

11452

**AMENDMENT TO AGREEMENT
CITY OF LINCOLN
ANNUAL REQUIREMENTS FOR 3" TURBINE FIRE HYDRANT
BID NO. 12-197
SECOND RENEWAL**

This Amendment is hereby entered into on this 16 day of July, 2014 by and between **Badger Meter, Inc., P.O. Box 88223, Milwaukee, WI 53288-0223** (hereinafter "Contractor") and **City of Lincoln** (hereinafter "City"), for the purpose of amending an Agreement dated **September 10, 2012**, under D. O. No. **08053**, (the "Agreement"), for the **Annual Requirements for 3" Turbine Fire Hydrant Meter, Bid No. 12-197**, which is made a part hereof by this reference.

WHEREAS, the original term of the Agreement is **September 10, 2012 through September 9, 2013**, with the option to renew for three (3) additional **one (1) year terms** upon written mutual consent of both parties; and

WHEREAS, the Agreement was amended by the City to renew the agreement for an additional one year period from **September 10, 2013 through September 9, 2014**,

WHEREAS, the parties wish to renew the Agreement for an additional one (1) year term beginning **September 10, 2014 through September 9, 2015**; and

WHEREAS, the estimated expenditures for City Departments for the term of this renewal shall not exceed **\$7,500.00** without prior approval by the City of Lincoln.

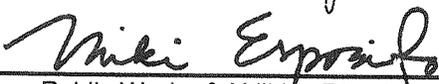
NOW, THEREFORE, IN CONSIDERATION of the mutual covenants stated herein the parties agree as follows:

- 1) The term of the Agreement shall be from **September 10, 2014 through September 9, 2015**.
- 2) The estimated expenditures for City Departments for the term of this renewal shall not exceed **\$7,500.00** without prior approval by the City of Lincoln.
- 3) All other terms of the Agreement, not in conflict with this Amendment, shall remain in full force and effect.

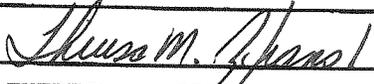
The Parties do hereby agree to all the terms and conditions of this Amendment. This Amendment shall be binding upon the parties, their heirs, administrators, executors, legal and personal representatives, successors, and assigns.

IN WITNESS WHEREOF, the Parties do hereby execute this Amendment.

Official City Use Only

Dated this <u>16</u> day
of <u>July</u> 2014

Public Works & Utilities Director

Supplier, please fill in the date and following information and mail back to our office; a faxed copy is not acceptable.

Company Name: (Please Print)	BADGER METER, INC.
By: (Please Sign)	
By: (Please Print)	THERESA M. SZAFRANSKI
Title: (Please Print)	ASSISTANT SECRETARY
Company Address: (Please Print)	4545 W. BROWN DEER RD., MILWAUKEE, WI 53223
Company Phone & Fax: (Please Print)	800-876-3837x15896 FAX: 414-371-5981
E-Mail Address: (Please Print)	bids@badgermeter.com
Date: (Please Print)	JUNE 30, 2014
Contact Person For: "Orders or Service" (Please Print)	ERIC FOLEY
Phone Number: (Please Print)	414-371-6549

**AMENDMENT TO AGREEMENT
CITY OF LINCOLN
ANNUAL REQUIREMENTS FOR 3" TURBINE FIRE HYDRANT METER RESULTS
BID NO. 12-197
FIRST RENEWAL**

This Amendment is hereby entered into on this 15 day of July, 2013 by and between Badger Meter, Inc., P.O. Box 88223, Milwaukee, WI 53288-0223 (hereinafter "Contractor") and City of Lincoln (hereinafter "City"), for the purpose of amending an Agreement dated September 10, 2012, under D. O. No. 08053, (the "Agreement"), for The Annual Requirements for 3" Turbine Fire Hydrant Meter Results, Bid No. 12-197, which is made a part hereof by this reference.

WHEREAS, the original term of the Agreement is September 10, 2012 through September 9, 2013, with the option to renew for three (3) additional one (1) year terms upon written mutual consent of both parties; and

WHEREAS, the parties wish to extend the agreement for an additional one (1) year term beginning September 10, 2013 through September 9, 2014; and

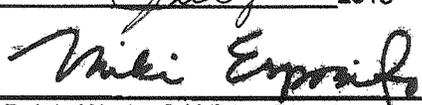
NOW, THEREFORE, IN CONSIDERATION of the mutual covenants stated herein the parties agree as follows:

- 1) The term of the Agreement shall be from September 10, 2013 through September 9, 2014.
- 2) All other terms of the Agreement, not in conflict with this Amendment, shall remain in full force and effect.

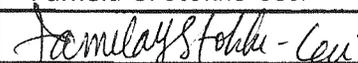
The Parties do hereby agree to all the terms and conditions of this Amendment. This Amendment shall be binding upon the parties, their heirs, administrators, executors, legal and personal representatives, successors, and assigns.

IN WITNESS WHEREOF, the Parties do hereby execute this Amendment.

Official City Use Only

Dated this <u>15</u> day
of <u>July</u> 2013

Public Works & Utilities Director

Supplier, please fill in the date and following information and mail back to our office; a faxed copy is not acceptable.

Company Name: (PLEASE PRINT)	BADGER METER, INC.
By: (PLEASE PRINT)	Pamela G. Stokke-Ceci
By: (PLEASE SIGN)	
Title:	Assistant Secretary
Company Address: (PLEASE PRINT)	4545 W. Brown Deer Rd., Milwaukee, WI 53223
Company Phone & Fax: (PLEASE PRINT)	800-876-3837 / 414-371-5981
E-Mail Address: (PLEASE PRINT)	bids@badgermeter.com
Date: (PLEASE PRINT)	July 1, 2013

08053

12080139

CONTRACT DOCUMENTS

**CITY OF LINCOLN
NEBRASKA**

**ANNUAL REQUIREMENTS
FOR
3" Turbine Fire Hydrant Meter Results
Bid No. 12-197**

**Badger Meter, Inc.
P.O. Box 88223
Milwaukee, WI 53288-0223
800-876-3837**

**CITY OF LINCOLN
CONTRACT AGREEMENT**

THIS CONTRACT, made and entered into this _____ day of _____ 2012, by and between **Badger Meter, Inc., P.O. Box 88223, Milwaukee, WI 53288-0223**, hereinafter called "Contractor", and the City of Lincoln, Nebraska, a municipal corporation, hereinafter called "City".

WHEREAS, the City has caused to be prepared, in accordance with law, Specifications, Plans, and other Contract Documents for the Work herein described, and has approved and adopted said documents and has caused to be published an advertisement for and in connection with said Work, to-wit:

and, For providing **Annual Requirements for 3" Turbine Fire Hydrant Meters, Bid No. 12-197**

WHEREAS, the Contractor, in response to such advertisement, has submitted to the City, in the manner and at the time specified, a sealed Proposal/Supplier Response in accordance with the terms of said advertisement; and,

WHEREAS, the City, in the manner prescribed by law has publicly opened, read aloud, examined, and canvassed the Proposals/Supplier Responses submitted in response to such advertisement, and as a result of such canvass has determined and declared the Contractor to be the lowest responsible bidder for the said Work for the sum or sums named in the Contractor's Proposal/Supplier Responses, a copy thereof being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the sums to be paid to the Contractor and the mutual covenants herein contained, the Contractor and the City has agreed and hereby agree as follows:

1. The Contractor agrees to (a) furnish all tools, equipment, supplies, superintendence, transportation, and other accessories, services, and facilities; (b) furnish all materials, supplies, and equipment specified to be incorporated into and form a permanent part of the complete work; (c) provide and perform all necessary labor in a substantial and workmanlike manner and in accordance with the provisions of the Contract Documents; and (d) execute and complete all Work included in and covered by the City's award of this Contract to the Contractor, such award being based on the acceptance by the City of the Contractor's Proposal, or part thereof, as follows:

Agreement to full proposal.

2. The City agrees to pay to the Contractor for the performance of the Work embraced in this Contract, the Contractor agrees to accept as full compensation therefore, the following sums and prices for all Work covered by and included in the Contract award and designated above, payment thereof to be made in the manner provided by the City:

City will pay for products/service, according to the Line Item pricing as listed in Contractors Proposal/Supplier Response, a copy thereof being attached to and made a part of this Contract. The City shall order on an as needed basis for the duration of the contract.

3. Equal Employment Opportunity. In connection with the carrying out of this project, the contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, disability, age or marital status. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, ancestry, disability, age or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other compensation; and selection for training, including apprenticeship.

4. E-Verify. In accordance with Neb. Rev. Stat. 4-108 through 4-114, the contractor agrees to register with and use a federal immigration verification system, to determine the work eligibility status of new employees performing services within the state of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324 a, otherwise known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986. The Contractor shall not discriminate against any employee or applicant for employment to be employed in the performance of this section pursuant to the requirements of state law and 8 U.S.C.A 1324b. The contractor shall require any subcontractor to comply with the provisions of this section.
5. Termination. This Contract may be terminated by the following:
 - 5.1) Termination for Convenience. Either party may terminate this Contract upon thirty (30) days written notice to the other party for any reason without penalty.
 - 5.2) Termination for Cause. The City may terminate the Contract for cause if the Contractor:
 - 5.2.1) Refuses or fails to supply the proper labor, materials and equipment necessary to provide services and/or commodities.
 - 5.2.2) Disregards Federal, State or local laws, ordinances, regulations, resolutions or orders.
 - 5.2.3) Otherwise commits a substantial breach or default of any provision of the Contract Document. In the event of a substantial breach or default the City will provide the Contractor written notice of said breach or default and allow the Contractor ten (10) days from the date of the written notice to cure such breach or default. If said breach or default is not cured within ten (10) days from the date of notice, then the contract shall terminate.
6. Independent Contractor. It is the express intent of the parties that this contract shall not create an employer-employee relationship. Employees of the Contractor shall not be deemed to be employees of the City and employees of the City shall not be deemed to be employees of the Contractor. The Contractor and the City shall be responsible to their respective employees for all salary and benefits. Neither the Contractor's employees nor the City's employees shall be entitled to any salary, wages, or benefits from the other party, including but not limited to overtime, vacation, retirement benefits, workers' compensation, sick leave or injury leave. Contractor shall also be responsible for maintaining workers' compensation insurance, unemployment insurance for its employees, and for payment of all federal, state, local and any other payroll taxes with respect to its employees' compensation.
7. Contract Term. This Contract shall be effective upon execution by both parties. The term of the Contract shall be a one (1) year term with the option for three (3) additional one (1) year renewals from the date of the executed contract.
8. The Contract Documents comprise the Contract, and consist of the following:
 1. Contract Agreement
 2. Accepted Proposal/Response
 3. Special Provisions
 4. Specifications
 5. Instructions to Bidders

These Contract Agreements, together with the other Contract Documents herein above mentioned, form this Contract, and they are as fully a part of the Contract as if hereto attached or herein repeated.

The Contractor and the City hereby agree that all the terms and conditions of this Contract shall be binding upon themselves, and their heirs, administrators, executors, legal and personal representatives, successors, and assigns.

IN WITNESS WHEREOF, the Contractor and the City do hereby execute this contract.

EXECUTION BY THE CITY OF LINCOLN, NEBRASKA

ATTEST:

Jan E. Rahn
City Clerk



CITY OF LINCOLN, NEBRASKA

Miki Eyrault
Director, Public Works & Utilities

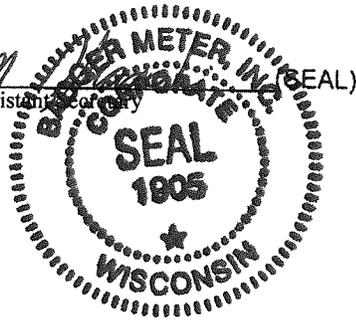
Approved by Directorial Order 08053
dated SEP 10 2012

EXECUTION BY CONTRACTOR

IF A CORPORATION:

ATTEST:

Musa M. ...
Secretary- Assistant Secretary



Badger Meter, Inc.

Name of Corporation
4545 W. Brown Deer Road
Milwaukee, WI 53288
(Address)

By: *Pamela G. Stokke-Ceci*
Duly Authorized Official

Pamela G. Stokke-Ceci, Assistant Secretary
Legal Title of Official

IF OTHER TYPE OF ORGANIZATION:

Name of Organization

Type of Organization

(Address)

By: _____
Member

By: _____
Member

IF AN INDIVIDUAL:

Name

Address

Signature

City of Lincoln/Lancaster County (Lincoln Purchasing) Supplier Response

Bid Information		Contact Information		Ship to Information	
Bid Creator	Sharon R. Mulder Asst Purchasing Agent	Address	Purchasing 440 S. 8th St. Lincoln, NE 68508	Address	Public Works & Utilities, Water System 2021 N. 27th st. Lincoln, NE 68503
Email	smulder@lincoln.ne.gov	Contact	Sharon R. Mulder Asst Purchasing Agent	Contact	
Phone	(402) 441-7410	Department	Purchasing	Department	
Fax	(402) 441-6513	Building	Suite 200	Building	
Bid Number	12-197	Floor/Room		Floor/Room	
Title	A/R for 3" Turbine Fire Hydrant Meters	Telephone	(402) 441-7428	Telephone	
Bid Type	Bid	Fax	(402) 441-6513	Fax	
Issue Date	07/13/2012	Email	smulder@lincoln.ne.gov	Email	
Close Date	7/27/2012 12:00:00 PM CST				
Need by Date					

Supplier Information

Company BADGER METER, INC.
 Address Box 88223

 Milwaukee, WI 53288-0223
 Contact
 Department
 Building
 Floor/Room
 Telephone 1 (800) 876-3837 15728
 Fax 1 (414) 371-5952
 Email
 Submitted 7/24/2012 1:17:58 PM CST
 Total \$9,320.00

Signature _____

Supplier Notes _____

Bid Notes _____

Bid Activities _____

Bid Messages _____

 Please review the following and respond where necessary

#	Name	Note	Response
1	Instructions to Bidders	I acknowledge reading and understanding the Instructions to Bidders.	Yes
2	Contact	Name of person submitting this bid:	Lindy Egle
3	Renewal is an Option	Contract Extension Renewal is an option.	Yes
4	Special Provision Term Contract Provisions	I acknowledge reading and understanding the Special Provision Term Contract Provisions.	Yes
5	Term Clause of Contract	I acknowledge that the term of the contract is for a one (1) year term with the option for three (3) additional one (1) year renewals from the date of the executed contract. (a) Are your bid prices firm for the first one (1) year contract period. YES or NO (b) Are your bid prices subject to escalation/de-escalation YES or NO (c) If (b), state period for which prices will remain firm: through _____	(a) yes (b) yes (c) 12 months-please see cover letter
6	Quantities	I acknowledge that the quantities listed for each line item are an estimated yearly amount. The City does not guarantee any dollar amount or order quantities for the term of the contract.	Y
7	Delivery	State number of delivery days ARO. FOB to the City/County at the location specified with all transportation charges paid.	32
8	Sample Contract	I acknowledge reading and understanding the sample contract.	Yes
9	Electronic Signature	Please check here for your electronic signature.	Yes

Line Items

#	Qty	UOM	Description	Response
1	20	EA	3" Turbine Fire Hydrant Meter with Encoder Register and Handles	\$466.00

Item Notes:

Supplier Notes: Parts Price Discount-List Less 15%

Item Attributes: Please review the following and respond where necessary

#	Name	Note	Response
1	Manufacturer	Please provide Manufacturer of the item you are bidding.	Badger Meter, Inc.
2	Model Number	Please provide model number of the item you are bidding.	Recordall T450 Fire Hydrant w/handles

Response Total: \$9,320.00



July 24, 2012

City of Lincoln
Office of Purchasing Agent
Suite 200, K. Street Complex
440 South 8th Street
Lincoln, NE 68508

Subject: Sealed Bid #12-197 for Annual Requirements for 3" Turbine Fire Hydrant Meters
Due: July 27, 2012 – 12:00 Noon

Dear Sir or Madam:

This letter is attached to and becomes a part of our bid to furnish 3" Turbine Fire Hydrant Meters.

Prices quoted in this bid, if awarded to Badger, will remain firm for 12 months if acceptance is made within ninety days. Prices quoted may be increased in proportion to the increase in the Producer Price Index for Materials for durable manufacturing as reported by the U.S. Department of Labor. The base index shall be the June, 2012 index of 200.0. Changes in prices will be no more frequent than every 12 months if necessary.

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 materials basis. Please contact Badger Meter's technical support group for information on custom electronic certification file formats.

In the event you have any questions concerning this bid, please contact Pamela Stokke-Ceci, Assistant Secretary at:

Telephone - 1-800-876-3837 ext. 15895
Fax - 414-371-5981
E-Mail - bids@badgermeter.com

Badger appreciates this opportunity to meet your metering needs.

Sincerely,
BADGER METER, INC.

A handwritten signature in black ink that reads 'Pamela G. Stokke-Ceci'.

Pamela G. Stokke-Ceci
Assistant Secretary



OPTIONAL FORM NO. 10
MAY 2008 EDITION
REPRODUCED FROM THE
OFFICE OF THE CLERK OF
SUPERIOR COURT

July 24, 2012

AFFIDAVIT OF COMPLIANCE

I hereby certify that the meters we propose to furnish to the City of Lincoln Nebraska comply with all applicable requirements of AWWA -C701-07.

BADGER METER, INC.

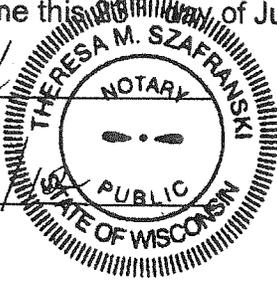
Pamela G. Stokke-Ceci
Assistant Secretary

STATE OF WISCONSIN)
COUNTY OF MILWAUKEE) ss

Subscribed and sworn to before me this 20th day of July, 2012.

Notary Public

My Commission Expires: 9/9/15





BadgerMeter, Inc.

Badger Meter Parts Warranty

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.**

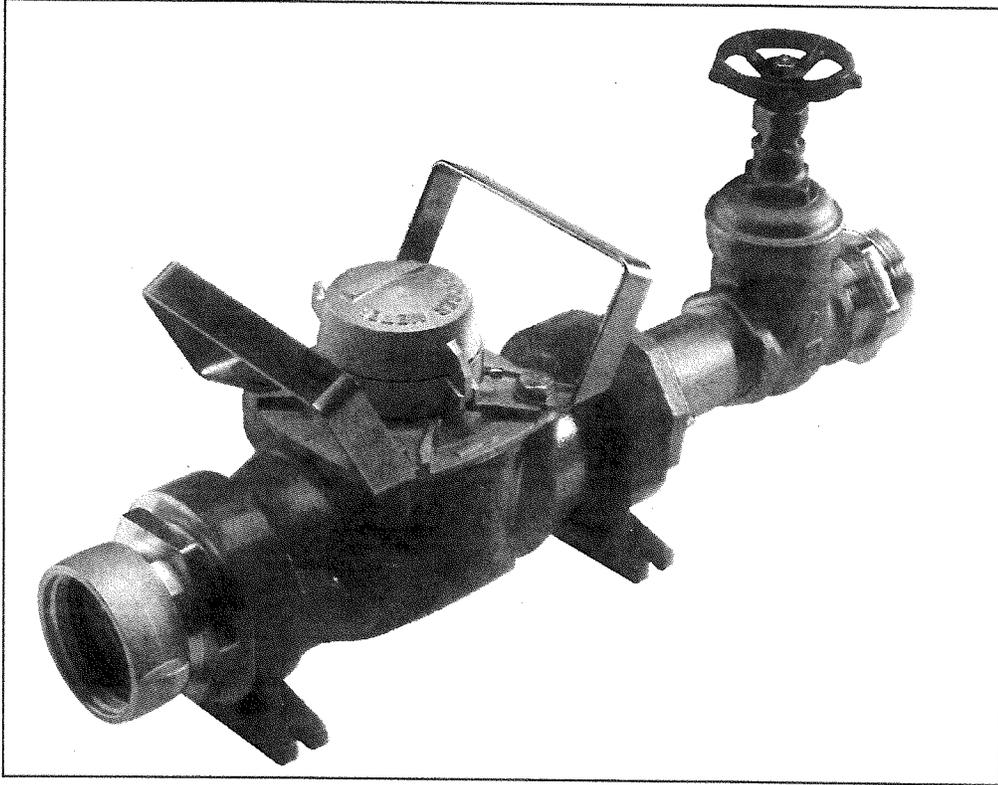
Due to continuous research, Parts improvements and enhancements, Badger Meter reserves the right to change Parts specifications without notice, except to the extent an outstanding contractual obligation exists.

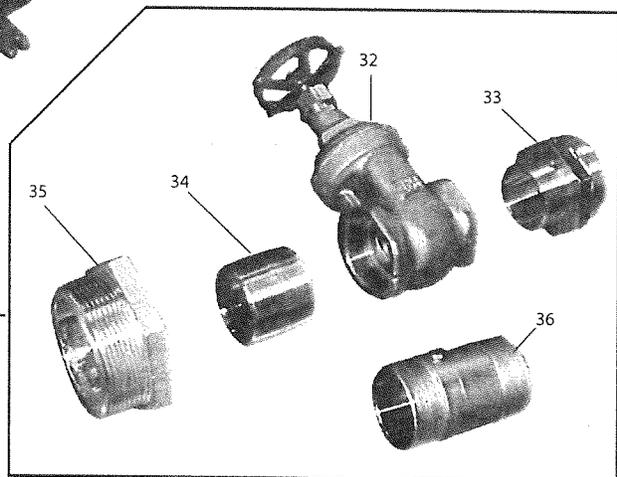
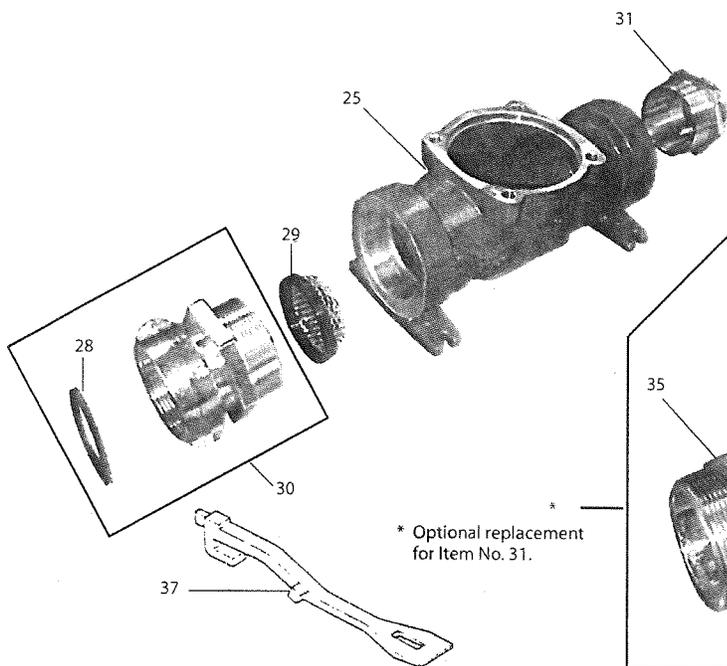
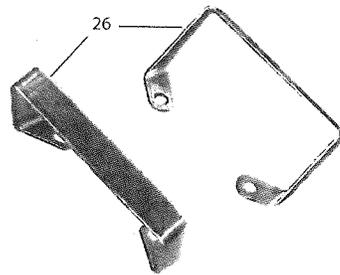
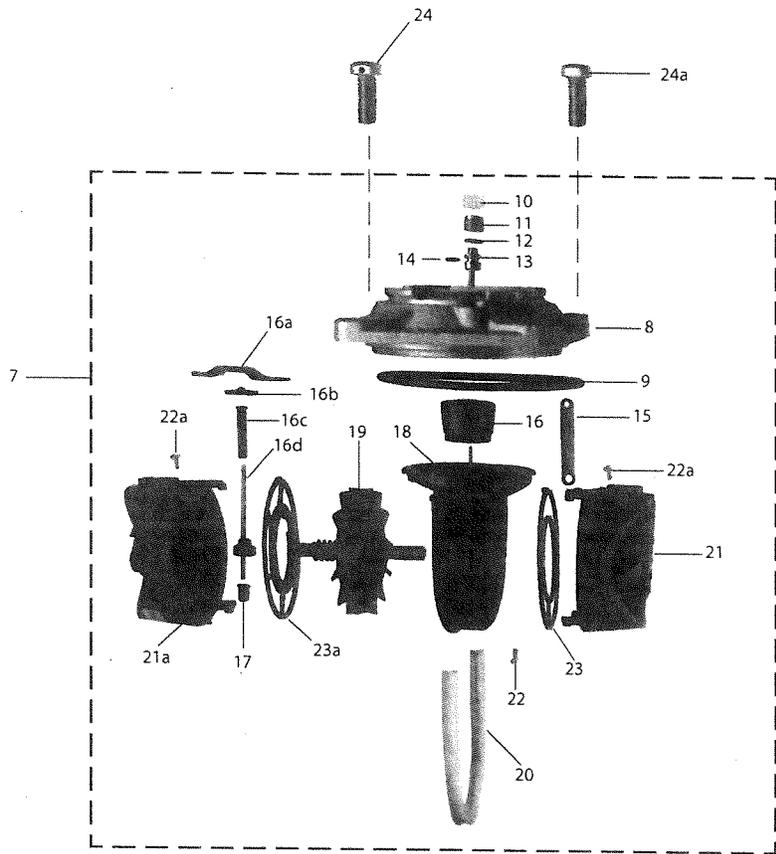
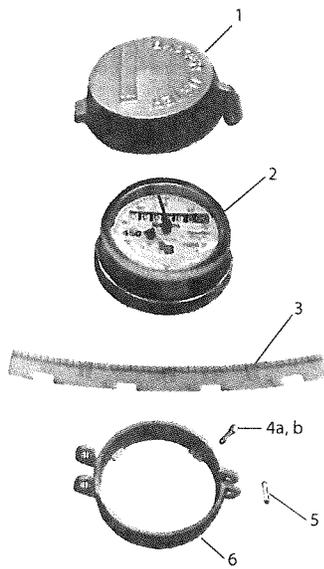
Badger Meter Inc.
4545 W. Brown Deer Road, P.O. Box 245036,
Milwaukee, Wisconsin 53224-9536



Badger Meter

Recordall® Turbo Series Fire Hydrant Meter
Size 3" (DN 80mm)





* Optional replacement
 for Item No. 31.

Item	Description	Part Number
1	Cover, Register, Bronze	58647-001
2	Register, 100 Gal. T.C.	64085-003
2	Register, 10 Cubic Ft. T.C.	64085-007
2	Register, 1 Cubic Meter T.C.	64085-011
3	Retainer, Flat	59542-001
4a	Seal Screw, 8-32 Reg. Case	62624-001
4b	Tamper Resistant TORX® Seal Screw	62516-002
5	Pin, Cover	59568-001
6	Base Ring w/Lock Hasp	59525-004
7	Measuring Element Assembly, Complete	63010-003
8	Cover Plate	66132-001
9	O-Ring, Head	62754-003
10	Seal Plug, Calibration Shaft	62793-001
11	Lock Screw, Calibration Shaft	62976-004
13	Calibration Shaft	62976-003
14	O-Ring, Calibration Shaft	62754-001
15	Calibration Linkage	62976-001
16	Magnet Carrier	62976-019
16a	Hold Down Strap	62976-013
16b	Transmission Shaft Gear	62976-023
16c	Transmission Shaft Protection Tube	62976-021
16d	Transmission Shaft Assembly	62976-011
17	Bearing, Lower Transmission	62976-002
18	Cage Insert, Measuring Element	62976-015
19	Rotor Assembly	62976-062
20	Cage Seal	62924-002
21	Straightening Vane & Nose Cone Assembly	62976-017
21a	Straightening Vane & Nose Cone Assembly	62976-017
22	Cage Setscrew (1 Required)	62976-005
22a	Cage/Nosecone Setscrews (2 Required)	62976-007
23	Calibration Ring (Front)	62976-024
23a	Calibration Ring (Rear)	62976-009
24	Head Bolt, w/Seal Hole (1 Required)	25421-034
24a	Head Bolt, w/o Seal Hole (3 Required)	55031-116
25	Housing	63047-001
26	Handle (2 Required)	63129-001
27	Cover Plate, Dummy (Not Illustrated)	63194-001
28	Gasket, Swivel Coupling	59677-001
29	Screen	63131-001
30	Connection Assembly, Swivel, 2 1/2 - 7 1/2 NH (Other Thread Forms Available Upon Request)	63180-001
31	Nipple Reducer, 2 1/2 - 7 1/2 NH (Other Thread Forms Available Upon Request)	25724-000
32	Valve, Gate 2" (Bronze)	26506-000
32	Valve, Gate 2 1/2"	26506-017
33	Fire Hose Reducer, 2" x 2 1/2" - 7 1/2" NH (for use with 2" gate valve)	26505-000
33	Fire Hose Reducer, (for use with 2 1/2" gate valve)	63000-001
34	Nipple, Brass, 2 N.P.T. x 2 Long (for use with 2" gate valve)	14711-138
34	Nipple, Brass, (for use with 2 1/2" gate valve)	14711-161
35	Pipe Bushing Hex 3x2 (for use with 2" gate valve)	22779-027
35	Pipe Bushing Hex (for use with 2 1/2" gate valve)	22779-032

Recordal[®] is a registered trademark of Badger Meter, Inc.

Other trademarks appearing in this document are the property of their respective entities.

© 2011 Badger Meter, Inc. All rights reserved.



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 | P.O. Box 245036, Milwaukee, Wisconsin 53224-9536
800-876-3837 | infocentral@badgermeter.com | www.badgermeter.com

**Recordall®
Turbo 450 Fire
Hydrant Meter**

Size 3" (DN 80 mm)

**Technical
Brief**

DESCRIPTION

APPLICATIONS: For use in measurement of potable cold water from a fire hydrant or other non-permanent installation where flow is in one direction only.

OPERATION: Water flows into the meter's measuring element where 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. A ceramic magnet on the spindle rotates around the vertical axis. Through the magnetic coupling, rotor rotation is transmitted to a follower magnet which transmits rotation to the register gearing.

OPERATING PERFORMANCE: The Badger Recordall Turbo Series fire hydrant meters meet or exceed 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: Badger Recordall Turbo Series fire hydrant meter construction consists of three basic components: meter housing, measuring element and permanently sealed register. The housing is light-weight heat treated aluminum alloy, compact and easy to handle. The measuring element consists of the transmission coupling, measuring element insert, rotor, straightening vane, and calibration vane assembly. The straightening vanes minimize swirl from piping arrangements upstream.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling.

RESTRICTION PLATE: A permanent orifice, positioned in the outlet side of the housing, limits the maximum flow of water through the meter. This is provided to protect the measuring element from overspeeding when the meter discharges to atmosphere.

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.

TAMPER-RESISTANT FEATURES: 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. A tamper resistant calibration plug seal provides protection from unauthorized personnel use.

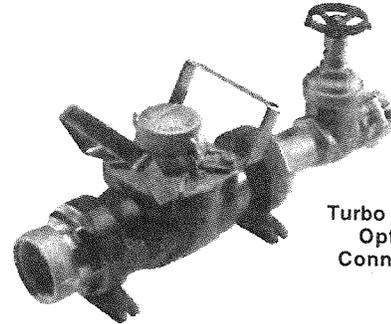
STRAINER: A compression fit double layer stainless steel strainer is installed in the inlet housing tube. The strainer insures optimum long-term field performance.

MAINTENANCE: Badger Recordall Turbo Series fire hydrant 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.

HOSE COUPLINGS: The meter is available with standard (2½"-7 NST) fire hose swivel couplings as standard equipment unless otherwise specified. Complete thread specifications (listed on back page) must be furnished for special fire hose fittings.

OPTIONS: 2" gate valve, 2½" gate valve, check valve.

Recordall® is a registered trademark of Badger Meter, Inc. TORX® is a registered trademark of Camcar, Division of Textron, Inc.



**Turbo 450 with
Optional
Connections**

SPECIFICATIONS

Typical Operating Range (100%±1.5%)	5 - 660 GPM (1.1 to 150 m³/h)
Maximum Continuous Flow	450 GPM (102 m³/h)
Maximum Intermittant Flow	660 GPM (150 m³/h)
Typical Low Flow (Min. 95%)	4 GPM (0.9 m³/h)
Pressure Loss at Maximum Continuous Operation	37 PSI @ 450 GPM (2.55 bar @ 102 m³/h) (standard couplings with orifice and screen) Note: 23 PSI @ 350 GPM
Maximum Operating Pressure	150 PSI (10 bar)
Standard Hose Coupling	2½" - 7½ NST threads (78P-3.4mm) (National standard fire hose coupling thread)
Register	Straight reading, permanently sealed magnetic drive standard.
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.
Flow Restriction (Orifice)	Limits flow through the meter to 660 GPM at 85 PSI system pressure with standard couplings. (150 m³/h at 5.9 bar)

MATERIALS

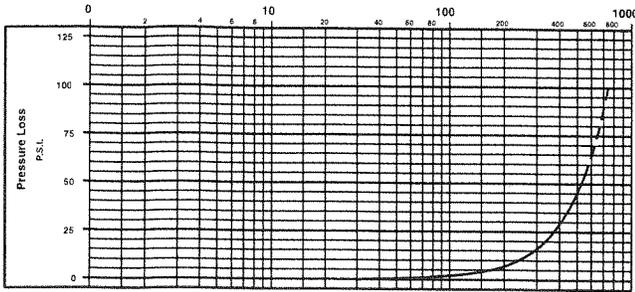
Housing	Heat treated aluminum alloy
Nose Cone and Straightening Vanes	Thermoplastic
Rotor	Thermoplastic
Rotor Radial Bearings	Lubricated Thermoplastic
Rotor Thrust Bearings	Sapphire Jewels
Rotor Bearing Pivots	Passivated 316 Stainless Steel
Calibration Mechanism	Stainless Steel and Thermoplastic
Flow Restriction Orifice	Heat Treated Aluminum Alloy
Magnet	Ceramic
Register Cover	Bronze
Options	2" Gate Valve, 2½" Gate Valve, Check Valve, Bronze
Trim	Stainless Steel
Inlet Screen	Stainless Steel with Elastomer



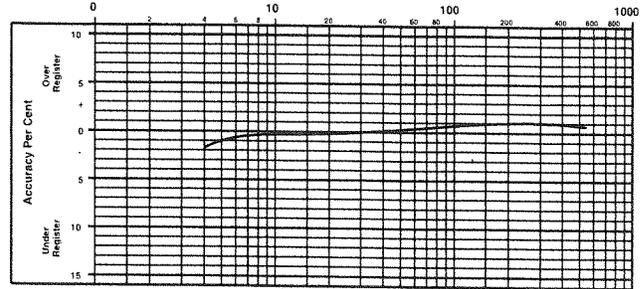
BadgerMeter, Inc.

RTS-T-3FH

PRESSURE LOSS CHART
RATE OF FLOW, GALLONS PER MINUTE



ACCURACY CHART
RATE OF FLOW IN GALLONS PER MINUTE

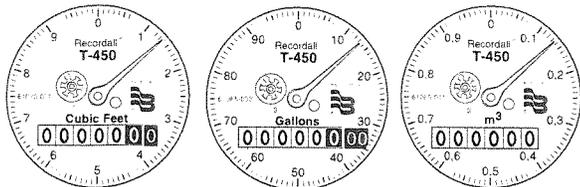
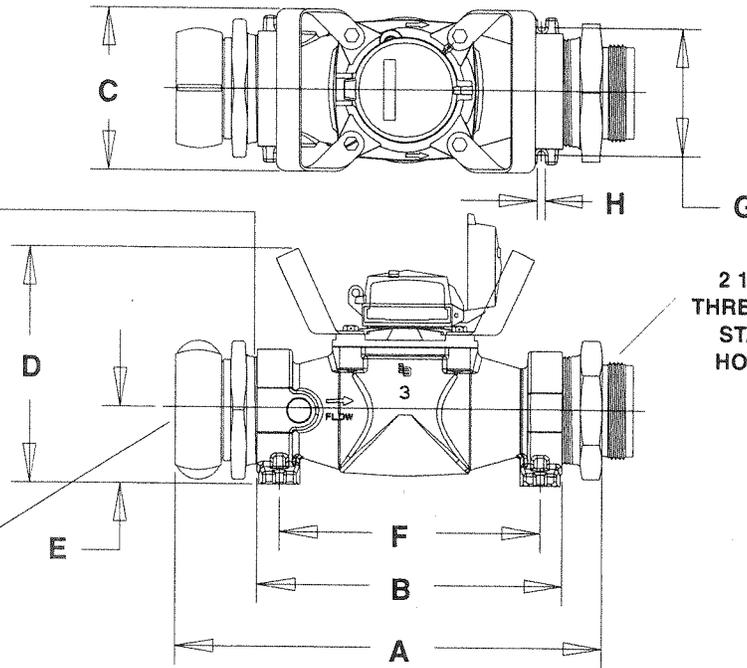


Meter & Pipe Size	DIMENSIONS														
	Length		Width C	Height D	Center-line E	F	G	H	Net Weight			Shipping Weight			
	w/Coupl. A	w/o Coupl. B							w/o Fittings	w/Fittings	w/Valve	w/o Fittings	w/Fittings	w/Valve	
3" (DN 80)	17" (432mm)	12" (305mm)	6 3/8" (162mm)	9.0" (229mm)	2 15/16" (73mm)	10 1/4" (260mm)	5" (127mm)	11/32" (9mm)	14.2 lb. (6.44kg)	20.6 lb. (9.34kg)	31.6 lb. (14.33kg)	17.2 lb. (7.80kg)	23.6 lb. (10.7kg)	34.6 lb. (15.7kg)	

3" - 8 NPT PIPE THREADS
(AMERICAN STANDARD TAPER PIPE THREADS, TYPICAL BOTH SIDES)

2 1/2" - 7 1/2 NST THREADS (NATIONAL STANDARD FIRE HOSE COUPLING THREADS)

2 1/2" - 7 1/2 NST THREADS (NATIONAL STANDARD FIRE HOSE COUPLING THREADS)



SPECIFICATIONS FOR SPECIAL FIRE HOSE COUPLING THREADS

REQUIRED INFORMATION

1. Number of threads per inch and thread form, if other than American National Standard.
2. Outside diameter of male threads.
3. Pitch diameter of male threads.
4. Pitch diameter of female threads.



Please see our website at
www.badgermeter.com
for specific contacts.

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.



BadgerMeter, Inc.

P.O. Box 245036, Milwaukee, WI 53224-9536
(800) 876-3837 / Fax: (888) 371-5982

www.badgermeter.com



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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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 | P.O. Box 245036, Milwaukee, Wisconsin 53224-9536
800-876-3837 | infocentral@badgermeter.com | www.badgermeter.com

**SPECIFICATION
ANNUAL REQUIREMENTS FOR 3" TURBINE FIRE HYDRANT METERS
SPECIAL PROVISIONS**

1. QUALIFIED PRODUCTS

1.1 In an effort to minimize inventory of parts and to standardize material within the Lincoln Water System, the materials identified in the attached Material Specification Section are the only materials which will be accepted for the Lincoln Water System installations.

2. DEMONSTRATIONS/SAMPLES

- 2.1 Samples of alternates must be tested and approved by the Lincoln Water System one (1) year in advance of bidding.
- 2.1.1 Samples shall be submitted on or before March 1 of any calendar year.
- 2.1.2 Samples approved for use within the Lincoln Water System will be included in the qualified products list for subsequent Notice to Bidders.
- 2.1.3 The approval of material for use within Lincoln Water System is vested solely with the City of Lincoln.
- 2.2 All samples shall be delivered to:
Lincoln Water System
Distribution Shop
2021 North 27th St.
Lincoln, Nebraska 68503

3. BIDDING PROCEDURE

- 3.1 If any engineering changes have occurred to the qualified products listed in the Material Specification Section since the preceding Notice to Bidders, bidder must submit with their bid, without charge, one (1) set of drawings and other information indicating:
- 3.1.1 The manufacturer.
- 3.1.2 The principal dimensions, weight, and materials of construction and tolerances and applicable ASTM and AWWA designations.
- 3.1.3 Where catalog sheets are submitted, the applicable information must be clearly indicated by circling each item or otherwise indicating the pertinent information on each page submitted.

4. DELIVERY

- 4.1 Unit bid prices shall include all delivery costs, including shipper's charges and unloading time, at the following delivery point:
Lincoln Water System
Distribution Shop
2021 North 27th Street
Lincoln, Nebraska 68503
- 4.2 Deliveries shall be made between the hours of 8:00 a.m. and 4:00 p.m. on the normal City of Lincoln workdays.

5. ACCEPTANCE OF MATERIAL

- 5.1 Orders will normally be made on standard purchase orders issued by the Purchasing Agent.
- 5.1.1 Orders may be placed by telephone directly by the Lincoln Water System.
- 5.1.2 In any event, all orders will be assigned an order number.
- 5.2 All correspondence, including acknowledgement of receipt of order, packing lists and invoices, shall carry the order number assigned by the City of Lincoln.
- 5.3 Contractor shall group materials on his invoices as they are grouped on the City of Lincoln's order.

- 5.4 With the completion of an order, contractor shall furnish to the City of Lincoln affidavits from the manufacturer(s) of the materials that all material supplied fully conforms with the AWWA Standards and supplementary specifications listed in the Material Specification Section, and that all test requirements have been met.

6. **SUPPLEMENTAL INSTRUCTIONS**

- 6.1 Bidder shall submit bid documents and all supporting material via e-bid.
- 6.2 All inquiries regarding these specifications shall be directed via e-bid or faxed written request to Sharon Mulder, Asst. Purchasing Agent (smulder@lincoln.ne.gov) or fax: (402) 441-6513.
- 6.2.1 These inquiries and/or responses shall be distributed to prospective bidders electronically as an addenda.
- 6.2.2 The Purchasing Office shall only reply to written inquiries received within five (5) calendar days of
- 6.2.3 No direct contact is allowed between Vendor and other City staff throughout the bid process.
- 6.2.3.1 Failure to comply with this directive may result in Vendor bid being rejected.

MATERIAL SPECIFICATIONS

1. 3" TURBINE FIRE HYDRANT METERS

1.1 Qualified Products

Badger Recordall ii Turbo Fire Hydrant Meter

AMCO H3200 Fire Hydrant Meter

Neptune Fire Hydrant Meter

1.2 Material Specifications

1.2.1 Meters shall meet or exceed the requirements of the following standards, as modified by these specifications:

1.2.1.1 American Water Works Association AWWA C701 - "Turbine Type."

1.2.2 Main casings must be fabricated from a aluminum alloy. Fire Hydrant Meters shall be equipped with handles. Main Case ends must have at least 2 ½" Internal National Threads. Less Fittings and any valves or couplings.

1.2.3 Meter must consist of three basic components: Meter Housing, Interchangeable measuring elements and permanently sealed register, and straight reading cubic feet registration.

1.2.4 Hydrant meters must be furnished with restriction plates.

1.2.5 The register box shall be affixed to the top cover by means of tamperproof seal that must be destroyed in order to remove the register. The registers shall be hermetically sealed.

1.2.6 Each meter supplied under these specifications must be tested for registration accuracy at flow rates and test flow quantities in accordance with AWWA C701.

1.2.7.1 The manufacturer must furnish a certificate showing that each meter has been tested for accuracy of registration and that it complies with accuracy and capacity requirements of AWWA C701 when tested in accordance with AWWA Manual M6.

1.2.7 All bids must supply a current price list of Hydrant Meter parts and any Discount that will apply to the bid.