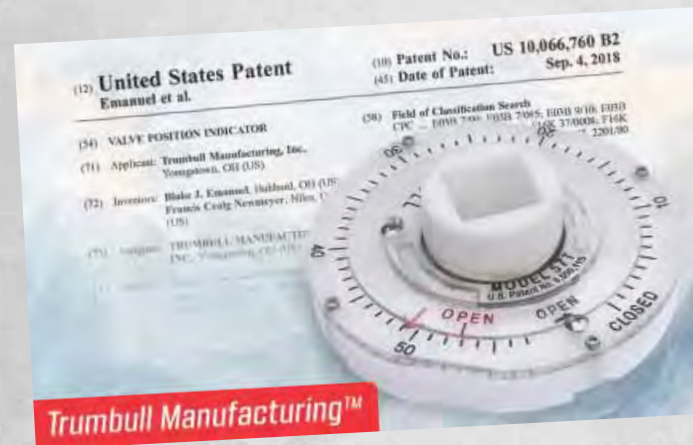


WATERWORKS SPECIALTY PRODUCTS



Call our Sales Team at . . .
877.504.1507

Specialty Products for the Waterworks and Valve Industries

Trumbull Manufacturing is an outgrowth of Trumbull Industries which was founded in 1922 in Warren, Ohio (Trumbull County). Manufacturing operations started in 1981 to offer specialty products for the Municipal and Industrial markets. In 1990, the Ludlow and Corey-Rensselaer hydrant product line was purchased. Trumbull's product line has increased steadily over the years, covering a wide variety of unique and quality products used in the waterworks and valve markets.

In 2017, Trumbull Manufacturing moved to a larger facility in Youngstown, Ohio, to accommodate growth and increase manufacturing capacity. Regional inventory is located in Rep warehouses in Orlando, Phoenix, Los Angeles, Dallas & Seattle.

We stand behind our product with experienced Engineering, Quality Control and Field Service personnel. Our products are designed for long life, and are rigorously tested, in-house and at independent labs. Our inside sales staff is passionate about customer satisfaction.

Trumbull Manufacturing sells to waterworks distributors, valve representatives and manufacturers both nationally and internationally.



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Double Socket Ratchet Wrenches / Wrench Sets

COLOR-CODED GRIPS

are cushioned and ergonomically contoured for comfortable use

HEAVY-DUTY RATCHET MECHANISM

is sandwiched between steel plates for strength and protection

O.D. TAPE

included with set



3-Wrench Set

- One 1-1/4" x 1-1/16" wrench
- One 1-1/8" x 15/16" wrench
- One 7/8" x 3/4" wrench
- One outside diameter tape
- Sturdy carrying case

Item No. Weight

364-9986 9.35 lbs.

Custom logos can be molded on the grips of our Double Socket Ratchet Wrenches. Inquire how we can put YOUR logo on the wrenches.

Trumbull's heavy-duty Double Socket Ratchet Wrenches can tighten nuts on long bolts or all-thread rod without bottoming out and have a simple lever-operated reverse feature.

To assure long service life and reliable operation, clean & oil mechanism regularly.

Wrenches - Sold Individually

Grip Color	Large Socket	Small Socket	Item No.	Large Socket Fits Hex Size	Small Socket Fits Hex Size	EXAMPLES OF LARGE SOCKET APPLICATIONS	EXAMPLES OF SMALL SOCKET APPLICATIONS
BLUE	1-1/4"	1-1/16"	364-9982	3/4" Heavy	5/8" Heavy	4" thru 24" MJ Ftgs., 3/4" Hex Bolts with Heavy Hex	3" MJ Ftgs., Cast Couplings, Clamps, Tapping Sleeves
GREEN	1-1/8"	15/16"	364-9985	3/4" Standard	5/8" Standard	3/4" Flange Bolts with Standard Hex	5/8" Flange Bolts with Standard Hex, 14" thru 24" Hymax® Couplings
YELLOW	7/8"	3/4"	364-9983	9/16" Standard & 1/2" Heavy	1/2" Standard & 7/16" Heavy	6" thru 12" Hymax® & other Couplings with 1/2" Heavy Hex	1-1/2" thru 4" Hymax® Couplings, 1-1/2" thru 24" MaxiFit™

Pivoting Handle Double Socket Ratchet Wrenches



ADJUSTABLE HANDLE HELPS GET TO THOSE HARD-TO-REACH NUTS AND BOLTS!

- Heavy-duty double socket incorporates a through design which can tighten nuts on long bolts or all-thread rod without bottoming out.
- Double socket permits use on either 5/8" or 3/4" Heavy Hex Nuts without changing sockets. Also eliminates common misplacement of loose sockets and introduction of dirt into the mechanism while changing sockets in the field.
- Mechanism design allows short stroke operation.
- Heavy-duty ratchet mechanism is lubricated and enclosed in a sealed ductile iron casting to prevent debris from jamming.
- Wrench is 16" OAL.
- Painted black.



ADJUSTABLE HANDLE ILLUSTRATION.



DOUBLE SOCKET DESIGN

Small socket fits heavy hex nuts on 5/8" bolts used on clamps, couplings, saddles and 3" Mechanical Joints. Large Socket fits heavy hex nuts on 3/4" bolts, used on 4" through 24" Mechanical Joints.

PLATED STEEL BOLT AND WING NUT

lock heavy duty 12" ductile iron handle to the ratchet head

EASY ACTION LEVER

reverses direction

SLIP RESISTANT RESILIENT GRIP

WING NUT AND BOLT can be installed from either side of assembly to minimize interference

OILER FEATURE

allows for easy lubrication without disassembly



Item No	Large Socket	Small Socket	Large Socket Fits Hex Size	Small Socket Fits Hex Size	EXAMPLES OF LARGE SOCKET APPLICATIONS	EXAMPLES OF SMALL SOCKET APPLICATIONS	Weight
364-9984	1-1/4"	1-1/16"	3/4" Heavy	5/8" Heavy	4" thru 24" MJ Ftgs., 3/4" Hex Bolts with Heavy Hex	3" MJ Ftgs., Cast Couplings	4.75 lbs.
364-9955	36mm	30mm	M24	M20	400mm - 500mm Pipe Flanges	200mm - 350mm Pipe Flanges	2.15 KG

Manhole Cover Hooks



MANHOLE HOOKS ENGAGE PICK HOLES.



MANHOLE HOOKS ALSO ENGAGE VENT HOLES.

Trumbull Manhole Cover Hooks are made of 5/8" hexagonal steel. The 1/2" point engages the lid of the manhole cover.

Hooks are painted in Safety Blue enamel paint for safety and durability.

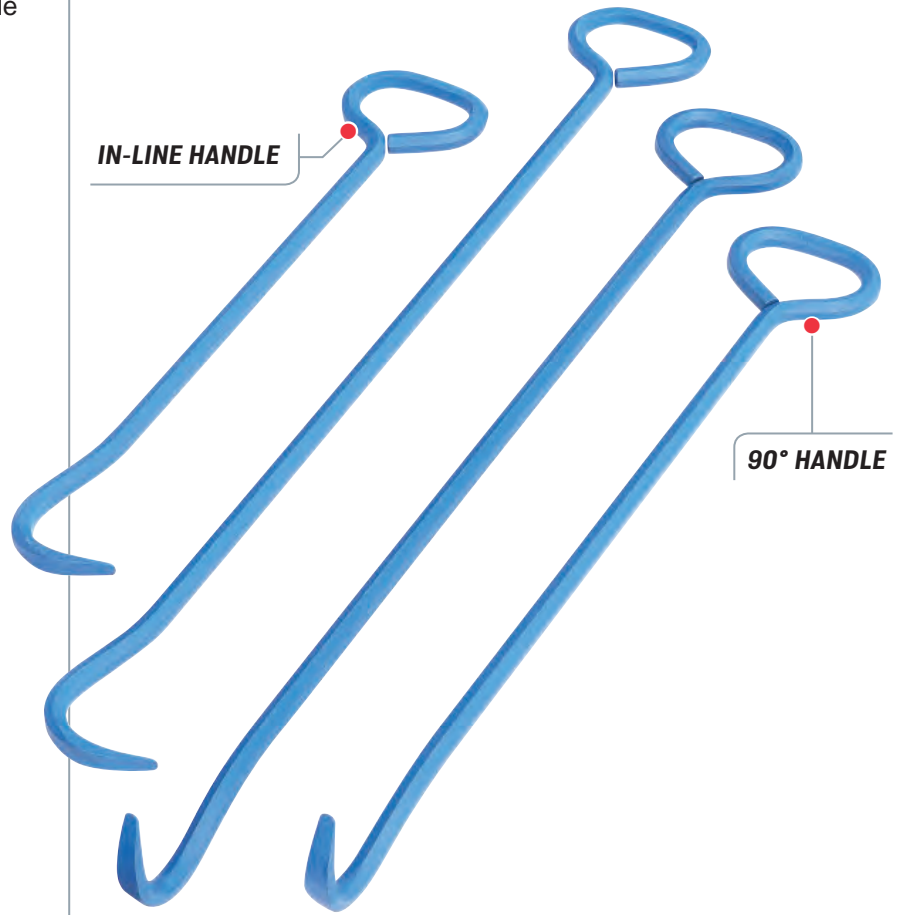


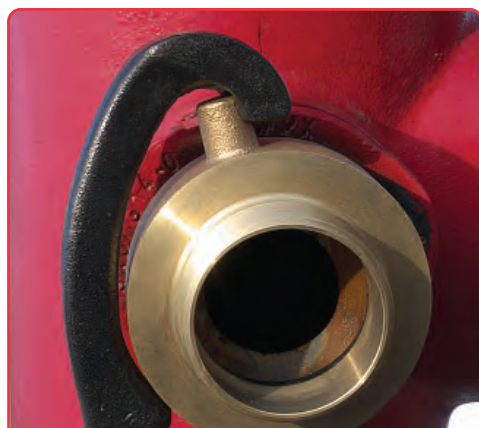
In-Line Handle

Item No	Overall Length	Weight
367-4286	24"	3.35 lbs.
367-4290	36"	4.50 lbs.

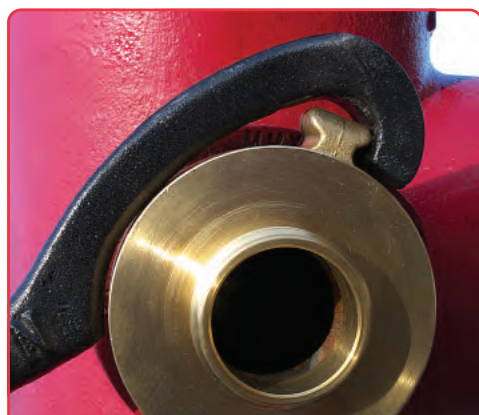
90° Handle

Item No	Overall Length	Weight
367-4288	30"	3.85 lbs.
367-4289	36"	4.45 lbs.





INTERNAL CORE WORKS ON PIN-TYPE HOSE COUPLINGS OR HYDRANT ADAPTERS.



WORKS ON LUG-TYPE HOSE COUPLINGS OR HYDRANT ADAPTERS.



GRIPS AND RETAINS PENTAGON OR SQUARE OPERATING NUTS.

Hydrant Operating Wrenches

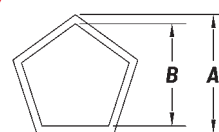


Other sizes and shapes available upon special request. Please give dimensions measuring "point to flat" for pentagon nuts or across center from "flat to flat" for square and hexagon nuts.

One-piece (non-adjustable) ductile iron casting, available with square or pentagon opening to fit specific operating nut sizes. These wrenches won't round the corners of operating nuts as other wrenches tend to do.

Also serves as a spanner wrench to attach or remove hose couplings (both pin-type and lug-type). 15" overall length. Enamel finish.

Pentagon Nuts



Item No	Size	Model Number	"A" at base	"B" at top	Weight
377-5952	1-1/2"	B41	1-5/8"	1-1/2"	2.45 lbs.
377-5953	1-1/4"	B18	1-3/8"	1-1/4"	2.55 lbs.

Square Nuts



Item No	Size	Model Number	"A" at base	"B" at top	Weight
377-5951	1"	A12	1-1/8"	1"	2.60 lbs.
377-5947	7/8"	A3	1"	7/8"	2.70 lbs.

See separate literature on Adjustable Hydrant Wrenches and Hydrant Wrenches for Storz connections.



**WORKS ON PIN-TYPE HOSE COUPLINGS
OR HYDRANT ADAPTERS.**



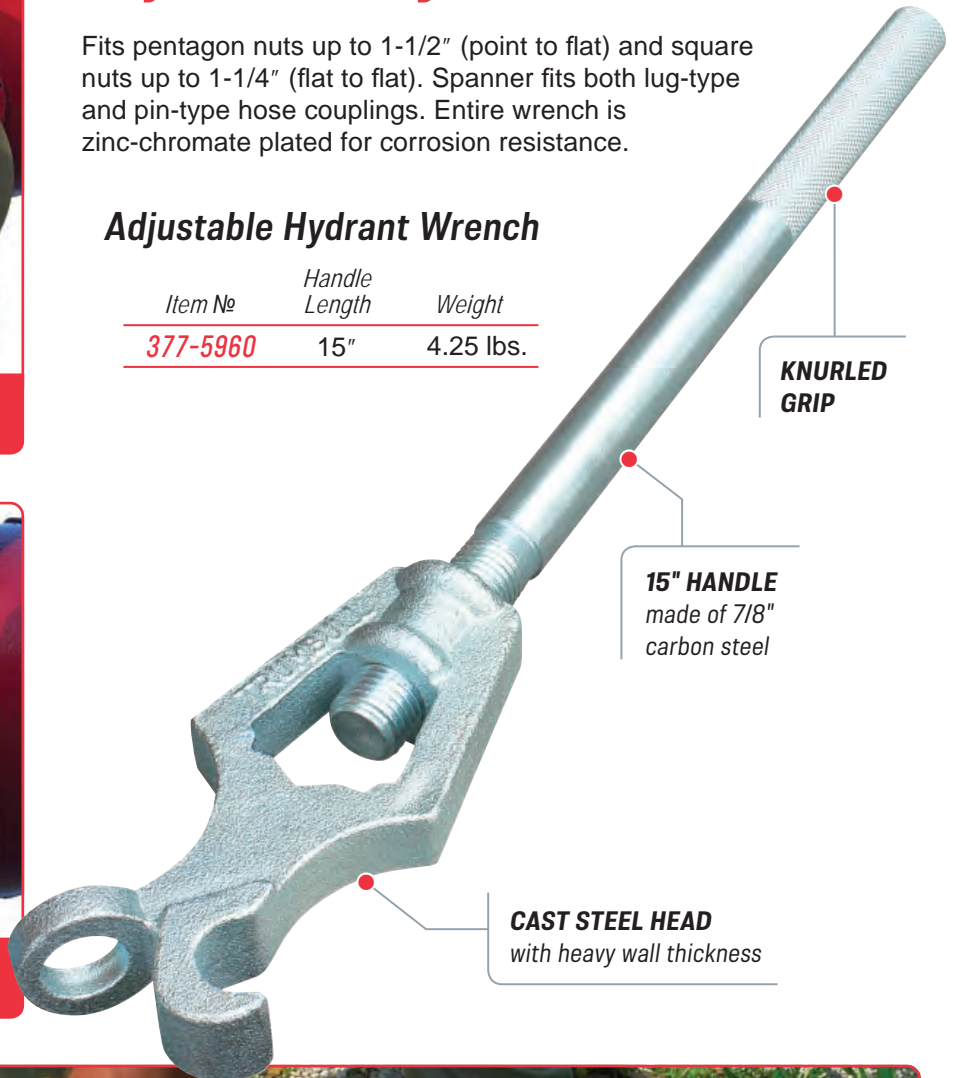
**WORKS ON LUG-TYPE HOSE COUPLINGS
OR HYDRANT ADAPTERS.**

Adjustable Hydrant Wrench

Fits pentagon nuts up to 1-1/2" (point to flat) and square nuts up to 1-1/4" (flat to flat). Spanner fits both lug-type and pin-type hose couplings. Entire wrench is zinc-chromate plated for corrosion resistance.

Adjustable Hydrant Wrench

Item No	Handle Length	Weight
377-5960	15"	4.25 lbs.



**KNURLED
GRIP**

15" HANDLE
made of 7/8"
carbon steel

CAST STEEL HEAD
with heavy wall thickness



GRIPS AND RETAINS PENTAGON OR SQUARE OPERATING NUTS.



WORKS ON 4" AND 5" STORZ CAPS.



WIDE BEARING SURFACE ON WEDGE NUT GRIPS & RETAINS OPERATING NUTS BETTER THAN CONVENTIONAL THREADED HANDLES.



WORKS ON HYDRANT ADAPTERS AND HOSE COUPLINGS, BOTH PIN AND LUG TYPE.

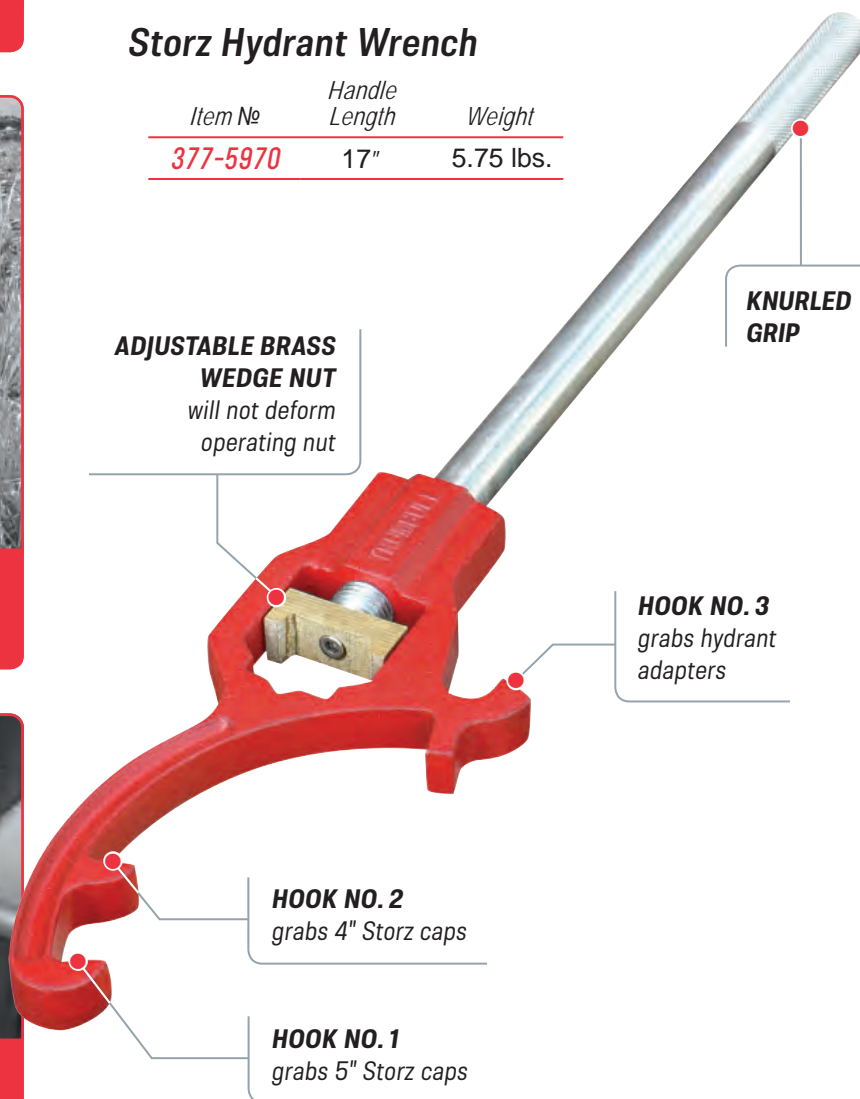
Storz Adjustable Hydrant Wrench

This Trumbull hydrant wrench works on 4" and 5" Storz caps, rocker lug and pin-type fittings, as well as hydrant adapters.

Adjustable brass wedge nut grips a variety of sizes and shapes of operating nuts, up to 1-3/4" pentagon and 1-1/4" square. Head is made of cast steel; handle made of high-tensile steel.

Storz Hydrant Wrench

Item No	Handle Length	Weight
377-5970	17"	5.75 lbs.



Diameter Tapes

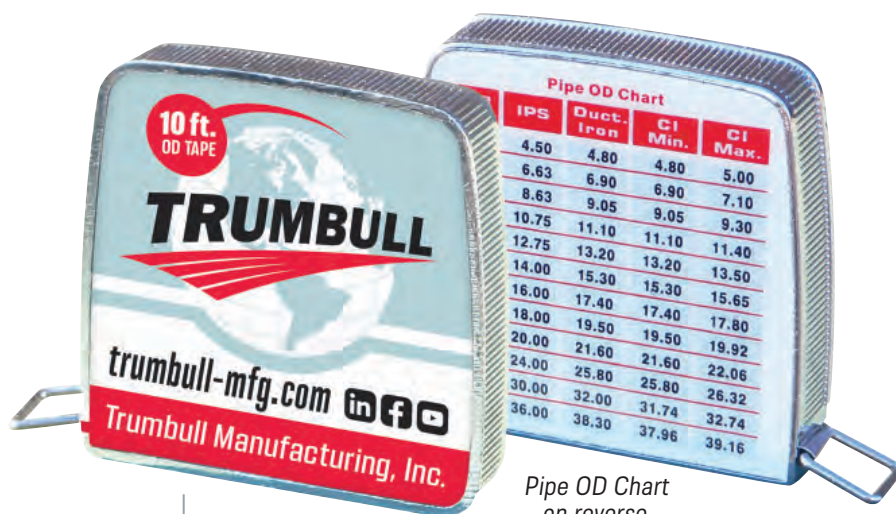
Blade is 1/4" Width x 10' Length, Available in Both Inch and Metric Models

Most competitive models of diameter tapes can only measure up to 20" or 24" pipe...

TRUMBULL'S TAPE WILL MEASURE DIAMETERS UP TO AND INCLUDING 36" DUCTILE IRON PIPE.



Diameter Tapes are for identification of pipe, not for precision measurements. For precision measuring tapes, contact Trumbull.



Pipe OD Chart on reverse.

Diameter Tapes

- A necessity for any water utility or waterline contractor. Know your pipe diameters in order to size your clamps, couplings and tapping sleeves accurately!
- Automatically converts circumference of a pipe to its diameter.
- Yellow tape with black markings.
- 10 ft. (3 Meter) length, see note on left.
- Spring action returns blade to case.
- Gift boxed.



Inquire how we can put **YOUR** logo on the label.

LINEAR MARKINGS

First 12 inches of front measures to 1/32nds.
Balance of front measures to 1/16ths.



DIAMETER MARKINGS

Diameter on back to 100ths of inches.



DON'T BUY A TAPE THAT MAY NOT BE LONG ENOUGH TO DO THE JOB... TRUMBULL'S 10 FOOT TAPES CAN MEASURE THE OUTSIDE DIAMETER OF 36" DUCTILE PIPE (38.30" O.D.)

Item No	Measurement Scales	Weight
217-6653	Linear Inch x Diameter Inch	0.20 lbs.
217-6656	Linear Metric x Diameter Metric	0.20 lbs.
217-6659	Diameter Inch x Diameter Metric	0.20 lbs.

Main Valve Keys



T-Handle Main Valve Keys

- Handles & shafts fabricated from 1" Sch 40 steel pipe
- Cast steel socket that fits 2" square operating nut
- For more info concerning the Lighted Main Valve Keys, see page A-11.

Length	Weight	1 Item No	3 LIGHTED Item No
2 ft.	9.15 lbs.	367-5016	spec/ord.
3 ft.	10.70 lbs.	367-5017	spec/ord.
4 ft.	12.10 lbs.	367-5018	367-5118
5 ft.	13.35 lbs.	367-5019	367-5119
6 ft.	15.30 lbs.	367-5020	367-5120
7 ft.	17.10 lbs.	367-5021	spec/ord.
8 ft.	18.80 lbs.	367-5023	367-5123
10 ft.	20.00 lbs.	367-5026	spec/ord.
12 ft.	22.00 lbs.	367-5028	spec/ord.

Ring Handle Main Valve Keys

- Features a forged steel top ring
- 1" Sch 40 steel pipe shafts
- Cast steel socket fits 2" square operating nut

Length	2 Item No	Weight
4 ft.	367-5124	11.40 lbs.
5 ft.	367-5125	13.00 lbs.
6 ft.	367-5126	14.30 lbs.
7 ft.	367-5127	15.50 lbs.
8 ft.	367-5128	18.00 lbs.



For special lengths not shown here, please inquire.

Telescoping Main Valve Keys

- Adjustable to fit valve depths of 6' through 10'
- 1-1/2" square upper shaft, 1-1/4" square lower shaft
- Steel socket cast with open top mud relief
- Socket fits 2" square operating nut
- Adjustable in one foot increments with wire lock pin

4 Item No	Length	Weight
367-5129	6 ft. through 10 ft.	38.50 lbs.

Gate Valve Speed Wrench

- Allows use of both hands for extra leverage
- Revolving handle allows quick opening & closing

5 Item No	Handle Length	Weight	Ideal for operating valves with 2" AWWA nut in the trench or in the yard.
367-9981	18"	6.20 lbs.	

Curb Box Rods



Buffalo Erie/Minneapolis

Buffalo Type Curb Box Rods

- Made of 1/2" square carbon steel
- Ductile iron end casting
- Furnished with brass cotter pin

Length	Item No	Weight
30"	367-4230	3.00 lbs.
36"	367-4232	3.50 lbs.

Erie/Minneapolis Type Curb Box Rods

Furnished with brass cotter pin

Length	Item No	Weight
24"	367-4084	3.10 lbs.
30"	367-4085	3.20 lbs.
36"	367-4087	3.70 lbs.
42"	367-4090	4.20 lbs.
48"	367-4092	4.70 lbs.

Curb Wrenches and Keys



Items No. 4 through No. 7 are shown on the following page.

No. 1302 Curb Stop Wrenches

- Designed to shut off 3/4" through 2" curb stops
- Made of 5/8" round carbon steel rod
- Ductile iron bottom casting

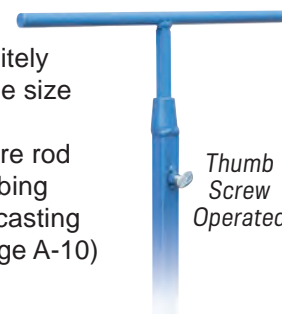


No. 1302 casting fits directly on t-head of curb stops

Length	Item No	Weight
3 ft.	367-4293	4.00 lbs.
4 ft.	367-4294	6.00 lbs.
5 ft.	367-4360	7.00 lbs.
6 ft.	367-5025	8.00 lbs.
7 ft.	367-4362	9.00 lbs.
8 ft.	367-4296	10.00 lbs.

Telescoping Curb Stop Wrenches

- Available in two size ranges
- Thumb screw allows for infinitely variable adjustment within the size range of each model
- Inner shaft is 1/2" solid square rod
- Outer shaft is 5/8" square tubing
- Combination socket bottom casting (see details of casting on page A-10)



Thumb Screw Operated

Length Range	Item No	Weight
4'6" through 8'	367-4370	4.00 lbs.
6' through 10'	367-4371	10.00 lbs.

Curb Wrenches and Keys are continued on page A-10.

Curb Wrenches and Keys, Continued

No. 1305 and No. 1321 Combination Curb Box Keys

For **BUFFALO** Type Boxes

Made of 5/8" round carbon steel with cast steel combo casting.

No. 1305

No. 1321

Plain Tee handle

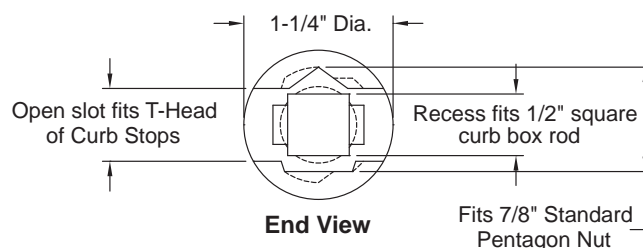
POINT END
for digging dirt or ice away from lid

CHISEL END

Length	Weight	No. 1305 4 Item No	No. 1321 5 Item No
1 ft.	3.00 lbs.	367-4295	367-5295
3 ft.	5.00 lbs.	367-4291	367-5291
4 ft.	6.00 lbs.	367-4292	367-5290
6 ft.	8.00 lbs.	367-4297	367-5297
8 ft.	10.00 lbs.	367-4302	spec/ord.

THE COMBINATION SOCKET

is a multi-purpose tool. It can be used on a pentagon nut as well as a 1/2" square rod, and will fit directly on the t-head of a curb or meter stop through 2". When used on pentagon bolt of meter box covers, automatically attaches to lift and hold the lid. Non-slotted version is also available upon request.



NOT for use with 1" Erie Style Boxes.

No. 1306 and No. 1322 Curb Box Keys

For **ERIE & MINNEAPOLIS** Type Boxes

Made of 5/8" carbon steel.

No. 1306

No. 1322

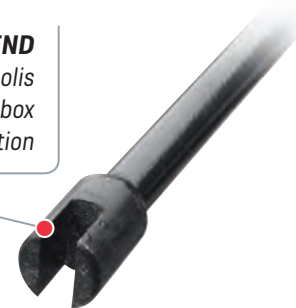
FORK END
of both keys fits in a curb box lid with 2 holes

SOCKET END
of No. 1306 key fits the plug in a curb box lid with a pentagon nut.
See close-up of Combination Socket on top of page.

PICK END
is used to clear ice and dirt from the box lid

SLOTTED END

For use on Erie & Minneapolis style rods. Will fit inside a curb box with a 1" pipe upper section



Length	Weight	Plain Handle	No. 1306 6 Item No	No. 1322 7 Item No
2 ft.	5.00 lbs.	----	367-4277	spec/ord.
3 ft.	7.00 lbs.	----	367-4278	367-5278
4 ft.	9.00 lbs.		367-4264 367-4280	367-5280
5 ft.	11.00 lbs.		367-4265 367-4276	spec/ord.
6 ft.	13.00 lbs.		367-4266 367-4275	spec/ord.
7 ft.	15.00 lbs.		367-4267 367-4274	spec/ord.
8 ft.	17.00 lbs.		367-4268 spec/ord.	spec/ord.

For special lengths not shown here, please inquire.

Lighted Valve and Curb Keys



ILLUMINATES THE INSIDE OF CURB OR VALVE BOX.



LIGHT IS RECESSED TO PROTECT FROM DAMAGE.



SIMPLE BUTTON-OPERATED LIGHT SWITCH.

Trumbull Lighted Keys make it easier for the operator to see the 2" nut on a main valve or t-head of a curb stop. Both models feature handles and shafts fabricated from Sch 40 steel pipe and extra strength tool castings.



Lighted Main Valve Keys

- Handles and shafts fabricated from 1" Sch 40 steel pipe.
- Cast steel casting fits 2" square operating nut.
- Bottom casting has mud slots that prevent packing of dirt inside socket.

Length	Item No	Weight
4 ft.	367-5118	12.80 lbs.
5 ft.	367-5119	14.10 lbs.
6 ft.	367-5120	15.40 lbs.
8 ft.	367-5123	18.00 lbs.

Lighted Curb Keys

- Handles and shafts fabricated from 3/4" Sch 40 steel pipe.
- Combination curb key casting fits t-head of curb stops up to 2", standard pentagon nut and various curb box rods.
- The curb key casting has an OD of 1-1/4" and is designed for Buffalo curb boxes, meter boxes, or arch pattern boxes with 1-1/2" or larger upper pipe sections (see page A-10 for more details).

Length	Item No	Weight
3 ft.	367-4391	6.35 lbs.
4 ft.	367-4392	6.40 lbs.
6 ft.	367-4397	8.45 lbs.



Designed to be water-resistant and shock-proof. LED bulb rated for 100,000 hours. Uses AAAA batteries which can be easily replaced in the field.

Pentagon Hand Keys

Medium Carbon Steel Investment Casting - Plated Finish



STANDARD
Pentagon Head

Model HK-0

Fits standard pentagon heads. The socket cavity retains the head during removal, for ease in lifting the lid of a meter box from the frame. The convenient hammer and pick ends assist in breaking ice and clearing debris. A square shank is provided on the socket for applying extra torque.

Item No	Model	Weight
367-4298	HK-0	0.85 lbs.
367-4331	HK-1	0.60 lbs.
367-4332	HK-2	0.90 lbs.
367-4333	HK-3	1.00 lbs.

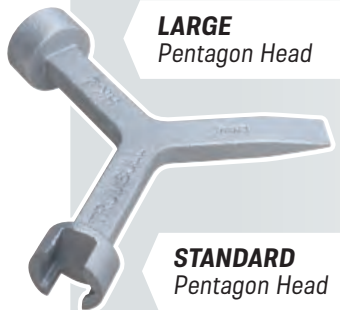
See pages A-9 through A-10
for Valve and Curb Keys.



STANDARD
Pentagon Head

Model HK-1

Fits standard pentagon heads. Slot in socket operates T-heads of curb and meter stops. The socket cavity also retains the head during removal, for ease in lifting the lid of a meter box from the frame. The tee-handle has a blunt rounded end for pounding, and a curved, tapered end to assist in breaking ice and clearing debris.



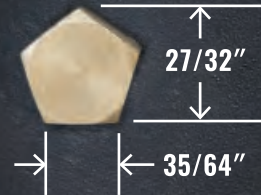
LARGE
Pentagon Head

STANDARD
Pentagon Head

Model HK-2

The HK-2 has two pentagon sockets, plus a tapered-end prying blade. Socket 1 fits standard pentagon heads, and has a slot to operate T-head of curb and meter stops. Socket 2 fits large pentagon heads. Both sockets have cavities to retain the pentagon head during removal, for ease in lifting the lid of a meter box from the frame. The tapered blade end is designed for prying, or for use as a chisel.

STANDARD WATERWORKS PENTAGON HEAD

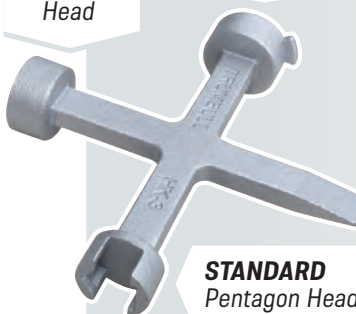


LARGE WATERWORKS PENTAGON HEAD



MUELLER
Retaining
Type
Pentagon
Head

MUELLER
External Lug Type
Pentagon Head



STANDARD
Pentagon Head

Model HK-3

The HK-3 has three pentagon sockets, plus a tapered-end prying blade. Socket 1 fits standard pentagon heads, and has a head-retention cavity. It also has a slot to operate T-heads of curb and meter stops. The other two sockets both fit the 1-1/16" pentagon head used on Mueller meter boxes. One socket has the head-retention cavity to retain the pentagon head during removal; the other socket has the external lug which engages the lid recess. Both methods assist in lifting the lid of a meter box from the frame. The tapered blade end is designed for prying, or for use as a chisel.

MUELLER METER BOX COVER PENTAGON HEAD



Valve and Curb Key Kit

Trumbull Valve Key Kit and Adapters operate main valves, curb and meter stops, and a variety of curb box rods and lids. Tool collapses to compact length for convenient storage in utility vehicles. Carrying case included.

Base Unit

Item No	Product Description	Weight
367-9100	Base Unit	20.65 lbs.

KEY FOR MAIN VALVES With AWWA Socket

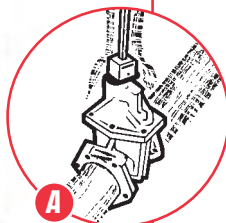
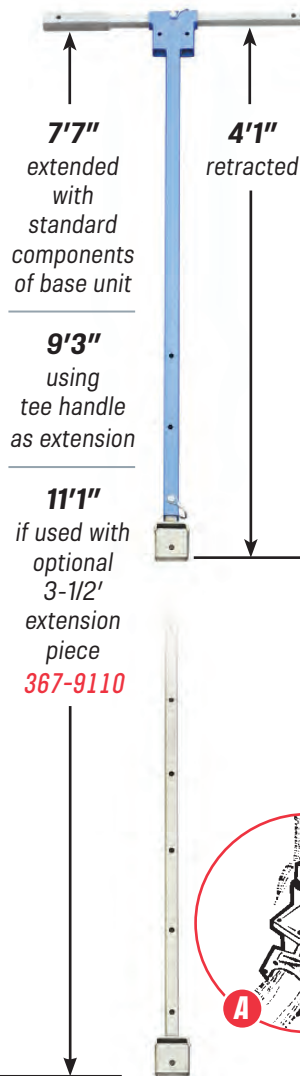
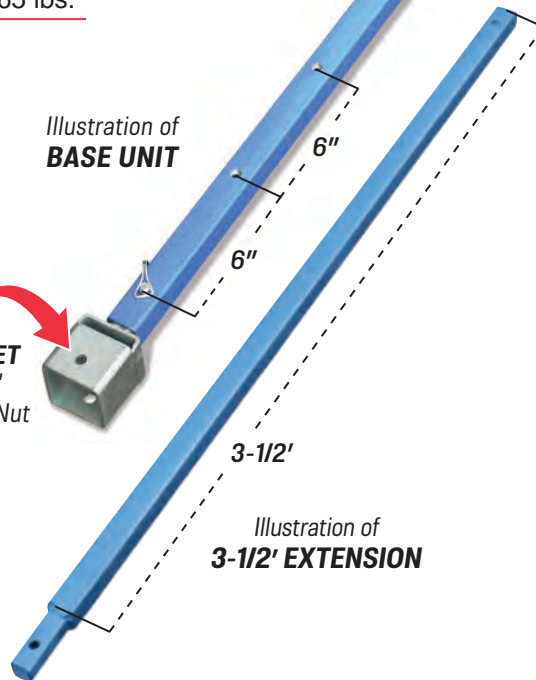


Illustration of BASE UNIT

SOCKET
for 2"
AWWA Nut



Optional Accessories

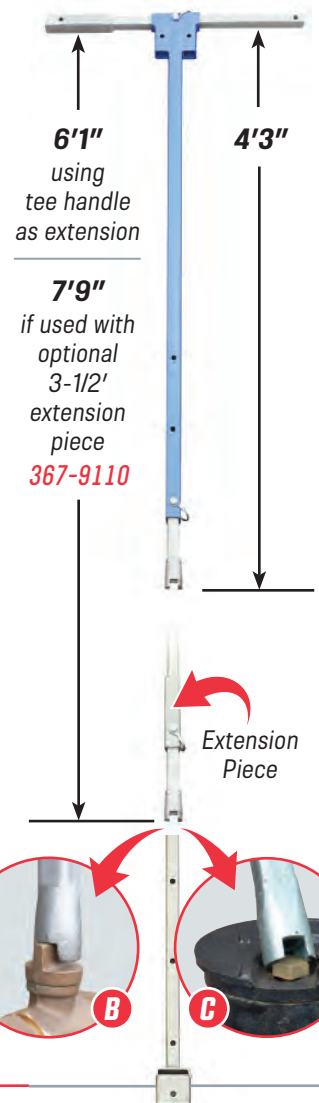
Item No	Product Description	Weight
367-9110	3-1/2 ft. Extension Piece	7.00 lbs.
367-9111	Replacement Stem & Socket	5.55 lbs.
367-9106	Replacement Tee Handle	2.80 lbs.



Illustration of Tee Handle fitting in Base Unit.

MULTI-PURPOSE ADAPTER
fits on 3/4" - 2" curb and meter stops (illustration B below), operates standard waterworks pentagon (illustration C below), & 1/2" curb box rod

KEY FOR CURB/METER STOPS With Multi-Purpose Adapter



Valve and Curb Key Kit, Optional Accessories

2-Hole Lid Adapter



Handwheel Adapter



367-9102 - operates 2-hole lids of Erie and Minneapolis curb boxes (illustration D below)

367-9104 - operates small handwheels (illustration E)

Snap pin included

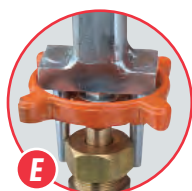
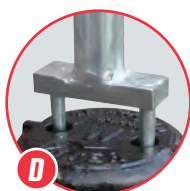
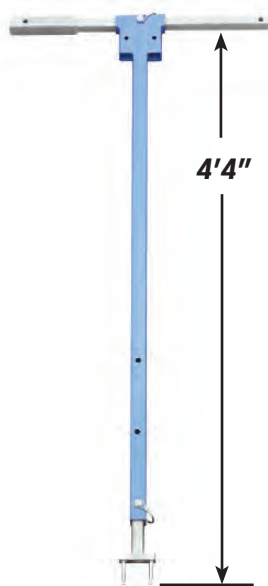
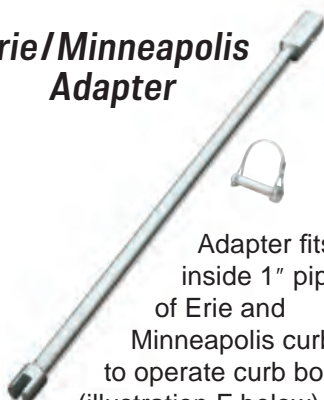


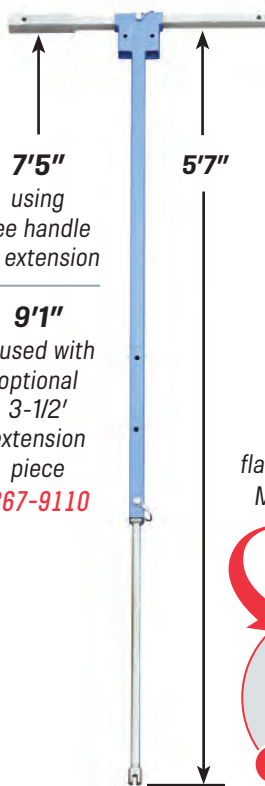
Illustration	Item No	Weight
D	367-9102	1.15 lbs.
E	367-9104	1.00 lbs.

Erie/Minneapolis Adapter



Adapter fits inside 1" pipe of Erie and Minneapolis curb boxes to operate curb box rods (illustration F below)

Snap pin included



Adapter fits on flattened top of Erie Minneapolis rods



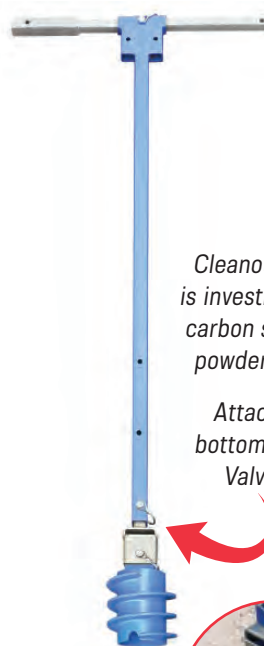
Item No	Weight
367-9101	2.25 lbs.

Cleanout Auger



Ideal for cleaning out mud and dirt in 5-1/4" valve boxes (illustration G)

Snap pin included



Cleanout Auger is investment cast carbon steel with powder coating

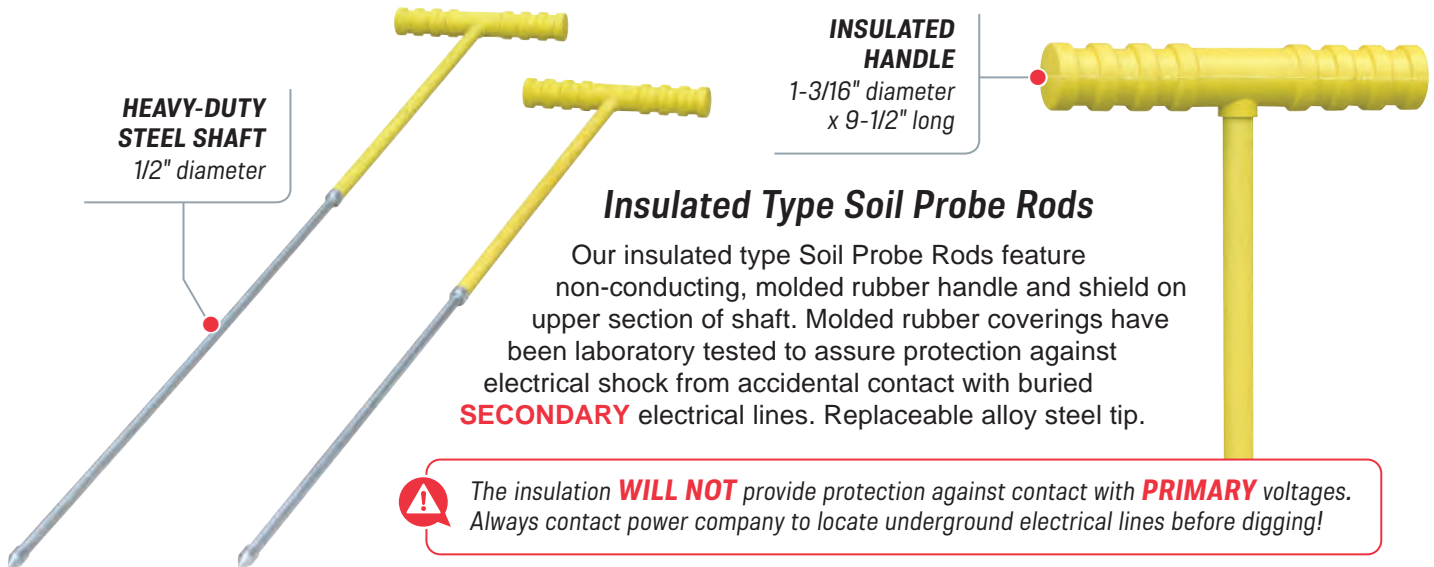
Attaches to bottom of Main Valve Key



Item No	Weight
367-9103	6.95 lbs.

Soil Probe Rods

Used for Locating Buried Lines – Insulated and Uninsulated Types



Overall Length	INSULATED TYPE		UNINSULATED TYPE					
	Rubber Handle		Carbon Steel		Stainless Steel		Economy Type	
	Item No	Weight	Item No	Weight	Item No	Weight	Item No	Weight
3 ft.	----	----	367-9082	2.50 lbs.	367-9086	2.50 lbs.	----	----
4 ft.	367-9080	4.00 lbs.	367-9083	2.80 lbs.	367-9087	2.80 lbs.	367-9081	4.00 lbs.
5 ft.	367-9090	4.25 lbs.	367-9084	3.25 lbs.	367-9088	3.25 lbs.	367-9091	4.25 lbs.
6 ft.	----	----	367-9085	3.60 lbs.	367-9089	3.60 lbs.	----	----

REPLACEMENT PARTS

Alloy Steel Tip - for Insulated Type Probe Rods	367-9095	0.05 lbs.
Stainless Tip - for SS & CS Uninsulated Type Probe Rods	367-9097	0.10 lbs.
Grips - for SS & CS Uninsulated Type Probe Rods (2-pack)	367-9096	0.10 lbs.

Uninsulated Type Soil Probe Rods

Our economy type Soil Probe Rods feature a shaft and handle made from 1/2" rod and an epoxy-applied tip.

Our "Plus" model features replaceable tips and handle grips and are made from 3/8" rod. Handle grips **DO NOT** provide insulation from electrical lines. Available in both carbon steel and stainless steel models.



The KnuckleSAVER™ 3-in-1 Flaring Tools

Whether you are flaring Type K soft copper, or using it to “re-round” copper for use with compression fittings, the KnuckleSAVER™ flaring tool provides safety from injuries.

The shank of the flaring tool is drilled out and provided with a pressure relieving hole, to allow for use with lines that cannot be shut down.

i 3-in-1 Flaring Tools ...

- 1 - FLARES** Type K copper
- 2 - RE-ROUNDS** kinked or bent copper
- 3 - RELIEVES** pressure when used under pressure

3-in-1 Flaring Tools

Item No	Size	Model Number	Weight
368-0500	3/4"	FRP-075	2.25 lbs.
368-0502	1"	FRP-100	2.65 lbs.
368-0504	1-1/2"	FRP-150	4.50 lbs.
368-0506	2"	FRP-200	6.50 lbs.

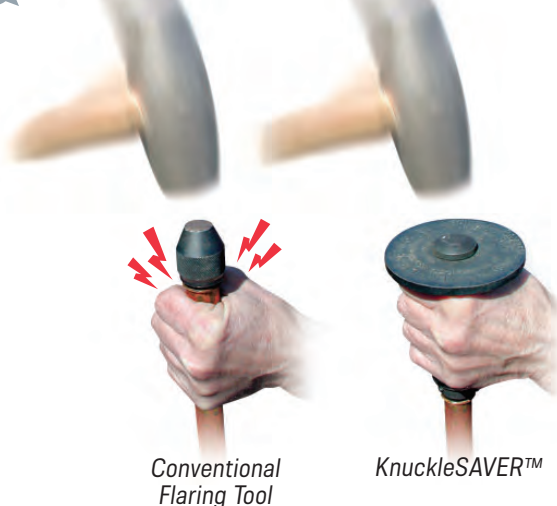
! **ALWAYS** use a brass hammer and safety glasses when using any striking tools.

Brass Hammer

Item No	Nominal Size	Weight
207-7088	3 lbs.	3.20 lbs.



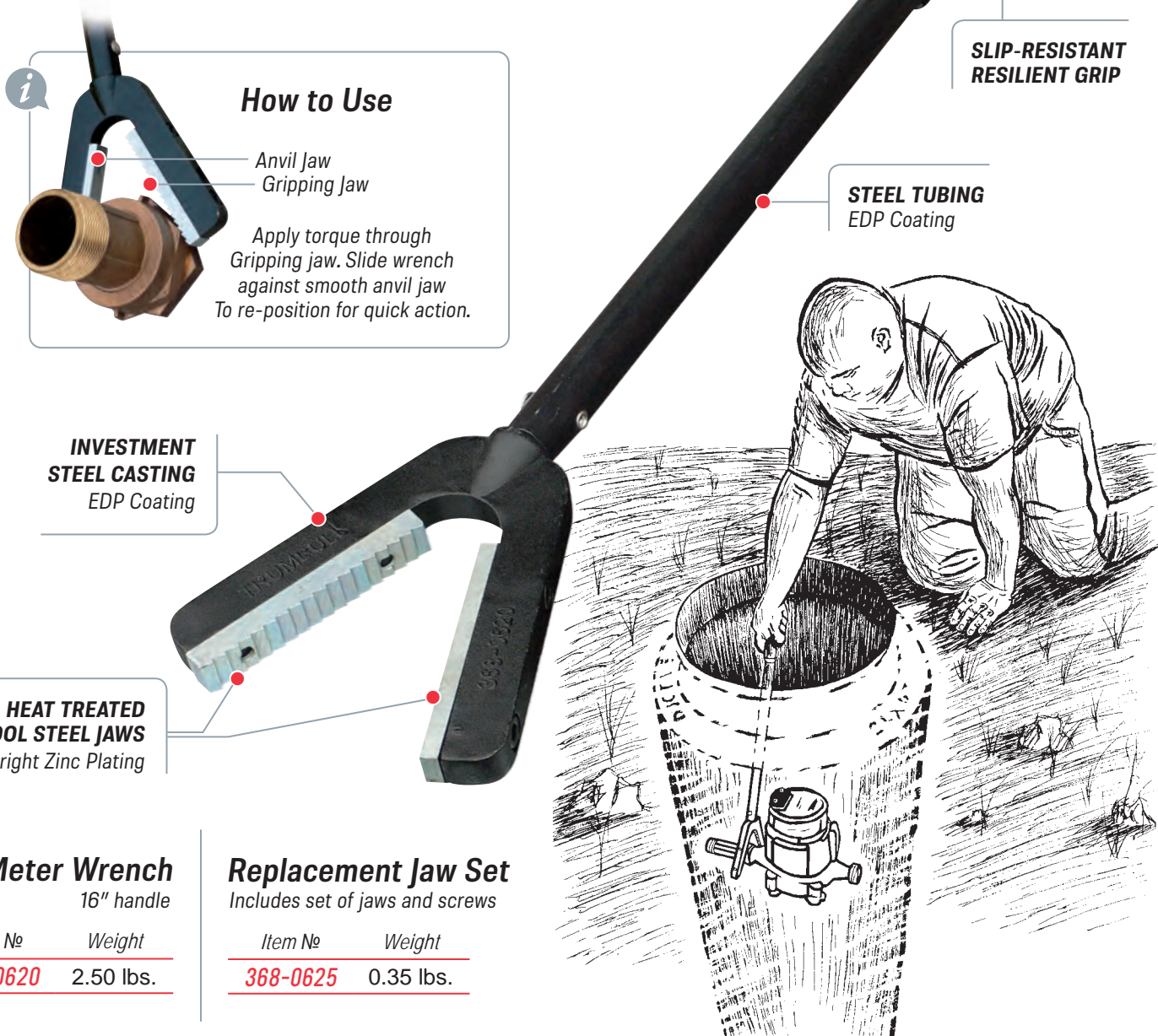
i WHICH TOOL WOULD **YOU** RATHER USE?



Meter Wrench

Trumbull's Meter Wrench is used to install and remove meter couplings in buried meter boxes and meter pits. The 16" handle allows worker easy access into these confined areas.

Works with 1/2" through 1-1/2" meter couplings. Special features include resilient grip on handle and replaceable jaws.



Meter Wrench

16" handle

Item No	Weight
368-0620	2.50 lbs.

Replacement Jaw Set

Includes set of jaws and screws

Item No	Weight
368-0625	0.35 lbs.

Distance Measuring Wheel

Includes Storage Bag

Trumbull's heavy-duty Distance Measuring Wheel is ideal for laying out and measuring utility lines, road work and other types of construction. Lightweight design makes it easy to use, reducing fatigue. Folding handle design requires minimal storage space and fits conveniently inside padded storage bag.

Internal axle bearings provide for long life under a wide variety of applications. Six-figure counter records long distances up to 100,000 ft. over most types of terrain. Large counter makes reading measurements easy. Hand-grip brake eliminates unwanted measurement at turns or when maneuvering around objects not to be measured.

Handle, front forks and kickstand are made of coated carbon steel. Wheel rim and hand grip brake made of ABS. Tire is made of 90-durometer black PVC.



MEASURING WHEEL SPECS

Wheel Diameter: 12-1/2"

Extended Length: 3'8"

Measuring Wheel Weight: 4.90 lbs.

Carrying Bag Weight: 1.10 lbs.

Wheel with Bag Weight: 6.00 lbs.



TRIGGER-OPERATED BRAKE

PUSH LEVER
resets
numbers
to zero



6-FIGURE COUNTER COUNTS FORWARD OR BACKWARD.



FOLDING HANDLE DESIGN . . . FITS NEATLY INSIDE STORAGE BAG.

Distance Measuring Wheels

Item No	Lettering	Color
217-1235	Feet	Green
217-1236	Meters	Red

Shutoff Tool

For Polyethylene Water Tubing



The Shutoff Tool **IS NOT** intended for use on gas tubing!

The Trumbull Shutoff Tool can be used on polyethylene water service tubing for making emergency shutoffs where curb stops or other valves are not readily accessible.

Hinge on one end allows the tool to open for use on 3/4" and 1" polyethylene tubing. Latch on opposite end keeps tool closed during repair. Zinc chromate plated.



**FOR USE ON 3/4" AND 1"
POLYETHYLENE WATER TUBING ONLY.**



**LATCH KEEPS TOOL CLOSED
DURING SHUTOFF AND IS EASILY
UN-LATCHED WHEN FINISHED.**

Shutoff Tool

Item No	Overall Length	Weight
368-9040	17-7/8"	2.90 lbs.



KNURLING
helps "grab" the
polyethylene tubing
during shutoff

Valve and Curb Box Cleaners

Valve and curb boxes frequently get filled up with dirt, stones and other foreign objects that prevent keys from accessing valve or curb stops. These heavy-duty tools are designed for cleaning out 2-1/2" and 3" Buffalo curb boxes as well as 4-1/4" and 5-1/4" Buffalo valve boxes, without excavation.

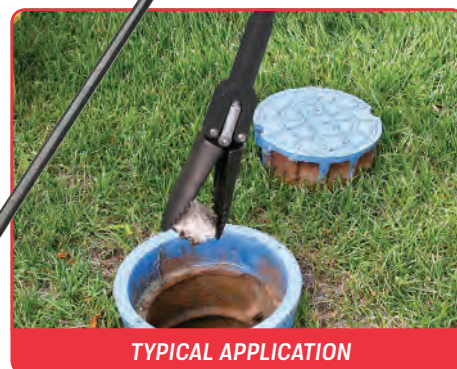
Squeeze the lever to open the jaws; release the lever to close. Available in 5', 6', 7', 8', 10' and 12' lengths. Replacement jaw kits can easily be installed in the field. Replacement jaws can be interchanged on tools of other popular manufacturers.

Carbon steel jaws avoid breakage associated with cast iron jaws, and are designed for long life and abusive handling. Handle and tee are both zinc chromate plated. Fasteners are stainless steel. All other components are carbon steel and EDP coated for corrosion resistance.



STANDARD JAWS
remove small objects,
dirt, stones, sand
and mud

SCOOP JAWS
are designed to remove
large amounts of debris,
sand and mud



TYPICAL APPLICATION



COMPETITIVE MODEL
can "over-open" and
become disengaged,
requiring the tool to
be removed from the
box & adjusted back
into place



TRUMBULL JAW DESIGN
prevents over-opening
and disengagement



Valve and Curb Box Cleaners

Length	Standard Jaws		Scoop Jaws	
	Item No	Weight	Item No	Weight
5 ft.	367-9150	10.50 lbs.	367-9170	10.60 lbs.
6 ft.	367-9151	12.10 lbs.	367-9171	12.20 lbs.
7 ft.	367-9152	13.70 lbs.	367-9172	13.80 lbs.
8 ft.	367-9153	15.30 lbs.	367-9173	15.40 lbs.
10 ft.	367-9155	18.50 lbs.	367-9175	18.60 lbs.
12 ft.	367-9157	21.70 lbs.	367-9177	21.80 lbs.

Jaw Replacement Kits

Includes 2 jaws and 2 pins

Item No	Jaw Type	Opens to	Weight
367-9162	Standard Jaws	5-1/4"	0.55 lbs.
367-9182	Scoop Jaws	5-1/4"	0.65 lbs.

Valve Box Risers

When you have to raise existing valve boxes to the new grade of a road to be paved, save time and money and avoid needless breaking-up of old concrete to raise the valve box. . . instead use Trumbull Valve Box Risers. Simply remove the existing valve box lid, insert the riser and place the existing lid into the riser.

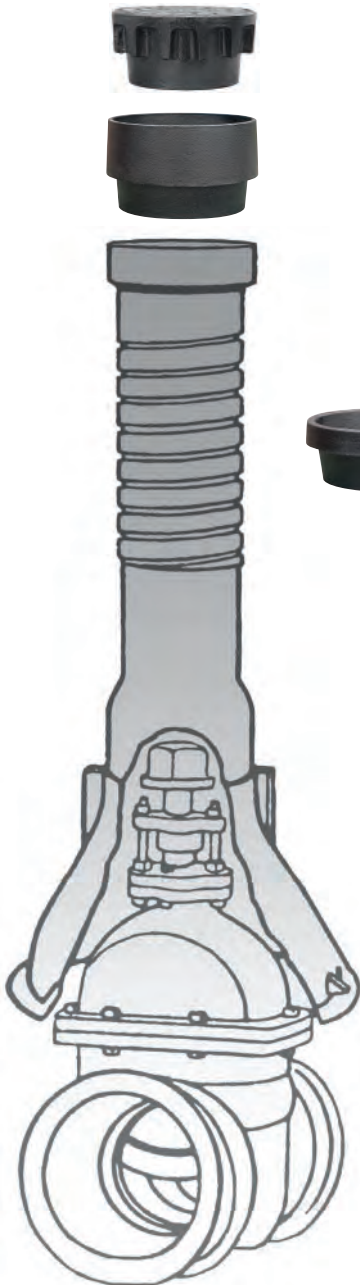
- MUNICIPAL WATER DEPARTMENTS
- PRIVATE WATER COMPANIES
- PAVING & HIGHWAY CONTRACTORS



All sizes of Trumbull Valve Box Risers Accept standard 5-1/4" lids; no need to purchase special 1" riser lids. All six sizes (1" through 6") fit into the top sections of Tyler, Bingham & Taylor, Opelika, Foundry, Central Foundry and many other manufacturers' valve boxes, and accept most of their lids as well.



Due to changes in the design of some manufacturer's valve box lids, primarily Tyler's, their redesigned lid will not fit properly in our 1" Riser. When it cannot be determined if the existing valve boxes being raised have the old or new style Tyler lid, we recommend purchasing Trumbull's Valve Box Lid (item #367-5044, shown on page B-3) with our 1" Riser. All other sizes of Trumbull Risers should fit with either Tyler's old or new Lid.



VALVE BOX

Use 1", 1-1/2" or 2" Trumbull Riser inside 8" SDR 35 or C900 PVC pipe to form a Valve Box. Then add choice of Lid, per page B-3.



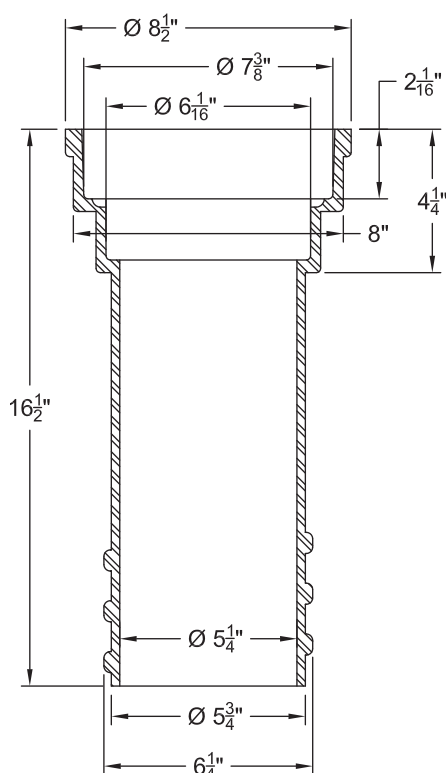
Item No	Size	Weight
367-5030	1"	6.00 lbs.
367-5031	1-1/2"	9.85 lbs.
367-5032	2"	9.75 lbs.
367-5034	3"	13.60 lbs.
367-5036	4"	19.20 lbs.
367-5038	6"	29.00 lbs.

Valve Box Risers for special sizes and shapes of valve boxes are available by special order; minimum order quantities are required.

Please refer to separate sheets for "Rite-Hite" Paving Adapters, Valve Box Lids and Locking Valve Box Lids.

"Rite-Hite" Adapters

Available in Screw-Type and Slide-Type Models

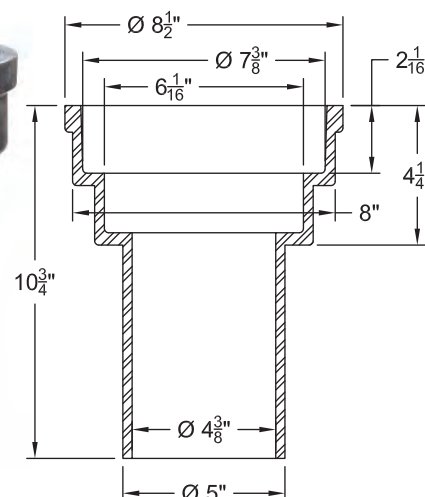


Screw-Type "Rite-Hite" Adapter

Paving Adapter No. T-69

This type adapter screws into the top section of the valve box. They accept standard valve box covers, as made by Bingham & Taylor, Central Foundry, Tyler, etc.

Item No	Adjustment Range	Weight
367-5060	2-1/2" - 8"	25.00 lbs.



Slide-Type "Rite-Hite" Adapter

Provides a method for adjusting valve boxes to pavement level. They accept standard valve box covers, as made by Bingham & Taylor, Central Foundry, Tyler, etc.

Item No	Adjustment Range	Weight
367-5050	2-1/2" - 8"	16.00 lbs.

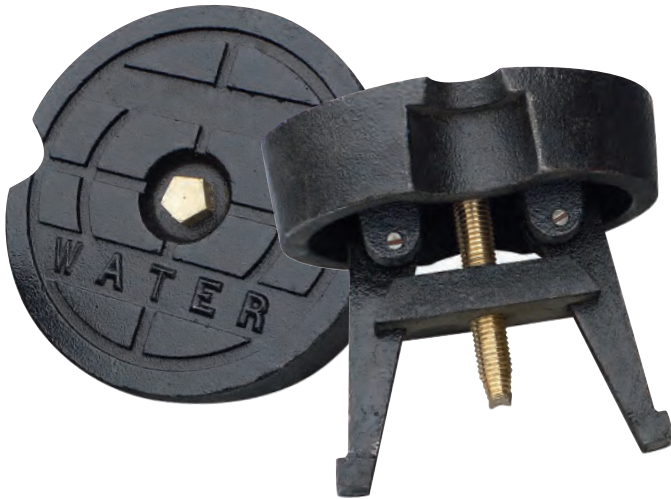


If the existing valve box is too low, place the "Rite-Hite" inside the existing box, pour stiff cement mortar around it and push down until the "Rite-Hite" is flush with the pavement surface.

If the existing valve box is too high, break off the top of the valve box and insert the "Rite-Hite". Then pour stiff cement mortar around it and push down until the "Rite-Hite" is flush with the pavement surface.

Valve Box Lids

Available in Locking Type and Standard Type Models



Locking Valve Box Lid

Locking Lids discourage unauthorized access to valve boxes. Tightening the standard brass pentagon screw causes the jaws to expand, bearing against inside of valve box.

Designed for valve boxes and Trumbull Screw-Type "Rite-Hite" Adapters; NOT for use with our Slide-Type "Rite-Hite" Adapters.

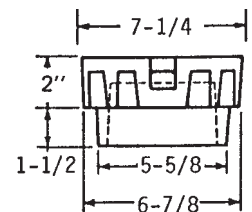
Item No	Size	Lettering	Weight
367-5045	5-1/4"	WATER	12.00 lbs.



LONG SKIRT
helps keep the lid from popping out of the valve box

Standard Valve Box Lids

For 5-1/4" shaft Buffalo style valve boxes, Trumbull Risers, "Rite-Hite" adapters, and Housing Adapters for Trumbull Valve Position Indicators.



Item No	Lettering	Weight
367-5044	WATER	13.00 lbs.
367-5046	SEWER	11.00 lbs.
367-5048	GAS	12.85 lbs.
367-5049	NON-POTABLE WATER	12.85 lbs.

Special lettering available! Call us for more details.

Please refer to the separate product literature sheets for "Rite-Hite" Adapters, Valve Box Risers (1", 1-1/2", 2", 3", 4" and 6"), and Valve Position Indicators.

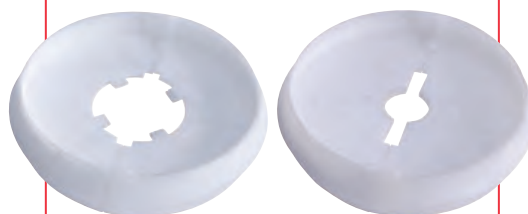
Valve Box Alignment Device

- U.S. Patent No. 7575018 and 8430116.
- Eliminates shifting of valve box during backfill.
- Designed for use on all AWWA resilient wedge gate valves.
- Used with 5-1/4" 2-piece valve boxes.
- Avoids costly excavations when valve box shifts, preventing valve key from engaging the 2" square nut.

Ordering Instructions

1. Quantity required.
2. Order model required, using the chart below.

Model	Item No	Weight
No. 1	367-4850	0.30 lbs.
No. 2	367-4851	0.40 lbs.



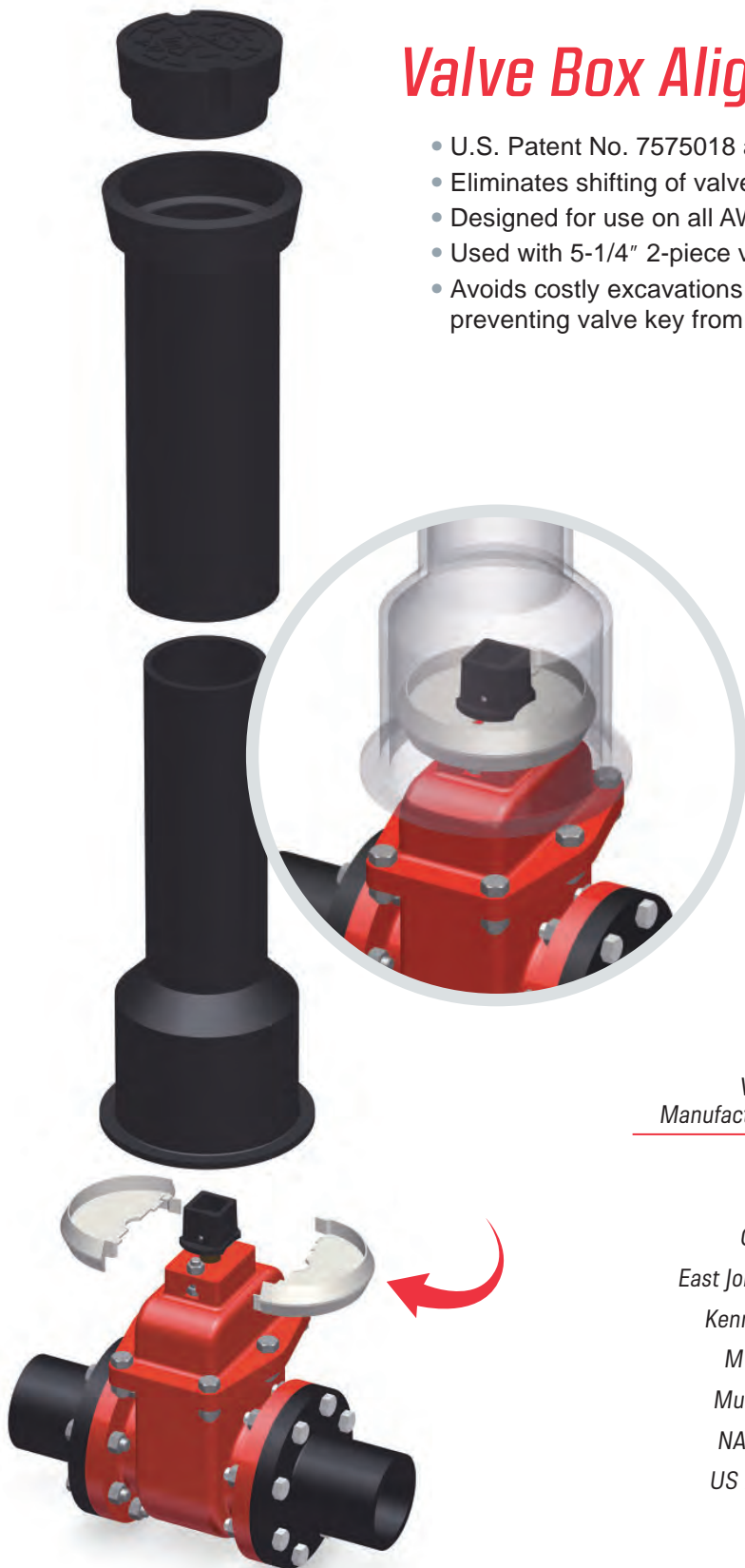
MODEL NO. 1

MODEL NO. 2

Valve
Manufacturer

Valve Size

	2"	3"	4"	6"	8"	10"	12"
AFC	2	2	2	2	2	1	1
AVK	1	1	1	1	1	1	1
Clow	2	2	2	2	2	K1	K1
East Jordan	2	2	2	2	2	2	1
Kennedy	2	2	2	2	2	K1	K1
M & H	2	2	2	2	2	K1	K1
Mueller	2	2	2	2	2	1	1
NAPAC	2	2	2	2	2	2	2
US Pipe	2	2	2	2	2	2	2



Curb Box Repair Lids

Available in Inside Type and Outside Type Models



Trumbull Curb Box Repair Lids solve all these problems on 2-1/2" and 3" Buffalo style curb boxes.

Repair Lids should be ordered based on the style of curb box that you are using (inside or outside style). Please note that old (outside style) curb boxes are still in production.

To install, insert the two jaws into the shaft and tighten the screw. The jaws expand to bear against the inside of the curb box. Designed to fit most makes of curb boxes, both old and new. Outside Repair Lids also work on most makes of inside style Curb Boxes; however, inside Repair Lids only work on inside style Curb Boxes.

Also available, T-372 Repair Lid for recessed installation in outside style curb boxes.

Tamper-Resistant Screw Type Repair Lids

Secure your curb boxes from vandalism or unauthorized access. The unique keyway can be operated only with a matching key available from Trumbull. The locking option offers a high level of security for your curb boxes, preventing unauthorized operation.

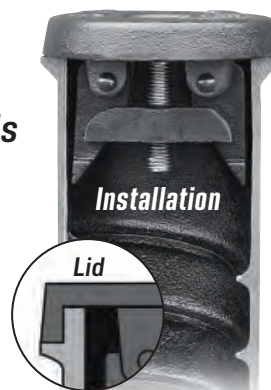
Inside Repair Lids

New Style (T-373)



Outside Repair Lids

Old Style (T-374 & T-375)



Item No	Model	Size	Screw Type	Weight
367-4281	T-373	2-1/2"	Brass Pentagon	2.45 lbs.
367-4400	T-373	2-1/2"	Tamper-Resistant*	2.45 lbs.

* Requires Lock Key 367-4403 to operate.



Lock Key

Item No	Weight
367-4403	0.15 lbs.

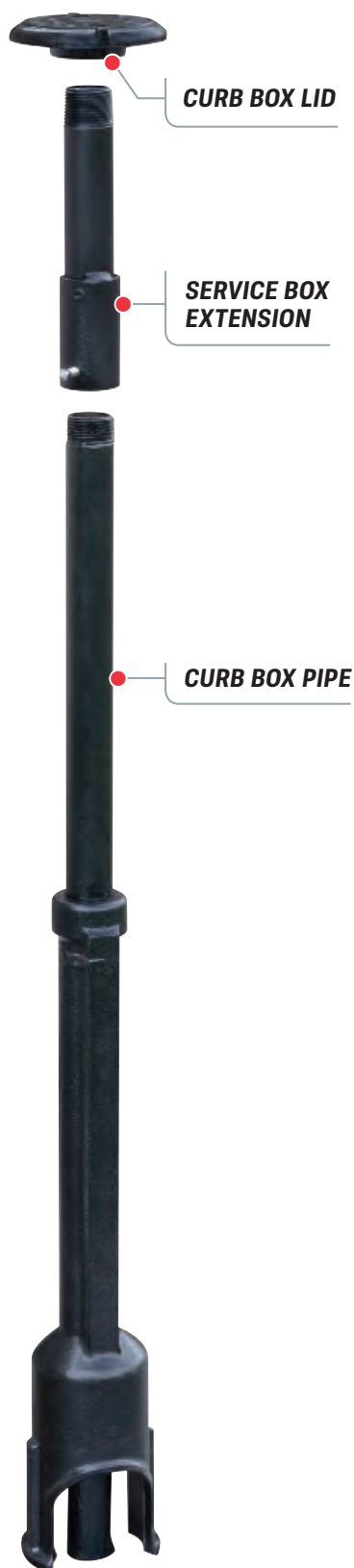
Item No	Model	Size	Screw Type	Weight
367-4282	T-374	2-1/2"	Brass Pentagon	2.30 lbs.
367-4401	T-374	2-1/2"	Tamper-Resistant*	2.30 lbs.
367-4283	T-375	3"	Brass Pentagon	3.45 lbs.
367-4402	T-375	3"	Tamper-Resistant*	3.45 lbs.

* Requires Lock Key 367-4403 to operate.



Lock Key

Item No	Weight
367-4403	0.15 lbs.



Service Box Extensions

For Erie/Minneapolis Pattern Curb Boxes

Used to increase the height of an existing 1" or 1-1/4" Erie/Minneapolis curb box. They slide over the top of the curb box pipe and are secured with a set screw (included) and include threads that accommodate the curb box's lid, allowing for easy height extension.

Service Box Extensions for 1" Curb Boxes

Length	Item №	Weight
3"	367-0170	0.75 lbs.
6"	367-0171	1.25 lbs.
9"	367-0172	1.60 lbs.
12"	367-0173	1.90 lbs.
18"	367-0174	2.20 lbs.
24"	367-0175	2.50 lbs.

Service Box Extensions for 1-1/4" Curb Boxes

Length	Item №	Weight
3"	367-0176	1.05 lbs.
6"	367-0177	1.45 lbs.
9"	367-0178	2.25 lbs.
12"	367-0179	3.10 lbs.
18"	367-0180	3.85 lbs.
24"	367-0181	4.35 lbs.



Curb Box Lids

Available for 1-1/2" and 2" Curb Boxes

Includes pentagon plug and bronze insert.



Size Curb Box	Item №	Weight
1-1/2"	367-4110	2.50 lbs.
2"	367-4115	4.55 lbs.

Tie-Lugs

*Offset 3/4" Threaded Rod Away from Mechanical Joints to
Span Across Valves, Fittings and Other Components*

Cast from high strength ductile iron with a tensile strength of 80,000 psi and a yield strength of 55,000 psi. Intended for use between MJ bell and gland in sizes 4" through 24".

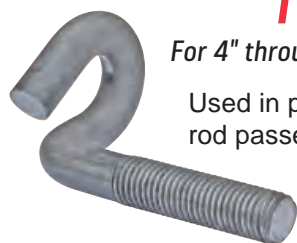
Quantity that should be used on each joint depends on pipe diameter, line pressure and other factors; consult your Engineer for quantity required.

Description	Domestic	Non-Domestic
	Item No	Item No
Tie Lug	364-3395	364-9035

Tie-Lugs and Tie-Bolts are used in conjunction with Socket Clamps as illustrated on right (shown on page C-2).

Tie-Bolt

For 4" through 12" Mechanical Joints



Used in place of T-head bolt. 3/4" threaded rod passes through eye and is retained with heavy hex nut, sold separately.
Made of low carbon steel.

Item No	Product Description	Weight
364-4000	3/4" Tie-Bolt, less nut	0.95 lbs.



Socket Clamps

For Use in Preventing Underground Pipe Joints from Separating

Also known as "Retainer Clamps" or "Friction Clamps". Designed for use on DI pipe. All Socket Clamps include two steel half clamps, two bolts and nuts and two washers. Used with all-thread rod and Trumbull Tie-Lugs or Tie-Bolts for joint restraint (shown on page C-1).

Carbon Steel Socket Clamps



Item No	Size*	Bolt Size	Stock Size	Pipe OD**	Weight
364-3401	3"	5/8" x 3"	3/8" x 2"	3.96	5.65 lbs.
364-3402	4"	5/8" x 3"	1/2" x 2"	4.80	7.15 lbs.
364-3403	6"	5/8" x 3"	1/2" x 2"	6.90	8.75 lbs.
364-3404	8"	5/8" x 3"	1/2" x 2"	9.05	10.60 lbs.
364-3405	10"	5/8" x 3"	1/2" x 2"	11.10	12.35 lbs.
364-3406	12"	5/8" x 3-1/2"	1/2" x 2"	13.20	13.80 lbs.
364-3428	14"	7/8" x 4"	3/4" x 3"	15.80	48.00 lbs.
364-3429	16"	1" x 4-1/2"	3/4" x 4"	17.40	70.00 lbs.
364-3430	18"	1-1/4" x 4-1/2"	3/4" x 4"	19.50	79.00 lbs.
364-3431	20"	1-1/4" x 4-1/2"	3/4" x 4-1/2"	21.60	91.00 lbs.
364-3432	24"	1-1/2" x 5"	3/4" x 5"	25.80	118.00 lbs.

Stainless Steel Socket Clamps

Item No	Size*	Bolt Size	Stock Size	Pipe OD**	Weight
803-3401	3"	5/8" x 3"	3/8" x 2"	3.96	5.75 lbs.
803-3402	4"	5/8" x 3"	1/2" x 2"	4.80	7.25 lbs.
803-3403	6"	5/8" x 3"	1/2" x 2"	6.90	8.90 lbs.
803-3404	8"	5/8" x 3"	1/2" x 2"	9.05	10.85 lbs.
803-3405	10"	5/8" x 3"	1/2" x 2"	11.10	12.65 lbs.
803-3406	12"	5/8" x 3-1/2"	1/2" x 2"	13.20	14.35 lbs.

* Sizes 3" through 12" are supplied with #585 cast washers which are shown on the right. Sizes 14" and larger are supplied with two fabricated carbon steel washers.

** Socket Clamps are designed for centrifugally-spun cast and ductile iron pipe with OD's as shown.



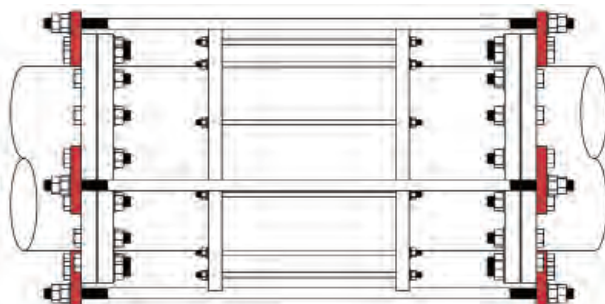
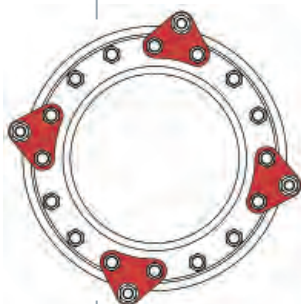
No. 585 Washers

- For 3" - 12" Socket Clamps
- Usage for 3/4" rod
- Two washers are required for each Socket Clamp

Item No	Material	Bore Size	Weight
364-9000	CS	1"	0.80 lbs.
803-9000	SS	1"	0.80 lbs.

Flange Lugs

Used to Prevent Separation of Plain-End Piping Components



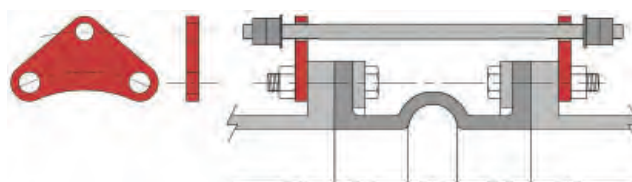
Also known in the field as “Thrust Plates”, “Harness Lugs” or “Gusset Plates”.

They are installed on the back sides of ANSI Class 125 B16.1 and Class 150 B16.5 flanges to allow tie rods to span across an unrestrained piping component.

Trumbull flange lugs are also used with rubber expansion joints to limit their expansion. Uncontrolled expansion can lead to failure of rubber expansion joints.

When using threaded ductile iron flanges, check for clearance of the Flange Lug inner radius with the flange hub O.D.

Two flange lugs are used in conjunction with a tie rod, two flat washers and four hex nuts to comprise one set (tie rod, flat washers and hex nuts are NOT included). At least two sets are required per joint. Longer flange bolts are required at the flange lug to accept the plate thickness.



Example of Flange Lug use with flexible coupling.



The total number of Flange Lugs required should be determined by the project Engineer, or the expansion joint manufacturer.

Available in ASTM A36 carbon steel plate and 304 stainless steel. Carbon steel lugs are supplied with a Tnemec 37-77 red primer coating; other coatings and finishes are available upon request. Flange Lugs for Class 250 / 300 are available upon request.

Carbon Steel	Stainless Steel	Flange Size	Plate Thickness	Tie-Rod Size	Weight
Item No	Item No				
364-4103	364-4123	3"	1/2"	5/8"	1.15 lbs.
364-4104	364-4124	4"	1/2"	5/8"	1.00 lbs.
364-4106	364-4126	6"	1/2"	5/8"	1.26 lbs.
364-4107	364-4127	8"	1/2"	5/8"	1.56 lbs.
364-4108	364-4128	10"	3/4"	3/4"	2.35 lbs.
364-4109	364-4129	12"	3/4"	3/4"	2.75 lbs.
364-4110	364-4130	14"	3/4"	3/4"	3.45 lbs.
364-4111	364-4131	16"	1"	1"	4.25 lbs.
364-4112	364-4132	18"	1"	1"	5.00 lbs.
364-4113	364-4133	20"	1"	1"	4.50 lbs.
364-4114	364-4134	24"	1-1/8"	1-1/8"	6.75 lbs.
364-4115	364-4135	30"	1-1/8"	1-1/4"	6.90 lbs.
364-4116	spec/ord.	36"	1-1/4"	1-1/4"	7.05 lbs.
364-4117	spec/ord.	42"	1-1/2"	1-1/4"	8.80 lbs.
364-4118	spec/ord.	48"	1-1/2"	1-1/2"	9.75 lbs.
364-4119	spec/ord.	54"	1-3/4"	1-1/2"	15.60 lbs.
364-4120	spec/ord.	60"	1-3/4"	1-1/2"	15.80 lbs.

Pipe Size	Pipe O.D.	Flange O.D.	Bolt Holes			Bolt Dia.	Lug Thickness	Tie Rods		Weight pounds
			Hole CL	Qty.	Hole D.			Hole D.	Rod D.	
3"	3.96"	7.5"	6"	4	3/4"	5/8"	1/2"	3/4"	5/8"	1.25
4"	4.80"	9"	7.5"	8	3/4"	5/8"	1/2"	3/4"	5/8"	1.00
6"	6.90"	11"	9.5"	8	7/8"	3/4"	1/2"	3/4"	5/8"	1.26
8"	9.05"	13.5"	11.75"	8	7/8"	3/4"	1/2"	3/4"	5/8"	1.56
10"	11.10"	16"	14.25"	12	1"	7/8"	3/4"	7/8"	3/4"	2.35
12"	13.20"	19"	17"	12	1"	7/8"	3/4"	7/8"	3/4"	2.75
14"	15.30"	21"	18.75"	12	1-1/8"	1"	3/4"	7/8"	3/4"	3.45
16"	17.40"	23.5"	21.25"	16	1-1/8"	1"	1"	1-1/8"	1"	4.25
18"	19.50"	25"	22.75"	16	1-1/4"	1-1/8"	1"	1-1/8"	1"	5.00
20"	21.60"	27.5"	25"	20	1-1/4"	1-1/8"	1"	1-1/8"	1"	4.50
24"	25.80"	32"	29.5"	20	1-3/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	6.75
30"	32.00"	38.75"	36"	28	1-3/8"	1-1/4"	1-1/4"	1-3/8"	1-1/4"	6.90
36"	38.30"	46"	42.75"	32	1-5/8"	1-1/2"	1-1/4"	1-3/8"	1-1/4"	7.05
42"	44.50"	53"	49.5"	36	1-5/8"	1-1/2"	1-1/4"	1-3/8"	1-1/4"	8.80
48"	50.80"	59.5"	56"	44	1-5/8"	1-1/2"	1-1/2"	1-5/8"	1-1/2"	9.75
54"	57.56"	66.25"	62.75"	44	1-7/8"	1-3/4"	1-3/4"	1-5/8"	1-1/2"	15.60
60"	61.61"	73"	69.25"	52	1-7/8"	1-3/4"	1-3/4"	1-5/8"	1-1/2"	15.80

ANSI Class 125 B16.1 Drilling Template

Notes:

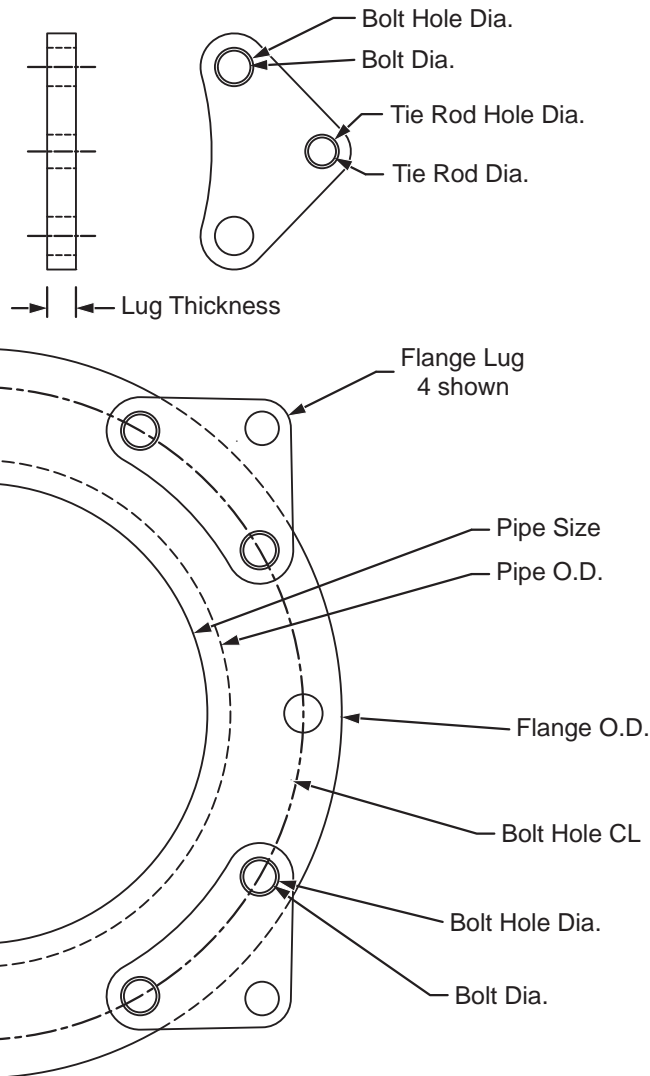
250 psi maximum pressure.

Type 304 stainless steel plate, or,

A36 structural steel plate with

TNEMEC red 37-77 primer.

Other finishes available.



FLANGE LUGS

Drawn to Scale

Drawn:

FCN

01/04/11

Revision:

FCN

07/25/19



Trumbull Manufacturing, Inc.

Youngstown, Ohio
www.trumbull-mfg.com

TRUMBULL

Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

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Polyethylene Encasement Tubing

8 Mil Linear Low Density "POLYWRAP" for Ductile Iron Pipe



Made per
ANSI/AWWA C105/A21.5-18

Trumbull Polyethylene Encasement Tubing protects metallic pipe in corrosive soils. The tubing is slipped over the pipe, extended and taped. An overlap of two feet should be figured in calculating the total polywrap required. For example, 20 feet of polywrap is required for each 18 foot length, or 22 feet for each 20 foot length.



Tape
Rolls
Per
1,000'

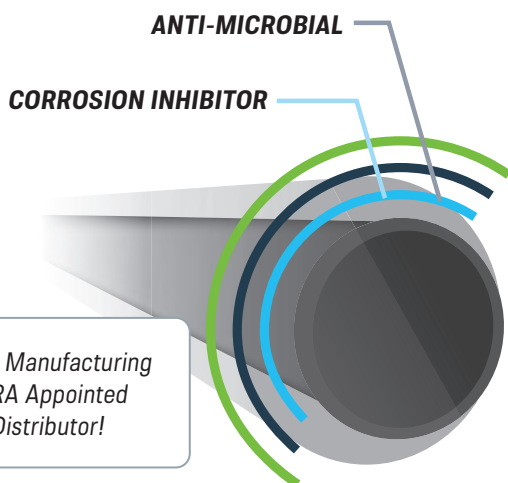
			CONTINUOUS					PERFORATED every 20 FT.			PERFORATED every 22 FT.					
			BLACK	BLUE Water	GREEN Sewer	LAVENDER Reclaimed Water	Roll Length	BLACK	BLUE Water	Roll Length	BLACK	BLUE Water	GREEN Sewer	PURPLE Reclaimed Water	Roll Length	
Pipe Size	Layflat Width	Weight lbs./ft.	Item No	Item No	Item No	Item No **		Item No	Item No		Item No	Item No	Item No	Item No **		
3"-6"	16"	0.106	----	----	----	----	300 ft.	388-9942	----	300 ft.	388-9976	----	----	----	308 ft.	2
3"-8"	20"	0.132	388-9989	388-8705	388-8755	388-8805	300 ft.	388-9943	388-8343	300 ft.	388-9961	388-8361	388-8461	388-8020	308 ft.	3
10"	24"	0.159	----	----	----	----	300 ft.	388-9945	----	300 ft.	388-9951	----	----	----	308 ft.	4
10"-12"	27"	0.179	388-9993	388-8710	388-8760	388-8810	300 ft.	388-9952	spec/ord.*	300 ft.	388-9962	388-8362	spec/ord.*	388-8021	308 ft.	4
14"-16"	34"	0.225	388-9996	388-8715	388-8765	388-8815	300 ft.	388-9955	spec/ord.*	300 ft.	388-9966	388-8366	388-8466	388-8022	308 ft.	6
16"-18"	37"	0.237	spec/ord.*	spec/ord.*	----	----	300 ft.	----	----	300 ft.	388-9967	spec/ord.*	----	----	308 ft.	7
18"-20"	41"	0.271	388-9998	388-8717	388-8767	388-8817	300 ft.	388-9957	spec/ord.*	300 ft.	388-9969	spec/ord.*	spec/ord.*	388-8023	308 ft.	7
24"	54"	0.358	388-9999	388-8720	388-8770	388-8820	150 ft.	388-9958	spec/ord.*	160 ft.	388-9970	spec/ord.*	388-8470	388-8024	154 ft.	8
30"	67"	0.444	388-9985	388-8780	388-8772	388-8825	150 ft.	spec/ord.*	spec/ord.*	160 ft.	388-9972	spec/ord.*	388-8472	spec/ord.*	154 ft.	10
36"-42"	81"	0.536	388-9986	388-8723	----	388-8828	150 ft.	388-9960	spec/ord.*	160 ft.	388-9974	spec/ord.*	388-8474	388-8026	154 ft.	15
48"	95"	0.629	388-9980	----	----	----	150 ft.	----	----	160 ft.	388-9975	----	----	----	154 ft.	17
54"-60"	108"	0.715	388-9982	----	----	----	150 ft.	----	----	160 ft.	388-9977	----	----	----	154 ft.	20
64"	121"	0.801	388-9984	----	----	----	150 ft.	----	----	160 ft.	----	----	----	----	154 ft.	21

* Indicates other sizes, types and colors that are available as "special order"; 4,000 lbs. minimum per color or size. See Price Sheet for current sizes, colors & configurations stocked. 4 mil cross-laminated Polywrap also available.

** Lavender and purple Polywrap are printed with the text "Caution Reclaimed Water - Do Not Drink"

"Don't forget the Polywrap Tape!"
(Shown on page D-2.)

V-Bio® Enhanced Polyethylene Encasement



V-Bio® Enhanced Polyethylene Encasement is an innovative product from DIPRA that expands on the success of traditional polyethylene encasement. The V-Bio® film is infused with a corrosion inhibitor and an anti-microbial additive to actively control external corrosion, helping ensure the long service life utilities have come to expect from ductile iron pipe, even in the most corrosive environments.

Pipe Size	Layflat Width	Perf'd Every	Item No	Roll Length
3" - 8"	20"	22 ft.	388-7831	484 ft.
10" - 12"	27"	22 ft.	388-7833	374 ft.
16"	34"	22 ft.	388-7835	308 ft.
18" - 20"	41"	22 ft.	388-7837	264 ft.
24"	54"	22 ft.	388-7839	198 ft.
30"	67"	22 ft.	388-7841	154 ft.
36" - 42"	81"	22 ft.	388-7843	132 ft.
48"	95"	22 ft.	388-7845	110 ft.
54" - 60"	108"	22 ft.	388-7847	110 ft.
64"	121"	22 ft.	388-7849	110 ft.

"Don't forget the Polywrap Tape!"

i Trumbull Manufacturing is a DIPRA Appointed Master Distributor!

V-Bio® Polyethylene is a minimum 8-Mil co-extruded linear low-density polyethylene film infused with additives that enhance ductile iron pipe's ability to provide the long service life that is the benchmark of ductile iron pipe. Meets all requirements of the American National Standards Institute and the American Water Works Association (ANSI/AWWA C105/A21.5) standard for polyethylene encasement.

V-Bio® is a registered trademark of the Ductile Iron Pipe Research Association.

Other Polywrap and Polywrap Tape

Clear Polywrap 12 Mil

Pipe Size	Layflat Width	Perf'd Every	Item No	Roll Length
3" - 8"	20"	20 ft.	388-8605	200 ft.
10" - 14"	30"	20 ft.	388-8610	200 ft.

Sanitary Sewer Polywrap

8 Mil, for 4" cast iron soil pipe, black

Pipe Size	Layflat Width	Perf'd Every	Item No	Roll Length
4"	12"	12 ft.	364-9941	408 ft.

i Our Polywrap is always manufactured and inspected for compliance with AWWA C105 8 mil min. thickness.



Polywrap Tape

"Don't forget the Polywrap Tape!"



MULTIPURPOSE PVC TAPE: IAPMO/UPC certified for AWWA & plumbing applications.

Item No	Roll Size	Thickness	Weight
364-9975	2" x 100'	10 mil	1.00 lbs.

GENERAL PURPOSE PE TAPE: blue in color.

Item No	Roll Size	Thickness	Weight
364-9976	2" x 108'	9 mil	1.00 lbs.

Zinc Anode Caps

Sacrificial Zinc Anodes



Trumbull Anode Caps are designed for fighting corrosion of underground bolts and nuts, and iron pipe and fittings.

These threaded hex head caps, when secured to a bolt or stud, become the sacrificial anode, corroding, while the remaining metal parts are protected. This corrosion protection continues until the Zinc is consumed.



Typical Installation

Trumbull Zinc Anode Caps are made from Special High Grade Zinc and third-party tested to confirm the maximums allowable in both ASTM B418-88, "Galvanic Zinc Anodes", and Military Specification Mil-18001K.

HOW ZINC CAPS WORK

Corrosion is an electro-chemical process in which dissimilar metal parts form a galvanic cell when they are in contact with moisture. Using the common battery as an example, moisture becomes the electrolyte while the different metals in the system (such as bolts, nuts, fittings etc.) become the positive and negative ends of the battery.



The "more negative" component loses material through corrosion while protecting the "positive" component, which becomes shielded. Zinc being much more negative than most other materials, the protected component is essentially immune to corrosion as long as there is Zinc remaining to consume.

Zinc Anode Caps offer protection for other system components made of steel, cast iron, ductile iron, brass and copper (as shown in the Galvanic Series Chart on the reverse side). The quantity of Zinc Anode Caps used determines the service life of the protected component.

Small (2.5 oz.) Zinc Anode Caps

Description	Domestic	Non-Domestic
	Item №	Item №
5/8"-11, N.C.	364-1004	364-9004
3/4"-10, N.C.	364-1006	364-9006

Large (6 oz.) Zinc Anode Caps

Description	Domestic	Non-Domestic
	Item №	Item №
5/8"-11, N.C.	364-1008	364-9008
3/4"-10, N.C.	364-1010	364-9010
7/8"-9, N.C.	spec/ord.	364-1011
1"-8, N.C.	364-1012	spec/ord.

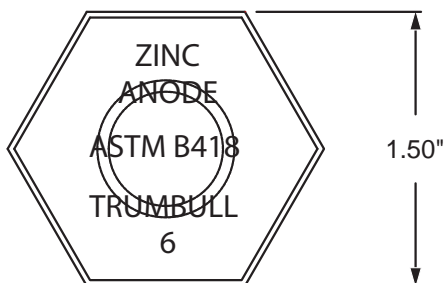
See reverse side for drawing. Inquire about Anode Caps with different weights or shapes.

Material: High Grade Zinc
 Conforms to chemical requirements of
 ASTM B418-88, "Galvanic Zinc Anodes", and,
 U.S. Navy Specification, Mil-18001 H

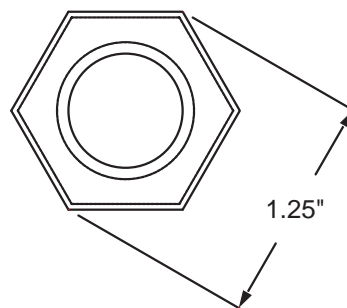
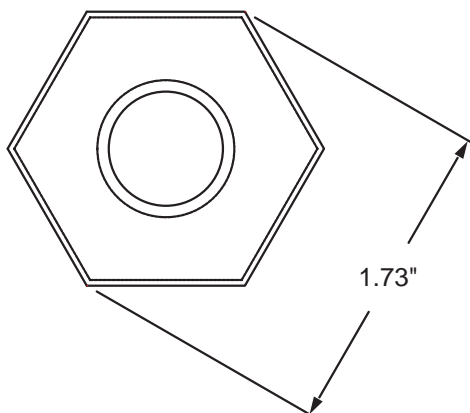
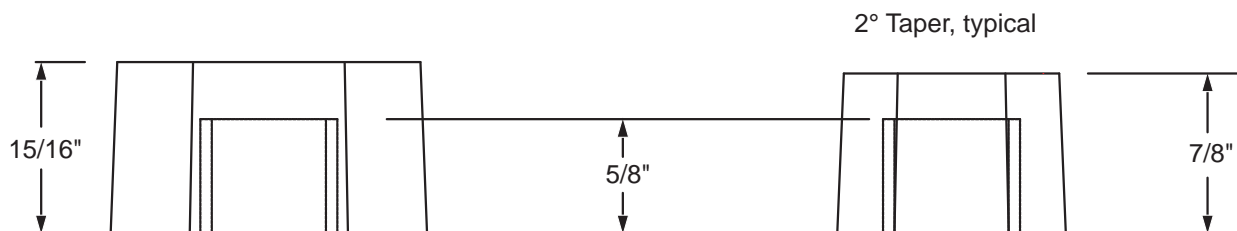
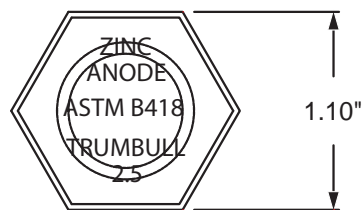
Item No.	Tapped	Weight (oz.)
364-1004	5/8"-11 NC	2-1/2
364-1006	3/4"-10 NC	2-1/2
364-1008	5/8"-11 NC	6
364-1010	3/4"-10 NC	6
364-1012	1"- 8 NC	6

Galvanic Corrosion Chart	
Metal Type	Volts
Zinc (Mil Spec Anodes)	-1.1
Commercially pure aluminum	-0.8
Mild steel, clean	-0.5 to -0.8
Mild steel, rusted	-0.2 to -0.5
Cast iron	-0.5
Lead	-0.5
Mild steel, in concrete	-0.2
Copper, brass, bronze	-0.2
High silicon cast iron	-0.2

Large Anode Cap
6 ounces



Small Anode Cap
2-1/2 ounces



ZINC ANODE CAPS

Drawn to Scale

Drawn:
FCN
06/28/94

Revision:
FCN
J 09/26/18

Trumbull Manufacturing, Inc.
 Youngstown, Ohio
www.trumbull-mfg.com

Detectable and Non-Detectable Warning Tapes

Used for Locating Non-Metallic Pipes Buried Underground



Tape consists of an aluminum core encased in plastic. Stocked in 1,000 foot rolls in standard industry colors.

For installations 30" or shallower, 2" wide tape should be used. For deeper installations, 3" tape should be used. Use electronic pipe/cable locators for best results (as opposed to valve box or metal locators).

Detectable Warning Tapes

Buried Line Type	Width	Color	Item No	Roll Length	Weight Per Roll
Water Line	2"	Blue	364-4950	1,000 ft.	4.00 lbs.
Water Line	3"	Blue	364-4955	1,000 ft.	5.80 lbs.
Water Line	6"	Blue	364-4966	1,000 ft.	11.80 lbs.
Sewer Line	2"	Green	364-4951	1,000 ft.	4.00 lbs.
Sewer Line	3"	Green	364-4956	1,000 ft.	5.80 lbs.
Sewer Line	6"	Green	364-4967	1,000 ft.	11.80 lbs.
Storm Sewer	6"	Green	364-4965	1,000 ft.	11.80 lbs.
Reclaimed Water	3"	Lavender	364-4958	1,000 ft.	5.80 lbs.
Reclaimed Water	6"	Lavender	364-4968	1,000 ft.	11.80 lbs.
Gas	3"	Yellow	364-4972	1,000 ft.	5.80 lbs.
Gas	6"	Yellow	364-4977	1,000 ft.	11.80 lbs.
Chemical	3"	Yellow	364-4971	1,000 ft.	5.80 lbs.
Electric	3"	Red	364-4970	1,000 ft.	5.80 lbs.
Electric	6"	Red	364-4975	1,000 ft.	11.80 lbs.

Non-Detectable Warning Tapes

Buried Line Type	Width	Color	Item No	Roll Length	Weight Per Roll
Water Line	3"	Blue	364-4940	1,000 ft.	5.80 lbs.
Water Line	6"	Blue	364-4948	1,000 ft.	11.80 lbs.
Sewer Line	3"	Green	364-4945	1,000 ft.	5.80 lbs.
Sewer Line	6"	Green	364-4949	1,000 ft.	11.80 lbs.
"Caution" Barricade	3"	Yellow	165-5201	1,000 ft.	2.60 lbs.
"Danger" Barricade	3"	Red	165-5205	1,000 ft.	2.60 lbs.

T-Head Bolts and Nuts

Stainless Steel T-Head Bolts

Type 304 and Type 316

Ideal for corrosive soils. Provided with coated stainless steel heavy hex nut to prevent galling. Heads are stamped with the type of stainless. The 3/4" x 4" bolt is threaded 1/2" longer than the standard to permit use as a 3/4" x 3-1/2" bolt.



TYPE 316 BOLTS
include a red Nut

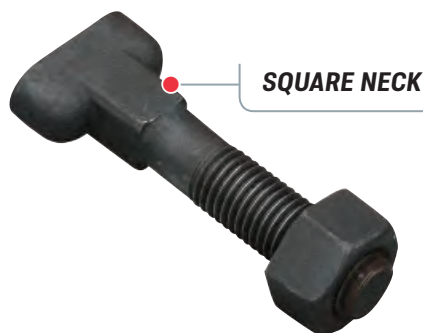
TYPE 304 BOLTS
include a green Nut

	Type 304	Type 316
Size	Item №	Item №
3/4" x 3-1/2"	364-3487	364-3387
3/4" x 4"	364-3488	364-3388
3/4" x 4-1/2"	364-3489	364-3389
3/4" x 5"	364-3493	364-3393
1" x 6"	----	364-3394

Blue Fluoropolymer Coated Bolts

Manufactured from corrosion-resistant, high-strength, low-alloy steel in accordance with ANSI/AWWA C111/A21.11, that has a baked-on ceramic-filled fluorocarbon resin, which handles the needs of highly corrosive conditions.

Size	Item №
5/8" x 3"	364-3343
3/4" x 3-1/2"	364-3354
3/4" x 4"	364-3355
3/4" x 4-1/2"	364-3356
3/4" x 5"	364-3357
1" x 6"	364-3359



SQUARE NECK

Anti-Rotation T-Head Bolts (Corten)

Also Known as "Lugged T-Bolts"

Used on slotted opening in the MJ bells of hydrants and valves.

Square neck on shank of bolt locks in slot to prevent rotation when nut is tightened. Provided with heavy hex nut.

Size	Item №
3/4" x 3-1/2"	364-3390
3/4" x 4"	364-3392

Trumbull Manufacturing, Inc.

**2-in-1
Brochure**

COMPOSITE AND POLYMER
METER PIT LIDS

and Meter Pit Frames

Radio-Friendly.



Contact us at...
877.504.1507
trumbull-mfg.com

TRAFFIC RATED COMPOSITE
MANHOLE COVERS

and Frame and Cover Assemblies

Amazingly Strong. Surprisingly Light.™





Trumbull Manufacturing, Inc.

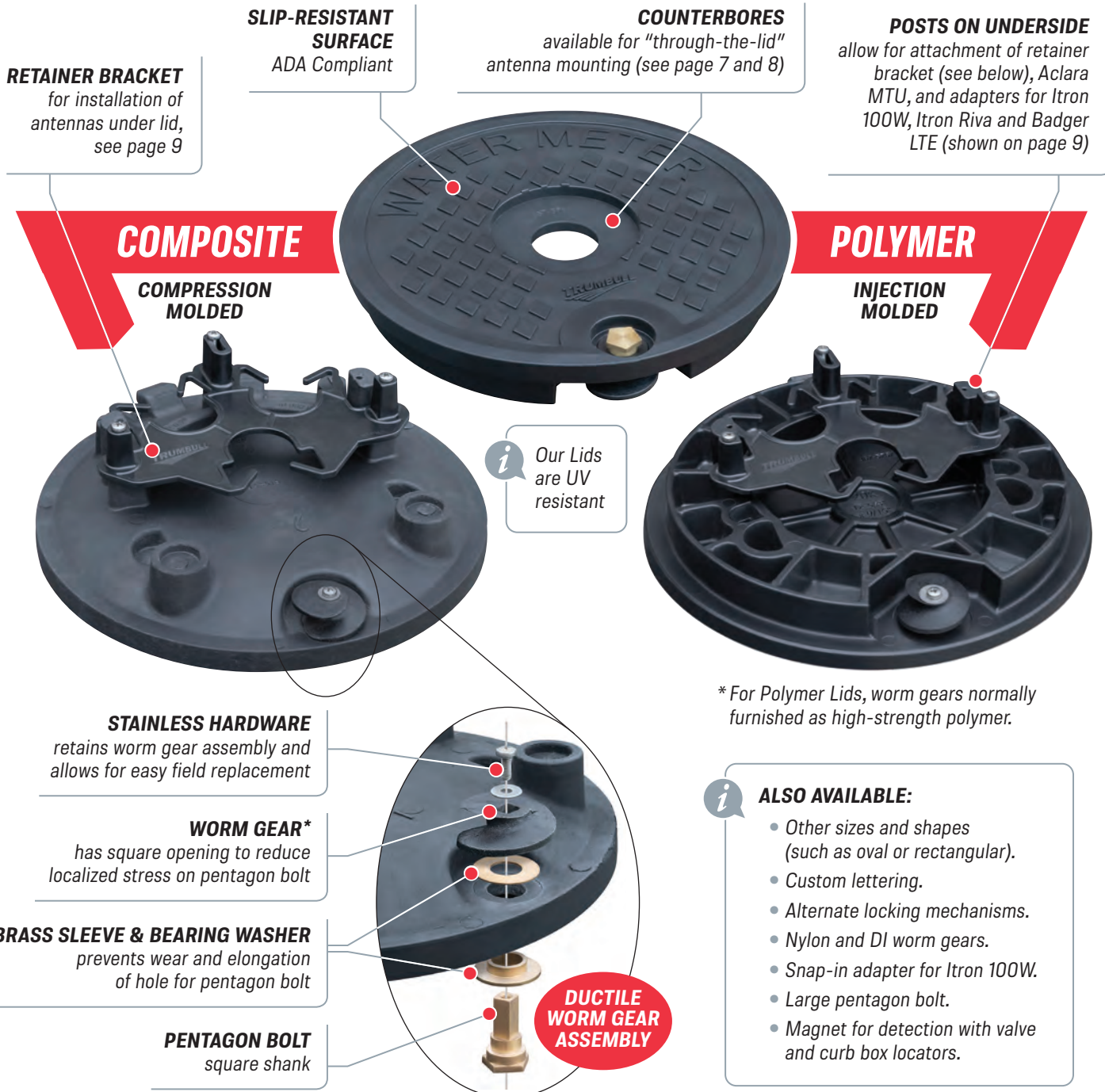
3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

COMPOSITE and POLYMER Meter Box Lids

Allow Radio Signals to be Read in AMR and AMI Systems



For dimensions, load ratings and additional options, refer to the product information chart on pages 18 - 28.



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www.trumbull-mfg.com

POLYMER Meter Pit Frames

Fits on 15", 18", 20" and 21" Meter Pits

TYPE-A FRAME

accepts all Trumbull 12-1/4" OD
Type-A inset style lids

TYPE-C FRAME

accepts all Trumbull 12-5/8" OD
Type-C overlapping style lids,
even those with counterbores for
antenna mounting



Type-A Frame

Type-C Frame

GUSSET DESIGN

has strength that is greater
than most cast iron frames

REBAR TABS

accept rebar sizes up to 3/8"



**CAN BE USED WITH MOST COMMON
METER PITS USED TODAY.**

BOTTOM VIEW



Fits 15" pits*

Fits 18" pits

Fits 20/21" pits

i Add a magnet
for locating.

* Excluding Old Castle (15")

Consult Trumbull for load ratings,
which are based on pit size.

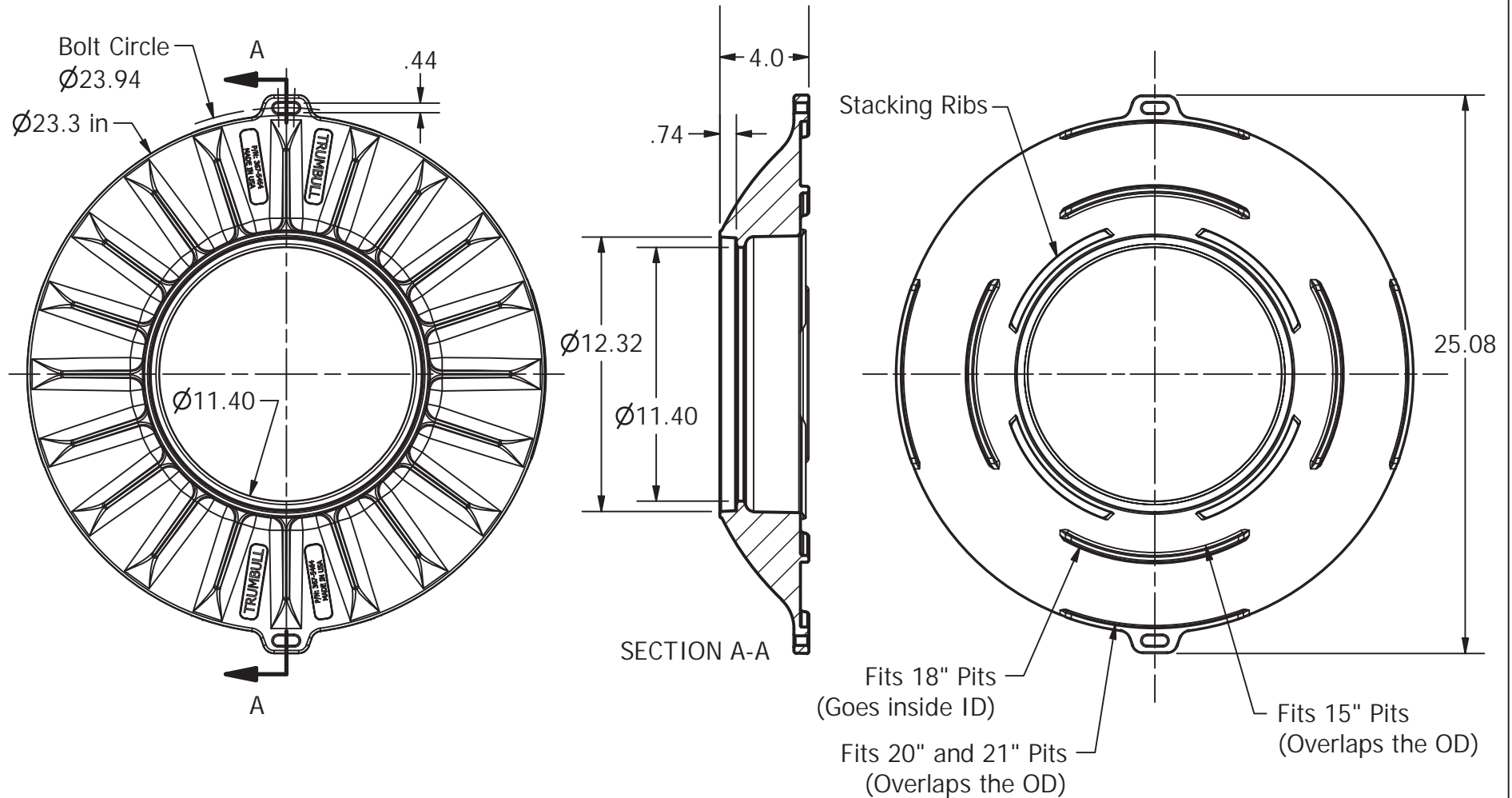
Fits
minimum
17.438" ID

Fits
maximum
22.50" OD

Item No	Frame	Weight
367-5464	Type-A Frame	8.10 lbs.
367-5459	Type-C Frame	8.10 lbs.

Notes:

- 1.) Material: Thermoplastic (black)
- 2.) Weight: 8.1 lbs.
- 3.) Fits all Trumbull 12.25" OD lids
- 4.) Part Number: 367-5464



12.25" Polymer Frame
(11.4" Clear Opening)
Drawn to Scale

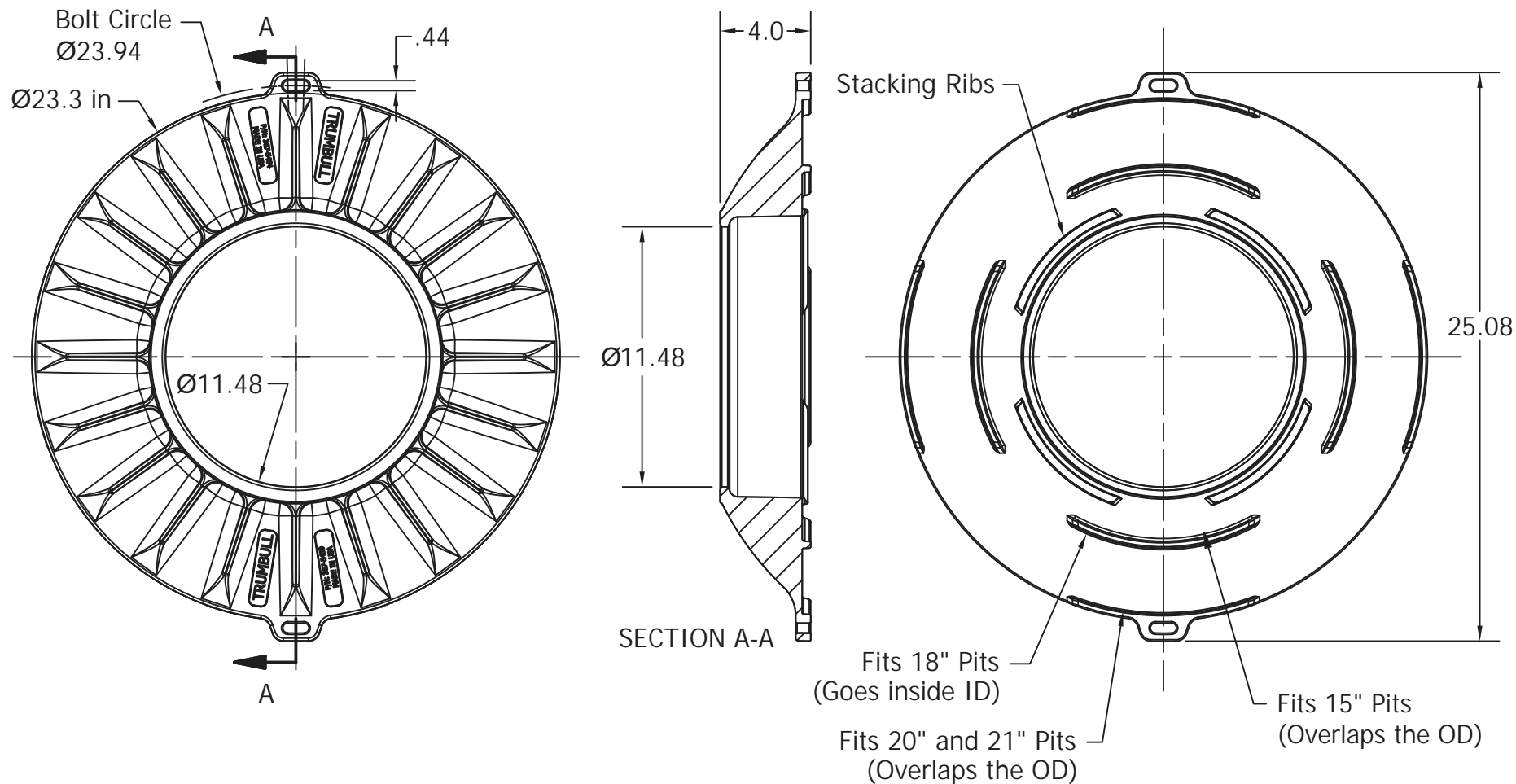
Drawn:
BJE
01/03/20

Revision:
BJE
A 11/16/21

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Notes:

- 1.) Material: Thermoplastic (black)
- 2.) Weight: 8.1 lbs.
- 3.) Fits all Trumbull 12.63" OD lids
- 4.) Part Number: 367-5459



12.63" Polymer Frame
(11.48" Clear Opening)
Drawn to Scale

Drawn:
NJC
10/09/20

Revision:
NJC
A 11/19/21

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

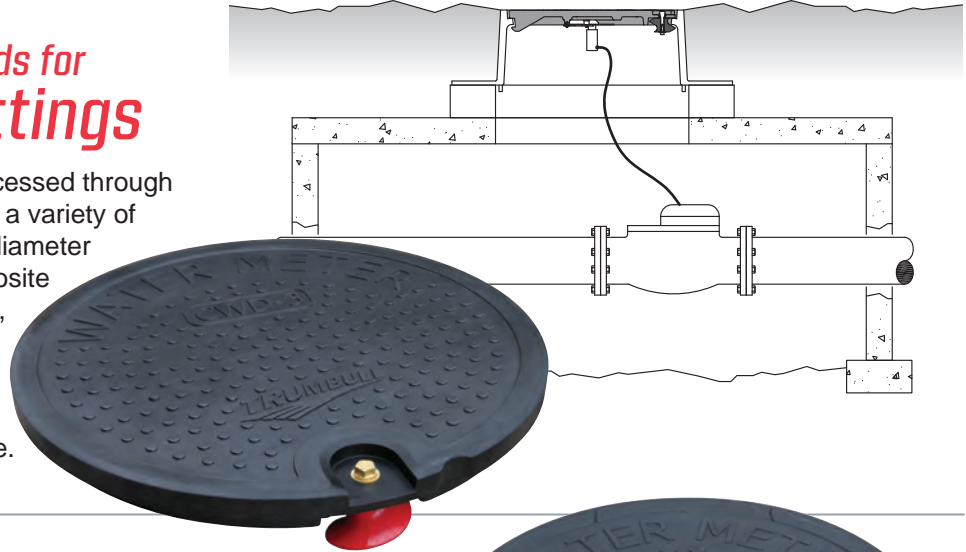
Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

COMPOSITE Manhole Lids for Large Meter Settings

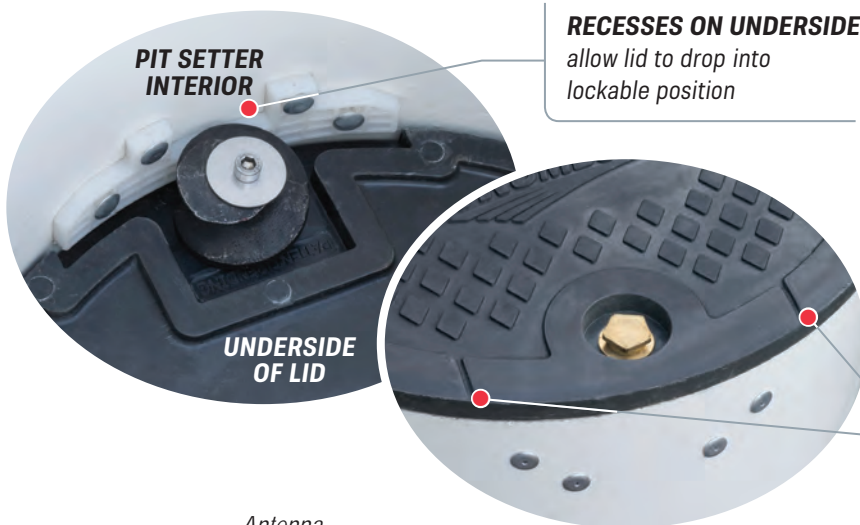
Vaults for large meters are typically accessed through cast iron Manhole Lids. Trumbull offers a variety of Composite Manhole Lids through 36" diameter rated for 40,000 lb. traffic loads. Composite lids are "radio-friendly" and light weight, reducing back and finger injuries. They also reduce thefts common with cast iron lids.

Custom lettering and graphics available.



COMPOSITE Lids for Coiled Pit Setters

Worm gears on pit lids typically engage the shelf of an iron frame that covers the entire circumference of the frame. However, coiled pit setters use two brackets that must be engaged to lock the lid in place. Trumbull Lids are designed with cutouts to clear the brackets of Pit Setters. Available with ductile iron or UHMWPE worm gears.



Illustrated here is an 18" AY McDonald Pit Setter Lid.

i LIDS are designed and manufactured by Trumbull Manufacturing, not AY McDonald or Mueller.

ALIGNMENT MARKS

on top of lid help installer find the correct position for hook and worm gear to lock lids to brackets in pit setter pipe

US Patent No. 9,350,148

Item No	Size	Antenna Mounting	Fits Pit Setters	Load Rating	Weight
367-5644	15"	Solid*	AY McDonald / Mueller	Light Duty	2.45 lbs.
367-5615	18"	Solid*	AY McDonald	40,000 lbs.	2.45 lbs.

* See chart on page 21 for other options for 15" lids, and page 22 for options for 18" lids.



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COUNTERBORES FOR THROUGH-THE-LID ANTENNA MOUNTING



CAST IRON LID

Drilling holes in existing cast iron lids may save money in the short run. However, most iron lids do not have the thickness for a counterbore. If lids are simply drilled without a counterbore, the result is a trip hazard. Drilling iron lids in the field frequently results in cracks in the lid.

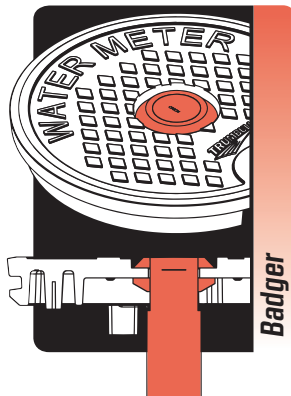
Solution:

Our lids feature a molded **COUNTERBORE** allowing recessed installation of antenna to eliminate trip hazard or damage.

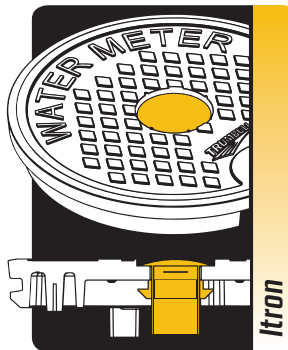


COUNTERBORE

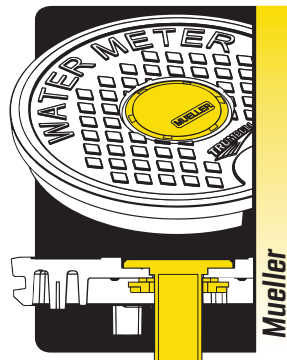
Current Counterbore Options



Badger



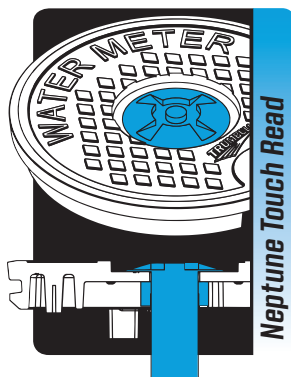
Itron



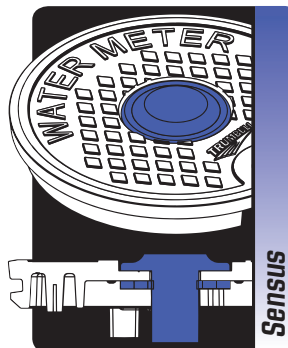
Mueller



Neptune Radio Read



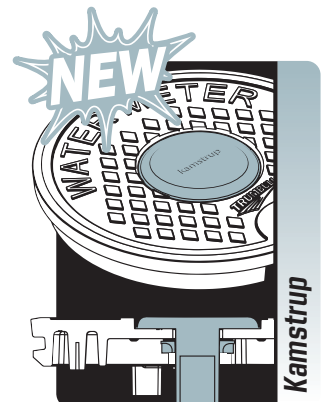
Neptune Touch Read



Sensus



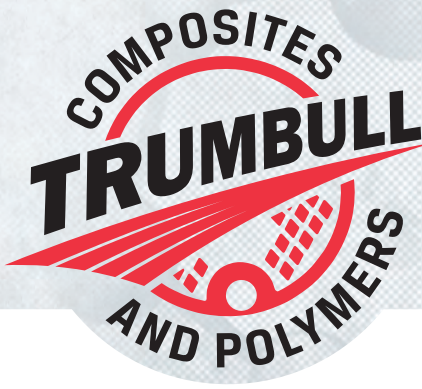
Zenner



Kamstrup

i As some meter manufacturers offer more than one through-the-lid antenna or adapter, dimensions should be confirmed at time of order.

For dimensions, load ratings and additional options, refer to product information chart on pages 18 - 28.



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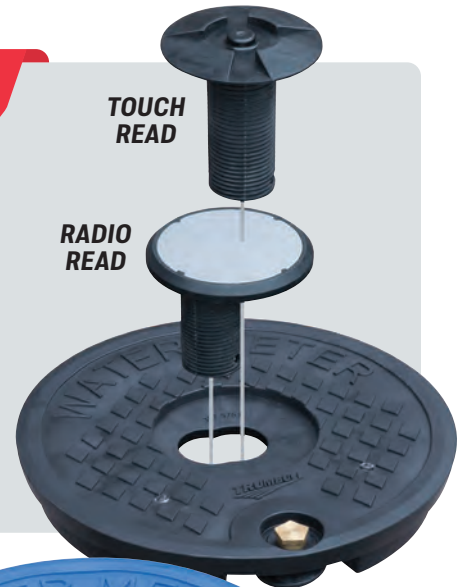
www.trumbull-mfg.com

NEPTUNE COUNTERBORES



Easy Transition of Neptune Antennas

"FIGURE 8" SHAPE
allows Neptune users to
transition from touch read
to radio read antennas.



BLUE COLOR LIDS

Available for our Polymer Lids and Composite Lids.
Minimum order quantities apply.



CUSTOM LID OPTIONS



Composite frames are shown on pages 41 - 44.

For dimensions, load ratings and additional options, refer to the product information chart on pages 18 - 28.



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ANTENNA MOUNTING

**Itron Riva
500W Post
Adapter**

US Patent No.
D842,085



**Badger
LTE Post
Adapter**



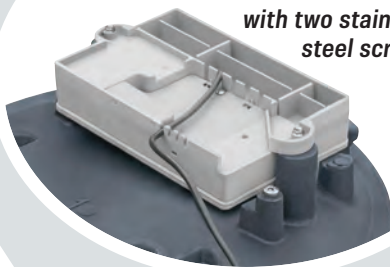
**Itron
100W
Post
Adapter**



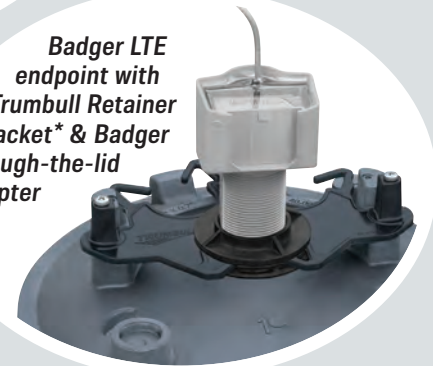
**Single Slot
Retainer
Bracket***



**Aclara posts
allow Aclara MTU
to be mounted directly
with two stainless
steel screws**



**Badger LTE
endpoint with
Trumbull Retainer
Bracket* & Badger
through-the-lid
adapter**



**For a variety of
ENDPOINTS**

* Both Retainer Brackets will fit all antennas or through-the-lid adapters with 1-3/4" shaft.
The elevation of the meter in the pit may cause interference with the endpoint which should be verified.



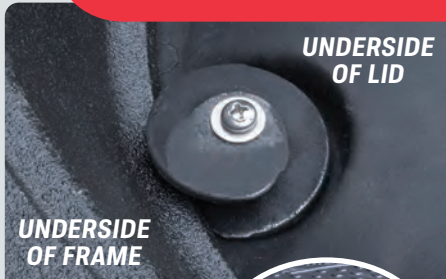
Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

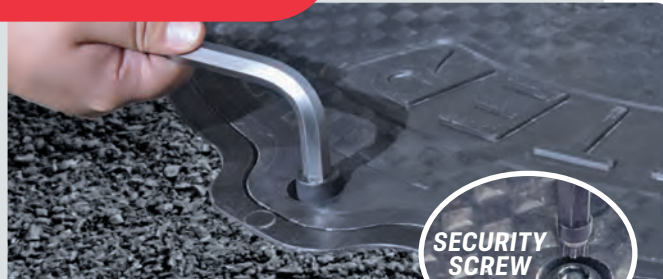
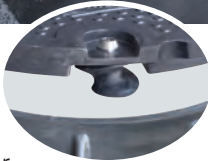
www.trumbull-mfg.com

LID FASTENING STYLES



Worm Gear

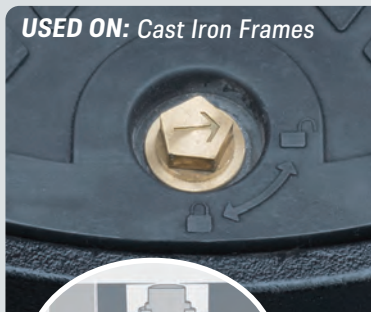
Worm gear locks to shelf on frame. Cast iron or polymer.



Bolt-Down Style

Our Frame and Cover Assemblies have threaded inserts in the frame to accept stainless screws (see page 31 & 33) or optional security screws (see page 40).

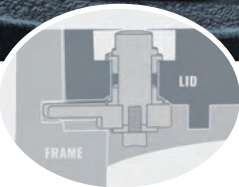
SECURITY SCREW



USED ON: Cast Iron Frames

OPEN

LOCKED



USED ON: Matching Composite Frames and Covers



OPEN

LOCKED

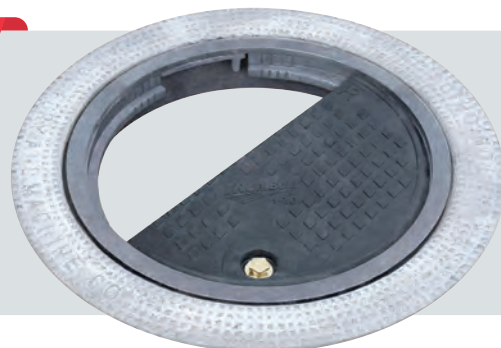
Quarter-Turn Double Paddle Lock Style

Two paddles on opposite sides of the lid lock into slots in frame. Also offered as an alternative to bolt-down style Frame and Cover Assemblies.

REDUCING RINGS

Fabricated Reducing Rings

are customized to permit a standard lid size to fit a non-standard frame size. Ideal when time constraints or small quantities make a new mold impractical.



For dimensions, load ratings and additional options, refer to the product information chart on pages 18 - 28.



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Composite Oval Remote Antenna Box

13.42" x 9.29" Lid Size – Sold Complete with Box and Lid Together

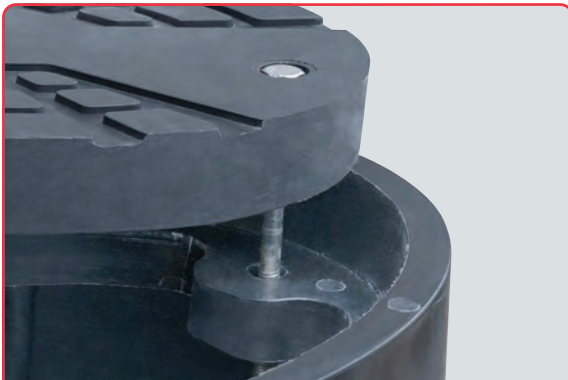


VAULT WITH REMOTE ANTENNA BOX.

The Oval Remote Antenna Box provides a good solution to house endpoints when replacement composite lids are not available to replace the larger cast iron lid.

Designed to accept up to 3 Badger endpoints in the box, rather than attached to the lid, reducing the chance of ripping wires when removing lids.

Made of durable SMC composite material. Box and solid lid are rated for a 40,000 lbs. test load, per AASHTO M-306, H-20. For load ratings with antenna holes through the lid, please inquire.



LID IS ATTACHED TO BOX WITH A NON-LOCKING PIVOT BOLT.

ADAPTER RECESSES

allow up to 3 Badger adapters to be mounted below the lid



LID CLOSSES FLUSH WITH TOP EDGE OF BOX.

Item No	Lid Description	Height	Weight
367-8920	Solid Lid	12"	30.00 lbs.
367-8923	1 Badger Counterbore	12"	29.90 lbs.
367-8922	2 Badger Counterbores	12"	29.80 lbs.
367-8921	3 Badger Counterbores	12"	29.70 lbs.

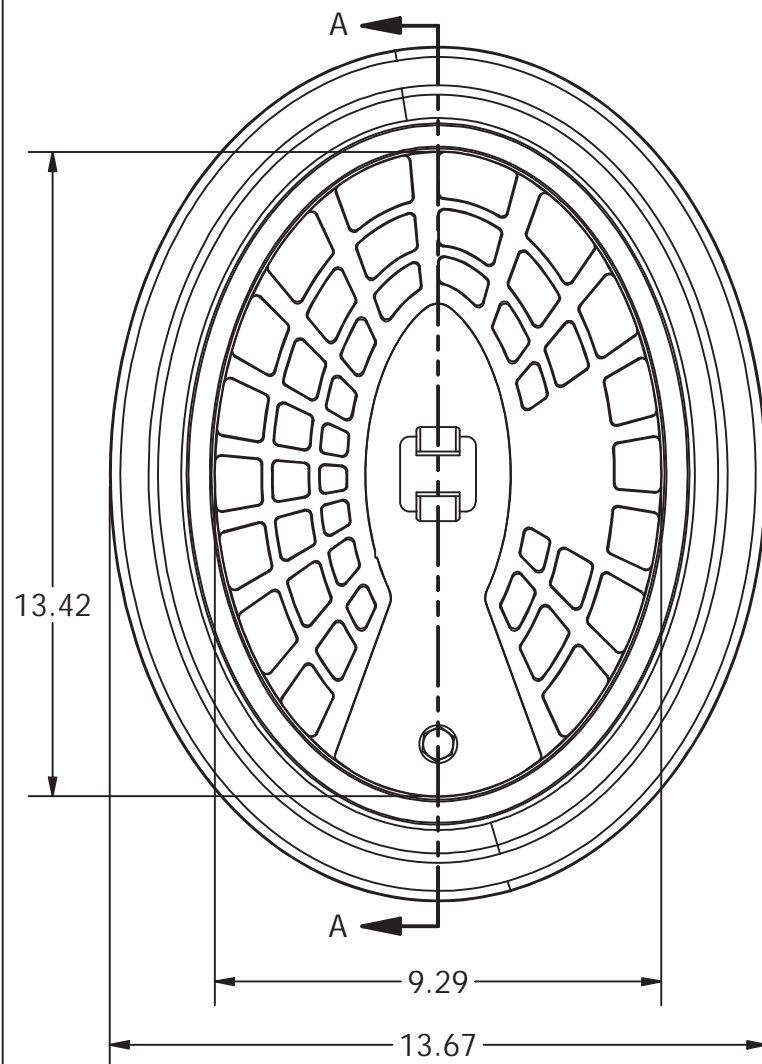
Solid Lid part number: 367-8920

1 hole (Badger) Lid part number: 367-8923

2 holes (Badger) Lid part number: 367-8922

3 holes (Badger) Lid part number: 367-8921

Please inquire for other hole/antenna sizes

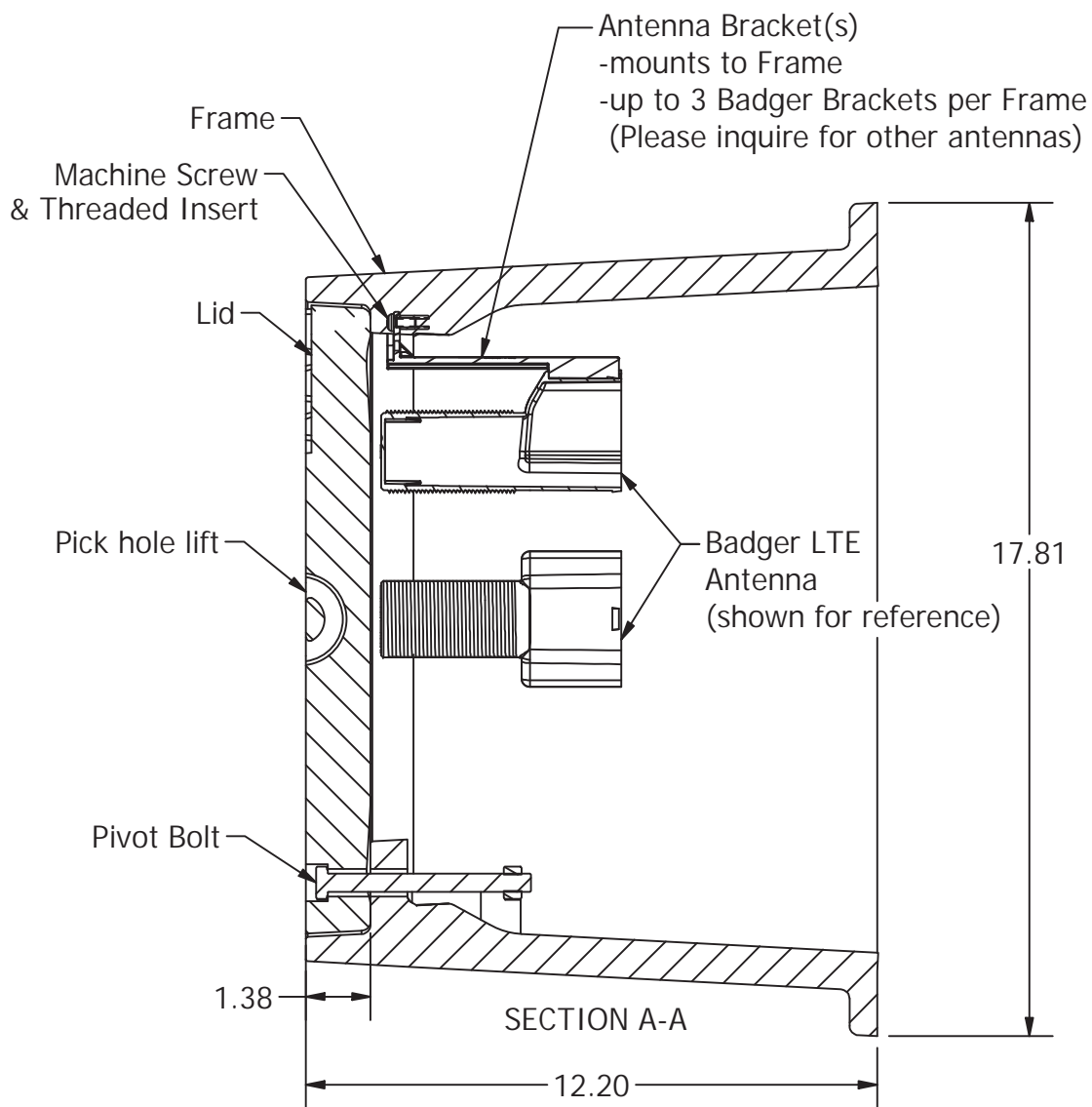


Notes:

- 1.) Approx. weight: 30 lbs.
- 2.) Lid does not lock to frame.

Oval Remote Antenna Box

Drawn to Scale



Load Rating: 40,000 lbs.

Drawn:
BJE
01/07/20

Original Document

Trumbull Manufacturing, Inc.

Youngstown, Ohio
www.trumbull-mfg.com



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www.trumbull-mfg.com

10" x 6.5" Polymer Yokebox Lids

Allows Radio Signals to be Read in AMR and AMI Systems

HAND KEY
purchased separately



SOLID LID



ANTENNA HOLE

for through-the-lid antennas



THROUGH HOLE

for other TTL adapters



UNDERSIDE

SLIDING LOCK: shown in closed position shown in open position

Made to fit inside Ford and A Y McDonald Yokeboxes. Post on underside accommodates our Single Slot Retainer Bracket and Post Adapters. Counterbores also available for through-the-lid antenna mounting. Sliding lock mechanism provided in Nylon as standard, but also available in brass, please inquire. All other hardware is stainless steel.

Yokebox Lids

Item No.	Lid Description	Weight
367-5657	Solid Lid	0.83 lbs.
367-5657-BADG	1 Badger Hole	0.76 lbs.
367-5657-ITRON	1 Itron Hole	0.80 lbs.
367-5657-MUEL	1 Mueller Hole	0.76 lbs.
367-5657-SENS	1 Sensus or Zenner Hole	0.66 lbs.
367-5657-IH	1 Through Hole (1.88")	0.82 lbs.

Yokebox Lids Accessories



Hand Key

Item No.	Weight
367-4334	0.40 lbs.

Single Slot Retainer Bracket

Details shown on page 9

Item No.	Weight
367-5782	0.05 lbs.

THROUGH-THE-LID ANTENNAS/ADAPTERS

	5" UPPER YOKEBOX	8" UPPER YOKEBOX	10" UPPER YOKEBOX
BADGER	✗	✓	✓
ITRON	✗	✓	✓
MUELLER	✗	✗	✓
SENSUS	✗	✗	✓
ZENNER	✗	✗	✓
NEPTUNE	Due to lack of space for counterbore, a through hole will be provided.		
KAMSTRUP			

SINGLE SLOT RETAINER BRACKET (FOR SOLID LIDS)

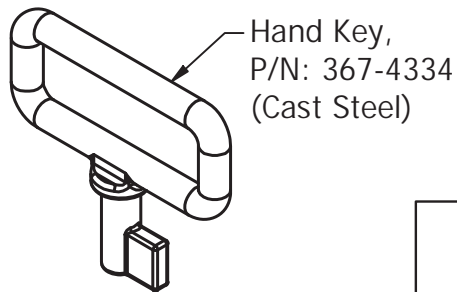
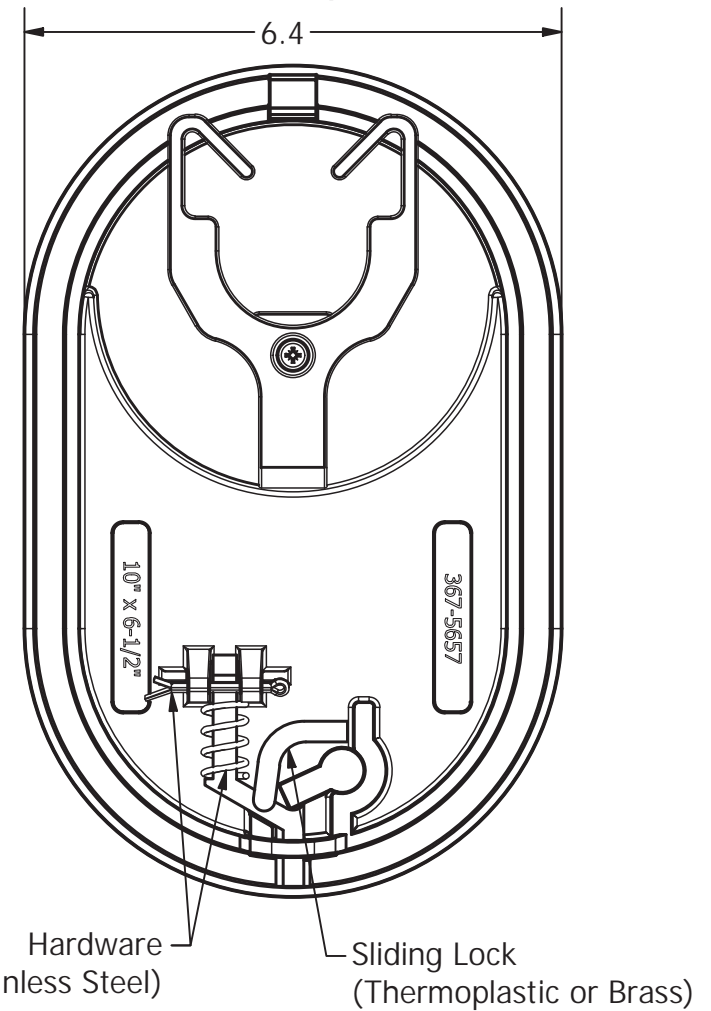
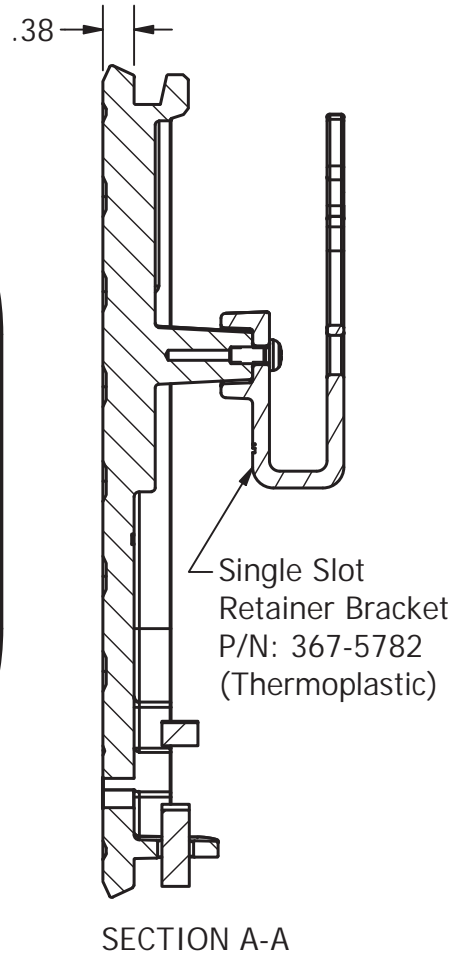
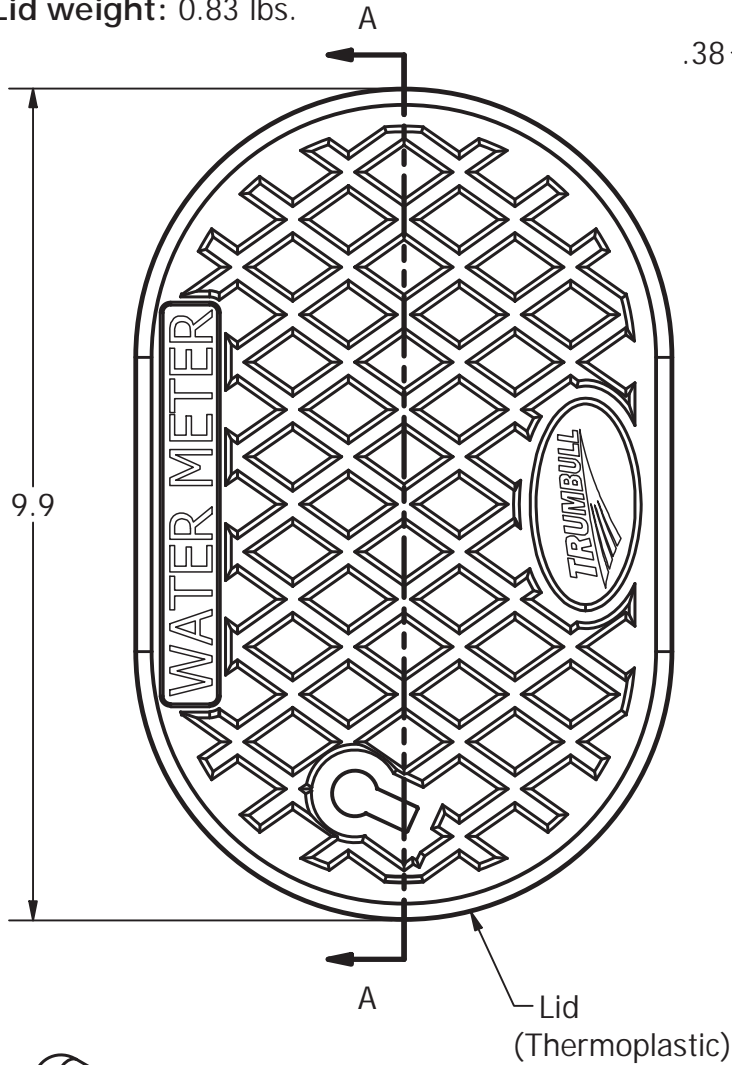
	5" UPPER YOKEBOX	8" UPPER YOKEBOX	10" UPPER YOKEBOX
BADGER	✗	✓	✓
ITRON RIVA 500W	✗	✓	✓
ITRON 100W	✗	✗	✓
MUELLER	✗	✗	✗
SENSUS	✗	✗	✓
NEPTUNE	✗	✓	✓
KAMSTRUP	✗	✓	✓

POST ADAPTER (FOR SOLID LIDS)

	5" UPPER YOKEBOX	8" UPPER YOKEBOX	10" UPPER YOKEBOX
BADGER	✗	✓	✓
ITRON RIVA 500W	✗	✓	✓
ITRON 100W	✗	✗	✓

Lid weight: 0.83 lbs.

Lid part number: 367-5657

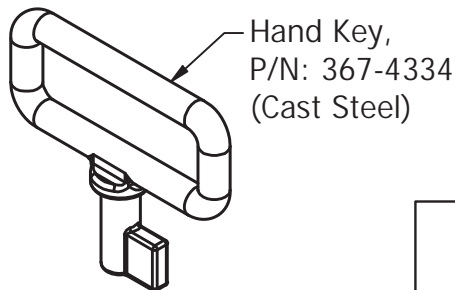
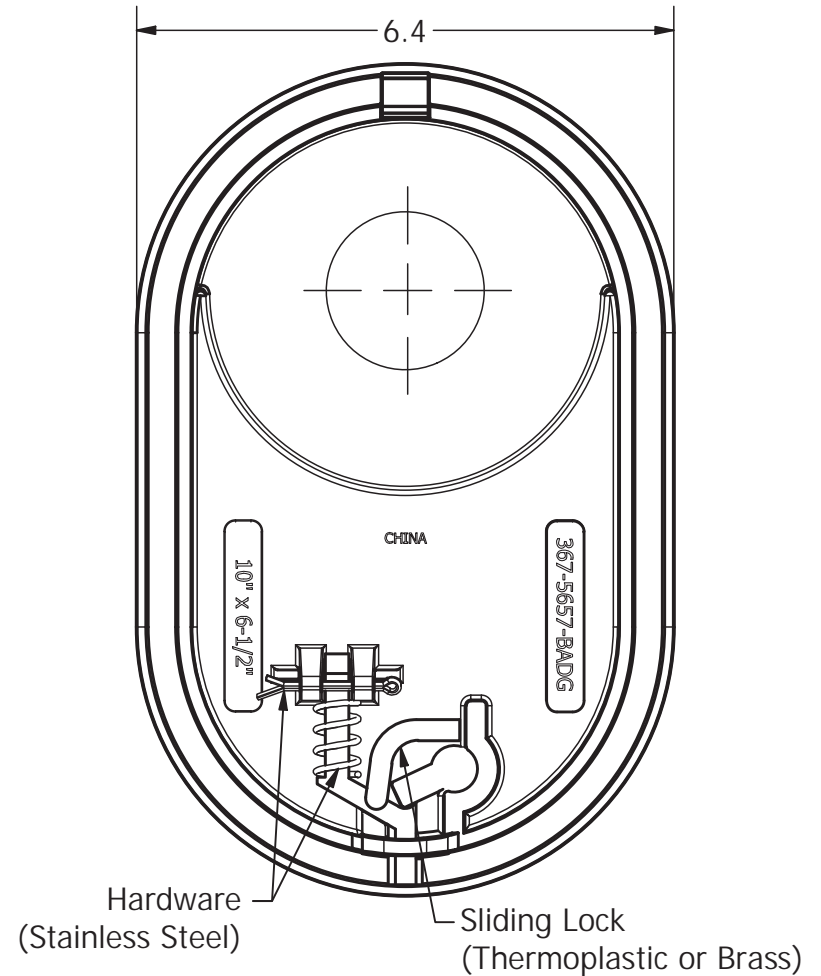
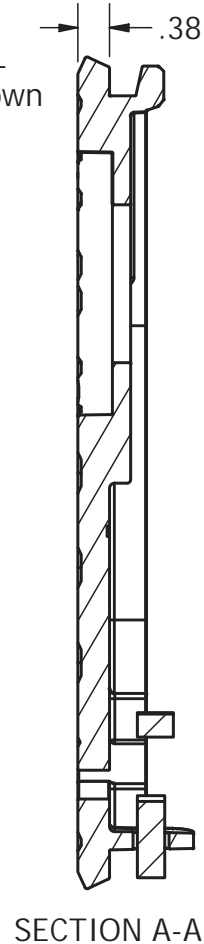
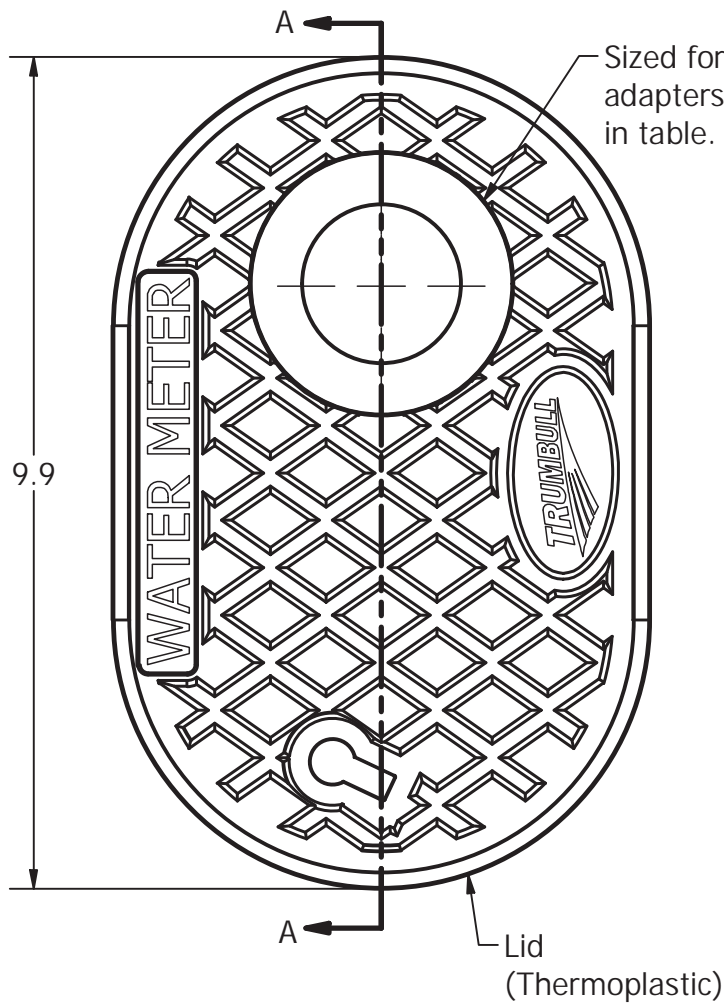


10" x 6.5" Yokebox Lid, Solid
(Non-traffic)
Drawn to Scale

Drawn:
BJE
08/06/21

Original Document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



10" x 6.5" Oval Lid	P/N	Weight (approx.)
1 Badger hole	367-5657-BADG	0.76 lbs.
1 Itron hole	367-5657-ITRON	0.80 lbs.
1 Mueller hole	367-5657-MUEL	0.76 lbs.
1 Sensus/Zenner hole	367-5657-SENS	0.66 lbs.
1 Through hole (1.88")	367-5657-TH	0.82 lbs.

10" x 6.5" Yokebox Lid, 1 Hole
(Non-traffic)
Drawn to Scale

Drawn:
BJE
08/10/21

Original Document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

METER PIT INSULATING DISCS

- Closed cell polyethylene
- 1.7 Density
- 2.5 R-Value
- Less than 0.1 water absorption
- White in color

i For larger sizes not shown, please inquire



Thickness	15" Diameter			18" Diameter		
	Item No	Size	Weight	Item No	Size	Weight
2"	367-5824	15" x 2"	0.40 lbs.	367-5828	18" x 2"	0.50 lbs.
3"	367-5825	15" x 3"	0.60 lbs.	367-5829	18" x 3"	0.75 lbs.
4"	367-5826	15" x 4"	0.80 lbs.	367-5830	18" x 4"	1.00 lbs.

RELATED PRODUCT

Ductile Iron Meter Box Cover

Accepts All Trumbull 12-1/4" OD Lids

Trumbull double lid Meter Box Covers provide both physical and frost protection for underground meters. The insulating air space captured in the ductile iron base casting, between the lid and the plastic frost liner, helps keep the ground heat inside the meter chamber to reduce the chance of freezing. The internal plastic frost liner is molded with a central hub to permit easy removal.

i Use of frost liner is not compatible with most antenna mountings. Consult your Trumbull Rep for more info.

Item No	Frame	Weight
367-5466	DI Meter Box Cover Base (T4-21)	75.00 lbs.
367-5462	Frost Liner	0.63 lbs.





Manhole and Meter Pit Lid FIELD SURVEY FORM

NOTE: All dimensions to be taken from frame

Customer Information

Name _____
Company _____
Project Location _____
Email _____
Phone _____

Frame Manufacturer Information

Frame Make & Model No. _____
Lid Make & Model No. _____
Lettering On Lid _____

New Cover Details

LETTERING

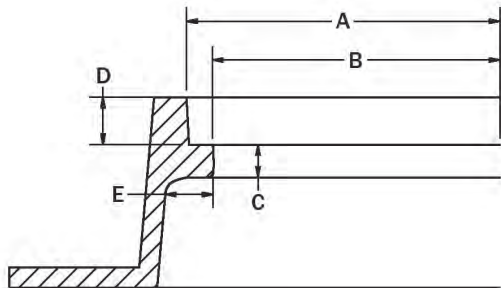
- ☐ "SANITARY SEWER"
☐ "WATER METER"
☐ Other _____

LOAD RATING REQUIRED

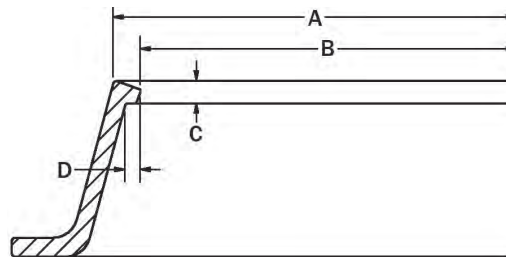
- ☐ Heavy Duty AASHTO M306, H-20; 40,000 lbs.
☐ Medium Duty; 20,000 lbs.
☐ Light Duty; 5,000 lbs.

AMI/AMR Antenna & Leak Detection Mounting

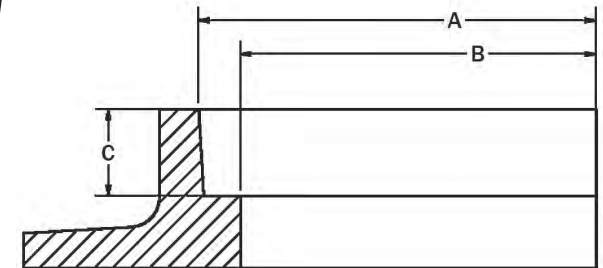
- ☐ Bracket mounting on underside
☐ Through-the-lid, flush with grade
☐ Mfg & model of endpoint _____



Inset Style



Overlapping Style



Straight Wall ID Style

Lid Style

Address

A

B

C

D

E



Composite and Polymer Lids

"WATER METER"

OUR 20,000 LB. LIDS HAVE NOMINAL LOAD RATINGS:

Based on past load tests of specific sizes and lid configurations. When test reports are required, please inquire at the time of quote, stating the test load required and if lids will be solid or have a specific antenna counterbore. A separate testing charge may apply.

PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

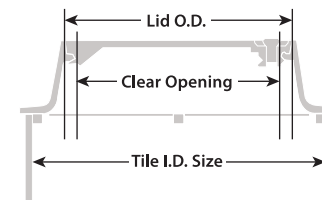
LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid.

Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
10-3/8" OD Clear Opening: 9-1/2" Rim Thickness: 0.65"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford W2A	367-5530 1.85 lbs.	367-5531 1.75 lbs. 500 pcs min	367-5532 1.77 lbs. 500 pcs min	----	367-5533 1.80 lbs. 500 pcs min	367-5534 1.73 lbs. 500 pcs min	367-5535 1.77 lbs. 500 pcs min
10-3/8" OD Clear Opening: 9-1/2" Rim Thickness: 3/8" "NEWPORT NEWS WATERWORKS"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Newport News Meter Box No. 1 and Capital Foundry	5901-TMI 1.42 lbs. 500 pcs min	----	----	----	5902-TMI 1.60 lbs. 500 pcs min	----	----
10-3/8" OD Clear Opening: 9-1/2" Rim Thickness: 3/8"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Capital Foundry	367-5581 1.42 lbs. 500 pcs min	----	----	----	367-5581-MUEL 1.60 lbs. 500 pcs min	----	----
11-7/8" OD Clear Opening: 10" Rim Thickness: 5/8"	Non-Traffic / Composite DI WORM GEAR (1.5" OD) US Patent No. D858,797 Solid Lids* or MegaNet Antenna Recess	Clark Meter Box Frame	367-5639 6.00 lbs.	367-5638 5.60 lbs. MegaNet Recess (Not for Badger)	----	----	----	----	----
11.91" OD Clear Opening: 10.7" Rim Thickness: 1"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* Only	Wilmington, DE (Old Style) Inner Lid	367-5632 8.52 lbs.	----	----	----	----	----	----
12-1/8" OD Clear Opening: 11" Rim Thickness: 5/8"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Mueller A and C	367-5660 3.00 lbs. 500 pcs min	367-5664 2.90 lbs. 500 pcs min	367-5666 2.90 lbs. 500 pcs min	----	----	367-5662 2.80 lbs. 500 pcs min	367-5659 2.90 lbs. 500 pcs min

Lids marked "WATER METER" are continued on the following page.



Composite and Polymer Lids

"WATER METER"

OUR 20,000 LB. LIDS HAVE NOMINAL LOAD RATINGS:

Based on past load tests of specific sizes and lid configurations. When test reports are required, please inquire at the time of quote, stating the test load required and if lids will be solid or have a specific antenna counterbore. A separate testing charge may apply.

PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

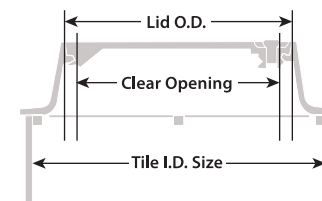
LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid.

Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
12-1/8" OD Clear Opening: 11" Rim Thickness: 5/8"	20,000 lbs. / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Mueller A and C	367-5671 3.00 lbs.	367-5673 2.90 lbs.	367-5674 2.90 lbs.	----	----	367-5672 2.80 lbs.	367-5668 2.90 lbs.
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.65"	20,000 lbs. / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A, C, and X AY McDonald A and C Tyler 6150	367-5810 3.06 lbs.	367-5811 2.70 lbs.	367-5812 2.72 lbs.	367-5816 2.52 lbs.	367-5813 2.72 lbs.	367-5814 2.59 lbs.	367-5815 2.62 lbs.
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.65"	20,000 lbs. / Polymer NYLON WORM GEAR 2 Antenna Recesses	Ford A, C, and X AY McDonald A and C Tyler 6150	----	367-5823 2.53 lbs.	367-5817 2.60 lbs.	367-5821 2.14 lbs.	367-5818 2.53 lbs.	367-5819 2.27 lbs.	367-5820 2.34 lbs.
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.7"	20,000 lbs. / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A and C AY McDonald A and C	367-5764 3.14 lbs. - Use - 367-5810	367-5762 3.03 lbs. - Use - 367-5811	367-5760 3.07 lbs. - Use - 367-5812	----	----	367-5763 2.92 lbs. - Use - 367-5814	367-5761 2.97 lbs. - Use - 367-5815
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.7"	20,000 lbs. / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A, C, and X AY McDonald A and C Tyler 6150	367-5751 3.04 lbs. - Use - 367-5810	367-5752 2.87 lbs. - Use - 367-5811	367-5754 2.91 lbs. - Use - 367-5812	----	----	367-5755 2.82 lbs. - Use - 367-5814	367-5753 2.87 lbs. - Use - 367-5815
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.7"	40,000 lbs. / Polymer DUCTILE IRON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A and C AY McDonald type A	367-5670 3.93 lbs. 500 pcs min	367-5676 3.81 lbs. 500 pcs min	367-5678 3.85 lbs. 500 pcs min	----	----	367-5675 3.71 lbs. 500 pcs min	367-5677 3.73 lbs. 500 pcs min

Lids marked "WATER METER" are continued on the following page.



Composite and Polymer Lids

"WATER METER"

OUR 20,000 LB. LIDS HAVE NOMINAL LOAD RATINGS:

Based on past load tests of specific sizes and lid configurations. When test reports are required, please inquire at the time of quote, stating the test load required and if lids will be solid or have a specific antenna counterbore. A separate testing charge may apply.

PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

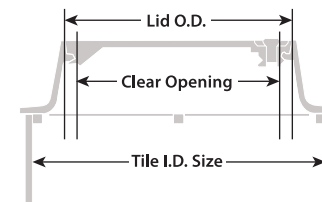
LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid.

Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

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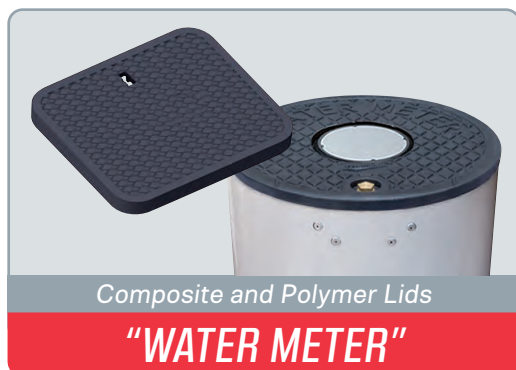


LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.7"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A and C AY McDonald type A	367-5518 Available w/out Logo 367-5517 (40K) 9.54 lbs.	367-5591 9.00 lbs.	367-5519 9.01 lbs.	----	----	367-5593 8.70 lbs.	367-5592 8.71 lbs.
12-3/4" OD Clear Opening: 11-5/8" Rim Thickness: 3/8" "NEWPORT NEWS WATERWORKS"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Newport News Meter Box No. 2 and Capital Foundry	4946-TMI Also available w/out NN Lettering (Non-Traffic) 2.20 lbs.	----	----	----	4945-TMI Also available w/out NN Lettering (Non-Traffic) 2.20 lbs.	----	----
12.438" OD Clear Opening: 11" Rim Thickness: 0.65"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	American Foundry, and misc.	367-5719 3.30 lbs. 250 pcs min	367-5721 3.10 lbs. 250 pcs min	367-5722 3.10 lbs. 250 pcs min	----	367-5723 2.90 lbs. 250 pcs min	367-5724 2.90 lbs. 250 pcs min	367-5725 3.00 lbs. 250 pcs min
12.438" OD Clear Opening: 11" Rim Thickness: 0.65"	20,000 lbs. / Polymer DROP-IN STYLE Solid Lid* Only	MO American	367-5720 3.30 lbs. 250 pcs min	----	----	----	----	----	----
12-5/8" OD Clear Opening: 11-1/2" Rim Thickness: 9/16"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lid* or Machined Recess	Ford, AY McD, Vestal and B&T Type C and Baltimore	367-5769 3.08 lbs. 500 pcs min	----	----	----	----	----	----
12-5/8" OD Clear Opening: 11-1/2" Rim Thickness: 9/16"	20,000 lbs. / Polymer NYLON WORM GEAR Solid Lid* or Machined Recess	Ford, AY McD, Vestal and B&T Type C and Baltimore	367-5767 3.08 lbs.	----	----	----	----	----	----

Antenna recesses can be machined in the lid, charges may apply.

Antenna recesses can be machined in the lid, charges may apply.
Load ratings may vary depending on its size.

Lids marked "WATER METER" are continued on the following page.



PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

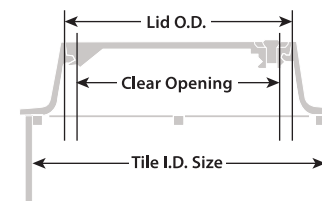
WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid. Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

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LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
12-5/8" OD Clear Opening: 11-1/2" Rim Thickness: 1"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lid* Only	Ford, Vestal and B&T Type C and Baltimore	367-5669 10.74 lbs.	----	----	----	----	----	----
Antenna recesses can be machined in the lid, charges may apply. Load ratings may vary depending on its size.									
13" x 17-9/32" OD (Oval Shape Lid) Rim Thickness: 0.79"	25,000 lbs. / Composite DROP-IN STYLE Solid Lid* Only	MB-10 Oval	367-5650 14.80 lbs.	----	----	----	----	----	----
14" x 16" MB Dual Lid (Rectangle Shape Lid) Clear Opening: 13" x 15-1/8" Rim Thickness: 1-1/2"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Brooks MB Dual Frame	367-5594 7.70 lbs.	----	367-5595 7.60 lbs.	----	----	----	----
14" x 16" MB Dual Lid (Rectangle Shape Lid) Clear Opening: 13" x 15-1/8" Rim Thickness: 1-1/2"	Non-Traffic / Polymer DROP-IN STYLE 2 Antenna Recesses	Brooks MB Dual Frame	----	----	367-5596 7.50 lbs.	----	----	----	----
15.4" OD Clear Opening: 14.7" Rim Thickness: 0.7"	Non-Traffic / Polymer UHMWPE WORM GEAR Solid Lids* or with 1 Antenna Recess	Mueller and AY McDonald Coil Pit Setter	367-5644 5.65 lbs.	367-5646 5.45 lbs.	367-5648 5.45 lbs. 200 pcs min	----	367-5649 5.45 lbs. 200 pcs min	367-5645 5.35 lbs. 200 pcs min	367-5647 5.40 lbs. 200 pcs min
16-1/16" OD Clear Opening: 15" Rim Thickness: 21/32"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Vestal type A, Ford type C, AY McDonald type C	367-5771 6.04 lbs. 100 pcs min	367-5773** 5.96 lbs. 100 pcs min	367-5775** 6.01 lbs. 100 pcs min	----	----	367-5772** 5.76 lbs. 100 pcs min	367-5774** 5.84 lbs. 100 pcs min

Lids marked "WATER METER" are continued on the following page.



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WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

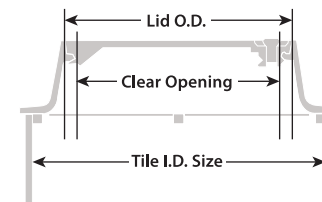
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LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
16-3/16" OD Clear Opening: 15" Rim Thickness: 1"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* or with 1 Antenna Recess	B&T, Vestal, Ford, AY McDonald type C and Baltimore	367-5680 14.20 lbs.	----	----	----	----	----	----
Antenna recesses can be machined in the lid, charges may apply. Load ratings may vary depending on its size.									
17-1/4" OD Clear Opening: 14" Rim Thickness: 0.5"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Flat Lid for 15" Plastic Pit	367-5588 4.40 lbs. 250 pcs min	367-5588-BADG 4.06 lbs. 250 pcs min	367-5588-ITRON 4.09 lbs. 250 pcs min	367-5588-KAMS 3.85 lbs. 250 pcs min	367-5588-MUEL 4.06 lbs. 250 pcs min	367-5588-NEPT 3.92 lbs. 250 pcs min	367-5588-SENS 3.99 lbs. 250 pcs min
17-1/4" OD Clear Opening: 14" Rim Thickness: 0.5"	Non-Traffic / Polymer DROP-IN STYLE 2 Antenna Recesses	Flat Lid for 15" Plastic Pit	----	367-5588-2BADG 4.14 lbs. 250 pcs min	367-5588-2ITRON 4.21 lbs. 250 pcs min	367-5588-2KAMS 3.73 lbs. 250 pcs min	367-5588-2MUEL 4.14 lbs. 250 pcs min	367-5588-2NEPT 4.15 lbs. 250 pcs min	367-5588-2SENS 3.87 lbs. 250 pcs min
17-3/4" OD Clear Opening: 16-1/8" Rim Thickness: 1-1/16" Cap Style Lid	Non-Traffic / Composite DROP-IN STYLE Solid Lids* Only	Owosso Central Castings Co.	367-5681 12.80 lbs.	----	----	----	----	----	----
18-7/8" OD Clear Opening: 18" Rim Thickness: 7/16"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* or with 1 Antenna Recess	18" AY McDonald Pit Setter	367-5615 24.60 lbs.	----	367-5614 23.90 lbs.	----	----	----	----
19.35" OD Clear Opening: 17" Rim Thickness: 0.56"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Flat Lid for 18" Plastic Pit	367-5590 6.07 lbs.	367-5590-BADG 5.71 lbs.	367-5590-ITRON 5.75 lbs. 200 pcs min	367-5590-KAMS 5.51 lbs. 200 pcs min	367-5590-MUEL 5.72 lbs. 200 pcs min	367-5590-NEPT 5.58 lbs. 200 pcs min	367-5590-SENS 5.64 lbs.

Lids marked "WATER METER" are continued on the following page.



Composite and Polymer Lids

"WATER METER"

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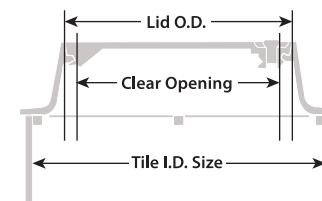
WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
19.35" OD Clear Opening: 17" Rim Thickness: 0.56"	Non-Traffic / Polymer DROP-IN STYLE 2 Antenna Recesses	Flat Lid for 18" Plastic Pit	----	367-5590-2BADG 5.80 lbs. 200 pcs min	367-5590-2ITRON 5.87 lbs. 200 pcs min	367-5590-2KAMS 5.39 lbs. 200 pcs min	367-5590-2MUEL 5.80 lbs. 200 pcs min	367-5590-2NEPT 5.54 lbs. 200 pcs min	367-5590-2SENS 5.66 lbs. 200 pcs min
19-3/4" OD Clear Opening: 18" Rim Thickness: 2-3/16"	40,000 lbs. / Composite DOUBLE PADDLE LOCK (DI) Solid Lids* Only	EJ 1525" Neenah R-1566" Baltimore	367-5688 33.00 lbs.	----	----	----	----	----	----
19-13/16" OD Clear Opening: 18-1/2" Rim Thickness: 1" "CWD-2"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* Only	EJ 2990 Neenah R-1892	367-5631 28.30 lbs.	----	----	----	----	----	----
21-3/16" OD Clear Opening: 20" Rim Thickness: 0.77"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford and AY McDonald Monitor Covers and Pit Rings	367-5605 10.91 lbs.	367-5605-BADG 10.81 lbs.	367-5605-ITRON 10.77 lbs.	367-5605-KAMS 10.57 lbs.	367-5605-MUEL 10.79 lbs.	367-5605-NEPT 10.63 lbs.	367-5605-SENS 10.70 lbs.
21-3/16" OD Clear Opening: 20" Rim Thickness: 0.77"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford and AY McDonald Monitor Covers and Pit Rings	367-5610 31.30 lbs.	367-5786 30.60 lbs.	367-5788 30.70 lbs.	----	----	367-5785 30.50 lbs.	367-5787 30.30 lbs.
21-3/4" OD Clear Opening: 20" Rim Thickness: 1-1/4"	20,000 lbs. / Composite DROP-IN STYLE Solid Lids* Only	Arlington, VA	367-5633 23.10 lbs.	----	----	----	----	----	----

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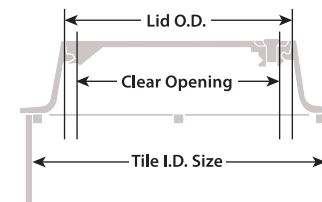
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Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
22-3/4" OD Clear Opening: 21" Rim Thickness: 1-11/16"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* Only	EJ 1020 Neenah R-1580	367-8905 45.70 lbs.	----	----	----	----	----	----
23-3/4" OD Clear Opening: 22" Rim Thickness: 1"	20,000 lbs. / Composite DROP-IN STYLE Solid Lids* Only	Arlington, VA	367-5634 26.30 lbs.	----	----	----	----	----	----
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR *** Solid Lids* Only	EJ 1450 and 1690 Neenah R-1771 Neenah R-1785	367-8908 44.80 lbs.	----	----	----	----	----	----
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lids* Only	Trumbull Frame 367-5623 4 Badger LTE Brackets in frame	367-8910 44.80 lbs.	----	----	----	----	----	----
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1" "AURORA"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lids* or with 1 Antenna Recess	Trumbull Frame 367-5623 4 Badger LTE Brackets in frame	367-8912 44.80 lbs.	367-8914 44.60 lbs. Non-Traffic	----	----	----	----	----
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1" "AURORA"	Non-Traffic / Composite UHMWPE WORM GEAR *** 2 Antenna Recesses	Trumbull Frame 367-5623 4 Badger LTE Brackets in frame	----	367-8916 44.50 lbs.	----	----	----	----	----

Lids marked "WATER METER" are continued on the following page.



PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

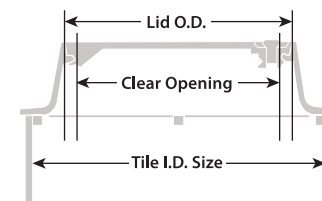
WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

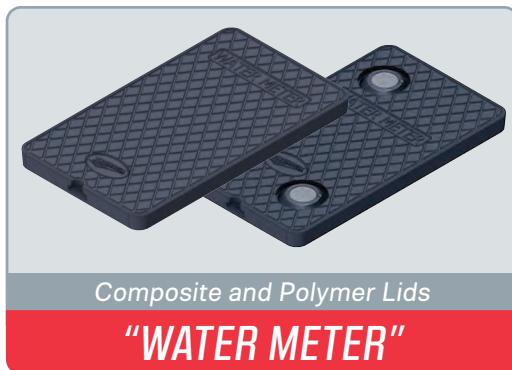
BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid. Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
24" OD Clear Opening: 19" Rim Thickness: 0.56"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Flat Lid for 20" and 21" Plastic Pit	367-5597 8.57 lbs.	367-5597-BADG 8.22 lbs.	367-5597-ITRON 8.25 lbs.	367-5597-KAMS 8.00 lbs.	367-5597-MUEL 8.22 lbs.	367-5597-NEPT 8.09 lbs.	367-5597-SENS 8.15 lbs.
24" OD Clear Opening: 19" Rim Thickness: 0.56"	Non-Traffic / Polymer DROP-IN STYLE 2 Antenna Recesses	Flat Lid for 20" and 21" Plastic Pit	----	367-5597-2BADG 8.31 lbs.	367-5597-2ITRON 8.38 lbs.	367-5597-2KAMS 7.90 lbs.	367-5597-2MUEL 8.32 lbs.	367-5597-2NEPT 8.05 lbs.	367-5597-2SENS 8.17 lbs.
24-3/16" OD Clear Opening: 21" Rim Thickness: 3" "WSNY"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* Only T316SS Pentagon Bolt	NYC	5218-TMI 60.50 lbs.	----	----	----	----	----	----
25-1/4" OD Clear Opening: 22-3/4" Rim Thickness: 2"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lids* Only	EJ 1700	367-5685 63.50 lbs.	----	----	----	----	----	----
25-3/4" OD Clear Opening: 24" Rim Thickness: 2-1/2"	40,000 lbs. / Composite DOUBLE PADDLE LOCK (DI) Solid Lids* Only	EJ 1543/1545" Neenah R-1565" Baltimore	367-5698 64.00 lbs.	----	----	----	----	----	----
25-1/2" OD Clear Opening: 24-3/16" Rim Thickness: 1-1/4" "CWD"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR*** Solid Lids* Only	EJ 1040, 1045, 1048 and 1705	367-5527 54.00 lbs.	----	----	----	----	----	----

Lids marked "WATER METER" are continued on the following page.



PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

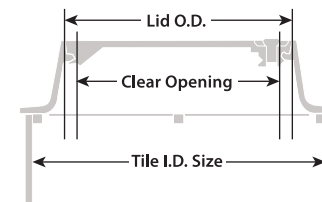
LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid.

Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
25-1/2" OD	40,000 lbs. / Composite	Trumbull Frame 367-5635	367-5528	----	----	----	----	----	----
Clear Opening: 24-3/16" Rim Thickness: 1-1/4"	UHMWPE WORM GEAR *** Solid Lids* Only		54.00 lbs.						
30-1/2" x 17-1/2" Rect.	Non-Traffic / Polymer	17" x 30"	367-5560	367-5562	367-5563	367-5582	367-5564	367-5565	367-5566
Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Hubbell, Old Castle Polymer, & Old Castle Concrete	27.80 lbs.	27.60 lbs. 250 pcs min	27.60 lbs. 250 pcs min	27.40 lbs. 250 pcs min	27.60 lbs. 250 pcs min	27.40 lbs. 250 pcs min	27.50 lbs. 250 pcs min
30-1/2" x 17-1/2" Rect.	Non-Traffic / Polymer	17" x 30"	----	367-5572	367-5573	367-5584	367-5574	367-5575	367-5576
Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	DROP-IN STYLE 2 Antenna Recesses	Hubbell, Old Castle Polymer, & Old Castle Concrete		27.50 lbs. 250 pcs min	27.50 lbs. 250 pcs min	27.00 lbs. 250 pcs min	27.40 lbs. 250 pcs min	27.00 lbs. 250 pcs min	27.30 lbs. 250 pcs min
30-1/2" x 17-1/2" Rect.	Non-Traffic / Polymer	17" x 30"	367-5561	367-5567	367-5568	367-5583	367-5569	367-5570	367-5571
Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	BOLT-DOWN STYLE Solid Lids* or with 1 Antenna Recess	Hubbell, Old Castle Polymer, & Old Castle Concrete	27.70 lbs.	27.50 lbs. 250 pcs min	27.50 lbs. 250 pcs min	27.30 lbs. 250 pcs min	27.50 lbs. 250 pcs min	27.30 lbs. 250 pcs min	27.40 lbs. 250 pcs min
30-1/2" x 17-1/2" Rect.	Non-Traffic / Polymer	17" x 30"	----	367-5577	367-5578	367-5585	367-5579	367-5580	367-5581
Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	BOLT-DOWN STYLE 2 Antenna Recesses	Hubbell, Old Castle Polymer, & Old Castle Concrete		27.40 lbs. 250 pcs min	27.40 lbs. 250 pcs min	26.90 lbs. 250 pcs min	27.30 lbs. 250 pcs min	26.90 lbs. 250 pcs min	27.20 lbs. 250 pcs min
30-1/2" x 17-1/2" Rect.	40,000 lbs. / Composite	17" x 30"	367-5560-40K	367-5562-40K	367-5563-40K	----	367-5564-40K	367-5565-40K	----
Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	Hubbell, Old Castle Polymer, & Old Castle Concrete	52.00 lbs. 25 pcs min	51.20 lbs. 25 pcs min	51.30 lbs. 25 pcs min		51.20 lbs. 25 pcs min	50.90 lbs. 25 pcs min	

Lids marked "WATER METER" are continued on the following page.



Composite and Polymer Lids

"WATER METER"

PENTAGON BOLTS: Water meter lids are normally furnished with standard (27/32") brass pentagon bolt, but are also available with large (1-1/32") brass pentagon bolt. Not furnished on drop-in style lids.

WORM GEARS: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

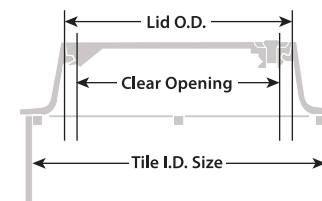
LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

RECESSES: All lids with antenna recesses have thru hole diameter of 1.88".

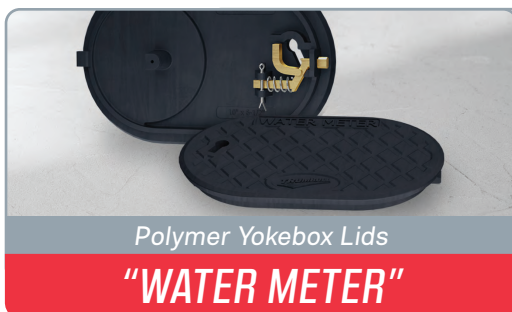
BEARING WASHERS: Polymer lids have UHMWPE bearing washers above and below lid.

Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	KAMSTRUP Antenna Recess Ø 5.06" x 0.50" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	NEPTUNE** (FIGURE 8) Antenna Recess Ø 4.63" x 0.43" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	40,000 lbs. / Composite DROP-IN STYLE 2 Antenna Recesses	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	----	367-5572-40K 50.80 lbs. 25 pcs min	367-5573-40K 51.00 lbs. 25 pcs min	----	367-5564-40K 50.90 lbs. 25 pcs min	367-5575-40K 50.20 lbs. 25 pcs min	----
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	40,000 lbs. / Composite BOLT-DOWN STYLE Solid Lids* or with 1 Antenna Recess	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	367-5561-40K 51.50 lbs. 25 pcs min	367-5567-40K 51.10 lbs. 25 pcs min	367-5568-40K 51.10 lbs. 25 pcs min	----	367-5569-40K 51.10 lbs. 25 pcs min	367-5570-40K 50.70 lbs. 25 pcs min	----
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	40,000 lbs. / Composite BOLT-DOWN STYLE 2 Antenna Recesses	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	----	367-5577-40K 50.70 lbs. 25 pcs min	367-5578-40K 50.80 lbs. 25 pcs min	----	367-5579-40K 50.80 lbs. 25 pcs min	367-5580-40K 50.00 lbs. 25 pcs min	----
31-13/16" OD Clear Opening: 30" Rim Thickness: 2-1/2"	40,000 lbs. / Composite DOUBLE PADDLE LOCK (DI) Solid Lids* Only	Neenah R-1568* Baltimore	367-5710 108.70 lbs. 15 pcs min	----	----	----	----	----	----
35-27/32" OD Clear Opening: 34" Rim Thickness: 1.44" "CONFINED SPACE NEORS"	40,000 lbs. / Composite DROP-IN STYLE Solid Lids* Only	EJ 1585 Neenah R-1752	367-5715 131.30 lbs. 15 pcs min	----	----	----	----	----	----
35-27/32" OD Clear Opening: 34" Rim Thickness: 1.44" "ARLINGTON"	40,000 lbs. / Composite DROP-IN STYLE Solid Lids* Only	EJ 1585 Neenah R-1752 Arlington, VA	367-5712 131.30 lbs. 30 pcs min	----	----	----	----	----	----



Polymer Yokebox Lids

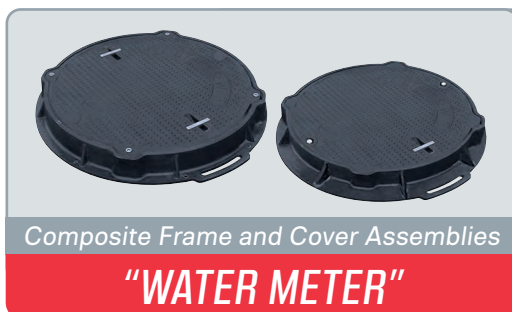
"WATER METER"

Hand Key
367-4334

**Single Slot
Retainer Bracket**
367-5782

- Please inquire for TTL antenna and Bracket/Post Adapter fitment (it will vary on each installation)
- Sliding Lock normally furnished in nylon; add \$3.00 LIST for brass
- All other hardware is stainless steel
- Single slot retainer bracket can be used on other lids as well with posts

LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess	BADGER Antenna Recess Ø 3.13" x 0.41" dp	ITRON 60W, 100W, RIVA Antenna Recess Ø 2.84" x 0.26" dp	MUELLER Antenna Recess Ø 3.36" x 0.33" dp	SENSUS OR ZENNER Antenna Recess Ø 4.11" x 0.41" dp	FOR "OTHER" TTL ADAPTERS NOT SHOWN Ø 1.88" Through Hole
10" x 6-1/2"	Non-Traffic / Polymer	Ford and AY McDonald Yokeboxes	367-5657	367-5657-BADG	367-5657-ITRON	367-5657-MUEL	367-5657-SENS	367-5657-TH
Clear Opening: 9.10" x 5.63" Rim Thickness: 0.38"	SLIDING LOCK Solid Lids* or with 1 Antenna Recess		0.83 lbs.	0.76 lbs. 500 pcs min	0.80 lbs. 500 pcs min	0.76 lbs. 500 pcs min	0.66 lbs. 500 pcs min	0.82 lbs. 500 pcs min



Composite Frame and Cover Assemblies

"WATER METER"

**Pricing does
not include
retainer
brackets or
antenna
adapters.**

LETTERING: Lids normally furnished marked "WATER METER", special lettering available.

SEAL: All Frame & Cover Assemblies are sealed by an EPDM gasket.

BOLT DOWN LIDS: Are secured to frames with four Xylan coated stainless screws, see page 30 for optional security screws.

PADDLE LOCK LIDS: Are secured to frame with pentagon bolt, see page 30 for optional security bolts.

ANTENNA MOUNTING OPTIONS: Shown in "Additional Notes" on page 46.

LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	BOLT DOWN STYLE	PADDLE LOCK STYLE
23-3/4" OD	50,000 lbs. / Composite	Trumbull Frame 367-5468	367-5790	----
Clear Opening: 21-1/2" ID Rim Thickness: 1"	BOLT-DOWN STYLE Solid Lids* Only		66.10 lbs. Frame and Cover	
26" OD	50,000 lbs. / Composite	Trumbull Frame 367-5705	367-5702	367-5704
Clear Opening: 24" ID Rim Thickness: 1"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		93.00 lbs. Frame and Cover	93.00 lbs. Frame and Cover
32" OD	50,000 lbs. / Composite	Trumbull Frame 367-5794	367-5793	367-5901
Clear Opening: 30" ID Rim Thickness: 1-1/4"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		129.00 lbs. Frame and Cover	129.00 lbs. Frame and Cover
32" OD	50,000 lbs. / Composite	Trumbull Frame 367-5794	367-5799	----
Clear Opening: 30" ID Rim Thickness: 1-1/4" "WATER"	BOLT-DOWN STYLE Solid Lids* Only		129.00 lbs. Frame and Cover	
38" OD	50,000 lbs. / Composite	Trumbull Frame 367-5784	367-5465	367-5618
Clear Opening: 36" ID Rim Thickness: 1-1/2"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		236.80 lbs. Frame and Cover	236.00 lbs. Frame and Cover



Trumbull Manufacturing, Inc.

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PROOF LOAD TESTING PER... **AASHTO M-306**

The M-306 Standard

The American Association of State Highway and Transportation Officials (AASHTO) developed a standard, M-306, that calls for proof load testing of iron castings. For an H-20 proof load test, that standard requires a 40,000 lb. load to be applied to a 9" x 9" square plate for one minute. Any cracks or permanent deformation greater than 1/8" are cause for rejection.

Polymer and Composite Lids

Polymer and composite lids are used for a variety of applications, such as:

- Water meter pits and manholes, where existing cast iron lids blocked radio signals from radio read meters.
- Flow monitoring devices in manholes, where signals of rising flow levels are likewise blocked by cast iron lids.
- Theft, due to the scrap value of iron.
- In industrial and sanitary manholes to reduce finger and back injuries, due to their light weight.



How the M-306 Standard Relates to Polymer and Composite Lids

Municipalities and Engineers wanting a traffic rated polymer lid frequently specify an "H-20" rating in their specifications. There can be confusion since AASHTO published bridge design criteria, known as H-20, which calls for truck axle loading of 32,000 lbs., or 16,000 lbs. per wheel load. The AASHTO M-306 standard calls for a safety factor of 2.5 to be applied to the 16,000 lbs. wheel load ($2.5 \times 16,000 = 40,000$ lbs.). Therefore, for H-20 rated lids, a 40,000 lbs. proof load test is required. For H-25 rated lids, a 50,000 lbs. proof load test is required.

Explanation of the Confusion

Many water departments began to install radio read meters but couldn't get a good read through cast iron lids. Frequently, many were only thinking of a radio-friendly material such as polymer, without giving much thought to its strength. As a result, many municipalities received thin plastic lids that could only withstand a proof load test of 5,000 lbs., or less. Frequently, breakage occurred from lawn tractors and other loads. To be conservative and have an industry standard they can specify, many municipalities require a 40,000 lbs. proof load test, even where a lid is not in the roadway. Some suppliers advertise their lids as H-20, but are referring to a 16,000 lbs. wheel load and not a 40,000 lbs. proof load test. Some furnish lids that cannot even meet the 16,000 lbs. load they advertise as "H-20".

How to Avoid the Confusion

To avoid confusion, your specs should require the proof load test you specify, conducted per AASHTO M-306. To be safe, require a report from an independent test lab. Simply specifying "H-20" may not provide the safety factor you need, particularly where traffic loads are involved. The AASHTO M-306 standard requires the load to be placed at the center of the lid and not transfer any of the load directly to the frame. For smaller lids, such as 12" diameter, a plate smaller than 9" x 9" must be used. If you would like a proof load test performed on the lids you are using, contact the Engineering Department here at Trumbull.



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Composite Manhole Lids

For Sanitary Sewer



**RATED FOR TRAFFIC LOADS,
AND TESTED IN EXCESS OF 40,000 LBS.**

Trumbull Composite Manhole Lids are today's smart choice for highway use in place of cast iron lids. They have been successfully tested to a minimum of 40,000 lb. proof load per AASHTO M-306, H-20. Test reports from independent lab are available upon request.

Composite lids have no scrap value, deterring theft common to iron lids. These lids are much lighter than cast iron lids, yet are rated for traffic loads. Use composite lids to avoid back and finger injuries associated with cast iron lids. Lids also have a slip-resistant, anti-skid pattern.



LOAD TESTED PER AASHTO M-306, H-20 – 40,000 LBS.

(See page 29 for details on load testing)



**THE LIGHT WEIGHT OF COMPOSITES
REDUCES FINGER AND BACK INJURIES.**

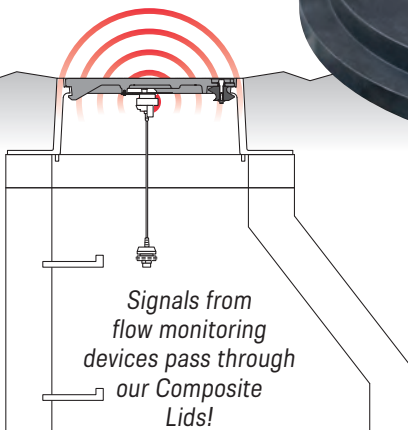


**COMPOSITES HAVE NO SCRAP VALUE,
SO THEY REDUCE THEFT PROBLEM
COMMON TO CAST IRON LIDS.**

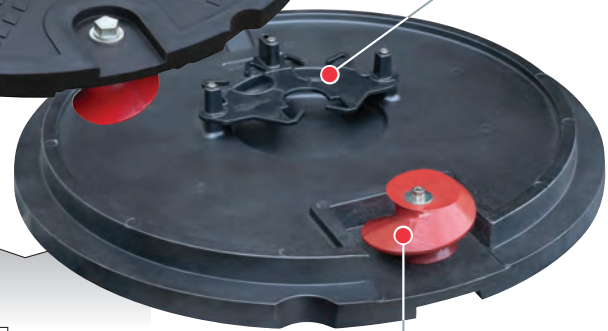


**CUSTOM
MOUNTING**

available for flow
monitoring devices



Signals from
flow monitoring
devices pass through
our Composite
Lids!



WORM GEAR

secures lid to frame and is
operated with stainless steel
pentagon bolt and hardware;
other locking options available
upon request

For compatible Trumbull Composite Frames, see pages 41 - 44.

For dimensions, load ratings and additional options, refer to the product information chart on pages 45 - 46.



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

Composite Manhole Frame and Cover Assembly

21-1/2" Clear Opening

23-3/4" Lid OD - EPDM Sealed

- Composite design can pass a 50,000 lb. proof load test per AASHTO M-306, H-25, yet weighs only one-third of comparable cast iron frame and lid, reducing back and finger injuries.
- All hardware is stainless steel, along with the composite construction provides corrosion resistance.
- Fasteners on underside to attach flow monitoring/leak detection devices.



Composite Frame and Cover Assemblies with outward lobes, thus providing full clear opening, are shown on pages 33 - 39.

FOUR XYLAN COATED STAINLESS ALLEN HEAD SCREWS

compress seal to prevent infiltration and are retained in the lid using clips (security screws are also available, shown on page 40)

FRAME SLOTS

allow easy handling and anchoring to manhole

STAINLESS STEEL PICK BAR

GROOVED DESIGN EPDM SEAL

prevents infiltration through bolt holes (artificially colored here for emphasis)

MATCHING ALIGNMENT INDICATORS - Patent No. US 10,240,317 B2

help line up the stainless screws with threaded inserts in the frame; in addition, the underside has cutouts that cause the lid to drop into the proper "bolt-down" position

Lid OD Size	Locking Mechanism	Frame Item No	Sanitary Sewer Lid Item No	Water Meter Lid Item No	Total Weight
23-3/4"	Bolt Down	367-5468	367-5789	367-5790	66.10 lbs.



Optional logo/custom lettering options available, ask your Trumbull Rep.

For dimensions, load ratings and additional options, refer to the product information chart on page 28 (WATER METER) and page 46 (SANITARY SEWER).

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



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Composite Manhole Frame and Cover Assemblies

With Full Clear Opening – Paddle Lock and Bolt Down Styles

Available in 26", 32" and 38" Sizes – EPDM Sealed

2
COVER
STYLES

GROOVED DESIGN EPDM SEAL
prevents infiltration

STAINLESS STEEL PICK BARS
1 or 2, depending on manhole size

OUTWARD LOBES
allow for precise
bolt and paddle
lock alignment

FRAME SLOTS
allow easy
handling and
anchoring to
manhole



Lid OD	Locking Mechanism	Frame Item No	Sanitary Sewer Lid Item No	Water Meter Lid Item No	Total Weight
26"	Bolt Down	367-5705	367-5701	367-5702	93.00 lbs.
26"	Paddle Lock		367-5703	367-5704	93.00 lbs.
32"	Bolt Down	367-5794	367-5792	367-5793	129.00 lbs.
32"	Paddle Lock		367-5900	367-5901	129.00 lbs.
38"	Bolt Down	367-5784	367-5795	367-5465	236.80 lbs.
38"	Paddle Lock		367-5617	367-5618	236.80 lbs.

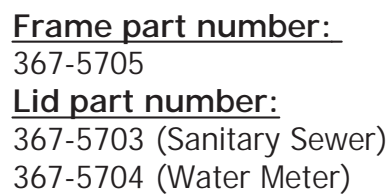
- Composite design can pass a 50,000 lb. proof load test per AASHTO M-306, H-25, yet weighs only one-third of comparable cast iron frame and lid, reducing back and finger injuries.
- Two lid fastening styles available.
- All hardware is stainless steel, along with the composite construction provides corrosion resistance.
- Fasteners on underside to attach flow monitoring/leak detection devices.
- Optional logo/custom lettering available.

For dimensions, load ratings and additional options, refer to the product information chart on page 28 (WATER METER) and page 46 (SANITARY SEWER).

50,000 lbs. load rating, H-25



50,000 lbs. load rating, H-25



- Pick Bar
Stainless Steel

Mounting for flow monitoring and leak detection devices

Note: There are 2 paddle lock assemblies, 180° apart, Per below Detail B

- Operating bolt
Pentagon or Anti-theft head,
Stainless steel

- Fin-type seal, EPDM

- Paddle Lock,
Stainless steel

Flanged sleeve, 2 PL.,
Stainless steel

DETAIL B

- M8 Hex bolt,
Stainless steel

Ø24"
Clear
opening

SECTION A-A

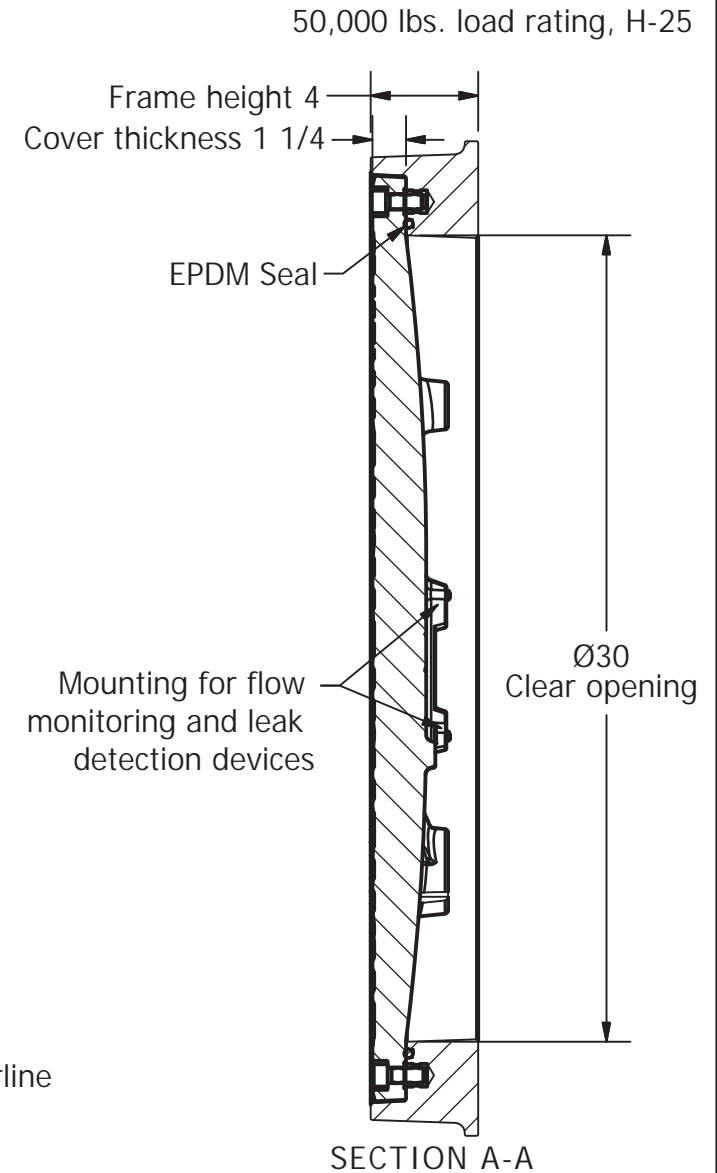
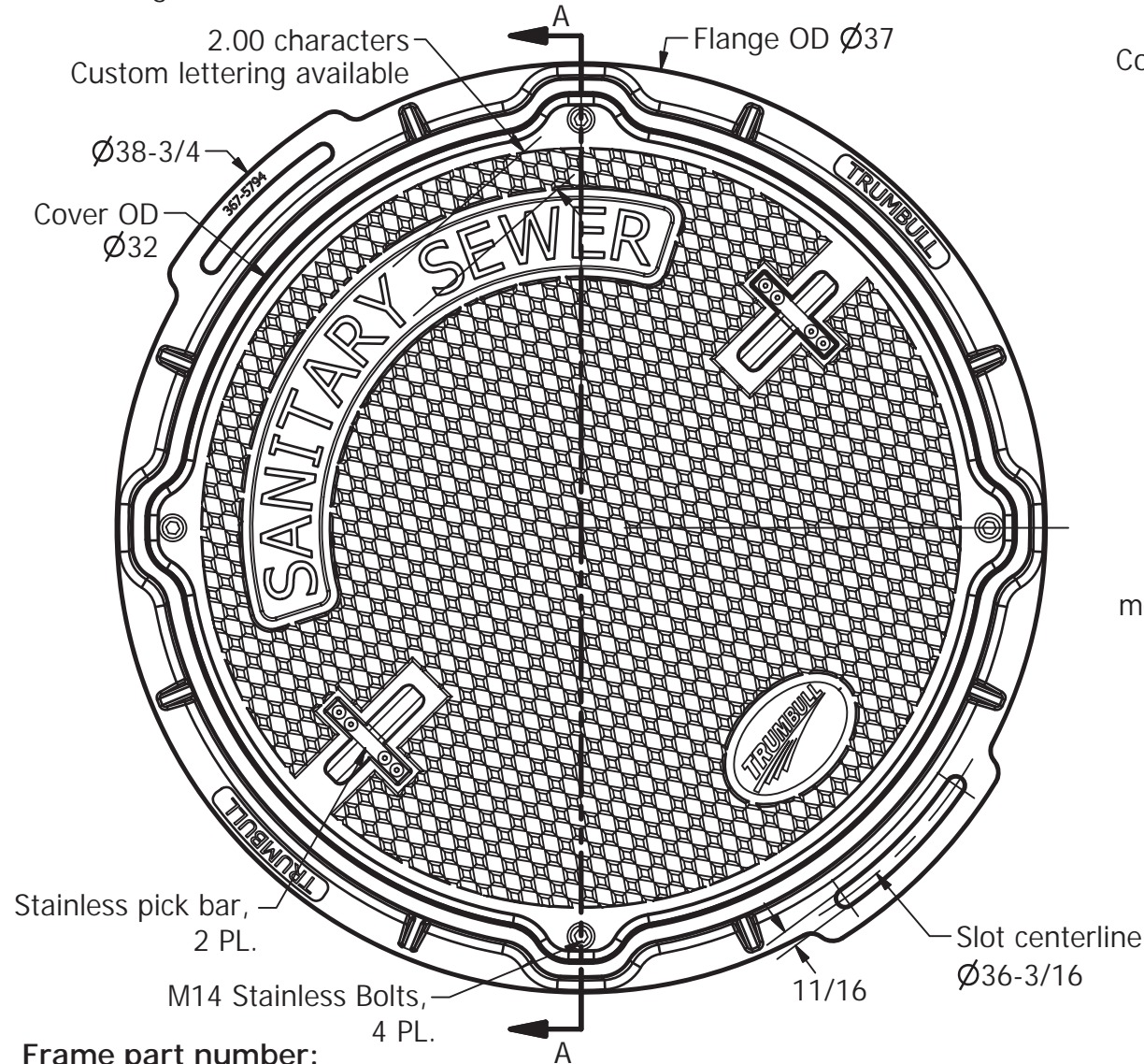
26" Manhole Lid & Frame
(24" Frame Clear Opening, Paddle Lock)
Drawn to Scale

Drawn:
AAH
09/18/18

Original document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Lid weight: 88 lbs.
Frame weight: 41 lbs.



(Dimensions are in inches)

Frame part number:
367-5794

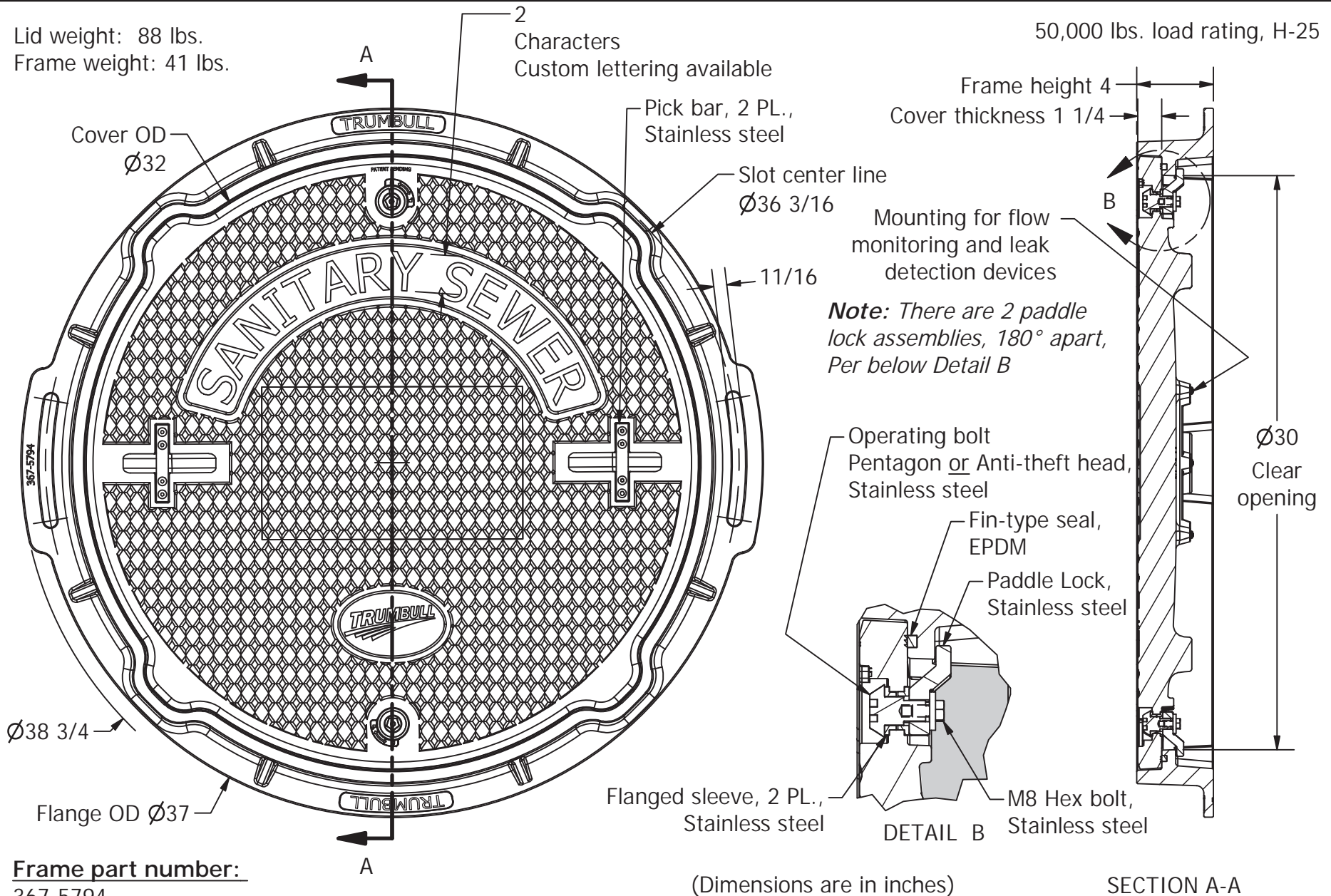
Lid part number:
367-5792 (Sanitary Sewer)
367-5793 (Water Meter)

32" Manhole Lid & Frame
(30" Frame Clear Opening, Bolt Down)
Drawn to Scale

Drawn:
BJE
07/20/17

Revision:
BJE
A 05/13/19

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



Frame part number:

367-5794

Lid part number:

367-5900 (Sanitary Sewer)

367-5901 (Water Meter)

32" Manhole Lid & Frame
(30" Frame Clear Opening, Paddle Lock)
Drawn to Scale

Drawn:
BJE
02/24/20

Original document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Lid weight: 139.5 lbs.
Frame weight: 97.3 lbs.

- 2 characters
Custom lettering available

50,000 lbs. load rating, H-25

Cover thickness 1-3/8

EPDM fin-type seal

- Mounting for flow monitoring and leak detection devices

Ø36
Clear opening

SECTION A-A

Frame height 6

(Dimensions are in inches)

Pick bar, 2 PL.,
Stainless steel

M14 SHCS's or anti-theft bolts
Stainless steel
Xylan 1424 coated
4 PL.

Frame part number:

367-5784

Lid part number:

367-5795 (Sanitary Sewer)
367-5465 (Water Meter)

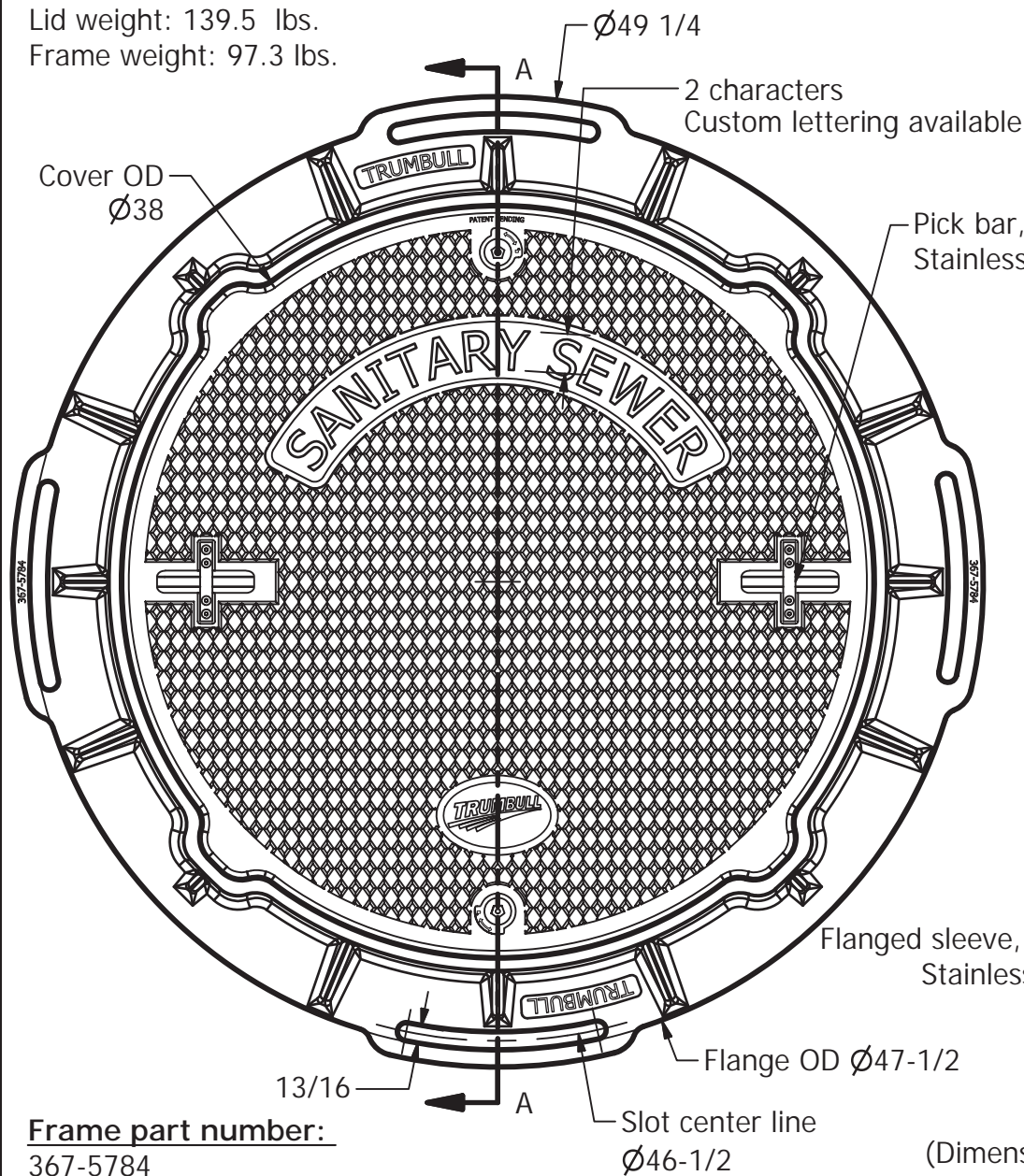
38" Manhole Lid & Frame (36" Frame Clear Opening, Bolt Down) Drawn to Scale

Drawn:
BJE
09/28/18

Revision:
 (A) BJE
 05/13/19

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Lid weight: 139.5 lbs.
Frame weight: 97.3 lbs.



50,000 lbs. load rating, H-25

Frame height 6
Cover thickness 1-3/8

Mounting for flow
monitoring and leak
detection devices

Note: There are 2 paddle
lock assemblies, 180° apart,
Per below Detail A

Operating bolt
Pentagon or Anti-theft head,
Stainless steel

Fin-type seal,
EPDM

Paddle Lock,
Stainless steel

M8 Hex bolt,
Stainless steel

Flanged sleeve, 2 PL.,
Stainless steel

DETAIL A

Ø36
Clear
opening

SECTION A-A

Frame part number:
367-5784

Lid part number:
367-5617 (Sanitary Sewer)
367-5618 (Water Meter)

(Dimensions are in inches)

38" Manhole Lid & Frame
(36" Frame Clear Opening, Paddle Lock)
Drawn to Scale

Drawn:
BJE
09/28/17

Revision:
BJE
A 05/13/19

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

Additional Security for Meter and Manhole Lids

Security Bolts...

Made from stainless steel



...for Worm Gear Lids

Item No	For Frames . . .	Weight
167-0069*	10"-12", 15"; 21" monitor cover	0.10 lbs.
167-0048**	Larger Size Worm Gears	0.25 lbs.

...for Paddle-Lock Frames and Covers

Item No	For Frames . . .	Weight
167-0062*	Paddle-Lock Covers	0.10 lbs.

Don't forget the
Custom
KEY

Item No	Description	Weight
167-0070	Key Only	0.18 lbs.
spec/ord.	Key, with T-Handle	----

* 316 Stainless Steel

** 17-4 Stainless Steel

Security Screws...

- Xylan coated stainless steel
- M14 x 30MM for use with 24" Frame and Covers
- M14 x 35MM for use with 30" and 36" Frame and Covers



...for Bolt Down Frames and Covers

Item No	Frame	Weight
167-0146	M14-2.0 x 30MM Security Screw	0.10 lbs.
167-0148	M14-2.0 x 35MM Security Screw	0.10 lbs.

Don't forget the
Custom
KEY

Item No	Frame	Weight
167-0152	Key Only	0.15 lbs.
367-4403	Key, with T-Handle	----

RELATED PRODUCT

Manhole Cover Hooks

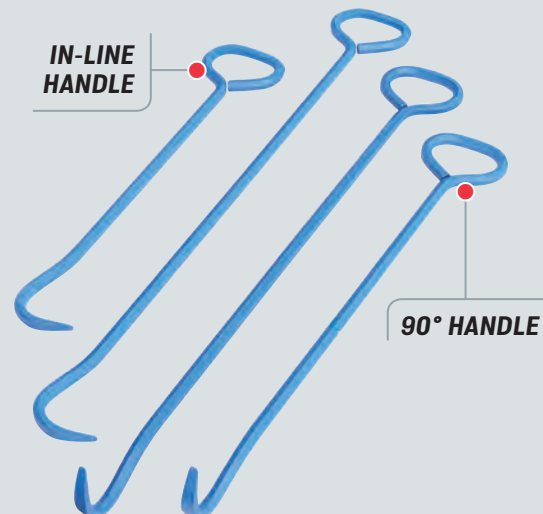
Trumbull Manhole Cover Hooks are made of 5/8" hexagonal steel. The 1/2" point engages the lid of the manhole cover. Painted in Safety Blue enamel paint for safety and durability. Product shown in more detail on Catalog page A-3.

In-Line Handle

Item No	Overall Length	Weight
367-4286	24"	3.35 lbs.
367-4290	36"	4.50 lbs.

90° Handle

Item No	Overall Length	Weight
367-4288	30"	3.85 lbs.
367-4289	36"	4.45 lbs.





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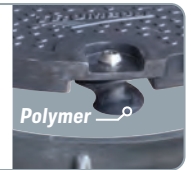
Composite Manhole Frames and Covers

Worm Gear Style – For Use with 25-1/2" x 1-1/4" Covers

- Composite design can pass a 40,000 lbs. proof load test per AASHTO M-306, H-20, yet weighs only one-third of comparable cast iron frame, reducing back and finger injuries.
- Frame's composite construction provides corrosion resistance, making it suitable for both water and sewer applications.



Use with **POLYMER WORM GEARS ONLY**; NOT for use with ductile iron worm gears.



EPDM SEAL

prevents infiltration

4 WORM GEAR RECESSES

allow cover to be placed in any of 4 directions

WIDE FLANGE DIAMETER

FRAME SLOTS

allow easy handling and anchoring to manhole

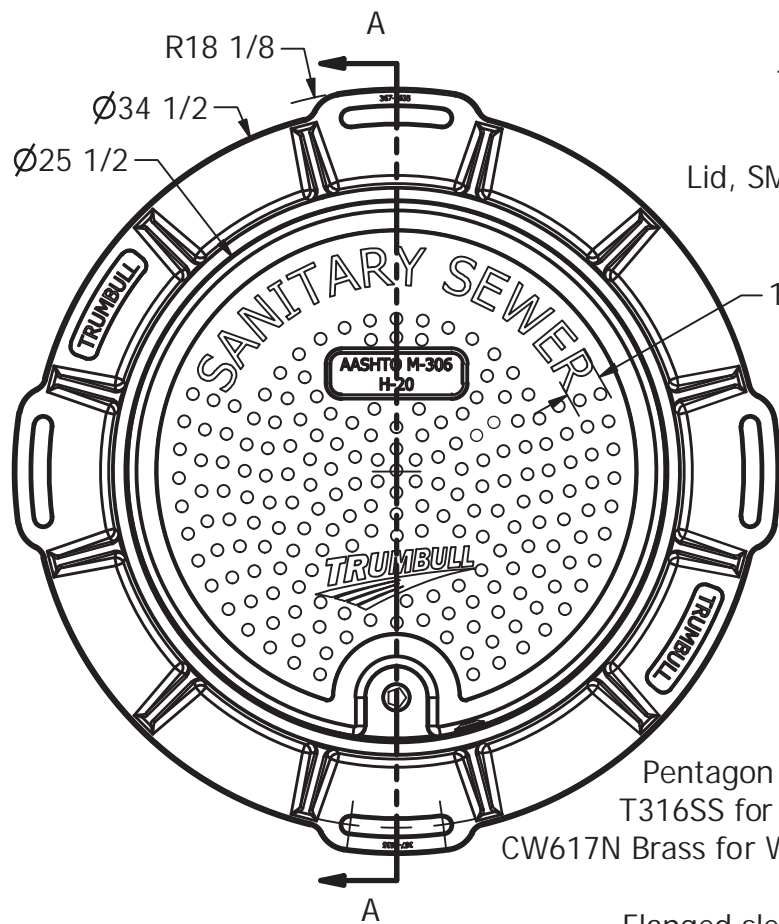


Ask your Trumbull Rep about cities and towns that have already installed our Frames and Covers!

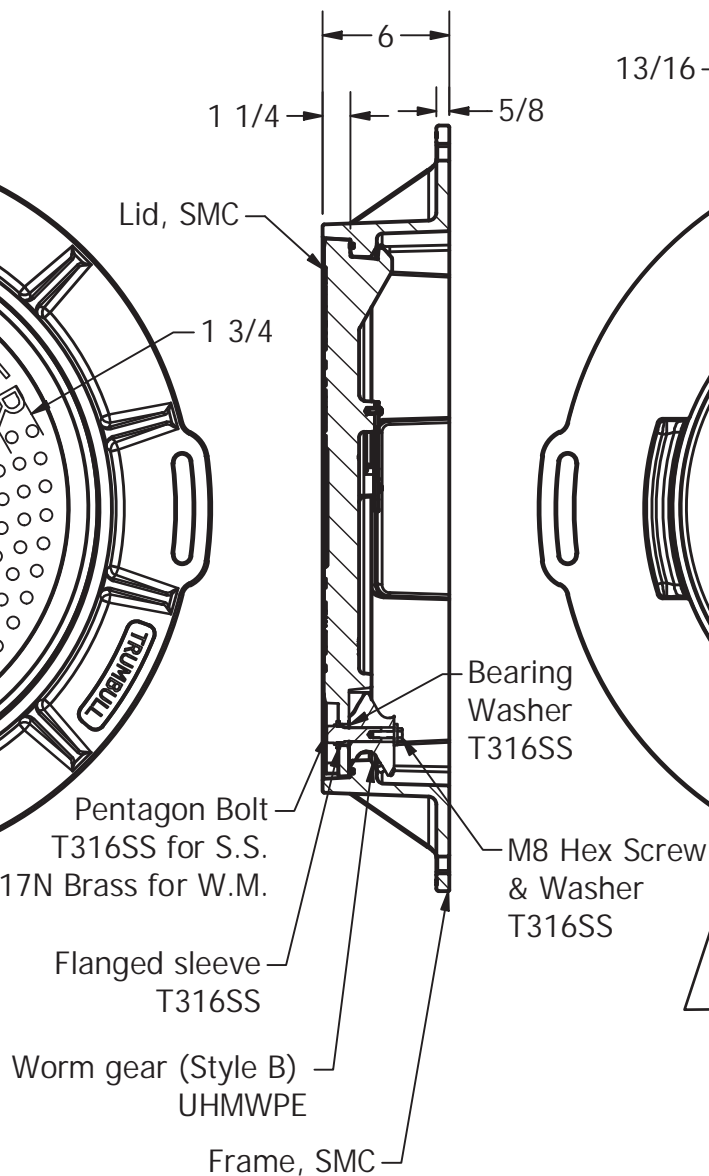
Flange OD	Dimensions of Lids that will Fit	Height	Locking Mechanism	Frame Item №	Sanitary Sewer Lid Item №	Water Meter Lid Item №	Total Weight
34-1/2"	25-1/2" x 1-1/4"	6"	Worm Gear	367-5635	367-5626	367-5528	109.50 lbs.

For dimensions, load ratings and additional options, refer to the product information chart on page 26 (WATER METER) and page 45 (SANITARY SEWER).

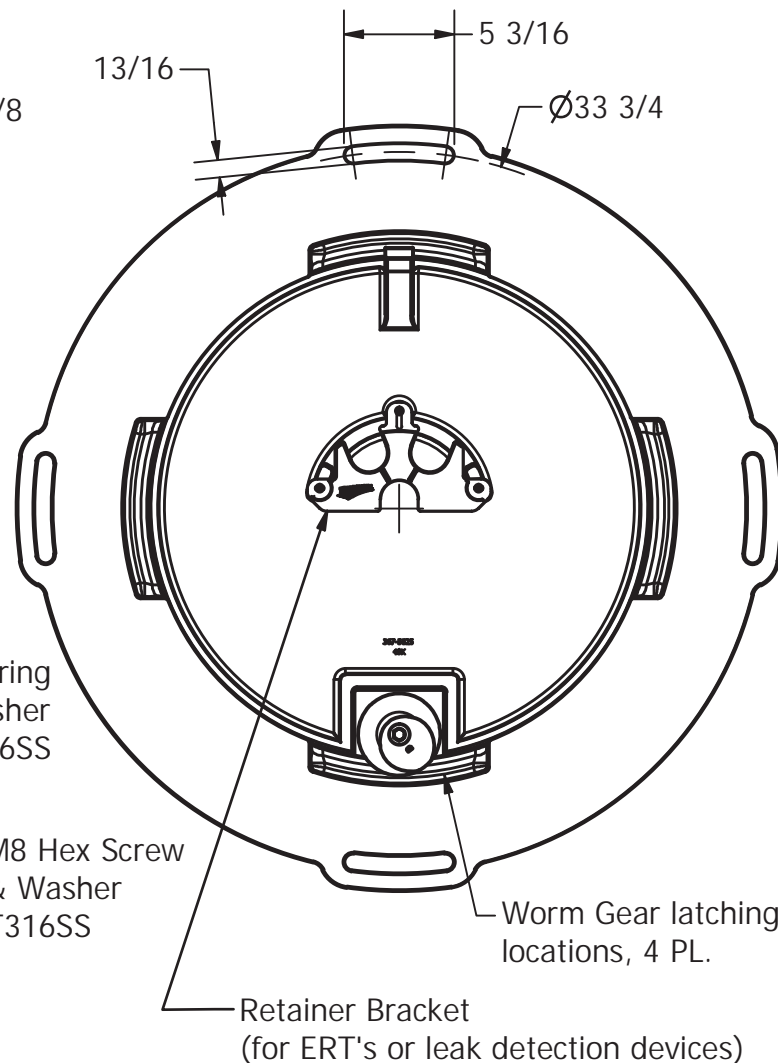
Lid weight = 51.5 lbs.
Frame weight = 58 lbs.



SECTION A-A



40,000 lbs. load rating, H-20



Frame part number:
367-5635
Lid part number:
367-5626 (Sanitary Sewer)
367-5528 (Water Meter)

25-1/2" x 1-1/4" Lid & Frame
(23-7/8" Frame Clear Opening)
Drawn to Scale

Drawn:
BJE
12/05/19

Original Document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

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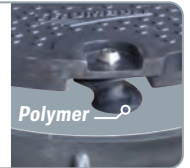
Composite Manhole Frames and Covers

Worm Gear Style – For Use with 23-3/4" x 1" Covers

- Composite design can pass a 40,000 lbs. proof load test per AASHTO M-306, H-20, yet weighs only one-third of comparable cast iron frame, reducing back and finger injuries.
- Frame's composite construction provides corrosion resistance, making it suitable for both water and sewer applications.



Use with **POLYMER WORM GEARS ONLY**; NOT for use with ductile iron worm gears.



4 WORM GEAR LATCHES

allow cover to be placed in any of 4 directions

BADGER LTE ADAPTER RECESSES

allow up to 4 Badger LTE Adapters to be mounted in frame, which eliminates risk of ripping wire when removing lid or damage to endpoint



FRAME SLOTS



Ask your Trumbull Rep about cities and towns that have already installed our Frames and Covers!

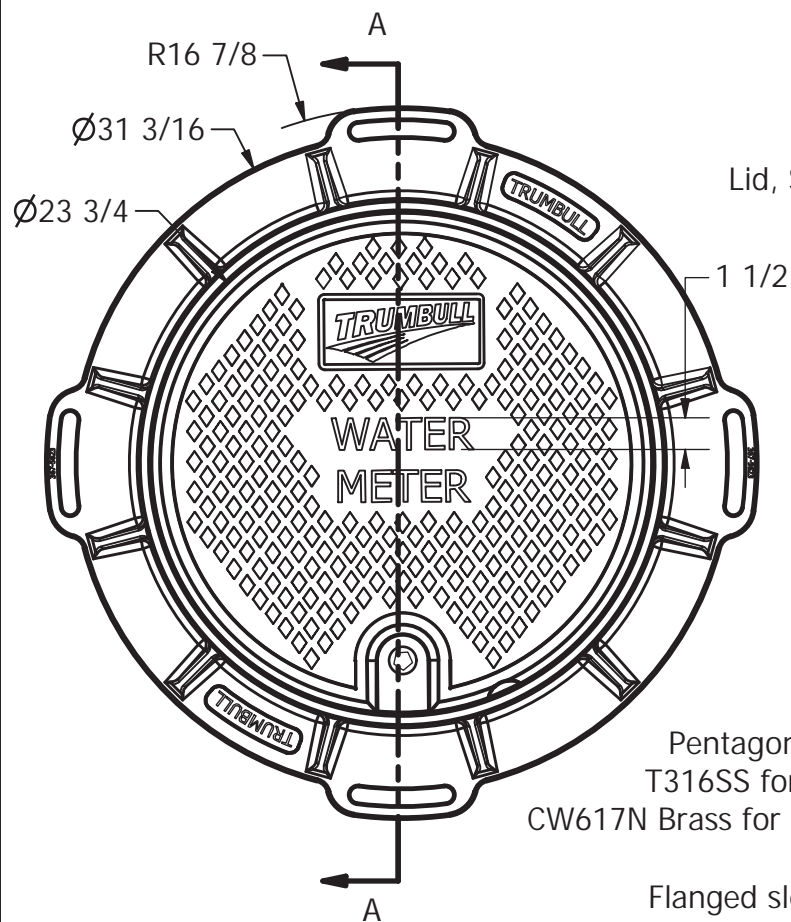
Flange OD	Dimensions of Lids that will Fit	Height	Locking Mechanism	Frame Item No	Sanitary Sewer Lid Item No	Water Meter Lid Item No	Total Weight
31-3/16"	23-3/4" x 1"	4"	Worm Gear	367-5623	367-5624	367-8910	79.60 lbs.

For dimensions, load ratings and additional options, refer to the product information chart on page 24 (WATER METER) and page 45 (SANITARY SEWER).

Lid weight = 44.3 lbs.
Frame weight = 35.3 lbs.

SECTION A-A

40,000 lbs. load rating, H-20



Pentagon Bolt
T316SS for S.S.
CW617N Brass for W.M.

Flanged sleeve
T316SS

Worm gear (Style B)
UHMWPE

Frame, SMC

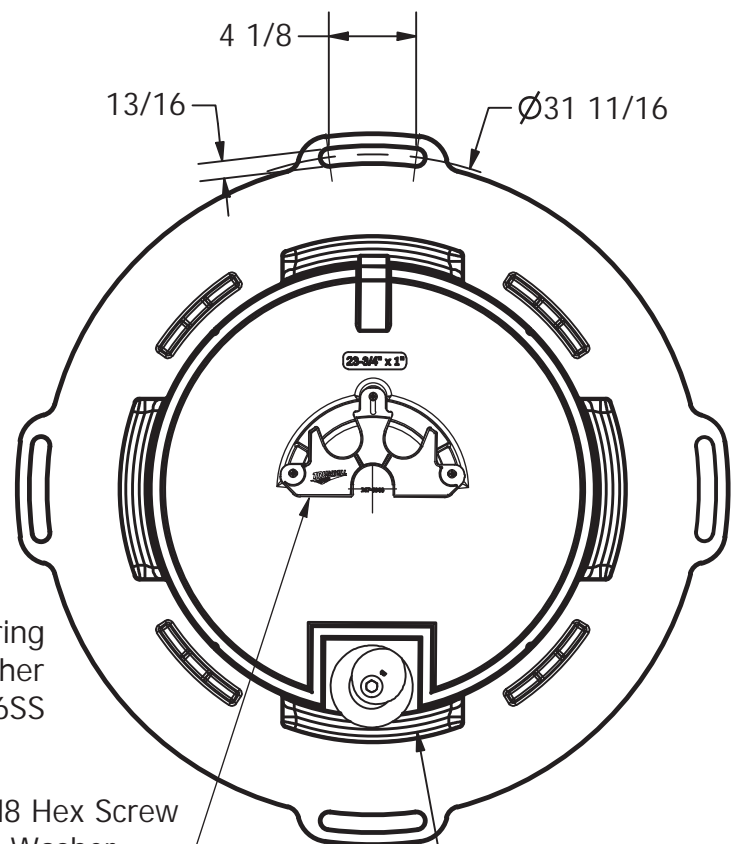
Lid, SMC

Bearing
Washer
T316SS

M8 Hex Screw
& Washer
T316SS

Retainer Bracket
(for ERT's or leak detection devices)

Worm Gear latching
locations, 4 PL.



Frame part number:
367-5623

Lid part number:
367-5624 (Sanitary Sewer)
367-8910 (Water Meter)

23-3/4" x 1" Lid & Frame
(21-1/2" Frame Clear Opening)
Drawn to Scale

Drawn:
BJE
12/09/19

Original Document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com



PENTAGON BOLTS: Sanitary sewer lids are normally furnished with standard (27/32") T316SS pentagon bolt. Not furnished on drop-in style lids.

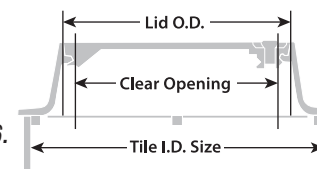
WORM GEARS: Lids furnished with ductile worm gears. Not furnished on drop-in style lids.

LETTERING: Lids normally furnished marked "SANITARY SEWER", special lettering available.

BEARING WASHERS: Composite Lids include a T316SS bearing washer below the lid and T316SS flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

FLOW MONITORING: Please inquire about custom brackets to mount flow monitoring equipment under the lid.

ADDITIONAL NOTES: Explanations for asterisk (*) and (") points shown on page 46.



LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess
21-3/8" OD Clear Opening: 19-13/16" Rim Thickness: 15/16" "SEWER"	40,000 lbs. / Composite DROP-IN STYLE Solid Lid* with Pick Hole Retainer Bracket	Capitol Foundry #14000-10 Richmond, VA	367-5695 28.60 lbs.
22-3/4" OD Clear Opening: 21" Rim Thickness: 1-11/16"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lid* Retainer Bracket	EJ 1020, Neenah R-1580	367-5619 45.70 lbs.
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR *** Solid Lid* Retainer Bracket	EJ 1450 and 1690 Neenah R-1771, Neenah R-1785	367-5622 44.80 lbs.
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lid* Retainer Bracket	Trumbull Frame 367-5623	367-5624 44.80 lbs.
25-1/4" OD Clear Opening: 22-3/4" Rim Thickness: 2" "SANITARY SEWER"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lid* Retainer Bracket	EJ 1700	367-5686 63.50 lbs.
25-1/4" OD Clear Opening: 22-3/4" Rim Thickness: 2" "CONFINED SPACE NEORSO"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR Solid Lid* Retainer Bracket	EJ 1700	367-5687 63.50 lbs.

LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	SOLID LID No Antenna Recess
25-1/2" OD Clear Opening: 24-3/16" Rim Thickness: 1-1/4"	40,000 lbs. / Composite DUCTILE IRON WORM GEAR *** Solid Lid* Retainer Bracket	EJ 1040, 1045, 1048 and 1705	367-5625 54.00 lbs.
25-1/2" OD Clear Opening: 24-3/16" Rim Thickness: 1-1/4"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lid* Retainer Bracket	Trumbull Frame 367-5635	367-5626 54.00 lbs.
25-1/2" OD Clear Opening: 24-3/16" Rim Thickness: 1-1/4" "CITY OF TACOMA CONFINED SPACE"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lid* Retainer Bracket	Trumbull Frame 367-5635	367-5627 54.00 lbs.
35-27/32" OD Clear Opening: 34" Rim Thickness: 1.44" "CONFINED SPACE NEORSO"	40,000 lbs. / Composite DROP-IN STYLE Solid Lid* Retainer Bracket	EJ 1585, Neenah R-1752	367-5714 131.30 lbs. 25 pcs min
35-27/32" OD Clear Opening: 34" Rim Thickness: 1.44"	40,000 lbs. / Composite DROP-IN STYLE Solid Lid* Retainer Bracket	EJ 1585, Neenah R-1752	367-5716 131.30 lbs. 25 pcs min

Pricing does not include retainer brackets or antenna adapters (see page 30).

Continued on the right.



LETTERING: Lids normally furnished marked "SANITARY SEWER", special lettering available.

SEAL: All Frame and Cover Assemblies are sealed by an EPDM gasket.

BOLT DOWN LIDS: Are secured to frames with four Xylan coated stainless screws, see page 30 for optional security screws.

PADDLE LOCK LIDS: Are secured to frame with pentagon bolt, see page 30 for optional security bolts.

LID DIMENSIONS, LOAD RATINGS, TYPES AND MATERIALS		FITS FRAME TYPES	BOLT DOWN STYLE	PADDLE LOCK STYLE
23-3/4" OD	50,000 lbs. / Composite	Trumbull Frame 367-5468	367-5789	----
Clear Opening: 21-1/2" ID Rim Thickness: 1"	BOLT-DOWN STYLE Solid Lids* Only		66.10 lbs. Frame and Cover	
26" OD	50,000 lbs. / Composite	Trumbull Frame 367-5705	367-5701	367-5703
Clear Opening: 24" ID Rim Thickness: 1"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		93.00 lbs. Frame and Cover	93.00 lbs. Frame and Cover
32" OD	50,000 lbs. / Composite	Trumbull Frame 367-5794	367-5792	367-5900
Clear Opening: 30" ID Rim Thickness: 1-1/4"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		129.00 lbs. Frame and Cover	129.00 lbs. Frame and Cover
38" OD	50,000 lbs. / Composite	Trumbull Frame 367-5784	367-5795	367-5617
Clear Opening: 36" ID Rim Thickness: 1-1/2"	BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only		236.80 lbs. Frame and Cover	236.00 lbs. Frame and Cover

"ADDITIONAL NOTES"

for Trumbull Meter and Manhole Lids

* Underside of solid lids provide the following options to mount antenna:

1. Trumbull Retainer Bracket, screwed to 3 posts, which will hold the following:

- **ITRON SHELF MOUNT ADAPTER**
- **ITRON THROUGH-THE-LID ADAPTER**, bracket can hold either one or two
- **BADGER**, antenna bracket can hold either one or two
- **NEPTUNE**, bracket can hold one R900 antenna
- **SENSUS**, bracket can hold one antenna
- **ZENNER**, bracket can hold one antenna
- **MUELLER**, bracket can hold one antenna



2. A Trumbull retainer bracket can be mounted to the underside of lid to hold a flow monitoring device or other equipment.

3. Post adapters, screwed to one post on the lid:

- **ITRON 100W ADAPTER**, item #367-5796 (snap-in design)
- **ITRON RIVA ADAPTER**, item #167-5000 (snap-in design)
- **BADGER LTE ADAPTER**, item #367-5000

** Neptune (figure 8) holes accepts either Neptune Touch Read or R900 antennas.

*** X-Frame style lids will seat, but not hinge.

▪ Slots need to be cut or ground into existing frame in order for the paddle locks to lock in frame.

*** A ductile iron worm gear is required when cover is used with an iron frame, and UHMWPE worm gear when used with a composite frame.



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

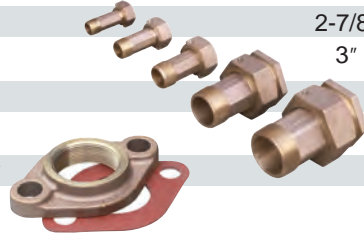
Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

Brass Meter Couplings and Meter Flanges

Complete w/gasket. Additional gaskets can be purchased separately. Shown in more detail on page E-54 of our Catalog.

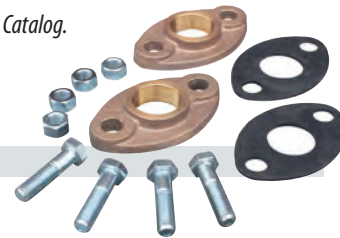
ITEM#	SIZE OF METER	LAYING LENGTH	WEIGHT
368-0590	Coupling, 1/2" (for 5/8" x 3/4" & 3/4" meters)	2-3/8"	0.44 lbs.
368-0591	Coupling, 1/2" (for 5/8" x 1/2" meters)	2-3/8"	0.25 lbs.
368-0646	Coupling, 1/2" (for 5/8" x 3/4" & 3/4" meters)	1-5/8"	0.40 lbs.
368-0593	Coupling, 3/4" (for 5/8" x 3/4" & 3/4" meters)	2"	0.45 lbs.
368-0592	Coupling, 3/4" (for 5/8" x 3/4" & 3/4" meters)	2-1/2"	0.50 lbs.
368-0595	Coupling, 1"	2-5/8"	0.70 lbs.
368-0597	Coupling, 1-1/2", less bushing**	2-7/8"	1.85 lbs.
368-0598	Coupling, 2", less bushing**	3"	2.65 lbs.
368-0618	Bushing, for 1-1/2" Coupling**		0.85 lbs.
368-0619	Bushing, for 2" Coupling**		1.20 lbs.
379-1015	Flange w/full-face gasket, 1-1/2"		2.00 lbs.
379-1016	Flange w/full-face gasket, 2"		2.45 lbs.



Meter Flange Kits

Kits include 2 flanges, 2 gaskets and 4 fasteners (bolts and nuts). Shown in more detail on page E-54 of our Catalog.

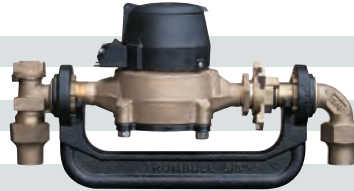
DESCRIPTION	ZINC-PLATED FASTENERS ITEM#	BRASS FASTENERS ITEM#	STAINLESS FASTENERS ITEM#
Brass Meter Flange Kit, 1-1/2"	379-2015	379-2025	379-2030
Brass Meter Flange Kit, 2"	379-2016	379-2026	379-2031



Meter Yokes, Expansion Connections and Gaskets

Shown in more detail on page E-55.

ITEM#	DESCRIPTION	WEIGHT
367-5470	Meter Yoke, for 5/8" meters	3.65 lbs.
367-5469	Meter Yoke, for 5/8" x 3/4" meters	4.20 lbs.
367-5471	Meter Yoke, for 3/4" meters	4.60 lbs.
367-5472	Meter Yoke, for 1" meters	7.30 lbs.
368-0630	Expansion Connection, for 5/8" meters	0.72 lbs.
368-0632	Expansion Connection, for 5/8" x 3/4" or 3/4" meters	0.93 lbs.
368-0635	Expansion Connection, for 1" meters	1.61 lbs.



Meter Adapters



Shown in more detail on page E-53 of our Catalog.

ITEM#	FORD #	ORIGINAL METER		NEW METER		QUANTITY REQUIRED	WEIGHT
		METER SIZE	LAYING LENGTH	METER SIZE	LAYING LENGTH*		
368-0642	A13	3/4"	9"	5/8"	7-1/2"	2	0.4 lbs.
368-0643	A14	1"	10-3/4"	5/8"	7-1/2"	2	0.4 lbs.
368-0639	A23	3/4"	9"	5/8" x 3/4"	7-1/2"	1	0.4 lbs.
368-0641	A24	1"	10-3/4"	5/8" x 3/4" & 3/4" **	7-1/2"	2	0.6 lbs.
368-0644	A34	1"	10-3/4"	3/4"	7-1/2"	2	0.4 lbs.
368-0640	A44	1"	10-3/4"	3/4" x 1"	9"	1	0.7 lbs.
379-1022	A47	2" flange	17"	1"	10-3/4"	2	3.2 lbs.

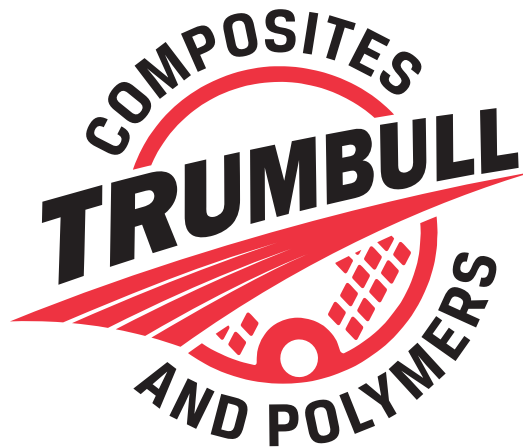
RELATED BRASS PRODUCTS

SPECIALTY PRODUCTS FOR THE WATERWORKS AND VALVE INDUSTRIES

Our product categories include waterworks tools, valve position indicators, polywrap, joint restraints products, meter pit lids and couplings, valve and curb box accessories, as well as valves and accessories for water/wastewater treatment plants.

We specialize in unique and customized accessories for the valve market. We have pioneered cast stainless valve accessories such as stainless chainwheels, floorstands, wall brackets and stem guides. Other innovations include our valve position indicators and cast stainless mud valves that have been thoughtfully designed to meet the highest expectations of Engineers and Operators. Trumbull Manufacturing is a leader in providing thermoplastic and composite lids for water meter changeout programs, as well as composite manhole frames and covers.

We stand behind our product with experienced Engineering, Quality Control and Field Service personnel. Our products are designed for long life, and are rigorously tested, in-house and at independent labs. Our inside sales staff is passionate about customer satisfaction, contact them today.



Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

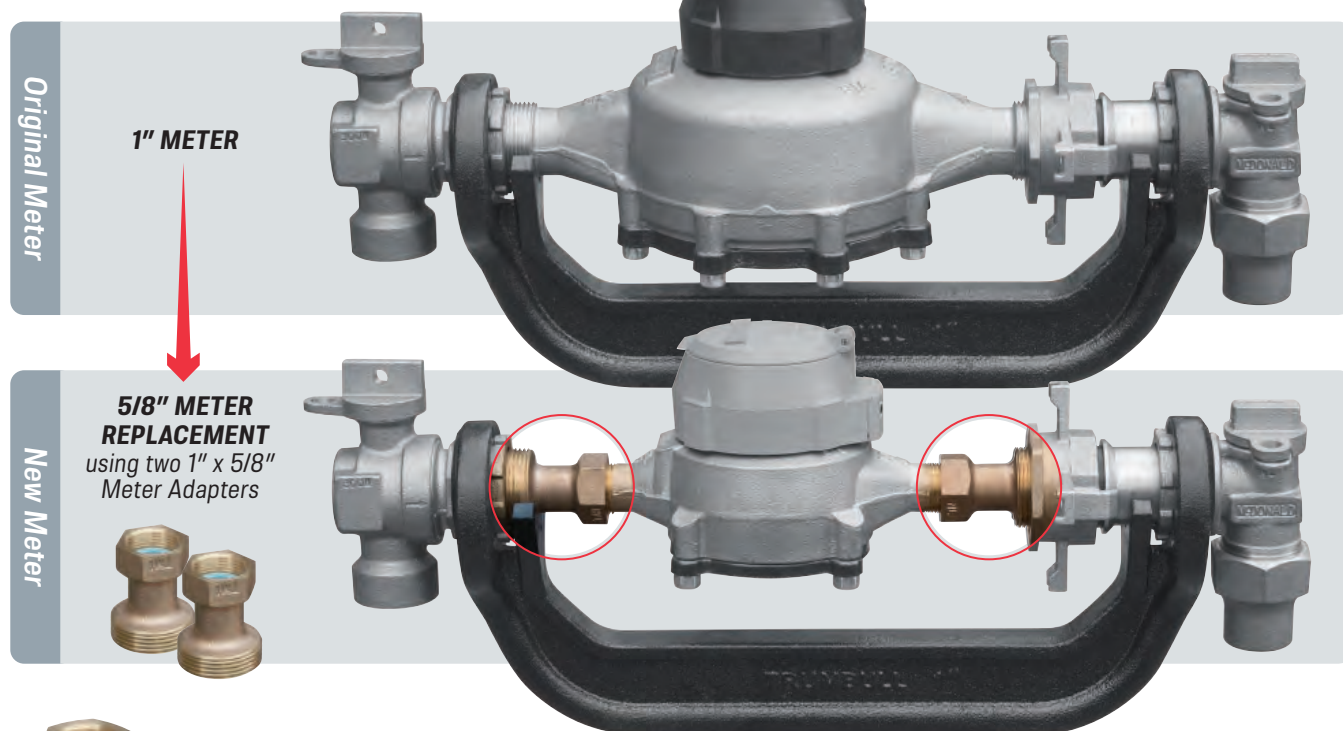
Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

www.trumbull-mfg.com

Meter Adapters

When changing meter sizes in an existing setting, use Trumbull Meter Adapters to make up the difference in length and thread size. Our Meter Adapters are cast from UNS C89833 brass and have been certified by UL for compliance with NSF/ANSI 61 and NSF/ANSI 372, per the U.S. Safe Drinking Water Act.

HERE'S AN EXAMPLE OF HOW THEY WORK:



Item No	Weight	Ford No	Original Meter		New Meter		Quantity Required
			Meter Size	Laying Length	Meter Size	Laying Length*	
368-0642	0.4 lbs.	A13	3/4"	9"	5/8"	7-1/2"	2
368-0643	0.4 lbs.	A14	1"	10-3/4"	5/8"	7-1/2"	2
368-0639	0.4 lbs.	A23	3/4"	9"	5/8" x 3/4"	7-1/2"	1
368-0641	0.6 lbs.	A24	1"	10-3/4"	5/8" x 3/4" & 3/4" **	7-1/2"	2
368-0644	0.4 lbs.	A34	1"	10-3/4"	3/4"	9"	2
368-0640	0.7 lbs.	A44	1"	10-3/4"	3/4" x 1"	9"	1
379-1022	3.2 lbs.	A47	2" Flange	17"	1"	10-3/4"	2

* Meter Adapters are provided with a hard fiber gasket to maintain existing laying lengths, however, for polymer meters with pressed on metal threads, a soft rubber gasket is required; please specify on order. Adapter No. 379-1022 is provided with one 2" rubber flange gasket and one 1" rubber gasket.

** 3/4" meters have been made with 7-1/2" and 9" laying lengths; Adapter No. 368-0641 is designed for 3/4" meters with 7-1/2" laying length.

Meter Couplings and Flanges WITH GASKETS

Certified by UL for compliance with NSF/ANSI 61 and NSF/ANSI 372, per the U.S. Safe Drinking Water Act



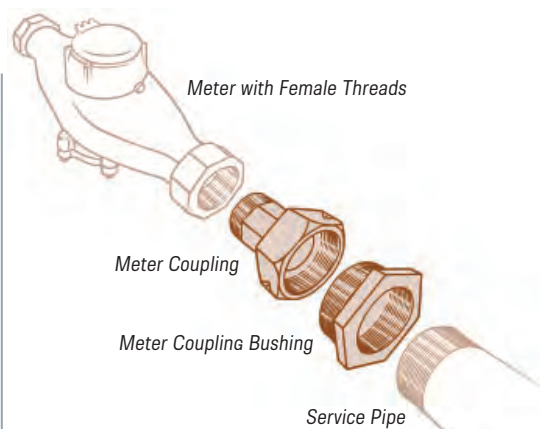
Meter Couplings

- Barrel is in contact with water and is cast brass to meet UNS C89833.
- Swivel nut does not contact water and is cast from UNS C83600.

Item No	Male Thread	Fits Meter Size	Laying Length	Weight
368-0590	1/2"	5/8" x 3/4" and 3/4"	2-3/8"	0.44 lbs.
368-0591	1/2"	5/8" x 1/2"	2-3/8"	0.25 lbs.
368-0646	1/2"	5/8" x 3/4" and 3/4"	1-5/8"	0.40 lbs.
368-0593	3/4"	5/8" x 3/4" and 3/4"	2"	0.45 lbs.
368-0592	3/4"	5/8" x 3/4" and 3/4"	2-1/2"	0.50 lbs.
368-0595	1"	1"	2-5/8"	0.70 lbs.
368-0597	1-1/2"	1-1/2"	2-7/8"	1.85 lbs.
368-0598	2"	2"	3"	2.65 lbs.

Bushings

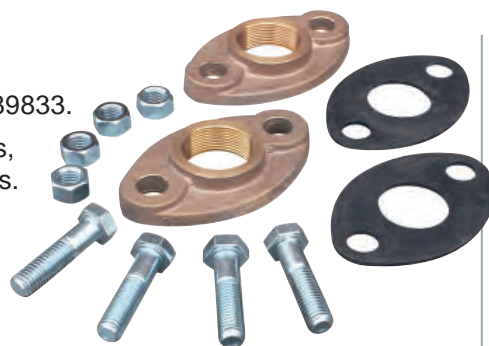
For use with 1-1/2" or 2" meters with female threads, as shown below.



Item No	Size	Fits Coupling	Weight
368-0618	1-1/2"	1-1/2"	0.85 lbs.
368-0619	2"	2"	1.20 lbs.

Meter Flange Kits

- Cast brass to meet UNS C89833.
- Boxed kit includes 2 flanges, 2 gaskets & 4 bolts and nuts.



Item No	Size	Fits Meter	Fastener Material	Weight
379-2015	1-1/2"	1-1/2"	zinc-plated	5.40 lbs.
379-2025	1-1/2"	1-1/2"	brass	5.40 lbs.
379-2030	1-1/2"	1-1/2"	stainless steel	5.40 lbs.
379-2016	2"	2"	zinc-plated	7.10 lbs.
379-2026	2"	2"	brass	7.10 lbs.
379-2031	2"	2"	stainless steel	7.10 lbs.

Meter Flanges

Sold Individually

- Cast brass to meet UNS C89833.
- Includes one flange and one gasket.



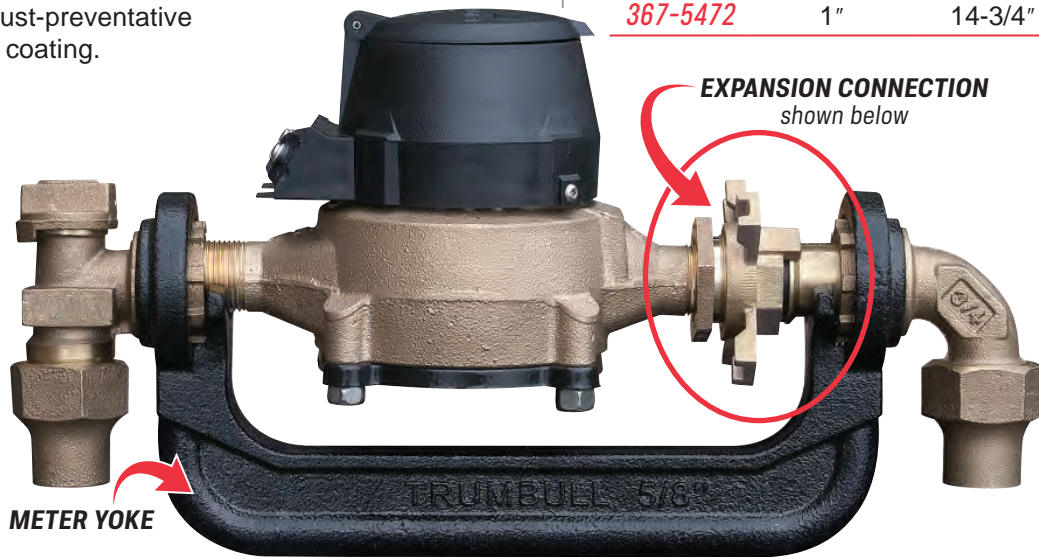
Item No	Size	Fits Meter	Weight
379-1015	1-1/2"	1-1/2"	2.00 lbs.
379-1016	2"	2"	2.45 lbs.

Cast Iron Meter Yokes

Trumbull Meter Yokes provide uniform spacing and alignment for setting water meters. Used in conjunction with Expansion Connections for easy installation and removal of meters.

Cast of gray iron, Class 25, with rust-preventative black coating.

Item No	Meter Size	Length	Height	Weight
367-5470	5/8"	10-15/16"	4-1/8"	3.65 lbs.
367-5469	5/8" x 3/4"	10-15/16"	4-1/8"	4.20 lbs.
367-5471	3/4"	12-1/2"	4-1/8"	4.60 lbs.
367-5472	1"	14-3/4"	5-1/4"	7.30 lbs.

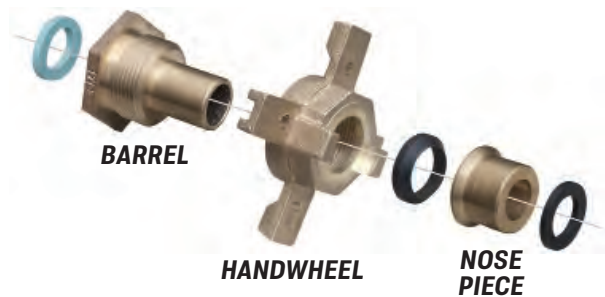


Expansion Connections

Expansion Connections are screwed onto one end of a meter and allow for easy installation and removal from Meter Yoke. Turning the Handwheel causes expansion into the rubber gaskets in the Yoke, creating a water-tight seal.

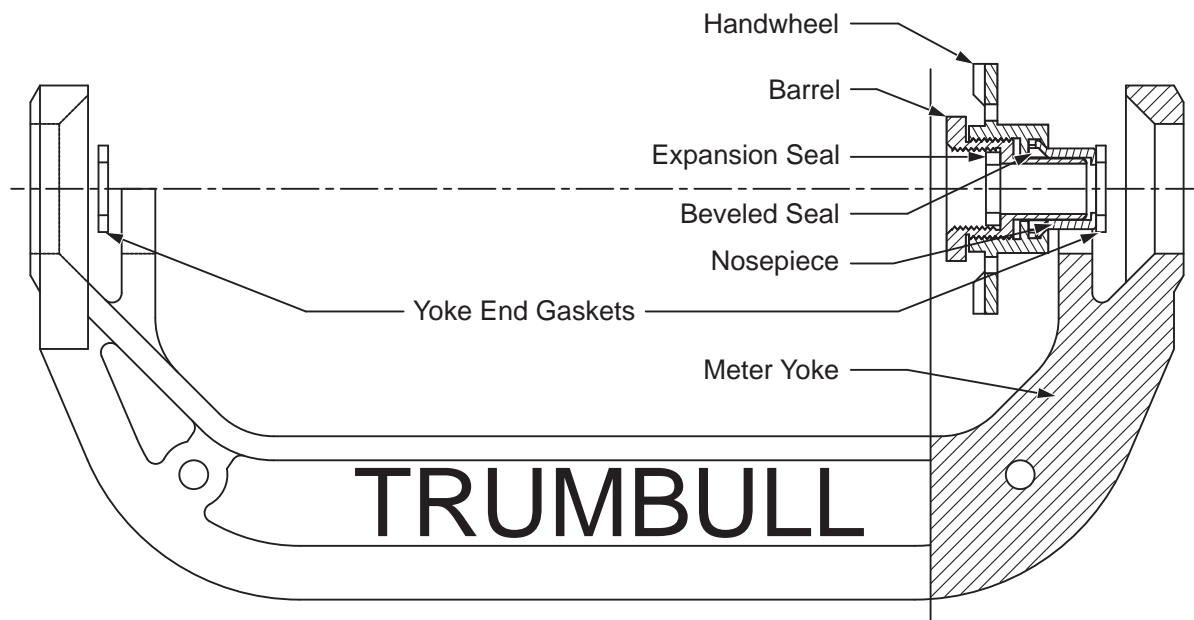
Nose Piece and Barrel are in contact with water and are cast from UNS C89833 brass. Certified by UL for compliance with NSF/ANSI 61 and NSF/ANSI 372, per the U.S. Safe Drinking Water Act.

Handwheel does not contact water and is cast from UNS C83600. Both the flat seal yoke gaskets and bevelled seal gasket are EPDM. Expansion seal gasket between barrel and meter is fiber; however, for polymer meters with pressed on metal threads, a soft rubber gasket is required. Please specify on order. All gaskets are NSF-61.



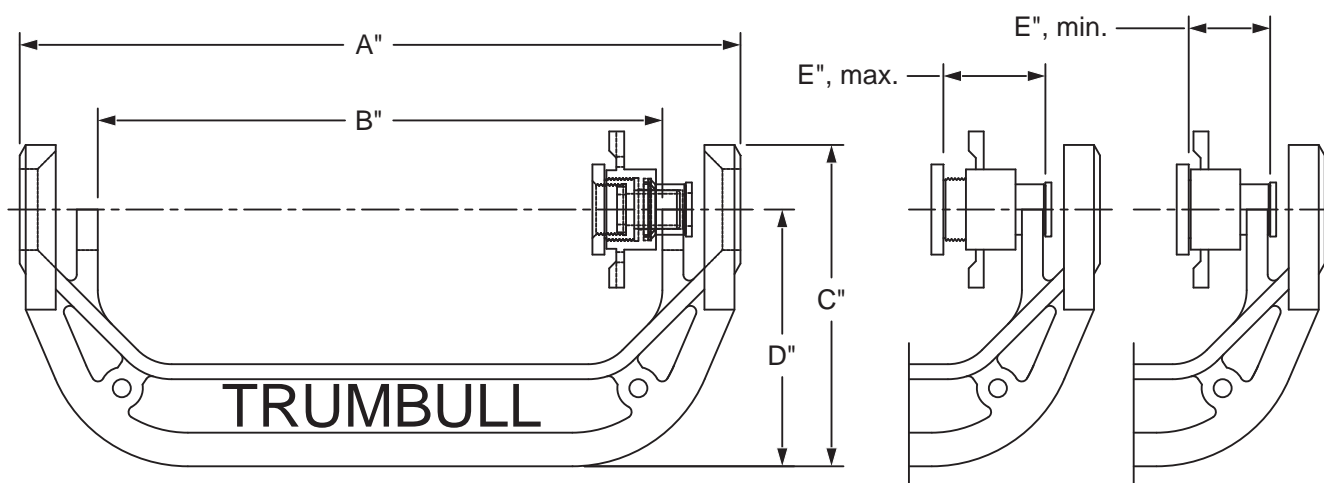
Dimensions of Yokes & Expansion Connections are consistent & interchangeable with other industry manufacturers.

Item No	Meter Size	Size	Type	Weight
368-0630	5/8"	5/8"	Handwheel	0.72 lbs.
368-0632	5/8" x 3/4" & 3/4"	3/4"	Handwheel	0.93 lbs.
368-0635	1"	1"	Handwheel	1.61 lbs.



Barrel and Nosepiece are in contact with potable water and will conform to UNS C89833. They will be marked, "NL", and are certified by UL for compliance with NSF/ANSI 61 and NSF/ANSI 372, per the U.S. Safe Drinking Water Act. EPDM and fiber seals meet NSF/ANSI 61.

Handwheel is not in contact with potable water and will conform to UNS C83600.



Meter Size	Yoke						Expander			
	A"	B"	C"	D"	Wt., lbs.	Item No.	Bore Size	E", min. - max.	Wt., lbs.	Item No.
5/8"	10.69"	8.19"	5.16"	3.88"	3.9	367-5470	0.59"	1.44" - 1.75"	0.65	368-0630
5/8" x 3/4"	10.94"	8.34"	5.16"	3.88"	4.1	367-5469	0.72"	1.75" - 2.0"	0.85	368-0632
3/4"	12.31"	9.81"	5.16"	3.88"	4.4	367-5471	0.72"	1.75" - 2.0"	0.85	368-0632
1"	14.88"	11.75"	6.69"	5.34"	7.25	367-5472	0.97"	2.19" - 2.63"	1.65	368-0635

Material:
ASTM Class 30 Gray Iron,
black E-coat all surfaces.

UNS C89833 - Barrel and Nosepiece certified
by UL for compliance with NSF/ANSI 61 and
NSF/ANSI 372, per the U.S. Safe Drinking
Water Act. (In contact with potable water).

**METER YOKE and
EXPANSION CONNECTIONS**
Drawn to Scale

Drawn:
FCN
05/19/14

Revision:
FCN
© 04/07/15

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

 US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Valve Position Indicators

For Buried Service with 1-1/4" Square Extension Stems

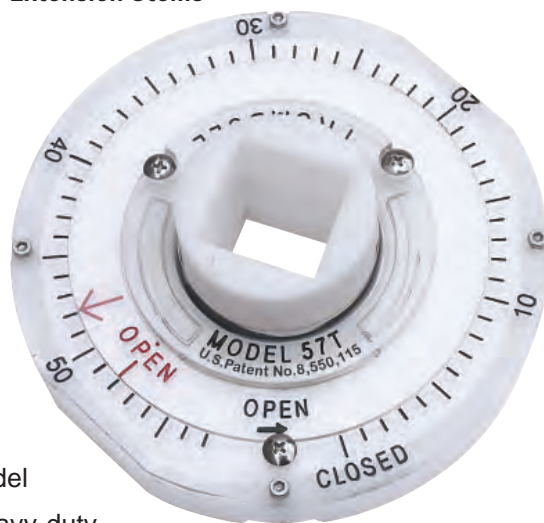


Optional
DEBRIS SHIELD
keeps valve box
clean and Position
Indicator legible

**POSITION
INDICATOR**

**NO FIELD
DRILLING
OR PINNING
REQUIRED**
WITH SQUARE
EXTENSION STEMS!

- Eliminates broken valve stems caused by over-opening or over-closing
- Field-adjustable for any number of turns within the range of each model
- Constructed of heavy-duty, non-corrosive DuPont™ Delrin® polymer, providing high-impact resistance even in cold climates
- Double O-ring seals keep out water and dirt
- Third-party tested to over 1 million revolutions
- Provided with stainless steel hardware
- Also available for use above ground in the floor or with Wall Brackets (see pages F-9 to F-10)



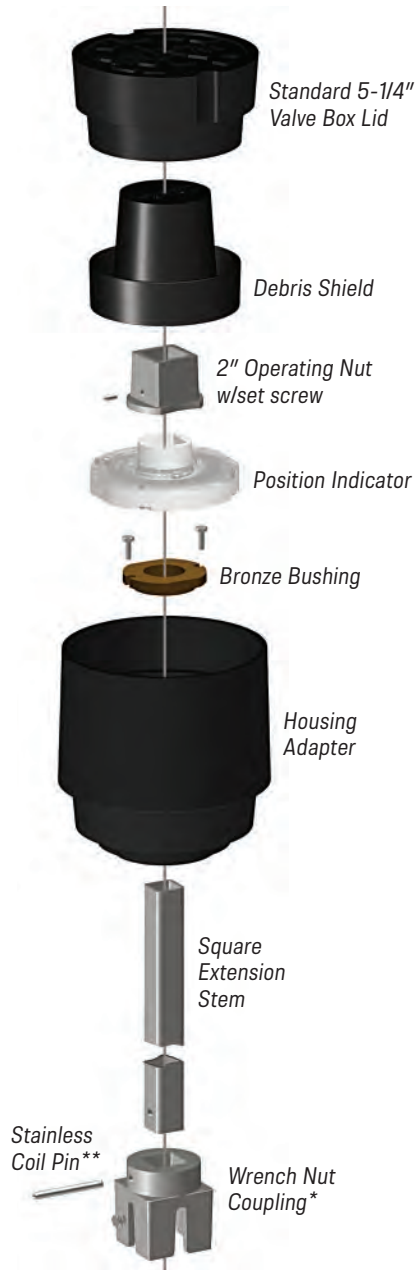
Ordering Instructions

1. Specify direction of open (open left or open right)
2. Model required (available in 57, 275 or 870 turns)

Model Number	Number of Turns	Open Left	Open Right
		Item No	Item No
57T	0 - 57	367-9394	367-9393
275T	0 - 275	367-9396	367-9395
870T	0 - 870	367-9400	367-9399

3. Extension Stem required (1-1/4" square)
 - a. Length required (provide "A" dimension on the illustration shown on right side of page F-2)
 - b. Carbon steel or stainless steel
 - c. Tubing or solid bar
4. Debris Shield, item 367-9415 is recommended for buried service

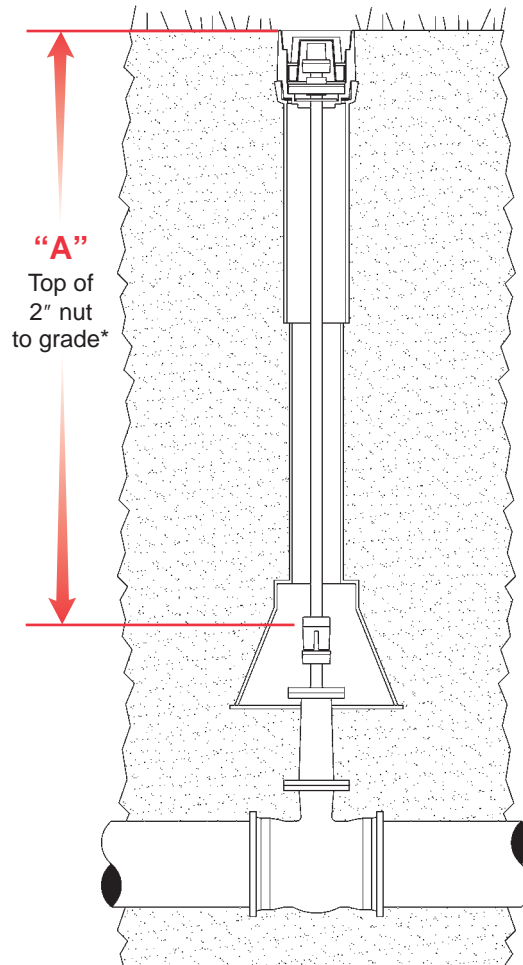
Exploded View of Square Extension Stem for Buried Service



SQUARE EXTENSION STEM

* Wrench nut coupling welded to stem at factory.

** When bottom coupling is purchased separately, pin is provided.



* The dimension from top of 2" valve nut to grade is used to determine Extension Stem length, per ordering instructions on page F-1.

i US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Extension Stem Torque Ratings

Extension Stems rated for a minimum of 300 ft.-lb.

For higher torque capacity, consult Trumbull.



Installation animations online:
www.youtube.com/trumbullmfg



US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Valve Position Indicators

For Buried Service with **Telescopic** Extension Stems

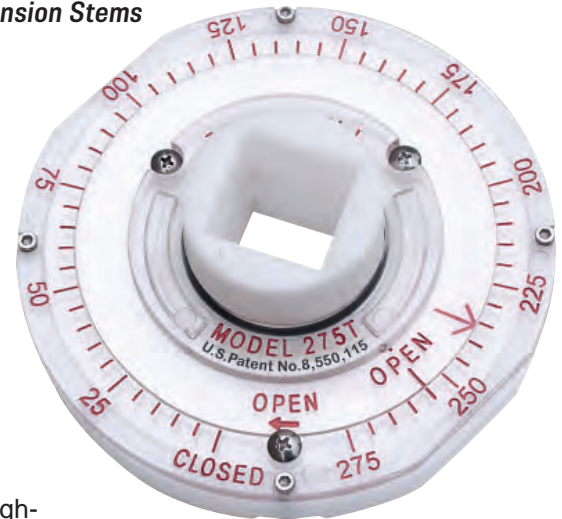


Optional
DEBRIS SHIELD
keeps valve box
clean and Position
Indicator legible

**POSITION
INDICATOR**

**NO
FIELD CUTTING,
DRILLING OR
PINNING REQUIRED**
WITH SQUARE TELESCOPIC
EXTENSION STEMS!

- Eliminates broken valve stems caused by over-opening or over-closing
- Field-adjustable for any number of turns within the range of each model
- Constructed of heavy-duty, non-corrosive DuPont™ Delrin® polymer, providing high-impact resistance even in cold climates
- Double O-ring seals keep out water and dirt
- Third-party tested to over 1 million revolutions
- Provided with stainless steel hardware
- Also available for use above ground in the floor or with Wall Brackets (see pages F-7 to F-10)
- Telescopic stem eliminates the need for precise field measurement of extension stems and provides for ground movement caused by freezing and thawing



Ordering Instructions

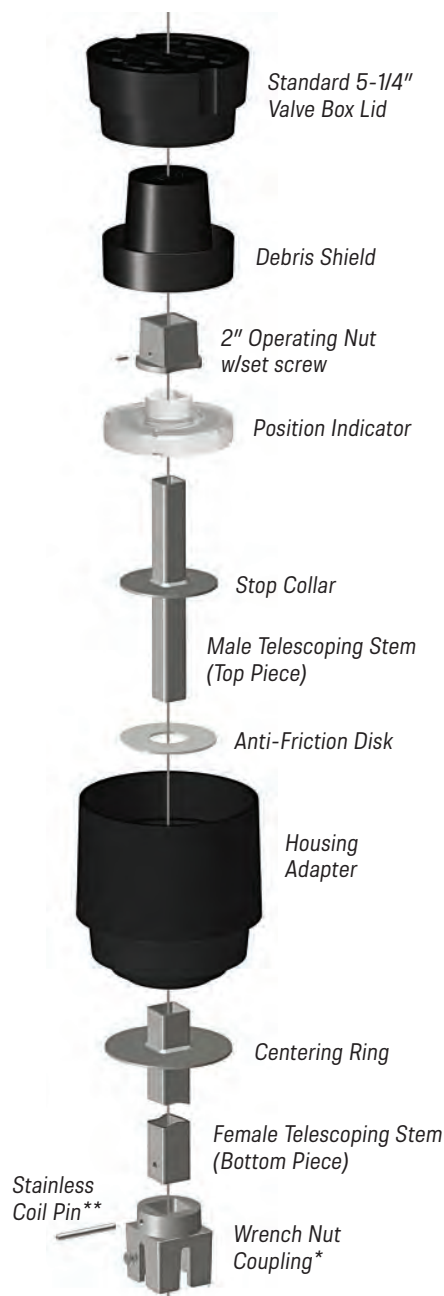
1. Specify direction of open (open left or open right)
2. Model required (available in 57, 275 or 870 turns)

Model Number	Number of Turns	Open Left	Open Right
		Item No	Item No
57T	0 - 57	367-9394	367-9393
275T	0 - 275	367-9396	367-9395
870T	0 - 870	367-9400	367-9399

3. Extension Stem required (telescopic)
 - a. Length required (provide "A" dimension on the illustration shown on right side of page F-4)
 - b. Carbon steel or stainless steel
4. Debris Shield, item **367-9415** is recommended for buried service

Exploded View

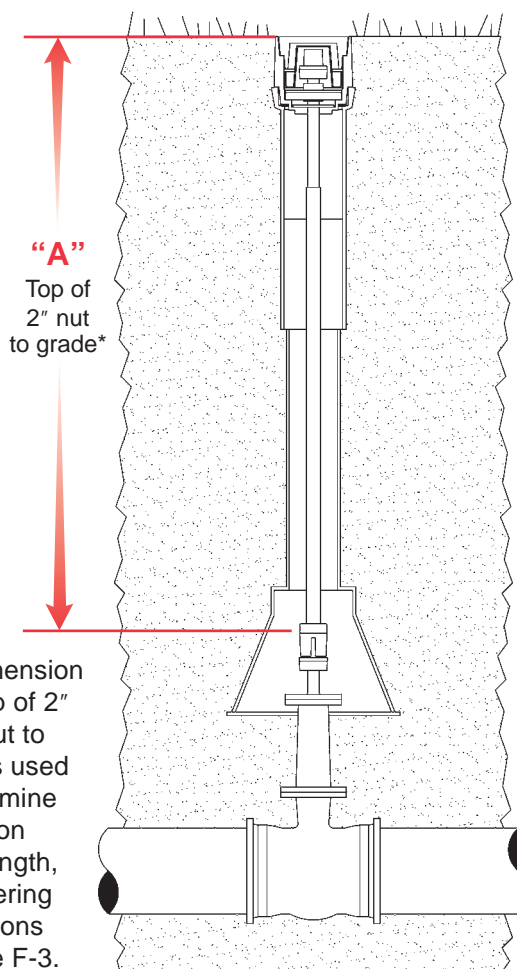
of Telescopic Extension Stem
for Buried Service



TELESCOPIC EXTENSION STEM

* Wrench nut coupling welded to stem at factory.

** When bottom coupling is purchased separately, pin is provided.



* The dimension from top of 2" valve nut to grade is used to determine Extension Stem length, per ordering instructions on page F-3.

US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Extension Stem Adjustment Ranges and Torque Ratings

for Telescopic Extension Stems

Range of Dimension "A"		Square Telescopic Extension Stems		Torque In ft-lb
Minimum	Maximum	Length of 1-1/4" Top Part	Length of 1-1/2" Bottom Part	
3 ft.	4-1/2 ft.	30"	30"	300 ft-lb
4-1/2 ft.	6 ft.	30"	48"	300 ft-lb
6 ft.	7-1/2 ft.	30"	66"	300 ft-lb
7-1/2 ft.	9 ft.	30"	84"	300 ft-lb
9 ft.	10-1/2 ft.	30"	102"	300 ft-lb

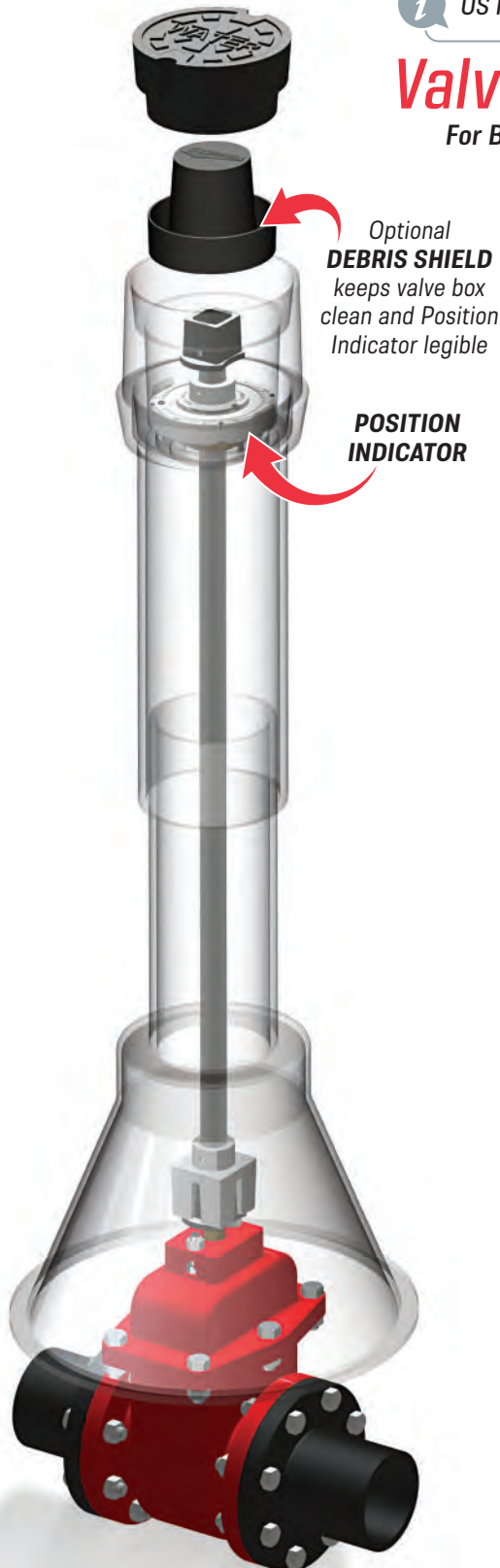
Other stem ranges available upon request.



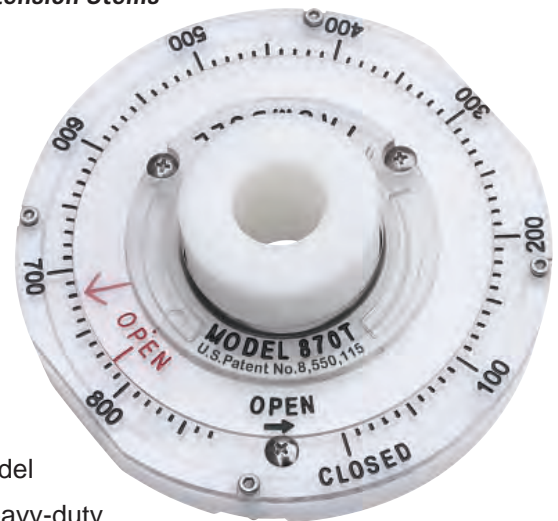
US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Valve Position Indicators

For Buried Service with **Round** Extension Stems



- Eliminates broken valve stems caused by over-opening or over-closing
- Field-adjustable for any number of turns within the range of each model
- Constructed of heavy-duty, non-corrosive DuPont™ Delrin® polymer, providing high-impact resistance even in cold climates
- Double O-ring seals keep out water and dirt
- Third-party tested to over 1 million revolutions
- Provided with stainless steel hardware
- Also available for use above ground in the floor or with Wall Brackets (see pages F-7 to F-10)



Ordering Instructions

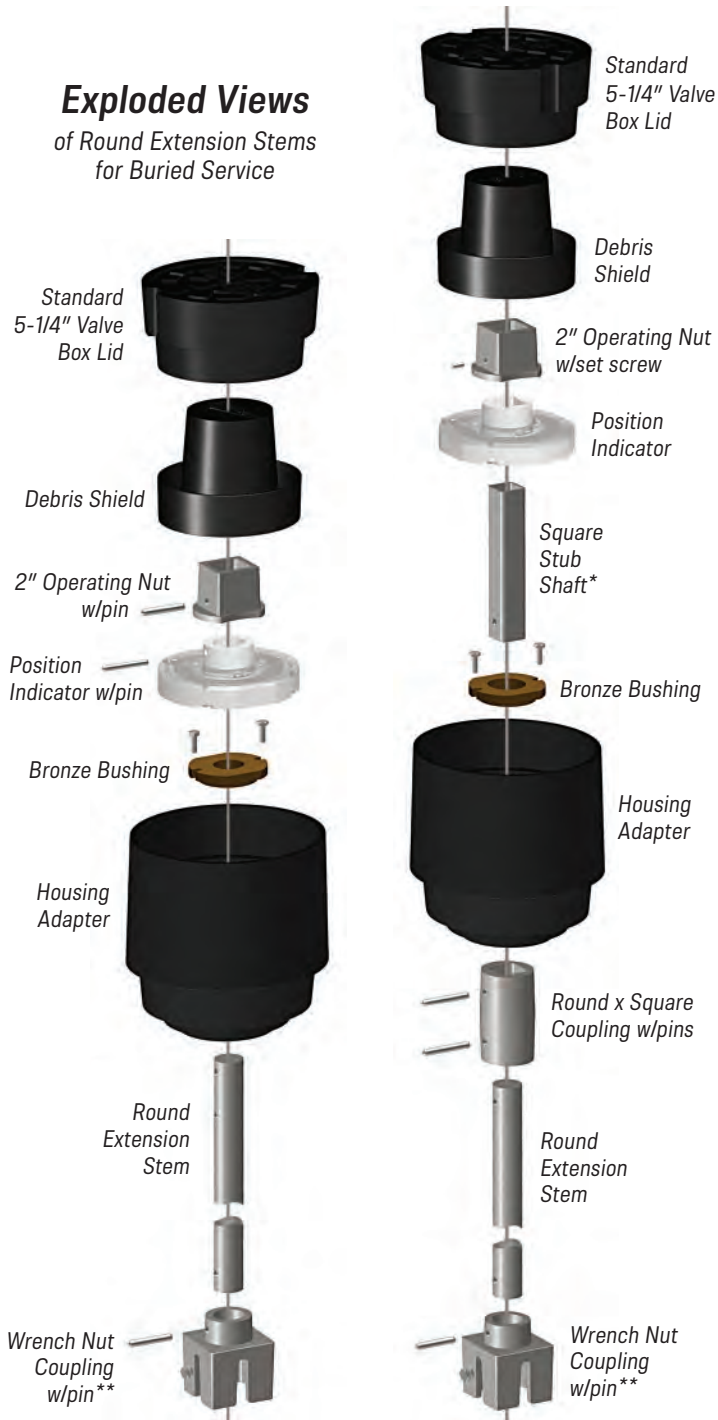
1. Specify direction of open (open left or open right)
2. Model required (available in 57, 275 or 870 turns)

Model Number	Number of Turns	Open Left	Open Right
		Item No	Item No
57T	0 - 57	367-9404	367-9403
275T	0 - 275	367-9406	367-9405
870T	0 - 870	367-9410	367-9409

3. Extension Stem required (round)
 - a. Length required (provide "A" dimension on the illustration shown on right side of page F-6)
 - b. OD required (maximum OD of 1.75")
 - c. Carbon steel or stainless steel
4. Debris Shield, item **367-9415** recommended for buried service

Exploded Views

of Round Extension Stems
for Buried Service



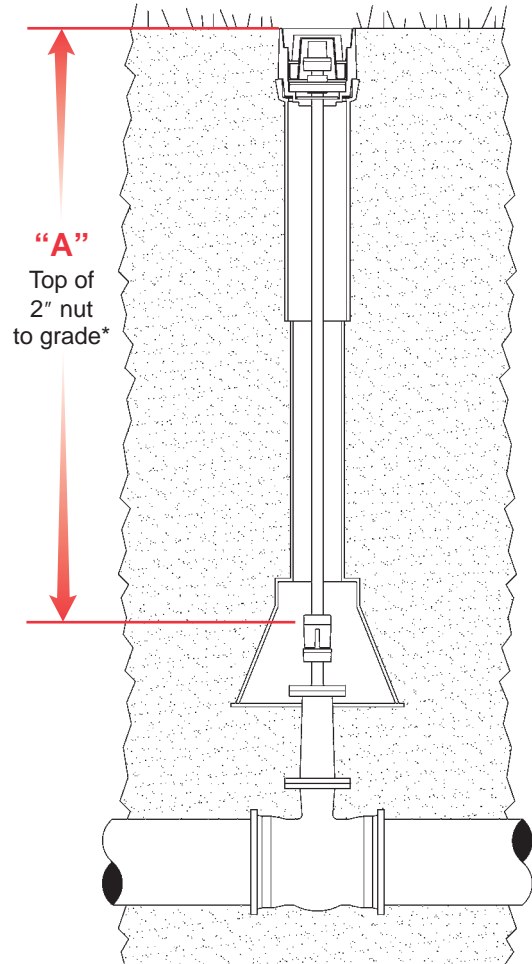
ROUND EXTENSION STEM

or

**ROUND EXTENSION STEM
with Square Stub Shaft***

* Using a square stub shaft saves field drilling and installation of pins inside housing adapter.

** Wrench nut coupling normally furnished pinned to stem.



* The dimension from top of 2" valve nut to grade is used to determine Extension Stem length, per ordering instructions on page F-5.



US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Extension Stem Torque Ratings

Consult your Trumbull Rep for torque ratings.



Installation animations online:
www.youtube.com/trumbullmfg

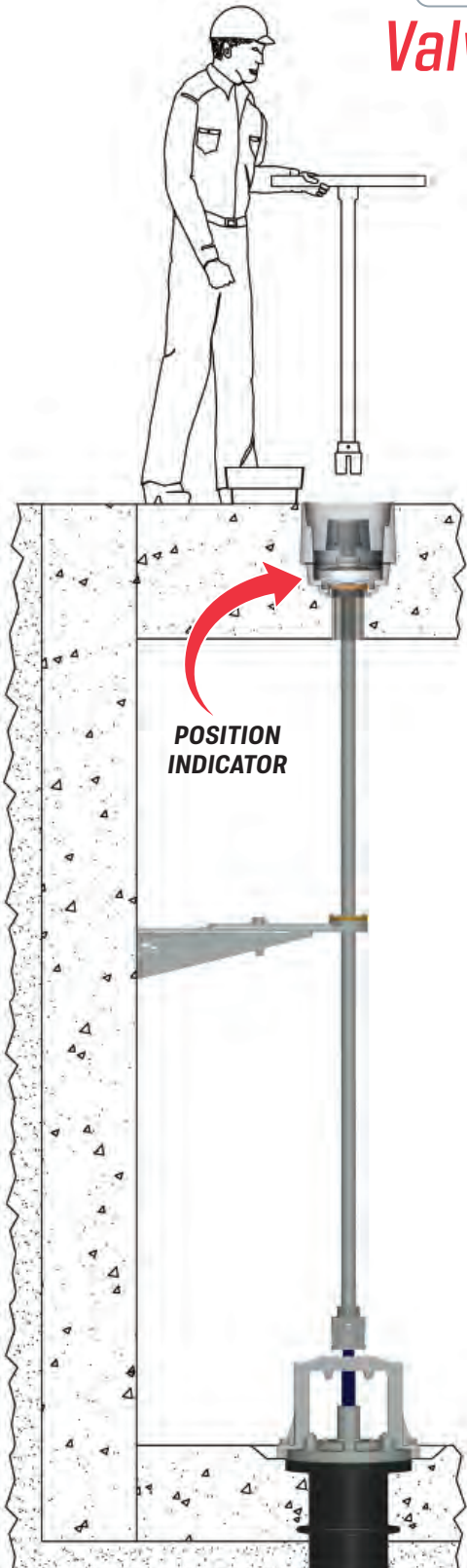
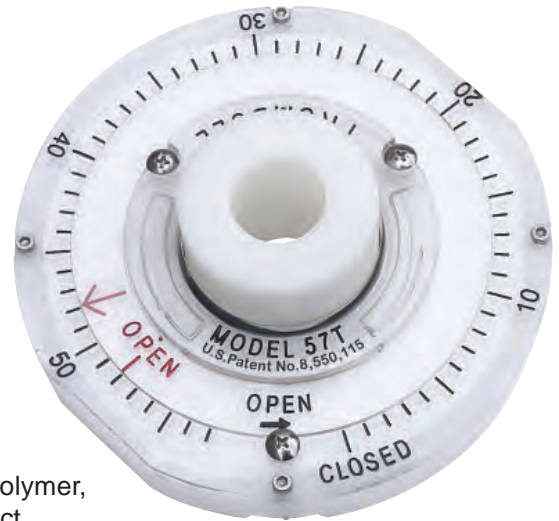


US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Valve Position Indicators

Installation in Floor

- Eliminates broken valve stems caused by over-opening or over-closing
- Field-adjustable for any number of turns within the range of each model
- Constructed of heavy-duty, non-corrosive DuPont™ Delrin® polymer, providing high-impact resistance even in cold climates
- Double O-ring seals keep out water and dirt
- Third-party tested to over 1 million revolutions
- Provided with stainless steel hardware
- Also available w/Wall Bracket for mounting to tank walls (pages F-9 to F-10), and in Valve Boxes for buried service (pages F-1 to F-6)



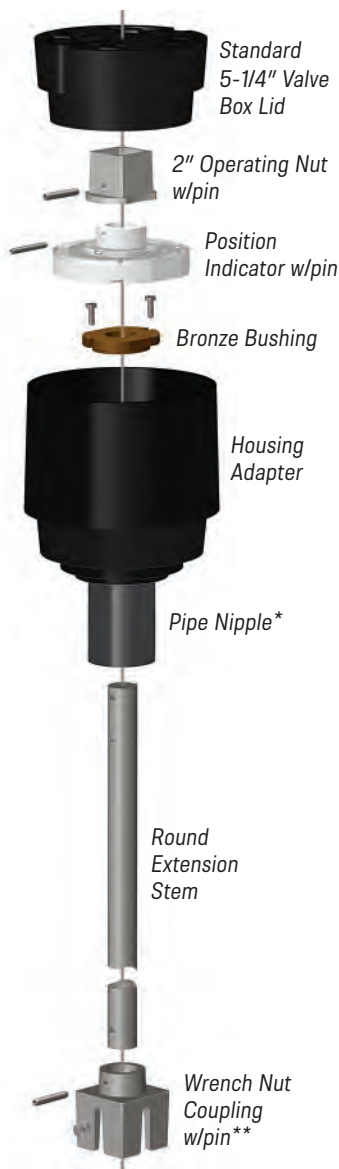
Ordering Instructions

1. Specify direction of open (open left or open right)
2. Model required (available in 57, 275 or 870 turns, shown below)
3. Extension Stem required
 - a. Length required
 - b. Round (maximum OD of 1.75"), 1-1/4" square, or round x square stem (see reverse for details)
 - c. Carbon steel or stainless steel
4. Housing Adapter - Floor Box style
 - a. Cast iron housing (unsealed), see page F-11
 - b. Carbon steel or stainless steel (sealed), see page G-13

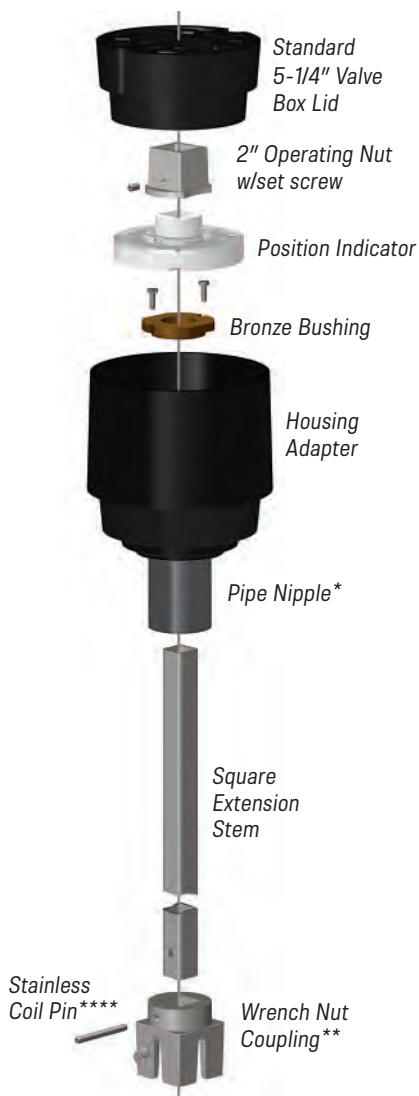
Model Number	Square Ext. Stem		Round Ext. Stem	
	Open Left Item No	Open Right Item No	Open Left Item No	Open Right Item No
57T	367-9394	367-9393	367-9404	367-9403
275T	367-9396	367-9395	367-9406	367-9405
870T	367-9400	367-9399	367-9410	367-9409

Exploded Views

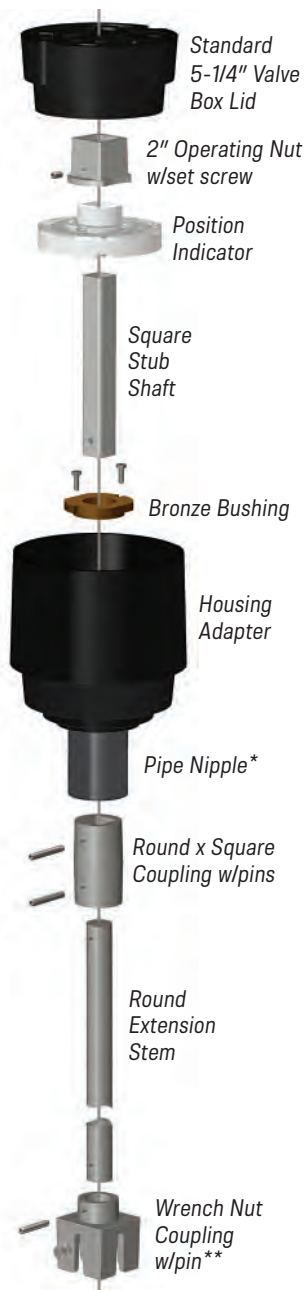
Extension Stem Installation in Floor



ROUND EXTENSION STEM



SQUARE EXTENSION STEM***



ROUND EXTENSION STEM*
with Square Stub Shaft**

* Use a pipe nipple 5/8" longer than the increase in floor slab thickness required, as the tapped thread is 5/8" deep.

** Wrench nut coupling normally furnished pinned to round stems, and factory welded on square stems.

*** Using a square Extension Stem, or a round Extension Stem with a square stub shaft saves field drilling and installation of pins inside floor box.

**** When bottom coupling is purchased separately, pin is provided.



US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760



US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

Valve Position Indicators

Installation with **Wall Bracket**



WALL BRACKET

DUCTILE IRON
Item No. **367-2450**

CAST 316 STAINLESS
Item No. **367-2460**



- Eliminates broken valve stems caused by over-opening or over-closing
- Field-adjustable for any number of turns within the range of each model
- Constructed of heavy-duty, non-corrosive DuPont™ Delrin® polymer, providing high-impact resistance even in cold climates
- Double O-ring seals keep out water and dirt
- Third-party tested to over 1 million revolutions
- Provided with stainless steel hardware
- Also available for use in the floor (pages F-7 to F-8), and in Valve Boxes for buried service (pages F-1 to F-6)

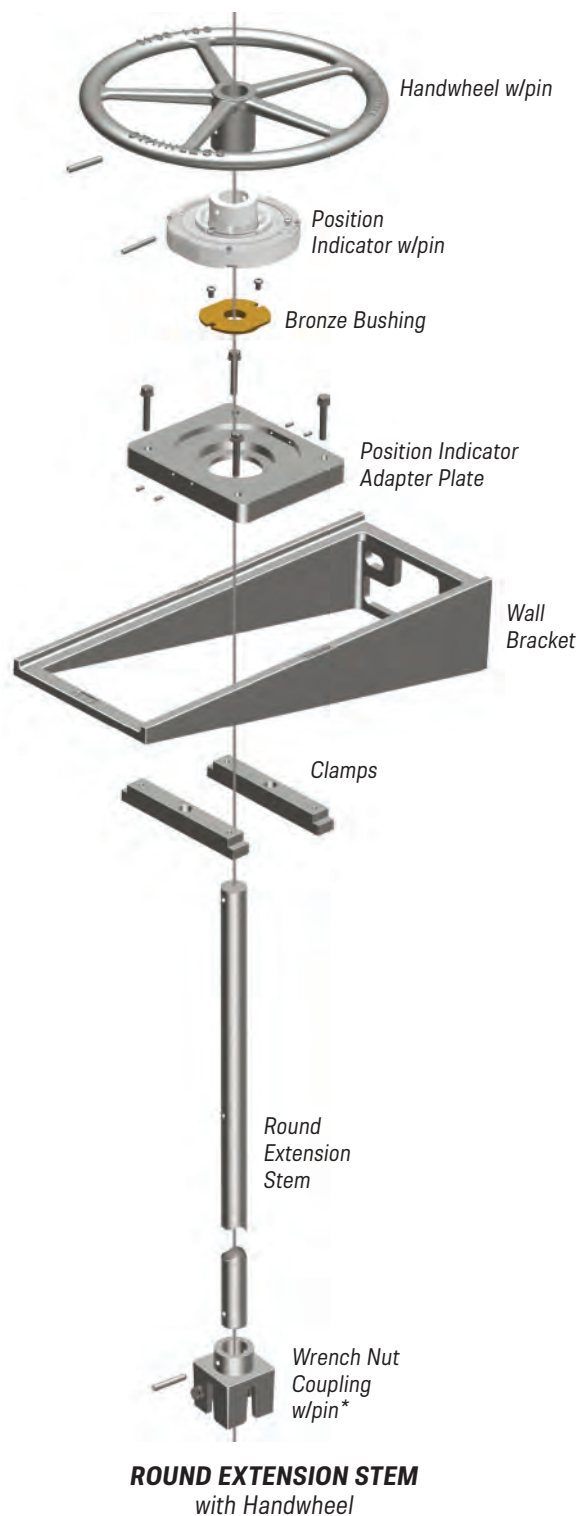
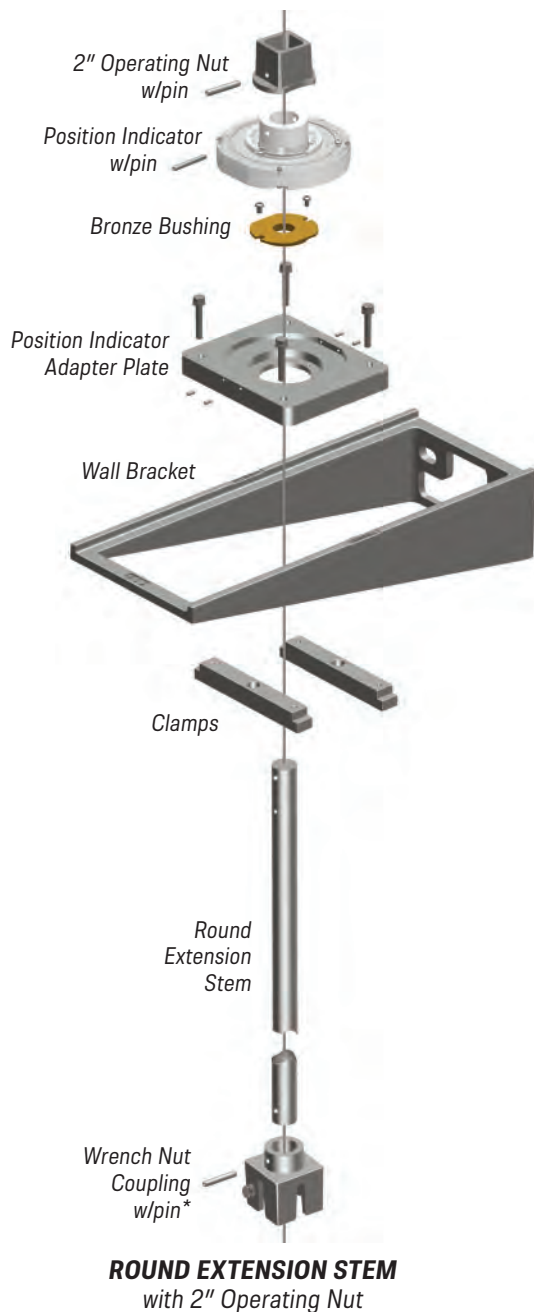
Ordering Instructions

1. Specify direction of open (open left or open right)
2. Model required (available in 57, 275 or 870 turns)
3. Extension Stem required
 - a. Length required
 - b. Round (maximum OD of 1.75") see next page for details
 - c. Carbon steel or stainless steel

Model Number	Number of Turns	Open Left Item No.	Open Right Item No.
57T	0 - 57	367-9404	367-9403
275T	0 - 275	367-9406	367-9405
870T	0 - 870	367-9410	367-9409

Exploded Views

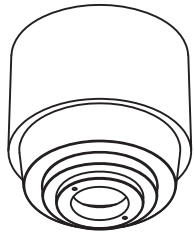
Round Extension Stems
Installation with Wall Bracket



* Wrench nut coupling normally furnished pinned to stem.



US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760



Item Number:
Domestic: 367-9417
Non-Domestic: 367-9416

Coating: Black Enamel
Material: Grey Iron
Weight: 35 lbs

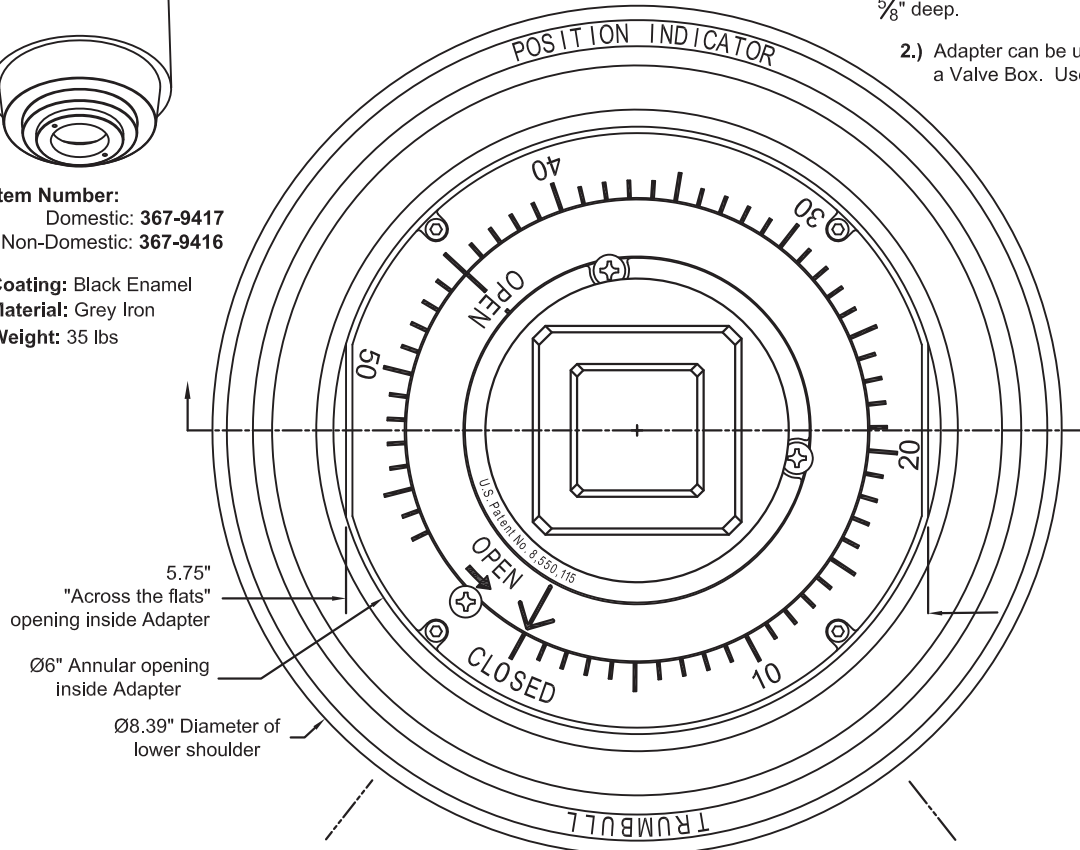
Typical top view
Position Indicator & Adapter
(shown w/out Lid & Debris Shield)

Notes:

- 1.) Use Pipe Nipple $\frac{5}{8}$ " longer than the increase of floor slab required, as the threads on the underside of Adapter are $\frac{5}{8}$ " deep.
- 2.) Adapter can be used with PVC C900 Pipe to form a Valve Box. Use Pipe sizes 6" or 8" DR 14.

US Patent No.'s

8,550,115
9,347,583
10,066,760

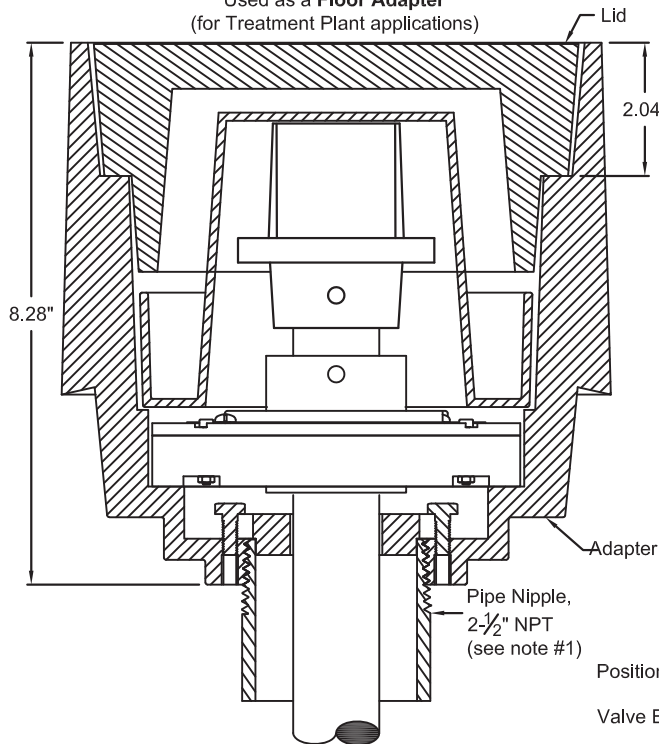


5.75"
"Across the flats"
opening inside Adapter

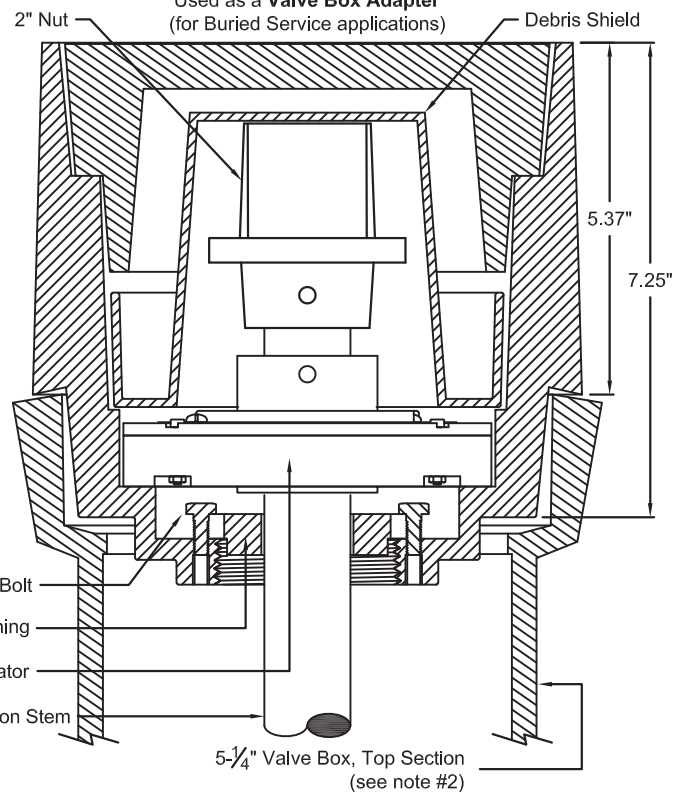
Ø6" Annular opening
inside Adapter

Ø8.39" Diameter of
lower shoulder

Typical section view
Used as a **Floor Adapter**
(for Treatment Plant applications)



Typical section view
Used as a **Valve Box Adapter**
(for Buried Service applications)



**HOUSING ADAPTER FOR
POSITION INDICATOR**
Drawn to Scale

Drawn:
BJE
02/08/11

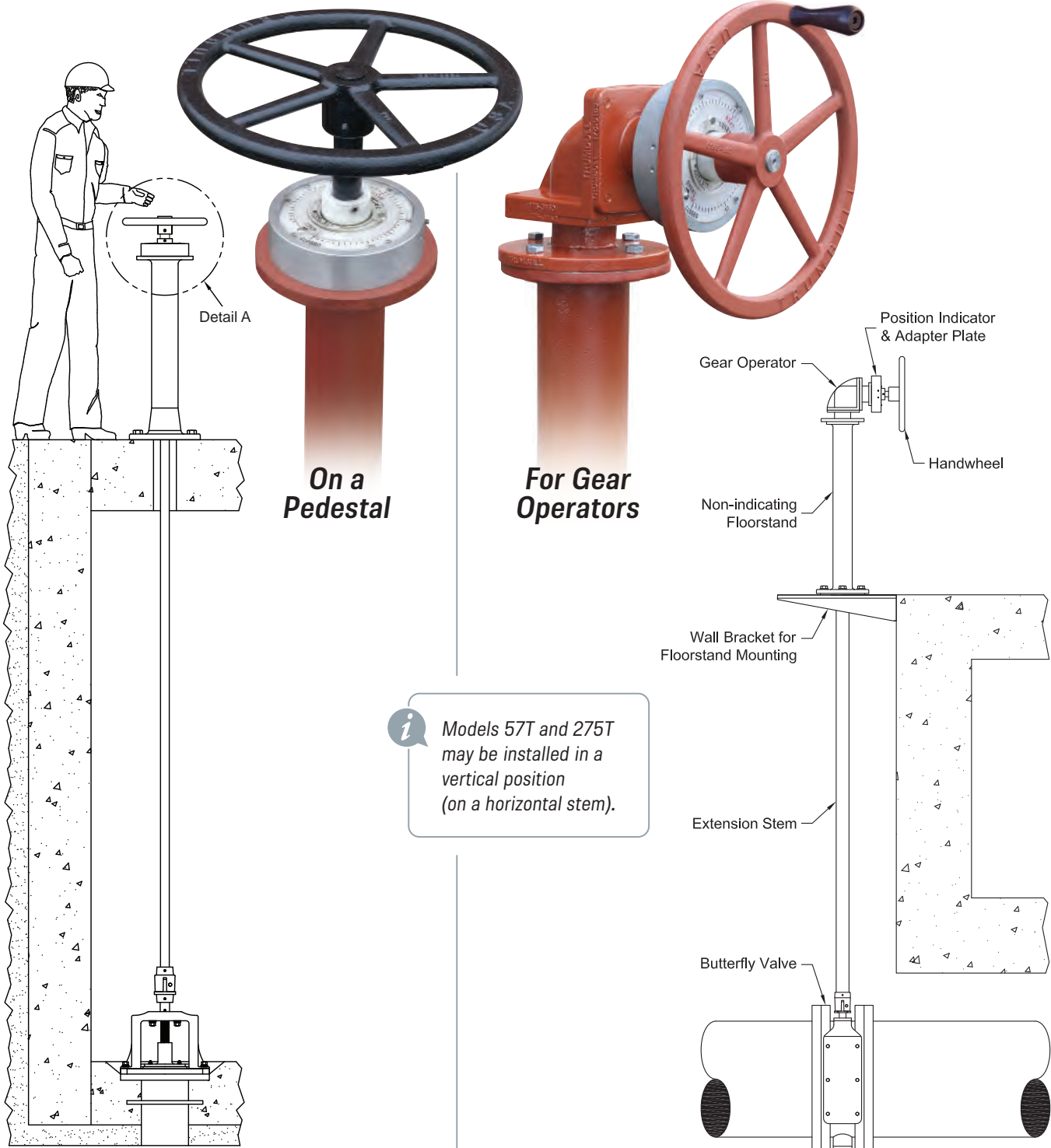
Revision:
BJE
© 09/10/18

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

i US Patent No.'s 8,550,115 / 9,347,583 / 10,066,760

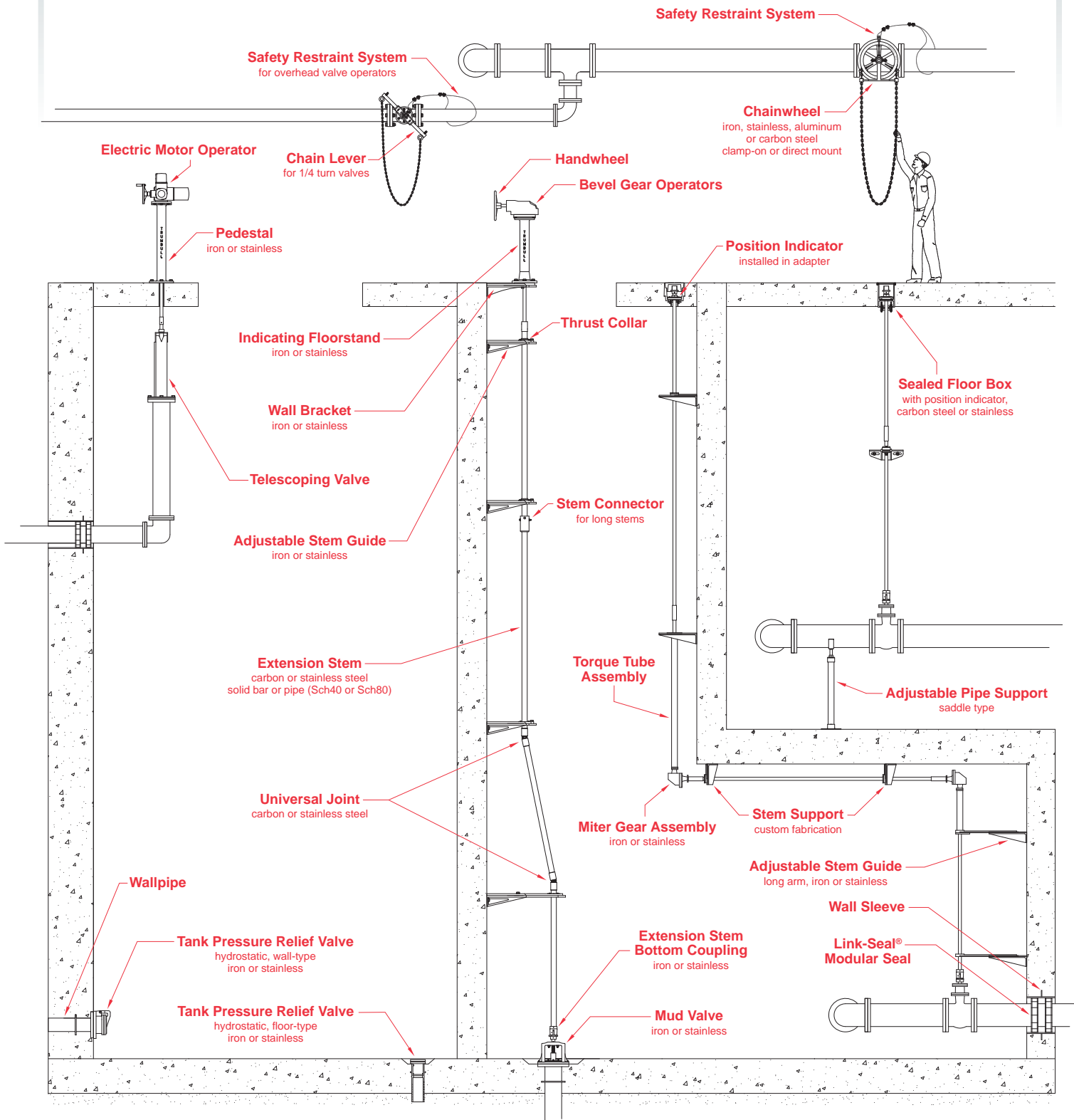
Valve Position Indicators

Installation with **Floorstands**



OVERVIEW

Trumbull Treatment Plant Products



Round Valve Extension Stems

Solid Bar or Pipe – Carbon Steel or Stainless Steel

SQUARE STEMS
are shown on
page G-3

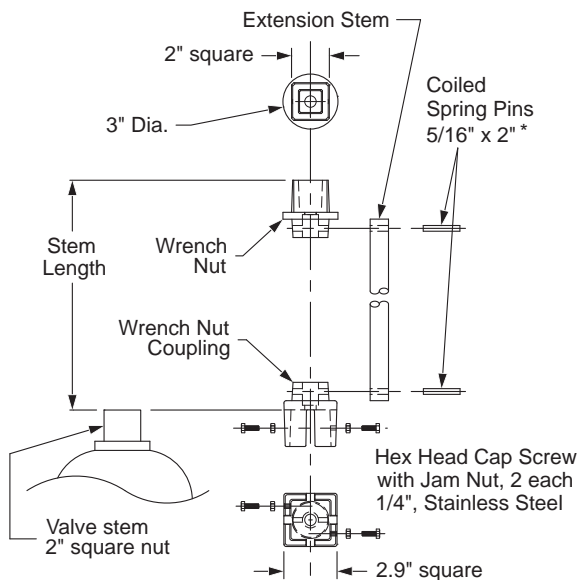
Trumbull Round Valve Extension Stems are used to raise the elevation of both buried and “in-plant” valves having a 2” square operating nut. We can also adapt to valves without 2” nut.

The extension stem is made up of an extension rod (or pipe), a 2” square top wrench nut (or handwheel), and a bottom wrench nut coupling. Wrench nut coupling fits over the 2” square nut of the valve stem being extended, held to the nut by two cap screws with jam nuts threaded in the bottom coupling.

The top nut (or handwheel) and bottom coupling are pinned to the extension rod (or pipe) which is drilled to receive stainless steel coil pins. The top nuts and bottom couplings are available in either ductile iron, grade 65-45-12, or stainless steel, Type 316. The pinned connections permit the removal of the castings so the rod can slide through Trumbull Floor Boxes and Stem Guides. Extensions can easily be shortened by cutting the stem and re-drilling for the pin.

EXTENSION STEM ASSEMBLY

Using a Wrench Nut and Wrench Nut Coupling



*Smaller diameter stems use 5/16" x 2" SS Coiled Spring Pins while larger stems use 5/16" x 3" SS Coiled Spring Pins.



Extension Stems are normally furnished complete with top nut (or handwheel), rod, bottom coupling, two cap screws with jam nuts and pins. Top nuts and bottom couplings are also available for separate sale (see page G-4). Universal Joints, Thrust Collars and Miter Gears are also available. See page G-6 for illustration of custom installations.



Top nut
and bottom
coupling

Optional
handwheel
and bottom
coupling

Stainless steel top nut
and bottom coupling

See separate literature on
Trumbull Floorstands, Floor Boxes,
Stem Guides, Mud Valves and
Valve Position Indicators.

Square Valve Extension Stems

Telescopic and Non-Telescopic Types

ROUND STEMS
are shown on
page G-2

**TELESCOPIC
EXTENSION STEM**
*with gate valve for buried service
(cut-away view shown)*



See page F-3 for ordering
information and page F-4
for adjustment ranges

**SQUARE
EXTENSION STEM**
*with top nut and
bottom coupling*



Traditionally, extension stems have been made from round stock, either pipe or solid round bar. Now, Trumbull's Square Extension Stems can simplify the installation when installers cut extension stems in the field for buried service!

The top and bottom couplings used with Square Extension Stems have an internal square cavity for placement of the square stems. The flat sides inside the cavity bear against the flat sides of the stem, reducing the dependence on the drive pin used to connect both the top and bottom couplings of round extension stems. This enables the installer to cut Square Extension Stems in the field and attach the top coupling with two cap screws, as opposed to drilling for a drive pin. Because of its location, the bottom coupling should be welded or pinned, to provide a secure connection.

When using Trumbull's Valve Position Indicator for buried service, Square Extension Stems are recommended. They eliminate the need to drill holes and pin the stem to attach the Position Indicator and the 2" nut in the field (see pages F-1 and F-2).

Telescopic Extension Stems can also be furnished with Position Indicators for buried service (Patent Pending), as illustrated on pages F-3 and F-4. The Telescopic Extension Stems use a 1-1/4" square tubular upper section which slides inside a 1-1/2" square tubular bottom section. This style has an adjustment range, which saves the installer from field cutting the stem to the exact length required. The adjustment range also provides for ground movement caused by freezing or thawing. The non-telescopic version uses 1-1/4" square stock, either solid or tubular, (as shown on page F-1).

Trumbull can provide Square Extension Stems complete with the required length of square stock, top nut with set screw and welded bottom coupling with two stainless cap screws and jam nuts. Or, the components can be purchased separately for non-telescopic stems (page G-4).

The top nuts and bottom couplings are domestic ductile iron, grade 65-45-12, or Type 316 stainless steel. Carbon or stainless steel bar or tubing is domestic. Telescopic Extension Stems are furnished only as complete units.

See separate literature on Trumbull Floorstands, Floor Boxes,
Stem Guides, Mud Valves and Valve Position Indicators.

Top Nuts and Bottom Couplings

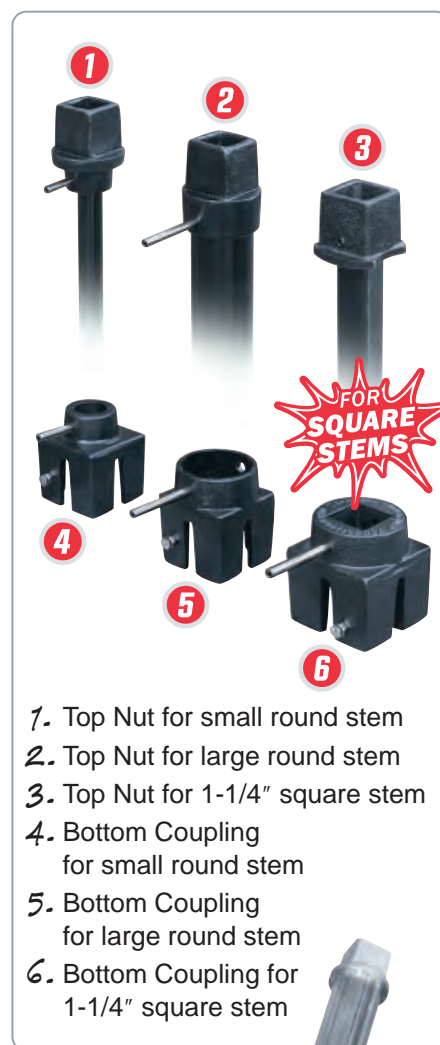
For Round and Non-Telescopic Square Stems - Ductile Iron and Stainless Steel

	Solid Rod	Max Torq* in ft-lb	Steel Pipe	Max Torq* in ft-lb	Bore Diameter	Top Nut	Bottom Coupling
						Item №	Item №
DUCTILE IRON	7/8"	340	1/2"	325	0.905"	367-4953	367-4963
	1"	390	3/4"	410	1.155"	367-4954	367-4964
	1-1/4"	480	----	----	1.265"	367-4905	367-4915
	----	----	1"	510	1.330"	367-4901	367-4910
	1-3/8"	530	----	----	1.390"	367-4955	367-4965
	1-1/2"	580	1-1/4"	640	1.675"	367-4956	367-4966
	1-3/4"	680	1-1/2"	740	1.929"	367-4957	367-4967
	2"	775	----	----	2.047"	367-4958	367-4968
	----	----	2"	920	**	367-4959	367-4969
	1-1/4" square stems		***	----	----	367-4930	367-4938
STAINLESS STEEL	3/4"	325	----	----	0.780"	367-4931	367-4941
	1-1/4"	480	----	----	1.265"	367-4935	367-4945
	----	----	1"	510	1.330"	367-4933	367-4943
	1-1/2"	580	1-1/4"	640	1.675"	367-4934	367-4944
	----	----	1-1/2"	740	1.929"	367-4932	367-4942
	----	----	2"	920	**	367-4936	367-4947
	1-1/4" square stems		***	----	----	367-4929	367-4937

* Maximum torque is based on the minimum load for 5/16" coil pin. For higher torque capacity or for square stems, consult Trumbull.

** Nuts and Couplings have 2.030" hub diameter; fit inside 2" pipe.

*** Max torque is 250 ft-lb for 1-1/4" square tubing; and 460 ft-lb for solid bar.



1. Top Nut for small round stem
2. Top Nut for large round stem
3. Top Nut for 1-1/4" square stem
4. Bottom Coupling for small round stem
5. Bottom Coupling for large round stem
6. Bottom Coupling for 1-1/4" square stem

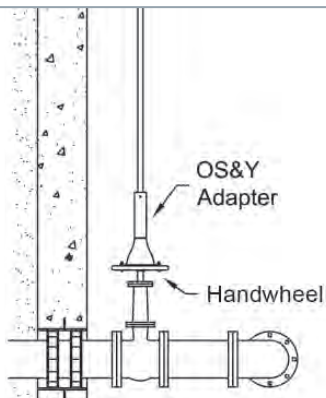


OS&Y Adapters

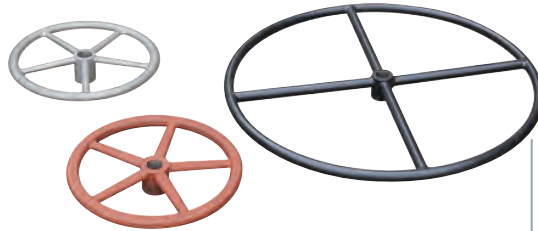
"Outside Screw and Yoke" Adapters

OS&Y / Handwheel Adapters are designed to allow an extension stem to be added to a rising stem valve with an existing handwheel.

These adapters give the operator the flexibility of operating the valve from either the actual valve location, or at some elevation above the valve.



Handwheels



Cast Handwheels

Item No	Material	O.D.	Description	Weight
367-4961	Cast Iron	14"	Bored to fit 1.188" rod or larger	11.60 lbs.
367-4962	Cast Iron	14"	Socket to fit 2" square AWWA nut	15.15 lbs.
367-2043	316 SS	14"	1" Rod, made of cast 316 SS	11.20 lbs.
367-2044	316 SS	14"	1" Pipe, made of cast 316 SS	11.20 lbs.
367-2046	316 SS	14"	1-1/4" Rod, made of cast 316 SS	11.20 lbs.
367-2047	316 SS	14"	1-1/4" Pipe, made of cast 316 SS	11.20 lbs.

Tubular Handwheels

Item No	Material	Dia.	Bore	Weight
367-2055	CS	8"	1.010"	3.40 lbs.
367-2054	CS	12"	1.010"	4.35 lbs.
367-2056	CS	18"	1.010"	5.45 lbs.
367-2057	CS	24"	1.010"	5.70 lbs.
367-2058	CS	30"	1.010"	10.30 lbs.
391-0941	SS	8"	1.010"	3.40 lbs.
391-0942	SS	14"	1.010"	4.90 lbs.
391-0943	SS	18"	1.010"	5.45 lbs.
391-0944	SS	24"	1.010"	5.70 lbs.

Other sizes and materials of handwheels are available. Contact Trumbull for more information.

ORDERING INFORMATION

Valve Extension Stems

ROUND COMPLETE EXTENSION STEMS

- Quantity
- Overall length — See "Stem Length" of drawing on page G-2.
- Order using the following chart:

Material	Pipe or Solid Bar	Type	Operator	Coating
Carbon Steel	Pipe	Sch. 40	2" DI Square Nut, or 14" CI Handwheel*	Black Powder Coat **
		Sch. 80		
	Solid Bar	Hot Rolled		
		Cold Rolled		
Stainless Steel	Pipe (Sch. 40)	304	2" SS Square Nut, or 14" Handwheel, CI or SS	n/a
		316		
	Solid Bar	304		
		316		

- Any special requirements, such as Handwheels, Valve Box Centering Rings, Universal Joints, Valve Position Indicators or Miter Gears.

SQUARE COMPLETE EXTENSION STEMS

- Quantity required
- Overall length
- Material type
 - carbon or stainless steel
 - solid bar or tubing

1-1/4" SQUARE ONLY

See Page G-3.

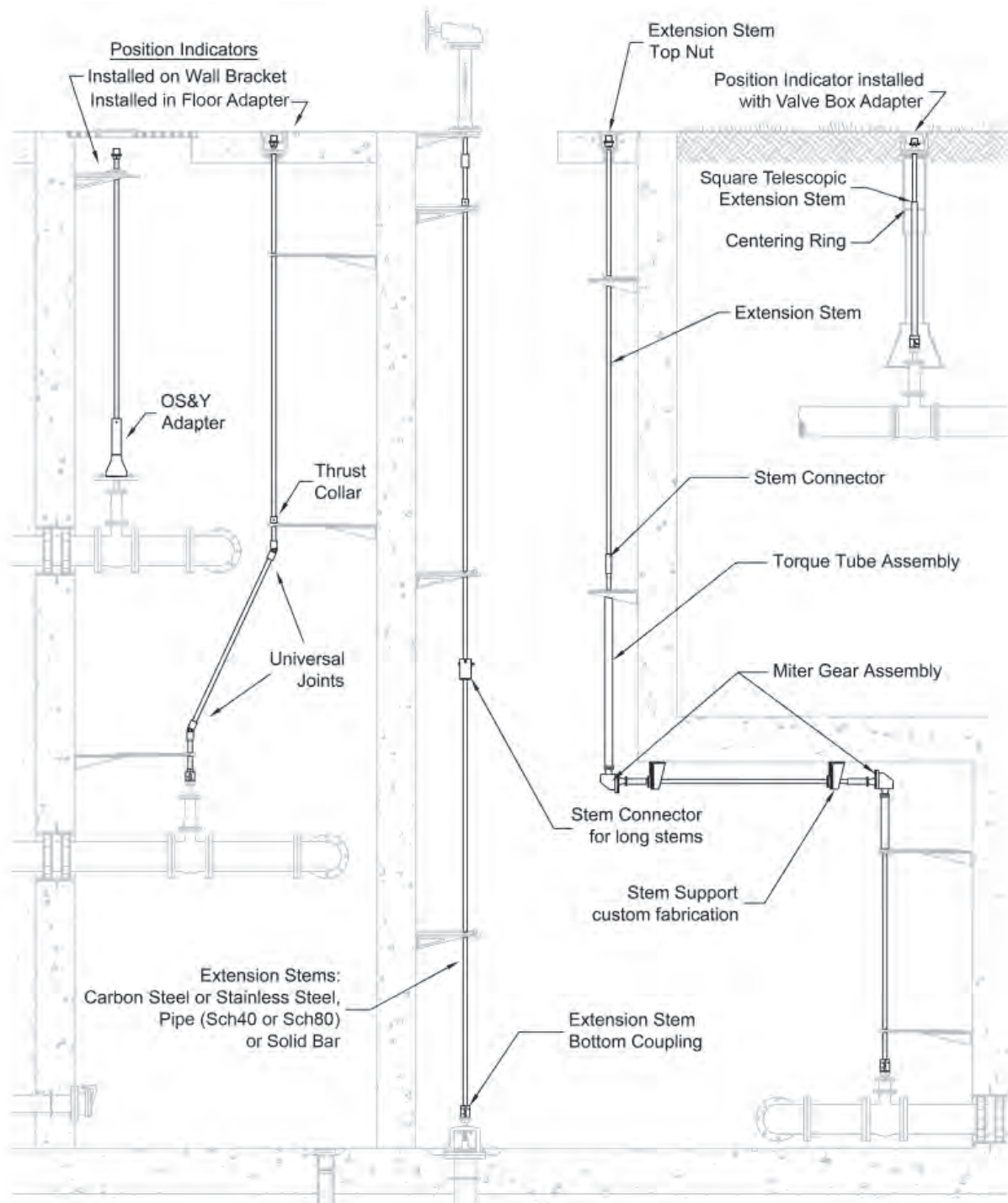
- * Other handwheel diameters available (see above).
- ** Primer coatings are also available. Tnemec 37H-77 & N140-1211 normally stocked. Galvanizing and additional coatings available.

EXTENSION STEM COMPONENTS ONLY

- Specify quantity of top nuts, bottom couplings, handwheels and stem couplings. Top nut and handwheel furnished with stainless coil pin. Bottom coupling furnished with stainless coil pin & two cap screws/jam nuts.
- For ductile iron top nut and bottom coupling select from chart on page G-4, based on type and diameter of extension being used. Stainless steel top nut and bottom coupling are normally furnished to fit 1-1/4" solid rod or 1" Sch 40 pipe. Specify if larger bore sizes are required, up to a maximum of 2".

CUSTOM APPLICATIONS

For Trumbull Valve Extension Stems



Universal Joints

Used to Correct Misalignment of Valve Extension Stems

Trumbull Heavy-Duty Universal Joints are the answer to many common misalignment problems often encountered in valve applications.

Access to valves in treatment plants is often blocked by piping, equipment, or structural obstructions, requiring operation from a location that is not in line with the valve stem. The use of Universal Joints can help solve this situation, as shown by the typical application figure at right.

An optional resilient boot is recommended to seal and protect the Universal Joint, while still permitting full motion. The boot is packed with water-resistant grease on-site, keeping out contaminants and maximizing service life. The boot is furnished with stainless steel retainer clamps. Grease is supplied by customer.



Universal Joints*

Includes two 5/16" x 2" coil spring pins

Material	Item No	Weight
Carbon Steel	367-8352**	3.65 lbs.
T304 SS	367-8355**	3.70 lbs.
T316 SS	367-8356**	3.70 lbs.

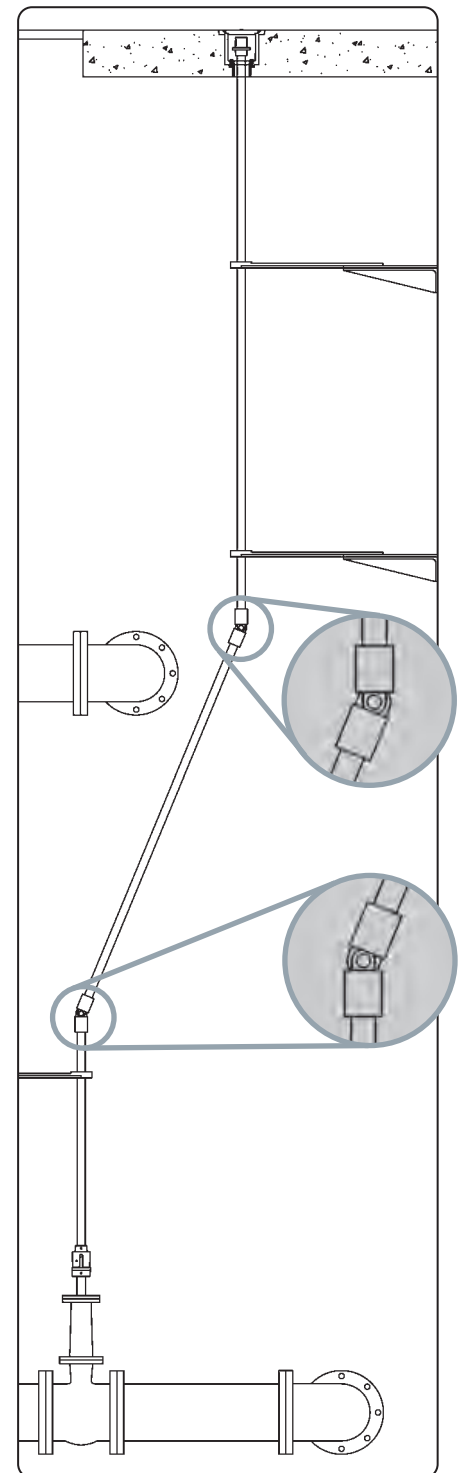
Boot Assembly

Includes two clamps

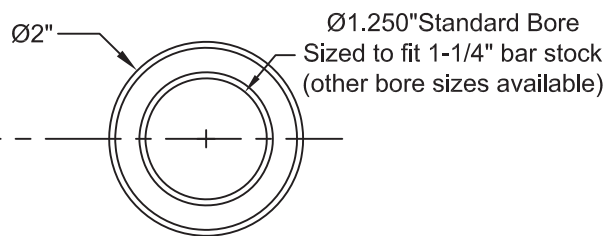
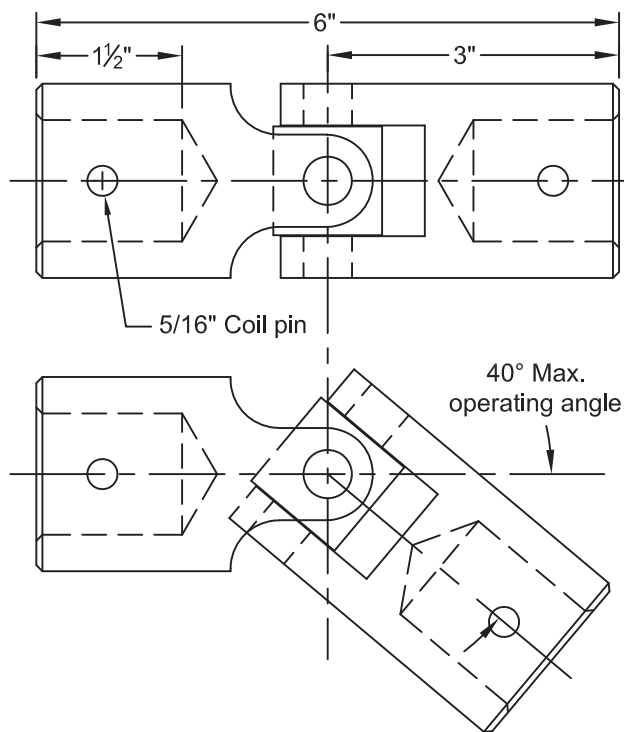
Item No	Weight
367-8360	0.20 lbs.

* Recommended maximum torque is 300 ft-lb. For applications with higher torque requirements, consult Trumbull. Maximum operating angle is 40°.

** Item numbers shown are bored to accept 1-1/4" rod. Other bore sizes are available upon request.



Typical installation



Notes:

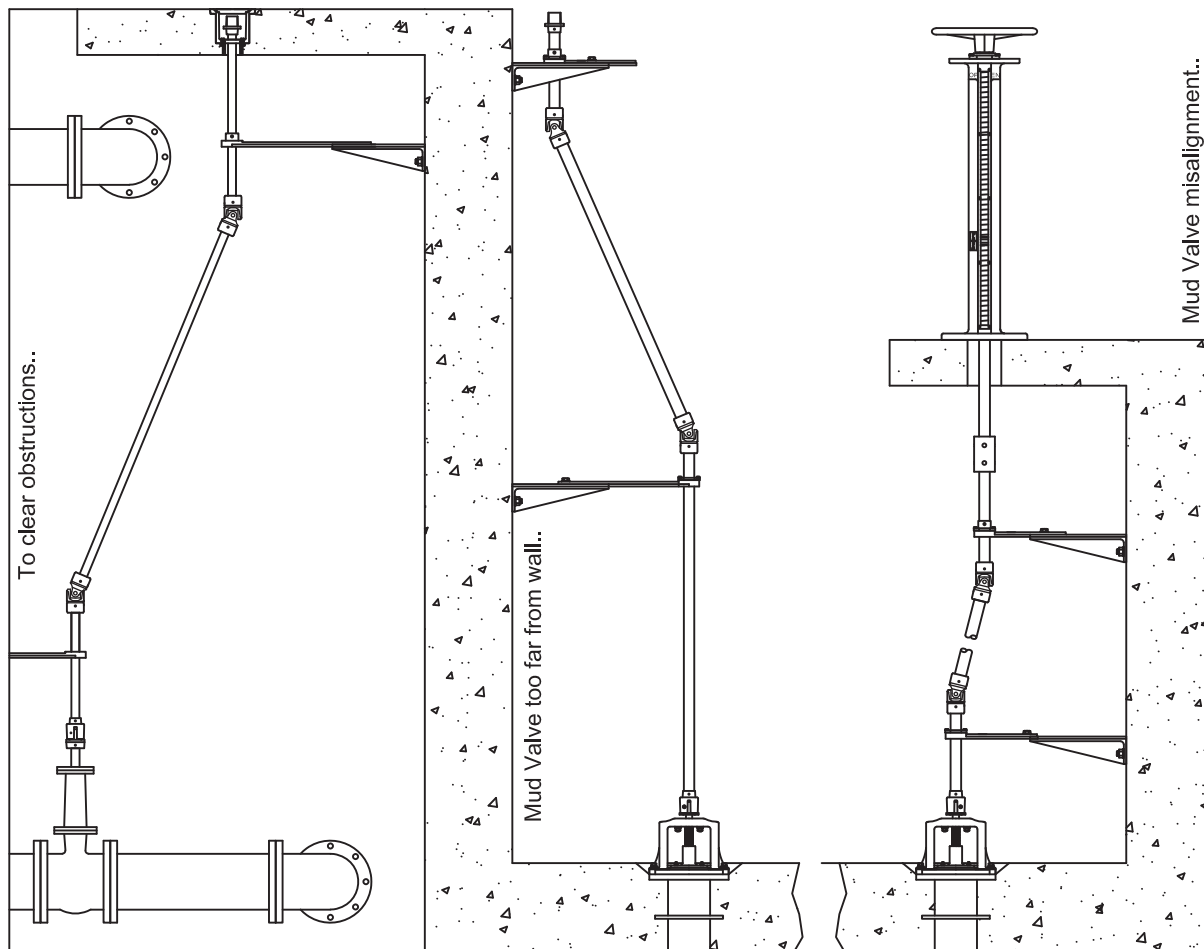
- 1.) Standard U-joint bore is sized to fit 1-1/4" bar stock.
- 2.) A EPDM Boot is recommended to protect the working knuckle of the joint, and can be packed with a water-proof lubricating grease for prolonged operating life. Grease by customer. The optional Boot includes a pair of stainless steel hose-type band clamps.
- 3.) The U-Joint is intended for manual operation. Contact Trumbull for use with electric actuators.

Material:

Carbon Steel, C1045 (Item no. 367-8352)
 Stainless Steel, 304 (Item no. 367-8355)
 Stainless Steel, 316 (Item no. 367-8356)

Load rating:

U-Joint is capable of withstanding torsional loads up to 300 ft-lb. Consult engineering if a greater torsional load is required.



UNIVERSAL JOINTS
CARBON STEEL & STAINLESS STEEL
 Drawn to Scale

Drawn:
 BJE
 05/21/14

Revision:
 BJE
 05/13/19



Trumbull Manufacturing, Inc.
 Youngstown, Ohio
 www.trumbull-mfg.com

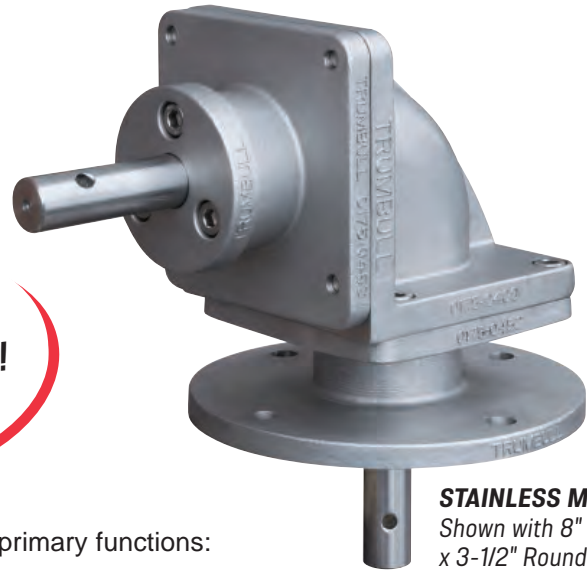
Miter Gears

Heavy-Duty, Enclosed Gear Assemblies
Available in Ductile Iron and Stainless Steel

3 STANDARD END ADAPTERS

- 8" Round End Adapter
- 4-1/4" Square End Adapter
- 3-1/2" Round End Adapter

**6 Possible
Combinations!**
(Shown below)



STAINLESS MITER GEAR
Shown with 8" Round
x 3-1/2" Round Adapters

Trumbull Miter Gears are designed to fulfill the following primary functions:

- To be used as an add-on component to Trumbull Floorstands or Pedestals.
- To be mounted directly to valves where a 90° change in the input shaft direction is required.
- For use as a stand-alone component in a valve operating assembly with rotating elements, such as extension stems, where the installed conditions require one or more 90° changes of direction.

Housings are cast 316 stainless steel or ductile iron 65-45-12 with a Tnemec N140-1211 two-part epoxy, NSF-61 certified exterior coating. The gears are case hardened steel; the gear shafts and fasteners are 316 stainless steel.

Trumbull Miter Gear Assemblies are provided standard with a recessed grease fitting for easy maintenance and Buna-N O-ring seals on each end adapter.

GEAR RATIO = 1:1, INPUT/OUTPUT SHAFT DIAMETER = 0.984".

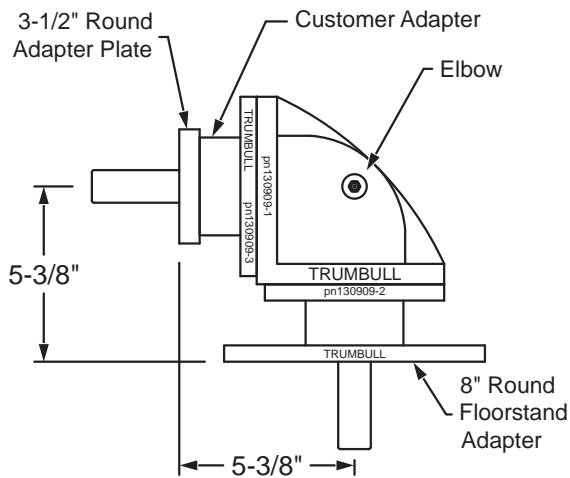
See reverse side for drawings of model end options.



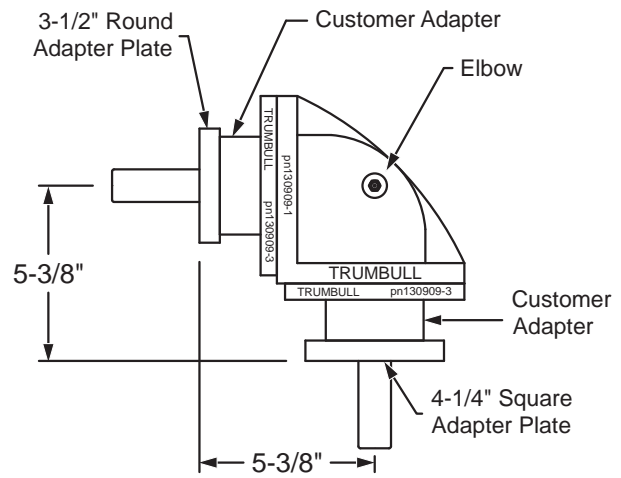
Trumbull Miter Gears have a recommended maximum working torque of 200 ft-lb (270 N-m). For applications with higher torque requirements, please consult Trumbull.

End Configurations	Model No	Weight	Typical Usage for Each End Adapter
8" Round x 3-1/2" Round	MG1A	39.00 lbs.	8" Round - mates to our Floorstands 3-1/2" Round - for use with handwheel or nut operators
8" Round x 4-1/4" Square	MG1B	42.00 lbs.	8" Round - mates to our Floorstands 4-1/4" Square - adapts for guide, bracket & motor mountings
8" Round x 8" Round	MG1C	46.00 lbs.	Both 8" Round ends mate to our Floorstands & other fabrications such as torque tubes
4-1/4" Square x 3-1/2" Round	MG2A	37.00 lbs.	4-1/4" Square - adapts for guide, bracket & motor mountings 3-1/2" Round - for use with handwheel or nut operators
4-1/4" Square x 4-1/4" Square	MG2B	35.00 lbs.	Both 4-1/4" Square ends easily adapt for guide, bracket & motor mountings
3-1/2" Round x 3-1/2" Round	MG3A	32.00 lbs.	Both 3-1/2" Round ends for use with either extension stem assemblies, handwheel, or nut operators

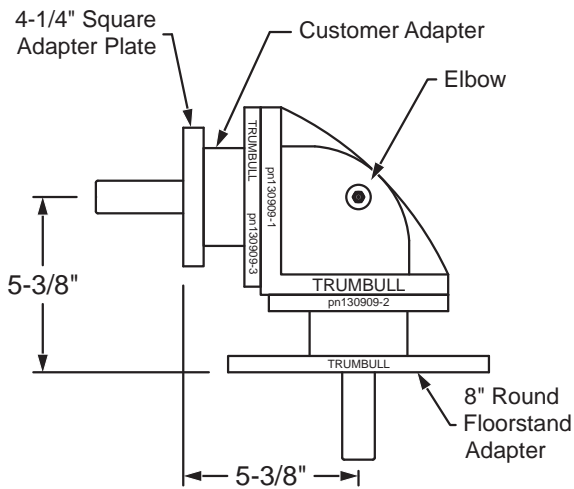
MG1A – 8" Round x 3-1/2" Round



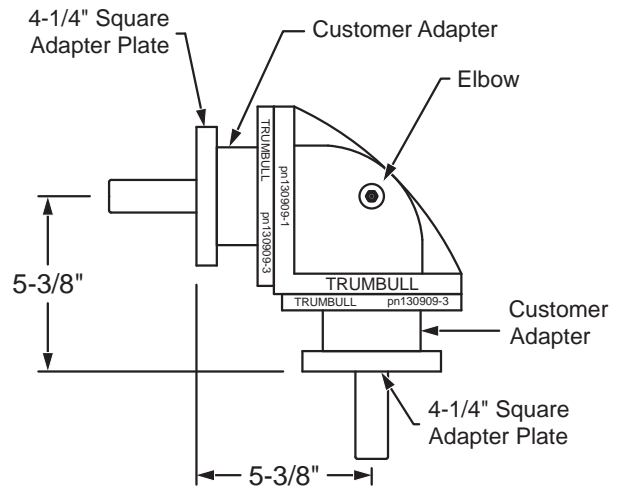
MG2A – 4-1/4" Square x 3-1/2" Round



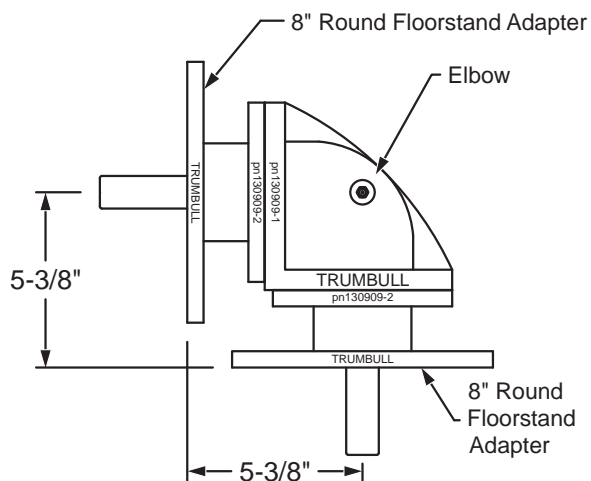
MG1B – 8" Round x 4-1/4" Square



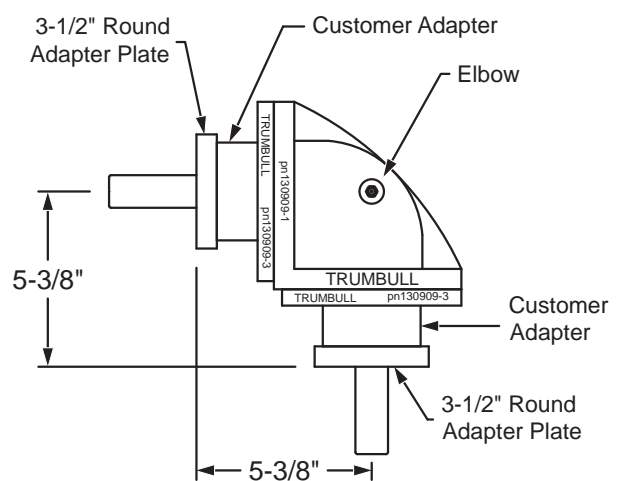
MG2B – 4-1/4" Square x 4-1/4" Square



MG1C – 8" Round x 8" Round



MG3A – 3-1/2" Round x 3-1/2" Round



MITER GEAR COMBINATIONS

Drawn to Scale

Drawn:
FCN
10/27/14

Revision:
FCN
© 09/18/19

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Cast Iron Floor Box

Floor Boxes are designed for installation in concrete floors or slabs to provide support for extension stems for non-rising type valves, and to provide a cover over the operating nut on the extension stem.

The Trumbull Cast Iron Floor Box is designed for varying slab thicknesses. Overall length is 6", but the underside is tapped to accept 2-1/2" NPT steel pipe nipples for floors thicker than 6". When it's necessary to use a Floor Box with thicker floors, use a 2-1/2" pipe nipple, 1/2" longer than the increase required, as the threads on the underside of the Floor Box are 1/2" deep (see picture on lower right corner of page G-13). For example, for an 8" floor thickness use a 2-1/2" x 2-1/2" nipple. For a 10" floor, use a 2-1/2" x 4-1/2" nipple.

When a stem is required that is larger than the 2-1/2" pipe I.D., a 3" pipe nipple will be welded to the bottom of the Floor Box.

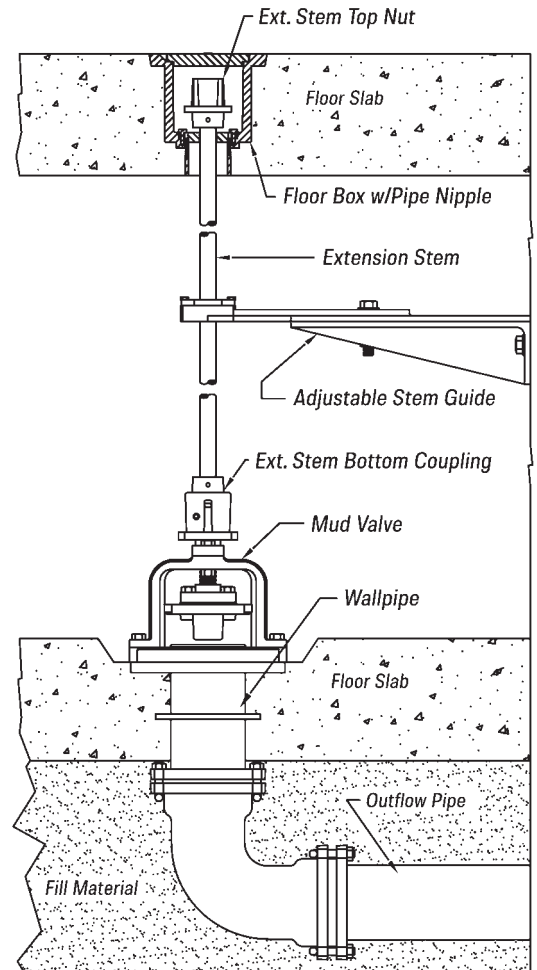
The Cast Iron Floor Box should be ordered with a removable brass bushing for which the maximum drilling is normally 2-3/8" diameter. For larger diameters, please contact Trumbull. However, when used with floors thicker than 6", clear opening is limited to the I.D. of the pipe nipple. See reverse side for drawing.

NOT for use with Valve Position Indicators.

See page G-15 for Sealed Floor Boxes for use with the Position Indicators.



Item No	Weight
367-4620	25.65 lbs.



Typical Floor Box installation

Bushings are available in:

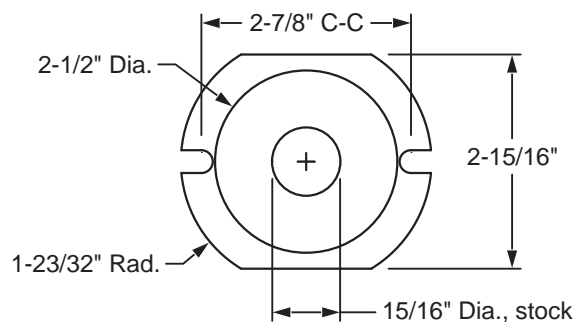
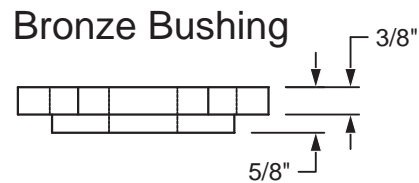
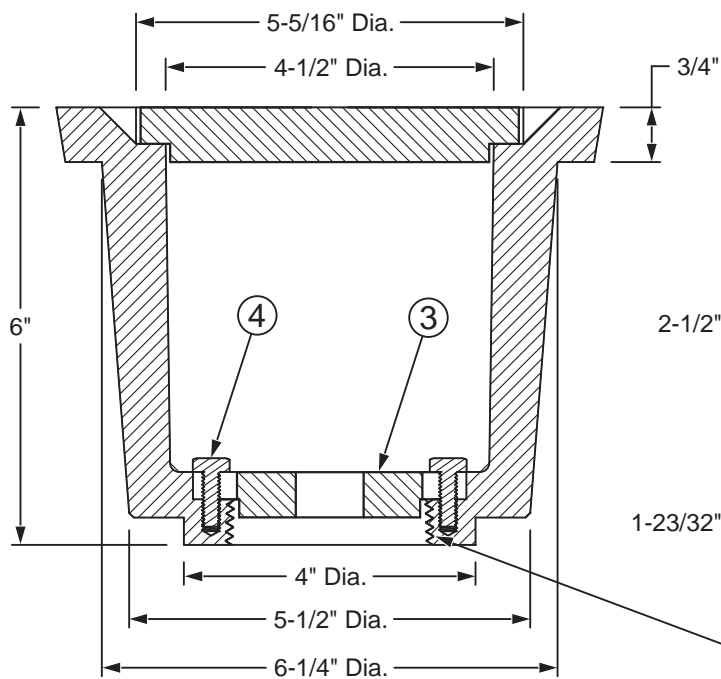
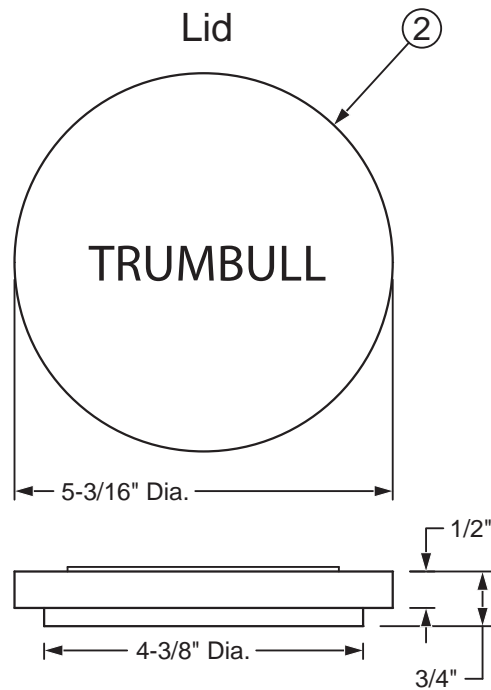
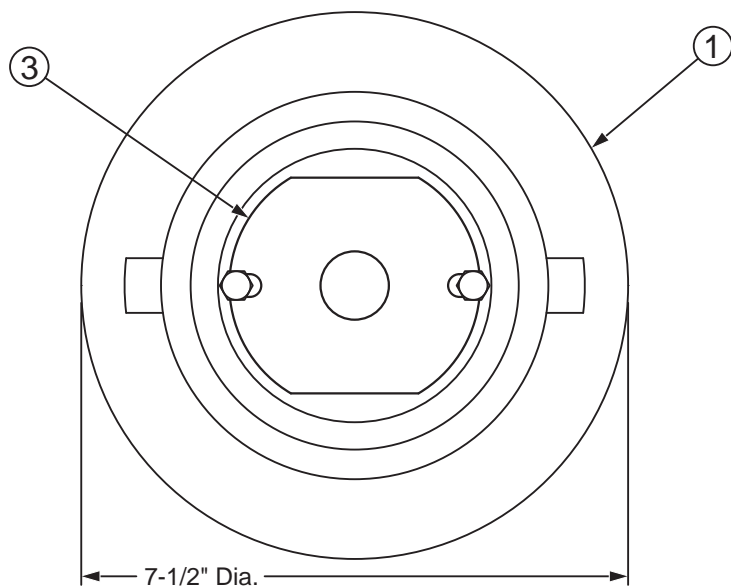
- Low-lead brass
- Ultra High Molecular Weight Polyethylene (UHMWPE)
- NSF 61 approved polymer (Ryton® R-4)

Ordering Instructions

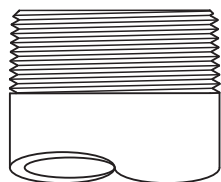
1. Quantity required
2. Thickness of floor slab, or length of pipe nipple required
3. O.D. of stem being used, or desired bushing material & hole size
4. Custom options available such as stainless steel construction, O-Ring lids, water-tight seals, tamper-resistant lids & anchoring collar

When Valve Position Indicator is installed in a floor, use the cast iron **HOUSING ADAPTER** illustrated on pages F-1 – F-8, or the **SEALED FLOOR BOXES** shown on pages G-13 – G-16.

Item	Component	Material
1	Body	Cast Iron, A126(B)
2	Lid	Cast Iron, A126(B)
3	Bushing	Low-Lead Brass
4	Screw, Hex Head	Stainless Steel, Type 316



The bottom of the Floor Box casting is tapped with a 2-1/2" NPT thread.



Use a pipe nipple 1/2" longer than the increase in floor slab thickness required, as the tapped thread is 1/2" deep.

Coated all over with black enamel rust preventative.

CAST IRON FLOOR BOX

Drawn to Scale

Drawn:
FCN
04/04/94

Revision:
FCN
J 04/07/15

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

6" Sealed Floor Boxes

Available in Cast Carbon Steel and Cast Stainless Steel



Trumbull Sealed Floor Boxes are ideal to prevent fluids or vapors from penetrating the floor slab from either direction. Top side is sealed by a Buna-N O-ring, and bottom side can be sealed by use of optional packing gland. Overall length is 6", but the underside is tapped to accept 2-1/2" NPT steel pipe nipples. When it's necessary to convert a Floor Box to thicker floors, use a 2-1/2" pipe nipple, 1/2" longer than the increase required, as the threads on the underside of the Floor Box are 1/2" deep.

NOT for use with Valve Position Indicators.
See page G-15 for Sealed Floor Boxes for use with the Position Indicators.

i Tapped 2-1/2" threads also permit threading 2-1/2" pipe into underside of Floor Box, to provide an external casing for a smaller internal extension stem.

Floor Boxes

Material	Item No	Weight
Carbon Steel*	367-4623	24.20 lbs.
316 Stainless Steel	367-4624	23.50 lbs.

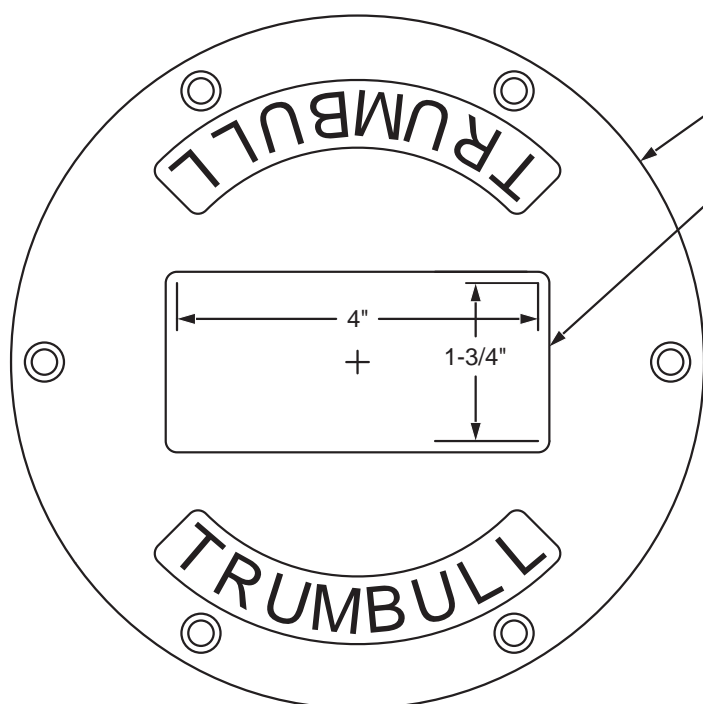
* Carbon steel models are EDP coated.

Optional Accessories

Available as special order

Description	Weight
Packing Gland	2.10 lbs.
Brass Bushing	1.75 lbs.

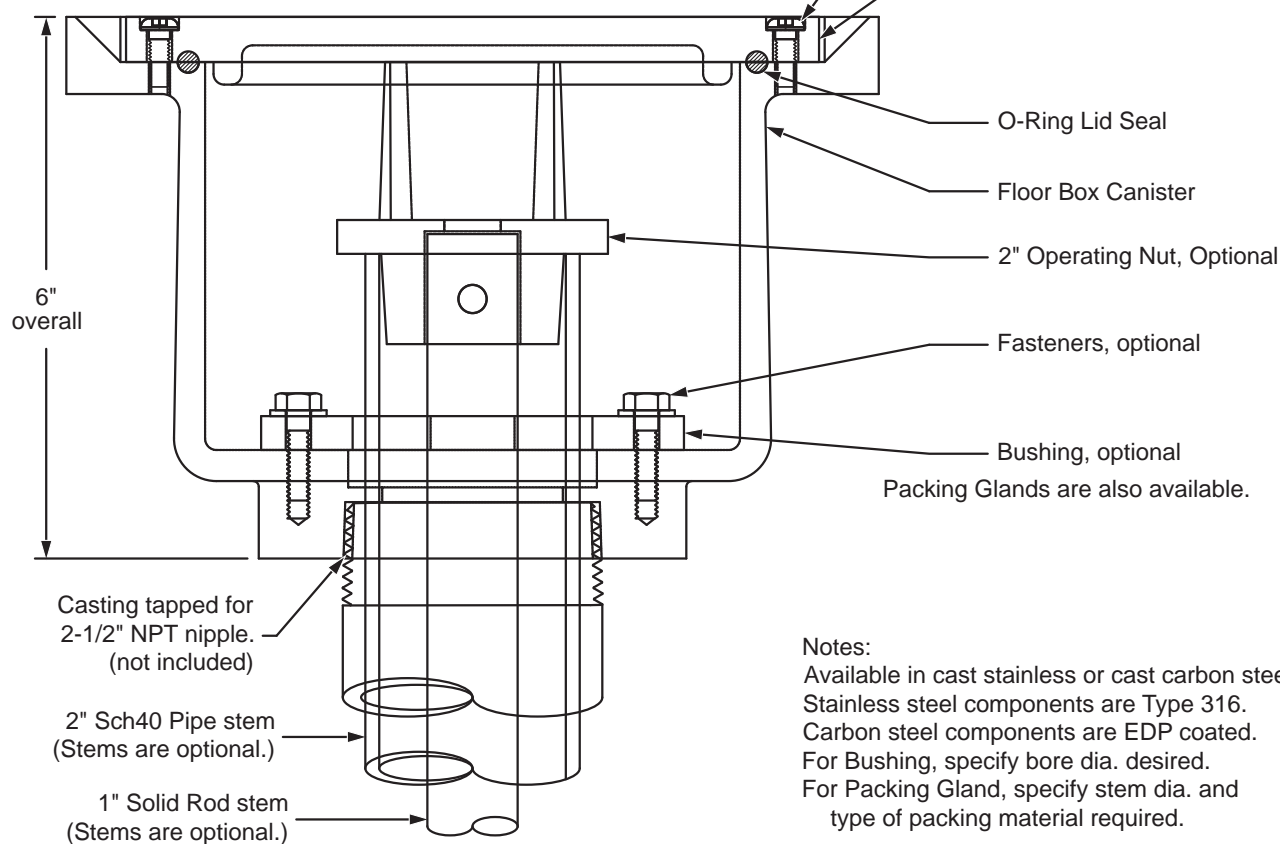




7-11/16", Lid diameter

Flat surface for custom nameplate or valve tag; consult Trumbull.

Lid, Lid Fasteners, and O-Ring Lid Seal are included.



Notes:
Available in cast stainless or cast carbon steel.
Stainless steel components are Type 316.
Carbon steel components are EDP coated.
For Bushing, specify bore dia. desired.
For Packing Gland, specify stem dia. and type of packing material required.

SEALED FLOOR BOX **CAST T316SS or CS - 6" OAH** Drawn to Scale

Drawn:
FCN
02/19/18

Revision:
FCN
A 02/19/18

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

11-1/8" Sealed Floor Boxes

Available in Cast Carbon Steel and Cast Stainless Steel



SOCKET HEAD CAP SCREWS

furnished standard (tamper-resistant fasteners and installation tools also available)

BUNA-N O-RING

Seals Floor Box at top of floor; furnished standard, other materials available upon request

OVERALL HEIGHT

11-1/8" with lid

Trumbull Sealed Floor Boxes are ideal to prevent fluids and vapors from penetrating the floor slab from either direction. Top side is sealed by a Buna-N O-ring, and bottom side can be sealed by use of optional packing gland. Overall length is 11-1/8", but the underside is tapped to accept 2-1/2" NPT steel pipe nipples for floors thicker than 11". When it's necessary to extend a Floor Box for thicker floors, use a 2-1/2" pipe nipple, 1/2" longer than the increase required, as the threads on the underside of the Floor Box are 1/2" deep.

Tapped 2-1/2" threads also permit threading 2-1/2" pipe into underside of Floor Box, to provide an external casing for a smaller internal extension stem.

Floor Boxes

Material	Item No	Weight
Cast Carbon Steel*	367-4622	31.05 lbs.
Cast 316 Stainless Steel	367-4621	33.45 lbs.

* Carbon steel models are EDP coated.

Optional Accessories

Available as special order

PACKING GLAND

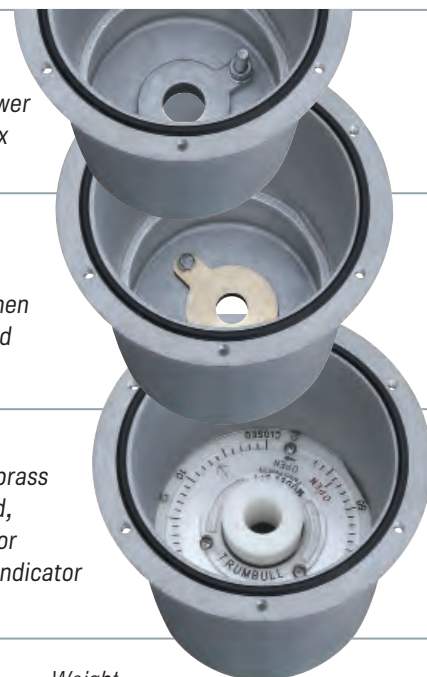
with stainless steel follower seals bottom of Floor Box

BRASS BUSHING

aligns extension stem when bottom seal is not utilized

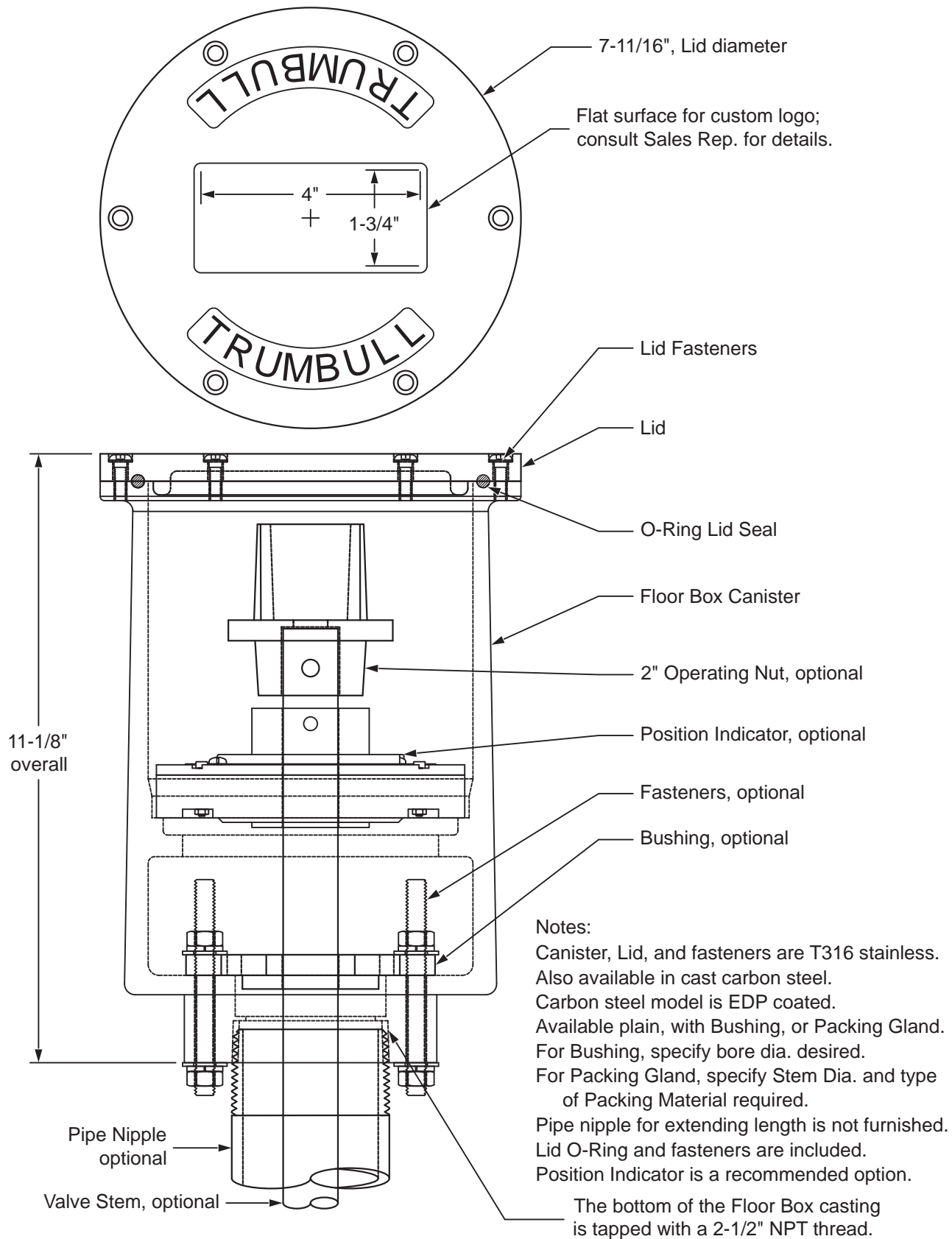
POSITION INDICATOR

can be used with either brass bushing or packing gland, see Pages F-7 and F-8 for Trumbull Valve Position Indicator installation in floors.



Description	Weight
SS Packing Gland	2.10 lbs.
Brass Bushing	1.75 lbs.

See Page G-13 for other custom options.



SEALED FLOOR BOX
CAST T316SS or CS - 11" OAH
Drawn to Scale

Drawn:
FCN
05/29/14

Revision:
FCN
① 04/25/15

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Extended Bonnets

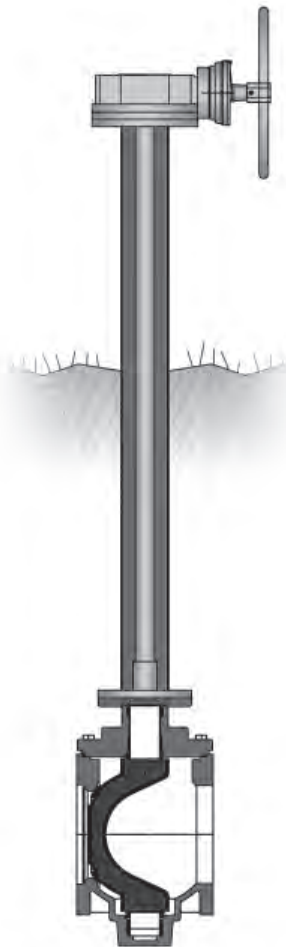
Extended Bonnets are typically provided on valves when there is a need to move the valve operator a set distance away from the valve body. Buried and submerged service installations are the most common Municipal applications.

An Extended Bonnet consists of an outer flanged pipe which connects the valve body to the valve operator housing, and an inner stem extension that connects the valve stem and operator drive.

See page G-18 for quoting information.

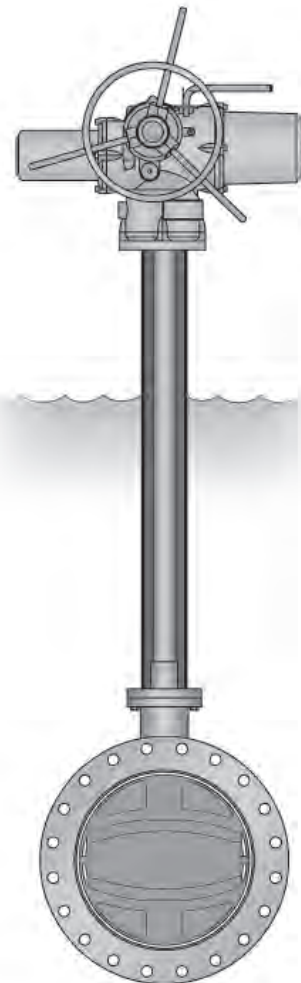
Buried Service

Extended Bonnets ideal for applications where the valve is located below ground with the operator above ground.

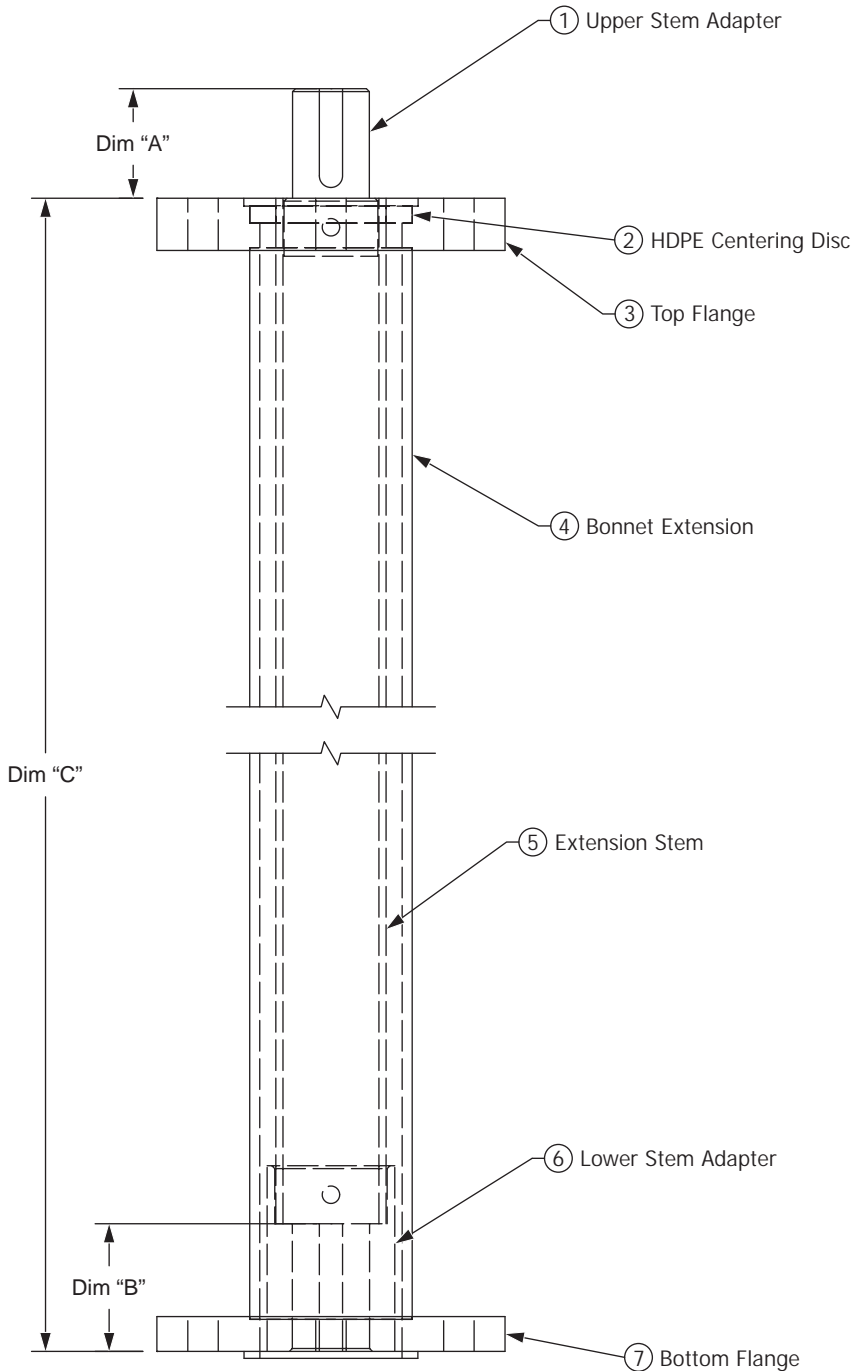


Submerged Service

Extended Bonnets are for applications where the valve is installed submerged in a tank and operated from above the water level.



MK-#	Description	Qty/Assem.
1	Upper Stem Adapter	1 Piece
2	Centering Washer (See Options)	1 Piece
3	Top Flange (See Options)	1 Piece
4	Pedestal	1 Piece
5	Extension Stem	1 Piece
6	Lower Stem Adapter	1 Piece
7	Bottom Flange (See Options)	1 Piece



Extended Bonnet Data

Extension Stem:

Material:

Carbon Steel _____
 304SS _____
 316SS _____

Upper Stem Adapter:

Diameter _____
 Key Size _____
 Key Length _____
 Stem Projection, Dim "A" _____

Lower Stem Adapter:

Bore Diameter _____
 Key Size _____
 Key Length _____
 Stem Engagement, Dim "B" _____

Bonnet Extension:

Material:

Carbon Steel _____
 304SS _____
 316SS _____

Ext. Bonnet Length, Dim "C" _____

Upper Flange Pattern _____
 Centering Counterbore Req'd _____

Lower Flange Pattern _____
 Centering Shoulder Req'd _____

HDPE Centering Disc Req'd _____

Valve Information:

Valve Type _____
 Valve Size _____
 Max Operating Torque _____

Valve Operator Information:

Manual _____
 Electric _____
 Max Torque _____

Extended Bonnet Coating:

Red Oxide Primer (standard) _____
 Other (Please Specify Below) _____

Project Information

Project Name: _____
 Project City: _____
 Project State: _____
 Qty. Req'd: _____

Customer Information

Customer: _____
 Contact Name: _____
 Phone: _____
 Email: _____
 Reference #: _____

Extended Bonnet Assembly
 Drawn to Scale

Drawn:
 NJC
 01/27/20

Revision:
 N/A

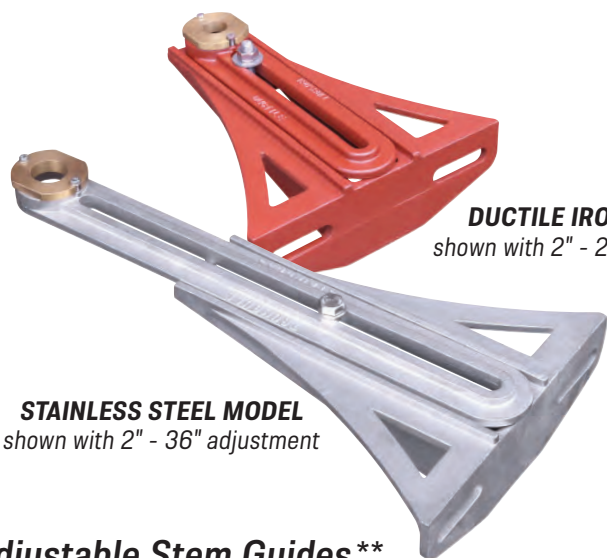
Trumbull Manufacturing, Inc.
 Youngstown, Ohio
 www.trumbull-mfg.com

Adjustable Stem Guides

Available in Ductile Iron and Stainless Steel

Trumbull Stem Guides are designed for installation in treatment plants and pump stations to provide support for valve extension stems. These Stem Guides are adjustable for stems as close to the wall as 2", or as far away as either 26", 36" or 48".

All ductile iron castings coated with Tnemec N140-1211 epoxy (complies with NSF 61). See reverse side for drawing.



DUCTILE IRON MODEL
shown with 2" - 26" adjustment

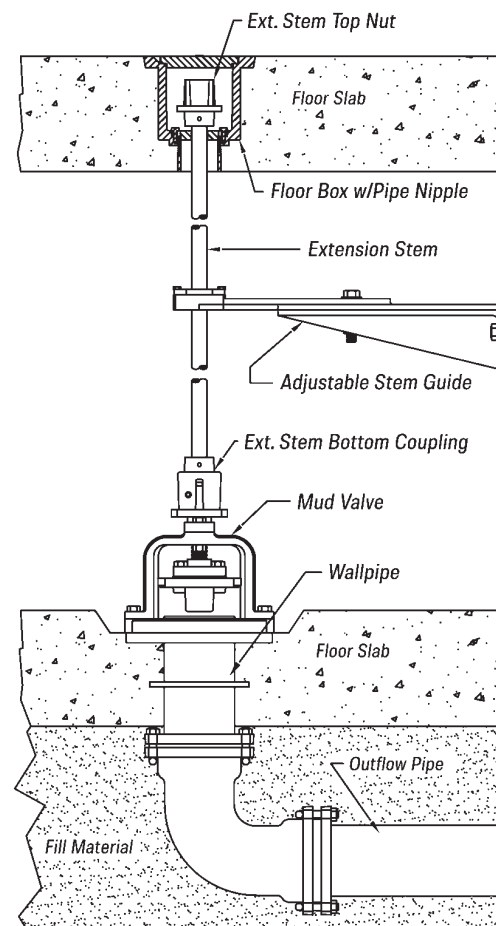
STAINLESS STEEL MODEL
shown with 2" - 36" adjustment

Adjustable Stem Guides**

Adjustment Range	Ductile Iron		316 Stainless Steel	
	Domestic Item №	Non-Domestic Item №	Domestic Item №	Non-Domestic Item №
2" to 26"	1367-4960	367-4960	1367-5960	367-5960
2" to 36"	1367-4970	367-4970	1367-5970	367-5970
36" to 48"	1367-4974*	367-4974*	1367-5974*	367-5974*

* Adjustable arm for 36" to 48" range will be fabricated. Stem Guides for stems up to 72" away from wall can be fabricated from either carbon steel or stainless steel, please inquire.

** For product weights, see drawing on Page G-20.



Typical Stem Guide installation

i Stem Guides are generally recommended at 6' to 8' intervals. Bronze bushings can be drilled up to a 2-1/8" bore diameter for 2" O.D. stems. By removing the bushing larger stems can be accommodated, up to 2-3/8" O.D. See pages G-21 – G-24 for Stem Guides for larger diameter stems.

Ordering Instructions

1. Quantity required
2. Provide the Trumbull item number for the model you require (shown above)
3. O.D. of stem being used, or desired bushing material (see note on right) & hole size

Bushings are available in:

- Low-lead brass
- Ultra High Molecular Weight Polyethylene (UHMWPE)
- NSF 61 approved polymer (Ryton® R-4)

Item	Part	Material
1	Base	Ductile Iron or Stainless Steel
2	Arm	Ductile Iron (carbon steel for 36" to 48" version) or Stainless Steel
3	Clamp	Ductile Iron or Stainless Steel
4	Bushing	Low-Lead Brass
5	Bolt	5/8" x 4", Hex Head, Stainless Steel
6	Washer	1-1/2" O.D., Stainless Steel
7	Nut	5/8", Hex, Stainless Steel
8	Screw	1/4"-20 UNC, Stainless Steel

Item No.	Size	Weight
----------	------	--------

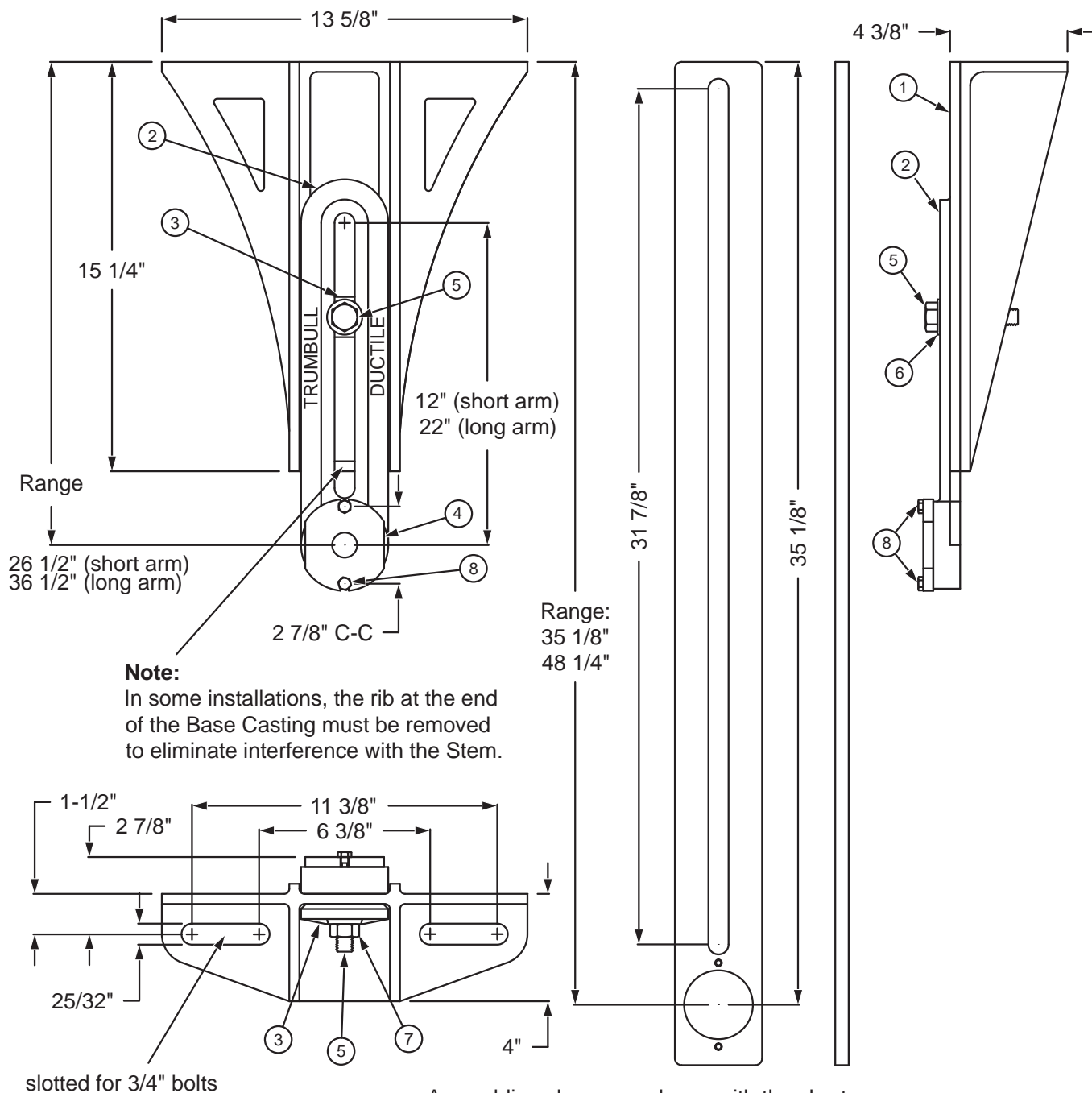
Ductile Iron Guides (65-45-12)

367-4960	2" - 26"	25 lbs.
367-4970	2" - 36"	28 lbs.
367-4974	36" - 48"	38 lbs.

Stainless Steel Guides (T316)

367-5960	2" - 26"	25 lbs.
367-5970	2" - 36"	29 lbs.
367-5974	36" - 48"	37 lbs.

All Ductile Iron and carbon steel components are coated with Tnemec N140-1211, NSF 61 compliant.



ADJUSTABLE STEM GUIDES

Drawn to Scale

Drawn:
FCN
04/25/15

Revision:
FCN
07/24/19

Trumbull Manufacturing, Inc.

Youngstown, Ohio
www.trumbull-mfg.com

Larger Diameter Adjustable Stem Guides

Removable End Cap Design

Trumbull Larger Diameter Stem Guides are designed for installation in treatment plants and pump stations to provide support for valve extension stems. They accommodate larger stem diameters, expanding the bore capacity up to 4". Coated with Tnemec N140-1211 epoxy (complies with NSF 61). See reverse side for drawing.

i Stem Guides are generally recommended at 6' to 8' intervals.

END CAP DESIGN

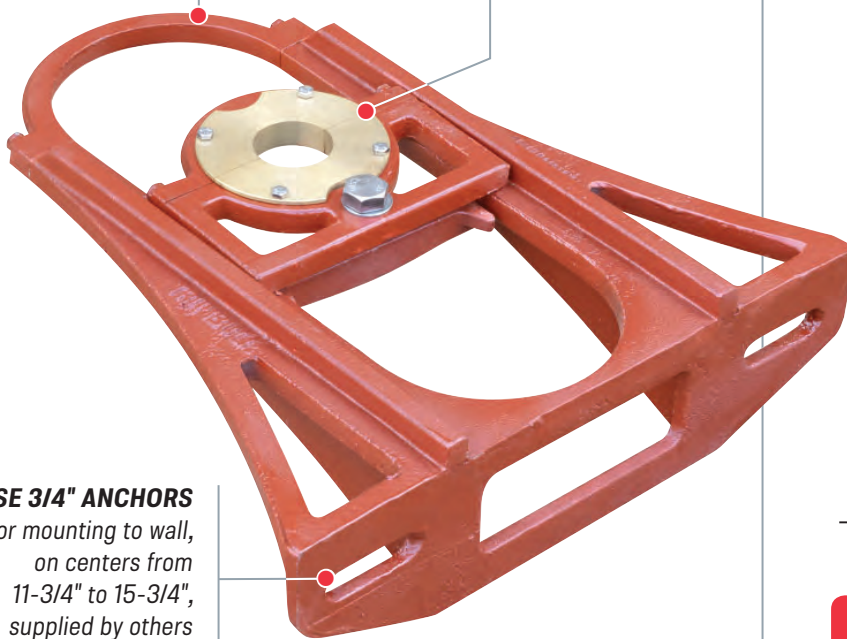
provides a safety restraint for large or unwieldy stems during installation or maintenance

SPLIT BUSHINGS

simplify the installation of larger diameter extension stems

USE 3/4" ANCHORS

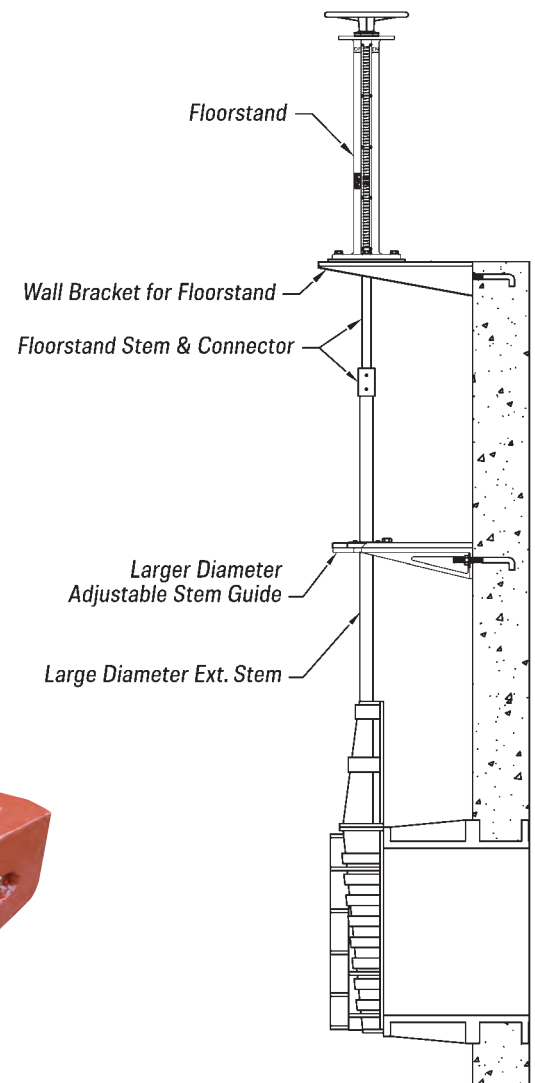
for mounting to wall, on centers from 11-3/4" to 15-3/4", supplied by others



Item No	Adjustment Range	For Stem Diameters	Weight
367-6960	2-3/4" to 17-1/4" *	2" to 4"	38.65 lbs.

* Adjustment range dependent on stem diameter

Stem Guides for 4" to 6-1/2" stem diameters, as well as stainless steel models without end caps are shown on pages G-23 and G-24.



Typical installation

Ordering Instructions

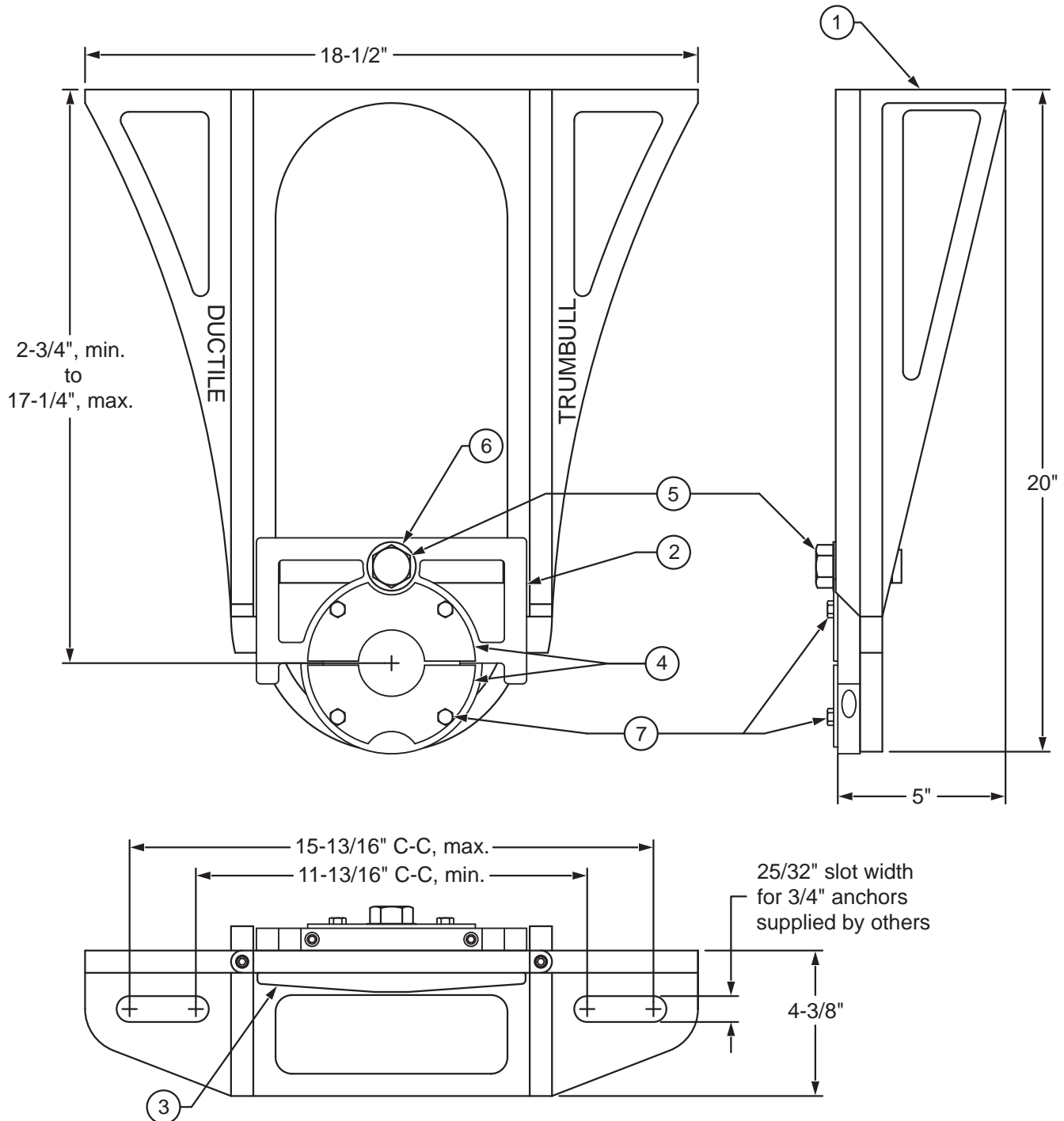
1. Quantity required
2. Trumbull item number
3. O.D. of stem being used, or desired bushing material & hole size

Note that a 2-1/8" bore diameter bushing supplied if size is not specified.

Item	Part	Material
1	Base	Ductile Iron
2	Arm	Ductile Iron
3	Clamp	Ductile Iron
4	Bushing	Bronze
5	Bolt	5/8" x 4", Hex Head, Stainless Steel
6	Washer	1-1/2" O.D., Stainless Steel
7	Screw	1/4"-20 U.N.C., Stainless Steel

All ductile iron components are coated with Tnemec 140-1211, NSF 61 compliant.

Weight of assembly: 43 lbs.



LARGE BORE STEM GUIDE

Drawn to Scale

Drawn:
FCN
08/23/99

Revision:
FCN
04/07/15

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

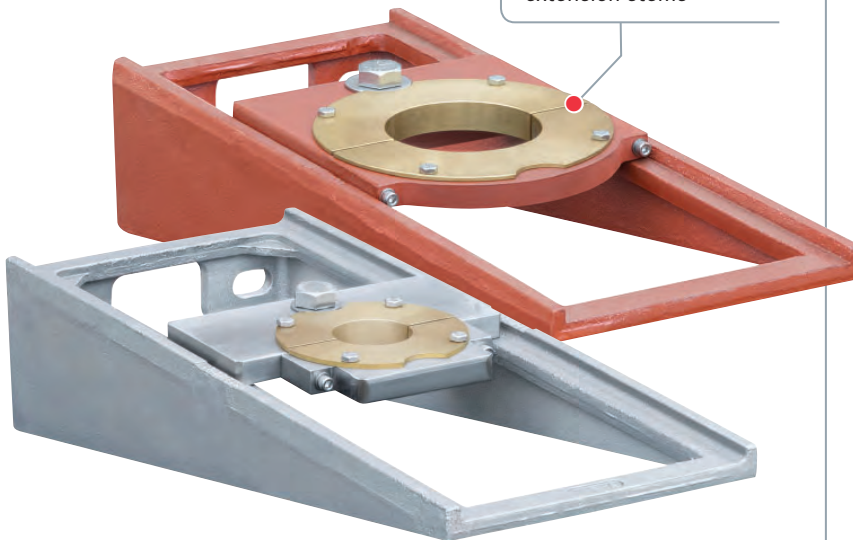
Larger Diameter Adjustable Stem Guides

Wall Bracket Design

Trumbull Larger Diameter Stem Guides are designed for installation in treatment plants and pump stations to provide support for valve extension stems. They accommodate larger stem diameters, expanding the bore capacity up to 6-1/2". All ductile iron castings coated with Tnemec N140-1211 epoxy (complies with NSF 61). See reverse side for drawing.

Stem Guides are generally recommended at 6' to 8' intervals.

SPLIT BUSHINGS
simplify the installation
of larger diameter
extension stems



Ductile Iron

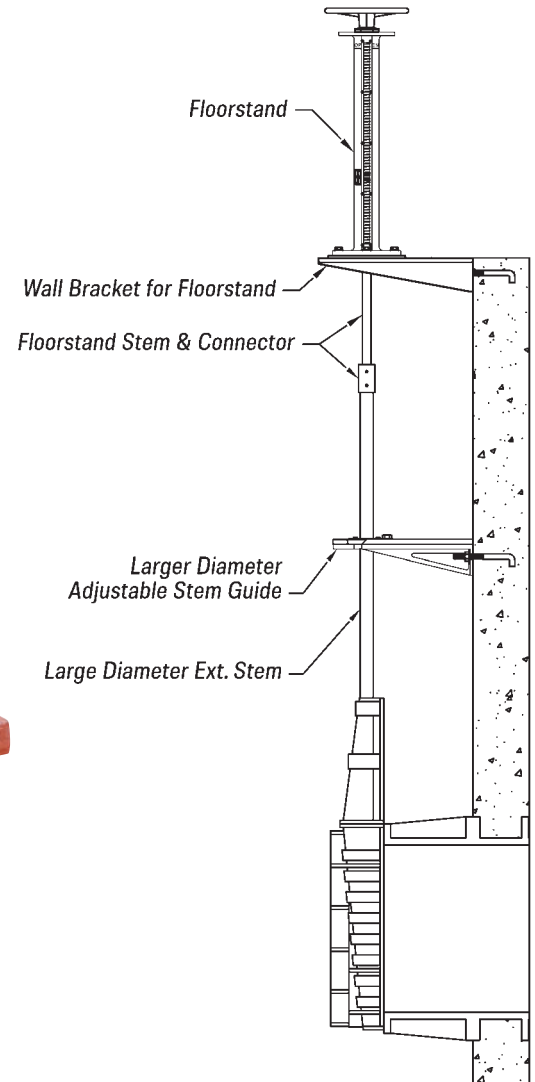
Item No	Adjustment Range	For Stem Diameters	Weight
367-2454	4" to 18" *	4" to 6-1/2"	38.65 lbs.

316 Stainless Steel

Item No	Adjustment Range	For Stem Diameters	Weight
367-2463	4" to 18" *	2" to 4"	38.50 lbs.
367-2464	4" to 18" *	4" to 6-1/2"	41.50 lbs.

* Adjustment range dependent on stem diameter

Stem Guides with 2-3/4" to 17-1/4" adjustment range and removable end cap design are shown on pages G-21 and G-22.



Typical installation

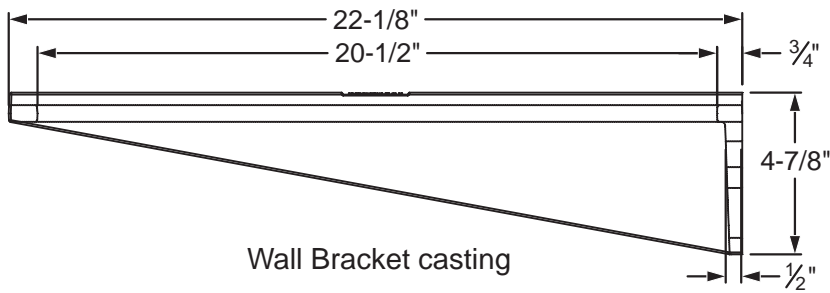
Ordering Instructions

1. Quantity required
2. Trumbull item number
3. O.D. of stem being used, or desired bushing material & hole size

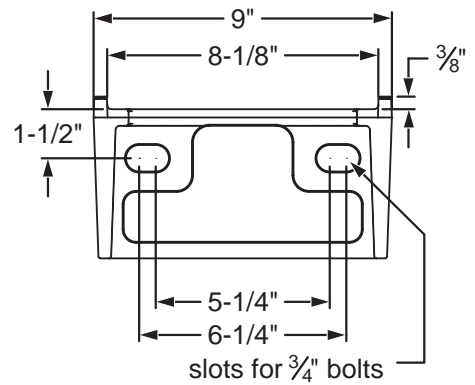
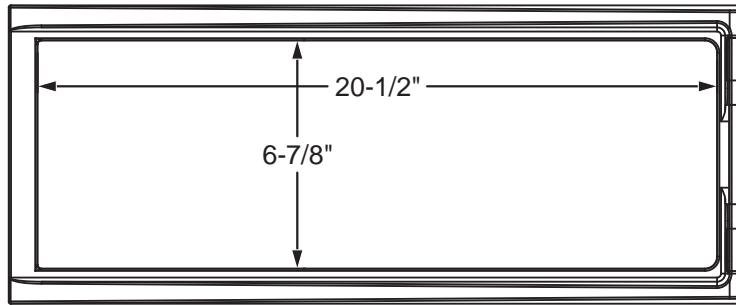
If size is not specified, the following bore diameter bushings are supplied:

2-1/8" for item 367-2463

4-1/8" for items 367-2454 and 367-2464



Wall Bracket casting



Wall Bracket with Large Bore Stem Guide Kit

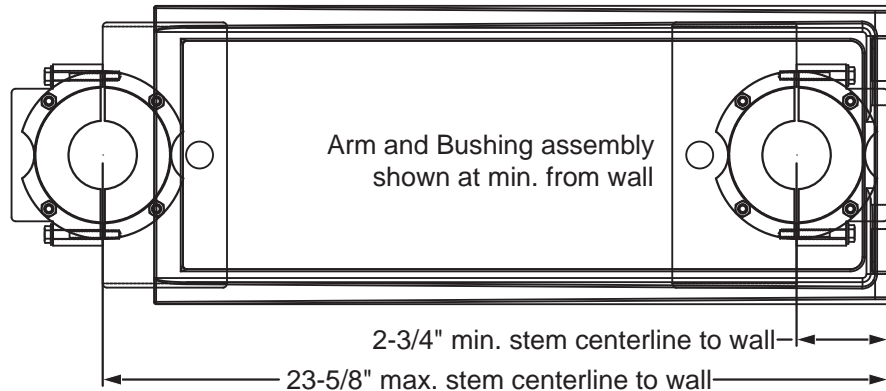
Wall Bracket SS, Stems 2" - 4" No. 367-2463

Wall Bracket SS, Stems 4" - 6-1/2" No. 367-2464

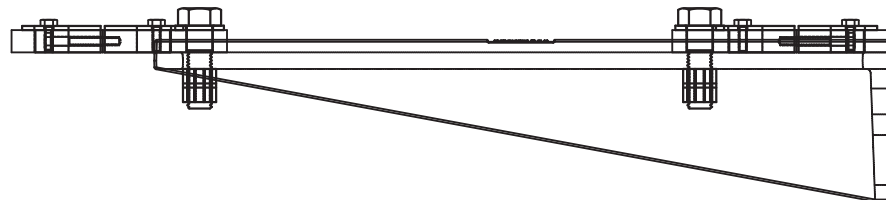
Mounting kit includes clamps and fasteners

Arm and Bushing assembly
shown at max. from wall

Arm and Bushing assembly
shown at min. from wall



Typical Arm and Bushing
Assembly

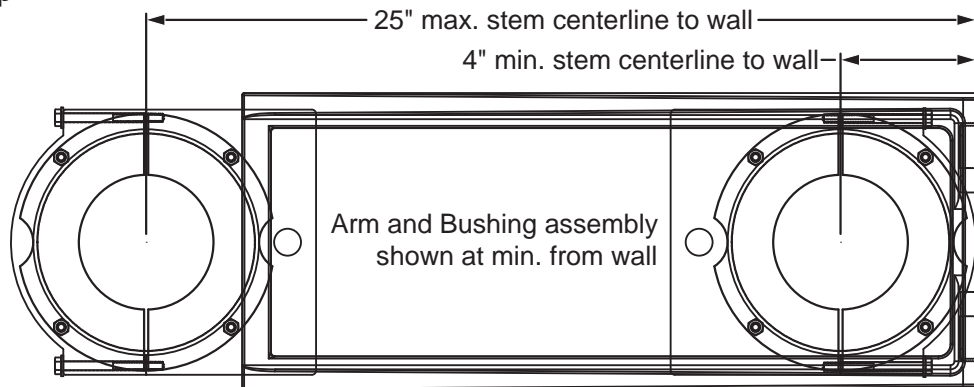


Typical
Arm Clamp
and Bolt



Arm and Bushing assembly
shown at max. from wall

Arm and Bushing assembly
shown at min. from wall



LARGE BORE STEM GUIDE WALL BRACKET STYLE

Drawn to Scale

Drawn:
FCN
07/26/19

Revision:
FCN
A 07/26/19

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Wall Brackets

Designed to Accommodate a Variety of Different Applications

Trumbull Wall Brackets are used in conjunction with several of our other products such as Miter Gears, Valve Position Indicators, Pedestals, Floorstands and others. Cast from either ductile iron or 316 stainless steel. All ductile iron castings are coated with Tnemec N140-1211 epoxy (complies with NSF 61). Sold as kits with parts and hardware included to accommodate several other products, as shown below. Custom fabricated wall brackets also available upon request.



Miter Gear Applications

Kit includes Wall Bracket, Miter Gear MG1A, (2) clamps and hardware. Miter Gears shown on pages G-9 – G-10. Concrete anchors not included.

Item No	Material	Adjustment Range (stem to wall)	Weight
367-2452	Ductile Iron	4-1/2" to 17-1/2"	[varies]
367-2462	316 Stainless	4-1/2" to 17-1/2"	[varies]

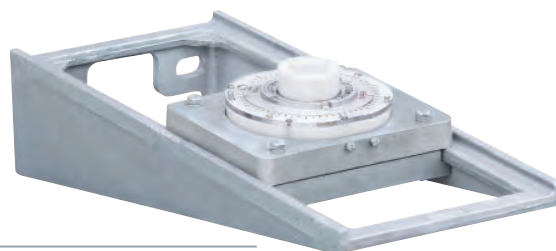


Valve Position Indicator Applications

US PATENT NO. 9,347,583 (See page F-9 for detailed illustration)

Kit includes Wall Bracket, Position Indicator Housing, (2) clamps and hardware. The Position Indicator is sold separately, shown on pages F-9 – F-10. Concrete anchors not included.

Item No	Material	Adjustment Range (stem to wall)	Weight
367-2450	Ductile Iron	3-1/2" to 18"	[varies]
367-2460	316 Stainless	3-1/2" to 18"	[varies]

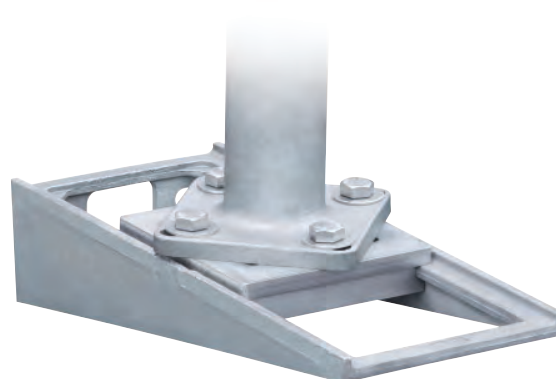


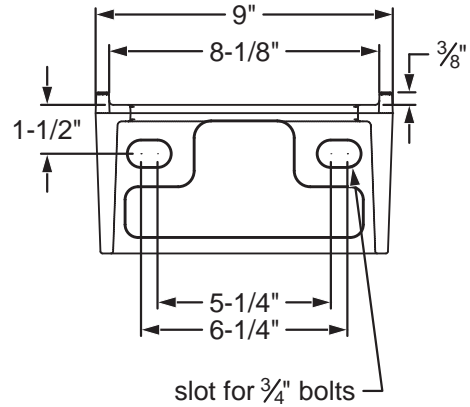
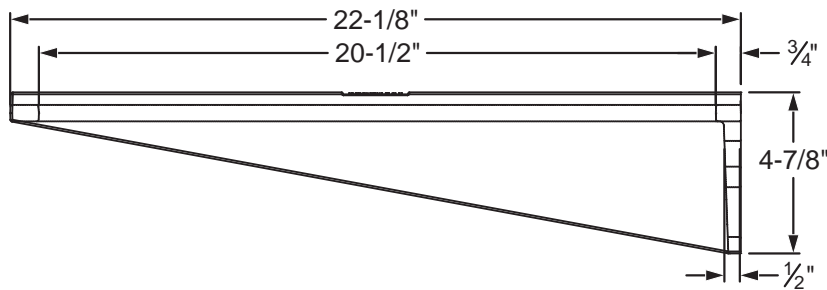
Floorstand / Pedestal Applications

Kit includes Wall Bracket, Mounting Plate, (2) clamps and hardware. The Floorstands and Pedestals are sold separately, shown on pages G-44 – G-52. Concrete anchors not included.

Item No	Material	Adjustment Range (stem to wall)	Weight
367-2451	Ductile Iron	4-7/8" to 17-1/8"	[varies]
367-2461	316 Stainless	4-7/8" to 17-1/8"	[varies]

Wall Brackets are also used as a Larger Diameter Stem Guides, as shown on pages G-23 and G-24.

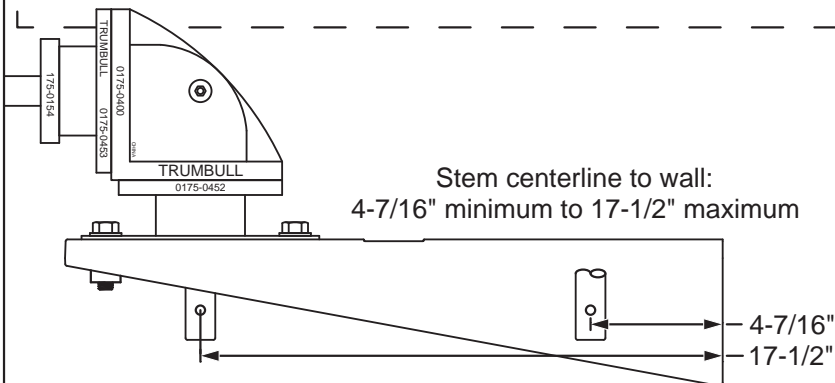




Wall Bracket Casting

Base unit, order with kits shown on the bottom of page

Wall Bracket (Ductile Iron) - No. 367-2440
Wall Bracket (Stainless) - No. 367-2426

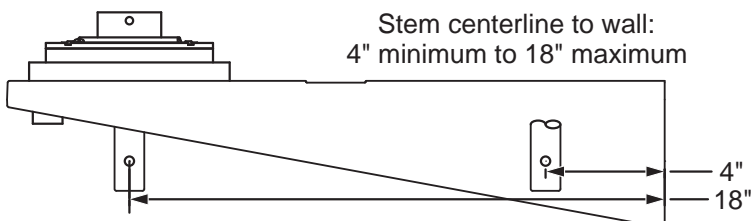


Wall Bracket with Miter Gear and Kit

Miter Gear Assembly included

Miter Gear/mounting kit (DI) - No. 367-2452
Miter Gear/mounting kit (SS) - No. 367-2462

Mounting kit includes clamps and fasteners

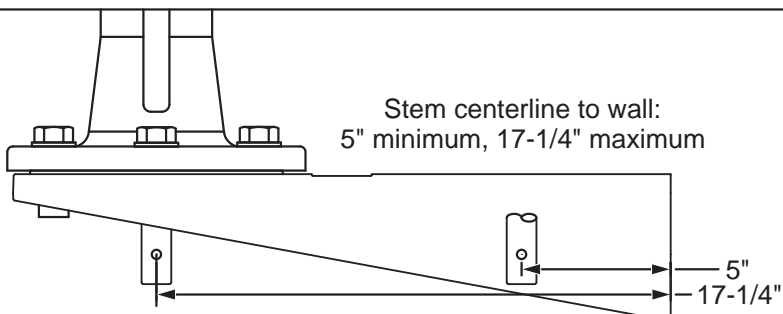


Wall Bracket with Position Indicator Kit

Position Indicator must be ordered separately

PI mounting kit (DI) - No. 367-2450
PI mounting kit (SS) - No. 367-2460

Mounting kit includes clamps and fasteners



Wall Bracket w/Floorstand Kit

Floorstand must be ordered separately

Floorstand mounting kit (DI) - No. 367-2451
Floorstand mounting kit (SS) - No. 367-2461

Mounting kit includes clamps and fasteners

WALL BRACKET and KITS

Drawn to Scale

Drawn:
FCN
08/23/99

Revision:
FCN
J 04/07/15

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Cast Iron Mud Valves

Certified to NSF-61 and NSF-372 in USA and Canada

Trumbull Mud Valves are designed primarily for use in settling tanks of water and wastewater treatment plants. Their intended use is to drain tanks for maintenance or cleaning. They are for low pressure applications only; consult Trumbull for special requirements.

Mud Valves are furnished with a 2" square operating nut; however, they can be supplied with optional extension stem or handwheel (see page G-5).

This valve series uses bronze seats in the body and gate (also available with resilient seat). The cast iron body assembly features manganese bronze stems and guides for use in submerged installations. The fasteners are furnished in stainless steel to prevent corrosion from years of submerged service.

Nuts, bolts and gaskets for mounting to floor pipe are NOT furnished but can be ordered separately. Ductile iron components are coated with Tnemec N140-1211 epoxy, per NSF 61.

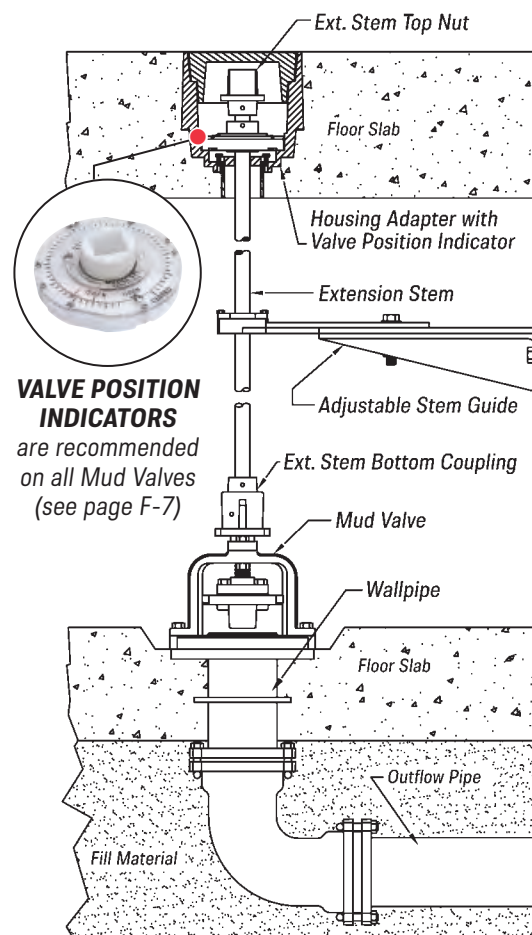
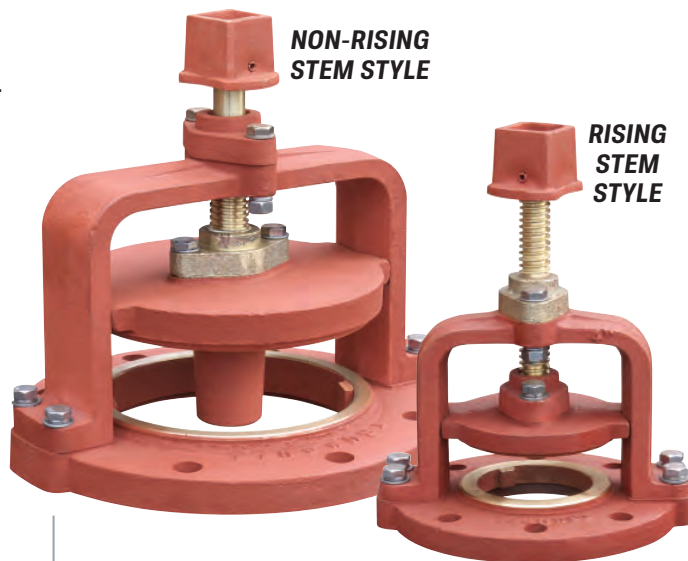
See pages G-28 and G-29 for drawings.



The flange drilling is according to ANSI 125# STD. on all sizes; however, one hole under each leg of the yoke is not available for fastening to the mating flange.

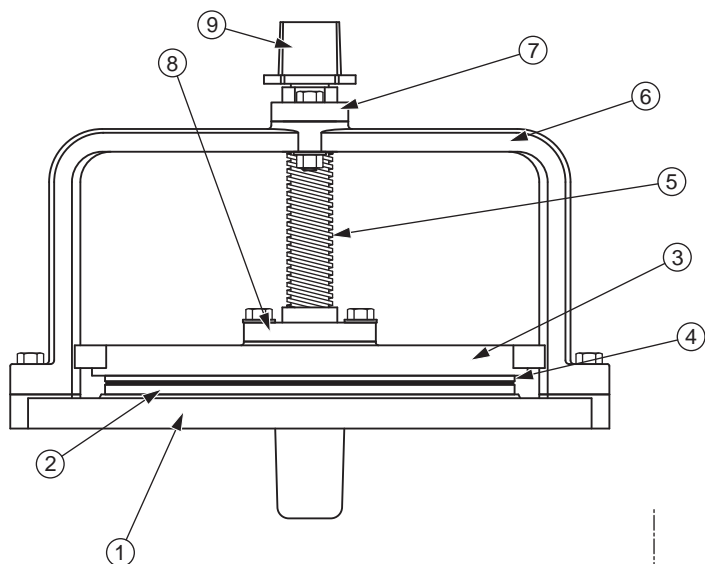
Size	Non-Rising Stem		Rising Stem	
	Item No	Weight	Item No	Weight
3"	367-1414	26.00 lbs.	367-1421	25.00 lbs.
4"	367-1415	31.00 lbs.	367-1420	30.00 lbs.
6"	367-1416	47.00 lbs.	367-1423	46.00 lbs.
8"	367-1418	76.00 lbs.	367-1425	73.00 lbs.
10"	367-1428	95.00 lbs.	367-1494	90.00 lbs.
12"	367-1430	130.00 lbs.	367-1495	130.00 lbs.
14"	367-1431	142.00 lbs.	Consult Trumbull for availability.	
16"	367-1432	169.00 lbs.		
18"	367-1433	256.00 lbs.		
20"	367-1434	281.00 lbs.		
24"	367-1435	450.00 lbs.		

See page G-34 for installation options.



Typical Mud Valve Installation

Valve Size (Bore Dia.)	3	4	6	8	10	12	14	16	18	20	24
A - Overall height	9-7/8	9-1/2	11-1/4	11-3/4	12-13/16	13	15	16-3/4	18-3/4	19-3/4	23-1/2
B - Width at Yoke	10	10	12-3/8	14-1/2	17	19-3/4	22-3/4	24-5/8	28-1/2	30-5/8	37
C - Valve opening	2-1/4	2	3-1/2	4	4-1/16	5	6-3/4	7-3/4	8-1/2	9-3/4	12-1/4
D - Basin depth in floor, min.	1-3/8	1-3/8	1-5/8	1-5/8	1-5/8	1-3/4	1-3/4	1-7/8	2-1/8	2-1/4	2-5/8
E - Flange Thickness	3/4	13/16	1	7/8	7/8	1	1-1/8	1-1/4	1-3/8	1-9/16	1-7/8
Flange O.D.	7-1/2	9	11	13-1/2	16	19	21	23-1/2	25	27-1/2	32
Bolt Circle	6.0	7.5	9.5	11.75	14.25	17.0	18.75	21.25	22.75	25.0	29.5
Bolt Hole Dia.	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4	1-1/4	1-3/8
Bolt Dia.	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4
Bolts in full Pattern* (except 3")	4	8*	8*	8*	12*	12*	12*	16*	16*	20*	20*
Stem Diameter	1	1	1-1/8	1-1/4	1-3/8	1-1/2	1-1/2	1-1/2	1-3/4	1-3/4	1-3/4
Turns to Open	10-1/2	11	17	20	21	25-1/2	34	40	43	49	63
Weight, pounds	26.3	27	47	73	110	130	139	167	243	280	453



Item	Part	Materials
1	Base Flange (Body)	Gray Iron, ASTM A126 (B)
2	Seat, Base Flange	Bronze, ASTM B62; B584
3	Gate	Ductile Iron, ASTM A536 (65-45-12)
4	Seat, Gate	Bronze, ASTM B62; B584
5	Stem	Bronze, ASTM B584
6	Yoke	Ductile Iron, ASTM A536 (65-45-12)
7	Guide, unthreaded	Ductile Iron, ASTM A536 (65-45-12)
8	Guide, threaded	Bronze, ASTM B584
9	Operating Nut, 2" sq.	Gray Iron, ASTM A126 (B)

All Fasteners are Stainless Steel

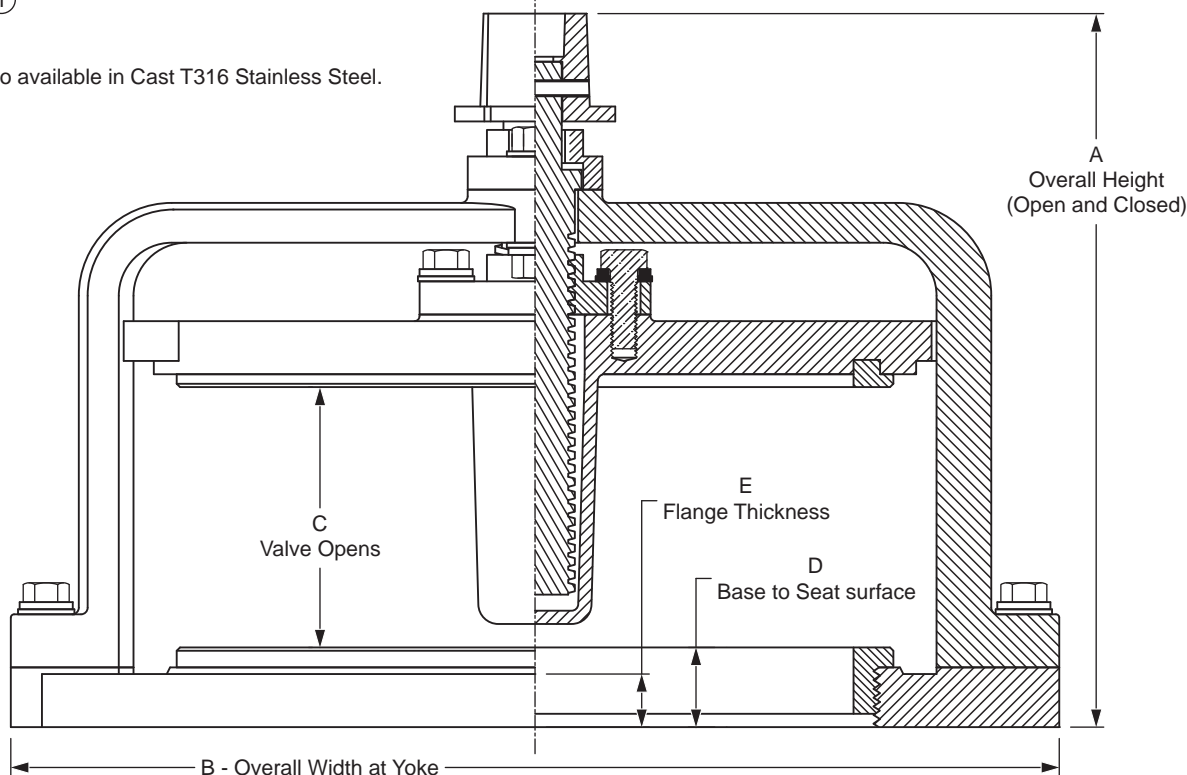
Standard 125 pound drilling template.

* Two of the bolts in the bolt pattern are under the yoke feet and not used (except for 3").

All cast iron surfaces, except machined surfaces, to be finished with NSF61 (TNEMEC 140-1211) coating.

Flange mounting gasket and fasteners are not included, and must be ordered separately.

Also available in Cast T316 Stainless Steel.



CAST IRON MUD VALVES NON-RISING STEM TYPE

Drawn to Scale

Drawn:
FCN
10/16/17

Revision:
FCN
B 02/13/20

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Valve Size (Bore Dia.)	3	4	6	8	10	12	14	16**	18**	20**	24**
A - Overall height, closed	9-3/4	9-3/4	11	11-3/4	12-3/4	13	14-1/2	16-3/4	18-3/4	19-3/4	23-1/2
A - Overall height, open	12	11-7/8	14-3/8	15-3/4	16-3/4	18	21-1/2	24-3/4	27-3/4	29-3/4	35-1/2
B - Width at Yoke	10	10	12-3/8	14-1/2	17	19-3/4	22-3/4	24-5/8	28-1/2	30-5/8	37
C - Valve opening	2-1/4	2-1/8	3-3/8	4	4	5	7	8	9	10	12
D - Basin depth in floor, min.	1-3/8	1-3/8	1-5/8	1-5/8	1-5/8	1-3/4	1-3/4	1-7/8	2-1/8	2-1/4	2-5/8
E - Flange Thickness	3/4	13/16	1	7/8	7/8	1	1-1/8	1-1/4	1-3/8	1-9/16	1-7/8
Flange O.D.	7-1/2	9	11	13-1/2	16	19	21	23-1/2	25	27-1/2	32
Bolt Circle	6.0	7.5	9.5	11.75	14.25	17.0	18.75	21.25	22.75	25.0	29.5
Bolt Hole Dia.	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4	1-1/4	1-3/8
Bolt Dia.	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4
Bolts in full Pattern* (except 3")	4	8*	8*	8*	12*	12*	12*	16*	16*	20*	20*
Stem Diameter	1	1	1-1/8	1-1/4	1-3/8	1-1/2	1-1/2	1-1/2	1-3/4	1-3/4	1-3/4
Turns to Open	10-1/2	11	17	20-1/2	20	25	35	40	45	50	60
Weight, pounds	26.3	30	46	73	110	130	140	165	240	280	450

Standard 125 pound drilling template.

* Two of the bolts in the bolt pattern are under the yoke feet and not used.

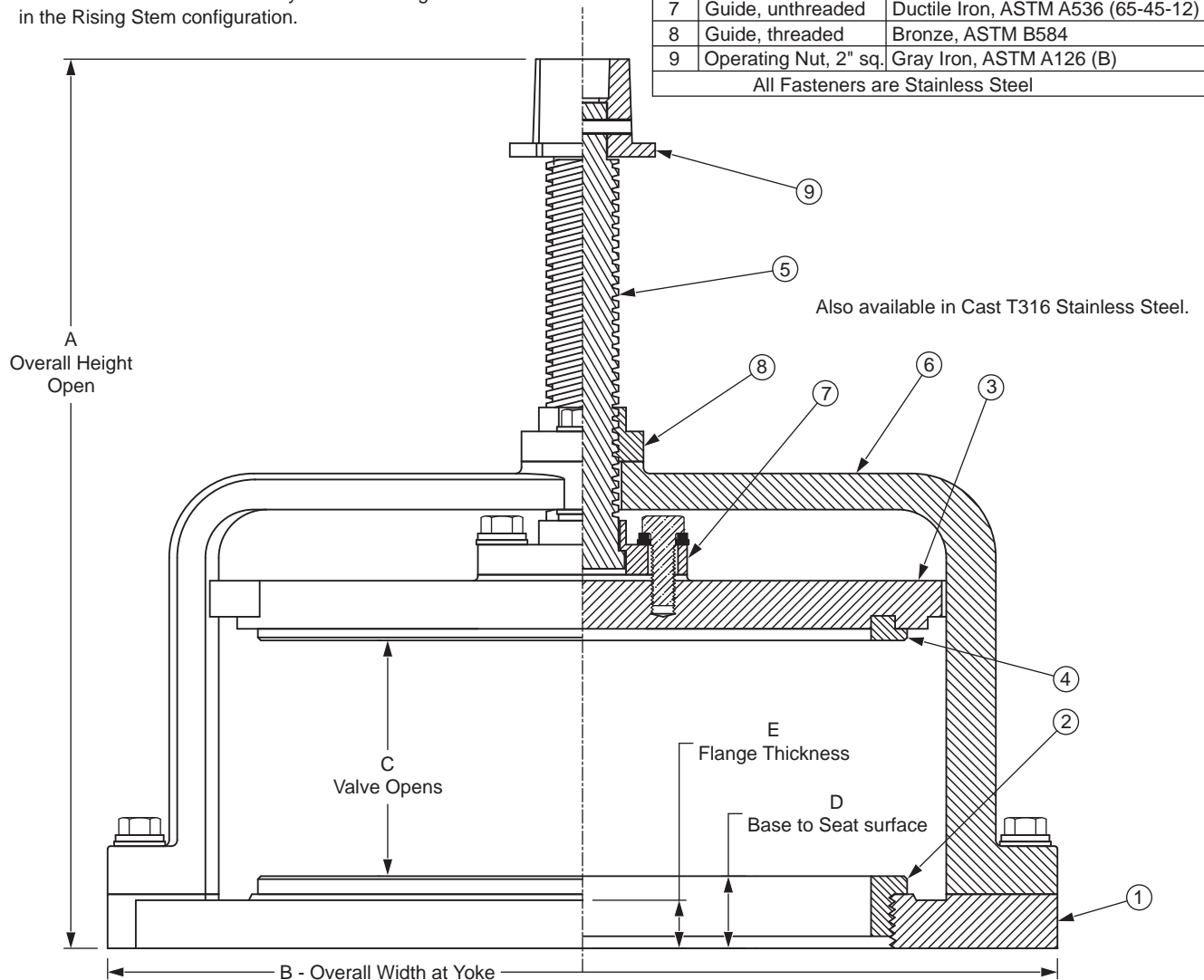
All cast iron surfaces, except machined surfaces, to be finished with NSF61 (TNEMEC 140-1211) coating.

Flange mounting gasket and fasteners are not included, and must be ordered separately.

** Consult Trumbull on the availability of 16" and larger sizes in the Rising Stem configuration.

Item	Part	Materials
1	Base Flange (Body)	Gray Iron, ASTM A126 (B)
2	Seat, Base Flange	Bronze, ASTM B62; B584
3	Gate	Ductile Iron, ASTM A536 (65-45-12)
4	Seat, Gate	Bronze, ASTM B62; B584
5	Stem	Bronze, ASTM B584
6	Yoke	Ductile Iron, ASTM A536 (65-45-12)
7	Guide, unthreaded	Ductile Iron, ASTM A536 (65-45-12)
8	Guide, threaded	Bronze, ASTM B584
9	Operating Nut, 2" sq.	Gray Iron, ASTM A126 (B)

All Fasteners are Stainless Steel



CAST IRON MUD VALVES RISING STEM TYPE

Drawn to Scale

Drawn:
FCN
10/16/17

Revision:
FCN
B 02/13/20

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

OTHER ADAPTATIONS

For Trumbull Mud Valves



BENCH STAND

SLIDING STEM MUD VALVE

*Available when desirable
to keep operating threads
out of the water.*



STAINLESS STEEL MUD VALVE EXTENDED BONNET WITH PNEUMATIC CYLINDER

For remote operation.



FLOORSTAND WITH LIMIT SWITCHES

*For remote indication
of valve position.*

Cast 316 Stainless Steel Mud Valves

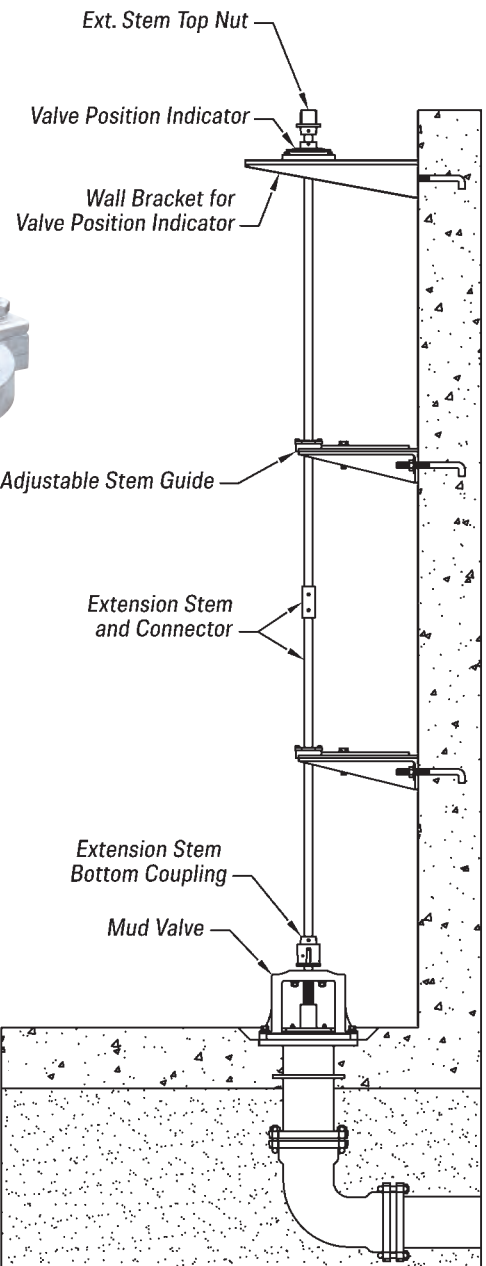
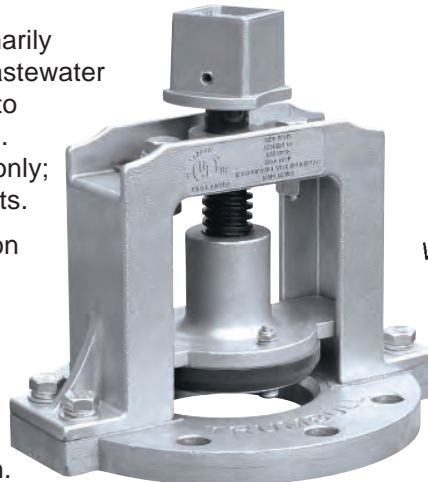
Heavy-Duty Design – Certified to NSF-61 and NSF-372 in USA and Canada

Trumbull Mud Valves are designed primarily for use in settling tanks of water and wastewater treatment plants. Their intended use is to drain tanks for maintenance or cleaning. They are for low pressure applications only; consult Trumbull for special requirements.

For applications requiring more corrosion protection than cast iron, the yoke, flange, guides and gate of these Mud Valves are cast from Type 316 stainless steel. The one-piece, Type 316 stem has a permanently bonded coating to protect against galling for a lifetime of maintenance-free operation.

Cast components eliminate corrosion problems frequently caused when stainless steel is welded. Castings are passivated after machining, per ASTM A-967. Heavy-duty design incorporates generous wall thicknesses and stem diameters for maximum strength and corrosion protection. Seat is SBR rubber for positive shutoff. Mechanically retained seat is field-replaceable. Fasteners are Type 316 stainless. See pages G-32 and G-33 for drawings.

Nuts, bolts and gaskets for mounting to floor pipe are NOT furnished but can be ordered separately.



Typical Mud Valve Installation
See page G-34 for installation options.

Size	Non-Rising Stem**		Rising Stem**	
	Domestic Item No	Non-Domestic Item No	Domestic Item No	Non-Domestic Item No
3"	1367-1349	367-1453	1367-1369*	367-1469
4"	1367-1350	367-1454	1367-1370*	367-1470
6"	1367-1351	367-1455	1367-1371*	367-1472
8"	1367-1352	367-1456	1367-1372*	367-1474
10"	1367-1353	367-1457	1367-1373*	367-1480
12"	1367-1354	367-1458	1367-1374*	367-1481
14"	1367-1355*	367-1459	*	*
16"	1367-1356*	367-1460		
18"	1367-1357*	367-1461		
20"	1367-1358*	367-1462		
24"	1367-1359*	367-1463		

* Consult Trumbull for availability.

** For product weights, see drawings on Pages G-32 & G-33.



Valve Position Indicators recommended on all Mud Valves (see page F-9).



Valve Size (Bore Dia.)	3	4	6	8	10	12	14	16	18	20	24
A - Overall height	9	8	10-1/2	12-1/2	14-1/2	17	23	21-1/4	23	25-3/4	34-5/8
B - Width at Yoke	8	10-1/4	12-5/8	15-1/8	17-3/8	19	25-3/4	25-3/4	27-3/4	27-1/2	32
C - Valve opening	1-1/2	1-3/4	2-3/4	3-1/2	4-3/4	6	7-3/8	7-1/2	8-1/4	9-1/4	12
D - Flange thickness	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Flange O.D.	7-1/2	9	11	13-1/2	16	19	21.0	23-1/2	25	27-1/2	32
Bolt Circle Diameter	6.00	7.50	9.50	11.75	14.25	17.00	18.75	21.25	22.75	25.00	29.5
Bolt Hole Dia.	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4	1-1/4	1-3/8
Bolt / Stud Size	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4
Bolts in full Pattern*	4	8	8	8	12	12	12	16	16	20	20
Stem Diameter	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-3/4	1-3/4	1-3/4
Turns to Open	7	9	15-1/2	20	26	30	37	20-1/2	23	48-1/2	60
Weight, pounds	19-1/2	24-1/2	33-1/2	48	65	88	125	142	186	206	230

* Standard 125 pound drilling template, with two holes covered by the Yoke (except for 3").

Flange mounting gasket and fasteners are not included, and must be ordered separately.

All items, except for the Seal and the sealing washers are Type 316 Stainless Steel.

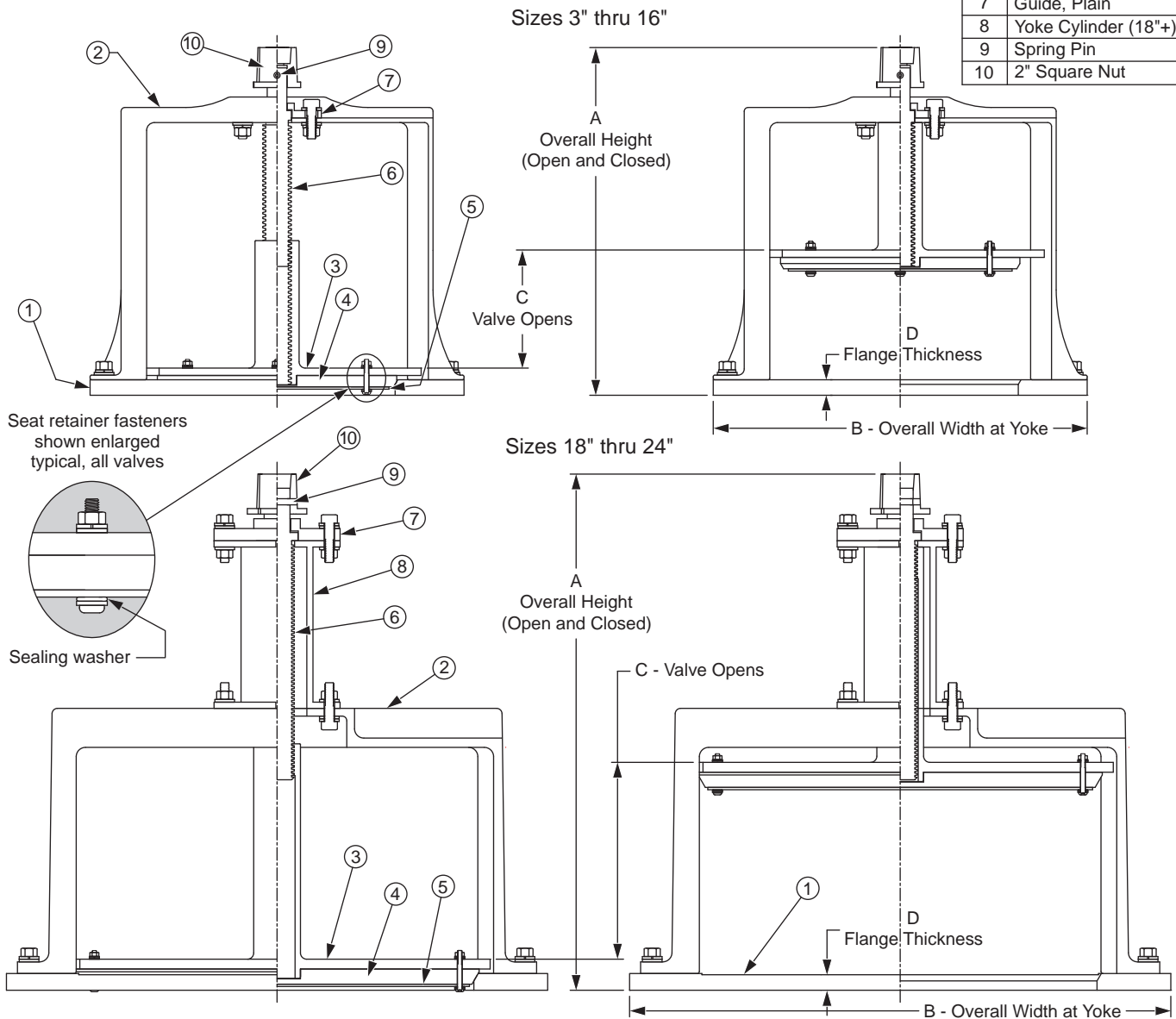
Seal and sealing washers are SBR.

All Fasteners are Stainless Steel, Type 316, ASTM A193, Grade B

Stem is coated and greased to prevent galling.

Basin depth in floor for complete draining, 1" minimum.

Part	Description
1	Base Flange (Body)
2	Yoke
3	Gate
4	Seat
5	Seat Retainer
6	Stem
7	Guide, Plain
8	Yoke Cylinder (18"+)
9	Spring Pin
10	2" Square Nut



CAST T316 SS MUD VALVES NON-RISING STEM TYPE

Drawn to Scale

Drawn:
FCN
07/24/07

Revision:
FCN
F 02/07/20

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Valve Size (Bore Dia.)	3	4	6	8	10	12	14	16	18	20	24
A - Overall height, closed	9	8-3/4	10-1/2	12-1/2	14	17	23	23	18	18	23
A - Overall height, open	10-1/2	11-1/2	16	19-1/4	22-3/4	28-1/2	39	39	27	28	35
B - Width at Yoke	8	10-1/4	12-5/8	15-1/8	17-3/8	19	25-3/4	25-3/4	27-3/4	27-1/2	32
C - Valve opening	1-1/2	2-1/4	5	7	8-1/4	11-1/2	16	16	9	10	12
D - Flange thickness	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Flange O.D.	7-1/2	9	11	13-1/2	16	19	21.0	23-1/2	25	27-1/2	32
Bolt Circle Diameter	6.00	7.50	9.50	11.75	14.25	17.00	18.75	21.25	22.75	25.00	29.5
Bolt Hole Dia.	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4	1-1/4	1-3/8
Bolt / Stud Size	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1-1/8	1-1/8	1-1/4
Bolts in full Pattern*	4	8	8	8	12	12	12	16	16	20	20
Stem Diameter	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-3/4	1-3/4	1-3/4
Turns to Open	7	13-1/2	26-1/2	30-1/2	36-1/2	50-1/2	80	80	45	50	60
Weight, pounds	19-1/2	25	34	48	59	78	142	142	155	164	218

Standard 125 pound drilling template, with two holes covered by the Yoke.

Flange mounting gasket and fasteners are not included, and must be ordered separately.

All items, except for the Seal and the sealing washers are Type 316 Stainless Steel.

Seal and sealing washers are SBR.

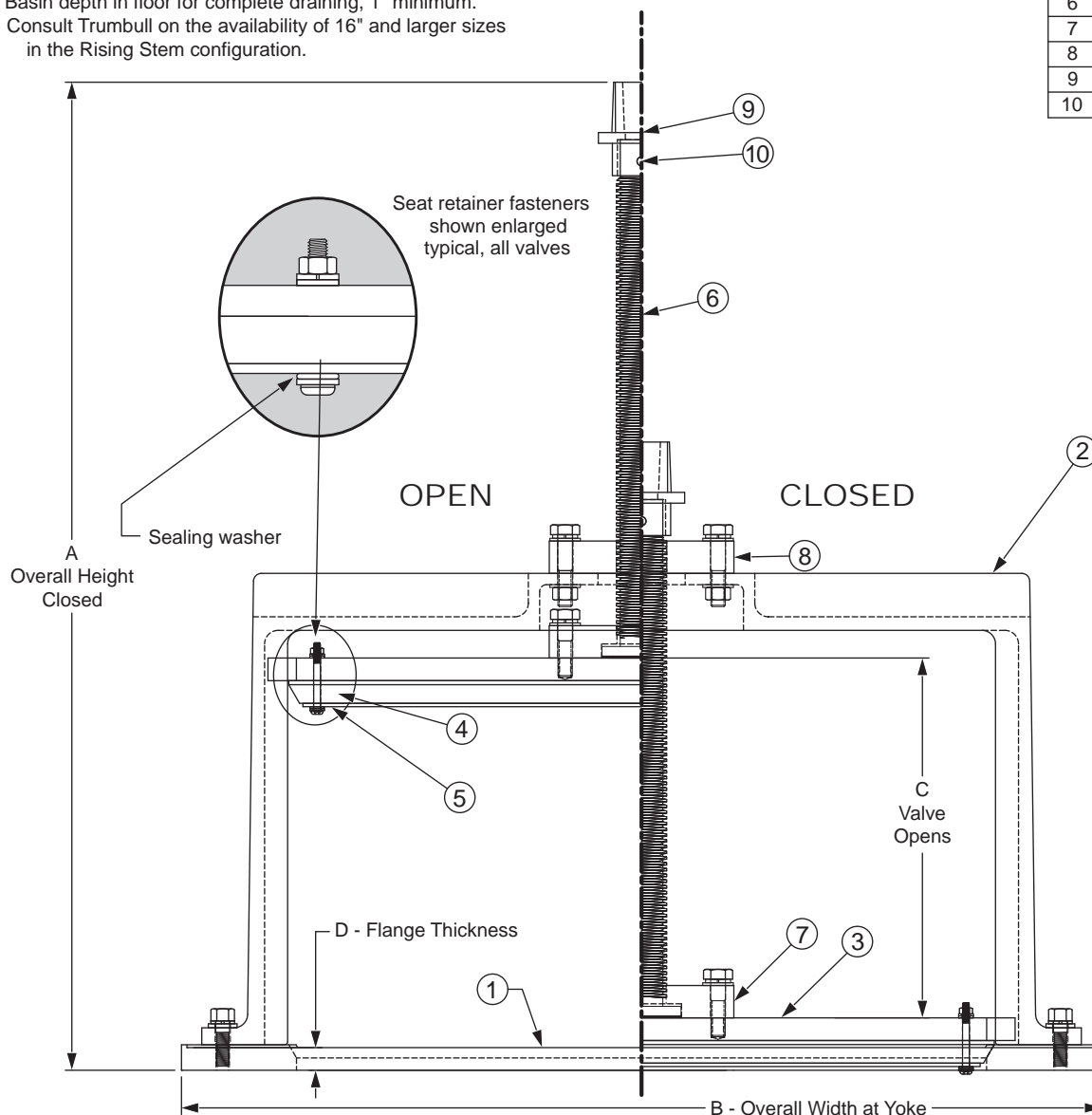
All Fasteners are Stainless Steel, Type 316, ASTM A193, Grade B

Stem is coated and greased to prevent galling.

Basin depth in floor for complete draining, 1" minimum.

Consult Trumbull on the availability of 16" and larger sizes in the Rising Stem configuration.

Part	Description
1	Base Flange (Body)
2	Yoke
3	Gate
4	Seat
5	Seat Retainer
6	Stem
7	Guide, Unthreaded
8	Guide, Threaded
9	2" Square Nut
10	Coil Type Spring Pin



CAST T316SS MUD VALVES RISING STEM TYPE

Drawn to Scale

Drawn:
FCN
10/16/17

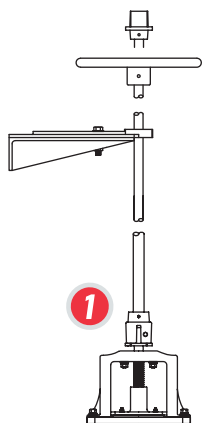
Revision:
NJC
C 03/19/20

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

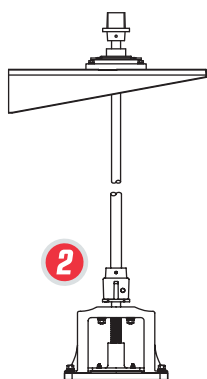
Optional Mud Valve Installations

Standard options shown on right

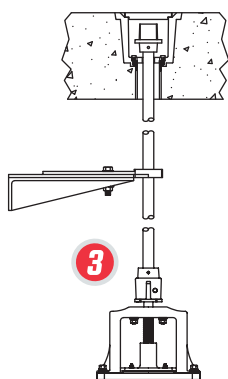
Mud Valve: Cast iron or cast 316 stainless steel
 Stem Guide: Ductile iron or cast 316 stainless steel
 Floorstand: Ductile iron (30" or 36") or cast 316 SS (36")
 Pedestal: Ductile iron or cast 316 SS
 Extension Stem: Carbon steel or stainless steel
 Wall Bracket: Ductile iron or cast 316 stainless steel
 Floor Box: Sealed or unsealed, cast iron or cast SS



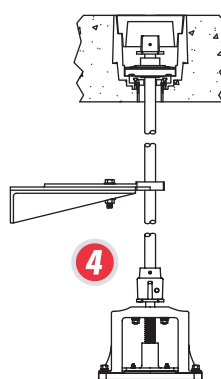
1
Stem Guide
with Handwheel or
2" square nut



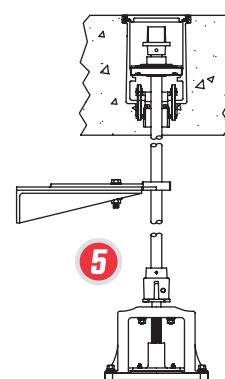
2
Wall Bracket with
Position Indicator



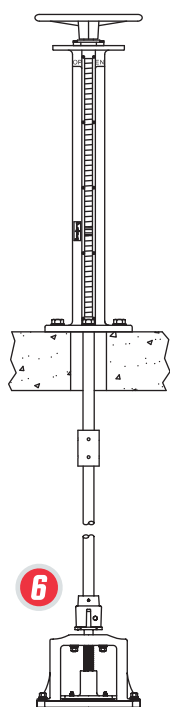
3
Floor Box w/out
Position Indicator



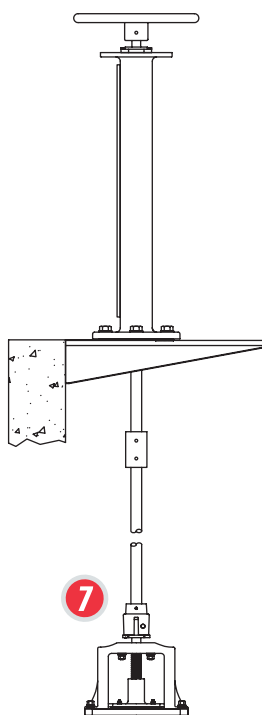
4
Floor Box with
Position Indicator



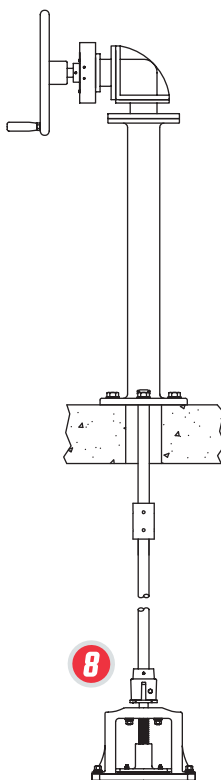
5
Cast Sealed
Floor Box with
Position Indicator



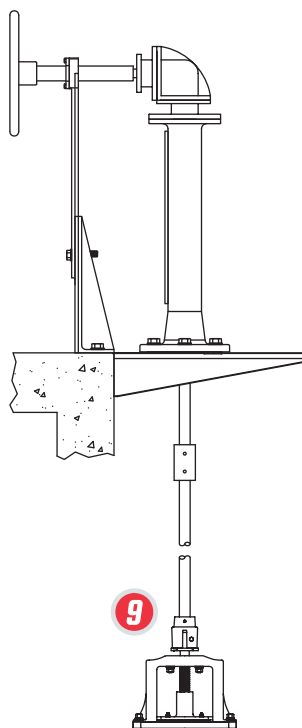
6
Indicating
Floorstand



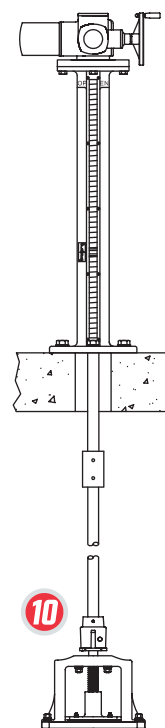
7
Indicating Floorstand
with Wall Bracket*



8
Pedestal with Miter Gear,
Crank Handwheel &
Position Indicator
(57T or 275T only)



9
Indicating Floorstand with
Wall Bracket, Miter Gear &
Horizontal Extension Stem*



10
Indicating Floorstand
with Actuator

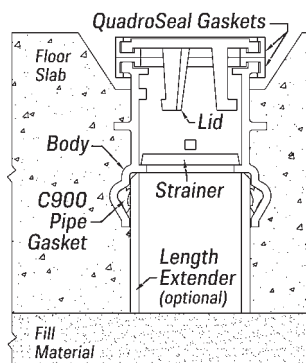
* Indicating slot faces operator and is not visible in installations 7 and 9.

Floor-Type Hydrostatic Tank Pressure Relief Valves

QuadroSeal™ Gasket Design – Available in Ductile Iron and Type 316 Stainless Steel

Trumbull Floor-Type Tank Pressure Relief Valves are cast in the bottom of tanks in treatment plants to keep empty tanks from floating from an excess of groundwater beneath them. When this condition occurs, the hydrostatic pressure will open the cover of the valve allowing water to enter, thereby equalizing pressure inside and outside the tank and preventing it from floating. They will start to open at less than one foot of head. Lugs in the body prevent the cover or strainer from becoming separated from the body of the valve due to flow. Both can be removed when necessary, however, by turning to the right or left.

Both Floor-Type and Wall-Type Valves use two Neoprene seating surfaces so if particles of grit lodge on them, the head of liquid in the tank will force the valve closed. These valves are for low seating or unseating pressure applications only. Design uses C900 pipe gaskets in bell to securely retain PVC pipe to valve.



Floor-Type Pressure Relief Valves *

Size	Ductile Iron**		316 Stainless Steel	
	Domestic Item No	Non-Domestic Item No	Domestic Item No	Non-Domestic Item No
4"	1367-1558	367-1558	1367-1540	367-1540
6"	1367-1559	367-1559	1367-1544	367-1544

* For product weights, see drawing on Page G-36.

** Furnished with NSF-61, 2 part epoxy coating.



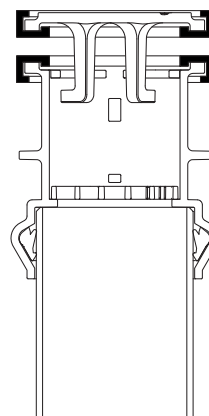
Floor-Type valves are cast in 4" and 6" sizes, in overall lengths of approx. 7-3/4". The lengths can be extended by inserting C900 PVC pipe into the underside of the valve. The PVC extensions can be furnished and inserted by Trumbull, to customer's exact length requirements, or in the field with customer supplied PVC pipe.



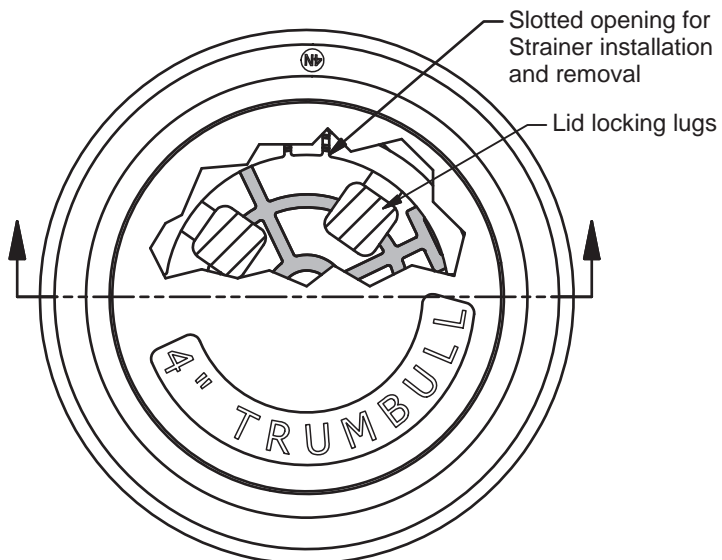
QUADROSEAL gaskets

Unique square design of QuadroSeal™ Gasket surrounds casting on four sides to prevent separation.

QuadroSeal™ design also prevents metal-to-metal contact that can cause seating surfaces of iron valves to corrode into a "frozen shut" position. See page G-39 for more information.



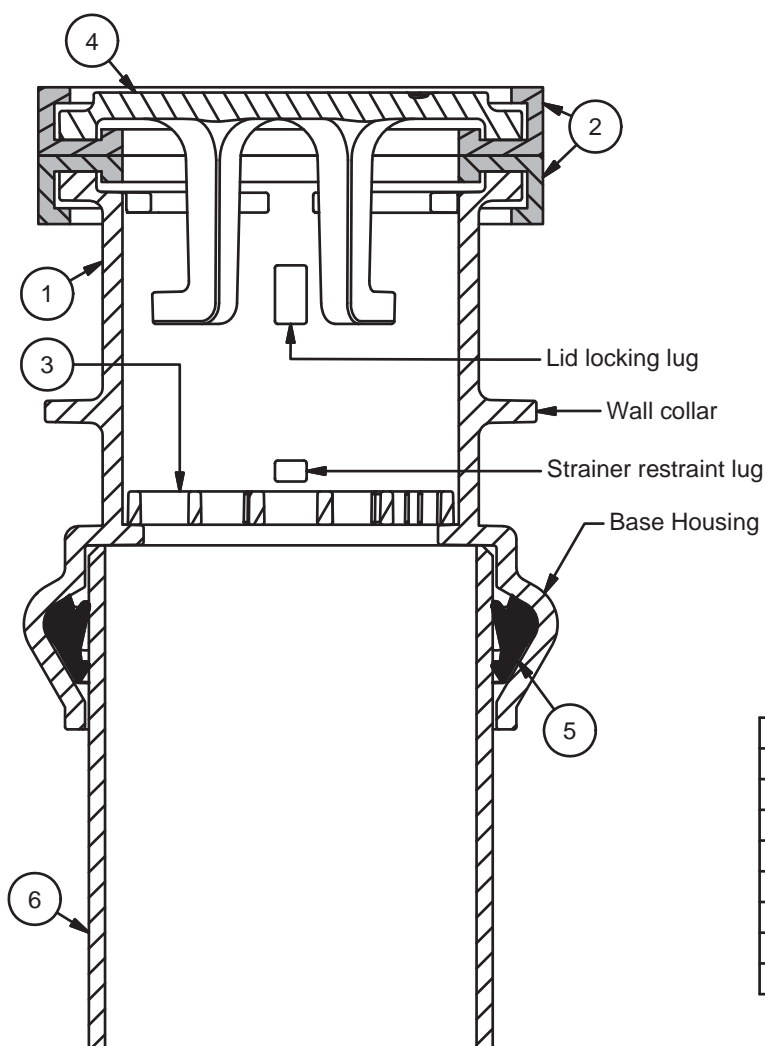
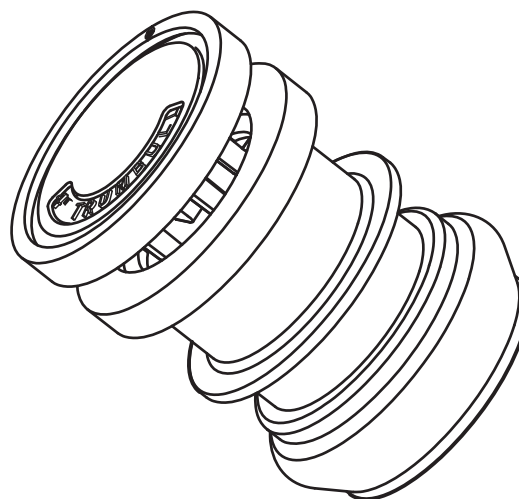
Wall-Type Pressure Relief Valves are shown on pages G-37 and G-38.



ITEM	DESCRIPTION	MATERIAL
1	Valve Body	Stainless Steel (T316) or Ductile Iron (65-45-12)
2	QuadroSeal Seat	Neoprene (40 durometer)
3	Strainer	Stainless Steel (T316) or Ductile Iron (65-45-12)
4	Lid	Stainless Steel (T316) or Ductile Iron (65-45-12)
5	Rieber Gasket	SBR
6	Length Extender	C900 PVC Pipe

Note:

Ductile Iron components are coated with Tnemec N140-1211 epoxy (complies with NSF 61).



Size	Material	Part Number	Weight
4"	DI	367-1556	13.2 lb
4"	SS	367-1540	14.5 lb
6"	DI	367-1578	23.1 lb
6"	SS	367-1544	22.3 lb

Valve size	4	6
Overall height - closed	7-5/8"	7-59/64"
Lid lift distance	1"	1"
Seat O.D.	6"	8"
Base Housing O.D.	6-11/32"	8-5/8"
Fits C900 pipe size	4"	6"
Wall collar O.D.	5-27/32"	8-1/8"
Body seat face to Collar CL	3"	2-7/8"
Strainer flow area	7.3 sq. in	18.9 sq. in

TANK PRESSURE RELIEF VALVE FLOOR TYPE Drawn to Scale

Drawn:
BJE
01/07/13

Original document

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Wall-Type Hydrostatic Tank Pressure Relief Valves

QuadroSeal™ Gasket Design – Available in Ductile Iron and Type 316 Stainless Steel

Trumbull Wall-Type Tank Pressure Relief Valves are designed for installation in side walls of tanks of treatment plants. They are intended for low unseating pressure applications and will start to open at less than one foot of head to relieve groundwater pressure from the exterior of tank wall. For low seating applications, contact Trumbull.

Trumbull Relief Valves use two Neoprene seating surfaces so if particles of grit lodge on them, the head of liquid in the tank will force the valve closed.

The valve has a flanged body for use with a wall pipe. The flange drilling is according to ANSI 125# STD on both sizes. The Wall-Type valve uses a removable stainless steel hinge pin and two stainless cotter pins.



Wall-Type Pressure Relief Valves *

Size	Ductile Iron**		316 Stainless Steel	
	Domestic Item №	Non-Domestic Item №	Domestic Item №	Non-Domestic Item №
4"	1367-1572	367-1572	1367-1560	367-1560
6"	1367-1573	367-1573	1367-1564	367-1564

* For product weights, see drawing on Page G-38.

** Furnished with NSF-61, 2 part epoxy coating.

Wallpipes

Wallpipes are 18" long (overall) with a collar 6" from the face of the flange; they can be furnished cut-to-length to meet your requirements. The flange is tapped for studs to allow the flange on the Wallpipe to be set flush with the wall. No flange accessories will be furnished unless ordered separately. Wallpipe & Wall PRV sold separately. In order for the Wall-Type Valve to operate properly, it must be installed so that the bolt holes straddle the centerline.

Size	Ductile Iron		316 Stainless Steel
	Item №	Weight	
4"	367-1000	33.50 lbs.	When stainless valves are used, Wallpipes are furnished in ductile iron or fabricated from stainless pipe.
6"	367-1002	68.50 lbs.	

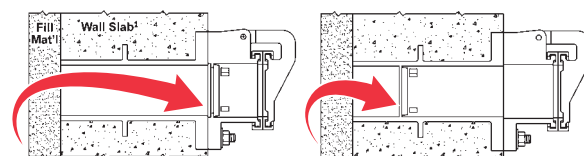
Floor-Type Pressure Relief Valves are shown on pages G-35 & G-36.

QUADROSEAL gaskets

Unique square design of QuadroSeal™ Gasket surrounds casting on 4 sides to prevent separation.

QuadroSeal™ design also prevents metal-to-metal contact that can cause seating surfaces of iron valves to corrode into a "frozen shut" position. See page G-39 for more information.

Easy access to strainer helps prevent blockage of flow that could lead to structural tank damage. Wallpipes are frequently provided by ductile pipe suppliers and don't have strainers. The accumulation of debris on seating surfaces can lead to leakage from the tank. To prevent that condition ... specify a valve with an internal strainer.



Strainer in Trumbull valve is easily accessed for maintenance

Strainer installation of other designs

Pressure Relief Valve, Wall Type

Flange drilling per ANSI 125#

Size	Flange	Bolt Circle	Bolt Hole	Seat O.D.	Bore
4"	9" x 7/16"	7-1/2"	3/4"	6"	4"
6"	11" x 1/2"	9-1/2"	7/8"	8"	6"

Item	Description	Material
1	Strainer	Stainless Steel (T316) or Ductile Iron (65-45-12)
2	Body	Stainless Steel (T316) or Ductile Iron (65-45-12)
3	Lid Flap	Stainless Steel (T316) or Ductile Iron (65-45-12)
4	QuadroSeal Seat	Neoprene (40 durometer)
5	Clevis Pin	Stainless Steel
6	Cotter Pin	Stainless Steel

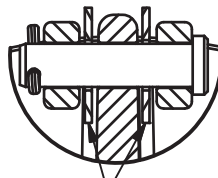
Size	Material	Part Number	Weight
4"	DI	367-1550	14.25 lb
4"	SS	367-1560	14.65 lb
6"	DI	367-1570	21.45 lb
6"	SS	367-1564	22.05 lb

Note:

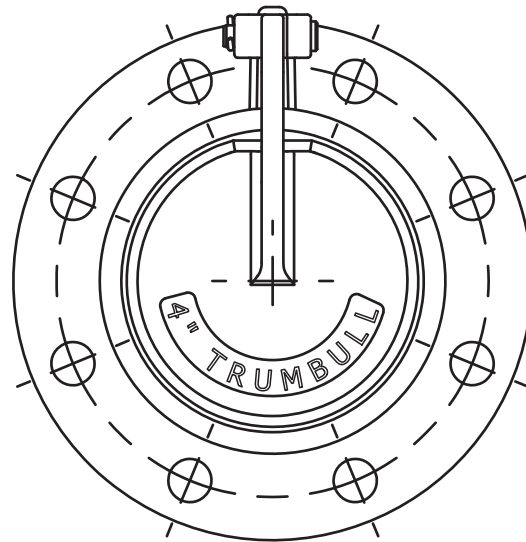
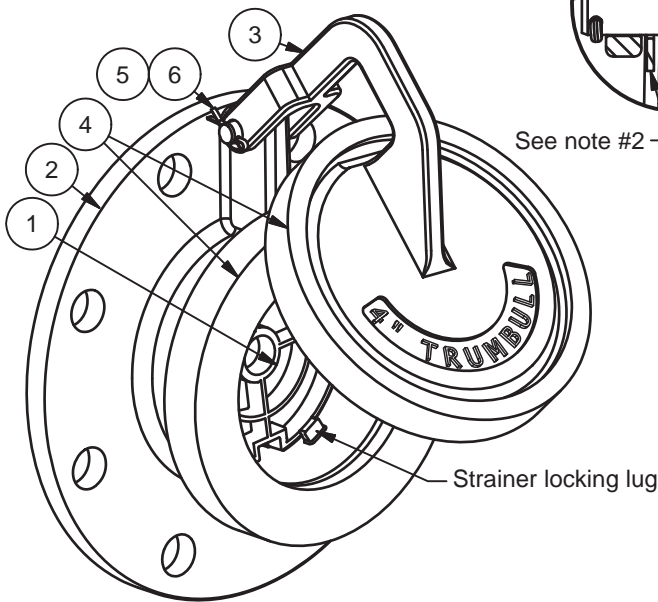
1.) Ductile Iron components are coated with Tnemec N140-1211 epoxy (complies with NSF 61).

2.) Ductile Iron valves have Isolating washers made of UHMWPE installed on the Clevis pin between the lid and body, preventing metal to metal contact.

Clevis Pin Detail



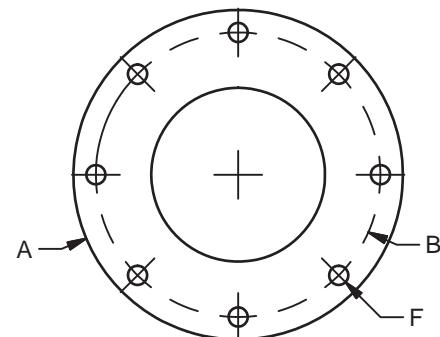
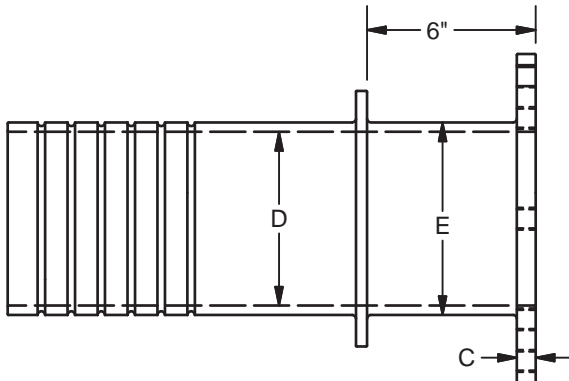
See note #2



Size	Trumbull #	A	B	C	D	E	F	Weight
4"	367-1000	9"	7-1/2"	5/8"	4-3/16"	4.8"	5/8"-11 UNC	32 lbs
6"	367-1002	11"	9-1/2"	5/8"	6-5/16"	6-29/32"	3/4"-10 UNC	49 lbs

Wall Pipe

Flange drilling per ANSI 125#
Material: Ductile Iron (65-45-12)
Coating: Tnemec N140-1211 epoxy



**TANK PRESSURE RELIEF VALVE
WALL TYPE**
Drawn to Scale

Drawn:
BJE
01/07/13

Revision:
BJE
(B) 05/13/19

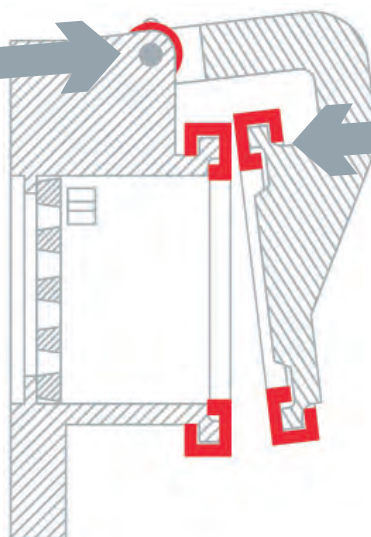
Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

NO METAL-TO-METAL CONTACT

Pressure Relief Valves



**UHMWPE
Isolating Washers**
prevent metal-to-metal contact
between lid and valve body on our
ductile iron wall-type valves.



Quadroseal Gaskets
Unique square design of Trumbull QuadroSeal Gasket
surrounds casting on four sides to prevent separation.
QuadroSeal design also prevents metal-to-metal
contact that can cause seating surfaces of iron valves
to corrode into a "frozen shut" position.

Alternate Design Wall-Type Pressure Relief Valve (as removed from service)

Flap was "frozen shut" by
corrosion; the rim is caked
with debris that has hardened.

Valve after being
pried open.



RESULT: Inoperable valves cannot relieve groundwater
pressure, leading to structural damage to tanks.

**METAL-TO-METAL
CONTACT**

Trumbull Manufacturing™ Wall-Type Pressure Relief Valve



RESULT: Metal-to-metal contact is not possible
between Trumbull seating surfaces!

It's because of our **QUADROSEAL**
gaskets

STRAINERS

In Trumbull Hydrostatic Tank PRVs

Hello!

I'M A STRAINER USED IN WALL AND FLOOR-TYPE TANK PRESSURE RELIEF VALVES. YOU MAY NOT THINK ABOUT ME VERY MUCH, BUT I AM **REALLY IMPORTANT!**

MY JOB IS TO KEEP ROCK OR GRAVEL FROM THE TANK EXTERIOR FROM INTERFERING WITH THE SEATING SURFACE. BUT YOU MUST **REMOVE AND CLEAN ME PERIODICALLY**. OTHERWISE, THE VALVE CAN GET PLUGGED UP AND THE GROUNDWATER WON'T BE ABLE TO FIND ITS WAY THROUGH THE VALVE INTO THE TANK. IF THAT HAPPENS, THE PRESSURE RELIEF VALVE CAN'T DO ITS JOB BY OPENING. THEN, THE HYDROSTATIC PRESSURE OF THE GROUNDWATER MIGHT DAMAGE THE TANK'S WALL OR CAUSE THE TANK TO FLOAT OUT OF ITS SETTING.

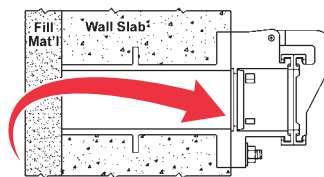
WHEN YOU INSTALL ME IN A WALL-TYPE VALVE, PLEASE PUT ME **IN THE VALVE**, NOT IN THE WALL PIPE. IF YOU PUT ME IN THE PIPE, SOMETIMES WORKERS CAN'T GET THEIR ARMS THROUGH THE VALVE AND HALFWAY INTO THE WALL PIPE. OCCASIONALLY, THEY HAVE TO REMOVE THE VALVE, JUST TO BE ABLE TO REACH ME!

I WISH THE ENGINEERS THAT DESIGNED **EVERY PLANT** WOULD USE VALVES THAT ARE EASIER TO MAINTAIN. I **REALLY LIKE** FIELD REPLACEABLE GASKETS THAT SURROUND THE BODY AND COVER, PREVENTING SEPARATION FROM THE VALVE. PLUS, THOSE SOFT RESILIENT GASKETS ALLOW A BETTER SHUTOFF ON SAND, SILT AND FINE GRAVEL, COMPARED TO IRON OR BRONZE SEATS.

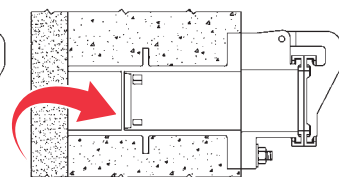


Easy access to strainer helps prevent blockage of flow that could lead to structural tank damage. Wallpipes are frequently provided by ductile pipe suppliers and don't have strainers.

The accumulation of debris on seating surfaces can lead to leakage from the tank. To prevent that condition . . . specify a valve with an internal strainer!



Strainer in Trumbull valve is easily accessed for maintenance



Strainer installation of other designs

Telescoping Valves

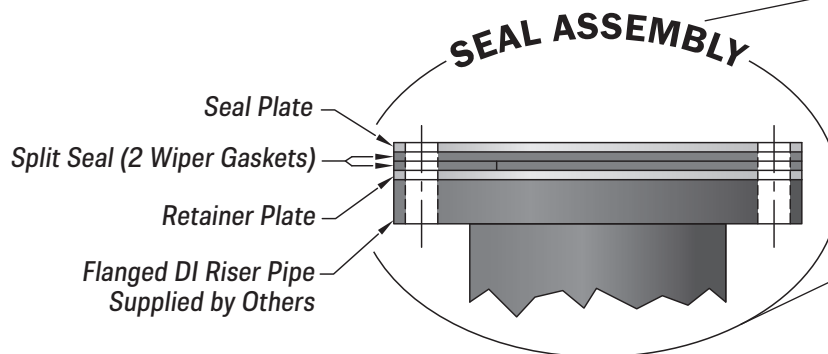
Trumbull Telescoping Valves are designed to regulate the level of fluids in containment structures such as holding chambers, tanks, ponds & lagoons. An example of an application might be to regulate the effluent level in a settling basin. Also known as “Sludge Draw-off Valves” or “Decanting Valves”, the valve assembly consists of a lifting mechanism (operator), connecting stem and a slip (drain) tube which travels vertically inside a fixed vertical pipe. Utilizing the operator, the slip tube is raised or lowered to maintain the desired fluid level within the containment structure.

Trumbull offers Telescoping Valves in either Rising or Non-Rising Stem designs. A variety of operators are available such as, handwheel, rack & pinion, bevel gear and electric motor operators. The slip tubes are available in a variety of sizes and materials, the most common materials being 304 stainless steel and Sch 40 PVC. Other materials are available upon application or request. Slip tubes are typically supplied with V-notch, plain end or funnel tops. Scum baffles can also be added to the top of the slip tube, if requested.

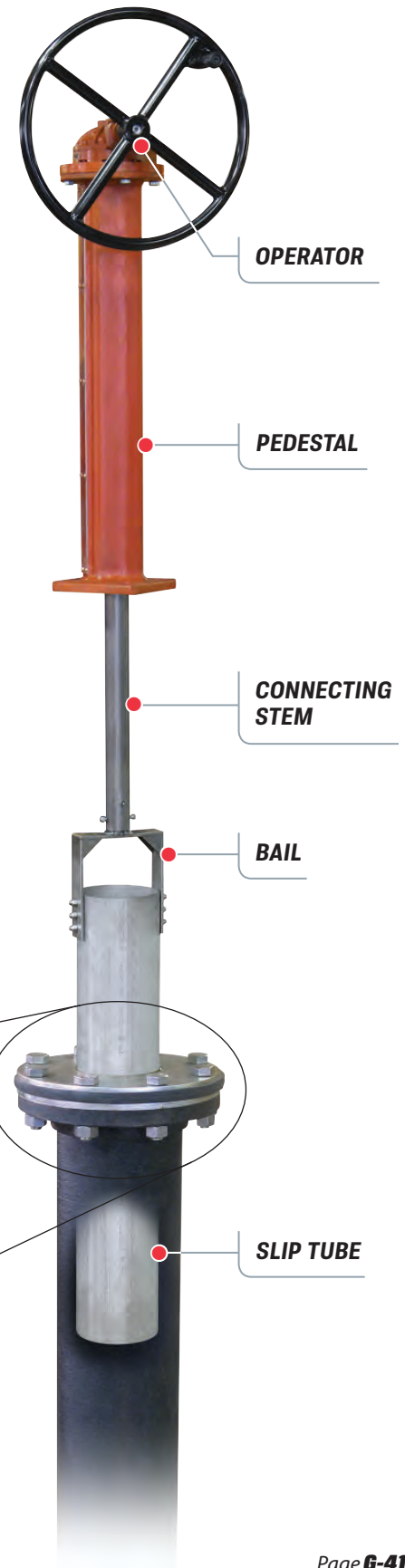
Trumbull's seal assembly consists of a stainless steel retainer plate, a seal plate and two (2) Buna-N wiper gaskets. The assembly is designed so that the wiper gaskets can easily be replaced in the field without disassembling the Telescoping Valve. Additional seal elastomers available upon request.

Operator pedestals are available in 26" & 32" cast ductile iron Indicating Style, 32" cast ductile iron Non-Indicating Style and 32" cast stainless steel Indicating Style. Other custom-fabricated styles and materials are available upon request. Offset wall brackets are available in either cast ductile iron or cast 316 stainless steel.

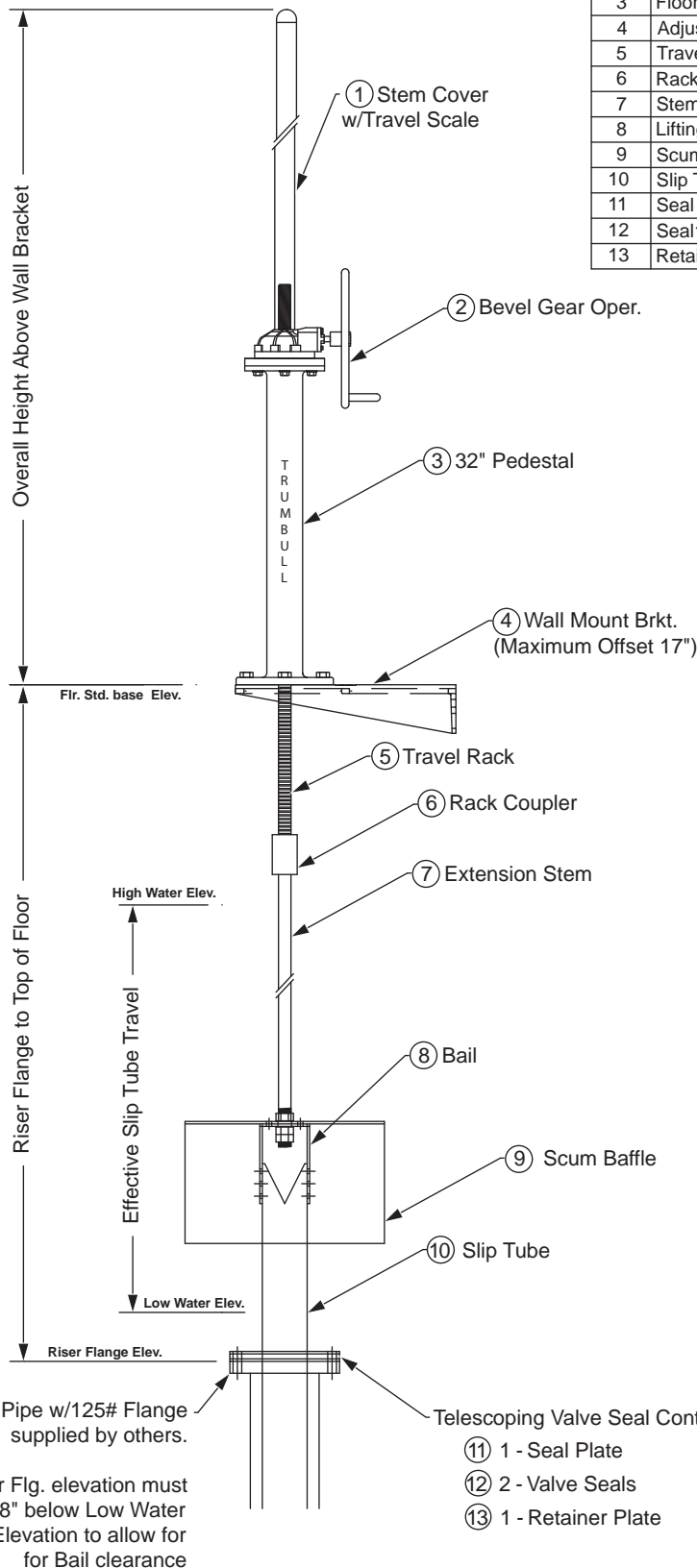
Lifting bails are fabricated from 304 stainless steel material, and are mounted to the slip tubes with stainless steel fasteners. Threaded operating stems and extension stems are made from 304 stainless steel material unless otherwise specified.



The above information requirements are available in drawing form on the following pages.



MK-#	Description	Qty/Assem.	Std. Mat'l
1	Clear Stem Cover	Varies	PVC
2	Operator, Bevel Gear (See Options)	1 Piece	Carbon Stl.
3	Floorstand Non-Indicating 32"	1 Piece	Ductile Iron
4	Adjustable Wall Mount Brkt 17-1/8" Max.	1 Piece	Ductile Iron
5	Travel Rack 3/4" Dia	Varies	303 SS
6	Rack Coupling Round	1 Piece	304 SS
7	Stem Extension Solid Rod	Varies	304 SS
8	Lifting Bail	1 Piece	304 SS
9	Scum Baffle (See Options)	1 Piece	304 SS
10	Slip Tube (See Options)	Varies	304 SS
11	Seal Plate 125# Drilling, 3/8" Thk	1 Piece	304 SS
12	Seal 125# Drilling, 1/4" Thk, Dove Tailed	2 Pieces	Buna-N
13	Retainer Plate 125# Drilling, 1/4" Thk	1 Piece	304 SS



Telescoping Valve Options

Operators:

Handwheel Rising Stem _____
 Handwheel Non-Rising Stem _____
 Bevel Gear Rising Stem _____
 Bevel Gear Non-Rising Stem _____
 Electric Motor Actuator _____

Scum Baffle:

20" Dia. x 12" Tall x .062" Thk _____
 Other Sizes- Dia. - _____
 Height - _____
 Thickness - _____

Slip Tube Options:

Material:

304SS _____
 316SS _____
 PVC S40 _____

Tube Top Configurations:

Plain End _____
 "V" Notch _____
 12" Dia. Funnel _____
 Other (Describe Below) _____

Wall Mount Bracket Material:

Ductile Iron _____
 Stainless Steel _____
 Not Required _____

Customer Provided Dimensions

Valve Size : _____

Elevations:

Floor Stand Base Elevation _____
 High Water Elevation _____
 Low Water Elevation _____
 Riser Flange Elevation _____

Customer Provided Project Info.

Project Name: _____
 Project City: _____
 Project State: _____

Qty. Req'd: _____

Customer Information

Customer: _____
 Branch: _____
 Contact Name: _____
 Phone: _____
 Email: _____
 Reference #: _____

Note: Wall Brkt. anchors & Flg Bolts Supplied by others.
 Note: Slip Tube & Bail fasteners, supplied by Trumbull
 will be 304ss

Telescoping Valve

Drawn to Scale

Drawn:
 FCN
 11/20/13

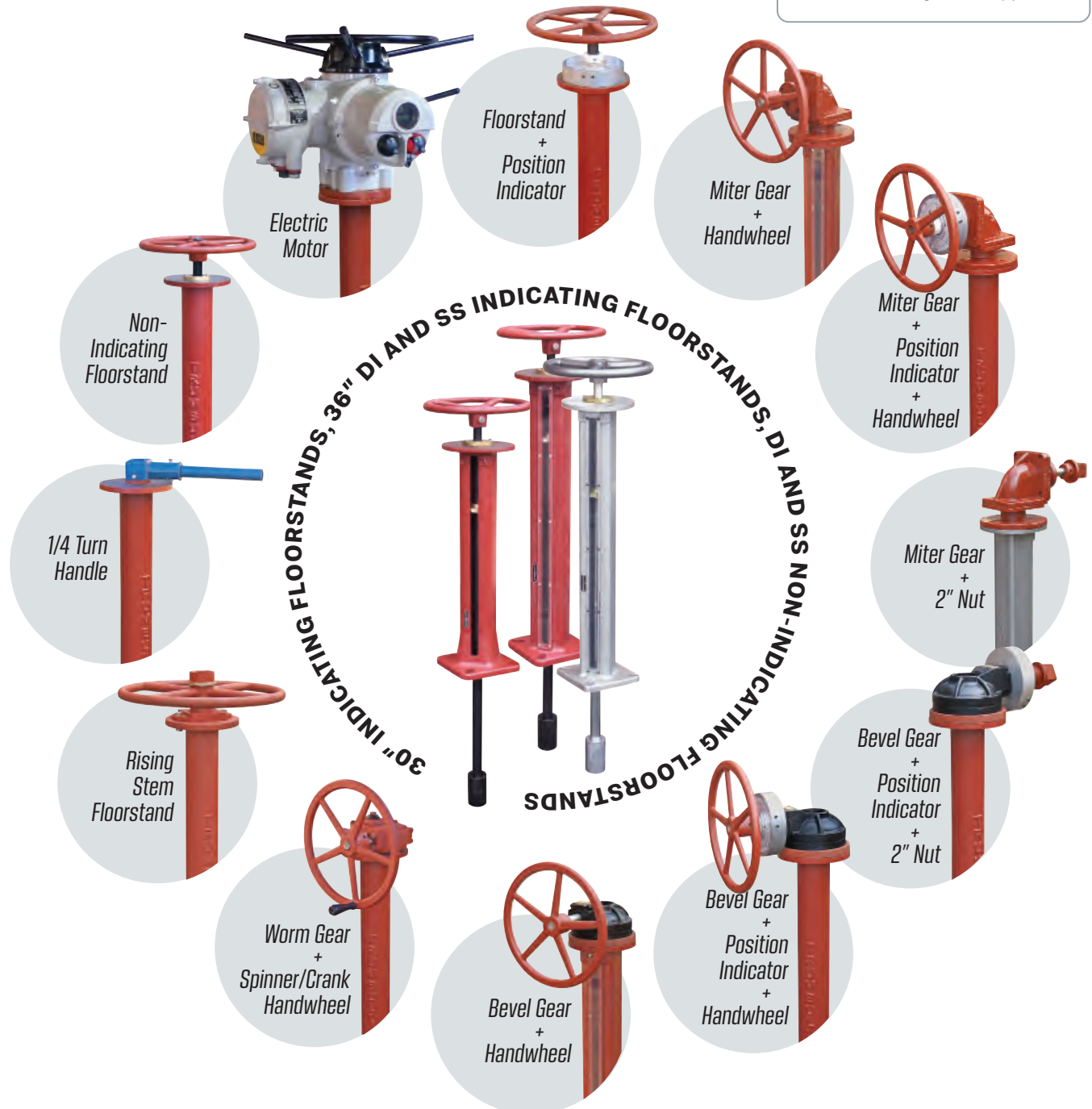
Revision:
 NJC
 01/20/20

Trumbull Manufacturing, Inc.
 Youngstown, Ohio
 www.trumbull-mfg.com

FLOORSTAND OPTIONS



All Floorstand and Pedestal options can be supplied with a needle bearing stem support.



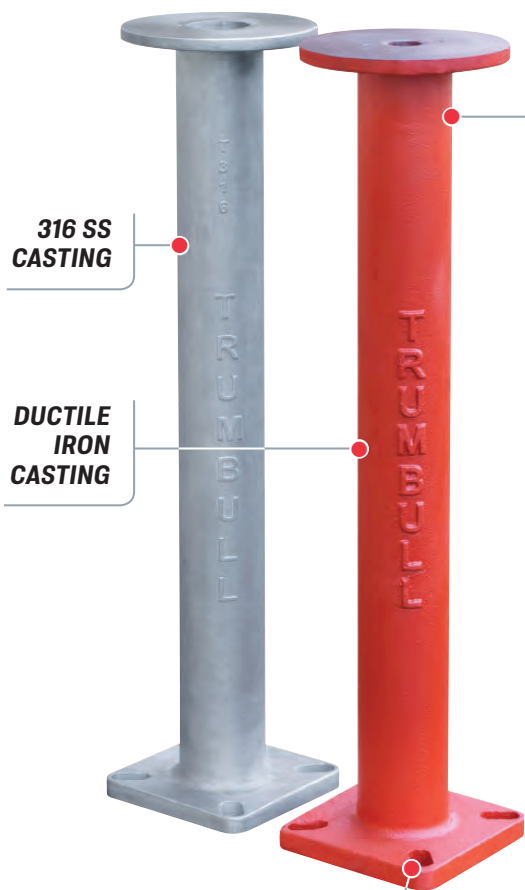
32" Pedestals

Ductile Iron and 316 Stainless Steel

Trumbull 32" Pedestals are designed for installation in treatment plants and pump stations to allow operation of valves at a lower elevation.

Pedestals can be adapted for various custom requirements such as mounting of electric motor operators, manual gear operators, or customer-supplied components. Also available in fabricated stainless steel or carbon steel for various applications.

MULTI-PURPOSE ...
Many Possibilities!

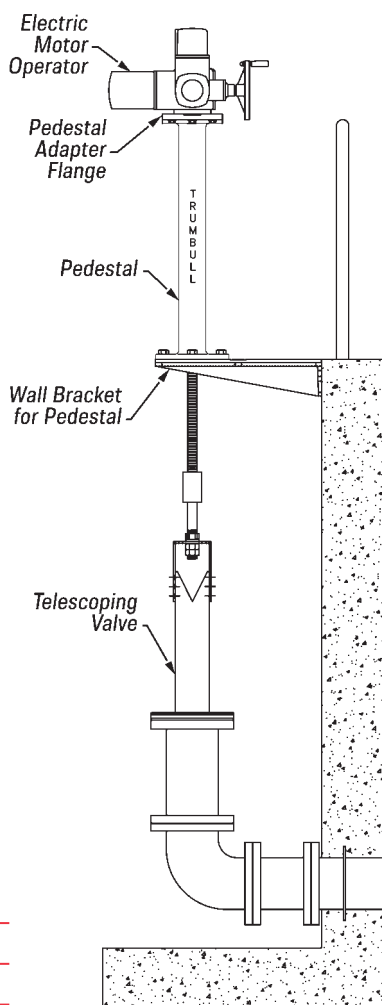


2-PART EPOXY COATING
Tnemec N140-1211

316 SS CASTING

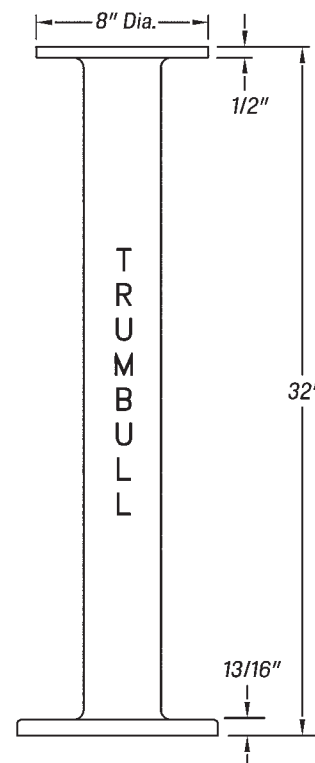
DUCTILE IRON CASTING

SLOTTED BOLT HOLES
provide adjustability to avoid interference with rebar

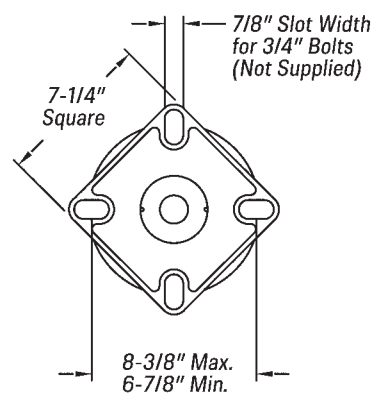


Typical installation

PEDESTAL DIMENSIONS



PEDESTAL BASE DIMENSIONS

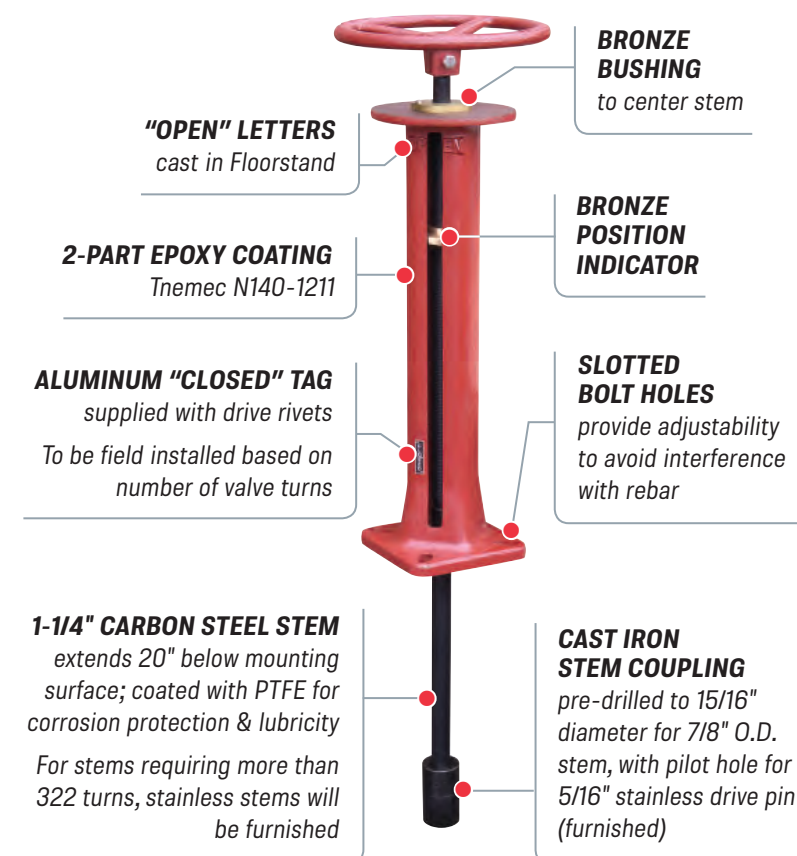


32" Pedestals

Model	Item No	Weight
Ductile Iron	367-2417	43.45 lbs.
316 Stainless Steel	367-2427	42.10 lbs.

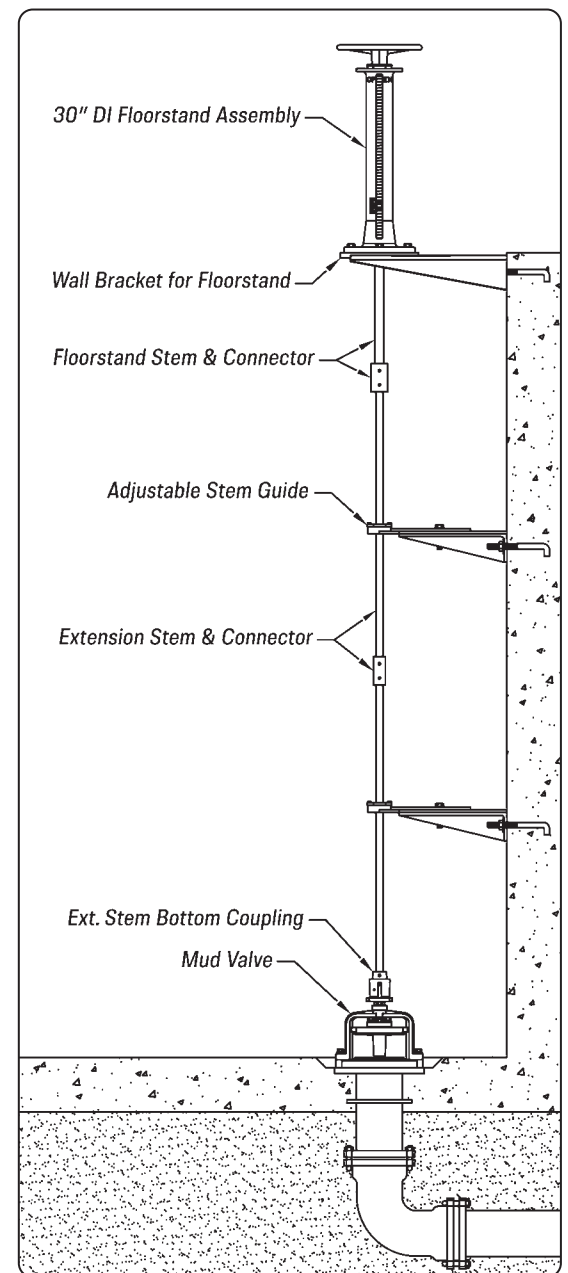
30" Ductile Iron Indicating Floorstand

Trumbull 30" Indicating Floorstands are designed for installation in treatment plants and pump stations to allow operation of valves at a lower elevation. Floorstand body is ductile iron for increased torque capacity. Set screw secures handwheel to stem. Flange can be machined to facilitate mounting of actuator, if required (also available with gear operators). Our standard Floorstand is shown below (see page G-34 for custom Floorstand options). Stocked for "open left" valves; also available for "open right" valves. Standard stem threading allows up to 140 turns; optional threading allows up to 563 turns. Stainless drive pin supplied with assembly.

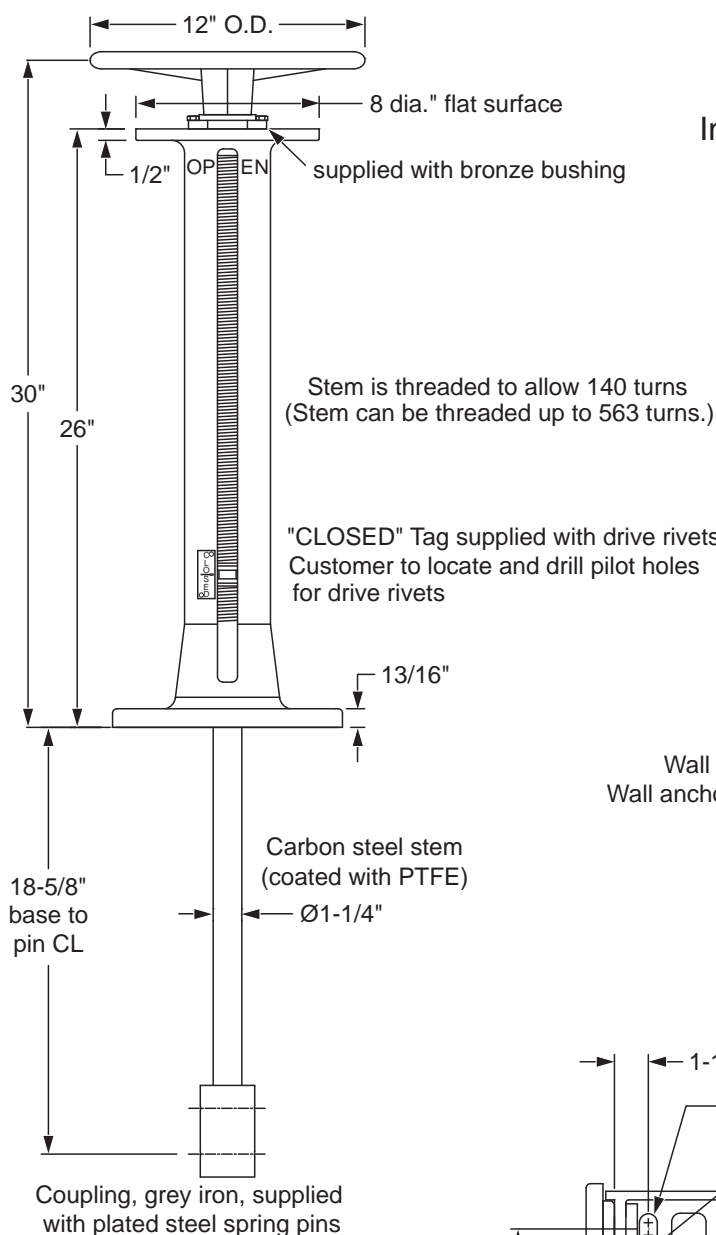


Ordering Instructions

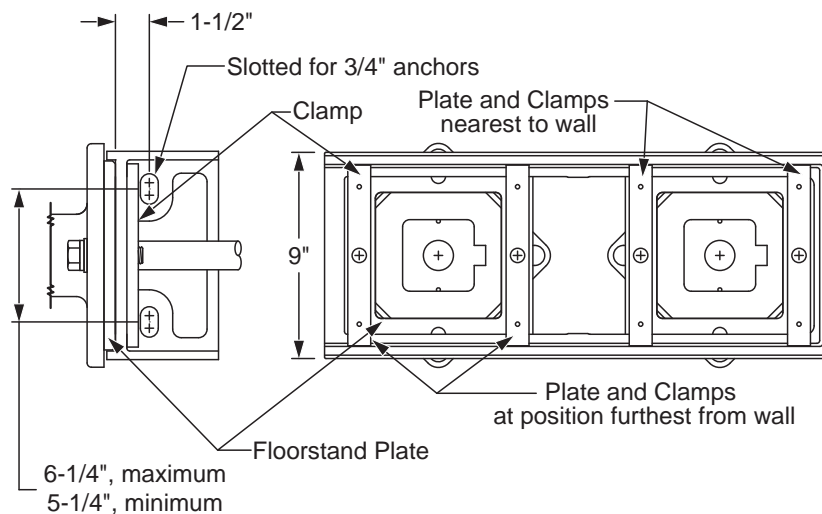
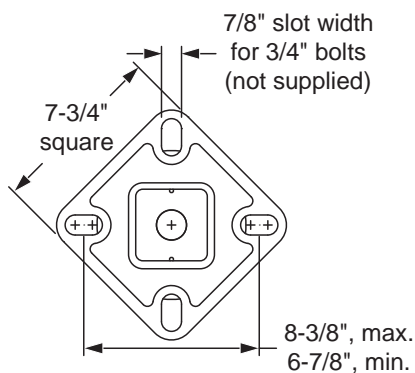
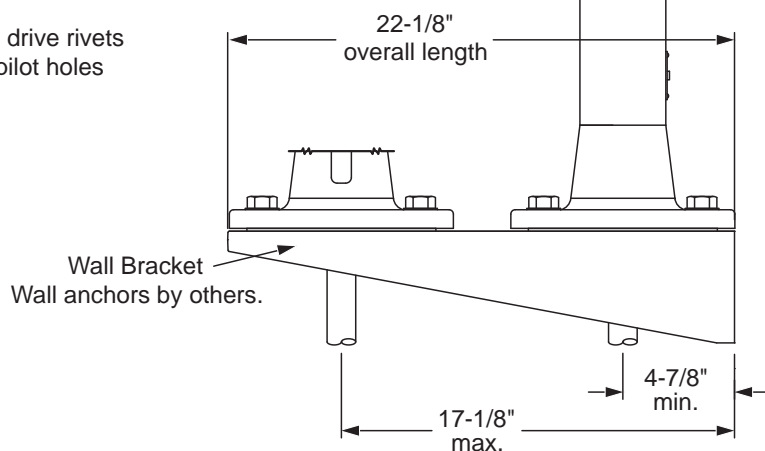
1. Quantity required
2. Floorstand item number: **367-2420**
3. O.D. of extension stem being used, for drilling of connecting couplings
4. Wall Bracket, if required
 - a. Ductile iron item number: **367-2451**
 - b. Stainless steel item number: **367-2461**



Typical Floorstand installation



Installation of Floorstand on Wall Bracket



The Floorstand and Handwheel are ductile iron and coated with red primer.
The Wall Bracket is ductile iron; coating is Tnemec 140-1211, NSF61 compliant.

Indicating Floorstand 30" Ductile Iron Drawn to Scale

Drawn:
FCN
05/20/08

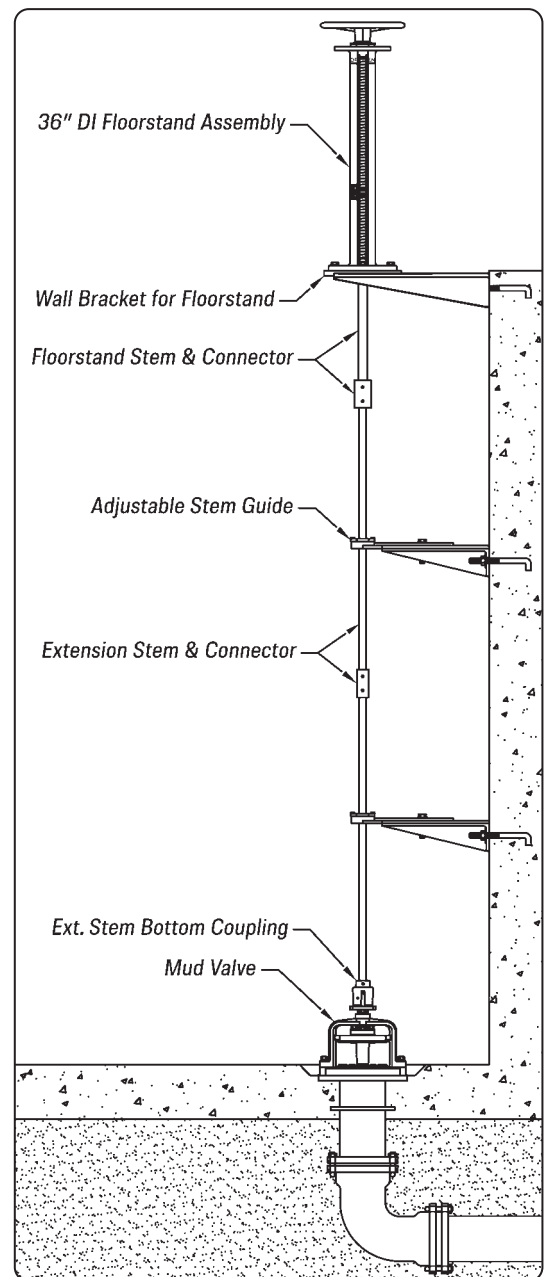
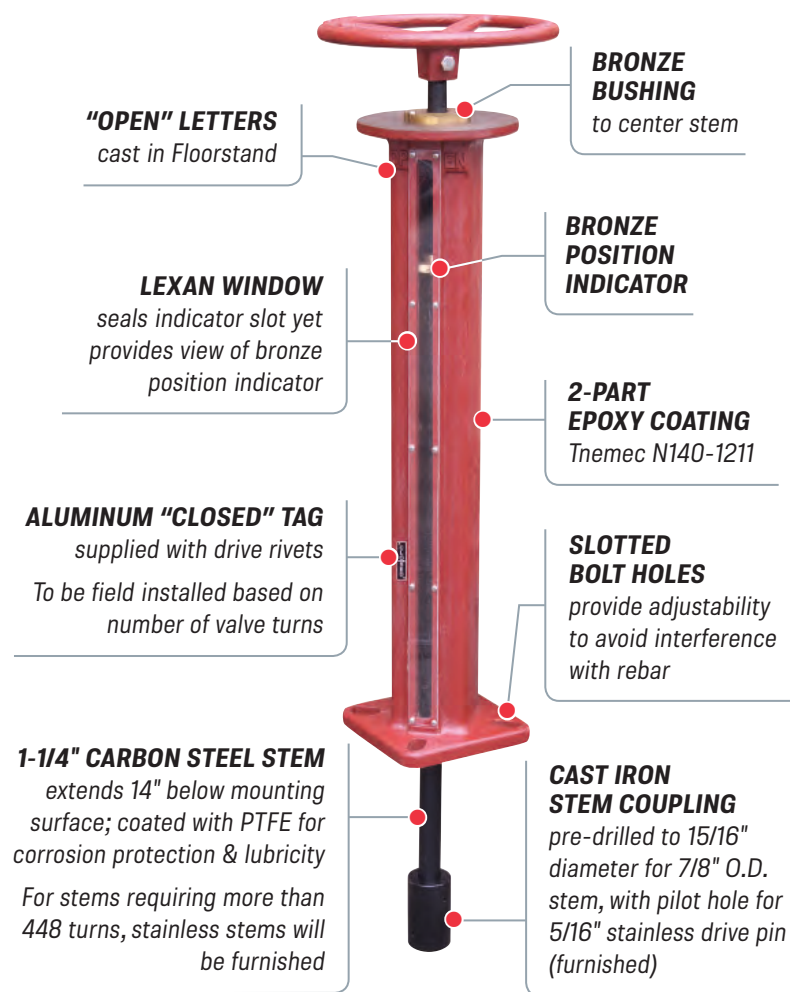
Revision:
FCN
01/03/11

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

36" Ductile Iron Indicating Floorstand

Includes a Sealed Indicator Slot

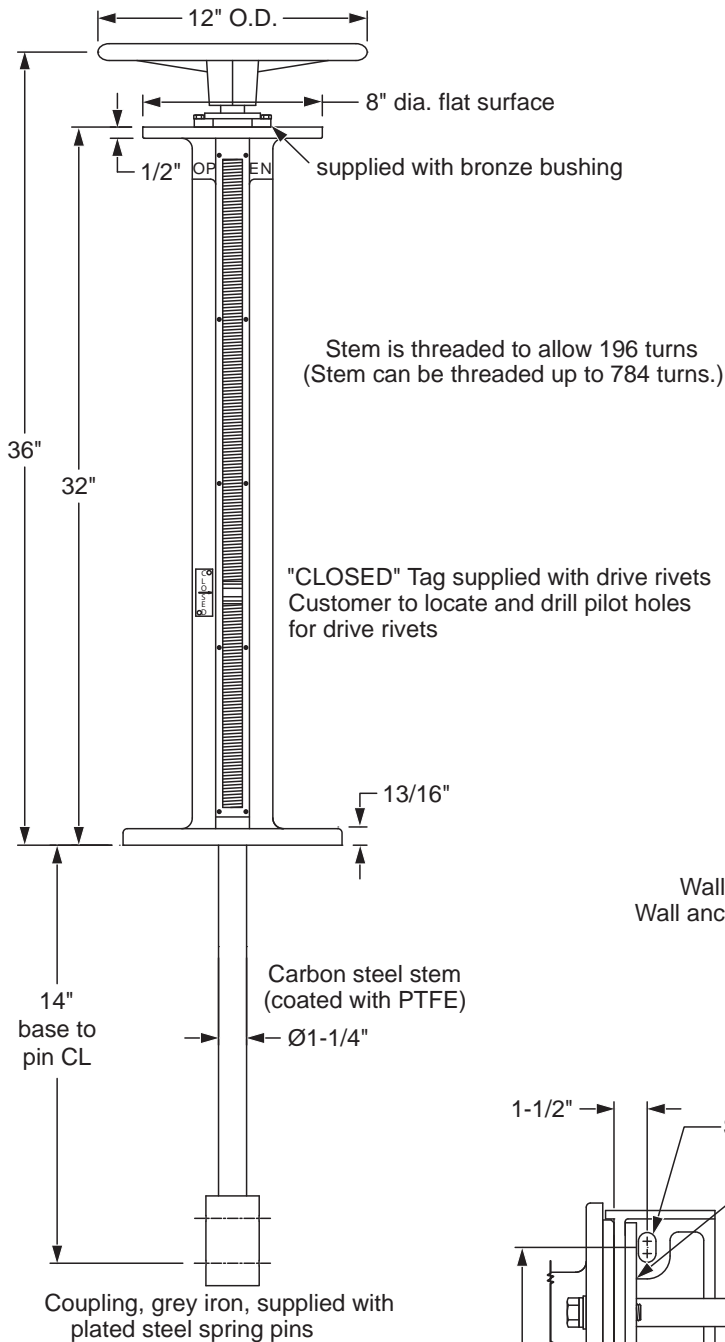
Trumbull 36" Ductile Iron Indicating Floorstands are designed for installation in treatment plants and pump stations to allow operation of valves at a lower elevation. Set screw secures handwheel to stem. Flange can be machined to facilitate mounting of actuator, if required (also available with gear operators). Stocked for "open left" valves; also available for "open right" valves. Standard stem threading allows up to 196 turns; optional threading allows up to 784 turns. Stainless drive pin supplied with assembly. Also available in cast stainless steel (page G-51 & G-52). See page G-34 for custom Floorstand options.



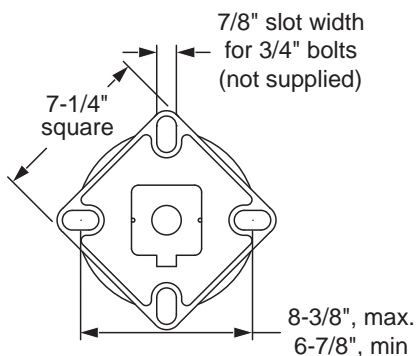
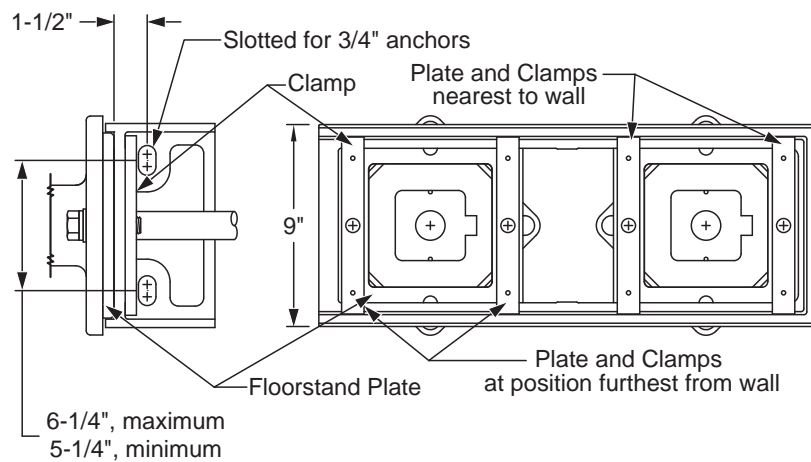
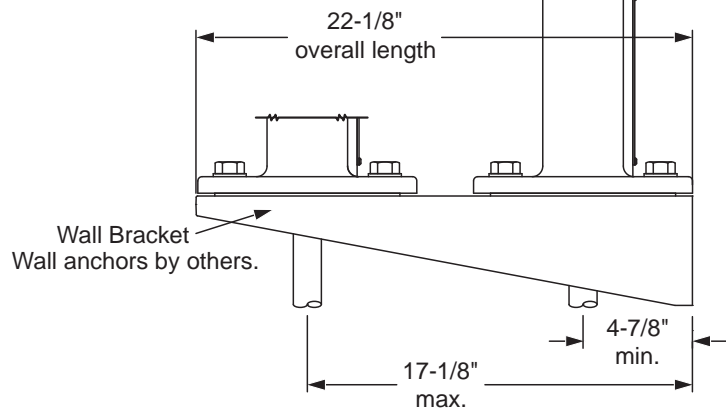
Typical Floorstand installation

Ordering Instructions

1. Quantity required
2. Floorstand item number: **367-2421**
3. O.D. of extension stem being used, for drilling of connecting couplings
4. Wall Bracket, if required
 - a. Ductile iron item number: **367-2451**
 - b. Stainless steel item number: **367-2461**



Installation of Floorstand on Wall Bracket



The Floorstand and Handwheel are ductile iron and coated with red primer.
The Wall Bracket is ductile iron; coating is TNEMEC 140-1211, NSF61 compliant.
Also available in Cast T316 Stainless Steel.

Indicating Floorstand 36" Ductile Iron Drawn to Scale

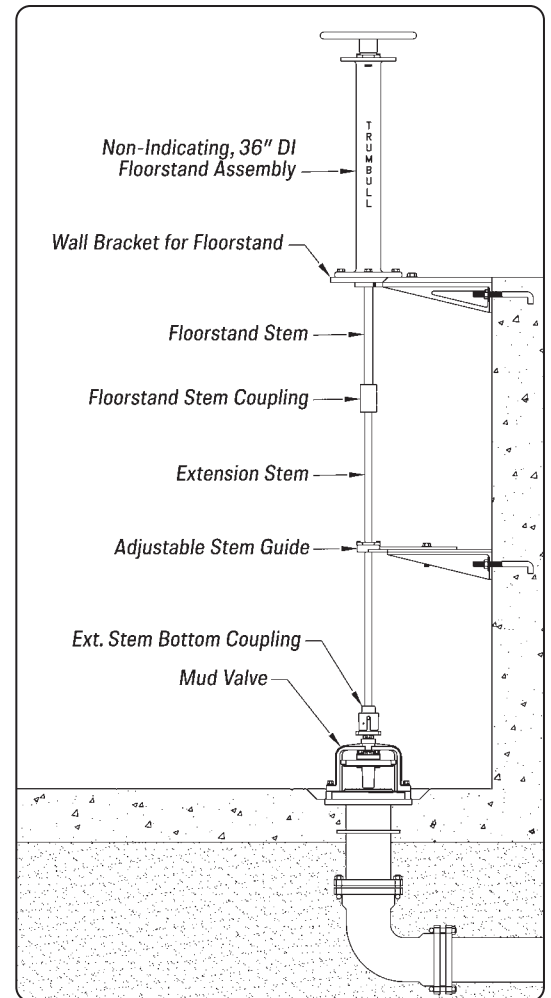
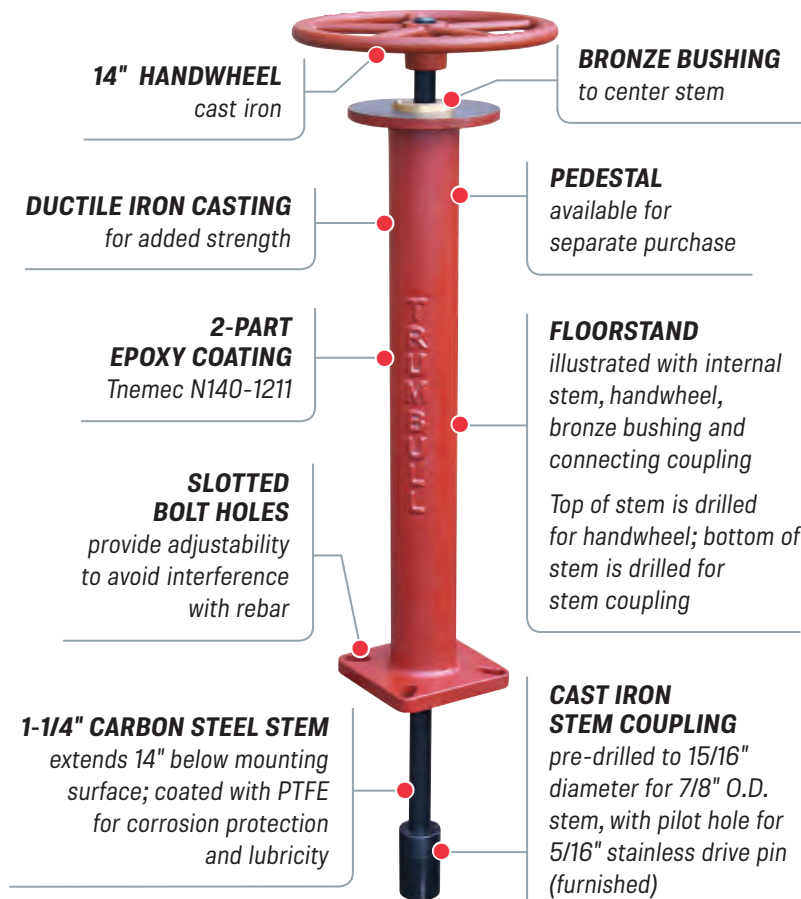
Drawn:
FCN
05/20/08

Revision:
FCN
11/11/12

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

36" Ductile Iron Non-Indicating Floorstand

Trumbull 36" Ductile Iron Non-Indicating Floorstands are designed for installation in treatment plants and pump stations to allow operation of valves at a lower elevation.



Typical Floorstand installation

Ordering Instructions

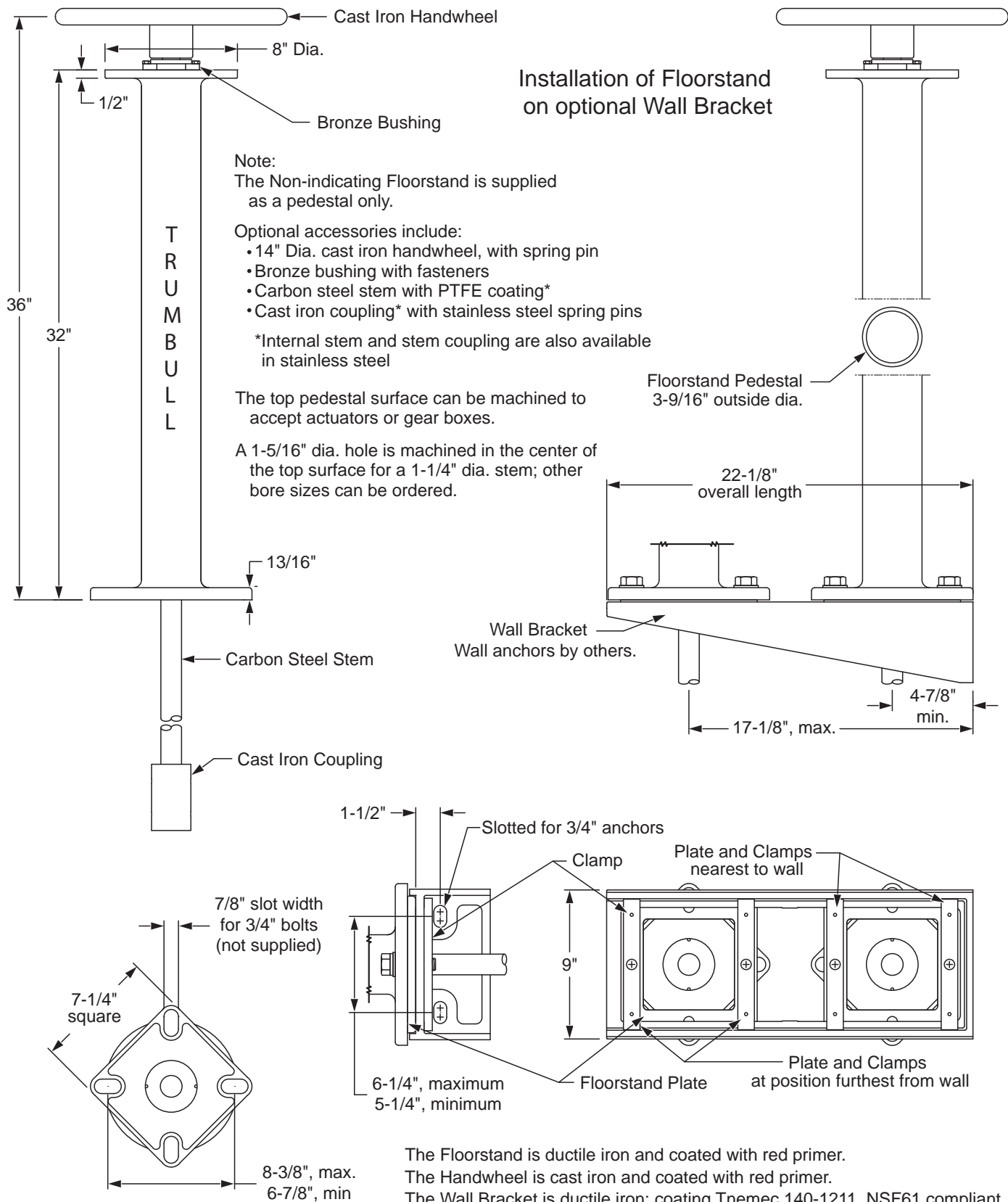
1. Quantity required
2. Floorstand item number:
367-2417 (pedestal only)
367-2414 (pedestal, stem, handwheel & coupling)
3. If internal stem is required, state:
 - a. O.D. of extension stem being used,
for drilling of connecting couplings
 - b. Carbon or stainless steel stem
4. Wall Bracket, if required
 - a. Ductile iron item number: 367-2451
 - b. Stainless steel item number: 367-2461



Non-indicating Floorstands can be adapted for various custom requirements such as:

- Trumbull Valve Position Indicators, 57, 275 or 870 turns (mounted to top flange, with adapter)
- Adapter flange for actuator mounting
- Top flange drilled for customer-supplied actuator
- Gear operators

Also available in indicating styles in ductile iron (pages G-45 to G-48) and cast stainless steel (page G-51 to G-52). See page G-34 for custom Floorstand options.



Non-Indicating Floorstand
36" Ductile Iron
Drawn to Scale

Drawn:
FCN
07/30/12

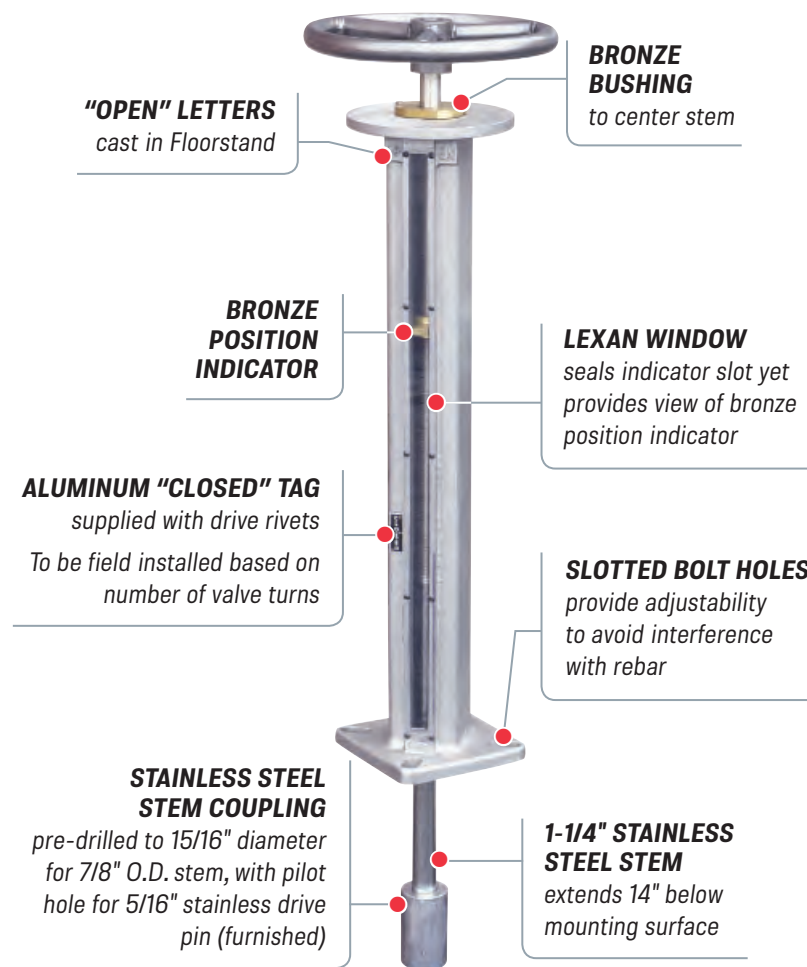
Revision:
FCN
G 08/15/12

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

36" Stainless Steel Indicating Floorstand

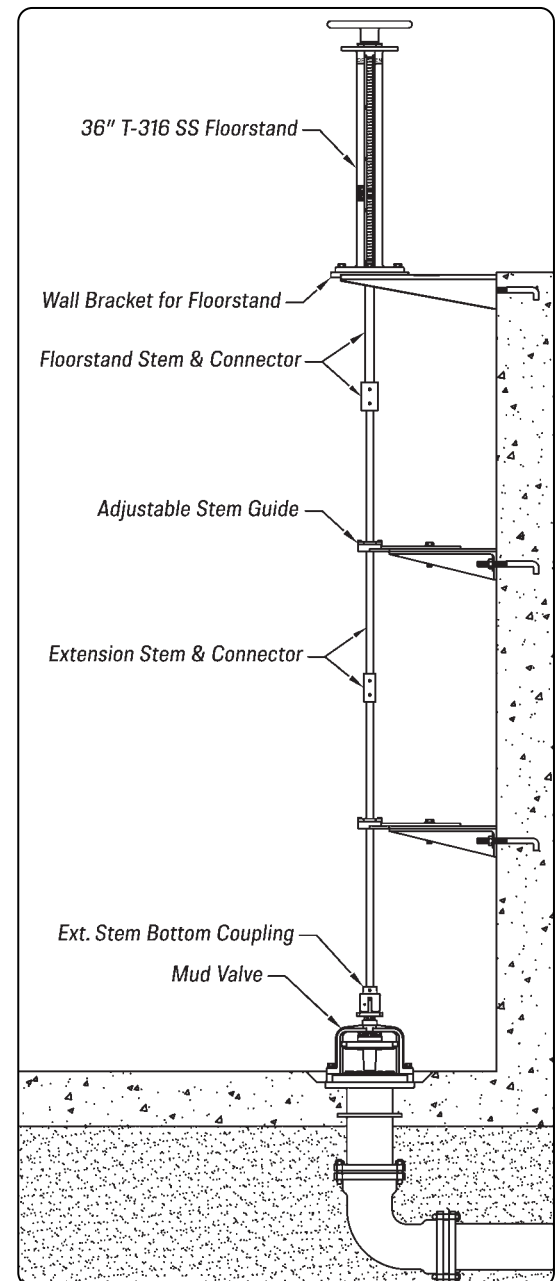
Includes a Sealed Indicator Slot

Trumbull 36" Stainless Steel Indicating Floorstands are designed for installation in treatment plants and pump stations to allow operation of valves at a lower elevation. Stainless steel drive pin secures handwheel to stem. Flange can be machined to facilitate mounting of actuator, if required (also available with gear operators). Stocked for "open left" valves; also available for "open right" valves. Standard stem threading allows up to 196 turns; optional threading allows up to 784 turns. Also available in ductile iron (see page G-47 and G-48). See page G-34 for custom Floorstand options.

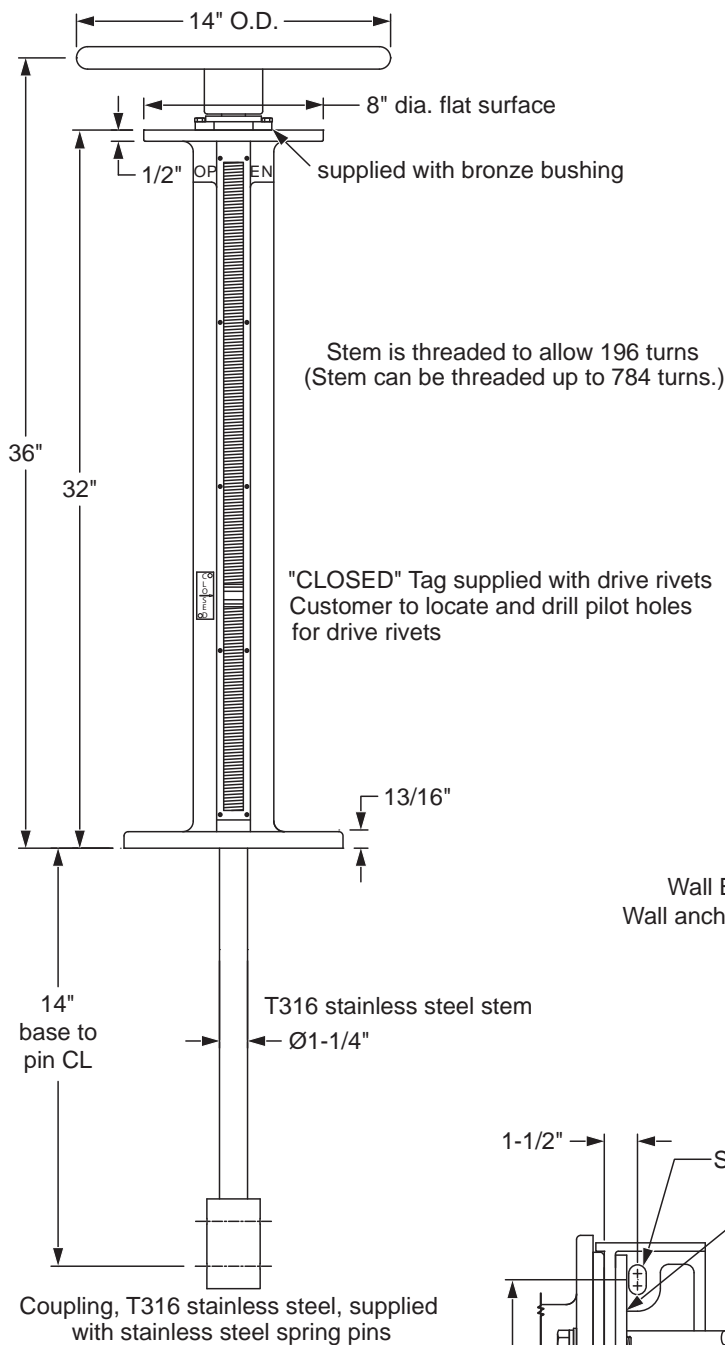


Ordering Instructions

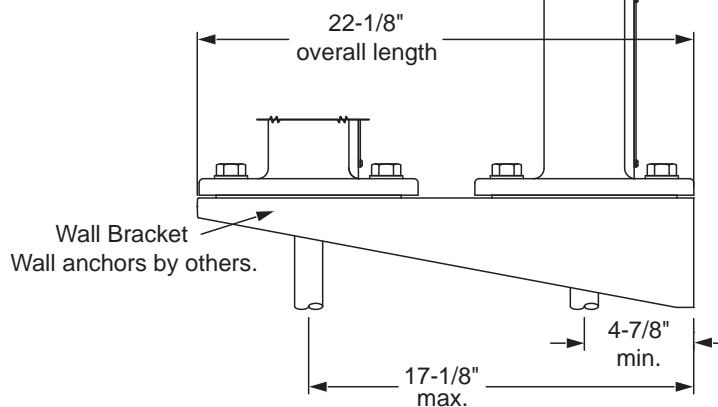
1. Quantity required
2. Floorstand item number: **367-2431**
3. O.D. of extension stem being used, for drilling of connecting couplings
4. Stainless steel Wall Bracket, if required: item number: **367-2461**



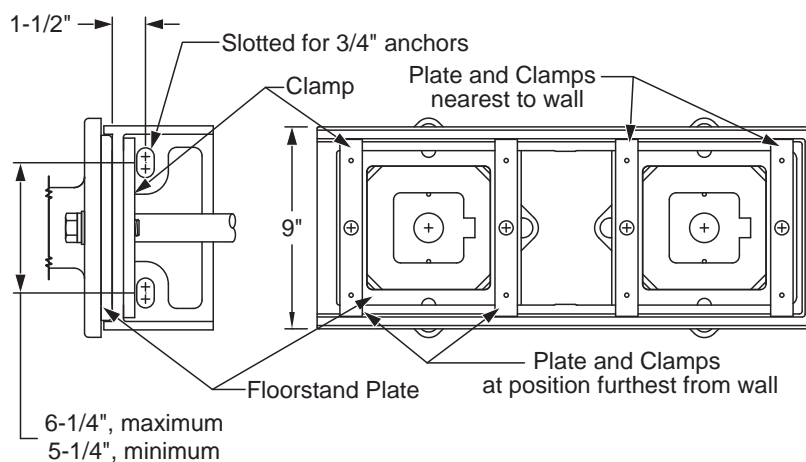
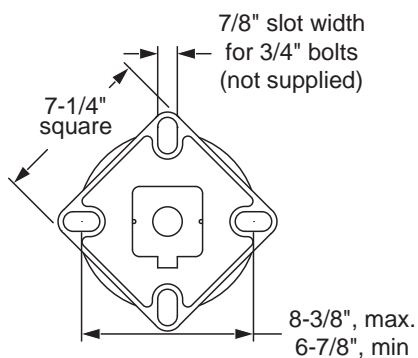
Typical Floorstand installation



Installation of Floorstand on Wall Bracket



Coupling, T316 stainless steel, supplied with stainless steel spring pins



The Floorstand, Handwheel and Wall Bracket are T316 Stainless Steel castings.

Indicating Floorstand 36" Stainless Steel Drawn to Scale

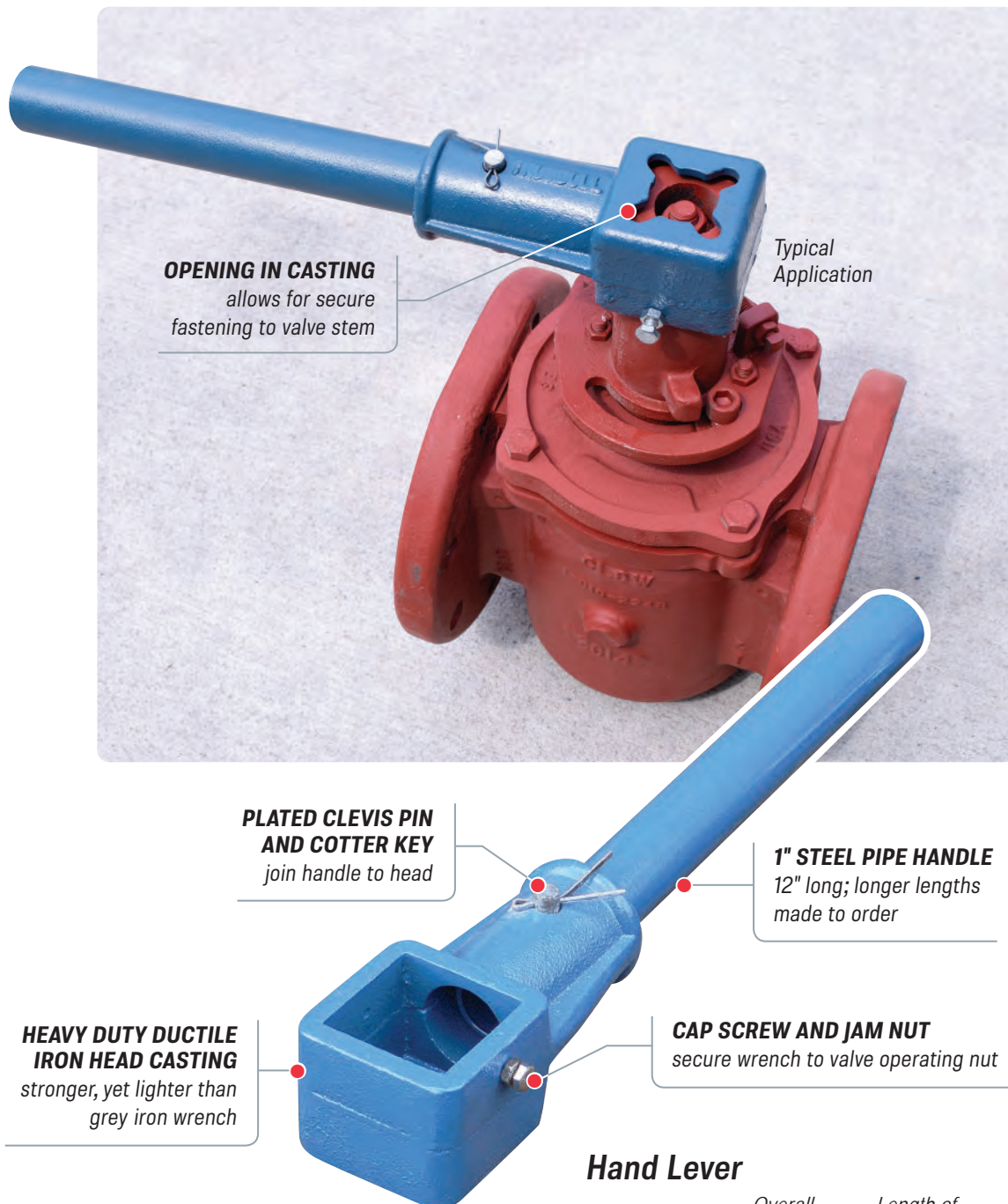
Drawn:
FCN
05/20/08

Revision:
FCN
11/11/12

Trumbull Manufacturing, Inc.
Youngstown, Ohio
www.trumbull-mfg.com

Hand Lever

For Use with Quarter-Turn, Above Ground Valves

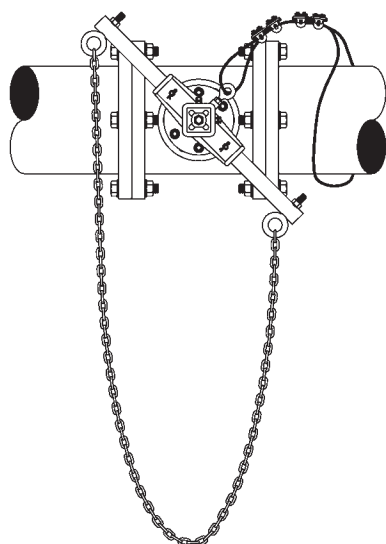


Hand Lever

Item No	Overall Length	Length of 1" Pipe	Weight
367-9986	14-3/4"	12"	5.00 lbs.

Chain Lever

Used for Manual Operation of Quarter-Turn Valves Installed Overhead



Trumbull Chain Levers save the unnecessary expense of adding a gear and chainwheel to valves that don't require a gear to operate.

Handles are 1" sch 40 pipe. Stocked with an overall length of 24"; longer lengths made to order. Our Chain Levers are designed to fit on a 2" square nut whose flat sides are parallel to the flow line, when the valve is either fully open or closed (see illustration on left). To our knowledge, our Chain Lever will properly operate all plug valves, other than Milliken.

PLATED EYEBOLTS, HARDWARE AND CONNECTOR LINKS
furnished standard

HEAVY DUTY DUCTILE IRON HEAD CASTING
stronger, yet lighter than grey iron

TAPPED FOR STANDARD EYEBOLT
used for installation of our secondary safety restraint system which should be attached to an adjacent pipe or valve component (see pages G-65 and G-66)

PLATED CLEVIS PIN AND COTTER KEY
join handle to head

OPENING IN CASTING
allows for secure fastening to valve stem

i The Chain Lever should be bolted or pinned to the valve stem, then fastened to the 2" nut with cap screw and jam nut

Chain Lever

Includes handles and hardware.

Item No	Overall Length	Weight
367-9988	24"	8.50 lbs.

Chain Lever Accessories

For machine chain, order specific length required.

Description	Item No	Weight
Machine Chain, straight link, size 2/0	172-1219	0.32 lbs./ft.
Secondary Safety Restraint Kit, less eyebolt	367-1975	1.25 lbs.
Eyebolt, for Secondary Safety Restraint Kit	367-1974	0.25 lbs.

Ductile Iron Chainwheels

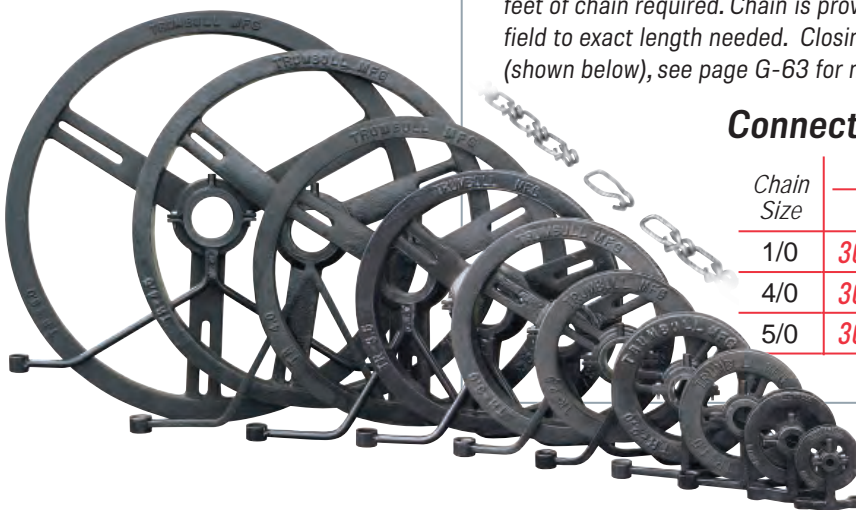
Used to Operate Overhead Valves from the Floor

SPROCKET-TYPE
using single loop
cut chain

Ductile Iron Chainwheels allow operation of valves, actuators, or gear boxes in high, hard-to-reach locations by means of a slight pull on the chain. Universal design allows Chainwheel to be clamped to handwheel, or pinned directly to the stem. Ductile Iron Chainwheels are furnished with zinc-plated steel attachment hardware for clamping to a handwheel. When Chainwheel is to be pinned to the stem, direct mount adapters are available. The adapters require pinning to the stem as illustrated on page G-62. Adapter is pre-drilled with pin hole, and supplied with a stainless steel pin for customer mounting to the stem. Drilling of the stem by customer. To prevent serious injury, we recommend the use of our Secondary Safety Restraint System (see pages G-65 and G-66). All Trumbull Chainwheels are furnished with a threaded boss for the addition of our Safety Restraint System.



When ordering, indicate the Chainwheel and chain size numbers and the number of feet of chain required. Chain is provided in continuous lengths and easily cut in the field to exact length needed. Closing the loop is simple with Connecting Links (shown below), see page G-63 for more information.



Connecting Links

Chain Size	Galvanized		316 Stainless	
	Item No	Weight	Item No	Weight
1/0	367-1994	0.02 lbs.	367-1997	0.02 lbs.
4/0	367-1995	0.03 lbs.	367-1998	0.03 lbs.
5/0	367-1996	0.05 lbs.	----	----

Item No	Size No.	Diameter	Boxed Weight	Handwheel OD Range Chainwheel will Fit	Chain Size	Galvanized Chain	Stainless Chain	Chain Length (2X drop) plus...
						Item No	Item No	
367-1873	TR-0.0	4"	2.25 lbs.	2" to 4"	#2	172-1650	----	1 ft.
367-1874	TR-1.0	6"	5.40 lbs.	4-1/4" to 5-3/4"	1/0	367-1894	367-1897	1 ft.
367-1875	TR-1.5	7-1/2"	8.75 lbs.	6" to 7-1/2"	1/0			1 ft.
367-1876	TR-2.0	9"	13.40 lbs.	7-3/4" to 9"	1/0			1-1/2 ft.
367-1877	TR-2.5	12-1/2"	17.00 lbs.	9-1/4" to 12-1/2"	4/0	367-1895	367-1898	1-1/2 ft.
367-1878	TR-3.0	15-1/2"	21.60 lbs.	12-3/4" to 15-1/2"	4/0			2 ft.
367-1879	TR-3.5	19"	30.85 lbs.	15-3/4" to 19"	4/0			2-1/2 ft.
367-1880	TR-4.0	22"	42.75 lbs.	19-1/4" to 22"	5/0	367-1896	367-1901	3 ft.
367-1881	TR-4.5	26"	49.00 lbs.	22-1/2" to 26"	5/0			3-1/2 ft.
367-1882	TR-5.0	30"	63.40 lbs.	22-1/2" to 36"	5/0			4 ft.



Ductile Iron and Aluminum Chainwheels are sprocket-type, using single loop cut chain. Carbon Steel and Stainless Steel Chainwheels are pocket-type, using smooth welded link machine chain. See page G-59 for Chainwheel dimensions.

Aluminum Chainwheels

Used to Operate Overhead Valves from the Floor

SPROCKET-TYPE
using single loop
cut chain

Aluminum Chainwheels allow operation of valves, actuators, or gear boxes in high, hard-to-reach locations by means of a slight pull on the chain. The light weight of aluminum Chainwheels is desirable to minimize the weight on the stems. Universal design allows Chainwheel to be clamped to a handwheel, or pinned directly to the stem.

All Aluminum Chainwheels are A356-T6 alloy and are provided with a protective coating.

Aluminum Chainwheels are furnished with stainless steel attachment hardware for clamping to a handwheel. When Chainwheel is to be pinned to the stem, direct mount adapters are available. The adapters require pinning to the stem as illustrated on page G-62. Adapter is pre-drilled with pin hole, and supplied with a stainless steel pin for customer mounting to the stem. Drilling of the stem by customer.

To prevent serious injury, we recommend the use of our Secondary Safety Restraint System (see pages G-65 and G-66 for more information). All Trumbull Chainwheels are furnished with a threaded boss for the addition of our Safety Restraint System.



Item No	Size No.	Diameter	Boxed Weight	Handwheel OD Range Chainwheel will Fit	Chain Size	Galvanized Chain	Stainless Chain	Chain Length (2X drop) plus...
						Item No	Item No	
367-2020	TRA-0.0	4"	1.05 lbs.	2" to 4"	#2	172-1650	----	1 ft.
367-2021	TRA-1.0	6"	2.65 lbs.	4-1/4" to 5-3/4"	1/0			1 ft.
367-2022	TRA-1.5	7-1/2"	4.15 lbs.	6" to 7-1/2"	1/0	367-1894	367-1897	1 ft.
367-2023	TRA-2.0	9"	5.30 lbs.	7-3/4" to 9"	1/0			1-1/2 ft.
367-2024	TRA-2.5	12-1/2"	7.90 lbs.	9-1/4" to 12-1/2"	4/0			1-1/2 ft.
367-2025	TRA-3.0	15-1/2"	10.40 lbs.	12-3/4" to 15-1/2"	4/0	367-1895	367-1898	2 ft.
367-2026	TRA-3.5	19"	13.30 lbs.	15-3/4" to 19"	4/0			2-1/2 ft.

When ordering, indicate the Chainwheel and chain size numbers and the number of feet of chain required. Chain is provided in continuous lengths and easily cut in the field to exact length needed. Closing the loop is simple with Connecting Links (shown on right), see page G-63 for more info.

i Ductile Iron and Aluminum Chainwheels are sprocket-type, using single loop cut chain. See page G-59 for Chainwheel dimensions.

Connecting Links

Chain Size	Galvanized		316 Stainless	
	Item No	Weight	Item No	Weight
1/0	367-1994	0.02 lbs.	367-1997	0.02 lbs.
4/0	367-1995	0.03 lbs.	367-1998	0.03 lbs.
5/0	367-1996	0.05 lbs.	----	----

316 Stainless Steel Chainwheels

Used to Operate Overhead Valves from the Floor

POCKET-TYPE
using welded link
machine chain



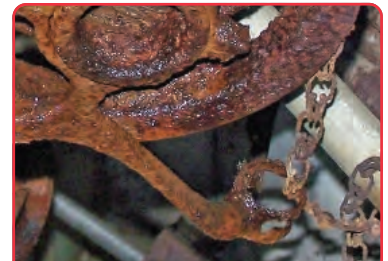
USED TO OPERATE OVERHEAD VALVES FROM THE FLOOR.

Stainless Steel Chainwheels allow operation of valves, actuators, or gear boxes in high, hard-to-reach locations by means of a slight pull on the chain. Universal design allows Chainwheel to be clamped to a handwheel, or pinned directly to the stem. Designed for corrosive environments, our Stainless Steel Chainwheels are Type 316 investment steel castings. Ideal in chemical processing, outdoor installations, or salt water environments.

Stainless Chainwheels are furnished with stainless steel attachment hardware for clamping to a handwheel. When Chainwheel is to be pinned to the stem, direct mount adapters are available. The adapters require pinning to the stem as illustrated on page G-62. Adapter is pre-drilled with pin hole, and supplied with a stainless steel pin for customer mounting to the stem. Drilling of the stem by customer.

To prevent serious injury, we recommend the use of our Secondary Safety Restraint System (see pages G-65 and G-66). Furnished with a threaded boss for the addition of Safety Restraint System.

Trumbull smooth, welded link chain (shown below) is calibrated specifically for use on the full range of Trumbull pocket-type Chainwheels and is required for smooth operation.



CORRODED CI CHAINWHEEL SHOWS ADVANTAGE OF STAINLESS STEEL.

Item No	Size No.	Diameter	Boxed Weight	Handwheel Range Chainwheel will Fit**		Bore*** Diameter	Chain Length (2X Drop)
367-1825	TRS-4D*	4-1/8"	4.75 lbs.	1-1/2" I.D. to	4-1/2" O.D.	0.500	Plus 1 ft.
367-1830	TRS-6D*	5-7/8"	8.65 lbs.	2-1/8" I.D. to	6-1/4" O.D.	0.850	Plus 1 ft.
367-1833	TRS-8B	8"	14.40 lbs.	7-1/2" O.D. to	10-1/2" O.D.	1.500	Plus 1-1/2 ft.
367-1845	TRS-12B	11-5/8"	19.80 lbs.	8-1/2" O.D. to	13-1/2" O.D.	1.500	Plus 1-1/2 ft.
367-1850	TRS-15B	15-3/16"	23.90 lbs.	9-1/2" O.D. to	17-1/2" O.D.	1.500	Plus 2 ft.
367-1860	TRS-22B	22-1/4"	34.45 lbs.	13" O.D. to	25" O.D.	1.500	Plus 3 ft.
367-1870	TRS-29B	29-1/4"	48.00 lbs.	17-3/4" O.D. to	32" O.D.	1.500	Plus 4 ft.
367-1871	TRS-29C	29-1/4"	48.00 lbs.	22-1/2" O.D. to	37" O.D.	1.500	Plus 4 ft.

* D suffix denotes "Disc", used in lieu of standard clamping hardware; see page G-61 for illustration.

** The ranges above are for Size "B" attachment stampings, furnished standard with TRS-8 to TRS-29 Chainwheels. Chainwheels can fit handwheel diameters outside these ranges by using optional hardware (see chart page G-61). Consult your Trumbull Sales Rep for either shorter or longer attachment set stampings.

*** Consult factory if using OS&Y gate valves with stem diameters greater than bore diameters shown.

Trumbull Calibrated Machine Chain

Order length of chain required and connecting link.

Description	Item No	Weight
316L SS Machine Chain	367-1815	0.35 lbs./ft.
SS Connecting Link	367-1816	0.05 lbs.

Ductile Iron and Aluminum Chainwheels are sprocket-type, using single loop cut chain. Carbon Steel and Stainless Steel Chainwheels are pocket-type, using smooth welded link machine chain. See page G-59 for Chainwheel dimensions.

Carbon Steel Chainwheels

Used to Operate Overhead Valves from the Floor

POCKET-TYPE
using welded link
machine chain

Carbon Steel Chainwheels allow operation of valves, actuators, or gear boxes in high, hard-to-reach locations by means of a slight pull on the chain. Universal design allows Chainwheel to be clamped to a handwheel, or pinned directly to the stem.

Carbon Steel Chainwheels are furnished with stainless steel attachment hardware for clamping to a handwheel. When Chainwheel is to be pinned to the stem, direct mount adapters are available. The adapters require pinning to the stem as illustrated on page G-62. Adapter is pre-drilled with pin hole, and supplied with a stainless steel pin for customer mounting to the stem. Drilling of the stem by customer.

To prevent serious injury, we recommend the use of our Secondary Safety Restraint System (see pages G-65 and G-66). All Trumbull Chainwheels are furnished with a threaded boss for the addition of our Safety Restraint System.

Trumbull smooth, welded link chain (shown below) is calibrated specifically for use on the full range of Trumbull pocket-type Chainwheels and is required for smooth operation.



Finished with e-coating.

Item No	Size No.	Diameter	Boxed Weight	Handwheel Range Chainwheel will Fit**	Bore*** Diameter	Chain Length (2X drop)
367-1829	TRCS-6PD*	5-7/8"	8.50 lbs.	2-1/8" I.D. to 6-1/4" O.D.	0.850	Plus 1 ft.
367-1832	TRCS-8PB	8"	14.35 lbs.	7-1/2" O.D. to 10-1/2" O.D.	1.500	Plus 1-1/2 ft.
367-1844	TRCS-12PB	11-5/8"	18.65 lbs.	8-1/2" O.D. to 13-1/2" O.D.	1.500	Plus 1-1/2 ft.
367-1849	TRCS-15PB	15-3/16"	24.75 lbs.	9-1/2" O.D. to 17-1/2" O.D.	1.500	Plus 2 ft.
367-1859	TRCS-22PB	22-1/4"	34.80 lbs.	13" O.D. to 25" O.D.	1.500	Plus 3 ft.
367-1869	TRCS-29PB	29-1/4"	45.05 lbs.	17-3/4" O.D. to 32" O.D.	1.500	Plus 4 ft.

* D suffix denotes "Disc", used in lieu of standard clamping hardware; see page G-61 for illustration.

** The ranges above are for Size "B" attachment stampings, furnished standard with TRCS-8 to TRCS-29 Chainwheels. Chainwheels can fit handwheel diameters outside these ranges by using optional hardware (see chart on page G-61). Consult your Trumbull Sales Rep for either shorter or longer attachment set stampings.

*** Consult factory if using OS&Y gate valves with stem diameters greater than bore diameters shown.

Trumbull Calibrated Machine Chain

Order length of chain required and connecting link.



Description	Item No	Weight
Plated CS Machine Chain	367-1818	0.35 lbs./ft.
316L SS Machine Chain	367-1815	0.35 lbs./ft.
SS Connecting Link	367-1816	0.05 lbs.

Ductile Iron and Aluminum Chainwheels are sprocket-type, using single loop cut chain. Carbon Steel and Stainless Steel Chainwheels are pocket-type, using smooth welded link machine chain. See page G-59 for Chainwheel dimensions.

Sprocket-Type Chainwheel Dimensions

DUCTILE IRON	TR-0.0	TR-1.0	TR-1.5	TR-2.0	TR-2.5	TR-3.0	TR-3.5	TR-4.0	TR-4.5	TR-5.0
TRUMBULL ITEM NUMBER	367-1873	367-1874	367-1875	367-1876	367-1877	367-1878	367-1879	367-1880	367-1881	367-1882
BOXED WEIGHT (LBS.)	2.2	5.4	8.8	13.4	17.0	21.6	30.9	42.8	49.0	63.4

ALUMINUM	TRA-0.0	TRA-1.0	TRA-1.5	TRA-2.0	TRA-2.5	TRA-3.0	TRA-3.5	---	---	---
TRUMBULL ITEM NUMBER	367-2020	367-2021	367-2022	367-2023	367-2024	367-2025	367-2026	---	---	---
BOXED WEIGHT (LBS.)	1.0	2.7	4.2	5.3	7.9	10.4	13.3	---	---	---

CHAINWHEEL O.D.	4"	6"	7-1/2"	9"	12-1/2"	15-1/2"	19"	22"	26"	30"
C-WHEEL ASSEMBLY FITS HANDWHEEL O.D. RANGE	2" to 4"	4-1/4" to 5-3/4"	6" to 7-1/2"	7-3/4" to 9"	9-1/4" to 12-1/2"	12-3/4" to 15-1/2"	15-3/4" to 19"	19-1/4" to 22"	22-1/2" to 26"	22-1/2" to 36"
CHAIN SIZE	Size #2	Size 1/0			Size 4/0			Size 5/0		
ATTACHMENT SET SIZE	Disk #0 367-2005	Disk #1 367-2006	"A" 367-1810		"B" 367-1811	"C" 367-1812			"D" 367-1813	
"D" (OVERALL DEPTH)	1-7/8"	2-3/8"	2-1/2"	2-1/2"	2-9/16"	2-9/16"	2-9/16"	2-5/8"	2-5/8"	3-5/16"
"H" (OVERALL HEIGHT)	5"	6-7/8"	8-3/4"	10-3/4"	12-5/8"	16"	19"	23"	27"	30"
"W" (OVERALL WIDTH)	4-1/4"	5-7/16"	8-1/4"	9-1/2"	11-5/16"	15-7/16"	18-7/16"	22-5/8"	26-1/2"	29-7/8"

STAR ADAPTER SIZE	Small			Medium			Large & X-Large see NOTE below			
MIN/MAX BORE DIA.	3/8" to 7/8"			1/2" to 1-3/8"			1/2" to 1-3/8" (Large); 1/2" to 2-1/8" (X-Large)			

Note: Chainwheel spokes must be drilled for the Star Adapter on the TR-4.0, TR-4.5 and TR-5.0.

Pocket-Type Chainwheel Dimensions

CARBON STEEL	---	TRCS-6	TRCS-8	TRCS-12	TRCS-15	TRCS-22	TRCS-29
TRUMBULL ITEM NUMBER	---	367-1829	367-1832	367-1844	367-1849	367-1859	367-1869
BOXED WEIGHT (LBS.)	---	8.5	14.4	18.7	24.8	34.8	45.0

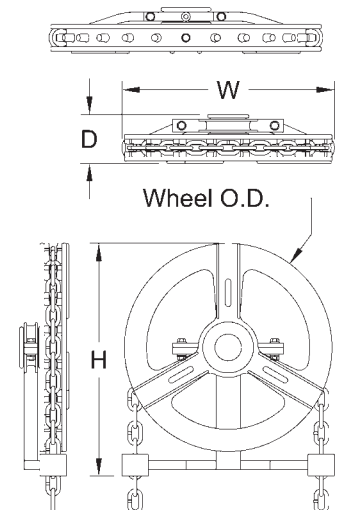
STAINLESS STEEL	TRS-4	TRS-6	TRS-8	TRS-12	TRS-15	TRS-22	TRS-29
TRUMBULL ITEM NUMBER	367-1825	367-1830	367-1833	367-1845	367-1850	367-1860	367-1870
BOXED WEIGHT (LBS.)	4.8	8.7	14.4	19.8	23.9	34.5	48.0

CHAINWHEEL O.D.	4-1/8"	5-7/8"	8"	11-5/8"	15-3/16"	22-1/4"	29-1/4"
C-WHEEL ASSEMBLY FITS HANDWHEEL O.D. RANGE	1-1/2" to 4-1/2"	2-1/8" to 6-1/4"	7-1/2" to 10-1/2"	8-1/2" to 13-1/2"	9-1/2" to 17-1/2"	13" to 25"	17-3/4" to 32"
ATTACHMENT SET SIZE	Disk #4	Disk #6	"B" Attachment Set (367-1808) provided as standard. Ranges can be expanded by optional sets "A" & "C" (see page G-55).				
"D" (OVERALL DEPTH)	2-3/8"	2-5/8"	2-3/4"	2-3/4"	2-3/4"	2-3/4"	2-7/8"
"H" (OVERALL HEIGHT)	6-1/4"	7-1/16"	9"	13-1/8"	16-1/4"	22-1/4"	29-1/4"
"W" (OVERALL WIDTH)	4-5/8"	6-3/16"	8-7/16"	12"	15-5/8"	22-5/8"	29-1/2"

STAR ADAPTER SIZE	Small			Large			
MIN/MAX BORE DIA.	3/8" to 7/8"			3/4" to 1-3/8"			

Dimensions

For both sprocket-type above and pocket-type Chainwheels at left.



Chainwheel Connecting Links and Chain

Sprocket-Type Chainwheels

Ductile Iron & Aluminum Models

SINGLE LOOP CHAIN
engages with the teeth in the wheel.

Pocket-Type Chainwheels

Carbon Steel & Stainless Steel Models

WELDED LINK MACHINE CHAIN
fits in pockets in the wheel.

Smooth chain links provide more comfortable operation.

i When ordering chain, indicate the Chainwheel and Chain size numbers, also the number of feet of chain required. Chain is provided in continuous lengths and easily cut in the field to exact length needed.

Closing the loop is simple with "Connecting Links".

TR Series Connecting Links

for sprocket-type Chainwheels
Installation instructions on page G-63!

Chain Size	Galvanized Item No.	Stainless Item No.
#2	----	----
1/0	367-1994	367-1997
4/0	367-1995	367-1998
5/0	367-1996	----

Single-Loop Chain

Chain Size	Galvanized Item No.	Stainless Item No.
#2	172-1650	----
1/0	367-1894	367-1897
4/0	367-1895	367-1898
5/0	367-1896	367-1901

TRS Series Connecting Links

for pocket-type Chainwheels

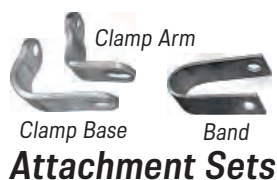
316L Stainless Item No.	Zinc Plated Carbon Steel Item No.
367-1816	----

Welded Link Machine Chain

calibrated specifically for our pocket-type Chainwheels

316L Stainless Item No.	Zinc Plated Carbon Steel Item No.
367-1815	367-1818

CLAMPING HARDWARE



Attachment Sets

CLAMP BASE

CLAMP ARM

BAND



Clamping Disc Hardware

Mounting of Chainwheels

Attachment sets and discs used to mount Chainwheels to handwheel

Each Trumbull Chainwheel is furnished standard with Clamp-On Attachment Hardware. The smaller sizes furnished with Clamping Discs, and larger sizes with Attachment Sets, as outlined below.

Sprocket-Type Chainwheels

- **SIZES TRI/A-0.0 AND TRI/A-1.0** use Clamping Disc hardware.
- **SIZES TRI/A-1.5 TO TRI/A-2.5** use two sets of Clamp Bases & Arms, plus one Band.
- **SIZES TRI/A-3.0 TO TRI/A-5.0** use three sets of Clamp Bases & Arms and do not use a Band.

Pocket-Type Chainwheels

- **SIZES TRS/CS-4 & TRS/CS-6** use Clamping Disc hardware.
- **SIZES TRS/CS-8 TO TRS/CS-29** are furnished standard with size "B" Attachment Sets. Pocket Chainwheels can fit handwheel diameters outside these ranges by using optional Hardware Sets "A" and "C" as shown on chart below.

Pocket Handwheel O.D. Ranges

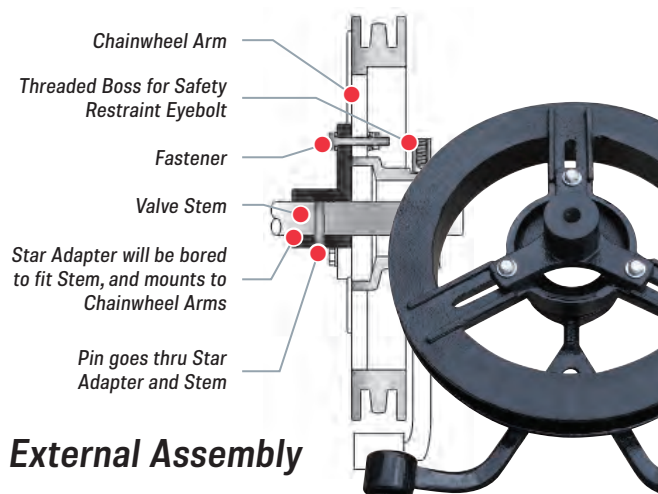
Size	"A" Attachment Set		"B" Attachment Set		"C" Attachment Set	
	Min. O.D.	Max. O.D.	Min. O.D.	Max. O.D.	Min. O.D.	Max. O.D.
TRS/CS-8	6"	8"	7-1/2"	10-1/2"	12-1/2"	15-1/2"
TRS/CS-12	7"	11"	8-1/2"	13-1/2"	13-1/4"	18-1/2"
TRS/CS-15	8"	15"	9-1/2"	17-1/2"	14-1/8"	23"
TRS/CS-22	11"	22-1/2"	13"	25"	17-1/2"	30"
TRS/CS-29	16"	29"	17-3/4"	32"	22-1/2"	37"

"STAR ADAPTERS"

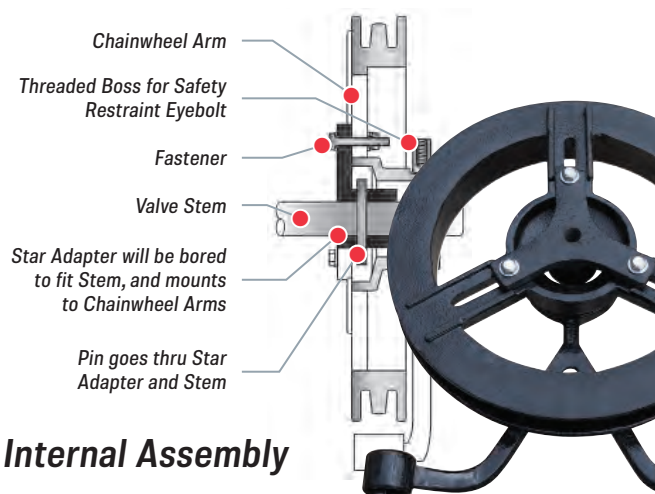
Star Adapters are available for direct mounting of Chainwheels to valve, gear box, or actuator stem.

These adapters require pinning to the stem. Pilot holes are pre-drilled in the adapter for ease of installation on-site; the drilling of the stem is by customer. Star Adapters will be furnished with fasteners necessary to attach to Chainwheel, in lieu of clamping hardware normally furnished with Chainwheel.

Direct Mounting of Chainwheels for both Sprocket-Type and Pocket-Type Chainwheels



External Assembly



Internal Assembly

Ductile Iron "Star Adapters" for Sprocket-Type Chainwheels

CHAINWHEEL	Size 0.0	Size 1.0	Size 1.5	Size 2.0	Size 2.5	Size 3.0	Size 3.5	Size 4.0	Size 4.5	Size 5.0
DI STAR ADAPTER	S	S	M	M	M	L & XL	L & XL	L & XL	L & XL	L & XL
TRUMBULL ITEM NO.	167-3070		167-3072			167-3074 (L) & 167-3076 (XL)				
BORE SIZE, STANDARD	3/8"		1/2"			1/2"				
HUB O.D.	1-1/8"		1-5/8"			L – 1-5/8" / XL – 2-3/8"				
OPTIONAL BORE, MAX.	7/8"		1-3/8"			L – 1-3/8" / XL – 2-1/8"				
HUB HEIGHT	3/4"		1-3/16"			1-1/2"				

Stainless Steel "Star Adapters"

FOR POCKET-TYPE
CHAINWHEELS

CHAINWHEEL	Size 4	Size 6	Size 8	Size 12	Size 15	Size 22	Size 29
SS STAR ADAPTER	S	S	L	L	L	L	L
TRUMBULL ITEM NO.	167-3060			167-3062			
BORE SIZE, STANDARD	3/8"			3/4"			
HUB O.D.	1-1/16"			1-9/16"			
OPTIONAL BORE, MAX.	7/8"			1-3/8"			
HUB HEIGHT	1/2"			1-1/2"			

TRUMBULL

Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

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www.trumbull-mfg.com

TR-Series Connecting Links

Used to Connect Chain for Use with Sprocket Chainwheels

TR Series Connecting Links are used to connect single loop chain for use with Trumbull ductile iron and aluminum Sprocket-Type Chainwheels. Pre-formed Connecting Links eliminate the need to cut and bend chain to form a loop.

Available in three sizes; 1/0, 4/0 and 5/0.

**INSTALLATION IS EASY,
JUST FOLLOW THESE FIVE STEPS ...**



Chain Size	Galvanized		316 Stainless Steel	
	Item No	Weight	Item No	Weight
1/0	367-1994	0.02 lbs.	367-1997	0.02 lbs.
4/0	367-1995	0.03 lbs.	367-1998	0.03 lbs.
5/0	367-1996	0.05 lbs.	----	----

1

Cut chain to desired length.
Cut and remove excess link pieces.

2

Install connecting link
by inserting looped end of chain
into the open end of connecting link.

3

Slide the chain to the back side
of connecting link as shown.

4

Lay opposite end of chain
onto the connecting link.

5

Firmly grip connecting link
with pliers and/or adjustable
pliers and crimp the open end
of connecting link over to
complete connection.

"Chain-Up" Device

Eliminates a Potential Safety Hazard Presented by Overhead Chains

Chainwheels are installed to provide access to overhead valves and they frequently result in chain hanging into the pathway of workers, creating a kind of obstacle course or even a safety hazard.

Our "Chain-Up" Device stores chain overhead and safely above the pathway. Simply hook the clevis pin into a chain link at the desired overhead height and insert the chain into the device. Pull on the handle to release the chain for operation. After use, the chain is placed back into the "Chain-Up" and hooked at the desired height. Molded in Safety Orange color from high-strength thermoplastic polymer.



**CHAIN FROM OVERHEAD
CHAINWHEEL SHOWN IN PATHWAY.**



**"CHAIN-UP" DEVICE STORES
THE CHAIN ABOVE PATHWAY.**



WATER DRAINS
prevent water from
building up inside

Item No	Overall Length	Weight
367-1890	11-3/4"	0.55 lbs.



For additional Chainwheel safety, always use Trumbull's Chainwheel Safety Restraint System (see page G-65 & G-66 for more information).

PREVENT SERIOUS INJURY

With Our ...

Secondary Safety Restraint

Safety Device System used with Trumbull Chainwheels



If a Chainwheel is properly installed, maintained and inspected, it should never separate from the valve and fall to the ground. Although the likelihood of a Chainwheel falling is small... the result **could be** a serious injury, or even a fatality.

Secondary Safety Restraints, also called "Safety Cable Kits", can be economically added to the Chainwheel installation. One end is attached to the Chainwheel and the other to a permanent part of the valve or an adjacent pipe.

Cable, clips and eyebolts are made from Type 316 stainless steel for long life in even the most corrosive environments.



Safety Restraints
PROTECT WORKERS
from
POTENTIAL INJURY!

1

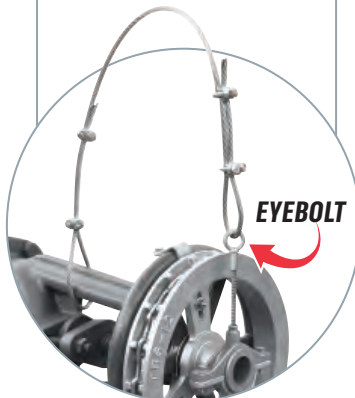
ORDER KIT

Item No

367-1975

Kit is furnished with 5 feet of safety cable and 4 cable clamps.

Eyebolts must be ordered separately, see chart on right...



EEYBOLT

2

SELECT EYEBOLT

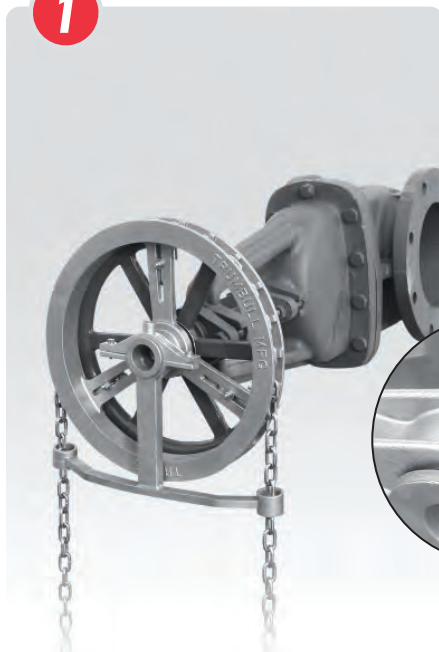
	Chainwheel Model	Eyebolt Length	Item No
STAINLESS STEEL	TRS-4	----	1" 367-1974
	TRS-6	TRCS-6	1" 367-1974
	TRS-8	TRCS-8	3" 367-1973
	TRS-12	TRCS-12	6" 367-1972
	TRS-15	TRCS-15	6" 367-1972
	TRS-22	TRCS-22	13" 367-1970
	TRS-29B	TRCS-29B	16" 367-1969
DUCTILE IRON	TRS-29C	TRCS-29C	18" 367-1967
	TR-0.0	TRA-0.0	2" 367-1968
	TR-1.0	TRA-1.0	2" 367-1968
	TR-1.5	TRA-1.5	3" 367-1973
	TR-2.0	TRA-2.0	3" 367-1973
	TR-2.5	TRA-2.5	6" 367-1972
	TR-3.0	TRA-3.0	9" 367-1971
	TR-3.5	TRA-3.5	9" 367-1971
	TR-4.0	----	9" 367-1971
	TR-4.5	----	13" 367-1970
	TR-5.0	----	18" 367-1967

INSTRUCTIONS

Installation of Safety Restraints

As easy as... **1 2 3 4**

1



Typical chainwheel installation. Safety cap is threaded to accept eyebolt.

2



Install safety cable eyebolt and use jam nut to secure in place.

3



Loop cable through eyebolt leaving about 6" excess.

Install one cable clamp about 1" from end, and the second clamp as close to the eyebolt as possible.



Eye of eyebolt must be parallel to Chainwheel and u-bolt nuts should face AWAY from the Chainwheel.

4



Loop other end of cable around a secure object. Cable can be attached to yoke of valve or an adjacent pipe.



Tighten all four clamp nuts evenly to 15 ft-lb minimum.

Adjustable Pipe Supports – Saddle Style

Available in Galvanized Carbon Steel and ASTM 304 Stainless Steel



All Trumbull Pipe Support models have been tested to a 10,000 lb load, under typical installation conditions. We recommend Project Engineers consider a safety factor when determining the number of supports in their design.



ASSEMBLY INCLUDES:

- A** Large base, 8" x 8"
- B** Saddle Assembly & Height-Adjustment Cap, which allows for up to 3" of final height adjustment

CUSTOMER SUPPLIED:

- C** Extension Pipe, at the length required*



	Carbon Steel	304 Stainless Steel
Base Plate:	ASTM A36 sheet steel	ASTM 304 sheet steel
Threaded Rod:	ASTM A307 rolled threads	ASTM 304 rolled threads
Base Cup:	ASTM A53 tubing	ASTM 304 tubing
Adjustment Cap:	ASTM A53 tubing	ASTM 304 tubing
Saddle:	ASTM A36	ASTM 304

Standard stock Saddles are formed to fit ductile iron pipe diameters, other pipe diameters available upon request;

- Optional 316 stainless steel supports available.
- Other coatings such as epoxy paint may be available, please inquire as to availability.

* Extension Pipe is furnished separately. If required, Trumbull can supply pipe that is cut-to-length.

Pipe Size	Carbon Steel	304 Stainless	Saddle Size	Threaded Rod	Base Plate	Extension Pipe Size*	Min. Height from Floor
	Item №	Item №					
3"	364-5850	364-5830	1-1/2" x 3/8"	1"-8 NC x 6"	1/4" x 8" x 8"	2" Sch 40	7"
4"	364-5851	364-5831					
6"	364-5852	364-5832	2" x 1/2"				
8"	364-5853	364-5833					
10"	364-5854	364-5834					
12"	364-5855	364-5835					
14"	364-5856	364-5836	3" x 5/8"	1-1/2"-6 NC x 6"	1/2" x 8" x 8"	3" Sch 40	10"
16"	364-5857	364-5837					
18"	364-5858	364-5838	4" x 3/4"	2"-4 NC x 6"		4" Sch 40	
20"	364-5859	364-5839					
24"	364-5860	364-5840					

Adjustable Pipe Supports – Flange Style

Available in Galvanized Carbon Steel and ASTM 304 Stainless Steel



All Trumbull Pipe Support models have been tested to a 10,000 lb load, under typical installation conditions. We recommend Project Engineers consider a safety factor when determining the number of supports in their design.



ASSEMBLY INCLUDES:

- A** Large base;
4" x 6" or 8" x 8"
- B** Saddle Assembly & Height-Adjustment Cap, which allows for up to 3" of final height adjustment

CUSTOMER SUPPLIED:

- C** Extension Pipe, at the length required*



	Carbon Steel	304 Stainless Steel
Base Plate:	ASTM A36 sheet steel	ASTM 304 sheet steel
Threaded Rod:	ASTM A307 rolled threads	ASTM 304 rolled threads
Base Cup:	ASTM A53 tubing	ASTM 304 tubing
Adjustment Cap:	ASTM A53 tubing	ASTM 304 tubing
Flange Plate:	ASTM A36 sheet steel	ASTM 304 sheet steel

Standard stock flange supports are fabricated to fit ANSI Class 125 bolt pattern flanges, other flange bolt patterns classes available upon request;

- Optional 316 stainless steel supports available.
- Other coatings such as epoxy paint may be available, please inquire as to availability.

* Extension Pipe is furnished separately. If required, Trumbull can supply pipe that is cut-to-length.

Class 125 Flange Size	Carbon Steel	304 Stainless	Flange Plate Dimensions	Threaded Rod	Base Plate	Extension Pipe Size*	Min. Height from Floor
	Item №	Item №					
3"	364-5870	364-5890	6" x 3-1/4" x 1/4"	1"-8 NC x 6"	1/4" x 4" x 6"	2" Sch 40	7"
4"	364-5871	364-5891	4-1/2" x 2-1/2" x 1/4"				
6"	364-5872	364-5892	5-1/4" x 2-1/2" x 1/4"				
8"	364-5873	364-5893	6-1/2" x 2-1/2" x 1/4"				
10"	364-5874	364-5894	6" x 2-1/2" x 1/4"				
12"	364-5875	364-5895	6-1/2" x 2-1/2" x 1/4"				
14"	364-5876	364-5896	7-1/2" x 3-1/2" x 3/8"	1-1/2"-6 NC x 6"	1/2" x 8" x 8"	3" Sch 40	10"
16"	364-5877	364-5897		2"-4 NC x 6"		4" Sch 40	
18"	364-5878	364-5898					
20"	364-5879	364-5899					
24"	364-5880	364-5900					

Light-Duty Pipe Supports

An economical, saddle-style Pipe Support with carbon steel parts.

Includes saddle, 6" x 6" square base made of 1/4" thick steel and 1" x 24" pipe risers. Sized to fit 4", 6" or 8" IPS/DIP diameter pipes.

Adjustment ranges from 22-1/2" through 33-1/2".

Saddle, threads and adjustment nut are all zinc plated. Pipe risers and bases are blue powder coated for corrosion protection. Pipe risers are designed so they can be cut to length in the field. Square base includes four anchor bolt holes.

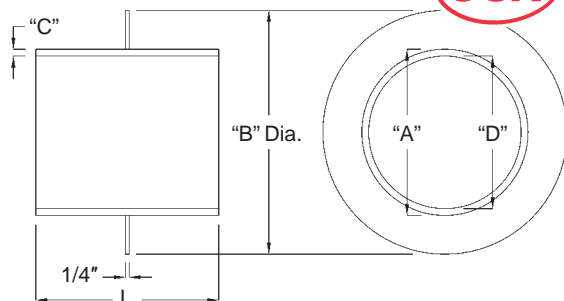
Item No	Size	Weight
364-5821	4"	8.80 lbs.
364-5822	6"	8.90 lbs.
364-5823	8"	9.15 lbs.



Check out our LinkedIn page... "Relevant and interesting Posts, Regularly"
www.linkedin.com/company/trumbull-manufacturing-inc/

Wall Sleeves

Trumbull Wall Sleeves consist of a 1/4" thick steel flange continuously welded, both sides, to a heavy steel cylinder. Wall Sleeves are supplied with a rust preventive coating on all surfaces; special coatings, including galvanizing and epoxy, are available upon request.



All Trumbull Wall Sleeves are made to order, and made to your particular specifications. They are coated with black enamel coating as standard. Other coatings also available, please inquire.

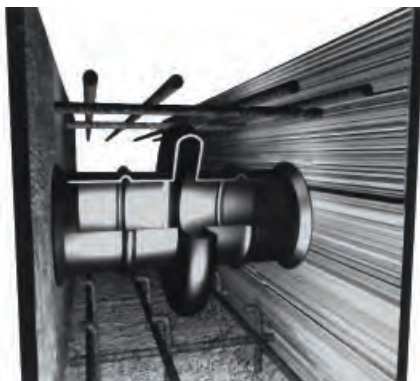
Item No	"A" Diameter	"B" Diameter	"C" Wall Thickness	"D" I.D.
TWS-0250-L	2.88"	6.88"	0.203"	2.47"
TWS-0300-L	3.50"	7.50"	0.216"	3.07"
TWS-0400-L	4.50"	8.50"	0.237"	4.03"
TWS-0600-L	6.63"	10.63"	0.280"	6.07"
TWS-0800-L	8.63"	12.63"	0.322"	7.98"
TWS-1000-L	10.75"	14.75"	0.365"	10.02"
TWS-1200-L	12.75"	16.75"	0.375"	12.00"
TWS-1400-L	14.00"	18.00"	0.375"	13.25"
TWS-1600-L	16.00"	20.00"	0.375"	15.25"
TWS-1800-L	18.00"	22.00"	0.375"	17.25"
TWS-2000-L	20.00"	24.00"	0.375"	19.25"
TWS-2200-L	22.00"	26.00"	0.375"	21.25"
TWS-2400-L	24.00"	28.00"	0.375"	23.25"
TWS-3000-L	30.00"	34.00"	0.375"	29.25"
TWS-3600-L	36.00"	40.00"	0.375"	35.25"
TWS-4200-L	42.00"	46.00"	0.375"	41.25"
TWS-4800-L	48.00"	52.00"	0.375"	47.25"

Century-Line™ Pipe Penetration Sleeves

Used to create circular sleeved holes in concrete poured barriers including walls, floors, ceilings, structural supports and tank footings.

Molded from non-conductive, high-impact resistant HDPE, these sleeves are lightweight and easily installed by one construction worker. Standard sleeves are 16" in length, but in the event of a field or engineering change, they may be cut shorter at the job site using ordinary hand tools. Longer lengths available upon request.

- 1/8 the weight of steel wall sleeves.
- Resists water migration.
- Adjusts to wall thickness.
- Nailer end caps position sleeve precisely in form.



Item No	Model No.	Weight of 16" Length
spec/ord.	CS-2	0.70 lbs.
spec/ord.	CS-3	1.30 lbs.
spec/ord.	CS-3-1/2	1.50 lbs.
spec/ord.	CS-4	2.00 lbs.
spec/ord.	CS-5	2.80 lbs.
spec/ord.	CS-6	3.60 lbs.
spec/ord.	CS-8	4.80 lbs.
spec/ord.	CS-10	6.40 lbs.
spec/ord.	CS-12	7.20 lbs.
spec/ord.	CS-14	11.20 lbs.
spec/ord.	CS-16	12.00 lbs.
spec/ord.	CS-18	15.50 lbs.
spec/ord.	CS-20	17.50 lbs.
spec/ord.	CS-22	21.00 lbs.
spec/ord.	CS-24	22.00 lbs.
spec/ord.	CS-25	23.00 lbs.

Link-Seal® Modular Seals

The Premier Method for Permanently Sealing Pipe of Any Size
Passing Through Walls, Floors and Ceilings

**TRUMBULL MANUFACTURING IS AN APPROVED
LINK-SEAL® MODULAR SEAL MASTER DISTRIBUTOR**

Don't be fooled by "look-alikes". Specify and use original Link-Seal® Modular Seals!



Link-Seal® Model No.	Model C Item No	Model S-316 Item No
LS-200	364-5602	364-5702
LS-275	364-5604	364-5704
LS-300	364-5606	364-5706
LS-315	364-5607	364-5707
LS-325	364-5608	364-5708
LS-340	364-5609	364-5709
LS-360	364-5613	364-5713
LS-400	364-5610	364-5710
LS-410	364-5611	364-5711
LS-425	364-5612	364-5712
LS-475	364-5614	364-5714
LS-500	364-5616	364-5716
LS-525	364-5618	364-5718
LS-575	364-5620	364-5720
LS-615	spec/ord.	364-5722
LS-650	364-5623	364-5724



If you are unsure of the correct size for your job, please contact your Trumbull Rep before ordering.

INDUSTRY-LEADING 16 SIZES

Nitrile seal elements, for oil, fuels, motor oil and kerosene, or for low durometer EPDM compound or silicone, see Link-Seal® Modular Seals catalog.

MODEL "C"

For use in water and waste water, EPDM Rubber. Bolts and nuts are carbon steel, zinc dichromated with a proprietary corrosion inhibiting coating.

MODEL "S-316"

For chemical processing and waste water treatment, EPDM Rubber. Bolts and nuts are 316 Stainless Steel.



HOW LINK-SEAL® MODULAR SEALS WORK ...



- 1 Link-Seal® modular seals are shipped as a belt of interconnecting rubber links.



- 2 Wrap the belt around the pipe and connect the first and last links together.



- 3 Slide the assembly into the space between the pipe and wall opening.



- 4 When the bolts are tightened, Link-Seal Modular Seals® expand to create a gas and water tight seal.



Notes

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Brass Hydrant Adapters

**"Low Lead" brass in compliance with
NSF/ANSI 61 and NSF/ANSI 372**

Heavy-duty brass construction, comes complete with gasket. Furnished with "pin-type" lugs. Available from stock with 2-1/2" NST hose threads, however special threads are available upon request.



NST x MIP Hydrant Adapters

Item No	Female Thread	Male Thread	Weight
377-9001	2-1/2" NST	3/4" MIP	1.40 lbs.
377-9005	2-1/2" NST	1-1/2" MIP	1.40 lbs.
377-9009	2-1/2" NST	2" MIP	1.40 lbs.

NST x Garden Hose Hydrant Adapter

Item No	Female Thread	Male Thread	Weight
377-8981	2-1/2" NST	3/4" G.H.	1.45 lbs.



HYDRANT OPERATING WRENCHES
ARE SHOWN ON PAGE A-4.

FIP x Garden Hose Adapter

Used to connect garden hose to item 377-9001 (shown above). Solid brass construction.



Item No	Female Thread	Male Thread	Weight
151-1003	3/4" I.P.	3/4" G.H.	0.15 lbs.



ADJUSTABLE HYDRANT WRENCHES
ARE SHOWN ON PAGE A-5.

Fire Hydrant Nozzle Caps

2-1/2" Hose Nozzle Caps and 4-1/2" Steamer Nozzle Caps

Hose & Steamer Nozzle Caps are stocked with National Standard Threads (NST), and a 1-1/2" pentagon nut, painted yellow. For caps with special threads and operating nuts, contact Trumbull for lead times.

For other sizes of Steamer Nozzle Caps, such as 4" or 4-1/4", please inquire.



Hose Nozzle Cap and Steamer Nozzle Cap

- NST threads* and 1-1/2" pentagon nut.**
- Includes gasket.

Item No	Product Description	Weight
392-0917	2-1/2" Hose Nozzle Cap	3.75 lbs.
392-0914	4-1/2" Steamer Nozzle Cap	8.10 lbs.

* For special threads, provide thread drawing or sample cap.

** For nut sizes other than 1-1/2" pentagon, provide size and shape or sample cap.

Hydrant Nozzle Cap Chain

- Includes 10" of chain, swivel and "S"-hook.
- 392-0860 is purchased separately, and does not include Nozzle Cap.

Item No	Weight
392-0860	0.20 lbs.

i Nozzle Cap purchased separately.



Gaskets for Hydrant Nozzle Caps

Item No	Size	O.D.	I.D.
392-0923	2-1/2"	3-1/4"	1-1/2"
392-0920	4-1/2"	5-3/4"	3-1/4"

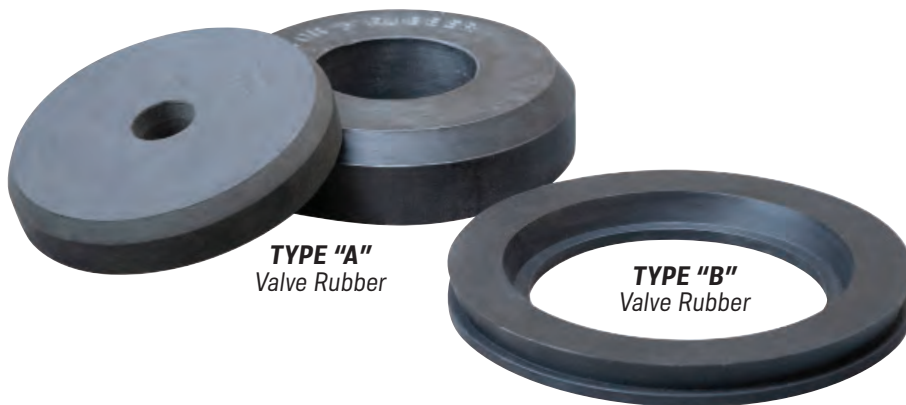
Trumbull Manufacturing is the original equipment manufacturer of **LUDLOW, COREY AND RENNELAER HYDRANTS** and has been making fire hydrant parts since 1990.

TRUMBULL HAS OVER 25 YEARS EXPERIENCE in the manufacturing of fire hydrant repair parts.

Parts are available for many makes and models. Inquire for minimum quantities and availability of specific parts.

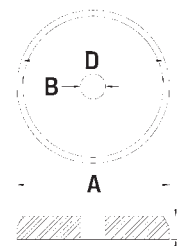


Hydrant Valve Rubbers

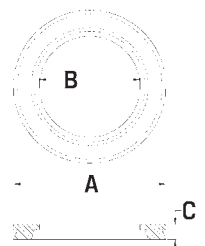


Please refer to the "Type" below for the pertinent dimensions in the table.

TYPE "A"



TYPE "B"



Hydrant Manufacturer	Model	Valve Opening	Item No	Type	"A"	"B"	"C"	"D"
Ludlow	L 75 & L 90	4"	392-0200	"B"	5-3/8"	3-1/4"	5/8"	----
	L 75 & L 90	4-1/2"	392-0201		5-3/4"	3-7/8"	5/8"	----
	L 75 & L 90	5"	392-0100		6-1/2"	4-1/8"	5/8"	----
Rensselaer	L 90A & L 90B	4"	393-0255		4-3/8"	2-3/8"	1"	3-7/8"
	L 90A & L 90B	5"	393-0260		5-5/8"	2-5/8"	1-1/4"	5-3/8"
Mueller* (Non-Reversible)	A421 (Centurion)	4-1/2"	377-5692		5"	1"	1-1/8"	4-1/4"
	Improved	4-1/4"	377-5694		4-7/8"	1"	1"	4-1/4"
	Improved	4-1/2"	377-5700		5"	1"	1-1/8"	4-1/2"
U.S. Pipe*	Smith* H200	4-1/2"	377-5702	"A"	5"	2-1/4"	3/4"	4-3/4"
American Darling*	B50B, 40-50-41	4"	377-4792		4-1/2"	2-1/16"	1"	4-1/8"
	B50B, 50-50-41	5"	377-5492		5-3/4"	2-1/16"	1-3/16"	5-3/16"
	B62B, 54-62-41	5-1/4"	377-6092		5-5/8"	1"	1"	5-3/16"
Kennedy*	K10, K11, K81, 1080, 1280	4-1/2"	378-0204		5"	15/16"	7/8"	4-5/8"
	K10, K11, K81	5-1/4"	378-0208		5-11/16"	1-3/32"	7/8"	5-1/4"

* Hydrant names are registered trademarks of American Darling/American Flow Control, McWane, Mueller or U.S. Pipe; Trumbull Manufacturing is not affiliated with these companies.



Trumbull Manufacturing
is the original equipment manufacturer of
LUDLOW, COREY AND RENSSELAER HYDRANTS
and has been making fire hydrant parts since 1990.

trumbull-mfg.com/resources/ludlow-rensselaer-corey-hydrant-parts/

TRUMBULL

Trumbull Manufacturing, Inc.

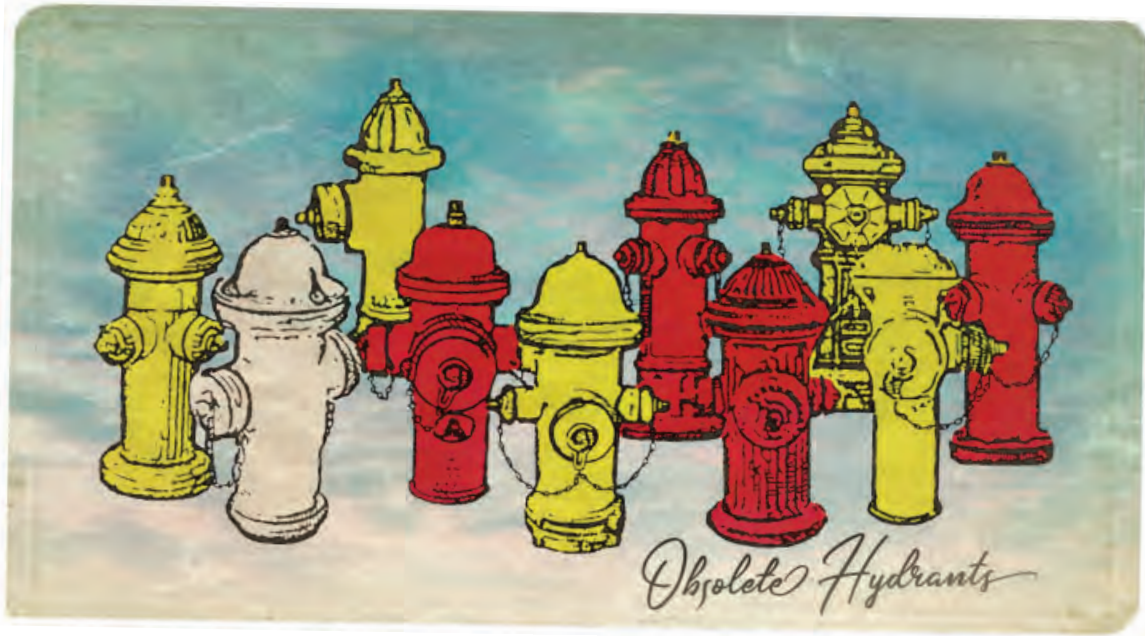
3850 Hendricks Road, Youngstown, Ohio 44515

Phone:
330.270.7888

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877.504.1507

Fax:
330.392.0756

www.trumbull-mfg.com



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[trumbull-mfg.com/resources/
ludlow-renselaer-corey-
hydrant-parts/](http://trumbull-mfg.com/resources/ludlow-renselaer-corey-hydrant-parts/)



See page H-3 for Valve
Rubbers for various models.



- AP Smith H200, H205
- Mueller Standard & Improved
- Kennedy 1080, 1280
- Darling Standard & B50B
- Ludlow, Corey & Rensselaer

Inquire about parts for
Other Makes and Models



One last look at our **LinkedIn**
But you can see more by following our page:

www.linkedin.com/company/trumbull-manufacturing-inc

Zinc Anode Caps

Trumbull Anode Caps are made from Special High Grade Zinc and are third-party tested to confirm they meet the chemistry maximums allowable in both ASTM B418-88, "Galvanic Zinc Anodes", and Military Specification Mil-18001K.



Trumbull Manufacturing™

BLUE

Ask your Trumbull Rep. for more details.



Trumbull Manufacturing™

OPERATOR STANDS

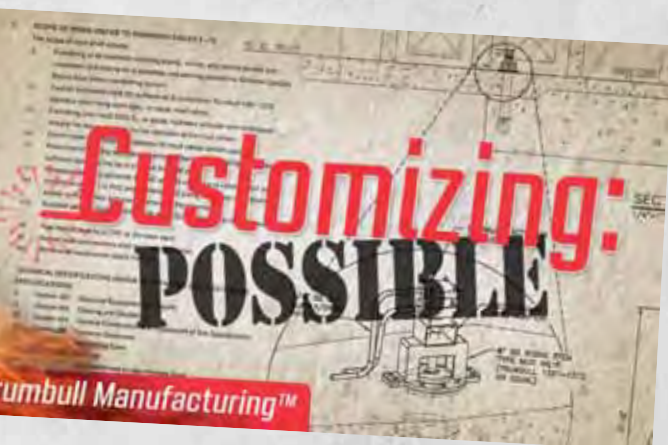
- Top flange can be drilled for bevel gear operator
- Wall Brackets can support operator stand off the wall
- Stainless steel or anti-galling coated internal stem



Trumbull Manufacturing™



Trumbull Manufacturing™



Trumbull Manufacturing™



Trumbull Manufacturing™

TRUMBULL

Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756



See even more up-to-date information at ...

www.trumbull-mfg.com