

COMPOSITE AND POLYMER **METER PIT LIDS**

and Meter Pit Frames

Radio-Friendly.



TRAFFIC RATED COMPOSITE **MANHOLE COVERS**

and Frame and Cover Assemblies

Amazingly Strong. Surprisingly Light.™



Contact us at...
877.504.1507
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 and POLYMER Meter Box Lids

Allow Radio Signals to be Read in AMR and AMI Systems

RETAINER BRACKET
for installation of
antennas under lid,
see page 9

**SLIP-RESISTANT
SURFACE**
ADA Compliant

COUNTERBORES
available for "through-the-lid"
antenna mounting (see page 7 and 8)

POSTS ON UNDERSIDE
allow for attachment of retainer
bracket (see below), Aclara
MTU, and adapters for Itron
100W, Itron Riva and Badger
LTE (shown on page 9)

COMPOSITE

**COMPRESSION
MOLDED**

POLYMER

**INJECTION
MOLDED**

i Our Lids
are UV
resistant

STAINLESS HARDWARE
retains worm gear assembly and
allows for easy field replacement

WORM GEAR*
has square opening to reduce
localized stress on pentagon bolt

BRASS SLEEVE & BEARING WASHER
prevents wear and elongation
of hole for pentagon bolt

PENTAGON BOLT
square shank

**Ductile
Worm Gear
Assembly**

* For Polymer Lids, worm gears normally
furnished as high-strength polymer.

i Also Available:

- Other sizes and shapes (such as oval or rectangular).
- Custom lettering.
- Alternate locking mechanisms.
- Nylon and DI worm gears.
- Snap-in adapter for Itron 100W.
- Large pentagon bolt.
- Magnet for detection with valve and curb box locators.

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



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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

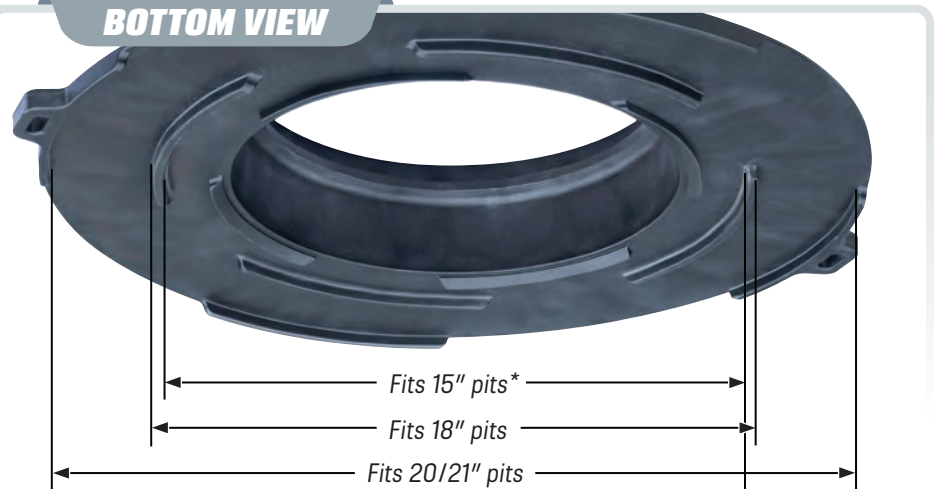
REBAR TABS
accept rebar sizes up to 3/8"



Can be used with most common
meter pits used today.

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

BOTTOM VIEW



i Add a magnet
for locating.

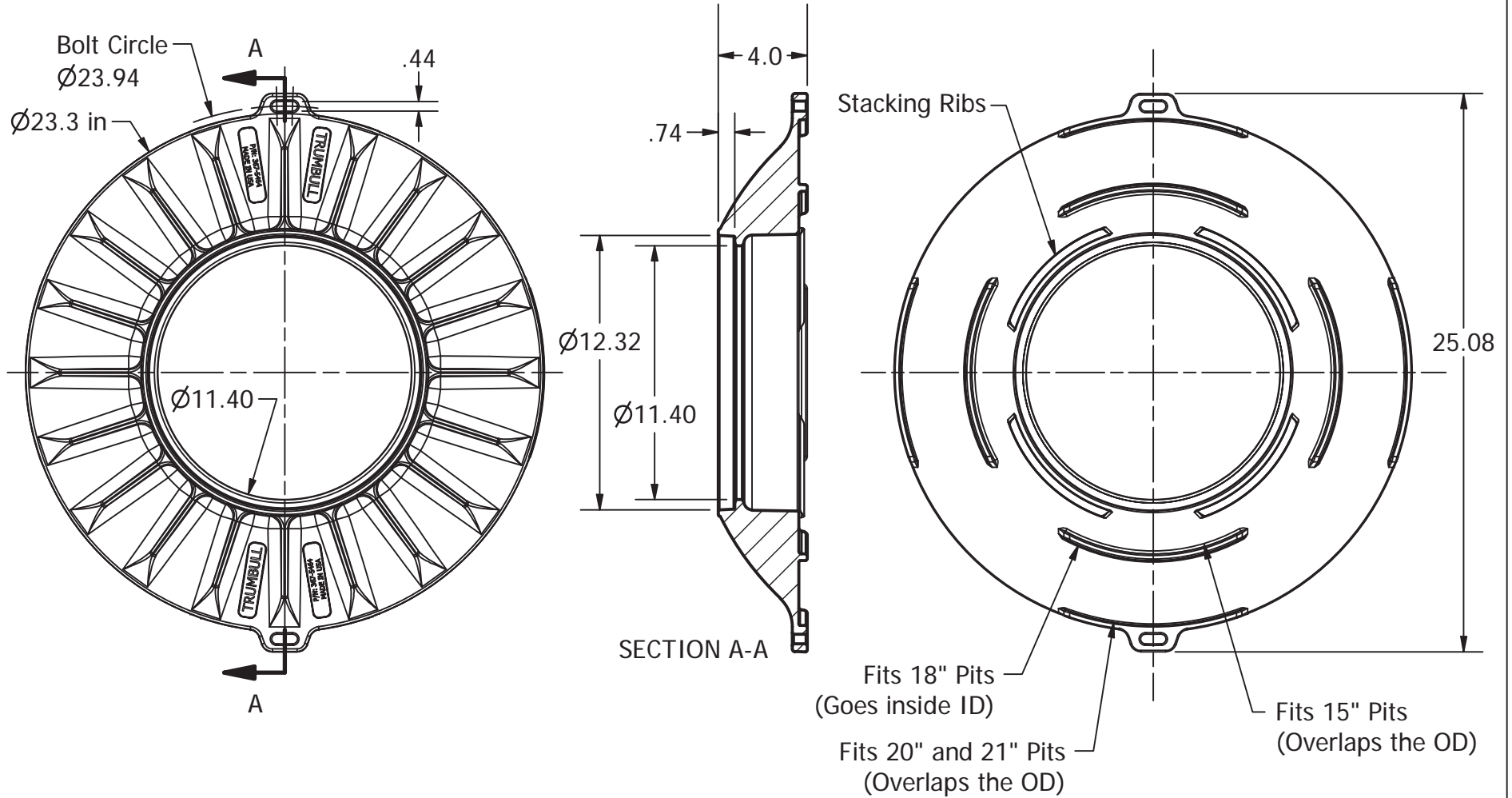
* Excluding Old Castle (15")
Consult Trumbull for load ratings,
which are based on pit size.

Fits
minimum
17.438" ID

Fits
maximum
22.50" OD

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

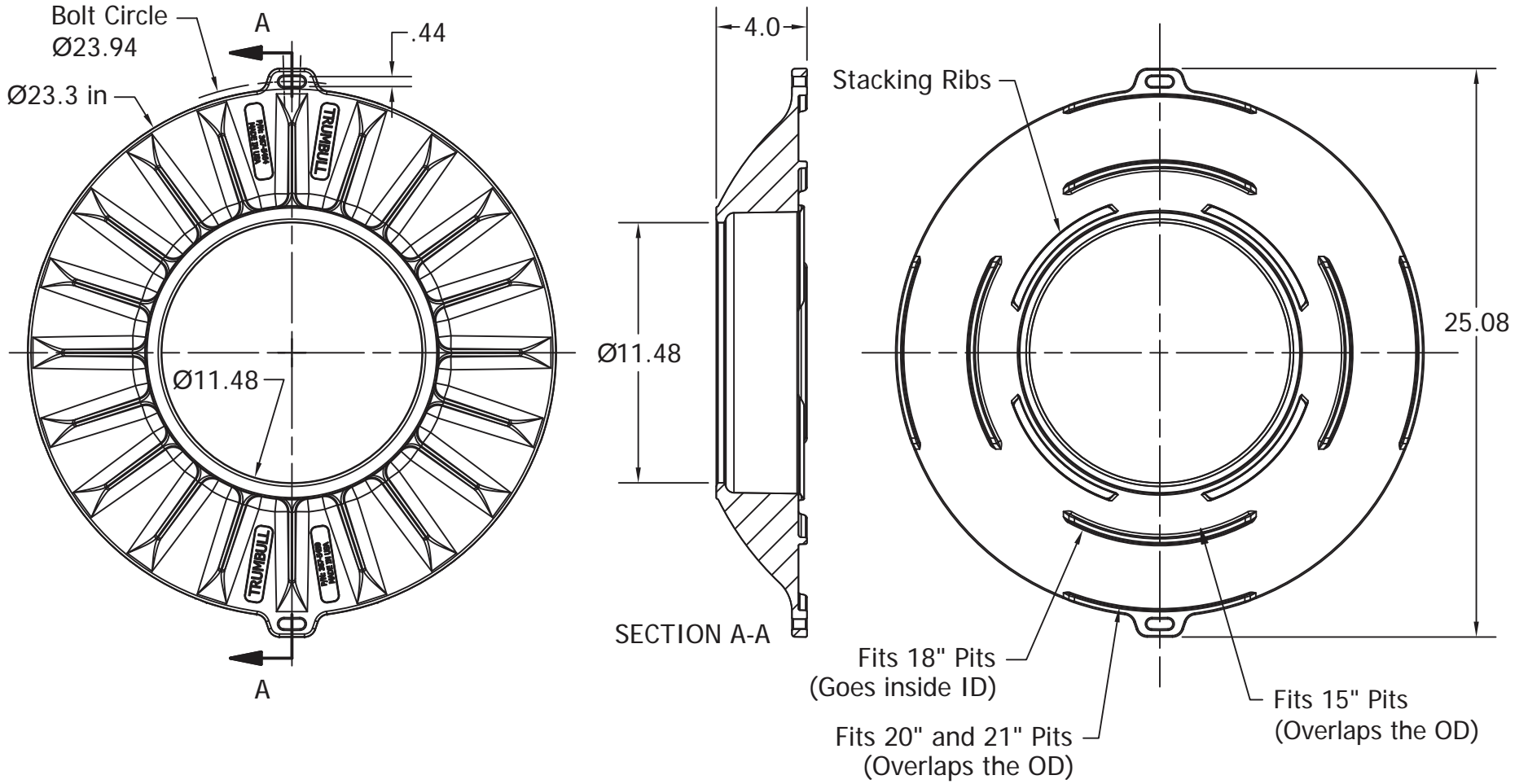
Drawn:
 BJE
 01/03/20

Revision:
 BJE
 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
 11/19/21

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Trumbull Manufacturing, Inc.

3850 Hendricks Road, Youngstown, Ohio 44515

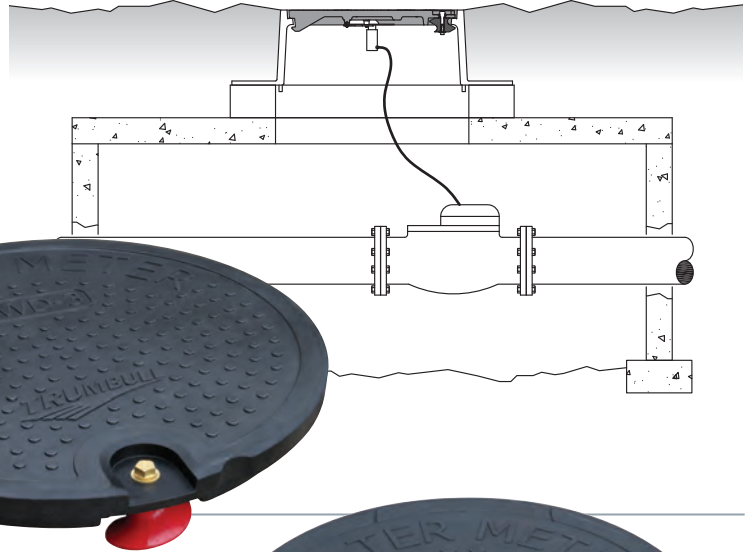
Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

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.

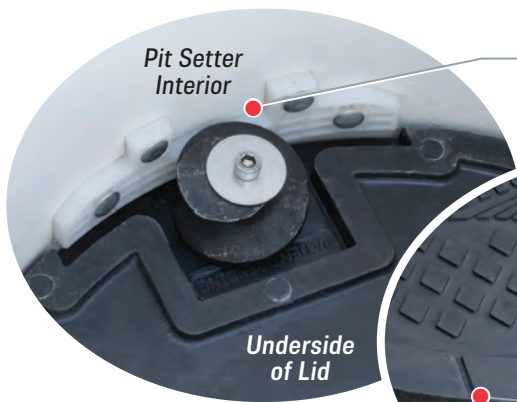


COMPOSITE Lids for Coiled Pit Setters

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.



Pit Setter Interior

Underside of Lid

RECESSES ON UNDERSIDE allow lid to drop into lockable position

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 #9,350,148

Trumbull 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



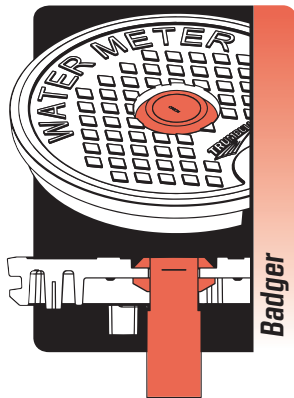
Drilling holes in existing cast iron lids may save money in the short run. However, most iron lids do not have the thickness for a counterbore. If lids are simply drilled without a counterbore, the result is a trip hazard. Drilling iron lids in the field frequently results in cracks in the lid.

Solution:

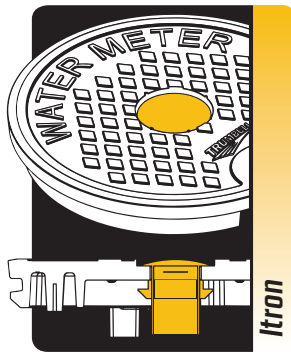
Our lids feature a molded COUNTERBORE allowing recessed installation of antenna to eliminate trip hazard or damage.



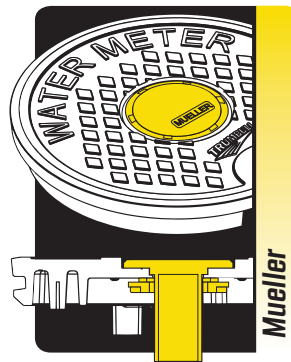
Current Counterbore Options



Badger



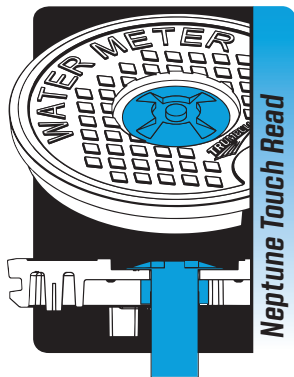
Itron



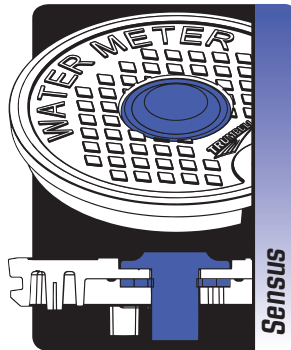
Mueller



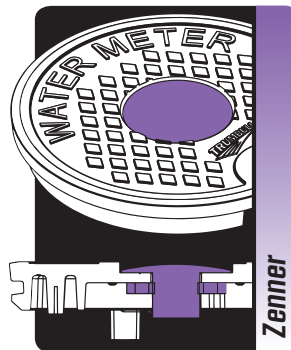
Neptune Radio Read



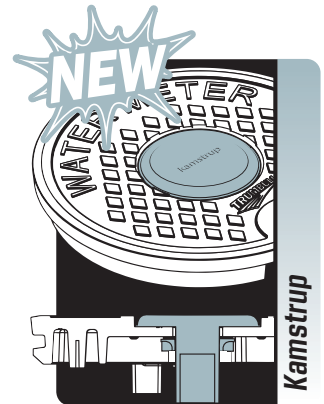
Neptune Touch Read



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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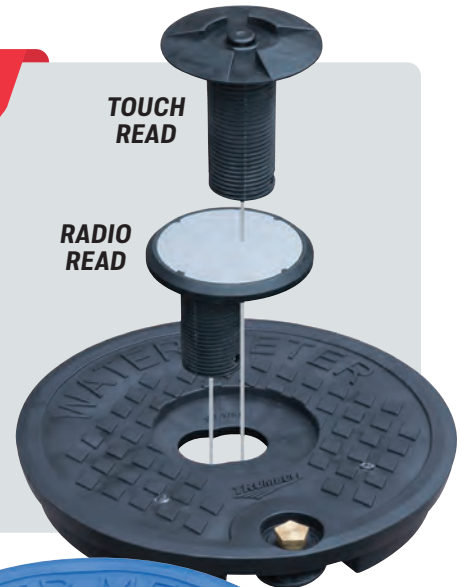
www.trumbull-mfg.com

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**



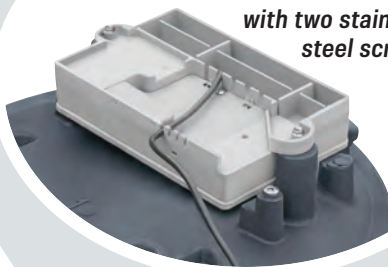
**Itron
100W
Post
Adapter**



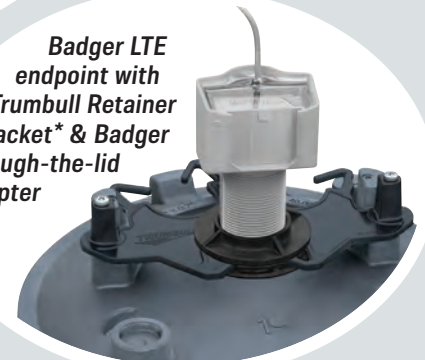
**Single Slot
Retainer
Bracket***



**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.



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LID FASTENING STYLES

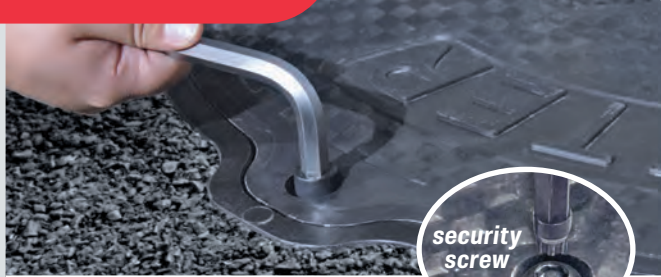
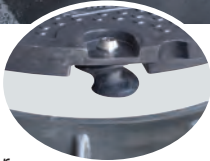


Underside of Frame

Underside of Lid

Worm Gear

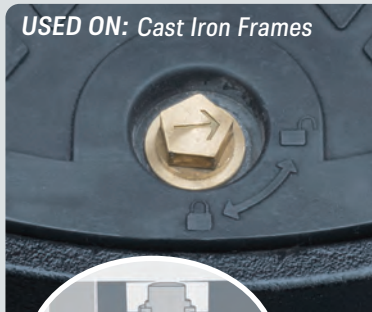
Worm gear locks to shelf on frame. Cast iron or polymer.



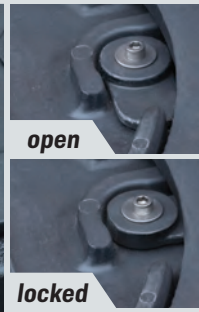
security screw

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).



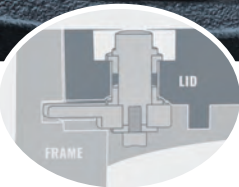
USED ON: Cast Iron Frames



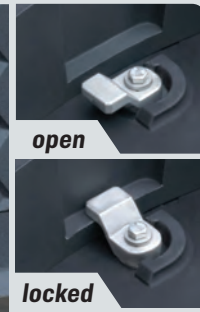
open



locked



USED ON: Matching Composite Frames and Covers



open



locked

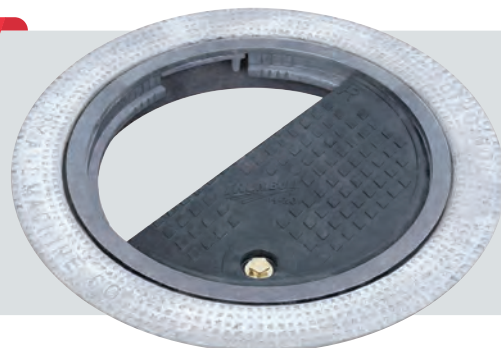
Quarter-Turn Double Paddle Lock Style

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.

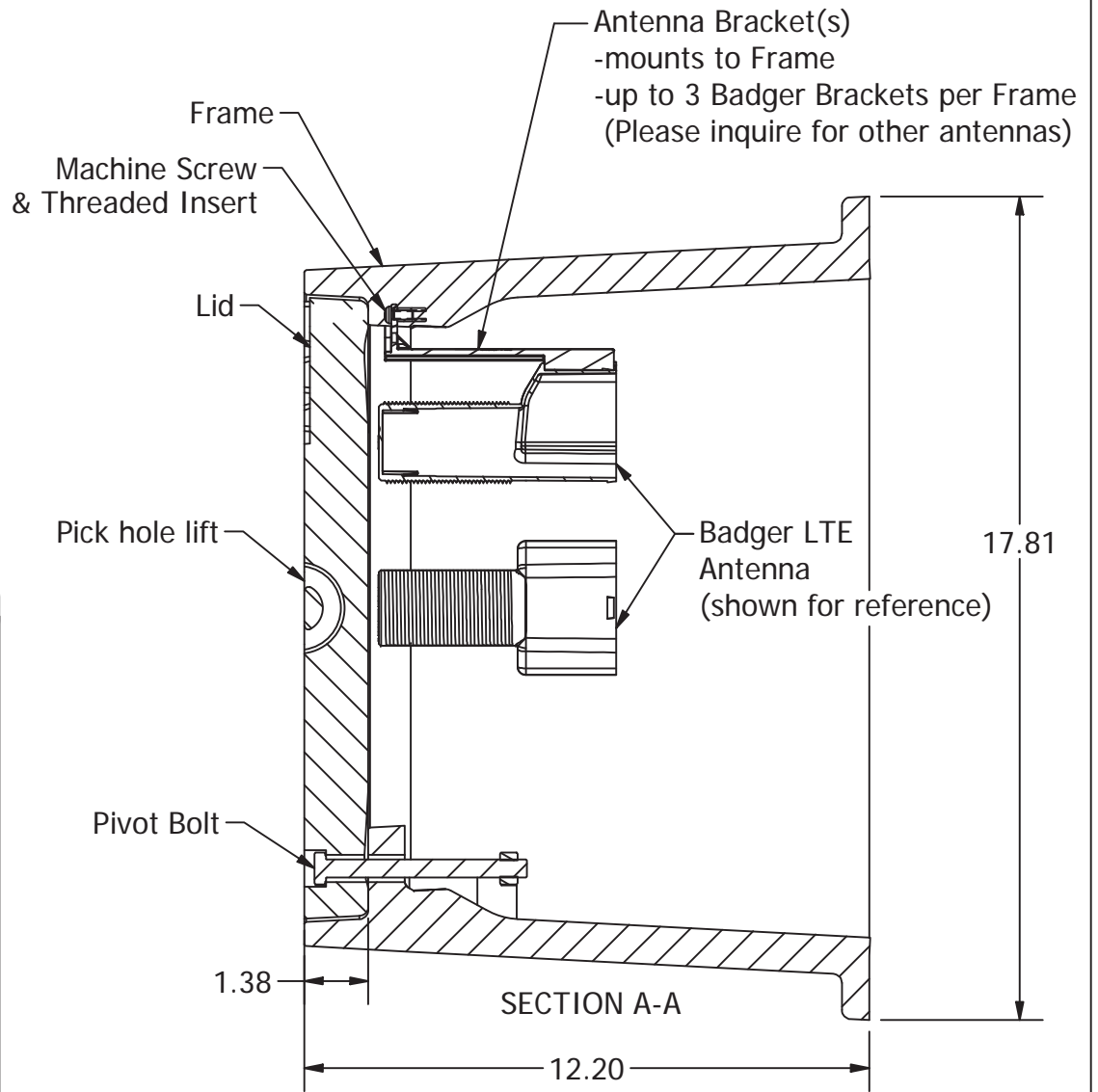
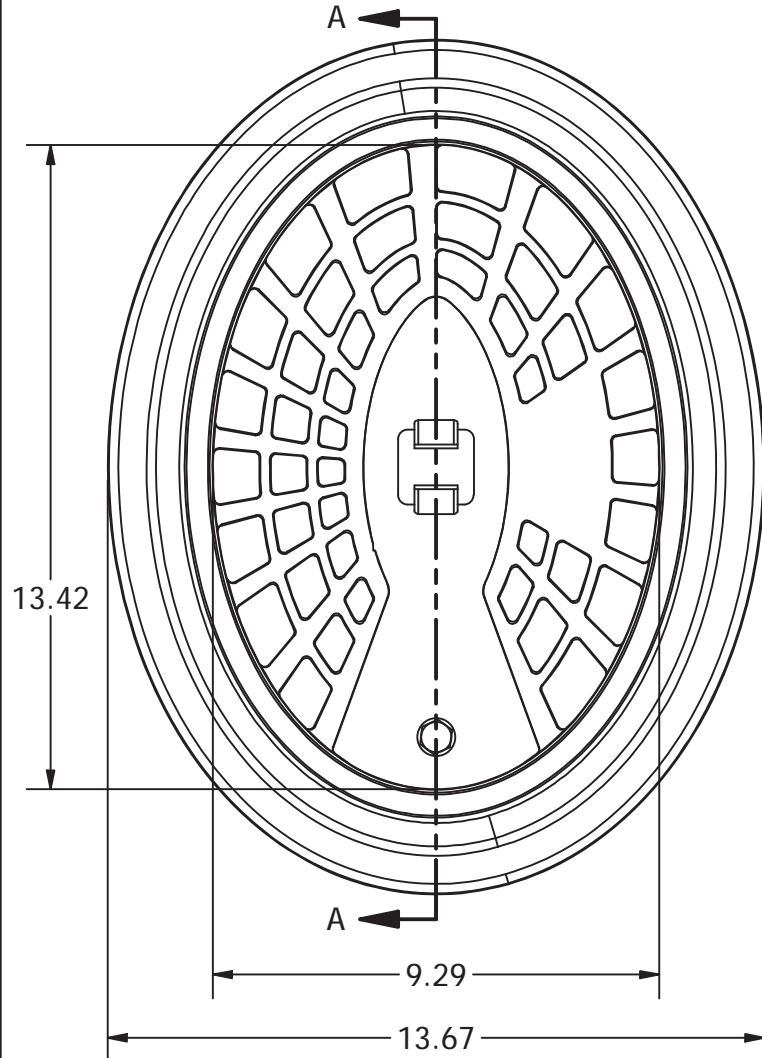
ADAPTER RECESSES
allow up to 3 Badger adapters to be mounted below the lid



Lid closes flush with top edge of box.

Trumbull 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



Load Rating: 40,000 lbs.

Notes:

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

Oval Remote Antenna Box

Drawn to Scale

Drawn:
 BJE
 01/07/20

Original Document

Trumbull Manufacturing, Inc.

Youngstown, Ohio
 www.trumbull-mfg.com



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10" x 6.5" Polymer Yokebox Lids

Allows Radio Signals to be Read in AMR and AMI Systems

HAND KEY
purchased separately



ANTENNA HOLE for through-the-lid antennas
THROUGH HOLE for other TTL adapters

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

Trumbull 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-TH	1 Through Hole (1.88")	0.82 lbs.

Yokebox Lids Accessories



Hand Key

Trumbull Item No.	Weight
367-4334	0.40 lbs.

Single Slot Retainer Bracket

Details shown on page 9

Trumbull 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	Due to lack of space for counterbore, a through hole will be provided.		

Single Slot Retainer Bracket (for Solid Lids)

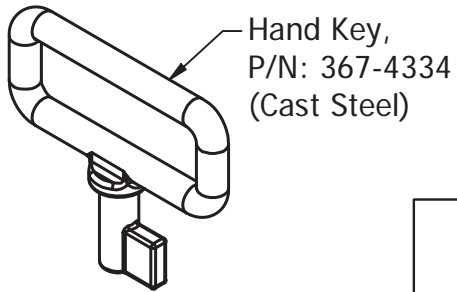
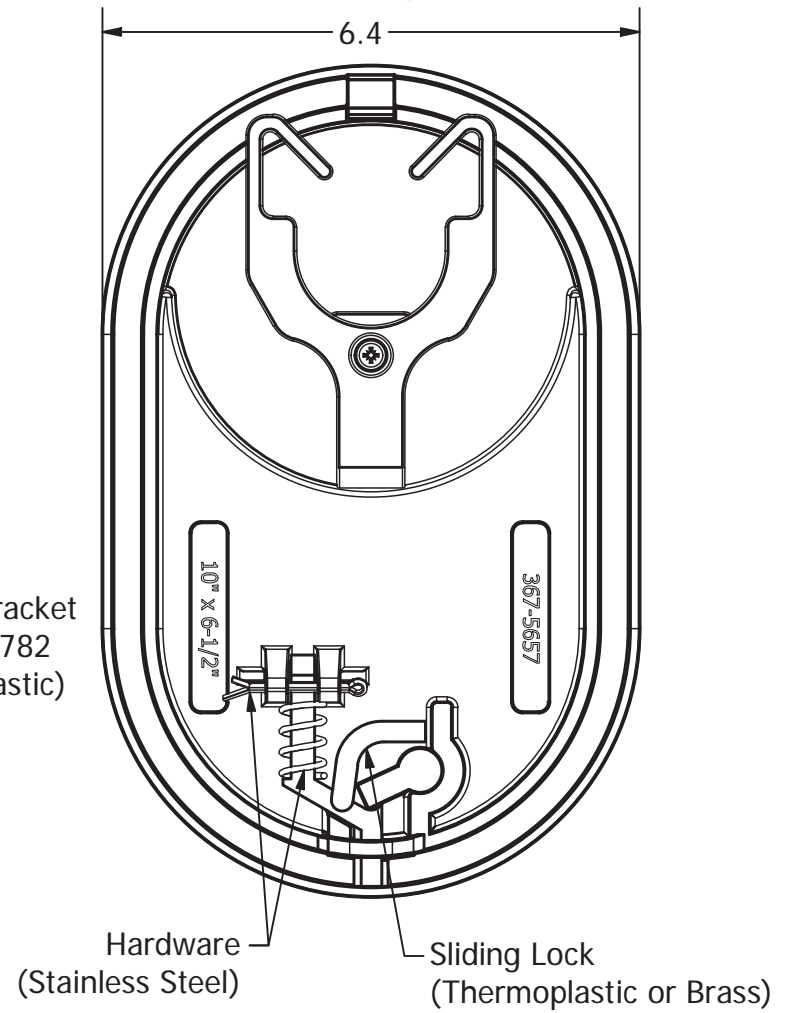
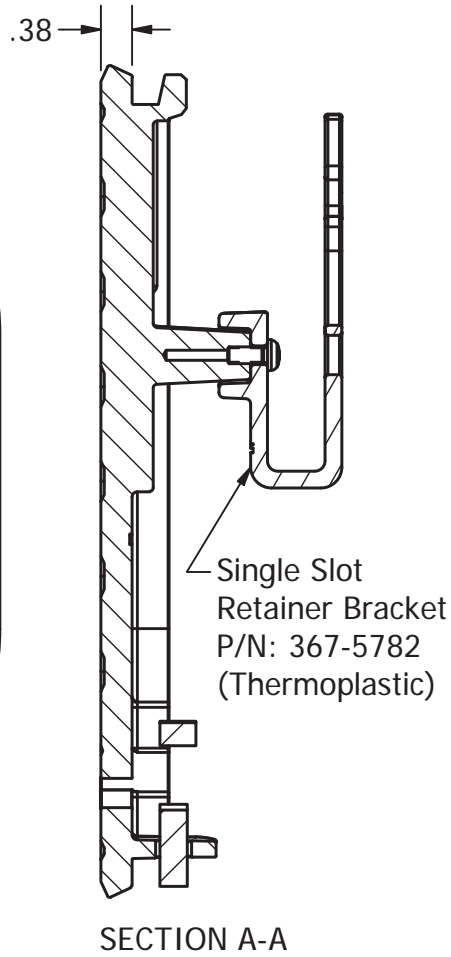
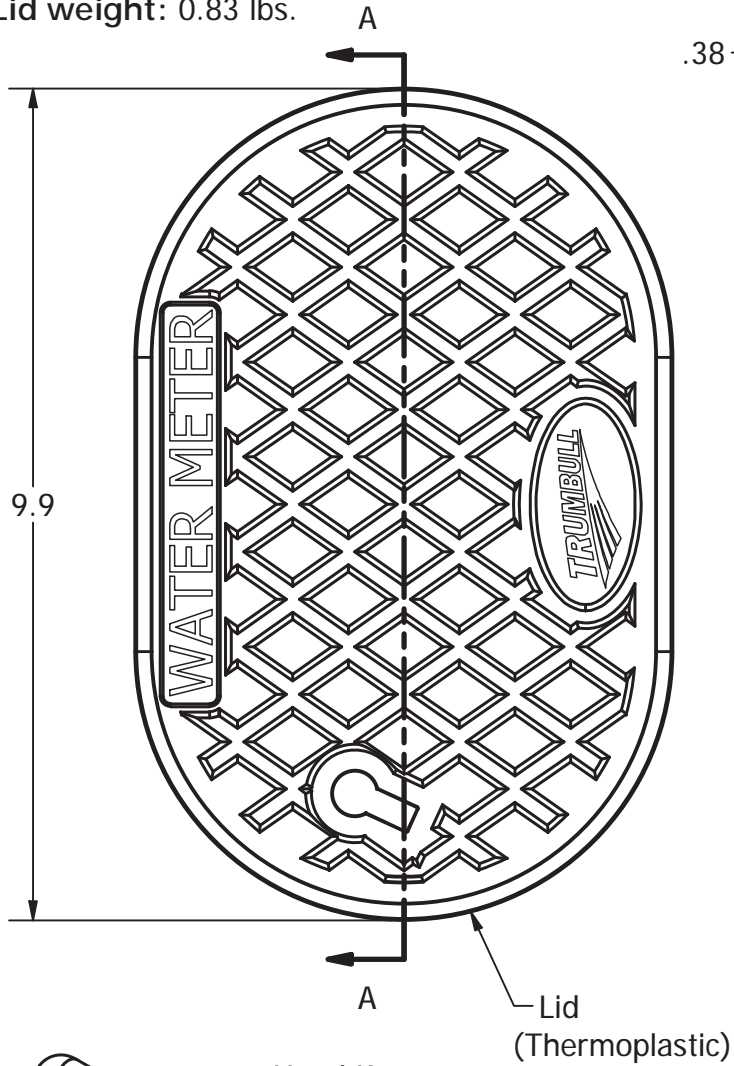
	5" Upper Yokebox	8" Upper Yokebox	10" Upper Yokebox
Badger	✗	✓	✓
Itron Riva 500W	✗	✓	✓
Itron 100W	✗	✗	✓
Mueller	✗	✗	✗
Sensus	✗	✗	✓
Neptune	✗	✓	✓
Kamstrup	✗	✓	✓

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

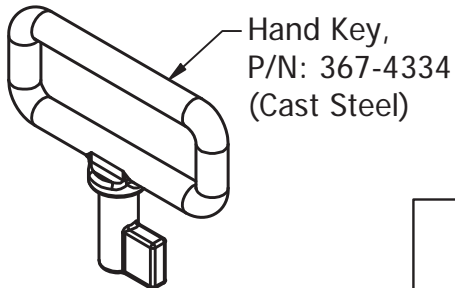
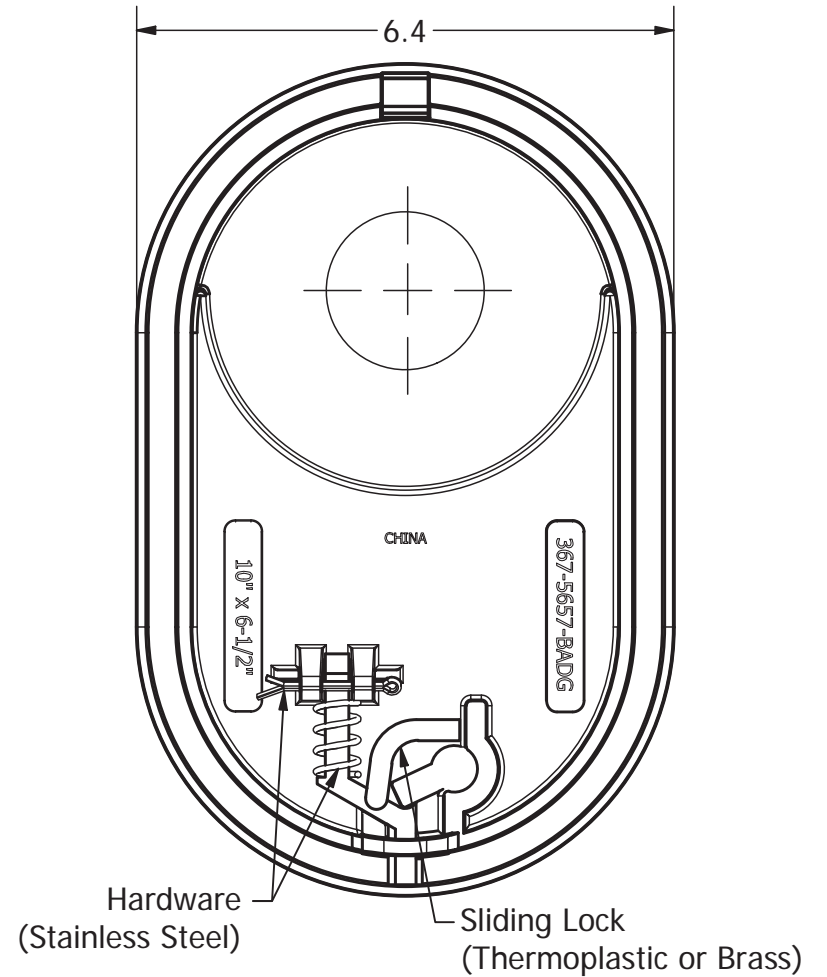
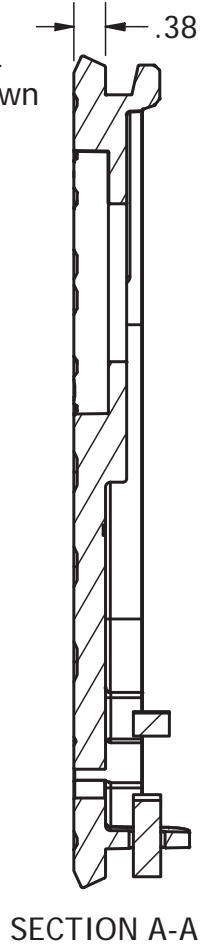
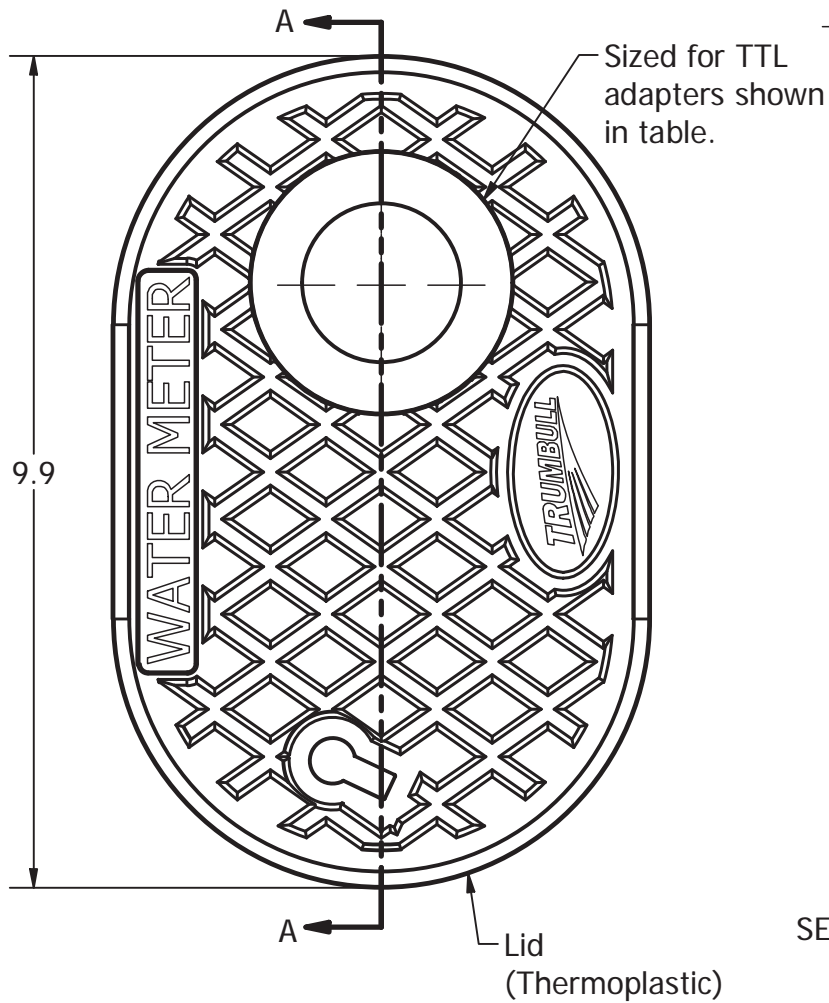


10" x 6.5" Yokebox Lid, Solid
 (Non-traffic)
 Drawn to Scale

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

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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		
	Trumbull Item No.	Size	Weight	Trumbull 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.

Trumbull 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 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

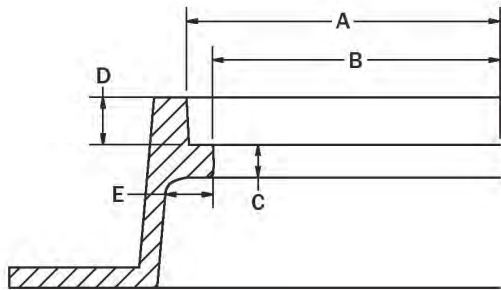
"SANITARY SEWER"
 "WATER METER"
 Other _____

LOAD RATING REQUIRED

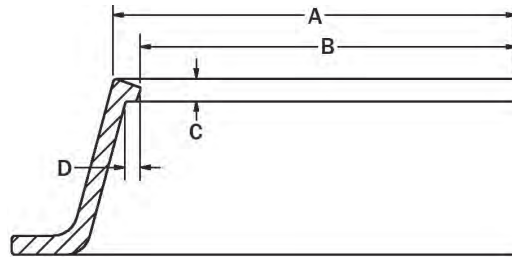
Heavy Duty AASHTO M306, H-20; 40,000 lbs.
 Medium Duty; 20,000 lbs.
 Light Duty; 5,000 lbs.

AMI/AMR Antenna & Leak Detection Mounting

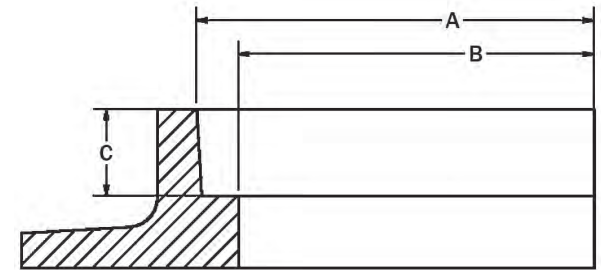
Bracket mounting on underside
 Through-the-lid, flush with grade
 Mfg & model of endpoint _____



Inset Style

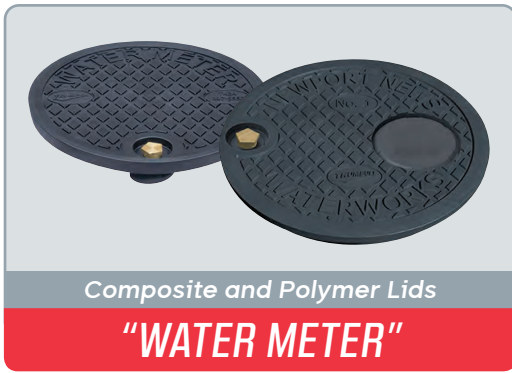


Overlapping Style



Straight Wall ID Style

Lid Style	Address	A	B	C	D	E



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.

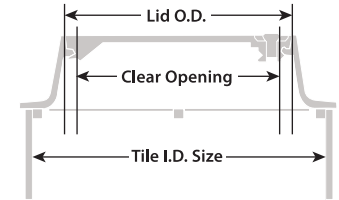
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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 minimum order quantity	367-5532 1.77 lbs. 500 pcs minimum order quantity	----	367-5533 1.80 lbs. 500 pcs minimum order quantity	367-5534 1.73 lbs. 500 pcs minimum order quantity	367-5535 1.77 lbs. 500 pcs minimum order quantity
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 minimum order quantity	----	----	----	5902 TMI 1.60 lbs. 500 pcs minimum order quantity	----	----
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 minimum order quantity	----	----	----	367-5581-MUEL 1.60 lbs. 500 pcs minimum order quantity	----	----
11-7/8" OD Clear Opening: 10" Rim Thickness: 5/8"	Non-Traffic / Composite DI WORM GEAR (1.5" OD) US Patent No. 0858,797 Solid Lids* or MegaNet Antenna Recess	Clark Meter Box Frame	367-5639 6.00 lbs.	367-5638 MegaNet Recess (Not for Badger) 5.60 lbs.	----	----	----	----	----
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 minimum order quantity	367-5664 2.90 lbs. 500 pcs minimum order quantity	367-5666 2.90 lbs. 500 pcs minimum order quantity	----	----	367-5662 2.80 lbs. 500 pcs minimum order quantity	367-5659 2.90 lbs. 500 pcs minimum order quantity

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.

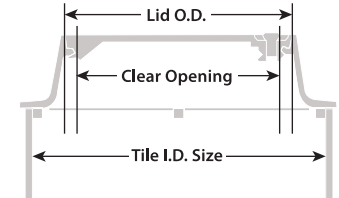
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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"	Non-Traffic / Polymer NYLON WORM GEAR Solid Lids* or with 1 Antenna Recess	Ford A, C, and X AY McDonald A and C	367-5810 3.06 lbs. 500 pcs minimum order quantity	367-5811 2.70 lbs. 500 pcs minimum order quantity	367-5812 2.72 lbs. 500 pcs minimum order quantity	367-5816 2.52 lbs. 500 pcs minimum order quantity	367-5813 2.72 lbs. 500 pcs minimum order quantity	367-5814 2.59 lbs. 500 pcs minimum order quantity	367-5815 2.62 lbs. 500 pcs minimum order quantity
12-1/4" OD Clear Opening: 11-1/2" Rim Thickness: 0.65"	Non-Traffic / Polymer NYLON WORM GEAR 2 Antenna Recesses	Ford A, C, and X AY McDonald A and C	----	367-5823 2.53 lbs. 500 pcs minimum order quantity	367-5817 2.60 lbs. 500 pcs minimum order quantity	367-5821 2.14 lbs. 500 pcs minimum order quantity	367-5818 2.53 lbs. 500 pcs minimum order quantity	367-5819 2.27 lbs. 500 pcs minimum order quantity	367-5820 2.34 lbs. 500 pcs minimum order quantity
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. Non-Stock, Use Item 367-5751	367-5762 3.03 lbs. Non-Stock, Use Item 367-5752	367-5760 3.07 lbs. Non-Stock, Use Item 367-5754	----	----	367-5763 2.92 lbs. Non-Stock, Use Item 367-5755	367-5761 2.97 lbs. Non-Stock, Use Item 367-5753
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.	367-5752 2.87 lbs.	367-5754 2.91 lbs.	----	----	367-5755 2.82 lbs.	367-5753 2.87 lbs.
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 minimum order quantity	367-5676 3.81 lbs. 500 pcs minimum order quantity	367-5678 3.85 lbs. 500 pcs minimum order quantity	----	----	367-5675 3.71 lbs. 500 pcs minimum order quantity	367-5677 3.73 lbs. 500 pcs minimum order quantity

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.

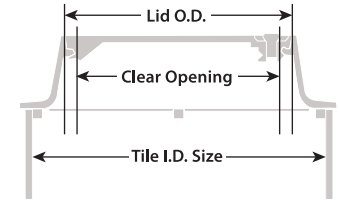
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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 9.54 lbs. ALSO AVAILABLE: w/out Logo 367-5517 (40K)	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 2.20 lbs. ALSO AVAIALBLE: w/out NN Lettering (Non-Traffic)	----	----	----	4945 TMI 2.20 lbs. ALSO AVAIALBLE: w/out NN Lettering (Non-Traffic)	----	----
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 minimum order quantity	367-5721 3.10 lbs. 250 pcs minimum order quantity	367-5722 3.10 lbs. 250 pcs minimum order quantity	----	367-5723 2.90 lbs. 250 pcs minimum order quantity	367-5724 2.90 lbs. 250 pcs minimum order quantity	367-5725 3.00 lbs. 250 pcs minimum order quantity
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 minimum order quantity	----	----	----	----	----	----
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 minimum order quantity	----	----	----	----	----	----
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.

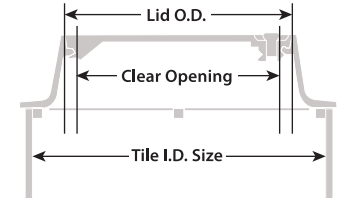
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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.

Additional Notes: Explanations for asterisk (*) and (**) points shown on page 28.



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 minimum order quantity	----	367-5649 5.45 lbs. 200 pcs minimum order quantity	367-5645 5.35 lbs. 200 pcs minimum order quantity	367-5647 5.40 lbs. 200 pcs minimum order quantity
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 minimum order quantity	367-5773** 5.96 lbs. 100 pcs minimum order quantity	367-5775** 6.01 lbs. 100 pcs minimum order quantity	----	----	367-5772** 5.76 lbs. 100 pcs minimum order quantity	367-5774** 5.84 lbs. 100 pcs minimum order quantity

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.

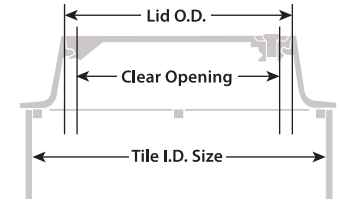
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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

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

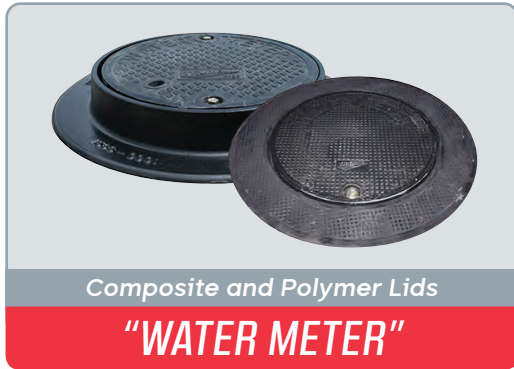
Bearing Washers: Polymer lids have UHMWPE bearing washers above and below lid. Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

Additional Notes: Explanations for asterisk (*) and (") points shown on page 28.



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 minimum order quantity	367-5588-BADG 4.06 lbs. 250 pcs minimum order quantity	367-5588-ITRON 4.09 lbs. 250 pcs minimum order quantity	367-5588-KAMS 3.85 lbs. 250 pcs minimum order quantity	367-5588-MUEL 4.06 lbs. 250 pcs minimum order quantity	367-5588-NEPT 3.92 lbs. 250 pcs minimum order quantity	367-5588-SENS 3.99 lbs. 250 pcs minimum order quantity
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 minimum order quantity	367-5588-2ITRON 4.21 lbs. 250 pcs minimum order quantity	367-5588-2KAMS 3.73 lbs. 250 pcs minimum order quantity	367-5588-2MUEL 4.14 lbs. 250 pcs minimum order quantity	367-5588-2NEPT 4.15 lbs. 250 pcs minimum order quantity	367-5588-2SENS 3.87 lbs. 250 pcs minimum order quantity
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. 200 pcs minimum order quantity	367-5590-BADG 5.71 lbs. 200 pcs minimum order quantity	367-5590-ITRON 5.75 lbs. 200 pcs minimum order quantity	367-5590-KAMS 5.51 lbs. 200 pcs minimum order quantity	367-5590-MUEL 5.72 lbs. 200 pcs minimum order quantity	367-5590-NEPT 5.58 lbs. 200 pcs minimum order quantity	367-5590-SENS 5.64 lbs. 200 pcs minimum order quantity

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.

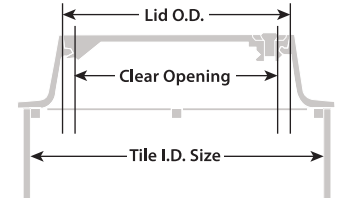
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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 minimum order quantity	367-5590-2ITRON 5.87 lbs. 200 pcs minimum order quantity	367-5590-2KAMS 5.39 lbs. 200 pcs minimum order quantity	367-5590-2MUEL 5.80 lbs. 200 pcs minimum order quantity	367-5590-2NEPT 5.54 lbs. 200 pcs minimum order quantity	367-5590-2SENS 5.66 lbs. 200 pcs minimum order quantity
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.	----	----	----	----	----	----

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.

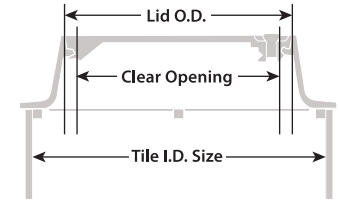
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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.	----	----	----	----	----
23-3/4" OD Clear Opening: 21-1/2" Rim Thickness: 1" "AURORA"	40,000 lbs. / 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.

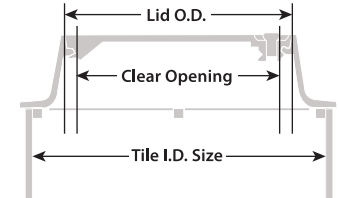
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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 28.



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 " Neeah R-1565 " Baltimore	367-5698 64.00 lbs.	----	----	----	----	----	----
25-1/2" OD Clear Opening: 24-3/16" Rim Thickness: 1-1/4"	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.



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.

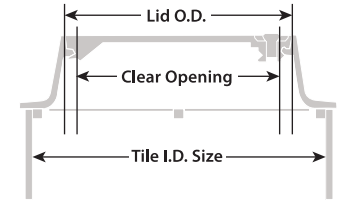
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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

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

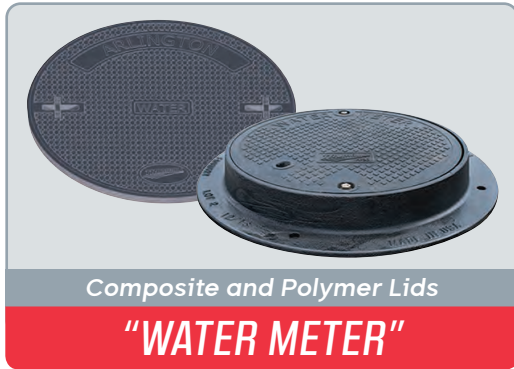
Bearing Washers: Polymer lids have UHMWPE bearing washers above and below lid. Composite Lids include a brass bearing washer below the lid and brass flanged sleeve (protects hole from elongation) above the lid. Not furnished on drop-in style lids.

Additional Notes: Explanations for asterisk (*) and (") points shown on page 28.



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 Clear Opening: 24-3/16" Rim Thickness: 1-1/4"	40,000 lbs. / Composite UHMWPE WORM GEAR *** Solid Lids* Only	Trumbull Frame 367-5635 6" height	367-5528 54.00 lbs.	----	----	----	----	----	----
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	Non-Traffic / Polymer DROP-IN STYLE Solid Lids* or with 1 Antenna Recess	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	367-5560 27.80 lbs.	367-5562 27.60 lbs. 250 pcs minimum order quantity	367-5563 27.60 lbs. 250 pcs minimum order quantity	367-5582 27.40 lbs. 250 pcs minimum order quantity	367-5564 27.60 lbs. 250 pcs minimum order quantity	367-5565 27.40 lbs. 250 pcs minimum order quantity	367-5566 27.50 lbs. 250 pcs minimum order quantity
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	Non-Traffic / Polymer DROP-IN STYLE 2 Antenna Recesses	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	----	367-5572 27.50 lbs. 250 pcs minimum order quantity	367-5573 27.50 lbs. 250 pcs minimum order quantity	367-5584 27.00 lbs. 250 pcs minimum order quantity	367-5574 27.40 lbs. 250 pcs minimum order quantity	367-5575 27.00 lbs. 250 pcs minimum order quantity	367-5576 27.30 lbs. 250 pcs minimum order quantity
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	Non-Traffic / Polymer BOLT-DOWN STYLE Solid Lids* or with 1 Antenna Recess	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	367-5561 27.70 lbs.	367-5567 27.50 lbs. 250 pcs minimum order quantity	367-5568 27.50 lbs. 250 pcs minimum order quantity	367-5583 27.30 lbs. 250 pcs minimum order quantity	367-5569 27.50 lbs. 250 pcs minimum order quantity	367-5570 27.30 lbs. 250 pcs minimum order quantity	367-5571 27.40 lbs. 250 pcs minimum order quantity
30-1/2" x 17-1/2" Rect. Clear Opening: 28-1/4" x 15-1/4" Rim Thickness: 2"	Non-Traffic / Polymer BOLT-DOWN STYLE 2 Antenna Recesses	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	----	367-5577 27.40 lbs. 250 pcs minimum order quantity	367-5578 27.40 lbs. 250 pcs minimum order quantity	367-5585 26.90 lbs. 250 pcs minimum order quantity	367-5579 27.30 lbs. 250 pcs minimum order quantity	367-5580 26.90 lbs. 250 pcs minimum order quantity	367-5581 27.20 lbs. 250 pcs minimum order quantity
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 Solid Lids* or with 1 Antenna Recess	17" x 30" Hubbell, Old Castle Polymer, & Old Castle Concrete	367-5560-40K 52.00 lbs. 25 pcs minimum order quantity	367-5562-40K 51.20 lbs. 25 pcs minimum order quantity	367-5563-40K 51.30 lbs. 25 pcs minimum order quantity	----	367-5564-40K 51.20 lbs. 25 pcs minimum order quantity	367-5565-40K 50.90 lbs. 25 pcs minimum order quantity	----

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.

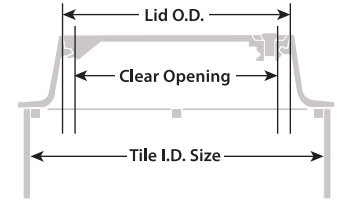
Worm Gears: Non-traffic and 20,000 lbs. lids normally furnished with nylon worm gear, ductile iron also available at additional cost. 40,000 lbs. lids normally furnished with ductile worm gears. Not furnished on drop-in style lids.

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

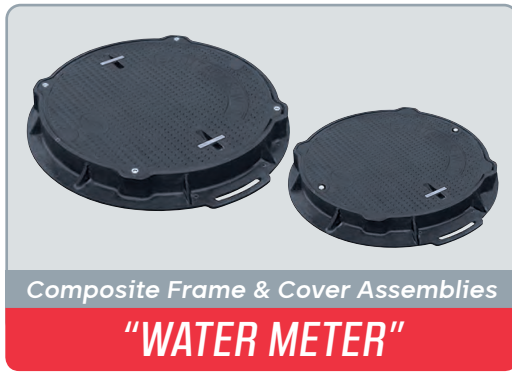
Recesses : All lids with antenna recesses have thru hole diameter of 1.88".

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 28.



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 minimum order quantity	367-5573-40K 51.00 lbs. 25 pcs minimum order quantity	----	367-5564-40K 50.90 lbs. 25 pcs minimum order quantity	367-5575-40K 50.20 lbs. 25 pcs minimum order quantity	----
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 minimum order quantity	367-5567-40K 51.10 lbs. 25 pcs minimum order quantity	367-5568-40K 51.10 lbs. 25 pcs minimum order quantity	----	367-5569-40K 51.10 lbs. 25 pcs minimum order quantity	367-5570-40K 50.70 lbs. 25 pcs minimum order quantity	----
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 minimum order quantity	367-5578-40K 50.80 lbs. 25 pcs minimum order quantity	----	367-5579-40K 50.80 lbs. 25 pcs minimum order quantity	367-5580-40K 50.00 lbs. 25 pcs minimum order quantity	----
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 minimum order quantity	----	----	----	----	----	----
35-27/32" OD Clear Opening: 34" Rim Thickness: 1.44" "CONFINED SPACE NEORSO"	40,000 lbs. / Composite DROP-IN STYLE Solid Lids* Only	EJ 1585 Neenah R-1752	367-5715 131.30 lbs. 15 pcs minimum order quantity	----	----	----	----	----	----
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 minimum order quantity	----	----	----	----	----	----



Lid Dimensions, Load Ratings, Types and Materials		Fits Frame Types	BOLT DOWN STYLE		PADDLE LOCK STYLE
23-3/4" OD Clear Opening: 21-1/2" ID Rim Thickness: 1"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5468 4" height	367-5790 66.10 lbs. Frame and Cover	----	----
26" OD Clear Opening: 24" ID Rim Thickness: 1"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5705 4" height	367-5702 93.00 lbs. Frame and Cover	----	367-5704 93.00 lbs. Frame and Cover
32" OD Clear Opening: 30" ID Rim Thickness: 1-1/4"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5794 4" height	367-5793 129.00 lbs. Frame and Cover	367-5799 Same as 367-5793 except has lettering "WATER", not "WATER METER"	367-5901 129.00 lbs. Frame and Cover
38" OD Clear Opening: 36" ID Rim Thickness: 1-1/2"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5784 6" height	367-5465 236.80 lbs. Frame and Cover	----	367-5618 236.00 lbs. Frame and Cover

- Lettering:** Lids normally furnished marked "WATER METER", 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 42 for optional security screws.
- Paddle Lock Lids:** Are secured to frame with pentagon bolt, see page 40 for optional security bolts.

"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.



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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.

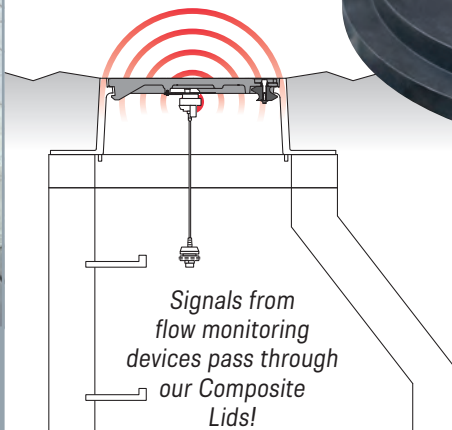


CUSTOM MOUNTING

available for flow monitoring devices



Composites have no scrap value, so they reduce theft problem common to cast iron 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.



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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.



i 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

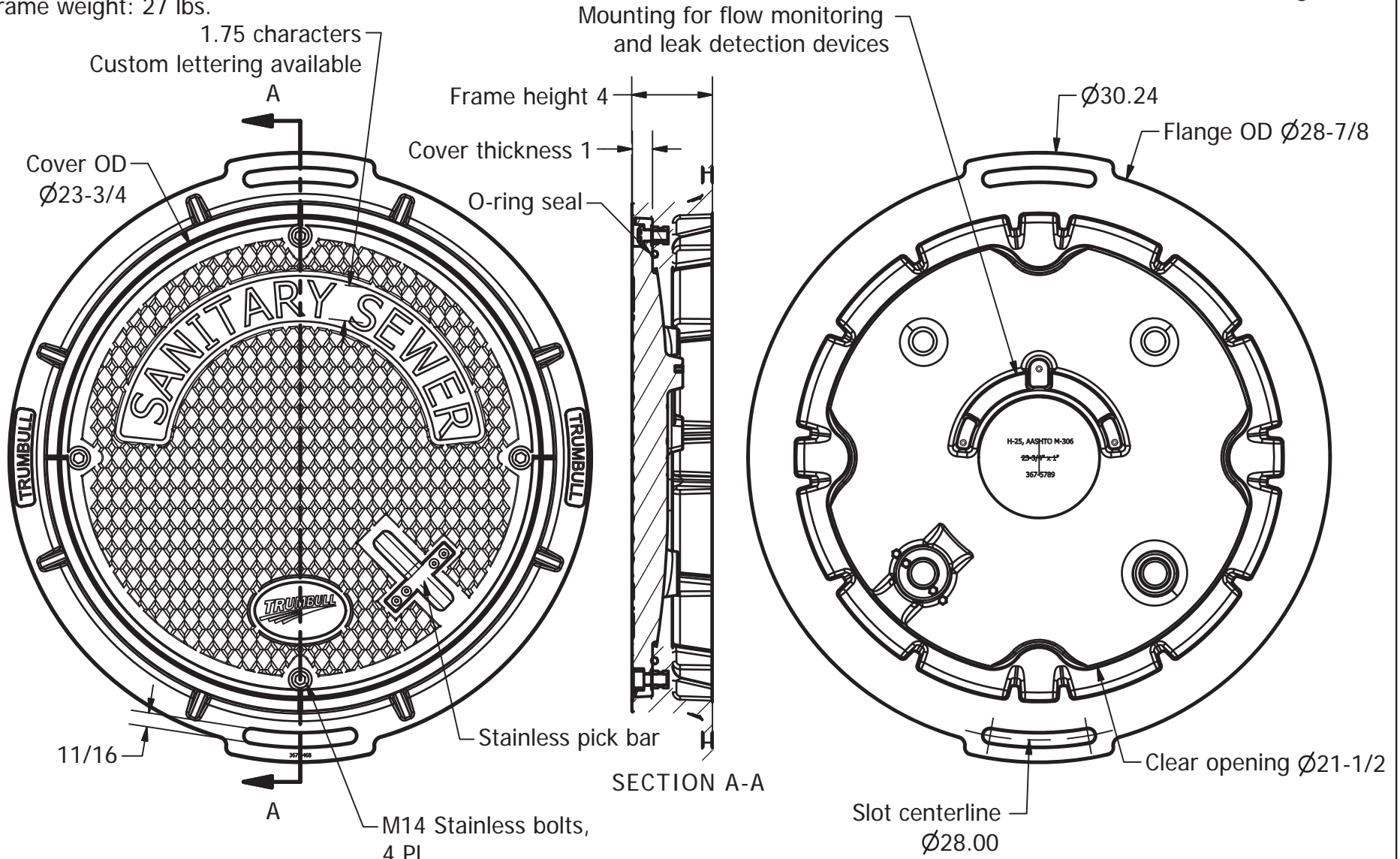
Lid OD Size	Locking Mechanism	FRAME	SANITARY SEWER LID	WATER METER LID	Total Weight
		Trumbull Item No.	Trumbull Item No.	Trumbull Item No.	
23-3/4"	Bolt Down	367-5468	367-5789	367-5790	66.10 lbs.

i 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).

Lid weight: 39 lbs.
 Frame weight: 27 lbs.

50,000 lbs. load rating, H-25



(Dimensions are in inches)

Frame part number:
 367-5468

Lid part number:
 367-5789 (Sanitary Sewer)
 367-5790 (Water Meter)

24" Manhole Lid & Frame
 (21-1/2" Frame Clear Opening, Bolt Down)
 Drawn to Scale

Drawn:
 BJE
 09/15/17

Revision:
 BJE
 (A) 05/13/19

Trumbull Manufacturing, Inc.
 Youngstown, Ohio
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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



PADDLE LOCK

Two quarter turn pentagon bolts open and close cover via paddle lock located on the underside.

BOLT DOWN

Four Xylan coated stainless screws compress the EPDM seal on the frame to prevent infiltration.

i Additional security options available, shown on page 40.

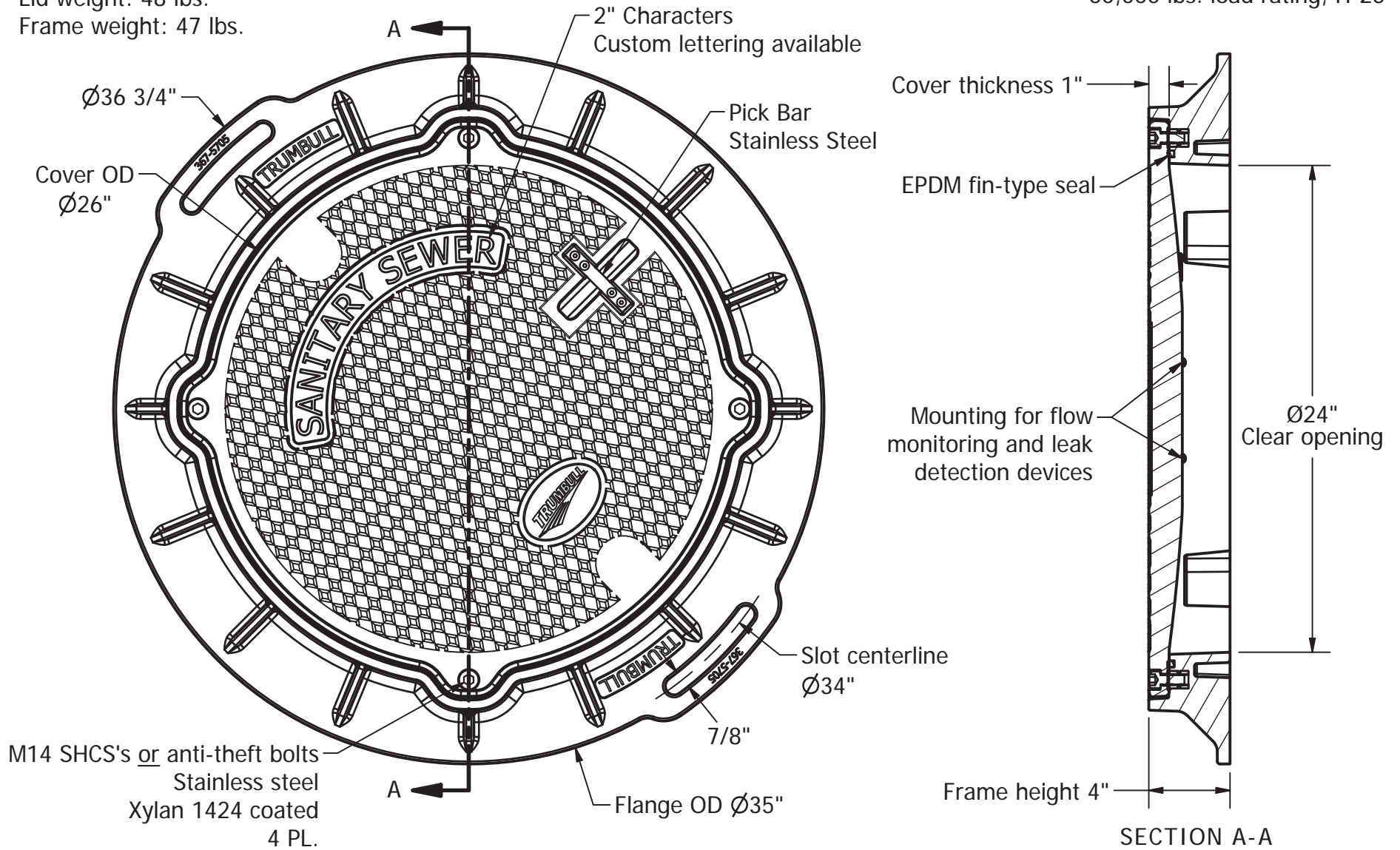
Lid OD	Locking Mechanism	FRAME	SANITARY SEWER LID	WATER METER LID	Total Weight
		Trumbull Item No.	Trumbull Item No.	Trumbull Item No.	
26"	Bolt Down	367-5705	367-5701	367-5702	93.00 lbs.
26"	Paddle Lock		367-5703	367-5704	93.00 lbs.
32"	Bolt Down	367-5794	367-5792	367-5793	129.00 lbs.
32"	Paddle Lock		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).

Lid weight: 48 lbs.
 Frame weight: 47 lbs.

50,000 lbs. load rating, H-25



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

Frame part number:

367-5705

Lid part number:

367-5701 (Sanitary Sewer)
 367-5702 (Water Meter)

(Dimensions are in inches)

26" Manhole Lid & Frame
 (24" Frame Clear Opening, Bolt Down)
 Drawn to Scale

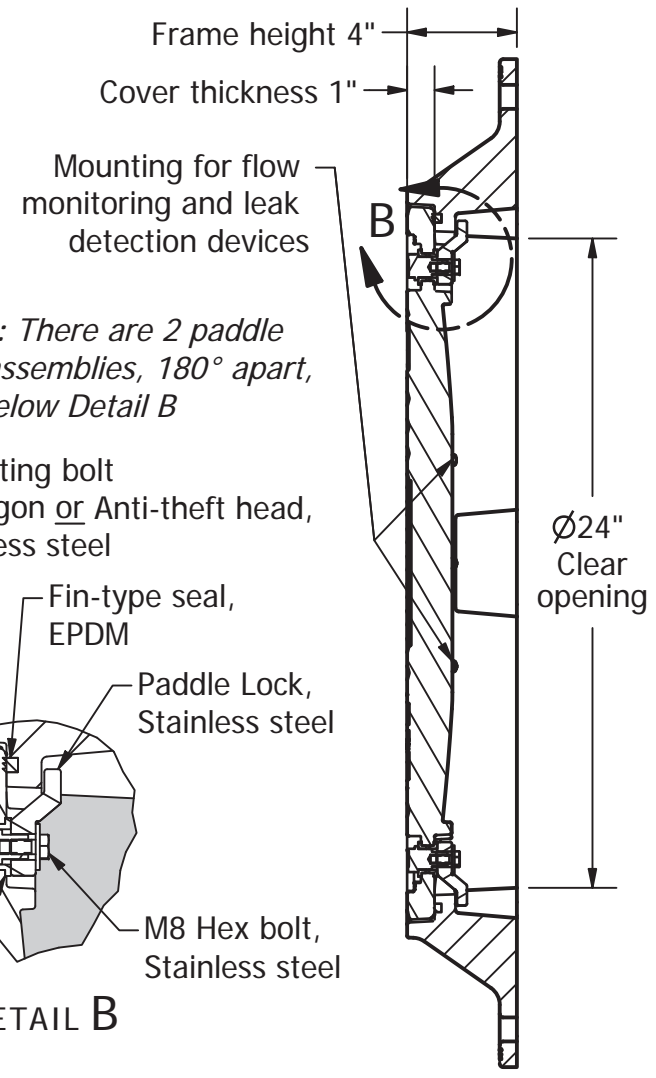
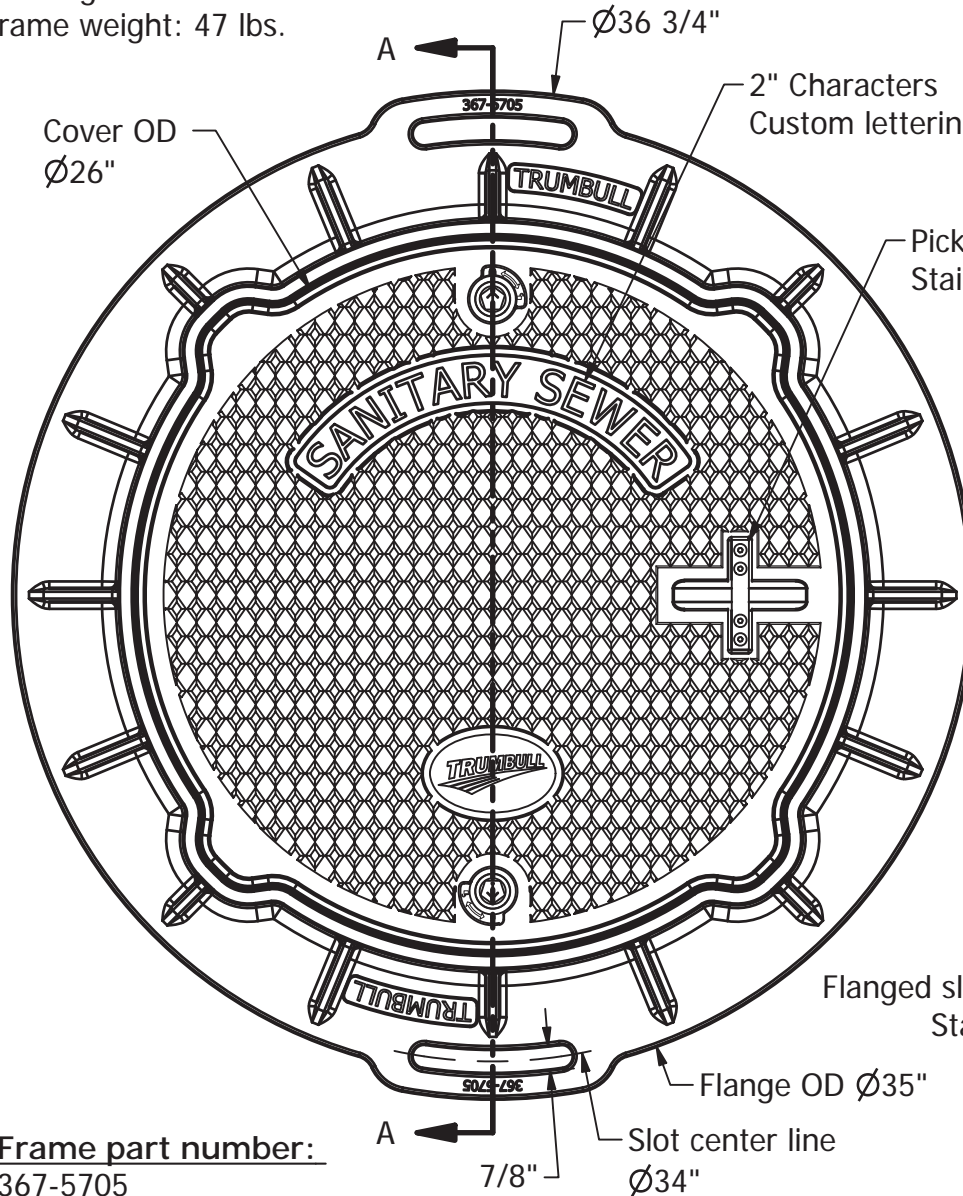
Drawn:
 AAH
 09/18/18

Original document

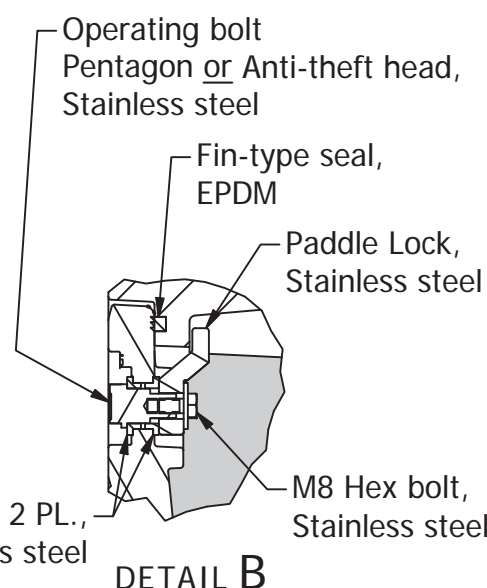
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 Youngstown, Ohio
 www.trumbull-mfg.com

Lid weight: 48 lbs.
 Frame weight: 47 lbs.

50,000 lbs. load rating, H-25



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



Frame part number:
 367-5705

Lid part number:
 367-5703 (Sanitary Sewer)
 367-5704 (Water Meter)

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

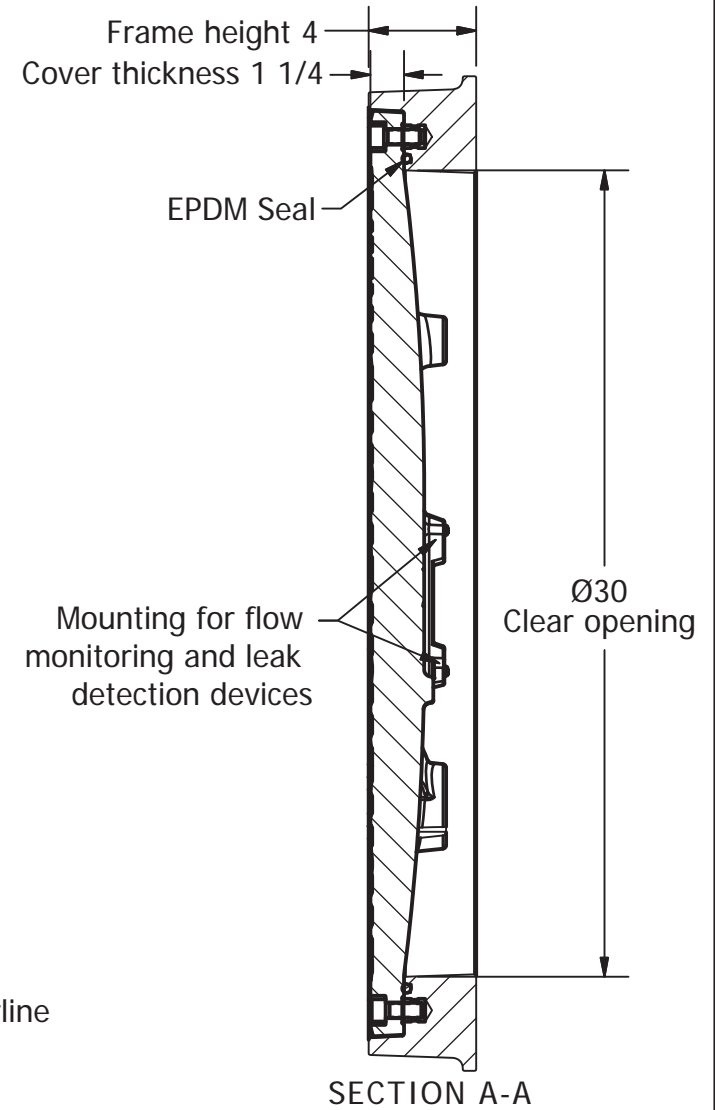
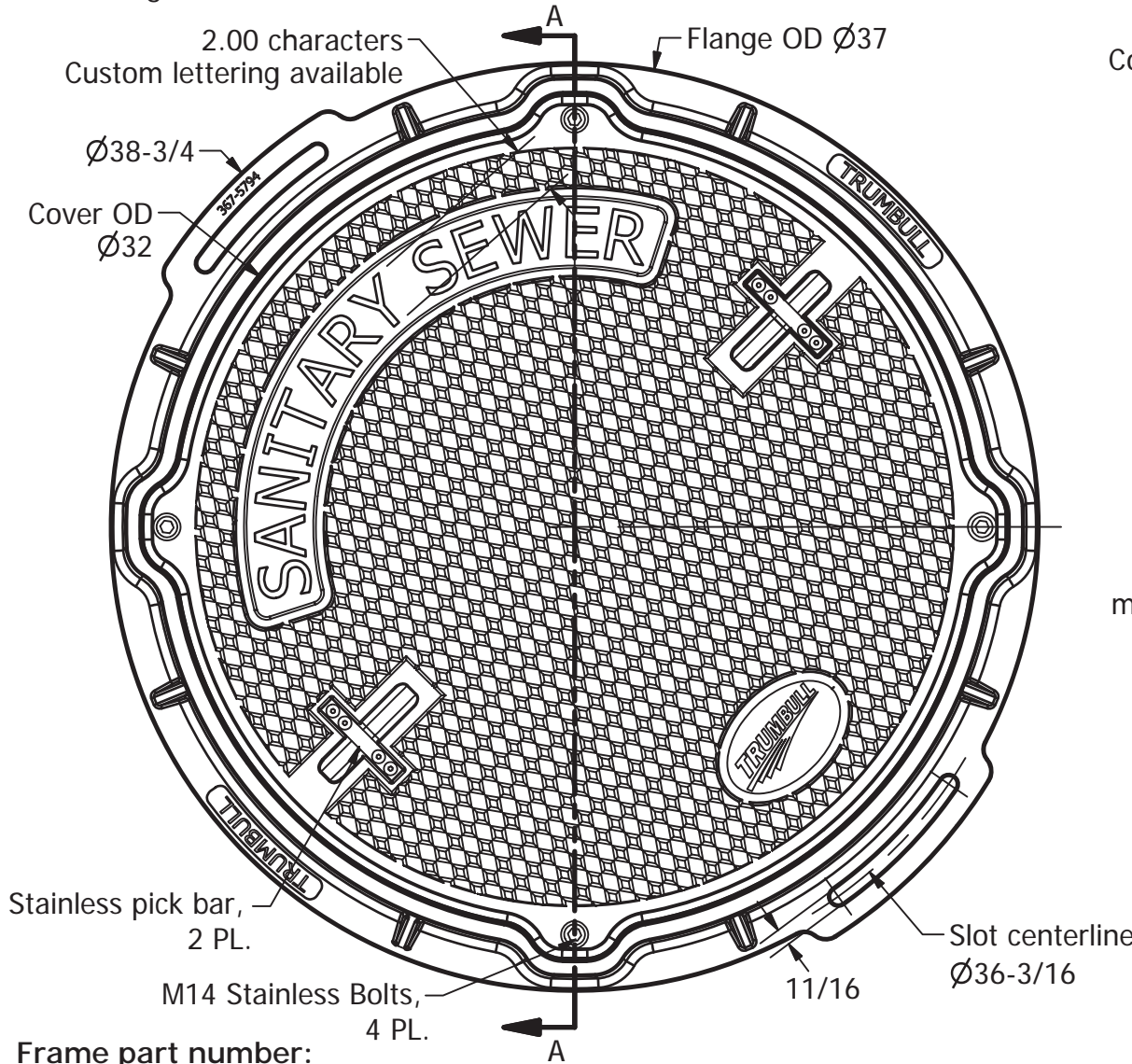
Drawn:
 AAH
 09/18/18

Original document

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 www.trumbull-mfg.com

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

50,000 lbs. load rating, H-25



Frame part number:
 367-5794

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

(Dimensions are in inches)

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

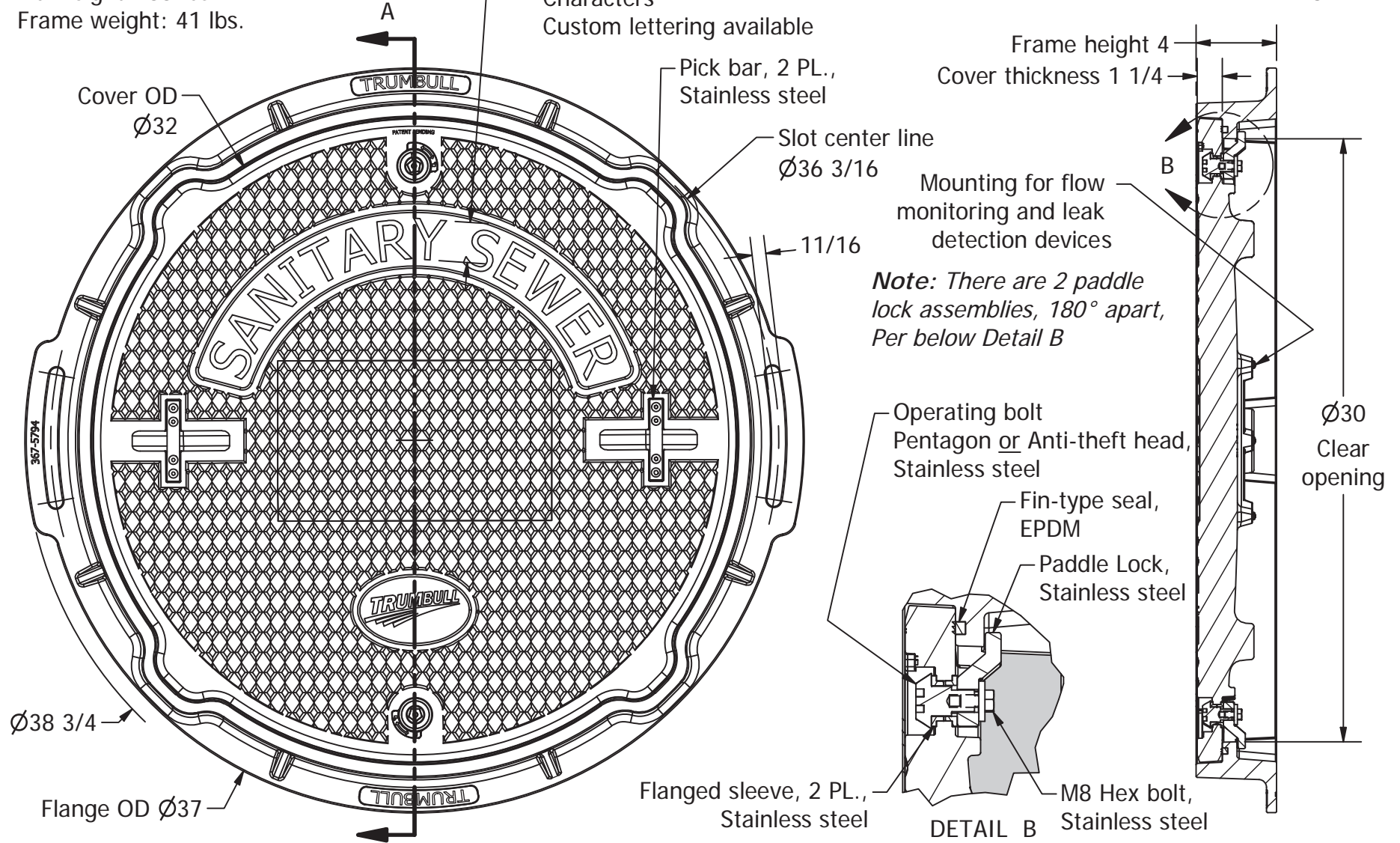
Drawn:
 BJE
 07/20/17

Revision:
 BJE
 (A) 05/13/19

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

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

50,000 lbs. load rating, H-25



Frame part number:
 367-5794

Lid part number:
 367-5900 (Sanitary Sewer)
 367-5901 (Water Meter)

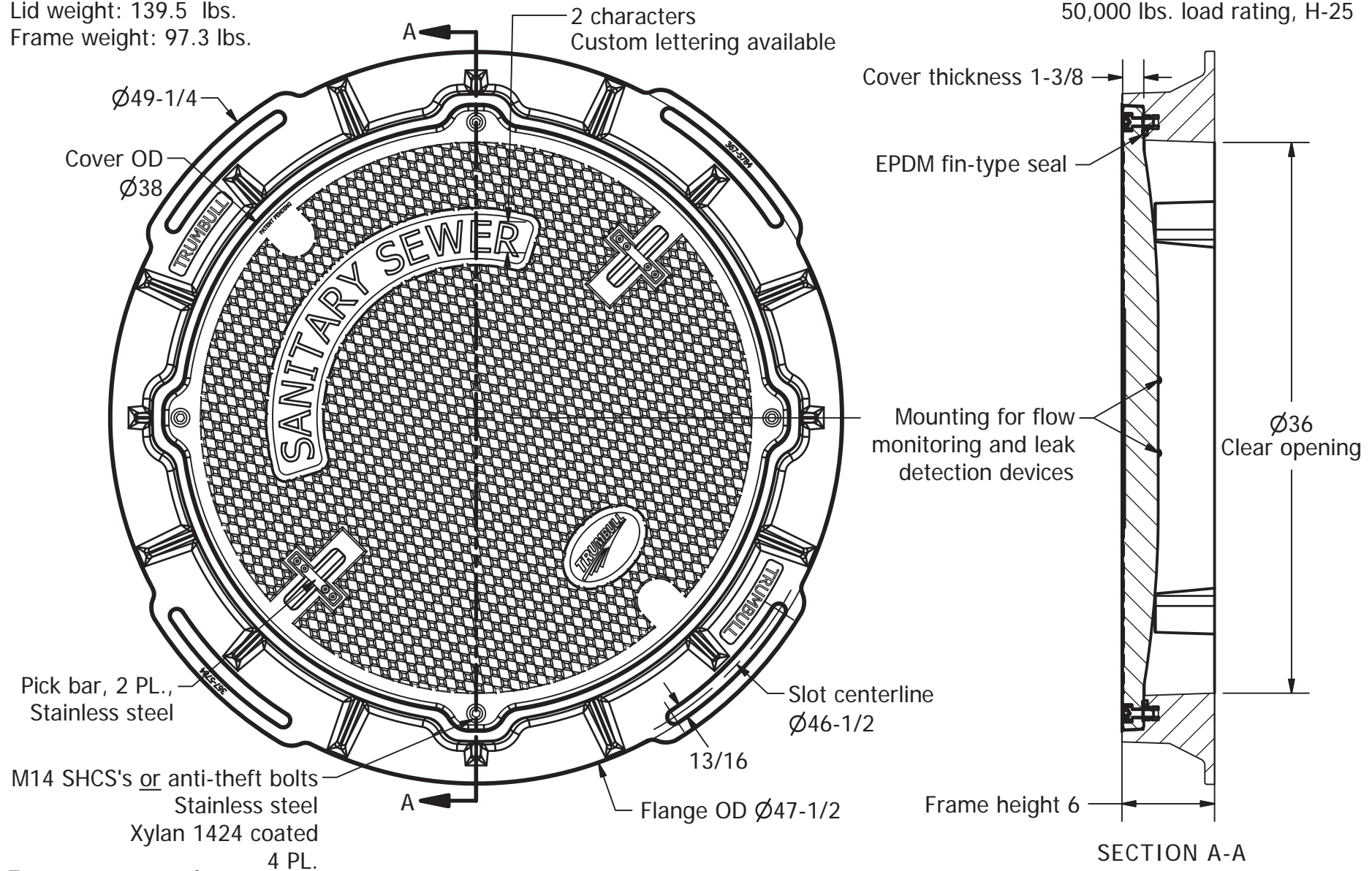
32" Manhole Lid & Frame
 (30" Frame Clear Opening, Paddle Lock)
 Drawn to Scale

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.



Frame part number:

367-5784

Lid part number:

367-5795 (Sanitary Sewer)

367-5465 (Water Meter)

(Dimensions are in inches)

38" Manhole Lid & Frame

(36" Frame Clear Opening, Bolt Down)

Drawn to Scale

Drawn:

BJE

09/28/18

Revision:

BJE

Ⓐ

05/13/19

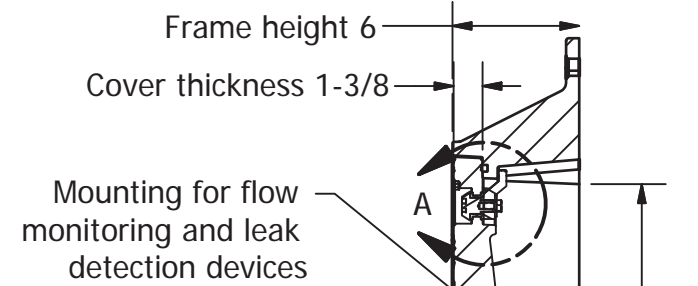
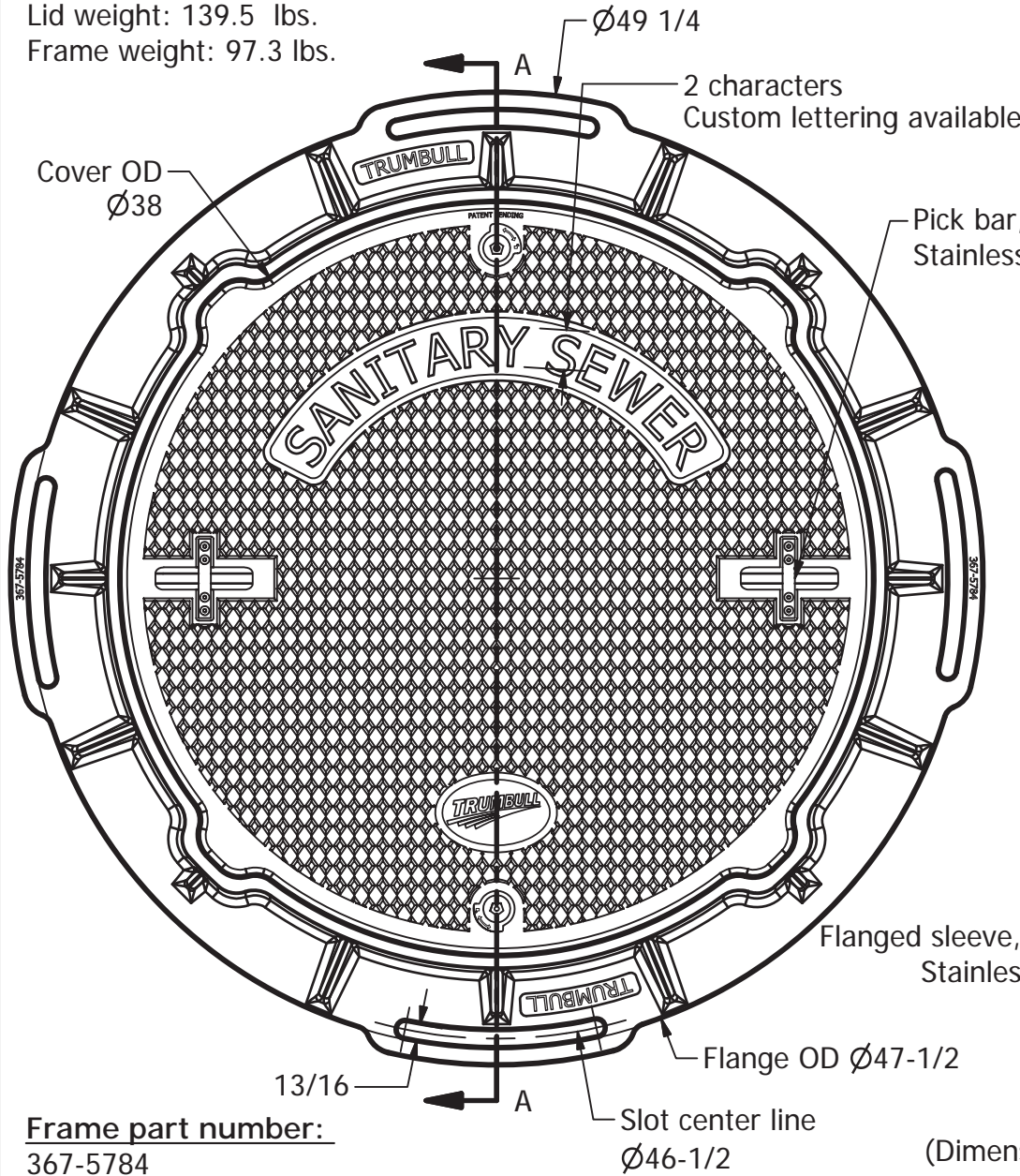
Trumbull Manufacturing, Inc.

Youngstown, Ohio

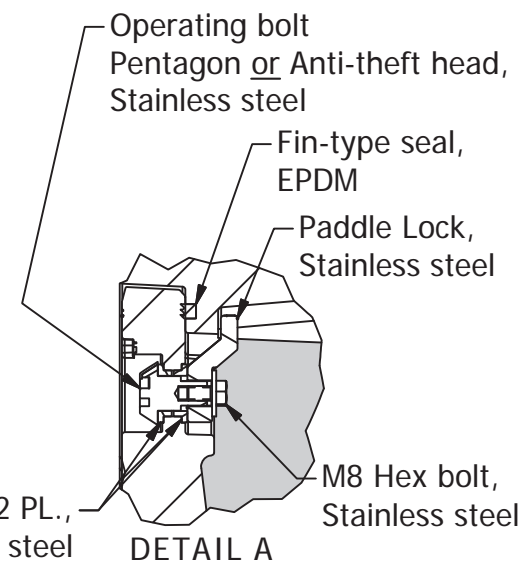
www.trumbull-mfg.com

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

50,000 lbs. load rating, H-25



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



Frame part number:
 367-5784

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

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

(Dimensions are in inches)

Drawn:
 BJE
 09/28/17

Revision:
 BJE
 05/13/19

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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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Additional Security for Meter and Manhole Lids

Security Bolts

Made from stainless steel



For Worm Gear Lids

Trumbull 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

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



Trumbull 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

Trumbull 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.



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

RELATED PRODUCT

Manhole Cover Hooks

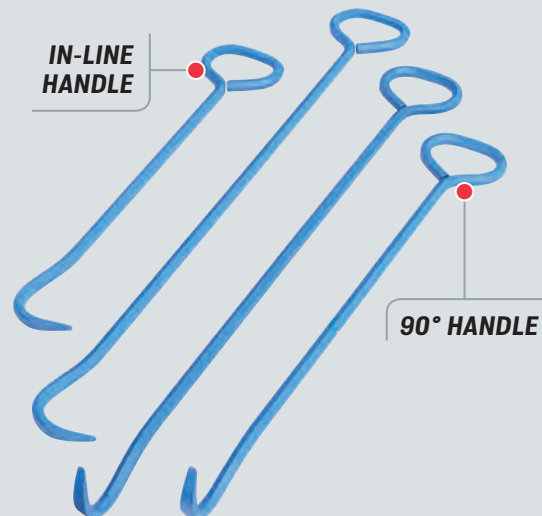
Trumbull Manhole Cover Hooks are made of 5/8" hexagonal steel. The 1/2" point engages the lid of the manhole cover. Painted in Safety Blue enamel paint for safety and durability. Product shown in more detail on Catalog page A-3.

In-Line Handle

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

90° Handle

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





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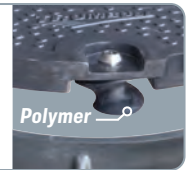
Composite Manhole Frames and Covers

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



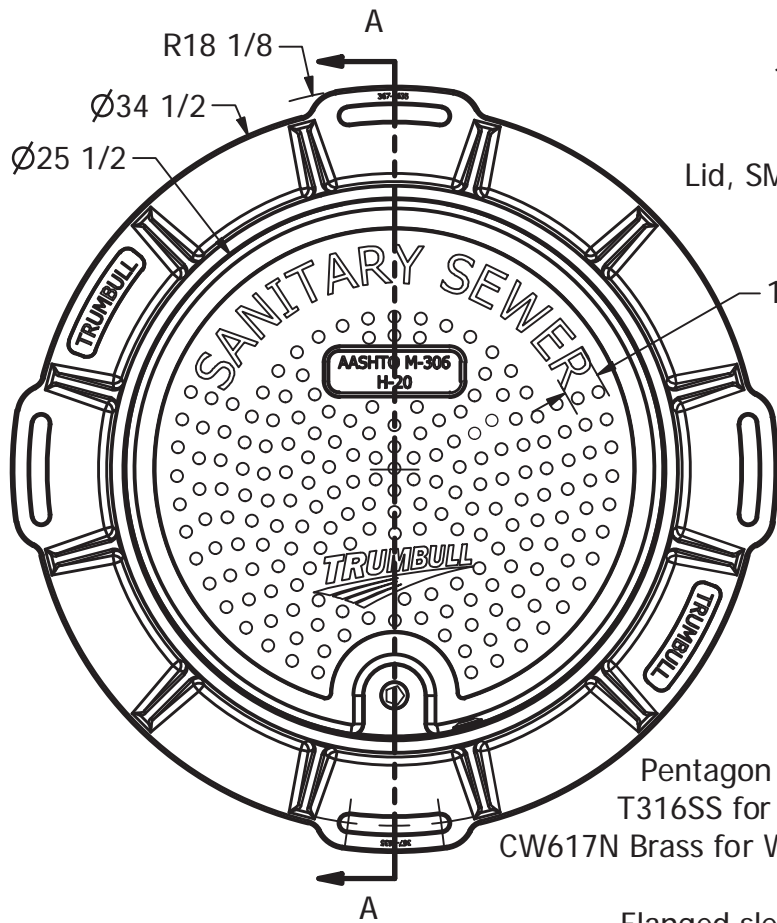
Ask your Trumbull Rep about cities and towns that have already installed our Frames and Covers!

Flange OD	Dimensions of Lids that will Fit	Height	Locking Mechanism	FRAME	SANITARY SEWER LID	WATER METER LID	Total Weight
				Trumbull Item No.	Trumbull Item No.	Trumbull Item No.	
34-1/2"	25-1/2" x 1-1/4"	6"	Worm Gear	367-5635	367-5626	367-5528	109.50 lbs.

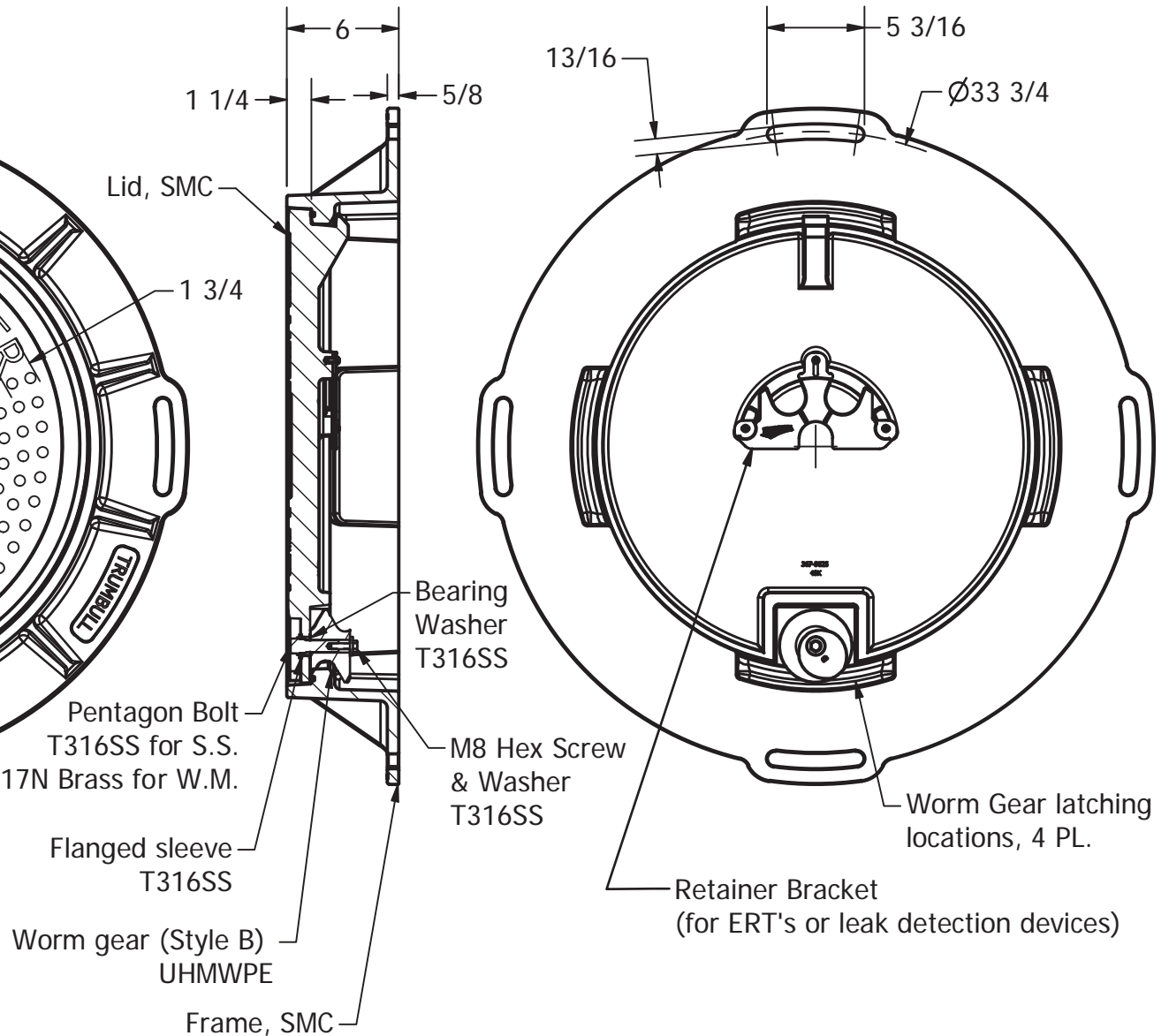
For dimensions, load ratings and additional options, refer to the product information chart on page 26 (WATER METER) and page 45 (SANITARY SEWER).

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

40,000 lbs. load rating, H-20



SECTION A-A



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

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 Youngstown, Ohio
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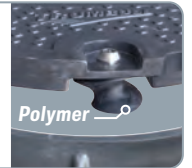
www.trumbull-mfg.com

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!

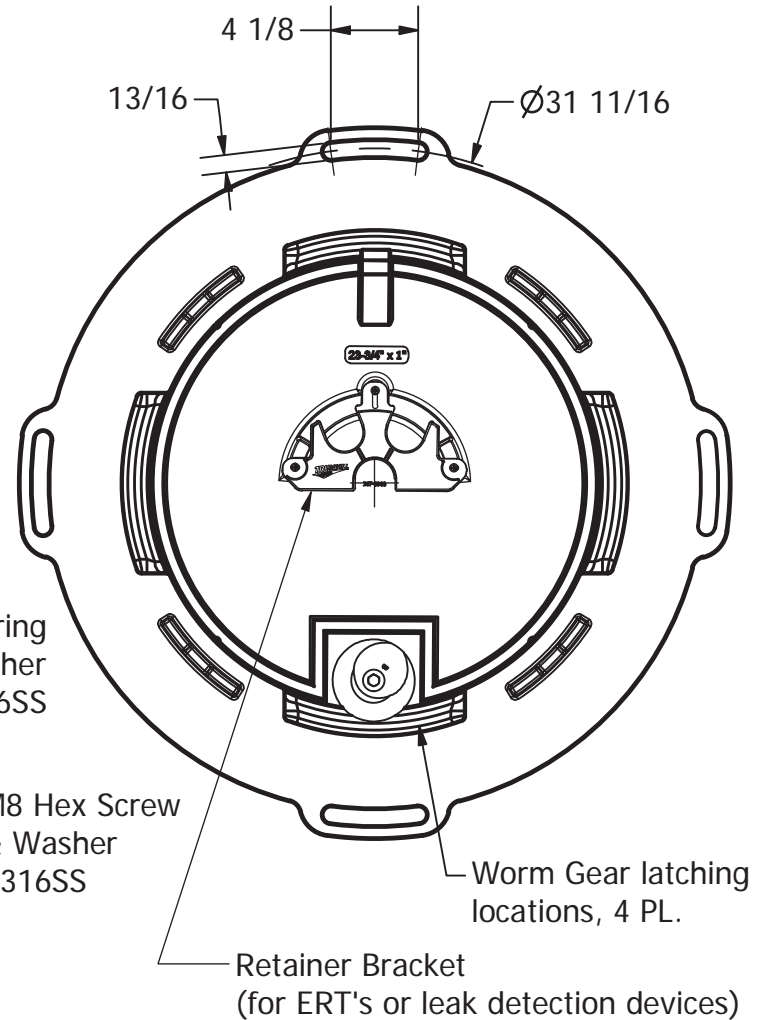
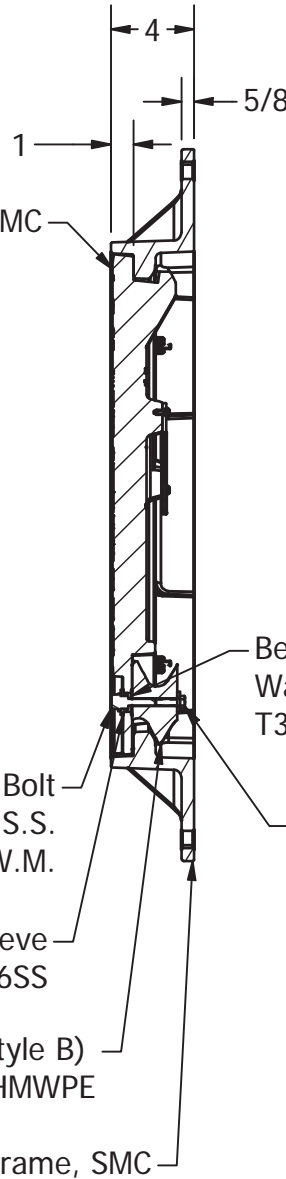
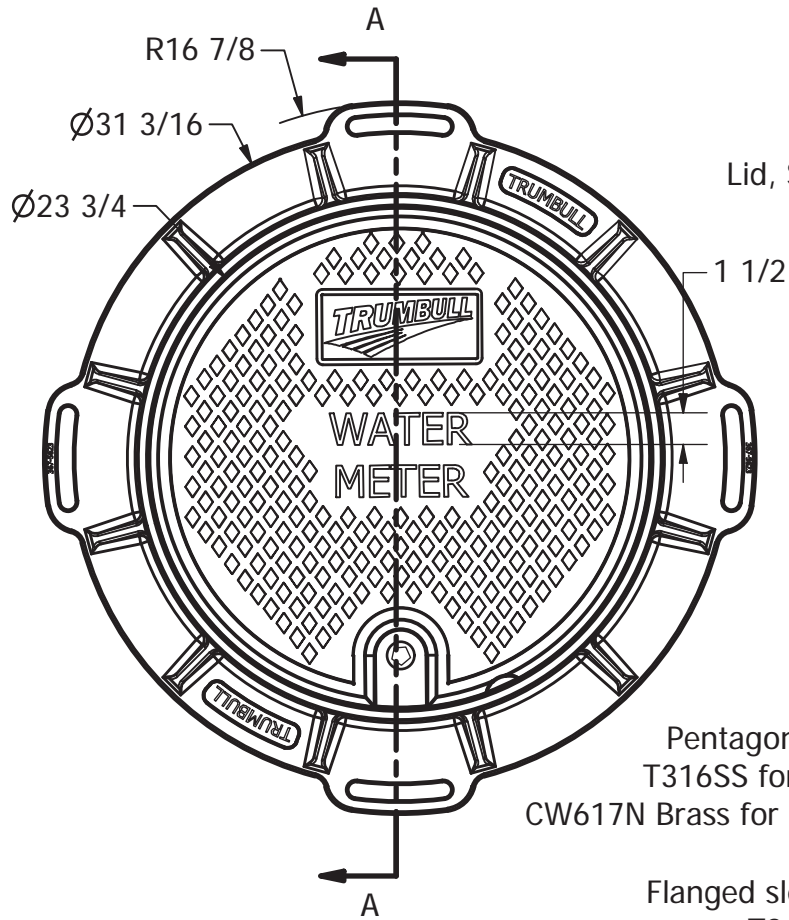
Flange OD	Dimensions of Lids that will Fit	Height	Locking Mechanism	FRAME	SANITARY SEWER LID	WATER METER LID	Total Weight
				Trumbull Item No.	Trumbull Item No.	Trumbull Item No.	
31-3/16"	23-3/4" x 1"	4"	Worm Gear	367-5623	367-5624	367-8910	79.60 lbs.

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.

40,000 lbs. load rating, H-20

SECTION A-A



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

Flanged sleeve
 T316SS

Worm gear (Style B)
 UHMWPE

Frame, SMC

Bearing
 Washer
 T316SS

M8 Hex Screw
 & Washer
 T316SS

Worm Gear latching
 locations, 4 PL.

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

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:
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 12/09/19

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

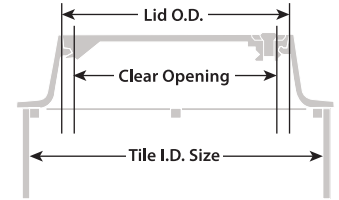
Worm Gears: Lids furnished with ductile worm gears. Not furnished on drop-in style lids.

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.

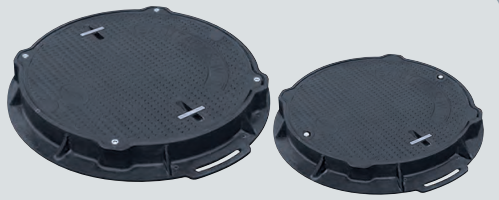
Additional Notes: Explanations for asterisk (*) and (") points shown on page 28.



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 6" height	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 6" height	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 minimum order quantity
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 minimum order quantity

Continued on the right.



Composite Frame & Cover Assemblies

"SANITARY SEWER"

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 42 for optional security screws.

Paddle Lock Lids: Are secured to frame with pentagon bolt, see page 40 for optional security bolts.

Antenna Mounting Options: Shown in "Additional Notes" on page 28.

Lid Dimensions, Load Ratings, Types and Materials		Fits Frame Types	BOLT DOWN STYLE		PADDLE LOCK STYLE
23-3/4" OD Clear Opening: 21-1/2" ID Rim Thickness: 1"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5468 4" height	367-5789 66.10 lbs. Frame and Cover	----	----
26" OD Clear Opening: 24" ID Rim Thickness: 1"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5705 4" height	367-5701 93.00 lbs. Frame and Cover	367-5706 Same as 367-5793 except has lettering "STORM DRAIN"	367-5703 93.00 lbs. Frame and Cover
32" OD Clear Opening: 30" ID Rim Thickness: 1-1/4"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5794 4" height	367-5792 129.00 lbs. Frame and Cover	----	367-5900 129.00 lbs. Frame and Cover
38" OD Clear Opening: 36" ID Rim Thickness: 1-1/2"	50,000 lbs. / Composite BOLT-DOWN STYLE OR PADDLE LOCK STYLE Solid Lids* Only	Trumbull Frame 367-5784 6" height	367-5795 236.80 lbs. Frame and Cover	----	367-5617 236.00 lbs. Frame and Cover





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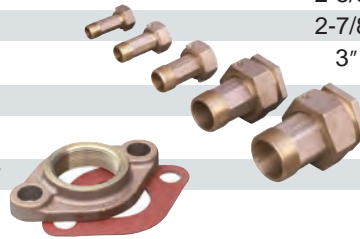
Phone: 330.270.7888 | Toll Free: 877.504.1507 | Fax: 330.392.0756

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.

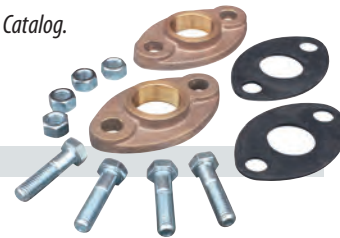
TRUMBULL#	SIZE OF METER	LAYING LENGTH	WEIGHT
368-0590	Coupling, 1/2" (for 5/8" x 3/4" & 3/4" meters)	2-3/8"	0.44 lbs.
368-0591	Coupling, 1/2" (for 5/8" x 1/2" meters)	2-3/8"	0.25 lbs.
368-0646	Coupling, 1/2" (for 5/8" x 3/4" & 3/4" meters)	1-5/8"	0.40 lbs.
368-0593	Coupling, 3/4" (for 5/8" x 3/4" & 3/4" 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.

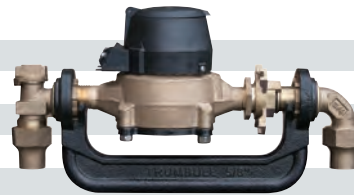
DESCRIPTION	ZINC-PLATED FASTENERS	BRASS FASTENERS	STAINLESS FASTENERS
	TRUMBULL#	TRUMBULL#	TRUMBULL#
Brass Meter Flange Kit, 1-1/2"	379-2015	379-2025	379-2030
Brass Meter Flange Kit, 2"	379-2016	379-2026	379-2031



Meter Yokes, Expansion Connections and Gaskets

Shown in more detail on page E-55.

TRUMBULL#	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.

TRUMBULL#	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.



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