Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with such termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned, or any other costs, which have not been incurred, as of the date of termination.
- C. **Termination After Completion Date.** If the Contractor fails to complete its performance of the Contract within the time specified in the Contract (including any approved extension of such time), if any, the Contract may be terminated and, in the event of such termination, the Contractor shall not be paid or allowed any further compensation for any costs incurred after such termination. The City may thereafter proceed to complete the Contract either by rebidding or otherwise, the Contractor and its surety, if any, shall be liable to the City for all loss or damage that the City may suffer on account of the Contractor's failure to complete the Contract on time. This Agreement shall become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

10. Indemnity.

- A. **Indemnity:** CONTRACTOR shall defend, hold harmless and indemnify CITY, its officers and employees, and each and every one of them, from and against any

and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by CITY's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform this Agreement by CONTRACTOR, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from the sole negligence or willful misconduct of CITY, its agents, servants, or independent contractors who are directly responsible to CITY, except when such agents, servants, or independent contractors are under the direct supervision and control of CONTRACTOR.

- B. Insurance Policies: Intellectual Property Claims: The existence or acceptance by CITY of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of CITY's rights under this Section 10, nor shall the limits of such Insurance limit the liability of CONTRACTOR hereunder. This Section 10 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 7.B., above. The provisions of this Section 10 shall survive any expiration or termination of this Agreement.

11. **Insurance Requirements.** During the entire term of this Agreement, CONTRACTOR shall maintain the insurance coverage described in this Section 11.

Full compensation for all premiums that CONTRACTOR is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Services provided by CONTRACTOR under this Agreement. No additional compensation will be provided for CONTRACTOR's insurance premiums.

It is understood and agreed by the CONTRACTOR that its liability to the CITY shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the CONTRACTOR in connection with this Agreement.

A. **Minimum Scope & Limits of Insurance Coverage**

- (1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.
- (2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the CONTRACTOR.

No automobile liability insurance shall be required if CONTRACTOR completes the following certification:

"I certify that a motor vehicle will not be used in the performance of any work or services under this agreement."
(CONTRACTOR initials)

- (3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

 Workers' Compensation waiver of subrogation in favor of the City is required for all work performed by the CONTRACTOR.

No Workers' Compensation insurance shall be required if CONTRACTOR completes the following certification:

"I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers' Compensation insurance."
(CONTRACTOR initials)

B. Additional Insured Coverage

- (1) Commercial General Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects general liability arising out of activities performed by or on behalf of CONTRACTOR, products and completed operations of CONTRACTOR, and premises owned, leased or used by CONTRACTOR. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

 Additional Insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

- (2) Automobile Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officials, employees and volunteers. Any insurance or

self-insurance maintained by CITY, its officials, employees or volunteers shall be in excess of CONTRACTOR's insurance and shall not contribute with it.

- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, its officials, employees or volunteers.
- (3) Coverage shall state that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- (4) CITY will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 11 must be declared to and approved by the CITY Risk Management Division in writing prior to execution of this Agreement.

E. Verification of Coverage

- (1) CONTRACTOR shall furnish CITY with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the CITY representative named in Exhibit A. Copies of policies shall be delivered to the CITY on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.
- (2) The CITY may withdraw its offer of contract or cancel this Agreement if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The CITY may withhold payments to CONTRACTOR and/or cancel the Agreement if the insurance is canceled or CONTRACTOR otherwise ceases to be insured as required herein.

F. Subcontractors

CONTRACTOR shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

12. **Equal Employment Opportunity.** During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

A. Compliance With Regulations: CONTRACTOR shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment", as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), hereinafter collectively referred to as the "Regulations".

B. Nondiscrimination: CONTRACTOR, with regards to the work performed by it after award and prior to completion of the work pursuant to this Agreement, shall not

discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in discrimination prohibited by the Regulations.

- C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by CONTRACTOR for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by CONTRACTOR of CONTRACTOR's obligation under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.
- D. Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.
- E. Sanctions for Noncompliance: In the event of noncompliance by CONTRACTOR with the nondiscrimination provisions of this Agreement, the CITY shall impose such sanctions as it may determine to be appropriate including, but not limited to:
- (1) Withholding of payments to CONTRACTOR under this Agreement until CONTRACTOR complies;
 - (2) Cancellation, termination, or suspension of the Agreement, in whole or in part.
- F. Incorporation of Provisions: CONTRACTOR shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. CONTRACTOR shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, CONTRACTOR may request CITY to enter such litigation to protect the interests of CITY.
13. **Entire Agreement.** The Contract Documents contain the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Contract. No alteration to the terms of this Contract shall be valid unless approved in writing by Contractor, and by City, in accordance with applicable provisions of the Sacramento City Code. In the event of any conflict among the provisions of different Contract Documents, the conflict shall be resolved by giving precedence to the Contract Documents in the following order:

- A. Post-Award Amendments.
 - B. Pricing Schedule(s), as corrected by City, if applicable.
 - C. Pre-Award Addenda
 - D. Special Provisions.
 - E. Bid Instructions and Requirements
 - F. General Conditions
 - G. Technical Specifications and/or Plans
14. **Severability.** If any portion of this Agreement or the application thereof to any person or circumstance shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be enforced to the greatest extent permitted by law.
 15. **Waiver.** Neither CITY acceptance of, or payment for, any Service or Additional Service performed by CONTRACTOR, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.
 16. **Enforcement of Agreement.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.
 17. **Assignment Prohibited.** The expertise and experience of CONTRACTOR are material considerations for this Agreement. CITY has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on CONTRACTOR under this Agreement. In recognition of this interest, CONTRACTOR shall not assign any right or obligation pursuant to this Agreement without the written consent of the CITY. Any attempted or purported assignment without CITY's written consent shall be void and of no effect.
 18. **Binding Effect.** This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 17, above.
 19. **Compliance with Laws.** The Contractor shall be responsible for strict compliance with all applicable laws, regulations, court orders and other legal requirements applicable to the work to be accomplished pursuant to the Contract, including without limitation the California Occupational Safety and Health Act and all applicable safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, and all applicable requirements of Underwriters Laboratories and the Federal Communication Commission.
 20. **Inspection.** Merchandise will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of the Contract. If deficiencies are found, it shall be the responsibility of the Contractor to pick up the merchandise, make necessary correction and redeliver the merchandise for re-inspection and acceptance. Payment and/or commencement of discount period (if applicable) will not be made until corrective action has been made.

- 21. Funding Availability.**
- A. The Contract is subject to the budget and fiscal provisions of the Charter and City Code of the City of Sacramento.
 - B. The City's payment obligation under the Contract shall not at any time exceed the amount of funds appropriated and approved for such purpose by the Sacramento City Council.
 - C. The Contract shall terminate without penalty at the end of the fiscal year in the event funds to make payment under the Contract are not appropriated and approved for such purpose by the City Council for the succeeding fiscal year. If such funds are appropriated for only a portion of the fiscal year this Contract shall terminate, without penalty, at the end of the term for which funds have been appropriated. In the event of such termination, the Contractor shall not be entitled to recover any costs incurred after termination, subject, further, to the limitation in subsection 11.B. of these General Conditions.
 - D. Notwithstanding any provision of the Contract Documents to the contrary, this section shall govern over any other provision of the Contract.
- 22. Inspection of Facilities.** If requested by the City, the Contractor shall provide City with an inspection tour of Contractor's facilities at the location where the work under the Contract will be accomplished.
- 23. Material Safety Data Sheets (MSDS).** It is mandatory for a manufacturer, Contractor or distributor to supply a MSDS with the first shipment of any hazardous material. Also at any time the content of an MSDS is revised, the Contractor shall provide new information relevant to the specific material.
- 24. Notification of Material Changes in Business.** Contractor agrees that if it experiences any material changes in its business including, without limitation, a reorganization, refinancing, restructuring, leveraged buyout, bankruptcy, loss of key personnel, etc., it will immediately notify the City of the changes. Contractor also agrees to immediately notify the City of any condition which may jeopardize the scheduled delivery or fulfillment of Contractor's contractual obligations to the City. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Procurement Services Division reserves the right at its sole discretion to terminate the Contract either for cause or for convenience as provided in Section 9 of these General Conditions.
- 25. Payment and Invoicing.** Unless otherwise specified in the Contract Documents, payment for services rendered or materials provided and accepted by City will be made monthly, in arrears, after receipt of a proper invoice.
- 26. Protection of Existing Facilities.** Contractor shall take every precaution to protect all public and private property during the performance of the Contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

27. **Guarantee.** By submitting its bid, the Contractor guarantees that all merchandise delivered and/or work or services performed under the Contract shall meet the minimum requirements set forth herein. If it is determined by the City that the merchandise delivered or work or services performed do not meet the minimum requirements of the Contract, the Contractor shall be required to correct the same at Contractor's sole expense.
28. **Use Tax Requirements.** During the performance of this Agreement, Contractor, for itself, its assignees and successors in interest, agrees as follows:
- A. **Use Tax Direct Payment Permit:** For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Contract or Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.
 - B. The above provisions shall apply in all instances unless prohibited by the funding source for the Contract or Agreement.

SECTION II – CONTRACT DOCUMENTS

B. SPECIAL PROVISIONS

ENVIRONMENTALLY PREFERABLE PROCUREMENT

The City has adopted a "Sustainable Procurement Policy (SPP) and program. The goal is to encourage the procurement of products and services that help minimize environmental impact resulting from use and disposal of these products. Contractors are encouraged to offer Energy Star, Green Seal, EcoLogo, EPEAT, or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. City also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this IFB. Contractors will offer products that have minimal virgin materials and maximum use of recycled products. Contractor must work with the City to attain these goals.

Notwithstanding the above, the Contractor agrees to supply the City of Sacramento with environmentally preferable and effective products in compliance with the specifications in this solicitation and provide services that help minimize environmental impact resulting from use and disposal of products specified in this bid.

The Contractor further agrees that its products specified in this bid do not contain any items, ingredients or components prohibited under the City's SPP Policy.

The City may terminate this contract or take other appropriate actions if the contractor fails to comply or provide adequate supporting documentation to substantiate compliance with the City's SP Policy and requirements specified in the bid.

The City's SPP Policy is available on line at:

[http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable Purchasing Policy_SPP.pdf](http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable_Purchasing_Policy_SPP.pdf) or by contacting the Procurement Services Division at (916) 808-6240.

Guarantee

- a. The manufacturer and/or dealer delivering the water meters against these specifications shall guarantee that they meet the minimum requirements set forth herein. If it is found that the equipment delivered does not meet the minimum requirements of this specification, the manufacturer and/or dealer will be required to correct the same at its expense. Failure of the manufacturer and/or dealer to bring the equipment into full compliance with all the requirements set forth in this specification within their 30 days of delivery shall constitute cause for rejection of the equipment. In case the equipment is rejected, it shall be removed promptly from the City's premises at the manufacturer's and/or dealer's expense. The manufacturer and/or dealer delivering the water meters will use only the manufacturer and the brand/models specified in the bid.
- b. In case of default by supplier, the City reserves the right to procure the articles or services from other sources and to hold the supplier responsible for any excess costs occasioned to the City thereby.

F.O.B.

All items are to be supplied F.O.B., City of Sacramento, California, full freight allowed.

Payment and Invoicing

Invoices, in duplicate, shall be mailed or delivered to the City of Sacramento, Department of Utilities, Water Distribution 5730 24th Street, Bldg # 22 Sacramento, Ca 95822

Payment Terms

Payment terms are net 30 days unless Contractor offers a prompt payment discount. All prompt payment discounts if taken shall be computed from the date of delivery or completion and acceptance of material, or from date of receipt of invoice, whichever is latest. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery and acceptance of goods and on receipt of Contractor's invoice.

Prices

Prices are maximum for the 1st year of the contract. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

Quantities

The quantity specified is based upon current known requirements and is subject to increase or decrease at the same terms and conditions.

Contract Period

The contract shall be effective for a period of 1 year from the date of award by City Council.

Contract Extension

Any resultant contract may be extended on a year to year basis under the same terms and conditions. However, in no case shall the contract term extend beyond five (5) years from the date of award of the original contract.

Cooperative Purchasing

The use of any resulting contract may be extended to other government agencies. It shall be understood that all terms and conditions as specified herein shall apply. The City of Sacramento will not be an agent, partner or representative of any other government agency as it relates to this specification; and is not obligated or liable, including, but not limited to, payment for an order placed by any other government agency.

Modification of Contract

The City may order changes in the work herein required and may order extra work in connection with the performance of the contract and the Contractor may comply with such orders, except that:

- A. If changes in requirements, reports, or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract will be increased or decreased by such amount as the Contractor and Water Distribution/Field Services Division may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of work.
- B. No order for any alteration, modification, or extra work which will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Procurement Services Manager. No oral statement of any person whatsoever shall in any manner or degrees modify or otherwise affect the terms of this contract, including the requirements of the specifications.

SECTION II – CONTRACT DOCUMENTS

C. TECHNICAL SPECIFICATIONS/PLANS/OTHER REQUIREMENTS

1 Registers- Bidders shall supply absolute encoder type registers.

1.1 Absolute Encoder Type Registers for No Moving Parts, Positive Displacement, Compound and Turbine Meters

1.1.1 General Description

Registers furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in the manufacture of absolute encoder-based registers. The registers shall have the capability of providing encoded meter information as described in the following specification. Specifications for the required cold-water meters can be found below in separate specifications. Registers provide low voltage conversions are acceptable; however, registers utilizing generator pulses are not acceptable under this standard.

1.1.2 Construction

Registers shall be of the absolute encoder type and permanently, hermetically sealed in a copper or stainless steel can to provide protection from moisture, high strength, and resistance to handling damage. Similar size, type and registration or registers shall be interchangeable.

All registers 1 ½" and above must be removable without disassembly of the water meter or the service line. Registers must be free of opening to protect the internal electronics of the register.

Registers shall be equipped with low flow indicators. Registers shall read in cubic feet. The register is independent of the meter. Therefore, register's Manufacture Date and Identification Number shall be printed on the face of the register. The manufacturer of the meter and register shall provide meter serial numbers with barcodes on the meter, register lid and shipping box. In addition, the contractor will supply for each shipment an electronic spreadsheet providing meter serial numbers for the City to expedite tracking and inventory purposes.

Register lenses constructed of minimum 1/4" tempered are preferred but not required; glass domed (non-tempered) register lenses are acceptable for durability in pit installations. All other register assembly and material requirements stated herein shall also apply. Registers shall be equipped with a hinged lid to completely protect the register lens.

The absolute Encoder Register output shall be a factory-potted NICOR Hydroconn AMR Series III in-line male connector with female metal contacts and Hydroconn AMR Series II End Cap (No Substitute). The register cable shall be Nicor's three (3) conductor cable and measure 36" long from surface of the register to the end of the connector for 5/8" through 2" meters and 6 feet long for all meters 3" and above.

1.1.3 Operation

Upon inquiry from a remote location, the absolute encoder register shall disclose the exact position of the six most prominent number rollers. All power necessary for data transmission shall be supplied from the interrogation device. All registers shall be fully compatible with Datamatic Firefly meter interface unit (MIU).

All registers shall employ a device to offer a reliable transfer of the roller bank assembly to ensure accuracy and to prevent ambiguous readings. For reliability and durability, the position of each roller shall NOT be determined by using any type of mechanical contacts which can wear out over time. Optical character recognition (OCR) is the preferred technology, but is not required, for determining roller position, as this method reads the actual position of the index odometer wheels when interrogated by a Datamatic Firefly (MIU) Meter Interface Unit.

Data transmission shall be instantaneous and supplied in an ASCII format without conversion or modification. Registers must operate reliably down to at least 4.5 volts.

Pin out connection: When meter side connector is viewed end-on with the molded arrow at the 12 o'clock position, the contacts occupy the 2, 6 and 10 o'clock positions.

<u>O'clock Position</u>	<u>Function</u>
2	Power/Clock
6	Ground/common/return
10	Encoder Data

1.1.4 Warranties

All encoded registers shall be free from defects in materials and workmanship for ten (10) years from the date of purchase.

2 METERS

2.1 Residential Meters- No Moving Parts- 5/8" through 1"

2.1.1 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, no moving parts technology for cold-water service. Multi-jet meters are not acceptable under this specification. Meters shall comply with AWWA C713 performance requirements in the latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61, including annex G and F requirements. They shall be designed for use with potable water below 80 degrees F.

2.1.2 Type

Cold water service meter for measuring potable water in residential services with no moving parts, sealed register with an absolute encoder permanently attached to the meter.

2.1.3 Main cases: 5/8" through 1"

All meters shall have a non-corrosive body main case made of high quality copper alloy, thermo plastic or other suitable material with an integral flow tube. The meter casing shall have characters denoting the meter size and the direction of water flow. The casing shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from top down. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.1.4 Measuring Chambers

The measuring chamber shall be a measuring element or flow tube to calculate volume. The meter shall determine volume within the flow tube based on a volumetric measurement such as fluid oscillation or time and flow rate such as electro-magnetic or ultrasonic flow measurement. The measuring system will have no moving parts and will be specific for each size meter. Measuring elements or flow tubes shall be manufactured from an engineered polymer, low lead alloy brass or stainless steel. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case.

2.1.5 Laying Length

Meters must conform to AWWA C713 standard as most recently revised. The laying length of No Moving Parts meter assemblies shall be as follows:

Meter Size	Meter	Strainer
5/8"	7 1/2" Max	N/A
5/8" X 3/4"	7 1/2" Max	N/A
3/4"	9"	N/A
1"	10 3/4" Max	N/A

2.1.6 Register Construction

Register housing's for all meters in this specification shall be constructed of an engineered polymer and provide full protection of the register assembly including a composite lid. All register components shall be contained in an encapsulated weatherproof UV-resistant housing. The register must have a visual indicator for meter reading, leak detection and battery indicator. Registers shall have a published battery warranty lasting a minimum of twenty (20) years. The first 10 years is a full replacement warranty and the second 10 years is prorated according to manufacturer proration schedule. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.1.7 Register Performance

The register output data format shall be 7-bit ASCII (American Standard Code for Information Interchange) digital, plus an even parity bit. Upon interrogation from a Datamatic product, the register will transmit an odometer reading containing from 1 to 8 digits and a user defined alphanumeric identification of up to 10 characters. Meters must be capable of transmitting a minimum of 8 digits to the utility's reading system. The register's ASCII digital output is to be capable to interfacing directly to a Datamatic endpoint.

2.1.8 Registration Accuracy

Meters must conform to AWWA C713 standard as most recently revised. All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8 GPM	1/8 to 20 GPM	20
5/8"X 3/4"	1/8 GPM	1/8 to 20 GPM	20
3/4"	1/4 GPM	1/8 to 30 GPM	30
1"	3/8 GPM	1/2 to 50 GPM	50

2.1.9 Meter Performance

Meters shall conform minimally to current AWWA C-713 specifications as current revisions, test flows, head loss and accuracy standards. Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.1 Positive Displacement Type Meters 5/8" -2"

2.2.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, positive displacement type cold water service. Meters must be of the oscillating piston or nutating disc type. Multi-jet and Single-jet meters are not acceptable under this specification. Meters shall comply with AWWA Standard C700 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufactures will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.2.3 Type

Cold water service meter for measuring potable water in residential services, positive displacement meters only, sealed register.

2.2.4 Cases: 5/8" through 1"

All meters 5/8" through 1" shall have an NSF approved, low lead bronze outer main case body with a separate, removable measuring element. The low lead bronze case shall not have less than 85% copper content. The meter case casting shall have raised characters denoting the meter size and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. All bottom plates shall be isolated from the potable water by a full rubber liner. Meters shall be provided with bronze bottom plate and held in place with stainless steel bolts with integral washer heads. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.2.5 Length

Meters must conform to AWWA C700 standard as most recently revised.

2.2.6 Main cases: 1 1/2" through 2"

All meters 1 1/2" through 2" shall have a body main case made of high quality copper alloy, with a separate, removable measuring element. The meter casting shall have raised characters denoting the size meter and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. Meters shall be of the split case design.

2.2.7 Laying Length

Meters must conform to AWWA C700 standard as most recently revised. The laying length of PD meter and/or strainer assembly shall be as follows:

Meter Size	Meter
1 1/2"	13" Max
2"	17" Max

2.2.8 Register Housings

Register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Registers shall comply with AWWA C700 section 4.1.3 performance requirements in the latest revision. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.2.9 Measuring Chambers

The measuring chamber shall be of the two-piece oscillating piston or nutating disc design. No inferential-type meters will be allowed. Chambers shall be manufactured from an engineered polymer. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case. All wear prone surfaces shall be reinforced with a nylon material. All measuring chamber assemblies shall operate smoothly and be capable of sustaining long-term accuracy. All motion from the piston shall be transferred to the register via magnetic drive. Piston oscillations or disc nutations must not exceed the figure recommended in Table one (1) of AWWA Standards C-700 latest version for the size of the meter being bid.

2.2.10 Registration Accuracy

All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8	1-20	15
3/4"	1/4	2-30	15
1"	3/4	3-50	25
1 1/2"	1 1/2	5-100	50
2"	2	8-160	80

2.2.11 Magnetic Coupling

The piston oscillations will be transferred to the sealed register through the use of a magnetic coupling. Meters with stuffing boxes, spindles and packing glands will not be acceptable.

2.2.12 Headloss

Meters shall conform to AWWA C-700 specifications as currently revised.

2.2.13 Pressure Capability

Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.14 Strainers

All meters shall be provided with a strainer screen installed in the meter. Strainer screens shall be rigid, fit securely, be easy to remove and have an effective straining area at least two times that of the main case inlet.

2.2.15 Warranties

Meters shall be warranted by the manufacturer to meet AWWA new meter accuracy standards according to the following time periods and registered usage amounts, whichever occurs first:

Size Meter	Years Guaranteed	Registered Usage
5/8" C700	5 years from date of shipment	750,000 US Gallons
3/4" C700	5 years from date of shipment	750,000 US Gallons
1" C700	5 years from date of shipment	1,100,000 US Gallons
1 1/2" C700	5 years from date of shipment	1,600,000 US Gallons
2" C700	5 years from date of shipment	2,100,000 US Gallons

2.3.1 Turbine Type Meters 1 1/2" through 12"

2.3.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, turbine type for cold-water service. Meter sizes shall be inclusive and shall comply with the Class II AWWA Standard C701 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufactures will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F

2.3.3 Registration Accuracy

All Turbine Type Meters shall meet or exceed the AWWA latest standard, as follows..

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
1 1/2"	3	4-160	200
2"	3	4-200	250
3"	4	8-450	550
4"	7	15-1000	1200
6"	15	30-2000	2000
8"	25	50-3000	3000
10"	55	75-6500	7000

2.3.4 Main Cases

The body main case shall be of bronze composition of a high tensile strength or epoxy coated ductile iron on 1 1/2" - 12" sizes and be capable of resisting distortion under pressure up to one hundred and fifty (150) psi. All meters shall have the size and direction of flow indicated on the case and shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.3.5 Register Housings

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamperproof screws, or other locking devices are also acceptable.

2.3.6 Measuring Chambers

The measuring elements or chamber for all meters shall be of engineered polymer and shall be separate from the case and easily detached and removed there from.

Rotor spindles shall be of tungsten carbide, stainless steel or titanium alloy supported by radial bearings made of PTFE graphite compounds, synthetic sapphire, or sapphire/ceramic jewel..

2.3.7 Laying Length

The laying length of Turbine meters and/or strainer assembly shall be as follows:

Meter Size	Meter/Meter & Strainer	Strainer	* Test Plug
1 1/2"	13"	7" Max	1" NPT
2"	17"	7" Max	1 1/2" NPT
3"	12"	7" Max	2" NPT
4"	14"	9" Max	2" NPT
6"	18"	9" Max	2" NPT
8"	20"	10 1/4" Max	2" NPT
10"	26"	16" Max	2" NPT

*Spool pieces with a test port are acceptable

2.3.8 Rotors

The measuring impellers, vanes or rotors for all meters shall be polypropylene, nylon, hard rubber or engineered polymers and shall be mounted on a horizontal axis in the center of the measuring element with rotations of the turbine transmitted to the register by means of magnets. Straightening vanes of corrosion resistant material as required shall precede the rotor.

2.3.9 Strainers

Integrally-cast stainless steel plate type strainers are required on sizes 1 1/2" through 6" turbine meters. Separate external epoxy coated steel plate strainers are acceptable on sizes 8" to 12". Strainers shall be rigid, easily removable, and have an effective straining area at least double that of the meter main case inlet. External strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.3.10 Warranties

At a minimum, all meters shall carry the following published warranties; Meters shall be guaranteed to be free from defects in materials and workmanship for a period of 24 months after installation and to meet AWWA C-701 Accuracy Standards for two (2) years from date of shipment.

2.4.1 Compound Type Meters 2" through 8"

2.4.2 General Description

Meters combining turbine and displacement meters furnished under these specifications shall meet or exceed the performance specifications of AWWA C702, latest revision. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.4.3 Laying Length

The laying length of Compound meters and/or strainer assembly shall be as follows:

Meter Size	Meter or Meter with Strainer	Strainer
2"	15 ¼"	7" Max
3"	17"	7" Max
4"	20"	9" Max
6"	24"	9" Max
8"	42" Max	14" Max

2.4.4 Registration Accuracy

All Compound Meters shall meet or exceed the AWWA's flow standards as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
2"	¼	2-160	170
3"	½	4-325	450
4"	¾	6-575	1000
6"	1 ½	10-1500	2000
8"	2 ½	16-1875	3000

Minimum accuracy through changeover shall be no less than 95% of actual throughput.

2.4.5 Main Cases

The body main case shall be of bronze composition or epoxy coated cast iron on 2" through 8" models. Cases must be capable of withstanding working pressure of one hundred and fifty (150) psi. Outer cases shall permit separate removal of measuring chambers. Meters shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.4.6 Automatic Valves

Automatic valves shall be as specified in Section 2.10 of the AWWA Standard unless the meter design does not require a crossover valve to meet meter accuracy or other performance specifications of AWWA C702.

Spring-loaded valves shall be a Poppet-type suitable for such purpose. Spring tension shall offer sufficient resistance to the incoming water to divert all small rates of flow through the bypass meter until such time as the pressure loss is great enough to ensure efficient operation of the main measuring section. Spring-loaded valves shall have components made of the following or approved equal: Valve cages made of copper alloy or stainless steel are preferred but NOT required, springs and screws of stainless steel, and spindles and cones of engineered polymer. Spring-loaded valves shall be self-flushing and fast opening and closing. They shall be easily detached and removed from the case.

Valve assemblies utilizing gates are acceptable if the manufacturer can assure an accuracy level of at least 97% at changeover.

2.4.7 Register Housing

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locking devices are acceptable.

2.4.8 Measuring Unit Assemblies

Measuring chambers and cages shall be bronze or engineered polymer. They shall be easily detached and removed from the case. Rotor spindles shall be of tungsten carbide steel or titanium alloy, and must be supported by PTFE, graphite radial, or sapphire/ceramic jewel bearings. Replaceable thrust bearings shall be provided. The main line and bypass chambers shall be interchangeable in all meters of the same size and model. Intermediate gear trains shall be made of non-corrosive materials or synthetic polymer. The bypass chamber assemblies shall be positive displacement type and shall not be cast as part of the outer case.

2.4.9 Strainers

Meters shall be provided with a strainer. All strainers shall be stainless steel plate type. Separate external bronze or integrally cast epoxy coated strainers on meters 2" through 6". Steel plate epoxy coated strainers on 8" and above. Strainers shall be rigid, and have an effective straining area at least double that of the meter main case inlet. Strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.4.10 Connections and Companion Flanges

Main case connections and flanges shall meet or exceed AWWA Standard as specified in Table 4 of the AWWA Standard.

2.4.11 Warranties

All meters shall carry the following published warranties:

Meters shall be guaranteed to be free from defects in materials and workmanship and to meet AWWA Accuracy Standards for two (2) years from date of installation.

3. Meter Replacement Parts

3.1.1 Parts Availability

Meter replacement parts, such as measuring chambers, rotor assemblies, gear train assemblies, calibration vane stem gears, spindles, inlet and outlet assembly parts, drive pinions, ect., shall be made available for at least five (5) years after a meter purchase.

3.1.2 Prices of Repair Parts

The prices of repair parts will be calculated as a discount off an existing price list in effect at the time of shipment, FOB Sacramento with freight prepaid..

**SECTION III
BIDDER RESPONSE
DOCUMENTS**

SECTION III – BIDDER RESPONSE DOCUMENTS

A. ITEMS REQUIRING BIDDER RESPONSE

NOTE: Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.

1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Economic Development, at (916) 808-6747.

A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as a small business enterprise? Check the appropriate block below:

- YES – Our firm is certified by the City of Sacramento as a small business enterprise.
- NO -Our firm submitting is not certified by the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number

B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise? Check the appropriate block below:

- YES - Our firm is certified by the City of Sacramento as an emerging business enterprise.
- NO - Our firm is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number:

2. LOCAL BUSINESS SALES/USE TAX DEDUCTION

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid

price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? Yes; or No

If the answer to Question above is "Yes":

a) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

Specify: fixed office location or distribution point(s): _____

b) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number: 86746

3. DELIVERY GUARANTEE

Contractor guarantees delivery within * days after receipt of order (ARO).

*please see attached delivery schedule

4. PAYMENT DISCOUNT

Will you offer a prompt payment discount? Yes [] or No [x] (Net 30 days)

If Yes, the Payment Discount is % for payment within calendar days, which will be computed from the date delivery is made and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

6. ELECTRONIC FUNDS TRANSFER (EFT) (Informational only):

Do you have the ability to accept electronic payments (EFT)? Yes [x] or No []

If Yes, what percentage discount would you offer the City to be paid through EFT? 0%

8. CITY OF SACRAMENTO BOYCOTT OF ARIZONA-HEADQUARTERED BUSINESSES:

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

Wisconsin
State Where Bidder Is Headquartered

7. Repair Parts Price List

Bidder is to provide a complete list of all necessary repair parts and should indicate the percentage discount OFF LIST PRICE allowed to the City. As the City of Sacramento has water service meters of various manufactures in its system, the City reserves the right to purchase repair parts from any bidder at the stated discount. BIDS WILL NOT BE ACCEPTED FROM BIDDERS WHO FAIL TO INDICATE THE DISCOUNT ALLOWED.

1. Please Attach a Separate Pricing Sheet for Replacement Parts for Meters.
2. Discount: Bidder will offer 15 % off list price on all parts?

SECTION III – BIDDER RESPONSE DOCUMENTS

B. ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL BIDDER PRIOR TO START OF CONTRACT

The following documents are required to be completed and submitted by the successful bidder prior to the award of contract of the contract:

1. CERTIFICATE OF INSURANCE

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

2. BUSINESS OPERATIONS TAX CERTIFICATE

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

SECTION III – BIDDER RESPONSE DOCUMENTS

C. DECLARATION OF COMPLIANCE
Equal Benefits Ordinance

Name of Contractor: Badger Meter, Inc.

Address: 4545 West Brown Deer Rd. Milwaukee, WI 53223

The above-named Contractor ("Contractor") hereby declares and agrees as follows:

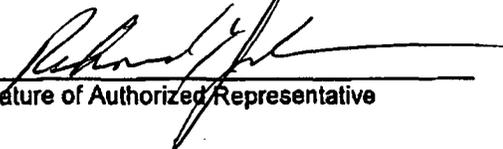
1. Contractor has read and understands the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") attached hereto as Exhibit F.
2. As a condition of receiving this Contract, Contractor agrees to fully comply with the Requirements, as well as any additional requirements that may be specified in the City of Sacramento's Non-Discrimination In Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. Contractor understands, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

Contractor agrees that if Contractor offers any of the above-listed employee benefits, Contractor will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. Contractor understands that Contractor will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. If the actual cost of providing a benefit to a domestic partner or spouse exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, Contractor will not be required to provide the benefit, nor shall it be deemed discriminatory, if Contractor requires the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. If Contractor is unable to provide a certain benefit, despite taking reasonable measures to do so, if Contractor provides the employee with a cash equivalent Contractor will not be deemed to be discriminating in the application of that benefit.

- c. If Contractor provides employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If Contractor provides employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If Contractor submits written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies that will be enacted before the first effective date after the first open enrollment process following the date this Contract is executed by the City of Sacramento ("City"). Contractor understands that any delay in the implementation of such policies may not exceed one (1) year from the date this Contract is executed by the City, and applies only to those employee benefits for which an open enrollment process is applicable.
 - f. Until administrative steps can be taken to incorporate nondiscrimination in employee benefits. The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date this Contract is executed by the City.
 - g. Until the expiration of a current collective bargaining agreement(s) if employee benefits are governed by such collective bargaining agreement(s).
 - h. Contractor takes all reasonable measures to end discrimination in employee benefits by either requesting that the union(s) involved agree to reopen the agreement(s) in order for Contractor to take whatever steps are necessary to end discrimination in employee benefits or by ending discrimination in employee benefits without reopening the collective bargaining agreement(s).
 - i. In the event Contractor cannot end discrimination in employee benefits despite taking all reasonable measures to do so, Contractor provides a cash equivalent to eligible employees for whom employee benefits, are not available. Unless otherwise authorized in writing by the City Manager, Contractor understands this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or not longer than three (3) months after the date this Contract is executed by the City.
5. Contractor understands that failure to comply with the provisions of Section 4(a) through 4(i), above, will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full and/or for up to two (2) years; and/or the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
 6. Contractor understands and agrees to provide notice to each current employee and, within ten (10) days of hire, to each new employee, of their rights under the Ordinance. Contractor further agrees to maintain a copy of each such letter provided, in an appropriate file for inspection by authorized representatives of the City. Contractor also agrees to prominently display a poster informing each employee of these rights.
 7. Contractor understands that Contractor has the right to request a waiver of, or exemption from, the provisions of the Ordinance by submitting a written request to the City's Procurement Services Division prior to Contract award, which request shall identify the provision(s) of the Ordinance authorizing such waiver or exemption and the factual basis for such waiver or exemption. The City shall determine in its sole discretion whether to approve any such request.

8. Contractor agrees to defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by Contractor. The undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that he or she is authorized to bind the Contractor to the provisions of this Declaration.



Signature of Authorized Representative

December 12, 2011
Date

Richard E. Johnson
Print Name

Sr. Vice President - Finance, CFO and Treasurer
Title

SECTION III – BIDDER RESPONSE DOCUMENTS

D. PRICING SCHEDULE FOR WATER METERS

For furnishing to the City of Sacramento, pricing, in accordance with the provisions and specifications contained herein. Quantities and types are estimates only and subject to increase or decrease over this potential five (5) year contract. Orders will be placed on an as needed basis. The following quantities are the City's anticipated requirements for the next five (5) years. All registers shall be fully compatible with various brands of interrogation equipment as part of the program will be to capture meter information electronically.

ALL WATER METER PRICING MUST INCLUDE THE STRAINER

Group I				
Item	Quantity	Description	Unit Price	Extension
No.				
1	1,000	3/4" No Moving Parts Cold Water Badger, E-series E35, 3/4" x 9", stainless steel (Manufacture/Model Proposed)	\$ <u>145.55</u>	\$ <u>145,550.00</u>
2	2,500	1" No Moving Parts Cold Water Badger, E-series E55, 1", stainless steel (Manufacture/Model Proposed)	\$ <u>165.55</u>	\$ <u>413,875.00</u>
3	2,750	1" Positive Displacement Cold Water Badger, low lead RCDL M55, low lead bronze bottom (Manufacture/Model Proposed)	\$ <u>127.55</u>	\$ <u>350,762.50</u>
4	.950	1.5" Positive Displacement Cold Water Badger, low lead RCDL M120, ell (Manufacture/Model Proposed)	\$ <u>290.55</u>	\$ <u>276,022.50</u>
5	1,500	2.0" Positive Displacement Cold Water Badger, low lead RCDL M170, ell (Manufacture/Model Proposed)	\$ <u>385.55</u>	\$ <u>578,325.00</u>
			Sales Tax @ 7.75%	\$ <u>136,751.46</u>
			Total Group I	\$ <u>1,901,286.46</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group II

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
6	100	2.0" Turbine Cold Water Meter Badger low lead RCDL T-200 with test plug and integral strainer (Manufacture/Model Proposed)	\$ <u>489.00</u>	\$ <u>48,900.00</u>
7	80	3.0" Turbine Cold Water Meter Badger low lead RCDL T-450 with test plug and integral strainer (Manufacture/Model Proposed)	\$ <u>895.55</u>	\$ <u>71,644.00</u>
8	80	4.0" Turbine Cold Water Meter Badger low lead RCDL T-1000 with test plug and integral strainer (Manufacture/Model Proposed)	\$ <u>1,190.55</u>	\$ <u>95,244.00</u>
9	30	6.0" Turbine Cold Water Meter Badger low lead RCDL T-2000 with low lead plate strainer (Manufacture/Model Proposed)	\$ <u>1,950.55</u>	\$ <u>58,516.50</u>
10	30	8.0" Turbine Cold Water Meter Badger low lead RCDL T-3500 with ML-MS fabricated steel plate strainer (Manufacture/Model Proposed)	\$ <u>3,100.55</u>	\$ <u>93,016.50</u>
11	1	10.0" Turbine Cold Water Meter Badger low lead RCDL T-5500 with ML-MS fabricated steel plate strainer (Manufacture/Model Proposed)	\$ <u>4,400.55</u>	\$ <u>4,400.55</u>
12	1	12.0" Turbine Cold Water Meter Badger low lead head RCDL T-6200 with ML-MS fabricated steel plate strainer (Manufacture/Model Proposed)	\$ <u>5,200.55</u>	\$ <u>5,200.55</u>

Sales Tax @ 7.75% \$ 29,211.46

Total Group II \$ 406,133.56

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group III

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
13	300	2.0" Compound Water Meter Badger, low lead RCDL compound series with low lead plate strainer (Manufacture/Model Proposed)	\$ <u>1,375.55</u>	\$ <u>412,665.00</u>
14	350	3.0" Compound Water Meter Badger, low lead RCDL compound series with low lead plate strainer (Manufacture/Model Proposed)	\$ <u>1,655.55</u>	\$ <u>579,442.50</u>
15	350	4.0" Compound Water Meter Badger, low lead RCDL compound series with low lead plate strainer (Manufacture/Model Proposed)	\$ <u>1,750.55</u>	\$ <u>612,692.50</u>
16	150	6.0" Compound Water Meter Badger, low lead RCDL compound series with low lead plate strainer (Manufacture/Model Proposed)	\$ <u>2,999.55</u>	\$ <u>449,932.50</u>
17	50	8.0" Compound Water Meter Badger, low lead bypass RCDL combo meter with ML-MS fabricated steel plate strainer (Manufacture/Model Proposed)	\$ <u>4,699.55</u>	\$ <u>234,977.50</u>
			Sales Tax @ 7.75%	\$ <u>177,452.53</u>
			Total Group III	\$ <u>2,467,162.53</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

GRAND TOTAL PAGE

(Group I, II, and III) GRAND TOTAL OF ALL GROUPS \$ 4,774,582.55

Provide the following information on price increases in the years 2, 3, 4, and 5:

Year 2 1 % Price Increase

Year 3 1.5 % Price Increase

Year 4 2 % Price Increase

Year 5 2.5 % Price Increase

Bidders must provide the increase percentages for years 2 through 5 to accurately assess total five (5) year contract evaluation. Bidders not providing this detail will be considered non-responsive and will not be considered for award.



Badger Meter

E-Series® Lead-Free Ultrasonic Meters

PRODUCTS

This warranty shall apply to all Badger Meter E-Series® lead-free meters, models E-25 through E-55, when used to measure potable water and the internal register/encoder and battery used with these meters (collectively "Product"), sold on or after July 1, 2011. This warranty is not transferable and is extended only to utilities, municipalities, other commercial users and authorized distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger Meter, Inc. ("Badger Meter") warrants Product to be free from defects in materials and workmanship appearing within the earlier of the following time frames.

Lead-Free Housings

Twenty (20) years after installation or twenty (20) years and six (6) months after shipment from Badger Meter.

Electronics, Battery, Transducers, and Register/ Encoder Supplied with the Meters Listed Herein

Twenty (20) years, prorated, after installation or twenty (20) years and six (6) months, prorated, after shipment from Badger Meter.

This warranty is prorated as follows: the first ten (10) years of the warranty and at prorated price discounts during the last ten (10) years of the warranty. Badger Meter will apply these prorated price discounts to the Product list prices in effect at the time of Product return and according to the following prorated price discount schedule: Years 11 through 12 — 75% discount; Years 13 through 15 — 50% discount; Year 16 — 40% discount; Year 17 — 30% discount; Year 18 — 20% discount; and Years 19 through 20 — 10% discount.

Specifically, Badger Meter will repair or replace, at its discretion, a non-performing Product at no cost during the first ten (10) years of the warranty and at prorated price discounts during the last ten (10) years of the warranty. Badger Meter will apply these prorated price discounts to the Product list prices in effect at the time of Product return and according to the following prorated price discount schedule: Years 11 through 12 — 75% discount; Years 13 through 15 — 50% discount; Year 16 — 40% discount; Year 17 — 30% discount; Year 18 — 20% discount; and Years 19 through 20 — 10% discount.

METER ACCURACY

The meter product will meet or exceed meter accuracy of $\pm 1.5\%$ between the gallons per minute (GPM) "minimum flow rate" to "maximum flow rate" for twenty (20) years from date of shipment:

Model E-25 (5/8 inch and 5/8 inch x 3/4 inch):
0.1 GPM to 25 GPM

Model E-35 (3/4 inch):
0.1 GPM to 32 GPM

Model E-55 1 inch:
0.4 GPM to 55 GPM

EXTENDED LOW-FLOW METER ACCURACY

Badger Meter further warrants the meter product to meet or exceed extended low-flow accuracy of $\pm 3\%$ from the following "extended low-flow rates" to the "minimum flow rate" for twenty (20) years from date of shipment:

Model E-25 (5/8 inch and 5/8 inch x 3/4 inch):
0.05 GPM up to 0.1 GPM

Model E-35 (3/4 inch):
0.05 GPM up to 0.1 GPM

Model E-55 (1 inch):
0.25 GPM up to 0.4 GPM

PRODUCT RETURNS

Any Product proved to the satisfaction of Badger Meter to have failed the foregoing warranties will, at the option of Badger Meter, be repaired or replaced without charge to the Customer. The Badger Meter obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing the original Product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by parties other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with AWWA Standard C700-09 and AWWA M6 Manual, as applicable. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in the Badger Meter Product technical literature and Installation and Operation Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, alteration, improper installation, operation or repair, or other circumstances which are beyond the reasonable control of Badger Meter. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE **(except warranties of Title).**

Any description of Product, whether in writing or made orally by Badger Meter or its agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets, or similar materials used in connection with any Customer's order are for the sole purpose of identifying Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or its agents regarding use, application or suitability of Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability

Badger Meter liability with respect to breaches of the foregoing warranty shall be limited as stated therein. Badger Meter liability shall in no event exceed the contract price. BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

E-Series is a registered trademark of Badger Meter, Inc.

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Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



Badger Meter

E-Series® Model E-35
Cold Water Stainless Steel Ultrasonic Meter
Size 3/4-inch (DN 20mm)
NSF/ANSI Standard 61 Certified, Annex G

Description

The Badger Meter E-Series® meter is an electronic meter using ultrasonic technology and solid-state electronics contained in a compact, totally encapsulated, weatherproof and UV-resistant housing for residential and commercial applications. The ultrasonic measurement system has no moving parts, provides long-term accuracy and eliminates measurement errors due to sand, suspended particles, air pockets and pressure fluctuations.

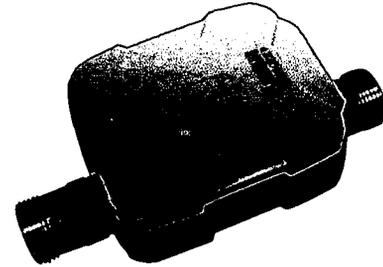
Electronic metering provides information and data not typically available from traditional, mechanical meters and registers such as rate-of-flow and reverse-flow indication. The flow tube is composed of stainless steel. The E-Series meter is compatible with AMR endpoints requiring either an encoded input or a scaled pulse input.

The E-Series meter is designed to comply with applicable portions of ANSI/AWWA Standard C700 and NSF/ANSI Standard 61, Annex G. There is currently no AWWA standard that specifically addresses ultrasonic meters for residential applications.

Applications: The E-Series meter can be used for measuring potable, cold water in residential, commercial and industrial services. It is ideal for non-potable, reclaimed, irrigation water applications or less than optimum water conditions where small particulates exist. The E-Series meter is useful in any application requiring long-term measurement accuracy.

Features

- Electronic meter design with no moving parts provides a high level of accuracy over the life of the meter.
- Minimum extended low-flow rate is lower than typical positive displacement meters.
- Simplified one piece electronic meter and register are integral to the meter body and require virtually no maintenance.
- Meter and register are sealed and protected from tampering.
- Meter is completely submersible.
- Display presents consumption, rate of flow, reverse-flow indication and alarms.



Operation: The E-Series meter is an electronic meter that uses ultrasonic technology to measure velocity. Water flows into the measuring tube, where ultrasonic signals are sent consecutively in forward and reverse directions of the flow. Velocity is determined by measuring the time difference between the measurement in the forward and reverse direction. Total volume is calculated from the measured flow velocity using water temperature and pipe diameter. The LCD display shows total volume and alarm conditions and can toggle to display rate of flow.

Operating Performance: The E-Series meters provide "new meter" consumption measurement accurate to:

- $\pm 1.5\%$ over the normal flow range at a normal temperature range of 45°F to 85°F (7°C to 29°C).
- $\pm 3.0\%$ from the extended low-flow range to the minimum flow value in the normal temperature range.

Construction: E-Series meters consist of a stainless steel pressure vessel (meter housing), an engineered plastic and stainless steel metering insert, a meter-control circuit board with associated wiring, LCD and battery. The wetted elements are limited to the pressure vessel, plastic/stainless steel metering insert and the transducers. The electronic components are housed and fully potted within a molded, engineered plastic enclosure, which is attached to the meter housing. The transducers are wetted components that extend through the housing and are sealed by O-rings.

The metering insert provides a method of holding the stainless steel ultrasonic reflectors in the center of the flow area, enabling turbulence-free water flow through the tube and around the ultrasonic signal reflectors. The metering insert's patented design virtually eliminates chemical buildup on the reflectors, helping to ensure long-term metering accuracy.

Meter Display: E-Series meters use an LCD to display consumption, flow and alarm information.

- The LCD contains a nine-digit display with the digits 0.25 inch (6.5 mm) high. Units of measure and resolution are factory programmed. Totalized flow displays up to 10,000,000 gallons, at a resolution of 0.01 gallons, or 1,000,000 cubic feet, at a resolution of 0.001 cubic feet.
- The LCD includes a factory-programmed visual black line above and below the digits used for billing purposes. This is the visual equivalent of the white and black number wheels on mechanical registers.
- Units of measure options include gallons, cubic feet, and cubic meters. The meter is factory programmed to a specific unit of measure.
- The consumption display provides a measurement representing the sum of the forward flow, minus the reverse flow.
- The display alternates between total flow and rate of flow. The rate-of-flow display also serves as the flow-finder indicator. You activate the display and switch between total flow and rate displays with a finger-controlled optical switch or by opening and closing the meter lid.
- Alarms are displayed as icons that are either active or inactive. Icons include: meter functioning correctly, reverse flow alarm, suspected leak alarm, 30-day no usage alarm, battery end-of-life indicator and other alarm conditions (including empty pipe, poor-quality sensor measurement and low temperature). Alarm displays will clear when the conditions are eliminated.

Tamper-Proof Features: No part of the meter is removable or serviceable; it is therefore tamper resistant.

Battery: A 3.6-volt lithium thionyl chloride battery is fully encapsulated within the register housing and is not replaceable. The life expectancy of the battery is 20 years.

Meter Installation: The meter can be installed using horizontal or vertical piping, with water flow in the up direction. The meter will not measure flow when an "empty pipe" condition is experienced. An empty pipe is defined as a condition when the flow sensors are not fully submerged.

AMR Output: An optional output wire (three conductor) that is fully potted and submersible is available for factory connection to the Badger Meter ORION® or GALAXY® remote endpoints. For future connectivity, the E-Series meter may be potted with either a Badger Meter 308 in-line connector or an Itron® in-line connector for approved endpoints. The output from the meter can be specified for factory setting as either a "scaled output" (replica of the Recordall® Transmitter Register [RTR®] output) or "encoder output" (replica of the Absolute Digital Encoder [ADE®] output). The output protocol is indicated on the AMR output wire.

Fluid Impurities: The E-Series meter can tolerate solids of up to 0.08 inch (2 mm) in diameter.

Maintenance: E-Series meters are designed and manufactured to provide long-term service with no maintenance. The enclosure, which includes the electronics, ultrasonic sensors, battery and display is completely potted, permanently sealed and does not require service.

Connections: Tailpieces/unions for installation on various pipe types and sizes, including misaligned pipes, are available as an option.

Serial Numbering: Serial number and barcodes are engraved on the outside surface of the lid and the face of the meter.

Ordering Guide: When ordering an E-Series Model E-35 meter, the following choices are available:

- Application: Potable (gray lid), reclaimed (lavender lid)
- Output Protocol: RTR or ADE
- Visual Indication of Billing Units: Four, five or six digits
- Units of Measure: Gallons, cubic feet, cubic meters
- AMR Output: Badger 308 or Itron in-line connector, ORION system, GALAXY system
- Lead length of AMR module

Specifications

Operating Range	0.1 GPM - 32 GPM
Extended Low-Flow Rate	0.05 GPM
Maximum Continuous Operation	32 GPM
Pressure Loss at Maximum Flow	1.8 PSI at 15 GPM
Reverse Flow - Maximum Rate	4.0 GPM
Accuracy – New Meter	±1.5% over the normal flow range at a normal temperature range of 45° F to 85° F (7° C to 29° C)
Accuracy – Extended Low Flow (New Meter)	±3.0% from the extended low-flow range to the minimum flow value in the normal temperature range.
Storage Temperature	-40°F to 140°F (-40°C to 60°C)
Maximum Ambient Storage (Storage for One Hour)	150°F (72°C)
Measured-Fluid Temperature Range	34°F to 140°F (1°C to 60°C)
Humidity	0-100% condensing; meter is capable of operating in fully submerged environments
Maximum Operating Pressure of Meter Housing	175 PSI (12 bar)
Register Type	Straight reading, permanently sealed electronic LCD; digits are 0.25 inch (6.5mm) high
Register Display	<ul style="list-style-type: none"> • Consumption (up to nine digits) • Rate of flow • Alarms • Unit of measure factory-programmed for gallons, cubic feet, and cubic meters
Register Capacity	10,000,000 gallons 1,000,000 cubic feet 100,000 cubic meters
Totalization Display Resolution	Gallons: 0.XX Cubic feet: 0.XXX Cubic meters: 0.XXXX
Battery	3.6-volt lithium thionyl chloride; battery is fully encapsulated within the register housing and is not replaceable
Meter Weight (without AMR)	3/4 x 7-1/2: 2.1 lbs. 3/4 x 9: 2.4 lbs.

Materials

Meter Housing	Stainless Steel
Measuring Element	Pair of ultrasonic sensors located in the flow tube
Register Housing	Engineered thermoplastic
Register Lid	Engineered thermoplastic
Metering Insert	Engineered thermoplastic and stainless steel
Transducers	Piezo-ceramic device, with wetted surface of stainless CrNiMo

Meter Spud and Connection Sizes

Model	E-35
Size Designation x Lay Length	3/4 x 7-1/2 inch 3/4 x 9 inch:
Bore Size	3/4-inch
Coupling Nut and Spud Thread	1-inch x 11-1/2 NPSM
Tailpiece Pipe Thread (NPT)	3/4-inch
Service Pipe Thread (NPT)	3/4-inch

E-Series Display

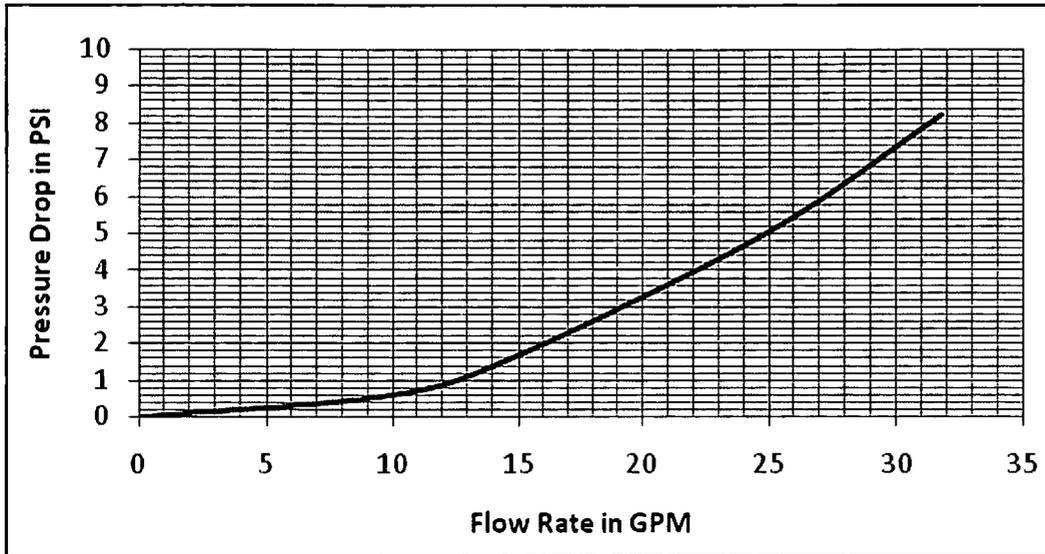
The diagram shows a rectangular display panel. At the top, a dashed line indicates the display's width. The main display area shows a nine-digit number with a decimal point. To the right of the display, the units of measure are listed: M3, IGAL, and FT3. Below the units, a multiplier 'X10' is shown. At the bottom of the display, there are ten status indicators, each with a number in a circle: 1 (Billing Units Indicator), 2 (Nine-Digit Display with Decimal), 3 (Consumption Units of Measure), 4 (Meter Operating Normally), 5 (Meter Alarm or Error), 6 (Reverse Flow), 7 (Suspected Leak), 8 (No Flow Over 30 Days), 9 (Low-Battery Alert), and 10 (Rate of Flow Units of Measure). The rate of flow is indicated as 'RATE/HR/MIN/SEC'.

1. Billing Units Indicator	6. Reverse Flow
2. Nine-Digit Display with Decimal	7. Suspected Leak
3. Consumption Units of Measure	8. No Flow Over 30 Days
4. Meter Operating Normally	9. Low-Battery Alert
5. Meter Alarm or Error	10. Rate of Flow Units of Measure

Pressure Loss Chart

Rate of flow in gallons per minute (GPM)

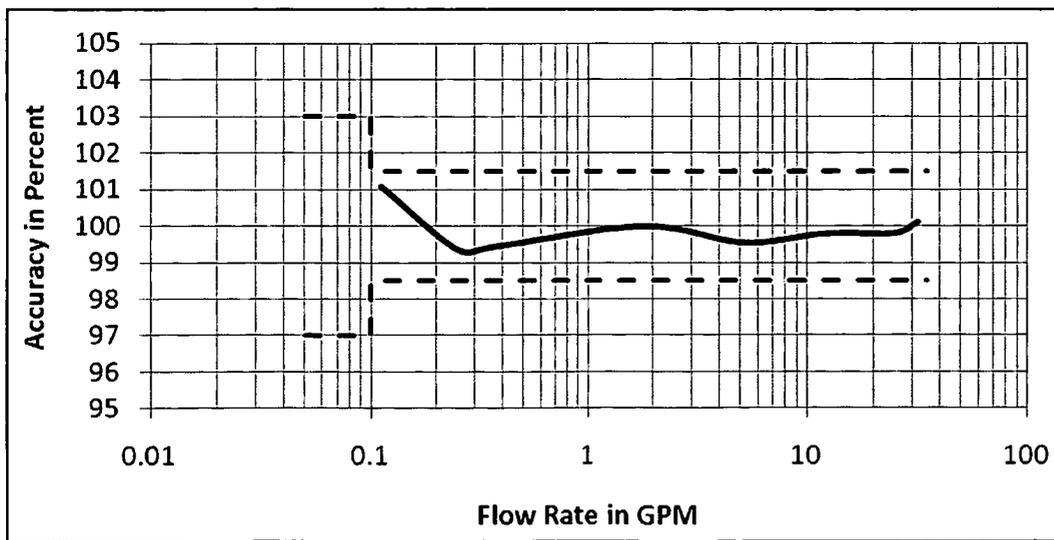
3/4-Inch E-Series Pressure Drop



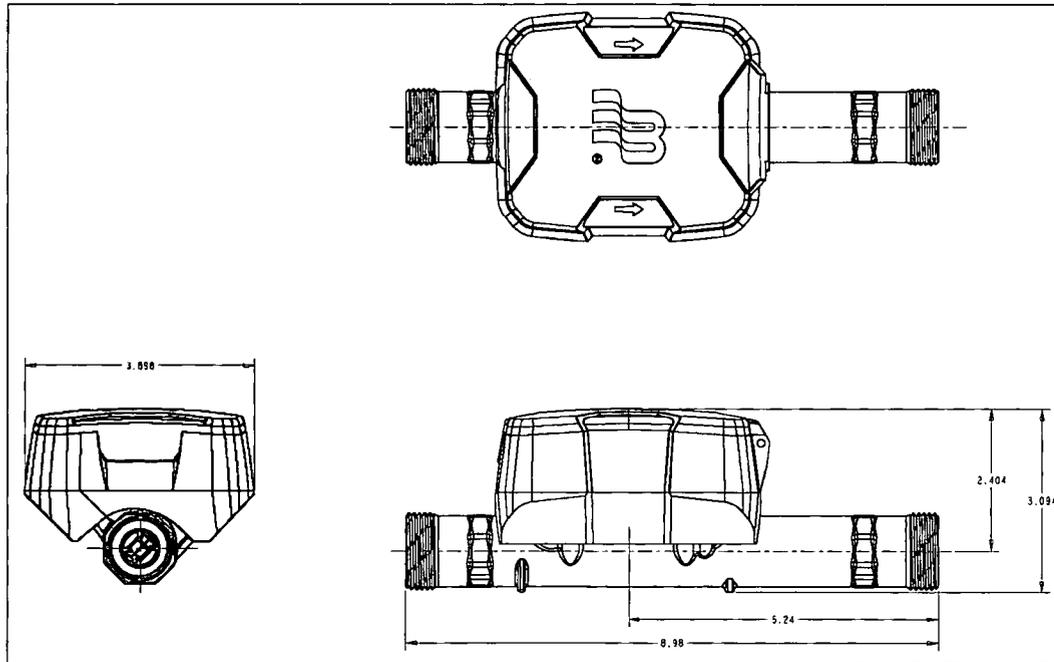
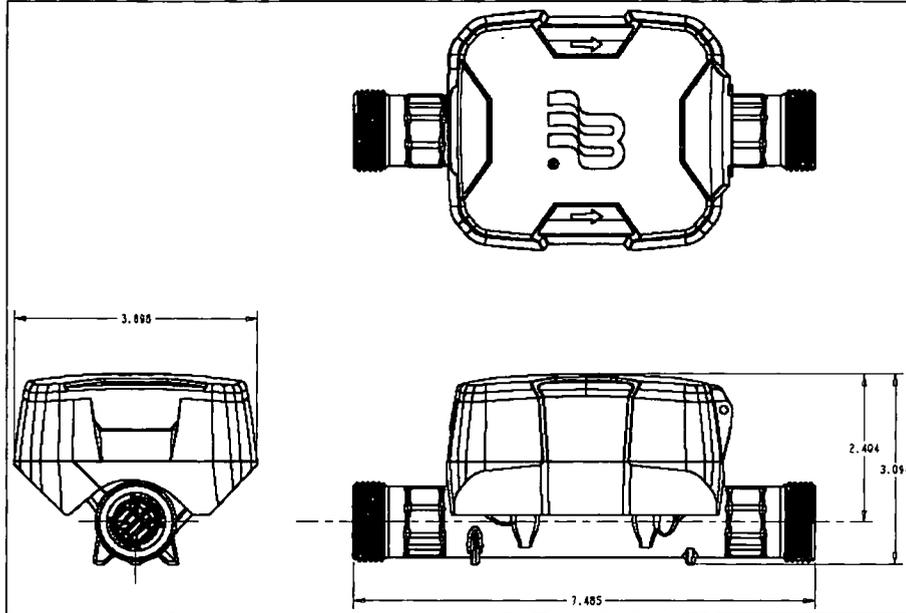
Accuracy Chart

Rate of flow in gallons per minute (GPM)

4-Inch E-Series Accuracy Chart



Physical Dimensions of the Model E-35



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800-876-3837 | infocentral@badgermeter.com | www.badgermeter.com

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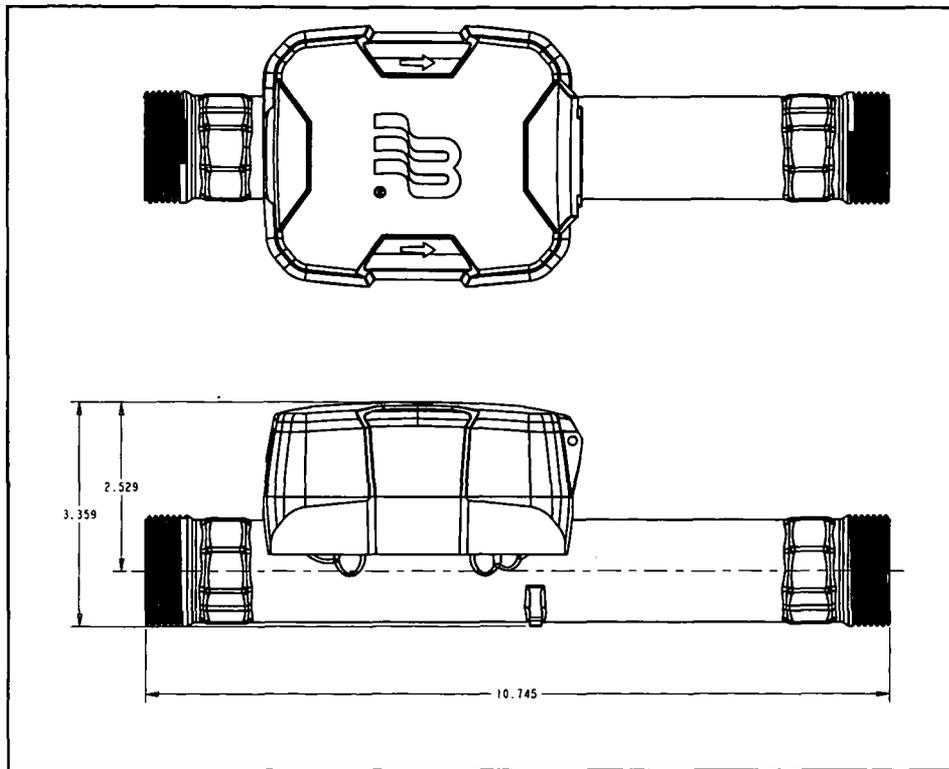
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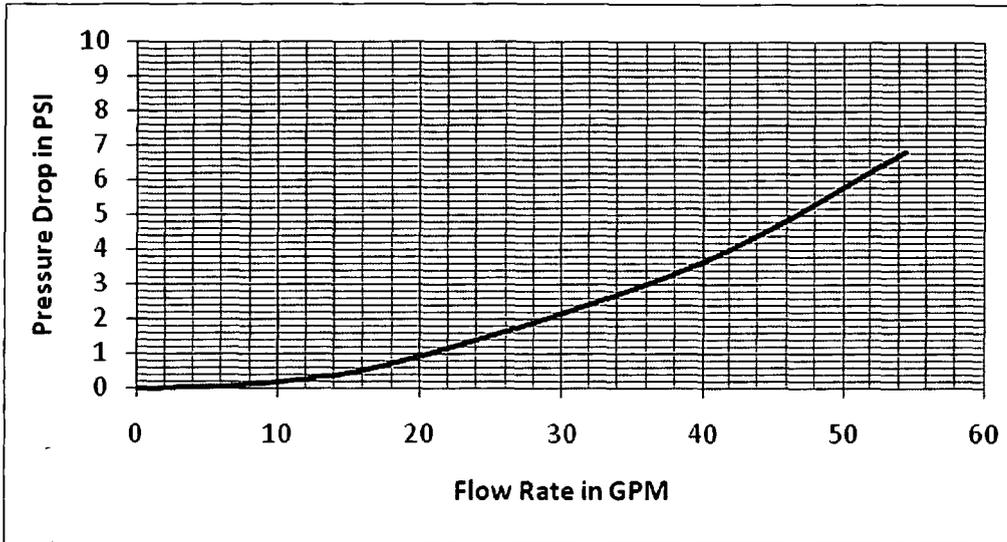
Physical Dimensions of the Model E-55



Pressure Loss Chart

Rate of flow in gallons per minute (GPM)

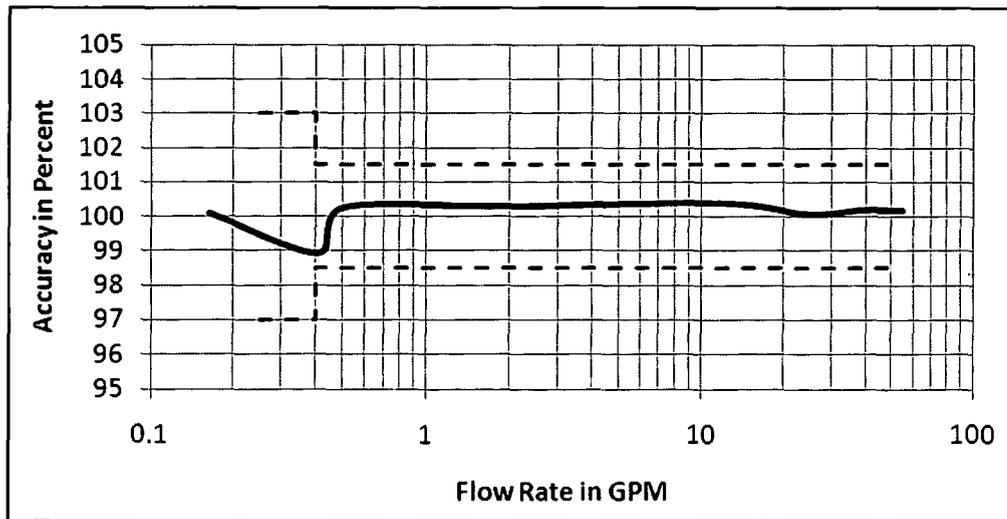
1-Inch E-Series Pressure Drop



Accuracy Chart

Rate of flow in gallons per minute (GPM)

1-Inch E-Series Accuracy Chart



Materials

Meter Housing	Stainless Steel
Measuring Element	Pair of ultrasonic sensors located in the flow tube
Register Housing	Engineered thermoplastic
Register Lid	Engineered thermoplastic
Metering Insert	Engineered thermoplastic and stainless steel
Transducers	Piezo-ceramic device, with wetted surface of stainless CrNiMo

Meter Spud and Connection Sizes

Model	E-55
Size Designation x Lay Length	1-inch x 10-3/4 inch
Bore Size	1-inch
Coupling Nut and Spud Thread	1-1/4-inch x 11-1/2 NPSM
Tailpiece Pipe Thread (NPT)	1-inch
Service Pipe Thread (NPT)	1-inch

E-Series Display

The diagram shows a rectangular display panel with a large central LCD screen. Below the screen is a row of ten icons: 1. A small rectangle (Billing Units Indicator), 2. The LCD screen (Nine-Digit Display with Decimal), 3. A small rectangle (Consumption Units of Measure), 4. A checkmark in a circle (Meter Operating Normally), 5. A triangle with an exclamation mark (Meter Alarm or Error), 6. A circle with a horizontal line (Reverse Flow), 7. A circle with a lightning bolt (Suspected Leak), 8. A circle with an 'X' (No Flow Over 30 Days), 9. A battery symbol (Low-Battery Alert), 10. A small rectangle (Rate of Flow Units of Measure). To the right of the screen, there are labels: 'M3', 'GAL', 'X10', and 'FT3'.

1.	Billing Units Indicator	6.	Reverse Flow
2.	Nine-Digit Display with Decimal	7.	Suspected Leak
3.	Consumption Units of Measure	8.	No Flow Over 30 Days
4.	Meter Operating Normally	9.	Low-Battery Alert
5.	Meter Alarm or Error	10.	Rate of Flow Units of Measure

Specifications

Operating Range	.40 GPM - 55 GPM
Extended Low-Flow Rate	0.25 GPM
Maximum Continuous Operation	55 GPM
Pressure Loss at Maximum Flow	1.8 PSI at 25 GPM
Reverse Flow - Maximum Rate	19.5 GPM
Accuracy – New Meter	±1.5% over the normal flow range at a normal temperature range of 45° F to 85° F (7°C to 29°C)
Accuracy – Extended Low Flow (New Meter)	±3% from the extended low-flow range to the minimum flow value in the normal temperature range.
Storage Temperature	-40°F to 140°F (-40°C to 60°C)
Maximum Ambient Storage (Storage for One Hour)	150°F (72°C)
Measured-Fluid Temperature Range	34°F to 140°F (1°C to 60°C)
Humidity	0-100% condensing; meter is capable of operating in fully submerged environments
Maximum Operating Pressure of Meter Housing	175 PSI (12 bar)
Register Type	Straight reading, permanently sealed electronic LCD; digits are 0.25 inch (6.5 mm) high
Register Display	<ul style="list-style-type: none"> • Consumption (up to nine digits) • Rate of flow • Alarms • Unit of measure factory-programmed for gallons, cubic feet, and cubic meters
Register Capacity	10,000,000 gallons 1,000,000 cubic feet 100,000 cubic meters
Totalization Display Resolution	Gallons: 0.XX Cubic feet: 0.XXX Cubic meters: 0.XXXX
Battery	3.6-volt lithium thionyl chloride; battery is fully encapsulated within the register housing and is not replaceable
Meter Weight (without AMR)	3.1 lbs.

Meter Display: E-Series meters use an LCD to display consumption, flow and alarm information.

- The LCD contains a nine-digit display with the digits 0.25 inch (6.5 mm) high. Units of measure and resolution are factory programmed. Totalized flow displays up to 10,000,000 gallons, at a resolution of 0.01 gallons, or 1,000,000 cubic feet, at a resolution of 0.001 cubic feet.
- The LCD includes a factory-programmed visual black line above and below the digits used for billing purposes. This is the visual equivalent of the white and black number wheels on mechanical registers.
- Units of measure options include gallons, cubic feet, cubic meters; the meter is factory programmed to a specific unit of measure.
- The consumption display provides a measurement representing the sum of the forward flow, minus the reverse flow.
- The display alternates between total flow and rate of flow. The rate-of-flow display also serves as the flow-finder indicator. You activate the display and switch between total flow and rate displays with a finger-controlled optical switch or by opening and closing the meter lid.
- Alarms are displayed as icons that are either active or inactive. Icons include: meter functioning correctly, reverse flow alarm, suspected leak alarm, 30-day no usage alarm, battery end-of-life indicator and other alarm conditions (including empty pipe, poor-quality sensor measurement and low temperature). Alarm displays will clear when the conditions are eliminated.

Tamper-Proof Features: No part of the meter is removable or serviceable; it is therefore tamper resistant.

Battery: A 3.6 volt lithium thionyl chloride battery is fully encapsulated within the register housing and is not replaceable. The life expectancy of the battery is 20 years.

Meter Installation: The meter can be installed using horizontal or vertical piping, with water flow in the up direction. The meter will not measure flow when an "empty pipe" condition is experienced. An empty pipe is defined as a condition when the flow sensors are not fully submerged.

AMR Output: An optional output wire (three conductor) that is fully potted and submersible is available for factory connection to the Badger Meter ORION® or GALAXY® remc endpoints. For future connectivity, the E-Series meter may be potted with either a Badger Meter 308 in-line connector or an Itron® in-line connector for approved endpoints. The output from the meter can be specified for factory setting as either a "scaled output" (replica of the Recordall® Transmitter Register [RTR®] output) or "encoder output" (replica of the Absolute Digital Encoder [ADE®] output). The output protocol is indicated on the AMR output wire.

Fluid Impurities: The E-Series meter can tolerate solids of up to 0.08 inch (2 mm) in diameter.

Maintenance: E-Series meters are designed and manufactured to provide long-term service with no maintenance. The enclosure, which includes the electronics, ultrasonic sensors, battery and display is completely potted, permanently sealed and does not require service.

Connections: Tailpieces/unions for installation on various pipe types and sizes, including misaligned pipes, are available as an option.

Serial Numbering: Serial number and barcodes are engraved on the outside surface of the lid and the face of the meter.

Ordering Guide: When ordering an E-Series Model E-55 meter, the following choices are available:

- Application: Potable (gray lid), reclaimed (lavender lid)
- Output Protocol: RTR or ADE
- Visual Indication of Billing Units: Four, five or six digits
- Units of Measure: Gallons, cubic feet, cubic meters
- AMR Output: Badger 308 or Itron in-line connector, ORION system, GALAXY system
- Lead length of AMR module



Badger Meter

E-Series® Model E-55
Cold Water Stainless Steel Ultrasonic Meter
1-inch (DN 25mm)
NSF/ANSI Standard 61 Certified, Annex G

Description

The Badger Meter E-Series® meter is an electronic meter using ultrasonic technology and solid-state electronics contained in a compact, totally encapsulated, weatherproof and UV-resistant housing for residential and commercial applications. The ultrasonic measurement system has no moving parts, provides long-term accuracy and eliminates measurement errors due to sand, suspended particles, air pockets and pressure fluctuations.

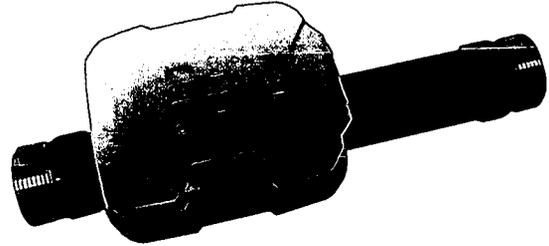
Electronic metering provides information and data not typically available from traditional, mechanical meters and registers such as rate-of-flow and reverse-flow indication. The flow tube is composed of stainless steel. The E-Series meter is compatible with AMR endpoints requiring either an encoded input or a scaled pulse input.

The E-Series meter is designed to comply with applicable portions of ANSI/AWWA Standard C700 and NSF/ANSI Standard 61, Annex G. There is currently no AWWA standard that specifically addresses ultrasonic meters for residential applications.

Applications: The E-Series meter can be used for measuring potable, cold water in residential, commercial and industrial services. It is ideal for non-potable, reclaimed, irrigation water applications or less than optimum water conditions where small particulates exist. The E-Series meter is useful in any application requiring long-term measurement accuracy.

Features

- Electronic meter design with no moving parts provides a high level of accuracy over the life of the meter.
- Minimum extended low-flow rate is lower than typical positive displacement meters.
- Simplified one piece electronic meter and register are integral to the meter body and require virtually no maintenance.
- Meter and register are sealed and protected from tampering.
- Meter is completely submersible.
- Display presents consumption, rate of flow, reverse-flow indication and alarms.



Operation: The E-Series meter is an electronic meter that uses ultrasonic technology to measure velocity. Water flows into the measuring tube, where ultrasonic signals are sent consecutively in forward and reverse directions of the flow. Velocity is determined by measuring the time difference between the measurement in the forward and reverse direction. Total volume is calculated from the measured flow velocity using water temperature and pipe diameter. The LCD display shows total volume and alarm conditions and can toggle to display rate of flow.

Operating Performance: The E-Series meters provide "new meter" consumption measurement accurate to:

- $\pm 1.5\%$ over the normal flow range at a normal temperature range of 45°F to 85°F (7°C to 29°C).
- $\pm 3.0\%$ from the extended low-flow range to the minimum flow value in the normal temperature range.

Construction: E-Series meters consist of a stainless steel pressure vessel (meter housing), an engineered plastic and stainless steel metering insert, a meter-control circuit board with associated wiring, LCD and battery. The wetted elements are limited to the pressure vessel, plastic/stainless steel metering insert and the transducers. The electronic components are housed and fully potted within a molded, engineered plastic enclosure, which is attached to the meter housing. The transducers are wetted components that extend through the housing and are sealed by O-rings.

The metering insert provides a method of holding the stainless steel ultrasonic reflectors in the center of the flow area, enabling turbulence-free water flow through the tube and around the ultrasonic signal reflectors. The metering insert's patented design virtually eliminates chemical buildup on the reflectors, helping to ensure long-term metering accuracy.



PRODUCTS COVERED

This warranty shall apply to all Recordall® Lead-Free Bronze Disc Meters, models LP through 170, when used to measure potable water, including the registers and encoders used with these meters (collectively "Product") sold on or after November 1, 2011. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger Meter warrants Product to be free from defects in materials and workmanship appearing within the earlier of the following time frames:

Housings

Twenty (20) years after installation or twenty (20) years and six (6) months after shipment from Badger Meter.

Local Registers Supplied with the Meters Listed Herein

Twenty-five (25) years after installation or twenty-five (25) years and six (6) months after shipment from Badger Meter.

ADE® and RTR® Encoders Supplied with the Meters Listed Herein

Ten (10) years after installation or ten (10) years and six (6) months after shipment from Badger Meter.

AWWA NEW METER ACCURACY

The meter product will meet or exceed new meter accuracy standards set forth in AWWA Standard C700-09 for the following periods:

Model LP Recordall 5/8" and 5/8" x 3/4"

Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

Model 25 Recordall 5/8" and 5/8" x 3/4"

Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

Model 35 Recordall 3/4"

Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

Model 55 Recordall 1"

Five (5) years from date of shipment or registration of 1,000,000 gallons, whichever occurs first.

Model 70 Recordall 1"

Five (5) years from date of shipment or registration of 1,100,000 gallons, whichever occurs first.

Model 120 Recordall 1-1/2"

Two (2) years from date of shipment or registration of 1,600,000 gallons, whichever occurs first.

Model 170 Recordall 2"

Two (2) years from date of shipment or registration of 2,100,000 gallons, whichever occurs first.

AWWA REPAIRED METER ACCURACY (AWWA M6 MANUAL)

The meter product will meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6, Chapter 5 (1999) Table 5.3 for the following periods:

Model LP Recordall 5/8" and 5/8" x 3/4"

Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 20 GPM safe maximum operating capacity and a 10 GPM maximum rate for continuous operation.

Model 25 Recordall 5/8" and 5/8" x 3/4"

Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 25 GPM safe maximum operating capacity and a 15 GPM maximum rate for continuous operation.

Model 35 Recordall 3/4"

Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 35 GPM safe maximum operating capacity and a 25 GPM maximum rate for continuous operation.

Model 55 Recordall 1"

Fifteen (15) years from date of shipment or registration of 3,000,000 gallons, whichever occurs first, with a 55 GPM safe maximum operating capacity and a 40 GPM maximum rate for continuous operation.

Model 70 Recordall 1"

Fifteen (15) years from date of shipment or registration of 3,250,000 gallons, whichever occurs first, with a 70 GPM safe maximum operating capacity and a 50 GPM maximum rate for continuous operation.

Model 120 Recordall 1-1/2"

Fifteen (15) years from date of shipment or registration of 5,600,000 gallons, whichever occurs first, with a 120 GPM safe maximum operating capacity and a 80 GPM maximum rate for continuous operation.

Model 170 Recordall 2"

Fifteen (15) years from date of shipment or registration of 10,400,000 gallons, whichever occurs first, with a 170 GPM safe maximum operating capacity and a 100 GPM maximum rate for continuous operation.

BADGER METER EXTENDED LOW FLOW METER ACCURACY

Badger Meter further warrants the meter product to meet or exceed the following extended low flow accuracies in excess of AWWA standard:

Model LP Recordall 5/8" and 5/8" x 3/4"

Badger Meter warrants Product low flow accuracy of 95% at a rate of 1/4 GPM for five (5) years from date of shipment or registration of 675,000 gallons, whichever occurs first.

Model 25 Recordall 5/8" and 5/8" x 3/4"

Badger Meter warrants Product low flow accuracy of 98.5% at a rate of 1/4 GPM and low flow accuracy of 95.0% at a rate of 1/8 GPM for five (5) years from date of shipment or registration of 675,000 gallons, whichever occurs first.

Model 35 Recordall 3/4"

Badger Meter warrants Product low flow accuracy of 97% at a rate of 3/8 GPM for five (5) years from date of shipment or registration of 675,000 gallons, whichever occurs first.

Model 55 Recordall 1"

Badger Meter warrants Product low flow accuracy of 95% at a rate of 1/2 GPM for three (3) years from date of shipment or registration of 575,000 gallons, whichever occurs first.

Model 70 Recordall 1"

Badger Meter warrants Product low flow accuracy of 95% at a rate of 3/4 GPM for three (3) years from date of shipment or registration of 1,100,000 gallons, whichever occurs first.

Model 120 Recordall 1-1/2"

Badger Meter warrants Product low flow accuracy of 95% at a rate of 1-1/4 GPM for two (2) years from date of shipment or registration of 1,440,000 gallons, whichever occurs first.

Model 170 Recordall 2"

Badger Meter warrants Product low flow accuracy of 95% at a rate of 1-1/2 GPM for two (2) years from date of shipment or registration of 1,890,000 gallons, whichever occurs first.

PRODUCT RETURNS

Any Product proved to Badger Meter's satisfaction to have failed the foregoing warranties will, at Badger Meter's option, be repaired or replaced without charge to the Customer. Badger Meter's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with AWWA Standard C700-09 and AWWA M6 Manual. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Badger Meter Product technical literature and Installation and Operation Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger Meter's reasonable control. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Product, whether in writing or made orally by Badger Meter or Badger Meter's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or Badger Meter's agents regarding use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger Meter's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger Meter's liability shall in no event exceed the contract price. **BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL, AND CONTINGENT DAMAGES WHATSOEVER.**

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**Badger Meter | P.O. Box 245036, Milwaukee, Wisconsin 53224-9536
800-876-3837 | infocentral@badgermeter.com | www.badgermeter.com**

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Badger Meter

Recordall® Cold Water Bronze Disc Meter
Size 1" (DN 25mm)
NSF/ANSI Standard 61 Certified, Annex G

DESCRIPTION

Badger Meter offers the Recordall Disc meter in Cast Bronze and a Lead-Free Alloy. The Lead-Free Alloy (Trade designation: M55-LL) version has been certified to comply with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the housing. All components of the Lead-Free Alloy meter, i.e., disc, chamber, housing, seals, etc. comprise the certified system.

APPLICATIONS: For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

OPERATION: Water flows through the meter's strainer and into the measuring chamber where it causes the disc to nutate. The disc, which moves freely, nutates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc nutations into volume totalization units displayed on the register dial face.

OPERATING PERFORMANCE: The Badger Meter Recordall Disc meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated by AWWA Standard C700.

CONSTRUCTION: Badger Meter Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: meter housing, measuring chamber, and permanently sealed register. The water meter is available in bronze and Lead-Free Alloy with externally-threaded spuds. A corrosion-resistant engineered polymer material is used for the measuring chamber.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

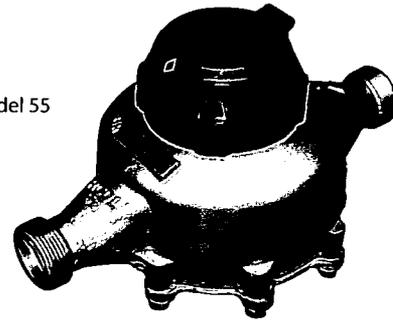
SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating engineered polymer gears to minimize friction and provides long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading systems are available for all Recordall Disc meters. See the back of this sheet for additional information. All reading options are removable from the meter without disrupting water service.

TAMPER-PROOF FEATURES: Customer removal of the register to obtain free water can be prevented when the optional tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Both can be installed at the meter site or at the factory.

MAINTENANCE: Badger Meter Recordall Disc meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger Meter offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Tailpieces/Unions for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.

Model 55



SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	1-55 GPM (.23 to 12.5 m ³ /hr)
Low Flow (Min. 95%)	1/2 GPM (.11 m ³ /hr)
Maximum Continuous Operation	40 GPM (9.1 m ³ /hr)
Pressure Loss at Maximum Continuous Operation	3.4 PSI at 40 GPM (.23 bar at 9.1 m ³ /hr)
Maximum Operating Temperature	80°F (26°C)
Maximum Operating Pressure	150 PSI (10 bar)
Measuring Element	Nutating disc, positive displacement
Register Type	Straight reading, sealed magnetic drive standard. Remote reading or Automatic Meter Reading units optional.
Register Capacity	10,000,000 Gallons, 1,000,000 Cubic Feet, 100,000 m ³ . 6 odometer wheels.
Meter Connections	Available in bronze and engineered polymer to fit 1" (DN 25mm) spud thread bore diameter sizes. See table below.

METER SPUD AND CONNECTION SIZES

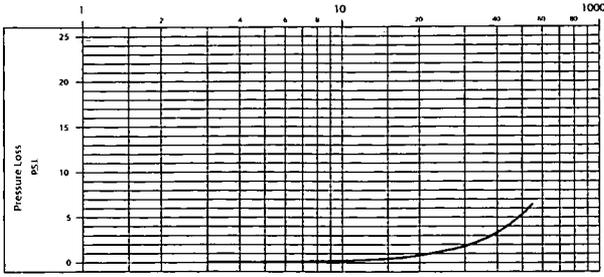
Size Designation	x	"L" Laying Length	"B" Bore Dia.	Coupling Nut and Spud Thread	Tailpiece Pipe Thread (NPT)
1"	x	10 3/4"	1"	1 1/4" (1")	1"

MATERIALS

Meter Housing	Cast Bronze, Lead-Free Alloy
Housing Bottom Plates	Bronze, Cast Iron, Lead-Free Alloy
Measuring Chamber	Engineered Polymer
Disc	Engineered Polymer
Trim	Stainless Steel, Bronze
Strainer	Engineered Polymer
Disc Spindle	Engineered Polymer
Magnet	Polymer Bonded
Magnet Spindle	Engineered Polymer
Register Lid and Shroud	Engineered Polymer, Bronze
Generator Housing	Engineered Polymer

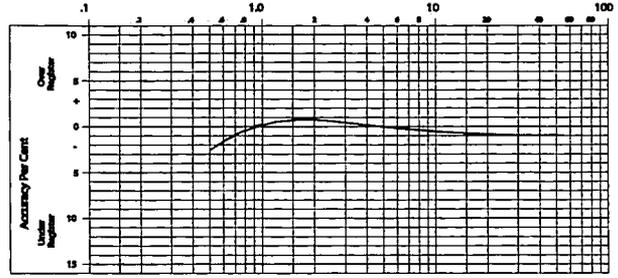
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

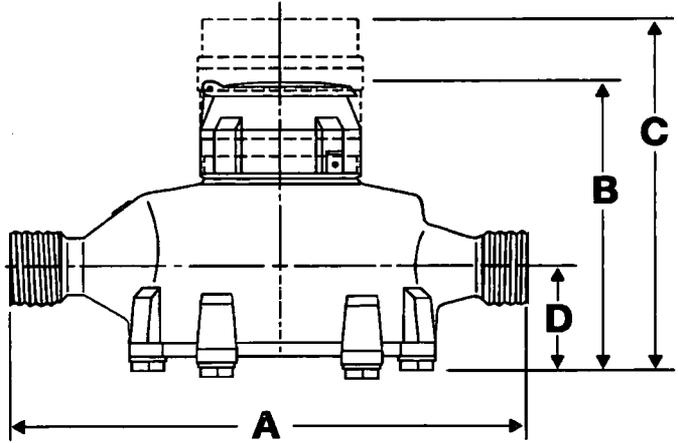
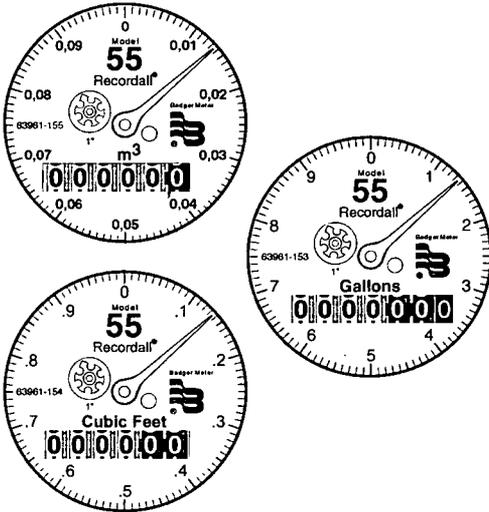
Rate of Flow, in Gallons per Minute



METER SIZE	METER MODEL	A LAYING LENGTH	B HEIGHT REG./RTR	B HEIGHT TO ADE	C HEIGHT GEN.	D CENTERLINE TO BASE	WIDTH	METER WEIGHT
1" (25mm)	55	10 3/4" (273mm)	6" (152mm)	6 1/2" (165mm)	7 3/8" (187mm)	2 1/32" (52mm)	6 1/4" (159mm)	8.75 lbs.

Sweep Hand Registration

MODEL	GALLON	CU.FT.	CU. METER
M55	10	1	.1



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Badger Meter

Recordall® Cold Water Top Load Bronze Disc Meter

Size 1 1/2" (DN 40mm)
NSF/ANSI Standard 61 Certified, Annex G

DESCRIPTION

Badger Meter Meter offers the Recordall Disc meter in Cast Bronze and a Lead-Free Alloy. The Lead-Free Alloy (Trade designation: M120-LL) version has been certified to comply with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the housing. All components of the Lead-Free Alloy meter, i.e., disc, chamber, housing, seals, etc. comprise the certified system.

APPLICATIONS: For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

OPERATION: Water flows through the meter's strainer and into the measuring chamber where it causes the disc to nutate. The disc, which moves freely, nutates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc nutations into volume totalization units displayed on the register dial face.

OPERATING PERFORMANCE: The Badger Meter Recordall Disc meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated by AWWA Standard C700.

CONSTRUCTION: Badger Meter Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: bronze meter housing, measuring chamber, and permanently sealed register. A corrosion-resistant lead-free material is used for the measuring chamber.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters also minimizes spare parts inventory investment.

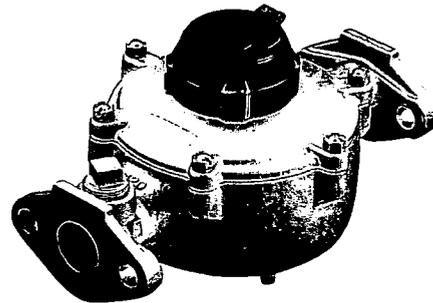
MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating engineered polymer gears to minimize friction and provides long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading systems are available for all Recordall Disc meters. All reading options are removable from the meter without disrupting water service.

TAMPER-PROOF FEATURES: Customer removal of the register to obtain free water can be prevented when the optional tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Both can be installed at the meter site or at the factory.

MAINTENANCE: Badger Meter Recordall Disc meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger Meter offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Tailpieces/Flanges for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.



Model 120 shown with optional 1" Test Plug

SPECIFICATIONS

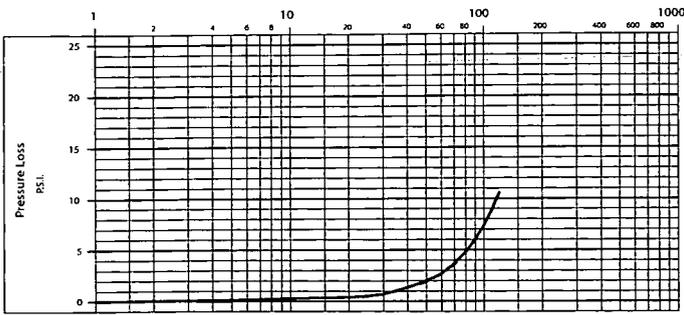
Typical Operating Range (100% ± 1.5%)	2 1/2-120 GPM (.57 to 27 m ³ /hr)
Low Flow (Min. 95%)	1 1/4 GPM (.28 m ³ /hr)
Maximum Continuous Operation	80 GPM (18 m ³ /hr)
Pressure Loss at Maximum Continuous Operation	4.8 PSI at 80 GPM (.33 bar at 18 m ³ /hr)
Maximum Operating Temperature	80°F (26°C)
Maximum Operating Pressure	150 PSI (10 bar)
Measuring Element	Nutating disc, positive displacement
Register Type	Straight reading, permanently-sealed magnetic drive standard. Remote reading or Automatic Meter Reading units optional.
Registration	100 Gallons, 10 Cubic Feet, 1 m ³ , 0.1 m ³
Register Capacity	100,000,000 Gallons, 10,000,000 Cubic Feet, 1,000,000 m ³ , 100,000 m ³ . 6 odometer wheels.
Meter Connections	1 1/2" AWWA two bolt elliptical flange, drilled or 1 1/2" - 11 1/2 NPT internal pipe threads.
Test Plugs	1" NPT test plug (TP) available on elliptical long and short versions.

MATERIALS

Meter Housing	Cast Bronze, Lead-Free Alloy
Housing Top Plates	Bronze, Lead-Free Alloy
Measuring Chamber	Engineered Polymer
Disc	Engineered Polymer
Trim	Stainless Steel, Bronze
Strainer	Engineered Polymer
Disc Spindle	Stainless Steel
Magnet	Ceramic
Magnet Spindle	Stainless Steel
Register Lid and Shroud	Engineered Polymer, Bronze
Generator Housing	Engineered Polymer

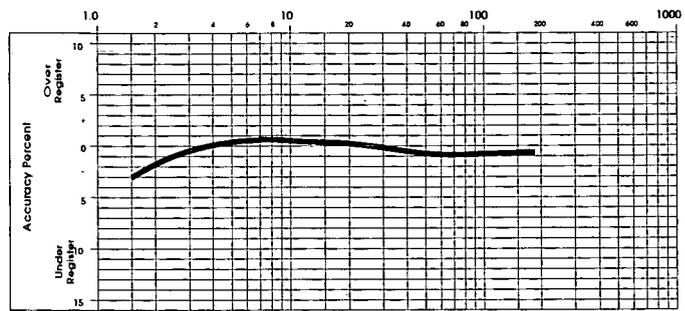
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

Rate of Flow, in Gallons per Minute



METER SIZE	METER MODEL	A LAYING LENGTH	B HEIGHT REG./RTR	C HEIGHT GEN.	D CENTERLINE TO BASE	WIDTH	APPROX. SHIPPING WEIGHT
1 1/2" (40mm)	120 EL, Hex 120 EL, TP	12 5/8" (321mm)	7" (178mm)	8 3/8" (213mm)	2 3/8" (60mm)	8 3/4" (222mm)	19 lb. (8.6kg)
1 1/2" (40mm)	120 ELL 120 ELL, TP	13" (330mm)	7" (178mm)	8 3/8" (213mm)	2 3/8" (60mm)	8 3/4" (222mm)	19 lb. (8.6kg)

EL = Elliptical

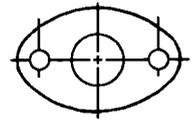
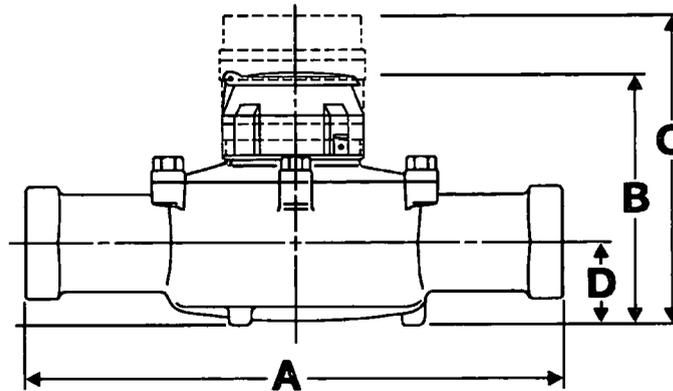
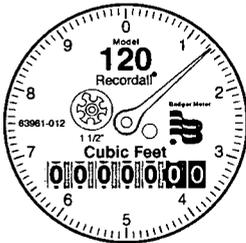
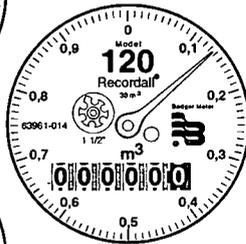
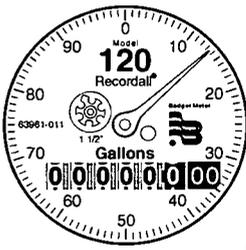
ELL = Elliptical Long

Hex = Hexagon, 1 1/2" - 1 1/2" NPT Thread

TP=Test Plug 1"

Sweep Hand Registration

MODEL	GALLON	CU.FT.	CU.METER
M120	100	10	1/1



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Badger Meter

Recordall® Cold Water Top Load Bronze Disc Meter Size 2" (DN 50mm) NSF/ANSI Standard 61 Certified, Annex G

DESCRIPTION

Badger Meter offers the Recordall Disc meter in Cast Bronze and a Lead-Free Alloy. The Lead-Free Alloy (Trade designation: M170-LL) version has been certified to comply with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the housing. All components of the Lead-Free Alloy meter, i.e., disc, chamber, housing, seals, etc. comprise the certified system.

APPLICATIONS: For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

OPERATION: Water flows through the meter's strainer and into the measuring chamber where it causes the disc to nutate. The disc, which moves freely, nutates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently-sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc nutations into volume totalization units displayed on the register dial face.

OPERATING PERFORMANCE: The Badger Meter Recordall Disc meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated by AWWA Standard C700.

CONSTRUCTION: Badger Meter Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: bronze meter housing, measuring chamber, and permanently, sealed register. A corrosion-resistant engineered polymer material is used for the measuring chamber.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters also minimizes spare parts inventory investment. The built-in strainer has an effective straining area of twice the inlet size.

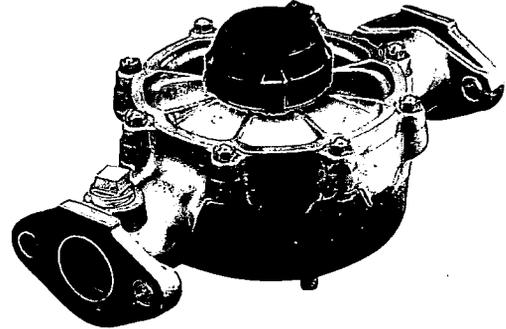
MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading, odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating engineered polymer gears to minimize friction and provides long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading systems are available for all Recordall Disc meters. All reading options are removable from the meter without disrupting water service.

TAMPER-PROOF FEATURES: Customer removal of the register to obtain free water can be prevented when the optional tamper detection seal wire screw/or Torx® tamper seal resistant screw is added to the meter. Both can be installed at the meter site or at the factory.

MAINTENANCE: Badger Meter Recordall Disc meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger Meter offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Tailpieces/Flanges for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.



Model 170 shown with optional 1" Test Plug

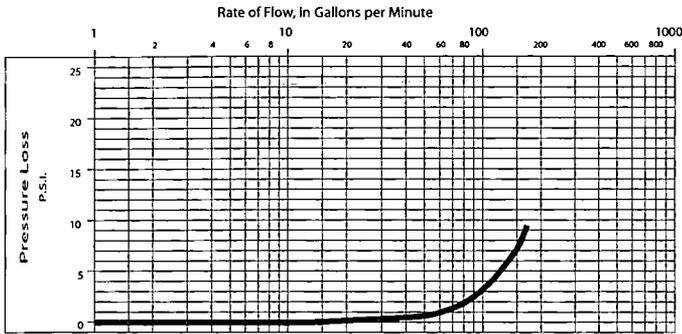
SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	2 1/2 - 170 GPM (.57 to 39 m³/hr)
Low Flow (Min. 95%)	1 1/2 GPM (.34 m³/hr)
Maximum Continuous Operation	100 GPM (23 m³/hr)
Pressure Loss at Maximum Continuous Operation	3.3 PSI at 100 GPM (.23 bar at 23 m³/hr)
Maximum Operating Temperature	80°F (26°C)
Maximum Operating Pressure	150 PSI (10 bar)
Measuring Element	Nutating disc, positive displacement
Register Type	Straight reading, permanently sealed magnetic drive standard. Remote reading or Automatic Meter Reading units optional.
Registration	100 Gallons, 10 Cubic Feet, 1 m³
Register Capacity	100,000,000 Gallons, 10,000,000 Cubic Feet, 1,000,000 m³. 6 odometer wheels.
Meter Connections	2" AWWA two bolt elliptical flange, drilled, or 2" - 11 1/2 NPT internal pipe threads.
Optional Test Plug	1" NPT test plug (TP) available on elliptical long and short versions.

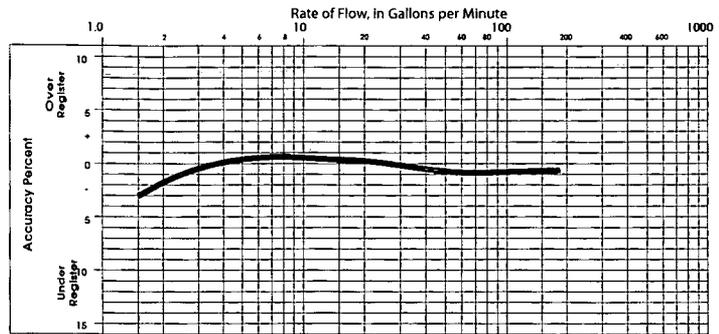
MATERIALS

Meter Housing	Cast Bronze, Lead-Free Alloy
Housing Top Plates	Bronze, Lead-Free Alloy
Measuring Chamber	Engineered Polymer
Disc	Engineered Polymer
Trim	Stainless Steel/Bronze
Strainer	Engineered Polymer
Disc Spindle	Stainless Steel
Magnet	Ceramic
Magnet Spindle	Stainless Steel
Register Lid and Box	Engineered Polymer or Bronze
Generator Housing	Engineered Polymer

PRESSURE LOSS CHART



ACCURACY CHART



METER SIZE	METER MODEL	A LAYING LENGTH	B HEIGHT REG./RTR	C HEIGHT GEN.	D CENTERLINE BASE	WIDTH	APPROX. SHIPPING WEIGHT
2" (50mm)	170 EL, Hex. 170 EL, TP	15 1/4" (387mm)	8" (203mm)	9 3/8" (238mm)	2 7/8" (73mm)	9 1/2" (241mm)	30 lb. (13.6kg)
2" (50mm)	170 ELL, 170 ELL, TP	17" (432mm)	8" (203mm)	9 3/8" (238mm)	2 7/8" (73mm)	9 1/2" (241mm)	30 lb. (13.6kg)

EL = Elliptical

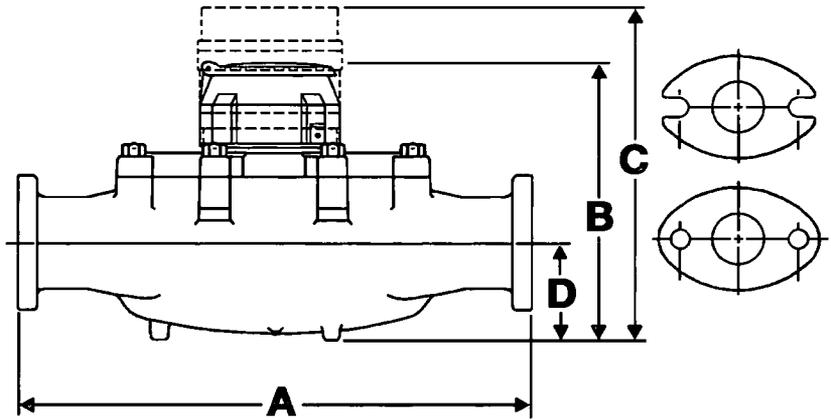
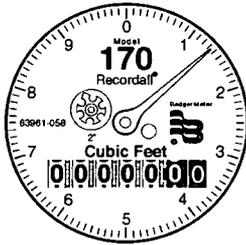
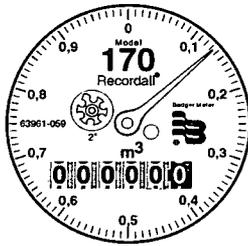
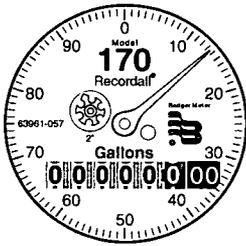
ELL = Elliptical Long

Hex = Hexagon, 2" - 11 1/2 NPT Thread

TP=Test Plug 1"

Sweep Hand Registration

MODEL	GALLON	CU.FT.	CU. METER
M170	100	10	1



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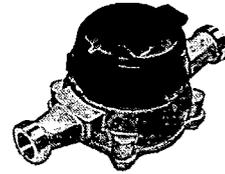
**Recordall® Bronze
Disc Meters**

**For Potable and Reclaimed Water
Models LP, 25, 35, 55, and 70**

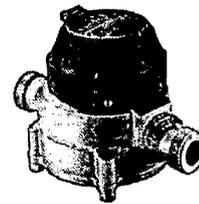
**Repair
Parts**

5/8", 5/8" x 3/4"

**Model LP
BRONZE**

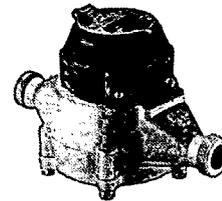


**Model 25
BRONZE**



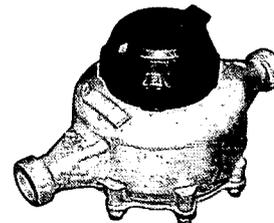
3/4"

**Model 35
BRONZE**



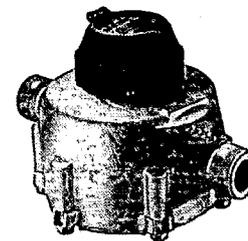
1"

**Model 55
BRONZE**



1"

**Model 70
BRONZE**



METER PARTS

Item No.	Name of Part	Model LP	Model 25	Model 35	Model 55	Model 70
1a	Register Flat Lid (Plastic)	65814-001	62278-001	62278-001	62278-001	62278-001
1b	Register Flat Lid (Bronze)	62353-001	62353-001	62353-001	62353-001	62353-001
1c	Register Flat Lid (Purple) "RECLAIMED"	65814-002	62740-001	62740-001	62740-001	62740-001
1d	Register Flat Lid and Shroud (Bronze)	62616-001	62616-001	62616-001	62616-001	62616-001
2a	Register Assembly: U.S. Gallons	65801-001	63961-002	63961-060	63961-153	63961-068
	Cubic Feet	65801-002	63961-003	63961-061	63961-154	63961-069
	Imperial Gallons	65801-004	63961-016	63961-074	63961-156	63961-075
	Cubic Meters	65801-003	63961-007	63961-062	63961-155	63961-070
2b	Reg. Assy. "RECLAIMED": U.S. Gallons	65801-005	63961-088	63961-089	63961-157	63961-090
	Cubic Feet	65801-006	63961-091	63961-092	63961-158	63961-094
2a	Register Assembly: U.S. Gallons	63961-159	-----	-----	-----	-----
	Model LP only Cubic Feet	63961-160	-----	-----	-----	-----
	in Model 25 Imperial Gallons	63961-162	-----	-----	-----	-----
	Design Style Cubic Meters	63961-161	-----	-----	-----	-----
3a	Screw Tamper-resistant, standard (for Local Register)	62335-001	62335-001	62335-001	62335-001	62335-001
3b	Tamper Resistant TORX® Seal Screw (for Local Register)	62516-001	62516-001	62516-001	62516-001	62516-001
3c	Tamper Resistant TORX® Seal Screw (for Generator Register not shown)	-----	62516-002	62516-002	62516-002	62516-002
3d	Screw Tamper-resistant, standard (for Generator Register not shown)	-----	62624-001	62624-001	62624-001	62624-001
4a	Plastic Shroud (Bottom Half)	-----	62279-001	62279-001	62279-001	62279-001
4b	Plast. Shroud (Bot. Half) "RECLAIMED"	-----	62279-003	62279-003	62279-003	62279-003
5a	Plastic Shroud (Top Half)	-----	62280-001	62280-001	62280-001	62280-001
5b	Plastic Shroud (Top Half) "RECLAIMED"	-----	62280-002	62280-002	62280-002	62280-002
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001	62442-001	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001	62455-001	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003	59568-003	59568-003	59568-003
9a	Housing, 5/8" x 7-1/2"	-----	62303-003	-----	-----	-----
9b	Housing (BIA), 5/8" (LP-BIA)	65803-003	62303-021	-----	-----	-----
9c	Housing, 5/8" x 3/4", 5/8" Bore	-----	62303-001	-----	-----	-----
9d	Housing (BIA), 5/8" x 3/4", 5/8" Bore (LP-BIA)	65803-001	62303-019	-----	-----	-----
9e	Housing (BIA), 3/4", 3/4" Bore (LP-BIA)	65803-002	62303-020	59807-006	-----	-----
9f	Housing, 3/4" - 7-1/2" LL, 3/4" Bore	-----	62303-002	59807-001	-----	-----
9g	Housing, 3/4" x 9"	-----	-----	59809-001	-----	-----
9h	Housing (BIA), 3/4" x 9"	-----	-----	59809-009	-----	-----
9i	Housing, 3/4" x 1" x 9"	-----	-----	59809-002	-----	-----
9j	Housing (BIA), 3/4" x 1" x 9"	-----	-----	59809-010	-----	-----
9k	Housing, 1"	-----	-----	-----	65615-001	58867-001
9l	Housing (BIA), 1"	-----	-----	-----	-----	58867-009
9m	Housing (BIA), 1"	-----	-----	-----	65615-003	-----
10a	Chamber Assy Plastic w/ Plastic Thrust Roller	65834-003	33334-009	33334-029	65553-003	33334-032
10a	Chamber Assy Plastic with w/ SS Thrust Roller	-----	-----	-----	-----	33334-016
10b	Chamber Assy Plastic for "RECLAIMED" Water	65834-004	33334-038	33334-040	65553-004	33334-042
11	Combined Strap and Screen	-----	64942-001	-----	-----	59186-001

METER PARTS (Continued)

Item No.	Name of Part	Model LP	Model 25	Model 35	Model 55	Model 70
12	Screen	-----	-----	59805-001	65619-001	-----
13	Chamber Retainer Strap	-----	-----	58540-001	58540-001	-----
14	Housing Gasket/O-ring	64083-014	11071-033	59782-001	65592-001	58769-001
15	Housing Bottom Liner (for Cast Iron)	-----	57800-001	59786-001	65618-001	58770-001
15a	Hsg Bottom Liner/Screen	65835-001	-----	-----	-----	-----
16a	Housing Bottom (Cast Iron)	65806-002	57799-001	59785-001	65654-001	59293-002
16b	Housing Bottom (Bronze)	-----	62635-001	59784-001	65617-001	59703-001
16b	Housing Bottom (BIA)	65805-003	-----	-----	65617-003	-----
16b	Housing Bottom (BIA)	-----	62635-005	59784-005	-----	59703-006
16c	Housing Bottom (Plastic not shown)	65808-001	64428-001	-----	-----	-----
16d	Housing Bottom (Cast Iron)	-----	-----	-----	-----	-----
	"RECLAIMED"	65806-003	57799-003	59785-003	65654-003	59293-003
16e	Housing Bottom (Bronze)	-----	-----	-----	-----	-----
	"RECLAIMED"	65805-004	62635-002	59784-002	65617-002	59703-002
17a	Housing Bolt (Plastic Closure)	-----	58396-001	-----	-----	-----
17b	Housing Bolt, Seal (Plastic Closure)	-----	58396-002	-----	-----	-----
17c	Housing Bolt Seal (Bronze/Iron Closure)	-----	59058-001	59058-001	59058-001	59733-001
17d	Housing Bolt (Bronze/Iron Closure)	-----	62777-001	62777-001	62777-001	-----
17e	Housing Bolt (Bronze Bolt)	-----	62260-001	62260-001	62260-001	55029-060
17f	Housing Bolt, Seal (Bronze Bolt)	-----	-----	-----	-----	25421-041
17g	Housing Bolt, (All Bottoms)	65857-001	-----	-----	-----	-----
17h	Housing Bolt, Seal (All Bottoms)	65858-001	-----	-----	-----	-----
19a	Washer (M70) Brz. Bott. 1989-97 Only (Stainless Steel Washer) Not Shown	-----	-----	-----	-----	24991-044
19b	Washer (M70) Brz. Bottom 1989-1997 Only (Bronze Washer Not Shown)	-----	-----	-----	-----	55260-016
20a	TORX® Seal Screw Driver & Bit (Stubby)	62658-001	62658-001	62658-001	62658-001	62658-001
20b	TORX® Seal Screw Driver & Bit (Long)	62658-003	62658-003	62658-003	62658-003	62658-003
21	TORX® Seal Screw Driver Bit (Not Illustrated)	62657-001	62657-001	62657-001	62657-001	62657-001
22	Register Test Ring	-----	62446-001	62446-001	62446-001	62446-001
23	Plastic Shroud Disassembly Tool	-----	62346-001	62346-001	62346-001	62346-001
	Chamber Assembly Service Parts:					
	"O" Ring for Plastic Chamber	64083-013	22650-045	22650-056	22650-060	22650-057
	"O" Ring for All Plastic Chamber	-----	64083-006	-----	-----	-----
	Thrust Roller (Plastic)	58965-001	58965-001	58965-001	65558-001	59652-001
	Thrust Roller (Stainless Steel)	-----	-----	-----	-----	59746-001
	Dovetail Thrust Roller Insert	-----	33342-000	59743-001	-----	11074-003

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Please see our Web site at
www.badgermeter.com
 for specific contacts.

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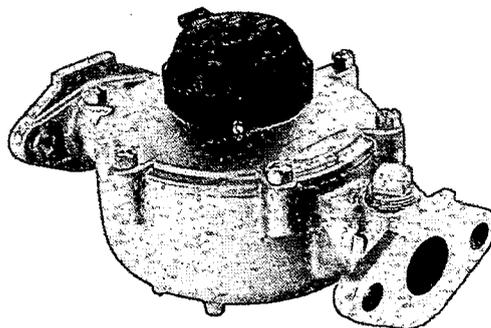
**Recordall® Bronze
Disc Series Meters**

**For Potable and Reclaimed Water
Models 120 and 170**

**Repair
Parts**

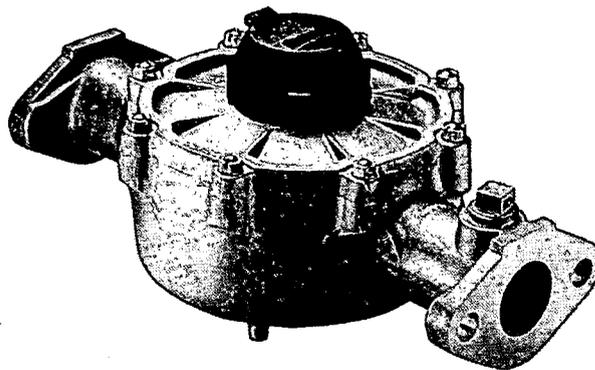
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**RCDL-120
Bronze**



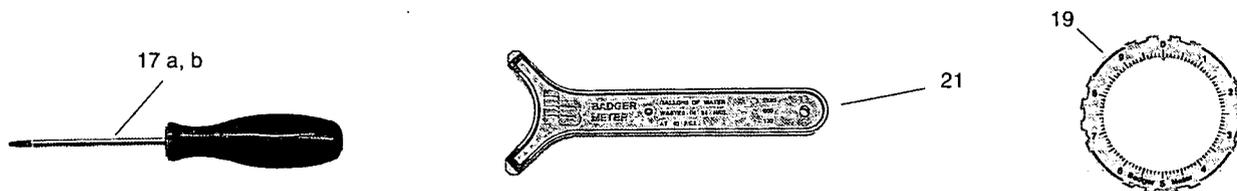
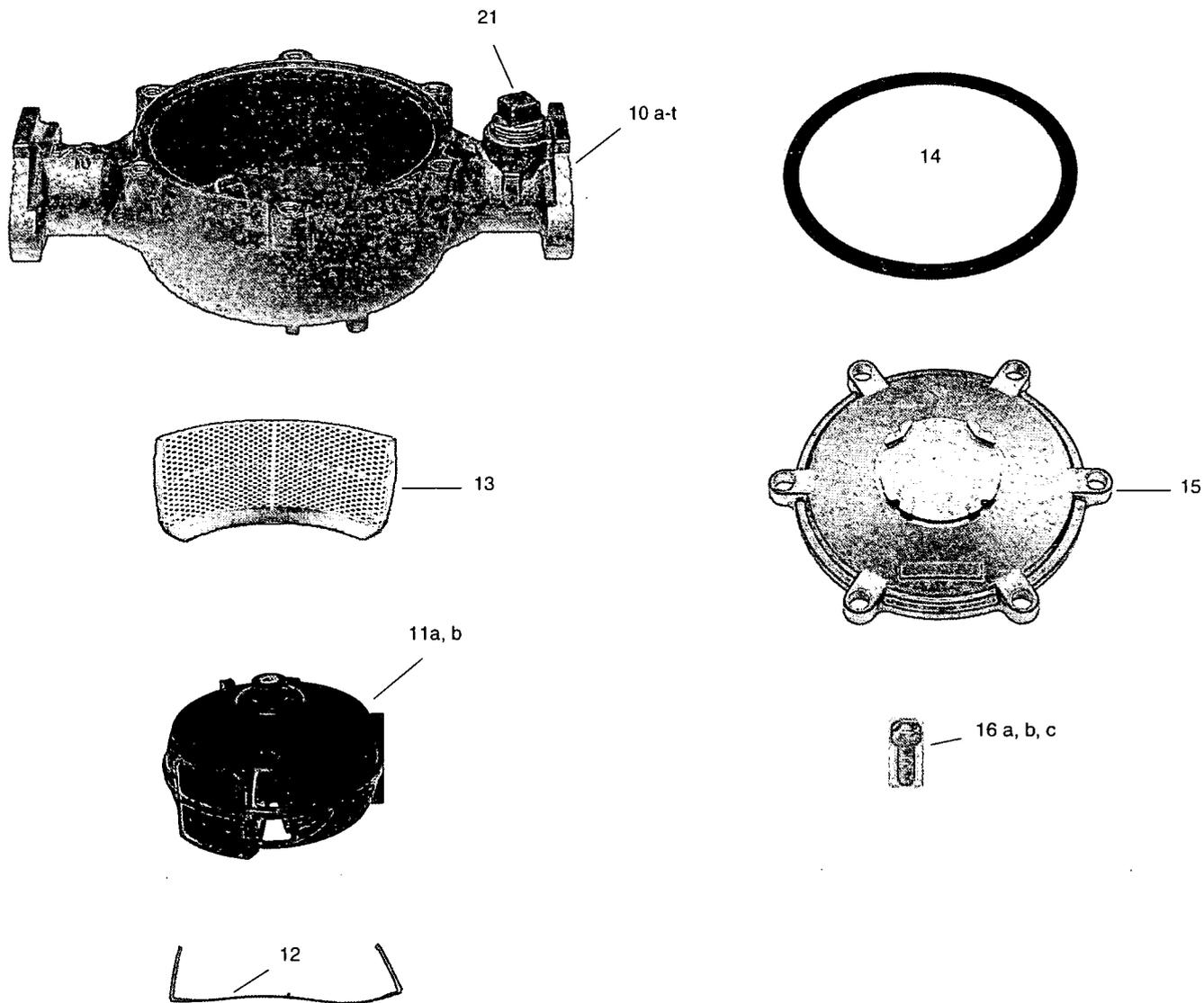
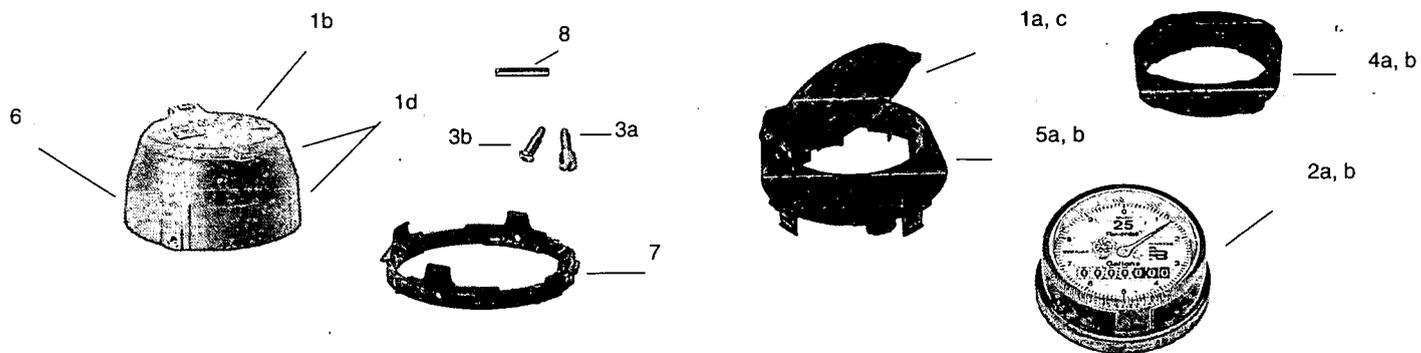
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**RCDL-170
Bronze**



BadgerMeter, Inc.

**RD-P-6
302 of 546**



NOTE: See Repair Parts Price List S-3541. Give model size, complete part description, and part number.

METER PARTS

Item No.	Name of Part	Model 120	Model 170
1a	Register Flat Lid (Plastic)	62278-001	62278-001
1b	Register Flat Lid (Bronze)	62353-001	62353-001
1c	Register Flat Lid (Purple) "RECLAIMED"	62740-001	62740-001
1d	Register Flat Lid and Shroud (Bronze)	62616-001	62616-001
2a	Register Assembly: U.S. Gallons	63961-011	63961-057
	Cubic Feet	63961-012	63961-058
	Imperial Gallons	63961-019	63961-076
	Cubic Meters	63961-014	63961-059
2b	Reg. Assy. "RECLAIMED": U.S. Gallons	63961-095	63961-097
	Cubic Feet	63961-096	63961-098
3a	Screw Tamper-resistant, standard (for Local Register)	62335-001	62335-001
3b	Tamper Resistant TORX® Seal Screw (for Local Register)	62516-001	62516-001
3c	Tamper Resistant TORX® Seal Screw (for Generator Register not shown)	62516-002	62516-002
3d	Screw Tamper-resistant, standard (for Generator Register not shown)	62624-001	62624-001
4a	Plastic Shroud (Bottom Half)	62279-001	62279-001
4b	Plast. Shroud (Bot. Half) "RECLAIMED"	62279-003	62279-003
5a	Plastic Shroud (Top Half)	62280-001	62280-001
5b	Plastic Shroud (Top Half) "RECLAIMED"	62280-002	62280-002
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003
	<i>(In following list, LL = Lay Length)</i>		
10a	Housing (B81), 1-1/2", ELL, 12-5/8" LL	62175-001	-----
10b	Housing (BIA), 1-1/2", ELL, 12-5/8" LL	62175-029	-----
10c	Housing (B81), 1-1/2", ELL, 12-5/8" LL w/Test Plug	62175-003	-----
10d	Housing (BIA), 1-1/2", ELL, 12-5/8" LL w/Test Plug	62175-031	-----
10e	Housing (B81), 1-1/2", ELL, 13" LL	62175-002	-----
10f	Housing (BIA), 1-1/2", ELL, 13" LL	62175-030	-----
10g	Housing (B81), 1-1/2", ELL, 13" LL w/Test Plug	62175-004	-----
10h	Housing (BIA), 1-1/2", ELL, 13" LL w/Test Plug	62175-032	-----
10i	Housing (B81), 1-1/2", Hex, 12-5/8" LL	62175-005	-----
10j	Housing (BIA), 1-1/2", Hex, 12-5/8" LL	62175-028	-----
10k	Housing (B81), 2", ELL, 15-1/4" LL	-----	59717-003
10l	Housing (BIA), 2", ELL, 15-1/4" LL	-----	59717-021
10m	Housing (B81), 2", ELL, 15-1/4" LL w/Test Plug	-----	59701-002
10n	Housing (BIA), 2", ELL, 15-1/4" LL w/Test Plug	-----	59701-014
10o	Housing (B81), 2", ELL, 17" LL	-----	59717-005
10p	Housing (BIA), 2", ELL, 17" LL	-----	59717-022
10q	Housing (B81), 2", ELL, 17" LL w/Test Plug	-----	59701-004
10r	Housing (BIA), 2", ELL, 17" LL w/Test Plug	-----	59701-015
10s	Housing (B81), 2", Hex, 12-5/8" LL	-----	59717-001
10t	Housing (BIA), 2", Hex, 12-5/8" LL	-----	59717-020
11a	Chamber Assembly with Strap for Potable Water w/ SS Thrust Roller	33334-017	33334-028
11b	Chamber Assembly Complete w/ Strap for "RECLAIMED" Water	33334-044	33334-046
12	Chamber Retainer Strap	56188-001	56188-001

(continued on next page)

METER PARTS (Continued)

Item No.	Name of Part	Model 120	Model 170
13	Screen	62172-001	59720-001
14	Housing Gasket	62171-001	59722-001
15a	Housing Cover (Bronze)	-----	59719-001
15b	Housing Cover (Low Lead Brz.)	62176-001	59719-004
16a	Housing Bolt Seal (Bronze Closure)	59732-001	59732-001
16b	Housing Bolt (Bronze Bolt)	55029-089	55029-089
16c	Housing Bolt, Seal (Bronze Bolt)	25421-042	25421-042
17a	TORX® Seal Screw Driver & Bit (Stubby)	62658-001	62658-001
17b	TORX® Seal Screw Driver & Bit (Long)	62658-003	62658-003
18	TORX® Seal Screw Driver Bit (Not Illustrated)	62657-001	62657-001
19	Register Test Ring	62446-001	62446-001
20	1" Test Plug (LowLead Bronze)	33879-016	33879-016
21	Plastic Shroud Disassembly Tool	62346-001	62346-001
	Chamber Assembly Service Parts:		
	"O" Ring for Chamber	22650-058	22650-059
	LDP Spindle and Magnet Assembly Potable Water	59698-001	59698-001
	LDP Spindle and Magnet Assembly "RECLAIMED"	59698-002	59698-002
	Cross Bar (LDP)	33986-000	59669-001
	Thrust Roller (Plastic)	-----	-----
	Thrust Roller (Stainless Steel)	59746-002	59846-001
	Dovetail Thrust Roller Insert	33985-001	59696-001

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Please see our website at
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PRODUCTS COVERED

This warranty shall apply to all Recordall® Turbo Series meters, sizes 1-1/2" through 20" and the registers and registration devices used with these meters (collectively "Product") sold on or after November 1, 2011. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger Meter warrants Product to be free from defects in materials and workmanship appearing within the earlier of the following time frames:

Bronze Housings

One (1) year after installation; or one (1) year and six (6) months after shipment from Badger Meter.

Local Registers Which Are Supplied with the Meters Listed Herein

Five (5) years after installation; or five (5) years and six (6) months after shipment from Badger Meter.

RTR® Registers Which Are Supplied with the Meters Listed Herein

Ten (10) years after installation or ten (10) years and six (6) months after shipment from Badger Meter.

METER ACCURACY

The meters are warranted to meet or exceed accuracy standards of AWWA Standard C701-07 appearing within the earlier of either: One (1) year after installation; or one (1) year and six (6) months after shipment from Badger Meter. AWWA does not provide a standard for 1-1/2" turbo meters. However, the typical operating range for the 1-1/2" turbo meter meets the accuracy requirements of this standard.

PRODUCT RETURNS

Any Product proved to Badger Meter's satisfaction to have failed the foregoing warranties will, at Badger Meter's option, be repaired or replaced without charge to the Customer. Badger Meter's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F. O. B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced, and operated strictly in accordance with AWWA Standard C701-07 and the AWWA M6 manual. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Product technical literature and Installation and Operation Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration or other circumstances which are beyond Badger Meter's reasonable control. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

If a meter is claimed to breach the accuracy warranties stated herein, the Customer shall submit a certified copy of the test results at the time the meter is returned to Badger Meter. The warranties as to accuracy shall be void if an examination of the Customer's water supply shows an unusually adverse effect on metering equipment.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Product, whether in writing or made orally by Badger Meter or Badger Meter's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or Badger Meter's agents regarding use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger Meter's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger Meter's liability shall in no event exceed the contract price. **BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.**

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**Cold Water Recordall®
Turbo 200 Meter
with Integral Strainer**

Size 2" (DN 50 mm)

**Technical
Brief**

DESCRIPTION

Badger Meter offers the 2" Turbo Series meter with Integral Strainer in Cast Bronze and a Low Lead Alloy. The Low Lead Alloy (Trade Designation: Turbo Series LL-NS (with Integral Strainer)) version complies with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to a vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around a vertical axis. Through the magnetic coupling, rotor rotation is transmitted to a follower magnet which transmits rotation to the register gearing.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the thrust bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 200 meter meets and exceeds registration accuracy for the low flow rate, normal operating flow rate, and maximum continuous operation flow rate as specifically stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall 200 Turbo meter construction which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is bronze, with round or elliptical flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes with nose cones, and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream as well as downstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 1 1/2" - 4" like-sized meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

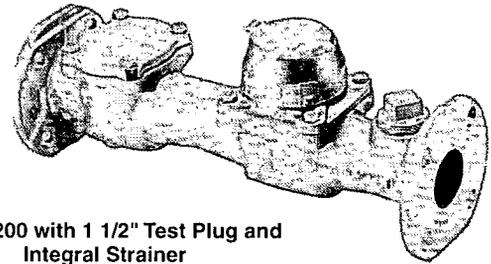
TAMPER-PROOF FEATURES: Customer removal of the register to obtain free water can be prevented when the option tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Both can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: The meter is designed with an integral stainless steel strainer screen built into its inlet end. A removeable cover plate permits easy access to the strainer for routine cleaning.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

TEST PLUG: An 1 1/2" NPT test plug puts an end to removing and reinstalling meters during field accuracy and pressure testing.



Turbo 200 with 1 1/2" Test Plug and Integral Strainer

SPECIFICATIONS

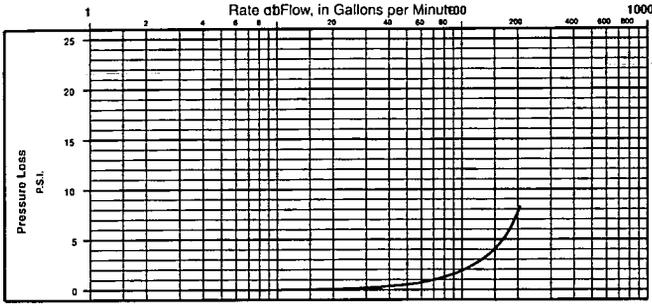
Typical Operating Range (100% ± 1.5%)	4 - 310 GPM (0.9 to 56.7 m³/h)
Maximum Continuous Operation	200 GPM (45.4 m³/h)
Maximum Intermittent Flow	310 GPM (70.3 m³/h)
Typical Low Flow (Min. 95%)	2.5 GPM (0.6 m³/h)
Pressure Loss at Maximum Continuous Operation	8.3 PSI (.57 bar at 45.4 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	2" Elliptical or Round Flanges, AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
Registration	100,000,000 Gallons 100 gallons/sweep hand revolution. 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution. 1,000,000 m³ 1 m³/sweep hand revolution. 100,000,000 Imperial Gallons 100 ImperialGallons/sweep hand revolution.

MATERIALS

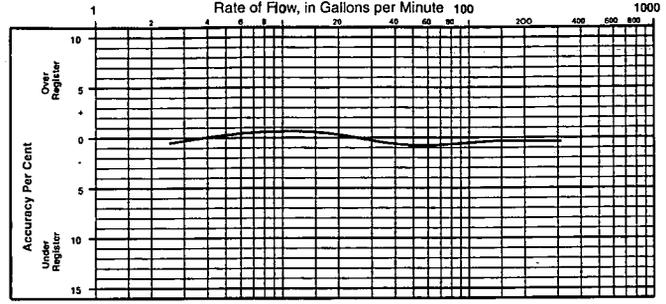
Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel



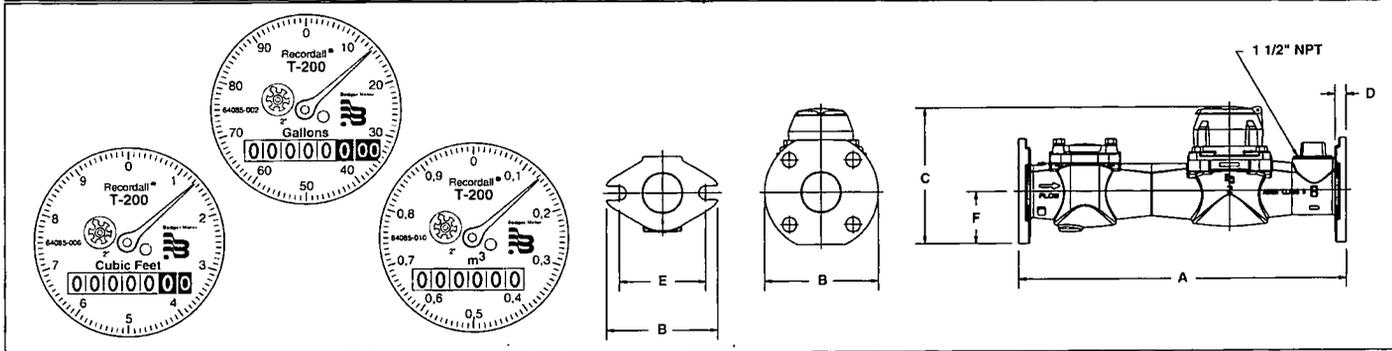
PRESSURE LOSS CHART



ACCURACY CHART



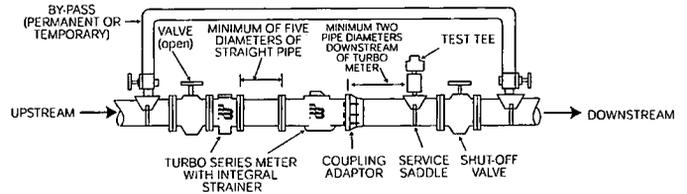
Meter & Pipe Size	DIMENSIONS								
	Length	Width	Height	Flange	Bolt Circle	Centerline	No.	Net	Shipping
2" EL	A	B	C	D	E	F	Bolts	Weight	Weight
	17"	5 27/32"	6 1/2"	27/32"	4 1/2"	2 1/16"	2	24 lb.	28 lb.
(DN 50) 2" RD	(432mm) 17"	(148mm) 6"	(165mm) 7 3/32"	(47mm) 5/8"	(114mm) 4 3/4"	(52mm) 2 5/8"	4	(11kg) 26 lb.	(13 kg) 30 lb.
(DN 50)	(432mm)	(152mm)	(180mm)	(16mm)	(121mm)	(67mm)		(12 kg)	(14 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. For Turbo meters with a strainer, a minimum of five (5) pipe diameters of straight pipe upstream of the meter is recommended.
2. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
3. DO NOT install pressure reducing devices or check valves upstream of the meter.

4. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
5. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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Cold Water Recordall® Turbo 450 Meter with Integral Strainer

Size 3" (DN 80 mm)

Technical Brief

DESCRIPTION

Badger Meter offers the 3" Turbo Series meter with Integral Strainer in Cast Bronze and a Low Lead Alloy. The Low Lead Alloy (Trade Designation: Turbo Series LL-NS (with Integral Strainer)) version complies with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to a vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around a vertical axis. Through the magnetic coupling, rotor rotation is transmitted to a follower magnet which transmits rotation to the register gearing.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the thrust bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 450 meter meets and exceeds registration accuracy for the low flow rate, normal operating flow rate, and maximum continuous operation flow rate as specifically stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 450 meter construction which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is bronze, with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes with nose cones, and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream as well as downstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 1 1/2" - 4" like-sized meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

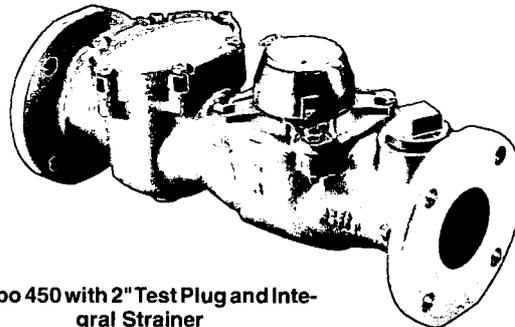
TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water can be prevented when the option tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Both can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: The meter is designed with an integral stainless steel strainer screen built into its inlet end. A removeable cover plate permits easy access to the strainer for routine cleaning.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

TEST PLUG: An 2" NPT test plug puts an end to removing and reinstalling meters during field accuracy and pressure testing.



Turbo 450 with 2" Test Plug and Integral Strainer

SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	5 - 550 GPM (1.1 to 124.9 m ³ /h)
Maximum Continuous Operation	450 GPM (102.2 m ³ /h)
Maximum Intermittent Flow	550 GPM (124.9 m ³ /h)
Typical Low Flow (Min. 95%)	4 GPM (0.9 m ³ /h)
Pressure Loss at Maximum Continuous Operation	5.0 PSI (.43 bar at 102.2 m ³ /h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	3" Round AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
Registration	100,000,000 Gallons 100 gallons/sweep hand revolution. 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution. 1,000,000 m ³ 1 m ³ /sweep hand revolution. 100,000,000 Imperial Gallons 100 Imperial Gallons/sweep hand revolution.
MATERIALS	
Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel

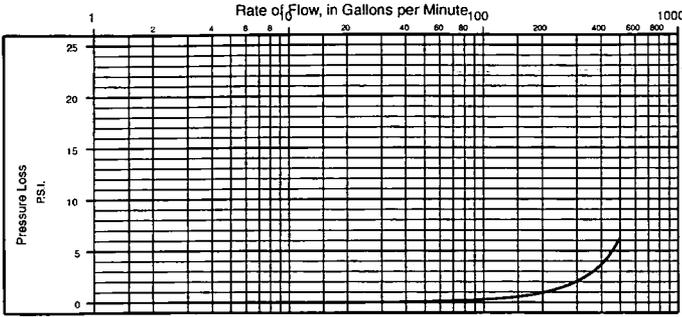


BadgerMeter, Inc.

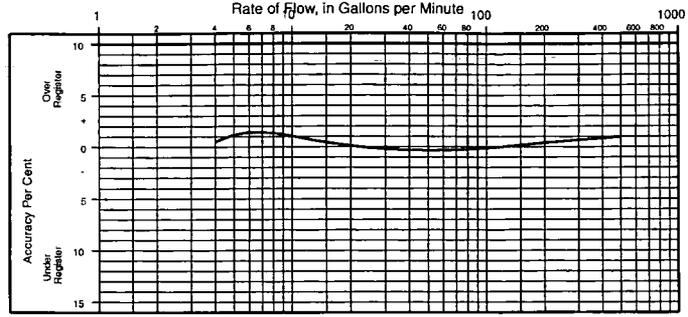
RTS-T-3-I

310 and 546

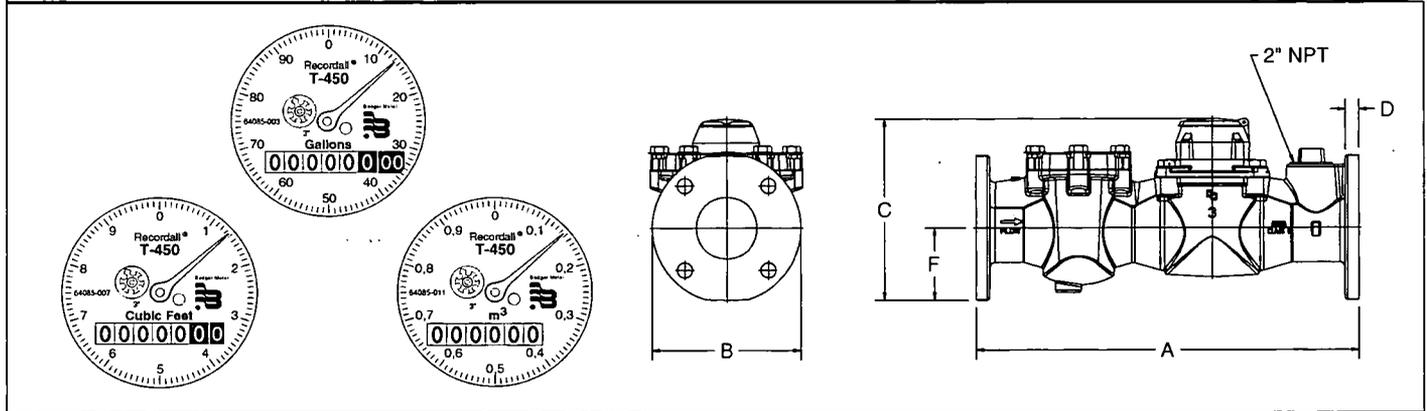
PRESSURE LOSS CHART



ACCURACY CHART



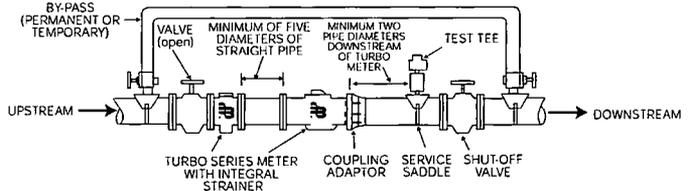
Meter & Pipe Size	DIMENSIONS								
	Length	Width	Height	Flange	Bolt Circle	Centerline	No.	Net	Shipping
3" RD	A 19"	B 7 1/2"	C 8 15/16"	D 27/32"	E 6"	F 3 19/32"	Bolts 4	Weight 49 lb.	Weight 55 lb.
(DN 80)	(483mm)	(191mm)	(227mm)	(21mm)	(152mm)	(91mm)		(22kg)	(25 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. For Turbo meters with a strainer, a minimum of five (5) pipe diameters of straight pipe upstream of the meter is recommended.
2. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
3. DO NOT install pressure reducing devices or check valves upstream of the meter.

4. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
5. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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Cold Water Recordall® Turbo 1000 Meter with Integral Strainer

Size 4" (DN 100 mm)

Technical Brief

DESCRIPTION

Badger Meter offers the 4" Turbo Series meter with Integral Strainer in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Turbo Series B81-NS (with Integral Strainer)) and the Low Lead Alloy (Trade Designation: Turbo Series LL-NS (with Integral Strainer)) versions comply with ANSI/NSF Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to a vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around a vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the thrust bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 1000 meter meets and exceeds registration accuracy for the low, normal, and maximum continuous operation flow rates as stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 1000 meter construction which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, measuring element and permanently sealed register. The housing is bronze with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes/nose cones and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream as well as downstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 1 1/2" - 4" like-sized meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

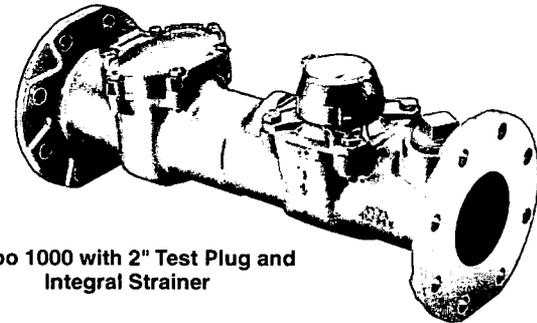
TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water can be prevented when the tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Either can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: The meter is designed with an integral stainless steel strainer screen built into its inlet end. A removeable cover plate permits easy access to the strainer for routine cleaning.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

TEST PLUG: A 2" NPT test port puts an end to removing and reinstalling meters during field accuracy and pressure testing.



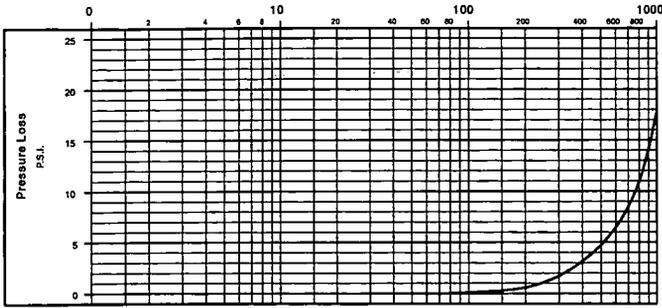
Turbo 1000 with 2" Test Plug and
Integral Strainer

SPECIFICATIONS

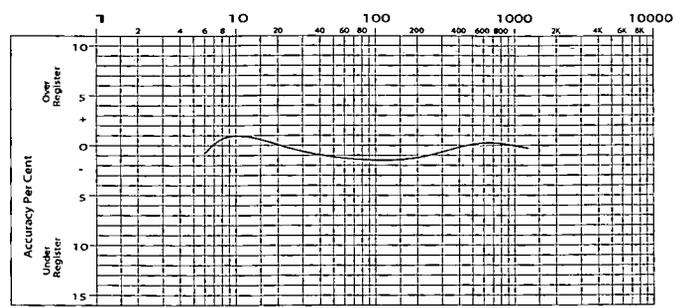
Typical Operating Range (100% ± 1.5%)	10 - 1250 GPM (2.3 to 284 m³/h)
Maximum Continuous Operation	1000 GPM (227.1 m³/h)
Maximum Intermittent Flow	1250 GPM (284 m³/h)
Typical Low Flow (Min. 95%)	6 GPM (1.4 m³/h)
Pressure Loss at Maximum Continuous Operation	17.8 PSI (1.2 bar at 227.1 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	4" Round Flanges AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard Automatic Meter Reading and Close Proximity units optional
Registration	100,000,000 Gallons 100 gallons/sweep hand revolution 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution 1,000,000 m³ 1 m³/sweep hand revolution 100,000,000 Imperial Gallons 100 Imperial Gallons/sweep hand revolution
MATERIALS	
Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel



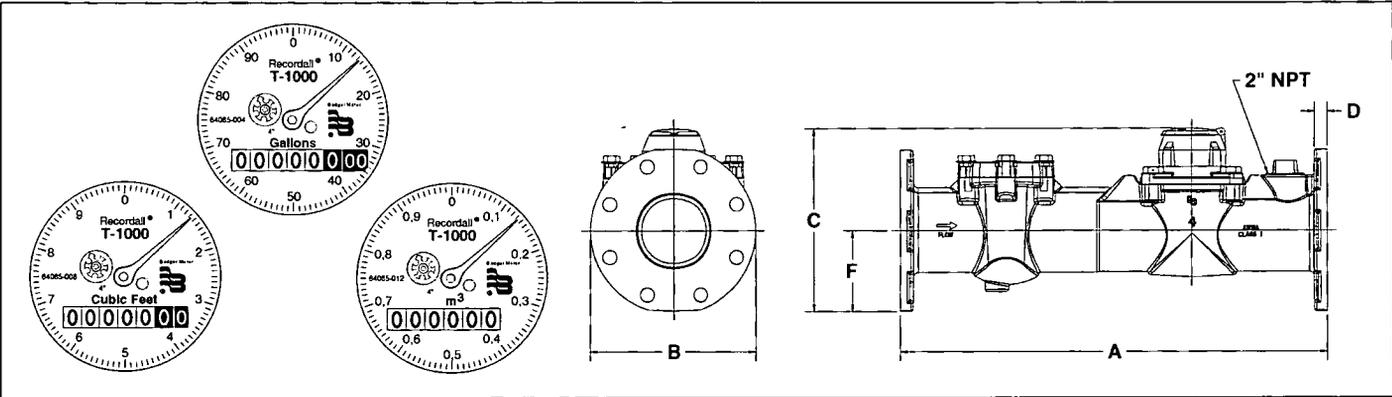
PRESSURE LOSS CHART
Rate of Flow, in Gallons per Minute



ACCURACY CHART
Rate of Flow, in Gallons per Minute



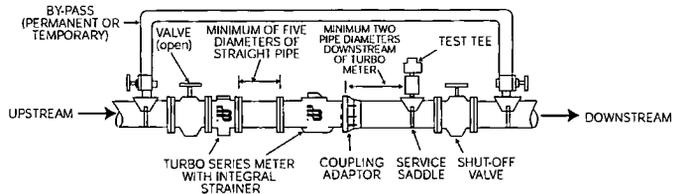
Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle	Centerline F	No. Bolts	Net Weight	Shipping Weight
4" RD (DN 100)	23" (584mm)	9" (228mm)	9 21/32" (245mm)	13/16" (21mm)	7 1/2" (191mm)	4 5/16" (109mm)	8	60 lb. (27.22 kg)	70 lb. (31.75 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. For Turbo meters with a strainer, a minimum of five (5) pipe diameters of straight pipe upstream of the meter is recommended.
2. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
3. DO NOT install pressure reducing devices or check valves upstream of the meter.

4. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
5. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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DESCRIPTION

Badger Meter offers the 6" Turbo Series meter in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Turbo Series B81-NS) and the Low Lead Alloy (Trade Designation: Turbo Series LL-NS) versions comply with ANSI/NSF Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to the vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around the vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 2000 meter meets and exceeds registration accuracy for the low, normal, and maximum continuous operation flow rates as stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 2000 meter construction, which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is bronze with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes/nose cones and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 6", 8", 10" and 12" meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water is prevented when the tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Either can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: A separate strainer is recommended to protect the measuring element. See Technical Brief PS-T-1 for strainer dimensions.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

TEST PLUG: An optional 2" NPT test port puts an end to removing and re-installing meters during field accuracy and pressure testing.



SPECIFICATIONS

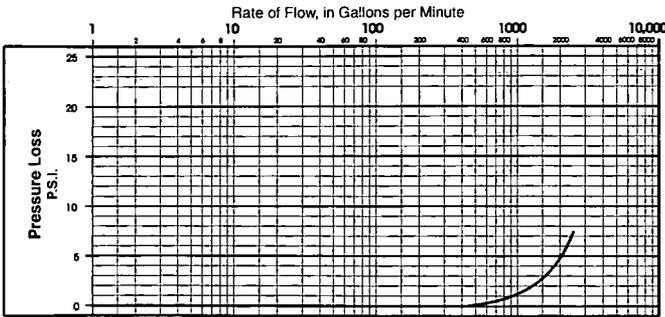
Typical Operating Range (100% ± 1.5%)	20 - 2500 GPM (4.5 to 568 m³/h)
Maximum Continuous Operation	2000 GPM (454 m³/h)
Maximum Intermittent Flow	2500 GPM (568 m³/h)
Typical Low Flow (95%-100%)	12 GPM (2.7 m³/h)
Pressure Loss at Maximum Continuous Operation	4.8 PSI (.33 bar at 454 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	6" Round AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading units optional.
Registration	1,000,000,000 Gallons 1000 gallons/sweep hand revolution. 100,000,000 Cubic Feet 100 cubic ft./sweep hand revolution. 10,000,000 m³ 10 m³/sweep hand revolution. 1,000,000,000 Imperial Gallons 1000 imperial gallons/sweep hand revolution.

MATERIALS

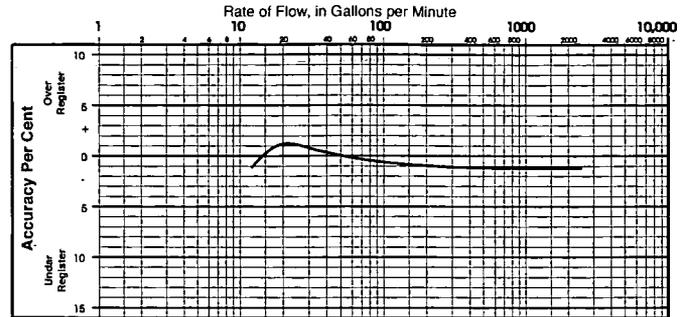
Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel



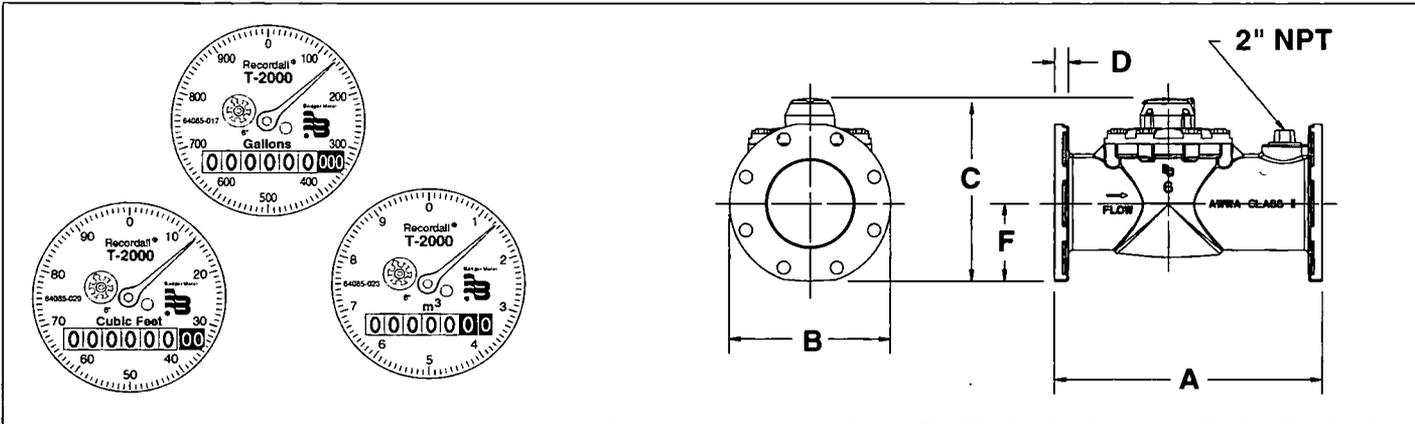
PRESSURE LOSS CHART



ACCURACY CHART



Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle	Centerline F	No. Bolts	Net Weight	Shipping Weight
6" Meter (DN 150)	18" (457mm)	11" (280mm)	13 5/16" (338mm)	7/8" (22mm)	9 1/2" (241mm)	5 1/4" (133mm)	8	77 lb. (35 kg)	89 lb. (40.4 kg)

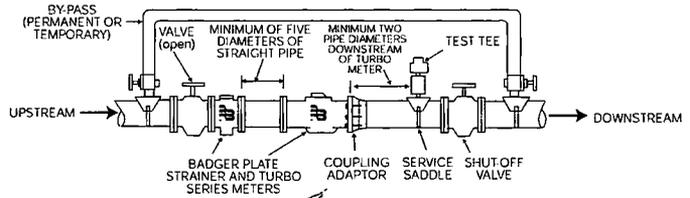


PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. A strainer is recommended to insure optimum flow conditioning and protection for the turbo meter measuring element.
2. When using a strainer, five (5) diameters of straight pipe separating the strainer upstream of the meter is recommended.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.
5. Unweighted check valves MUST be located at least three (3) pipe

diameters downstream of the meter.

6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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DESCRIPTION

Badger Meter offers the 8" Turbo Series meter in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Turbo Series B81-NS) and the Low Lead Alloy (Trade Designation: Turbo Series LL-NS) versions comply with ANSI/NSF Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to the vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around the vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 3500 meter meets and exceeds registration accuracy for the low, normal, and maximum continuous operation flow rates as stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 3500 meter construction, which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is bronze with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes/nose cones and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of most parts between 8", 10", and 12" meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are minimized. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

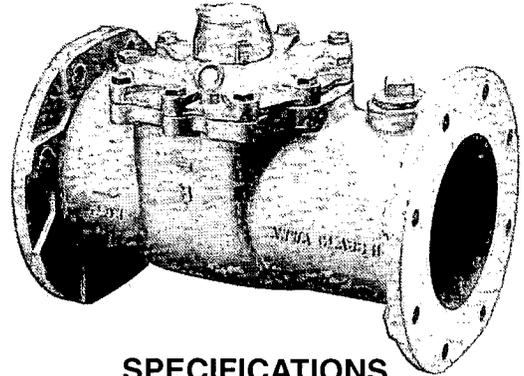
TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water is prevented when the tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Either can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: A separate strainer is recommended to protect the measuring element. See Technical Brief PS-T-2 for strainer dimensions.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

TEST PLUG: An optional 2" NPT test port puts an end to removing and reinstalling meters during field accuracy and pressure testing.



SPECIFICATIONS

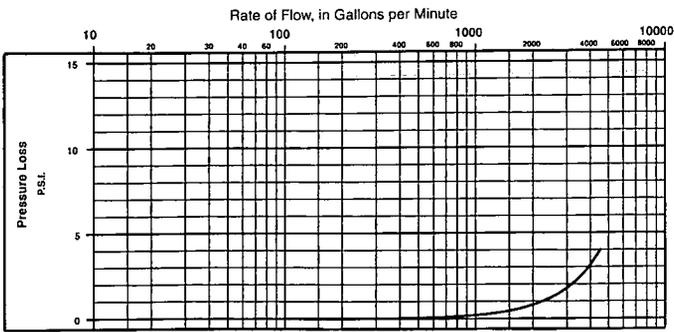
Typical Operating Range (100% ± 1.5%)	30 - 4500 GPM (6.8 to 1,022 m³/h)
Maximum Continuous Operation	3500 GPM (795 m³/h)
Maximum Intermittent Flow	4500 GPM (1022 m³/h)
Typical Low Flow (95%-100%)	20 GPM (4.5 m³/h)
Pressure Loss at Maximum Continuous Operation	2.5 PSI (.17 bar at 795 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	8" Round AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading units optional.
Registration	1,000,000 Gallons 1000 gallons/sweep hand revolution. 100,000,000 Cubic Feet 100 cubic ft./sweep hand revolution. 10,000,000 m³ 10 m³/sweep hand revolution. 1,000,000,000 Imperial Gallons 1000 imperial gallons/sweep hand revolution.

MATERIALS

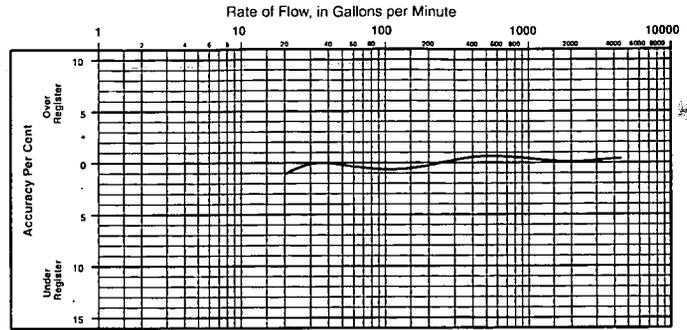
Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel



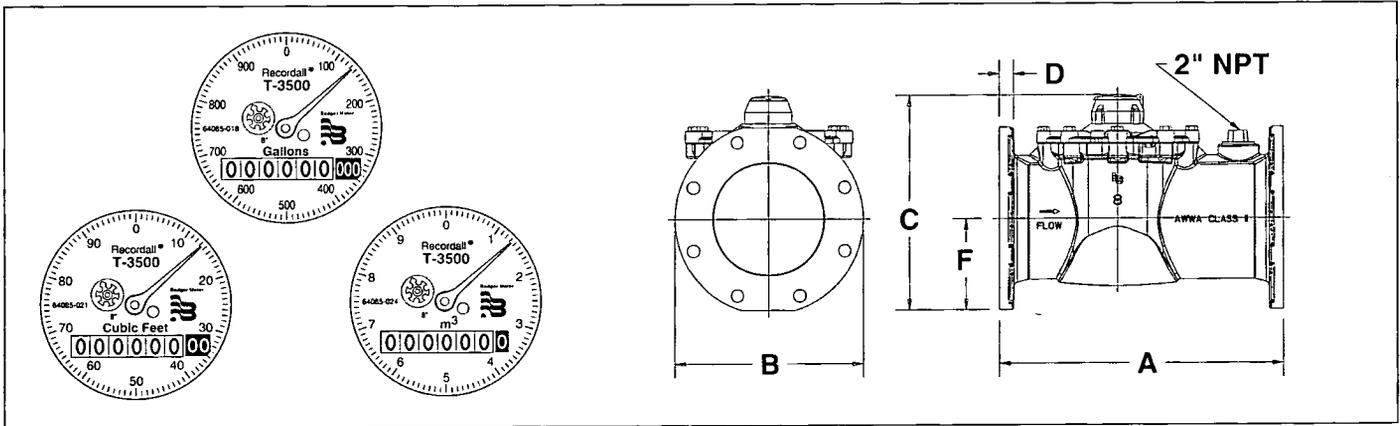
PRESSURE LOSS CHART



ACCURACY CHART



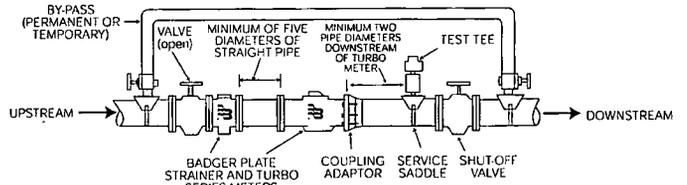
Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle F	Centerline F	No. Bolts	Net Weight	Shipping Weight
8" Meter (DN 200)	20" (508mm)	13 1/2" (343mm)	15 3/16" (385mm)	1" (25mm)	11 3/4" (298mm)	6 3/8" (162mm)	8	123 lb. (55.7 kg)	147 lb. (66.6 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. A strainer is recommended to insure optimum flow conditioning and protection for the turbo meter measuring element.
2. When using a strainer, five (5) diameters of straight pipe separating the strainer upstream of the meter is recommended.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.

5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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 for specific contacts.

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BadgerMeter, Inc.

P.O. Box 245036, Milwaukee, WI 53224-9536
 (800) 876-3837 / Fax: (888) 371-5982

www.badgermeter.com

DESCRIPTION

Badger Meter offers the 10" Turbo Series meter in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Turbo Series B81-NS) and the Low Lead Alloy (Trade Designation: Turbo Series LL-NS) versions comply with ANSI/NSF Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to the vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around the vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 5500 meter meets and exceeds registration accuracy for the low, normal, and maximum continuous operation flow rates as stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 5500 meter construction, which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is bronze with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes/nose cones and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 8", 10", and 12" meters also minimizes spare parts inventory investment.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

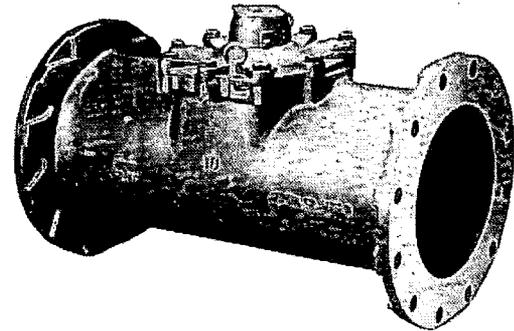
SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water is prevented when the tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Either can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: A separate strainer is recommended to protect the measuring element. See Technical Brief PS-T-2 for strainer dimensions.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.



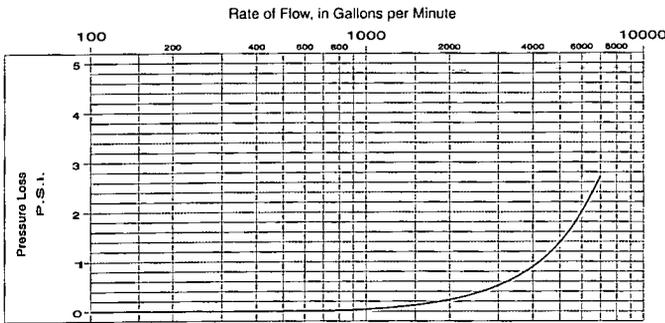
SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	50 - 7000 GPM (11.4 to 1590 m³/h)
Maximum Continuous Operation	5500 GPM (1250 m³/h)
Maximum Intermittent Flow	7000 GPM (1590 m³/h)
Typical Low Flow (95%-100%)	30 GPM (6.8 m³/h)
Pressure Loss at Maximum Continuous Operation	1.6 PSI (.11 bar at 1250 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	10" Round AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading units optional.
Registration	1,000,000,000 Gallons 1000 gallons/sweep hand revolution. 100,000,000 Cubic Feet 100 cubic ft./sweep hand revolution. 10,000,000 m³ 10 m³/sweep hand revolution. 1,000,000,000 Imperial Gallons 1000 imperial gallons/sweep hand revolution.

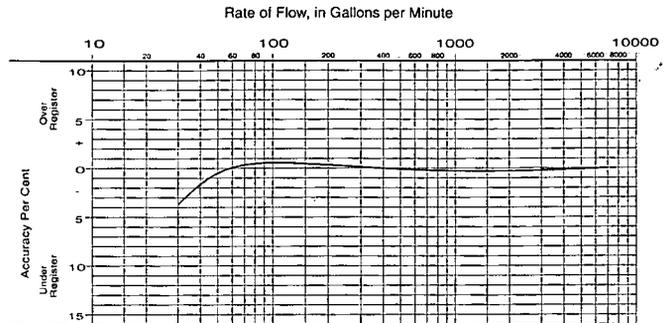
MATERIALS

Housing	Cast Bronze (B81), Low Lead Alloy
Turbo Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	Stainless Steel

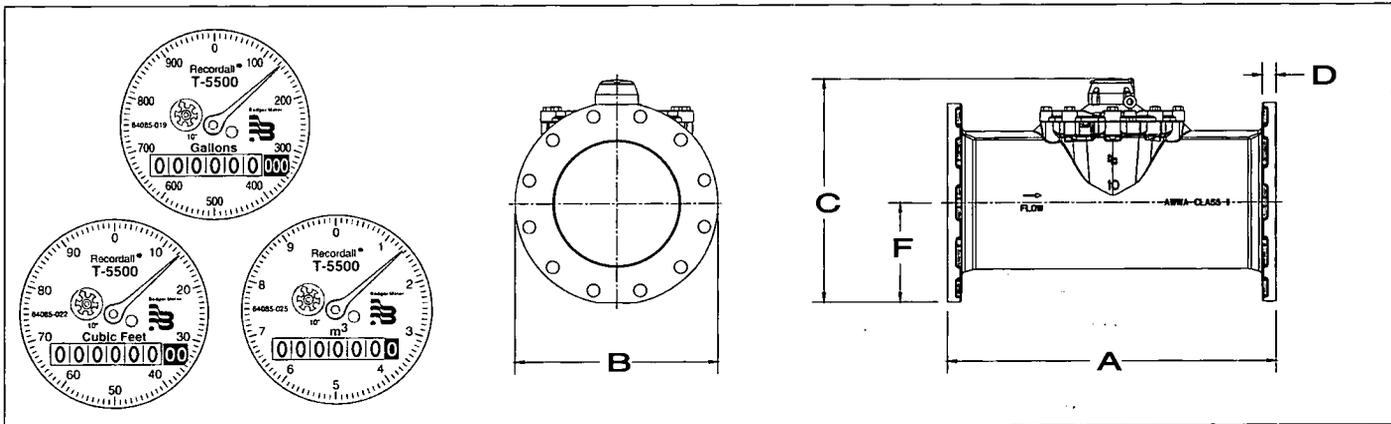
PRESSURE LOSS CHART



ACCURACY CHART



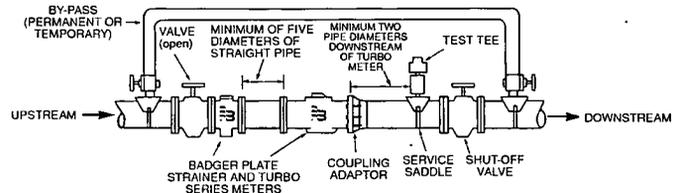
Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle	Centerline F	No. Bolts	Net Weight	Shipping Weight
10" Meter (DN 250)	26" (660.4 mm)	16" (406.4 mm)	17 15/32" (443 mm)	1 1/16" (27 mm)	14 1/4" (362mm)	7 7/8" (199.4 mm)	12	210 lb. (95.3 kg)	235 lb. (106.6 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. A strainer is recommended to insure optimum flow conditioning and protection for the turbo meter measuring element.
2. When using a strainer, five (5) diameters of straight pipe separating the strainer upstream of the meter is recommended.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.

5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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www.badgermeter.com

DESCRIPTION

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction.

OPERATION: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to the vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around the vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the bearing system.

OPERATING PERFORMANCE: The Badger® Recordall Turbo 6200 meter meets and exceeds registration accuracy for the low, normal, and maximum continuous operation flow rates as stated in AWWA Standard C701.

CONSTRUCTION: The Badger Recordall Turbo 6200 meter construction, which complies with ANSI and AWWA C701 standards, consists of three basic components: meter housing, interchangeable measuring element and permanently sealed register. The housing is cast iron with round flanges. The measuring element consists of the transmission coupling, measuring element insert, rotor, inlet and outlet straightening vanes/nose cones and calibration ring assembly. The unique inlet and outlet straightening vanes minimize swirl from piping arrangements upstream.

To simplify maintenance, the register and measuring element can be removed without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of certain parts between 8", 10", and 12" meters also minimizes spare parts inventory investment.

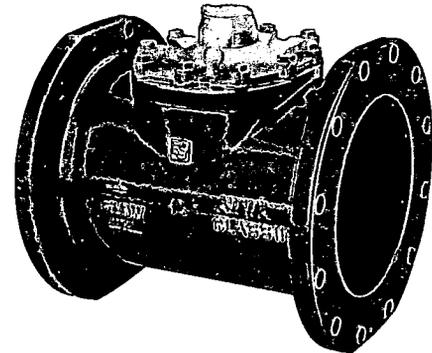
MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Recordall Turbo meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

TAMPER-RESISTANT FEATURES: Customer removal of the register to obtain free water is prevented when the tamper detection seal wire screw or TORX® tamper resistant seal screw is added to the meter. Either can be installed at the meter site or at the factory. A tamper resistant calibration plug seal provides protection from unauthorized personnel.

STRAINER: A separate strainer is recommended to protect the measuring element.

MAINTENANCE: Badger Recordall Turbo meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.



SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	90 - 8800 GPM (20.5 to 1998 m³/h)
Maximum Continuous Operation	6200 GPM (1408 m³/h)
Maximum Intermittent Flow	8800 GPM (1998 m³/h)
Typical Low Flow (95%-100%)	65 GPM (14.8 m³/h)
Pressure Loss at Maximum Continuous Operation	0.8 PSI (0.05 bar at 1408 m³/h)
Maximum Operating Temperature	120°F (49°C)
Maximum Operating Pressure	150 PSI (10 bar)
Meter Flanges	12" Round AWWA 125 pound class
Register	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading units optional.
Registration	10,000,000,000 Gallons 10,000 gallons/sweep hand revolution. 1,000,000,000 Cubic Feet 1,000 cubic ft./sweep hand revolution. 10,000,000 m³ 10 m³/sweep hand revolution. 10,000,000,000 Imperial Gallons 10,000 imperial gallons/sweep hand revolution.

MATERIALS

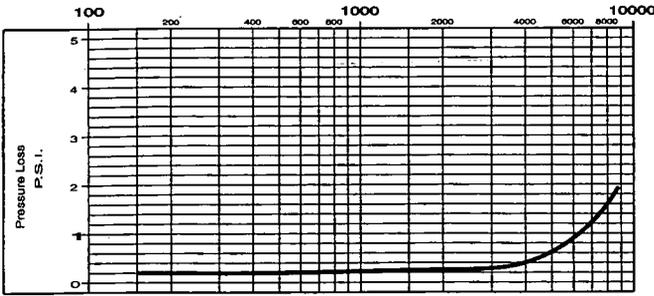
Housing	Cast Iron
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Magnet	Ceramic
Register Lid and Shroud	Thermoplastic, Bronze
Trim	316 Stainless Steel

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron as an option.



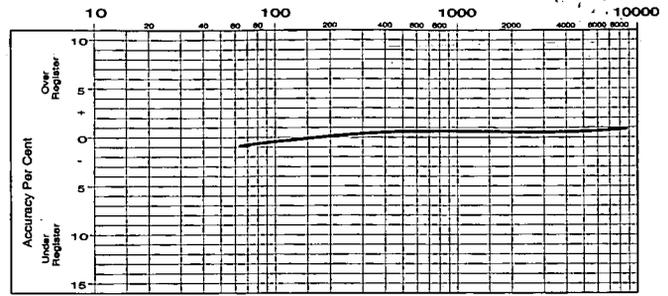
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute

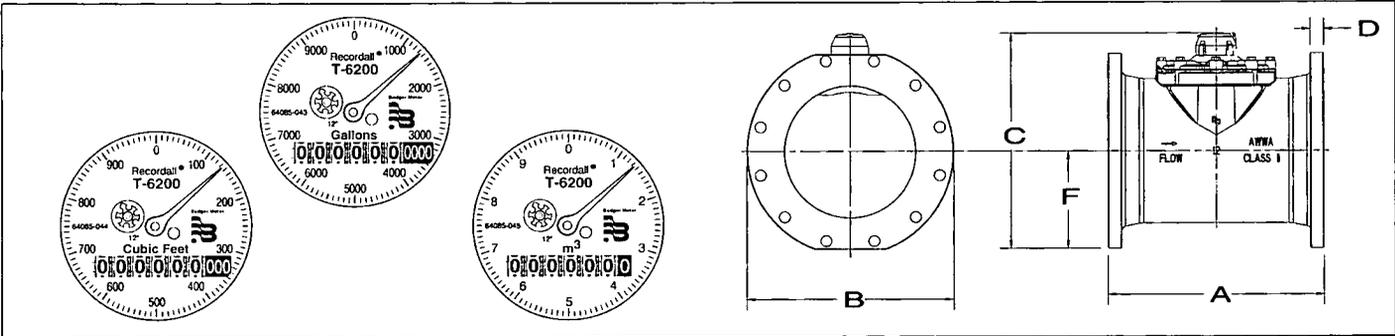


ACCURACY CHART

Rate of Flow, in Gallons per Minute



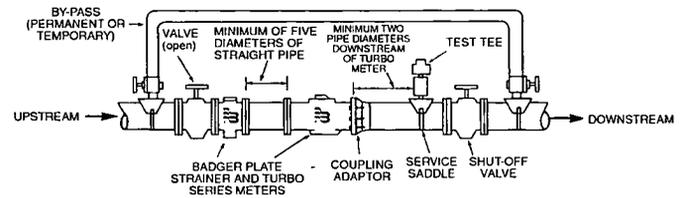
Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle	Centerline F	No. Bolts	Net Weight	Shipping Weight
12" Meter (DN 300)	19 11/16" (499 mm)	19" (482 mm)	19 11/16" (500 mm)	1.26" (32 mm)	17" (432mm)	8 7/8" (226 mm)	12	262 lb. (118.8 kg)	286 lb. (129.7 kg)



PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger Turbo meter.

1. A strainer is recommended to insure optimum flow conditioning and protection for the turbo meter measuring element.
2. When using a strainer, five (5) diameters of straight pipe separating the strainer upstream of the meter is recommended.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.

5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



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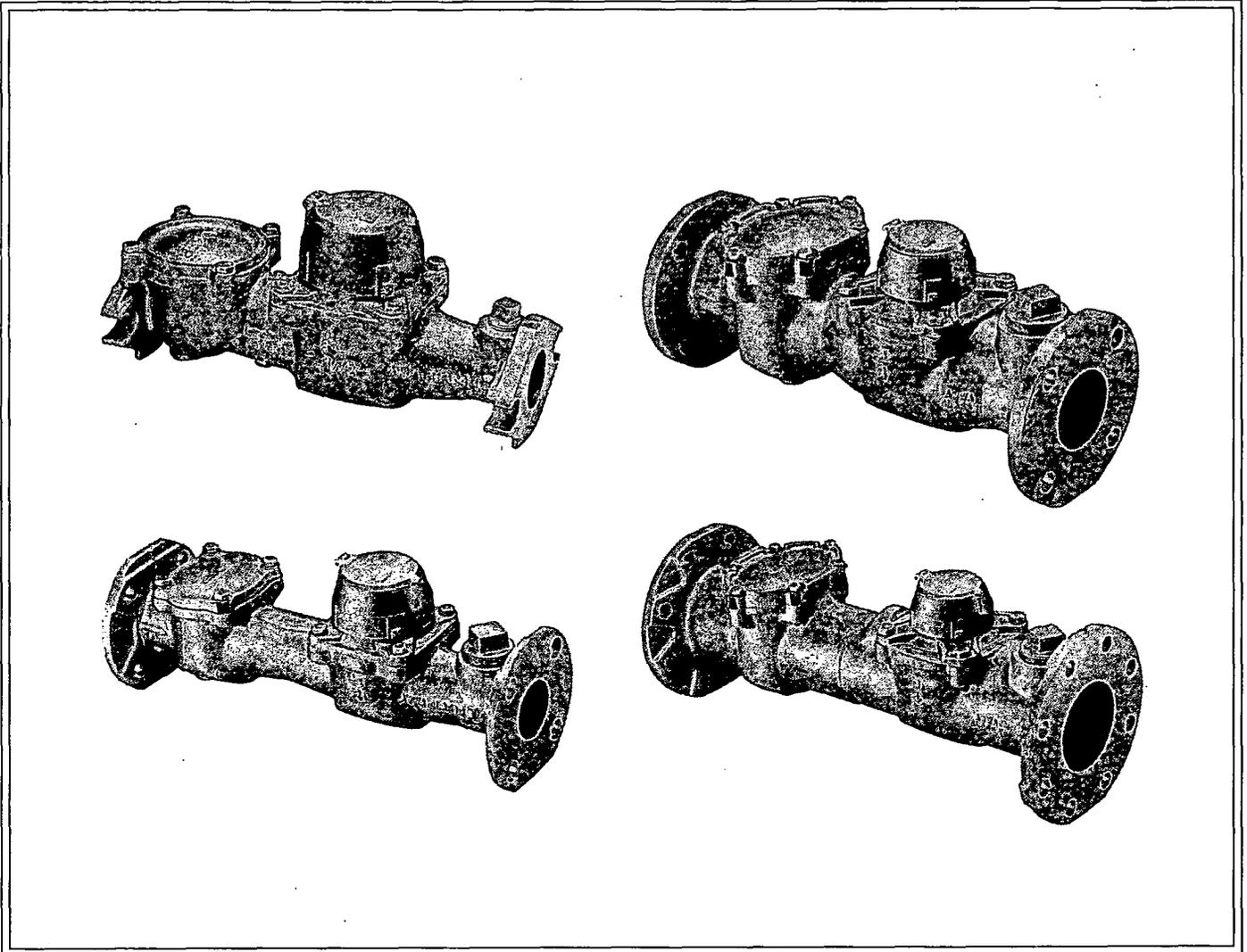
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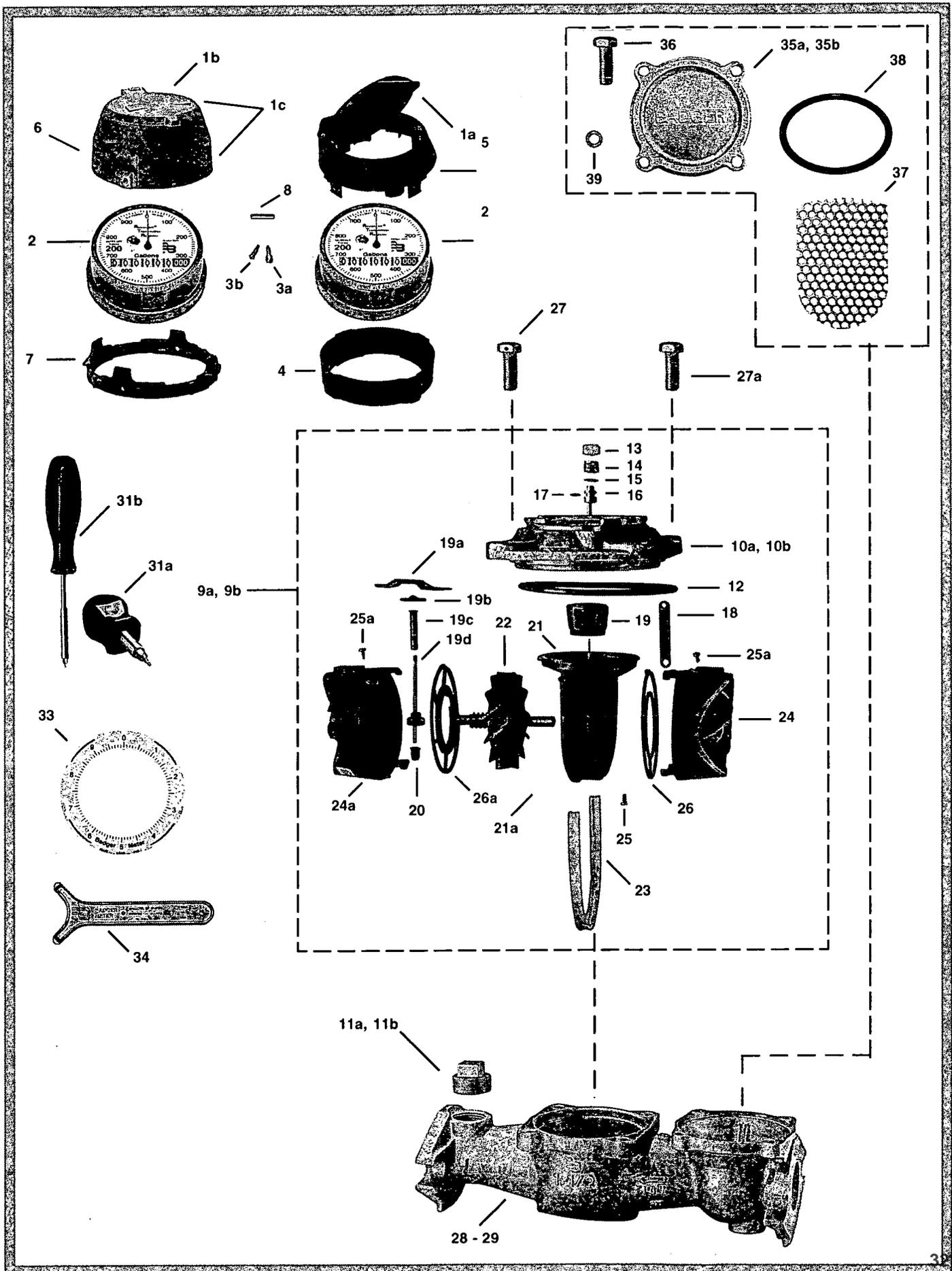
**Recordall® Turbo
Series Meters with
Integral Strainers**

**Sizes 1 ½", 2", 3" and 4"
Integral Strainers**

**Repair
Parts**



SIZES 1 1/2", 2", 3" and 4"



ITEM NO.	NAME OF PART	PART NUMBERS			
		1-1/2" Integral Strainer	2" Integral Strainer	3" Integral Strainer	4" Integral Strainer
1a	Register Flat Lid (Plastic)	62278-001	62278-001	62278-001	62278-001
1b	Register Flat Lid (Bronze)	62353-001	62353-001	62353-001	62353-001
1c	Register Flat Lid and Shroud (Bronze)	62616-001	62616-001	62616-001	62616-001
2	Register, 100 Gal. T. C.	64085-001	64085-002	64085-003	64085-004
2	Register, 100 Gal. T. C. (Reclaimed)	64085-031	64085-032	64085-033	64085-034
2	Register, 10 Cubic Ft. T.C.	64085-005	64085-006	64085-007	64085-008
2	Register, 10 Cubic Ft. T.C. (Reclaimed)	64085-035	64085-036	64085-037	64085-038
2	Register, 1 Cubic Meter T. C.	64085-009	64085-010	64085-011	64085-012
2	Register, 1000 Gal. T.C.	----	----	----	----
2	Register, 100 Cubic Ft. T.C.	----	----	----	----
2	Register, 10 Cubic Meter T.C.	----	----	----	----
3a	Screw Tamper-resistant, standard.	62335-001	62335-001	62335-001	62335-001
3b	Tamper Resistant Torx Seal Screw	62516-001	62516-001	62516-001	62516-001
4	Plastic Shroud (Bottom Half)	62279-001	62279-001	62279-001	62279-001
5	Plastic Shroud (Top Half)	62280-001	62280-001	62280-001	62280-001
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003	59568-003	59568-003
9a	Head Assembly (81 Metal), Complete	63010-002	63010-002	63010-003	63010-004
9b	Head Assembly (EB2), Complete	63010-025	63010-025	63010-026	63010-027
10a	Cover Plate (81 Metal)	62972-001	62972-001	62973-001	62974-001
10b	Cover Plate (EB2)	62972-005	62972-005	62973-005	62974-005
11a	Test Plug (81 Metal)	1384-000	33879-004	33879-005	33879-005
11b	Test Plug (EB2)	1384-001	33879-011	33879-012	33879-012
12	O-Ring, Head	62754-002	62754-002	62754-003	62754-003
13	Seal Plug, Calibration Shaft	62793-001	62793-001	62793-001	62793-001
14	Lock Screw, Calibration Shaft	62976-004	62976-004	62976-004	62976-004
15	Thrust Washer, Calibration Shaft	62976-006	62976-006	62976-006	62976-006
16	Calibration Shaft	62976-003	62976-003	62976-003	62976-003
17	O-Ring, Calibration Shaft	62754-001	62754-001	62754-001	62754-001
18	Calibration Linkage	62976-001	62976-001	62976-001	62976-001
19	Magnet Carrier	62976-018	62976-018	62976-019	62976-019
19a	Hold Down Strap	62976-012	62976-012	62976-013	62976-013
19b	Transmission Shaft Gear	62976-022	62976-022	62976-023	62976-023
19c	Transmission Shaft Protection Tube	62976-020	62976-020	62976-021	62976-021
19d	Transmission Shaft Assembly	62976-010	62976-010	62976-011	62976-011

ITEM NO.	NAME OF PART	PART NUMBERS			
		1-1/2" Integral Strainer	2" Integral Strainer	3" Integral Strainer	4" Integral Strainer
20	Bearing, Lower Transmission	62976-002	62976-002	62976-002	62976-002
21	Cage Insert, Measuring Element	62976-014	62976-014	62976-015	62976-015
21a	Vent Tube	62976-026	62976-026	-----	-----
22	Rotor Assembly.....	62976-025	62976-025	62973-002	62974-002
23	Cage Seal	62924-001	62924-001	62924-002	62924-002
24	Straightening Vane & Nose Cone Assembly	62976-016	62976-016	62976-017	62976-017
24a	Straightening Vane & Nose Cone Assembly	62976-016	62976-016	62976-017	62976-017
25	Cage Setscrew (1 Required)	62976-005	62976-005	62976-005	62976-005
25a	Cage / Nosecone Setscrews (2 Required)	62976-007	62976-007	62976-007	62976-007
26	Calibration Ring (Front)	62972-002	62972-002	62976-024	62976-024
26a	Calibration Ring (Rear)	62976-008	62976-008	62976-009	62976-009
27	Head Bolt, w/Seal Hole (1 Required)	25421-043	25421-043	25421-034	25421-034
27a	Head Bolt, w/o Seal Hole (3 Required)	55031-060	55031-060	55031-116	55031-116
28	Housing, Rd. Fig. (81 Metal), w/ Test Plug	-----	63220-001	63127-001	63128-001
28a	Housing, Rd. Fig. (EB2), w/ Test Plug.....	-----	63220-002	63127-003	63128-004
29a	Housing, Ellipt. Fig. (81 Metal), w/ Test Plug	63125-001	63126-001	-----	-----
29b	Housing, Ellipt. Fig. (EB2), w/ Test Plug	63125-003	63126-003	-----	-----
30	Dummy Cover Plate (Not Illustrated)	63190-001	63190-001	63194-001	63194-001
31a	Torx Seal Screw Driver and Bit (Stubby)	62658-001	62658-001	62658-001	62658-001
31b	Torx Seal Screw Driver and Bit (Long)	62658-003	62658-003	62658-003	62658-003
32	Torx Seal Screw Driver Bit (Not Illustrated)	62657-001	62657-001	62657-001	62657-001
33	Register Test Ring	62446-001	62446-001	62446-001	62446-001
34	Plastic Shroud Disassembly Tool	62346-001	62346-001	62346-001	62346-001
35a	Strainer Cover (81 Metal).....	62635-001	63233-001	63281-001	63281-001
35b	Strainer Cover (EB2)	63233-002	63233-002	63281-002	63281-002
36	Cover Bolt	55031-033	55031-060	55031-062	55031-062
37	Screen	63115-001	63277-001	63283-001	63285-001
38	Gasket	11071-033	22650-050	22650-051	22650-051
39	Washer for Strainer Cover	-----	24991-044	24991-044	24991-044



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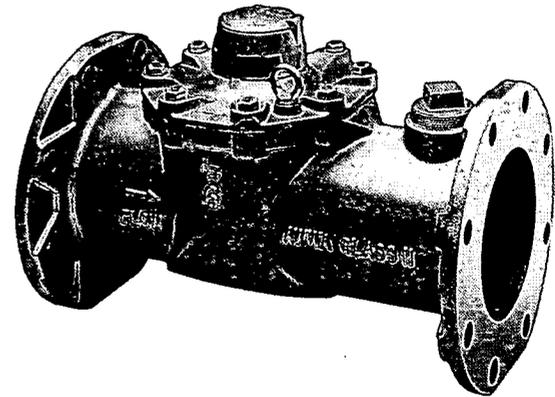
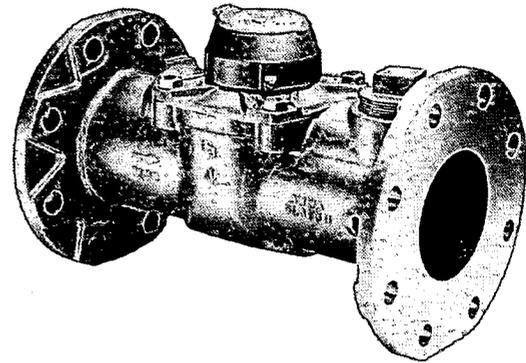
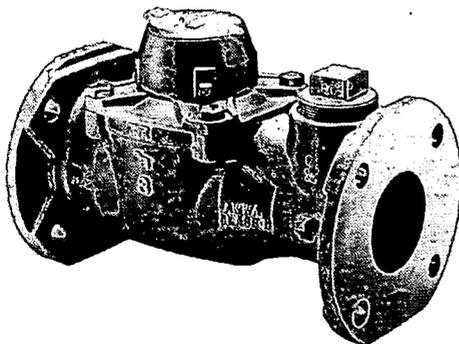
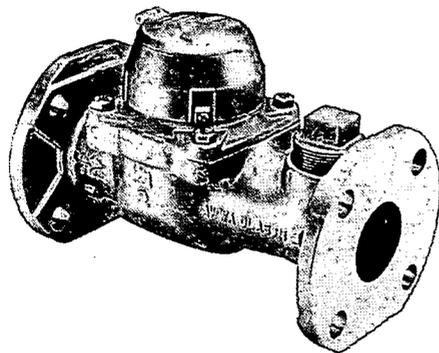
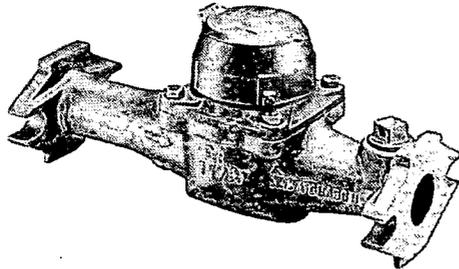
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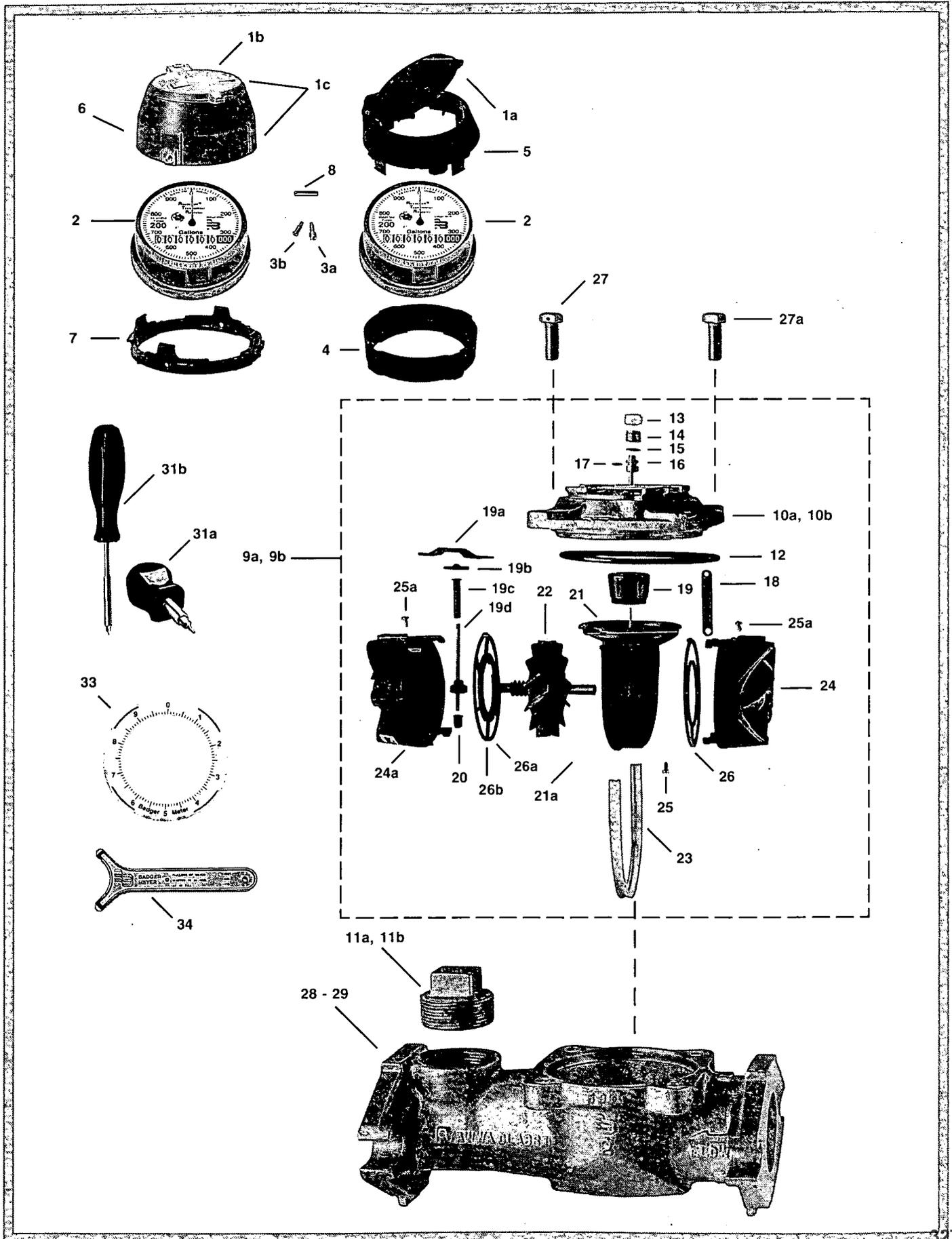
**Recordall® Turbo
Series Meters**

Sizes 1 1/2", 2", 3", 4", 6", 8", 10" and 12"

**Repair
Parts**



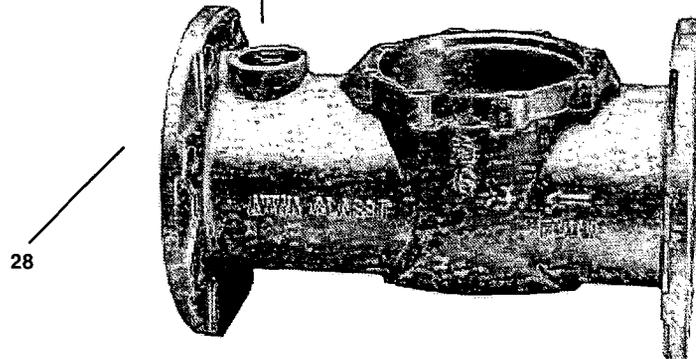
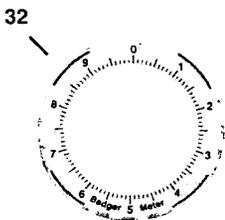
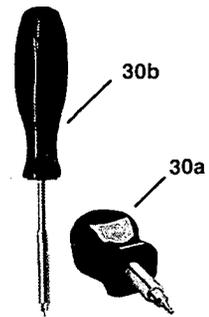
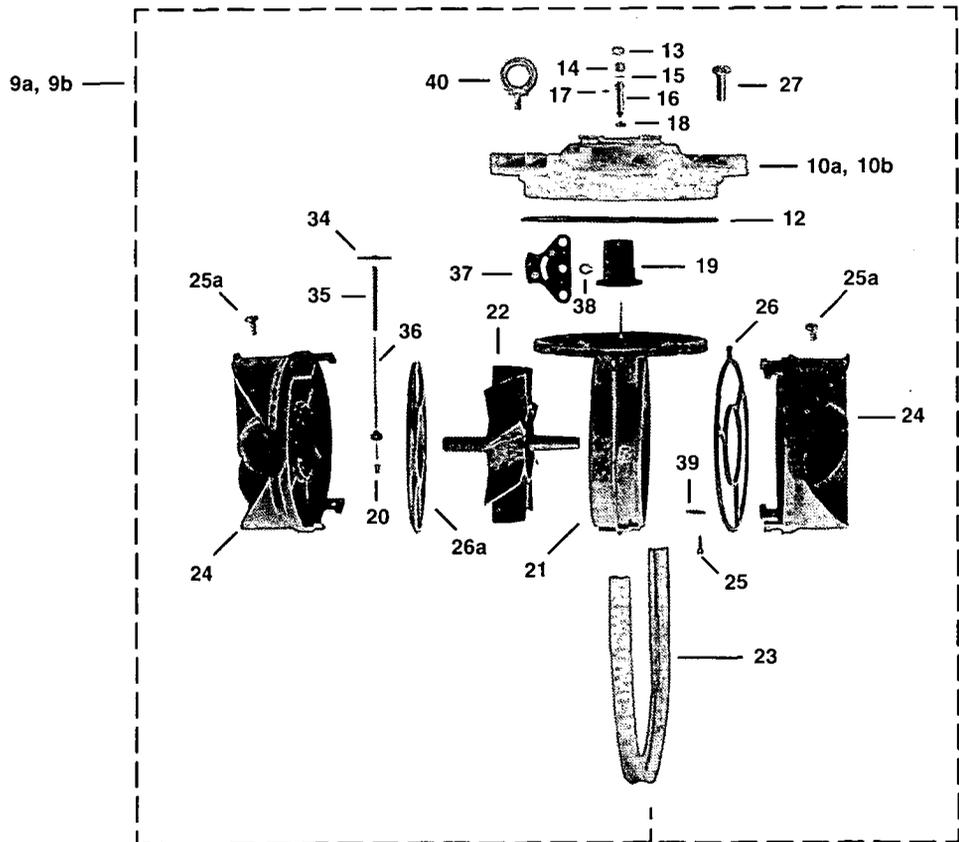
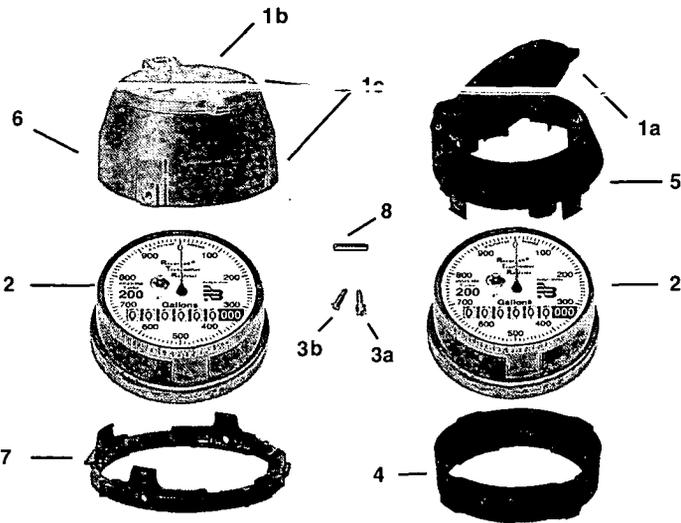
SIZES 1 1/2", 2", 3" and 4"



ITEM NO.	NAME OF PART	PART NUMBERS			
		1-1/2"	2"	3"	4"
1a	Register Flat Lid (Plastic)	62278-001	62278-001	62278-001	62278-001
1b	Register Flat Lid (Bronze)	62353-001	62353-001	62353-001	62353-001
1c	Register Flat Lid and Shroud (Bronze)	62616-001	62616-001	62616-001	62616-001
2	Register, 100 Gal. T. C.	64085-001	64085-002	64085-003	64085-004
2	Register, 100 Gal. T. C. (Reclaimed)	64085-031	64085-032	64085-033	64085-034
2	Register, 10 Cubic Ft. T.C.	64085-005	64085-006	64085-007	64085-008
2	Register, 10 Cubic Ft. T.C. (Reclaimed)	64085-035	64085-036	64085-037	64085-038
2	Register, 1 Cubic Meter T. C.	64085-009	64085-010	64085-011	64085-012
2	Register, 1000 Gal. T.C.	----	----	----	----
2	Register, 100 Cubic Ft. T.C.	----	----	----	----
2	Register, 10 Cubic Meter T.C.	----	----	----	----
3a	Screw Tamper-resistant, standard.	62335-001	62335-001	62335-001	62335-001
3b	Tamper Resistant TORX® Seal Screw	62516-001	62516-001	62516-001	62516-001
4	Plastic Shroud (Bottom Half)	62279-001	62279-001	62279-001	62279-001
5	Plastic Shroud (Top Half)	62280-001	62280-001	62280-001	62280-001
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003	59568-003	59568-003
9a	Head Assembly (81 Metal), Complete	63010-001	63010-002	63010-003	63010-004
9b	Head Assembly (EB2), Complete	63010-024	63010-025	63010-026	63010-027
10a	Cover Plate (81 Metal)	62971-001	62972-001	62973-001	62974-001
10b	Cover Plate (EB2)	62971-006	62972-005	62973-005	62974-005
11a	Test Plug (81 Metal)	1384-000	33879-004	33879-005	33879-005
11b	Test Plug (EB2)	1384-001	33879-011	33879-012	33879-012
12	O-Ring, Head	62754-002	62754-002	62754-003	62754-003
13	Seal Plug, Calibration Shaft	62793-001	62793-001	62793-001	62793-001
14	Lock Screw, Calibration Shaft	62976-004	62976-004	62976-004	62976-004
15	Thrust Washer, Calibration Shaft	62976-006	62976-006	62976-006	62976-006
16	Calibration Shaft	62971-004	62976-003	62976-003	62976-003
17	O-Ring, Calibration Shaft	62754-001	62754-001	62754-001	62754-001
18	Calibration Linkage	62976-001	62976-001	62976-001	62976-001
19	Magnet Carrier with Top Ball	62976-018	62976-018	62976-019	62976-019
19a	Hold Down Strap	62976-012	62976-012	62976-013	62976-013
19b	Transmission Shaft Gear	62976-022	62976-022	62976-023	62976-023
19c	Transmission Shaft Protection Tube	62976-020	62976-020	62976-021	62976-021

ITEM NO.	NAME OF PART	PART NUMBERS			
		1-1/2"	2"	3"	4"
19d	Transmission Shaft Assembly	62976-010	62976-010	62976-011	62976-011
19e	Magnetic Carrier Top Ball	63976-045	63976-045	63976-045	63976-045
20	Bearing, Lower Transmission	62976-002	62976-002	62976-002	62976-002
21	Cage Insert, Measuring Element	62976-014	62976-014	62976-015	62976-015
21a	Vent Tube	62976-026	62976-026	-----	-----
22	Rotor Assembly	62976-025	62976-025	62973-002	62974-002
23	Cage Seal	62924-001	62924-001	62924-002	62924-002
24	Straightening Vane & Nose Cone Assembly	62971-003	62976-016	62976-017	62976-017
24a	Straightening Vane & Nose Cone Assembly	62976-016	62976-016	62976-017	62976-017
25	Cage Setscrew (1 Required)	62976-005	62976-005	62976-005	62976-005
25a	Cage / Nosecone Setscrews (2 Required) ...	62976-007	62976-007	62976-007	62976-007
26	Calibration Ring (Front)	62971-002	62972-002	62976-024	62976-024
26a	Calibration Ring (Rear)	62976-008	62976-008	62976-009	62976-009
27	Head Bolt, w/Seal Hole (1 Required)	25421-043	25421-043	25421-034	25421-034
27a	Head Bolt, w/o Seal Hole (3 Required)	55031-060	55031-060	55031-116	55031-116
28	Housing, Rd. Flg. (81 Metal), w/o Test Plug..	-----	62748-002	62764-002	62765-002
28a	Housing, Rd. Flg. (81 Metal), w/ Test Plug	-----	62748-001	62764-001	62765-001
28b	Housing, Rd. Flg. (EB2), w/o Test Plug	-----	62748-005	62764-005	62765-004
28c	Housing, Rd. Flg. (EB2) w/ Test Plug	-----	62748-004	62764-004	62765-003
29	Housing, Ellipt. Flg. (81 Metal), w/o Test Plug	62747-002	62749-002	-----	-----
29a	Housing, Ellipt. Flg. (81 Metal), w/ Test Plug	62747-001	62749-001	-----	-----
29b	Housing, Ellpt. Flg. (EB2) w/o Test Plug	62747-004	62749-004	-----	-----
29c	Housing, Ellpt. Flg. (EB2) w/ Test Plug	62747-003	62749-003	-----	-----
30	Dummy Cover Plate (Not Illustrated)	63190-001	63190-001	63194-001	63194-001
31a	Torx Seal Screw Driver and Bit (Stubby)	62658-001	62658-001	62658-001	62658-001
31b	Torx Seal Screw Driver and Bit (Long)	62658-003	62658-003	62658-003	62658-003
32	Torx Seal Screw Driver Bit	62657-001	62657-001	62657-001	62657-001
	(Not Illustrated)				
33	Register Test Ring	62446-001	62446-001	62446-001	62446-001
34	Plastic Shroud Disassembly Tool	62346-001	62346-001	62346-001	62346-001

SIZES 6", 8", 10" and 12"



ITEM NO.	NAME OF PART	PART NUMBERS			
		6"	8"	10"	12"
1a	Register Flat Lid (Plastic)	62278-001	62278-001	62278-001	62278-001
1b	Register Flat Lid (Bronze)	62353-001	62353-001	62353-001	62353-001
1c	Register Flat Lid and Shroud (Bronze)	62616-001	62616-001	62616-001	62616-001
2	Register, 10,000 Gal. T. C.	----	----	----	64085-043
2	Register, 10,000 Gal. T. C. (Reclaimed)	----	----	----	64085-047
2	Register, 1,000 Cubic Ft. T.C.	----	----	----	64085-044
2	Register, 1,000 Cubic Ft. T.C. (Reclaimed) ..	----	----	----	64085-048
2	Register, 1 Cubic Meter T. C.	----	----	----	----
2	Register, 1,000 Gal. T.C.	64085-017	64085-018	64085-019	----
2	Register, 1,000 Gal. T.C. (Reclaimed)	64085-039	64085-041	64085-049	----
2	Register, 100 Cubic Ft. T.C.	64085-020	64085-021	64085-022	----
2	Register, 100 Cubic Ft. T.C. (Reclaimed)	64085-040	64085-042	64085-050	----
2	Register, 10 Cubic Meter T.C.	64085-023	64085-024	64085-025	64085-045
3a	Screw Tamper-resistant, standard.	62335-001	62335-001	62335-001	62335-001
3b	Tamper Resistant TORX® Seal Screw	62516-001	62516-001	62516-001	62516-001
4	Plastic Shroud (Bottom Half)	62279-001	62279-001	62279-001	62279-001
5	Plastic Shroud (Top Half)	62280-001	62280-001	62280-001	62280-001
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003	59568-003	59568-003
9a	Head Assembly (81 Metal), Complete	63010-005	63010-011	63010-012	63010-012
9b	Head Assembly (EB2), Complete	62755-029	62755-030	62755-033	62755-033
10a	Cover Plate (81 Metal)	63177-004	62976-037	62976-037	62976-037
10b	Cover Plate (EB2)	63177-020	63178-005	63178-005	63178-005
11a	Test Plug (81 Metal)	33879-005	33879-005	----	----
11b	Test Plug (EB2)	33879-012	33879-012	----	----
12	O-Ring, Head	62754-004	62754-005	62754-005	62754-005
13	Seal Plug, Calibration Shaft	62793-001	62793-001	62793-001	62793-001
14	Lock Screw, Calibration Shaft	62976-004	62976-004	62976-004	62976-004
15	Thrust Washer, Calibration Shaft	62976-006	62976-006	62976-006	62976-006
16	Calibration Shaft	63177-016	62976-048	62976-048	62976-048
17	O-Ring, Calibration Shaft	62754-001	62754-001	62754-001	62754-001
18	Calibration Gear	62976-031	62976-031	62976-031	62976-031
19	Magnet Carrier (with Top Ball)	63177-015	62976-047	62976-047	62976-047

ITEM NO.	NAME OF PART	PART NUMBERS			
		6"	8"	10"	12"
20	Bearing, Lower Transmission	62976-002	62976-002	62976-002	62976-002
21	Cage Insert, Measuring Element	63177-001	62976-034	62976-034	62976-034
22	Rotor Assembly	63177-003	63178-001	62976-046	62976-046
23	Cage Seal	62924-003	62924-004	-----	-----
24	Straightening Vane & Nose Cone Assembly	63177-002	62976-035	62976-035	62976-035
25	Cage Setscrew (4 Required)	63177-011	62976-044	62976-044	62976-044
25a	Cage / Nosecone Setscrews (2 Required) ...	62976-050	62976-050	62976-050	62976-050
26	Calibration Ring (Front)	63177-008	62976-041	62976-041	62976-041
26a	Calibration Ring (Rear)	63177-009	62976-042	62976-042	62976-042
26b	Calibration Ring (Rear) Combo Meter & Fire Series only	-----	62976-051	62976-051	-----
27	Head Bolt, w/Seal Hole	25421-044	58088-004	58088-004	58088-004
	(6" - 1 Required, 8"-12" - 2 Required)				
27a	Head Bolt, w/o Seal Hole	55031-117	55031-172	55031-172	55031-172
	(6" - 7 Required, 8"-12" - 8 Required)				
28	Housing, Rd. Flg. (81 Metal), w/o Test Plug..	62837-002	-----	63355-001	-----
28a	Housing, Rd. Flg. (81 Metal), w/ Test Plug	62837-001	63304-001	-----	-----
28b	Housing, Rd. Flg. (EB2) w/o Test Plug	62837-004	-----	63355-002	-----
28c	Housing, Rd. Flg. (EB2) w/ Test Plug	62837-003	63304-002	-----	-----
28d	Housing, Rd. Flg. (Cast Iron) w/o Test Plug ..	-----	-----	-----	63179-001
29	Dummy Cover Plate (Not Illustrated)	63195-001	63548-001	63548-001	63548-001
30a	Torx Seal Screw Driver and Bit (Stubby)	62658-001	62658-001	62658-001	62658-001
30b	Torx Seal Screw Driver and Bit (Long)	62658-003	62658-003	62658-003	62658-003
31	Torx Seal Screw Driver Bit	62657-001	62657-001	62657-001	62657-001
	(Not Illustrated)				
32	Register Test Ring	62446-001	62446-001	62446-001	62446-001
33	Plastic Shroud Disassembly Tool	62346-001	62346-001	62346-001	62346-001
34	Transmission Shaft Gear	63177-007	62976-040	62976-040	62976-040
35	Transmission Shaft Protection Tube	63177-006	62976-039	62976-039	62976-039
36	Transmission Shaft Assembly	63177-010	62976-043	62976-043	62976-043
37	Calibration Ring Drive Plate/Gear	62976-029	62976-029	62976-029	62976-029
38	Retaining Ring	62976-032	62976-032	62976-032	62976-032
39	Washer (4 Required)	63177-012	62976-049	62976-049	62976-049
40	Eyebolts	59215-039	59215-067	59215-067	59215-067

NOTES:



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PRODUCTS COVERED

This warranty shall apply to all Recordall® Compound Series meters, sizes 2" through 6" and the local registers and encoders used with these meters (collectively "Product") sold on or after November 1, 2011. The warranty is extended only to utilities, municipalities, other commercial users, authorized distributors, and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger Meter warrants the Product to be free from defects in materials and workmanship appearing within the earlier of the following time frames:

Bronze Housings

One (1) year after installation; or one (1) year and six (6) months after shipment from Badger Meter.

Local Registers for Low Flow Registration (Disc Measuring Element) Which are Supplied with the Meters Listed Herein

Twenty-five (25) years after installation; or twenty-five (25) years and six (6) months after shipment from Badger Meter.

Local Registers for High Flow Registration (Turbo Measuring Element) Which are Supplied with the Meters Listed Herein

Five (5) years after installation; or five (5) years and six (6) months after shipment from Badger Meter.

ADE® and RTR® Encoders Supplied with the Meters Listed Herein

Ten (10) years after installation; or ten (10) years and six (6) months after shipment from Badger Meter.

METER ACCURACY

The meter Product will meet or exceed accuracy standards of AWWA Standard C702-01 for one (1) year after installation or one (1) year and six (6) months after shipment from Badger Meter.

PRODUCT RETURNS

Any Product proved to Badger Meter's satisfaction to have failed the foregoing warranties will, at Badger Meter's option, be repaired or replaced without charge to the Customer. Badger Meter's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger Meter that a defect is involved. Product returns must be shipped by the Customer prepaid F. O. B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced, and operated strictly in accordance with AWWA Standard C702-01 and the AWWA M6 manual. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Badger Meter Product technical literature and Installation, Operation, Instruction Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger Meter's reasonable control. With respect to Product not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

If a meter Product is claimed to breach the accuracy warranties stated herein, the customer shall submit a certified copy of the test results at the time the meter Product is returned to Badger Meter. The warranties as to accuracy shall be void if an examination of the customer's water supply shows an unusually adverse effect on Product.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of Title).

Any description of the Product, whether in writing or made orally by Badger Meter or Badger Meter's agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any purchaser's order are for the sole purpose of identifying Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or Badger Meter's agents regarding use, application or suitability of Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger Meter's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. **BADGER METER'S liability shall in no event exceed the contract price. BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.**

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Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.

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800-876-3837 | infocentral@badgermeter.com | www.badgermeter.com

Recordall® Compound Series Meter

Cold Water
Size 2" (DN 50 mm)

Technical Brief

DESCRIPTION

Badger Meter offers the Badger® 2" Compound Series meter in Cast Bronze and a Low Lead Alloy. The Low Lead Alloy (Trade Designation: Compound Series LL-NS) version complies with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: At low flow rates, the water is diverted up through a bypass to the disc chamber. Leaving the chamber's outlet port, water flows beyond the turbo and main valve. As the flow rate increases, a pressure differential is created which opens the main valve. The water then flows straight through the turbine chamber in addition to a portion still flowing through the disc chamber before exiting the meter. Rotor and disc movement are transmitted by magnetic drive couplings to individual register odometers.

OPERATING PERFORMANCE: With its' patented design, the Badger® Recordall Compound meter meets or exceeds registration accuracy for low flow rate, normal operating flow rates, maximum continuous operation flow rate, and changeover flow rate as specifically stated in AWWA Standard C702.

CONSTRUCTION: Badger Recordall Compound meter construction which complies with ANSI and AWWA C702 standards, consists of three basic components: meter housing, interchangeable measuring elements and single, sealed direct reading registers. The measuring element consist of the disc measuring chamber, turbo head assembly and high flow valve assembly.

To simplify maintenance, the registers and measuring elements can be removed without removing the meter housing from the installation.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading or remote reading options.

SEALED REGISTERS: The standard registers consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Compound Series meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

METER READING TECHNOLOGIES: The Badger® ORION® and GALAXY® and Itron® ERT® meter reading systems are available for all Recordall Compound Series meters. An optional summator can be provided as an integral part of the register assembly. (See back of sheet for additional information.)

TAMPER-PROOF FEATURES: Tamper resistant register provides protection from unauthorized personnel.

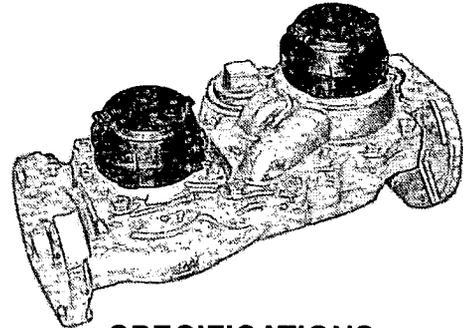
STRAINER: A separate strainer is recommended to protect the measuring element but is not a requirement. See Technical Brief PS-T-1 for strainer dimensions.

MAINTENANCE: Badger Recordall Compound meters are designed and manufactured to provide long-term service with minimal maintenance.

When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

STANDARD: 3/4" drain plug.



SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	1/2-200 GPM (0.1 to 45 m³/h)
Low Flow Registration	1/4 GPM (0.06 m³/h)
Maximum Continuous Flow	170 GPM (38.3 m³/h)
Pressure Loss at Maximum Continuous Flow	5.4 PSI at 170 GPM (0.38 bar at 38.3 m³/h)
Pressure Loss at Crossover	3.5 PSI (0.24 bar)
Minimum Crossover Accuracy	97%
Maximum Operating Pressure	150 PSI (10 bar)
Maximum Operating Temperature	120°F (49°C)
Meter Flanges	2" Elliptical or Round Flanges, Class 150
Registers	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
High Flow Registration	100,000,000 Gallons 100 gallons/sweep hand revolution. 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution. 1,000,000 m³ 1 m³/sweep hand revolution.
Low Flow Registration	10,000,000 Gallons 10 gallons/sweep hand revolution. 1,000,000 Cubic Feet 1 cubic ft./sweep hand revolution. 100,000 m³/sweep hand revolution. .1 m³/sweep hand revolution.

MATERIALS

Housing and Cover	Cast Bronze (B81), Low Lead Alloy
Turbo Cast Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearing	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel And Thermoplastic
Measuring Chamber and Disc	Thermoplastic
High Flow Valve	Thermoplastic / Stainless Steel
Magnets	Ceramic
Register Lens	Glass
Register Housing and Cover	Thermoplastic or Bronze
Trim	Stainless Steel

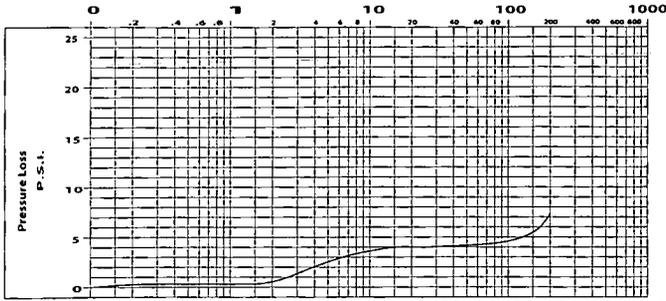


BadgerMeter, Inc.

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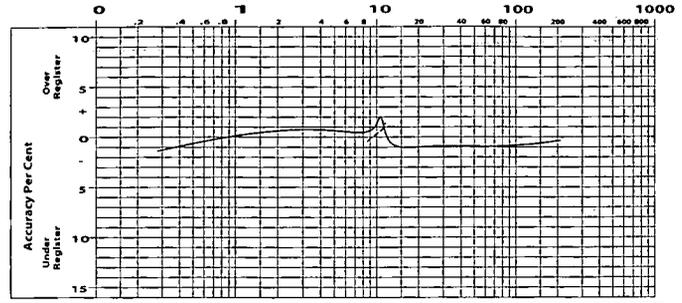
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

Rate of Flow, in Gallons per Minute

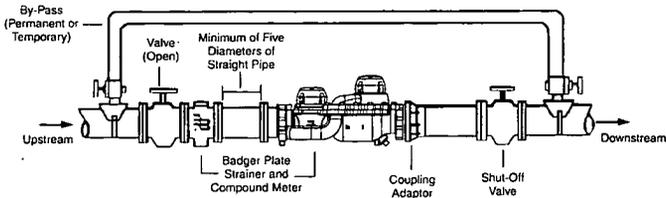
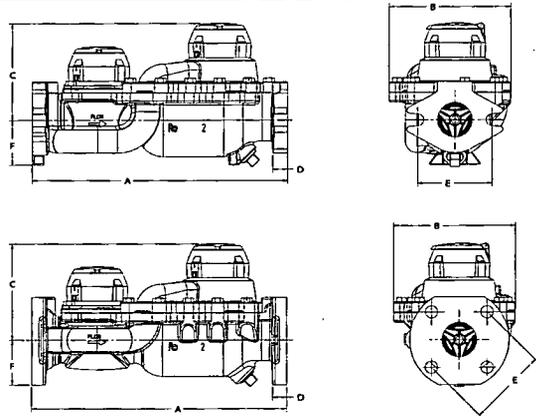


Meter & Pipe Size	DIMENSIONS								
	Length	Width	Height	Flange	Bolt Circle	Centerline	No.	Net	Shipping
	A	B	C	D	E	to F Base	Bolts	Weight	Weight
2" EL (DN 50)	15 1/4" *	7 3/8"	5 7/8"	7/8"	4 1/2"	2 3/4"	2	45 lb. (20.4kg)	63 lb. (28.5kg)
2" RD (DN 50)	15 1/4" *	7 3/8"	5 7/8"	7/8"	4 3/4"	2 3/4"	4	45 lb. (20.4kg)	63 lb. (28.5kg)

* Adapter available to increase total length to 17".

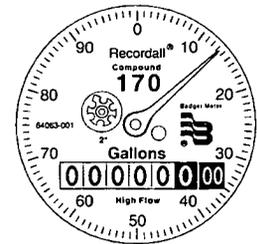
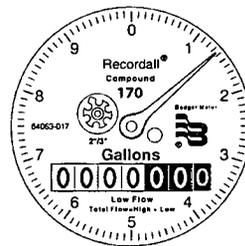
PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger® Compound Series meter.

1. A Strainer IS REQUIRED to insure optimum flow conditioning and protection for the Compound Series meter measuring element.
2. Compound meters, with a strainer, REQUIRE a minimum of five (5) pipe diameters of straight pipe upstream of the meter.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.
5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



LOW FLOW

HIGH FLOW



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Please see our website at
www.badgermeter.com
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BadgerMeter, Inc.

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 (800) 876-3837 / Fax: (888) 371-5982

www.badgermeter.com

DESCRIPTION

Badger Meter offers the Badger® 3" Compound Series meter in Cast Bronze and a Low Lead Alloy. The Low Lead Alloy (Trade Designation: Compound Series LL-NS) version complies with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: At low flow rates, the water is diverted up through a bypass to the disc chamber. Leaving the chamber's outlet port, water flows beyond the turbo and main valve. As the flow rate increases, a pressure differential is created which opens the main valve. The water then flows straight through the turbine chamber in addition to a portion still flowing through the disc chamber before exiting the meter. Rotor and disc movement are transmitted by magnetic drive couplings to individual register odometers.

OPERATING PERFORMANCE: With its' patented design, the Badger® Recordall Compound meter meets or exceeds registration accuracy for low flow rate, normal operating flow rates, maximum continuous operation flow rate, and changeover flow rate as specifically stated in AWWA Standard C702.

CONSTRUCTION: Badger Recordall Compound meter construction which complies with ANSI and AWWA C702 standards, consists of three basic components: meter housing, interchangeable measuring elements and single, sealed direct reading registers. The measuring element consist of the disc measuring chamber, turbo head assembly and high flow valve assembly.

To simplify maintenance, the registers and measuring elements can be removed without removing the meter housing from the installation.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading or remote reading options.

SEALED REGISTERS: The standard registers consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Compound Series meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

METER READING TECHNOLOGIES: The Badger® ORION® and GALAXY® and Itron® ERT® meter reading systems are available for all Recordall Compound Series meters. An optional summator can be provided as an integral part of the register assembly. (See back of sheet for additional information.)

TAMPER-PROOF FEATURES: Tamper resistant register provides protection from unauthorized personnel.

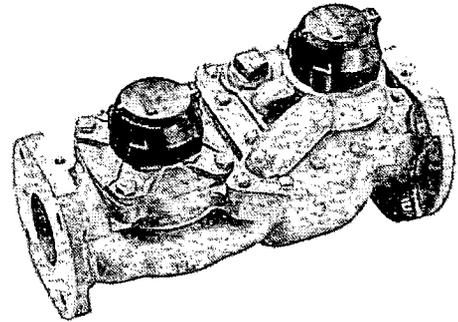
STRAINER: A separate strainer is recommended to protect the measuring element but is not a requirement. See Technical Brief PS-T-1 for strainer dimensions.

MAINTENANCE: Badger Recordall Compound meters are designed and manufactured to provide long-term service with minimal maintenance.

When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

STANDARD: 3/4" drain plug.



SPECIFICATIONS

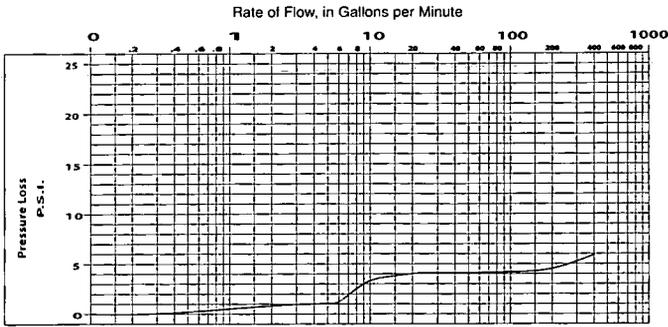
Typical Operating Range	1/2-450 GPM
(100% ± 1.5%)	(0.1 to 102 m³/h)
Low Flow Registration	1/4 GPM (0.06 m³/h)
Maximum Continuous Flow	400 GPM (90.3 m³/h)
Pressure Loss at Maximum Continuous Flow	6.0 PSI at 400 GPM (0.41 bar at 90.3 m³/h)
Pressure Loss at Crossover	4 PSI (0.28 bar)
Minimum Crossover Accuracy	97%
Maximum Operating Pressure	150 PSI (10 bar)
Maximum Operating Temperature	120°F (49°C)
Meter Flanges	3" Round Flanges, Class 150
Registers	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
High Flow Registration	100,000,000 Gallons 100 gallons/sweep hand revolution. 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution. 1,000,000 m³ 1 m³/sweep hand revolution.
Low Flow Registration	10,000,000 Gallons 10 gallons/sweep hand revolution. 1,000,000 Cubic Feet 1 cubic ft./sweep hand revolution. 100,000 m³/sweep hand revolution. .1 m³/sweep hand revolution.

MATERIALS

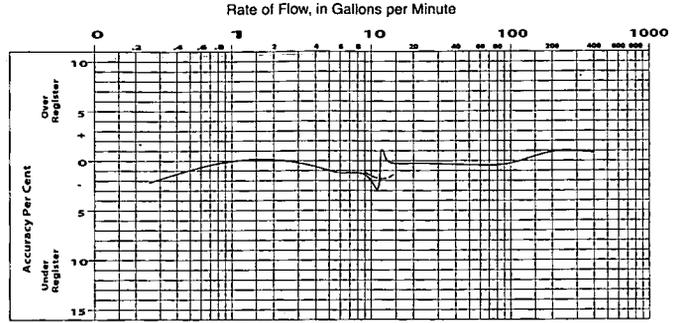
Housing and Cover	Cast Bronze (B81), Low Lead Alloy
Turbo Cast Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearing	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel And Thermoplastic
Measuring Chamber and Disc	Thermoplastic
High Flow Valve	Thermoplastic / Stainless Steel
Magnets	Ceramic
Register Lens	Glass
Register Housing and Cover	Thermoplastic or Bronze
Trim	Stainless Steel



PRESSURE LOSS CHART



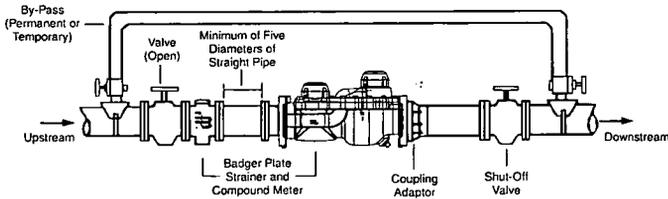
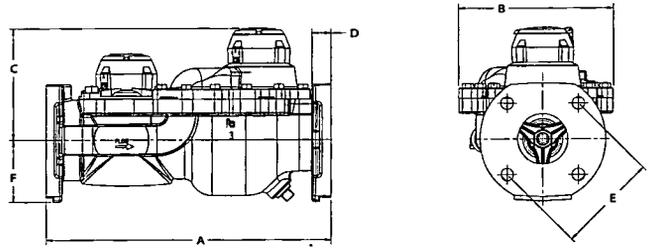
ACCURACY CHART



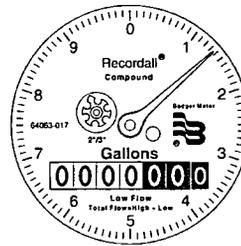
Meter & Pipe Size	DIMENSIONS								
	Length	Width	Height	Flange	Bolt Circle	Centerline	No.	Net	Shipping
3" (DN 80)	A 17" (432mm)	B 9 1/4" (235mm)	C 6 5/8" (168mm)	D 1 1/8" (29.5mm)	E 6" (152mm)	to F Base 3 5/8" (92mm)	Bolts 4	Weight 71.5 lb. (32.4kg)	Weight 99.5 lb. (45kg)

PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger® Compound Series meter.

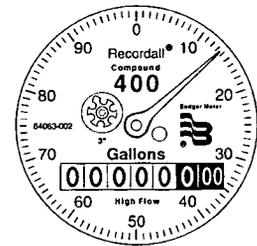
1. A Strainer IS REQUIRED to insure optimum flow conditioning and protection for the Compound Series meter measuring element.
2. Compound meters, with a strainer, REQUIRE a minimum of five (5) pipe diameters of straight pipe upstream of the meter.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.
5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



LOW FLOW



HIGH FLOW



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Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



Please see our website at
www.badgermeter.com
for specific contacts.



BadgerMeter, Inc.

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DESCRIPTION

Badger Meter offers the Badger® 4" Compound Series meter in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Compound Series B81-NS) and the Low Lead Alloy (Trade Designation: Compound Series LL-NS) versions comply with NSF/ANSI Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: At low flow rates, the water is diverted up through a bypass to the disc chamber. Leaving the chamber's outlet port, water flows beyond the turbo and main valve. As the flow rate increases, a pressure differential is created which opens the main valve. The water then flows straight through the turbine chamber in addition to a portion still flowing through the disc chamber before exiting the meter. Rotor and disc movement are transmitted by magnetic drive couplings to individual register odometers.

OPERATING PERFORMANCE: With its patented design, the Badger Recordall Compound meter meets or exceeds registration accuracy for low flow rate, normal operating flow rates, maximum continuous operation flow rate, and changeover flow rate as specifically stated in AWWA Standard C702.

CONSTRUCTION: Badger Recordall Compound meter construction which complies with ANSI and AWWA C702 standards, consists of three basic components: meter housing, interchangeable measuring elements and single, sealed direct reading registers. The measuring element consist of the disc measuring chamber, turbo head assembly and high flow valve assembly.

To simplify maintenance, the registers and measuring elements can be removed without removing the meter housing from the installation.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading or remote reading options.

SEALED REGISTERS: The standard registers consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Compound Series meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

METER READING TECHNOLOGIES: The Itron® ERT®, ORION® and GALAXY® meter reading systems are available for all Badger Recordall Compound Series meters. An optional summator can be provided as an integral part of the register assembly. (See back of sheet for additional information.)

TAMPER-PROOF FEATURES: Tamper resistant register provides protection from unauthorized personnel.

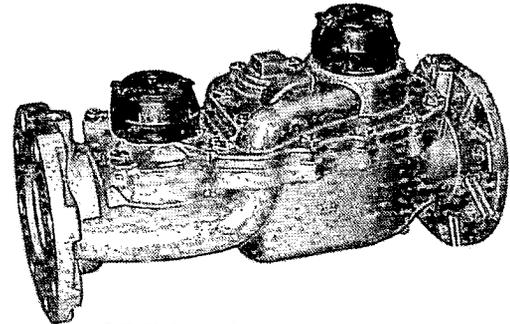
STRAINER: A separate strainer is recommended to protect the measuring element but is not a requirement. See Technical Brief PS-T-1 for strainer dimensions.

MAINTENANCE: Badger Recordall Compound meters are designed and manufactured to provide long-term service with minimal maintenance.

When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

STANDARD: 3/4" drain plug.



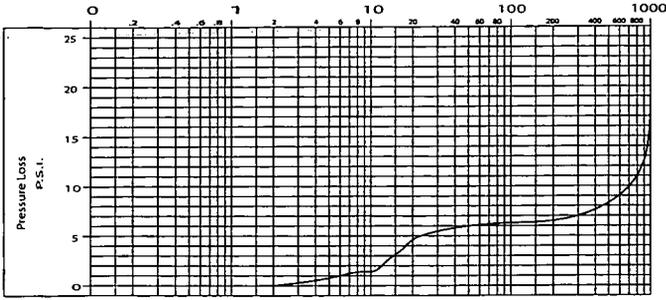
SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	3/4-1000 GPM (0.17 to 227 m³/h)
Low Flow Registration	3/8 GPM (0.09 m³/h)
Maximum Continuous Flow	800 GPM (181.6 m³/h)
Pressure Loss at Maximum Continuous Flow	11.0 PSI at 800 GPM (0.75 bar at 181.6 m³/h)
Pressure Loss at Crossover	4 PSI (0.28 bar)
Minimum Crossover Accuracy	97%
Maximum Operating Pressure	150 PSI (10 bar)
Maximum Operating Temperature	120°F (49°C)
Meter Flanges	4" Round Flanges, Class 150
Registers	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
High Flow Registration	100,000,000 Gallons 100 gallons/sweep hand revolution. 10,000,000 Cubic Feet 10 cubic ft./sweep hand revolution. 1,000,000 m³ 1 m³/sweep hand revolution.
Low Flow Registration	10,000,000 Gallons 10 gallons/sweep hand revolution. 1,000,000 Cubic Feet 1 cubic ft./sweep hand revolution. 100,000 m³/sweep hand revolution. 0.1 m³/sweep hand revolution.
MATERIALS	
Housing and Cover	Cast Bronze (B81), Low Lead Alloy
Turbo Cast Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearing	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel And Thermoplastic
Measuring Chamber and Disc	Thermoplastic
High Flow Valve	Thermoplastic / Stainless Steel
Magnets	Ceramic
Register Lens	Glass
Register Housing and Cover	Thermoplastic or Bronze
Trim	Stainless Steel



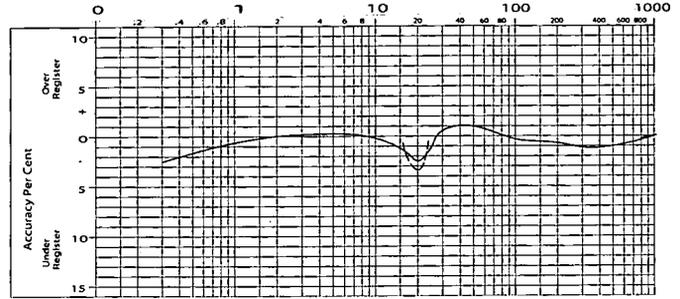
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

Rate of Flow, in Gallons per Minute



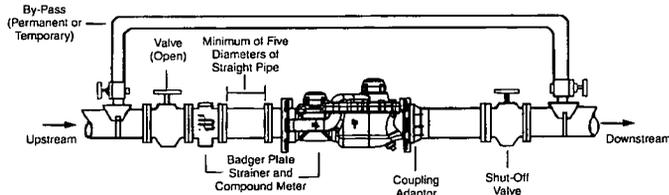
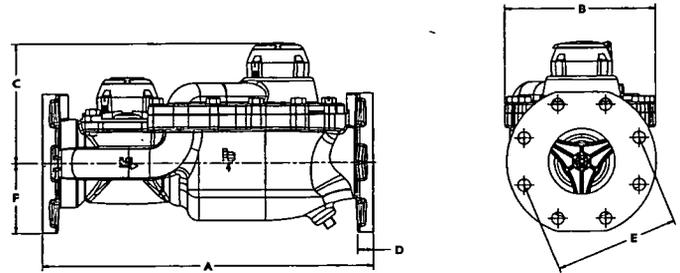
DIMENSIONS

Meter & Pipe Size	Length	Width	Height	Flange	Bolt Circle	Centerline	No.	Net	Shipping
	A	B	C	D	E	to F Base	Bolts	Weight	Weight
4"	20" *	9 1/8"	7 1/4"	1"	7 1/2"	4 1/4"	8	85 lb.	120 lb.
(DN 100)	(508mm)	(232mm)	(184mm)	(25mm)	(190.5mm)	(108mm)	8	(38.4kg)	(53.8kg)

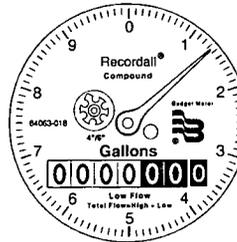
* Adapter available to increase total length to 24".

PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger® Compound Series meter.

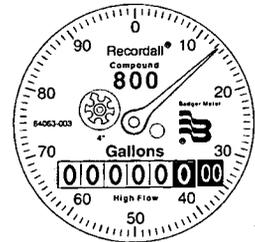
1. A Strainer IS REQUIRED to insure optimum flow conditioning and protection for the Compound Series meter measuring element.
2. Compound meters, with a strainer, REQUIRE a minimum of five (5) pipe diameters of straight pipe upstream of the meter.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.
5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



LOW FLOW



HIGH FLOW



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www.badgermeter.com

DESCRIPTION

Badger Meter offers the Badger 6" Compound Series meter in Cast Bronze and a Low Lead Alloy. The Cast Bronze (Trade Designation: Compound Series B81-NS) and the Low Lead Alloy (Trade Designation: Compound Series LL-NS) versions comply with NSF/ANSI Standard 61, Annex G and carry the NSF-61 Mark on the product.

APPLICATIONS: For use in measurement of potable cold water in commercial and industrial services where flow is in one direction only.

OPERATION: At low flow rates, the water is diverted up through a bypass to the disc chamber. Leaving the chamber's outlet port, water flows beyond the turbo and main valve. As the flow rate increases, a pressure differential is created which opens the main valve. The water then flows straight through the turbine chamber in addition to a portion still flowing through the disc chamber before exiting the meter. Rotor and disc movement are transmitted by magnetic drive couplings to individual register odometers.

OPERATING PERFORMANCE: With its patented design, the Badger Recordall Compound meter meets or exceeds registration accuracy for low flow rate, normal operating flow rates, maximum continuous operation flow rate, and changeover flow rate as specifically stated in AWWA Standard C702.

CONSTRUCTION: Badger Recordall Compound meter construction which complies with ANSI and AWWA C702 standards, consists of three basic components: meter housing, interchangeable measuring elements and single, sealed direct reading registers. The measuring element consist of the disc measuring chamber, turbo head assembly and high flow valve assembly.

To simplify maintenance, the registers and measuring elements can be removed without removing the meter housing from the installation.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading or remote reading options.

SEALED REGISTERS: The standard registers consists of a straight-reading odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provide long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading and close proximity systems are available for all Compound Series meters. (See back of sheet for additional information.) All reading options are removable from the meter without disrupting water service.

METER READING TECHNOLOGIES: The Badger ORION®, GALAXY® and Itron® ERT® meter reading systems are available for all Recordall Compound Series meters. An optional summator can be provided as an integral part of the register assembly. Refer to the back page for additional information.

TAMPER-PROOF FEATURES: Tamper resistant register provides protection from unauthorized personnel.

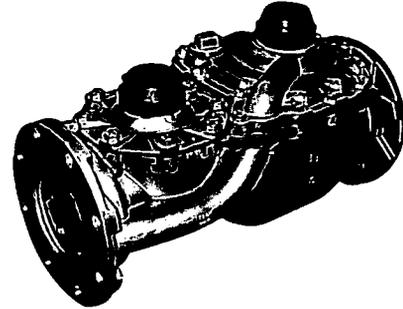
STRAINER: A separate strainer is recommended to protect the measuring element but is not a requirement. See Technical Brief PS-T-1 for strainer dimensions.

MAINTENANCE: Badger Recordall Compound meters are designed and manufactured to provide long-term service with minimal maintenance.

When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Companion flanges for installation of meters on various pipe types and sizes are available in cast iron or bronze as an option.

STANDARD: 3/4" drain plug.



SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	3/4-2000 GPM (0.17 to 454.4 m³/h)
Low Flow Registration	3/8 GPM (0.09 m³/h)
Maximum Continuous Flow	1500 GPM (340.5 m³/h)
Pressure Loss at Maximum Continuous Flow	9.3 PSI at 1500 GPM (0.64 bar at 340.5 m³/h)
Pressure Loss at Crossover	5 PSI (0.35 bar)
Minimum Crossover Accuracy	95%
Maximum Operating Pressure	150 PSI (10 bar)
Maximum Operating Temperature	120°F (49°C)
Meter Flanges	6" Round Flanges, Class 150
Registers	Straight reading, permanently sealed magnetic drive standard. Automatic Meter Reading and Close Proximity units optional.
High Flow Registration	1,000,000,000 Gallons 1,000 gallons/sweep hand revolution. 100,000,000 Cubic Feet 100 cubic ft./sweep hand revolution. 1,000,000 m³ 1 m³/sweep hand revolution.
Low Flow Registration	10,000,000 Gallons 10 gallons/sweep hand revolution. 1,000,000 Cubic Feet 1 cubic ft./sweep hand revolution. 100,000 m³/sweep hand revolution. .1 m³/sweep hand revolution.

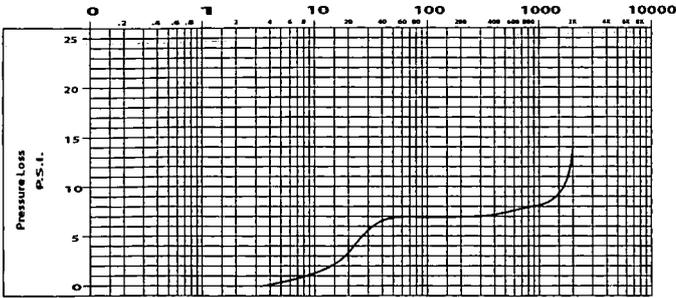
MATERIALS

Housing and Cover	Cast Bronze (B81), Low Lead Alloy
Turbo Cast Head	Cast Bronze (B81), Low Lead Alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearing	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel And Thermoplastic
Measuring Chamber and Disc	Thermoplastic
High Flow Valve	Thermoplastic / Stainless Steel
Magnets	Ceramic
Register Lens	Glass
Register Housing and Cover	Thermoplastic or Bronze
Trim	Stainless Steel



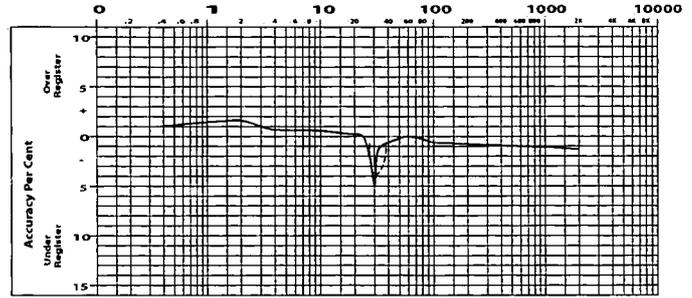
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

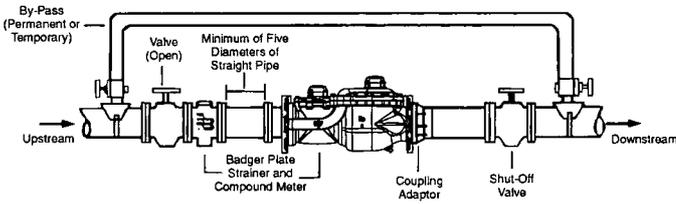
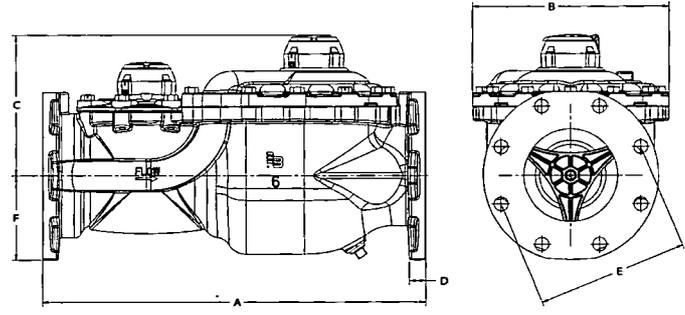
Rate of Flow, in Gallons per Minute



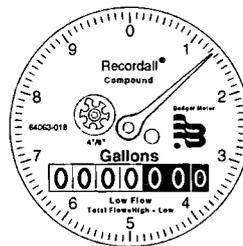
Meter & Pipe Size	DIMENSIONS								
	Length A	Width B	Height C	Flange D	Bolt Circle E	Centerline to F Base	No. Bolts	Net Weight	Shipping Weight
6" (DN 150)	24" (610mm)	12-3/8" (314mm)	8-7/8" (225mm)	1" (25mm)	9-1/2" (241mm)	5-3/8" (137mm)	8	152 lb. (68.7 kg)	200 lb. (90.4 kg)

PROPER INSTALLATION: The following installation guidelines will insure optimum field performance and reliability when installing a Badger® Compound Series meter.

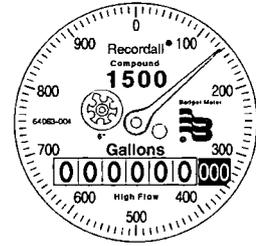
1. A Strainer IS REQUIRED to insure optimum flow conditioning and protection for the Compound Series meter measuring element.
2. Compound meters, with a strainer, REQUIRE a minimum of five (5) pipe diameters of straight pipe upstream of the meter.
3. ONLY full-open gate valves should be used immediately upstream of the meter. Butterfly valves MUST be five (5) pipe diameters or more upstream of the meter. Full-open gate or butterfly valves can be used downstream.
4. DO NOT install pressure reducing devices or check valves upstream of the meter.
5. Unweighted check valves MUST be located at least three (3) pipe diameters downstream of the meter.
6. Pressure reducing devices and externally weighted check valves MUST be located at least five (5) pipe diameters downstream of the meter.



LOW FLOW



HIGH FLOW



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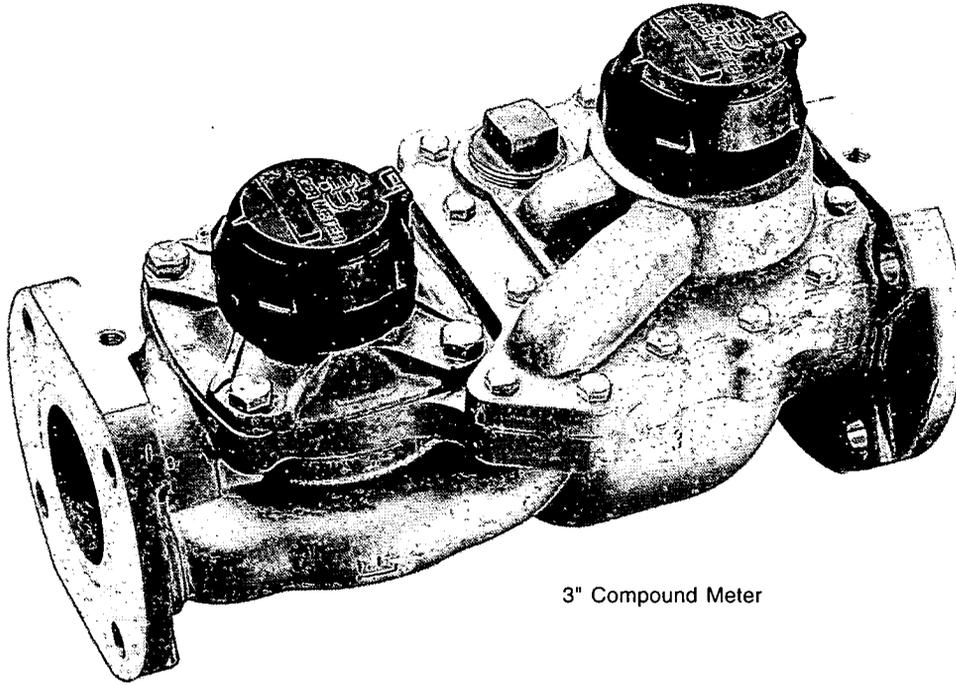
P.O. Box 245036, Milwaukee, WI 53224-9536
(800) 876-3837 / Fax: (888) 371-5982

www.badgermeter.com

**Recordall®
Compound Series
Meter**

Sizes 2", 3", 4", and 6"

**Repair
Parts**



3" Compound Meter

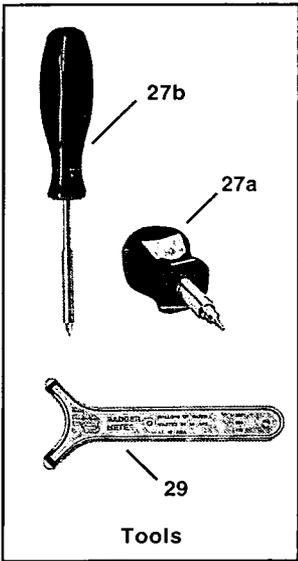
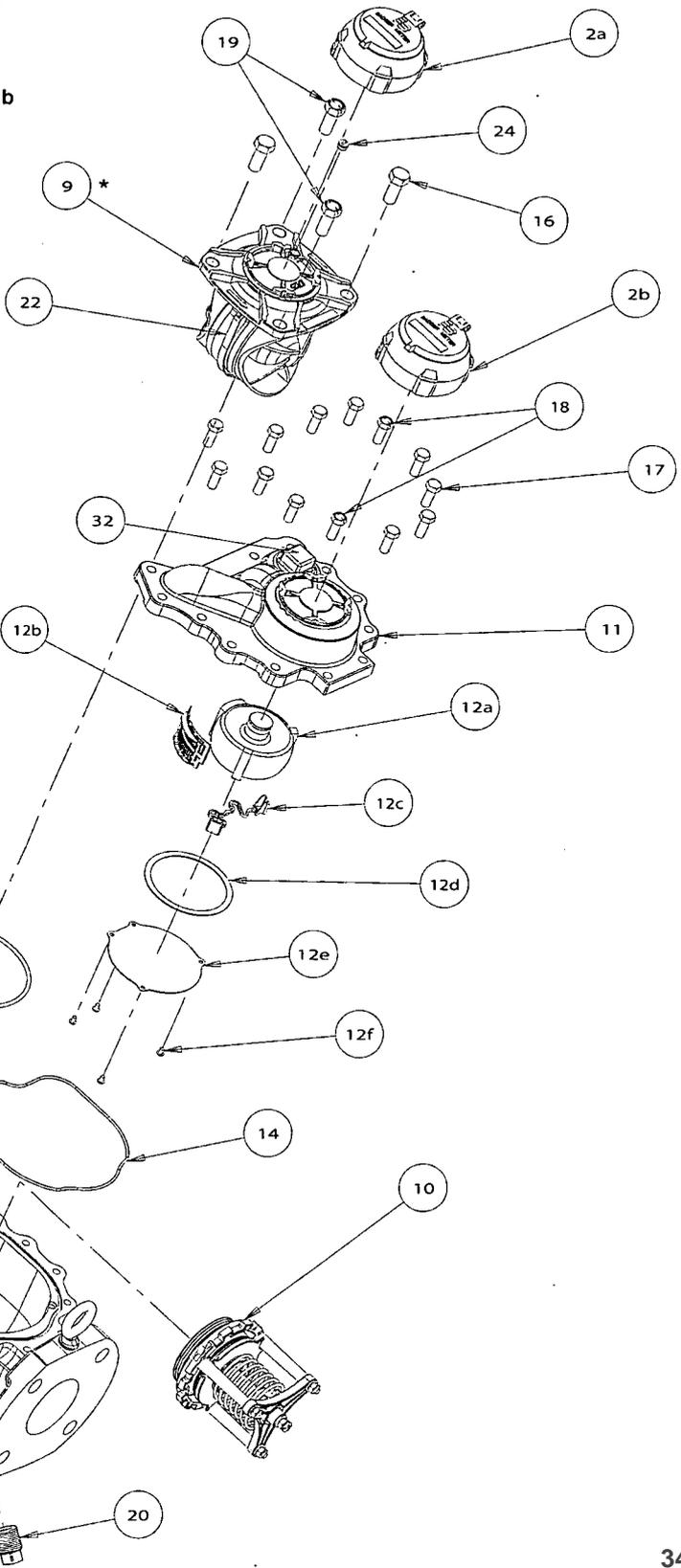
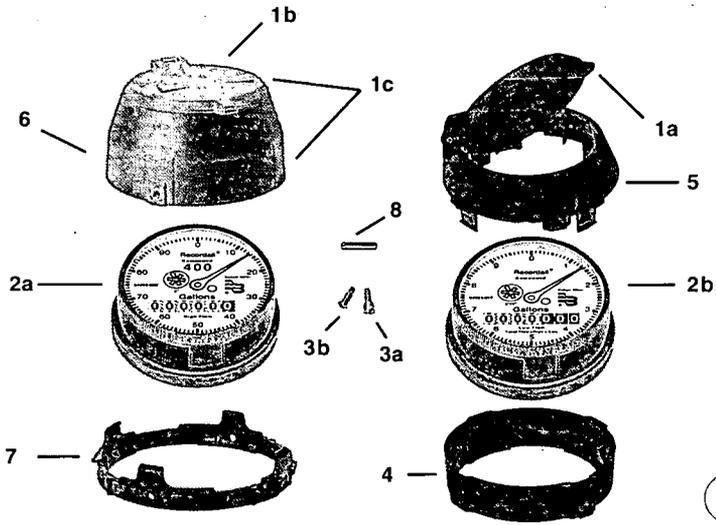
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BadgerMeter, Inc.

RCS-P-1
344 397 546

Badger Meter Compound Series Meter



* See Turbo Series Repair Parts List RTS-P-1 for Exploded View of Assembly.

Parts List Sizes 2", 3", 4" and 6"

Item No.	Name of Part	Part Numbers			
		2"	3"	4"	6"
1a	Flat Lid (Plastic)	62278-001	62278-001	62278-001	62278-001
1b	Flat Lid (Bronze)	62353-001	62353-001	62353-001	62353-001
1c	Flat Lid and Shroud (Bronze)	62616-001	62616-001	62616-001	62616-001
2a	High Flow Register, 100 Gal. T. C.	64063-001	64063-002	64063-003	----
2a	High Flow Register, 10 Cubic Ft. T.C.	64063-005	64063-006	64063-007	----
2a	High Flow Register, 1 Cubic Meter T. C.	64063-009	64063-010	64063-011	----
2a	High Flow Register, 1000 Gal. T.C.	----	----	----	64063-004
2a	High Flow Register, 100 Cubic Ft. T.C.	----	----	----	64063-008
2a	High Flow Register, 10 Cubic Meter T.C.	----	----	----	64063-012
2b	Low Flow Register, 10 Gal. T.C.	64063-017	64063-017	64063-018	64063-018
2b	Low Flow Register, 1 Cubic Ft. T.C.	64063-019	64063-019	64063-020	64063-020
2b	Low Flow Register, 0.1 Cubic Meter	64063-021	64063-021	64063-022	64063-022
3a	Screw Tamper-resistant, standard	62335-001	62335-001	62335-001	62335-001
3b	Tamper Resistant TORX® Seal Screw	62516-001	62516-001	62516-001	62516-001
4	Plastic Shroud (Bottom Half)	62279-001	62279-001	62279-001	62279-001
5	Plastic Shroud (Top Half)	62280-001	62280-001	62280-001	62280-001
6	Bronze Shroud (For Flat Lid)	62442-001	62442-001	62442-001	62442-001
7	Pls. Insert for Flat Lid Brz. Shroud	62455-001	62455-001	62455-001	62455-001
8	Flat Lid Hinge Pin	59568-003	59568-003	59568-003	59568-003
9	Head Assembly Turbo	62755-005	62755-002	62755-006	62755-003
10	Valve Assembly	64128-001	64066-001	64131-001	64134-001
	Door Seal - Valve Assembly (Not Illustrated)	64075-001	64075-002	----	----
11a	Machined Cover (81 Metal)	64107-001	64070-001	64111-001	64115-001
11b	Machined Cover (EB2)	64107-002	64070-002	64111-002	64115-002
12a	Chamber Assembly	33334-023	33334-023	33334-056	33334-056
12b	Screen	64081-001	64081-001	64142-001	64142-001
12c	Chamber Strap	58540-001	58540-001	58540-001	58540-001
12d	Gasket	11071-033	11071-033	59782-001	59782-001
12e	Cover Plate	64080-001	64080-001	64141-001	64141-001
12f	Screw	55115-001	55115-001	55115-002	55115-002
13	O-Ring EPDM,	64083-006	64083-002	64083-008	64083-010
14	O-Ring EPDM,	64083-007	64083-003	64083-009	64083-011
15	Lock Pawl	64078-001	64078-001	64078-001	64078-001
16	Bolt Hex. Hd.	55031-060	55031-116	55031-116	55031-117
17	Bolt Hex. Hd.	55031-060	55031-060	55031-116	55031-117
18	Seal Bolt Hex. Hd.	25421-043	25421-043	25421-034	25421-044
19	Seal Bolt Hex. Hd.	25421-043	25421-034	25421-034	25421-044
20	Drain Plug	33879-015	33879-015	33879-015	33879-015
21	Housing (Round Flanges) (81 Metal)	64105-001	64068-001	64109-001	64113-001
21a	Housing (Round Flanges) (EB2)	64105-002	64068-005	64109-003	64113-003
21b	Housing (Elliptical Flanges) (81 Metal)	64127-001	----	----	----
21c	Housing (Elliptical Flanges) (EB2)	64127-002	----	----	----
22	Cage Seal	62924-001	62924-002	62924-002	62924-003
23	O-Ring	62754-002	62754-003	62754-003	62754-004
24	Calibration Plug	62793-001	62793-001	62793-001	62793-001
25	Lifting Ring (optional)	62736-001	62736-001	62736-001	62736-001
26	Dummy Cover Plate (Not Illustrated)	63190-001	63190-001	63194-001	63194-001
27a	Torx Seal Screw Driver and Bit (Stubby)	62658-001	62658-001	62658-001	62658-001
27b	Torx Seal Screw Driver and Bit (Long)	62658-003	62658-003	62658-003	62658-003
28	Torx Seal Screw Driver Bit (Not Illustrated)	62657-001	62657-001	62657-001	62657-001
29	Plastic Shroud Disassembly Tool	62346-001	62346-001	62346-001	62346-001
30	Flange Adapter Kit (2" Elliptical Fl.)	64186-001	----	----	----
30	Flange Adapter Kit (Round Fl.)	64186-002	----	64186-003	----
31	Door Seal Replacement Tool Kit	64201-001	64201-001	----	----
32	Test Plug	33879-014	33879-014	33879-012	33879-012

For RTR Assemblies - Please contact factory.

NOTE: For prices, see Repair Parts List S-3541. When ordering, give model, size, complete part description and part number.



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BadgerMeter, Inc.

P.O. Box 245036, Milwaukee, WI 53224-9536
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PRODUCTS COVERED

This warranty shall apply to the Recordall® Combo Meters, size 8" and the local registers and encoders used with these meters (collectively "Product"), sold on or after November 1, 2011. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger Meter warrants the Product to be free from defects in materials and workmanship appearing within the earlier of either: One (1) year after installation or one (1) year and six (6) months after shipment from Badger Meter.

HOUSINGS

Bronze meter housings are warranted to retain their structural integrity appearing within the earlier of either: One (1) year after installation; or one (1) year and six (6) months after shipment from Badger Meter.

LOCAL REGISTERS

Badger Meter local registers for the Disc Series Meter which are supplied with the Recordall Combo Meters listed herein are warranted to function appearing within the earlier of either: Twenty-five (25) years after installation or twenty-five (25) years and six (6) months after shipment from Badger Meter.

Badger Meter local registers for the 8" Turbo Series Meter which are supplied with the Recordall Combo Meters listed herein are warranted to function appearing within the earlier of either: Five (5) years after installation; or five (5) years and six (6) months after shipment from Badger Meter.

ADE® and RTR® ENCODERS

The Badger Meter ADE and RTR encoders are supplied with the meters listed herein are warranted to function appearing within the earlier of either: Ten (10) years after installation or ten (10) years and six (6) months after shipment from Badger Meter.

METER ACCURACY

The meters are warranted to meet or exceed accuracy standards of AWWA Standard C702-01 appearing within the earlier of either: One (1) year after installation or one (1) year and six (6) months after shipment from Badger Meter.

PRODUCT RETURNS

Any Product proved to Badger Meter's satisfaction to have failed the foregoing warranties will, at Badger Meter's option, be repaired or replaced without charge to the Customer. Badger Meter's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter's receiving written notice of any alleged defect within ten (10) days after its discovery.

This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger Meter is willing and able to replace defective Products to Customer within a reasonable time after receipt of proof that a defect is involved. Product returns must be shipped by the Customer prepaid F. O. B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger Meter. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with AWWA Standard C702-01 and the AWWA M6 manual. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Product technical literature and Installation and Operation Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger Meter's reasonable control. With respect to equipment and parts not manufactured by Badger Meter, the warranty obligations of Badger Meter shall in all respects conform and be limited to the warranty extended to Badger Meter by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Product, whether in writing or made orally by Badger Meter or Badger Meter's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Badger Meter or Badger Meter's agents regarding use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger Meter's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger Meter's liability shall in no event exceed the contract price. **BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.**

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DESCRIPTION

THE 8" RECORDALL COMBO METER ASSEMBLY consists of a stainless steel spool with bypass port, a 8" Recordall® Turbo Series Meter with AWWA class II measuring chamber, a Check Valve with by-pass piping, valves, and a M120 Recordall Disc Meter. The Meter Assembly is designed to measure both low flow domestic use and high volume usage through a single water supply line.

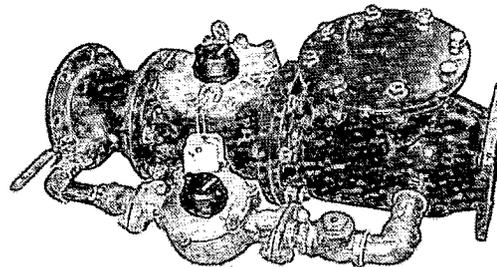
INSTALLATION is made similar to placing a length of flanged end pipe in the line. The 175 lb. AWWA Class "D" steel flanged end design permits use in a wide range of applications. The meter must have a full flow of liquid for proper accuracy. It must be installed in horizontal applications only.

TURBINE METER: Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to a vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around a vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application.

CHECK VALVE is a spring loaded check valve on the downstream side of the clapper to hold the clapper in a normally closed position. Small water flows by-pass the clapper and are registered on the 1½" by-pass meter. This allows for accurate registration of domestic use. When a major flow is required, the water pressure will overcome the mechanical advantages of the spring loaded clapper and push it open, permitting full pipe capacity flow during high flow demand. A small amount of water will continue to flow through the by-pass when the spring loaded clapper is fully open. The check valve contains dual bypass ports, allowing an extra 2" NPT connection as a test port.

BY-PASS LINE consists of piping with a 1½" Recordall Model 120 Disc Meter, an isolation valve, and back flow preventing check valve. The by-pass line can be installed on the right hand side (as shown) or left hand side when specified.



SPECIFICATIONS

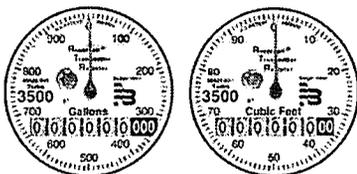
Typical Operating Range (100% ± 1.5%)	2½-4500 GPM.
Maximum Operating Pressure	150 PSI.
Maximum Operating Temperature	105° F.
Typical Low Flow (95% MIN.)	1 ¼ GPM.
Maximum Continuous Operation	3500 GPM.
Maximum Intermittent Flow	4500 GPM.
Pressure Loss at Maximum Continuous Operation	6.3 PSI.

MATERIALS

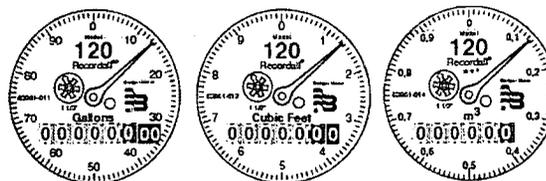
Nose Cone and Straightening Vanes	thermoplastic
Rotor	thermoplastic
Rotor Radial Bearings	lubricated thermoplastic
Rotor Thrust Bearings	sapphire jewels
Rotor Bearing Pivots	passivated 316 stainless steel
Calibration Mechanism Magnet	stainless steel and thermoplastic ceramic
Register Lid and Shroud Trim	thermoplastic, bronze stainless steel
By-Pass Measuring Chamber meter housing	injection molded thermoplastic fusion bonded epoxy coated ductile cast iron
BY-PASS METER HOUSING	cast bronze (B81), Low Lead Alloy (LL)
Clapper	stainless steel
Clapper Spring	stainless steel
Clapper Hinge & Pins	stainless steel
Clapper Seal	elastomer, EPDM
Valve Seat	cast brass
Valve Body and Cover Plate	fusion bonded epoxy coated steel
Valve Cover Plate Gasket	elastomer sheet
By-Pass	Water works brass piping conforming to AWWA C800
Spool Body	Stainless steel, with stainless steel bypass port. Standard steel flange connections (ANSI/AWWA C-207 class D) with zinc chromate plating
Optional Equipment	Includes transmitters with remote read capabilities, companion flanges, and various pipe sizes are available in CI or bronze.
Shipping Weight	357 pounds shipped fully assembled.
Certification	Valve conforms to UL 312 and FM 1045. Turbine meter measuring chambers are AWWA class II. Disc meter conforms to AWWA C700.
Ordering Info	Must be specified by the customer and includes: Size, minimum & maximum flow range, totalizer dial units, optional equipment desired. Standard side for by-pass meter is right hand (shown above) unless specified otherwise.



8" RECORDALL® COMBO METER



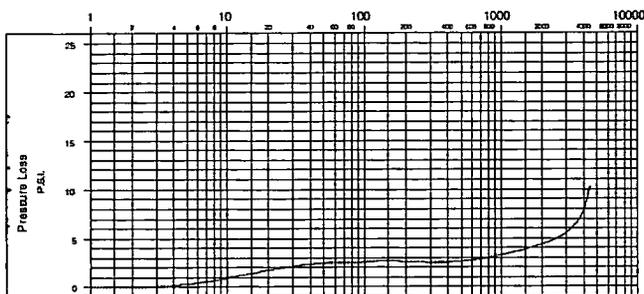
Mainline Registers



By-Pass Registers

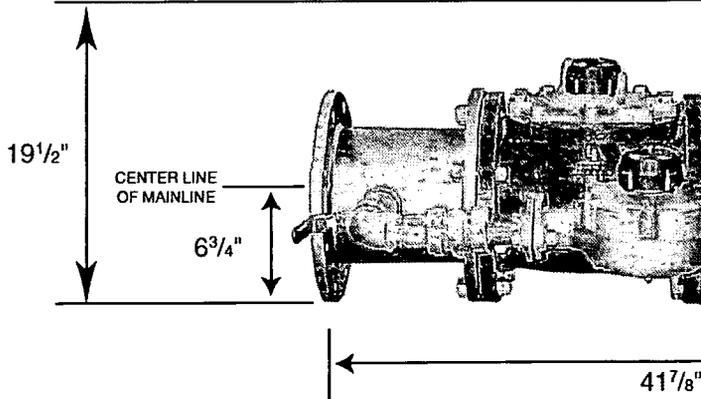
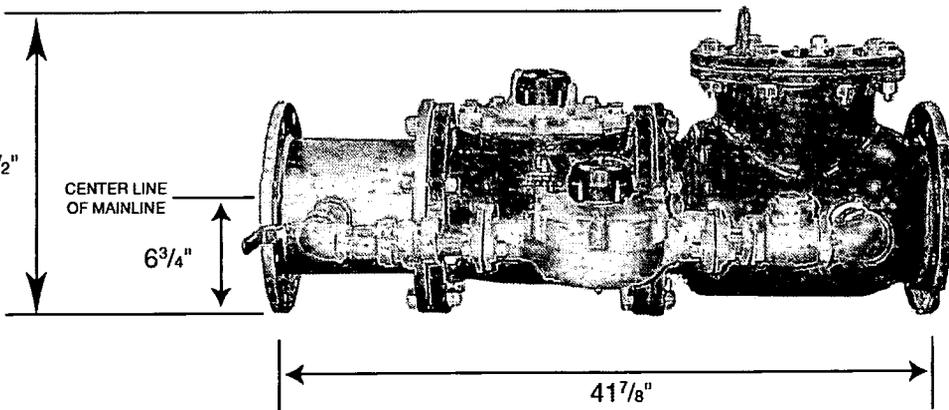
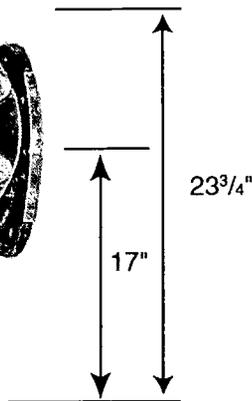
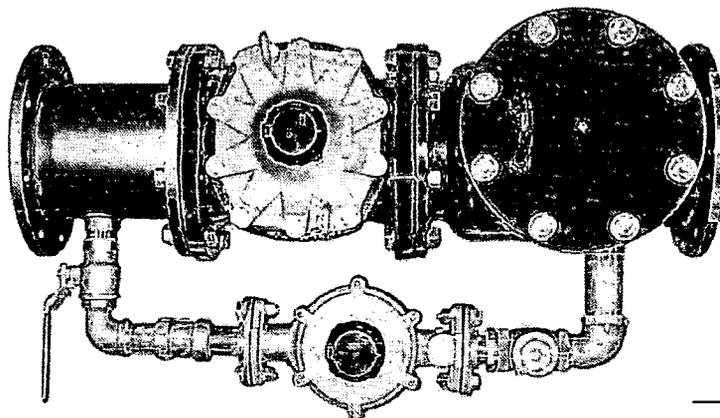
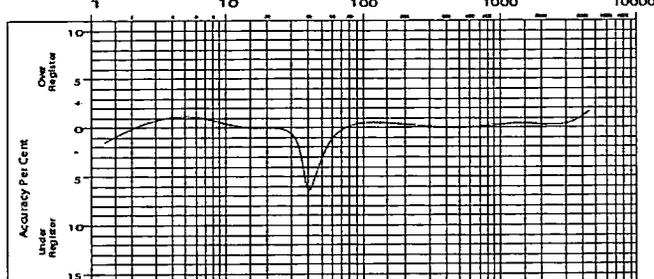
PRESSURE LOSS CHART

Rate of Flow, in Gallons per Minute



ACCURACY CHART

Rate of Flow, in Gallons per Minute



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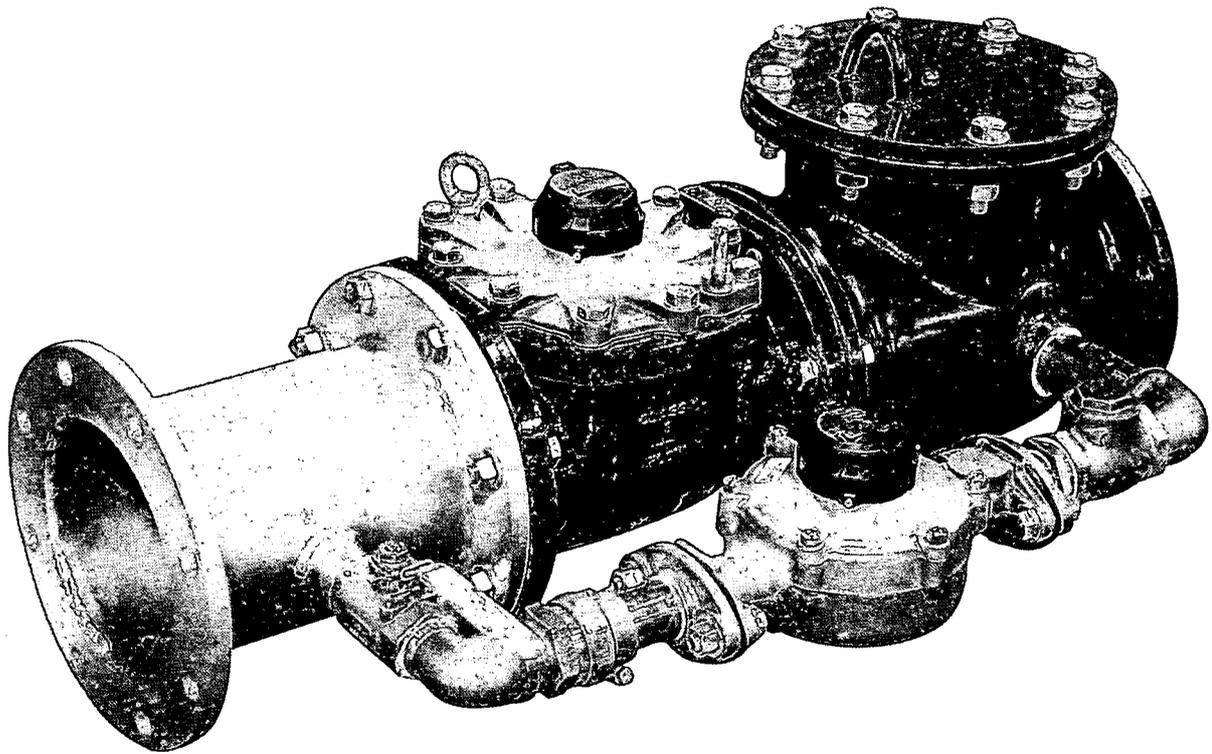
BadgerMeter, Inc.

P.O. Box 245036, Milwaukee, WI 53224-9536
 (800) 876-3837 / Fax: (888) 371-5982
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Cold Water
Recordall®
Combo Meter

Size 8" (DN 200mm)

Repair
Parts

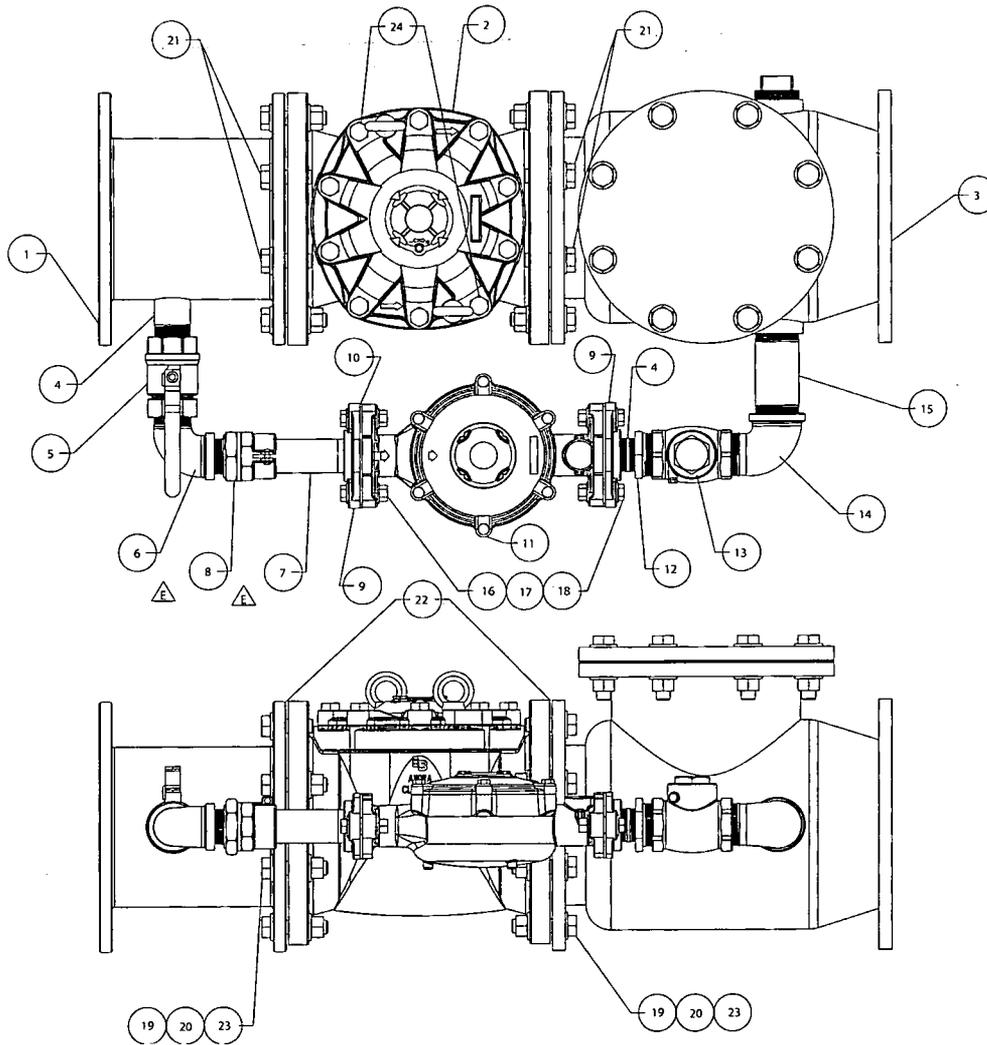


BadgerMeter, Inc.

RCM-P-1

352 546

RCM

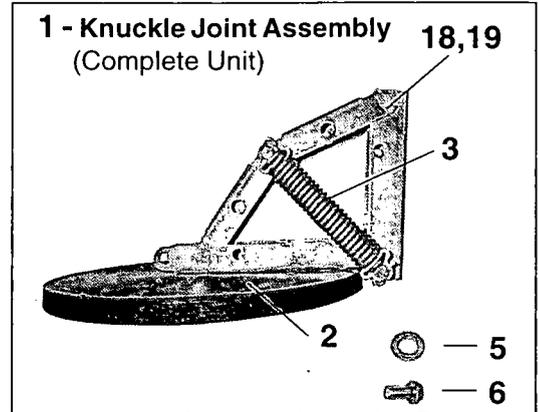
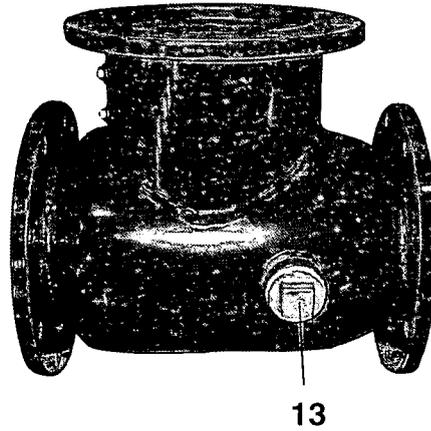
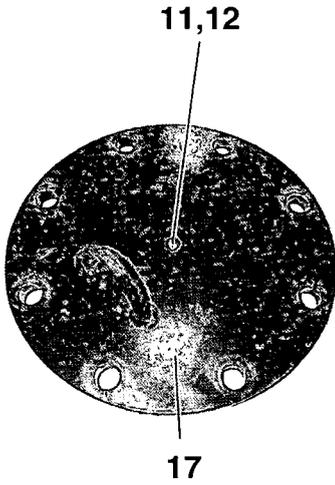
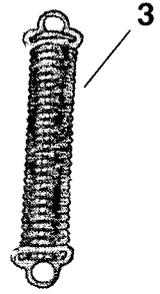
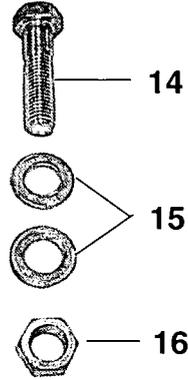
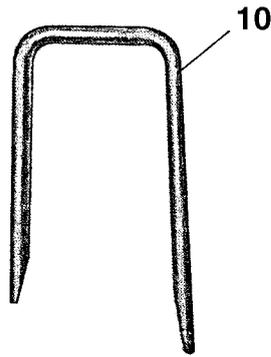
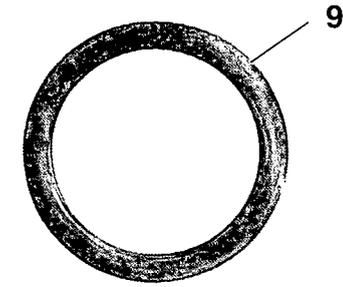


Item	Part Number	Description	Item	Part Number	Description
1	63893-001	Spool Piece (Lay length 9 7/8")	13	26506-007	2" Swing Check Valve
1	63893-002	Spool Piece (Lay length 11 7/8")	14	65046-001	Street Elbow 2"
2	-----	8" CI Turbo Series - combo	15	14711-152	2" x 4 1/2" Nipple
3	63889-003	8" Check Valve	16	55026-174	Bolt 5/8-11 x 2 1/4" (4 required)
4	14711-137	Close Nipple 1.5" (2 required)	17	55001-061	Nut 5/8-11 (4 required)
5	26506-011	Locking Ball Valve	18	55254-019	Washer 5/8 (8 required)
6	65046-002	Street Elbow 1.5"	19	55026-204	Bolt 3/4-10 x 3 (16 required)
7	63886-008	Nipple 1.5" x 6" - 1 Thd	20	55001-062	Nut 3/4-10 (12 required)
8	63887-007	Repair Coupling - 1.5" long	21	55031-201	Hex Head Bolt 3/4-10 x 2 1/4 (4 required)
9	20551-000	Threaded Flange 1.5" (2 required)	22	11071-012	Gasket Circular - 8" (2 required)
10	03240-000	Gasket Elliptical 1.5" (2 required)	23	55254-021	Washer 3/4 (28 required)
11	-----	M120 Disc Series Ellip Long - Bypass Meter	24	58088-004	Seal Bolt (2 required)
12	22779-031	2" x 1.5" Bushing			

For Turbo Meter (item 2) Service Parts, see Repair Parts RTS-P-1.

For Disc Meter (item 11) Service Parts, see Repair Parts RD-P-5.

Check Valve



Items 5 and 6 assemble to housing on opposite side of housing as pictured.

ITEMNO.	PART	8"
1	Knuckle Joint Assembly - (Complete Unit)	63892-003
2	Clapper Plate with attached Link	63892-006
3	Spring - 4", 6" (2 required), 8", 10" (3 required)	63892-008
5	Neoprene Washer (2 required)	63892-017
6	3/8" Stainless Steel Bolt (2 required)	55030-166
7	Bronze Seat (replaceable in line) (not pictured)	63892-011
8	Seat O-ring (not pictured)	63892-016
9	Gasket	63892-021
10	Check Removal Tool	63892-024
11	Vent Screw	65006-001
12	Nylon Washer	63892-018
13	Drain Plug	33879-005
14	Bolt	55026-204
15	Washer	55254-021
16	Nut	55001-062
17	Cover	63892-038
18	Clapper Retainer Clip (Wire Style)	63892-012
19	Clapper Retainer Clip (E-Ring)	63892-013



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Badger Meter Warranty For Strainers

Badger Meter



PRODUCTS COVERED

This warranty shall apply to all strainers, sizes 2" through 20" ("Product"), sold on or after August 1, 2006. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. ("Badger®") distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger warrants Product to be free from defects in materials and workmanship appearing within the earlier of either: One (1) year after installation; or one (1) year and six (6) months after shipment from Badger.

HOUSINGS

Strainer housings are warranted to retain their structural integrity appearing within the earlier of either: One (1) year after installation; or one (1) year and six (6) months after shipment from Badger.

PRODUCT RETURNS

Any Product proved to Badger's satisfaction to have failed the foregoing warranties will, at Badger's option, be repaired or replaced without charge to the Customer. Badger's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger is willing and able to replace defective products or issue a credit to purchaser within a reasonable time of proof to Badger that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by others than Badger. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Product technical literature and Installation, Operation, Instruction Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger's reasonable control. With respect to Product not

manufactured by Badger, the warranty obligations of Badger shall in all respects conform and be limited to the warranty extended to Badger by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Product, whether in writing or made orally by Badger or Badger's agents, specifications, samples, literature, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Badger or Badger's agents regarding use, application or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger's liability with respect to breaches of the foregoing warranty shall be limited as stated therein. Badger's liability shall in no event exceed the contract price. BADGER SHALL NOT BE SUBJECT TO AND DISCLAIM: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.

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Badger Meter Inc., 4545 W. Brown Deer Road, P.O. Box 245036, Milwaukee, Wisconsin 53224-9536

DESCRIPTION

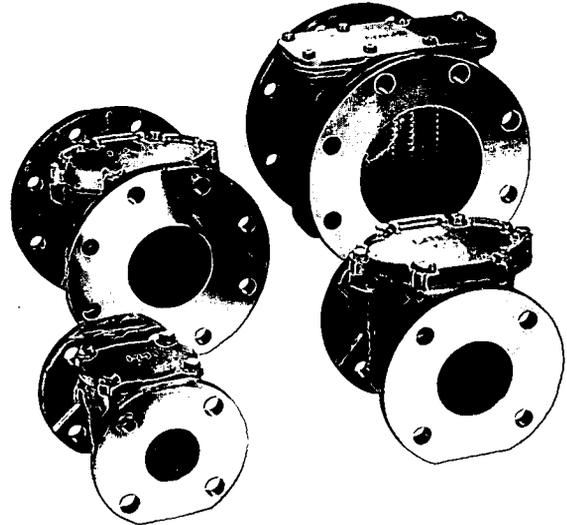
Badger Meter offers dual flange plate strainers, sizes 2" thru 6", in cast bronze and a low lead alloy. The low lead alloy (Trade Designation: Plate Strainer LL-NS) version of the 2" & 3" sizes complies with ANSI/NSF Standard 61, Annex G and carries the NSF-61 Mark on the product. In the 4" & 6" sizes, the Cast Bronze (Trade Designation: Plate Strainer B81-NS) and the Low Lead Alloy (Trade Designation: Plate Strainer LL-NS) versions comply with ANSI/NSF Standard 61, Annex G and carry the NSF-61 Mark on the product.

FEATURES: Badger plate strainers exceed AWWA standards with an effective screening area to minimize flow restrictions to meters. The straining area is double the inlet to turbo and compound meter cases. Badger strainers also reduce turbine rotor bearing loading and resultant wear to maintain and extend accurate meter registration, by minimizing velocity profile distortion caused by changes in pipe direction or valving. For added flexibility, these strainers are compatible for all makes of meters. The rubber head O-Ring or gasket is reusable to reduce replacement part costs. The screen is removable to clean the strainer in the service line. All sizes have a drain plug incorporated.

SCREENS: Made of non-corrosive 316 stainless steel with 3/16" or 1/4" perforations to effectively strain any larger foreign matter, and can be easily removed and cleaned.

CONSTRUCTION: The strainers are offered in (2) configurations. The standard model has a housing made of cast bronze (B81) material. The other configuration incorporates a housing made of a Low Lead Alloy. The second configuration, with the Low Lead Alloy housing, complies with the ANSI/NSF Standard 61, Annex G and carries the NSF-61 mark on the product.

HYDROSTATICALLY TESTED MATERIALS: Housings are designed and individually tested to withstand 150 psi maximum working pressure and 300 psi static pressure.



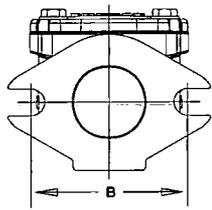
SPECIFICATIONS

Sizes and Configurations	2" Dual elliptical flange 2" Dual round flange 3" Dual round flange 4" Dual round flange 6" Dual round flange Compatible to any ASA 125 flange
Maximum Working Pressure	150 psi (10 bar)
Static Test Pressure	300 psi (20 bar)
Screen Area Ratio	Minimum 2 to 1 ratio of meter inlet
Screen	Removable in-line service
Screen Perforations	3/16" holes for 2", 3" and 4" strainers
Drain Plug	1/4" holes for 6" strainer
Recommended Applications	1/2" or 3/4" - 14 NPT removable in-line service Recordall Turbo Series, Recordall Compound Series, and other makes of meters

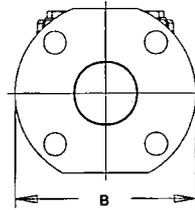
MATERIALS

Strainer Housing	Cast Bronze, Low Lead Alloy
Housing Cover	Bronze, Low Lead Alloy
Housing Cover Seal	Rubber
Strainer Screen	Stainless Steel
Drain Plug	Bronze, Low Lead Alloy
Housing Bolts	Stainless Steel

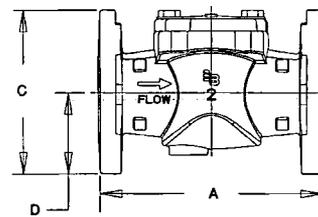




DUAL ELLIPTICAL FLANGE

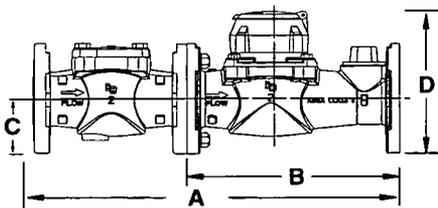


DUAL ROUND FLANGE



STRAINER TYPE	NOMINAL SIZE (Inches)	DIMENSIONS						FLANGE (Inches)		NET WT. (lbs)
		A	B	C	D	DRAIN PLUG (NPT)	HSG. BOLT DIA.	NO. MTG. HOLES	HOLE DIA.	
Dual Ellip. Flange	2 (50mm)	7 (178mm)	4 1/2 (114mm)	4 7/8 (122mm)	1 7/8 (48mm)	---	3/8-16	2	13/16 (21mm)	11 (5.0kg)
Dual Round Flange	2 (50mm)	7 (178mm)	6 (152mm)	5 1/2 (140mm)	2 5/8 (66mm)	---	3/8-16	4	3/4 (19mm)	14 (6.3kg)
	3 (80mm)	7 (178mm)	7 1/2 (190mm)	7 1/4 (184mm)	3 5/8 (92mm)	---	1/4-20	4	3/4 (19mm)	22 (9.9kg)
	4 (100mm)	9 (229mm)	9 (229mm)	8 3/4 (223mm)	4 3/8 (112mm)	---	3/8-16	8	3/4 (19mm)	35 (16kg)
	6 (150mm)	9 (229mm)	11 (279mm)	11 (279mm)	5 1/2 (140mm)	3/4"-14	3/8-16	8	7/8 (22mm)	59 (26.5kg)

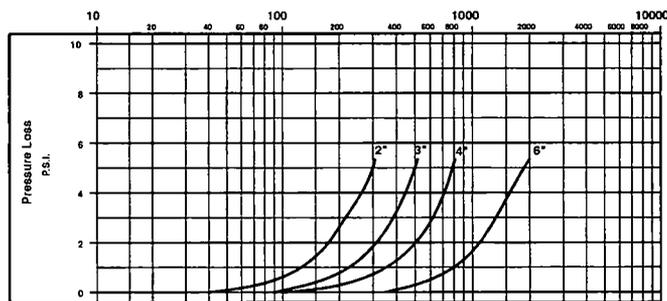
RECORDALL TURBO/STRAINER**



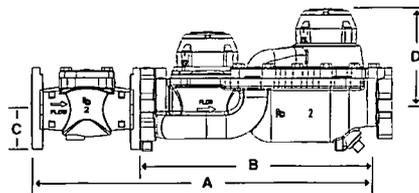
METER SIZE

DIM.	2"	3"	4"	6"
A	17 (432mm)	19 (482mm)	23 (584mm)	27 (686mm)
B	10 (254mm) RD	12 (305mm)	14 (355mm)	18 (457mm)
C	2 5/8 (66mm) EL 2 1/16 (52mm) RD	3 3/8 (92mm)	4 3/8 (112mm)	5 1/2 (140mm)
D	7 19/64 (185mm) EL 6 23/32 (170mm)	8 23/32 (221mm)	9 21/32 (245mm)	12 9/16 (319mm)

FLOW RATE VS. PRESSURE LOSS



RECORDALL COMPOUND/STRAINER**



METER SIZE

DIM.	2"	3"	4"	6"
A	22 1/4 (560mm)	24 (609mm)	29 (737mm)	33 (838mm)
B	15 1/4 (387mm)	17 (432mm)	20 (508mm)	24 (609mm)
C	2 5/8 (66mm)	3 3/8 (92mm)	4 3/8 (112mm)	5 1/2 (140mm)
D	5 7/8 (149mm)	6 5/8 (168mm)	7 1/4 (184mm)	8 7/8 (225mm)

** Badger Meter recommends a distance of five (5) pipe diameters between the strainer and the meter. (See individual meter installation, operation and maintenance manual.)

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Please see our website at
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BadgerMeter, Inc.

P.O. Box 245036, Milwaukee, WI 53224-9536
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Model ML-MS Plate Strainers

Sizes 8", 10", 12", 16" and 20"
Fabricated Steel

Technical Brief

DESCRIPTION

SERVICE RECOMMENDATION: Dual-flange plate strainers are recommended for Recordall® turbo meters. Compactly designed to conserve space, 8", 10", 12", 16" and 20" sizes effectively strain foreign matter from pipe lines to protect and extend the service life of water meters.

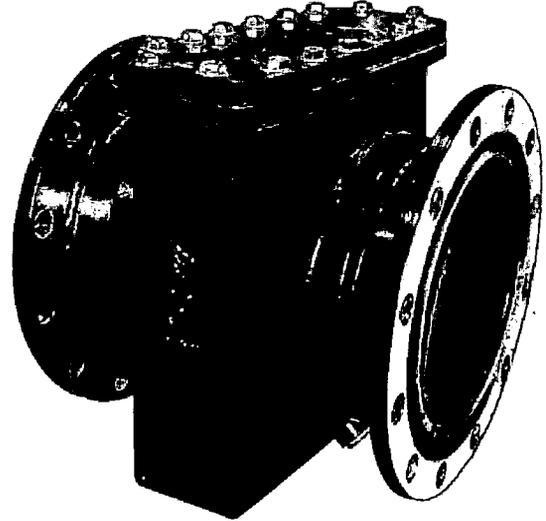
FEATURES: Fabricated steel plate strainers exceed AWWA standards with an effective screening area to minimize flow restrictions and turbulence to meters. The straining area is double the inlet to turbo meter cases. Strainers also reduce turbine rotor bearing loading and resultant wear to maintain and extend accurate meter registration, by minimizing velocity profile distortion caused by changes in pipe direction or valving. For added flexibility, these strainers are compatible for all makes of meters. The screen is removable to clean the strainer in the service line.

SCREENS: Made of non-corrosive stainless steel to effectively strain all foreign matter, and can be easily removed and cleaned. Screen configuration directs debris to the bottom of the strainer to minimize flow restriction and velocity profile distortion.

CONSTRUCTION: The housing and cover are made of fabricated steel.

HYDROSTATICALLY TESTED MATERIALS: Housings are designed and individually tested to withstand 150 psi maximum working pressure.

STRAINER PIPE SIZE	HEAD LOSS P.S.I	@ G.P.M.
8	1.0	2000
10	1.1	3000
12	1.4	4000



SPECIFICATIONS

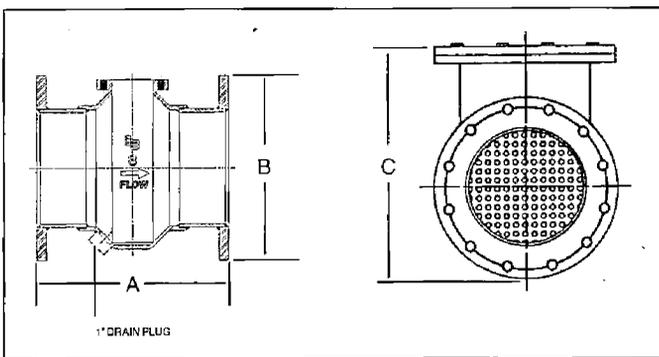
Configuration	Dual round flange Compatible to any ASA 125 flange
Maximum Working Pressure	150 psi (10 bar)
Screen Area Ratio	Minimum 2 to 1 ratio of meter inlet
Screen	Removable in-line service
Screen Perforations	5/32" holes (8"-12") 1/4" holes (16"-20")
Recommended Applications	Recordall® Turbo meters and other makes of meters
Protection	Internal and external 12-15 mils of fusion bonded epoxy coating
Drain Plug	1" NPT for 8" 1-1/2" NPT for 10" 2" NPT for 12" 3" NPT for 16" and 20"

MATERIALS

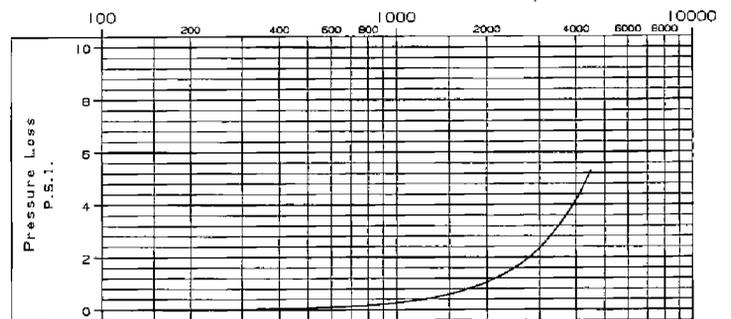
Strainer Housing	Fabricated Steel
Housing Cover	Fabricated Steel
Housing Cover Gasket	Rubber
Strainer Screen	Stainless Steel
Housing Bolts	Carbon Steel (Zinc Plated)



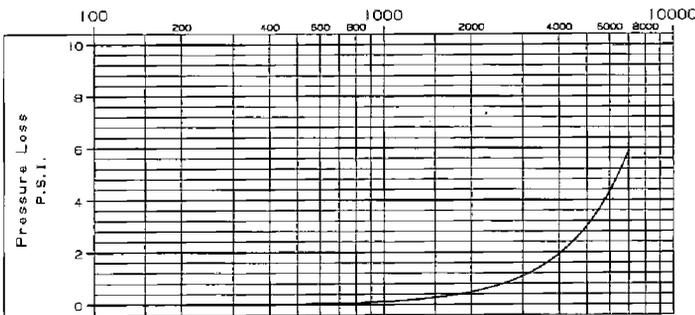
STRAINER TYPE	NOMINAL SIZE (INCHES)	DIMENSIONS			FLANGE Per AWWA C207 Class D			NET WEIGHT (IBS.)
		A	B	C	BOLT CIRCLE	NO. MOUNTING HOLES	BOLT SIZE	
Dual Round	8" (200 mm)	14" (356 mm)	13 1/2" (343 mm)	16 1/4" (413 mm)	11 3/4" (298 mm)	8	3/4" (20 mm)	128 lbs. (58 Kg)
	10" (250 mm)	16" (406 mm)	16" (406 mm)	19 7/8" (505 mm)	14 1/4" (362 mm)	12	7/8" (22 mm)	180 lbs. (82 Kg)
Flange	12" (300 mm)	19" (480 mm)	19" (480 mm)	23" (584 mm)	17" (432 mm)	12	7/8" (22 mm)	265 lbs. (120 Kg)
	16" (406 mm)	24 1/4" (616 mm)	23 1/2" (597 mm)	25 7/8" (657 mm)	21 1/4" (540 mm)	16	1" (25 mm)	420 lbs. (190 Kg)
	20" (500 mm)	24 1/4" (616 mm)	27 1/2" (699 mm)	29 3/8" (746 mm)	25" (635 mm)	20	1 1/8" (29 mm)	545 lbs. (247 Kg)



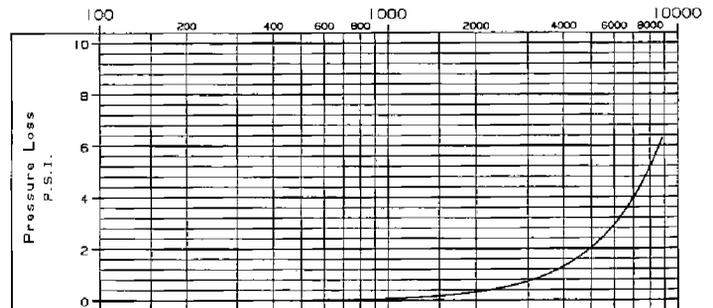
DUAL ROUND FLANGE



8" FLOW RATE VS. PRESSURE LOSS



10" FLOW RATE VS. PRESSURE LOSS



12" FLOW RATE VS. PRESSURE LOSS

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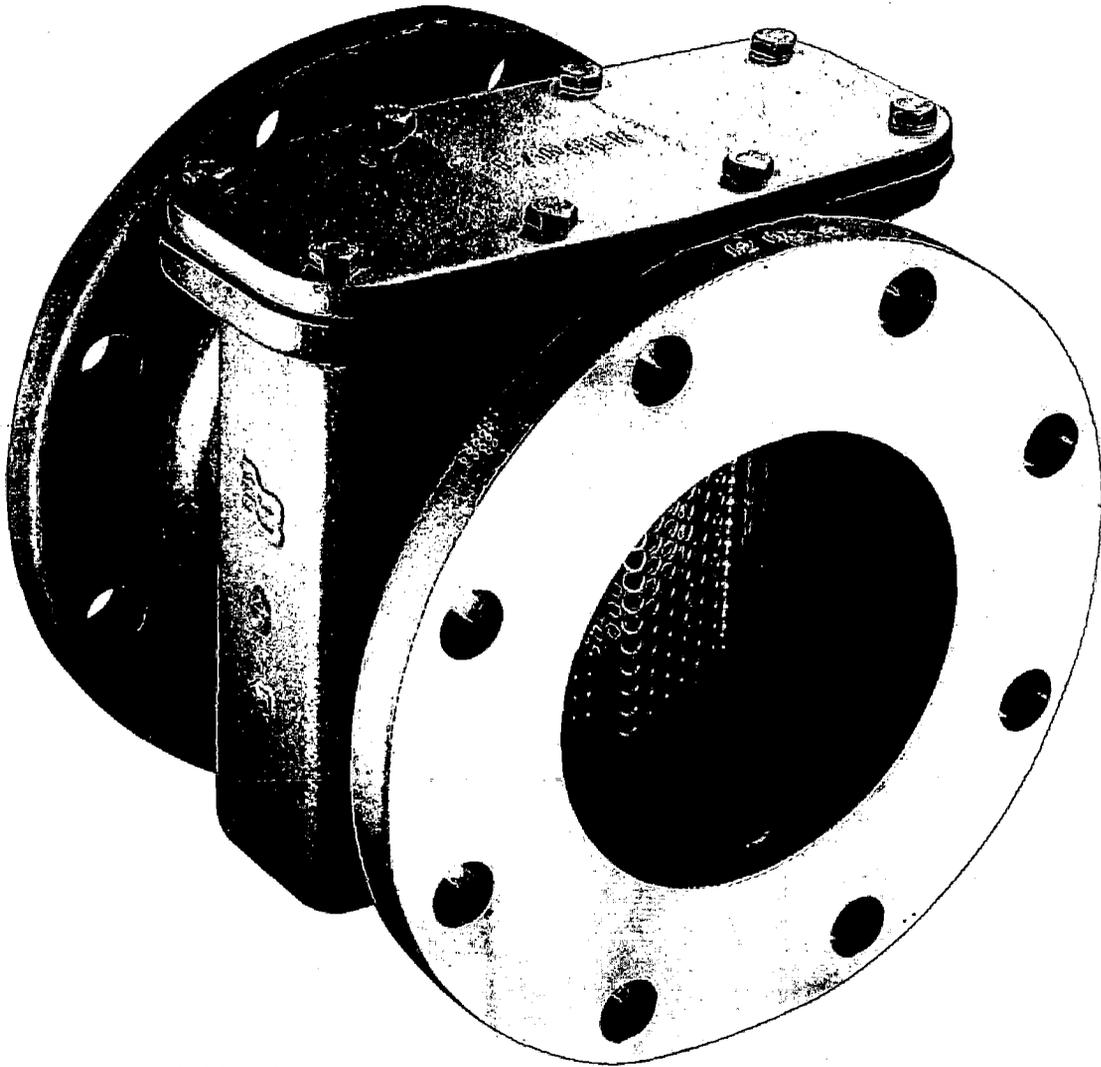
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Badger® Bronze
Plate Strainers

Sizes 2", 3", 4" and 6"

Repair
Parts



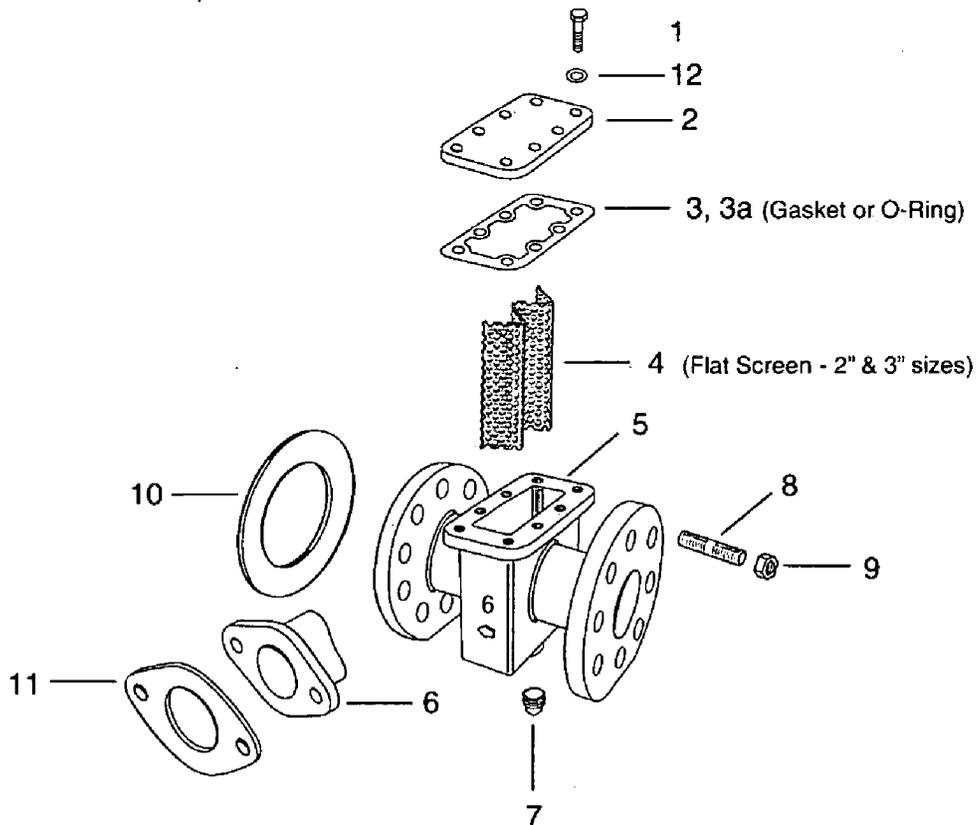
6" Plate Strainer



BadgerMeter, Inc.

RS-P-2
361 66546

ITEM NO.	NAME OF PART	PART NUMBERS			
		2"	3"	4"	6"
1	Bolt, Housing, Hex. Head	55031-060	55031-062	55031-062	55031-062
2	Cover	63233-001	63281-001	63281-001	58999-001
2	Cover (For Low Lead Strainers)	63233-003	63281-003	63281-003	58999-001
3a	O-Ring (NSF, Non-NSF Strainers)	22650-050	22650-051	22650-051	-----
3	Gasket	-----	-----	-----	59001-001
3	Gasket for NSF Listed Strainers	-----	-----	-----	59001-002
4	Screen Plate	63277-001	63283-002	63285-001	65580-001
5	Housing, Dual Flange, Round (Bronze)	63295-001	64151-001	63320-001	58998-001
5	Housing, Dual Flange, Round (Low Lead)	63295-003	64151-003	63320-003	58998-003
6	Housing, Dual Flange, Elliptical (Bronze)	63296-001	-----	-----	-----
6	Housing, Dual Flange, Elliptical (Low Lead)	63296-003	-----	-----	-----
7	Plug, Drain, (Low Lead)	-----	-----	-----	33879-018
7	Plug, Drain (Stainless Steel)	33879-013	33879-013	33879-013	-----
8	Studs	58586-001	58586-003	58586-002	58586-004
9	Nuts	55005-034	55005-034	55005-034	55007-035
10	Gasket, Flange, Round	11071-008	11071-009	11071-010	11071-011
11	Gasket, Flange, Elliptical	3241-000	-----	-----	-----
12	Washer	24991-044	24991-044	24991-044	-----



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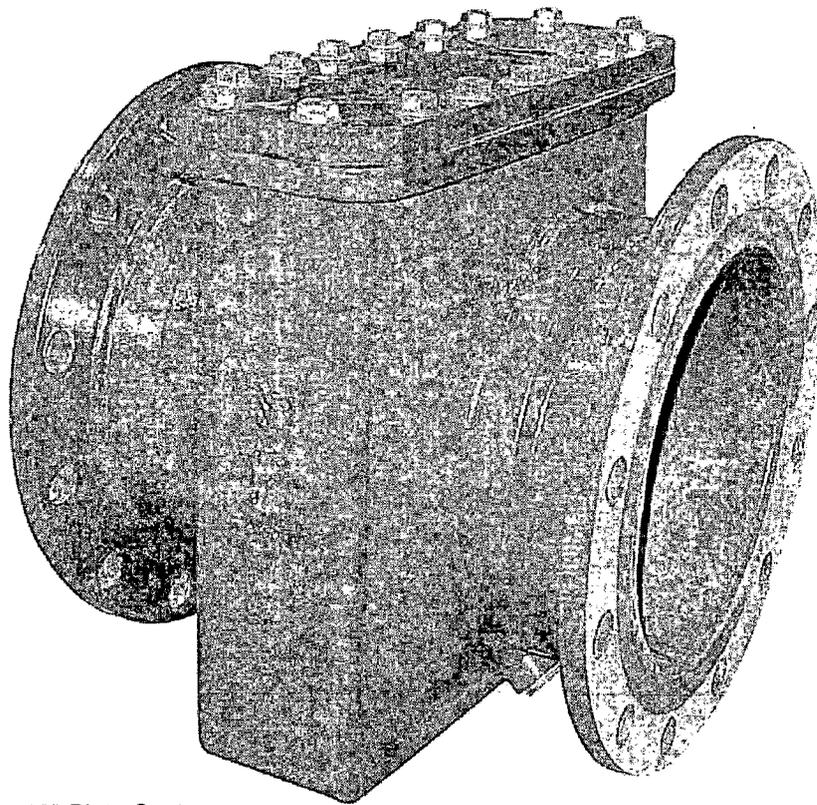
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**Badger® Bronze
Plate Strainers**

Sizes 8", 10", 12", 16" and 20"

**Repair
Parts**



10" Plate Strainer

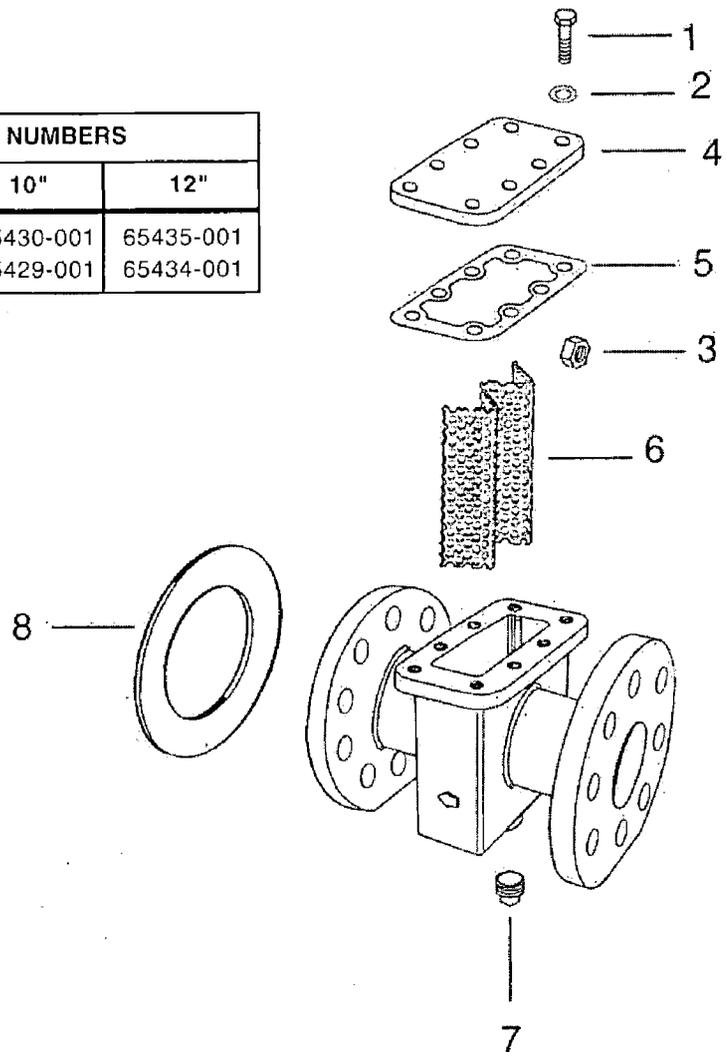


ITEM NO.	NAME OF PART	PART NUMBERS				
		8"	10"	12"	16"	20"
1	Bolt, Housing (Threaded Holes)	55026-118	55026-173	55026-173	55026-172	-----
1	Bolt, Housing (Non-Threaded Holes)	-----	-----	-----	55026-177	55026-180
2	Washer	55254-017	55254-019	55254-019	55254-019	55254-019
3	Nut (Non-Threaded Holes)	-----	-----	-----	55001-061	55001-061
4	Cover	63892-049	63892-053	63892-056	63892-047	63892-059
5	Cover Seal, Gasket or O-Ring	63892-050	63892-052	63892-055	63892-033	63892-058
6	Screen	63892-048	63892-051	63892-054	63892-046	63892-057
7	Plug, Drain	33879-019	33879-020	33879-021	33879-022	33879-022
8	Gasket, Flange	11071-012	11071-013	11071-014	11071-043	11071-044
9	Vent Screw (Not Pictured)	65006-001	65006-001	65006-001	65006-001	65006-001
10	Vent Screw Washer	63892-018	63892-018	63892-018	63892-018	63892-018

All of the above components for 2007 strainers and newer.

ITEM NO.	NAME OF PART	PART NUMBERS		
		8"	10"	12"
5	Cover Seal, Gasket or O-Ring .	65151-001	65430-001	65435-001
6	Screen	65219-001	65429-001	65434-001

All of the above components for strainers pre-2007.



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Badger Meter Warranty For Absolute Digital Encoder (ADE®)

Badger Meter



PRODUCTS COVERED

This warranty shall apply to the Absolute Digital Encoder (ADE®) ("Product"), sold on or after August 1, 2006. The warranty is extended only to utilities, municipalities, other commercial users, and authorized Badger Meter, Inc. ("Badger®") distributors, hereinafter referred to as "Customer", and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger warrants the Product to be free from defects in materials and workmanship appearing within the earlier of either: Ten (10) years after installation; or ten (10) years and six (6) months after shipment from Badger.

PRODUCT RETURNS

Any Product proved to Badger's satisfaction to have failed the foregoing warranties will, at Badger's option, be repaired or replaced without charge to the Customer. Badger's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger is willing and able to replace defective Products to Customer within a reasonable time after receipt of proof that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with Badger's instructions. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Product technical literature and Installation and Operation Manuals (IOMs), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger's reasonable control. With respect to equipment and parts not manufactured by Badger, the warranty

obligations of Badger shall in all respects conform and be limited to the warranty extended to Badger by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Product, whether in writing or made orally by Badger or Badger's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by Badger or Badger's agents regarding use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by Badger.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger's liability shall in no event exceed the contract price. **BADGER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL, AND CONTINGENT DAMAGES WHATSOEVER.**

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.

Badger® is a registered trademark of Badger Meter, Inc.
ADE™ is a trademark of Badger Meter, Inc.

Badger Meter Inc., 4545 W. Brown Deer Road, P.O. Box 245036 Milwaukee, Wisconsin 53224-9536

Description

Applications: The Absolute Digital Encoder (ADE®) is designed for use with all Recordall® Disc, Turbo, Compound and Fire Service meters to provide connectivity with ORION®, Badger® ERT®, BadgerTouch® and Badger Meter approved AMR technology solutions.

Electronic Resolution: Digital output from the ADE includes the option of either four, five or six dial resolution. Refer to tables on the next page for details.

Mounting: The ADE in its shroud assembly uses a bayonet mount compatible with all Recordall Disc, Turbo, Compound and Fire Series meters. The bayonet mount allows positioning of the register in any of four orientations for visual reading convenience. The ADE can be removed from the meter without disrupting water service.

Magnetic Drive: A direct-drive, high-strength magnetic coupling through the meter body to the wetted magnet provides reliable and dependable register coupling.

Local Indication: The ADE register face features a six-digit mechanical odometer wheel stack, a 360° test circle with sweep hand, and a flow finder to indicate leaks.

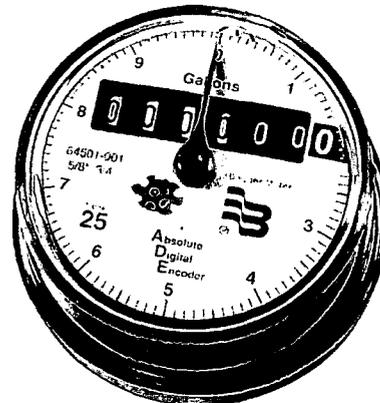
Tamper-Resistant Features: Unauthorized removal of the ADE is inhibited by a tamper resistant Torx® seal screw, provided as a standard accessory with the ADE. An optional tamper detection seal wire screw is also available.

Construction: The housing of the ADE is constructed of a strengthened glass lens top and a corrosion-resistant metal bottom. Internal construction materials are thermoplastic for long life and high reliability. The register gearing is self-lubricating thermoplastic to minimize friction and provide long, reliable life. The shroud assembly is thermoplastic.

Temperature: The operating range of the ADE is -40° C to 60° C (-40°F to 140°F). The water meter should not be subjected to temperatures below freezing.

Sealing: The ADE achieves true water resistance due to the adhesive technology used to seal the glass dome to the corrosion resistant metal bottom. Leak rates less than 10⁻⁶ cc/sec, as tested by a helium mass spectrometer, are comparable to a true hermetic seal. Due to this unique sealing process, the ADE exceeds all applicable requirements of AWWA Standard C707 regarding moisture intrusion.

Wire Connections: The ADE is available with either a wire lead, fully potted to prevent moisture intrusion at the connections, or with terminal screws. When provided with a wire lead, the ADE may be pre-wired at the factory to select Badger Meter-approved AMR devices, or may be furnished with a variety of lead wire lengths. Lead wire equipped ADE registers are suitable for installation in all environments,



Specifications

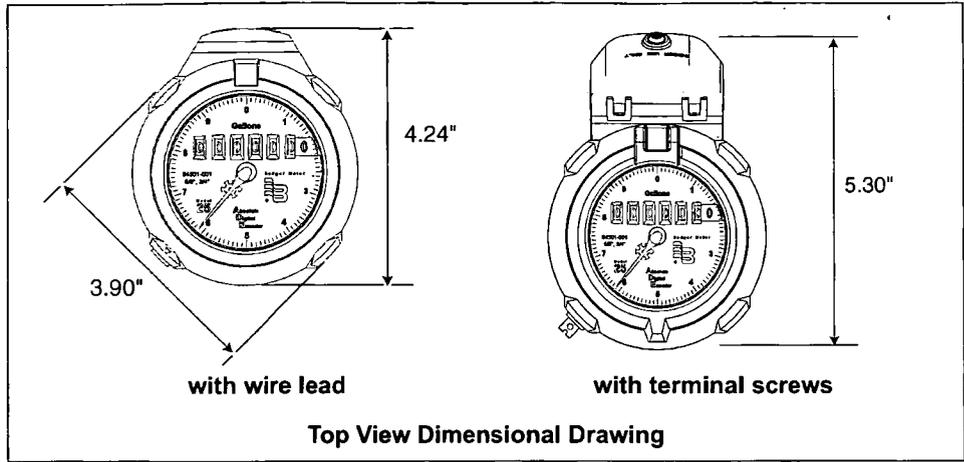
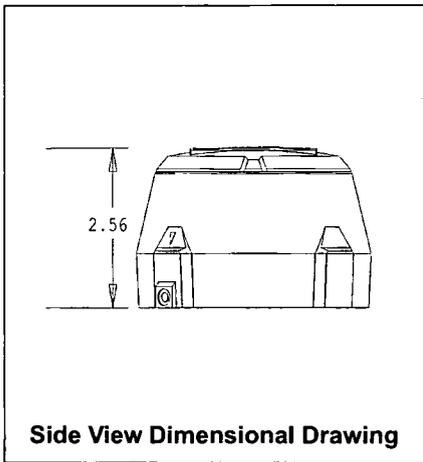
Transmitter/Register	Straight reading, permanently sealed, magnetic drive
Unit of Measure	U.S. Gallons, Cubic Feet, Cubic Meters, clearly identified on register face
Number Wheels	Six with 3/16-inch high numerals
Test Circle	360° circle with ten major increments with ten divisions each
Weight	11 Ounces
Humidity	0% to 100% condensing when equipped with potted lead wire, 0% to 95% non-condensing with screw-terminal wire connections
Temperature	-5° F to 120° F (-20° C to 49° C)
Signal Output	Industry Standard ASCII Format
Visual Resolution	1/100th of Test Circle
Electronic Resolution	Four-, five- or six-dial resolution
Signal Type	Two-wire asynchronous for Touch Solutions
Power Source	External

including continuously submerged water meter pits. The terminal screw version ADE features a tamper-resistant cap over the three-wire terminals. ADE registers with terminal screws are for indoor installation in protected environments, such as residential basements.

Electrical: The electronic circuitry is designed to provide immunity to electrical surges and transients per IEC801-2, IEC801-4 Severity Level 4. Operation of the ADE is dependent on the wire length limitations of connected AMR equipment.

Operating Characteristics: The digital reading obtained by an AMR device is sensed directly from the position of the ADE register's odometer using internal LED light paths to determine the exact position of each number wheel. This technology eliminates electromechanical contacts that could wear out, and provides greater long-term performance.





Measurement Resolution: The minimum electronic resolution of the ADE is as noted below (6 Dial Reading). To verify the correct resolution for your application, contact Badger Meter Customer Service.

RECORDALL® Disc Series	Size	6 Dial Resolution Gallons	6 Dial Resolution Cubic Feet (Ft³)	6 Dial Resolution Cubic Meters (m³)
M25	5/8"	10	1	0.1
M25	3/4"	10	1	0.1
M35	3/4"	10	1	0.1
M40	1"	10	1	0.1
M55	1"	10	1	0.1
M70	1"	10	1	0.1
M120	1 1/2"	100	10	1
M170	2"	100	10	1

RECORDALL Turbo Series	6 Dial Resolution Gallons	6 Dial Resolution Cubic Feet (Ft³)	6 Dial Resolution Cubic Meters (m³)
1 1/2"	100	10	1
2"	100	10	1
3"	100	10	1
4"	100	10	1
6"	1000	100	10
8"	1000	100	10
10"	1000	100	10
12"	10000	1000	10
16"	10000	1000	10
20"	10000	10000	10

Fire Service Meters	6 Dial Resolution Gallons	6 Dial Resolution Cubic Feet (Ft³)	6 Dial Resolution Cubic Meters (m³)
3"	100	10	1
4"	100	10	1
6"	1000	100	10
8"	1000	100	10
10"	1000	100	10

RECORDALL Compound Series	6 Dial Resolution Gallons	6 Dial Resolution Cubic Feet (Ft³)	6 Dial Resolution Cubic Meters (m³)
2" High Side (Turbine)	100	10	1
2" Low Side (PD)	10	1	0.1
3" High Side (Turbine)	100	10	1
3" Low Side (PD)	10	1	0.1
4" High Side (Turbine)	100	10	1
4" Low Side (PD)	10	1	0.1
6" High Side (Turbine)	1000	100	10
6" Low Side (PD)	10	1	0.1

Resolution stated as individual high and low readings.

CAUTION

The ADE should only be connected to a Badger Meter, Inc. approved product. Connection to an unapproved product will void the ADE warranty.

ADE, Badger, ORION and Recordall are registered trademarks of Badger Meter, Inc. All other trademarks appearing in this document are the property of their respective entities.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



Please see our Web site at www.badgermeter.com for specific contacts.



BadgerMeter, Inc.

P.O. Box 245036
Milwaukee, WI 53224-9536
800-876-3837

infocentral@badgermeter.com • www.badgermeter.com 307 of 546



WARRANTY COVERAGE

Badger Meter's warranty obligations are limited to the terms set forth below.

PRODUCTS COVERED

Badger Meter's warranty shall apply to parts purchased from Badger Meter for approved use in or with products sold by Badger Meter ("Parts") against defects in materials and workmanship under normal use for a period of NINETY (90) DAYS from the date of purchase by the original end-user purchaser ("Warranty Period").

PRODUCT RETURNS

Part failures must be proven and verified to the satisfaction of Badger Meter. The Badger Meter obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger Meter receiving written notice of any asserted defect within 10 (ten) days after its discovery. If the defect arises and a valid claim is received within the Warranty Period, at its option, Badger Meter will either (1) exchange the part with a new, used or refurbished part that is at least functionally equivalent to the original part, or (2) refund the purchase price of the part.

Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger Meter factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing the original Product and reinstalling the repaired or replacement Product. A replacement Part assumes the remaining warranty of the original Part or ninety (90) days from the date of replacement, whichever provides longer coverage.

LIMITS OF LIABILITY

This warranty shall not apply to any Part repaired or altered by any party other than Badger Meter. The foregoing warranty applies only to the extent that the Part is installed, serviced and operated strictly in accordance with Badger Meter instructions. The warranty shall not apply and shall be void with respect to a Part exposed to conditions other than those detailed in applicable technical literature and Installation and Operation Manuals (IOM) or which have been subject to vandalism, negligence, accident, acts of God,

improper installation, operation or repair, alteration, or other circumstances which are beyond the reasonable control of Badger Meter.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of a Part, whether in writing or made orally by Badger Meter or its agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the part and shall not be construed as an express warranty. Any suggestions by Badger Meter or its agents regarding use, application or suitability of the Part shall not be construed as an express warranty unless confirmed to be such, in writing, by Badger Meter.

Exclusion of Consequential Damages and Disclaimer of Other Liability.

Badger Meter's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger Meter's liability shall in no event exceed the contract price. BADGER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER METER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

Due to continuous research, Parts improvements and enhancements, Badger Meter reserves the right to change Parts specifications without notice, except to the extent an outstanding contractual obligation exists.

Badger Meter Inc.
4545 W. Brown Deer Road, P.O. Box 245036,
Milwaukee, Wisconsin 53224-9536



BadgerMeter, Inc.

OCTOBER 2010

PARTS PRICE LIST

For Order Placement,
Contact:
Customer Service
Milwaukee, WI

(800) 876-3837 or
(800) 616-3837
Fax: (888) 371-5982

Confidential and Proprietary

S-3541 REV. 25

Please see our website at
www.badgermeter.com
for specific contacts.

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without notice, except to the extent an outstanding contractual obligation exists.



BadgerMeter, Inc.

P.O. Box 254036, Milwaukee, WI 53224-9536
www.badgermeter.com

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
01013-000	2.25	RETAINING RING HOOD GLASS
01065-000	2.00	SCREW SET 4-48 X .125
01073-000	2.50	SCREW SEAL FILL. HEAD 12-24 X 7/16
01113-000	9.50	COUPLING EXTENSION
01268-000	0.50	WASHER, 9/64 THICK, LEATHER 3/4 CONN. ASSY, COLD WATER.
01310-000	0.50	WASHER, 9/64 THICK, LEATHER 1 CONN. ASSY, COLD WATER
01331-000	5.00	WASHER COUPLING 1-1/2 GYLON 1/16 THK.
01359-000	7.50	WASHER COUPLING 2 GYLON 1/16 THK.
01384-000	14.00	TEST PLUG, 1", SQUARE HEAD, BRONZE, M120 & M170
01384-001	15.00	M120 EB2, 1" TEST PLUG
03240-000	3.50	GASKET, RUBBER, 1-1/2
03241-000	3.50	GASKET, RUBBER, 2
04568-000	4.75	GASKET, LEATHER, CONN. ASSY. COLD WATER, 1 X 1-1/4
06125-000	6.50	WASHER COUPLING, HOT FLUIDS, GYLON 1/16 THK, 5/8 METER
06125-002	4.00	WASHER COUPLING, HOT FLUIDS, GYLON, 1/8 THK, 5/8 METER
06126-000	4.50	WASHER COUPLING NUT, 3/4 GYLON 1/16 THK.
06127-000	2.75	WASHER COUPLING, 1 GYLON 1/16 THK.
06128-000	7.50	WASHER COUPLING NUT, HOT FLUIDS, GYLON 1 X 1-1/4
06140-000	2.75	WASHER COUPLING, HOT FLUIDS 3/4 GYLON, 1/8 THK
06140-001	2.00	WASHER COUPLING, HOT FLUIDS 3/4 GYLON 1/32 THK.
06142-000	5.00	WASHER COUPLING, HOT FLUIDS 1 GYLON, 1/8 THK.
07557-000	16.00	ASSY. STR. CONN. W/LEATHER GASKETS, 5/8 METER
07557-002	13.00	ASSY. STR. CONN. W/RUBBER GASKETS, C. WTR. 5/8 METER
07557-019	14.00	ASSY. STR. CONN. W/GYLON GASKETS, HOT WTR. 5/8 METER
07557-027	12.00	ASSY. STR. CONN. LESS GASKETS, 1/2 N.P.T., 5/8 METER
07558-000	29.00	ASSY. BENT CONN. W/LEATHER GASKETS, 5/8 METER
07558-001	29.00	ASSY. BENT CONN. W/RUBBER GASKETS, C. WTR. 5/8 METER
07558-005	29.00	ASSY. BENT CONN. LESS GASKETS, 1/2 N.P.T., 5/8 METER
07559-000	16.00	ASSY. STR. CONN. W/LEATHER GASKETS, 3/4 METER
07559-002	17.00	ASSY. STR. CONN. W/RUBBER GASKETS, C. WTR. 3/4 METER
07559-005	15.00	ASSY. STR. CONN. W/GYLON GASKETS, 3/4 METER
07559-009	13.00	ASSY. STR. CONN. W/LEATHER GASKETS, 5/8 & 3/4 METERS
07559-016	16.00	ASSY. STR. CONN. LESS GASKETS, N.P.T., 3/4 METER
07560-000	31.00	ASSY. BENT CONN. PKG. W/LEATHER GASKETS
07560-001	31.00	ASSY. BENT CONN. PKG. CW W/RUBBER GASKETS
07560-006	31.00	ASSY. BENT CONN. LESS GASKETS 3/4 N.P.T.
07561-000	24.00	ASSY. STR. CONN. PKG. W/LEATHER GASKETS
07561-002	24.00	ASSY. STR. CONN. PKG. CW W/RUBBER GASKETS
07561-004	19.00	ASSY. STR. CONN. PKG. 1 W/GYLON GASKETS
07561-019	23.00	ASSY. STR. CONN. LESS GASKETS 1 N.P.T.
07562-000	57.00	ASSY. BENT CONN. PKG. W/LEATHER GASKETS
07562-001	56.00	ASSY. BENT CONN. PKG. CW W/RUBBER GASKETS.
07562-005	56.00	ASSY. BENT CONN. LESS GASKETS 1 N.P.T.
07563-000	84.00	ASSY. STR. CONN. 1-1/2 W/GYLON GASKETS
07564-000	142.00	ASSY. STR. CONN. 2 W/GYLON GASKETS

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
09824-002	23.75	THRUST ROLLER, CELCON, 1-1/2 SC-ER
10987-003	6.25	THRUST ROLLER, INSERT, (DOVETAIL TYPE) 1-1/2 SC-ER
11002-002	34.00	FLANGE ELLIP. BRASS 2 150
11002-004	26.00	FLANGE ELLIP.
11012-000	0.50	WASHER COUPLING, COLD WATER, 9/64 LEATHER, 5/8
11012-001	0.50	WASHER COUPLING, 9/64 THICK RUBBER, 5/8
11012-003	0.75	WASHER COUPLING, 5/64 THIN RUBBER, 5/8
11071-001	7.25	GASKET, HSG. TOP TO BOTTOM, 1-1/2" CIRCULAR
11071-008	7.00	GASKET, CIRCULAR FLANGE 2"
11071-009	5.00	GASKET, CIRCULAR FLANGE 3"
11071-010	8.00	GASKET, CIRCULAR FLANGE 4"
11071-011	16.00	GASKET, CIRCULAR FLANGE 6"
11071-012	22.00	GASKET, CIRCULAR FLANGE 8"
11071-013	40.00	GASKET, CIRCULAR FLANGE 10"
11071-014	46.00	GASKET, CIRCULAR FLANGE 12"
11071-033	0.75	GASKET, CIRCULAR, HOUSING BOTTOM, M25
11071-043	116.00	GASKET, CIRCULAR FLANGE 16"
11071-044	178.00	GASKET, CIRCULAR FLANGE 20"
11071-052	2.50	DROP IN GASKET
11071-053	3.60	2" DROP-IN-GASKET
12710-000	55.00	ASSY. STR. CONN. 1-1/4 W/LEATHER WASHERS
12710-001	68.00	ASSY. STR. CONN. 1-1/4 W/GYLON WASHERS
14054-002	8.00	PIN CHAMBER GUIDE
14143-000	0.75	WASHER, COUPLING, RUBBER, 9/64 THICK, 3/4"
14143-001	0.50	WASHER, COUPLING, RUBBER, 5/6 THIN, 3/4"
14315-002	1,060.00	ASSY. CONN. ROUND BRASS 6, (SET, W/BOLTS & NUTS)
14315-010	324.00	ASSY. CONN. ROUND BRASS 2, (SET, W/BOLTS & NUTS)
14315-011	418.00	ASSY. CONN. ROUND BRASS 3, (SET, W/BOLTS & NUTS)
14315-012	710.00	ASSY. CONN. ROUND BRASS 4, (SET, W/BOLTS & NUTS)
14315-013	386.00	ASSY. CONN. ROUND IRON 8, (SET, W/BOLTS & NUTS)
14315-014	665.00	ASSY. CONN. ROUND IRON 10, (SET, W/BOLTS & NUTS)
14315-015	775.00	ASSY. CONN. ROUND IRON 12, (SET, W/BOLTS & NUTS)
14315-016	84.00	ASSY. CONN. ROUND IRON 2, (SET, W/BOLTS & NUTS)
14315-017	109.00	ASSY. CONN. ROUND IRON 3, (SET, W/BOLTS & NUTS)
14315-018	161.00	ASSY. CONN. ROUND IRON 4, (SET, W/BOLTS & NUTS)
14315-019	273.00	ASSY. CONN. ROUND IRON 6, (SET, W/BOLTS & NUTS)
14315-030	1,370.00	ASSY. CONN. ROUND BRASS
14315-075	2,020.00	ASSY. CONN. ROUND IRON 16, 125# (SET, W/BOLTS & NUTS)
14315-076	3,870.00	ASSY. CONN. ROUND IRON 20, 125# (SET, W/BOLTS & NUTS)
14315-081	1,035.00	ASSY CONN. ROUND BRASS 6" - FIRE SERVICE, (SET, W/BOLTS & NUTS)
14693-000	7.50	PLUG, DRAIN & FLUSH, COMPOUND 2-6, STRAINER PLATE 2-6
14711-137	11.00	NIPPLE, FLUSHING OUTLET, FOR 3" & 4" FSM AND 4" FSA
14711-138	15.00	NIPPLE, 2" NPT COSE, FLUSHING OUTLET, FOR 4" & 6" FSA
14711-139	41.00	NIPPLE, 3" NPT COSE, FLUSHING OUTLET, FOR 8" & 10" FSA
14711-140	32.00	2" X 5" BRASS NIPPLE, FOR 6" & 8" FSA

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
14711-141	32.00	2" X 7" BRASS NIPPLE, FOR 8" & 10" FSA
14711-142	57.00	2" X 9" BRASS NIPPLE, FOR 10" FSA
14711-143	30.00	2" X 5 1/2" BRASS NIPPLE, FOR 4" FSA
14711-152	28.00	2" X 4.5 CLOSED NIPPLE
14711-155	22.00	2" X 3 1/2" NIPPLE
14711-156	161.00	2" X 22" NIPPLE
14711-161	39.00	BRASS PIPE NIPPLE
14914-000	0.25	CAP, SPUD, PLASTIC, 3/4" THREAD, FOR 5/8" METER
14916-000	0.50	CAP, SPUD, PLASTIC, 1-1/4" THREAD, FOR 1" METER.
14918-000	0.25	CAP, SPUD, PLASTIC, 1" THREAD, FOR 3/4" METER
16204-000	5.00	CARTON
16279-000	0.25	SEAL, LEAD
17842-000	0.50	WASHER, COUPLING, LEATHER, 5/8 X 3/4
18177-000	1.50	WASHER, COUPLING, RUBBER 9/64 THICK, 1
18177-001	0.50	WASHER, COUPLING, RUBBER 5/64 THIN, 1
20336-000	145.00	ASSY. CONN. ELLIP. IRON 1-1/2
20336-001	98.00	ASSY. CONN. ELLIP. BRASS 1-1/2
20336-006	89.00	ASSY. CONN. ELLIP IRON 2
20336-007	115.00	ASSY. CONN. ELLIP. BRASS 2
20336-019	112.00	ASSY. CONN. ELLIP. BRASS 2 TURBO, (W/SHORTER BOLT)
20374-000	30.00	FLANGE (MACH), IRON, ELLIP, 1-1/2
20454-000	2.00	LOCK-WASHER
20518-000	19.00	ASSY. COMB. CONN. PKG. W/LEATHER WASHERS, 5/8
20518-001	21.00	ASSY. COMB. CONN. PKG. CW W/RUBBER WASHERS, 5/8
20518-002	21.00	ASSY. COMB. CONN. PKG. LESS WASHER 1/2 N.P.T., 5/8
20542-000	30.00	ASSY. COMB. CONN. PKG. W/LEATHER WASHERS, 1
20542-001	40.00	ASSY. COMB. CONN. PKG. CW WITH RUBBER WASHERS, 1
20542-002	54.00	ASSY. COMB. CONN. LESS WASHER 1 N.P.T.
20551-000	31.00	FLANGE ELLIP. BRONZE, 1-1/2
20561-000	34.00	FLANGE ELLIP. IRON 2, 125
20937-000	0.50	WIRE, ROM, 19 AWG PER FOOT, SPECIFY # OF FEET NEEDED
20937-001	0.50	WIRE, ROM, 22 AWG PER FOOT, SPECIFY # OF FEET NEEDED
20937-002	108.00	WIRE, ROM, 19 AWG 500 FT. SPOOL
20937-003	125.00	WIRE, ROM, 22 AWG 500 FT. SPOOL
20937-004	216.00	WIRE, ROM, 19 AWG 1000 FT. SPOOL
20937-008	426.00	WIRE, ROM, 18 AWG SOLID 1000 FT. SPOOL
20937-010	317.00	WIRE, ROM, 18 AWG 1000 FT. (TRIPLE STRAND)
21739-000	4.00	CARTON
21830-000	4.25	INSERT
22439-001	2.25	CARTON
22559-024	7.50	TETRA-SEAL, GOSHEN, 1272
22559-034	4.00	TETRA-SEAL, BUNA-N
22559-035	9.50	TETRA-SEAL, BUNA-N
22559-038	18.00	TETRA-SEAL, BUNA-N
22559-043	8.00	TETRA-SEAL BUNA-N

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
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Part	List	Part Name
22559-044	12.00	TETRA-SEAL, BUNA-N
22559-045	13.00	TETRA-SEAL, BUNA-N
22559-047	22.00	TETRA-SEAL, EPR
22559-048	18.00	TETRA-SEAL, EPR
22559-049	18.00	TETRA-SEAL, EPR
22559-050	26.00	TETRA-SEAL VITON
22559-051	44.00	TETRA-SEAL, VITON
22559-052	41.00	TETRA-SEAL, VITON
22570-003	2.25	E RING S.ST.
22570-006	0.75	E RING S.ST.
22570-007	2.25	E RING S.ST.
22570-022	0.75	E RING
22581-000	2.00	BALL RACE
22650-030	4.75	O RING
22650-035	5.50	O RING 4-1/8 X 4 X 1/16 E. P. (FOR PRE-1995 ONLY)
22650-045	0.75	O-RING 1-5/16 X 1-7/16 X 1/16
22650-046	0.50	O RING 1-5/8 X 1-3/4 X1/16 NSF
22650-047	1.50	O-RING, 3-1/2 X 3-11/16 X 3/32 FOR M25 PLASTIC MTR
22650-048	1.50	O RING 4-1/2 X 4-11/16 X 3/32 NSF
22650-050	3.50	GASKET, FOR 2" INTEGRAL STRAINER
22650-051	6.00	GASKET, FOR 3" INTEGRAL STRAINER
22650-055	1.75	O-RING FOR MODEL 25 BRONZE WITH PLASTIC BOTTOM
22650-056	0.50	O-RING MODEL 35
22650-057	1.00	O-RING MODEL 70
22650-058	1.50	O-RING MODEL 120
22650-059	2.00	O-RING MODEL 170
22650-060	1.25	O-RING (MODEL 55) CHAMBER ASSY.
22779-027	91.00	BUSHING PIPE BRZ. HEX 3X2
22779-031	25.00	BUSHING, 2" X 1.5"
22779-032	91.00	HEX PIPE BUSHING
22797-005	0.75	LOCK-WASHER
22812-011	1.00	SCREW SET SOCKET HEAD 8-32 X 3/16 S.ST.
22812-027	0.75	SCREW SET HEADLESS 10-32 X .375 S.ST.
22812-028	0.75	SCREW SET, ALLEN HEAD 8-32 X .50
22886-012	4.75	RETAINING RING
23018-001	5.50	MAGNET
23056-001	103.00	ASSY. LOWER DRIVE
23123-002	210.00	FLANGE, ROUND, IRON 12" 125# (SINGLE)
23123-003	180.00	FLANGE, ROUND, IRON 10" 125# (SINGLE)
23123-004	165.00	FLANGE, ROUND, IRON 8" 125# (SINGLE)
23123-005	60.00	FLANGE, ROUND, IRON 4" 125# (SINGLE)
23123-006	206.00	FLANGE, ROUND, BRASS 4" 150# (SINGLE)
23123-007	45.00	FLANGE, ROUND, IRON 3" 125# (SINGLE)
23123-008	129.00	FLANGE, ROUND, BRASS 3" 150# (SINGLE)
23123-009	30.00	FLANGE, ROUND, IRON 2" 125# (SINGLE)

Minimum Billing: \$50.00
 Freight: F.O.B. Milwaukee, WI
 Terms: Net 30 Days
 Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
23123-010	117.00	FLANGE, ROUND, BRASS 2" 150# (SINGLE)
23123-012	100.00	FLANGE, ROUND, IRON 6" 125# (SINGLE)
23123-016	214.00	FLANGE, ROUND, IRON 2"X1-1/2" 125# (SINGLE)
23123-035	850.00	FLANGE, ROUND, IRON 16" 125# (SINGLE)
23123-036	1,610.00	FLANGE, ROUND, IRON 20" 125# (SINGLE)
23296-007	3.50	SCREW SEAL FILL. HEAD 1/4-20 X 1/2 BRASS
23378-000	47.00	ASSY. CONN. PKG., COLD WATER 1 X 1-1/4
23378-001	52.25	ASSY. STR CONN., HOT FLUIDS, 1 X 1-1/4
23378-002	54.00	ASSY. STR. CONN. PKG. CW WITH RUBBER
23378-003	49.00	ASSY. STR. CONN. LESS WASHER 1-1/4 N.P.T.
23630-001	5.00	PIN HINGE
24254-015	16.00	WIRE BLACK STRAND 18 AWG 24-1/2
24254-016	6.00	WIRE BLUE STRAND 18 AWG 22-1/2
24254-017	5.00	WIRE RED STRAND 18 AWG 20
24367-005	6.50	SCREW SOCKET HEAD 5/16-18 X 1-1/4 S.ST.
24836-000	0.75	BALL BEARING
24863-009	1.25	REGISTER DETENT PIN
24957-000	8.00	CARTON
24991-043	0.50	WASHER FLAT, S.ST., 2" & 3" COMP.
25421-034	5.50	HEAD BOLT, W/SEAL HOLE (1 REQUIRED), 3" AND 4" RCDL TURBO SERIES
25421-036	2.50	BOLT, HEX HD 1/4 20 X 5/8 W/SEAL HOLE
25421-041	2.75	BOLT, HEX, HOUSING, W/SEAL HOLE, 3/8-16X1 SIL, M70.
25421-042	15.00	BOLT, HEX HD, 7/16-14 X 1-1/4 BRZ., M120 & M170
25421-043	5.50	HEAD BOLT, W/SEAL HOLE (1 REQUIRED), 1 1/2" AND 2" RCDL TURBO SERIES
25421-044	5.50	HEAD BOLT, W/ SEAL HOLE, 6" RCDL TURBO SERIES
25511-000	4.75	COLLAR
25518-001	2.25	SCREW WIRING COVER
25649-005	164.00	SHAFT VERTICAL
25688-003	0.25	CARRIAGE BOLT
25724-000	99.00	NIPPLE REDUCER 2-1/2 - 7-1/2 N H
25724-010	175.00	NIPPLE REDUCER 2-1/2 (SPECIAL)
25725-000	252.00	SWIVEL COUPLING ASSY. 2-1/2 - 7-1/2 N H
26012-000	33.00	ASSY. CONN. PKG.
26012-001	25.00	ASSY. COMB. CONN. PKG., CW, W/RUBBER WASHER
26012-002	25.00	ASSY. COMB. CONN. LESS WASHER 3/4 N.P.T.
26017-000	0.75	WIRE SEAL 2 STRAND 8 INCH LENGTH
26017-005	0.50	WIRE SEAL 3 STRAND 6 INCH LENGTH
26017-006	55.00	WIRE SEAL 2 STRAND 250 FOOT LENGTH
26017-007	0.25	WIRE SEAL 3 STRAND 4 INCH LENGTH
26017-009	1.00	WIRE SEAL 3 STRAND 18.5 INCH LENGTH
26017-010	1.25	WIRE SEAL 3 STRAND 22 INCH LENGTH
26017-013	0.50	WIRE SEAL 1 STRAND 12 INCH LENGTH
26017-018	0.50	WIRE SEAL 3 STRAND 12 INCH LENGTH
26017-019	1.25	WIRE SEAL 3 STRAND 26 INCH LENGTH
26017-021	85.00	WIRE SEAL 3 STRAND 250 FOOT LENGTH

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
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**PRICE
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Part	List	Part Name
26018-001	120.00	WIRE SEAL 1 STRAND 600 FOOT LENGTH
26205-001	1.75	SEAL SCREW 8-32 X 3/4 BRASS NI PL
26459-032	18.00	ASSY. CHANGE GEAR 3/16 HOLE 32 D.P. 32
26505-000	115.00	FIRE HOSE REDUCER
26506-000	128.00	VALVE GATE 2 (BRZ)
26506-002	39.00	BALL VALVE 3/4"
26506-003	197.00	BALL VALVE 2-1/2"
26506-004	120.00	BALL VALVE, FLUSHING OUTLET, FOR 3" & 4" FSM & 4" FSA
26506-005	337.00	2" LOCKABLE BALLVALVE FIP X FLANGE, FOR 4" - 10" FSA
26506-006	459.00	BALL VALVE, 3" FLUSHING OUTLET, FOR 8" & 10" FSA
26506-008	223.00	BALL VALVE, 2" FLUSHING OUTLET, FOR 6" FSA
26506-009	80.00	GATE VALVE 3" 200 WOG
26506-011	176.00	LOCKING BALL VALVE
26506-014	220.00	2" VALVE, NON-LOCKING HANDLE
26506-015	22.00	VALVE LOCKING HANDLE 1"
26506-016	20.00	VALVE LOCKING HANDLE 2"
26506-017	145.00	2-1/2 GATE VALVE
26506-018	125.00	CHECK VALVE
26541-000	1.00	BUSHING FLANGE
26950-000	0.50	BUSHING
26953-000	12.00	BLOCK REED SWITCH MOUNTING
26955-000	32.00	FIRST SPINDLE ASSY.
26957-000	17.00	MAGNET SPINDLE ASSY.
26958-000	46.00	INTERNAL SPINDLE ASSY.
26958-001	50.00	INTERNAL SPINDLE ASSY.
26958-002	32.00	INTERNAL SPINDLE ASSY.
26959-000	35.00	MAGNET SPINDLE ASSY.
26959-001	47.00	MAGNET SPINDLE ASSY.
26960-000	58.00	FIRST SPINDLE ASSY.
26960-001	46.00	FIRST SPINDLE ASSY.
26961-000	83.00	INTERNAL SPINDLE & GEAR ASSY.
26970-000	261.00	HOUSING BOTTOM (MACH)
26972-000	122.00	RING ADAPTER MACHINE
26974-000	174.00	HOUSING TOP (MACH)
26991-000	13.00	BOTTOM PLATE ASSY.
26994-000	0.50	STRIP CONTACTOR
26995-000	2.00	POST SPACER
26999-000	18.00	CARRIER MAGNET
30045-000	0.25	CABLE STRAIN RELIEF
30483-000	24.00	BLOCK MOUNTING
30840-002	1.50	SCREW, MOUNTING CUP, BRONZE CHAMBER
30938-000	35.00	PINION 26 TEETH
30939-000	267.00	PINION 10 TEETH
31132-038	1.00	O RING BUNA-N
31132-043	8.00	O RING 1 I.D. 1 1/8 O.D. X 1/16 EPR

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
Parts**



**PRICE
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Part	List	Part Name
31132-044	4.50	O RING 1 I.D. 1 1/8 O.D. X 1/16 VITON
31132-045	4.50	O RING 3/8 I.D. 9/16 O.D. X 3/32 VITON
31132-046	7.50	O RING 3/8 I.D. 9/16 O.D. X 3/32 EPR
31132-055	1.50	O-RING, 2.725 I.D. X 3.145 O.D. X 2.10
32044-000	14.00	ASSY. PKG. HINGE ADAPTER
32140-000	0.50	REGISTER SEAL SCREW, FILL. HEAD 8-32
32486-000	10.00	ASSY. GEAR 48T
32611-000	64.00	HOUSING COVER (MACH)
32612-000	131.00	HOUSING (MACH)
32661-000	5.00	HOUSING GAS ROM GEN.
32662-000	6.00	COVER GAS ROM GEN. W/B.M.I. TRA.
32663-001	8.00	ADAPTER MOUNTING SPRAGUE
32666-000	8.00	PLATE MOUNTING
32667-000	1.00	BEARING & SPRING BLOCK
32669-000	0.50	ADAPTER DRIVE GEAR
32698-000	6.00	GAS ROM GEN. ACCESSORY PKG. SUPERIOR
32699-000	7.00	GAS ROM GEN. ACCESSORY PKG. ROCKWELL
32700-000	9.00	GAS ROM GEN. ACCESSORY PKG. AMERICAN
32704-000	7.50	GAS ROM GEN. ACCESSORY PACKAGE SPRAGUE
32872-003	90.00	PIPE SPACER 17" FOR 2" METER, EL.FLANGE
32984-000	7.50	ADAPTER MOUNTING SPRAGUE
33044-000	129.00	STAPLE GUN ARROW T-25
33045-000	69.00	STAPLES ARROW T-25 (5000/BOX)
33047-000	110.00	SEAL PRESS WITH INSERT (MAX. 6 LETTERS, 3-1ST LINE, 3-2ND LINE)
33048-000	24.00	INSERT FOR SEAL PRESS
33088-000	1,150.00	ASSY. REGISTER RESET UNIT
33091-000	0.25	STOP THE LEAK INSTRUCTION TAG
33157-000	9.50	GAS ROM GEN. ACCESSORY PKG. ROCKWELL
33281-000	8.00	GAS ROM GEN. ACCESSORY PKG. ROCKWELL
33287-000	28.00	SPINDLE DRIVE UPPER
33289-000	18.00	BUSHING DRIVE SPINDLE
33290-000	29.00	SPINDLE DRIVE LOWER
33334-009	27.50	CHAMBER ASSEMBLY - M25 - PLAST. T.R.
33334-010	40.00	CHAMBER ASSEMBLY - M40 - PLAST. T.R.
33334-016	90.00	CHAMBER ASSEMBLY - M70 - SS T.R.
33334-017	180.00	CHAMBER ASSEMBLY - M120
33334-018	49.00	CHAMBER ASSEMBLY - 2" & 3" COMPOUND (PRE-JUNE, 2001)
33334-023	30.00	CHAMBER ASSEMBLY - 2" & 3" COMPOUND SERIES
33334-026	200.00	1-1/2 & 2" M170 HD METER (FSAA) CHAMBER
33334-028	200.00	CHAMBER ASSEMBLY - M170
33334-029	34.00	CHAMBER ASSEMBLY - M35 - PLAST. T.R.
33334-030	73.00	CHAMBER ASSEMBLY - 4" & 6" COMPOUND (PRE-JUNE, 2001)
33334-032	90.00	CHAMBER ASSEMBLY - M70 - PLAST. T.R.
33334-038	25.00	CHAMBER ASSEMBLY (RECLAIMED) - M25
33334-040	35.00	CHAMBER ASSEMBLY (RECLAIMED) - M35

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

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Part	List	Part Name
33334-042	75.00	CHAMBER ASSEMBLY (RECLAIMED) - M70
33334-044	185.00	CHAMBER ASSEMBLY (RECLAIMED) - M120
33334-046	205.00	CHAMBER ASSEMBLY (RECLAIMED) - M170
33334-056	37.00	"M35" CHAMBER ASSY WITH SS THR ROLLER
33498-000	2.00	COVER TERMINAL
33515-000	7.50	LUBRI PLATE 1 POUND CAN
33582-000	4.00	PLATE NAME
33879-012	17.00	TEST PLUG
33879-013	4.50	TEST PLUG
33879-014	13.00	TEST PLUG
33879-015	5.00	TEST PLUG
33879-016	6.50	TEST PLUG
33879-017	34.00	TEST PLUG
33949-000	14.00	GAS ROM GEN. ACCESSORY PKG. AMERICAN
33985-000	1.66	THRUST ROLLER, INSERT, DOVETAILED, MODEL 120
34000-000	8.50	CARTON OUTER
34003-000	9.00	CARTON OUTER
34027-000	394.00	PORTABLE REGISTER TESTER, EROM & ROM BATTERY OP
34209-000	2.00	COVER TERMINAL
34210-002	60.00	GEN. RCDL M25, 10 GAL T. CIR.
34210-003	60.00	GEN. RCDL M40, 10 GAL T. CIR.
34210-005	60.00	GEN. RCDL M25, 1 CU FT T. CIR.
34210-006	60.00	GEN. RCDL M40, 1 CU FT T. CIR.
34210-008	70.00	GEN. RCDL M25, 10 IMP. GAL T.CIR.
34210-009	70.00	GEN. RCDL M40, 10 IMP. GAL T.CIR.
34210-011	60.00	GEN. RCDL M25, .1 M3 T. CIR.
34210-012	60.00	GEN. RCDL M40, .1 M3 T. CIR.
34210-045	60.00	GEN. RCDL M70, 10 CU FT T. CIR.
34210-046	70.00	GEN. RCDL M70, 100 IMP GAL T. CIR.
34210-047	60.00	GEN. RCDL M70, 1 M3 T. CIR.
34210-048	60.00	GEN. RCDL M120, 100 GAL T. CIR.
34210-049	60.00	GEN. RCDL M120, 10 CU FT T. CIR.
34210-050	70.00	GEN. RCDL M120, 100 IMP GAL T. CIR.
34210-051	66.00	GEN. RCDL M120, 1 M3 T. CIR.
34210-057	66.00	GEN. RCDL M120, .1M3 T. CIR.
34210-067	66.00	GEN. RCDL M170, 100 GAL T. CIR.
34210-068	66.00	GEN. RCDL M170, 10 CU FT T. CIR.
34210-069	66.00	GEN. RCDL M170, 1 M3 T. CIR.
34210-070	60.00	GEN. RCDL M35, 10 GAL T. CIR.
34210-071	60.00	GEN. RCDL M35, 1 CU FT T. CIR.
34210-072	60.00	GEN RCDL M35, .1 M3 T. CIR.
34210-073	60.00	GEN. RCDL M70, 10 GAL T.CIR.
34210-074	60.00	GEN. RCDL M70, 1 CU FT T. CIR.
34210-075	60.00	GEN. RCDL M70, .1 M3 T. CIR.
34210-084	66.00	GENERATOR, RCDL 55, 10 GAL, T CIRCLE

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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Part	List	Part Name
34256-001	8.50	ASSY. REG. & BASE
34256-003	21.00	ASSY. ROM M570 REG. & BASE
34257-010	22.00	GAS ROM REGISTER 4-WHEEL 100 CUFT PER PULSE
34257-040	22.00	ROM M570 REG, 100 M3 PER PULSE
34257-042	22.00	ROM M570 REG, 100 GAL PER PULSE
34257-046	22.00	ROM M570 REG, 1 M3 PER 10 PULSES
34257-051	22.00	ROM M570 REG, 100 CU. FT. PER 10 PULSES
34257-060	22.00	ROM M570 REG, 100 GAL PER PULSE
34333-001	0.75	SCREEN PLASTIC M25
34371-001	2.00	SCREEN M40
34497-005	47.00	HSG. TOP PLASTIC M25 3/4 X 9 LL
34513-001	36.00	HSG. TOP PLASTIC M25 .5/8 X 1/2 X 7-1/2 LL
34513-002	37.00	HSG. TOP PLASTIC M25 5/8 X 3/4 X 7-1/2 LL
34522-001	62.00	HSG. TOP PLASTIC M40 1 X 10-3/4 LL
34526-001	7.00	RETAINING RING RCDL M25
34527-001	7.50	RETAINING RING RCDL M40
34529-001	5.50	HOUSING BOTTOM RCDL M25
34530-001	12.00	HOUSING BOTTOM RCDL M40
34547-001	0.50	STRAP CHAMBER RET. M25, M40
34595-001	2.00	GASKET, PLASTIC CHAMBER, PORT SEAL, 1" SC
34668-001	4.25	INSERT
34669-001	4.00	CARTON
34674-001	3.25	CARTON
34697-001	6.00	CARTON
34750-001	2.00	CARTON
34754-001	13.00	SERVICE T WRENCH, HSG. BTM.
34776-001	0.25	CABLE TIE-STRAIN RELIEF
34777-001	0.25	ELECTRICAL GROUND WARNING LABELS
34841-001	975.00	HSG. MACH CLASS 150 FLG. C BRS.
34844-001	845.00	HEAD (MACH) 2 & 3 T
34869-001	30.00	VALVE BYPASS 2 & 3 T
34870-001	11.00	NUT BYPASS COVER 2 & 3 T
34877-001	15.00	PLATE
34883-001	14.00	DIAL - TEST RING RCDL REG. (PRINTED)
34891-001	0.25	TAG METER TEST RECORD
34897-001	13.00	LOCK-RING_BYPASS VALVE
34899-003	9.50	GASKET HEAD 2 & 3 TURBO
34899-004	13.00	GASKET HEAD 2 & 3 TURBO
34900-001	10.00	RETAINING RING, TURBO 3"
34900-002	7.50	RETAINING RING, TURBO 2"
34900-003	20.00	RETAINING RING, TURBO 4"
34900-004	26.00	RETAINING RING, TURBO 6"
34990-004	19.00	ASSY. STRAIGHT CONN. PLASTIC, 5/8"
34990-005	19.00	ASSY. STRAIGHT CONN. PLASTIC, 3/4"
34990-006	24.00	ASSY. STRAIGHT CONN. PLASTIC, 1"

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
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Part	List	Part Name
34990-017	17.00	3/4 BRONZE/PLASTIC SWIVEL ASSEMBLY 2"
34990-018	19.00	1" BRONZE/PLASTIC SWIVEL ASSEMBLY 2"
34990-019	17.00	3/4 BRONZE/PLASTIC SWIVEL ASSEMBLY 2- 1/2"
34990-020	23.00	1" BRONZE/PLASTIC SWIVEL ASSEMBLY 2- 5/8"
55000-063	0.50	NUT HEXAGON 10-24
55001-059	1.00	NUT HEXAGON 1/2-13
55001-061	0.50	NUT HEXAGON 5/8-11
55001-062	0.75	NUT HEXAGON 3/4-10
55001-063	1.00	NUT HEXAGON 7/8-9
55001-064	1.50	NUT HEXAGON 1-8
55001-065	2.00	NUT HEXAGON 1-1/8-7
55002-032	1.00	NUT HEXAGON 4-40
55003-008	11.00	NUT HEXAGON 3/4-10 BRASS
55005-034	3.25	NUT HEXAGON 5/8-11, 302/304 SS
55005-035	3.75	NUT, HEX 3/4-10 302/304 SS
55006-035	2.25	NUT HEXAGON 8-32
55007-028	2.25	NUT HEXAGON 1/4-20
55007-030	2.50	NUT HEXAGON 3/8-16
55007-034	1.75	NUT HEXAGON 5/8-11 SST 316
55007-035	7.00	NUT HEXAGON 3/4-10
55010-062	2.00	NUT HEXAGON 3/4-10
55011-008	6.50	NUT HEXAGON HEAVY 3/4-10
55026-173	1.00	BOLT HEXAGON HEAD 5/8-11 X 2 STEEL
55026-175	1.25	BOLT HEXAGON HEAD 5/8-11 X 2-1/2, STEEL
55026-176	1.25	BOLT HEXAGON HEAD 5/8-11 X 2-3/4, STEEL
55026-180	2.25	BOLT HEXAGON HEAD 5/8-11 X 3-3/4, STEEL
55026-204	2.50	BOLT HEXAGON HEAD 3/4-10 X 3 STEEL
55026-205	2.25	BOLT HEXAGON HEAD 3/4 10 X 3-1/4 STEEL
55026-233	3.50	BOLT HEXAGON HEAD, 7/8 9 X 3-1/2 STEEL
55026-263	6.00	BOLT HEXAGON HEAD, 1-8 X 4-1/2 STEEL
55026-289	4.25	BOLT HEXAGON HEAD, 1 1/8-7 X 4" STEEL
55026-291	8.50	BOLT HEXAGON HEAD, 1-1/8-7 X 5, STEEL
55027-116	4.75	BOLT HEXAGON HEAD 1/2-13 X 1-1/4, BRONZE
55027-204	15.00	BOLT HEXAGON HEAD 3/4-10 X 3 BRASS
55029-060	1.00	BOLT, HEX AGON HEAD, 3/18-16 SILVER BRZ. M70
55029-089	9.00	BOLT, HEXAGON HEAD, 7/16-14 X 1-1/4, SILVER BRZ., M120 & 170
55030-031	0.25	HEX HEAD BOLT 6-32X3/4"
55030-083	0.50	BOLT HEXAGON HEAD 10-24 X 1/2 S. ST.
55030-111	0.50	BOLT HEXAGON HEAD 1/4-20 X 5/8
55030-166	3.50	BOLT HEXAGON HEAD 3/8-16 X 3/4
55030-168	0.50	BOLT, HEXAGON HEAD 3/8-16 X 1
55030-170	1.50	BOLT HEXAGON HEAD 3/8-16 X 1-1/4
55030-171	1.50	BOLT HEXAGON HEAD 3/8-16 X 1-1/2
55030-225	2.00	BOLT HEXAGON HEAD 1/2-13 X 1-1/2
55030-279	2.25	BOLT, HOUSING (FOR 2"/3" PRE-APRIL 1995 ONLY)

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

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Part	List	Part Name
55030-280	6.50	BOLT HEXAGON HEAD 5/8-11 X 1-3/4 S.ST.
55030-281	7.50	BOLT HEXAGON HEAD 5/8-11 X 2
55030-283	7.50	BOLT, METER HEAD, FOR 3" FSM
55030-312	9.50	BOLT, HEX CAP, 3/4-10 X 3.00, 302/304 SS
55031-004	0.75	BOLT HEXAGON HEAD 1/4-20 X 3/4 S.ST.
55031-006	0.75	BOLT HEXAGON HEAD 1/4-20 X 1
55031-033	0.75	COVER BOLT, FOR 1-1/2" INTEGRAL STRAINER
55031-035	2.00	BOLT HEXAGON 5/16-18 X 1-1/4 S.ST.
55031-060	2.50	HEAD BOLT, W/O SEAL HOLE (3 REQUIRED), 1 1/2" AND 2" RCDL TURBO SERIES
55031-062	2.00	BOLT HEXAGON HEAD 3/8-16 X 1-1/4 S.ST. 316
55031-116	4.50	BOLT HEXAGON HEAD, W/O SEAL HOLE (3 REQ.) FOR 3"-4" RCDL TURBO SERIES
55031-117	2.50	HEAD BOLT, W/O SEAL HOLE, 6" RCDL TURBO SERIES
55031-172	4.75	HEAD BOLT, WITHOUT SEAL HOLE 5/8-11 X 1-3/4 316SS
55031-173	5.00	BOLT HEXAGON HEAD 5/8-11 X 2 S.ST.
55031-174	5.50	BOLT HEXAGON HEAD 5/8-11X 2-1/4 S.ST.
55031-175	3.50	BOLT HEXAGON HEAD 5/8-11 X 2-1/2 S.ST.
55031-176	6.50	BOLT HEXAGON HEAD 5/8-11 X 2 3/4 S.ST.
55031-201	9.00	BOLT HEXAGON HEAD 3/4-10 X 2-1/4" S.ST.
55031-204	11.00	STAINLESS STEEL BOLT
55048-220	0.50	SCREW FILL. HEAD 10-24 X 3/8 S.ST.
55048-253	1.75	SCREW FILL. HEAD 12-24 X 7/8 S.ST.
55049-224	0.75	SCREW FILL. HEAD 10-24 X 5/8
55049-231	2.50	SCREW FILL. HEAD 10-24 X 1-1/2
55049-274	0.75	SCREW FILL. HEAD 1/4-20 X 3/8 S.ST.
55058-225	1.00	SCREW FILL . HEAD #10-32 X 3/4
55067-060	1.50	SCREW FLAT HEAD 2-56 X 1/4 BRASS
55072-279	0.25	SCREW FLAT HEAD 1/4-20 X 3/4
55089-121	0.50	SCREW PAN HEAD 4-40 X 3/4
55090-111	0.25	SCREW PAN HEAD 4-40 X 1/8
55090-121	0.25	SCREW PAN HEAD 4-40 X 3/4
55090-141	0.25	SCREW PAN HEAD 5-40 X 1/4 S.ST.
55090-171	0.25	SCREW PAN HEAD 6-32 X 7/16 S.ST.
55090-206	0.25	MOUNTING SCREW FOR ORION GAS OUTER COVER FOR AMERICAN RESIDENTIAL MODULE
55090-225	0.75	SCREW PAN HEAD 10-24 X 3/4 S.ST.
55108-140	2.25	SCREW ROUND HEAD 5-40 X 3/16 BRASS
55109-084	0.25	SCREW ROUND HEAD 3-48 X 1/8 BRASS
55109-114	0.25	SCREW ROUND HEAD 4-40 X 1/4 NI.PL.
55109-197	0.50	SCREW ROUND HEAD 8-32 X 3/8 BRASS
55115-001	0.50	SCREW, 2" & 3" COMPOUND SERIES
55115-002	1.00	SCREW, 4" & 6" COMPOUND SERIES
55129-116	0.25	SCREW BINDING HEAD 4-40 X 3/8 BRASS
55129-168	1.25	SCREW BINDING HEAD 6-32 X 1/4 BRASS
55129-170	1.75	SCREW BINDING HEAD 6-32 X 3/8 BRASS
55161-141	2.25	SCREW THRD. CUTTING 5-40 X 1/4 S.ST.
55178-114	0.25	SCREW THRD. CUTTING 4-40 X 1/4 CARB.

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIS**

Part	List	Part Name
55192-170	0.25	SCREW THRD. CUTTING 6-20 X 3/8 S.ST.
55211-179	0.50	SCREW, PAN HD. THD. FORMING
55230-111	1.50	SCREW SET HEXAGON 4-40 X 1/8 S.ST.
55230-165	1.50	SCREW SET HEXAGON 6-32 X 1/8 S.ST.
55230-192	0.50	SCREW SET HEXAGON 8-32 X 1/8 S.ST.
55230-194	1.50	SCREW SET HEXAGON 8-32 X 3/16 S.ST.
55254-009	0.50	WASHER PLAIN FLAT NO. 10 STEEL
55254-023	0.50	WASHER, 7/8" COVER BOLT, FOR 10" FSA
55254-026	0.50	WASHER, 1 1/8 NARROW
55260-016	1.00	WASHER, FLAT 3/8 (M70, 1" BRZ BOTTOM ONLY)
55262-007	0.25	#6 WASHER
55262-011	1.25	WASHER PLAIN FLAT 1/4 S.ST.
55262-015	0.50	WASHER, 3/8 SST 18-8 302/304
55262-019	0.50	WASHER, 5/8, 302/304 SS
55262-021	1.00	WASHER, 3/4, 302/304 SS
55274-006	1.75	WASHER LOCK-HELICAL SPRING NO. 5 S.ST.
55274-008	2.25	WASHER LOCK-HELICAL SPRING NO. 8 S.ST. 31
55274-011	2.00	WASHER LOCK-HELICAL SPRING 1/4 S.ST.
55283-008	0.50	WASHER LOCK-EXTERNAL TEETH NO. 8 BRASS
55283-011	1.25	WASHER LOCK-EXTERNAL TEETH 1/4 BRASS NI
55293-010	2.25	WASHER LOCK-INTERNAL TEETH NO.12 BRONZE
55294-009	0.25	SHAKEPROOF WASHER, FOR 3" - 8" FSM
55300-007	1.25	O-RING 5/32 I.D. 9/32 O.D. X 1/16 BUNA
55300-014	0.25	O-RING 1/2 I.D. 5/8 O.D. 1/16
55300-016	0.25	O-RING, 7/8 I.D. 5/8 O.D. 1/16
55300-017	0.50	O-RING 11/16 I.D. 13/16 O.D. X 1/16 BUNA
55300-021	0.50	O-RING 15/16 I.D. 1-1/16 O.D. X 1/16 BUNA
55300-022	0.25	O-RING 1 I.D. 1-1/8 O.D. X 1/16 BUNA-N
55300-026	0.50	O-RING 1-1/4 I.D. 1-3/8 O.D. X 1/16 BUNA
55300-035	4.50	O-RING 2-1/4 I.D. 2-3/8 O.D. X 1/16 BUNA, MODEL 70
55300-040	1.50	O-RING 2-7/8 I.D. 3 O.D. X 1/16 BUNA, MODEL 120
55300-110	0.25	O-RING 3/8 I.D. 9/16 O.D. X 3/32 BUNA-N
55300-111	3.25	O-RING 7/16 I.D. 5/8 O.D. 3/32 BUNA-N
55300-151	1.50	O-RING 3 I.D. 3-3/16 O.D. X 3/32 BUNA-N
55300-211	1.00	O-RING 13/16 I.D. 1-1/16 O.D. X 1/8 BUNA
55300-217	1.25	O-RING 1-3/16 I.D. 1-7/16 O.D. X 1/8 BUNA
55300-248	4.25	O-RING 4-3/4 I.D. 5 O.D. X 1/8 BUNA-N
55300-255	3.75	O-RING 5-5/8 I.D. 5-7/8 O.D. X 1/8 BUNA
55300-261	4.50	O-RING 6-3/4 I.D. 7 O.D. X 1/8 BUNA
55300-340	2.50	O-RING 3-3/8 I.D. 3-3/4 O.D. X 3/16 BUNA
55300-344	3.00	O-RING 3-7/8 I.D. 4-1/4 O.D. X 3/16 BUNA
55300-351	4.50	O-RING 4-3/4 I.D. 5-1/8 O.D. X 3/16 BUNA
55300-356	4.50	O-RING 5-3/8 I.D. 5-3/4 O.D. X 3/16 BUNA
56067-001	52.00	LUBRICANT-NYE OIL, 132 C 1 QUART
56067-021	40.00	LUBRICANT 5.3 OZ TUBE (FOR PRE-1995 ONLY)

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
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**PRICE
LIST**

Part	List	Part Name
56067-029	4.00	1CC TUBE OF NYOGEL
56075-001	84.00	RING ADAPTER
56079-001	570.00	HSG. MACH CLASS 150 FLG. C BRS.
56079-003	630.00	HSG. MACH ELLIPTICAL FLG. C BRS.
56088-017	59.00	SEALANT 3 OZ. TUBE
56088-024	36.00	SEALANT RTV 118 TRANSLUCENT 2.8 OZ
56088-032	25.00	SEALANT SILICONE GE RTV-162 2.8 OZ TUBE
56088-033	51.00	SEALANT SILICONE GE RTV-162 10.3 OZ CARTRDG
56177-001	113.00	BOTTOM HOUSING (MACH)
56188-001	1.25	STRAP MOD 120 & MOD 170
56194-001	237.00	BOTTOM HOUSING (MACH)
56199-001	20.00	SCREEN RCDL MOD. 120
56270-001	1.00	RETAINING STRAP, PLAS. CHMBR. AFT 1975
56308-001	6.50	OUTER CARTON (2" & 3" TURBO II)
56320-001	1,360.00	HSG. MACH CLASS 150 FLG. C BRS.
56322-001	990.00	HEAD (MACH)
56327-001	7.50	GASKET HEAD 6 TURBO
56327-003	11.00	GASKET HEAD 6 TURBO
56327-004	15.00	GASKET HEAD 6 TURBO
56328-001	17.00	CAP - BYPASS MOLDING 4 T
56330-001	86.00	ASSY. BYPASS VALVE PLATE
56331-001	11.00	GASKET HEAD 4 TURBO
56331-003	12.00	GASKET HEAD 4 TURBO
56331-004	13.00	GASKET HEAD 4 TURBO
56335-001	51.00	SPINDLE - ROTOR 4 & 6 T
56337-001	127.00	VALVE STEM - BYPASS
56337-002	135.00	VALVE STEM - BYPASS
56345-001	66.00	ASSY. BYPASS VALVE PLATE
56348-001	2,030.00	HSG. MACH CLASS 150 FLG. C BRS.
56366-001	418.00	GUIDE SWING WEIGHT (MACH) COMP 2" & 3"
56368-001	103.00	LOCK SWING WEIGHT (MACH)
56369-001	18.00	SUPPORT ROTOR
56377-001	9.50	SHAFT
56377-002	2.75	SHAFT
56377-003	6.00	SHAFT
56377-004	3.25	SHAFT
56377-005	18.00	SHAFT
56379-001	30.00	VALVE HIGH FLOW (MACH)
56380-001	9.50	ROLLER
56380-002	8.00	ROLLER
56380-003	9.50	ROLLER
56380-004	13.00	ROLLER
56380-005	9.00	ROLLER
56381-001	204.00	CAGE (MACH)
56382-001	7.00	COVER PLATE L F PORT

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
56386-001	7.50	GASKET, HOUSING (FOR 2"/3" PRE-APRIL 1995 ONLY)
56387-001	278.00	ASSY. SWING WEIGHT HIGH FLOW
56387-002	670.00	ASSY. SWING WEIGHT HIGH FLOW
56389-001	450.00	ASSY. GUIDE & HIGH FLOW VALVE
56389-002	630.00	ASSY. GUIDE & HIGH FLOW VALVE
56422-001	194.00	BYPASS INLET (MACH)
56423-004	0.25	CAPPLUGS, THRD. PROTEC #20 A
56423-005	0.50	CAPPLUGS, THRD. PROTEC #67/230
56423-008	0.25	TAPERED PLUG 2 1/16 DIA BORE
56423-009	4.00	TAPERED PLUG 2 1/8 DIA BORE
56423-014	3.50	CAP FOR LIFTING LUG THREAD HOLE (2"/3" ONLY)
56423-015	0.50	SECURITY SEAL
56426-001	1,130.00	HEAD (MACH)
56568-001	1.00	GASKET
56695-001	16.00	OUTER CARTON (4" TURBO II)
56785-001	297.00	ASSY. HOUSING 2 & 3 T
56785-002	317.00	ASSY. HOUSING 4 T
56785-003	334.00	ASSY. HOUSING 6 T
56831-001	2.50	REG. WRAP
56911-001	4.00	SCREEN, PLASTIC, COLD WATER ONLY
56939-001	7.00	LENS GLASS
56953-001	168.00	COVER DUMMY (MACH) 2 & 3 COMP.
56958-001	60.00	ASSY. SPINDLE & GEAR
56958-002	66.00	ASSY. SPINDLE & GEAR
56998-001	348.00	ROTOR SERVICE KIT 2 T
56998-003	401.00	ROTOR SERVICE KIT 4 T
56998-004	560.00	ROTOR SERVICE KIT 6 T
56998-017	351.00	ROTOR SERVICE KIT 3 T
56998-058	185.00	ROTOR SERVICE KIT 2 & 3 C RCDL
56998-059	356.00	ROTOR SERVICE KIT 4 C RCDL
57234-002	59.00	ROTOR (MACH)
57254-001	9.00	RET. TERMINAL COVER
57255-001	18.00	RET. TERMINAL COVER
57265-003	1.25	WIRE QTY. = ONE LENGTH PRICE/FT
57280-001	1,190.00	HSG. MACH CLASS 150 FLG. C BRS.
57282-001	2,230.00	HEAD (MACH)
57287-001	2,940.00	HEAD (MACH)
57288-001	1,755.00	HSG. MACH CLASS 150 FLG. C BRS.
57312-001	745.00	HEAD (MACH) 2-3 T
57321-001	74.00	PLIERS TRUARC
57323-001	2,750.00	HOUSING (MACH) 4
57325-001	820.00	HEAD (MACH) 4
57335-001	185.00	ASSY SPOOL PIECE 2 125 P.S.I
57335-002	190.00	ASSY SPOOL PIECE 2 125 P.S.I
57335-003	270.00	ASSY SPOOL PIECE 3 125 P.S.I

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
57335-004	290.00	ASSY SPOOL PIECE 4 125 P.S.I
57335-005	320.00	ASSY SPOOL PIECE 4 125 P.S.I
57335-006	350.00	ASSY SPOOL PIECE 6 125 P.S.I
57335-007	460.00	ASSY SPOOL PIECE 6 125 P.S.I
57335-015	470.00	ASSY SPOOL PIECE 8 125 PSI CI
57335-018	270.00	ASSY SPOOL PC.4 125 PSI CI FLG
57335-019	370.00	ASSY SPOOL PC.6 125 PSI CI FLG
57335-031	250.00	ASSY SPOOL PC 3X4.94 EPOXY
57335-032	290.00	ASSY SPOOL PC 4X8.94 EPOXY
57335-033	250.00	ASSY SPOOL PC 3X4.50 EPOXY
57335-034	490.00	ASSY SPOOL PC 8X18.94 EPOXY
57335-035	725.00	ASSY SPOOL PC 10X25.94 EPOXY
57335-036	750.00	ASSY SPOOL PC 12X21.25 EPOXY
57335-039	270.00	ASSY SPOOL PC 4 125 PSI EPOXY
57335-040	440.00	ASSY SPOOL PC 6X11.94 EPOXY
57335-041	250.00	ASSY SPOOL PC 3X6.94 EPOXY
57335-042	320.00	4" SPOOL PIECE WITH EXPOXY COATING & 11 7/8 LAYING LENGTH
57335-043	320.00	ASSY SPOOL PC 4X11.50 EPOXY
57335-044	450.00	ASSY SPOOL PC 6X14.30 EPOXY
57335-045	490.00	ASSY SPOOL PC.8X15.97 EPOXY
57335-046	725.00	ASSY SPOOL PC 10X23.50 EPOXY
57335-047	320.00	ASSY SPOOL PC 4X14.60 EPOXY
57335-048	350.00	ASSY SPOOL PC 6X3.44 EPOXY
57335-049	350.00	ASSY SPOOL PC 6X3.21 EPOXY
57335-050	290.00	ASSY SPOOL PC 4X8.85 EPOXY
57335-051	250.00	ASSY SPOOL PC 3X6.85 EPOXY
57335-052	370.00	ASSY SPOOL PC 6X9.22 EPOXY
57335-053	350.00	ASSY SPOOL PC 6X2.63 EPOXY
57337-001	10.00	SLEEVE
57341-001	26.00	NOSE CONE (MACH)
57341-003	39.00	NOSE CONE MACH 2T IND
57357-001	18.00	SEAL RING
57361-001	213.00	LOCK, SWING WEIGHT 4" & 6"
57364-001	25.00	PLATE SEAL RING (REQUIRED ON 4"/6" ONLY)
57367-001	14.00	GASKET HOUSING
57370-001	68.00	SUPPORT ROTOR
57371-001	14.00	COVER PLATE L F PORT
57382-001	331.00	CAGE (MACH)
57414-001	2.75	GASKET 4 STRAINER
57421-001	2.75	GASKET 6 STRAINER
57537-001	171.00	MECH. ROM TESTER ASSY.
57583-001	690.00	COVER DUMMY (MACH) 4 COMP.
57609-001	150.00	RESTORER THRD. 1/4 THRU 1 DIAMETER-SERVICE
57609-002	196.00	RESTORER THRD. 1 THRU 2 9/16 DIAMETER
57646-001	12.00	GASKET DUMMY COVER

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



BadgerMeter, Inc.

**PRICE
LIST**

Part	List	Part Name
57647-001	36.00	GASKET DUMMY COVER
57648-001	26.00	GASKET DUMMY COVER
57661-001	5.50	CARTON
57703-001	29.00	FRAME ASSY.
57704-001	24.00	ASSY. MAGNET SPINDLE
57709-001	23.00	ASSY. MAGNET & SPINDLE
57720-016	292.00	MSE-5 GEAR TRAIN 16-1 RATIO 1SW PER REV.
57799-001	7.00	HOUSING BOTTOM IRON-PAINTED, MODEL 25
57800-001	2.00	LINER, M25 & M40
57921-001	3.00	HINGED TERMINAL COVER
57935-001	22.00	ASSY. COVER
58088-004	11.00	SEAL BOLT 5/8-11 X 1.75
58111-001	2.00	CLAMP RING (WITH SEAL NUT)
58172-001	59.00	SUPPORT ROTOR-MACH.
58182-001	64.00	ASSY. MAGNET & SPINDLE
58194-001	15.00	ADAPTER
58227-005	201.00	GEAR TRAIN
58234-002	102.00	HOOD ASSY. COMPLETE FOR 258 REGISTER
58321-001	2.50	SCREW, SEAL 10-24 X 3/4
58339-001	11.00	ASSY. CAN & LUBRICANT (UNIVIS J-43)
58374-001	250.00	KIT, FLANGE SPACER
58395-002	1.75	SCREW, TAMPER-PROOF SEAL STYLE B
58395-003	0.75	SCREW, TAMPER-PROOF SEAL STYLE C
58395-005	1.50	SCREW, TAMPER-PROOF SEAL STYLE E
58396-001	1.00	BOLT HEX, WASHER HD. 5/16-18 UNC-2A, MODEL 25
58396-002	2.75	BOLT HEX WASHER HD 5/16-18 W/SEAL HOLE
58404-001	2.50	GASKET, 258 REGISTER COVER
58483-001	28.00	REPAIR KIT GLASS LENS RCDL COMP. REG./GEN.
58527-001	4.25	COMPRESSION & LOCKING NUTS
58540-001	1.00	STRAP CHAMBER RET. RCDL M15, M25, & M35 BRZ.
58550-001	22.00	ASSY. 570 ROM REG. 10 CU FT/PULSE
58550-002	22.00	ASSY. 570 ROM REG. 100 CU FT/PULSE
58550-003	22.00	ASSY. 570 ROM REG. 1000 CU FT/PULSE
58550-004	22.00	ASSY. 570 ROM REG. 100 GAL/PULSE
58550-005	22.00	ASSY. 570 ROM REG. 1000 GAL/PULSE
58550-006	22.00	ASSY. 570 ROM REG. 10000 GAL/PULSE
58550-008	22.00	ASSY. 570 ROM REG. 1 M3/PULSE
58550-009	22.00	ASSY. 570 ROM REG. 10 M3/PULSE
58550-016	22.00	ASSY. 570 ROM REG. 10 CU FT/PULSE/TORX
58550-017	22.00	ASSY. 570 ROM REG. 100 GAL/PULSE/TORX
58550-018	22.00	ASSY. 570 ROM REG. 100 CU FT/PULSE/TORX
58550-019	22.00	ASSY. 570 ROM REG. 1000 GAL/PULSE/TORX
58550-024	22.00	ASSY. 570 ROM REG. 100000 GAL/PULSE/TORX
58550-025	22.00	ASSY. 570 ROM REG. 10000 CU FT/PULSE/TORX
58550-026	22.00	ASSY. 570 ROM REG. 10 M3/PULSE/TORX

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
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Part	List	Part Name
58550-027	22.00	ASSY. 570 ROM REG. 1 M3/PULSE/TORX
58550-029	22.00	ASSY. 570 ROM REG. 10000 GAL/PULSE/TORX
58550-030	22.00	ASSY. 570 ROM REG. 1000 CU FT/PULSE/TORX
58584-001	1.00	ASSY. PKG. 570 ROM REG.
58586-001	11.00	STUD 5/8-11 X 3.00 S.S. 303
58586-002	12.00	STUD 5/8-11 X 3.50 S.S. 303
58586-003	12.00	STUD 5/8-11 X 3.25 S.S. 303
58586-004	18.00	STUD 3/4-10 X 3.75 S.S. 303
58613-001	2,995.00	HOUSING MACH C RCDL 6"
58620-002	112.00	ASSY. VANE LESS ACCURACY VANE 3 T SERVICE
58637-001	13.00	ASSY. PLATE & BUSHINGS
58640-001	65.00	ASSY. PLATE MAG. & SWITCH 4 POLE
58640-002	90.00	ASSY. PLATE MAG. & SWITCH 2 POLE
58642-001	1,220.00	HEAD-MACHINING (BRS.) 4 TURBO INDUS.
58643-001	1,690.00	HEAD-MACHINING (BRS.) 6 TURBO INDUS.
58647-001	11.00	REGISTER COVER, BRONZE
58664-001	87.00	WOODEN SCRAP CRATE
58682-001	7.50	ADAPTER CONDUIT
58702-002	233.00	AR/T XMTR COMPL W/TOTALIZER 2T M3
58702-003	233.00	AR/T XMTR COMPL W/TOTALIZER 3T GAL
58702-004	233.00	AR/T XMTR COMPL W/TOTALIZER 3T M3
58702-007	233.00	AR/T XMTR COMPL W/TOTALIZER 6T GAL
58715-001	70.00	HOUSING 3/4-9 L.L.
58769-001	2.50	GASKET, HOUSING BOTTOM, M70
58770-001	3.25	LINER, HOUSING BOTTOM, M70
58852-001	31.00	COVER, MOLDING, RSC 420 SIGNAL CONVERTER
58852-002	39.00	ER-10H CLEAR COVER
58855-001	4.75	GASKET, HSG, RSC 420 SIGNAL CONVERTER
58864-001	22.00	MOUNTING BRACKET, ADAPTER FT, XMTR
58867-001	92.00	HOUSING MACH M70 1
58867-005	108.00	M70 HOUSING EB2, 1"
58875-001	96.00	HOUSING ASSEMBLY, RSC 420
58923-001	1.75	DOUBLE DRILLED SEAL SCREW
58965-001	0.50	THRUST ROLLER (NYLON), MODELS 25 & 35
58970-004	89.00	ASSY. STR. REG. RCDL II TURBO 3 CU FT
58971-001	7.00	PLUG TAMPER
58993-001	3.50	GASKET 2 & 3
58996-001	595.00	HOUSING MACHINING 4
58998-001	715.00	HOUSING MACHINING 6
58999-001	97.00	COVER DIE CASTING 4 & 6
59001-001	8.00	GASKET 4 & 6
59004-002	24.00	RESISTOR ASSEMBLY
59050-001	9.00	MOUNTING BRACKET, FULL FEATURE REMOTE
59050-002	4.75	RT MOUNTING BRACKET, REMOTE, GREY
59058-001	1.00	5/16 SEAL BOLT, S.ST., MODELS 25, 35, & 40

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

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**Service
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Part	List	Part Name
59180-003	37.00	GASKET HEAD 10-20 RCDL II TURBO
59186-001	4.75	SCREEN, PLASTIC, 70TL
59191-001	1.00	RIVET
59215-003	40.00	BEARING & DISC UPPER SERVICE
59215-004	7.00	SCREW RETAINER SERVICE
59215-005	1.00	WASHER THRUST SERVICE
59215-006	50.00	SHAFT CALIBRATION 2, 3, & 4 SERVICE
59215-007	51.00	SHAFT CALIBRATION 6 & 8 SERVICE
59215-008	1.50	O RING SERVICE
59215-009	3.00	PAWL CALIBRATION 2, 3, & 4 SERVICE
59215-010	6.00	PAWL CALIBRATION 6 & 8 SERVICE
59215-013	146.00	ASSY. ROTOR FRAME 2, 3, & 4 SERVICE
59215-014	290.00	ASSY. ROTOR FRAME 6 & 8 SERVICE
59215-015	7.00	SCREW KIT 2, 3, & 4 SERVICE
59215-016	25.00	SCREW KIT 6 & 8 SERVICE
59215-018	74.00	BEARING KIT 6 & 8 SERVICE
59215-020	57.00	ROTOR FRAME 2, 3, & 4 SERVICE
59215-021	214.00	ROTOR FRAME 6 & 8 SERVICE
59215-022	120.00	ASSY. ROTOR 2, 3, & 4 SERVICE
59215-029	15.00	SCREW KIT 6 & 8 SERVICE
59215-030	4.50	O RING 2 & 3 SERVICE
59215-031	92.00	VANE STRAIGHTENING 2, 3, & 4 SERVICE
59215-032	144.00	VANE STRAIGHTENING 6 & 8 SERVICE
59215-033	1.00	SET SCREW 2, 3, & 4 SERVICE
59215-034	12.00	SET SCREW 6 & 8 SERVICE
59215-035	3.75	VANE CALIBRATION 2, 3, & 4 SERVICE
59215-036	7.50	VANE CALIBRATION 6 & 8 SERVICE
59215-037	10.00	LEVER CALIBRATION 2, 3, & 4 SERVICE
59215-038	19.00	LEVER CALIBRATION 6 & 8 SERVICE
59215-039	7.00	EYE BOLT SERVICE
59215-040	590.00	OUTER COVER FLANGE
59215-041	445.00	INNER COVER FLANGE ASSY.
59215-042	8.50	INNER COVER BOLT, STD., 10-20"
59215-043	1.75	INNER COVER SEAL BOLT, 10-20"
59215-044	6.00	INNER COVER SEAL, 10-20"
59215-045	238.00	CALIBRATION ASSY. 10" & 12"
59215-046	347.00	CALIBRATION ASSY. 16"
59215-047	388.00	CALIBRATION ASSY. 20"
59215-048	118.00	CALIBRATION SHAFT 10" & 12"
59215-049	210.00	CALIBRATION SHAFT 16"
59215-050	234.00	CALIBRATION SHAFT 20"
59215-051	1.50	CALIBRATION SHAFT SEAL 10-20"
59215-052	6.50	CALIBRATION SHAFT DRIVER 10-20"
59215-053	19.00	CALIBRATION VANE 10-20"
59215-054	292.00	TRANSMISSION COUPLING ASSY. 10" & 12"

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
59215-055	372.00	TRANSMISSION COUPLING ASSY. 16"
59215-056	394.00	TRANSMISSION COUPLING ASSY. 20"
59215-057	17.00	MAGNET UPPER SHROUD 10-20"
59215-058	1.25	MAGNET SHROUD SCREW 10-20"
59215-059	675.00	INSERT (CAGE) MOLDING 10-20"
59215-060	388.00	SPACER BAR ASSY. 16"
59215-061	487.00	SPACER BAR ASSY. 20"
59215-062	29.00	SPACER CLIP 16" & 20"
59215-063	8.00	INSERT BOLT 10" & 12"
59215-064	9.50	INSERT BOLT 16"
59215-065	14.00	INSERT BOLT 20"
59215-066	1.00	INSERT BOLT WASHER 10-20"
59215-067	6.50	EYE BOLT, HEAD, 10-20"
59215-068	25.00	EYE BOLT, HOUSING 16" & 20"
59215-069	10.00	OUTER COVER BOLT 10-20"
59215-070	19.00	OUTER COVER SEAL BOLT 10-20"
59215-071	970.00	ROTOR ASSY. 10-20"
59215-072	357.00	NOSE CONE 10-20"
59215-073	10.00	NOSE CONE SET SCREW 10-20"
59215-074	715.00	HOUSING (W/BOLTS) 10"
59215-075	810.00	HOUSING (W/BOLTS) 12"
59215-076	1,240.00	HOUSING (W/BOLTS) 16"
59215-077	1,395.00	HOUSING (W/BOLTS) 20"
59215-078	1.25	OUTER COVER BOLT WASHER 10-20"
59215-079	21.00	KIT #1 (CALIBRATION) 10-20"
59215-080	88.00	KIT #2 (ROTOR BEARING) 10-20"
59221-001	3.25	ENCLOSURE COVER SCREWS (4) FULL FEATURE & TRACE REM.
59239-001	8.50	GASKET RCDL 120 TL
59293-002	20.00	HOUSING BOTTOM, C. I., PAINTED, MODEL 70
59294-003	2.75	SCREW MOUNTING BRACKET, FULL FEATURE & TRACE REM.
59352-001	43.00	ASSY. ROTOR SUPPORT SERVICE 2 & 3 C RCDL
59352-002	86.00	ASSY. ROTOR SUPPORT SERVICE 4 & 6 C RCDL
59482-001	357.00	CABLE MINI INSTM. 1,000 FT/ROLL 8450
59482-002	157.00	CABLE MINI INSTM. 500 FT/ROLL 8450, TRACE STD.
59482-003	0.75	CABLE MINI INSTM. PER FOOT 8450
59487-001	31.00	STRAINER ACCY. KIT ELL. FLANGE 2
59487-002	62.00	STRAINER ACCY. KIT ROUND FLANGE 2 150#
59487-003	112.00	STRAINER ACCY. KIT ROUND FLANGE 2 300#
59487-004	54.00	STRAINER ACCY. KIT ROUND FLANGE 3 150#
59487-005	162.00	STRAINER ACCY. KIT ROUND FLANGE 3 300#
59487-006	95.00	STRAINER ACCY. KIT ROUND FLANGE 4 150#
59487-007	160.00	STRAINER ACCY. KIT ROUND FLANGE 6 150#
59487-008	69.00	STRAINER ACCY. KIT ROUND FLANGE 8 125#
59487-009	103.00	STRAINER ACCY. KIT ROUND FLANGE 10 125#
59487-010	113.00	STRAINER ACCY. KIT ROUND FLANGE 12 125#

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
59487-011	242.00	STRAINER ACCY. KIT ROUND FLANGE 16 125#
59487-012	364.00	STRAINER ACCY. KIT ROUND FLANGE 20 125#
59525-001	5.50	BASE RING MACH
59525-004	9.50	BASE RING MACH W/LOCK HASP
59542-001	2.75	RETAINER, FLAT
59568-001	0.75	HINGE PIN, BRONZE CLAMP RING
59579-001	11.00	CARTON
59581-002	4.00	BOTTOM PAD
59582-001	1.75	WOOD CLEAT
59596-001	1.50	SEAL SCREW 10-32
59604-001	460.00	9802 TRANSMISSION WIRE 1000 FT/ROLL, RODENT PROOF
59604-002	245.00	9802 TRANSMISSION WIRE 500 FT/ROLL, RODENT PROOF
59604-003	1.00	9802 TRANSMISSION WIRE PER FOOT, RODENT PROOF
59652-001	1.25	THRUST ROLLER - PLASTIC
59677-001	2.50	3" SWIVEL COUPLING GASKET F.H.
59678-001	9.00	3" THERMOPLASTIC SCREEN FOR F.H. SWV. CPLG.
59698-002	4.50	MAGNET & SPINDLE ASSY
59701-002	525.00	HSG. MACH ELL RCDL 170 TL 2-15 1/4 L.L., W/T.PLUG
59701-004	545.00	HSG. MACH ELL RCDL 170 TL 2-17 LL, W/T.PLUG
59701-009	575.00	M170 HOUSING EB2, 2" ELL, 15-1/4" TEST PLUS
59701-010	595.00	M170 HOUSING EB2, 2" ELL, 17" TEST PLUG
59703-001	81.00	HOUSING BOTTOM, MACH, BRZ. 1" M70
59703-002	35.00	HOUSING BOTTOM (CAST IRON), MODEL 70, "RECLAIMED"
59703-004	77.00	M70 EB2, HOUSING BOTTOM/COVER (BRONZE)
59707-001	54.00	S-OUTLET MODULAR TAP
59710-003	23.00	CABLE, RET PROGRAMMER
59717-001	459.00	HSG. MACH HEX RCDL 170 TL 2
59717-003	505.00	HSG. MACH ELL, (W/HOLES) RCDL 170 TL 2-15-1/4 L.L.
59717-005	498.00	HSG. MACH ELL, (W/HOLES) RCDL 170 TL 2-17 LL
59717-014	505.00	M170 HOUSING EB2, 2" HEX
59717-015	555.00	M170 HOUSING EB2, 2", ELL, 15-1/4" LL
59717-016	550.00	M170 HOUSING EB2, 2" ELL, 17"LL
59719-001	182.00	HOUSING TOP MACH RCDL 170 TL
59719-004	200.00	M170 EB2, HOUSING BOTTOM/COVER (BRONZE)
59720-001	2.25	SCREEN, MODEL 170
59722-001	4.75	GASKET, MODEL 170
59732-001	3.00	BOLT SEAL 7/16-14 X 1-1/4, MODELS 120 TL & 170 TL
59733-001	2.75	BOLT SEAL 3/8-16 X 1
59746-001	8.50	THRUST ROLLER S.ST., MODEL 70
59746-002	6.00	THRUST ROLLER - M120
59759-001	0.75	EAR CLAMP
59759-002	1.00	EAR CLAMP
59761-001	0.50	CONNECTOR, TWO-WIRE GEL
59761-002	1.00	CONNECTOR, TRI-WIRE GEL SPLICE
59782-001	0.75	GASKET, HOUSING BOTTOM, M35

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
59784-001	21.00	HOUSING BOTTOM, MACH, M35
59784-002	16.00	HOUSING BOTTOM (CAST IRON), MODEL 35, "RECLAIMED"
59784-004	23.00	M35 EB2, HOUSING BOTTOM/COVER (BRONZE)
59785-001	8.00	HOUSING BOTTOM, IRON PAINTED, M35
59786-001	2.50	LINER, HOUSING BOTTOM, M35
59805-001	2.00	SCREEN, M35
59807-001	75.00	HOUSING, MACH SHORT, M35 3/4 X 7-1/2 LL
59807-005	82.00	M35 HOUSING EB2, 3/4" - 7-1/2" LL, 3/4" BORE
59809-001	78.00	HOUSING, MACH LONG, M35 3/4 X 9 LL
59809-002	127.00	HOUSING, MACH LONG, M35 3/4 X 1 X 9 LL
59809-007	86.00	M35 HOUSING EB2, 3/4" X 9"
59809-008	139.00	M35 HOUSING EB2, 3/4" X 1" X 9"
59833-001	3.53	ENCLOSURE GASKET, FULL FEATURE & TRACE REMOTE
59833-002	4.75	REMOTE TRANSMITTER GASKET
59900-001	1.25	COVER TERMINAL
59915-001	2.75	570 BACK PLATE
59935-001	234.00	SWING WEIGHT, MAIN VALVE, 2" & 3" COMP.
59945-057	695.00	MODEL 170 HD 2" METER FOR FSAA
59969-001	1.50	RT LOCKING BRACKET, TRACE
59978-001	3,600.00	ACCESSPLUS TOOL KIT
59979-001	129.00	TOOL BOX
59980-001	1,440.00	TELEPHONE TEST SET
59981-001	1,115.00	PHONE PLUG CRIMPING TOOL
59982-001	83.00	IN-LINE MODULE ADAPTER
59983-001	108.00	E-9E CRIMPING TOOL
59984-001	154.00	STRAIN RELIEF ASSEMBLY TOOL
59985-001	280.00	TONE TRACER
59986-001	142.00	TONE GENERATOR
59987-001	77.00	VOM, MULTIMETER
59988-001	302.00	IMPACT TOOL
59989-001	100.00	COAX CABLE STRIPPER
59990-001	56.00	CAN WRENCH
59991-001	79.00	PLIERS, WIRE CUTTER
59992-001	101.00	PLIERS, WIRE CUTTING LONG NOSE
59993-001	31.00	WIRE STRIPPERS
59994-001	100.00	HAMMER
59995-001	31.00	SCREWDRIVER, ELECTRIC & TELEPHONE
59996-001	155.00	WIRE STAPLER
59997-001	63.00	FLASHLIGHT
59999-001	7.50	NONCORROSIVE STAPLES, 1,000/BOX
60238-001	0.25	NYLON TIE
60238-006	5.00	CABLE TIE-STRAIN RELIEF TO PIPE, (USED ON LMI)
62001-001	377.00	TELEPHONE EXTENSION WIRE, 500 FT.
62002-001	216.00	STATION WIRE, 1,000 FT.
62003-001	1.50	RJ-11 MODULE PHONE PLUG

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
62009-001	4.50	RT INSTALLATION KIT
62016-001	35.00	RT PROGRAMMING LINK
62028-001	4.50	BATTERY ALKALINE AA
62028-002	12.00	BATTERY ALKALINE 9V
62037-002	189.00	2" SILENT SEAT CHECK VALVE W/S.ST. SPRINGS
62071-001	16.00	FIELD SPLICE KIT
62071-002	16.00	INSTALLATION KIT, PIT GEN.
62084-001	5.59	FIELD SPLICE KIT
62085-001	4.50	SPLICE ENCLOSURE
62098-002	70.00	GEN. RCDL MOD. 25 10 GAL T.C. - PIT SET 3'
62098-003	70.00	GEN. RCDL MOD. 40 10 GAL T.C. - PIT SET 3'
62098-005	70.00	GEN. RCDL MOD. 25 1 CU FT T.C. - PIT SET 3'
62098-006	70.00	GEN. RCDL MOD. 40 1 CU FT T.C. - PIT SET 3'
62098-011	70.00	GEN. RCDL MOD. 25 .1 M3 T.C. - PIT SET 3'
62098-012	70.00	GEN. RCDL MOD. 40 .1 M3 T.C. - PIT SET 3'
62098-014	70.00	GEN. RCDL MOD. 70 10 CU FT T.C. - PIT SET 3'
62098-015	80.00	GEN. RCDL MOD. 70 100 IMP. GAL T.C. - PIT SET
62098-016	70.00	GEN. RCDL MOD. 70 1 M3 T.C. - PIT SET 3'
62098-017	76.00	GEN. RCDL MOD. 120 100 GAL T.C. - PIT SET 3'
62098-018	76.00	GEN. RCDL MOD. 120 10 CU FT T.C. - PIT SET 3'
62098-019	86.00	GEN. RCDL MOD. 120 100 IMP. GAL T.C. - PIT SET
62098-020	76.00	GEN. RCDL MOD. 120 1 M3 T.C. - PIT SET 3'
62098-022	70.00	GEN. RCDL MOD. 25 .01 M3 T.C. - PIT SET 3'
62098-023	70.00	GEN. RCDL MOD. 70 .1 M3 T.C. - PIT SET 3'
62098-033	76.00	GEN. RCDL MOD. 170 100 GAL T.C. - PIT SET 3'
62098-034	76.00	GEN. RCDL MOD. 170 10 CU FT T.C. - PIT SET 3'
62098-035	76.00	GEN. RCDL MOD. 170 1 M3 T.C. - PIT SET 3'
62098-036	70.00	GEN. RCDL MOD. 35 10 GAL T.C. - PIT SET 3'
62098-037	70.00	GEN. RCDL MOD. 35 1 CU FT T.C. - PIT SET 3'
62098-038	70.00	GEN. RCDL MOD. 35 .1 M3 T.C. - PIT SET 3'
62098-039	70.00	GEN. RCDL MOD. 70 10 GAL T.C. - PIT SET 3'
62098-040	70.00	GEN. RCDL MOD. 70 1 CU FT T.C. - PIT SET 3'
62098-041	70.00	GEN. RCDL MOD. 70 .1 M3 TC - PIT SET 3'
62098-044	80.00	GEN. RCDL MOD. 70 10 IMP. GAL T.C. - PIT SET
62098-056	74.00	GEN. RCDL MOD. 40 .1 M3 T.C. - PIT SET 6'
62098-178	74.50	GEN. RCDL MOD. 25 10 GAL T.C. - PIT SET 25'
62098-179	74.50	GEN. RCDL MOD. 40 10 GAL T.C. - PIT SET 25'
62098-181	74.50	GEN. RCDL MOD. 25 1 CU FT T.C. - PIT SET 25'
62098-182	74.50	GEN. RCDL MOD. 40 1 CU FT T.C. - PIT SET 25'
62098-187	74.50	GEN. RCDL MOD. 25 .1 M3 T.C. - PIT SET 25'
62098-188	74.50	GEN. RCDL MOD. 40 .1 M3 T.C. - PIT SET 25'
62098-190	74.50	GEN. RCDL MOD. 70 10 CU FT T.C. - PIT SET 25'
62098-192	74.50	GEN. RCDL MOD. 70 1 M3 T.C. - PIT SET 25'
62098-193	80.50	GEN. RCDL MOD. 120 100 GAL T.C. - PIT SET 25'
62098-194	80.50	GEN. RCDL MOD. 120 10 CU FT T.C. - PIT SET 25'

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
62098-196	80.50	GEN. RCDL MOD. 120 1 M3 T.C. - PIT SET 25'
62098-198	74.50	GEN. RCDL MOD. 25 .01 M3 T.C. - PIT SET 25'
62098-199	74.50	GEN. RCDL MOD. 70 .1 M3 T.C. - PIT SET 25'
62098-209	84.50	GEN. RCDL MOD. 170 100 GAL T.C. - PIT SET 25'
62098-210	84.50	GEN. RCDL MOD. 170 10 CU FT T.C. - PIT SET 25'
62098-211	84.50	GEN. RCDL MOD. 170 1 M3 T.C. - PIT SET 25'
62098-212	74.50	GEN. RCDL MOD. 35 10 GAL T.C. - PIT SET 25'
62098-213	74.50	GEN. RCDL MOD. 35 1 CU FT T.C. - PIT SET 25'
62098-214	74.50	GEN. RCDL MOD. 35 .1 M3 T.C. - PIT SET 25'
62098-215	74.50	GEN. RCDL MOD. 70 10 GAL T.C. - PIT SET 25'
62098-216	74.50	GEN. RCDL MOD. 70 1 CU FT T.C. - PIT SET 25'
62098-217	74.50	GEN. RCDL MOD. 70 .1 M3 TC - PIT SET 25'
62103-001	29.00	DOOR SEAL GASKET, 2" & 3" COMP.
62115-001	25.00	SPANNER WRENCH
62159-005	60.00	NULMODEM CABLE, PI
62159-006	66.00	TRIMBLE RANGER/ORION LAPTOP REMOTE DATA PROFILER & SERIAL REPEATER CABLE
62171-001	2.75	HOUSING GASKET, MODEL 120
62172-001	2.75	SCREEN, RCDL MODEL 120
62175-001	386.00	HOUSING, MACH, ELL. SHORT, RCDL 120 TL 1-1/2
62175-002	386.00	HOUSING, MACH, ELL. LONG, RCDL 120 TL 1-1/2
62175-003	386.00	HOUSING, MACH, ELL.SHORT,W/T.P. RCDL 120 TL 1-1/2
62175-004	386.00	HOUSING, MACH, ELL LONG, W/T.P. RCDL 120 TL 1-1/2
62175-005	386.00	HOUSING, MACH, HEX, RCDL 120 TL 1-1/2
62175-018	424.00	M120 HOUSING EB2, 1-1/2", ELL, 12-5/8" LL
62175-019	425.00	M120 HOUSING EB2, 1-1/2", ELL, 13" LL
62175-020	425.00	M120
62175-021	425.00	M120 HOUSING EB2, 1-1/2", ELL, 13" TEST PLUG
62175-022	425.00	M120 HOUSING EB2, 1-1/2", HEX
62176-001	137.00	COVER, HSG. TOP, RCDL 120
62205-001	11.00	CLEAR MEMORY DEVICE
62219-001	136.00	CARRYING CASE, MC-V DATA COLLECTOR
62229-001	14.00	SCREW, COVER, TRACE PI
62230-001	0.75	CONNECTOR INSULATION DISPLACEMENT
62244-001	1.50	TRACE REMOTE/INTEGRAL INSTALLATION KIT (STD. SEAL SCREW)
62260-001	0.75	SEAL BOLT, HEX HD. 5/16 SIL. BRZ., M25,M35,M40 BRZ.
62278-001	2.00	COVER, FLAT (PLASTIC)
62278-002	3.00	REGISTER COVER (GRAY)
62279-001	2.00	SHROUD, BOTTOM
62279-002	2.75	PLASTIC SHROUD (BOTTOM HALF)
62279-003	4.00	PLASTIC SHROUD (BOTTOM HALF) "RECLAIMED"
62279-006	9.00	SHROUD BOTTOM (GRAY)
62280-001	2.00	SHROUD, TOP
62280-002	2.75	PLASTIC SHROUD (TOP HALF) "RECLAIMED"
62280-003	3.00	SHROUD TOP (GRAY)
62288-001	51.00	BNC ADAPTER

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
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Part	List	Part Name
62296-001	334.00	SWING WEIGHT, HIGH FLOW (MACH) 4 & 6" COMP.
62303-001	51.00	HOUSING (MACH) M25, 5/8 X 3/4 - 7-1/2 LL
62303-002	54.00	HOUSING (MACH) M25, 3/4 X 7-1/2 LL
62303-003	50.00	HOUSING (MACH) M25, 5/8 X 7-1/2 LL
62303-015	56.00	M25 HOUSING EB2, 5/8" X 3/4", 5/8"
62303-016	59.00	M25 HOUSING EB2, 3/4" - 7-1/2" LL, 3/4" BORE
62303-017	55.00	M25 HOUSING EB2, 5/8" X 7-1/2"
62307-001	7.50	NUT, PLASTIC, PIT - TRACE
62308-001	2.75	TAMPER-PROOF PLUG
62309-001	1.25	TRACE PIT TRANSPONDER TOLERANCE SPACER
62310-006	17.00	INSTALLATION KIT, CONCRETE/PLASTIC LID
62335-001	0.75	SEAL SCREW, TAMPER RESISTANT, STANDARD, (LOCAL REG.)
62336-001	0.75	SEAL SCREW, BREAK AWAY
62345-001	3.00	MAGNETIC FILM FLOW FINDER (MOUNTED IN 35 MM SLIDE)
62346-001	7.00	DISASSEMBLY TOOL
62346-898	4.00	ICE SCRAPER
62353-001	6.00	COVER, FLAT (BRONZE)
62358-001	0.25	TAPPING SCREW
62359-001	0.25	SCREW ANCHOR
62363-001	14.00	MOUNTING FLANGE
62395-001	645.00	M25 POLISHED METER, GALLON
62395-002	655.00	M25 POLISHED METER, CUBIC FEET
62395-003	550.00	M25 POLISHED METER, M3
62426-001	4.25	CARTON, M25 (MEXICO), 12 INTEGRALS PER CARTON
62427-001	0.75	PLAIN PAD, (NEED 3 PER CARTON P/N 62426-001)
62439-001	620.00	FIC WAKEUP MODULE
62440-001	268.00	BELDON 8451 WIRE 2000' ROLL, FOR RTR-RT
62440-003	0.50	BELDON 8451 WIRE PER FOOT FOR RTR-RT
62442-001	8.00	FLAT LID, BRONZE SHROUD
62446-001	6.50	REGISTER TEST RING, THERMOPLASTIC
62454-001	0.49	TORX COVER SCREW, FOR RT-TRACE
62454-002	0.50	TORX SCREW FOR IT BRACKET
62455-001	2.25	INSERT, PLASTIC, FOR FLAT LID, BRONZE SHROUD
62463-001	45.00	TRIGGER, SINGLE, MACH. 2" & 3" COMP.
62464-001	6.00	CARTON, SINGLE PACK, M120
62465-001	4.50	CARTON, SINGLE PACK, M170
62466-001	6.50	CARTON, TRANSPONDERS - HRT - TRACE (12 PACK)
62467-001	2.50	PAD, DIE-CUT (USE WITH P/N 62466-001) (12 TO PKG.)
62507-003	1.75	TAMPER PROOF LABEL
62516-001	1.00	SEAL SCREW, TORX, TAMPER RESISTANT, (LOCAL REG.)
62516-002	0.75	SEAL SCREW, TORX, TAMPER RESISTANT, (GEN. REG.)
62520-001	505.00	SWING WEIGHT GUIDE, MACHINED, COMP 4" & 6"
62522-001	7.00	COVER, PRINTED, 10 CU FT
62522-002	7.00	COVER, PRINTED, 100 GAL
62522-005	7.00	COVER, PRINTED, 100 CU FT

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
62522-006	7.00	COVER, PRINTED, 1,000 CU FT
62522-007	7.00	COVER, PRINTED, 1,000 GAL
62522-008	7.00	COVER, PRINTED, 10,000 GAL
62522-009	7.00	COVER, PRINTED, .1 M3
62522-010	7.00	COVER, PRINTED, 1 M3
62522-011	7.00	COVER, PRINTED, 10 M3
62522-012	7.00	COVER, PRINTED, 10,000 CU FT
62522-013	7.00	COVER, PRINTED, 100,000 GAL
62522-016	7.00	ROM REGISTER COVER ONLY 4 EXPOSED # WHEELS
62524-001	75.00	SHAFT (SINGLE PIN FOR 2"/3" AFTER APRIL 1995 ONLY)
62546-001	875.00	HSG. MACH. CLASS 150 FLG. C BRZ. (FOR 2"/3" AFTER APRIL 1995 ONLY)
62546-003	935.00	HSG. MACH. ELLIPTICAL FLG. C BRZ., SINGLE DRAIN PLUG (FOR 2" AFTER APRIL 1995 ON
62547-001	700.00	HEAD (FOR 2"/3" AFTER APRIL 1995 ONLY)
62558-001	388.00	TRIGGER, SINGLE MACH. 4" & 6" COMP.
62576-001	9.87	BATTERY FOR ER6 AND ER7
62610-001	41.00	TRACE RETRACTABLE ANTENNA
62616-001	12.00	SHROUD, ASSEMBLY, BRONZE
62624-001	0.75	SEAL SCREW, TAMPER RESISTANT, STD, (ROM GEN REG & HRT)
62625-001	13.00	RUBBER SERIAL PORT PLUG, MC-V
62633-001	404.00	CARRYING CASE, ACCESSPLUS FIC
62635-001	16.00	HOUSING BOTTOM/COVER, BRZ., M25
62635-002	13.00	HOUSING BOTTOM MODEL 25, "RECLAIMED"
62635-004	18.00	M25 EB2, HOUSING BOTTOM/COVER (BRONZE)
62641-001	39.00	SERIAL PORT CONNECTOR, ACCESSPLUS FIC
62645-001	12.50	GASKET, HOUSING (FOR 2"/3" AFTER APRIL 1995 ONLY)
62657-001	4.00	TORX BIT INSERT, LOCAL REG., ROM GEN, & HRT - T10
62657-002	4.00	TORX BIT INSERT, TRACE REMOTE BOX - T-15
62658-001	21.00	SCREWDRIVER, TORX SEAL, STUBBY, LOC. REG, ROM GEN. & HRT - T-10
62658-002	21.00	SCREWDRIVER, TORX SEAL, STUBBY, TRACE REMOTE BOX - T-15
62658-003	21.00	SCREWDRIVER, TORX SEAL, LONG, LOCAL REG, ROM GEN & HRT - T-10 -
62658-004	21.00	SCREWDRIVER, TORX SEAL, LONG, TRACE REMOTE - T-15
62665-001	77.00	MODEM DATA PROTECTOR
62696-001	7.50	PLASTIC LID & SHROUD ASSEMBLY
62698-001	30.00	BRONZE LID & SHROUD ASSEMBLY & INSERT
62736-001	51.00	LIFTING EYE, FOR 3" - 8" FSM (2 REQUIRED)
62740-001	2.25	REGISTER FLAT LID (PURPLE) "RECLAIMED"
62747-001	470.00	HOUSING, ELLIPTICAL FLANGE, W/TEST PLUG, 1 1/2" RCDL TURBO SERIES
62747-002	457.00	HOUSING, ELLIPTICAL FLANGE, W/O TEST PLUG, 1 1/2" RCDL TURBO SERIES
62748-001	505.00	HOUSING, ROUND FLANGE, W/TEST PLUG, 2" RCDL TURBO SERIES
62748-002	489.00	HOUSING, ROUND FLANGE, W/O TEST PLUG, 2" RCDL TURBO SERIES
62749-001	499.00	HOUSING, ELLIPTICAL FLANGE, W/TEST PLUG, 2" RCDL TURBO SERIES
62749-002	486.00	HOUSING, ELLIPTICAL FLANGE, W/O TEST PLUG, 2" RCDL TURBO SERIES
62754-001	1.00	O-RING, CALIBRATION SHAFT, 1 1/2" - 6" RCDL TURBO SERIES
62754-002	6.00	O-RING, HEAD, 1 1/2" AND 2" RCDL TURBO SERIES
62754-003	6.00	O-RING, HEAD, 3" AND 4" RCDL TURBO SERIES

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
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Part	List	Part Name
62754-004	17.00	O-RING, HEAD, 6" RCDL TURBO SERIES
62754-005	14.00	O-RING, HEAD, 8" RCDL TURBO SERIES
62764-001	650.00	HOUSING, ROUND FLANGE, W/TEST PLUG, 3" RCDL TURBO SERIES
62764-002	640.00	HOUSING, ROUND FLANGE, W/O TEST PLUG, 3" RCDL TURBO SERIES
62765-001	915.00	HOUSING, ROUND FLANGE, W/TEST PLUG, 4" RCDL TURBO SERIES
62765-002	900.00	HOUSING, ROUND FLANGE, W/O TEST PLUG, 4" RCDL TURBO SERIES
62777-001	1.00	BOLT, HEX INDENTED, 5/16-18 X .88
62793-001	1.25	SEAL PLUG, CALIBRATION SHAFT, 1 1/2" - 6" RCDL TURBO SERIES
62820-001	2.50	MOUNTING CLIPS FOR DIALOG MODULES IN NETWORK
62825-001	6.50	PIT MODULE LOCKING NUT, DIALOG
62825-002	7.00	PIT LOCKNUT
62837-001	770.00	HOUSING, ROUND FLANGE, W/ TEST PLUG, 6" RCDL TURBO SERIES
62837-002	755.00	HOUSING, ROUND FLANGE, W/O TEST PLUG, 6" RCDL TURBO SERIES
62875-015	159.00	BADGER ITRON ERT REMOTE
62875-017	88.00	ERT MODULE
62889-001	189.00	METER ASSY. COMP. M25 CLEAR GAL
62889-002	189.00	METER ASSY. COMP. M25 CLEAR CU FT
62889-003	189.00	METER ASSY. COMP. M25 CLEAR M3
62906-001	3,620.00	MODEM INTERFACE
62924-001	4.00	CAGE SEAL, 1 1/2" AND 2" RCDL TURBO SERIES
62924-002	5.00	CAGE SEAL, 3" AND 4" RCDL TURBO SERIES
62924-003	6.00	CAGE SEAL, 6" RCDL TURBO SERIES
62924-004	1.75	CAGE SEAL, WP-N 8"
62971-001	257.00	COVER PLATE, 1 1/2" RCDL TURBO SERIES
62971-002	7.50	CALIBRATION RING (FRONT), 1 1/2" RCDL TURBO SERIES
62971-003	70.00	STRAIGHTENING VANE & NOSE CONE ASSY., 1 1/2" RCDL TURBO SERIES
62972-001	257.00	COVER PLATE, 2" RCDL TURBO SERIES
62972-002	7.50	CALIBRATION RING (FRONT), 2" RCDL TURBO SERIES
62973-001	310.00	COVER PLATE, 3" RCDL TURBO SERIES
62973-002	112.00	ROTOR ASSEMBLY, 3" RCDL TURBO SERIES
62973-005	86.00	3" HEAD FLANGE (LOW LEAD)
62974-001	310.00	COVER PLATE, 4" RCDL TURBO SERIES
62974-002	118.00	ROTOR ASSEMBLY, 4" RCDL TURBO SERIES
62974-005	88.00	4" HEAD FLANGE (LOW LEAD)
62976-001	6.50	CALIBRATION LINKAGE, 1 1/2" - 4" RCDL TURBO SERIES
62976-002	20.00	BEARING, LOWER TRANSMISSION, 1 1/2" - 4" RCDL TURBO SERIES
62976-003	86.00	CALIBRATION SHAFT, 2" - 4" RCDL TURBO SERIES
62976-004	17.00	LOCK SCREW, CALIBRATION SHAFT, 1 1/2" - 6" RCDL TURBO SERIES
62976-005	1.00	CAGE SETSCREW (1 REQUIRED), 1 1/2" & 2" RCDL TURBO SERIES
62976-006	1.00	THRUST WASHER, CALIBRATION SHAFT, 1 1/2" & 2" RCDL TURBO SERIES
62976-007	1.00	CAGE/NOSE CONE SETSCREWS (2 REQUIRED) 1 1/2" - 4" RCDL TURBO SERIES
62976-008	6.50	CALIBRATION RING (REAR), 1 1/2" AND 2" RCDL TURBO SERIES
62976-009	9.00	CALIBRATION RING (REAR), 3" AND 4" RCDL TURBO SERIES
62976-010	45.00	TRANSMISSION SHAFT ASSY., 1 1/2" AND 2" RCDL TURBO SERIES
62976-011	40.00	TRANSMISSION SHAFT ASSY., 3" AND 4" RCDL TURBO SERIES

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
62976-012	4.75	HOLD DOWN STRAP, 1 1/2" AND 2" RCDL TURBO SERIES
62976-013	4.75	HOLD DOWN STRAP, 3" AND 4" RCDL TURBO SERIES
62976-014	53.00	CAGE INSERT, MEASURING ELEMENT, 1 1/2" AND 2" RCDL TURBO SERIES
62976-015	53.00	CAGE INSERT, MEASURING ELEMENT, 3" AND 4" RCDL TURBO SERIES
62976-016	70.00	STRAIGHTENING VANE & NOSE CONE ASSY., 2" RCDL TURBO SERIES
62976-017	82.00	STRAIGHTENING VANE & NOSE CONE ASSY., 3" AND 4" RCDL TURBO SERIES
62976-018	28.00	MAGNET CARRIER, 1 1/2" AND 2" RCDL TURBO SERIES
62976-019	27.00	MAGNET CARRIER, 3" AND 4" RCDL TURBO SERIES
62976-020	6.00	TRANSMISSION SHAFT PROTECTION TUBE, 1 1/2" AND 2" RCDL TURBO SERIES
62976-021	6.00	TRANSMISSION SHAFT PROTECTION TUBE, 3" AND 4" RCDL TURBO SERIES
62976-022	5.50	TRANSMISSION SHAFT GEAR, 1 1/2" AND 2" RCDL TURBO SERIES
62976-023	6.50	TRANSMISSION SHAFT GEAR, 3" AND 4" RCDL TURBO SERIES
62976-024	11.00	CALIBRATION RING (FRONT), 3" AND 4" RCDL TURBO SERIES
62976-025	106.00	ROTOR ASSEMBLY, 1 1/2" AND 2" RCDL TURBO SERIES
62976-026	6.50	VENT TUBE, 1 1/2" AND 2" RCDL TURBO SERIES
62976-029	14.00	PUSHER, 6" - 12", RCDL TURBO SERIES
62976-031	19.00	CALIBRATION GEAR, 6" RCDL TURBO SERIES
62976-032	3.50	RETAINING RING, 6" RCDL TURBO SERIES
62976-034	375.00	INSERT, BASIC BODY WP-N, 8" - 12" RCDL TURBO SERIES
62976-035	308.00	STRAIGHT VANE, CPL WP-N, 8" - 12" RCDL TURBO SERIES
62976-037	865.00	FLANGE, WP-N, 8" - 12" RCDL TURBO SERIES
62976-039	19.00	PROTECTION TUBE, WP-N, 8" - 12" RCDL TURBO SERIES
62976-040	14.00	GEAR TRANS. SHAFT, WP-N, 8" - 12" RCDL TURBO SERIES
62976-041	52.00	CALIBRATION RING, WP-N, 8" - 12" RCDL TURBO SERIES
62976-042	39.00	MEASURING ORIFICE, WP-N, 8" - 12" RCDL TURBO SERIES
62976-043	132.00	TRANSMISSION SHAFT, WP-N, 8" - 12" RCDL TURBO SERIES
62976-044	3.25	SCREW F INSERT BODY, WP-N, 8" - 12" RCDL TURBO SERIES
62976-045	6.50	BALL, WP-N, 8" - 10", RCDL TURBO SERIES
62976-046	560.00	ROTOR, CPL, WP-N, 10" - 12", RCDL TURBO SERIES
62976-047	86.00	MAGNET COUPLER, CPU, WP-N, 8" - 12", RCDL TURBO SERIES
62976-048	112.00	CALIBRATION SHAFT, WP-N, 8" - 12", RCDL TURBO SERIES
62976-049	1.50	WASHER, SPRING, WP-N, 8" - 12", RCDL TURBO SERIES
62976-050	1.50	SCREW, WP-N, 6" - 12", RCDL TURBO SERIES
62976-051	27.00	ORIFICE RING, TURBO SERIES 8-10
62987-001	215.00	DUMMY COVER, 2" & 3" COMPOUND
62988-001	205.00	12" READ WAND EXTENSION, DIALOG
62988-002	384.00	24" READ WAND EXTENSION, DIALOG
62989-001	570.00	READ WAND BASE UNIT, DIALOG
62994-001	282.00	FIRE HOSE & COUPLING, 2-1/2"
63000-001	116.00	FIRE HOSE REDUCER
63047-001	349.00	HOUSING, FOR 3" FH METER
63051-001	401.00	MODEM INTERFACE ACCESSORY KIT
63052-001	1.75	CARTON
63053-001	2.00	CARTON
63058-001	3.70	CARTON-SINGLE PAK P40 & M70 W/G

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63071-001	26.00	SUPPORT PLATE LOCK, 2" - 6"
63072-001	7.00	SHAFT-HIGH FLOW VALVE
63094-001	111.00	ROTOR ONLY FOR 3" FIRE HYDRANT METER
63115-001	18.00	SCREEN, FOR 1-1/2" INTEGRAL STRAINER
63116-001	42.00	LEAK DETECTOR
63122-001	0.40	ROTO SEAL
63125-001	376.00	HOUSING, ELLIPTICAL FLANGE, W/ TEST PLUG, FOR 1-1/2" INTEGRAL STRAINER
63129-001	15.00	HANDLE, FOR 3" FH METER
63131-001	66.00	SCREEN, FOR 3" FH METER
63177-001	310.00	CAGE INSERT, MEASURING ELEMENT, 6" RCDL TURBO SERIES
63177-002	274.00	STRAIGHTENING VANE & NOSE CONE ASS'Y, 6" RCDL TURBO SERIES
63177-003	550.00	ROTOR ASSEMBLY, 6" RCDL TURBO SERIES
63177-004	700.00	FLANGE, 6", RCDL TURBO SERIES
63177-006	16.00	TRANSMISSION SHAFT PROTECTION TUBE, 6" RCDL TURBO SERIES
63177-007	12.00	TRANSMISSION SHAFT GEAR, 6" RCDL TURBO SERIES
63177-008	46.00	CALIBRATION RING (FRONT), 6" RCDL TURBO SERIES
63177-009	35.00	CALIBRATION RING (REAR), 6" RCDL TURBO SERIES
63177-010	119.00	TRANSMISSION SHAFT ASSEMBLY, 6" RCDL TURBO SERIES
63177-011	0.75	CAGE SETSCREW, 6" RCDL TURBO SERIES
63177-012	0.50	WASHER, 6" RCDL TURBO SERIES
63177-015	81.00	MAGNET COUPLER, CPU, WP-N, 6", RCDL TURBO SERIES
63177-016	109.00	CALIBRATION SHAFT, WP-N, 6", RCDL TURBO SERIES
63177-020	235.00	6" HEAD FLANGE (LOW LEAD)
63178-001	545.00	ROTOR, CPL, WP-N, 8", RCDL TURBO SERIES
63178-005	392.00	8" HEAD FLANGE (LOW LEAD)
63179-001	1,575.00	TURBO SERIES HOUSING, ROUND FLANGE, W/O TEST PLUG, 12"
63180-001	154.00	CONNECTION ASSEMBLY, SWIVEL, 2 1/2 - 7 1/2 NH, FOR 3" FH METER
63180-011	269.00	CONNECTION ASSEMBLY, SWIVEL, 2 1/2, (SPECIAL)
63190-001	77.00	DUMMY COVER PLATE, 1-1/2" RCDL TURBO SERIES
63194-001	129.00	DUMMY COVER PLATE, 3" RCDL TURBO SERIES
63195-001	248.00	DUMMY COVER PLATE, , 6" RCDL TURBO SERIES
63233-001	23.00	STRAINER COVER, 2"
63247-022	41.00	M35 REGISTER M3 NOM
63247-023	41.00	M40 REGISTER M3 NOM
63247-025	41.00	M120 REGISTER M3 NOM
63247-030	41.00	M55 REGISTER M3 NOM
63267-001	15.00	CELLINK REPLACEMENT BATTERY
63274-001	0.75	TAPE, DUAL LOCK FASTENER 170
63277-001	18.00	SCREEN, FOR 2" INTEGRAL STRAINER
63279-005	165.00	SPLITTER
63280-025	745.00	GPS RECEIVER
63281-001	45.00	STRAINER COVER, 3" & 4"
63283-001	24.00	SCREEN, FOR 3" INTEGRAL STRAINER
63283-002	24.00	3" STRAINER SCREEN
63285-001	67.00	SCREEN, FOR 4" INTEGRAL STRAINER

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63340-001	3.50	REGISTER COVER
63382-004	2,140.00	M35 E-COAT, HOUSING BOTTOM/COVER (BRONZE)
63384-019	126.00	PRIMO LCD DISPLAY
63384-021	143.00	PRIMO HOUSING (LESS ELECTRONICS)
63384-035	163.00	REMOTE MOUNTING KIT, LESS CABLE FOR 3.1
63384-036	950.00	MAGNETOFLOW 3.1 - PRIMO AMPLIFIER ASSEMBLY COMPLETE
63384-037	620.00	MAGNETOFLOW 3.1 PRIMO MOTHER BOARD ASSEMBLY
63412-001	2.25	CONNECTOR, MALE - WATERPROOF
63413-001	2.50	LOCKING COLLAR
63414-001	0.50	COVER, CONNECTOR
63425-001	6.50	MOUNTING BRACKET, SUMMATOR SUPPORT
63435-002	146.00	TRANSMIT ANTENNA
63435-003	176.00	RECEIVER ANTENNA
63440-001	3,980.00	LCD USER INTERFACE
63455-001	157.00	POWER CORD
63456-003	19.00	MMI TOUCH GRAF POWER CORD
63485-001	12.00	MRT HARNESS WITH CONNECTOR AND BARE LEADS, 10 FEET
63485-002	25.00	HARNESS, WITH INLINE CONNECTOR AND BARE LEADS, 15 FEET
63485-003	17.00	MRT HARNESS W/25FT WIRE AND BARE LEADS
63485-004	26.00	MRT HARNESS W/75 FT. WIRE
63485-007	25.00	WIRE HARNESS, 2 WIRE, FOR 570 REGISTER, 25 FOOT LEAD LENGTH
63496-001	9.50	BRONZE COVER, 2" - 6"
63497-002	118.00	ERT 40G, GAS METER MODULE, AMERICAN (30 MIN. QTY.)
63497-003	118.00	ERT 40G, GAS METER MODULE, INVENSYS/EQUIMETER/ROCKWELL 11 TOOTH (30 MIN. QTY.)
63497-004	118.00	ERT 40G, GAS METER MODULE, INVENSYS/EQUIMETER/ROCKWELL 16 TOOTH METRIC (30 MIN. QTY.)
63497-005	118.00	ERT 40G, GAS METER MODULE, INVENSYS/EQUIMETER/ROCKWELL 18 TOOTH (30 MIN. QTY.)
63497-006	118.00	ERT 40G, GAS METER MODULE, SCHLUM./SPRAGUE 400 / METRIS 250 SLANT FACE (30 MIN. QTY.)
63497-008	118.00	ERT 40G, GAS METER MODULE, NATIONAL/LANCASTER (30 MIN. QTY.)
63497-009	158.00	ERT 40GR, GAS METER MODULE, REMOTE, 2.5' ENCODER CABLE (30 MIN. QTY.)
63497-010	207.00	ERT 40GR, GAS METER MODULE, REMOTE, 20' ENCODER CABLE (30 MIN. QTY.)
63497-011	118.00	ERT 40GR, DRESSER ROTARY GAS METER MODULE, U.S. WITHOUT CABLE (30 MIN. QTY.)
63497-012	112.00	ERT 40GB, GAS METER MODULE, COMMERCIAL (10 MIN. QTY.)
63497-013	20.00	SPRAGUE 1A ADAPTER PLATE & HARDWARE FOR ERG-0006-211
63497-014	118.00	ERT 40GR, ROMET ROTARY GAS METER MODULE, U.S. WITHOUT CABLE
63497-015	135.00	ITRON GAS ERT (ERG-0007-005)
63498-001	129.00	ERT 40G, GAS METER MODULE, AMERICAN W/ PASSIVE RADIATOR (30 MIN. QTY.)
63498-002	129.00	ERT 40G, GAS METER MODULE, ROCKWELL 11 TOOTH W/ PASSIVE RADIATOR (30 MIN. QTY.)
63498-003	129.00	ERT 40G, GAS METER MODULE, ROCKWELL 16 TOOTH W/ PASSIVE RADIATOR (30 MIN. QTY.)
63498-004	129.00	ERT 40G, GAS METER MODULE, ROCKWELL 18 TOOTH W/ PASSIVE RADIATOR (30 MIN. QTY.)
63499-001	22.00	PASSIVE RADIATOR FOR ERT 40G, SPRAGUE RESIDENTIAL (30 MIN. QTY.)
63499-002	22.00	PASSIVE RADIATOR FOR ERT 40G, AMERICAN RESIDENTIAL (30 MIN. QTY.)
63499-003	22.00	PASSIVE RADIATOR FOR ERT 40G, EQUIMETER RESIDENTIAL (30 MIN. QTY.)
63500-001	8.50	COVER, 40G AMERICAN
63500-002	8.50	COVER, 40G INVENSYS/ROCKWELL/EQUIMETER
63500-003	10.00	COVER, 40G SPRAGUE/SCHLUMBERGER

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63500-005	5.00	COVER, 40G NATIONAL/LANCASTER
63502-001	159.00	STENCIL KIT, DISK FOR 40, 41, 45 ER-1 & 40, 45 ES (1,000 MIN. QTY.)
63502-002	159.00	STENCIL KIT, DISK FOR 40 EN & 45 EN-1 (1,000 MIN. QTY.)
63502-003	35.00	PAINT PEN, DISK MARKER (5/BOX)
63503-002	17.00	40, 41, 45 ER-1 GE SCREWS (2 PER ERT) (100/BOX)
63503-003	17.00	40, 41, 45 ER-1 L&G SCREWS MS&MS-II (2 PER ERT) (100/BOX)
63503-004	17.00	40, 41, 45 ER-1 ABB SCREWS (2 PER ERT) (100/BOX)
63503-011	51.00	40 GR-NATIONAL/LANCASTER (2 PER ERT) (100/BOX)
63503-012	50.00	40 GR-NATIONAL/LANCASTER (4 PER ERT) (100/BOX)
63503-013	56.00	40 W REMOTE SCREWS ABB DIGITAL DIRECT MOUNT (4 PER ERT) (100/BOX)
63503-014	11.00	40 W REMOTE SCREWS (3 PER ERT) MOUNTING SCREWS (100/BOX)
63503-016	24.00	40 W-1 PIT ERT CLAMP SCREWS (2 PER ERT) (100/BOX)
63503-017	73.00	40 W-1 PIT ERT END CAP SCREWS (2 PER ERT) (100/BOX)
63503-018	63.00	40 W HERSEY ENCODER TRI-WIRING SCREWS (2 PER ERT) (100/BOX)
63503-019	74.00	DOG POINT SCREW FOR END CAP ASSEMBLY (100/BAG)
63504-001	1.00	40G AMERICAN GASKET (2 PER ERT) (100/PKG.)
63504-002	1.00	40GR AMERICAN 5M & 10M GASKET (1 PER ERT)
63504-003	3.50	40GR SPRAGUE 1A GASKET (1 PER ERT)
63504-004	1.00	40G ROCKWELL GASKET (2 PER ERT)
63504-005	1.75	40G SPRAGUE GASKET (1 PER ERT)
63504-006	2.25	40G NATIONAL GASKET (1 PER ERT)
63504-007	1.75	40G NATIONAL FRONT GASKET (1 PER ERT)
63504-008	2.25	SPRAGUE 1000-THICKER 1 HOLE GASKET FOR USE W/40G REMOTE
63504-009	14.00	SPRAGUE 1000-THICKER 2 HOLE GASKET FOR USE W/40G REMOTE
63504-010	15.00	SPRAGUE 1000-THICKER 4 HOLE GASKET FOR USE W/40G REMOTE
63504-012	2.00	40G INVENSYS/EQUIMETER/ROCKWELL BACK GASKET (2 PER ERT)
63505-001	75.00	LEADS-SOLDER CONNECTION FOR FORM 3S & 4S METERS (100/PKG.)
63505-002	219.00	LEAD W/CLIP FOR FORM 2S METERS (100/PKG.)
63505-003	219.00	LEAD W/CLIP FOR FORM 2S METERS-GE-I-70S/2 CLASS 200 (100/PKG.)
63505-004	219.00	LEAD W/CLIP FOR FORM 1S METERS (120V) (100/PKG.)
63505-008	219.00	L&G MX METER LEAD ONLY-REPLACEMENT LEAD ONLY (100/PKG.)
63505-009	274.00	40 ES LEAD W/CLIP FORM 2S (1 PER METER) (100/PKG.)
63505-010	328.00	40 ES LEAD W/CLIP FORM 2S (2 PER METER) (100/PKG.)
63505-011	241.00	40 ES LEAD W/CLIP FORM 1S METERS (120V) (100/PKG.)
63505-014	110.00	LEAD W/CLIP ABB-45 EN-1 TERMINAL LUG (100/PKG.)
63505-015	110.00	LEAD W/CLIP ABB-45 EN-1 SPADE PUSH ON (100/PKG.)
63505-016	219.00	40 EN, 45 EN-1 LEAD W/SPLICE CONNECTOR SPADE (100/PKG.)
63505-017	72.00	POTENTIAL COIL SPLICE CONNECTOR (100/PKG.)
63506-001	16.00	25G ERT REPLACEMENT BATTERY-SIZE A, GRAY CASING (300 MIN. QTY.)
63516-001	2.50	AMR PLASTIC BELOW LID INSTALLATION BRACKET
63517-001	0.50	WING NUT
63519-001	7.50	ITRON ERT PIT TRANSPONDER SUPPORT BRACKET
63519-002	7.50	INSTALLATION KIT, TRACE PIT MOUNTING BRACKET
63524-001	0.75	ROM REGISTER GASKET
63528-003	60.00	GROUNDING RING KIT, 1-1/2"

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63528-004	60.00	GROUNDING RING KIT, 2"
63528-005	100.00	GROUNDING RING KIT, 3"
63528-006	100.00	GROUNDING RING KIT, 4"
63528-007	100.00	GROUNDING RING KIT, 6"
63528-013	100.00	GROUNDING RING KIT, 2-1/2"
63528-014	175.00	GROUNDING RING KIT, 8"
63528-015	200.00	GROUNDING RING KIT, 10"
63528-016	350.00	GROUNDING RING KIT, 12"
63528-017	400.00	GROUNDING RING KIT, 14"
63528-018	600.00	GROUNDING RING KIT, 16"
63528-019	675.00	GROUNDING RING KIT, 20"
63542-001	70.00	T-200 REGISTER M3 NOM
63542-002	70.00	T-450 REGISTER M3 NOM
63542-005	70.00	5-3500 REGISTER M3 NOM
63542-012	70.00	T-5500 REGISTER M3 NOM
63548-001	820.00	DUMMY COVER, 8" - 12", WP-N
63568-001	3.50	BLIND CONNECTOR
63603-018	205.00	ANTENNA MAG MOUNT-MOBILE COLLECTOR
63603-019	241.00	POWER CORD, R/F UNIT WITH PLUG-MOBILE COLLECTOR
63603-038	725.00	MC2 MOBILE ANTENNA ASSEMBLY
63603-071	20,479.00	ITRON MOBILE LITE COLLECTOR WITH FC200SR HANDHELD
63603-073	365.00	MOBILE COLLECTOR LITE PORTABILITY KIT
63603-077	120.00	ITRON MOBILE LITE CONNECTOR ANETENNA ADAPTER ASSEMBLY
63603-078	46,500.00	MC3.0 WITH GPS MAPPING, UP TO 25,000 SERVICES WITH PERMANENT KIT
63603-079	52,000.00	MC3.0 WITH GPS MAPPING, 25,001 TO 100,000 SERVICES WITH PERMANENT KIT
63603-080	66,500.00	MC3.0 WITH GPS MAPPING, >100,000 SERVICES WITH PERMANENT KIT
63603-081	46,500.00	MC3.0 WITH GPS MAPPING, UP TO 25,000 SERVICES WITH PORTABILITY KIT
63603-082	52,000.00	MC3.0 WITH GPS MAPPING, 25,001 TO 100,000 SERVICES WITH PORTABILITY KIT
63603-083	66,500.00	MC3.0 WITH GPS MAPPING, >100,000 SERVICES WITH PORTABILITY KIT
63603-084	13,789.00	MOBILE LITE COLLECTOR 3.0 PERMANENT MOUNT KIT
63603-085	13,789.00	MOBILE LITE COLLECTOR 3.0 PORTABILITY KIT
63603-087	297.00	PORTABILITY KIT - MC3.0
63603-088	297.00	PERMANENT KIT - MC3.0
63603-089	14,200.00	GOBOOK XR-1
63603-110	16,488.00	MC XR1 UPGRADE W/ HARDWARE AGREEMENT
63603-111	9,975.00	MC XR1 UPGRADE W/O HARDWARE AGREEMENT
63603-112	44,500.00	ITRON MC3, CF-30 LAPTOP W/ DVD AND 5-YR WARRANTY, UP TO 25K METERS
63603-113	52,000.00	ITRON MC3, CF-30 LAPTOP W/ DVD AND 5-YR WARRANTY, 25K-100K METERS
63603-114	71,500.00	ITRON MC3, CF-30 LAPTOP W/DVD AND 5-YR WARRANTY, 100K+ METERS
63603-115	44,900.00	ITRON MC3, CF-30 LAPTOP W/DVD & GOBI WIRELESS & 5-YR WARRANTY, UP TO 25K METERS
63603-116	52,400.00	ITRON MC3, CF-30 LAPTOP W/DVC & GOBI WIRELESS & 5-YR WARRANTY, 25K-100K METERS
63603-117	71,900.00	ITRON MC3, CF-30 LAPTOP W/DVD & GOBI WIRELESS & 5-YR WARRANTY, 100K+ METERS
63603-118	7,500.00	ITRON REPLACEMENT KIT TOUGHBOOK CF-30 LAPTOP W/DVD AND 5-YR WARRANTY
63603-119	7,900.00	ITRON REPLACEMENT KIT TOUGHBOOK CF-30 LAPTOP W/DVD & GOBI WIRELESS & 5-YR WARR.
63603-120	0.00	ITRON REPLACEMENT KIT, SHIP KIT CF-3X (SLED MOUNTED W/SLED)

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63603-121	600.00	ITRON REPLACEMENT KIT, SHIP KIT CF-3X (PEDESTAL MOUNTED W/O PEDESTAL)
63603-122		ITRON MC3, CF-3X SHIP KIT (PERMANENT WIRING, SLED MOUNTED W/ SLED)
63603-123	0.00	ITRON MC3, CF-3X SHIP KIT (PORTABLE WIRING, SLED MOUNTED W/ SLED)
63603-124		ITRON MC3, CF-3X SHIP KIT (PERMANENT WIRING, PEDESTAL MOUNTED W/O PEDESTAL)
63603-125		ITRON MC3, CF-3X SHIP KIT (PORTABLE WIRING, PEDESTAL MOUNTED W/O PEDESTAL)
63603-136	7,500.00	ITRON CF-30 UPGRADE W/ REPLACEMENT KIT FOR PEDESTAL MOUNTED
63603-137	8,000.00	ITRON CF-30 UPGRADE W/ REPLACEMENT KIT FOR SLED MOUNTED
63603-138	7,900.00	ITRON CF-30 UPGRADE W/ GOBI WIRELESS & REPLACEMENT KIT FOR PEDESTAL MTD.
63603-139	8,500.00	ITRON CF-30 UPGRADE W/ GOBI WIRELESS & REPLACEMENT KIT FOR SLED MTD.
63605-001	22.00	MV-RS OVERLAY FOR CHICKLET KEYBOARD
63605-002	910.00	CHICKLET TO CHICKLET KEYBOARD
63605-003	33.00	MVRS OVERLAY FOR MEMBRANE KEYBOARD
63605-004	1,140.00	CHICKLET TO MEMBRANE KEYBOARD
63606-000	2,465.00	MV-RS SOFTWARE UP TO 2,500 METERS
63606-001	3,873.00	MV-RS SOFTWARE TO 2,501-7,500 METERS
63606-002	5,634.00	MV-RS SOFTWARE TO 7,501-10,000 METERS
63606-009	7,042.00	MV-RS SOFTWARE TO 10,001-25,000 METERS
63606-010	14,085.00	MV-RS SOFTWARE TO 25,001-75,000 METERS
63606-011	21,127.00	MV-RS SOFTWARE TO 75,001-100,000 METERS
63606-012	28,169.00	MV-RS SOFTWARE TO 100,001-125,000 METERS
63606-013	35,211.00	MV-RS SOFTWARE TO 125,001-150,000 METERS
63606-014	42,254.00	MV-RS SOFTWARE TO 150,001-200,000 METERS
63607-031	8,125.00	FC200SR HANDHELD WITH BLUETOOTH AND SREAD RADIO
63607-038	4,590.00	FC300 HANDHELD DATA COLLECTOR WITH NO ENDPOINT RADIO TRANSCEIVER
63607-039	7,800.00	FC300 HANDHELD DATA COLLECTOR W/ SREAD BLUETOOTH
63607-040	8,800.00	FC300 HANDHELD DATA COLLECTOR W/ SREAD RADIO, IMAGER, GPS, BLUETOOTH
63607-041	8,350.00	FC300 HANDHELD DATA COLLECTOR, W/ SREAD RADIO, WLAN, GPS, BLUETOOTH
63607-042	319.50	FC300 LITHIUM BATTERY FOR HANDHELD DATA COLLECTOR
63607-043	135.00	FC300 DESK DOCK AC POWER SUPPLY (NO CORD)
63607-044	15.00	FC300 AC POWER CORD FOR DOCKING STATION
63607-045	89.25	FC300 CHARGE/COMMUNICATION INTERFACE CABLE USB CLIENT
63607-046	89.25	FC300 CHARGE/COMMUNICATION INTERFACE CABLE USB HOST
63607-047	89.25	FC300 CHARGE/COMMUNICATION INTERFACE CABLE RS232
63607-048	89.25	FC300 RS232 ADAPTER CABLE
63607-049	29.75	FC300 DOCK ETHERNET CABLE, RJ45, CAT5
63607-050	766.00	FC300 DESK DOCK, USB HOST/CLIENT
63607-051	3,500.00	FC300 DESK DOCK, 5-BAY MULTI-DOCK
63607-052	1,255.00	FC300 VEHICLE DOCK 12 V DC INPUT
63607-053	516.00	FC300 VEHICLE DOCK 12V DC INPUT, 15V DC OUTPUT
63607-055	51.90	FC300 HANDSTRAP KIT FOR HANDHELD DATA COLLECTOR
63607-056	224.00	FC300 CARRYING CASE WITHOUT SREAD
63607-057	224.00	FC300 CARRYING CASE WITH SREAD
63607-058	41.50	FC300 SHOULDER STRAP FOR HANDHELD DATA COLLECTOR
63607-059	290.00	FC300 HOLSTER FOR HANDHELD DATA COLLECTOR
63607-060	62.70	FC300 HOLSTER BELT FOR HANDHELD DATA COLLECTOR

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63607-061	228.00	FC300 MEMORY CARD 512MB
63607-062	72.00	FC300 ANTENNA FOR ENDPOINT RADIO
63607-063	80.60	FC300 STYLUS FOR HANDHELD DATA COLLECTOR (PACK OF 10)
63607-064	149.00	FC300 TOUCH SCREEN FOR HANDHELD DATA COLLECTOR
63623-005	9.00	40W, PIPE INSTALLATION KIT, 2 5/16"-4 1/2" PIPE/REGISTER MOUNT (30 MIN. QTY.)
63623-008	15.00	40W-1 PIT ERT TAMPER SEALS (ALL PRODUCTS EXCEPT NATIONAL & REMOTE) (60/BAG)
63623-009	9.00	40W, PIPE INSTALLATION KIT, 5/16"-2 1/4" PIPE (30 MIN. QTY.)
63623-011	206.00	SILICONE SYRINGES (20/BOX)
63623-013	56.00	40G COMMERCIAL SEALING SCREW (40/BOX)
63623-019	10.00	40G REMOTE INSTALLATION KIT
63623-020	6.00	ENCODER SPACING TOOL
63623-021	6.00	KIT FOR REMOTE MOUNTING OF BADGER, SCHLUM PROREAD, ABB DIGITAL & SENSUS (30/BULK)
63623-022	6.00	KIT FOR REMOTE MOUNTING OF ABB SCANCODER (30/BULK)
63623-024	0.29	SECURITY SEAL, ITRON CONNECTOR
63623-025	20.57	ITRON FIELD SPLICE KIT
63623-026	9.26	ITRON GEL CONNECTORS (BAG OF 30)
63623-029	9.25	ITRON DBR FIELD SPLICE KIT
63623-033	1.65	ITRON IN-LINE CONNECTOR DUST CAP - ERT (MALE SIDE)
63623-034	1.75	ITRON IN-LINE CONNECTOR DUST CAP - ENCODER SIDE
63623-035	6.50	60W THROUGH LID INSTALLATION KIT
63623-038	82.30	60W SHORTING CONNECTORS FOR ENDPOINT STARTUP
63623-045	4.15	ITRON 60WP PROGRAMMING MAGNET
63623-046	4.37	60 W-R AND 60 WP-R INDOOR MOUNTING KIT
63623-048	651.50	ITRON PASSIVE RADIATOR INSTALLATION KIT (QUANTITIES OF 36 PCS.)
63623-049	4.04	ITRON 60W ENDPOINT PIT MOUNTING SHELF (36 PCS/PKG)
63623-050	158.25	ITRON THREADED THRU LID INSTALLATION KIT (QUANTITIES OF 36 PCS.)
63624-001	14.00	ERT-BIT, TAMPER T25, FOR TORQUE SCREWDRIVER
63625-001	6.00	ERT-HOLDER, 1/4 HEX X 1/4 SQ X 1, FOR TORQUE SCREWDRIVER
63626-001	353.00	SCREWDRIVER, TORQUE PRESET 13 IN/LB
63702-001	71.00	SPLITTER HARNESS
63705-004	12.90	REMOTE BADGER TOUCH MODULE (ROUND) W/INSTALLATION KIT
63709-001	71.00	HI/LO HARNESS W/BARE ENDS
63709-002	108.00	HI/LO HARNESS FOR 2" - 3" COMPOUND METER (10:1)
63709-004	108.00	HI/LO HARNESS FOR 4" - 6" COMPOUND METER (100:1)
63746-001	16.00	INSTALLATION KIT (CMPD SUMM / PL. SHROUD)
63746-002	12.00	INSTALLATION KIT (CMPD SUMM / BRZ. SHROUD)
63748-002	12.00	CONNECTION KIT (FIELD SERVICE)
63855-002	259.00	900 SERIES CELLTRACKIT NODE RECEIVER ACCESSORY PACK
63855-004	219.00	900 SERIES CELLTRACKIT REPEATER ACCESSORY PACK
63855-007	1,085.00	900 SERIES CONFIGIT
63855-008	30.00	6' AC POWER CORD
63855-009	58.00	40' COAXIL NODE ANTENNA CABLE
63855-010	30.00	6' COAXIL REPEATER ANTENNA CABLE
63855-011	43.00	ANTENNA KIT
63886-001	76.00	NIPPLE 2 X 5" NPT ONE END

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



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Part	List	Part Name
63886-002	54.00	NIPPLE 2 X 3.5" NPT ONE END
63886-003	93.00	NIPPLE 1.5 X 3-5/8" NPT ONE END
63887-001	52.00	REPAIR COUPLING, LONG 1.5" X 3"
63887-003	82.00	REPAIR COUPLING, LONG 2" X 5.25"
63887-004	84.00	REPAIR COUPLING, SHORT 2" X 3.5"
63889-001	900.00	DETECTOR CHECK VALVE, 4" AMES
63889-002	1,265.00	DETECTOR CHECK VALVE, 6" AMES
63889-003	2,400.00	DETECTOR CHECK VALVE, 8" AMES
63889-004	4,145.00	DETECTOR CHECK VALVE, 10" AMES
63889-011	1,150.00	CHECK VALVE ASSY 6"
63889-012	2,180.00	CHECK VALVE ASSY 8"
63889-013	3,770.00	CHECK VALVE ASSY 10"
63891-001	1.25	JAM NUT, 3/4-10 S.ST.
63892-001	540.00	KNUCKLE JOINT ASSY - 4"
63892-002	590.00	KNUCKLE JOINT ASSY - 6"
63892-003	655.00	KNUCKLE JOINT ASSY - 8" & 10"
63892-004	140.00	CLAPPER PLATE WITH ATTACHED LINK - 4"
63892-005	182.00	CLAPPER PLATE WITH ATTACHED LINK - 6"
63892-006	300.00	CLAPPER PLATE WITH ATTACHED LINK - 8" & 10"
63892-007	65.00	SPRING - 4"
63892-008	56.00	SPRING - 6", 8" & 10"
63892-009	118.00	BRONZE SEAT - 4"
63892-010	150.00	BRONZE SEAT - 6"
63892-011	268.00	BRONZE SEAT - 8" & 10"
63892-014	8.00	O-RING SEATE - 4"
63892-015	9.50	O-RING SEATE - 6"
63892-016	12.00	O-RING SEATE - 8" & 10"
63892-017	2.25	NEOPRENE WASHER
63892-018	0.75	NYLON WASHER
63892-019	18.00	GASKET - CHECK VALVE 4"
63892-020	19.00	GASKET - CHECK VALVE 6"
63892-021	20.00	GASKET - CHECK VALVE 8" & 10"
63892-022	75.00	CHECK REMOVAL TOOL - 4"
63892-023	108.00	CHECK REMOVAL TOOL - 6"
63892-024	129.00	CHECK REMOVAL TOOL - 8" & 10"
63892-025	540.00	STRAINER COVER - 4"
63892-026	935.00	STRAINER COVER - 6"
63892-027	1,635.00	STRAINER COVER - 8"
63892-028	2,100.00	STRAINER COVER - 10"
63892-029	630.00	STRAINER ELEMENT - 4"
63892-030	830.00	STRAINER ELEMENT - 6"
63892-031	895.00	STRAINER ELEMENT - 8"
63892-032	1,430.00	STRAINER ELEMENT - 10"
63892-033	55.00	STRAINER COVER O-RING 16"
63892-034	41.00	COVER O-RING - 8"

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63892-035	48.00	COVER O-RING - 10"
63892-036	390.00	CHECK VALVE COVER - 4"
63892-037	510.00	CHECK VALVE COVER - 6"
63892-038	640.00	CHECK VALVE COVER - 8"
63892-040	640.00	CHECK VALVE COVER - 10"
63892-041	24.00	COVER O-RING 4"
63892-043	138.00	4" FSAА CHECK VALVE COVER WITH TEST PLUG
63892-044	184.00	6" FSAА CHECK VALVE COVER WITH TEST PLUG
63892-045	276.00	8", 10", & 12" FSAА CHECK VALVE COVER WITH TEST PLUG
63892-047	1,230.00	STRAINER COVER 16"
63892-048	185.00	SCREEN 8" PLATE STRAINER
63892-050	15.00	STRAINER COVER O-RING 8"
63892-051	332.00	SCREEN - 10" PLATE STRAINER
63892-052	18.00	STRAINER COVER O-RING 10"
63892-053	362.00	STRAINER COVER 10"
63892-054	386.25	SCREEN - 12" PLATE STRAINER
63892-055	62.00	O-RING COVER, 12" PLATE STRAINER
63892-056	610.00	STRAINER COVER 12"
63892-058	55.00	STRAINER COVER O-RING 20"
63893-001	575.00	SPOOL PIECE ASSEMBLY 8" COMBO METER
63894-001	30.00	STUD, CONTINUOUS THREAD, 3/4-10 X 2.75 S.ST.
63894-002	11.00	STUD CONTINUOUS THREAD, 5/8-11X5.00 S.ST
63894-003	13.00	STUD, CONTINUOUS THREAD, 5/8-11X7.00S.ST.
63943-001	12.00	HAND SCREW STARTER
63945-008	30.00	HARNESS ASSEMBLY, DOUBLE RTR 100:1 WITH BARE ENDS
63951-001	348.00	BATTERY FOR READALL INTERROGATOR
63952-001	59.00	BATTERY PACK WALL CHARGER FOR READALL INTERROGATOR
63955-001	257.00	DOCKING POWER CABLE FOR READALL INTERROGATOR
63956-001	28.00	BELT CLIP FOR READALL INTERROGATOR
63957-001	6.50	SCREEN PROTECTION SHEETS FOR READALL INTERROGATOR
63958-001	6.50	STYLUS FOR READALL INTERROGATOR
63959-001	1,875.00	RF BOARD
63961-000	30.00	ASSY. STR. REG. RCDL 15, 10 GAL T. CIR.
63961-001	30.00	ASSY. STR. REG. RCDL 15, 1 CU FT T. CIR.
63961-002	30.00	ASSY. STR. REG. RCDL 25, 10 GAL T. CIR.
63961-003	30.00	ASSY. STR. REG. RCDL 25, 1 CU FT T. CIR.
63961-004	30.00	ASSY. STR. REG. RCDL 40, 10 GAL T. CIR.
63961-005	30.00	ASSY. STR. REG. RCDL 40, 1 CU FT T. CIR.
63961-007	30.00	ASSY. STR. REG. RCDL 25, .1 M3 T. CIR.
63961-008	30.00	ASSY. STR. REG. RCDL 40, .1 M3 T. CIR.
63961-010	30.00	ASSY. STR. REG. RCDL 70, 10 CU FT T. CIR.
63961-011	30.00	ASSY. STR. REG. RCDL 120, 100 GAL T. CIR.
63961-012	30.00	ASSY. STR. REG. RCDL 120, 10 CU FT T. CIR.
63961-014	30.00	ASSY. STR. REG. RCDL 120, 1 M3 T. CIR.
63961-016	30.00	ASSY. STR. REG. RCDL 25, 10 IMP. GAL T. CIR.

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
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Part	List	Part Name
63961-019	30.00	ASSY. STR. REG. RCDL 120, 100 IMP. GAL T. CIR.
63961-035	30.00	ASSY. STR. REG. RCDL 25, .01 M3 T. CIR. INTERNATIONAL
63961-037	30.00	ASSY. STR. REG. RCDL 120, .1 M3 T. CIR. INTERNATIONAL
63961-045	30.00	ASSY. STR. REG. RCDL 120, 1 M3 T. CIR. 1-6 BLK
63961-057	30.00	ASSY. STR. REG. RCDL 170, 100 GAL T. CIR.
63961-058	30.00	ASSY. STR. REG. RCDL 170, 10 CU FT T. CIR.
63961-059	30.00	ASSY. STR. REG. RCDL 170, 1 M3 T. CIR.
63961-060	30.00	ASSY. STR. REG. RCDL 35, 10 GAL T. CIR.
63961-061	30.00	ASSY. STR. REG. RCDL 35, 1 CU FT T. CIR.
63961-062	30.00	ASSY. STR. REG. RCDL 35, .1 M3 T. CIR.
63961-068	30.00	ASSY. STR. REG. RCDL 70, 10 GAL T. CIR.
63961-069	30.00	ASSY. STR. REG. RCDL 70 1 CU FT T. CIR.
63961-070	30.00	ASSY. STR. REG. RCDL 70 .1 M3 T. CIR.
63961-074	30.00	ASSY. STR. REG. RCDL 35, 10 IMP. GAL T.CIR.
63961-075	30.00	ASSY. STR. REG. RCDL 70, 10 IMP. GAL T.CIR.
63961-076	30.00	ASSY. STR. REG. RCDL 170, 100 IMP. GAL. T.CIR.
63961-088	30.00	ASSY. STR. REG. RCDL 25, 10 GAL T. CIR. "RECLAIMED"
63961-089	30.00	ASSY. STR. REG. RCDL 35, 10 GAL T. CIR. "RECLAIMED"
63961-090	30.00	ASSY. STR. REG. RCDL 70, 10 GAL T. CIR. "RECLAIMED"
63961-094	30.00	ASSY. STR. REG. RCDL 70, 1 CU FT T. CIR. "RECLAIMED"
63961-095	30.00	ASSY. STR. REG. RCDL 120, 100 GAL T. CIR. "RECLAIMED"
63961-096	30.00	ASSY. STR. REG. RCDL 120, 10 CU FT T. CIR. "RECLAIMED"
63961-097	30.00	ASSY. STR. REG. RCDL 170, 100 GAL T. CIR. "RECLAIMED"
63961-098	30.00	ASSY. STR. REG. RCDL 170, 10 CU FT T. CIR. "RECLAIMED"
63961-107	30.00	ASSY. STR. REG. RCDL 120, 1 M3 T. CIR. 1-6 BLK
63961-118	30.00	ASSY. STR. REG. RCDL 120, 100 GAL T. CIR. 1 BLK; 2-6 WHT
63961-119	30.00	ASSY. STR. REG. RCDL 170, 100 GAL T. CIR. 1 BLK; 2-6 WHT
63961-137	30.00	ASSY. STR. REG. RCDL 25, .1 M3 T. CIR. 1-6 BLK LTR
63961-141	30.00	ASSY. STR. REG. RCDL 25, .1 M3 T. CIR. 1&2 WHT; 3-6 BLK
63961-142	30.00	ASSY. STR. REG. RCDL 35, .1 M3 T. CIR. 1 WHT; 2-6 BLK
63961-143	30.00	ASSY. STR. REG. RCDL 70, .1 M3 T. CIR. 1 WHT; 2-6 BLK
63961-144	30.00	ASSY. STR. REG. RCDL 120, 1 M3 T. CIR. 1 WHT; 2-6 BLK
63961-145	30.00	ASSY. STR. REG. RCDL 25, 10 GAL T. CIR. 1&2 WHT; 3-6 BLK
63961-146	30.00	ASSY. STR. REG. RCDL 170, 100 GAL T. CIR. 1 WHT; 2-6 BLK
63961-147	30.00	ASSY. STR. REG. RCDL 170, 10 CU FT T. CIR. 1 WHT; 2-6 BLK
63961-148	30.00	ASSY. STR. REG. RCDL 170, 1 M3 T. CIR. 1-6 BLK
63961-153	30.00	REGISTER ASSEMBLY - M55 - GALLONS
63961-154	30.00	REGISTER ASSEMBLY - M55 CU FT
63961-155	30.00	REGISTER ASSEMBLY - CU METERS
63961-156	30.00	REGISTER ASSEMBLY - M55 - IMP GALLONS
63961-157	30.00	REGISTER ASSEMBLY (RECLAIMED) M55 - GALLONS
63961-158	30.00	REGISTER ASSEMBLY (RECLAIMED) -M55 CU FT
63961-159	30.00	REG ASSY. US GALLONS (LP STYLE)
63961-160	30.00	REG ASSY. CU FEET (LP STYLE)
63961-161	30.00	REG. ASSY. CU METERS (LP STYLE) (.1 CUM TC)

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
63961-162	30.00	REG ASSY. IMP GALLONS (LP STYLE)
64015-004	45.00	REGISTER FOR 8" TURBO W/1000 GAL TC
64015-008	35.00	REGISTER ASSEMBLY
64015-010	60.00	10' FSAA CUBIC FEET LOCAL REGISTER
64016-007	146.00	PRG, CF CARD, SWA-7-3, 8MB, G5 FLASH
64016-008	1,475.00	UDATANET TOU PROBE, 12 PIN, PM-500-122
64016-009	12.00	HANDSTRAP (SPARE)
64016-010	17.00	ANTENNA PORT COVER
64016-013	122.00	CBA, COM1 TO PC DB9M, G5 6FT COMMUNICATIONS OR MODEM
64016-014	34.00	OVERLAY, KEYBOARD, MV-RS FOR G5, G5 R
64016-015	188.00	G5 LITHIUM-ION BATTERY (2,200 MAH) DUAL CELL
64016-020	9.00	RJ 11 JACK INTERCONNECT CABLE 8" (SPARE)
64016-021	18.00	POWER BOARD INTERCONNECT (SPARE)
64016-024	33.00	VIENA OVERLAY, G5
64016-029	131.00	FLASH, G5
64063-001	55.00	HIGH FLOW REGISTER, 100 GAL. T.C., 2" COMPOUND SERIES
64063-002	55.00	HIGH FLOW REGISTER, 100 GAL. T.C., 3" COMPOUND SERIES
64063-003	55.00	HIGH FLOW REGISTER, 100 GAL. T.C., 4" COMPOUND SERIES
64063-004	55.00	HIGH FLOW REGISTER, 1000 GAL. T.C., 6" COMPOUND SERIES
64063-005	55.00	HIGH FLOW REGISTER, 10 CUBIC FT. T.C., 2" COMPOUND SERIES
64063-006	55.00	HIGH FLOW REGISTER, 10 CUBIC FT. T.C., 3" COMPOUND SERIES
64063-007	55.00	HIGH FLOW REGISTER, 10 CUBIC FT. T.C., 4" COMPOUND SERIES
64063-008	55.00	HIGH FLOW REGISTER, 100 CUBIC FT. T.C., 6" COMPOUND SERIES
64063-009	55.00	HIGH FLOW REGISTER, 1 CUBIC METER T.C., 2" COMPOUND SERIES
64063-010	55.00	HIGH FLOW REGISTER, 1 CUBIC METER T.C., 3" COMPOUND SERIES
64063-011	55.00	HIGH FLOW REGISTER, 1 CUBIC METER T.C., 4" COMPOUND SERIES
64063-012	55.00	HIGH FLOW REGISTER, 10 CUBIC METER, T.C., 6" COMPOUND SERIES
64063-017	55.00	LOW FLOW REGISTER, 10 GAL. T.C., 2" & 3" COMPOUND SERIES
64063-018	55.00	LOW FLOW REGISTER, 10 GAL. T.C., 4" & 6" COMPOUND SERIES
64063-019	55.00	LOW FLOW REGISTER, 1 CUBIC FT. T.C., 2" & 3" COMPOUND SERIES
64063-020	55.00	LOW FLOW REGISTER, 1 CUBIC FT. T.C., 4" & 6" COMPOUND SERIES
64063-021	55.00	LOW FLOW REGISTER, 0.1 CUBIC METER, 2" & 3" COMPOUND SERIES
64063-022	55.00	LOW FLOW REGISTER, 0.1 CUBIC METER, 4" & 6" COMPOUND SERIES
64066-001	105.00	VALVE ASSEMBLY, 3" COMPOUND SERIES
64068-001	1,230.00	HOUSING, 3" COMPOUND SERIES
64070-001	306.00	MACHINED COVER, 3" COMPOUND SERIES
64070-003	252.00	MACHINED COVER (BIA) 3"
64075-001	4.50	DOOR SEAL, 2" COMPOUND SERIES
64075-002	6.00	DOOR SEAL, 3" COMPOUND SERIES
64078-001	1.25	LOCK PAWL, 2" - 6" COMPOUND SERIES
64080-001	13.00	COVER PLATE, 2" & 3" COMPOUND SERIES
64081-001	2.00	SCREEN, 2" & 3" COMPOUND SERIES
64083-002	0.75	O-RING, EPDM, 3" COMPOUND SERIES
64083-003	7.50	O-RING, EPDM, 3" COMPOUND SERIES
64083-006	0.75	O-RING, EPDM, 2" COMPOUND SERIES

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
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Part	List	Part Name
64083-007	6.00	O-RING, EPDM, 2" COMPOUND SERIES
64083-008	0.75	O-RING, EPDM, 4" COMPOUND SERIES
64083-009	9.50	O-RING, EPDM, 4" COMPOUND SERIES
64083-010	0.75	O-RING, EPDM, 6" COMPOUND SERIES
64083-011	9.50	O-RING, EPDM, 6" COMPOUND SERIES
64083-013	0.75	O-RING (MODEL LP) CHAMBER ASSY.
64083-014	1.50	HOUSING O-RING - MODEL LP
64085-001	55.00	REGISTER, 100 GAL. T.C., 1 1/2" RCDL TURBO SERIES
64085-002	55.00	REGISTER, 100 GAL. T.C., 2" RCDL TURBO SERIES
64085-003	55.00	REGISTER, 100 GAL. T.C., 3" RCDL TURBO SERIES
64085-004	55.00	REGISTER, 100 GAL. T.C., 4" RCDL TURBO SERIES
64085-005	55.00	REGISTER, 10 CUBIC FT. T.C., 1 1/2" RCDL TURBO SERIES
64085-006	55.00	REGISTER, 10 CUBIC FT. T.C., 2" RCDL TURBO SERIES
64085-007	55.00	REGISTER, 10 CUBIC FT. T.C., 3" RCDL TURBO SERIES
64085-008	55.00	REGISTER, 10 CUBIC FT. T.C., 4" RCDL TURBO SERIES
64085-009	55.00	REGISTER, 1 CUBIC METER T.C., 1 1/2" RCDL TURBO SERIES
64085-010	55.00	REGISTER, 1 CUBIC METER T.C., 2" RCDL TURBO SERIES
64085-011	55.00	REGISTER, 1 CUBIC METER T.C., 3" RCDL TURBO SERIES
64085-012	55.00	REGISTER, 1 CUBIC METER T.C., 4" RCDL TURBO SERIES
64085-013	55.00	REGISTER, 100 IMPERIAL GAL. T.C., 1-1/2" RCDL TURBO SERIES
64085-014	55.00	REGISTER, 100 IMPERIAL GAL. T.C., 2" RCDL TURBO SERIES
64085-015	55.00	REGISTER, 100 IMPERIAL GAL. T.C., 3" RCDL TURBO SERIES
64085-016	55.00	REGISTER, 100 IMPERIAL GAL. T.C., 4" RCDL TURBO SERIES
64085-017	55.00	REGISTER, 1,000 GAL. T.C., 6" RCDL TURBO SERIES
64085-018	55.00	REGISTER, 1,000 GAL. T.C., 8" RCDL TURBO SERIES
64085-019	55.00	REGISTER, 1,000 GAL. T.C., 10" RCDL TURBO SERIES
64085-020	55.00	REGISTER, 100 CUBIC FT., T.C., 6" RCDL TURBO SERIES
64085-021	55.00	REGISTER, CUBIC FT, T.C., 8" RCDL TURBO SERIES
64085-022	55.00	REGISTER, 100 CUBIC FT., T.C., 10" RCDL TURBO SERIES
64085-023	55.00	REGISTER, 10 CUBIC METER, T.C., 6" RCDL TURBO SERIES
64085-024	55.00	REGISTER, 10 CUBIC METER, T.C., 8" RCDL TURBO SERIES
64085-031	60.00	REGISTER, 100 GAL., 1-1/2" RCDL TURBO SERIES "RECLAIMED"
64085-032	60.00	REGISTER, 100 GAL., 2" RCDL TURBO SERIES "RECLAIMED"
64085-033	60.00	REGISTER, 100 GAL., 3" RCDL TURBO SERIES "RECLAIMED"
64085-034	60.00	REGISTER, 100 GAL., 4" RCDL TURBO SERIES "RECLAIMED"
64085-035	60.00	REGISTER, 10 CU. FT., 1-1/2" RCDL TURBO SERIES "RECLAIMED"
64085-036	60.00	REGISTER, 10 CU. FT., 2" RCDL TURBO SERIES "RECLAIMED"
64085-037	60.00	REGISTER, 10 CU. FT., 3" RCDL TURBO SERIES "RECLAIMED"
64085-038	60.00	REGISTER, 10 CU. FT., 4" RCDL TURBO SERIES "RECLAIMED"
64085-039	60.00	REGISTER, 1,000 GAL., 6" RCDL TURBO SERIES "RECLAIMED"
64085-040	60.00	REGISTER, 100 CU. FT., 6" RCDL TURBO SERIES "RECLAIMED"
64085-041	60.00	REGISTER, 1,000 GAL., 8" RCDL TURBO SERIES "RECLAIMED"
64085-042	60.00	REGISTER, 100 CU. FT., 8" RCDL TURBO SERIES "RECLAIMED"
64085-043	60.00	REGISTER, 10,000 GAL., 12" RCDL TURBO SERIES
64085-044	60.00	REGISTER, 1,000 CU. FT., 12" RCDL TURBO SERIES

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

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Part	List	Part Name
64085-047	60.00	REGISTER, 10,000 GAL., 12" RCDL TURBO SERIES "RECLAIMED"
64085-048	60.00	REGISTER, 1,000 CU. FT., 12" RCDL TURBO SERIES "RECLAIMED"
64085-049	60.00	REGISTER, 1,000 GAL., 10" RCDL TURBO SERIES "RECLAIMED"
64085-050	60.00	REGISTER, 100 CU. FT., 10" RCDL TURBO SERIES "RECLAIMED"
64105-001	800.00	HOUSING, 2" COMPOUND SERIES - ROUND FLANGE
64107-001	242.00	MACHINED COVER, 2" COMPOUND SERIES
64109-001	1,290.00	HOUSING, 4" COMPOUND SERIES
64111-001	317.00	MACHINED COVER, 4" COMPOUND SERIES
64111-003	318.00	MACHINED COVER (BIAZ) - 4"
64113-001	1,370.00	HOUSING, 6" COMPOUND SERIES
64115-001	449.00	MACHINED COVER, 6" COMPOUND SERIES
64115-003	427.00	MACHINED COVER (BIA) - 6"
64127-001	800.00	HOUSING, 2" COMPOUND SERIES - ELLIP FLANGE
64128-001	65.00	VALVE ASSEMBLY, 2" COMPOUND SERIES
64131-001	125.00	VALVE ASSEMBLY, 4" COMPOUND SERIES
64134-001	150.00	VALVE ASSEMBLY, 6" COMPOUND SERIES
64141-001	21.00	COVER PLATE, 4" & 6" COMPOUND SERIES
64142-001	2.25	SCREEN, 4" & 6" COMPOUND SERIES
64153-001	444.00	1,000 WIRE
64153-003	1.76	BELDON 9770 WIRE, PER FOOT
64153-005	2.25	CABLE - BELDON #9770
64174-001	1,545.00	SCANNER
64174-002	103.00	BATTERY BOX CABLE
64174-003	103.00	SCANNER CABLE
64174-004	133.00	BATTERY BOX
64175-001	1,870.00	BAR CODE SCANNER ASSEMBLY
64181-001	105.00	HOUSING BOTTOM M70 HD
64186-001	150.00	FLANGE ADAPTER KIT (2" ELLIPTICAL FL.), 2" COMPOUND SERIES
64186-002	165.00	FLANGE ADAPTER KIT (ROUND FL.), 2" COMPOUND SERIES
64186-003	395.00	FLANGE ADAPTER KIT (ROUND FL.), 4" COMPOUND SERIES
64193-013	140.00	VERSAPROBE STANDARD BATTERY CHARGER (VP-BC-US)
64193-086	3,220.00	VP-31 STANDARD PROBE
64193-087	4,130.00	VP-33 STANDARD PROBE WITH ARB ADAPTER
64193-088	3,350.00	VP-44F WITH FIXED LENGTH PROBE (SPECIFY 12", 16" OR 23")
64193-089	3,510.00	VP-34T WITH TELESCOPING PROBE
64193-090	120.00	VP HANGER BRACKET AND BELT CLIP
64193-091	40.00	VP-BELT-CLIP NYLON TOOL BELT WITH SAFETY CLASP
64193-095	3,940.00	VP-31C VERSAPROBE W/ BLUETOOTH AND INTERNAL BCM CHARGER
64193-096	4,850.00	VP-33C VERSAPROBE W/ BLUETOOTH & INTERNAL BCM CHARGER W/ ARB ADAPTER
64193-097	4,230.00	VP-34C VERSAPROBE W/ BLUETOOTH & INTERNAL BCM CHARGER W/ TELESCOPING PROBE
64193-098	4,070.00	VP-34C VERSAPROBE W/ BLUETOOTH & INTERNAL BCM CHARGER, FIXED LENGTH PROBE
64193-100	66.00	VP-CX-CHG VERSAPROBE CX WALL CHARGER
64193-102	682.00	UPGRADE TYPE III VERSAPROBE TO BLUETOOTH
64193-103	726.00	NEPTUNE/SENSUS REGISTER PROGRAMMING SOFTWARE
64193-104	59.00	VERSAPROBE HANGER BRACKET

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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Part	List	Part Name
64193-105	320.00	INTERFACE CABLE, NORTHROP GRUMMAN
64193-106	365.00	INTERFACE CABLE, PSION--TRIMBLE
64201-001	17.00	SEAL REPLACEMENT KIT
64210-003	39.00	CABLE FROM RET TO REMOTE COUNTER
64210-005	29.00	HARNESS ASSEMBLY 6 FT. FOR RET
64210-007	48.00	RET HARNESS
64232-001	462.00	LCD BOARD
64236-001	6.50	CAPLUG - 5" DIAMETER - PLMT
64238-001	17.00	PROGRAMMING MAGNET
64239-001	7.50	MASTER CARTON - 4 PK, MRT
64240-001	2.90	INNER CARTON, MRT
64257-004	0.50	WASHER FOR BATTERY SPRING
64259-001	3.50	LCD GASKET
64263-004	0.50	RETAINER FOR BATTERY SPRING
64263-007	2.75	BATTERY SPRING
64263-017	18.00	RECEIVE ANTENNA BNCV RIGHT ANGLE CONNECTOR
64263-018	26.00	TRANSMIT ANTENNA TYPE N RIGHT ANGLE CONNECTOR
64264-032	3.25	DUST COVER, 15 PIN
64264-038	99.00	BNC CONNECTOR/ADAPTER
64268-001	31.00	KEYPAD
64269-001	18.00	FRONT HOUSING
64270-001	15.00	REAR HOUSING
64275-001	2.50	LEFT BUTTON
64276-001	2.50	RIGHT BUTTON
64282-001	7.50	BEZEL
64289-001	16.00	CRADLE HOUSING
64290-001	16.00	REAR PLATE
64303-001	990.00	CPU BOARD
64304-001	336.00	PCB BOARD
64306-001	139.00	CABLE HARNESS ASSY.
64307-001	44.00	RF CABLE TO ANTENNA
64308-001	154.00	HARNESS ASSY.
64310-001	106.00	RF CABLE WITH BNC
64311-001	125.00	RF CABLE WITH COAX
64316-001	3.25	READALL SCREEN CLEANER
64318-001	121.00	RF CABLE TO BOTTOM
64324-001	46.00	RIBBON CABLE
64327-004	402.00	LCDD BOARD - READALL
64339-001	9.00	ANTI-GLARE SCREEN PROTECTOR KIT
64339-002	12.00	CLEAR SCREEN PROTECTOR KIT
64343-001	995.00	PORTABLE SM METER TESTER GAL
64343-002	995.00	PORTABLE SM METER TESTER, CU FT
64343-003	995.00	PORTABLE SM METER TESTER, CU METERS
64348-001	10.00	SPACER FOR CONNECTOR
64389-003	70.00	T-1000 REGISTER M3 NOM

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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Part	List	Part Name
64394-001	7.50	ORION PIT THRU LID INSTALL KIT
64394-005	7.00	BADGER TOUCH INSTALLATION KIT FOR PIT APPLICATION
64394-006	3.50	ORION UNIVERSAL PIT TRANSMITTER THRU LID INSTALL KIT
64394-007	3.50	ORION UNIVERSAL PIT TRANSMITTER BELOW LID INSTALL KIT
64394-008	4.00	ORION DEEP VAULT/NON-STANDARD PERMALOG+ INSTALLATION KIT
64394-009	3.50	ORION ARMOUR CAST COMPATIBLE INSTALL KIT
64394-019	3.50	REMOTE INSTALLATION BRACKET KIT (RTR)
64394-020	3.50	REMOTE INSTALLATION BRACKET KIT (ADE)
64394-021	5.50	ORION REMOTE BOX COVER INSTALLATION KIT
64394-023	10.00	MOUNTING BRACKET KIT FOR COMPOUND AND FIRE SERIES METERS
64397-006	3.50	ORION UNIVERSAL PIT TRANSMITTER THRU LID INSTALL KIT
64397-007	3.50	ORION UNIVERSAL PIT TRANSMITTER BELOW LID INSTALL KIT
64397-008	3.50	ORION DEEP VAULT INSTALL KIT
64397-009	3.50	ORION ARMOUR CAST COMPATIBLE INSTALL KIT
64421-001	51.00	RECEIVER CASE
64428-001	8.50	PLASTIC M25 BOTTOM
64430-004	665.00	PANASONIC CD ROM ASSEMBLY
64430-005	275.00	ORION PANASONIC LAPTOP DC POWER CABLE ASSEMBLY
64430-006	275.00	PANASONIC LAPTOP MODEL CF29 AND CF30 DC POWER SUPPLY
64430-007	253.00	AC POWER SUPPLY, PANASONIC CF 28 LAPTOP
64430-008	182.00	AC POWER SUPPLY, PANASONIC CF 29 LAPTOP
64430-010	50.75	USB FLASH DRIVE
64436-010	90.00	ORION MOBILE RECEIVER SERIAL CABLE, TRIMBLE RANGER AND PANASONIC LAPTOP
64436-011	15.00	RECEIVER AC POWER SUPPLY
64436-022	112.00	90 DEGREE CONNECTOR - ORION RECEIVER
64436-023	275.00	ORS LAPTOP ORION DATA PROFILE TRANSMITTER AND GALAXY TRANSMITTER DOWNLOAD CABLE
64436-024	660.00	REPLACEMENT BATTERY PANASONIC CF 28 LAPTOP
64436-025	505.00	REPLACEMENT BATTERY PANASONIC CF 29 LAPTOP
64436-026	469.00	PANASONIC LAPTOP REPLACEMENT BATTERY, MODEL CF 30
64436-027	35.00	ORION FHSS RECEIVER DC POWER CABLE
64438-001	17.00	ORION RECEIVER BATTERY
64441-002	4,779.00	ORION MOBILE NARROW BAND MULTI-LINGUAL RECEIVER WITH BATTERY
64443-001	54.00	ORION WALK BY ANTENNA
64444-003	152.00	MAGNETIC MOUNT ANTENNA
64466-001	95.00	MODEL RED REMOTE ELECTRONIC DISPLAY
64489-002	107.00	ORION GPS MAGNET MOUNT
64489-004	390.00	BLUETOOTH GPS ANTENNA
64489-005	58.00	BLUETOOTH GPS RECEIVER
64489-006	11.30	BLUETOOTH USB RECEIVER EXTENSION CABLE
64535-001	17.90	5' CABLE W/ITRON CONNECTOR AND PROTECTIVE PLUG (ALL MODELS EXCEPT HERSEY)
64535-002	28.25	25' CABLE W/ITRON CONNECTOR AND PROTECTIVE PLUG (ALL MODELS EXCEPT HERSEY)
64535-003	35.75	5' CABLE FOR HERSEY W/ITRON INLINE CONNECTOR AND PROTECTIVE PLUG, REED SWITCH AS
64535-004	77.00	20' CABLE FOR HERSEY W/ITRON INLINE CONNECTOR AND PROTECTIVE PLUG, REED SWITCH
64535-005	28.25	5' CABLE W/ITRON CONNECTOR AND PROTECTIVE COVER AND BMI CONNECTOR AND PROTECTIVE
64535-006	37.25	25' CABLE W/ITRON CONNECTOR AND PROTECTIVE COVER AND BMI CONNECTOR AND

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

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Part	List	Part Name
64557-001	479.00	ORION MOBILE READING SYSTEM PELICAN CASE
64558-005	755.00	ORS PREMIUM LAPTOP MOBILE MOUNT KIT
64558-006	849.00	ORION PREMIUM MOBILE MOUNT KIT, CF 29 LAPTOP
64558-016	400.00	ORION UTILITY KIT (KIT WITHOUT RECEIVER)
64574-002	90.00	CABLE 3.1 - 15 FEET MAGNETOFLOW
64574-003	88.00	CABLE 3.1 - 30 FEET MAGNETOFLOW
64574-004	154.00	CABLE 3.1 - 50 FEET MAGNETOFLOW
64574-005	240.00	CABLE 3.1 - 100 FEET MAGNETOFLOW
64655-001	3.00	24 PIECE MRT BOX
64656-001	0.75	PAD
64657-001	2.00	PARTITION
64763-002	11.75	ORION ADE TRANSMITTER ENCLOSURE
64864-001	2.00	BADGER TOUCH PIT TUBE COVER
64926-002	279.00	SERIAL EXPANSION KIT
64926-003	415.00	WALL CHARGER
64926-004	640.00	MAIN LINE LOADER CHARGER
64926-005	585.00	FW500 SECONDARY LOADER CHARGER
64926-006	3,955.00	CASCADE LOADER CHARGER CONSOLE
64926-007	725.00	FW500 THREE UNIT LOADER CHARGER FOR CASCADE LOADER
64926-008	251.00	CABLE, PC TO MAIN LINE LOADER CHARGER
64926-011	251.00	CABLE, PC TO CASCADE LOADER
64926-021	46.00	FLAT "L" FLEXI
64926-022	1.50	EXP. MOD. LOCKING PIN
64926-023	86.00	EXT. EXP. MOD. CAP KIT
64926-024	6.50	HANDSTRAP
64926-025	1.75	HANDSTRAP BUTTON
64926-026	3.25	HANDSTRAP RETAINER
64926-027	11.00	SERIAL PORT PLUG
64926-029	7.50	EXPANSION MODULE SHORT CAP
64926-030	1,043.00	FW500 MAIN LINE LOADER CHARGER
64926-031	4,415.00	FW500 CASCADE LOADER CHARGER CONSOLE
64926-032	194.00	POWER SUPPLY, MAIN LINE AND SECONDARY LOADER CHARGER
64926-036	320.00	VERSAPROBE INTERFACE CABLE FOR BADGER RADIX FW500
64926-041	790.00	BADGER-RADIX RAISED KEYBOARD UPGRADE
64926-048	550.00	UMS FW500 HH LICENSE (REQUIRED FOR +16 HH)
64926-049	2,860.00	UMS PC SOFTWARE LICENSE, CLIENT SERVER, ADDITIONAL 3 USERS
64926-051	2,860.00	UMS PC SOFTWARE LICENSE FW500 UPGRADE (EXISTING UMS CUSTOMERS)
64927-001	660.00	ORION CIRCUIT BOARD FOR RADIX
64942-001	1.25	STRAP/SCREEN COMPONENT
64957-001	16.00	BADGERTOUCH PIT MODULE WITH 5 FOOT LEAD
64957-002	25.00	BADGER TOUCH PIT MODULE WITH 25 FOOT LEAD
64963-001	150.00	DTI FOR BADGER FIRE SERVICE TRANSMITTER
64963-002	150.00	DTI FOR KENT TRANSMITTER
64963-003	150.00	DTI FOR HERSEY TRANSMITTER
64964-001	110.00	LMI ASSEMBLY FOR BADGER GENERATORS

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

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Part	List	Part Name
64976-013	76.00	GALAXY INFRA-RED INTERFACE
64977-001	50.00	CABLE (COIL) 15 FEET
64977-002	55.00	CABLE (COIL) - 30 FEET
64977-003	63.00	CABLE (COIL) 50 FEET
64977-004	85.00	CABLE (COIL) 100 FEET
64978-001	57.00	CABLE (ELECTRODE) 15 FEET
64978-002	69.00	CABLE (ELECTRODE) 30 FEET
64978-003	86.00	CABLE (ELECTRODE) 50 FEET
64978-004	142.00	CABLE (ELECTRODE) 100 FEET
65151-001	13.00	8" STRAINER HOUSING GASKET
65429-001	178.00	ML-MS STRAINER SCREEN
65430-001	21.00	10" STRAINER HOUSING GASKET
65434-001	211.00	12" STRAINER SCREEN
65513-001	7.00	ACCESSORY KIT, SENSUS RESIDENTIAL GAS METERS
65513-002	4.75	ACCESSORY KIT, AMERICAN RESIDENTIAL GAS METERS
65513-003	9.50	ACCESSORY KIT, ACTARIS RESIDENTIAL GAS METERS
65513-004	22.00	INSTALLATION KIT FOR ORION P2 FOR ACTARIS STR. FACED RES. METERS W/ NON-TC INDEX
65513-005	22.00	INSTALLATION KIT FOR ORION P2 FOR ACTARIS STR. FACED RES. METERS W/ TC INDEX
65513-006	451.00	INSTALLATION PARTS (BULK) FOR ORION GAS FOR AMERICAN RESIDENTIAL
65513-008	780.00	INSTALLATION PARTS (BULK) FOR ORION GAS FOR SENSUS RESIDENTIAL
65513-009	790.00	INSTALLATION PARTS (BULK) FOR ORION GAS FOR ACTARIS SLANT
65513-010	333.00	INSTALLATION PARTS (BULK) FOR ORION GAS FOR ACTARIS STRAIGHT
65553-003	70.00	CHAMBER ASSEMBLY - M55
65553-004	75.00	CHAMBER ASSEMBLY (RECLAIMED) -M55
65567-001	94.00	ORION WATER METER MONITOR WITH LEAK DETECTION INDICATOR
65568-001	191.00	MAGNETOFLOW MAG METER CABLE SPLICE KIT
65580-001	36.00	SCREEN 6" PLATE STRAINER
65589-001	195.00	ORION PROGRAMMING ACCESSORY
65592-001	2.50	HOUSING GASKET - M55
65615-001	74.00	HOUSING - M55 BRONZE
65615-003	85.00	HOUSING - M55 - LOW LEAD (BIA)
65617-001	53.00	HOUSING BOTTOM - BRONZE
65617-002	65.00	HOUSING BOTTOM - RECLAIMED (BRZ)
65617-003	59.00	HOUSING BOTTOM - BIALLOY (BIA)
65618-001	3.25	HOUSING BOLT LINER (FOR C1) - M55
65619-001	5.00	SCREEN - M55
65621-001	2.00	SLOW BLOW FUSE (630MA, 250 VAC)
65621-002	2.75	SLOW BLOW FUSE (500MA, 250 VAC)
65630-001	48.00	MOUNTING BRACKET KIT, M3000 MAG METER
65631-001	221.00	ORION REMOTE DATA PROFILER
65642-002	51.00	ORION REMOTE PROFILER REPLACEMENT BATTERY PACK
65654-001	16.00	HOUSING BOTTOM - CAST IRON
65654-003	17.75	HOUSING BOTTOM - RECLAIMED (CI)
65737-001	1.00	ADAPTER GASKET FOR ORION P2 FOR ACTARIS STRAIGHT FACED METERS
65738-001	1.00	GASKET FOR AMERICAN RESIDENTIAL METER

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIS**

Part	List	Part Name
65747-001	1,800.00	ORION DUAL READ SMART BOX
65765-001	11.00	BATTERY FOR ER-10
65768-001	660.00	BADGER-RADIX ORION DATA PROFILE TRANSMITTER DOWNLOAD CABLE
65801-001	33.00	REG ASSY. US GALLONS (LP STYLE)
65801-002	33.00	REG ASSY. CU FEET (LP STYLE)
65801-003	33.00	REG ASSY. CU METER (LP STYLE) (.1 CUM TC)
65801-004	33.00	REG ASSY. IMP GALLONS (LP STYLE)
65801-005	35.00	REG ASSY. US GAL (LP STYLE) "RECLAIMED"
65801-006	35.00	REG ASSY. CU FT (LP STYLE) "RECLAIMED"
65803-001	52.00	HOUSING - 5/8"X3/4" (5/8" BORE) MDL LP - (BIA)
65803-002	52.00	HOUSING - 5/8"X3/4" (3/4" BORE) MDL LP - (BIA)
65803-003	50.00	HOUSING - 5/8" MDL LP - (BIA)
65805-003	9.50	HOUSING BOTTOM (BIA)
65805-004	11.00	HOUSING BOTTOM (BIA) - "RECLAIMED"
65806-002	5.50	HOUSING BOTTOM (CAST IRON)
65806-003	6.75	HOUSING BOTTOM (CAST IRON) - "RECLAIMED"
65808-001	5.50	HOUSING BOTTOM (PLASTIC)
65814-001	2.25	REGISTER FLAT LID (PLASTIC) MDL LP
65834-003	22.00	CHAMBER ASSY. MODEL LP
65834-004	25.00	CHAMBER ASSY. MODEL LP - "RECLAIMED"
65835-001	2.00	HOUSING BOTTOM LINER/SCREEN -MODEL LP
65838-001	2.45	ORION TRANSMITTER ENCLOSUE ONLY - BLACK
65838-002	2.45	ORION TRANSMITTER ENCLOSURE ONLY - GRAY
65848-001	275.00	ER-10-H REGISTER FOR PLMP
65855-003	15.00	TOP HAT, RED, BAG OF 50 PIECES
65855-004	15.00	GAS ORION RESIDENTAIL SECURITY SEAL, BLUE COLOR, BAG OF 50
65855-007	15.00	GAS ORION SECURITY SEALS FOR ACTARIS C&I METER, RED, BAG OF 50
65855-008	15.00	GAS ORION SECURITY SEALS FOR SENSUS C&I METER, RED, BAG OF 50
65855-010	15.00	GAS ORION SECURITY SEALS FOR ACTARIS C&I METER, BLUE COLOR, BAG OF 50
65857-001	0.75	HOUSING BOLT (ALL BOTTOMS)
65858-001	1.00	HOUSING SEAL BOLT
65869-001	1.00	COVER SEAL WITHOUT CUTOUT FOR SENSUS & ACTARIS
65869-002	1:00	COVER SEAL WITH CUTOUT FOR AMERICAN
65871-001	0.50	SCREW MACH SLPN 4-40 X .25 LONG
65876-001	7.00	CLEAR OUTER COVER AND GASKET FOR ORION P2 FOR ACTARIS RES. METERS
65876-002	7.00	GAS ORION INTEGRAL OUTER COVER FOR AMERICAN RESIDENTIAL MODULE
65882-001	2.35	HOUSING GASKET FOR ORION P2 & P3 FOR ACTARIS STRAIGHT FACED METERS
65886-001	3.25	ADE ACCESSORY KIT - INDOOR
65917-001	189.00	IR HEAD ALIGNMENT TOOL, ORION TRANSMITTER
65932-001	113.00	ADE, SENSUS ECR LL/LLL AND HERSEY TRANSLATOR 60W ENDPOINT W/ITRON IN-WIRE
65932-002	113.00	ADE, SENSUS ECR LL/LLL AND HERSEY TRANSLATOR 60W ENDPOINT W/OUT ITRON
65932-003	113.00	AMCO 60W ENDPOINT W/ITRON IN-LINE CONNECTOR
65932-004	113.00	AMCO 60W ENDPOINT W/OUT ITRON IN-LINE CONNECTOR
65932-005	113.00	NEPTUNE 60W ENDPOINT W/ITRON IN-LINE CONNECTOR
65932-006	113.00	NEPTUNE 60W ENDPOINT W/OUT IN-LINE CONNECTOR

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
65932-009	113.00	NEPTUNE 60W ENDPOINT W/ITRON IN-LINE CONNECTOR (PROREAD)
65932-010	113.00	NEPTUNE 60W ENDPOINT WITHOUT/ITRON IN-LINE CONNECTOR (PROREAD)
65947-001	785.00	BADGER-RADIX ORION NARROWBAND RF BOARD
65957-001	2.35	ORION GASKET FOR AMERICAN RESIDENTIAL GAS METER
65962-001	5.00	CLEAR OUTER COVER FOR ORION FOR AMERICAN RESIDENTIAL METERS
65966-001	2.35	ORION GASKET FOR SENSUS RESIDENTIAL GAS METER
65972-001	2.35	ORION GAS GASKET FOR ACTARIS SLANT FACE METER
65973-001	5.00	CLEAR OUTER COVER FOR ORION FOR ACTARIS RESIDENTIAL METERS
65973-001	5.00	CLEAR OUTER COVER FOR ORION FOR ACTARIS RESIDENTIAL METERS
65987-001	2.75	CARTON
65988-001	2.00	CARTON INSERT
65990-001	3.00	CARTON
65994-001	17.80	INSTALLATION KIT - ORION GAS FOR AMERICAN C&I MODULE
65994-004	3.50	INSTALLATION KIT, ORION FOR AMERICAN RESIDENTIAL GAS METER
65994-005	3.50	INSTALLATION KIT ORION INTEGRAL FOR SENSUS RESIDENTIAL GAS METERS
65994-006	3.50	INSTALLATION KIT FOR ORION GAS FOR ACTARIS SLANT FACE METER
65994-007	10.00	INSTALLATION KIT - ORION GAS FOR SENSUS C&I MODULE
65994-008	14.00	INSTALLATION KIT - ORION GAS FOR ACTARIS C&I MODULE
65994-011	22.00	INSTALLATION KIT FOR ORION FOR ACTARIS STR. FACED RES. METERS W/ NON-TC INDEX
65994-012	22.00	INSTALLATION KIT FOR ORION FOR ACTARIS STR. FACED RES. METERS W/ TC INDEX
66009-002	5.50	ORION REMOTE BOX COVER INSTALLATION KIT - CHICAGO
66018-001	479.00	BADGER-RADIX TO ORION MOBILE
66042-004	105.00	ORION 4.0 INSTALLATION KIT WITH BANDING
66042-006	223.70	ORION 4.0 BANDING INSTALLATION TOOL
66057-001	12.56	ORION 4.0 USB PROGRAMMING CABLE
66205-001	0.35	ROOTS ROTARY METER SPACER
66228-001	7.61	ORION 4.0 ENCLOSURE HARDWARE MOUNTING KIT
66228-002	89.77	ORION 4.0 ENCLOSURE COVER WITH SCREWS
66228-003	116.54	ORION 4.0 RECEIVING ANTENNA AND MOUNTING HARDWARE
66233-004	0.75	ANTI-TAMPER COLLAR
66233-008	36.08	ORION 4.0 POWER CABLE, 25 FEET
66233-009	50.64	ORION 4.0 POWER CABLE, 50 FEET
66233-010	79.11	ORION 4.0 POWER CABLE, 100 FEET
66233-011	135.80	ORION 4.0 POWER CABLE, 200 FEET
66238-004	136.15	TRIMBLE RANGER USB 4 PORT COMMUNICATION HUB
66238-005	9.05	TRIMBLE RANGER USB CABLE
66238-007	27.75	TRIMBLE RANGER ORION ANTENNA
66238-008	195.00	TRIMBLE RANGER EXPANSION BAY
66238-009	15.75	TRIMBLE RANGER SCREEN PROJECTOR
66238-010	81.30	TRIMBLE RANGER EXPANSION BAY FOR ORION RECEIVER
66238-011	77.30	TRIMBLE RANGER CARRYING CASE
66238-012	30.90	TRIMBLE RANGER HAND STRAP ASSEMBLY
66238-013	15.45	TRIMBLE RANGER STYLUS
66238-014	20.60	TRIMBLE RANGER LANYARD
66238-015	465.00	TRIMBLE RANGER BATTERY PACK ASSEMBLY

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
66238-016	151.95	TRIMBLE RANGER AC POWER SUPPLY
66238-017	0.89	TRIMBLE RANGER EXPANSION BAY SCREWS
66238-022	169.00	READCENTER WIRELESS ROUTER, FACTORY PROGRAMMED
66238-025	1,250.00	TRIMBLE RANGER SCANNER LASER BUNDLE
66238-026	385.00	TRIMBLE RANGER GPS RECEIVER
66238-030	950.00	TRIMBLE RANGER BADGER METER CUSTOM KEYPAD UPGRADE
66238-032	201.32	TRIMBLE NOMAD AA BATTERY MODULE
66238-033	212.50	TRIMBLE NOMAD RECHARGEABLE LI-ION BATTERY MODULE
66238-034	111.84	TRIMBLE NOMAD USB BOOT
66238-035	111.84	TRIMBLE NOMAD SERIAL BOOT
66238-036	167.76	TRIMBLE NOMAD EXTENDED CF-CAP
66238-037	62.63	TRIMBLE NOMAD STANDARD CF-CAP
66238-038	26.84	TRIMBLE NOMAD HAND STRAP
66238-039	243.82	TRIMBLE NOMAD TRIGGER, A PISTOL GRIP ACCESSORY
66238-040	17.89	TRIMBLE NOMAD SCREEN PROTECTORS, ANTI-GLARE (PACKAGE OF 2)
66238-041	17.89	TRIMBLE NOMAD SCREEN PROTECTORS, ULTRA-CLEAR (PACKAGE OF 2)
66238-043	33.55	TRIMBLE NOMAD USB DATA CABLE
66238-044	33.55	TRIMBLE NOMAD SERIAL INTERFACE CABLE
66238-045	55.92	TRIMBLE NOMAD-TRIMBLE BRANDED STANDARD NYLON CARRY CASE (YELLOW)
66238-046	55.92	TRIMBLE NOMAD-TRIMBLE BRANDED NYLON CARRY CASE FOR EXTENDED CF-CAP (YELLOW)
66238-047	89.47	TRIMBLE NOMAD-TRIMBLE BRANDED DELUXE CASE W/ BELT CLIP & SHOULDER STRAP (GRAY)
66238-048	131.97	TRIMBLE NOMAD BLACK NYLON CARRYING CASE
66238-049	111.84	TRIMBLE NOMAD SPARE BATTERY CHARGER (SPARE BATTERY & REQUIRED AC CHR. NOT INC.)
66238-050	131.97	TRIMBLE NOMAD AC CHARGER
66238-051	333.29	TRIMBLE NOMAD 12V VEHICLE CHARGER
66238-052	346.71	TRIMBLE NOMAD GPS RANGE POLE BRACKET
66238-053	105.13	TRIMBLE NOMAD VEHICLE FOR X SERIES MOUNT
66238-054	44.74	TRIMBLE NOMAD STYLUS PEN
66238-055	17.89	TRIMBLE NOMAD STYLUS PEN LANYARD
66240-001	9.05	TRIMBLE USB PLUG ASSEMBLY
66276-004	472.90	SERIAL TO LAN ADAPTER (INCLUDES AC POWER CUBE)
66291-001	293.50	TRIMBLE RANGER CHARGING CRADLE
66291-002	293.50	CHARGING CRADLE ASSEMBLY SERVICE
66307-005	158.40	SURGE ARRESTOR FOR SERIAL CABLE
66308-001	115.00	HARNESS ASSEMBLY, GALAXY
66312-001	5.00	M2000 BALL SCREW
66314-005	112.50	GALAXY COMBINED CABLE ASSEMBLY, 50'
66406-006	40.75	308 IN-LINE CONNECTOR, 75' UNSTRIPPED
66421-001	87.00	AMCO INVISON DIRECT MOUNT & REMOTE (AMCO PROTOCOL)
66421-002	87.00	SENSUS REMOTE (HERSEY, SENSUS, METRON HAWKEYE)
66421-003	87.00	NEPTUNE ARB V REMOTE
66421-004	87.00	NEPTUNE PROREAD REMOTE
66437-001	4,479.00	ORION FHSS RECEIVER
66465-002	1.95	MOUNTING CLIPS TR3 - 2 PER BAG
66481-001	87.00	AMCO DIGITAL DIRECT MOUNT & DIGITAL REMOTE

Minimum Billing: \$50.00

Freight: F.O.B. Milwaukee, WI

Terms: Net 30 Days

Note: P/Ns and prices may change without notice

**Service
Parts**



**PRICE
LIST**

Part	List	Part Name
66525-001	50.59	ORION 4.0 M12 CONNECTOR
66527-001	82.18	ORION 4.0 ETHERNET PLUG
66528-001	154.90	ORION 4.0 POWER SUPPLY
66529-001	162.50	PROGRAMMING HARNESS FOR ORION 4.0 AND GALAXY
66558-001	569.00	TRIMBLE RANGER INSPECTION AND REPAIR
66558-002	1,195.00	TRIMBLE RANGER DISPLAY
66558-003	1,936.00	TRIMBLE RANGER CIRCUIT BOARD
66558-004	695.00	TRIMBLE RANGER FRONT CASE
66558-005	305.00	TRIMBLE RANGER BACK CASE
66632-001	8.00	GALAXY TR3 PROGRAMMING BRACKET
66664-001	1.95	MOUNTING PLATE TR3
66681-001	78.68	ORION 4.0 MMK BRACKET
66690-001	165.00	SUMMATOR ASSEMBLY 1:1 W/ 308
66690-002	165.00	SUMMATOR/SPLITTER 1:1 W/ 308
66690-003	165.00	SUMMATOR/SPLITTER 10:1 W/ 308
66690-004	165.00	SUMMATOR/SPLITTER 100:1 W/ 308
66690-005	165.00	SUMMATOR/SPLITTER 1:1 W/ 308 & ITRON
66690-006	165.00	SUMMATOR ASSEMBLY 1:1 W/ 308 & ITRON
66690-007	165.00	SUMMATOR/SPLITTER 10:1 W/ 308 & ITRON
66690-008	165.00	SUMMATOR/SPLITTER 100:1 W/ 308 & ITRON
66748-001	1,800.00	UMS SOFTWARE LICENSE 1
66748-002	1,500.00	UMS SOFTWARE LICENSE 2 - 9. PRICE IS PER LICENSE.
66748-005	3,500.00	UMS TRAINING ON-SITE, TWO DAYS
66748-006	5,000.00	UMS TRAINING ON-SITE, THREE DAYS
66748-008	3,000.00	UMS WORK ORDER SOFTWARE FOR THE HANDHELD
66796-001	3.00	M2000 CABLE GLAND
66815-001	130.00	M2000 LCD DISPLAY KIT
66815-002	620.00	M2000 PCB ASSEMBLY
66815-003	200.00	M2000 COVER COMPLETE
66815-004	950.00	M2000 AMPLIFIER KIT
66863-001	27.50	NICOR RTR TO DATAMATIC MOSAIC JUMPER CABLE
66958-001	42.50	HARNESS 10:1 DUAL RTR W/ 308
66958-002	42.50	HARNESS 100:1 DUAL RTR W/ 308
83035-045	0.50	SPADE LUGS, HRT

Minimum Billing: \$50.00
 Freight: F.O.B. Milwaukee, WI
 Terms: Net 30 Days
 Note: P/Ns and prices may change without notice

Mueller SYSTEMS

10210 Statesville Blvd.
P. O. Box 128
Cleveland, NC 27013
Office: 704.278.2221
Fax: 704.278.9616

December 13, 2011

City Clerk's Office
City of Sacramento
915 1st Street Suite 122391
Sacramento, CA 95814

Properly Signed *Improperly Signed*
 Not Included Not Required
Type of Deposit
 Bid Bond Cashier/Certified Check
 Other _____ **Initial: VE**

RE: Bid No. B123351012 Cold Water Meters
Due: 12/14/2011 @ 2:00 PM

To Whom It May Concern,

Thank you for allowing Mueller Systems an opportunity to furnish you with our prices for the above bid. You will find enclosed our bid prices on the products as specified in the enclosed literature.

If you should have any questions or concerns, please contact me at 704-278-5360 or kgottberg@muellersystems.com. Thank you for your interest in our products. We look forward to receiving your favorable consideration.

Sincerely,



Kim Gottberg
Quotations Specialist

Enclosures

ORIGINAL



CITY OF SACRAMENTO

PROCUREMENT SERVICES DIVISION

Bid Number: B123351012

**INVITATION FOR BID
And
Contract Specifications For
FOR: COLD WATER METERS**

***Bids Must Be Received Up To The Hour of 2:00 P.M. on
Wednesday December 14, 2011***

Bids Must Be Submitted To: City Clerk's Office
P.O. Box 122391
Sacramento, CA 95812-2391

Pre-Bid Conference: Thursday December 8, 2011 at 1:30PM
Mandatory: Yes
 No
5730 24th Street Corp Yard
Bldg # 22- The Copper Room
Sacramento, CA 95822

**NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID:
(Bidder to complete the following information)**

Name of Bidder: Mueller Systems, LLC

Address: 10210 Statesville Blvd. P.O. Box 128

City, State, Zip Code: Cleveland, NC 27013

Phone Number: 704-278-2221

Email Address: ashort@muellersystems.com

CITY OF SACRAMENTO

Bid No. B123351012

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SECTION I REQUIREMENTS

SECTION I – REQUIREMENTS

B. BID INSTRUCTIONS AND REQUIREMENTS

No Bid Is In Legal Form Unless the Following Instructions Are Fully Complied With

1. **Additional Copies.** VENDORS ARE REQUIRED TO SUBMIT AN ORIGINAL BID AND ONE (1) ADDITIONAL COPY OF THIS BID, INCLUDING ALL REQUIRED ATTACHMENTS SUCH AS BROCHURES AND CATALOGS, TO THE CITY CLERK ON THE DATE AND AT THE TIME AND LOCATION SPECIFIED ON THE COVER SHEET. FAILURE TO DO SO MAY CAUSE YOUR BID TO BE REJECTED.
2. **Bid Forms.** Bid must be submitted on these printed forms and sealed in an appropriate envelope or package.
 - a) To obtain an electronic version of this bid go to Procurement's website at www.cityofsacramento.org/generalservices/procurement/bids.
 - b) Bidders are invited to be present at the opening of bids. Bids will be opened, in public, in the City Clerk's Hearing Room, 915 "I" Street, Second Floor, Sacramento, CA, at or after 2:00 P.M. on, _____ . After opening, Bids may be inspected in the City Clerk's Office.

(Note: Bids must be submitted up to 2:00 P.M. on the above date)
 - c) All bids shall be clearly and distinctly written without erasure or modification, and properly signed by an authorized party, who shall indicate the capacity in which the signature is executed.
3. **Alternate Bids.** Alternate bids are invalid unless invited and covered by the specifications. **Please note all submissions are subject to rejection when unsolicited alternate bids are submitted.**
4. **Bid Security.** Bid Security is: Required Not Required

If required, bid security approved by the City must accompany the bid, in the amount of ___ % of the total amount of the bid. Bid security can be in the form of a cashier's check, certified check, or a bid bond from a surety company authorized to do business in the State of California. Bid securities will be returned to all except the three lowest Bidders within ten days after the opening of bids. The bid security of the two unsuccessful Contractors will be returned after the successful Contractor has executed the contract. Bid security of the successful Contractor will be returned when the contract is signed and all other contract award requirements have been met.
5. **Interest in More Than One Bid.** No bidder shall be interested in more than one bid (submit more than one bid for this solicitation) as provided by City Code Section 3.56.130(D).
6. **Rejection of Bids.** The right to reject any and all bids is reserved by the City, in its absolute discretion.
7. **Right to Waive.** The City reserves the right to waive any informalities or minor irregularities, as determined in its sole discretion, in connection with bids received.
- 7A. **City's Options.** City reserves the following options:
 1. The right to award in whole or in part.
 2. The right to reject all partial bids.
 3. The right to reject any or all bids or make no award.
 4. The right to issue subsequent Invitation For Bids (IFB).
 5. The right to approve or disapprove the use of particular subcontractors and/or suppliers.
 6. The right to waive any informality or irregularity in the bidding process and any bids.
 7. The right to accept a bidder's signed offer and issue a purchase order directly to the bidder based on the IFB.

SECTION I – REQUIREMENTS

A. "NO BID" RESPONSE FORM

**NOTE: COMPLETE AND RETURN THIS FORM
ONLY IF YOU DO NOT WANT TO SUBMIT A BID**

If you do not want to submit a bid for this requirement, we are interested in knowing why. Please remove this form, complete the requested information, and **FAX your response to Ken Swartz at (916) 421-4596**. If you have questions, please call the Field Services Administrative Office at (916) 808-6276. Thank you for your cooperation.

**"NO BID" QUESTIONNAIRE
(Please complete all items that apply)**

- We do not sell the products/services called for in this invitation for bid, but **we want to stay on the City's Bid List**. Please send necessary information so that the products/services we do provide can be updated on the City's Bid List.

- We are not interested in doing business with the City of Sacramento, because _____

- Other reasons/comments: _____

- Please send application forms for certification as an emerging and/or small business enterprise (E/SBE): **(Note: Application forms and information about becoming certified as an emerging and/or small business can be obtained via the Internet at: <http://www.cityofsacramento.org/esbd>).**

(Business Name)

(Street Address/P.O. Box)

(City, State, Zip)

(E-mail address)

Date: _____

Phone: _____

Contact: _____

8. **City Code.** All provisions of Chapter 3.56 of the City Code are applicable to any bid submitted or contract awarded.
9. **Equipment.** If equipment is bid, it shall be the newest and latest model in current production. Used, re-manufactured, shopworn, demonstrator, prototype or discontinued models are not acceptable unless otherwise stipulated by the City.
10. **Faithful Performance Bond.** A faithful performance bond is: [X] Not Required [] Required
- If required, the successful bidder must submit a performance bond in a form approved by the City Attorney, in the amount of _____.
11. **Payment Discounts.** Payment discounts offered for payment in less than twenty (20) days will not be considered as a basis of award. Payment discounts offered for payment in twenty (20) or more days will be subtracted from the total bid price for the purposes of bid evaluation. Any payment discount offered by the successful bidder will be accepted by the City of Sacramento, whether or not it was considered as a basis of award.
12. **Mandatory Pre-Bid Conference.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, all bidders are required to attend the conference. Failure to attend this conference will result in rejection of your bid. If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, bid packages will be made available only through the time and date of the conference. Subsequent addenda, if applicable, will be furnished only to those bidders who attended the Mandatory Pre-Bid Conference.
13. **Bid Inquiries.** Questions regarding this bid should be referred to:

Contractual Questions
 Field Services Division
 Ken Swartz
 Stores Administrator
kswartz@cityofsacramento.org
 Phone: 916-808-6276

Technical Questions
 Water Distribution
 Oscar Alcantar
 Water Meter Supervisor
oalcantar@cityofsacramento.org
 Phone: 916-808-6901

These inquiries must be submitted at least 10 days prior to the bid opening date. Any interpretations by the City will be made in the form of a written amendment. The receipt of such an amendment must be acknowledged in accordance with the directions on the amendment. Oral explanations or instructions given before the award of the contract will not be binding.

14. **Bid Evaluation.** In determining the amount bid by each bidder, the City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Bid. When such a mathematical error appears on the face of the Bid, the City shall have the right to correct such error and to compute the total amount bid by the bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Bid, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the City's estimate of the quantity to be provided or performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the intent of the bid process. The total paid for each such item of work shall be based upon the item price and not the total price.

Should the Bid contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by City's estimate of the estimated quantities to be provided or performed.

If the Bid contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Bid shall be disregarded.

If prospective bidders are bidding an item "or equal" the bidders shall list the manufacturer's name and product number of the item offered in the space provided. If such information is not provided, it will be assumed that the bidder is offering the exact item specified. The City's decision as to whether an item is an equal to the item specified shall be final.

- 15. Determination of Lowest Responsible Bidder.** Sacramento City Code '3.56.020 provides that the lowest responsible bidder shall be determined as follows:
- a. In determining whether a bidder is responsible, consideration shall be given to: (i) the quality and performance of the supplies to be provided by the bidder; (ii) the ability, capacity and skill of the bidder to perform the contract or effectuate the transaction; (iii) the ability of the bidder to perform the contract or effectuate the transaction within the time specified, without delay; (iv) the character, integrity, reputation, judgment, experience and efficiency of the bidder; (v) the quality of the bidder's performance on previous purchases by, or contracts with, the City; (vi) the ability of the bidder to provide future maintenance, repair parts and services for the supplies provided.
 - b. Based on the information provided in the bids, the City Council or the City Manager, as the case may be, shall identify those bids that are subject at the time of bid opening to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. This deduction shall be in addition to the application of any bid price preferences authorized by subsection c, below.
 - c. The City Council may by resolution, from time to time, adopt programs or procedures for providing bid price preferences, including but not limited to, preferences to promote the participation and utilization of small business enterprises, energy conservation and sustainability in the City's contracting for supplies and nonprofessional services. The lowest responsible bidder shall be the responsible bidder whose bid price is the lowest after all bid prices are calculated to include any such preferences. The calculation of such preferences shall be in addition to any deduction of sales or use tax required by subsection b, above.
- 16. Pre-Award Conference.** The apparent lowest responsible bidder may be required to attend a pre-award conference at a mutually acceptable time at which requirements of the Contract will be reviewed. At that time, samples of forms, reports etc., will be submitted by the Contractor for final approval.
- 17. Award by Item or Group.** The City reserves the right to increase or decrease quantities listed, make separate awards for any item, line-item or category/group of items to the lowest responsible bidders for such items or category/groups of items.
- 18. Multiple Awards.** The City reserves the right to make multiple awards in order to provide alternate sources to insure continuity of supply if meeting the City's requirements within an acceptable time period exceeds the capacity or capability of the primary contractor(s).
- 19. Contract Award.** Within ninety (90) days after the bid opening, a contract will be awarded by the City to the lowest responsible bidder, subject to the right of the City to reject all bids or waive informalities or minor irregularities, as it may deem proper. The time for awarding a contract may be extended in the sole discretion of the City, if required to evaluate bids or for such other purposes as the City may determine, unless the Bidder objects to such extension in writing with his/her bid. The City may accept this bid offer by issuance of a Notice of Award Letter, Contract and/or a Purchase order covering award of said bid to Bidder at any time on or before the 90th day following the day of this official bid is opened by the City. This offer shall be irrevocable for 90 days after bid opening or 90 days after City Council awards the bid, whichever comes last, however this period may be extended by mutual agreement of both parties.
- 20. Emergency/Declared Disaster Requirements.** In the event of an emergency or if a City facility is declared a disaster area by the county, state or federal government, this contract may be subjected to unusual usage. The consultant/vendor/supplier shall service the City during such an emergency

or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by the consultant/vendor/supplier shall apply to serving the City's needs regardless of the circumstances. If the consultant/vendor/supplier is unable to supply the goods/services under the terms of the contract because of a disruption in its chain of supply or service, then the consultant/vendor/supplier shall provide proof of such disruption which may include, but not be limited to a copy of a letter from the source of supply or service stating reason for the disruption. Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted.

21. **Acceptable bid format.** All bids must show the full name of the firm bidding and must be on forms furnished by the City of Sacramento. All responses must be written in ink, printed by typewriter or computer generated. Responses made in pencil will not be considered.
22. **Submission of Bids.** The City is not responsible for misaddressed bids. Please assure that you utilize the address appropriate for the method of delivery. Bid submissions made via commercial express courier (FedEx, United Parcel Svs.) must be addressed as follows:

**City of Sacramento
City Clerk's Office
915 I St., Ste. 122391
Sacramento, CA. 95814-2604**

Bid submissions made via personal delivery shall be delivered to:

**City of Sacramento
City Clerk's Office
Historic City Hall
915 I St., Ste. 116
Sacramento, CA. 95814**

23. **Bid Protest.** Bid protests must be filed and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing to be considered valid in accordance with City of Sacramento Resolution No. 2003-231 dated April 29, 2003. As used herein, the term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, or (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. Sections 3.60.460 - 3.60.560 of the Sacramento City Code are available at: <http://www.qcode.us/codes/sacramento/>.

24. **City of Sacramento Boycott of Arizona-Headquartered Businesses.** On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents. Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that "where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ..."

**SUBJECT TO PARAGRAPH 7 ABOVE, THE CITY CANNOT ACCEPT A
BID FAILING TO COMPLY WITH ANY OF THE ABOVE REQUIREMENTS.**

SECTION I – REQUIREMENTS

C. BID SIGNATURE PAGE

BID NO. B123351012

FOR SERVICES/SUPPLIES: Cold Water Meters

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the bidder or the Contractor) submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefore, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents, referred to herein as the Contract Documents, are fully incorporated herein by this reference and are collectively referred to as the Contract. By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

To Be Filled Out By Bidder

NAME OF

CONTRACTOR: Mueller Systems, LLC

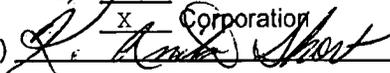
ADDRESS: 10210 Statesville Blvd. Cleveland, NC 27013

PHONE #: 704-278-2221 FAX #: 704-278-9616 EMAIL: ashort@muellersystems.com

STATE TAX I.D. #: _____ FED. TAX I.D. #: 37-1388051

City of Sacramento Business Operation Tax Certificate #: _____
(Contract award will not be processed without a valid and current Certificate Number.)

TYPE OF BUSINESS ENTITY (check one): Individual/Sole Proprietor Partnership
 Corporation Limited Liability Company

BY: (signature of authorized person) 

PRINT NAME: K. Anita Short TITLE: Quotations Specialist

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information.

FOR CITY USE ONLY

The Bid was opened on _____.

Bid Bond Required: [] No; [] Yes - Amount: \$ _____

Received: [] Cashiers or Certified Check drawn on a California bank; [] Surety Bond

City Clerk

CONTRACT AWARD

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: _____

Contract Not-to-Exceed Amount: \$ _____

Award Date: _____

CONTRACT APPROVAL

Approved as to Form:

Approved:

Attest:

City Attorney

City Manager
(Or Authorized Designee)

City Clerk

D. EQUAL BENEFITS ORDINANCE (EBO) REQUIREMENTS

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form, signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as Attachment "A."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as Attachment "B."

ATTACHMENT A



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

On (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits Code (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822
- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
 - Reinstatement, injunctive relief, compensatory damages and punitive damages- Reasonable attorney's fees and costs

ATTACHMENT B



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS
ORDINANCE**

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
5730 24th Street, Bldg. 1
Sacramento, CA 95822

- Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

You May Also . . .

Submit a written complaint to the City of Sacramento, Procurement Services Division, at the same address, containing the details of the alleged violation.

SECTION II CONTRACT DOCUMENTS

SECTION II – CONTRACT DOCUMENTS

A. GENERAL CONDITIONS

1. Independent Contractor.

- A. It is understood and agreed that CONTRACTOR (including CONTRACTOR's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither CONTRACTOR nor CONTRACTOR's assigned personnel shall be entitled to any benefits payable to employees of CITY. CITY is not required to make any deductions or withholdings from the compensation payable to CONTRACTOR under the provisions of this Agreement, and CONTRACTOR shall be issued a Form 1099 for its services hereunder. As an independent contractor, CONTRACTOR hereby agrees to indemnify and hold CITY harmless from any and all claims that may be made against CITY based upon any contention by any of CONTRACTOR's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any Services under this Agreement. (As used in this Exhibit D, the term "Services" shall include both Services and Additional Services as such terms are defined elsewhere in this Agreement.)
- B. It is further understood and agreed by the parties hereto that CONTRACTOR, in the performance of its obligations hereunder, is subject to the control and direction of CITY as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by CONTRACTOR for accomplishing such results. To the extent that CONTRACTOR obtains permission to, and does, use CITY facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the CONTRACTOR's sole discretion based on the CONTRACTOR's determination that such use will promote CONTRACTOR's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the CITY does not require that CONTRACTOR use CITY facilities, equipment or support services or work in CITY locations in the performance of this Agreement.
- C. If, in the performance of this Agreement, any third persons are employed by CONTRACTOR, such persons shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR. It is further understood and agreed that CONTRACTOR shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of CONTRACTOR's assigned personnel and subcontractors.
- D. The provisions of this Section 1 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between CITY and CONTRACTOR. CONTRACTOR may represent, perform services for, or be employed by such additional persons or companies as CONTRACTOR sees fit provided that CONTRACTOR does not violate the

provisions of Section 5, below.

2. **Licenses; Permits, Etc.** CONTRACTOR represents and warrants that CONTRACTOR has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature that are legally required for CONTRACTOR to practice its profession or provide any services under the Agreement. CONTRACTOR represents and warrants that CONTRACTOR shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals that are legally required for CONTRACTOR to practice its profession or provide such Services. Without limiting the generality of the foregoing, if CONTRACTOR is an out-of-state corporation, CONTRACTOR warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.
3. **Time.** CONTRACTOR shall devote such time and effort to the performance of Services pursuant to this Agreement as is necessary for the satisfactory and timely performance of CONTRACTOR's obligations under this Agreement. Neither party shall be considered in default of this Agreement, to the extent that party's performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.
4. **CONTRACTOR Not Agent.** Except as CITY may specify in writing, CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to bind CITY to any obligations whatsoever.
5. **Conflict of Interest.** CONTRACTOR covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of CITY or that would in any way hinder CONTRACTOR's performance of Services under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of CITY. CONTRACTOR agrees to avoid conflicts of interest or the appearance of any conflicts of interest with the interests of CITY at all times during the performance of this Agreement. If CONTRACTOR is or employs a former officer or employee of the CITY, CONTRACTOR and any such employee(s) shall comply with the provisions of Sacramento City Code Section 2.16.090 pertaining to appearances before the City Council or any CITY department, board, commission or committee.
6. **Confidentiality of CITY Information.** During performance of this Agreement, CONTRACTOR may gain access to and use CITY information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the CITY. CONTRACTOR agrees to protect all City Information and treat it as strictly confidential, and further agrees that CONTRACTOR shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of CITY. In addition, CONTRACTOR shall comply with all CITY policies governing the use of the CITY network and technology systems, as set forth in applicable provisions of the City of Sacramento Administrative Policy Instructions # 30. A violation by CONTRACTOR of this Section 6 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

7. CONTRACTOR Information.

- A. CITY shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting; printing, photostatting, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. CONTRACTOR shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by CITY.
- B. CONTRACTOR shall fully defend, indemnify and hold harmless CITY, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. CITY shall make reasonable efforts to notify CONTRACTOR not later than ten (10) days after CITY is served with any such claim, action, lawsuit or other proceeding, provided that CITY's failure to provide such notice within such time period shall not relieve CONTRACTOR of its obligations hereunder, which shall survive any termination or expiration of this Agreement.
- C. All proprietary and other information received from CONTRACTOR by CITY, whether received in connection with CONTRACTOR's proposal to CITY or in connection with any Services performed by CONTRACTOR, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to CITY, CITY shall give notice to CONTRACTOR of any request for the disclosure of such information. The CONTRACTOR shall then have five (5) days from the date it receives such notice to enter into an agreement with the CITY, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by CITY in any legal action to compel the disclosure of such information under the California Public Records Act. The CONTRACTOR shall have sole responsibility for defense of the actual "trade secret" designation of such information.
- D. The parties understand and agree that any failure by CONTRACTOR to respond to the notice provided by CITY and/or to enter into an agreement with CITY, in accordance with the provisions of subsection C, above, shall constitute a complete waiver by CONTRACTOR of any rights regarding the information designated "trade secret" by CONTRACTOR, and such information shall be disclosed by CITY pursuant to applicable procedures required by the Public Records Act.

- 8. Standard of Performance.** CONTRACTOR shall perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of CONTRACTOR's profession in California. All products of whatsoever nature that CONTRACTOR delivers to CITY pursuant to this Agreement shall be prepared in a professional manner and conform to the standards of

quality normally observed by a person currently practicing in CONTRACTOR's profession, and shall be provided in accordance with any schedule of performance specified in Exhibit A. CONTRACTOR shall assign only competent personnel to perform Services pursuant to this Agreement. CONTRACTOR shall notify CITY in writing of any changes in CONTRACTOR's staff assigned to perform the Services required under this Agreement, prior to any such performance. In the event that CITY, at any time during the term of this Agreement, desires the removal of any person assigned by CONTRACTOR to perform Services pursuant to this Agreement, because CITY, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, CONTRACTOR shall remove such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person.

9. Term; Suspension; Termination.

- A. Termination for Cause. If the City determines that the Contractor's performance is not satisfactory, and notifies the Contractor of such determination in writing, the Contractor shall correct the unsatisfactory condition(s) within 5 days after receiving such notification. If the Contractor fails to correct the unsatisfactory condition(s) within 5 days, the City may declare the Contract terminated upon 30 days written notice and may, in the City's sole discretion, demand performance by the Contractor's surety, if any, or contract for performance of all or part of the remainder of Contract with another contractor. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that Contractor shall again fail to satisfactorily perform pursuant to the Contract, City may thereupon terminate the Contract immediately, with no prior notice. In the event of termination hereunder, the Contractor and/or its surety shall be liable and assessed for any and all costs for re-procurement and completion of the Contract.
- B. Termination for Convenience. The City may terminate the Contract, in whole or in part, for its convenience and without cause upon giving written notice to the Contractor. The City shall pay all reasonable costs associated with the Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with such termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned, or any other costs, which have not been incurred, as of the date of termination.
- C. Termination After Completion Date. If the Contractor fails to complete its performance of the Contract within the time specified in the Contract (including any approved extension of such time), if any, the Contract may be terminated and, in the event of such termination, the Contractor shall not be paid or allowed any further compensation for any costs incurred after such termination. The City may thereafter proceed to complete the Contract either by rebidding or otherwise, the Contractor and its surety, if any, shall be liable to the City for all loss or damage that the City may suffer on account of the Contractor's failure to complete the Contract on time. This Agreement shall become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

10. Indemnity.

- A. Indemnity: CONTRACTOR shall defend, hold harmless and indemnify CITY, its officers and employees, and each and every one of them, from and against any

and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by CITY's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform this Agreement by CONTRACTOR, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from the sole negligence or willful misconduct of CITY, its agents, servants, or independent contractors who are directly responsible to CITY, except when such agents, servants, or independent contractors are under the direct supervision and control of CONTRACTOR.

- B. Insurance Policies; Intellectual Property Claims: The existence or acceptance by CITY of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of CITY's rights under this Section 10, nor shall the limits of such insurance limit the liability of CONTRACTOR hereunder. This Section 10 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 7.B., above. The provisions of this Section 10 shall survive any expiration or termination of this Agreement.

11. Insurance Requirements. During the entire term of this Agreement, CONTRACTOR shall maintain the insurance coverage described in this Section 11.

Full compensation for all premiums that CONTRACTOR is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Services provided by CONTRACTOR under this Agreement. No additional compensation will be provided for CONTRACTOR's insurance premiums.

It is understood and agreed by the CONTRACTOR that its liability to the CITY shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the CONTRACTOR in connection with this Agreement.

A. **Minimum Scope & Limits of Insurance Coverage**

- (1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.
- (2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the CONTRACTOR.

No automobile liability insurance shall be required if CONTRACTOR completes the following certification:

"I certify that a motor vehicle will not be used in the performance of any work or services under this agreement." _____
(CONTRACTOR initials)

- (3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Workers' Compensation waiver of subrogation in favor of the City is required for all work performed by the CONTRACTOR.

No Workers' Compensation insurance shall be required if CONTRACTOR completes the following certification:

"I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers' Compensation insurance." _____
(CONTRACTOR initials)

B. Additional Insured Coverage

- (1) Commercial General Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects general liability arising out of activities performed by or on behalf of CONTRACTOR, products and completed operations of CONTRACTOR, and premises owned, leased or used by CONTRACTOR. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

_____ Additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

- (2) Automobile Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insured's as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officials, employees and volunteers. Any insurance or

self-insurance maintained by CITY, its officials, employees or volunteers shall be in excess of CONTRACTOR's insurance and shall not contribute with it.

- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, its officials, employees or volunteers.
- (3) Coverage shall state that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- (4) CITY will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 11 must be declared to and approved by the CITY Risk Management Division in writing prior to execution of this Agreement.

E. Verification of Coverage

- (1) CONTRACTOR shall furnish CITY with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the CITY representative named in Exhibit A. Copies of policies shall be delivered to the CITY on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.
- (2) The CITY may withdraw its offer of contract or cancel this Agreement if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The CITY may withhold payments to CONTRACTOR and/or cancel the Agreement if the insurance is canceled or CONTRACTOR otherwise ceases to be insured as required herein.

F. Subcontractors

CONTRACTOR shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

12. **Equal Employment Opportunity.** During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

A. Compliance With Regulations: CONTRACTOR shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment", as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), hereinafter collectively referred to as the "Regulations".

B. Nondiscrimination: CONTRACTOR, with regards to the work performed by it after award and prior to completion of the work pursuant to this Agreement, shall not

discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in discrimination prohibited by the Regulations.

C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by CONTRACTOR for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by CONTRACTOR of CONTRACTOR's obligation under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.

D. Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of noncompliance by CONTRACTOR with the nondiscrimination provisions of this Agreement, the CITY shall impose such sanctions as it may determine to be appropriate including, but not limited to:

(1) Withholding of payments to CONTRACTOR under this Agreement until CONTRACTOR complies;

(2) Cancellation, termination, or suspension of the Agreement, in whole or in part.

F. Incorporation of Provisions: CONTRACTOR shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. CONTRACTOR shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, CONTRACTOR may request CITY to enter such litigation to protect the interests of CITY.

13. **Entire Agreement.** The Contract Documents contain the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Contract. No alteration to the terms of this Contract shall be valid unless approved in writing by Contractor, and by City, in accordance with applicable provisions of the Sacramento City Code. In the event of any conflict among the provisions of different Contract Documents, the conflict shall be resolved by giving precedence to the Contract Documents in the following order:

- A. Post-Award Amendments.
- B. Pricing Schedule(s), as corrected by City, if applicable.
- C. Pre-Award Addenda
- D. Special Provisions.
- E. Bid Instructions and Requirements
- F. General Conditions
- G. Technical Specifications and/or Plans

14. **Severability.** If any portion of this Agreement or the application thereof to any person or circumstance shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be enforced to the greatest extent permitted by law.
15. **Waiver.** Neither CITY acceptance of, or payment for, any Service or Additional Service performed by CONTRACTOR, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.
16. **Enforcement of Agreement.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.
17. **Assignment Prohibited.** The expertise and experience of CONTRACTOR are material considerations for this Agreement. CITY has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on CONTRACTOR under this Agreement. In recognition of this interest, CONTRACTOR shall not assign any right or obligation pursuant to this Agreement without the written consent of the CITY. Any attempted or purported assignment without CITY's written consent shall be void and of no effect.
18. **Binding Effect.** This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 17, above.
19. **Compliance with Laws.** The Contractor shall be responsible for strict compliance with all applicable laws, regulations, court orders and other legal requirements applicable to the work to be accomplished pursuant to the Contract, including without limitation the California Occupational Safety and Health Act and all applicable safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, and all applicable requirements of Underwriters Laboratories and the Federal Communication Commission.
20. **Inspection.** Merchandise will be inspected before acceptance by an authorized representative of the City of Sacramento for workmanship, appearance, proper functioning of all equipment and systems and conformance to all other requirements of the Contract. If deficiencies are found, it shall be the responsibility of the Contractor to pick up the merchandise, make necessary correction and redeliver the merchandise for re-inspection and acceptance. Payment and/or commencement of discount period (if applicable) will not be made until corrective action has been made.

21. Funding Availability.

- A. The Contract is subject to the budget and fiscal provisions of the Charter and City Code of the City of Sacramento.
- B. The City's payment obligation under the Contract shall not at any time exceed the amount of funds appropriated and approved for such purpose by the Sacramento City Council.
- C. The Contract shall terminate without penalty at the end of the fiscal year in the event funds to make payment under the Contract are not appropriated and approved for such purpose by the City Council for the succeeding fiscal year. If such funds are appropriated for only a portion of the fiscal year this Contract shall terminate, without penalty, at the end of the term for which funds have been appropriated. In the event of such termination, the Contractor shall not be entitled to recover any costs incurred after termination, subject, further, to the limitation in subsection 11.B. of these General Conditions.
- D. Notwithstanding any provision of the Contract Documents to the contrary, this section shall govern over any other provision of the Contract.

22. Inspection of Facilities. If requested by the City, the Contractor shall provide City with an inspection tour of Contractor's facilities at the location where the work under the Contract will be accomplished.

23. Material Safety Data Sheets (MSDS). It is mandatory for a manufacturer, Contractor or distributor to supply a MSDS with the first shipment of any hazardous material. Also at any time the content of an MSDS is revised, the Contractor shall provide new information relevant to the specific material.

24. Notification of Material Changes in Business. Contractor agrees that if it experiences any material changes in its business including, without limitation, a reorganization, refinancing, restructuring, leveraged buyout, bankruptcy, loss of key personnel, etc., it will immediately notify the City of the changes. Contractor also agrees to immediately notify the City of any condition which may jeopardize the scheduled delivery or fulfillment of Contractor's contractual obligations to the City. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Procurement Services Division reserves the right at its sole discretion to terminate the Contract either for cause or for convenience as provided in Section 9 of these General Conditions.

25. Payment and Invoicing. Unless otherwise specified in the Contract Documents, payment for services rendered or materials provided and accepted by City will be made monthly, in arrears, after receipt of a proper invoice.

26. Protection of Existing Facilities. Contractor shall take every precaution to protect all public and private property during the performance of the Contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

27. **Guarantee.** By submitting its bid, the Contractor guarantees that all merchandise delivered and/or work or services performed under the Contract shall meet the minimum requirements set forth herein. If it is determined by the City that the merchandise delivered or work or services performed do not meet the minimum requirements of the Contract, the Contractor shall be required to correct the same at Contractor's sole expense.
28. **Use Tax Requirements.** During the performance of this Agreement, Contractor, for itself, its assignees and successors in interest, agrees as follows:
- A. **Use Tax Direct Payment Permit:** For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Contract or Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.
 - B. The above provisions shall apply in all instances unless prohibited by the funding source for the Contract or Agreement.

SECTION II – CONTRACT DOCUMENTS

B. SPECIAL PROVISIONS

ENVIRONMENTALLY PREFERABLE PROCUREMENT

The City has adopted a "Sustainable Procurement Policy (SPP) and program. The goal is to encourage the procurement of products and services that help minimize environmental impact resulting from use and disposal of these products. Contractors are encouraged to offer Energy Star, Green Seal, EcoLogo, EPEAT, or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. City also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this IFB. Contractors will offer products that have minimal virgin materials and maximum use of recycled products. Contractor must work with the City to attain these goals.

Notwithstanding the above, the Contractor agrees to supply the City of Sacramento with environmentally preferable and effective products in compliance with the specifications in this solicitation and provide services that help minimize environmental impact resulting from use and disposal of products specified in this bid.

The Contractor further agrees that its products specified in this bid do not contain any items, ingredients or components prohibited under the City's SPP Policy.

The City may terminate this contract or take other appropriate actions if the contractor fails to comply or provide adequate supporting documentation to substantiate compliance with the City's SP Policy and requirements specified in the bid.

The City's SPP Policy is available on line at:

[http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable Purchasing Policy SPP.pdf](http://www.cityofsacramento.org/generalservices/procurement/documents/Sustainable_Purchasing_Policy_SPP.pdf) or by contacting the Procurement Services Division at (916) 808-6240.

Guarantee

- a. The manufacturer and/or dealer delivering the water meters against these specifications shall guarantee that they meet the minimum requirements set forth herein. If it is found that the equipment delivered does not meet the minimum requirements of this specification, the manufacturer and/or dealer will be required to correct the same at its expense. Failure of the manufacturer and/or dealer to bring the equipment into full compliance with all the requirements set forth in this specification within their 30 days of delivery shall constitute cause for rejection of the equipment. In case the equipment is rejected, it shall be removed promptly from the City's premises at the manufacturer's and/or dealer's expense. The manufacturer and/or dealer delivering the water meters will use only the manufacturer and the brand/models specified in the bid.
- b. In case of default by supplier, the City reserves the right to procure the articles or services from other sources and to hold the supplier responsible for any excess costs occasioned to the City thereby.

F.O.B.

All items are to be supplied F.O.B., City of Sacramento, California, full freight allowed.

Payment and Invoicing

Invoices, in duplicate, shall be mailed or delivered to the City of Sacramento, Department of Utilities, Water Distribution 5730 24th Street, Bldg # 22 Sacramento, Ca 95822

Payment Terms

Payment terms are net 30 days unless Contractor offers a prompt payment discount. All prompt payment discounts if taken shall be computed from the date of delivery or completion and acceptance of material, or from date of receipt of invoice, whichever is latest. Invoices must be submitted as specified at the time of shipping authorization. Partial payments may be made by the City on delivery and acceptance of goods and on receipt of Contractor's invoice.

Prices

Prices are maximum for the 1st year of the contract. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

Quantities

The quantity specified is based upon current known requirements and is subject to increase or decrease at the same terms and conditions.

Contract Period

The contract shall be effective for a period of 1 year from the date of award by City Council.

Contract Extension

Any resultant contract may be extended on a year to year basis under the same terms and conditions. However, in no case shall the contract term extend beyond five (5) years from the date of award of the original contract.

Cooperative Purchasing

The use of any resulting contract may be extended to other government agencies. It shall be understood that all terms and conditions as specified herein shall apply. The City of Sacramento will not be an agent, partner or representative of any other government agency as it relates to this specification; and is not obligated or liable, including, but not limited to, payment for an order placed by any other government agency.

Modification of Contract

The City may order changes in the work herein required and may order extra work in connection with the performance of the contract and the Contractor may comply with such orders, except that:

- A. If changes in requirements, reports, or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract will be increased or decreased by such amount as the Contractor and Water Distribution/Field Services Division may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of work.
- B. No order for any alteration, modification, or extra work which will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Procurement Services Manager. No oral statement of any person whatsoever shall in any manner or degrees modify or otherwise affect the terms of this contract, including the requirements of the specifications.

SECTION II – CONTRACT DOCUMENTS

C. TECHNICAL SPECIFICATIONS/PLANS/OTHER REQUIREMENTS

1 **Registers-** Bidders shall supply absolute encoder type registers.

1.1 **Absolute Encoder Type Registers for No Moving Parts, Positive Displacement, Compound and Turbine Meters**

1.1.1 General Description

Registers furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in the manufacture of absolute encoder-based registers. The registers shall have the capability of providing encoded meter information as described in the following specification. Specifications for the required cold-water meters can be found below in separate specifications. Registers provide low voltage conversions are acceptable; however, registers utilizing generator pulses are not acceptable under this standard.

1.1.2 Construction

Registers shall be of the absolute encoder type and permanently, hermetically sealed in a copper or stainless steel can to provide protection from moisture, high strength, and resistance to handling damage. Similar size, type and registration or registers shall be interchangeable.

All registers 1 ½" and above must be removable without disassembly of the water meter or the service line. Registers must be free of opening to protect the internal electronics of the register.

Registers shall be equipped with low flow indicators. Registers shall read in cubic feet. The register is independent of the meter. Therefore, register's Manufacture Date and Identification Number shall be printed on the face of the register. The manufacturer of the meter and register shall provide meter serial numbers with barcodes on the meter, register lid and shipping box. In addition, the contractor will supply for each shipment an electronic spreadsheet providing meter serial numbers for the City to expedite tracking and inventory purposes.

Register lenses constructed of minimum 1/4" tempered are preferred but not required; glass domed (non-tempered) register lenses are acceptable for durability in pit installations. All other register assembly and material requirements stated herein shall also apply. Registers shall be equipped with a hinged lid to completely protect the register lens.

The absolute Encoder Register output shall be a factory-potted NICOR Hydroconn AMR Series III in-line male connector with female metal contacts and Hydroconn AMR Series II End Cap (No Substitute). The register cable shall be Nicor's three (3) conductor cable and measure 36" long from surface of the register to the end of the connector for 5/8" through 2" meters and 6 feet long for all meters 3" and above.

1.1.3 Operation

Upon inquiry from a remote location, the absolute encoder register shall disclose the exact position of the six most prominent number rollers. All power necessary for data transmission shall be supplied from the interrogation device. All registers shall be fully compatible with Datamatic Firefly meter interface unit (MIU).

All registers shall employ a device to offer a reliable transfer of the roller bank assembly to ensure accuracy and to prevent ambiguous readings. For reliability and durability, the position of each roller shall NOT be determined by using any type of mechanical contacts which can wear out over time. Optical character recognition (OCR) is the preferred technology, but is not required, for determining roller position, as this method reads the actual position of the index odometer wheels when interrogated by a Datamatic Firefly (MIU) Meter Interface Unit.

Data transmission shall be instantaneous and supplied in an ASCII format without conversion or modification. Registers must operate reliably down to at least 4.5 volts.

Pin out connection: When meter side connector is viewed end-on with the molded arrow at the 12 o'clock position, the contacts occupy the 2, 6 and 10 o'clock positions.

<u>O'clock Position</u>	<u>Function</u>
2	Power/Clock
6	Ground/common/return
10	Encoder Data

1.1.4 Warranties

All encoded registers shall be free from defects in materials and workmanship for ten (10) years from the date of purchase.

2 METERS

2.1 Residential Meters- No Moving Parts- 5/8" through 1"

2.1.1 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, no moving parts technology for cold-water service. Multi-jet meters are not acceptable under this specification. Meters shall comply with AWWA C713 performance requirements in the latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufactures will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61, including annex G and F requirements. They shall be designed for use with potable water below 80 degrees F.

2.1.2 Type

Cold water service meter for measuring potable water in residential services with no moving parts, sealed register with an absolute encoder permanently attached to the meter.

2.1.3 Main cases: 5/8" through 1"

All meters shall have a non-corrosive body main case made of high quality copper alloy, thermo plastic or other suitable material with an integral flow tube. The meter casing shall have characters denoting the meter size and the direction of water flow. The casing shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from top down. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.1.4 Measuring Chambers

The measuring chamber shall be a measuring element or flow tube to calculate volume. The meter shall determine volume within the flow tube based on a volumetric measurement such as fluid oscillation or time and flow rate such as electro-magnetic or ultrasonic flow measurement. The measuring system will have no moving parts and will be specific for each size meter. Measuring elements or flow tubes shall be manufactured from an engineered polymer, low lead alloy brass or stainless steel. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case.

2.1.5 Laying Length

Meters must conform to AWWA C713 standard as most recently revised. The laying length of No Moving Parts meter assemblies shall be as follows:

Meter Size	Meter	Strainer
5/8"	7 1/2" Max	N/A
5/8" X 3/4"	7 1/2" Max	N/A
3/4"	9"	N/A
1"	10 3/4" Max	N/A

2.1.6 Register Construction

Register housing's for all meters in this specification shall be constructed of an engineered polymer and provide full protection of the register assembly including a composite lid. All register components shall be contained in an encapsulated weatherproof UV-resistant housing. The register must have a visual indicator for meter reading, leak detection and battery indicator. Registers shall have a published battery warranty lasting a minimum of twenty (20) years. The first 10 years is a full replacement warranty and the second 10 years is prorated according to manufacturer proration schedule. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.1.7 Register Performance

The register output data format shall be 7-bit ASCII (American Standard Code for Information Interchange) digital, plus an even parity bit. Upon interrogation from a Datamatic product, the register will transmit an odometer reading containing from 1 to 8 digits and a user defined alphanumeric identification of up to 10 characters. Meters must be capable of transmitting a minimum of 8 digits to the utility's reading system. The register's ASCII digital output is to be capable to interfacing directly to a Datamatic endpoint.

2.1.8 Registration Accuracy

Meters must conform to AWWA C713 standard as most recently revised. All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8 GPM	1/8 to 20 GPM	20
5/8"X 3/4"	1/8 GPM	1/8 to 20 GPM	20
3/4"	1/4 GPM	1/8 to 30 GPM	30
1"	3/8 GPM	1/2 to 50 GPM	50

2.1.9 Meter Performance

Meters shall conform minimally to current AWWA C-713 specifications as current revisions, test flows, head loss and accuracy standards. Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.1 Positive Displacement Type Meters 5/8" -2"

2.2.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, positive displacement type cold water service. Meters must be of the oscillating piston or nutating disc type. Multi-jet and Single-jet meters are not acceptable under this specification. Meters shall comply with AWWA Standard C700 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufactures will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.2.3 Type

Cold water service meter for measuring potable water in residential services, positive displacement meters only, sealed register.

2.2.4 Cases: 5/8" through 1"

All meters 5/8" through 1" shall have an NSF approved, low lead bronze outer main case body with a separate, removable measuring element. The low lead bronze case shall not have less than 85% copper content. The meter case casting shall have raised characters denoting the meter size and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. All bottom plates shall be isolated from the potable water by a full rubber liner. Meters shall be provided with bronze bottom plate and held in place with stainless steel bolts with integral washer heads. Cases must be capable of withstanding working pressures of one hundred fifty (150) psi. Thread protectors shall be supplied for the connection ends.

2.2.5 Length

Meters must conform to AWWA C700 standard as most recently revised.

2.2.6 Main cases: 1 1/2" through 2"

All meters 1 1/2" through 2" shall have a body main case made of high quality copper alloy, with a separate, removable measuring element. The meter casting shall have raised characters denoting the size meter and the direction of water flow. The casting shall be permanently marked with the serial number of the meter in a manner so that the number is easily read from above. Meters shall be of the split case design.

2.2.7 Laying Length

Meters must conform to AWWA C700 standard as most recently revised. The laying length of PD meter and/or strainer assembly shall be as follows:

Meter Size	Meter
1 1/2"	13" Max
2"	17" Max

2.2.8 Register Housings

Register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Registers shall comply with AWWA C700 section 4.1.3 performance requirements in the latest revision. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locked devices are acceptable.

2.2.9 Measuring Chambers

The measuring chamber shall be of the two-piece oscillating piston or nutating disc design. No inferential-type meters will be allowed. Chambers shall be manufactured from an engineered polymer. Chambers shall be separate from the outer casing and so secured in the main case that the accuracy of the meter will not be affected by any distortion of the case. All wear prone surfaces shall be reinforced with a nylon material. All measuring chamber assemblies shall operate smoothly and be capable of sustaining long-term accuracy. All motion from the piston shall be transferred to the register via magnetic drive. Piston oscillations or disc nutations must not exceed the figure recommended in Table one (1) of AWWA Standards C-700 latest version for the size of the meter being bid.

2.2.10 Registration Accuracy

All meters shall meet or exceed the following flow requirements:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Continuous Flow GPM
5/8"	1/8	1-20	15
3/4"	1/4	2-30	15
1"	3/4	3-50	25
1 1/2"	1 1/2	5-100	50
2"	2	8-160	80

2.2.11 Magnetic Coupling

The piston oscillations will be transferred to the sealed register through the use of a magnetic coupling. Meters with stuffing boxes, spindles and packing glands will not be acceptable.

2.2.12 Headloss

Meters shall conform to AWWA C-700 specifications as currently revised.

2.2.13 Pressure Capability

Meters shall operate up to a working pressure of 150 psi without damage or leakage. Accuracy shall not be affected by pressure variation up to 150 psi.

2.2.14 Strainers

All meters shall be provided with a strainer screen installed in the meter. Strainer screens shall be rigid, fit securely, be easy to remove and have an effective straining area at least two times that of the main case inlet.

2.2.15 Warranties

Meters shall be warranted by the manufacturer to meet AWWA **new meter accuracy** standards according to the following time periods and registered usage amounts, whichever occurs first:

Size Meter	Years Guaranteed	Registered Usage
5/8" C700	5 years from date of shipment	750,000 US Gallons
3/4" C700	5 years from date of shipment	750,000 US Gallons
1" C700	5 years from date of shipment	1,100,000 US Gallons
1 1/2" C700	5 years from date of shipment	1,600,000 US Gallons
2" C700	5 years from date of shipment	2,100,000 US Gallons

2.3.1 Turbine Type Meters 1 1/2" through 12"

2.3.2 General Description

Meters furnished under these specifications shall be the product of a manufacturer with at least ten (10) years experience in meter manufacturing for the American Market. Meters shall be new, first line quality, turbine type for cold-water service. Meter sizes shall be inclusive and shall comply with the Class II AWWA Standard C701 latest revision and the minimum specification herein. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F

2.3.3 Registration Accuracy

All Turbine Type Meters shall meet or exceed the AWWA latest standard, as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
1 1/2"	3	4-160	200
2"	3	4-200	250
3"	4	8-450	550
4"	7	15-1000	1200
6"	15	30-2000	2000
8"	25	50-3000	3000
10"	55	75-6500	7000

2.3.4 Main Cases

The body main case shall be of bronze composition of a high tensile strength or epoxy coated ductile iron on 1 1/2" – 12" sizes and be capable of resisting distortion under pressure up to one hundred and fifty (150) psi. All meters shall have the size and direction of flow indicated on the case and shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.3.5 Register Housings

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamperproof screws, or other locking devices are also acceptable.

2.3.6 Measuring Chambers

The measuring elements or chamber for all meters shall be of engineered polymer and shall be separate from the case and easily detached and removed there from.

Rotor spindles shall be of tungsten carbide, stainless steel or titanium alloy supported by radial bearings made of PTFE graphite compounds, synthetic sapphire, or sapphire/ceramic jewel..

2.3.7 Laying Length

The laying length of Turbine meters and/or strainer assembly shall be as follows:

Meter Size	Meter/Meter & Strainer	Strainer	* Test Plug
1 1/2"	13"	7" Max	1" NPT
2"	17"	7" Max	1 1/2" NPT
3"	12"	7" Max	2" NPT
4"	14"	9" Max	2" NPT
6"	18"	9" Max	2" NPT
8"	20"	10 1/4" Max	2" NPT
10"	26"	16" Max	2" NPT

*Spool pieces with a test port are acceptable

2.3.8 Rotors

The measuring impellers, vanes or rotors for all meters shall be polypropylene, nylon, hard rubber or engineered polymers and shall be mounted on a horizontal axis in the center of the measuring element with rotations of the turbine transmitted to the register by means of magnets. Straightening vanes of corrosion resistant material as required shall precede the rotor.

2.3.9 Strainers

Integrally-cast stainless steel plate type strainers are required on sizes 1 1/2" through 6" turbine meters. Separate external epoxy coated steel plate strainers are acceptable on sizes 8" to 12". Strainers shall be rigid, easily removable, and have an effective straining area at least double that of the meter main case inlet. External strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.3.10 Warranties

At a minimum, all meters shall carry the following published warranties; Meters shall be guaranteed to be free from defects in materials and workmanship for a period of 24 months after installation and to meet AWWA C-701 Accuracy Standards for two (2) years from date of shipment.

2.4.1 Compound Type Meters 2" through 8"

2.4.2 General Description

Meters combining turbine and displacement meters furnished under these specifications shall meet or exceed the performance specifications of AWWA C702, latest revision. Any low lead bronze shall not have less than 85% copper content. In addition, meter manufacturers will meet all guidelines established by California Bill AB1953 and ANSI/NFS Standard 61 Annex F and Annex G requirements. They shall be designed for use with potable water below 80 degrees F.

2.4.3 Laying Length

The laying length of Compound meters and/or strainer assembly shall be as follows:

Meter Size	Meter or Meter with Strainer	Strainer
2"	15 ¼"	7" Max
3"	17"	7" Max
4"	20"	9" Max
6"	24"	9" Max
8"	42" Max	14" Max

2.4.4 Registration Accuracy

All Compound Meters shall meet or exceed the AWWA's flow standards as follows:

Size	Low Flow GMP @ 95%	Normal Flow GMP 98.5% - 101.5%	Minimum Intermittent Flow GPM
2"	¼	2-160	170
3"	½	4-325	450
4"	¾	6-575	1000
6"	1 ½	10-1500	2000
8"	2 ½	16-1875	3000

Minimum accuracy through changeover shall be no less than 95% of actual throughput.

2.4.5 Main Cases

The body main case shall be of bronze composition or epoxy coated cast iron on 2" through 8" models. Cases must be capable of withstanding working pressure of one hundred and fifty (150) psi. Outer cases shall permit separate removal of measuring chambers. Meters shall be designed for easy removal of all interior parts without disturbing the connections to the pipeline.

2.4.6 Automatic Valves

Automatic valves shall be as specified in Section 2.10 of the AWWA Standard unless the meter design does not require a crossover valve to meet meter accuracy or other performance specifications of AWWA C702.

Spring-loaded valves shall be a Poppet-type suitable for such purpose. Spring tension shall offer sufficient resistance to the incoming water to divert all small rates of flow through the bypass meter until such time as the pressure loss is great enough to ensure efficient operation of the main measuring section. Spring-loaded valves shall have components made of the following or approved equal: Valve cages made of copper alloy or stainless steel are preferred but NOT required, springs and screws of stainless steel, and spindles and cones of engineered polymer. Spring-loaded valves shall be self-flushing and fast opening and closing. They shall be easily detached and removed from the case.

Valve assemblies utilizing gates are acceptable if the manufacturer can assure an accuracy level of at least 97% at changeover.

2.4.7 Register Housing

The register housing shall be constructed of an engineered polymer and provide full protection of the register assembly. Register assemblies shall be secured to the main case in a tamper resistant fashion to prohibit unauthorized removal. Seal screws, tamper-resistant plugs, tamperproof screws, or locking devices are acceptable.

2.4.8 Measuring Unit Assemblies

Measuring chambers and cages shall be bronze or engineered polymer. They shall be easily detached and removed from the case. Rotor spindles shall be of tungsten carbide steel or titanium alloy, and must be supported by PTFE, graphite radial, or sapphire/ceramic jewel bearings. Replaceable thrust bearings shall be provided. The main line and bypass chambers shall be interchangeable in all meters of the same size and model. Intermediate gear trains shall be made of non-corrosive materials or synthetic polymer. The bypass chamber assemblies shall be positive displacement type and shall not be cast as part of the outer case.

2.4.9 Strainers

Meters shall be provided with a strainer. All strainers shall be stainless steel plate type. Separate external bronze or integrally cast epoxy coated strainers on meters 2" through 6". Steel plate epoxy coated strainers on 8" and above. Strainers shall be rigid, and have an effective straining area at least double that of the meter main case inlet. Strainer connections shall conform to the main case and shall be accompanied by gaskets, bolts and nuts.

2.4.10 Connections and Companion Flanges

Main case connections and flanges shall meet or exceed AWWA Standard as specified in Table 4 of the AWWA Standard.

2.4.11 Warranties

All meters shall carry the following published warranties:

Meters shall be guaranteed to be free from defects in materials and workmanship and to meet AWWA Accuracy Standards for two (2) years from date of installation.

3. Meter Replacement Parts

3.1.1 Parts Availability

Meter replacement parts, such as measuring chambers, rotor assemblies, gear train assemblies, calibration vane stem gears, spindles, inlet and outlet assembly parts, drive pinions, ect., shall be made available for at least five (5) years after a meter purchase.

3.1.2 Prices of Repair Parts

The prices of repair parts will be calculated as a discount off an existing price list in effect at the time of shipment, FOB Sacramento with freight prepaid..

**SECTION III
BIDDER RESPONSE
DOCUMENTS**

SECTION III – BIDDER RESPONSE DOCUMENTS

A. ITEMS REQUIRING BIDDER RESPONSE

NOTE: Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.

1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Economic Development, at (916) 808-6747.

A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as a small business enterprise?
Check the appropriate block below:

- YES – Our firm is certified by the City of Sacramento as a small business enterprise.
- NO -Our firm submitting is not certified by the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number

B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise?
Check the appropriate block below:

- YES - Our firm is certified by the City of Sacramento as an emerging business enterprise.
- NO - Our firm is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number:

2. LOCAL BUSINESS SALES/USE TAX DEDUCTION

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid

price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? ___ Yes; or X No

If the answer to Question above is "Yes":

a) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

Specify: fixed office location or distribution point(s): _____

b) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number: _____

3. DELIVERY GUARANTEE

Contractor guarantees delivery within 30 days after receipt of order (ARO).

4. PAYMENT DISCOUNT

Will you offer a prompt payment discount? Yes [] or No [] (Net 30 days)
(Net 31 Days)

If Yes, the Payment Discount is 2 % for payment within 30 calendar days, which will be computed from the date delivery is made and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

5. ELECTRONIC FUNDS TRANSFER (EFT) (Informational only):

Do you have the ability to accept electronic payments (EFT)? Yes [] or No []
If Yes, what percentage discount would you offer the City to be paid through EFT? _____%

6. CITY OF SACRAMENTO BOYCOTT OF ARIZONA-HEADQUARTED BUSINESSES:

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

North Carolina
State Where Bidder is Headquartered

7. Repair Parts Price List

Bidder is to provide a complete list of all necessary repair parts and should indicate the percentage discount OFF LIST PRICE allowed to the City. As the City of Sacramento has water service meters of various manufactures in its system, the City reserves the right to purchase repair parts from any bidder at the stated discount. BIDS WILL NOT BE ACCEPTED FROM BIDDERS WHO FAIL TO INDICATE THE DISCOUNT ALLOWED.

1. Please Attach a Separate Pricing Sheet for Replacement Parts for Meters.
2. Discount: Bidder will offer 33 % off list price on all parts?

SECTION III – BIDDER RESPONSE DOCUMENTS

B. ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL BIDDER PRIOR TO START OF CONTRACT

The following documents are required to be completed and submitted by the successful bidder prior to the award of contract of the contract:

1. CERTIFICATE OF INSURANCE

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

2. BUSINESS OPERATIONS TAX CERTIFICATE

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

SECTION III – BIDDER RESPONSE DOCUMENTS

C. DECLARATION OF COMPLIANCE Equal Benefits Ordinance

Name of Contractor:

Mueller Systems, LLC

Address:

10210 Statesville Blvd. Cleveland, NC 27013

The above-named Contractor ("Contractor") hereby declares and agrees as follows:

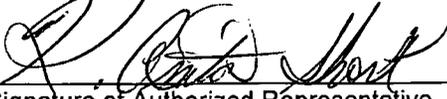
1. Contractor has read and understands the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") attached hereto as Exhibit F.
2. As a condition of receiving this Contract, Contractor agrees to fully comply with the Requirements, as well as any additional requirements that may be specified in the City of Sacramento's Non-Discrimination In Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. Contractor understands, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

Contractor agrees that if Contractor offers any of the above-listed employee benefits, Contractor will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. Contractor understands that Contractor will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. If the actual cost of providing a benefit to a domestic partner or spouse exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, Contractor will not be required to provide the benefit, nor shall it be deemed discriminatory, if Contractor requires the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. If Contractor is unable to provide a certain benefit, despite taking reasonable measures to do so, if Contractor provides the employee with a cash equivalent Contractor will not be deemed to be discriminating in the application of that benefit.

- c. If Contractor provides employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If Contractor provides employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If Contractor submits written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies that will be enacted before the first effective date after the first open enrollment process following the date this Contract is executed by the City of Sacramento ("City"). Contractor understands that any delay in the implementation of such policies may not exceed one (1) year from the date this Contract is executed by the City, and applies only to those employee benefits for which an open enrollment process is applicable.
 - f. Until administrative steps can be taken to incorporate nondiscrimination in employee benefits. The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date this Contract is executed by the City.
 - g. Until the expiration of a current collective bargaining agreement(s) if employee benefits are governed by such collective bargaining agreement(s).
 - h. Contractor takes all reasonable measures to end discrimination in employee benefits by either requesting that the union(s) involved agree to reopen the agreement(s) in order for Contractor to take whatever steps are necessary to end discrimination in employee benefits or by ending discrimination in employee benefits without reopening the collective bargaining agreement(s).
 - i. In the event Contractor cannot end discrimination in employee benefits despite taking all reasonable measures to do so, Contractor provides a cash equivalent to eligible employees for whom employee benefits, are not available. Unless otherwise authorized in writing by the City Manager, Contractor understands this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or not longer than three (3) months after the date this Contract is executed by the City.
5. Contractor understands that failure to comply with the provisions of Section 4(a) through 4(i), above, will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full and/or for up to two (2) years; and/or the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
6. Contractor understands and agrees to provide notice to each current employee and, within ten (10) days of hire, to each new employee, of their rights under the Ordinance. Contractor further agrees to maintain a copy of each such letter provided, in an appropriate file for inspection by authorized representatives of the City. Contractor also agrees to prominently display a poster informing each employee of these rights.
7. Contractor understands that Contractor has the right to request a waiver of, or exemption from, the provisions of the Ordinance by submitting a written request to the City's Procurement Services Division prior to Contract award, which request shall identify the provision(s) of the Ordinance authorizing such waiver or exemption and the factual basis for such waiver or exemption. The City shall determine in its sole discretion whether to approve any such request.

8. Contractor agrees to defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by Contractor. The undersigned declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that he or she is authorized to bind the Contractor to the provisions of this Declaration.



Signature of Authorized Representative

12/12/11

Date

K. Anita Short

Print Name

Quotations Specialist

Title

SECTION III – BIDDER RESPONSE DOCUMENTS

D. PRICING SCHEDULE FOR WATER METERS

For furnishing to the City of Sacramento, pricing, in accordance with the provisions and specifications contained herein. Quantities and types are estimates only and subject to increase or decrease over this potential five (5) year contract. Orders will be placed on an as needed basis. The following quantities are the City's anticipated requirements for the next five (5) years. All registers shall be fully compatible with various brands of interrogation equipment as part of the program will be to capture meter information electronically.

ALL WATER METER PRICING MUST INCLUDE THE STRAINER

Group I

Item No.	Quantity	Description	Unit Price	Extension
1	1,000	3/4" No Moving Parts Cold Water <u>(Manufacture/Model Proposed)</u>	\$ _____	\$ <u>NO BID</u>
2	2,500	1" No Moving Parts Cold Water <u>(Manufacture/Model Proposed)</u>	\$ _____	\$ <u>NO BID</u>
3	2,750	1" Positive Displacement Cold Water HERSEY 452 <u>(Manufacture/Model Proposed)</u>	\$ <u>129.80</u>	\$ <u>356,950.00</u>
4	950	1.5" Positive Displacement Cold Water HERSEY 562 <u>(Manufacture/Model Proposed)</u>	\$ <u>280.00</u>	\$ <u>266,000.00</u>
5	1,500	2.0" Positive Displacement Cold Water HERSEY 572 <u>(Manufacture/Model Proposed)</u>	\$ <u>385.00</u>	\$ <u>577,500.00</u>

**Terms: 2% 30 Days, Net 31 Days

Sales Tax @ 7.75% \$ 93,034.88

Total Group I \$ 1,293,484.88

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group II

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
6	100	2.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
7	80	3.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
8	80	4.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
9	30	6.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
10	30	8.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
11	1	10.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
12	1	12.0" Turbine Cold Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>

Sales Tax @ 7.75% \$ NO BID

Total Group II \$ NO BID

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

Group III

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extension</u>
13	300	2.0" Compound Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
14	350	3.0" Compound Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
15	350	4.0" Compound Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
16	150	6.0" Compound Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
17	50	8.0" Compound Water Meter <hr/> (Manufacture/Model Proposed)	\$ _____	\$ <u>NO BID</u>
			Sales Tax @ 7.75%	\$ <u>NO BID</u>
			Total Group III	\$ <u>NO BID</u>

Total Price Is All Inclusive (No additional charges for Freight, Shipping, Handling, etc.)

GRAND TOTAL PAGE

(Group I, II, and III) **GRAND TOTAL OF ALL GROUPS** **\$1,293,484.88**

Provide the following information on price increases in the years 2, 3, 4, and 5:

Year 2 3 **% Price Increase**

Year 3 3 **% Price Increase**

Year 4 3 **% Price Increase**

Year 5 3 **% Price Increase**

Bidders must provide the increase percentages for years 2 through 5 to accurately assess total five (5) year contract evaluation. Bidders not providing this detail will be considered non-responsive and will not be considered for award.

2011 PARTS PRICE SHEETS

EFFECTIVE JANUARY 31, 2011



Parts & Visual Registers

Translators and Electronics

Conversion Kits

RE: City Of Sacramento, CA

Bid No. B123351012

Parts Discount = 33% Off

Current Mueller Systems

Parts Price List

10210 Statesville Blvd
Cleveland NC 27013
Ph: (800) 323-8584
Fax: (704) 278-9616
www.muellersystems.com

A Subsidiary of **Mueller Water Products, Inc.**

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Not all parts are listed in the following pages and availability is subject to change for the listed parts, please call Customer Care for assistance when ordering parts.

TERMS**APPLYING TO MUELLER SYSTEMS' TYPE PRODUCTS ONLY
SUBJECT TO CHANGE WITHOUT NOTICE**

ALL ORDERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN. ANY CHANGES MUST BE IN WRITING AND SIGNED BY A DULY AUTHORIZED MUELLER SYSTEMS REPRESENTATIVE. ANY CHANGE MADE ON PURCHASER'S ORDER OR OTHER PRINTED MATERIAL SHALL BE EFFECTIVE TO CHANGE OR MODIFY MUELLER SYSTEMS' TERMS AND CONDITIONS ONLY IF AGREED TO IN WRITING.

AN ORDER, WHICH SPECIFIES A FUTURE SHIPPING DATE, WILL BE SHIPPED ON OR NEAR SAID DATE. ANY CHANGE IN THE SHIPPING DATE TO BE VALID MUST BE MADE AT LEAST 30 DAYS PRIOR TO SAID SHIPPING DATE. MUELLER SYSTEMS RESERVES THE RIGHT TO INVOICE FOR THE MATERIAL ON THE VALID SPECIFIED SHIPPING DATE.

CANCELLATION OF AN ORDER CAN ONLY OCCUR WHEN CONFIRMED BY AN AUTHORIZED MUELLER SYSTEMS REPRESENTATIVE. ORDERS WHICH INVOLVE SPECIAL MATERIAL OR ITEMS WHICH ARE NOT NORMALLY INVENTORIED BY MUELLER SYSTEMS WILL REQUIRE PAYMENT OF REASONABLE CANCELLATION CHARGES TO TAKE INTO ACCOUNT EXPENSES FOR LABOR AND MATERIAL COST INCURRED PRIOR TO THE CANCELLATION. DETERMINATION OF MATERIAL WHICH IS CONSIDERED SPECIAL ALONG WITH THE CHARGE WILL BE PROVIDED BY MUELLER SYSTEMS TO THE CUSTOMER PRIOR TO ACTUAL CANCELLATION OF THE ORDER.

ALL PRICES ARE SUBJECT TO CHANGE AND ALL MATERIALS WILL BE BILLED AT PRICES IN EFFECT ON THE DATE OF SHIPMENT UNLESS MUELLER SYSTEMS OTHERWISE AGREES IN WRITING.

MINIMUM ORDER FROM ONE SHIPPING POINT--\$250.00 NET

FOR SHIPMENTS OF PRODUCTS WITHIN THE CONTINENTAL UNITED STATES EXCEPT ALASKA:

ALL SHIPMENTS ARE F.O.B.* FACTORY OR MUELLER SYSTEMS' WAREHOUSE WITH FREIGHT ALLOWED ON EACH ORDER HAVING A NET PRICE VALUE OVER \$7,500 PER BRANCH.

*F.O.B.--THE POINT AT WHICH TITLE TO THE GOODS AND RISK OF LOSS OR DAMAGE PASSES TO THE BUYER.

MUELLER SYSTEMS WILL ATTEMPT TO COMPLY WITH PURCHASER'S DIRECTIONS FOR SHIPMENT, BUT MUELLER SYSTEMS' DETERMINATION OF THE METHOD OF SHIPMENT SHALL BE FINAL AND CONCLUSIVE.

TERMS OF PAYMENT ARE AS FOLLOWS UNLESS OTHERWISE AGREED UPON: 2% CASH DISCOUNT 15 DAYS FROM INVOICE DATE; NET AMOUNT 30 DAYS FROM INVOICE DATE

ANY TAXES AND EXCISES LEVIED BY ANY GOVERNMENTAL OR MUNICIPAL AUTHORITY INVOLVING THE SALE OF TRANSPORTATION OF THE GOODS MUST BE BORNE BY BUYER.

MUELLER SYSTEMS SHALL NOT BE LIABLE FOR ANY DELAY OR DEFAULT IN SHIPPING FOR CAUSES NOT WITHIN MUELLER SYSTEMS' CONTROL INCLUDING, BUT NOT LIMITED TO STRIKES, PRODUCTION OR TRANSPORTATION DIFFICULTIES, EMPLOYEE LABOR DIFFICULTIES, FLOODS, ACTS OF GOD, OR OTHER CASUALTY NOT WITHIN MUELLER SYSTEMS' CONTROL. IN THE EVENT OF ANY DELAY OR DEFAULT IN DELIVERY FOR SUCH CAUSES, MUELLER SYSTEMS SHALL HAVE SUCH ADDITIONAL TIME AS MAY BE REASONABLY NECESSARY, UNDER THE CIRCUMSTANCES, TO COMPLETE DELIVERY.

THIS AGREEMENT SHALL BE CONSTRUED ACCORDING TO THE LAWS OF THE STATE OF ILLINOIS. ANY DISPUTES ARISING HEREUNDER SHALL BE SUBMITTED TO THE CURRENT COURT OF MACON COUNTY, ILLINOIS, OR THE FEDERAL DISTRICT COURT IN SPRINGFIELD, ILLINOIS, AND THE PARTIES HERETO SUBMIT TO THE JURISDICTION OF SAID COURTS.

NO MATERIAL SHALL BE RETURNED TO MUELLER SYSTEMS WITHOUT EXPRESS WRITTEN AUTHORIZATION FROM A DULY AUTHORIZED MUELLER SYSTEMS REPRESENTATIVE. UNUSED STANDARD CATALOG ITEMS, DELIVERED AS ORDERED, MAY BE RETURNED, WITH PROPER AUTHORIZATION, FOR CREDIT. NON-CATALOG OR SPECIALLY MANUFACTURED ITEMS, DELIVERED AS ORDERED, ARE NOT RETURNABLE UNLESS MUELLER SYSTEMS CAN LOCATE AN ALTERNATE PURCHASER. ALL AUTHORIZED RETURNS ARE SUBJECT TO INSPECTION TO VERIFY MERCHANTABILITY AND WILL BE ASSESSED 30% RESTOCKING CHARGES.

WE HEREBY CERTIFY THAT OUR GOODS ARE PRODUCED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF SECTION 6, 7, AND 12 OF THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED, AND REGULATION AND ORDERS OF THE ADMINISTRATOR OF THE WAGE AND HOUR DIVISION ISSUED UNDER SECTION 14 THEREOF. PLEASE CONTACT OUR SALES REPRESENTATIVE OR OUR CUSTOMER SERVICE DEPARTMENT FOR ITEMS NOT SHOWN IN OUR PRICE SHEETS.

LIMITED WARRANTY

MUELLER SYSTEMS CO. WARRANTS ITS PRODUCTS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIAL UNDER NORMAL USE AND SERVICE AND WHEN USED FOR THE PURPOSE AND UNDER THE CONDITIONS FOR WHICH THEY ARE INTENDED, FOR A PERIOD OF ONE YEAR FROM THE DATE OF SHIPMENT.

OBLIGATION UNDER THIS WARRANTY IS LIMITED, AT MUELLER SYSTEMS' OPTION, TO ADJUST, REPAIR OR REPLACE, F.O.B. POINT OF MANUFACTURE, THE DEFECTIVE PRODUCT. PURCHASER MUST IMMEDIATELY NOTIFY MUELLER SYSTEMS CO. IN WRITING OF THE CLAIMED DEFECT. MUELLER SYSTEMS SHALL HAVE THE RIGHT TO INSPECT SAID PRODUCT AND PURCHASER SHALL, IF REQUESTED, RETURN THE DEFECTIVE PRODUCT TO MUELLER SYSTEMS CO. WITH TRANSPORTATION PREPAID. PURCHASER SHALL ASSUME ALL RESPONSIBILITY AND EXPENSE FOR REMOVAL AND REINSTALLATION AND FREIGHT CHARGES IN CONNECTION WITH THE FOREGOING REMEDY. MUELLER SYSTEMS CO. SHALL NOT BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGE OR PENALTIES AND DOES NOT ASSUME ANY LIABILITY OF PURCHASER TO OTHERS, OR TO ANYONE FOR INJURY TO PERSONS OR PROPERTY.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED AND IMPLIED INCLUDING THE WARRANTY OF MERCHANTABILITY.

ANY CLAIMS OR SHORTAGES OR DAMAGES MUST BE IN WRITING WITHIN TEN DAYS AFTER RECEIPT OF SHIPMENT. BUYER SHALL NOTE LOSS OR DAMAGE ON TRUCK SHIPMENTS BY PROVIDING A DELIVERY RECEIPT SIGNED BY THE DRIVER.

MUELLER SYSTEMS COMPANY, CLEVELAND, NC

400 Series: Bronze Positive Displacement Meters

Model 430IIS: 5/8 x 1/2" or 5/8 x 3/4" PD Meter

Part Number	Description	Retail Price
90026	5/16-18 X 7/8 HX BOLT 304 SST	\$ 0.85
A12644	THRUST ROLLER	\$ 0.36
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
A130201	5/8 O'RING 1.30 NITRILE	\$ 0.36
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
AS7792	FLAT WASHER .312	\$ 2.00
B7646	5/8" 430II LINER	\$ 1.19
B7647	5/8 ND,MVR50 FS,METER GASKET	\$ 0.86
B7648	WEAR PLATE	\$ 0.99
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00
B7857	REGISTER MOUNTING KIT (BRONZE)	\$ 48.00
B8627	5/8 IRON BOTTOM COVER	\$ 9.00
B8628	5/8" BRONZE BOTTOM COVER	\$ 14.00
C5466	CHAMBER RETAINER	\$ 1.02
C5468	STRAINER 5/8	\$ 1.34
C5690PO	5/8 430II CHAM ASY COMP PO	\$ 45.00
C5768	HOUSING COVER IIS	\$ 4.00
C5769	HOUSING BASE IIS	\$ 5.00
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C6603	430II PLASTIC BOTTOM COVER	\$ 14.00
D32541	5/8 SG 430 REG 495.9	\$ 41.00
D32542	5/8 CF 430 REG 370.9	\$ 41.00
C5721	Pre-2006 430II PLASTIC BOTTOM COVER	\$ 14.00
5/8" 430II Positive Displacement Translator Registers		
D35001400	5/8 SG TRL4 REG,495.9	\$ 122.00
D3500140E	5/8 SG,TRL4,REG,495.9,60W,5'	\$ 252.00
D35001410	5/8 SG,TRL4,W/HOUSING,495.9	\$ 122.00
D35001413	5/8 SG TRL4 5' WIRE,495.9	\$ 130.00
D3500141315	5/8 SG TRL4 REG,POT 15',495.9	\$ 135.00
D35001414	5/8 SG TRL4 REG,W/PIT 5',495.9	\$ 139.00
D3500141425	5/8 SG TRL4 REG,25'PITPAD	\$ 148.00
D35001418	5/8 SG,TRL4,ITRON 5'CONNECT	\$ 150.00
D35001419	5/8 SG TRL4 HRLP 3',495.9	\$ 208.00
D3500141B	5/8 SG TRL4 HRHP 3'495.9	\$ 208.00
D3500141E	5/8 SG,TRL4,REG,5'60W	\$ 252.00
D3500141H	5/8 SG,TRL4,I-60W LID	\$ 261.00
D35001430	5/8 SG TRL4 REG,495.9	\$ 122.00
D35001440F	5/8 SG TRL4 FLO	\$ 923.00
D35001500	5/8 SG TRL4/5 REG,495.9	\$ 122.00
D35001510	5/8 SG,TRL4/5,W/HOUSING,495.9	\$ 122.00
D35001513	5/8 SG TRL4/5 5' WIRE,495.9	\$ 130.00
D3500151315	5/8 SG TRL4/5 REG,POT 15'495.9	\$ 135.00
D35001514	5/8 SG TRL4/5,W/PIT 5'495.9	\$ 139.00
D3500151425	5/8 SG TRL4/5,W/PIT 25'495.9	\$ 148.00
D35001518	5/8 SG,TRL4/5,REG,5'CCON	\$ 150.00

D35001519	5/8 SG TRL4/5 HRLP 3',495.9	\$ 208.00
D35001519RCM	5/8 SG TRL4/5 RCM,HRLP 3'495.9	\$ 225.00
D3500151B	5/8 SG TRL4/5 3'HP HOTROD	\$ 208.00
D3500151E	5/8 SG,TRL4/5,REG,5'60W	\$ 252.00
D3500151H	5/8 SG TRL5 I-60W LID	\$ 261.00
D35001600	5/8 SG TRL4/6 REG. 495.9	\$ 122.00
D35001613	5/8 SG TRL4/6 5' WIRE,495.9	\$ 130.00
D3500161315	5/8 SG TRL4/6 15' WIRE,495.9	\$ 135.00
D35001613RCM	5/8 SG TRL4/6,5'WIRE,RCM	\$ 148.00
D35001614	5/8 SG TRL4/6 W/PIT 5'495.9	\$ 139.00
D35001618	5/8 SG TRL4/6 5'C-CON,495.9	\$ 150.00
D35001619	5/8 SG TRL4/6 HRLP 3',495.9	\$ 208.00
D3500161915	5/8 SG TRL4/6 HRLP 15'495.9	\$ 208.00
D3500161B	5/8 SG TRL4/6 3'HPHR 495.5	\$ 208.00
D3500161C	5/8 SG TRL4/6 INT HRLP,495.9	\$ 217.00
D3500161D	5/8 SG TRL4/6 INT HP HOTROD	\$ 216.00
D3500161E	5/8 SG,TRL4/6,REG,5'60W	\$ 252.00
D35001640F	5/8 SG,TRL4/6,FLO	\$ 923.00
D35002400	5/8 CF TRL4 REG,370.9	\$ 122.00
D35002403	5/8 CF TRL4 REG POT 5',370.9	\$ 130.00
D35002410	5/8 CF,TRL4,370.9	\$ 122.00
D35002413	5/8 CF TRL4 POT 5',370.9	\$ 130.00
D3500241315	5/8 CF TRL4 W/15'/POTTED 370.9	\$ 135.00
D35002414	5/8 CF TRL4 W/PIT 5',370.9	\$ 139.00
D3500241425	5/8 CF TRL4 W/PIT,25',370.9	\$ 148.00
D35002418	5/8 CF TRL4 5'CC, 370.9	\$ 150.00
D35002419	5/8 CF TRL4 HRLP 3',370.9	\$ 208.00
D3500241915	5/8 CF TRL4 HRLP 15',370.9	\$ 208.00
D3500241B	5/8 CF TRL4 HRHP 3'	\$ 208.00
D3500241E	5/8 CF,TRL4,60W-5',REG,370.9	\$ 252.00
D35002440F	5/8 CF TRL4 FLO	\$ 923.00
D35002500	5/8 CF TRL4/5 REG,370.9	\$ 122.00
D3500251315	5/8 CF TRL4/5 REG,W/15'370.9	\$ 135.00
D35002514	5/8 CF TRL4/5 REGW/PIT 5'370.9	\$ 139.00
D35002518	5/8,CF,TRL4/5,5'CC,370.9	\$ 150.00
D35002519	5/8 CF TRL4/5 HRLP 3',370.9	\$ 208.00
D3500251B	5/8 CF TRL4/5 HRHP 3' 370.9	\$ 208.00
D35002600	5/8 CF TRL4/6 REG 370.9	\$ 122.00
D35002608	5/8 CF TRL4/6 5'CC,370.9 L/HSG	\$ 150.00
D35002610	5/8 CF TRL4/6 W/ER BOX,370.9	\$ 122.00
D35002614	5/8 CF TRL4/6 REG,PIT 5'370.9	\$ 139.00
D35002618	5/8 CF TRL4/6 5'CC, 370.9	\$ 150.00
D3500261825	5/8 CF TRL4/6 25'CC, 370.9	\$ 160.00
D35002619	5/8 CF TRL4/6 HRLP 3'370.9	\$ 208.00
D3500261915	5/8 CF TRL4/6 HRLP 15',370.9	\$ 208.00
D3500261B	5/8 CF TRL4/6 HRHP 3' 370.9	\$ 208.00
D3500261E	5/8 CF,TRL4/6,60W-5',REG,370.9	\$ 252.00
D3500261H	5/8,CF,TRL4/6,INT 60W,LID	\$ 261.00

Model 442IIS: 3/4" PD Meter

Part Numbers	Description	Retail Price
90010	5/16-18X1 1/8 CAP SCRW-18-8SS	\$ 2.00

A12644	THRUST ROLLER	\$ 0.36
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
A130202	3/4 O'RING 1.61 NITRILE	\$ 2.00
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
B7665	WEAR PLATE	\$ 1.19
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00
B7857	REGISTER MOUNTING KIT (BRONZE)	\$ 48.00
B8622	3/4"442, BRZ BOTTOM PLATE	\$ 29.00
B8626	3/4"442 IRON BOTTOM PLATE	\$ 16.00
C5466	CHAMBER RETAINER	\$ 1.02
C5488	GASKET 3/4	\$ 0.86
C5491	LINER 3/4 METER	\$ 1.52
C5492	STRAINER 3/4 METER	\$ 0.86
C5691PO	3/4 442II CHAM ASY COMP PO	\$ 110.00
C5768	HOUSING COVER IIS	\$ 4.00
C5769	HOUSING BASE IIS	\$ 5.00
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D32551	3/4 SG 442 REG 224.5	\$ 41.00
D32552	3/4 CF 442 REG 167.9	\$ 41.00
D3182	Pre-2006 BOTTOM COVER 3/4 METER	\$ 16.00
D3184	Pre-2006 MAIN CASE MACHINED 3/4 METER	\$ 147.00
D3296	Pre-2006 BOTTOM COVER, BRZ 3/4 METER	\$ 22.00
3/4" 442II Positive Displacement Translator Registers		
D35021400	3/4 SG TRL4 REG 224.5	\$ 122.00
D35021413	3/4 SG TRL4 REG W/5'224.5	\$ 130.00
D3502141315	3/4 SG, TRL4, W/15' WIRE	\$ 135.00
D35021414	3/4 SG TRL4 REG W/PIT 5'224.5	\$ 139.00
D35021418	3/4 SG TRL4 ITRON 5'CCON	\$ 150.00
D35021419	3/4 SG TRL4 HRLP 3',224.5	\$ 208.00
D35021440F	3/4 SG TRL4 FLO	\$ 923.00
D35021440G	3/4 SG TRL4 FT1	\$ 423.00
D35021500	3/4 SG TRL4/5 REG 224.5	\$ 122.00
D35021513	3/4 SG TRL4/5 REG W/5'WIRE	\$ 130.00
D35021514	3/4 SG TRL4/5 REGW/PIT 5'224.5	\$ 139.00
D35021518	3/4 SG TRL4/5 CCON 224.5	\$ 150.00
D35021519	3/4 SG TRL4/5 HRLP 3',224.5	\$ 208.00
D3502151B	3/4 TRL4/5, GAL, W/3'HRHP, 224.5	\$ 208.00
D3502151E	3/4"SG, TRL4/5, 5'60W, 224.5	\$ 252.00
D35021540F	3/4 SG TRL4/5 FLO	\$ 923.00
D35021600	3/4 SG TRL4/6 REG 224.5	\$ 122.00
D35021613	3/4 SG, TRL4/6 REG, W/5' 224.5	\$ 130.00
D3502161315	3/4 SG, TRL4/6 REG, W/15' 224.5	\$ 135.00
D35021614	3/4 SG TRL4/6 REG PIT 5'224.5	\$ 139.00
D35021618	3/4 SG, TRL4/6, REG, 224.5, 5'CC	\$ 150.00
D35021619	3/4 SG, TRL4/6 HRLP 3', 224.5	\$ 208.00
D3502161915	3/4 SG, REG TRL4/6 HRLP 15'	\$ 208.00
D3502161B	3/4 SG, TRL4/6 HRHP 3', 224.5	\$ 208.00
D3502161B25	3/4 SG, TRL4/6 HRHP 25', 224.5	\$ 208.00
D35021640F	3/4 SG TRL4/6 FLO	\$ 923.00
D35022400	3/4 CF TRL4 REG 167.9	\$ 122.00
D35022413	3/4 CF TRL4 5', 167.9	\$ 130.00
D3502241315	3/4 CF TRL4 REG 15', 167.9	\$ 135.00

D35022414	3/4 CF TRL4 REG W/PIT 5',167.9	\$ 139.00
D35022418	3/4 CF TRL4 5'CCON 167.9	\$ 150.00
D3502241825	3/4 CF TRL4 25'CC	\$ 160.00
D35022419	3/4 CF TRL4 HRLP 3',167.9	\$ 208.00
D3502241B	3/4 CF TRL4 HRHP 3'	\$ 208.00
D35022440F	3/4 CF TRL4 FLO	\$ 923.00
D35022500	3/4 CF TRL4/5 REG 167.9	\$ 122.00
D35022600	3/4 CF TRL4/6 REG 167.9	\$ 122.00
D35022613	3/4 CF TRL4/6 5'WIRE	\$ 130.00
D35022614	3/4 CF TRL4/6 REG PIT 5',167.9	\$ 139.00
D35022618	3/4 CF TRL4/6 5'CCON 167.9	\$ 150.00
D3502261825	3/4 CF TRL4/6 25'CCON 167.9	\$ 160.00
D35022619	3/4" CF TRL4/6 HRLP 3',167.9	\$ 208.00
D3502261B	3/4 CF TRL4/6 HRHP 3' 167.9	\$ 208.00
D3502261D	3/4 CF TRL4/6 I-HRHP 167.9	\$ 216.00
D3502261E	3/4 CF TRL4/6 REG 167.9 5'60W	\$ 252.00
D35022640F	3/4 CF TRL4/6 FLO	\$ 923.00
D35022640G	3/4 CF TRL4/6 FT1 167.9	\$ 423.00

Model 452IIS: 1" PD Meter

Part Numbers	Description	Retail Price
90010	5/16-18X1 1/8 CAP SCRW-18-8SST	\$ 2.00
51026P045	1" MODEL 452 STRAINER-PLASTIC	\$ 6.00
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
A12662	THRUST ROLLER	\$ 18.00
A130203	1" O'RING 2.14 NITRILE	\$ 4.00
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
B7666	WEAR PLATE	\$ 1.11
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00
B7857	REGISTER MOUNTING KIT (BRONZE)	\$ 48.00
B8623	1"452 IRON BOTTOM PLATE	\$ 21.00
B8624	1"452 BRONZE BOTTOM COVER	\$ 38.00
C5466	CHAMBER RETAINER	\$ 1.02
C5489	GASKET 1" METER	\$ 3.00
C5506	LINER 1" METER	\$ 1.38
C5692PO	1" CHAMBER ASM COMP. PO	\$ 165.00
C5768	HOUSING COVER IIS	\$ 4.00
C5769	HOUSING BASE IIS	\$ 5.00
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D32565	1" SG 452 REG 117.7	\$ 41.00
D32566	1" CF 452 REG 88.0	\$ 41.00
D3189	Pre-2006 MAIN CASE MACHINED 1" METER	\$ 242.00

1" 452II Positive Displacement Translator Registers

D35031400	1" SG TRL4 REG 116.8	\$ 122.00
D35031413	1" SG TRL4 REG.W/5'WIRE,116.8	\$ 130.00
D35031414	1" SG TRL4 REG.W/PIT 5',116.8	\$ 139.00
D3503141425	1" SG TRL4 REG 25'PITPAD 116.8	\$ 148.00
D35031418	1" SG TRL4 5'CC 116.8	\$ 150.00
D35031419	1" SG TRL4 HRLP 3',116.8	\$ 208.00
D3503141B	1" SG TRL4 116.8 HRHP 3'	\$ 208.00

D35031514	1"SG TRL4/5 REG,W/PIT 5',116.8	\$ 139.00
D35031519	1" SG TRL4/5 HRLP 3',116.8	\$ 208.00
D35035400	1" SG TRL4 REG 117.7	\$ 122.00
D35035413	1"SG TRL4 REG,5'W,117.7	\$ 130.00
D3503541315	1"SG TRL4 REG,15'W,117.7	\$ 135.00
D35035414	1"SG TRL4 REG W/PIT 5',117.7	\$ 139.00
D35035418	1"SG TRL4 5'CCON REG 117.7	\$ 150.00
D35035419	1" SG TRL4 HRLP 3', 117.7	\$ 208.00
D3503541B	1" SG TRL4 HRHP 3',117.7	\$ 208.00
D3503541D	1"SG TRL4 REG,I-HRHP,117.7	\$ 216.00
D3503541E	1"SG,TRL4,5'60W,REG	\$ 252.00
D3503541H	1"SG,TRL4,I-60W,REG 117.7	\$ 261.00
D35035440F	1"SG TRL4 FLO	\$ 923.00
D35035500	1" SG TRL4/5 REG 117.7	\$ 122.00
D3503551015	1" SG TRL4/5 REG W/15'	\$ 135.00
D35035513	1" SG TRL4/5 REG 117.7 5'WIRE	\$ 130.00
D35035514	1" SG TRL4/5 REG PIT 5',117.7	\$ 139.00
D35035518	1" SG TRL4/5 REG W/C CONN	\$ 150.00
D35035519	1" SG TRL4/5 HRLP 3',117.7	\$ 208.00
D3503551915	1"SG,TRL4/5,HRLP 15'W,117.7	\$ 208.00
D3503551B	1" SG TRL4/5 HRHP 3',117.7	\$ 208.00
D3503551B25	1"SG,TRL4/5,HRHP 25',117.7	\$ 223.00
D3503551E	1"SG,TRL4/5,5'60W,REG	\$ 252.00
D35035600	1" SG TRL4/6 REG 117.7	\$ 122.00
D35035613	1"SG TRL4/6 REG W/5',117.7	\$ 130.00
D3503561315	1" SG TRL4/6 POT 15',117.7	\$ 135.00
D35035614	1"SG TRL4/6 REG W/PIT,117.7	\$ 139.00
D35035618	1" SG TRL4/6 117.7 5'CC	\$ 150.00
D35035618G	1" SG TRL4/6 117.7 5'CC,FT1	\$ 423.00
D35035619	1" SG TRL4/6 HRLP 3',117.7	\$ 208.00
D3503561915	1"SG TRL4/6 HRLP 15',117.7	\$ 208.00
D3503561B	1" SG TRL4/6 HRHP 3',117.7	\$ 208.00
D3503561B15	1" SG TRL4/6 HRHP 25' 117.7	\$ 208.00
D3503561D	1" SG,TRL4/6,INT HRHP,117.7	\$ 216.00
D3503561E	1"SG,TRL4/6,5'60W,REG	\$ 252.00
D3503561H	1"SG,TRL4/6,INT-60W,REG	\$ 261.00
D3503561M	1"SG TRL4/6 MINODE,REG,117.7	\$ 333.00
D35035640F	1"SG TRL4/6 FLO	\$ 923.00
D35035640G	1"SG TRL4/6 FT1 117.7	\$ 423.00
D35035713	1"SG TRL4/PGM6 REG,5'W,117.7	\$ 130.00
D35036400	1" CF,TRL4 REG.88.0	\$ 122.00
D35036410	1" CF TRL4 REG ,88.0	\$ 128.00
D35036413	1" CF TRL4 REG ,88.0,5' WIRE	\$ 130.00
D35036414	1" CF TRL4 REG W/PIT 5',88.0	\$ 139.00
D35036418	1"CF,TRL4,5'C-CON,88.0'REG.	\$ 150.00
D3503641820	1"CF TRL4 REG 25'C CONN 88.0	\$ 160.00
D3503641825	1"CF,TRL4,25'CC	\$ 160.00
D35036418G	1"CF,TRL4,5'CC,FT1	\$ 423.00
D35036419	1" CF TRL4 HRLP 3',88.0	\$ 208.00
D3503641B	1" CF TRL4 HRHP 3'88.0	\$ 208.00
D3503641E	1"CF,TRL4,60W-5',88.0	\$ 252.00
D35036440F	1" CF TRL4 FLO	\$ 923.00

D35036500	1"CF TRL4/5 REG, 88.0	\$ 122.00
D35036518	1"CF TRL4/5 REG 5'CC 88.0	\$ 150.00
D3503651825	1"CF TRL4/5 REG 25'CC	\$ 160.00
D35036600	1" CF TRL4/6 REG,88.0	\$ 122.00
D35036610	1" CF TRL4/6 W/ER BOX,88.0	\$ 128.00
D35036613	1"CF TRL4/6 5'WIRE	\$ 130.00
D35036614	1"452,TRL4/6,5'PITPAD,88.0	\$ 139.00
D35036618	1"CF,TRL4/6,5'CC, 88.0	\$ 150.00
D3503661825	1"CF TRL4/6 REG 25'CC	\$ 160.00
D35036619	1"CF TRL4/6 HRLP 3',88.0	\$ 208.00
D3503661915	1"CF TRL4/6 HRLP 15',88.0	\$ 208.00
D3503661B	1"CF TRL4/6 HRHP 3' 88.0	\$ 208.00
D3503661B15	1"CF TRL4/6 HRHP 25', 88.0	\$ 208.00
D3503661E	1" CF,TRL4/6,60W-5',88.0	\$ 252.00
D35036640F	1"452 CF TRL4/6 FLO REG	\$ 923.00
D35036640G	1"452 CF TRL4/6 FT1,88.0	\$ 423.00
D35036718	1"CF,TRL4,PR6,5'CC	\$ 150.00

500 Series: Positive Displacement Meters

Model 562: 1-1/2" PD Meter

Part Number	Description	Retail Price
59008	1 NPT BRZ SQ HEAD PLUG CORED	\$ 15.00
90026	5/16-18 X 7/8 HX BOLT 304 SST	\$ 0.85
90074	3/8-16X1-1/4 HX BOLT-304 SST	\$ 1.43
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
A130204	562 CHAMBER NSF O-RING -133	\$ 0.32
A130206	562 CASE NSF O-RING -262	\$ 1.32
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00
B7857	REGISTER MOUNTING KIT (BRONZE)	\$ 48.00
B8067	DISK/PIN ASM.1-1/2 562II METER	\$ 145.00
C5466	CHAMBER RETAINER	\$ 1.02
C5768	HOUSING COVER IIS	\$ 4.00
C5769	HOUSING BASE IIS	\$ 5.00
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C5772	REGISTER HOUSING BRZ.	\$ 16.00
C5772SUB	BRZ LID/BASE SUBASM 400/500IIS	\$ 16.00
C6576	562 STRAINER PLASTIC	\$ 1.45
D3275ASSY	1-1/2 562 TOP CHAMBER ASSY	\$ 20.00
D3546	562 II COVER MACHINED	\$ 69.00
D3575	562 CHAMBER REPLACEMENT KIT	\$ 291.00
D357715	562 SG REGISTER 639.42	\$ 41.00
D357725	562 CF REGISTER 478.25	\$ 41.00
51026P046	1992-2003 PD STRAINER SER. 562	\$ 14.00
51032P067	1992-2003 PD DIAPHRAGM SER. 562	\$ 11.00
1-1/2" 562II Positive Displacement Translator Registers		
D357915500	562,SG,TRL5,639.4	\$ 122.00
D357915513	562,SG,TRL5,5'WIRE,639.4	\$ 130.00

D35791551315	562,SG,TRL5,15'WIRE,639.4	\$ 135.00
D357915514	562,SG,TRL5,PITPAD,639.4	\$ 139.00
D357915518	562,SG,TRL5,W/5'CC,639.4	\$ 150.00
D357915519	562,SG,TRL5,HRLP 3',639.4	\$ 208.00
D35791551B	562,SG,TRL5,HRHP 3',639.4	\$ 208.00
D357915540F	562,SG,TRL5,FLO,639.4	\$ 923.00
D357915540G	562,SG,TRL5,FT1,639.4	\$ 423.00
D357915600	562,SG,TRL5/6,639.4	\$ 122.00
D357915610	562,SG,TRL5/6,639.4	\$ 122.00
D357915610G	562,SG,TRL5/6,639.4,FT1	\$ 423.00
D357915613	562,SG,TRL5/6,639.4,5'WIRE	\$ 130.00
D357915614	562,SG,TRL5/6,PITPAD,639.4	\$ 139.00
D357915618	562,SG,TRL5/6,5'CC,639.4	\$ 150.00
D35791561825	562,SG,TRL5/6,25'CC,639.4	\$ 160.00
D357915619	562,SG,TRL5/6,HRLP 3',639.4	\$ 208.00
D35791561B	562,SG,TRL5/6,HRHP 3',639.4	\$ 208.00
D35791561DX	562,SG,TRL5/6,XINT-HRHP,639.4	\$ 217.00
D357915640F	562,SG,TRL5/6,FLO	\$ 923.00
D357915818	562,SG,TRL5PGM6,W/5'CC,639.4	\$ 150.00
D357917519	562,SG,TRL5,HRLP 3',633.03	\$ 208.00
D357917613	562,SG,TRL5/6,633.03,5'WIRE	\$ 130.00
D357917618	562,SG,TRL5/6,5'CC,633.03	\$ 150.00
D357917619	562,SG,TRL5/6,HRLP 3',633.03	\$ 208.00
D35791761B	562,SG,TRL5/6,HRHP 3',633.03	\$ 208.00
D3579251315	1-1/2"562,CF,TRL5,478.25,15'W	\$ 135.00
D357925500	562,CF,TRL5,478.25	\$ 122.00
D357925513	1-1/2"562,CF,TRL5,5'W 478.25	\$ 130.00
D357925514	562,CF,TRL5,PITPAD,478.25	\$ 139.00
D357925518	562,CF,TRL5,W/5'CC,478.25	\$ 150.00
D35792551825	562,CF,TRL5,W/25'CC,478.25	\$ 160.00
D357925519	562,CF,TRL5,HRLP 3',478.25	\$ 208.00
D35792551B	562,CF,TRL5,HRHP 3', 478.25	\$ 208.00
D357925540F	1-1/2"562,CF,TRL5,FLO	\$ 923.00
D357925600	562,CF,TRL5/6,478.25	\$ 122.00
D357925613	562,CF,TRL5/6,W/5',478.25	\$ 130.00
D357925618	562,CF,TRL5/6,W/5'CC,478.25	\$ 150.00
D35792561915	562,CF,TRL5/6,HRLP 15',478.25	\$ 208.00
D35792561B	562,CF,TRL5/6,HRHP 3',478.25	\$ 208.00
D35792561DX	562,CF,TRL5/6,XINT HRHP,478.25	\$ 216.00
D35792561E	562,CF,TRL5/6,60W-5',478.25	\$ 252.00
D357925640F	1-1/2"562,CF,TRL5/6,FLO	\$ 923.00
D357925640G	1-1/2"562,CF,TRL5/6,FT1,478.25	\$ 423.00
D35792581825	562,CF,TRL5/6,478.25,25'CC	\$ 139.00
D357927519	562,CF,TRL5,HRLP 3',473.65	\$ 208.00
D35792751B	562,CF,TRL5,HRHP 3'473.65	\$ 208.00
D35792761915	562,CF,TRL5/6,HRLP 15',473.65	\$ 208.00
D35792761B	562,CF,TRL5/6,HRHP 3',473.65	\$ 208.00

Model 572: 2" PD Meter

Part Number	Description	Retail Price
59008	1 NPT BRZ SQ HEAD PLUG CORED	\$ 15.00

90010	5/16-18X1 1/8 CAP SCRW-18-8SST	\$ 2.00
90074	3/8-16X1-1/4 HX BOLT-304 SST	\$ 1.43
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
A130205	572 CHAMBER NSF O-RING -228	\$ 0.44
A130207	572 CASE NSF O-RING -268	\$ 1.54
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00
B7857	REGISTER MOUNTING KIT (BRONZE)	\$ 48.00
B8024	THRUST ROLLER 2" 572II	\$ 2.00
B8068	572 DISK AND PIN ASSY	\$ 218.00
C5466	CHAMBER RETAINER	\$ 1.02
C5768	HOUSING COVER IIS	\$ 4.00
C5769	HOUSING BASE IIS	\$ 5.00
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C5772	REGISTER HOUSING BRZ.	\$ 16.00
C5772SUB	BRZ LID/BASE SUBASM 400/500IIS	\$ 16.00
C6577	572 STRAINER PLASTIC	\$ 1.75
D3251	572II METER COVER MACHINING	\$ 221.00
D3277ASSY	2 572 TOP CHAMBER ASSY	\$ 25.00
D3550	572 II COVER MACHINED	\$ 107.00
D3576	572 CHAMBER REPLACEMENT KIT	\$ 393.00
D358115	572 SG REGISTER 374.45	\$ 41.00
D358125	572 CF REGISTER 280.0	\$ 41.00
13348P176	1992-2003 MAG HOUSE SCRW #10-32X3/8-SST	\$ 0.76
51026P047	1992-2003 STRAINER SERIES 572	\$ 15.00
51032P068	1992-2003 DIAPHRAGM SER. 572	\$ 9.00
51038G187	1992-2003 572 DISC & PIN ASS'Y	\$ 156.00
51068P175	1992-2003 GASKET SER. 572	\$ 6.00
51281G078	1992-2003 MOD 572 MAGNET HOUSING ASSY	\$ 53.00
D32531	1992-2003 2" 572II GA REGISTER NOMINAL	\$ 41.00
D32532	1992-2003 2" 572II CF REGISTER NOMINAL	\$ 41.00
2" 572II Positive Displacement Translator Registers		
D358315500	572,SG,TRL5,374.45	\$ 122.00
D358315513	572,SG,TRL5,W/5',374.45	\$ 130.00
D35831551315	572,SG,TRL5,15'W,374.45	\$ 135.00
D35831551325	572,SG,TRL5,25'W,374.45	\$ 139.00
D358315514	572,SG,TRL5,PIT PAD,374.45	\$ 139.00
D358315518	572,SG,TRL5,5'CC,374.45	\$ 150.00
D35831551825	572,SG,TRL5,25'CC,374.45	\$ 160.00
D358315519	572,SG,TRL5,HRLP 3',374.45	\$ 208.00
D35831551B	572,SG,TRL5,HRHP 3',374.45	\$ 208.00
D35831551E	572,SG,TRL5,60W,374.45	\$ 252.00
D35831551H	572,SG,TRL5,I-60W,374.45	\$ 261.00
D358315540F	572,SG,TRL5,FLO,374.45	\$ 923.00
D358315600	572,SG,TRL5/6,374.45	\$ 122.00
D358315613	572,SG,TRL5/6,5'WIRE,374.45	\$ 130.00
D358315614	572,SG,TRL5/6,PIT PAD,374.45	\$ 139.00
D358315618	572,SG,TRL5/6,W/5'CC,374.45	\$ 150.00
D35831561825	572,SG,TRL5/6,W/25'CC,374.45	\$ 160.00
D358315619	572,SG,TRL5/6,HRLP 3',374.45	\$ 208.00

D35831561B	572,SG,TRL5/6,HRHP 3',374.45	\$ 208.00
D35831561E	572,SG,TRL5/6,5'60W,374.45	\$ 252.00
D35831561M	572,SG,TRL5/6,3'MINODE,374.45	\$ 327.00
D358315640F	572,SG,TRL5/6,FLO	\$ 923.00
D358315640G	572,SG,TRL5/6,FT1	\$ 423.00
D358315818	572,SG,TRL5PGM6,5'CC,374.45	\$ 150.00
D358325500	572,CF,TRL5,280.0	\$ 122.00
D358325514	572,CF,TRL5,PIT PAD,280.0	\$ 139.00
D358325518	572,CF,TRL5,5'CC,280.0	\$ 150.00
D35832551825	572,CF,TRL5,25'CC,280.0	\$ 160.00
D358325519	572,CF,TRL5,HRLP 3',280.0	\$ 208.00
D35832551B	572,CF,TRL5,HRHP 3',280.0	\$ 208.00
D358325540F	2",CF,TRL5,FLO	\$ 923.00
D358325600	572,CF,TRL5/6,280.0	\$ 122.00
D358325613	572,CF,TRL5/6,W/5',280.0	\$ 130.00
D35832561315	572,CF,TRL5/6,15'W,280.0	\$ 135.00
D358325614	572,CF,TRL5/6,PITPAD,280.0	\$ 139.00
D358325618	572,CF,TRL5/6,5'CC,280.0	\$ 150.00
D35832561915	572,CF,TRL5/6,HRHP 15',280.0	\$ 208.00
D35832561B	572,CF,TRL5/6,HRHP 3',280.0	\$ 208.00
D35832561B15	572,CF,TRL5/6,HRHP 25',280.0	\$ 208.00
D35832561DX	572,CF,TRL5/6,I-HPHR,280.0	\$ 216.00
D35832561E	572,CF,TRL5/6,60W-5',280.0	\$ 252.00
D358325640F	2"572,CF,TRL5/6,FLO REG	\$ 923.00
D358325640G	2"572,CF,TRL5/6,FT1,280.0	\$ 423.00

MVR: Class I Vertical Turbine Meters

MVR 30: 3/4" Vertical Turbine

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50363	MVR 30 BTM PLATE BRZ	\$ 25.00
50364	MVR 30,30A&B,BTM.PLATE PAINTED	\$ 25.00
50365	MVR 30 MOLDED LINER-EPDM	\$ 7.00
50374	MVR 30 INLET HUB BUSHING	\$ 8.00
50377	MVR REGISTER COVER-PLASTIC	\$ 7.00
50379	MVR DURA-DRI REG. CLAMP BAND	\$ 7.00
50390	BRASS MVR REGISTER COVER	\$ 18.00
50462	MVR 30 INTERIOR HUB ASSY	\$ 33.00
50466	MVR 30 TC MACH.W/SAPPHIRE	\$ 121.00
50468	MVR 30 INLET HUB ASSY P.O.	\$ 16.00
50469	MVR 30 STRAINER ASSY P.O.	\$ 7.00
50471	MVR 30 30A 30B ROTOR ASSY	\$ 32.00
50476	MVR 30B TOP CASE	\$ 176.00
50477	INTERIOR COMPLETE-MVR 30 P.O.	\$ 69.00
50480	MVR 30 RING STRAINER	\$ 18.00
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
90026	5/16-18 X 7/8 HX BOLT 304 SST	\$ 0.85
95011	MVR 30B SPUD BUSHING	\$ 64.00
95038	3/4 RUBBER CONN.WASHER MUEL.#	\$ 0.57

95046	MVR 30A-3/4 SPUD BUSH W/WASHER	\$ 38.00
95064	MVR 30B&50 SPUD BUSH WASHER	\$ 4.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
95046SI	MVR 30A SI SPUD BUSH W/WASHER	\$ 38.00
AS7792	FLAT WASHER .312	\$ 2.00
B79813	MVR 30 REGISTER SG 738.92	\$ 95.00
B79814	MVR 30 REGISTER SG 731.88	\$ 95.00
B79815	MVR 30 REGISTER SG 723.79	\$ 95.00
B79816	MVR 30 REGISTER SG 715.86	\$ 95.00
B79817	MVR 30 REGISTER SG 709.01	\$ 95.00
B79822	MVR30 REGISTER CF 546.34	\$ 95.00
B79825	MVR 30 REGISTER CF 530.07	\$ 95.00
B8602	MVR TRANS CLAMP BAND MOLD COMP	\$ 7.00

3/4" MVR 30 Translator Registers

D352314400	MVR 30 SG TRL4 731.88 REG	\$ 164.00
D352314400F	MVR 30 SG TRL4 731.88 FLO	\$ 923.00
D352314404	MVR 30 SG TRL4 731.88 PITREG	\$ 173.00
D352314408	MVR 30 SG TRL4 W/5'CC 731.88	\$ 193.00
D35231440B	MVR 30 SG TRL4 731.88 HRHP 3'	\$ 250.00
D352314504	MVR30 SG TRL4/5 731.88 PITREG	\$ 173.00
D352314508	MVR30,SG,TRL4/5,731.88,5'CC	\$ 193.00
D352314600	MVR 30 SG TRL4/6 731.88 REG	\$ 164.00
D352314600F	MVR 30 SG TRL4/6 731.88 FLO	\$ 923.00
D352314600G	MVR30,SG,TRL4/6,FT3,731.9,REG	\$ 423.00
D352314603	MVR30 SG TRL4/6 731.88 5'WIRE	\$ 172.00
D352314608	MVR30 SG TRL4/6 731.9 CCON REG	\$ 193.00
D352314608G	MVR30,SG,TRL4/6,FT3,731.9,5'CC	\$ 423.00
D352317600G	MVR30 SG TRL4/6 FT3 709.01	\$ 423.00
D352322400	MVR 30 CF TRL4 546.34 REG	\$ 164.00
D352322403	MVR30,CF,TRL4/4,5'WIRE,546.34	\$ 172.00
D352322404	MVR 30 CF TRL4 546.34 PITREG	\$ 173.00
D352322503	MVR30 CF TRL4/5 546.34 5'WIRE	\$ 172.00
D352322600	MVR 30 CF TRL4/6 546.34 REG	\$ 164.00
D352322603	MVR30 CF TRL4/6 546.34 5'WIRE	\$ 172.00
D352324400F	MVR 30 CF TRL4 536.22 FLO	\$ 923.00
D352324608	MVR30,CF,TRL4/6,536.22,5'CC	\$ 193.00
D352325600	MVR 30 CF TRL4/6 530.07 REG	\$ 164.00

MVR 50: 1" Vertical Turbine

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50377	MVR REGISTER COVER-PLASTIC	\$ 7.00
50379	MVR DURA-DRI REG. CLAMP BAND	\$ 7.00
50390	BRASS MVR REGISTER COVER	\$ 18.00
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
50562	MVR 50&50A INTERIOR HUB ASSY	\$ 34.00
50563	MVR 50&50A BOTTOM PLATE BRZ	\$ 32.00
50564	MVR 50&50A BTM.PLATE PAINTED	\$ 28.00
50565	MVR 50&50A MOLDED LINER-EPDM	\$ 9.00

50566	MVR 50 TOP CASE	\$ 178.00
50568	MVR 50&50A INLET HUB ASM P.O.	\$ 25.00
50569	MVR 50&50A STRAINER ASM P.O.	\$ 12.00
50571	MVR 50&50A ROTOR ASSY	\$ 62.00
50574	MVR 50,50A&100 INLET HUB BUSH	\$ 7.00
50576	MVR 50A TOP CASE	\$ 406.00
50577	INTERIOR COMPLETE-MVR 50 P.O.	\$ 90.00
50580	MVR 50 RING STRAINER	\$ 25.00
90026	5/16-18 X 7/8 HX BOLT 304 SST	\$ 0.85
95063	MVR 50-1 SPUD BUSHING	\$ 44.00
95064	MVR 30B&50 SPUD BUSH WASHER	\$ 4.00
95086	MVR 50A SPUD BUSHING	\$ 151.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
95063SI	MVR 50-1 SI SPUD BUSHING	\$ 44.00
AS7792	FLAT WASHER .312	\$ 2.00
B79853	MVR50 REGISTER SG 353.17	\$ 95.00
B79854	MVR 50 REGISTER SG 349.42	\$ 95.00
B79855	MVR 50 REGISTER SG 345.93	\$ 95.00
B79856	MVR 50 REGISTER SG 342.53	\$ 95.00
B79863	MVR50 REGISTER CF 264.51	\$ 95.00
B79864	MVR 50 REGISTER SF 262.07	\$ 95.00
B79865	MVR 50 REGISTER SF 258.83	\$ 95.00
B79866	MVR 50 REGISTER SF 256.52	\$ 95.00
B8602	MVR TRANS CLAMP BAND MOLD COMP	\$ 7.00

1" MVR 50 Translator Registers

D352414400	MVR 50 SG TRL4 349.42 REG	\$ 164.00
D352414400F	MVR 50 SG TRL4 349.42 FLO	\$ 923.00
D352414403	MVR 50 SG TRL4 349.42 5'WIRE	\$ 172.00
D35241440315	MVR50,SG,TRL4,349.42,15'WIRE	\$ 177.00
D352414404	MVR 50 SG TRL4 349.42 PITREG	\$ 173.00
D352414408	MVR50,SG,TRL4,349.42,REG,5'CC	\$ 193.00
D352414409	MVR50,SG,TRL4,349.42,HRLP 3'	\$ 250.00
D35241440B	MVR50,SG,TRL4,349.42,HRHP 3'	\$ 250.00
D35241440E	MVR50,SG,TRL4,349.42,60W,5'	\$ 294.00
D352414500	MVR50,SG,TRL4/5,349.42 REG	\$ 164.00
D352414500F	MVR50,SG,TRL4/5,FLO,349.42 REG	\$ 923.00
D352414500G	MVR50,SG,TRL4/5,FT3,349.42 REG	\$ 423.00
D352414504	MVR50,SG,TRL4/5,349.42,PIT REG	\$ 173.00
D352414508	MVR50,SG,TRL4/5,349.42,5'CCON	\$ 193.00
D352414509	MVR50,SG,TRL4/5,349.2,HRLP 3'	\$ 250.00
D352414600	MVR50,SG,TRL4/6,349.42 REG	\$ 164.00
D352414600F	MVR50,SG,TRL4/6,FLO,349.42 REG	\$ 923.00
D352414600G	MVR50,SG,TRL4/6,FT3,349.42 REG	\$ 423.00
D352414603	MVR50 SG TRL4/6 349.42 5'REG	\$ 172.00
D352414604	MVR50,SG,TRL4/6,349.42 PITPAD	\$ 173.00
D352414608	MVR50,SG,TRL4/6,349.4,CCON,REG	\$ 193.00
D35241460825	MVR50,SG,TRL6,349.42,25'CC	\$ 202.00
D352414608G	MVR50SG,TRL4/6,5'CC,FT3,349.42	\$ 423.00
D352414609	MVR50,SG,TRL4/6,349.42,HRLP 3'	\$ 250.00
D35241460915	MVR50,SG,TRL4/6,349.42,HRLP15'	\$ 250.00
D35241460B	MVR50,SG,TRL4/6,349.42,HRHP 3'	\$ 250.00

D35241460D	MVR50,SG,TRL4/6,I-HRHP 394.42	\$ 258.00
D35241460E	MVR50,SG,TRL4/6,349.42,60W	\$ 294.00
D352424400	MVR 50 CF TRL4 262.07 REG	\$ 164.00
D352424400F	MVR 50 CF TRL4 262.07 FLO	\$ 923.00
D35242440325	MVR 50 CF TRL4 262.07 25'W	\$ 181.00
D352424404	MVR 50 CF TRL4 262.07 PITREG	\$ 173.00
D352424408	MVR 50 CF TRL4 262.07 5'CONCBL	\$ 193.00
D352424503	MVR50 CF TRL4/5 262.07 5'WIRE	\$ 172.00
D352424600	MVR 50 CF TRL4/6 262.07 REG	\$ 164.00
D352424600G	MVR50 CF TRL4/6 262.07 FT3	\$ 423.00
D352424603	MVR50 CF TRL4/6 262.07 5'WIRE	\$ 172.00
D35242460315	MVR50,CF,TRL4/6,262.07,15'W	\$ 177.00
D352424608	MVR 50 CF TRL4/6 262.07 5'CC	\$ 193.00
D35242460B	MVR50 CF TRL4/6 262.07 HRHP 3'	\$ 250.00

MVR 100: 1-1/2" Vertical Turbine

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50377	MVR REGISTER COVER-PLASTIC	\$ 7.00
50379	MVR DURA-DRI REG. CLAMP BAND	\$ 7.00
50390	BRASS MVR REGISTER COVER	\$ 18.00
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
50574	MVR 50,50A&100 INLET HUB BUSH	\$ 7.00
50762	MVR 100 INTERIOR HUB ASSY	\$ 39.00
50763	MVR 100 BOTTOM PLATE BRZ	\$ 43.00
50764	MVR 100 BTM.PLATE CI PAINTED	\$ 35.00
50765	MVR 100 MOLDED LINER-EPDM	\$ 9.00
50768	MVR 100 INLET HUB ASSY P.O.	\$ 38.00
50769	MVR 100 STRAINER ASSY P.O.	\$ 19.00
50771	MVR 100 ROTOR ASSY	\$ 93.00
50776	MVR 100 TOP CASE	\$ 285.00
50777	INTERIOR COMPLETE-MVR 100 P.O	\$ 109.00
50780	MVR 100 RING STRAINER	\$ 52.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
95095	MVR 100-1 1/2 SPUD BUSHING	\$ 111.00
95109	MVR100 1-1/2 MALE SPUD BUSHING	\$ 333.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98378	3/8 FLAT WASHER 18-8 SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
95095SI	MVR 100-1 1/2 SPUD BUSH. SI	\$ 116.00
B79891	MVR100 REGISTER,,SG,2664.16	\$ 95.00
B79892	MVR100 REGISTER SG 2646.98	\$ 95.00
B79893	MVR100 REGISTER SG 2605.61	\$ 95.00
B79894	MVR 100 REGISTER SG 2586.61	\$ 95.00
B79895	MVR 100 REGISTER SG 2554.55	\$ 95.00
B79896	MVR 100 REGISTER SG 2526.66	\$ 95.00
B79897	MVR 100 REGISTER SG 2505.78	\$ 95.00
B79903	MVR 100 REGISTER SF 1935.27	\$ 95.00
B79904	MVR 100 REGISTER SF 1912.65	\$ 95.00
B79905	MVR100 REGISTER SF 1901.98	\$ 95.00

B79906	MVR 100 REGISTER SF 1882.77	\$ 95.00
B79907	MVR 100 REGISTER SF 1862.97	\$ 95.00
B8602	MVR TRANS CLAMP BAND MOLD COMP	\$ 7.00
1-1/2" MVR 100 Translator Registers		
D352514500	MVR 100 SG TRL5 2586.61 REG	\$ 164.00
D352514500F	MVR 100 SG TRL5 2586.61 FLO	\$ 923.00
D352514503	MVR100 SG TRL5 2586.61 W/5'	\$ 172.00
D352514504	MVR 100 SG TRL5 2586.61 PITREG	\$ 173.00
D352514508	MVR 100 SG TRL5 2586.61 5'CC	\$ 193.00
D35251450825	MVR100 SG TRL5 2586.61,25'CC	\$ 202.00
D352514509	MVR100,SG,TRL5,2586.61,HRLP 3'	\$ 250.00
D35251450B	MVR100,SG,TRL5,2586.61,HRHP 3'	\$ 250.00
D35251450H	MVR100,SG,TRL5,2586.61,I-60W	\$ 294.00
D352514600	MVR100,SG,TRL5/6,2586.61	\$ 164.00
D352514600F	MVR100,SG,TRL5/6,2586.61 FLO	\$ 923.00
D352514600G	MVR100,SG,TRL5/6,2586.61 FT3	\$ 423.00
D352514603	MVR100,SG,TRL5/6,W/5' 2586.61	\$ 172.00
D352514604	MVR100,SG,TRL5/6,2586.61,PTREG	\$ 173.00
D352514608	MVR100 SG TRL5/6 2586.61 5'CC	\$ 193.00
D35251460825	MVR100 SG TRL5/6 25'CC 2586.61	\$ 202.00
D352514608G	MVR100 SG TRL6 5'CC FT3	\$ 423.00
D352514609	MVR100SG,TRL5/6,2586.61 HRLP3'	\$ 250.00
D35251460B	MVR100SG,TRL5/6,2586.61 HRHP3'	\$ 250.00
D35251460E	MVR100,SG,TRL5/6,2586.61,5'60W	\$ 294.00
D352516500F	MVR 100 SG TRL5 2526.66 FLO	\$ 923.00
D352516500G	MVR100,SG,TRL5,2526.66 FT3	\$ 423.00
D352516503	MVR100 SG TRL5 2526.66 W/5'	\$ 172.00
D352516508	MVR100 SG TRL5 5'CC 2526.66	\$ 193.00
D352516509	MVR100,SG,TRL5,2526.66,HRLP 3'	\$ 250.00
D35251650B	MVR100,SG,TRL5,2526.66,HRHP 3'	\$ 250.00
D35251650E	MVR100,SG,TRL5,2526.66,60W,5'	\$ 294.00
D352516600	MVR100,SG,TRL5/6,2526.66 REG	\$ 164.00
D352516600F	MVR100,SG,TRL5/6,2526.66 FLO	\$ 923.00
D352516600G	MVR100,SG,TRL5/6,2526.66 FT3	\$ 423.00
D352516603	MVR100,SG,TRL5/6,W/5' 2526.66	\$ 173.00
D352516608	MVR100 SG TRL5/6 2526.66 5'CC	\$ 193.00
D352516609	MVR100SG,TRL5/6,2526.66 HRLP03	\$ 250.00
D35251660B	MVR100SG,TRL5/6,2526.66 HRHP3'	\$ 250.00
D35251660D	MVR100,SG,TRL5/6,IHRHP,2526.66	\$ 258.00
D35251660E	MVR100,SG,TRL5/6,2526.66,60W	\$ 294.00
D352516808	MVR100 SG TRL5PGM65'CC 2526.66	\$ 193.00
D352524500	MVR 100 CF TRL5 1912.65 REG	\$ 164.00
D352524500F	MVR 100 CF TRL5 1912.65 FLO	\$ 923.00
D352524503	MVR 100 CF TRL5 1912.65 5'WIRE	\$ 172.00
D35252450315	MVR100 CF TRL5 1912.65 15'WIRE	\$ 177.00
D352524504	MVR 100 CF TRL5 1912.65 PITREG	\$ 173.00
D352524508	MVR100,CF,TRL5,1912.65,5'CC	\$ 193.00
D352524509	MVR100,CF,TRL5,1912.65,HRLP 3'	\$ 250.00
D35252450B	MVR100,CF,TRL5,1912.65,HRHP 3'	\$ 250.00
D352524518	MVR100,CF,TRL5,1912.65,5'CC	\$ 193.00
D35252451825	MVR100,CF,TRL5,1912.65,CC,BOX	\$ 202.00
D352524600	MVR 100 CF TRL5/6 1912.65 REG	\$ 164.00

D352524603	MVR100,CF,TRL5/6,1912.65,5'W	\$ 172.00
D352524604	MVR 100 CF TRL5/6 1912.65 PIT	\$ 173.00
D352524608	MVR100 CF TRL5/6 1912.65 5'CC	\$ 193.00
D352524609	MVR100,CF,TRL5/6,HRLP 3'	\$ 250.00
D35252460B	MVR100CF,TRL5/6,1912.65,HRHP3'	\$ 250.00
D352524808	MVR100 CF TRL5 1912.65 W/5'CC	\$ 193.00
D352524808E25	MVR100,CF,TRL5/6,25'CC,ENDPNT	\$ 332.00
D352526500	MVR 100 CF TRL5 1882.77 REG	\$ 164.00
D352526504	MVR 100 CF TRL5 1882.77 PITREG	\$ 173.00
D352526509	MVR100,CF,TRL5,1882.77,HRLP 3'	\$ 250.00
D35252650B	MVR100,CF,TRL5,1882.77,HRHP 3'	\$ 250.00
D35252650E	MVR100,CF,TRL5,60W-5'1882.77	\$ 294.00
D352526600G	MVR100,CF,TRL5/6,1882.77,FT3	\$ 423.00
D352526603	MVR100 CF TRL5/6 1882.77 5'W	\$ 173.00
D352526608	MVR100 CF TRL5/6 1882.77 5'CC	\$ 193.00
D352526609	MVR100,CF,TRL5/6,HRLP3'1882.77	\$ 250.00
D35252660B	MVR100CF,TRL5/6,1882.77,HRHP3'	\$ 250.00
D352526808	MVR100 CF TRL5 1882.77 W/5'CC	\$ 193.00

MVR 160: 2" Vertical Turbine

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50377	MVR REGISTER COVER-PLASTIC	\$ 7.00
50379	MVR DURA-DRI REG. CLAMP BAND	\$ 7.00
50390	BRASS MVR REGISTER COVER	\$ 18.00
50862	MVR 160 INTERIOR HUB ASSY	\$ 44.00
50863	MVR 160 BOTTOM PLATE-BRZ	\$ 67.00
50865	MVR 160 MOLDED LINER	\$ 13.00
50866	MVR 160 TOP CASE	\$ 426.00
50867	MVR 160 INLET HUB	\$ 9.00
50871	MVR 160 & 2 MHR ROTOR ASSY	\$ 108.00
50872	MVR 160 ROTOR & HUB ASSY-P.O.	\$ 156.00
50880	MVR 160 RING STRAINER-SST	\$ 35.00
53105	MVR 160 & 2 MHR PLUG & BEARING	\$ 33.00
53114	2 MHR ROTOR BUSHING SPACER	\$ 7.00
54915	BUSH 3/16ID X 1/2OD X 5/16LONG	\$ 13.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
95195	MVR 160-2 SPUD BUSHING	\$ 118.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98378	3/8 FLAT WASHER 18-8 SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
95195SI	MVR 160-1 SPUD BUSHING SI	\$ 121.00
B79931	MVR 160 REGISTER SG 808.31	\$ 95.00
B79932	MVR 160 REGISTER SG 800.50	\$ 95.00
B79933	MVR 160 REGISTER SG 792.41	\$ 95.00
B79934	MVR 160 REGISTER SG 784.64	\$ 95.00
B79934R	MVR160,REG,SG,784.64 RECLAIM	\$ 104.00
B79935	MVR 160 REGISTER SG 775.87	\$ 95.00
B79936	MVR160 REGISTER SG 768.47	\$ 95.00
B79941	MVR 160 REGISTER CF 604.34	\$ 95.00

B79942	MVR160 REGISTER CF 598.37	\$ 95.00
B79942R	MVR160 REGISTER,CF,598.37 RCM	\$ 104.00
B79943	MVR 160 REGISTER CF 592.81	\$ 95.00
B79944	MVR 160 REGISTER CF 587.03	\$ 95.00
B79944R	MVR160 REG CF,587.03 RCM	\$ 95.00
B79945	MVR 160 REGISTER CF 580.58	\$ 95.00
B79946	MVR160 REGISTER,CF, 575.56	\$ 95.00
B8602	MVR TRANS CLAMP BAND MOLD COMP	\$ 7.00
2" MVR 160 Translator Registers		
D352614500	MVR 160 SG TRL5 784.64 REG	\$ 164.00
D352614500F	MVR 160 SG TRL5 784.64 FLO	\$ 923.00
D352614503	MVR 160 SG TRL5 784.64 W/5'WIR	\$ 172.00
D35261450315	MVR 160 SG TRL5 784.64 15'WIRE	\$ 177.00
D352614504	MVR 160 SG TRL5 784.64 PITREG	\$ 173.00
D352614508	MVR160,SG,TRL5,784.64,5'CC	\$ 193.00
D35261450825	MVR160,SG,TRL5,784.64,25'CC	\$ 202.00
D352614509	MVR160,SG,TRL5,784.64,HRLP 3'	\$ 250.00
D35261450E	MVR160,SG,TRL5,784.64,60W,5'	\$ 294.00
D35261450H	MVR160,SG,TRL5,784.64,I-60W	\$ 294.00
D352614600	MVR160,SG,TRL5/6,784.64,REG	\$ 164.00
D352614600F	MVR160,SG,TRL6,784.64,FLO	\$ 923.00
D352614603	MVR160,SG,TRL5/6,784.64,5'WIRE	\$ 172.00
D35261460315	MVR160,SG,TRL5/6,784.64,15'W	\$ 177.00
D352614604	MVR160,SG,TRL5/6,784.64,PITREG	\$ 173.00
D352614608	MVR160,SG,TRL5/6,784.64,5'CC	\$ 193.00
D35261460825	MVR160,SG,TRL5/6,REG,25'CC	\$ 202.00
D352614608G	MVR160,SG,TRL6,5'CC,FT3	\$ 423.00
D352614609	MVR160,SG,TRL5/6,784.64,HRLP3'	\$ 250.00
D35261460915	MVR160SG,TRL5/6,784.64,HRLP15'	\$ 250.00
D35261460B	MVR160,SG,TRL5/6,784.64,HRHP3'	\$ 250.00
D35261460BF	MVR160SG,TRL5/6,784.64,HRHPFLO	\$ 1,038.00
D35261460D	MVR160,TRL5/6,INT-HR,784.64	\$ 258.00
D35261460E	MVR160,SG,TRL5/6,784.64,5'60w	\$ 294.00
D352614808	MVR160,SG,TRL5PRG6,784.64,5'CC	\$ 193.00
D35261490825	MVR160,SG,TRL6/6,784.64,25'CC	\$ 202.00
D352615500	MVR 160 SG TRL5 775.87 REG	\$ 164.00
D35261550025	MVR 160 SG TRL5 775.87 REG 25'	\$ 181.00
D352615500F	MVR 160 SG TRL5 775.87 FLO	\$ 923.00
D35261550315	MVR 160 SG TRL5 775.87 15'WIRE	\$ 177.00
D352615504	MVR160,SG,TRL5,775.87,PITREG	\$ 173.00
D352615508	MVR160,SG,TRL5,775.87,5'CC	\$ 193.00
D352615509	MVR160,SG,TRL5,775.87,HRLP 3'	\$ 250.00
D35261550B	MVR160,SG,TRL5,775.87,HRHP 3'	\$ 250.00
D35261550B25	MVR160,SG,TRL5,775.87,HRHP25	\$ 279.00
D352615600	MVR160,SG,TRL5/6,775.87	\$ 164.00
D35261560015	MVR160,SG,TRL5/6,W/15'	\$ 177.00
D352615600F	MVR160,SG,TRL5/6,775.87 FLO	\$ 923.00
D352615600G	MVR160,SG,TRL5/6,FT3,775.87	\$ 423.00
D352615603	MVR160,SG,TRL5/6,775.87 5'WIRE	\$ 172.00
D35261560325	MVR160,SG,TRL5/6,775.87 25'	\$ 181.00
D352615604	MVR160,SG,TRL5/6,775.87,PITREG	\$ 173.00
D35261560425	MVR160,SG,TRL5/6,775.87,25'PIT	\$ 191.00

D352615604G	MVR160,SG,TRL6,PITPAD,FT3	\$ 439.00
D352615608	MVR160,SG,TRL5/6,5'CC 775.87	\$ 193.00
D35261560825	MVR160,SG,TRL5/6,25'CC 775.87	\$ 202.00
D352615608G	MVR160,SG,TRL5/6,5'CC,PULSER	\$ 452.00
D352615609	MVR160,SG,TRL5/6,775.87,HRLP3'	\$ 250.00
D35261560915	MVR160SG,TRL5/6,775.87,HRLP15'	\$ 250.00
D35261560B	MVR160,SG,TRL5/6,HRHP 3'775.87	\$ 250.00
D35261560B25	MVR160,TRL5/6,HRHP 25',775.87	\$ 250.00
D35261560D	MVR160,TRL5/6,INT-HR,775.87	\$ 258.00
D35261560E	MVR160,SG,TRL5/6,775.87 5'60W	\$ 294.00
D35261560M25	MVR160,SGTRL5/6,25'NODE,775.87	\$ 369.00
D352624500	MVR 160 CF TRL5 587.03 REG	\$ 164.00
D352624500F	MVR 160 CF TRL5 587.03 FLO	\$ 923.00
D352624503	MVR160,CF,TRL5,587.03,REG,5'W	\$ 172.00
D35262450325	MVR160,CF,TRL5,587.03,REG.25'	\$ 181.00
D352624503F	MVR160,CF,TRL5,587.03,5',FLO	\$ 923.00
D352624504	MVR 160 CF TRL5 587.03 PITREG	\$ 173.00
D35262450425	MVR 160 CF TRL5 587.03 25'PIT	\$ 191.00
D352624508	MVR160 CF TRL5 587.03 5'CC	\$ 193.00
D352624509	MVR160,CF,TRL5,587.03 HRLP 3'	\$ 250.00
D352624600	MVR 160 CF TRL5/6 587.03 REG	\$ 164.00
D352624600G	MVR160,CF,TRL5/6,FT3,587.03	\$ 423.00
D352624603	MVR160 CF TRL5/6 587.03 5'WIRE	\$ 172.00
D352624608	MVR160 CF TRL5/6 587.03 5'CC	\$ 193.00
D35262460825	MVR160 CF TRL5/6 587.03 25'CC	\$ 202.00
D352624609	MVR160,CF,TRL5/6,587.03 HRLP3'	\$ 250.00
D35262460B	MVR160,CF,TRL5/6,587.03 HRHP3'	\$ 250.00
D35262460E	MVR160 CF TRL5/6 587.03 5'60W	\$ 294.00
D352624808	MVR160 CF TRL5PRG6 587.03 5'CC	\$ 193.00
D352625500	MVR 160 CF TRL5 580.58 REG	\$ 164.00
D352625503	MVR160,CF,TRL5,580.58,5'WIRE	\$ 172.00
D35262550325	MVR160,CF,TRL5,580.58,REG.25'	\$ 181.00
D352625504	MVR 160 CF TRL5 580.58 PITREG	\$ 173.00
D352625508	MVR160 CF TRL5 580.58 5'CC	\$ 193.00
D35262550825	MVR160 CF TRL5 W/25'CC 580.58	\$ 202.00
D352625509	MVR160,CF,TRL5,580.58 HRLP 3'	\$ 250.00
D35262550B	MVR160,CF,TRL5,580.58 HRHP 3'	\$ 250.00
D35262550B25	MVR160,CF,TRL5,580.58 HRHP 25'	\$ 250.00
D35262550E	MVR160,CF,TRL5,580.58,60W-5'	\$ 294.00
D352625600	MVR160 CF TRL5/6 580.58 REG	\$ 164.00
D352625600F	MVR160,CF,TRL5/6,587.03 FLO	\$ 923.00
D352625600RCM	MVR160,CF,TRL5/6,580.58,RCM	\$ 172.00
D352625603	MVR160 CF TRL5/6,580.58 5'W	\$ 172.00
D35262560315	MVR160 CF TRL5/6,580.58 15'W	\$ 177.00
D352625608	MVR160 CF TRL5/6 580.58 5'CC	\$ 193.00
D35262560825	MVR160 CF TRL5/6 580.58 25'CC	\$ 202.00
D352625609	MVR160,CF,TRL5/6,580.58 HRLP3'	\$ 250.00
D35262560B	MVR160,CF,TRL5/6,580.58 HRHP3'	\$ 250.00
D35262561325	MVR160 CF TRL5/6 580.58 25'WIR	\$ 181.00
D35262580325	MVR160 CF TRL5/PGM6 25'W	\$ 181.00
D352625808	MVR160 CF TRL5 580.58 5'CC	\$ 193.00
D352625808E25	MVR160,CF,TRL5/6,25'CC,ENDPNT	\$ 332.00

MVR 350: 3" Vertical Turbine

Part Number	Description	Retail Price
19201	LID MED REG BOX	\$ 18.00
50981	MVR350 TOPCASE ECO	\$ 255.00
50982	MVR 350 BOTTOM CASE	\$ 1,001.00
50983	MVR 350 INLET HUB	\$ 25.00
50984	MVR 350 ROTOR ASSY	\$ 306.00
50985	MVR 350 RING STRAINER-304 SST	\$ 35.00
50986	MVR 350 REGISTER BOX	\$ 11.00
50987	MVR 350 INLET HUB ASSY	\$ 94.00
50990	MVR 350 REGISTER BOX ASSY - PO	\$ 16.00
50992	MVR 350 INLET PLUG & BRG ASSY	\$ 82.00
50998	BRZ REG BOX,MVR 350,650	\$ 40.00
54914	ROTOR BUSHING SPACER 3 MHR	\$ 3.00
54915	BUSH 3/16ID X 1/2OD X 5/16LONG	\$ 13.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
98197	6-32 UNC PAN HD SCREW	\$ 0.07
98361	O-RING #2-166 70 DURO BUNA-N	\$ 9.00
98395	12-24X3/8 SLT FIL SCRW 316 SST	\$ 0.56
50986P	MVR 350 REGISTER BOX PURPLE	\$ 11.00
51005P007	#10-32X1/2 SEAL HD SCRW(19949)	\$ 4.00
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
B79971	MVR 350 REGISTER SG 394.09	\$ 95.00
B79972	MVR350 REG 100SG 389.61	\$ 95.00
B79973	MVR350 REGISTER SG 385.91	\$ 95.00
B79974	MVR 350 REGISTER SG 382.06	\$ 95.00
B79974R	MVR350 REGISTER 382.06 RECLAIM	\$ 104.00
B79975	MVR 350 REGISTER SG 378.60	\$ 95.00
B79976	MVR350 REGISTER SG 374.11	\$ 95.00
B79982	MVR 350 REG CF, 291.49	\$ 95.00
B79983	MVR 350 REGISTER CF 288.55	\$ 95.00
B79983R	MVR350 REG CF 288.55 RCM	\$ 104.00
B79984	MVR 350 REGISTER SF 285.72	\$ 95.00
B79985	MVR 350 REGISTER SF 283.03	\$ 95.00
B79986	MVR 350 REGISTER SF 280.70	\$ 95.00
B8447	LENSE TERMINAL COVER	\$ 0.99
C6525	MVR TRL BRZ REG BOX 3"- 6" MTR	\$ 40.00
3" MVR 350 Translator Registers		
D352712500	MVR 350 SG TRL5 389.61 25'RG	\$ 187.00
D352712510	MVR350,SG,TRL5,25'WIRE,389.61	\$ 187.00
D352712510G	MVR350,SG,TRL5,FT3,389.61	\$ 423.00
D352712513F	MVR350 SG TRL5 389.61 25'W FLO	\$ 923.00
D352712514	MVR 350 SG TRL5 389.61 PITREG	\$ 203.00
D352712518	MVR350 SG TRL5,389.61REG 25'CC	\$ 225.00
D35271251B	MVR350,SG,TRL5,389.61,25'HRHP	\$ 273.00
D352712610G	MVR350,SG,TRL5/6,FT3,389.61	\$ 423.00
D352712613	3" MVR350,TRL5/6,USG,W/25'WIRE	\$ 187.00
D352712613F	MVR350 SG TRL5/6 25'W FLO	\$ 923.00
D352712613RCM	MVR350,SG,TRL5/6,25'WIRE,RCM	\$ 204.00
D352712614	MVR 350,SG,TRL5/6,25'PITPAD	\$ 203.00
D352712618F	MVR350 SG TRL5/6 25'CC FLO	\$ 923.00

D35271261B	MVR350,SG,TRL5/6,389.6,25'HRHP	\$ 273.00
D35271261BF	MVR350 SG TRL5/6 HRHP W/FLO	\$ 1,038.00
D352713518	MVR350 SG TRL5 385.91REG 25'CC	\$ 225.00
D352713600G	MVR350 SG TRL5/6 385.91 FT3	\$ 423.00
D352713618	MVR350 SG TRL5/6 385.91 25'CC	\$ 225.00
D352714500	MVR 350 SG TRL5 382.06 25'RG	\$ 187.00
D352714510F	MVR 350 SG TRL5 382.06 FLO	\$ 923.00
D352714510G	MVR350,SG,TRL5,FT3,382.06	\$ 423.00
D352714513F	MVR350 SG TRL5 382.06 25'W FLO	\$ 923.00
D352714514	MVR 350 SG TRL5 382.06 PITREG	\$ 203.00
D352714518	MVR350 SG TRL5 382.06REG 25'CC	\$ 225.00
D352714519	MVR350,SG,TRL5,382.06 HRLP 15'	\$ 273.00
D35271451B	MVR350,SG,TRL5,HRHP 25'382.06	\$ 273.00
D352714610G	MVR350,SG,TRL5/6,FT3,382.06	\$ 423.00
D352714613	3"MVR350,TRL5/6,USG,W/25'WIRE	\$ 187.00
D352714613F	MVR350 SG TRL5/6 25'W FLO	\$ 923.00
D352714614	MVR 350,SG,TRL5/6,25'PITPAD	\$ 203.00
D352714618	MVR 350 SG TRL5/6 382.06 CC	\$ 225.00
D352714618G	MVR350 SG TRL6 25'CC FT3	\$ 423.00
D35271461B	MVR350,SG,TRL5/6,HRHP 25'	\$ 273.00
D35271461M	3"MVR350,TRL5/6,SG,25'NODE	\$ 392.00
D352714918	MVR 350 SG TRL6/6 382.06 CC	\$ 225.00
D352715510	MVR350,SG,TRL5,25'WIRE,378.60	\$ 187.00
D352715518	MVR350 SG TRL5 378.6 REG 25'CC	\$ 225.00
D352715618	3"MVR350 SG TRL5/6 REG 25'CC	\$ 225.00
D352716500	MVR 350 SG TRL5 25' 374.11	\$ 187.00
D352716610	MVR350,SG,TRL6,25'WIRE,374.11	\$ 187.00
D352722510	MVR350,CF,TRL5,291.5,25'WIRE	\$ 187.00
D352722510G	MVR350,CF,TRL5,291.5,FT3	\$ 423.00
D352722600	MVR350 CF TRL5/6 291.5 REG 25'	\$ 187.00
D352722610G	MVR350 CF TRL6 FT3	\$ 423.00
D352722614	MVR350 CF TRL5/6 291.49 PITREG	\$ 203.00
D352723510F	MVR350 CF TRL5 W/25'FLO 288.55	\$ 923.00
D352724500	MVR 350 CF TRL5 285.72 REG	\$ 187.00
D352724510	MVR350,CF,TRL5 285.72 25'	\$ 187.00
D352724510F	MVR 350 CF TRL5 285.72 FLO	\$ 923.00
D352724510G	MVR350 CF TRL5 FT3,285.72	\$ 423.00
D352724514	MVR 350 CF TRL5 285.72 PITREG	\$ 203.00
D352724518	MVR350,CF,TRL5 285.72 25'CCONN	\$ 225.00
D35272451B	MVR350,CF,TRL5,285.72,HRHP25'	\$ 273.00
D352724600	MVR350 CF TRL5/6 285.7 REG 25'	\$ 187.00
D352724618	MVR350,SF,TRL5/6,285.72,25'CC	\$ 225.00
D352725818	MVR350CF,TRLSPRG6,283.03 25'CC	\$ 225.00
D352726518	MVR350,CF,TRL5,280.70 W/25'CC	\$ 225.00
D352726818	MVR350CF,TRLSPRG6,280.70 25'CC	\$ 225.00
D352727500	MVR350,CF,TRL5,277.86	\$ 187.00
D352727510	MVR350,CF,TRL5,277.86 25'	\$ 187.00
D352727514	MVR350,CF,TRL5,277.86 PITREG	\$ 203.00
D352727518	MVR350,CF,TRL5,277.86 W/25'CC	\$ 225.00
D352727519	MVR350,CF,TRL5,277.86 HRLP 15'	\$ 273.00
D35272751B	MVR350,CF,TRL5,277.86 HRHP 25'	\$ 273.00
D352727600	MVR350,CF,TRL5/6,277.86 25'	\$ 187.00

D352727610F	MVR350,CF,TRL5/6,FLO,277.86	\$ 923.00
D352727614	MVR350,SF,TRL5/6,277.85 PITREG	\$ 203.00
D352727618	MVR350,SF,TRL5/6,REG,25'CC	\$ 225.00
D352727818E	MVR350,CF,TRL5/6,25'CC,ENDPNT	\$ 355.00
D352728518	MVR350,CF,TRL5,275.08 W/25'CC	\$ 225.00
D352728818	MVR350CF,TRL5PRG6,275.08 25'CC	\$ 225.00

MVR 650: 4" Vertical Turbine

Part Number	Description	Retail Price
19201	LID MED REG BOX	\$ 18.00
50992	MVR 350 INLET PLUG & BRG ASSY	\$ 82.00
50998	BRZ REG BOX,MVR 350,650	\$ 40.00
51181	MVR650 TOPCASE ECO	\$ 321.00
51182	MVR 650 BOTTOM CASE	\$ 1,113.00
51183	MVR 650 INLET HUB-MOLDED	\$ 31.00
51184	MVR 650 ROTOR ASSY	\$ 319.00
51185	MVR 650 RING STRAINER-304 SST	\$ 40.00
51186	650 MVR ROTOR BUSHING SPACER	\$ 15.00
51187	MVR 650 INLET HUB ASSY	\$ 103.00
56915	MVR BUSH 1/4IDX 1/2OD X 3/8LG	\$ 15.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
98197	6-32 UNC PAN HD SCREW	\$ 0.07
98362	O-RING #2-171 70 DURO BUNA-N	\$ 10.00
98395	12-24X3/8 SLT FIL SCRW 316 SST	\$ 0.56
51005P007	#10-32X1/2 SEAL HD SCRW(19949)	\$ 4.00
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
B80012	MVR650 REGISTER SG 241.52	\$ 95.00
B80013	MVR 650 REGISTER SG 239.51	\$ 95.00
B80014	MVR 650 REGISTER SG 236.41	\$ 95.00
B80015	MVR650 REG 100SG 234.58	\$ 95.00
B80016	MVR 650 REGISTER SG 232.95	\$ 95.00
B80017	MVR 650 REGISTER SG 230.62	\$ 95.00
B80017R	MVR650 REGISTER SG 230.62 RCM	\$ 104.00
B80018	MVR650.REG 100SG 228.21	\$ 95.00
B80021	MVR650 REGISTER SF 182.28	\$ 95.00
B80022	MVR650 REGISTER SF 180.35	\$ 95.00
B80023	MVR 650 REGISTER SF 178.86	\$ 95.00
B80024	MVR 650 REGISTER SF 177.30	\$ 95.00
B80024R	MVR650 REG CF 176.90 RCM	\$ 104.00
B80025	MVR650 REGISTER SF 175.04	\$ 95.00
B80026	MVR650 REGISTER SF 173.77	\$ 95.00
B80027	MVR 650 REGISTER SF 171.53	\$ 95.00
B80028	MVR650 REGISTER SF 170.34	\$ 95.00
B80029	MVR650,REG,SF,168334	\$ 95.00
B8447	LENSE TERMINAL COVER	\$ 0.99
C6525	MVR TRL BRZ REG BOX 3" - 6" MTR	\$ 40.00
4" MVR 650 Translator Registers		
D352813510	MVR650,SG,TRL5,25'WIRE,239.51	\$ 187.00
D352814510	MVR650 SG TRL5 236.41 W/25'	\$ 187.00
D352814510F	MVR650 SG TRL5 FLO,236.41	\$ 923.00
D352814510G	MVR650,SG,TRL5,FT3,236.41	\$ 423.00

D352814514	MVR650 SG TRL5 236.41 PITPAD	\$ 203.00
D352814518	MVR650 SG TRL5 25'CC 236.41	\$ 225.00
D352814519	MVR650 SG TRL5 236.41 HRLP 15'	\$ 273.00
D35281451B	MVR650 SG TRL5 HRHP 25'236.41	\$ 273.00
D352814610	MVR650 SG TRL5/6 236.41 W/25'	\$ 187.00
D352814610F	MVR650,SG,TRL5/6,FLO	\$ 923.00
D352814610G	MVR650,SG,TRL5/6,FT3	\$ 423.00
D352814618	MVR650 SG TRL5/6 236.41 25'CC	\$ 225.00
D35281461B	MVR650 SG TRL5/6 HRHP,236.41	\$ 273.00
D35281461BF	MVR650,SG,TRL5/6,HRHP,FLO	\$ 1,038.00
D352814810	MVR650 SG TRL5/6 W/25',236.41	\$ 187.00
D352814814	MVR650 SG TRL5PGM6 236.41	\$ 203.00
D35281481M	MVR650 SGTRL5/6 25'MINOD236.41	\$ 392.00
D352814918	MVR650,SG,TRL6/6,236.4,25'CC	\$ 225.00
D352815618	MVR 650 SG TRL5/6 234.58 25'CC	\$ 225.00
D352816918	MVR650 SG TRL6 232.95 25'CC	\$ 225.00
D352817510	MVR 650 SG TRL5 W/25',230.62	\$ 187.00
D352817510F	MVR 650 SG TRL5 FLO,230.62	\$ 923.00
D352817514	MVR 650 SG TRL5 230.62 PITREG	\$ 203.00
D352817518	MVR 650 SG TRL5 25CC	\$ 225.00
D352817519	MVR 650 SG TRL5 230.62 HRLP 15	\$ 273.00
D35281751B	MVR 650 SG TRL5 HRHP 25'230.62	\$ 273.00
D352817610	MVR 650 SG TRL5/6 230.62 25'W	\$ 187.00
D352817610F	MVR650,TRL5/6,230.62,25'FLO	\$ 923.00
D352817614	MVR650 SG TRL5/6 230.62 PITREG	\$ 203.00
D352817618	MVR 650 SG TRL5/6 25'CC	\$ 225.00
D352817810	MVR 650 SG TRL5/6 W/25',230.62	\$ 187.00
D352824500	MVR650 CF TRL5 176.90 REG	\$ 187.00
D352824510	MVR650 CF TRL5 176.90 25'W	\$ 187.00
D352824510F	MVR 650 CF TRL5 176.9 FLO	\$ 923.00
D352824510G	MVR650 CF TRL5 FT3 176.90	\$ 423.00
D352824514	MVR650 CF TRL5 176.90 PITREG	\$ 203.00
D352824518	MVR650,CF,TRL5,176.90,25'CC	\$ 225.00
D352824519	MVR650,CF,TRL5,176.90 HRLP 15'	\$ 273.00
D35282451B	MVR650,CF,TRL5,176.90 HRHP 25'	\$ 273.00
D352824600	MVR650 CF TRL5/6 176.90 REG	\$ 187.00
D352824613	MVR650,CF,TRL5/6,W/25',176.90	\$ 187.00
D352824614	MVR650 CF TRL/6 PITPAD	\$ 203.00
D352824618	MVR650,CF,TRL5/6,176.90,25'CC	\$ 225.00
D35282461B	MVR650,CF,TRL6,176.90,HRHP25'	\$ 273.00
D352824818	MVR650,CF,TRL5PRG6,176.90,25CC	\$ 225.00
D352824818E	MVR650,CF,TRL5/6,25CC,ENDPNT	\$ 355.00
D352825618	MVR650,SF,TRL5/6,RG,25'CC	\$ 225.00
D352826510	MVR650,CF,TRL5/6,173.77,REG	\$ 187.00
D352826518	MVR650,CF,TRL5,173.77,25'CC	\$ 225.00
D352826618	MVR650,CF,TRL5PRG6,173.8,25'CC	\$ 225.00
D352826818	MVR650CF,TRL5PRG6,173.77,25'CC	\$ 225.00
D352827500	MVR 650 CF TRL5 171.53 REG	\$ 187.00
D352827510	MVR 650 CF TRL5 W/25'WIRE	\$ 187.00
D352827510F	MVR 650 CF TRL5 171.53 FLO	\$ 923.00
D352827514	MVR 650 CF TRL5 171.53 PITREG	\$ 203.00
D352827518	MVR650,CF,TRL5,171.53,25'CONN	\$ 225.00

D352827519	MVR650,CF,TRL5,171.53 HRLP 15'	\$ 273.00
D35282751B	MVR650,CF,TRL5,171.53 HRHP 25'	\$ 273.00
D352827600	MVR 650 CF TRL5/6 171.53 REG	\$ 187.00
D352827614	MVR650 CF TRL5/6 PIT REG	\$ 203.00
D352827618	MVR650,SF,TRL5/6,REG,25'CC	\$ 225.00
D352827818	MVR650CF,TRL5PRG6,171.53,25'CC	\$ 225.00

MVR 1300: 6" Vertical Turbine

Part Number	Description	Retail Price
19201	LID MED REG BOX	\$ 18.00
50998	BRZ REG BOX, MVR 350,650	\$ 40.00
51382	MVR 1300 BOTTOM CASE	\$ 1,920.00
51383	MVR 1300 RING STRAINER-304 SST	\$ 146.00
51384	MVR 1300 ROTOR ASSY	\$ 665.00
51385	MVR 1300 ROTOR CAP ASSY	\$ 58.00
51387	MVR 1300 INLET HUB ASSY	\$ 189.00
51391	MVR 1300 BUSHING SPACER	\$ 22.00
51392	MVR 1300 ROTOR HUB BUSHING	\$ 16.00
90180	1/2-13X1-1/4 HX HD SCR-304SST	\$ 4.00
98197	6-32 UNC PAN HD SCREW	\$ 0.07
98408	O-RING #2-378 70 DURO BUNA-N	\$ 19.00
98409	1/4-20X1/2 SLTD FIL HD SCR-WSS	\$ 1.95
51005P007	#10-32X1/2 SEAL HD SCR(W19949)	\$ 4.00
51381	MVR1300 TOPCS ECO	\$ 522.00
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
B80053	MVR 1300 REGISTER SG 566.60	\$ 95.00
B80053R	MVR 1300 SG RCM REG 566.60	\$ 104.00
B80054	MVR 1300 REGISTER SG 563.17	\$ 95.00
B80055	MVR 1300 REGISTER,SG,558.38	\$ 95.00
B80056	MVR1300 REGISTER,SG, 551.99	\$ 95.00
B80058	MVR1300 REG 1000SG 540.85	\$ 95.00
B80064	MVR 1300 REG. 100 SF 424.55	\$ 95.00
B80067	MVR1300 REG 100SF 413.35	\$ 95.00
B80068	MVR 1300 REG. 100 SF 409.41	\$ 95.00
B80068R	MVR1300 REG 100 CF 409.41 RCM	\$ 104.00
B80069	MVR 1300 REG,100SF 405.25	\$ 95.00
B8447	LENSE TERMINAL COVER	\$ 0.99
C6525	MVR TRL BRZ REG BOX 3"- 6" MTR	\$ 40.00

6" MVR 1300 Translator Registers

D352913600	MVR 1300 SG TRL6 566.60 25'W	\$ 187.00
D352913610F	MVR 1300 SG TRL6 566.60 FLO	\$ 923.00
D352913610G	MVR1300,SG,TRL6,566.60 PULSER	\$ 423.00
D352913613	MVR1300,SG,TRL6,566.6,25'	\$ 187.00
D352913614	MVR 1300 SG TRL6 566.60 PITREG	\$ 203.00
D352913618	MVR1300,SG,TRL6,566.60,25'CC	\$ 225.00
D352913618F	MVR 1300 SG TRL6 25'CC FLO	\$ 923.00
D352913619	MVR1300,SG,TRL6,566.60,HRLP 15	\$ 273.00
D35291361B	MVR1300,SG,TRL6,HRHP 25'566.60	\$ 273.00
D352914600	MVR1300 SG TRL6 563.17 25'W	\$ 187.00
D352914608	MVR1300 SG TRL6 563.17 25'CC	\$ 225.00
D35291461B	MVR1300 SG TRL6 563.17 HRHP25'	\$ 273.00

D352915610F	MVR1300,SG,TRL6,558.38,FLO	\$ 923.00
D352915614	MVR1300,SG,TRL6,558.38,PITPAD	\$ 203.00
D35291561B	MVR1300 SG TRL6 558.38 HRHP25'	\$ 273.00
D352916610	MVR1300,TRL6,SG,25'W,551.99	\$ 187.00
D352916610F	MVR1300,SG,TRL6,551.99,FLO	\$ 923.00
D352916610G	MVR1300,SG,TRL6,551.99,FT1	\$ 423.00
D352916618F	MVR1300,SG,TRL6,CC,551.99,FLO	\$ 923.00
D352917600	MVR1300,SG,TRL6,25'WIRE,546.34	\$ 187.00
D35291861B	MVR1300,SG,TRL6,540.85,HRHP25'	\$ 273.00
D352924600	MVR 1300 CF TRL6 424.55 REG	\$ 187.00
D352924610	MVR 1300 CF TRL6 424.55 25'	\$ 187.00
D352924610F	MVR 1300 CF TRL6 424.55 FLO	\$ 923.00
D352924610G	MVR1300,CF,TRL6,424.55,PULSER	\$ 423.00
D352924614	MVR1300 CF TRL6 424.55 PITREG	\$ 203.00
D352924618	MVR 1300 CF TRL6 424.55 25'CC	\$ 225.00
D352924618F	MVR 1300 CF TRL6 25'CC FLO	\$ 923.00
D352924619	MVR1300,CF,TRL6,424.55,HRLP 15	\$ 273.00
D35292461B	MVR1300,CF,TRL6,429.55,HRHP25'	\$ 273.00
D352925618	MVR1300 CF TRL6 419.58 25'CC	\$ 225.00
D352927618	MVR1300 CF TRL6 413.35 25'CC	\$ 225.00

Horizon: Class II Horizontal Turbine Meters

Size: 1 1/2" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
50783	1.5" X 4" 2B BRZ.SPOOL W/PLUG	\$ 277.00
52600	1-1/2&2" MEAS.ELEMENT HORIZON	\$ 265.00
52602	1.5 & 2" HORIZON GASKET	\$ 2.00
52610	1.5" HORIZON,SF, D-I-M-E	\$ 581.00
52621	1.5" HORIZON,SG, D-I-M-E	\$ 581.00
59027	1 1/4 NPT BRZ PLUG CORED	\$ 39.00
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
98155	#10 SPLIT LOCKWASHER SST	\$ 0.10
98476	10-24 SS SHCS 5/8 LG	\$ 0.08
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
CS770	HOUSING INSERT IIS BLUE	\$ 2.00
D34141	1.5" HORIZON REG,SG,STD	\$ 95.00
D34142	1.5" HORIZON REG,CF,STD	\$ 95.00
5261056	1.5"HORZ,D-I-M-E,CF,TRL5,5'CC	\$ 734.00
5262151	1.5"HORZ,D-I-M-E,SG,TRL5,5'WIR	\$ 734.00
5262156	1.5"HORZ,D-I-M-E,SG,TRL5,5'CC	\$ 734.00
52610BB	1.5"HORIZON,SF,D-I-M-E,BBX/LID	\$ 589.00

1-1/2" Horizon Translator Registers

D35671500	1.5"HORIZON SG TRL5	\$ 164.00
D35671510F	1.5"HORIZON SG TRL5 FLO	\$ 923.00
D35671513	1.5"HORIZON SG TRL5 5'W	\$ 172.00
D3567151315	1.5"HORIZON,SG,TRL5,15'WIRE	\$ 177.00
D35671518	1.5"HORIZON SG TRL5 5'CC	\$ 193.00
D35671519	1.5"HORIZON SG,TRL5 HRLP 3'	\$ 250.00
D3567151E	1.5"HORIZON SG TRL5 5'60W	\$ 294.00
D35671600	1.5"HORIZON SG TRL5/6 REG	\$ 164.00
D35671610	1.5"HORIZON SG TRL5/6 W/REGBOX	\$ 164.00
D35671610G	1.5"HORIZON SG TRL6 FT2	\$ 423.00
D35671618	1.5"HORIZON SG TRL5/6 REG 5'CC	\$ 193.00
D3567161B	1.5"HORZ SG TRL5/6 HRHP 3'	\$ 250.00
D35672510F	1.5"HORIZON CF TRL5 FLO	\$ 923.00
D35672513	1.5"HORIZON,CF,TRL5,5'WIRE	\$ 172.00
D35672518	1.5"HORIZON CF TRL5 5'CCON	\$ 193.00
D3567251825	1.5"HORIZON CF TRL5 25'CC	\$ 202.00
D35672519	1.5"HORIZON CF,TRL5 HRLP 3'	\$ 250.00
D3567251B	1.5"HORZ CF TRL5 HRHP 3'	\$ 250.00
D35672610	1.5"HORIZON CF TRL6	\$ 164.00
D35672610F	1.5"HORIZON CF TRL6 FLO	\$ 923.00

Size: 2" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
50883	2" X 7" 2B BRZ.SPOOL W/PLUG	\$ 284.00
52600	1-1/2&2" MEAS.ELEMENT HORIZON	\$ 265.00
52602	1.5 & 2" HORIZON GASKET	\$ 2.00
52630	2" HORIZON,SF, D-I-M-E	\$ 581.00
52640	2" HORIZON,SG, D-I-M-E	\$ 581.00
52646	2" HORIZON,SG,TRL, D-I-M-E	\$ 718.00
59009	1 1/2 NPT SQ HD PLUG BRZ CORED	\$ 32.00
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
98155	#10 SPLIT LOCKWASHER SST	\$ 0.10
98476	10-24 SS SHCS 5/8 LG	\$ 0.08
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D34151	2" HORIZON REG,GAL	\$ 95.00
D34152	2" HORIZON REG,CF	\$ 95.00
D34152R	2" HORIZON REG,CF,RECLAIM	\$ 104.00
526306	2"HORZ,D-I-M-E,CF,TRL6	\$ 718.00
5263056	2"HORZ,D-I-M-E,CF,TRL5,5'CC	\$ 734.00
5264054	2"HORZ,D-I-M-E,SG,TRL5,PIT PAD	\$ 734.00
5264056	2"HORZ,D-I-M-E,SG,TRL5,5'CC	\$ 734.00
52630BB	2"HORIZON,SF,D-I-M-E,BBX/LID	\$ 589.00

526406H	2"HORZ,D-I-M-E,SG,TRL6	\$ 718.00
2" Horizon Translator Registers		
D35681500	2"HORIZON SG TRL5	\$ 164.00
D35681510F	2"HORIZON SG TRL5 FLO	\$ 923.00
D35681510G	2"HORIZON SG TRL5 FT2	\$ 423.00
D35681513	2"HORIZON SG TRL5 W/5'	\$ 172.00
D3568151315	2"HORIZON SG TRL5 W/15'REG	\$ 177.00
D35681514	2"HORIZON SG TRL5 5' PITPAD	\$ 173.00
D3568151425	2"HORIZON SG TRL5 25' PIT REG	\$ 194.00
D35681518	2"HORIZON SG TRL5 W/5'CC	\$ 193.00
D3568151825	2"HORIZON,SG,TRL5,25'CC	\$ 202.00
D35681519	2"HORIZON SG TRL5 HRLP 3'	\$ 250.00
D3568151B	2"HORIZON SG TRL5 HRHP 3'	\$ 250.00
D3568151E	2"HORIZON SG TRL5 5'60W	\$ 294.00
D35681610	2"HORIZON SG TRL5/6 REG	\$ 164.00
D35681610F	2"HORIZON SG TRL5/6 FLO	\$ 923.00
D35681610G	2"HORIZON SG TRL5/6 FT2	\$ 423.00
D35681613	2"HORIZON,SG,TRL5/6,5'WIRE,REG	\$ 172.00
D35681614	2"HORIZON SG TRL5/6 5'PP REG	\$ 173.00
D35681618	2"HORIZON SG TRL5/6 W/5'CC REG	\$ 193.00
D3568161B	2"HORIZON SG TRL5/6 HRHP 3'	\$ 250.00
D3568161B25	2"HORIZON SG TRL5/6 HRHP 25'	\$ 250.00
D3568161DX	2"HORIZON,SG,TRL5/6,XINT-HRHP	\$ 258.00
D3568161E	2"HORIZON SG TRL6 60W	\$ 294.00
D35682510F	2"HORIZON CF TRL5 FLO	\$ 923.00
D35682513	2"HORIZON,CF,TRL5,5'WIRE	\$ 172.00
D35682518	2"HORIZON CF TRL5 5'CCON	\$ 193.00
D3568251825	2"HORIZON CF TRL5 25'CC	\$ 202.00
D35682519	2"HORIZON CF TRL5 HRLP 3'	\$ 250.00
D3568251B	2"HORZ CF TRL5 HRHP 3'	\$ 250.00
D35682600	2"HORIZON CF TRL5/6	\$ 164.00
D35682610F	2"HORIZON CF TRL5/6 FLO	\$ 923.00
D35682614	2"HORIZON CF TRL5/6 PIT REG	\$ 173.00

Size: 3" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
54600	3&4" MEAS. ELEMENT - HORIZON	\$ 786.00
54602	O-RING 3&4 HORIZON TURBINE	\$ 1.83
54610	3" HORIZON,SF, D-I-M-E	\$ 918.00
54620	3" HORIZON,SG, D-I-M-E	\$ 918.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
98155	#10 SPLIT LOCKWASHER SST	\$ 0.10
98475	10-24X1/2 SOCKET HD CAP SCREW	\$ 0.12
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48

AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D33901	3" HORIZON REG, STD, GAL	\$ 95.00
D33902	3" HORIZON REG, CF	\$ 95.00
5461054	3" HORZ, D-I-M-E, CF, TRL, PPAD	\$ 1,084.00
5461056	3" HORZ, D-I-M-E, CF, TRL5, 25' CC	\$ 1,084.00
5462051	3" HORZ, D-I-M-E, SG, TRL5, 25' WIRE	\$ 1,084.00
5462056	3" HORZ, D-I-M-E, SG, TRL5, 25' CC	\$ 1,084.00
54620692	3" HORZ, DIME, SG, TRL6, HRHP 25'	\$ 1,211.00
5462056TRX	3" HORZ, DIME, SG, TRL5, 25' CC, TRX	\$ 1,084.00
546205F	3" HORZ, D-I-M-E, SG, TRL5, FLO	\$ 1,934.00

3" Horizon Translator Registers

D35691510F	3" HORIZ, SG, TRL5, FLO	\$ 923.00
D35691510G	3" HORIZ, SG, TRL5, FT2, 25' WIRE	\$ 423.00
D35691513	3" HORIZ, SG, TRL5, 25' WIRE	\$ 187.00
D35691514	3" HORIZ, SG, TRL5, PIT REG	\$ 203.00
D35691518	3" HORIZ, SG, TRL5, 25' CC REG	\$ 225.00
D35691519	3" HORIZ, SG, TRL5, HRLP 15'	\$ 273.00
D35691610G	3" HORIZ, SG, TRL6, FT2	\$ 423.00
D35691613	3" HORIZ, SG, TRL5/6, 25' WIRE	\$ 187.00
D35691618	3" HORIZ, SG, TRL5/6, 25' CC REG	\$ 225.00
D3569161B	3" HORIZ, SG, TRL5/6, HRHP 25'	\$ 273.00
D35692500	3" HORIZ, CF, TRL5, REG	\$ 187.00
D35692510	3" HORIZ, CF, TRL5, W/25'	\$ 187.00
D35692510F	3" HORIZ, CF, TRL5, FLO	\$ 923.00
D35692510G	3" HORIZ, CF, TRL5, FT2	\$ 423.00
D35692514	3" HORIZ, CF, TRL5, W/25' PITPAD	\$ 203.00
D35692518	3" HORIZ, CF, TRL5, 25' C CONNECT	\$ 225.00
D35692519	3" HORIZ, CF, TRL5, HRLP 15'	\$ 273.00
D3569251B	3" HORIZ, CF, TRL5, HRHP 25'	\$ 273.00
D35692610	3" HORIZ, CF, TRL5/6, W/25'	\$ 187.00
D35692618	3" HORIZ, CF, TRL5/6, 25' CC	\$ 225.00
D35692818	3" HORIZ, CF, TRL5/PRG6, 25' CC	\$ 225.00
D35695513	3" HORIZ, GAL, TRL5, 25' W, +3%	\$ 187.00
D35695514	3" HORIZ, SG, TRL5, +3%, PIT REG	\$ 203.00

Size: 4" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
54600	3&4" MEAS. ELEMENT - HORIZON	\$ 786.00
54602	O-RING 3&4 HORIZON TURBINE	\$ 1.83
54630	4" HORIZON, SF, D-I-M-E	\$ 1,307.00
54640	4" HORIZON, SG, D-I-M-E	\$ 1,307.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
98155	#10 SPLIT LOCKWASHER SST	\$ 0.10

98475	10-24X1/2 SOCKET.HD CAP SCREW	\$ 0.12
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D33911	4" HORIZON REG,GAL	\$ 95.00
D33912	4" HORIZON REG,CF	\$ 95.00
5463051	4"HORZ,D-I-M-E,CF,TRL5,25'WIRE	\$ 1,473.00
5463056	4"HORZ,D-I-M-E,CF,TRL5,25'CC	\$ 1,473.00
5464051	4"HORZ,D-I-M-E,SG,TRL5,25'WIRE	\$ 1,473.00
5464054	4"HORIZON,DIME,SG,TRL5,PPAD	\$ 1,473.00
5464056	4"HORZ,D-I-M-E,SG,TRL5,25'CC	\$ 1,473.00
54640692	4"HORZ,DIME,SG,TRL6,HRHP,25'	\$ 1,600.00
5464056TRX	4"HORZ,DIME,SG,TRL5,25'CC,TRX	\$ 1,473.00

4" Horizon Translator Registers

D35701510F	4"HORIZ,SG,TRL5,FLO	\$ 923.00
D35701513	4"HORIZ,SG,TRL5,W/25'	\$ 187.00
D35701514	4"HORIZ,SG,TRL5,PIT REG	\$ 203.00
D35701514RCM	4"HORIZ,SG,TRL5,PPAD,RECLAIM	\$ 221.00
D35701518	4"HORIZ,SG,TRL5,25'CCON	\$ 225.00
D35701519	4"HORIZ,SG,TRL5,HRLP 15'	\$ 273.00
D3570151B	4"HORIZ,SG,TRL5,HRHP 25'	\$ 273.00
D35701610F	4"HORIZ,SG,TRL5/6,FLO	\$ 923.00
D35701610G	4"HORIZ,SG,TRL6,25'W,FT2	\$ 423.00
D35701613	4"HORIZ,SG,TRL5/6,W/25'	\$ 187.00
D35701618	4"HORIZ,SG,TRL5/6,25'CCON	\$ 225.00
D35701618F	4"HORIZ,SG,TRL6,25'CC,FLO	\$ 923.00
D3570161B	4"HORIZ,SG,TRL5/6,HRHP 25'	\$ 273.00
D35702510	4"HORIZ,CF,TRL5,25'WIRE REG	\$ 187.00
D35702510F	4"HORIZ,CF,TRL5,FLO	\$ 923.00
D35702510G	4"HORIZ,CF,TRL5,25'W,FT2	\$ 423.00
D35702514	4"HORIZ,CF,TRL5,25'PITPAD	\$ 203.00
D35702518	4"HORIZ,CF,TRL5,W/25'CC	\$ 225.00
D35702519	4"HORIZ,CF,TRL5,HRLP 15'	\$ 273.00
D35702610	4"HORIZ,CF,TRL5/6,25'WIRE REG	\$ 187.00
D35702615	4"HORIZ,CF,TRL6,18"NICOR	\$ 225.00
D357026155	4"HORIZ,CF,TRL6,5"NICOR	\$ 225.00
D35702618	4"HORIZ,CF,TRL5/6,25'CC	\$ 225.00

Size: 6" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
56600	6" MEAS. ELEMENT-HORIZON	\$ 1,685.00
56610	6" HORIZON,SF, D-I-M-E	\$ 2,377.00
56620	6"HORIZON,SG, D-I-M-E	\$ 2,377.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00

98356	O RING BOTTOM	\$ 34.00
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D34161	6" HORIZON GAL STD REG	\$ 95.00
D34162	6" HORIZON CF STD REG	\$ 95.00
5661061	6"HRZ,D-I-M-E,SF,TRL6,25'W	\$ 2,543.00
5662061	6"HRZ,D-I-M-E,SG,TRL6,25'WIRE	\$ 2,543.00
5662064	6"HRZ,D-I-M-E,SG,TRL6,PPAD,25'	\$ 2,543.00
5662066	6"HRZ,D-I-M-E,SG,TRL6,25'CC	\$ 2,543.00
5662066TRX	6"HORZ,DIME,SG,TRL6,25'CC,TRX	\$ 2,543.00
6" Horizon Translator Registers		
D35711610	6"HORIZ,SG,TRL,25'WIRE	\$ 187.00
D35711610F	6"HORIZ,SG,TRL6,FLO	\$ 923.00
D35711610G	6"HORIZ,SG,TRL6,FT2,25'WIRE	\$ 423.00
D35711614	6"HORIZ,SG,TRL6,W/25'PIT PAD	\$ 203.00
D35711618	6"HORIZ,SG,TRL6,25'ITRON CONN	\$ 225.00
D35711618F	6"HORIZ,SG,TRL6,25'CC,FLO	\$ 923.00
D35711618RCM	6"HORIZ,SG,TRL6,25'CC,RCM	\$ 242.00
D35711619	6"HORIZ,SG,TRL6,HRLP 15'	\$ 273.00
D3571161B	6"HORIZ,SG,TRL6,HRHP 25'	\$ 273.00
D35712518	6"HORIZ,CF,TRL6/5,W/25'CC	\$ 225.00
D35712610	6"HORIZ,CF,TRL6,W/25'	\$ 187.00
D35712610F	6"HORIZ,CF,TRL6,FLO	\$ 923.00
D35712610G	6"HORIZ,CF,TRL6,FT2	\$ 423.00
D35712614	6"HORIZ,CF,TRL6,W/25'PITPAD	\$ 203.00
D35712615	6"HORIZ,CF,TRL6,25'NICOR	\$ 225.00
D35712618	6"HORIZ,CF,TRL6,W/25'CC	\$ 225.00
D35712619	6"HORIZ,CF,TRL6,HRLP 15'	\$ 273.00
D3571261B	6"HORIZ,CF,TRL6,HRHP 25'	\$ 273.00

Size: 8" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
58600	8" MEAS. ELEMENT-HORIZON	\$ 1,685.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
98356	O RING BOTTOM	\$ 34.00
5862061	8"HORZ,D-I-M-E,SG,TRL6,25'WIRE	\$ 3,191.00
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN, BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D34161	6" HORIZON GAL STD REG	\$ 95.00
D34162	6" HORIZON CF STD REG	\$ 95.00

D34171	8" HORIZON SR GAL REGISTER	\$ 95.00
D34172	8" HORIZON SR CF REGISTER	\$ 95.00
58610	8" HORIZON,SF, D-I-M-E	\$ 3,025.00
58620	8" HORIZON,SG, D-I-M-E	\$ 3,025.00
58626	8" HORIZON,SG,BRZ BOX,D-I-M-E	\$ 3,032.00

8" Horizon Translator Registers

D35721610	8"HORIZ,SG,TRL6	\$ 187.00
D35721610F	8"HORIZ,SG,TRL6,FLO	\$ 923.00
D35721610G	8"HORIZ,SG,TRL6,FT2,25'WIRE	\$ 423.00
D35721613	8"HORIZ,SG,TRL6,25'WIRE	\$ 187.00
D35721614	8"HORIZ,SG,TRL6,25'PP	\$ 203.00
D35721618	8"HORIZ,GAL,TRL6,25'CC	\$ 225.00
D35721618RCM	8"HORIZ,GAL,TRL6,25'CC,RCM	\$ 242.00
D35721619	8"HORIZ,SG,TRL6,HRLP 15'	\$ 273.00
D3572161B	8"HORIZ,SG,TRL6,HRHP 25'	\$ 273.00
D35722610	8"HORIZ,CF,TRL6,25'WIRE REG	\$ 187.00
D35722610F	8"HORIZ,CF,TRL6,FLO	\$ 923.00
D35722618	8"HORIZ,CF,TRL6,W/25'CC	\$ 225.00

Size: 10" Horizontal Turbine

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
98356	O RING BOTTOM	\$ 34.00
A12658	LOCKING PIN BLUE	\$ 0.50
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS41123	SPIROL PIN,BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
59600	10" MEASURING ELEMENT-HORIZON	\$ 2,308.00
59610	10" HORIZON,SF, D-I-M-E	\$ 5,618.00
59620	10" HORIZON,SG, D-I-M-E	\$ 5,618.00
5962066	10"HRZ,SG,D-I-M-E,TRL6,25'CC	\$ 5,783.00

10" Horizon Translator Registers

D35734610BF	10"HORZ.SG,TRL6,HRHP,FLO	\$ 1,038.00
D35734619	10"HORZ.SG,TRL6,+3%,HRLP 15'	\$ 273.00
D3573461B	10"HORZ.SG,TRL6,+3%,HRHP 25'	\$ 273.00
D35735610BF	10"HORIZ,CF,TRL6,HRHP 25'FLO	\$ 1,038.00
D35731618	10"HORIZON,SG,TRL6,W/25'CC	\$ 225.00
D35734610F	10"HORZ.SG,TRL6,FLO	\$ 923.00
D35734610G	10"HORIZ REG,SG,TRL,FT3	\$ 423.00
D35734614	10"HORIZON,SG,TRL6,+3%,25'PP	\$ 203.00
D35734618	10"HORIZON,SG,TRL6,+3%,W/25'CC	\$ 225.00
D35735610	10"HORIZ,CF,TRL6,+3%,W/25'	\$ 187.00
D35735610F	10"HORIZ,CF,TRL6,FLO	\$ 923.00
D35735618	10"HORIZ,CF,TRL6,+3%,W/25'CC	\$ 225.00

MCTII: Compound Replacement Parts
All Sizes: 2"-8"

Part Number	Description	Retail Price
19106	SMALL HOLDING RING	\$ 5.00
19210	O-RING #2-151 70 DURO EPDM	\$ 6.00
33170	MCT-II LOWER DRIVE ASSY	\$ 54.00
44681	2" TORR SPNDL PARTS FOR PO	\$ 170.00
44726	3 TORR INTER SPINDLE BALL	\$ 8.00
44780	3" MCT2 TOR. INT. ASY PLASTIC	\$ 424.00
44793	3 TORR SPINDLE PARTS FOR PO	\$ 405.00
44893	4 TORR SPINDLE PARTS FOR PO	\$ 451.00
44993	6 TORR SPINDLE PARTS FOR PO	\$ 686.00
50139	SM MAG LWR DR RET RING SST	\$ 2.00
51515	562 & 1" CHAMBER PIN 316SST	\$ 11.00
53816	2 CT CLAPPER RUBBER	\$ 12.00
53846	2 CT CASING GASKET-ACCOPAC	\$ 6.00
53850	3/4 TRIM VALVE ASSY	\$ 104.00
54346	3 CT CASE GSKT ACCOPAC CN-705	\$ 11.00
54366	3" CLAPPER RUBBER MODEL 72	\$ 19.00
54385	3/4 STOP&CHECK VALVE ASM-2&3CT	\$ 187.00
55346	4 CT CASE GSKT ACCOPAC CN-705	\$ 14.00
55350	1 TRIM VALVE ASSY	\$ 192.00
55366	4 CLAPPER RUBBER MODEL 72	\$ 34.00
55385	1 STP&CHECK VALVE ASM/4CT	\$ 252.00
56316	6 CT CLAPPER RUBBER	\$ 59.00
56346	6 CT CASE GSKT ACCOPAC CN-705	\$ 22.00
56350	1 1/2 TRIM VALVE ASSY	\$ 209.00
56385	1 1/2 STP&CHK VALVE ASSY-6CT	\$ 300.00
57105	8 TOR TOP CASE GSKT ACCOPAC	\$ 31.00
57316	8 CLAPPER RUBBER	\$ 107.00
57427	8FM-DC DOME RING GSKT-ACCOPAC	\$ 10.00
59046	TRAIN CAP GASKET-ACCOPAC	\$ 3.00
70034	4" MCTII ROLLER SPINDLE KIT	\$ 183.00
42710P034	3/4 MODEL 442 OUTLET PORT SEAL	\$ 2.17
42710P052	1" MODEL 452 OUTLET PORT SEAL	\$ 3.00
51038G165	442 DISC ASSEMBLY PLASTIC	\$ 105.00
51038G166	452 DISC ASSEMBLY	\$ 108.00
51038G186	562 DISC & PIN ASS'Y	\$ 112.00
51068P154	3/4 540 GASKET BUNA-N DURO 60	\$ 3.00
51068P155	1" MODEL 550 CASE GASKET	\$ 5.00
51068P174	1-1/2" 562 TOP CASE GSKT, F/MCT2	\$ 6.00
51103P012	THRUST ROLLER-3/4&1PLA INTER	\$ 1.29
51258G364	452 PLASTIC CHAMBER ASSY	\$ 246.00
51258G365	442 PLASTIC CHAMBER ASSY	\$ 227.00
51258G587	6" MCTII BP BRZ INTERIOR ASMB	\$ 442.00
51281G061	452 DRIVE MAGNET ASSY	\$ 42.00
51281G062	442 DRIVE MAGNET ASSY	\$ 48.00
51281G063	MAG HSNNG ASM 1" BRZ CHAM&1-1/2	\$ 52.00
51287P011	3/4&1" 442&452 PLA CHAM LOCKPIN	\$ 1.95
B7856	REGISTER MOUNTING KIT (PLAS)	\$ 29.00

B8633	2" MCT BP CVR GASKET 430II	\$ 16.00
C5690PO	5/8 430II CHAM ASY COMP PO	\$ 45.00
C6523	MFMII/MCTII GEAR TRAIN ADAPTOR	\$ 67.00
D353316	2" MCT ML CF REGISTER	\$ 41.00
D353216	2" MCT SG REGISTER	\$ 41.00
D35972	2" MCT, BP, 430II, CF, 363.6	\$ 41.00
D35971	2" MCT, BP, 430II, GAL, 486.1	\$ 41.00
D35339	3 MCT ML CF REGISTER	\$ 41.00
D353313	3" MCT BP CF REGISTER	\$ 41.00
D353213	3" MCT BP SG REGISTER	\$ 41.00
D35329	3" MCT ML SG REGISTER	\$ 41.00
D35322	4" MCT SG BP REGISTER	\$ 41.00
D35332	4" MCT BP CF REGISTER	\$ 41.00
D35338	6 X 3 MCT BP CF REGISTER	\$ 41.00
D35328	6 X 3 MCT BYPASS REGISTER	\$ 41.00
D35325	6 X 3 MCT SG REGISTER	\$ 41.00
D353315	6" MCT BP CF REGISTER	\$ 41.00
D353215	6" MCT BYPASS SG REGISTER	\$ 41.00
D35336	6" MCT ML CF REGISTER	\$ 41.00
D35326	6" MCT ML SG REGISTER	\$ 41.00
D35323	8 X 4 MCT SG BYPASS REGISTER	\$ 41.00
D35741	8" MCTII, ML, SG, REG. 194.5	\$ 41.00
D353319	8X4 MCT & 4 MCT CF REGISTER	\$ 41.00
D353219	8X4 MCT & 4MCT SG REGISTER	\$ 41.00
D35333	8X4 MCT BP CF REGISTER	\$ 41.00
D353210	10 X 6 MCT ML SG REGISTER	\$ 41.00
D353318	10X6 MCT BP CF REGISTER	\$ 41.00
D353310	10X6 MCT CF REGISTER	\$ 41.00

All MCTII Translator Registers

D353516513	2" MCT ML CF TRL5 25' REG	\$ 135.00
D353516514	2" MCT ML CF TRL5 25' PIT REG	\$ 151.00
D353516540G	2" MCT ML CF TRL5 25' W FT1	\$ 423.00
D353516540F	2" MCT ML CF TRL5 FLO	\$ 923.00
D353416518	2" MCT ML SG TRL5 25' CC	\$ 172.00
D353416513	2" MCT ML SG TRL5 25' REG	\$ 135.00
D353416514	2" MCT ML SG TRL5 25' PIT REG	\$ 151.00
D353416540F	2" MCT ML SG TRL5 FLO	\$ 923.00
D35341651B	2" MCT ML SG TRL5 HRHP 25'	\$ 221.00
D353416618	2" MCT ML SG TRL5/6 25' CC	\$ 172.00
D35341661B	2" MCT ML SG TRL5/6 HRHP 25'	\$ 221.00
D353416619	2" MCT ML SG TRL5/6 HRLP 15'	\$ 221.00
D35341661C	2" MCT ML SG TRL5/6 I-HRLP	\$ 230.00
D35351651B	2" MCT ML CF TRL5 HRHP 25'	\$ 221.00
D353516519	2" MCT ML CF TRL5 HRLP 15'	\$ 221.00
D353516618	2" MCT ML CF TRL5/6 25' CC	\$ 172.00
D353516613	2" MCT ML CF TRL5/6 25' REG	\$ 135.00
D36062440G	2" MCT, BP, 430, CF, TRL4, 25' W FT1	\$ 423.00
D36062413	2" MCT, BP, 430II, CF, TRL4, 25'	\$ 135.00
D36062414	2" MCT, BP, 430II, CF, TRL4, 25' PIT	\$ 148.00
D36062613	2" MCT, BP, 430II, CF, TRL6, 25'	\$ 135.00
D36061418	2" MCT, BP, 430II, GAL, TRL4, 25' CON	\$ 150.00
D3606141B	2" MCT, BP, 430II, GAL, TRL4, HRHP	\$ 221.00

D36061414	2" MCT, BP, 430II, GAL, TRL4, PIT	\$ 151.00
D36061618	2" MCT, BP, 430II, GAL, TRL6, 25' CC	\$ 172.00
D353416613	2" MCT2 ML SG TRL6 25' W	\$ 135.00
D353513413	3" MCT BP CF TRL4 25' REG	\$ 135.00
D353513414	3" MCT BP CF TRL4 25' PIT REG	\$ 151.00
D353513440F	3" MCT BP CF TRL4 FLO	\$ 923.00
D353513613	3" MCT BP CF TRL4/6 25' REG	\$ 135.00
D353413413	3" MCT BP SG TRL4 25' REG	\$ 135.00
D353413418	3" MCT BP SG TRL4 25' CC	\$ 172.00
D353413414	3" MCT BP SG TRL4 25' PIT REG	\$ 151.00
D353413440F	3" MCT BP SG TRL4 FLO	\$ 923.00
D353413618	3" MCT BP SG TRL4/6 25' CC	\$ 172.00
D353413613	3" MCT BP SG TRL4/6 25' REG	\$ 135.00
D353509513	3" MCT ML CF TRL5 25' REG	\$ 135.00
D353509518	3" MCT ML CF TRL5 25' C CONNECT	\$ 172.00
D353509514	3" MCT ML CF TRL5 25' PIT REG	\$ 151.00
D353509540F	3" MCT ML CF TRL5 FLO	\$ 923.00
D353509613	3" MCT ML CF TRL5/6 25' REG	\$ 135.00
D356009513	3" MCT ML CF TRL5-10% 25' REG	\$ 135.00
D35600951B	3" MCT ML CF TRL5-10% HRHP 25'	\$ 221.00
D353409513	3" MCT ML SG TRL5 25' 192.64	\$ 135.00
D353409518	3" MCT ML SG TRL5 25' CC 192.64	\$ 172.00
D353409514	3" MCT ML SG TRL5 25' PIT REG	\$ 151.00
D353409540F	3" MCT ML SG TRL5 FLO 192.64	\$ 923.00
D353409519	3" MCT ML SG TRL5 HRLP 15'	\$ 221.00
D355909514	3" MCT ML SG TRL5, -10% 25' PIT	\$ 151.00
D353409613	3" MCT ML SG TRL5/6 25' 192.64	\$ 135.00
D353409618	3" MCT ML SG TRL5/6 25' CC	\$ 172.00
D353413419	3" MCT SG TRL4 HRLP 15'	\$ 221.00
D35351341B	3" MCT BP CF TRL4 HRHP 25'	\$ 221.00
D353513419	3" MCT BP CF TRL4 HRLP 15'	\$ 221.00
D353513618	3" MCT BP CF TRL4/6 25' CC	\$ 172.00
D353513618E	3" MCT BP CF TRL4/6 25' CC 60W	\$ 302.00
D353513614	3" MCT BP CF TRL4/6 25' PP	\$ 151.00
D35351361B	3" MCT BP CF TRL4/6 HRHP 25'	\$ 221.00
D353513718	3" MCT BP CF TRL4/PRG6 25' CC	\$ 172.00
D35341341B	3" MCT BP SG TRL4 25' HRHP REG	\$ 221.00
D355913413	3" MCT BP, SG, TRL4, 25', -10%	\$ 135.00
D353413614	3" MCT BP, SG, TRL4/6, 25' PIT	\$ 151.00
D35350951B	3" MCT ML CF TRL5 HRHP 25'	\$ 221.00
D353509519	3" MCT ML CF TRL5 HRLP 15'	\$ 221.00
D353509618	3" MCT ML CF TRL5/6 25' CC	\$ 172.00
D353509618E	3" MCT ML CF TRL5/6 25' CC 60W	\$ 302.00
D353509614	3" MCT ML CF TRL5/6 25' PP	\$ 151.00
D35350961B	3" MCT ML CF TRL5/6 HRHP 25'	\$ 221.00
D353509818	3" MCT ML CF TRL5/PRG6 25' CC	\$ 172.00
D356109518	3" MCT ML SG TRL5 25' CC +10%	\$ 172.00
D35340951B	3" MCT ML SG TRL5 25' HRHP 192.64	\$ 221.00
D356109618	3" MCT ML SG TRL6 25' CC +10%	\$ 172.00
D356109513	3" MCT ML, SG, TRL5, 25' WIRE, +10%	\$ 135.00
D353409614	3" MCT ML, SG, TRL5/6, 25' PIT	\$ 151.00
D356113414	3" MCT, BP, SG, TRL4, +10%, 25' PP	\$ 151.00

D356113413	3" MCT, BP, SG, TRL4, 25' WIRE, +10%	\$ 135.00
D35341361B	3" MCT, BP, SG, TRL4/6, HRHP	\$ 221.00
D355909513	3" MCT, ML, SG, TRL5, -10% 25' WIRE	\$ 135.00
D353409640G	3" MCT, ML, SG, TRL5/6, FT1	\$ 423.00
D35340961B	3" MCT, ML, SG, TRL5/6, HRHP	\$ 221.00
D353409640F	3" MCT, ML, SG, TRL6, FLO	\$ 923.00
D353413640G	3" MCTII, BP SG TRL4/6 FT1	\$ 423.00
D353413640F	3" MCTII, BP SG TRL6 FLO	\$ 923.00
D353502413	4" MCT BP CF TRL4 25' REG	\$ 135.00
D353502418	4" MCT BP CF TRL4 25' C CONNECT	\$ 172.00
D353502414	4" MCT BP CF TRL4 25' PIT REG	\$ 151.00
D353502440F	4" MCT BP CF TRL4 FLO	\$ 923.00
D353402413	4" MCT BP SG TRL4 25' REG	\$ 135.00
D353402414	4" MCT BP SG TRL4 25' PIT REG	\$ 151.00
D353402440F	4" MCT BP SG TRL4 FLO	\$ 923.00
D353402440G	4" MCT BP SG TRL4 FT1	\$ 423.00
D353402418	4" MCT BP SG TRL4 W/25' CC	\$ 172.00
D353402613	4" MCT BP SG TRL4/6 25' REG	\$ 135.00
D353402640F	4" MCT BP SG TRL4/6 FLO	\$ 923.00
D353402618	4" MCT BP SG TRL4/6 W/25' CC	\$ 172.00
D353402614	4" MCT BP SG TRL6 25' PP REG	\$ 151.00
D353414540F	4" X 2" MCT ML SG TRL5 FLO	\$ 923.00
D353414513	4" X 2" MCT SG TRL5 25' REG	\$ 135.00
D35350241B	4" MCT BP CF TRL4 HRHP 25'	\$ 221.00
D353502419	4" MCT BP CF TRL4 HRLP 15'	\$ 221.00
D353502618	4" MCT BP CF TRL4/6 25' CC	\$ 172.00
D353502440G	4" MCT BP CF TRL4/6 25' W FT1	\$ 423.00
D355902413	4" MCT BP, SG, TRL4, 25', -10%	\$ 135.00
D356102413	4" MCT, BP, SG, TRL4, 25', +10%	\$ 135.00
D35340241B	4" MCT, BP, SG, TRL4, 25' HRHP	\$ 221.00
D355902414	4" MCT, BP, SG, TRL4/6, -10%, 25' PP	\$ 151.00
D35340261B	4" MCT, BP, SG, TRL4/6, HRHP	\$ 221.00
D353514613	4" X 2" MCT CF TRL5 25' REG	\$ 135.00
D353514518	4" X 2" MCT CF TRL5 25' CC	\$ 172.00
D353514514	4" X 2" MCT CF TRL5 25' PIT REG	\$ 151.00
D353514513	4" X 2" MCT CF TRL5 25' REG	\$ 135.00
D353514540F	4" X 2" MCT ML CF TRL5 FLO	\$ 923.00
D353414514	4" X 2" MCT SG TRL5 25' PIT REG	\$ 151.00
D35350261B	4MCT CF BP TRL4/6 REG HRHP 25'	\$ 221.00
D355914613	4X2MCT, ML, SG, TRL5/6, -10%, 25'	\$ 135.00
D353515518	6" MCT BP CF TRL5 25' CCON	\$ 172.00
D353515513	6" MCT BP CF TRL5 25' REG	\$ 135.00
D353515514	6" MCT BP CF TRL5 25' PIT REG	\$ 151.00
D353515540F	6" MCT BP CF TRL5 FLO	\$ 923.00
D353515618	6" MCT BP CF TRL5/6 25' CC	\$ 172.00
D353515613	6" MCT BP CF TRL5/6 25' REG	\$ 135.00
D353415513	6" MCT BP SG TRL5 25' REG	\$ 135.00
D353415514	6" MCT BP SG TRL5 25' PIT REG	\$ 151.00
D353415540F	6" MCT BP SG TRL5 FLO	\$ 923.00
D35341551B	6" MCT BP SG TRL5 HRHP 25'	\$ 221.00
D353415618	6" MCT BP SG TRL5/6 25' CC	\$ 172.00
D35341561B	6" MCT BP SG TRL5/6 HRHP 25'	\$ 221.00

D353506618	6" MCT ML CF TRL6 25' CCON	\$ 172.00
D353506613	6" MCT ML CF TRL6 25' REG	\$ 135.00
D356006618	6" MCT ML CF TRL6 25'CC -10%	\$ 172.00
D353506614	6" MCT ML CF TRL6 25'PIT REG	\$ 151.00
D353506640F	6" MCT ML CF TRL6 FLO	\$ 923.00
D356106613	6" MCT ML SG TRL6 25' +10%	\$ 135.00
D353406613	6" MCT ML SG TRL6 25' REG	\$ 135.00
D353406640F	6" MCT ML SG TRL6 FLO	\$ 923.00
D353406640G	6" MCT ML SG TRL6 FT1	\$ 432.00
D353406618	6" MCT ML SG TRL6 REG,25'CC	\$ 172.00
D353506640G	6" MCTII ML CF TRL6 FT1 REG	\$ 423.00
D353508413	6" X 3" MCT BP CF TRL4 25' REG	\$ 135.00
D353508418	6" X 3" MCT BP CF TRL4 25'CC	\$ 172.00
D353508440F	6" X 3" MCT BP CF TRL4 FLO	\$ 923.00
D353408413	6" X 3" MCT BP SG TRL4 25' REG	\$ 135.00
D353408440F	6" X 3" MCT BP SG TRL4 FLO	\$ 923.00
D353505513	6" X 3" MCT CF TRL5 25' REG	\$ 135.00
D353505518	6" X 3" MCT CF TRL5 25'CC	\$ 172.00
D353505540F	6" X 3" MCT CF TRL5 FLO	\$ 923.00
D353405513	6" X 3" MCT SG TRL5 25' REG	\$ 135.00
D353405540F	6" X 3" MCT SG TRL5 FLO	\$ 923.00
D353405613	6" X 3" MCT SG TRL5/6 25'WIRE	\$ 135.00
D35351551B	6" MCT BP CF TRL5 HRHP 25'	\$ 221.00
D353515519	6" MCT BP CF TRL5 HRLP 15'	\$ 221.00
D353415518	6" MCT BP SG TRL5 25'CC	\$ 172.00
D353415540G	6" MCT BP SG TRL5 FT1	\$ 432.00
D353515614	6" MCT BP,CF,TRL5/6,25'PIT	\$ 151.00
D356115513	6" MCT BP,SG,TRL5,25',+10%	\$ 135.00
D355915513	6" MCT BP,SG,TRL5,25',-10%	\$ 135.00
D353415614	6" MCT BP,SG,TRL5/6,25'PIT	\$ 151.00
D353415613	6" MCT BP,SG,TRL5/6,25'REG	\$ 135.00
D355915613	6" MCT BP,SG,TRL6,25'W	\$ 135.00
D35350661B	6" MCT ML CF TRL6 HRHP 25'	\$ 221.00
D353506619	6" MCT ML CF TRL6 HRLP 15'	\$ 221.00
D353406614	6" MCT ML SG TRL6 25'PIT REG	\$ 151.00
D355906613	6" MCT ML,SG,TRL6,25',-10%	\$ 135.00
D353515540G	6" MCTII BP CF TRL5 FT1 REG	\$ 423.00
D353408419	6" X 3" MCT BP SG TRL4 HRLP 15'	\$ 221.00
D353508440G	6" X 3" MCT,BP,CF,TRL4,FT1	\$ 423.00
D353505540G	6" X 3" MCT,ML,CF,TRL5,FT1	\$ 423.00
D35350841B	6" X 3" MCT BP CF TRL4 25'HRHP	\$ 221.00
D35350551B	6" X 3" MCT CF TRL5 25' HRHP	\$ 221.00
D353508414	6" X 3" MCT BP CF TRL4 25'PIT REG	\$ 151.00
D353408414	6" X 3" MCT BP SG TRL4 25'PIT REG	\$ 151.00
D353505514	6" X 3" MCT CF TRL5 25'PIT REG	\$ 151.00
D353405514	6" X 3" MCT SG TRL5 25'PIT REG	\$ 151.00
D356108413	6" X 3" MCT,BP,SG,TRL4,25',+10%	\$ 135.00
D356105513	6" X 3" MCT,ML,SG,TRL5,25',+10%	\$ 135.00
D353408418	6X3 MCT BP SG TRL4 25'CC REG	\$ 172.00
D353408618	6X3 MCT BP SG TRL4/6 25'CC REG	\$ 172.00
D353408614	6X3 MCT BP,SG,TRL4/6,25'PITREG	\$ 151.00
D353405518	6X3 MCT ML SG TRL5 25'CC	\$ 172.00

D353405618	6X3 MCT ML SG TRL5/6 25'CC	\$ 172.00
D353405614	6X3 MCT ML,SG,TRL5/6,25'PIT	\$ 151.00
D353508613	6X3" MCT BP CF TRL4/6 W/25'REG	\$ 135.00
D35340861M	6X3" MCT BP SG TRL4/6 25'NODE	\$ 340.00
D353408613	6X3" MCT BP SG TRL4/6 25'WIRE	\$ 135.00
D35340561M	6X3" MCT SG TRL5/6 25'NODE REG	\$ 340.00
D35340861B	6X3" MCT BP SG TRL4/6 25'W HRHP	\$ 221.00
D355908413	6X3" MCT BP,SG,TRL4,25',-10%	\$ 135.00
D353505614	6X3" MCT ML CF TRL5/6 25'PITREG	\$ 151.00
D353505613	6X3" MCT ML CF TRL5/6 W/25'REG	\$ 135.00
D353508618	6X3" MCT,BP,CF,TRL4/6,25'CC	\$ 172.00
D353505618	6X3" MCT,ML,CF,TRL5/6,25'CC	\$ 172.00
D353508614	6X3 MCT BP CF TRL4/6 25'PIT REG	\$ 151.00
D355905519	6X3 MCT ML SG TRL5 HRLP 15'-10%	\$ 221.00
D356005514	6X3 MCT ML,CF,TRL5,-10%,W/25'PD	\$ 151.00
D355905513	6X3 MCT ML,SG,TRL5,25'-10%	\$ 135.00
D356208414	6X3 MCT,BP,CF,TRL4,25'PIT +10%	\$ 151.00
D353503413	8" X 4" MCT BP CF TRL4 25' REG	\$ 135.00
D353503440F	8" X 4" MCT BP CF TRL4 FLO	\$ 923.00
D353403413	8" X 4" MCT BP SG TRL4 25' REG	\$ 135.00
D353403440F	8" X 4" MCT BP SG TRL4 FLO	\$ 923.00
D353520613	8" MCT ML CF TRL6 25' REG	\$ 135.00
D353520640F	8" MCT ML CF TRL6 FLO	\$ 923.00
D353520614	8" MCT ML CF TRL6 W/25'PITPAD	\$ 151.00
D353420613	8" MCT ML SG TRL6 25'W	\$ 135.00
D353420640F	8" MCT ML SG TRL6 FLO	\$ 923.00
D356119613	8" X 4" MCT SG TRL6 25' REG +10%	\$ 135.00
D353503418	8" X 4" MCT BP CF TRL4 25'C CONN	\$ 172.00
D353503414	8" X 4" MCT BP CF TRL4 25'PIT REG	\$ 151.00
D353403414	8" X 4" MCT BP SG TRL4 25'PIT REG	\$ 151.00
D35351961B	8" X 4" MCT CF ML TRL6 HRHP 25'	\$ 221.00
D353519614	8" X 4" MCT CF TRL6 25'PIT REG	\$ 151.00
D353519613	8" X 4" MCT CF TRL6 25' REG	\$ 135.00
D353519619	8" X 4" MCT CF TRL6 HRLP 15'	\$ 221.00
D353519618	8" X 4" MCT ML CF TRL6 25'C CONN	\$ 172.00
D353519640F	8" X 4" MCT ML CF TRL6 FLO	\$ 923.00
D353419640F	8" X 4" MCT ML SG TRL6 FLO	\$ 923.00
D353419640G	8" X 4" MCT ML SG TRL6 FT1	\$ 423.00
D35341961M	8" X 4" MCT SG TRL6 25'NODE REG	\$ 340.00
D353419614	8" X 4" MCT SG TRL6 25'PIT REG	\$ 151.00
D353419613	8" X 4" MCT SG TRL6 25' REG	\$ 135.00
D353403613	8X4 MCT BP SG TRL4/6 25' REG	\$ 135.00
D35340361B	8X4 MCT BP SG TRL4/6 25'HRHP	\$ 221.00
D35340361M	8X4 MCT BP SG TRL4/6 25'NODEREG	\$ 340.00
D356019613	8X4 MCT,CF,TRL6,-25',-10% REG	\$ 135.00
D356019614	8X4 MCT,CF,TRL6,25'PIT,-10%	\$ 151.00
D353403418	8X4 MCT2 BP SG TRL4 25'C CONN	\$ 172.00
D353419618	8X4 MCT2 ML SG TRL6 25'C CONN	\$ 172.00
D35341961B	8X4 MCT2 ML SG TRL6 HRHP	\$ 221.00
D353503613	8X4" MCT BP CF TRL4/6 25' REG	\$ 135.00
D353403614	8X4" MCT BP SG TRL4/6 25'PITREG	\$ 151.00
D353403640G	8X4" MCT BP SG TRL6 FT1	\$ 423.00

D355903413	8X4"MCT BP,SG,TRL4,25',-10%	\$ 135.00
D353519640G	8X4"MCT ML CF TRL6 25'W FT1	\$ 423.00
D356103413	8X4"MCT,BP,SG,TRL4,25',+10%	\$ 135.00
D356119614	8X4"MCT,SG,TRL6,25'PP,+10%,REG	\$ 151.00
D353503614	8X4MCT BP CF TRL4/6 25'PIT REG	\$ 151.00
D355903419	8X4MCT BP SG TRL4 HRLP 15'+10%	\$ 221.00
D355919613	8X4MCT ML SG TRL6 25'W-10% REG	\$ 135.00
D356119619	8X4MCT ML SG TRL6 HRLP 15'+10%	\$ 221.00
D356019414	8X4MCT,CF,TRL6.25'PIT -10%	\$ 151.00
D353510613	10" X 6" MCT CF TRL6 25' REG	\$ 135.00
D353510640F	10" X 6" MCT ML CF TRL6 FLO	\$ 923.00
D353410640F	10" X 6" MCT ML SG TRL6 FLO	\$ 923.00
D353410613	10" X 6" MCT SG TRL6 25' REG	\$ 135.00
D353518513	10" X 6"MCT BP CF TRL5 25' REG	\$ 135.00
D353518540F	10" X 6"MCT BP CF TRL5 FLO	\$ 923.00
D353418513	10" X 6"MCT BP SG TRL5 25' REG	\$ 135.00
D353418540F	10" X 6"MCT BP SG TRL5 FLO	\$ 923.00
D353518640F	10"X 6"MCT BP CF TRL6 FLO	\$ 923.00
D353418618	10"X 6"MCT BP SG TRL5/6 25'CC	\$ 172.00
D353418613	10"X 6"MCT BP SG TRL5/6 25'REG	\$ 135.00
D35341061M	10"X6" MCT SG TRL6 25'NODE REG	\$ 340.00
D353510614	10"X6"MCT CF TRL6 25'PIT REG	\$ 151.00
D353410614	10"X6"MCT SG TRL6 25'PIT REG	\$ 151.00
D356118513	10"X6"MCT,BP,SG,TRL5,25',+10%	\$ 135.00
D35341861B	10"X6"MCT,BP,SG,TRL6,HRHP	\$ 221.00
D356110613	10"X6"MCT,ML,SG,TRL6,25',+10%	\$ 135.00
D35341061B	10"X6"MCT,ML,SG,TRL6,HRHP	\$ 221.00
D353418514	10"X6MCT BP SG TRL5 25'PIT REG	\$ 151.00
D35341064BF	10X6 FMMCT ML SG TRL6 HRHP FLO	\$ 1,038.00
D353518618	10X6 MCT BP CF TRL5/6 25'CC	\$ 172.00
D353518613	10X6 MCT BP CF TRL5/6 25'WIRE	\$ 135.00
D353418518	10X6 MCT BP SG TRL5 25' C-CONN	\$ 172.00
D353418648F	10X6 MCT BP SG TRL6 25'CC FLO	\$ 961.00
D35341864BF	10X6 MCT BP SG TRL6 HRHP FLO	\$ 1,038.00
D353410648F	10X6 MCT ML SG TRL6 25'CC FLO	\$ 961.00
D353410618	10X6 MCT ML SG TRL6 25'C-CONN	\$ 172.00
D353518514	10X6"MCT BP CF TRL5 25'PIT REG	\$ 151.00
D355918513	10X6"MCT BP,SG,TRL5,25',-10%	\$ 135.00
D355910613	10X6"MCT ML,SG,TRL6,25',-10%	\$ 135.00
D35341851B	10X6"MCT,BP,SG,TRL5,HRHP	\$ 221.00
D35341861M	10X6MCT BP SG TRL5/6 25'NODERG	\$ 340.00

RFM: Residential Fire Meter

RFM 30: 3/4" Residential Fire Meter

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50365	MVR 30 MOLDED LINER-EPDM	\$ 7.00
50374	MVR 30 INLET HUB BUSHING	\$ 8.00
50466	MVR 30 TC MACH.W/SAPPHIRE	\$ 121.00

50471	MVR 30 30A 30B ROTOR ASSY	\$ 32.00
50480	MVR 30 RING STRAINER	\$ 18.00
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
90010	5/16-18X1 1/8 CAP SCRW-18-8SST	\$ 2.00
95038	3/4 RUBBER CONN.WASHER MUEL.#	\$ 0.57
95046	MVR 30A-3/4 SPUD BUSH W/WASHER	\$ 38.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
AS7792	FLAT WASHER .312	\$ 2.00
B8602FS	MVR-FS TRANS CLAMP BAND MACH.	\$ 7.00

3/4" RFM 30 Translator Registers

D35232403FS	MVR30,FS,CF,TRL4,5'WIRE,546.34	\$ 172.00
D352324604FS	MVR30 CF TRL4/6 536.22 5'PP FS	\$ 173.00

RFM 50: 1" Residential Fire Meter

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
50571	MVR 50&50A ROTOR ASSY	\$ 62.00
50574	MVR 50,50A&100 INLET HUB BUSH	\$ 7.00
50580	MVR 50 RING STRAINER	\$ 25.00
90010	5/16-18X1 1/8 CAP SCRW-18-8SST	\$ 2.00
95063	MVR 50-1 SPUD BUSHING	\$ 44.00
95064	MVR 30B&50 SPUD BUSH WASHER	\$ 4.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
AS7792	FLAT WASHER .312	\$ 2.00
B7646	5/8" 430II LINER	\$ 1.19
B7647	5/8 ND,MVR50 FS,METER GASKET	\$ 0.86
B79866FS	MVR 50 REGISTER SF 256.52 FS	\$ 95.00
B8602FS	MVR-FS TRANS CLAMP BAND MACH.	\$ 7.00

1" RFM 50 Translator Registers

D352424403FS	MVR 50 CF TRL4 262.07 5'W FS	\$ 172.00
D352424604FS	MVR 50 CF TRL4/6 262.07 PIT FS	\$ 173.00
D352424605FS	MVR50,CFTRL4/6,262.07,18"NICFS	\$ 193.00

RFM 100: 1-1/2" Residential Fire Meter

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50493	MVR30,50,100 PLUG ASM INDUST.	\$ 21.00
50574	MVR 50,50A&100 INLET HUB BUSH	\$ 7.00
50771	MVR 100 ROTOR ASSY	\$ 93.00
50780	MVR 100 RING STRAINER	\$ 52.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
95095	MVR 100-1 1/2 SPUD BUSHING	\$ 111.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98378	3/8 FLAT WASHER 18-8 SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
B8602FS	MVR-FS TRANS CLAMP BAND MACH.	\$ 7.00

RFM 160: 2" Residential Fire Meter

Part Number	Description	Retail Price
19945	REG SEAL SCREW #8-32X27/32 LG	\$ 9.00
19999	#8-32 HEX NUT-303 SST	\$ 0.52
50867	MVR 160 INLET HUB	\$ 9.00
50871	MVR 160 & 2 MHR ROTOR ASSY	\$ 108.00
50880	MVR 160 RING STRAINER-SST	\$ 35.00
53105	MVR 160 & 2 MHR PLUG & BEARING	\$ 33.00
53114	2 MHR ROTOR BUSHING SPACER	\$ 7.00
54915	BUSH 3/16ID X 1/2OD X 5/16LONG	\$ 13.00
90073	3/8-16X1-1/8 HX BOLT-304 SST	\$ 1.45
95195	MVR 160-2 SPUD BUSHING	\$ 118.00
98371	5/32X1/16TK SAPPHIRE CUP JEWEL	\$ 11.00
98378	3/8 FLAT WASHER 18-8 SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
B79944FS	MVR 160 REGISTER CF 587.03 FS	\$ 95.00
B8602FS	MVR-FS TRANS CLAMP BAND MACH.	\$ 7.00
C5488	GASKET 3/4	\$ 0.86
C5491	LINER 3/4 METER	\$ 1.52
2" RFM 160 Translators		
D352614500FS	MVR160 FS SG TRL5 784.64 REG	\$ 164.00
D352625605FS	MVR160,CF,TRL6,580.58,18"NICOR	\$ 193.00

HM: Fire Hydrant Meter

Size: 3"

Part Number	Description	Retail Price
50382	REGISTER RING PVC SPACER	\$ 3.00
50386	BRONZE REG HOUSING HORIZON	\$ 26.00
50387	BRZ REGISTER DEEP LID MACH	\$ 17.00
54014	2.5 MPT X 2.5 FEM HOSE SW ADP	\$ 253.00
54015	2.5 MPT X 2.5 HOSE HPT	\$ 220.00
54602	O-RING 3&4 HORIZON TURBINE	\$ 1.83
98155	#10 SPLIT LOCKWASHER SST	\$ 0.10
98475	10-24X1/2 SOCKET HD CAP SCREW	\$ 0.12
A126581	LOCKING PIN BRASS COLOR	\$ 0.48
as41123	SPIROL PIN, BRONZE LID	\$ 0.50
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C6598A	3"MEAS.ELEMENT HYDRANT MTR	\$ 270.00
D36211	3"HYDRANT,REG,STD,GAL,45.8	\$ 95.00
D36212	3"HYDRANT,REG,STD,CF,34.43	\$ 95.00
5462H	3"HYDRANT MTR,SG, D-I-M-E	\$ 572.00

FM³: Fire Service Meter

Size: 3" FM³ Fire Service Meter

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00

50382	REGISTER RING PVC SPACER	\$ 3.00
54602	O-RING 3&4 HORIZON TURBINE	\$ 1.83
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
90241	5/8-11X1-3/4 HEXBLT 304SS	\$ 4.00
90256	5/8-11X2-3/4 HX BOLT-304 SST	\$ 5.00
95033	3/4" STD CONNECTION NUT	\$ 22.00
95038	3/4 RUBBER CONN.WASHER MUEL.#	\$ 0.57
96092	1 SWING CHECK VALVE	\$ 109.00
9606F	1X2 BRASS SPACE NIPPLE	\$ 10.00
A12658	LOCKING PIN BLUE	\$ 0.50
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS7633	5/8-11" HEX NUT 304	\$ 0.61
B8638	TRANSLATOR LID	\$ 1.27
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C6598	3" & 4" HM/FM3 MEAS ELEMENT	\$ 270.00
D36621	3" FM3 SG STD REG	\$ 95.00
D36622	3" FM3 CF STD REG	\$ 95.00

Size: 4" FM³ Fire Service Meter

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
54602	O-RING 3&4 HORIZON TURBINE	\$ 1.83
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90065	3/8-16 X 1 HEX HD BOLT-304 SST	\$ 2.17
90241	5/8-11X1-3/4 HEXBLT 304SS	\$ 4.00
90256	5/8-11X2-3/4 HX BOLT-304 SST	\$ 5.00
95057	1" RUBBER CONN.WASHER MUEL.#	\$ 0.67
95058	1" STD CONNECTION NUT	\$ 31.00
95062	1 SHORT RIB TLPC 2-7/32 LONG	\$ 59.00
96092	1 SWING CHECK VALVE	\$ 109.00
9606F	1X2 BRASS SPACE NIPPLE	\$ 10.00
A12658	LOCKING PIN BLUE	\$ 0.50
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS7612	4" EDC4 O-RING	\$ 4.00
AS7633	5/8-11" HEX NUT 304	\$ 0.61
B8638	TRANSLATOR LID	\$ 1.27
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
C6598	3" & 4" HM/FM3 MEAS ELEMENT	\$ 270.00
D36631	4" FM3 SG STD REG	\$ 95.00
D36632	4" FM3 CF STD REG	\$ 95.00

Size: 6" FM³ Fire Service Meter

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00

59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90180	1/2-13X1-1/4 HX HD SCR-304SST	\$ 4.00
90264	5/8-11X2-1/4 HEX BOLT-SST	\$ 6.00
90308	3/4-10X2-3/4 HX BOLT 304 SST	\$ 6.00
90335	3/4-10 HEX NUT-316 SST	\$ 4.00
96039	2" X 90 BRZ. ELBOW	\$ 61.00
A12658	LOCKING PIN BLUE	\$ 0.50
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS7613	6" EDC4 O-RING #2-374	\$ 4.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00
B8638	TRANSLATOR LID	\$ 1.27
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D36641	6"FM3 SG STD REG	\$ 95.00
D36642	6"FM3 CF STD REG	\$ 95.00

Sizes: 8" FM³ Fire Service Meter

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90243	5/8-11 X 2 HEX HD BOLT-304 SST	\$ 7.00
90264	5/8-11X2-1/4 HEX BOLT-SST	\$ 6.00
90311	3/4-10X3 1/2 HX BOLT 304 SST	\$ 6.00
96039	2" X 90 BRZ. ELBOW	\$ 61.00
96094	2 SWING CHECK VALVE	\$ 322.00
9619B	2X3-1/2 BRASS SPACE NIPPLE	\$ 27.00
A12658	LOCKING PIN BLUE	\$ 0.50
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS7614	8" EDC4 O-RING 2-381	\$ 11.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00
AS7732	EYE BOLT 3/4 THD 1-1/2 ID ZC	\$ 20.00
B8638	TRANSLATOR LID	\$ 1.27
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D36651	8"FM3 SG STD REG	\$ 95.00
D36652	8"FM3 CF STD REG	\$ 95.00
E20093	8"EDC4 CLAPPER ASSY	\$ 759.00

Size: 10" FM³ Fire Service Meter

Part Number	Description	Retail Price
50380	PLASTIC REG HOUSING HORIZON	\$ 17.00
50381	PLASTIC REG LID HORIZON	\$ 7.00
50382	REGISTER RING PVC SPACER	\$ 3.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90264	5/8-11X2-1/4 HEX BOLT-SST	\$ 6.00
96039	2" X 90 BRZ. ELBOW	\$ 61.00
96094	2 SWING CHECK VALVE	\$ 322.00
9607G	2X3 BRASS SPACE NIPPLE	\$ 26.00

9608C	2X6 BRASS SPACE NIPPLE	\$ 45.00
9609H	2X11-1/2 BRASS SPACE NIPPLE	\$ 96.00
A12658	LOCKING PIN BLUE	\$ 0.50
AS41122	SPIROL PIN, PLASTIC LID	\$ 0.50
AS7615	10" EDC4 O-RING	\$ 15.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00
AS7732	EYE BOLT 3/4 THD 1-1/2 ID ZC	\$ 20.00
B8638	TRANSLATOR LID	\$ 1.27
C5770	HOUSING INSERT IIS BLUE	\$ 2.00
D36661	10"FM3 SG STD REG	\$ 95.00
D36662	10"FM3 CF STD REG	\$ 95.00

MFMII: Fire Service Meter

Size: 4" MFMII Fire Service Meter

Part Number	Description	Retail Price
33170	MCT-II LOWER DRIVE ASSY	\$ 54.00
44626	2 IN TORRENT SPINDLE BALL	\$ 6.00
44632	2 IN TORRENT THRUST WASHER	\$ 9.00
44634	2" TORRENT WHEEL BUSHING PLAS.	\$ 77.00
44658	2 TORR INT ADJUSTING SCREW-SST	\$ 13.00
44663	2"TORR WHEEL&BUSH ASM-FM-PLAS	\$ 205.00
44667	SPINDLE-2" TORR-SST	\$ 64.00
44668	SPNDL HD 2" TORR.-SST	\$ 35.00
44669	2"TORRENT WHEEL FOR FM-PLASTIC	\$ 149.00
44672	DEFLEC/RECEPT UPPER HALF,2"MCT	\$ 5.00
44673	DEFLEC/RECEPT,LWR HALF,2MCT	\$ 25.00
44674	2"TOR INT PLASTIC STRAINER	\$ 6.00
44675	SPINDLE CAP-PLAS-2" TORR	\$ 4.00
44676	2" PLAS TOR. INTERIOR FOR FM	\$ 282.00
44681	2" TORR SPNDL PARTS FOR PO	\$ 170.00
50139	SM MAG LWR DR RET RING SST	\$ 2.00
53815	2 CT CLAPPER	\$ 67.00
53816	2 CT CLAPPER RUBBER	\$ 12.00
53817	2 CT CLAPPER DISC	\$ 22.00
53818	2 CT CLAPPER BOLT	\$ 29.00
54534	2 CHECK VALVE SWING ARM-BRZ	\$ 73.00
54538	2 CV HINGE SPINDLE BUSHING	\$ 11.00
54540	2 CV COVER-EPOXY	\$ 167.00
54549	2 OUTLET ELBOW-EPOXY	\$ 265.00
54552	2 CHECK VALVE HINGE PIN-SST	\$ 11.00
54558	2 INLET ELBOW-EPOXY	\$ 269.00
54563	2 CV RING GASKET ACCOPAC	\$ 2.17
55313	4 SWING ARM	\$ 310.00
55318	4 CLAPPER BOLT	\$ 34.00
55323	4" SWING ARM ROLLER WASHER	\$ 4.00
55325	4 CT WT & SWG ARM BUSH	\$ 14.00
55326	4" CT PIN CLIP 1000-50 SS2	\$ 3.00
55327	4FM/DC BISMUTH WEIGHT 22.0#	\$ 695.00
55345	4 SWING ARM ROLLER PIN-SST	\$ 13.00
55362	4 ROLLER & BUSH ASM-CHROMED	\$ 47.00

55365	4 CLAPPER MODEL 72	\$ 126.00
55366	4 CLAPPER RUBBER MODEL 72	\$ 34.00
55367	4 CLAPPER DISC MODEL 72	\$ 48.00
55379	4CT SWING ARM HNG SPDL-304 SST	\$ 29.00
55396	O-RING #2-111 70 DURO BUNA-N	\$ 1.12
55707	4 FM/DC/CV HINGE PIN BUSHING	\$ 25.00
55727	4FM&DC DOME RING GSKT-ACCOPAC	\$ 7.00
55746	4 FM BYPASS SUPPORT-EPOXY	\$ 104.00
55756	4FM M/L RING GSKT-ACCOPAC	\$ 5.00
55760	4 DC-FM DOME-EPOXY	\$ 164.00
55769	4 FM-DC UNTHREADED SEAT	\$ 128.00
55785	4"MFM-II MAIN-LINE TOP CASE	\$ 469.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59005	1/4 NPT SQ HD PIPE PLUG-CORED	\$ 7.00
59006	1/2 SQ HD PIPE PLUG BRZ-CORED	\$ 10.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
59051	2 FLANGE RING GASKET- ACCOPAC	\$ 1.74
59063	2 BLANK FLANGE-CI-EPOXY	\$ 94.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59145	1/4-20 STOP NUT NYLON-304 SST	\$ 0.58
59147	7/16-14 STOP NUT NYLON-304 SST	\$ 3.00
70104	4" MFMII OVERHAUL KIT #1	\$ 224.00
70204	4" MFMII OVERHAUL KIT #2	\$ 279.00
70304	4" MFM2,SPINDLE KIT	\$ 106.00
70604	4"MFMII,SST.BLT,BRZ.NUT,KIT	\$ 137.00
90132	5/8-11X2 HX BOLT STL ZC	\$ 1.95
90135	5/8-11X2-3/4 HX BOLT STL ZC	\$ 2.00
90151	1/2-13 HEX NUT STL ZINC CHROM	\$ 0.41
90159	1/2-13 SEMI-FIN HX NUT-SIL BRZ	\$ 2.17
90180	1/2-13X1-1/4 HX HD SCR-304SST	\$ 4.00
90189	1/2-13X2" HEX HD BOLT-302 SST	\$ 3.00
90251	5/8-11 FLAT HX NUT-STL ZC	\$ 0.58
95123	2 FLANGE GASKET 2 BOLT-ACCOPAC	\$ 1.95
96206	2 OS&Y GATE VALVE FLANGED CI	\$ 590.00
98032	#8-32NC-2 FLT HEX NUT-304 SST	\$ 0.13
98033	5/16-18 HEX JAM NUT-316 SST	\$ 0.54
98177	6-32X3/4SLTD FIL SCRW 316 SST	\$ 0.95
98379	8-32X11/2SLT FIL HD SCR-304SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
99920	6-32X5/16SET SCR-CUP PT-304SST	\$ 0.52
54590E	2 CV ASM SSTB/BRZN,EPOXY	\$ 804.00
D353217	4X2 MFM ML SG REGISTER	\$ 41.00
D353317	4X2 MFM ML CF REGISTER	\$ 41.00
4" MFMII Translator Registers (for bypass Translator Registers, see MVR 160 or 2" MCTII)		
D35341760B	4" X 2" FM ML SG TRL6 HRHP 3'	\$ 221.00
D353417613	4" X 2" FM ML SG TRL6 25' REG	\$ 135.00
D353417614	4"X2"FM ML SG TRL6 25'PIT REG	\$ 151.00
D353417618	4" X 2" FM ML GAL TRL6 25'CC	\$ 172.00
D353417640F	4" X 2" FM ML SG TRL6 FLO	\$ 923.00
D353417640G	4" X 2" FM ML SG TRL6 FT1	\$ 423.00
D35341764BF	4X2 FM ML SG TRL6 HRHP FLO	\$ 1,038.00
D353517613	4" X 2" FM ML CF TRL6 25' REG	\$ 135.00

D353517614	4"X2"FM ML CF TRL6 25'PIT REG	\$ 151.00
D353517618	4" X 2" FM ML CF TRL6 25' CC	\$ 172.00
D353517640F	4" X 2" MFM ML CF TRL6 FLO	\$ 923.00
D355917613	4"X 2"FM ML SG TRL6 25',-10%	\$ 135.00
D355917614	4"X2"FM ML GAL-10% TRL6 PITPAD	\$ 151.00
D356017613	4X2" FM ML CF TRL6, -10%	\$ 135.00

Size: 6" MFMII Fire Service Meter

Part Number	Description	Retail Price
33170	MCT-II LOWER DRIVE ASSY	\$ 54.00
44626	2 IN TORRENT SPINDLE BALL	\$ 6.00
44632	2 IN TORRENT THRUST WASHER	\$ 9.00
44634	2" TORRENT WHEEL BUSHING PLAS.	\$ 77.00
44658	2 TORR INT ADJUSTING SCREW-SST	\$ 13.00
44663	2"TORR WHEEL&BUSH ASM-FM-PLAS	\$ 205.00
44667	SPINDLE-2" TORR-SST	\$ 64.00
44668	SPNDL HD 2" TORR.-SST	\$ 35.00
44669	2"TORRENT WHEEL FOR FM-PLASTIC	\$ 149.00
44672	DEFLEC/RECEPT UPPER HALF,2"MCT	\$ 5.00
44673	DEFLEC/RECEPT,LWR HALF,2MCT	\$ 25.00
44674	2"TOR INT PLASTIC STRAINER	\$ 6.00
44675	SPINDLE CAP-PLAS-2" TORR	\$ 4.00
44676	2" PLAS TOR. INTERIOR FOR FM	\$ 282.00
44681	2" TORR SPNDL PARTS FOR PO	\$ 170.00
50139	SM MAG LWR DR RET RING SST	\$ 2.00
54318	3"CLAPPER BOLT NO HOLE	\$ 29.00
54365	3"CLAPPER MODEL 72	\$ 86.00
54366	3"CLAPPER RUBBER MODEL 72	\$ 19.00
54367	3 CLAPPER DISC MODEL 72	\$ 30.00
56313	6 CT SWING ARM	\$ 641.00
56315	6 CT SWING ARM CLAPPER	\$ 197.00
56316	6 CT CLAPPER RUBBER	\$ 59.00
56317	6 CT CLAPPER DISC	\$ 97.00
56318	6 CLAPPER BOLT	\$ 89.00
56323	6 SWING ARM ROLLER WASHER	\$ 5.00
56325	6 CT WEIGHT & SWING ARM BUSH	\$ 22.00
56327	6 WEIGHT BRZ FILLED	\$ 671.00
56362	6 ROLLER ASSY-CHROME	\$ 76.00
56368	6 SEAT RING CT-DC-EDC-FM	\$ 224.00
56379	6FM&CT S/ARM HINGE PIN-304 SST	\$ 48.00
56383	RETAINING CLIP 3/4" PIN	\$ 4.00
56384	6CT S/ARM ROLLER PIN-304 SST	\$ 21.00
56396	O-RING 2-116 70 DURO BUNA-N	\$ 1.43
56507	6 FM-DC & CV-HINGE SPNDL BUSH	\$ 28.00
56511	1 1/2&2 A/RING-6&8FM TOR INT	\$ 90.00
56527	6 FM-DC DOME GASKET-ACCOPAC	\$ 8.00
56534	3 SWING ARM 3 CHECK VALVE	\$ 85.00
56540	3" CV COVER-EPOXY	\$ 120.00
56546	6 FM BYPASS SUPPORT-EPOXY	\$ 40.00
56549	3" OUTLET ELBOW-EPOXY	\$ 677.00
56556	6FM M/L RING GSKT-ACCOPAC	\$ 6.00

56558	3 INLET ELBOW-EPOXY	\$ 701.00
56560	6 DC-FM DOME-EPOXY	\$ 287.00
56563	3 CV COVER RING GSKT-ACCOPAC	\$ 3.00
56569	3 CHECK VALVE HINGE PIN-SST	\$ 17.00
56585	6 MFM-II MAIN-LINE TOP CASE	\$ 604.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59007	3/4SQ HD PIPE PLUG BRZ CORED	\$ 11.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
59052	3 FLANGE RING GASKET-ACCOPAC	\$ 2.17
59064	3" BLANK FLANGE-CI-EPOXY	\$ 111.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59146	3/8-16 STOP NUT NYLON-304 SST	\$ 0.85
59148	3/4-10 STOP NUT NYLON 304 SST	\$ 4.00
70106	6" MFMII OVERHAUL KIT #1	\$ 305.00
70206	6" MFMII OVERHAUL KIT #2	\$ 361.00
70306	6" MFMII, SPINDLE KIT	\$ 169.00
70606	6" MFMII, SST, BLT, BRZ, NUT, KIT	\$ 173.00
90129	1/2-13X2-1/4 HX BOLT STL ZC	\$ 1.10
90133	5/8-11X2-1/4 HX BOLT STL ZC	\$ 2.00
90135	5/8-11X2-3/4 HX BOLT STL ZC	\$ 2.00
90151	1/2-13 HEX NUT STL ZINC CHROM	\$ 0.41
90159	1/2-13 SEMI-FIN' HX NUT-SIL BRZ	\$ 2.17
90251	5/8-11 FLAT HX NUT-STL ZC	\$ 0.58
98032	#8-32NC-2 FLT HEX NUT-304 SST	\$ 0.13
98033	5/16-18 HEX JAM NUT-316 SST	\$ 0.54
98177	6-32X3/4SLTD FIL SCRW 316 SST	\$ 0.95
98379	8-32X11/2SLT FIL HD SCR-304SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
99920	6-32X5/16SET SCR-CUP PT-304SST	\$ 0.52
56590E	3 CV ASM SSTB/BRZN,EPOXY	\$ 1,367.00
5901B	3/8 SOLID BRASS PLUG	\$ 7.00
D35327	6 X 3 FM ML SG REGISTER	\$ 41.00
D35335	6X3 MCT ML CF REGISTER	\$ 41.00
D35337	6X3 MFM ML CF REGISTER	\$ 41.00
6" MFMII Translator Registers (for bypass Translator Registers, see MVR 350 or 3" MCTII)		
D353407613	6" X 3" FM ML SG TRL6 25' REG	\$ 135.00
D353407614	6"X3"FM ML SG TRL6 25'PIT REG	\$ 151.00
D353407618	6"X3" FM ML SG TRL6 25'CC REG	\$ 172.00
D353407619	6 X 3 FM ML SG TRL6 HRLP 15'	\$ 221.00
D35340761B	6 X 3 FM ML SG TRL6 HRHP 25'	\$ 221.00
D35340761M	6X3" FM ML SG TRL6 25'NODE REG	\$ 340.00
D353407640F	6" X 3" FM ML SG TRL6 FLO	\$ 923.00
D353507613	6" X 3" FM ML CF TRL6 25' REG	\$ 135.00
D353507614	6"X3"FM ML CF TRL6 25'PIT REG	\$ 151.00
D353507618E	6X3"FM,ML,CF,TRL6,25'CC,ENDPNT	\$ 302.00
D35350761B	6X3 FM ML CF TRL6 HRHP 25'	\$ 221.00
D353507640F	6" X 3" MFM ML CF TRL6 FLO	\$ 923.00
D356107613	6X3 FM ML SG TRL6 25'+10%	\$ 135.00
D356107619	6X3 FM ML SG TRL6 HRLP 15'+10%	\$ 221.00
D355907613	6X3"FM ML,SG,TRL6,25',-10%	\$ 135.00
D356007614	6X3"FM,ML,CF,TRL6,25'PIT -10%	\$ 151.00
D353507640G	6"X 3" MFM,ML,CF,TRL6,FT1	\$ 423.00

D356207618	6X3FM ML,CF,TRL6,25'CC, +10%	\$ 172.00
D356207614	6X3FM ML,CF,TRL6,25'PIT +10%	\$ 151.00
D355907618	6"FM ML SG -10% TRL6 25'C CONN	\$ 172.00

Size: 8" MFMII Fire Service Meter

Part Number	Description	Retail Price
33170	MCT-II LOWER DRIVE ASSY	\$ 54.00
44626	2 IN TORRENT SPINDLE BALL	\$ 6.00
44632	2 IN TORRENT THRUST WASHER	\$ 9.00
44634	2" TORRENT WHEEL BUSHING PLAS.	\$ 77.00
44658	2 TORR INT ADJUSTING SCREW-SST	\$ 13.00
44663	2"TORR WHEEL&BUSH ASM-FM-PLAS	\$ 205.00
44667	SPINDLE-2" TORR-SST	\$ 64.00
44668	SPNDL HD 2" TORR.-SST	\$ 35.00
44669	2"TORRENT WHEEL FOR FM-PLASTIC	\$ 149.00
44672	DEFLEC/RECEPT UPPER HALF,2"MCT	\$ 5.00
44673	DEFLEC/RECEPT,LWR HALF,2MCT	\$ 25.00
44674	2"TOR INT PLASTIC STRAINER	\$ 6.00
44675	SPINDLE CAP-PLAS-2" TORR	\$ 4.00
44676	2" PLAS TOR. INTERIOR FOR FM	\$ 282.00
44681	2" TORR SPNDL PARTS FOR PO	\$ 170.00
50139	SM MAG LWR DR RET RING SST	\$ 2.00
55318	4 CLAPPER BOLT	\$ 34.00
55365	4 CLAPPER MODEL 72	\$ 126.00
55366	4 CLAPPER RUBBER MODEL 72	\$ 34.00
55367	4 CLAPPER DISC MODEL 72	\$ 48.00
55707	4 FM/DC/CV HINGE PIN BUSHING	\$ 25.00
56511	1 1/2&2 A/RING-6&8FM TOR INT	\$ 90.00
57307	8 HINGE SPINDLE BUSHING	\$ 46.00
57313	8 CT SWING ARM "FULL" 81 LBS.	\$ 1,179.00
57315	8 CT CLAPPER	\$ 324.00
57316	8 CLAPPER RUBBER	\$ 107.00
57317	8 CLAPPER DISC	\$ 190.00
57318	8 CLAPPER BOLT	\$ 134.00
57323	8 SWING ARM ROLLER WASHER	\$ 6.00
57325	8 WEIGHT & SWING ARM BUSHING	\$ 60.00
57328	8 WEIGHT BISMUTH	\$ 1,993.00
57362	8 SWING ARM ROLLER ASM-CHR	\$ 115.00
57369	8 CT-FM-DC UNTHREADED SEAT	\$ 430.00
57379	8 SWING ARM HINGE PIN-SST	\$ 79.00
57383	8" MCT-MFM PIN CLIP	\$ 16.00
57384	8CT SWING ARM ROLL PIN-304 SST	\$ 33.00
57396	O-RING 2-214 70 DURO BUNA-N	\$ 1.62
57427	8FM-DC DOME RING GSKT-ACCOPAC	\$ 10.00
57512	2 TORRENT ADAPTER-8 FM METER	\$ 183.00
57534	4 SWING ARM 4 CHECK VALVE	\$ 160.00
57540	4 CV COVER-EPOXY	\$ 175.00
57549	4 OUTLET ELBOW-EPOXY	\$ 398.00
57552	4 CHECK VALVE HINGE PIN-SST	\$ 28.00
57556	8FM M/L TOP CASE GSKT-ACCOPAC	\$ 9.00
57558	4 INLET ELBOW-EPOXY	\$ 466.00

57560	8 DC-FM DOME-EPOXY	\$ 675.00
57563	4CV RING GSKT ACC	\$ 4.00
57585	8 MFM-II MAIN-LINE TOP CASE	\$ 894.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59006	1/2 SQ HD PIPE PLUG BRZ-CORED	\$ 10.00
59008	1 NPT BRZ SQ HEAD PLUG CORED	\$ 15.00
59053	4 FLANGE RING GASKET-ACCOPAC	\$ 4.00
59065	4 BLANK FLANGE-CI-EPOXY	\$ 194.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59147	7/16-14 STOP NUT NYLON-304 SST	\$ 3.00
59149	1"-8 STOP NUT NYLON 304 SST	\$ 26.00
59149	1"-8 STOP NUT NYLON 304 SST	\$ 26.00
70108	8" MFMII OVERHAUL KIT #1	\$ 403.00
70208	8" MFMII OVERHAUL KIT #2	\$ 462.00
70308	8" MFMII SPINDLE KIT	\$ 280.00
70608	8" MFMII, SST, BLT, BRZ, NUT, KIT	\$ 361.00
90131	9/16-12X2-1/2 HX BOLT STL ZC	\$ 4.00
90135	5/8-11X2-3/4 HX BOLT STL ZC	\$ 2.00
90219	9/16-12SEMI-FIN HX NUT-SIL BRZ	\$ 4.00
90251	5/8-11 FLAT HX NUT-STL ZC	\$ 0.58
90301	3/4-10 FLAT HX NUT-STL ZC	\$ 1.71
90342	3/4-10X3 1/4 HX BOLT STL ZC	\$ 4.00
96218	4" OS&Y GATE VLV NO TAP-FLANGED	\$ 832.00
98032	#8-32NC-2 FLT HEX NUT-304 SST	\$ 0.13
98033	5/16-18 HEX JAM NUT-316 SST	\$ 0.54
98177	6-32X3/4SLTD FIL SCRW 316 SST	\$ 0.95
98379	8-32X11/2SLT FIL HD SCR-304SST	\$ 0.61
98394	8-32X5/16 SCRFLT FIL 316SST	\$ 0.22
99920	6-32X5/16SET SCR-CUP PT-304SST	\$ 0.52
57590E	4 CV ASM SSTB/BRZN,EPOXY	\$ 1,993.00
5907A	3" HOLLOW SQ HD BRZ PIPE PLUG	\$ 71.00
D35324	8 X 4 MFM ML SG REGISTER	\$ 41.00
D35334	8X4 MFM ML CF REGISTER	\$ 41.00
8" MFMII Translator Registers (for bypass Translator Registers, see MVR 650 or 4" MCTII)		
D353404613	8" X 4" FM ML SG TRL6 25' REG	\$ 135.00
D353404614	8"X4"FM ML SG TRL6 25'PIT REG	\$ 151.00
D353404618	8X4 MFM ML SG TRL6 25'CCONN	\$ 172.00
D353404619	8" X 4" FM ML SG TRL6 HRLP 15'	\$ 221.00
D35340461B	8"X 4" FM,SG,TRL6,25'HRHP	\$ 221.00
D35340461M	8"X4" FM ML SGTRL6 25'NODE REG	\$ 340.00
D353404640F	8" X 4" FM ML SG TRL6 FLO	\$ 923.00
D353404640G	8" X 4" FM ML SG TRL6 FT1	\$ 432.00
D35340464BF	8X4 FM ML SG TRL6 HRHP FLO	\$ 1,038.00
D353504613	8" X 4" FM ML CF TRL6 25' REG	\$ 135.00
D353504614	8"X4"FM ML CF TRL6 25'PIT REG	\$ 151.00
D353504618	8"X4"FM ML CF TRL6 25'C CONN	\$ 172.00
D353504618E	8X4"FM,ML,CF,TRL6,25'CC,ENDPNT	\$ 302.00
D353504619	8X4' FM ML CF TRL6 HRLP 15'	\$ 221.00
D35350461B	8X4 FM ML CF TRL6 HRHP 25'	\$ 221.00
D353504640F	8" X 4" MFM ML CF TRL6 FLO	\$ 923.00
D355904613	8X4" MFM,ML,SG,TRL6,25',-10%	\$ 135.00
D355904614	8X4" MFM,ML,SG,TRL6,-10%,PIT	\$ 151.00

D35590461B	8X4MFM,ML,SG,TRL6,HRHP25',-10%	\$ 221.00
D356204613	8"X4"FM,ML,CF,TRL6,25', +10%	\$ 135.00
D356104613	8"X4"FM,ML,SG,TRL6,25',+10%	\$ 135.00
D356104618	8X4 FM,ML,SG,TRL6,25'CC,+10%	\$ 172.00
D356004614	8X4"FM,ML,CF,TRL6,25'PIT -10%	\$ 151.00
D356204618	8X4FM,ML,CF,TRL6,25'CC,+10%	\$ 172.00
D356204614	8X4FM,ML,CF,TRL6,25'PIT +10%	\$ 151.00

Sizes: 10 or 12" MFMII Fire Service Meter

Part Number	Description	Retail Price
33170	MCT-II LOWER DRIVE ASSY	\$ 54.00
44715	3"TORR WHEEL & BUXHING ASM-FM	\$ 225.00
44726	3 TORR INTER SPINDLE BALL	\$ 8.00
44732	3 TOR INT THRUST WASHER-CARBON	\$ 13.00
44734	3" TORRENT WHEEL BUSHING PLAS.	\$ 92.00
44754	3 TORR SPINDLE CAP CHROMED	\$ 71.00
44756	7/16-20 HEX JAM NUT SST	\$ 0.76
44758	3 TORR INT ADJUSTING SCREW-SST	\$ 26.00
44767	3 TORR INT SPINDLE-SST	\$ 78.00
44769	3 TORRENT WHEEL FOR FM-PLASTIC	\$ 180.00
44770	3 TORRENT SPINDLE HEAD-SST	\$ 61.00
44774	3" TORR. PLASTIC STRAINER	\$ 26.00
44782	3"TOR.INTER.FOR10"MFM2 PLASTIC	\$ 493.00
44793	3 TORR SPINDLE PARTS FOR PO	\$ 405.00
50139	SM MAG LWR DR RET RING SST	\$ 2.00
56315	6 CT SWING ARM CLAPPER	\$ 197.00
56316	6 CT CLAPPER RUBBER	\$ 59.00
56317	6 CT CLAPPER DISC	\$ 97.00
56318	6 CLAPPER BOLT	\$ 89.00
56507	6 FM-DC & CV-HINGE SPNDL BUSH	\$ 28.00
58307	10 FM-DC HINGE SPDLE BUSH	\$ 82.00
58313	10"DC-FM SWING ARM	\$ 1,640.00
58315	10 DC FM CLAPPER	\$ 558.00
58316	10 DC CLAPPER RUBBER	\$ 143.00
58317	10 DC FM CLAPPER DISC	\$ 272.00
58323	10 SWING ARM ROLLER WASHER	\$ 9.00
58325	10 WEIGHT & SWING ARM BUSHING	\$ 56.00
58328	10 WEIGHT BISMUTH	\$ 2,575.00
58362	10DC-FM ROLLER-BUSH ASM-CHR	\$ 273.00
58369	10 FM-DC UNTHREADED SEAT	\$ 475.00
58379	10 FM HINGE PIN-304 SST	\$ 138.00
58383	10" MFM PIN CLIP	\$ 12.00
58384	10CT&FM S/ARM RLR PIN-304SST	\$ 51.00
58396	O-RING H2-218 70 DURO BUNA-N	\$ 2.05
58427	10 DC-FM DOME GASKET-ACCOPAC	\$ 15.00
58534	6CV SWING ARM - 6 CHECK VALVE	\$ 230.00
58540	6 CV COVER-EPOXY	\$ 587.00
58549	6 OUTLET ELBOW-EPOXY	\$ 482.00
58554	10 FM-TOP CASE-1PC M/L	\$ 951.00
58558	10 FM BYPASS SUPPORT-EPOXY	\$ 75.00
58559	10FM 1P RNG GSK ACC	\$ 14.00

58560	10 DC-FM DOME-EPOXY	\$ 1,764.00
58563	6CV RING GSKT ACC	\$ 5.00
58571	6 INLET ELBOW-EPOXY	\$ 495.00
58575	6 CHECK VALVE HINGE PIN-SST	\$ 45.00
58593	6 CV ASM SSTB/BRZN,EPOXY	\$ 3,749.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59007	3/4SQ HD PIPE PLUG BRZ CORED	\$ 11.00
59009	1 1/2 NPT SQ HD PLUG BRZ CORED	\$ 32.00
59046	TRAIN CAP GASKET-ACCOPAC	\$ 3.00
59054	6 FLANGE RING GASKET-ACCOPAC	\$ 4.00
59066	6 BLANK FLANGÉ-CI-EPOXY	\$ 273.00
59069	MCT-II MAGNETIC TRAIN CAP	\$ 172.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59148	3/4-10 STOP NUT NYLON 304 SST	\$ 4.00
59150	11/4-7 STOP NUT NYLON 304 SST	\$ 58.00
70110	10"&12" MFMII OVERHAUL KIT #1	\$ 774.00
70210	10"&12" MFMII OVERHAUL KIT #2	\$ 837.00
70310	10" & 12" MFMII SPINDLE KIT	\$ 514.00
70610	10" MFM,SSBLT,BZNUT,KIT PRE 91	\$ 340.00
90135	5/8-11X2-3/4 HX BOLT STL ZC	\$ 2.00
90139	3/4-10X3 HX BOLT STL ZC	\$ 3.00
90166	1/2-13X1 HX CAP SCRW 304 SST	\$ 3.00
90219	9/16-12SEMI-FIN HX NUT-SIL BRZ	\$ 4.00
90251	5/8-11 FLAT HX NUT-STL ZC	\$ 0.58
90301	3/4-10 FLAT HX NUT-STL ZC	\$ 1.71
96219	6" OS&Y GATE VLV NO TAP-FLGD-CI	\$ 1,120.00
98032	#8-32NC-2 FLT HEX NUT-304 SST	\$ 0.13
98179	6-32X7/8 SLTD FIL SCRW 316SST	\$ 1.07
98395	12-24X3/8 SLT FIL SCRW 316 SST	\$ 0.56
98441	8-32X2 FIL HD SCREW 304 SST	\$ 0.66
99921	8-32X3/8 SET SCR-CUP PT-304SST	\$ 0.76
5907A	3" HOLLOW SQ HD BRZ PIPE PLUG	\$ 71.00
D35321	10 X 6 FM ML SG REGISTER	\$ 41.00
D35331	10X6 FM ML CF REGISTER	\$ 41.00
10" MFMII Translator Registers (for bypass Translator Registers, see MVR 1300 or 6" MCTII)		
D353401613	10" X 6" FM ML SG TRL6 25' REG	\$ 135.00
D353401614	10"X6"FM ML SG TRL6 25'PIT REG	\$ 151.00
D353401618	10X6FM,ML,SG,TRL6,25'C-CONN	\$ 172.00
D353401619	10X6FM,ML,SG,TRL6,HRLP 15'	\$ 221.00
D35340161B	10" X 6" FM SG TRL6 HRHP	\$ 221.00
D35340161M	10"X6" FM ML SG TRL6 25'NODERG	\$ 340.00
D353401640F	10X6 MFM ML SG TRL6 FLO	\$ 923.00
D353401640G	10X6 MFM ML SG TRL6 FT1	\$ 423.00
D353401648F	10X6 MFM ML SG TRL6 25'CC FLO	\$ 961.00
D353401648F	10X6 MFM ML SG TRL6 HRHP FLO	\$ 1,038.00
D353501613	10" X 6" FM ML CF TRL6 25' REG	\$ 135.00
D353501614	10"X6"FM ML CF TRL6 25'PIT REG	\$ 151.00
D353501618	10"X6"FM ML CF TRL6 25'CC	\$ 172.00
D353501619	10X6 FM ML CF TRL6 HRLP 15'	\$ 221.00
D35350161B	10X6 FM ML CF TRL6 HRHP 25'	\$ 221.00
D353501640F	10" X 6" MFM ML CF TRL6 FLO	\$ 923.00
D355901613	10X6 MFM ML SG TRL6 -10% 25'	\$ 135.00

D355901614	10X6 FM ML SG -10% TRL6 25'PIT	\$ 151.00
D355901618	10X6 MFM ML SG TRL6 -10% 25'CC	\$ 172.00
D355901619	10X6 MFM ML SG TRL6-10% HRLP15	\$ 221.00
D356001613	10X6FM ML CF -10% TRL6 25'	\$ 135.00
D356001618	10X6 FM ML CF -10% TRL6	\$ 172.00
D356001619	10X6FM ML CF-10% TRL6 HRLP 15'	\$ 221.00
D356101613	10"X6"FM,ML,SG,TRL6,25',+10%	\$ 135.00

MFMII: Conversion Kits

All Sizes: 3" - 10"

Part Number	Description	Retail Price
PCR0101	3"MFM M/L MAG. CONV. KIT, SF	\$ 626.00
PCR0201	3"MFM M/L MAG. CONV. KIT, SG	\$ 626.00
PCS0101	4"MFM2,CF,CONV-KIT,SSB/BN	\$ 629.00
PCS01011	4"MFMII,CF, CONV.KIT,25'TRL	\$ 756.00
PCS01014	4"MFM2 C-KIT,SF,TRL,25'PP	\$ 756.00
PCS01016	4"MFMII,CONV.KIT,CF,TRL 25'CC	\$ 756.00
PCS0102	4"MFMII,SF,C-KIT BBX&LID	\$ 629.00
PCS01076	4"MFM,CKIT,CF,TRL,SSBBN,25'CC	\$ 756.00
PCS0201	4" MFMII,SG,CONVERSION KIT	\$ 629.00
PCS02011	4"MFMII,SG,CONV.KIT,25'TRL	\$ 756.00
PCS02016	4"MFMII,CONV.KIT,SG,TRL,25'CC	\$ 756.00
PCS0202	4MFMII,SG,C-KIT,SSB/BN,BBX/LID	\$ 629.00
PCS0207	4MFMII,SG,CONVKIT,SSB/BN HILO	\$ 629.00
PCS0253	4"MFM2 SG C-KIT W/LID SSB/BN	\$ 648.00
PCS0260	4"MFM2 SG CONV KIT,SSB&N	\$ 629.00
PCT0101	6"MFM2,CF,CONV-KIT,SSB/BN	\$ 707.00
PCT01011	6"MFM2,SF,C-KIT TRL 25'SSB/BN	\$ 834.00
PCT01014	6"MFM2,C-KIT,SF,TRL,25'PITPAD	\$ 834.00
PCT01016	6"MFM2,CF,C-KIT,SBBN,TRL,25'CC	\$ 834.00
PCT0102	6"MFMII,SF,C-KIT BBX&LID	\$ 707.00
PCT01086	6MFM,CKIT,CF,TRL,SSBBN,25'CC	\$ 834.00
PCT0160	6"MFM2,SF,CONV KIT,SSB&N	\$ 707.00
PCT0201	6"MFMII,SG,CONVERSION KIT	\$ 707.00
PCT02011	6"MFMII,SG,CONV KIT TRL6	\$ 834.00
PCT02011F	6"MFMII,SG,CONV KIT,TRL6,FLO	\$ 1,723.00
PCT02014	6MFM2,C-KIT,SG,TRL,W/PP	\$ 834.00
PCT02016	6MFM2,C-KIT,SBBN,SG,TRL,25'CC	\$ 834.00
PCT02019	6"MFMII,SG,C-KIT TRL,HRLP 15'	\$ 928.00
PCT0202	6MFMII,SG,C-KIT,SSB/BN,BBX&LID	\$ 707.00
PCT0253	6"MFM2 SG C-KIT W/LID SSB/BN	\$ 726.00
PCT0260	6"MFM2 SG CONV KIT SSB&N	\$ 707.00
PCT02606	6"MFM2 SG C-KIT SSB&N TRL CC	\$ 834.00
PCT03016	6"MFMII,C-KIT,CF,TRL6,25'CC	\$ 834.00
PCT04016	6MFM2,C-KIT,TRL6,USG,25'CC	\$ 834.00
PCU0101	8"MFMII,SF,SSB,C-KIT	\$ 955.00
PCU01011	8"MFM2,SF,CONV.KIT,TRL,25'	\$ 1,079.00
PCU01014	8"MFM2,SF,C-KIT,SSB/BN,TRL,PP	\$ 1,079.00
PCU01016	8"MFM2,CF,C-KIT,SBBN,TRL,25'CC	\$ 1,079.00
PCU010192	8"MFM2,C-KIT,CF,TRL,HRHP 25'	\$ 1,174.00

PCU0102	8" MFMII, SF, C-KIT BBX&LID	\$ 955.00
PCU0107	8" MFMII, SF, CONV. KIT, SSB/BRZNUT	\$ 955.00
PCU0201	8" MFMII, SG, CONVERSION KIT	\$ 955.00
PCU02011	8" MFMII, C-KIT, SG, 25' TRL6	\$ 1,079.00
PCU02014	8 MFM2, C-KIT, SG, TRL, W/PITPAD	\$ 1,079.00
PCU02016	8 MFM2, CKIT, SG, TRL, 25' CC SSB/BN	\$ 1,079.00
PCU0207	8" MFMII, SG, CONV. KIT, SSB/BRN	\$ 955.00
PCU0253	8" MFM2 SG C-KIT SSB/BN W/LID	\$ 972.00
PCU0260	8" MFM2 SG CONV KIT SSB&N	\$ 955.00
PCV0101	10" MFMII, SF, CONV KIT SSB	\$ 375.00
PCV01011	10" MFMII, CF, CKIT, TRL, 25' WIRE	\$ 502.00
PCV01014	10" MFM2 C-KIT, CF, TRL, 25' PITPAD	\$ 502.00
PCV01016	10" MFMII, CKIT, CF, TRL, 25' CC, SSB	\$ 502.00
PCV0102	10" MFMII, SF, C-KIT BBX&LID	\$ 375.00
PCV0107	10" MFM2 SF, CONV. KIT 316SSB	\$ 375.00
PCV0201	10" MFMII, SG, CONVERSION KIT	\$ 375.00
PCV02011	10" MFMII, C-KIT, SG, TRL, 25' W	\$ 502.00
PCV02016	10" MFM2, CKIT, SG, TRL, 25' CC, SSB	\$ 502.00
PCV0253	10 MFM2 SG CONV KIT W/LID SSB	\$ 394.00

Calibrators: Universal for all MCTII and MFMII meters

Part Number	Description	Retail Price
C65341	CALIBRATOR GEAR TRAIN +5%	\$ 111.00
C653410	CALIBRATOR GEAR TRAIN +.5%	\$ 111.00
C653411	CALIBRATOR GEAR TRAIN NOMINAL	\$ 111.00
C653412	CALIBRATOR GEAR TRAIN -5%	\$ 111.00
C653413	CALIBRATOR GEAR TRAIN -1%	\$ 111.00
C653414	CALIBRATOR GEAR TRAIN -1.5%	\$ 111.00
C653415	CALIBRATOR GEAR TRAIN -2%	\$ 111.00
C653416	CALIBRATOR GEAR TRAIN -2.5%	\$ 111.00
C653417	CALIBRATOR GEAR TRAIN -3%	\$ 111.00
C653418	CALIBRATOR GEAR TRAIN -3.5%	\$ 111.00
C653419	CALIBRATOR GEAR TRAIN -4%	\$ 111.00
C65342	CALIBRATOR GEAR TRAIN +4.5%	\$ 111.00
C653420	CALIBRATOR GEAR TRAIN -4.5%	\$ 111.00
C653421	CALIBRATOR GEAR TRAIN -5%	\$ 111.00
C65343	CALIBRATOR GEAR TRAIN +4%	\$ 111.00
C65344	CALIBRATOR GEAR TRAIN +3.5%	\$ 111.00
C65345	CALIBRATOR GEAR TRAIN +3%	\$ 111.00
C65346	CALIBRATOR GEAR TRAIN +2.5%	\$ 111.00
C65347	CALIBRATOR GEAR TRAIN +2%	\$ 111.00
C65348	CALIBRATOR GEAR TRAIN +1.5%	\$ 111.00
C65349	CALIBRATOR GEAR TRAIN +1%	\$ 111.00
B7860	CONV HOUSING ADAPTER KIT	\$ 69.00

Strainers: Plate and UL Listed

Plate Strainers		
Part Number	Description	Retail Price
53164	2" BRZ STRAINER ASSY	\$ 294.00
54940	3" BRZ STRAINER ASSY	\$ 583.00

55940	4" BRZ STRN ASM W/SS SCREEN	\$ 897.00
56940	6" BRZ STRN ASM W/SST SCREEN	\$ 1,430.00
57940	8" C I STRAINER ASSY EPOXY	\$ 2,035.00
58840H	10 C I STRAINER ASSY EPOXY	\$ 2,475.00

UL Strainers

Part Number	Description	Retail Price
54930	3" UL EPOXY STRAINER AMES	\$ 2,910.00
55930	4" UL EPOXY STRAINER AMES	\$ 3,784.00
56930	6" UL EPOXY STRAINER AMES	\$ 5,236.00
57930	8" UL EPOXY STRAINER AMES	\$ 7,040.00
58930	10" UL EPOXY STRAINER AMES	\$ 10,615.00

DC: Weighted Lever Detector Check

Size: 2" DC Detector Check

Part Number	Description	Retail Price
53807	2 CT HINGE PIN BUSHING	\$ 11.00
53815	2 CT CLAPPER	\$ 67.00
53816	2 CT CLAPPER RUBBER	\$ 12.00
53817	2 CT CLAPPER DISC	\$ 22.00
53823	2 SWING ARM ROLLER WASHER	\$ 1.68
53825	2 CT WEIGHT BUSHING	\$ 8.00
53837	2 SWING ARM ROLLER ASSY-SST	\$ 29.00
53839	2 CT SWING ARM ROLLER PIN-SST	\$ 10.00
53874	PIN CLIP, 2" CT	\$ 1.25
53878	2 CLAPPER BOLT FOR O-RING	\$ 42.00
53879	2CT HINGE PIN-304 SST	\$ 15.00
53893	O RING 2-008 70 DURO BUNA-N	\$ 1.28
53906	2 DC VALVE COVER GASKET	\$ 8.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59005	1/4 NPT SQ HD PIPE PLUG-CORED	\$ 7.00
59007	3/4SQ HD PIPE PLUG BRZ CORED	\$ 11.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59145	1/4-20 STOP NUT NYLON-304 SST	\$ 0.58
90122	7/16-14 SEMI-FIN HX NUT-SILBRZ	\$ 2.17
90220	7/16-14X1-3/4 HX BOLT 304 SST	\$ 3.00

Size: 3" DC Detector Check

Part Number	Description	Retail Price
54318	3"CLAPPER BOLT NO HOLE	\$ 29.00
54327	3 WEIGHT BISMUTH	\$ 441.00
54351	PIN CLIP, 3" CT	\$ 1.77
54365	3"CLAPPER MODEL 72	\$ 86.00
54366	3"CLAPPER RUBBER MODEL 72	\$ 19.00
54367	3 CLAPPER DISC MODEL 72	\$ 30.00
54527	3 DC-FM DOME GASKET ACCOPAC	\$ 5.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59007	3/4SQ HD PIPE PLUG BRZ CORED	\$ 11.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
59146	3/8-16 STOP NUT NYLON-304 SST	\$ 0.85

EDCIII: Weighted Lever Detector Check**Size: 4" EDCIII Detector Check**

Part Number	Description	Retail Price
55643	4" HINGE PIN EDC III 304 SST	\$ 22.00
55644	4" COVER EDCIII EPOXY	\$ 233.00
57498	RET.CLIP 5/8"PIN 1000-62 SS2	\$ 4.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59008	1 NPT BRZ SQ HEAD PLUG CORED	\$ 15.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90243	5/8-11 X 2 HEX HD BOLT-304 SST	\$ 7.00
144116	4" DCV PIVOT SHAFT	\$ 26.00
144119	4" DCV CLAPPER	\$ 132.00
144123	4" DCV CLAPPER ARM	\$ 40.00
196310	5/8 RET RING TRUARC 5204-62SST	\$ 4.00
196312	1 3/16X41/64 WASHER 304 SST	\$ 0.61
196326	4" DCV COVER GASKET NON-ASB	\$ 5.00
282080	4" EDC3 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00

Size: 6" EDCIII Detector Check

Part Number	Description	Retail Price
56443	6" HINGE PIN EDC III 304 SST	\$ 26.00
56444	6" COVER EDC III EPOXY	\$ 435.00
57498	RET.CLIP 5/8"PIN 1000-62 SS2	\$ 4.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59009	1 1/2 NPT SQ HD PLUG BRZ CORED	\$ 32.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
144130	6" DCV CLAPPER ARM	\$ 61.00
144131	6" DCV PIVOT SHAFT	\$ 39.00
144132	6" DCV CLAPPER	\$ 199.00
196000	3/4-10X2.0 HX SCR SST ASTMA276	\$ 8.00
196310	5/8 RET RING TRUARC 5204-62SST	\$ 4.00
196312	1 3/16X41/64 WASHER 304 SST	\$ 0.61
282082	6" EDC3 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7732	EYE BOLT 3/4 THD 1-1/2 ID ZC	\$ 20.00

Size: 8" EDCIII Detector Check

Part Number	Description	Retail Price
56383	RETAINING CLIP 3/4" PIN	\$ 4.00
57446	8"&10" EDCIII HINGE PIN 304SST	\$ 33.00
57447	8" COVER EDC III EPOXY	\$ 381.00
57498	RET.CLIP 5/8"PIN 1000-62 SS2	\$ 4.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90338	3/4X2.25 HEX HD CAP SCREW SST.	\$ 8.00
144145	8" DCV CLAPPER ARM	\$ 95.00
144146	8" DCV PIVOT SHAFT	\$ 44.00
144147	8" DCV CLAPPER	\$ 244.00

196311	3/4 RET RING TRUARC 5133-74SST	\$ 7.00
196324	1/2X1 3/16 SCR 18-8 SST W/NYL	\$ 7.00
196328	8" DCV COVER GASKET	\$ 10.00
282085	8" EDC3 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7732	EYE BOLT 3/4 THD 1-1/2 ID ZC	\$ 20.00

Size: 10" EDCIII Detector Check

Part Number	Description	Retail Price
56383	RETAINING CLIP 3/4" PIN	\$ 4.00
58414	10" COVER EDC III EPOXY	\$ 515.00
58415	10" HINGE PIN EDC III 304 SST	\$ 39.00
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59010	2 SQ HEAD PIPE PLUG-BRZ CORED	\$ 23.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
90338	3/4X2.25 HEX HD CAP SCREW SST.	\$ 8.00
144161	10" DCV CLAPPER ARM	\$ 104.00
144163	10" DCV CLAPPER	\$ 409.00
196311	3/4 RET RING TRUARC 5133-74SST	\$ 7.00
196325	5/8X2 HX SCREW 18-8 SST W/NYL	\$ 8.00
196329	10" DCV COVER GASKET	\$ 11.00
282496	10" EDC3 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7732	EYE BOLT 3/4 THD 1-1/2 ID ZC	\$ 20.00

EDCIV: Spring Loaded Detector Check

Size: 3" EDCIV Detector Check

Part Number	Description	Retail Price
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
283035	3" EDC4 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS4822	5/8-11X1.75 HEX HD CAPSCREW	\$ 0.47
AS7612	4" EDC4 O-RING	\$ 4.00

Size: 4" EDCIV Detector Check

Part Number	Description	Retail Price
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
283175	4" EDC4 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS4822	5/8-11X1.75 HEX HD CAPSCREW	\$ 0.47
AS7612	4" EDC4 O-RING	\$ 4.00

Size: 6" EDCIV Detector Check

Part Number	Description	Retail Price
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
283176	6" EDC4 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7613	6" EDC4 O-RING #2-374	\$ 4.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00
AS7792	FLAT WASHER .312	\$ 2.00

Size: 8" EDCIV Detector Check

Part Number	Description	Retail Price
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
283177	8" EDC4 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7614	8" EDC4 O-RING 2-381	\$ 11.00
AS7633	5/8-11" HEX NUT 304	\$ 0.61
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00
E20093	8"EDC4 CLAPPER ASSY	\$ 759.00
C57281	8" EDC4 CLAPPER EPDM 65 DURO	\$ 282.00

Size: 10" EDCIV Detector Check

Part Number	Description	Retail Price
59003	5/16-18 SLT FIL SPEC VENT SCRW	\$ 8.00
59073	NYLON VENT SCREW WASHER	\$ 0.52
283037	10" EDC4 B/P 3/4"-7.5 TRIM KIT	\$ 253.00
AS7615	10" EDC4 O-RING	\$ 15.00
AS7731	EYEBOLT 1/2-13THD 1-3/16 ID ZC	\$ 38.00

Misc.: Miscellaneous Meter Parts

Part Number	Description	Retail Price
144148H	8 DCV CLAPPER PLATE	\$ 77.00
196142H	8 DCV DISC FACING	\$ 32.00
196149H	6 DCV CLAPPER DISC FACING	\$ 14.00
196313H	8 DCV WASHER 1.312X.765X.090	\$ 1.55
196323H	3/8X1 HX SCR 18-8 SST W/NYL	\$ 1.58
196327H	6 DCV COVER GASKET NON-ASB	\$ 4.00
19940	C0211 SEAL W/18"SST WIRE	\$ 1.38
23139	MVR REG SPUR GEAR-21 BT-56P	\$ 1.17
44665	2 PLASTIC TORR. WHEEL COMPLETE	\$ 75.00
44671	2"MCT-II PLAS TORR INT ASY	\$ 214.00
44675M	SPINDLE CAP-PLAS-2" TORR MACH.	\$ 5.00
44677	6 MFM PLAS TOR INT W/A&R-PO	\$ 451.00
44744	3"TOR INT FOR 10" MFM	\$ 1,682.00
44754RT	3 TORR SPINDLE CAP FINISHED	\$ 71.00
44765	3"PLASTIC TORRENT WHEEL	\$ 87.00
44826	4 TORR INTER SPINDLE BALL	\$ 11.00
44831	4 TORRENT WHEEL BUSHING	\$ 87.00
44832	4 TOR THRUST WASHER-CARBON	\$ 14.00
44848	4" MCT TORRENT INT ASSY STD	\$ 1,309.00
44854RT	4 TORRENT SPINDLE CAP FINISHED	\$ 82.00
44856	4 TOR INT CHECK NUT-CHROMED	\$ 25.00
44858	4 & 6 TOR ADJUSTING SCREW-SST	\$ 7.00
44865	4 MCT-2 TORRENT WHEEL-PLASTIC	\$ 100.00
44867	4 TORR INT SPINDLE-SST	\$ 98.00
44870	4 TORR INT SPINDLE HEAD-SST	\$ 76.00
44912	6 TORRENT WHEEL	\$ 1,251.00
44926	6 IN TOR INT BEARING BALL	\$ 18.00
44931	6 TORRENT WHEEL BUSHING	\$ 160.00

44932	6 TOR INT THRUST WASHER	\$ 20.00
44954	6 TOR WHEEL SPNDL CAP-CHROME	\$ 98.00
44955	6 TOR WHEEL SPNDL HEAD-CHROME	\$ 88.00
44956	6 TORR CHECK NUT-CHROMED	\$ 33.00
44967	6"TORR INT SPINDLE-SST	\$ 140.00
45012	8 TORRENT WHEEL	\$ 1,777.00
45026	BEARING BALL-8 TOR INT	\$ 42.00
45031	8 TORR WHEEL SPINDLE BUSHING	\$ 418.00
45032	8 TOR THRUST WASHER-CARBON	\$ 86.00
45054	8 TORRENT SPINDLE CAP FINISHED	\$ 495.00
45055	8 TORRENT SPINDLE HEAD CHROMED	\$ 193.00
45056	8 TORR CHECK NUT-CHROMED	\$ 66.00
45058	8 & 10 TOR ADJUSTING SCREW-SST	\$ 65.00
45067	8 TORR INT SPINDLE-SST	\$ 154.00
50377P	MVR REG COVER PLASTIC PURPLE	\$ 8.00
50379P	MVR REG CLAMP BAND PURPLE	\$ 8.00
50380P	HORIZON REG HOUSING PURPLE	\$ 18.00
50381P	HORIZON PLASTIC REG LID PURPLE	\$ 8.00
50783K	1.5"X4" 2-BOLT SPOOL KIT W/HDW	\$ 287.00
50883K	2" X 7" 2-BOLT SPOOL KIT W/HDW	\$ 294.00
51003P041	LID-PLASTIC	\$ 5.00
51003P041P	LID PLASTIC MVR PURPLE	\$ 6.00
51022P211	3/4"540 TOP CASE F/MCT2	\$ 147.00
51022P213	1" MOD 550 TOP CASE-MCT2,F836	\$ 276.00
51022P265	1 1/2-562 TOP CASE F836	\$ 214.00
51026P040	5/8 MODEL 530 PLASTIC STRAINER	\$ 2.00
51026P044	3/4 MODEL 442 PLASTIC STRAINER	\$ 4.00
51032P064	DIAPHRAGM-442 PLASTIC INTERIOR	\$ 2.00
51032P065	DIAPHRAGM-452 PLASTIC INTERIOR	\$ 2.17
51033P054	442 CHAMBER BOTTOM-PLASTIC	\$ 43.00
51034P053	442 CHAMBER TOP - PLASTIC	\$ 63.00
51034P054	452 CHAMBER TOP - PLASTIC	\$ 69.00
51093P013	POINTER,MOLDED (REG SWEEPHAND)	\$ 0.15
51173P004	DRIVE ASSY MAGNET	\$ 4.00
51287P010	5/8 LOCKING PIN FOR PLAS CHAM	\$ 0.41
51598P001	GR WORM STR READ AMER	\$ 0.62
53167	2 MHR STRAINER SCREEN	\$ 43.00
53168	2 MHR STRAINER CASING GASKET	\$ 3.00
53863	2" CT SOLID SWING ARM	\$ 192.00
53864	2" SOLID WEIGHT	\$ 204.00
53882	2 MCT-II TOP CASE	\$ 1,191.00
54388	3/4 STOP & CHECK VALVE DISC	\$ 35.00
54389	3/4PILOT&DISC ASM FOR STP&CHK	\$ 43.00
54507H	3 FM-DC-CV HINGE SPINDLE BUSH	\$ 11.00
54520	3MFM TOP CASE	\$ 438.00
54546	3" FM BYYPASS SUPPORT-EPOXY	\$ 35.00
54556	3 FM M/L TOP CASE GSKT ACCOPAC	\$ 13.00
54905	PLUG-INLET HUB 3-8 MHR METERS	\$ 35.00
54942	3 MHR STRAINER COVER	\$ 116.00
54943	3 MHR STRN CASING GSKT-ACCOPAC	\$ 3.00
54944	3 MHR STRAINER SCREEN-316 SST	\$ 149.00
54993	3NPT X2-1/2NH NIPPLE W/ORIFICE	\$ 302.00

54995	ORIFICE DISC FOR HYDRANT METER	\$ 86.00
55307	4 CT HINGE SPINDLE BUSHING	\$ 18.00
55314	4 ROLLER BUSHING	\$ 5.00
55316	4CT-DC-FM CLAP RUB-PO BEFORE72	\$ 34.00
55328	4 CT WEIGHT	\$ 285.00
55360	4 CT-1 VALVE TRIMMING PLUG	\$ 75.00
55389	1 DISC & PILOT ASSY	\$ 76.00
55942	COVER 4 BRONZE STRAINER	\$ 116.00
55943	4 MHR BRZ STRN.GSK ACCOPAC	\$ 6.00
55944	4 MHR STRAINER SCREEN-316 SST	\$ 178.00
56307	6 CT HINGE SPINDLE BUSHING	\$ 22.00
56314	6 CT LEVER ROLL BUSHING	\$ 7.00
56338	6 CT HINGE PIN BUSHING-PO	\$ 85.00
56360	6CT-1 1/2 VALVE TRIMMING PLUG	\$ 121.00
56442	6" SEAT RING EDC III	\$ 170.00
56508	6 FM F/RING 7/8 AREA STD	\$ 162.00
56512H	1 1/2 & 2 ADPT-6FM TORR INT	\$ 171.00
56916	8" MHR BUSHING SPACER	\$ 37.00
56917	8"MHR ROTOR SHAFT BUSHING	\$ 27.00
56926	MHR BEARING CAP ASSY	\$ 226.00
56939E	6FMS EPX STR ASM MUEL#AN6.0595	\$ 4,554.00
56942	6" COVER BRONZE STRAINER	\$ 152.00
56943	CASING GSKT ACCOPAC 6 BRZ STRN	\$ 7.00
56944	6 MHR STRAINER SCREEN-316 SST	\$ 254.00
57915	8"ROTOR ASM	\$ 542.00
57943	8 CI STRN CASING GSKT ACCOPAC	\$ 10.00
57944	8 CI STRN SCREEN - 316 SST	\$ 503.00
58318	10 CLAPPER BOLT	\$ 238.00
58842E	10CI STRAIN COVER EPOXY	\$ 220.00
70066H	6 MCTII SSBOLT BRZNUT KIT	\$ 356.00
90025	5/16-24 X 1 3/8 HX BOLT-304 SS	\$ 1.49
90027	5/16-24 SEMI-FIN HX NUT BRZ	\$ 1.07
90043	3/8-24X1 9/16 HX BOLT 304 SST	\$ 3.00
90044	3/8-24 SEMI-FIN HEX NUT-SILBRZ	\$ 5.00
90062	5/16-18X7/8 HHCS 304SST W/HOLE	\$ 3.00
90063	3/8-16X1 HX BLT 304 SST W/HOLE	\$ 3.00
90066	3/8-16 HX NUT-SIL BRZ	\$ 0.85
90078	3/8-16X1-1/4 HEX BOLT-316 SST	\$ 2.00
90117	7/16-14X1-1/2HX T&Q STL BLT-ZC	\$ 1.19
90121	7/16-14X1-1/2 HX BOLT 304 SST	\$ 3.00
90134	5/8-11X2-1/2 HX BOLT STL ZC	\$ 2.00
90137	3/4-10X2-1/2 HX BOLT STL ZC	\$ 3.00
90138	3/4-10X2-3/4 HX BOLT STL ZC	\$ 3.00
90141	7/8-9X3-1/2 HX BOLT STL ZC	\$ 4.00
90152	1/2X2 STL BLT&NUT 90127,90151	\$ 2.00
90153	1/2-13X1-3/4 HX BOLT 304 SST	\$ 4.00
90154	1/2-13 HEX NUT.304 SST	\$ 2.01
90158	1/2X1-3/4 STL BOLT&NUT	\$ 1.45
90163	1/2X2-1/4 HX STL BLT&BRZ NUT	\$ 4.00
90172	1/2-13X1-1/4 CAP SCRW 304NYLOK	\$ 6.00
90207	9/16-12X2 HX BOLT-304 SST	\$ 7.00
90211	9/16-12X2-1/4 HEX BOLT-316 SST	\$ 22.00

90217	9/16-12X2 HX T&Q STL BOLT ZC	\$ 2.17
90229	5/8-11X2-1/2 HEX BOLT-316 SST	\$ 4.00
90232	5/8-11 HEX NUT-316 SST	\$ 4.00
90233	5/8-11X3-1/4 STUD-316 SST	\$ 32.00
90257	5/8-11 X 3 HX BOLT - 304 SST	\$ 6.00
90260	5/8-11 SEMI-FIN HX NUT-SIL BRZ	\$ 3.00
90263	5/8X2-1/2 HX STL BOLT&STL NUT	\$ 4.00
90267	5/8X2-3/4 HX STL BOLT&BRZ NUT	\$ 7.00
90297	5/8-11X2-3/4 HX BOLT-BRZ	\$ 8.00
90307	3/4-10X3 HEX HEAD BOLT-304 SST	\$ 7.00
90317	3/4-10X3-1/4HX BOLT&NUT	\$ 6.00
90336	3/4-10 SEMI-FIN HX NUT-BRZ	\$ 4.00
90356	7/8-9 HEX NUT 316 SST	\$ 5.00
90358	7/8-9 HEX NUT STL-ZINC CHROM	\$ 2.00
90365	7/8-9 X 3-1/2 HX BOLT 304 SST	\$ 21.00
90382	3/4-10X2 BOLT 304SST W/NYLOK	\$ 14.00
95005	5/8RUBBER CONN.WASHER MUEL.#	\$ 0.45
95034	3/4 X 2-1/2 STD TL PC 12 SIDE	\$ 20.00
95036	3/4X2-1/8 SHORT TLPC SMOOTH	\$ 37.00
95037	3/4 STD BENT TAILPIECE	\$ 47.00
95080	1 1/4 CONNECTION ASSEMBLY	\$ 230.00
95085	1 PR 1-1/4STD CONN ASM L/BUSH	\$ 103.00
95097	1-1/2 RUBBER CONN WSHR	\$ 1.96
95098	1 1/2 RIBBED TAILPIECE	\$ 28.00
95099	2X1 1/2 RED BUSHING BRZ	\$ 21.00
95101	1 1/2 TWO BOLT FLANGE-CI	\$ 58.00
95104	1 1/2 2-BOLT IRON FLG COMP-PO	\$ 64.00
95105	1-1/2 2-B FLG GSKT 1/8 BUNA 70	\$ 4.00
95106	1-1/2 2B FLG GSKT REINFORCED	\$ 4.00
95107	2" 2B FLG GSKT REINFORCED	\$ 4.00
95112	1 1/2 TWO BOLT FLANGE-BRZ	\$ 67.00
95117	2 IN CONNECTION WASHER-RUBBER	\$ 5.00
95119	2X2 1/2 REDUCING BUSHING	\$ 78.00
95121	2 TWO BOLT FLANGE-CI	\$ 47.00
95122	2"2-BOLT FLG GSKT 1/8 BUNA 70	\$ 4.00
95132	2 TWO BOLT FLANGE-BRZ	\$ 36.00
95154	1 PR 1-1/2 STD CONN ASM L/BUSH	\$ 70.00
95155	1 PR 2"STD CONN ASM L/BUSHING	\$ 64.00
95157	1PR- 5/8 STD CONNECTIONS	\$ 18.00
95161	1 PR-3/4 STD CONN.&WASHERS	\$ 18.00
95166	1PR- 1"STD CONNECTIONS	\$ 24.00
95174	1PR- 1 1/2 CONNECTIONS	\$ 110.00
95175	1-1/2 CI 2B COMP FLG KIT	\$ 47.00
95176	1-1/2 BRZ 2B COMP FLG KIT	\$ 129.00
95177	1PR- 2 CONNECTIONS	\$ 138.00
95178	2" CI 2B COMP FLG KIT	\$ 56.00
95179	2" BRZ 2B COMP FLG KIT	\$ 131.00
95237	3 BRZ FLANGE ASSY COMP-PO	\$ 428.00
95240	PAIR 3 IRON FLANGE ASSYS-PO	\$ 96.00
95241	PAIR 4 IRON FLANGE ASSYS-PO	\$ 133.00
95242	PAIR 6 IRON FLANGE ASSYS-PO	\$ 198.00
95243	PAIR 8 IRON FLANGE ASSYS-PO	\$ 262.00

95244	PAIR 10 IRON FLANGE ASSYS-PO	\$ 589.00
95247	PAIR 3 BRZ FLANGE ASSYS-PO	\$ 531.00
95248	PAIR 4 BRZ FLANGE ASSYS-PO	\$ 1,293.00
95249	PAIR 6 BRZ FLANGE ASSYS-PO	\$ 1,331.00
95340	2X6 1/2LG-2B FLGD SPOOL-EPOXY	\$ 337.00
95341	3 X 12 LG STL FLGD SPOOL-EPOXY	\$ 284.00
95342	3X4-7/8 LG SPOOL WELD EPOXY	\$ 194.00
95343	6 X 18 1/2 LG FLGD SPOOL-EPOXY	\$ 509.00
95344	4"X15"LG STL FLGD SPOOL-EPOXY	\$ 365.00
95408	3X12 WLD SPL EPX W/2"TAP&PLUG	\$ 284.00
95409	4X15 WLD SPL,EPX,W/2"TAP&PLUG	\$ 365.00
95410	6X18-1/2WLD.SPL,EPX,W/2TAP/PLG	\$ 509.00
95420	3X11-3/4WLD SPL,EPX,W/2TAP PLG	\$ 284.00
95421	4X14-3/4WLD SPL,EPX,W/2TAP PLG	\$ 365.00
95422	6X18-1/4WLD SPL,EPX,W/2TAP PLG	\$ 509.00
95423	3X5-3/4"DIP SPOOL,F/F,SEALCOAT	\$ 266.00
95424	4X7-1/4"DIP SPOOL FXF SEALCOAT	\$ 353.00
95425	6X9-1/4" SPOOL,DUCT.IRON FLG	\$ 458.00
96001	3/4X1 9/16 TAILPIECE 12 SIDED	\$ 32.00
96002	3/4X3 13/16 TAILPIECE 12 SIDED	\$ 56.00
96006	3/4X4 1/16 TAILPIECE 12 SIDED	\$ 35.00
96027	1/2 BRASS COUPLING	\$ 9.00
96036	3/4X90 BRASS ELBOW 125 LBS	\$ 15.00
96041	3/4X1/2X3/4 125ASA BRASS TEE	\$ 29.00
96048	2NPTX1-1/2NPT REDUCING BUSHING	\$ 34.00
96106	3/4 CURB COCK 360* FIP X FIP	\$ 131.00
96111	1/2 SILCOCK MATCO/NORCA 205F03	\$ 31.00
96208	1 1/2" NRS GATE VALVE-ITALY	\$ 52.00
96220	8"OS&Y GATE VALVE W/TAP FLGD	\$ 1,371.00
96332	3/4 NIBCO RING CHK VLV T-480-Y	\$ 65.00
96486	3/4"FULLPORT BRZ BV FXF T-HAND	\$ 36.00
96488	1"FL/PORT BRZ BV FXF TEE-HANDL	\$ 51.00
96492	2"FULL PORT BRZ BALL VLV FXF	\$ 172.00
96531	3/4MALE/FEM BZ BV T-HND NO TAP	\$ 36.00
98178	6-32X1/2 SLTD SCRW 316 SST	\$ 0.48
98180	6-32X5/8 SLTD FLT SCRW 316 SST	\$ 0.54
98191	8-32X7/8SLOT FIL MACH SCRW 316	\$ 1.28
98192	8-32X3/4SLOT FLT MACH SCRW 316	\$ 1.19
98302	O-RING #1-128 70 DURO BUNA-N	\$ 1.86
98311	O-RING #2-259 60 DURO BUNA-N	\$ 12.00
98366	CARBIDE THRUST BEARING 1/4 OD	\$ 33.00
98392	SAPPHIRE THRUST BRG 1/8DX1/32T	\$ 11.00
98393	SAPPHIRE THRUST BRG 3/16DX1/16	\$ 11.00
98396	WASHER 21/32ODX.130IDX.020-SST	\$ 27.00
99801	1/4-20X7/16 SLT FIL SPEC SCRW	\$ 0.77
99803	5/16-18X1/2SCRW-CHR-PO-PRIOR86	\$ 15.00
99922	10-32X1/2SET SCR-CUP PT-304SST	\$ 0.98
99923	10-32X5/8SET SCR-CUP PT-304SST	\$ 1.07
99941	1/16DIA BALL 316 SST GRADE 200	\$ 0.22
99944	4-48X1/4SLT FIL HD SCRW-303SST	\$ 0.66
99968	WASHER 3/8 X .130X.020 316 SST	\$ 0.35
99972	12-24X7/8 SLOT FIL SCR-316 SST	\$ 3.00

99990	#12-24X9/16 SPEC SLOT SCRWB-CHR	\$ 10.00
981971	6-32X3/16"UNC SS PH RED	\$ 0.07
981972	6-32X3/16"UNC SS PH GREEN	\$ 0.07
981973	6-32X3/16"UNC SS PH BLACK	\$ 0.07
923701011	GASKET RING RUBBER 1/16X3	\$ 4.00
923701014	GASKET RING RUBBER 1/16X4	\$ 5.00
923701015	GASKET RING RUBBER 1/16X6	\$ 10.00
923701016	GASKET RING RUBBER 1/16X8	\$ 15.00
923701017	GASKET RING RUBBER 1/16X10	\$ 13.00
923701018	GASKET RING RUBBER 1/16X12	\$ 15.00
9603A	3/4 BRASS STREET ELBOW	\$ 13.00
9604A	3/4 X 4-3/4 BRASS SPACE NIPPLE	\$ 15.00
9605F	3/4 NPT BRASS CLOSE NIPPLE	\$ 4.00
9607F	2X5-1/2 BRASS SPACE NIPPLE	\$ 67.00
9614F	3/4 NPT X 3 BRASS SPACE NIPPLE	\$ 7.00
9615G	3/4X6-3/4 BRASS SPACE NIPPLE	\$ 16.00
9619J	3/4 X 2-1/4 BRASS SPACE NIPPLE	\$ 7.00
96217FM	3"OSY GATE VLV NO TAP FLG FM	\$ 699.00
9631K	3/4X4-1/2 RED BRASS NIPPLE	\$ 15.00
96484H	2 NRS-R.W.GATE-AMERICAN	\$ 87.00
A126582	LOCKING PIN DARK GRAY	\$ 0.50
A12658P	LOCKING PIN PURPLE	\$ 0.50
A13014	10-32 X1 TYPE 1 CROSS RECESS	\$ 0.15
A13015	22/3 SOLID NS PVC .158 OD	\$ 0.45
A13082	420 3/4" INTEGRAL SPUD WASHER	\$ 0.39
A13084	5'NICOR HYDROCONN MALE CON	\$ 15.00
AS7281	SCREW #6-32 X 3/8PANHD TRIWING	\$ 0.90
AS729	#6 X 5/8 LG SELF TAPPING SCREW	\$ 1.46
AS730	#6 X 7/8 LG SELF TAPPING SCREW	\$ 1.46
B7753	SEAL REGISTER II	\$ 1.38
B7823	5/8 DISC / PIN ASSY	\$ 12.00
B7856P	RECLAIM REG MOUNTING KIT	\$ 29.00
B8638FS	TRANSLATOR LID RED	\$ 1.27
C5770P	HOUSING INSERT IIS PURPLE	\$ 3.00
C5805	REGISTER HOUSING BASE TRL	\$ 4.00
C5922	CHAMBER RETAINER 1"	\$ 1.57
C5961	MVR REG MAG SPINDLE ASM	\$ 18.00
C6142	MVR30-160 TAMPER RESIST ASM PO	\$ 111.00
C6622	REGISTER REMOVAL TOOL	\$ 149.00
C6627	420 BOTTOM PLATE	\$ 9.00
COMP-TOOLKIT	COMPOSITE BTM RMVL FXTR-KIT	\$ 370.00
COMP-WRENCH	COMPOSITE WRENCH	\$ 131.00
ERT00LBIT	TRIWING BIT ONLY #W3	\$ 13.00
ERT00LKIT	TOOLKIT (SCREWDVR & TRWING)	\$ 42.00

Misc. Electronics: Miscellaneous AMR/AMI Accessories

Part Number	Description	Retail Price
A13047	TRU-READ ON DEMAND WAND	\$ 7.00
AAMRD234-6	3M CRIMPER PLIERS	\$ 45.00
AAMRPS-2GBFLASH	PSION WAP 2GB COMPACT FLASH	\$ 50.00
AAMRPS-CA1051	PSION WAP DESKTOP PWR LEAD	\$ 20.00

AAMRPS-CA1210	PSION WAP VEHICLE DOCK PWR EXT	\$ 350.00
AAMRPS-PS1055	PSION WAP DESKTOP PWR SUPPLY	\$ 22.00
AAMRPS-WA1010	PSION WAP VEHICLE CRADEL 12V	\$ 630.00
AAMRPS-WA3000	PSION WAP REGULAR BATTERY	\$ 147.00
AAMRPS-WA3003	PSION WAP DOOR H-CAP BATTERY	\$ 31.00
AAMRPS-WA3004	PSION WAP BATTERY CHRGR QUAD	\$ 1,324.00
AAMRPS-WA3006	PSION WAP H-CAPACITY BATTERY	\$ 255.00
AAMRPS-WA3019	PSION WAP BACK UP BATTERY	\$ 84.00
AAMRPS-WA3112	PSION WAP PWR SUPPLY AUTO	\$ 200.00
AAMRPS-WA3C	PSION WORKABOUT PRO 3	\$ 3,045.00
AAMRPS-WA4003	PSION WAP SINGLE G2/G3 DOCK	\$ 248.00
AAMRPS-WA4006	PSION WAP VEHICLE CRADLE MOUNT	\$ 116.00
AAMRPS-WA4020	PSION WAP TETHER USB-RS232	\$ 245.00
AAMRPS-WA4204	PSION WAP MULTI-4 G2/G3 DOCK	\$ 1,152.00
AAMRPS-WA6020	PSION WAP HANDSTRAP	\$ 60.00
AHRANTENNA	800/900 MHZ MOBILE ANTENNA	\$ 56.00
AHRANTENNA-BASE	ANTENNA BASE GR8XTI	\$ 48.00
AHRCBL	HR 9 PIN SER CABLE/ C184-02711	\$ 20.00
AHRHP03DL	HOT ROD HP DATA LOG 3'WIRE	\$ 115.00
AHRHP25DL	HOT ROD HP DATA LOG 25'WIRE	\$ 115.00
AHRLP03	HOT ROD LP GRAY 3'WIRE	\$ 115.00
AHRLP03DL	HOT ROD LP DATA LOG 3'WIRE	\$ 115.00
AHRLP15	HOT ROD LP GRAY 15'WIRE	\$ 115.00
AHRLP15DL	HOT ROD LP DATA LOG 15'WIRE	\$ 115.00
AHRPITSTOP	PIT STOP DIAGNOSTIC HANDHELD	\$ 600.00
AHRPITSTOPANT	ANTENNA FOR PIT STOP	\$ 30.00
AHRPITSTOPBAT	AA BATTERY 4 PACK FOR PIT STOP	\$ 6.00
AHRPOWER	STREET MACHINE POWER SUPPLY	\$ 49.00
AHRSTREET-KIT	STREET MACHINE COMPLETE	\$ 5,854.00
AMR130021010	CABLE DUAL DC POWER FT& PAN.TB	\$ 472.00
AMR135030010	PSION/HANDTRACKIT CARRY CASE	\$ 205.00
AMRA29990115	PSION LEATHER CASE W/STRAP	\$ 154.00
AMRCOM1T	COMM BOX FOR TRANS + HOT ROD	\$ 443.00
AMRCOM3PM	PULSER MODULE	\$ 500.00
AMRGPS-GARMIN	GARMIN GPS 10x FOR PC	\$ 361.00
AMRTRL-READER	TRL REG READER COMPLETE	\$ 200.00
AMRTRL-READER-CC	TRL REG READER COMPLETE CC	\$ 200.00
C6551G	TRU-READ REMOTE REG DARK GRAY	\$ 75.00
H501MPEP701	METREPRO EP701 POCKET READER	\$ 822.00
H501VP1WAND	VERSAPROBE VP-31 WAND	\$ 3,191.00
H501VP3WAND	VERSAPROBE VP33NEPTUNE ARB ADP	\$ 4,392.00
H501VP4TWAND	VERSAPROBE VP-34T PITWAND	\$ 3,663.00
H501VPBCUS	VERSAPROBE BATTERY CHARGER US	\$ 175.00
H501VPBTSW	BLUETOOTH WIRELESS CARD W/SW	\$ 522.00
H501VPCBLDP	VERSAPROBE INTERFACE CABLE-DAP	\$ 503.00
H501VPCBLFS	VERSAPROBE INTERFACE CABLE FS3	\$ 402.00
H501VPCBLIT2	VERSAPROBE INTERFACE CBL-FC2G5	\$ 402.00
H501VPCBLLG	VERSAPROBE INTRFACE CBL AR5000	\$ 242.00
H501VPCBLNG1	VERSAPROBE INTRFC CBL NG1(PS2)	\$ 402.00
H501VPCBLPCDI	VERSAPROBE INTERFACE CBL-PCDI	\$ 156.00
H501VPCBLPS	VERSAPROBE INTRFC CBL PSION G1	\$ 402.00
H501VPCBLSN1	VERSAPROBE INTERFACE S4000	\$ 590.00

IADOCKX	DESK DOCK SERIAL W/CHRG BAY	\$ 633.00
IAEZFLASH	FLASH DRIVE 512MB	\$ 40.00
IAEZMAP	MICROSOFT MAP POINT SW	\$ 450.00
IAEZUSB-SERIAL	USB TO RS232 1FT 9PIN MALE	\$ 20.00
ICBA0771-003	ITRON CABLE CONNECTOR MALE	\$ 20.00
ICFG0151-001	ITRON CABLE CONNECTOR 5' (FE)	\$ 29.00
ICFG0151-002	ITRON CABLE CONNECTOR 25' (FE)	\$ 38.00
ICON0774-002	60W SHORTING CONNECTORS	\$ 7.00
IERTCLIP	ERT ADAPTER CLIP	\$ 0.60
IERTCONNECTOR	3M UY 2 CONNECTOR	\$ 0.51
IERTTUBE	BURIAL SPLICE TUBE ONLY	\$ 3.00
IERW0771-202	60W ITRON ENDPOINT W/CC	\$ 130.00
IERW0771-212	60W ITRON ENDPOINT W/5' WIRE	\$ 130.00
IERW0771-412	60W-R ITRON INDOOR ENDPNT 30/B	\$ 86.00
IERW1300-005	100W ENDPOINT SGL 20"CC 24/BX	\$ 153.00
IVWP0001-001	200WP,PIT ENDPOINT SGL INPUT	\$ 243.00
IVWP0001-002	200WP,PIT ENDPOINT DUAL INLINE	\$ 268.00
SUB-0153-311	MALE END ERT CONNECTOR	\$ 20.00
T1234	WALL MOUNT TOUCH PAD	\$ 8.00
T1240	PIT TOUCH PAD W/5' WIRE	\$ 16.00
T1241	PIT TOUCH PAD W/25' WIRE	\$ 24.00



10210 Statesville Blvd.
P. O. Box 128
Cleveland, NC 27013
Office: 704.278.2221
Fax: 704.278.9616

December 12, 2011

City of Sacramento, CA

Bid No. B123351012 Cold Water Meters
Due: December 14, 2011 2:00PM

Exceptions to City of Sacramento, CA Specifications

~City Business Operations Tax Certificate (Page 18)

-If necessary, should Mueller Systems receive notice of award we will at that time submit application for license

~Invoices (Page 29)

-Single copy of invoice is mailed

~Encoder Register (Page 31)

-Hersey Translator includes Grilamid lens
-Available with a 5' Nicor connector

~Positive Displacement Meter (Page 35)

-Hersey Model 452 includes plastic liner

K. Anita Short
Quotations Specialist

400 Series IIS

Mueller SYSTEMS

Magnetic Drive Positive Displacement Disc Meters
Sizes 5/8" - 3/4" - 1"

Features

APPLICATIONS: Measurement of cold water for residential and small commercial applications where water volumes are low, and low flow sensitivity is important.

CONFORMANCE TO STANDARDS: Hersey Series 400 IIS Water Meters comply with latest version of ANSI/AWWA Standard C700. Meters which are manufactured with the EnviroBrass® maincase option meet the requirements of NSF Standard 61. Each meter is tested to ensure compliance.

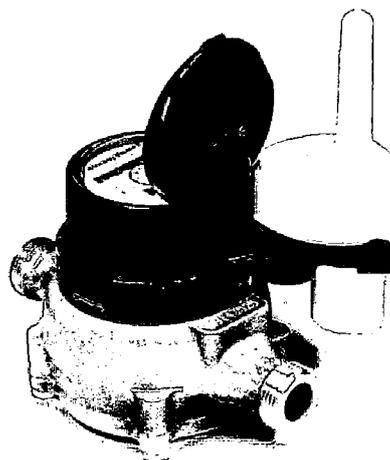
CONSTRUCTION: Hersey 400IIS Water Meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase is made of bronze for long life. Direction of flow arrows and model are cast into each maincase. The bottom cover is epoxy-coated cast iron with a molded plastic liner separating it from the waterway. Optional plastic and bronze bottom covers are available. The measuring chambers are large for reduced wear during operation. The measuring chamber, integral strainer, nutating disc and thrust roller are thermoplastic, which is dimensionally stable and will not corrode. The thrust roller moves smoothly along a stainless steel wear plate to reduce friction and maintain accuracy. The register box and lid are available in plastic or bronze. The meter is designed so that the register can be replaced without removing the meter from the line.

REGISTER: The permanently sealed register has a unique seal and heat-treated glass to eliminate dirt, moisture infiltration and lens fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, a 360° test circle with center sweep hand and a low flow (leak) detector. Standard gearing is used, making registers interchangeable by size. All Hersey meter Models have electronic meter reading systems available for increased reading efficiency (see Meter Reading Systems.)

OPERATION: Water flows through the meter's strainer where debris is screened out. The incoming water fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters, it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is coupled magnetically to the register to indicate the volume of water that passes through the meter. The large capacity measuring chamber requires fewer nutations of the disc for each gallon measured, which helps to limit wear, extend the life of the meter, and reduce pressure loss.

MAINTENANCE: The Hersey Series 400 IIS Water Meters are designed and manufactured to provide long service life with virtually no maintenance required.

CONNECTIONS: Supplied with external straight pipe threads (NPSM) per ANSI B1.20.1.



430IIS with Integral HOT ROD

400 Series IIS

Materials and Specifications

MODEL NUMBER	430IIS, 442IIS, 452IIS
SIZES	5/8"x1/2", 5/8"x3/4", 3/4"x3/4", 3/4"x1" and 1"x1"
STANDARDS	Manufactured and tested to meet or exceed all applicable parts of ANSI/AWWA C700 Standard EnviroBrass options meet requirements of NSF Standard 61.
SERVICE	cold water measurement with flow in only one direction
OPERATING FLOW RANGE	See Chart on the following page
ACCURACY	See Chart on the following page
PRESSURE LOSS	See Chart on the following page
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33F to 100F Water Temperature
MEASURING ELEMENT	Nutating Disc
DISC NUTATIONS (per Gallon)	430IIS: 49.6, 442IIS: 22.4, 452IIS: 11.7
REGISTER TYPE	Straight reading, permanently sealed, magnetic drive with low flow indicator. Remote reading units optional.
METER CONNECTIONS	1/2", 3/4", 1" external (NPSM) straight pipe threads per ANSI B1.20.1
MATERIALS	Meter case - bronze UNSC84400; Bottom cover - cast iron ASTM A126 CL. B; Chamber top/bottom - thermoplastic; Nutating disc - thermoplastic; Disc pin - stainless steel; Thrust roller - thermoplastic; Wear plate - stainless steel; Coupling - Ceramic magnet; Strainer - thermoplastic; Coupling shaft - stainless steel ANSI B18; Top cover bolts - stainless steel ANSI B18; Bottom cover bolts - stainless steel ANSI B18; Register box and lid - thermoplastic.
OPTIONS	Meter case - EnviroBrass® UNSC89520 Bottom cover - bronze UNSC84400 or thermoplastic; EnviroBrass Register box and lid - bronze UNSC85700; AMR Reading Systems

Meter Registration

Meter Size	Initial Dial*	Capacity	Initial Dial*	Capacity
5/8"	10 Gallons	10 Million	1 Cubic Feet	1 Million
3/4"	10 Gallons	10 Million	1 Cubic Feet	1 Million
1"	10 Gallons	10 Million	1 Cubic Feet	1 Million

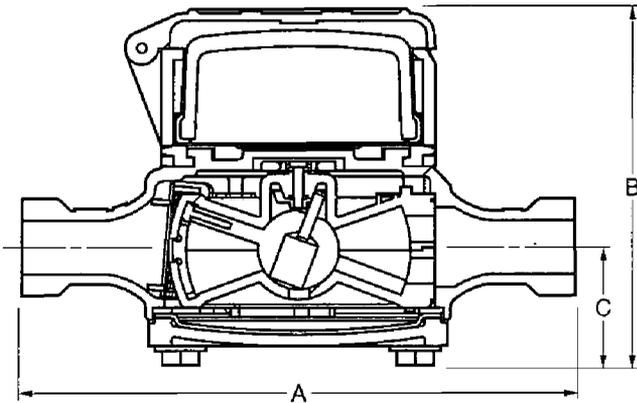
*Registration equal to one full revolution of the sweep hand.

Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum)	Typical Operating Range (100% ± 1.5%)	Maximum Continuous Operation
5/8"	1/4 GPM	1/2 to 25 GPM	15 GPM
3/4"	1/2 GPM	3/4 to 35 GPM	25 GPM
1"	3/4 GPM	2 to 50 GPM	35 GPM

NOTE: Performance curves are typical only and NOT a guarantee of performance.

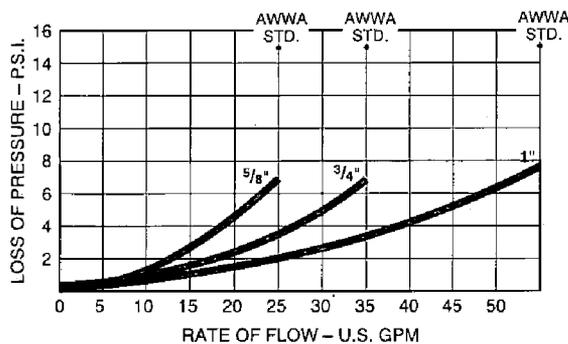
Dimensions and Weights



Meter Size	5/8"	3/4"	3/4" Short	3/4" x 1"	1"
Ends External (NPSM) straight pipe threads					
Model	430	442	442	442	452
Dimensions					
A	7-1/2"	9"	7-1/2"	9"	10-3/4"
B	4-15/16"	5-11/16"	5-11/16"	5-11/16"	6-5/8"
C	1-5/8"	1-15/16"	1-15/16"	1-15/16"	2-1/8"
Width	4.25"	6.39"	6.39"	6.39"	7.22"
inlet & outlet	1/2" or 3/4"	3/4"	3/4"	1"	1"
Net weight	4-1/2	8-1/2	8	9	11

Performance

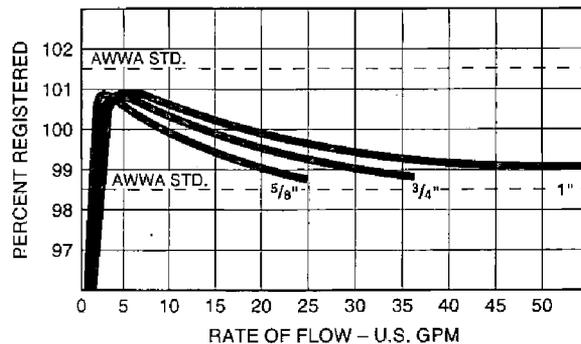
HEAD LOSS - 5/8", 3/4" AND 1" (Figure 1)



NOTE: Performance curves are typical only and NOT a guarantee of performance.

Performance

ACCURACY - 5/8", 3/4", AND 1" (Figure 2)



400 Series IIS

Mueller SYSTEMS

Magnetic Drive Positive Displacement Disc Meters
 Sizes 5/8" - 3/4" - 1" Parts

400 Series IIS

Ref No.	Description	Material	5/8" Model 430	3/4" Model 442	3/4" Model 442 Short	1" Model 452
1	Complete Register Housing Assembly Includes the following:	Plastic	B7856	B7856	B7856	B7856
		Bronze	B7857	B7857	B7857	B7857
2	Register Cover	Plastic	C5768	C5768	C5768	C5768
3	Spirol Pin	Plastic	AS41122	AS41122	AS41122	AS41122
		Bronze	AS41123	AS41123	AS41123	AS41123
4	Register Housing Base	-	C5769	C5769	C5769	C5769
5	Register Housing Insert	-	C5770	C5770	C5770	C5770
6	Register Locking Pin	Blue Color Plastic	A12658	A12658	A12658	A12658
		Brass Color Plastic	A126581	A126581	A126581	A126581
7	Visual Register USG	Glass/Brass	D32541	D32551	D32551	D32565
	Visual Register CF	Glass/Brass	D32542	D32552	D32552	D32566
	Translator Register USG*	Plastic/Brass	D35001xxx	D35021xxx	D35021xxx	D35031xxx
	Translator Register CF*	Plastic/Brass	D35002xxx	D35022xxx	D35022xxx	D35032xxx
Specify Electronic Reading Valve 4, 5, or 6 Wheel						
8	5/8" x 1/2 Main Case 2006 and after	Bronze	D35911	-	-	-
	5/8" x 1/2 Main Case 2006 and after	EnviroBrass	D35911SI	-	-	-
	5/8" x 3/4" Main Case 2006 and after	Bronze	D3591	-	-	-
	5/8" x 3/4" Main Case 2006 and after	EnviroBrass	D3591SI	-	-	-
	3/4" Regular Main Case 2006 and after	Bronze	-	D3585	-	-
	3/4" Regular Main Case 2006 and after	EnviroBrass	-	D3585SI	-	-
	3/4" Short Main Case 2006 and after	Bronze	-	-	A13042	-
	3/4" Short Main Case 2006 and after	EnviroBrass	-	-	A13042SI	-
	1" Main Case 2006 and after	Bronze	-	-	-	D3589
1" Main Case 2006 and after	EnviroBrass	-	-	-	D3589SI	
9	Complete Chamber Assembly Includes following parts 10-16	Plastic	C5690P0	C5691P0	C5691P0	C5692P0
10	Top Chamber Assembly	Plastic**	-	-	-	-
11	Bottom Chamber Assembly	Plastic**	-	-	-	-
12	Disc Assembly	Plastic/SST**	-	-	-	-
13	Thrust Roller	Plastic	A12644	A12644	A12644	-
		SST	-	-	-	A12662
14	Wear Plate	SST	B7648	B7665	B7665	B7666
15	Outlet Seal	Rubber	A130201	A130202	A130202	A130203
16	Chamber Retainer	Plastic	C5466	C5466	C5466	C5466
17	Strainer	Plastic	C5468	C5492	C5492	51026P045
18	Gasket	Rubber	B7647	C5488	C5488	C5489
19		Plastic	B7646	C5491	C5491	C5506
20	Bottom Cover 2006 and after	Cast Iron	B8627	B8626	B8626	B8623
	Bottom Cover 2006 and after	Bronze	B8628	B8622	B8622	B8624
	Bottom Cover 2006 and after	Plastic	C6603	-	-	-
21	Case Bolt 2006 and after	SST	90026 (4)	90010 (4)	90010 (4)	90010 (6)
22	Washer - Plastic Bottom Only	SST	AS4671 (4)	-	-	-

+Meter size 5/8" x 1/2"

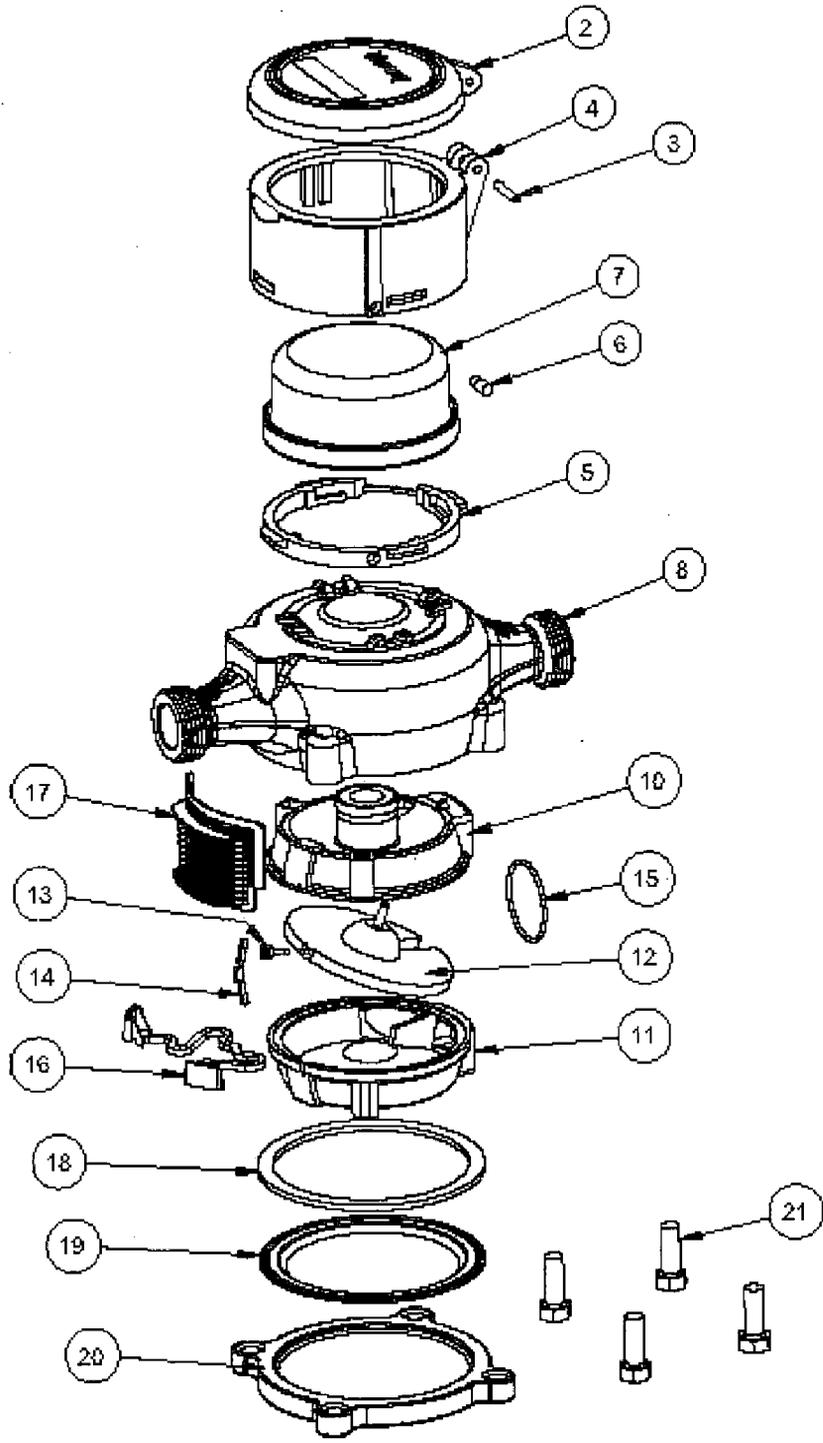
++Meter size 5/8" x 3/4"

*Call Mueller Systems Customer Service for appropriate Translator Register and AMR Device part number.

**Available only as part of item 9 - Complete Chamber Assembly. Note: If more than one part is required per assembly, quantity is noted after part number (in parenthesis). The different top and bottom case requirements for the various flange configurations. Bolt quantities and sizes vary.

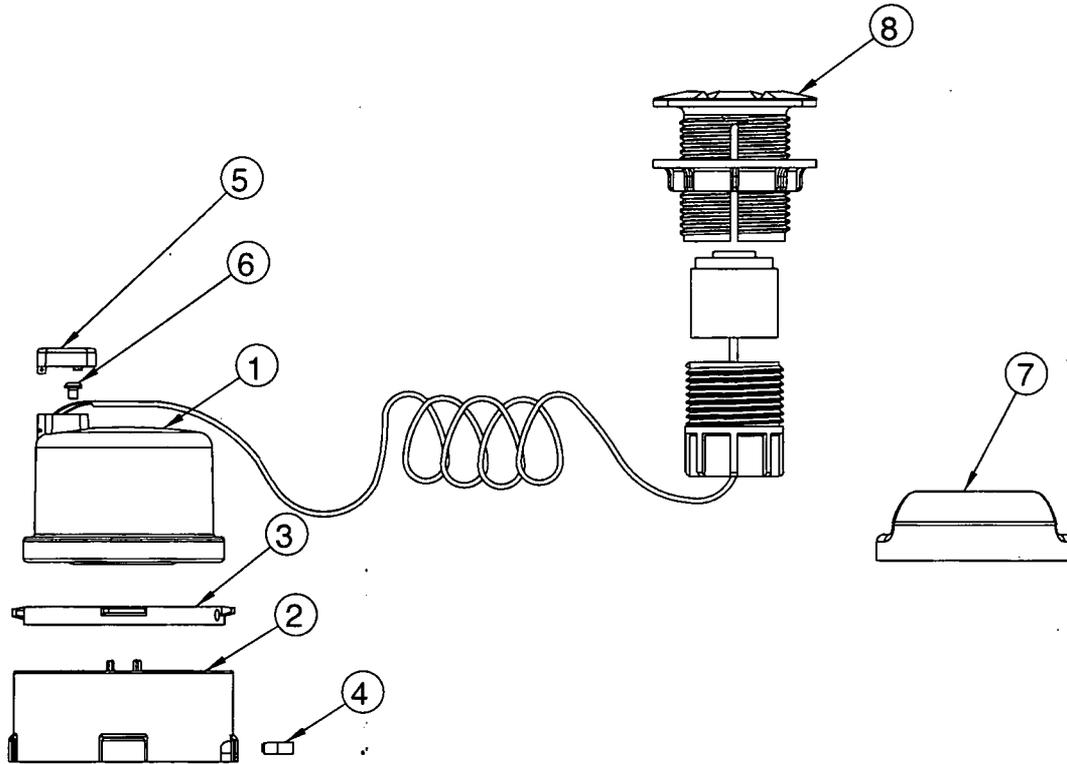
Magnetic Drive Positive Displacement Disc Meters
Models 430 IIS, 442 IIS, 452 IIS

400 Series IIS



Magnetic Drive Positive Displacement Disc Meters Translator Parts

400 Series IIS



Ref	Description	5/8" Model 430	3/4" Model 442	1" Model 452	1-1/2" Model 562	2" Model 572
1	Translator Register* Gallons Cubic Feet Specify Electronic Reading Value 4, 5, or 6 Wheel	D35001xxx D35002xxx	D35021xxx D35022xxx	D35031xxx D35032xxx	D35791xxx** D35792xxx**	D35831xxx** D35832xxx**
2	Register Housing Base (Plastic)	C5769	C5769	C5769	C5769	C5769
3	Register Housing Insert (Plastic)	C5770	C5770	C5770	C5770	C5770
4	Register Locking Pin (Blue Color Plastic)	A12658	A12658	A12658	A12658	A12658
5	Lens Terminal Cover	B8447	B8447	B8447	B8447	B8447
6	Terminal Lug Screw	98197 (3)	98197 (3)	98197 (3)	98197 (3)	98197 (3)
7	Wall Pad	T1234	T1234	T1234	T1234	T1234
8	Pit Pad with 3' of wire	T1235	T1235	T1235	T1235	T1235
9	1,000' Spool of Wire (not shown)	A13015	A13015	A13015	A13015	A13015
10	Register Housing Lid (not shown)	B8638	B8638	B8638	B8638	B8638

*Call Mueller Systems Customer Service for appropriate Translator Register and AMR Device part number.
**Begins with 2004 meters, for earlier retrofits call Mueller Systems Customer Service.

500 Series IIS

Mueller SYSTEMS

Magnetic Drive Positive Displacement Disc Meters
 Sizes 1-1/2" & 2"

Features

APPLICATIONS: Measurement of cold water for residential, commercial and industrial applications where water volumes are low, and low flow sensitivity is important.

CONFORMANCE TO STANDARDS: Hersey Series 500 IIS Water Meters comply with ANSI/AWWA Standard C700. Meters which are manufactured with EnviroBrass® II maincase option meet the requirements of NSF Standard 61. Each meter is tested to ensure compliance.

CONSTRUCTION: Hersey Series 500 IIS Water Meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase and topcase are made of bronze. The measuring chamber, nutating disc and strainer are made of thermoplastic, which is dimensionally stable and will not corrode. A test port in the body permits in-line testing. Register box and lid are available in plastic or bronze.

The meter is designed so that the register, measuring chamber and strainer can be replaced without removing the meter from the line.

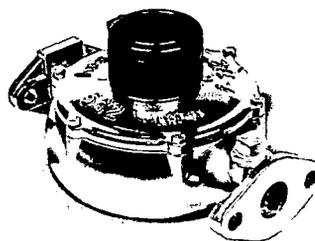
REGISTER: The permanently sealed register has a unique seal and heat-treated glass to eliminate dirt, moisture infiltration and lens fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, a 360° test circle with center sweep hand and a low flow (leak) detector. Standard gearing is used, making registers interchangeable by size.

All Hersey Meter Models have electronic meter reading systems available for increased reading efficiency (see Meter Reading Systems.)

OPERATION: Water flows through the meter's strainer where any debris that could adversely affect meter accuracy or free operation is screened out. As the water enters, it fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is coupled magnetically to the register to indicate the volume of water that passes through the meter. The large measuring chamber requires fewer nutations of the disc for each gallon measured, which helps to limit wear, reduce pressure loss and extend the life of the meter.

MAINTENANCE: The Hersey Series 500 IIS Water Meters are designed and manufactured to provide long service life with virtually no maintenance required.

CONNECTIONS: Available with integral two-bolt oval flanges, integral NPT internal threads or integral straight external threads.



562IIS



562IIS with Integral Hot Rod

500 Series IIS

Materials and Specifications

MODEL NUMBER	562IIS and 572IIS
SIZES	1-1/2" and 2"
STANDARDS	Manufactured and tested to meet or exceed all applicable parts of ANSI/AWWA C700 Standard. EnviroBrass® II options meet requirements of NSF Standard 61.
SERVICE	Cold water measurement with flow in only one direction
OPERATING FLOW RANGE	See Chart on following page
ACCURACY	See Chart on following page
PRESSURE LOSS	See Chart on following page
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33°F to 100°F water temperature
MEASURING ELEMENT	Nutating Disc
DISC NUTATIONS (per Gallon)	562IIS: 6.47, 572IIS: 3.92
REGISTER TYPE	Straight reading, permanently sealed, magnetic drive with low flow indicator. Remote reading units optional.
METER CONNECTIONS	1-1/2" size and 2" size available with two bolt flanged ends, internal threads or external threads (NPT - ANSI B1-20.1)
MATERIALS	Maincase - bronze UNSC84400; Measuring Chamber - Thermoplastic; Magnets - ceramic; Strainer - Thermoplastic; Casing bolts - stainless steel ANSI B18; Register box and lid - thermoplastic.
OPTIONS	Meter case - EnviroBrass® II UNSC89520 Register box and lid - bronze UNSC85700; AMR Reading Systems.

Meter Registration

Meter Size	Initial Dial*	Capacity	Initial Dial*	Capacity
1-1/2"	100 Gallons	100 Million	10 Cubic Feet	10 Million
2"	100 Gallons	100 Million	10 Cubic Feet	10 Million

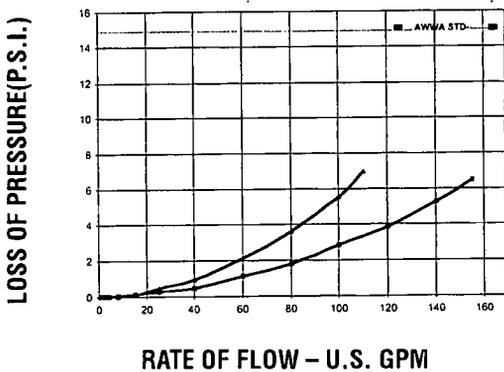
*Registration equal to one full revolution of the sweep hand.

Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum)	Typical Operating Range (100% ± 1.5%)	Maximum Continuous Operation
1-1/2"	1-1/2 GPM	5 to 100 GPM	50
2"	2 GPM	8 to 160 GPM	80

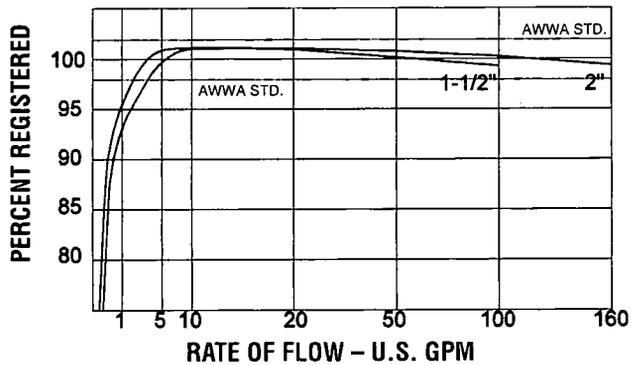
Performance

HEAD LOSS – 1-1/2" AND 2" (Figure 1)



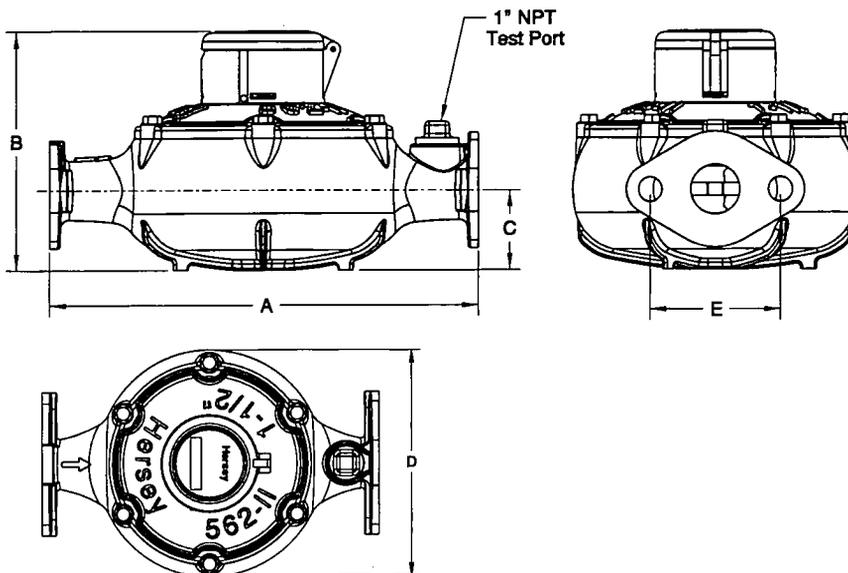
Performance

ACCURACY – 1-1/2" AND 2" (Figure 2)



NOTE: Performance curves are typical only and NOT a guarantee of performance.

Dimensions and Weights



Meter Size	1-1/2"	2"
Ends	Flanged, Female & Male	
Model	562	572
Dimension		
A	13"	17"
B	7.250"	8.125"
C	2.437"	3.00"
D	8.750"	10.437"
E	4.00"	4.50"
W	9-1/4"	10-1/2"
Net weight	18	28

NOTE: Meter couplings are optional and must be ordered separately. Weights are in pounds and are approximate.

500 Series IIS

Mueller SYSTEMS

Magnetic Drive Positive Displacement Disc Meters
 Sizes 1-1/2" & 2" Parts

500 Series IIS

Ref No.	Description	Material	562 1-1/2" Model	572 2" Model
1	Visual Register	US Gallons	D357715	D358115
		CF	D357725	D358125
	Translator Register*	US Gallons	D35791xxx	D35831xxx
		CF	D35792xxx	D35832xxx
Specify Electronic Reading Value 4, 5, or 6 Wheel				
2	Complete Register Housing Assembly Includes parts 3-7	Plastic	B7856	B7856
		Bronze	B7857	B7857
3	Register Cover	Plastic	C5768	C5768
		Bronze	C5774	C5774
4	Spirol Pin	Plastic cover: SST	AS41122	AS41122
		Bronze Cover: SST	AS41123	AS41123
5	Register Housing Base	Plastic	C5769	C5769
		Bronze	C5772	C5772
6	Register Housing Insert	Plastic	C5770	C5770
7	Register Locking Pin	Blue Colored Plastic	A12658	A12658
		Brass Colored Plastic	A12658I	A12658I
8**	Top Case 2 Bolt Flange	Standard Bronze	D3546	D3550
	Top Case 2 Bolt Flange	EnviroBrass® II	D3546SI	D3550SI
	Top Case Female	Standard Bronze	C6587	C6601
	Top Case Female	EnviroBrass® II	C6587SI	C6601SI
	Top Case Male	Standard Bronze	C6587	C6601
	Top Case Male	EnviroBrass® II	C6587SI	C6601SI
9**	Case Bolts for 2 Bolt Flange Units	SST	90026 (qty 6)	90010 (qty 8)
	Case Bolts for Female Flange Units	SST	90074 (qty 10)	90074 (qty 10)
	Case Bolts for Male Flange Units	SST	90074 (qty 10)	90074 (qty 10)
10	O-ring Case Seal	Rubber	A130206	A130207
11	Top Chamber Assembly		D3275ASSY	D3277ASSY
12	Chamber Retainer	Plastic	C5466	C5466
13	O-ring Chamber Seal	Ruber	A130204	A130205
14	Thrust Roller	SST	A12781	B8024
15	Wear Plate	SST	B8026	B8025
16	Disk Assembly	Plastic/SST	B8067	B8068
17	Bottom Chamber	Plastic	D3274	D3276
18	Chamber Assy Replacement Kit (incl. 10-17)		D3575	D3576
19	Strainer	Plastic	C6576	C6577
20	Test Plug	Standard Bronze	59008	59008
		EnviroBrass® II	59008SI	59008SI
		SST	59013	59013
21**	Bottom Case 2 Bolt Flange	Standard Bronze – test port	D35481	D35521
	Bottom Case 2 Bolt Flange	EnviroBrass® II – test port	D35481SI	D35521SI
	Bottom Case Female	Standard Bronze – test port	C65851	D3593F
	Bottom Case Female	EnviroBrass® II – test port	C65851SI	D3593FSI
	Bottom Case Male	Standard Bronze – test port	C65852	D3593M
	Bottom Case Male	EnviroBrass® II – test port	C65852SI	D3593MSI

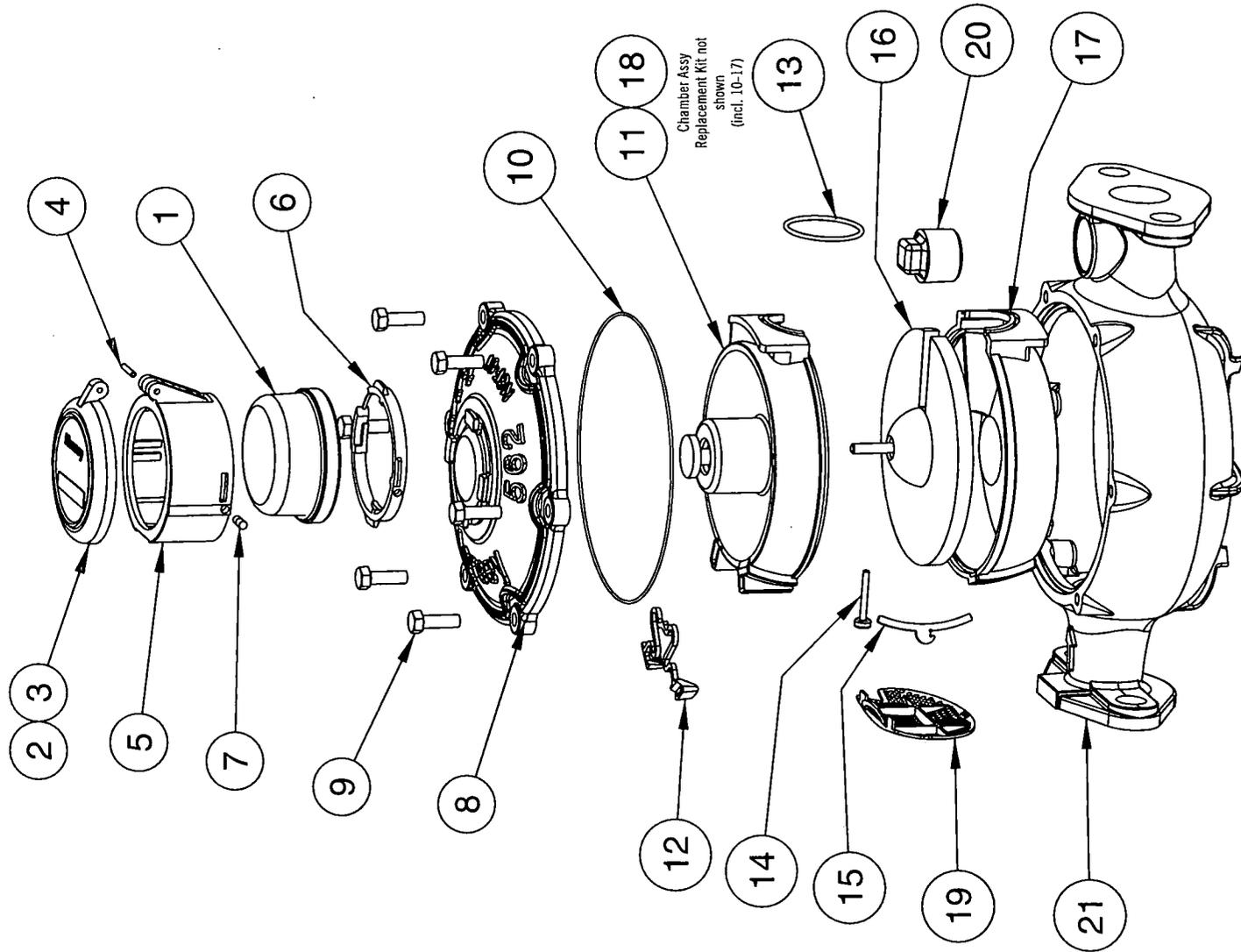
Call Mueller Systems Customer Service for Appropriate Translator Register and AMR Device part number

*Not shown.

**Note the different top and bottom case requirements for the various flange configurations. Bolt quantities and sizes vary.

500 Series IIS

Magnetic Drive Positive Displacement Disc Meters
Models 562 IIS and 572 IIS



Translator Encoder Register

Features

APPLICATIONS: The Mueller Systems Translator Encoder Register is available on all current model Hersey meters for use in Automatic Meter Reading Systems (AMR). The register allows accurate readings to be obtained conveniently from residential, commercial and industrial meter installations in hard-to-access locations. Using the Translator Encoder Register with an AMR/AMI system can increase the efficiency and accuracy of the meter reading process.

The register is a true absolute encoder register that provides direct electronic transfer of meter reading information from a current Hersey meter to any of a number of AMR/AMI device options. The register sends data in ASCII format (American Standard code for Information Interchange), a standard format used by virtually all modern computers and communications devices. The Translator Encoder Register uses the same open architecture variable length protocol in ASCII format as is used by other commonly used encoder registers.

The register is available for meter sets installed indoors with a run of wire up to 300 feet to an outside wall mounted touch pad. For pit applications, the Translator Encoder Register is factory wired and potted to provide reliability in moist conditions.

With minimal cost and labor, the Translator Encoder Register can be retrofitted to current Hersey meters already in service.

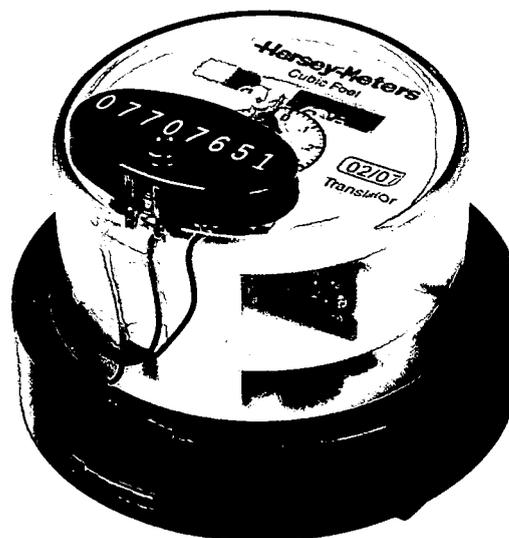
CONFORMANCE TO STANDARDS: Complies with AWWA Standard C707 for Encoder Remote Reading Systems, American Standard Code for Information Interchange (ASCII).

CONSTRUCTION: The Translator Encoder Register is permanently sealed to exclude dirt and/or moisture infiltration. The register has a straight reading odometer-type display, and 360° test circle with center sweep hand and low flow (leak) detector. A tamper-proof locking feature is provided to resist tampering with the register. For pit applications, the wire assembly is factory potted for moisture resistance.

OPERATION: The Mueller Systems Translator Encoder Register uses an absolute encoder to directly read the actual position of the index odometer wheels, when interrogated by a reading device (Touch Probe or Radio MIU). The reading device provides all necessary power. There are no pulse outputs or memory modules to program and the register has no battery.

When an AMR/AMI device interrogates the register, the Translator encoder communicates to the device in ASCII computer language the absolute meter reading, and an eight-digit identification number. Any error or nonread is immediately indicated by the meter reading equipment, providing virtually error-free reading.

All Translator Encoder Registers are standard with full 6-wheel encoding, and have a 6-wheel odometer assembly for direct manual reading. The electronically collected data will depend upon the particular requirements of the utility. Utilities billing in common units, such as thousands of gallons or hundreds of cubic feet, are able to use the electronic meter readings without performing intermediate calculations. This can be done by specifying 4, 5, or 6-wheel encoding Translator Encoder Registers.



Translator™

Materials and Specifications

MODEL	Translator
REGISTER TYPE	4, 5 or 6 Wheel Absolute Encoder
SIZES	All Current Hersey Meters
TEMPERATURE RANGE	33°F to 120°F
CABLE	22 AWG 3-strand wire
MATERIALS	Grilamid Lens, Copper bottom, Self-lubricating Thermoplastic Gears, Ceramic Magnet, Stainless Steel Shafts.

AMR/AMI Compatibility

- Mueller Systems Hot Rod AMR Solution
- Mi.Net AMI Solution
- Mueller Systems EZ Reader™ Software
- Versa Probe®
- Itron® Meter Interface Units
- Many other AMR/AMI Systems

Dimensions

Model	Application	Wire Length
Translator	Inside Meter Setting	Up to 300'
Translator Pit	Pit Meter Setting Wiring factory installed	5' or 25'

Electronic Reading Values

Effective 2006 all 5/8" through 1" and 1-1/2" through 2" Mueller Systems Translators are offered with standard visual read odometer wheel configuration in either 1000 gallon or 100 cubic foot registration. Electronic output for all meters is indicated by a label on the side of the register. The label will indicate 4, 5 or 6 wheel electronic resolution by the number of Xs on the label.

Sizes 5/8", 3/4" and 1" Hersey Meters
<p>Standard Visual Resolution</p> <p>1,000 Gallons</p>
<p>100 Cubic Foot</p>
Sizes 1-1/2", 2", 3" MVR, 3" MFMs and 3" Horizons
<p>1,000 Gallons</p>
<p>100 Cubic Foot</p>

All other Hersey meters offer Electronic Registration in 1000 Gallons or 100 Cubic Feet

Versa Probe® is a registered trademark of Northrop Grumman, San Diego, CA

Itron® is a registered trademark of Itron Inc., Spokane, WA

LIMITED WARRANTY FOR MUELLER SYSTEMS PRODUCTS

This Warranty shall apply to the Mueller Systems hardware and software products specified in Appendix A (respectively, the "Hardware" and "Software" and collectively, the "Products") and is extended only to utilities, municipalities and other commercial users of the Products (referred to as the "Customer").

Product Warranty

Subject to the limitations and conditions set forth herein, Mueller Systems warrants that commencing from the date of shipment to the Customer and continuing for the period set forth in Appendix A (referred to as the "Warranty Period"); (a) the Hardware will be free from defects in materials and workmanship under normal use, installation and service conditions; (b) the media on which the Software is furnished will be free of defects in materials and workmanship under normal use; and (c) the Software substantially conforms to the applicable published Mueller Systems functional specifications for the Software. Except as provided for in Appendix A, Mueller Systems will, at its option, either repair or replace the Product if it malfunctions or becomes inoperable due to a defect in workmanship or materials during the Warranty Period. If in its sole discretion Mueller Systems determines that it is unable to repair or replace the Product, it will refund to Customer a pro-rated amount paid for the defective Product. Products that are repaired or replaced under this Warranty will be warranted for the remainder of the original Warranty Period or 30 days, whichever is longer.

Exclusions

If, in Mueller Systems' sole judgment, a Product has been subject to misuse, neglect or accident or has been damaged through abuse, alternation, improper installation or application, failure to follow Mueller Systems' operation or maintenance instructions or negligence in transportation, handling, or storage, or repaired by anyone other than Mueller Systems or its authorized personnel, this Warranty will not be applicable. For Software, this Warranty will not apply if there has been a change to the Software's operating environment not made or authorized by Mueller Systems; Customer fails to install any correction or enhancement provided by Mueller Systems; or a virus is introduced through not fault of Mueller Systems. This Warranty will also not cover damage due to acts of God, power failures, lightning, fire, flood, severe weather, hailstorms, insect and pest infestation, and other events reasonable beyond Mueller Systems' control.

Product Returns

Claims under this Warranty will be considered if submitted to Mueller Systems within 60 days

following the discovery of any defect covered by this Warranty and provided Mueller Systems or its agents are permitted a commercially reasonable opportunity to examine and analyze the material or workmanship claimed to be defective. If Mueller Systems elects to repair the Product, Customer will send it, properly packaged, to a repair facility designated by Mueller Systems. Customer will pay the cost of returning defective Products to the place of repair designated by Mueller Systems and Mueller Systems will pay the cost of delivering repaired or replacement Products to Customer.

Limits of Warranty and Liability

Damage to persons or property or other loss or injury resulting from defects in the Products or from improper installation or use shall not be the responsibility of Mueller Systems. Mueller Systems will not under any circumstance be liable for any indirect, special, incidental or consequential damages of any nature, whether based on contract, tort or other legal theory including but not limited to, business interruption costs, loss of profit or revenue, loss of data, loss of use of services, cost of capital, cost of substitute services or facilities, downtime costs or damages and expenses arising out of third-party claims, even if Mueller Systems has been advised of the possibility of such damages. In all cases, Mueller Systems' total liability will be limited to the total payments made by Customer to Mueller Systems for the Products and services provided.

Disclaimer of Warranty

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, MUELLER SYSTEMS DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES, CONDITIONS, OR REPRESENTATIONS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WARRANTIES AGAINST TITLE AND AGAINST INFRINGEMENT AND WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE. TO THE EXTENT ANY IMPLIED WARRANTY CANNOT BE EXCLUDED, SUCH WARRANTY IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD.

Appendix A

AMR / AMI Products:

Software – Mi.Host, EZReader and other software products are covered by a one (1) year warranty on material and workmanship and shall perform substantially as described with Hersey Meters then current Documentation.

Hardware – Mi.Gate Data Collector, Street Machine RF Receiver, Logicon® Versa Probe are covered by a one (1) year warranty on material and workmanship. Itron® products are covered under separate warranty listed in the Itron® End User license.

Radio Modules – Mi.Node Water Modules and Hot Rod™ Modules are covered by a ten (10) year warranty on material and workmanship. Additionally, Mi.Node Water Modules and Hot Rod™ Modules are covered by a prorated warranty for years eleven (11) through fifteen (15) at a fifty-percent (50%) discount, years sixteen (16) through twenty (20) at a twenty-five-percent (25%) discount. Mi.Hydrant Transceivers are covered by a five (5) year warranty on material and workmanship. Additionally, the unit is covered by a prorated warranty for years six (6) through ten (10) at a fifty-percent (50%) discount. All prorated warranty credit listed will apply to list pricing in effect at the time of the return. Itron® products are covered under separate warranty listed in the Itron® End User license.

Encoder Register Products – Hersey Translator™ Encoder registers, Wall Pads and Pit Pads are covered by a ten (10) year warranty on material and workmanship. Additionally, the complete unit is covered by a prorated warranty for years eleven (11) through fifteen (15) at a fifty-percent (50%) discount, years sixteen (16) through twenty (20) at a twenty-five-percent (25%) discount. The prorated warranty credit listed will apply to list pricing in effect at the time of the return. TRuRead™ and other peripheral electronic products are covered by a one (1) year warranty on material and workmanship.

Metering Products:

Models 400, 500, MVR, Horizon, MCTII, MFMII, HM, cold-water meters and detector check models DC, EDCIII, EDCIV against defects in material and workmanship for a period of one (1) year from the date of installation.

Maincases for the above listed meters are guaranteed to be free from defects in material and workmanship for a period of twenty-five (25) years from the date of installation.

Standard Registers for the above listed meters are guaranteed to be free from defects in material and workmanship for a period of fifteen (15) years from the date of installation.

Models 400 and 500 meters are guaranteed to perform to AWWA new meter accuracy standard as defined in the most current revision for a period of five (5) years from the date of installation.

Models MVR, Horizon, MCTII, MFMII, HM meters are guaranteed to perform to AWWA new meter accuracy standard as defined in the most current revision for a period of one (1) year from the date of installation.

Models 400 and 500 meters are guaranteed to perform to AWWA repaired meter accuracy standards for the following time periods:

5/8" – Fifteen (15) years from the date of installation, or the registration of 1,750,000 U.S. gallons, whichever comes first;

3/4" – Fifteen (15) years from the date of installation, or the registration of 2,000,000 U.S. gallons, whichever comes first;

1" – Fifteen (15) years from the date of installation, or the registration of 3,000,000 U.S. gallons, whichever comes first;

1-1/2" – Fifteen (15) years from the date of installation, or the registration of 5,500,000 U.S. gallons, whichever comes first;

2" – Fifteen (15) years from the date of installation, or the registration of 8,500,000 U.S. gallons, whichever comes first.

If the above listed meters do not perform as guaranteed, Hersey Meters will repair or replace them, at Hersey Meters' option, subject to the following:

a) Hersey meter shall be determined to not be performing as guaranteed if it fails to pass an accuracy test, conducted by the customer according to AWWA standards. If the meter is inoperative because of foreign material, all such material must be removed prior to testing. A copy of the customer's test results must accompany the Hersey meter being returned. If the customer chooses not to test a Hersey meter before returning it, Hersey Meters will repair or replace the meter at Hersey Meters' option after the meter has been tested by Hersey Meters. When test is conducted by Hersey Meters, the customer will be charged a reasonable testing fee.