

The Wilkinsburg-Penn Joint Water Authority

2200 Robinson Boulevard

Pittsburgh, PA 15221

412-243-6200 Fax 412-243-5837

Service Line Specifications

For

1", 1-1/2" and 2"

412-243-6200 Customer Service

412-243-6197 Lisa Lenick

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412-243-6198 John Gray

THE WILKINSBURG-PENN JOINT WATER AUTHORITY
2200 ROBINSON BOULEVARD
WILKINSBURG, PA 15221

Date: _____

I have made application for water service to the premises known as:

_____ in _____

I acknowledge receipt of the Wilkinsburg-Penn Joint Water Authority's regulations for new, replaced or repaired service lines. I understand it is my responsibility to adhere to the rules of the Authority, as defined in the Authority's rules booklet. ***It is also my responsibility to have everyone involved in the installation, replacement or repair of the service line adhere to the Authority's service line specifications as well as all Authority Rules, as defined in the Authority's Rules booklet.*** I do understand that the Authority will not accept or pass service lines that do not comply with the prevailing rules.

Applicant's Signature

Print

For the Authority

REGULATIONS FOR NEW, REPLACED & REPAIRED SERVICE LINES

NEW:

- 1.) A service line location must be given by Authority personnel
 - a.) after footer or foundation is in
- 2.) All service lines shall be installed from inside the house out to the curb or curb line
 - a.) service lines over 100' in length must have a vault
- 3.) All service lines shall be installed at 54" depth
 - a.) When a service line runs under a portion of the house a depth of 18" is required
- 4.) All service lines must be at right angles to the street (90°)
- 5.) All service lines are to be Type K soft tubing no less than 1"
- 6.) Couplings are permitted between the meter and the curb stop if a hydrostatic test is performed
 - a.) couplings **are not** allowed less than 5 feet from the foundation wall
 - b.) couplings **are not** permitted under the floor or inside the foundation
- 7.) A service line must be encased in plastic when:
 - c.) at point of entry (foundation, floor, etc.)
 - b.) in the same ditch as or crossing a sewer
 - c.) run under a portion of the house
 - d.) crossing creekbeds - 24" depth under creek bed
- 8.) A service line running in the same ditch as a sewer should be shelved when possible 1'-6" between the lines - up/down or right/left
- 9.) All service lines must be inspected in the open trench by Authority personnel. In addition, Allegheny County Plumbing Inspectors must be contacted for inspection. Pictures or videos of installed service lines are not acceptable.
- 10.) Requests for inspection on new lines after location has been previously approved, must be received by the Authority office prior to 11:00 a.m. on the date of the requested inspection. Requests received after 11:00 a.m. shall be referred to the next business day.
- 11.) All charges must be paid prior to the installation of the service line between the main and the curb.

REPLACED OR REPAIRED:

"In addition to above rules"

- 1.) All service lines are to be type K soft tubing no less than ¾"
- 2.) Couplings are permitted between the meter and the curb stop if a hydrostatic test is performed
 - a.) couplings **are not** allowed less than 5 feet from the foundation wall
 - b.) couplings **are not** permitted under the floor or inside the foundation
- 3.) No sweat fittings are permitted underground
- 4.) Authority personnel must inspect all replaced or repaired service lines in the open ditch
- 5.) The consumer is responsible for back filling the service line ditch and setting the service box in place so the curb stop is operable. The Authority will provide a service box if the existing box is unusable.

Hydrostatic Pressure Testing

Overview:

Hydrostatic pressure tests are used to gauge the integrity of a pipeline following its construction or repair activities that could affect its leak-tightness. As the term implies, in hydrostatic testing of new or repaired pipelines, water in the line is pressurized beyond the maximum operating pressure, and then maintained for a predetermined amount of time to determine if there are any leaks. The operational integrity of connections and the pipe itself is assured if the hydrostatic test is successfully passed.

Testing:

The Contractor shall conduct the test. The pump, pipe connections, gauges and all necessary apparatus shall be furnished by the Contractor. The pipe shall be slowly filled with water. All air shall be expelled from the pipe as the line is filled. The line is pressurized to 1.5 times the actual pressure for a predetermined amount of time with zero pressure loss. A Water Authority Representative must witness the test. Lines, which fail to meet test requirements, shall be repaired and retested as necessary until test requirements are complied with. All pipe, fittings and other materials found to be defective under the test shall be repaired or replaced at the Contractor's expense.

DOMESTIC METER LOCATION AND SET UP

- 1.) The meter is to be situated in a heated area easily assessable to Authority employees.
 - a.) area must have a permanent heating system
- 2.) The meter is to be set where the service line enters the floor or wall.
 - a.) 12 inches in height to no more than 4 feet in height from floor
- 3.) Inlet valve - A ball valve is required on the line immediately ahead of the meter and must be the same size as the service line, a waste or bleeder is not permitted. (Female pipe thread)
 - a.) It is permissible to use a sweat or flared coupling on copper lines and a "Ford" compression type coupling is required on lead lines to accommodate the inlet valve
 - b.) Only one sweat joint before the meter (sweat joint must be exposed)
- 4.) Outlet valve - ball types are to be installed immediately after the meter,
 - a.) Waste or bleeder is permitted . (Female pipe thread)
- 5.) Following the outlet valve a backflow preventer is required
 - a.) Type to be determined by the Authority
 - b.) Same size as service line
 - c.) Must be USC, AWWA or ASSE approved
 - d.) Must be installed immediately after the meter and before any connections



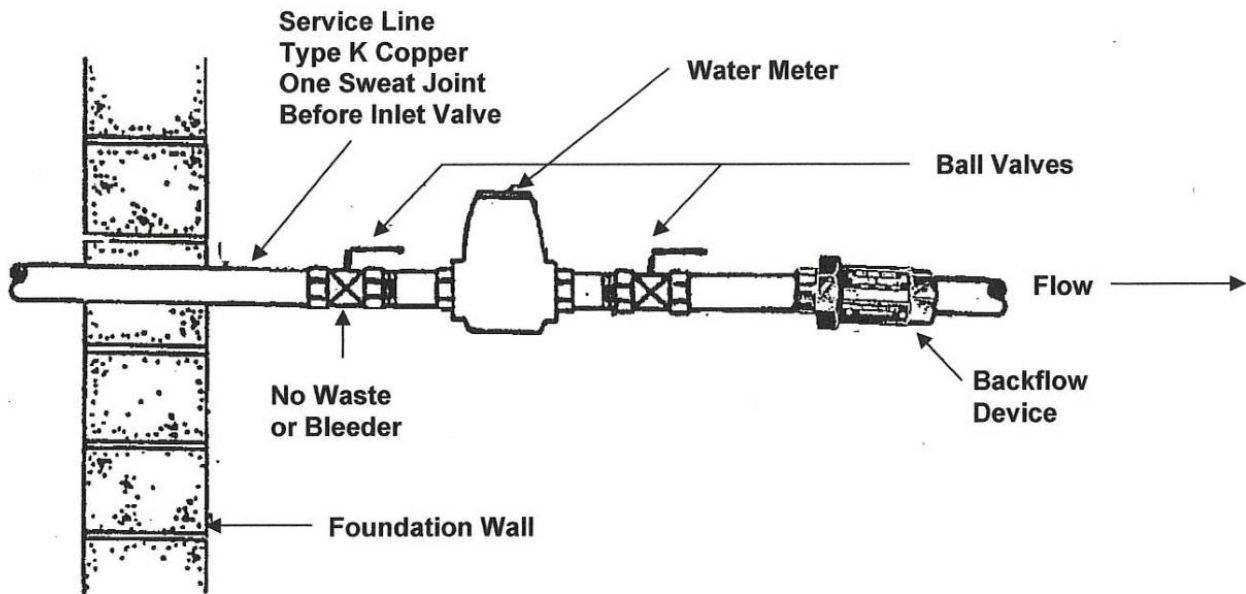
- NOTES:**
- 1.) If installing a backflow assembly, the assembly valve may be used as the outlet valve
 - 2.) If installing a "Y" strainer before the backflow assembly, no valves are permitted on the clean-out.
 - 3.) A pressure regulator **is not** required by the Authority
- 6.) The meter set up and backflow preventer must be inspected by Authority personnel.
 - 7.) The Authority does not require a pressure regulator. If one is to be installed it must be installed after the backflow preventer.

Space needed for meter and meter connections:

$\frac{5}{8}$ and $\frac{3}{8} \times \frac{3}{4}$	- 11½"
$\frac{3}{4}$ and $\frac{3}{4} \times 1$	- 13¼"
1	- 15"
1½	- 21"
2	- 26"

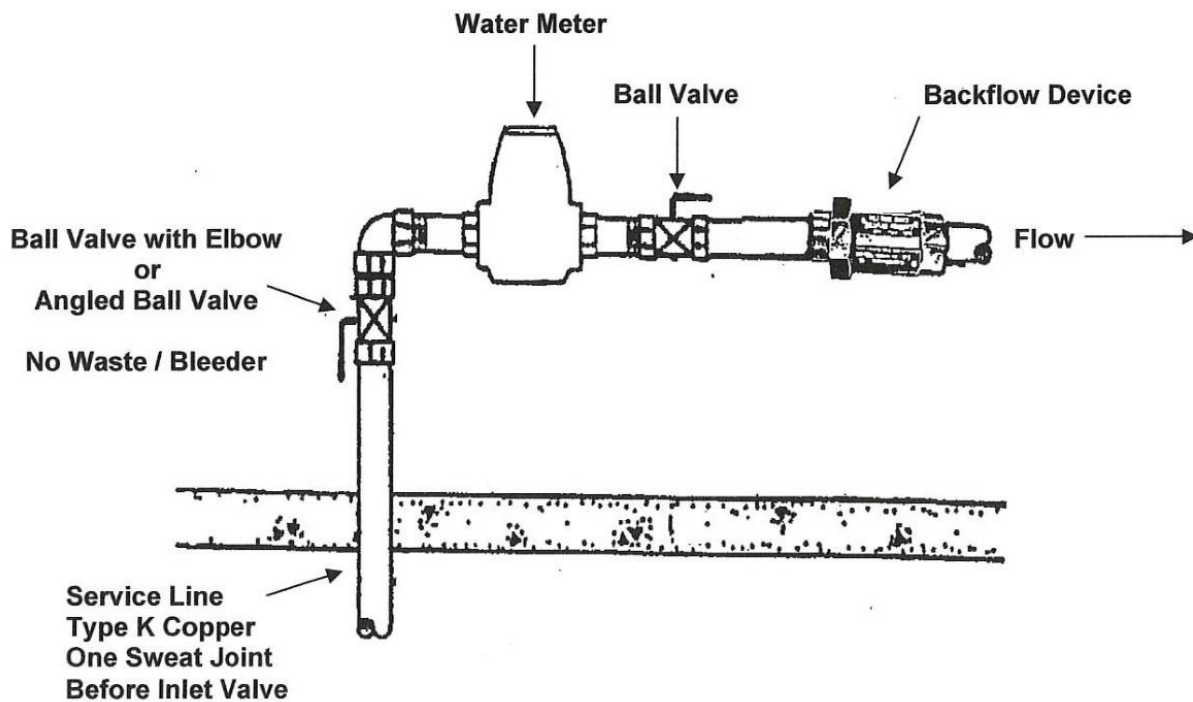


- 8.) All pipe and fittings on the service line up to and including the backflow preventer must be brass or copper and must be the same size



Water Service Through Foundation Wall

(No Scale)



Water Service Through Floor

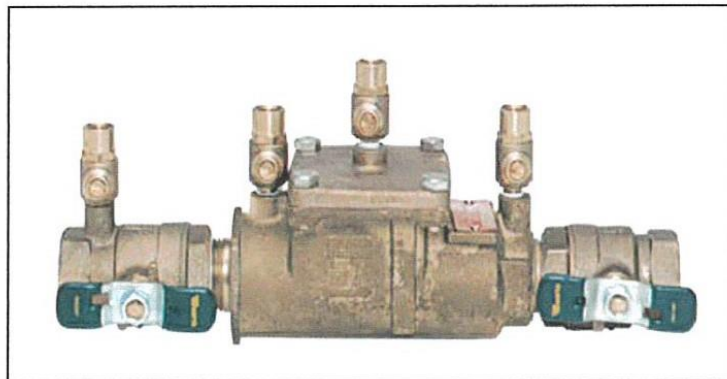
(No Scale)

Backflow Prevention Devices

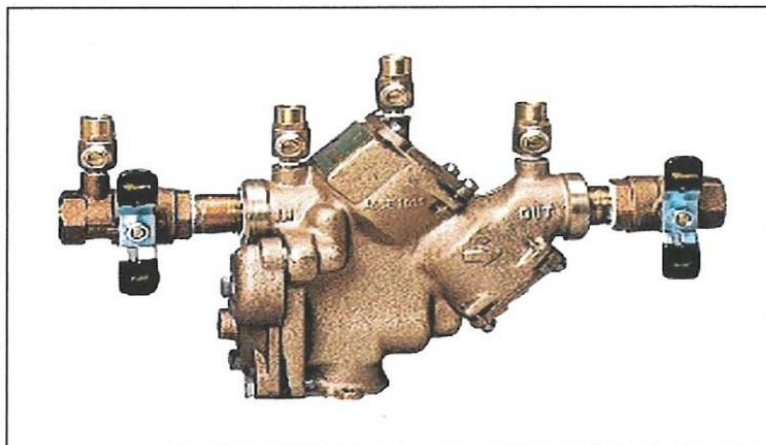
Residential Dual Check Valve



Double Check Valve Assembly



Reduced Pressure Zone Assembly

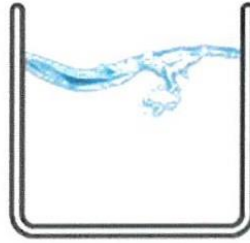


What is Thermal Expansion? (why do I need a Thermal Expansion Tank?)



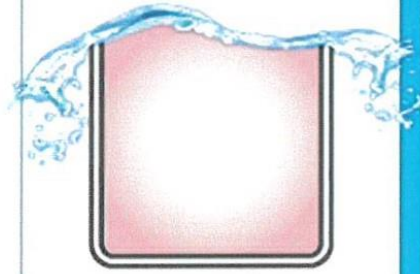
70°

At room temperature, the water level fills only half of this gallon container.



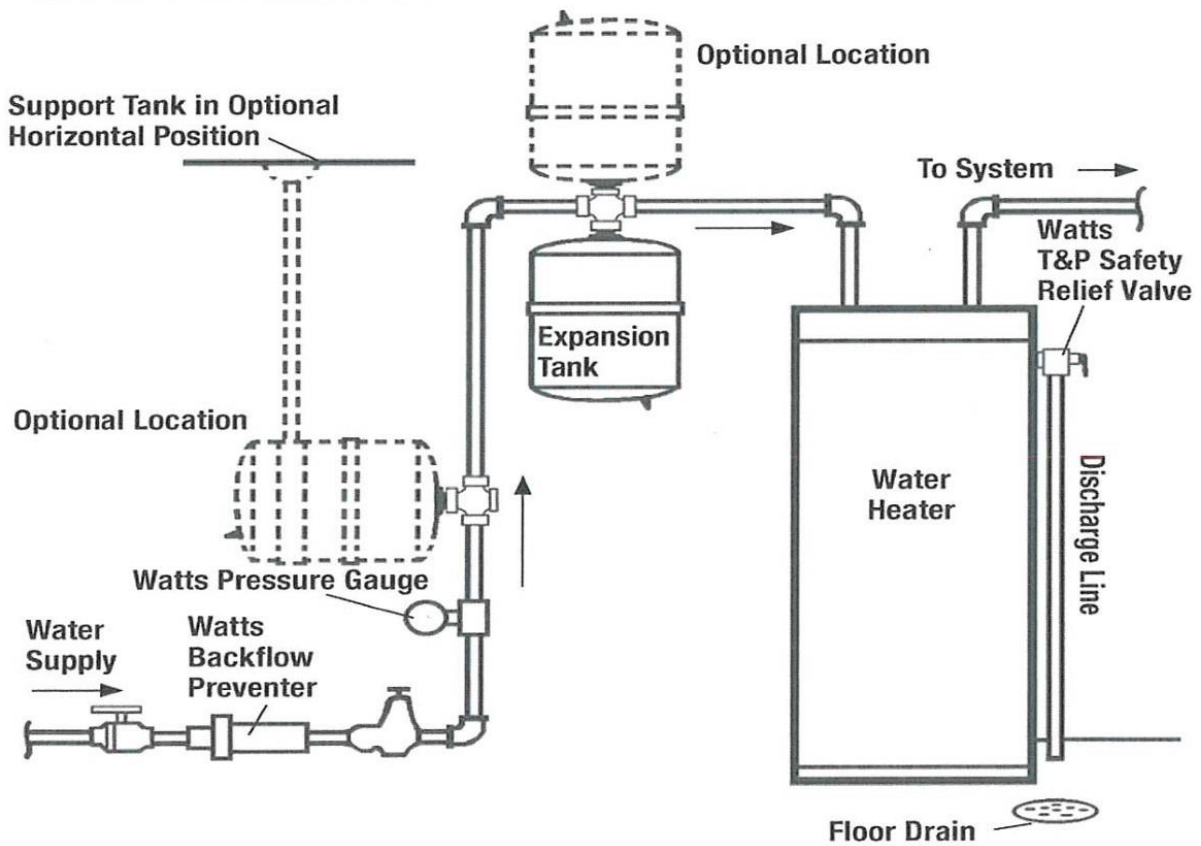
140°

At double the temperature, the water level is nearly to the top of the container.



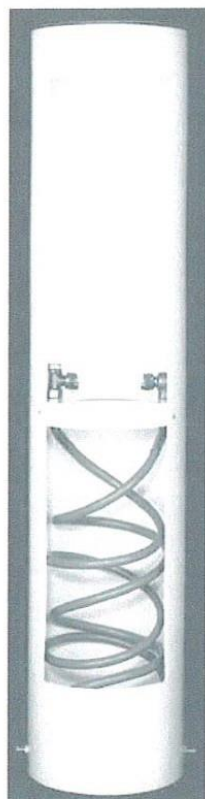
180°

At a higher temperature, the water level is so high, that it spills out or escapes.



METER VAULT SPECIFICATIONS

FOR 3/4 OR 1" SERVICE LINE



The MUELLER THERMAL-COIL Meter Box provides a means to allow a meter to be read and maintained even though it is set deep in the ground to resist freezing. The THERMAL-COIL Meter Box is designed with the meter installed on a platform that normally sets near the bottom of the box where the ground temperature keeps it warmer. The meter and platform are connected to the service line by coils of polybutylene tubing which allow the meter and platform to be raised to the surface.

The body of the meter box is made from rigid PVC which has a high insulating "R" value to resist frost bridging" inside the box. For extremely cold climates, an optional insulating pad is available which traps the relatively warm air rising from the earth inside the box.

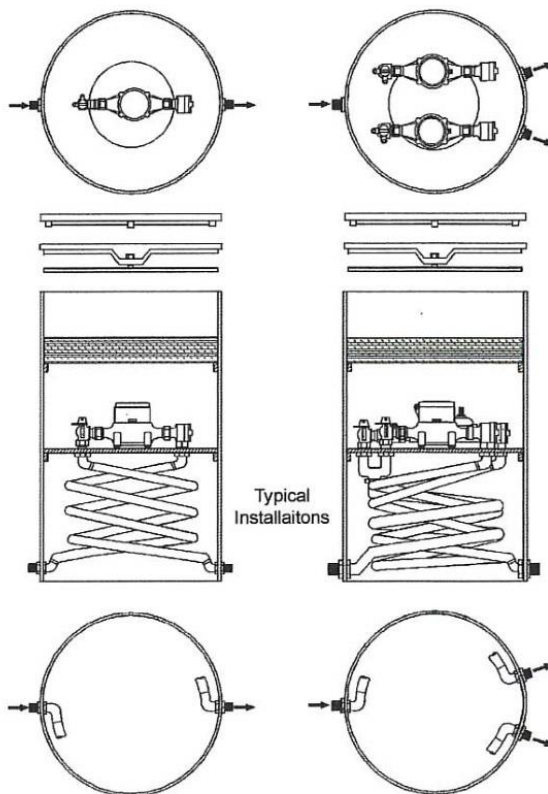
MUELLER THERMAL-COIL Meter Boxes are shipped fully assembled, ready for meter installation. Their light weight saves shipping costs and makes installation a one man job in most cases. Every box is factory tested and has a 150 psig maximum working pressure rating.

MUELLER THERMAL-COIL Meter Boxes are available for 5/8" to 1" meters. A wide variety of end connections, control valves, box depths, lids and other options provide you with the meter set you need. Due to the almost endless combination of features available, each box is custom built to your specifications. See page 8F.2 for options and ordering instructions.

Manufactured under one or more of the following: U.S. Patent No. 4,614,113; 4,813,281

MUELLER THERMAL-COIL Meter Box Features

- ☐ Rigid .300 minimum wall PVC material holds shape and resists frost bridging
- ☐ Optional insulation pad traps earth's heat to prevent freezing in extremely cold climates
- ☐ White interior aids visibility
- ☐ Meter set is anchored to moveable platform to maintain alignment and stability
- ☐ Platform support and reinforcing ring add rigidity to box
- ☐ Poly coil tubing provides low friction loss equivalent to a typical conventional meter set of the same size and depth
- ☐ Male I.P. thread inlet and outlet connections accept a variety of MUELLER Service Fittings--see section 6
- ☐ Optional aluminum bottom available
- ☐ Large selection of optional lids



Rev. 8-14 Shaded area indicates change

MUELLER THERMAL-COIL Meter Box ordering instructions

To order a MUELLER THERMAL-COIL Meter Box, simply choose the options you require from the nine categories listed below and place the option code on the appropriate

line of the catalog number shown below.

If the box you need is a tandem type, please fill out the tandem information box shown below the options listing and contact the factory for price and delivery information. Phone 1-800-423-1323 or fax 1-217-425-7537.

Catalog Number

(1) _____ (2) CS (3) 18 (4) 48 (5) F (6) S (7) B (8) S (9) N

Options
1 Meter size

NOTE: Meter is not furnished. Order meter separately.

Meter Size	Code Number
5/8"	200
5/8" x 3/4"	203
3/4"	250
1"	330

2 Box Style

Box Style	Code Number
Single meter	CS
Double meter	CD
Tandem	CT

3 Box diameter

Box Diameter	Code Number
15" box is for use with: 5/8, 5/8 x 3/4 or 3/4 single meters; 5/8, 5/8 x 3/4 or 3/4 tandems*	15
18" box is for use with: 1" single meters; 1" tandems; 5/8, 5/8 x 3/4 or 3/4 double meters	18

4 Box depth

Depth	Code Number	Depth	Code Number
30"	30	66"	66
36"	36	72"	72
42"	42	78"	78
48"	48	84"	84
54"	54	90"	90
60"	60	96"	96

5 Meter inlet type

Meter Inlet	Code Number
Meter coupling	A
Lockwing angle meter stop	L
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R

6 Meter outlet type

Meter Outlet	Code Number
Meter coupling	A
Dual check valve	B
A.S.S.E. Dual check valve	S
A.S.S.E. Top entry vertical check	V
Lockwing angle meter stop	L
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R

7 Box bottom type

Bottom Type	Code Number
Attached aluminum bottom	A
Less bottom	B

8 Type of box locking device
 (box is ordered with device to accept either a non-locking lid, center locking or side locking lid). Lids must be ordered separately.

Lock Type	Code Number
Non-locking	N
Center locking	L
Side locking	S

9 No lead brass

Code Number
N

Tandem box order information

Type of tandem device (regulator, backflow preventer, etc.) _____
 Size _____, lay length _____ and end connections (M.I.P., F.I.P., etc.) _____ of the tandem device
 Tandem device manufacturer's name _____ Tandem device model number _____

* NOTE: Tandem device is not included and must be purchased separately. ALSO, 3/4" tandems systems when used with certain regulators may need to be placed within a 18" box; list the regulator model when specifying this system. If an ASSE check valve or ball valve is being used in a 3/4" setting then an 18" meter box will be required.

MUELLER Valves and Couplings used in these meter box assemblies are manufactured and tested in accordance with ANSI/AWWA C800. Components in contact with potable water will also comply with latest requirements of the Federal Safe Drinking Water Act.

Rev. 4-16 Shaded area indicates change

**Flat lid with side mounted
standard waterworks
pentagon nut lock**

Lid Part Number	Lid Size
282924	15"
282925	18"

**Flat lid - no lock**

Lid Part Number	Lid Size
790007	15"
790018	18"

NOTE: These lids cannot be used
with lid frames

**Flat lid - no lock with
reader lid**

Lid Part Number	Lid Size
282921	18"

**Flat lid with side mounted
key lock**

Lid Part Number	Lid Size
282926	15"
282927	18"

**Flat lid with center mounted
Mueller pentagon nut lock**

Lid Part Number	Lid Size
780068	15"
780069	18"

NOTE: These lids cannot be used with
lid frames

**Shown with Optional Lock****Composite Meter Lid**

Lid Part Number	Lid Size
311954	15" - 5lbs.
311955	18" - 7lbs.

Made of tough, engineered
composite material. Light in weight
yet strong. Integral mounting
terminals for R.F. metering.
Specify options on order: side
lock; reclaimed water marking.

MUELLER® METER BOX SETTER LIDS



8F.11

Shaded area indicates change Rev. 4-15

Thermal shells



Thermal shells are meter setter boxes only and do not include any fittings. The shells are available with a "V" notch option to allow service lines access to shell interior.

Insulating pad



Insulating pads are available in 2" and 4" thicknesses. These pads are made from a closed cell foam poly material that provides excellent insulating qualities and resists moisture absorption.

Catalog number			Catalog number		
Shell	Shell with "V" notch	Diameter x depth	Shell	Shell with "V" notch	Diameter x depth
SO1512	SV1512	15"x12"	SO2122	SV2122	21"x22"
SO1514	SV1514	15"x14"	SO2124	SV2124	21"x24"
SO1516	SV1516	15"x16"	SO2126	SV2126	21"x26"
SO1518	SV1518	15"x18"	SO2128	SV2128	21"x28"
SO1520	SV1520	15"x20"	SO2130	SV2130	21"x30"
SO1524	SV1524	15"x24"	SO2136	SV2136	21"x36"
SO1526	SV1526	15"x26"	SO2142	SV2142	21"x42"
SO1528	SV1528	15"x28"	SO2148	SV2148	21"x48"
SO1530	SV1530	15"x30"	SO2154	SV2154	21"x54"
SO1812	SV1812	18"x12"	SO2160	SV2160	21"x60"
SO1814	SV1814	18"x14"	SO2424	SV2424	24"x24"
SO1816	SV1816	18"x16"	SO2426	SV2426	24"x26"
SO1818	SV1818	18"x18"	SO2428	SV2428	24"x28"
SO1820	SV1820	18"x20"	SO2430	SV2430	24"x30"
SO1822	SV1822	18"x22"	SO2436	SV2436	24"x36"
SO1824	SV1824	18"x24"	SO2442	SV2442	24"x42"
SO1826	SV1826	18"x26"	SO2448	SV2448	24"x48"
SO1828	SV1828	18"x28"	SO2454	SV2454	24"x54"
SO1830	SV1830	18"x30"	SO2460	SV2460	24"x60"
SO1836	SV1836	18"x36"	SO2724	SV2724	27"x24"
SO1842	SV1842	18"x42"	SO2730	SV2730	27"x30"
SO1848	SV1848	18"x48"	SO2736	SV2736	27"x36"
SO2112	SV2112	21"x12"	SO2742	SV2742	27"x42"
SO2114	SV2114	21"x14"	SO2748	SV2748	27"x48"
SO2116	SV2116	21"x16"	SO2754	SV2754	27"x54"
SO2118	SV2118	21"x18"	SO2760	SV2760	27"x60"
SO2120	SV2120	21"x20"	-	-	-
-	-	-	SO3636	SV3636	36"x36"
-	-	-	SO3642	SV3642	36"x42"
-	-	-	SO3648	SV3648	36"x48"
-	-	-	SO3654	SV3654	36"x54"
-	-	-	SO3660	SV3660	36"x60"

Meter setter box dia.	2" thick pad	4" thick pad
15"	790162	790022
18"	790163	790153
21"	-	790119
24"	790164	-
27"	-	790058
36"	-	-

Meter setter box extensions



Meter setter box extensions are made from the same material and has the same wall thickness as the shell it will be set on. The lower end of the extension has guides attached to keep the extension properly centered. The top of the extensions are prepared to accept lids as illustrated on page 8F.10*.

Meter setter box dia.	Extension length						
	2"	3"	4"	6"	8"	10"	12"
15"	SE1502	-	SE1504	SE1506	SE1508	SE1510	SE1512
18"	SE1802	-	SE1804	SE1806	SE1808	SE1810	SE1812
21"	SE2102	-	SE2104	SE2106	SE2108	SE2110	SE2112
24"	SE2402	-	SE2404	SE2406	SE2408	SE2410	SE2412
27"	SE2702	-	SE2704	SE2706	SE2708	SE2710	SE2712
36"	-	SE3603	-	-	-	-	-

* NOTE: Specify the lid part number to be used with the extension ordered.

Meter Vault

- 1) Size
 - a) Minimum size of vault will be 6' x 6' x 6' Depth
 - b) The size of the service line /fire line, meter type and backflow preventer will determine the vault dimensions
- 2) Vault opening:
 - a) Minimum 48" x 48" Double leaf Access Hatch
 - b) The placement of the vault i.e. Grass, sidewalk, road will determine Grade of hatch necessary.
- 3) Provisions for drainage or sump pump.
- 4) Ladder or steps:
 - a) Directly under vault opening.
 - b) Must be safe and convenient for entry.
- 5) Consumer to maintain vault in a safe and sanitary condition at all times.

Meter Room

- 1) Must have a permanent heat source.
- 2) Minimum of 6'-6" head clearance.
- 3) Provisions for drainage or sump pump.
- 4) Provide lighting.
- 5) Be easily accessible.
- 6) Consumer to maintain room in a safe and sanitary condition at all times.
- 7) The size of the service line, meter type and backflow preventer will determine the meter room dimensions