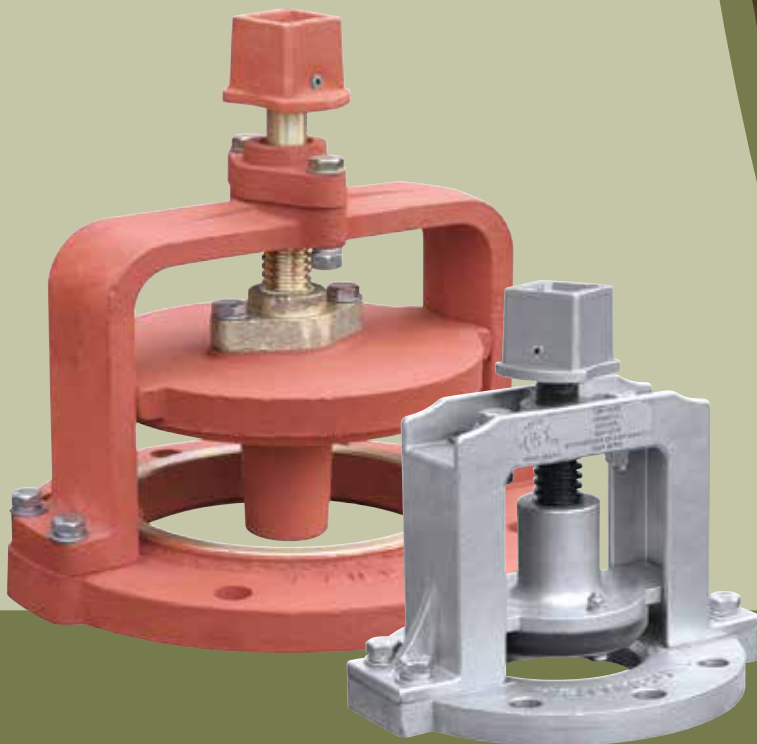


TRUMBULL

IRON & STAINLESS **MUD VALVES**

*For Water & Wastewater
Treatment Plants*



"Specialty products for the waterworks and valve industries"



A word about... **Trumbull Mud Valves**

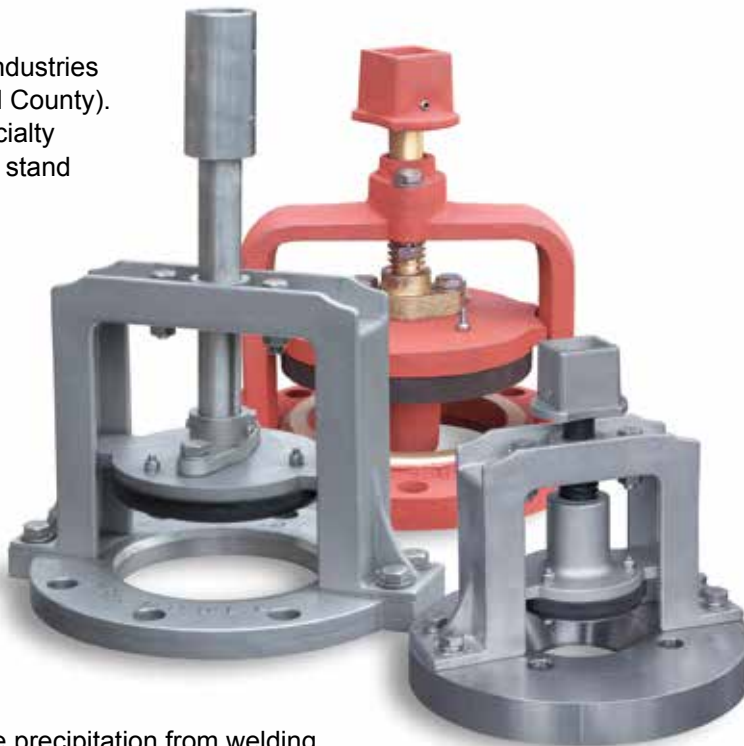
Trumbull Manufacturing is an outgrowth of Trumbull Industries which was founded in 1922 in Warren, Ohio (Trumbull County). Manufacturing operations started in 1981 to offer specialty products for the Municipal and Industrial markets. We stand behind our products with experienced Engineering, Quality Control and Field Service personnel. Our products are designed for long life, and are rigorously tested in-house and at independent labs.

Trumbull Mud Valves are manufactured in cast iron and cast stainless steel. Stem designs include Non-Rising Stem (NRS), Rising Stem (RS), as well as sliding stem. A full line of accessories are offered to operate our Mud Valves, including Valve Position Indicators, Extension Stems, Stem Guides, Floorstands and Floor Boxes.

Premium Stainless Mud Valves use only cast stainless components & have additional advantages:

- Heavy-duty CAST stainless steel, Type 316
 1. No welded components
 2. Cast design eliminates problem of carbide precipitation from welding
 3. Stainless castings passivated per ASTM A-967
- Resilient seats are field-replaceable and mechanically retained; available in a variety of elastomers
- One-piece heavy-duty stem, 3rd party torque tested to over 500 ft-lb
- Permanently bonded coating on stainless stem prevents galling, 3rd party tested to over 15,000 cycles
- Rising stem, non-rising stem and sliding stem styles
- "All stainless" installation available with stainless Extension Stem, Stem Guide and Floorstand

***Extend useful life of critical valves and components
for an affordable premium!***



Trumbull Mud Valves have been thoughtfully designed to meet the highest expectations of Engineers and Operators.



Cast Iron Mud Valves

Certified to NSF-61 & NSF-372 in U.S.A. & Canada

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

Mud valves are furnished with a 2" square operating nut; however, they can be supplied with optional extension stem or handwheel (see our Catalog page G-4).

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

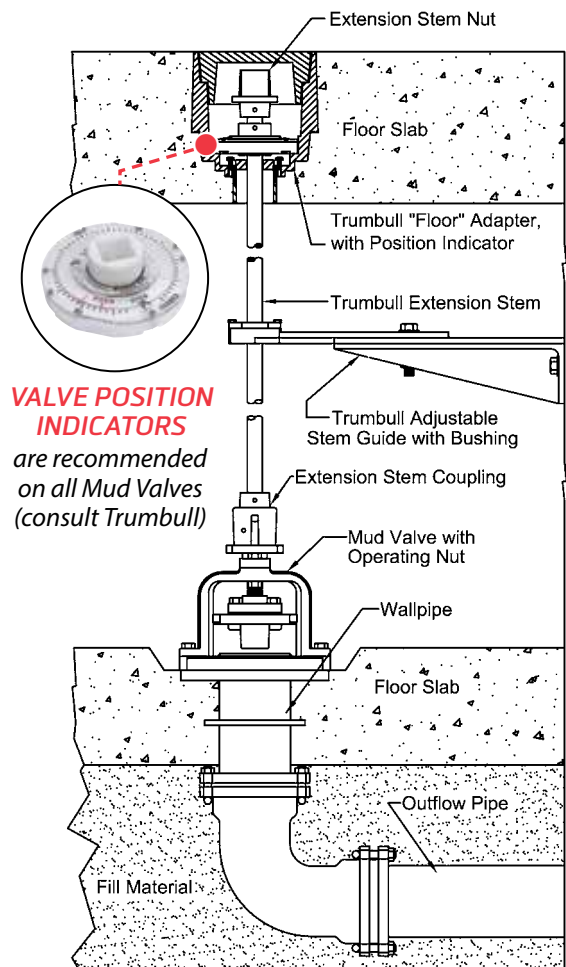
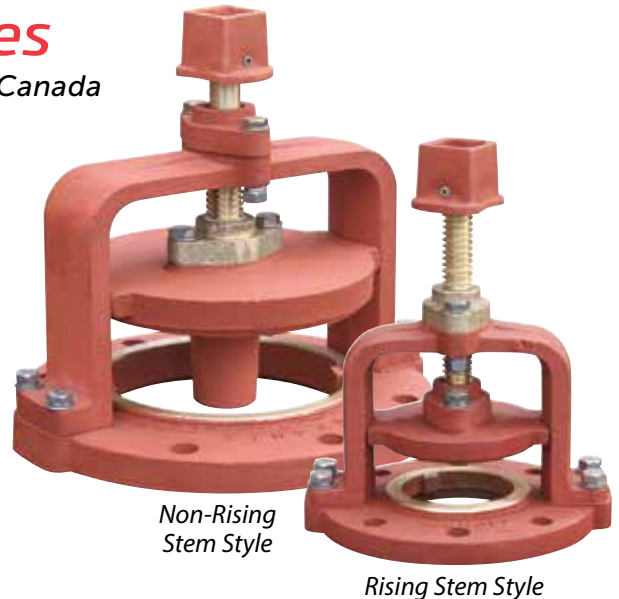
Nuts, bolts and gaskets for mounting to floor pipe are NOT furnished but can be ordered separately. Cast iron components are coated with Tnemec N140-1211 epoxy, per NSF 61. See pages 4 and 5 for drawings.

NOTE

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

Size	Non-Rising Stem		Rising Stem	
	Trumbull Item No.	Weight	Trumbull Item No.	Weight
3"	367-1309	26.00 lbs.	367-1329	25.00 lbs.
4"	367-1310	31.00 lbs.	367-1330	30.00 lbs.
6"	367-1311	47.00 lbs.	367-1331	46.00 lbs.
8"	367-1312	76.00 lbs.	367-1332	73.00 lbs.
10"	367-1313	95.00 lbs.	367-1333	90.00 lbs.
12"	367-1314	130.00 lbs.	367-1334	130.00 lbs.
14"	367-1315	142.00 lbs.	Consult Trumbull for availability.	
16"	367-1316	169.00 lbs.		
18"	367-1317	256.00 lbs.		
20"	367-1318	281.00 lbs.		
24"	367-1319	450.00 lbs.		

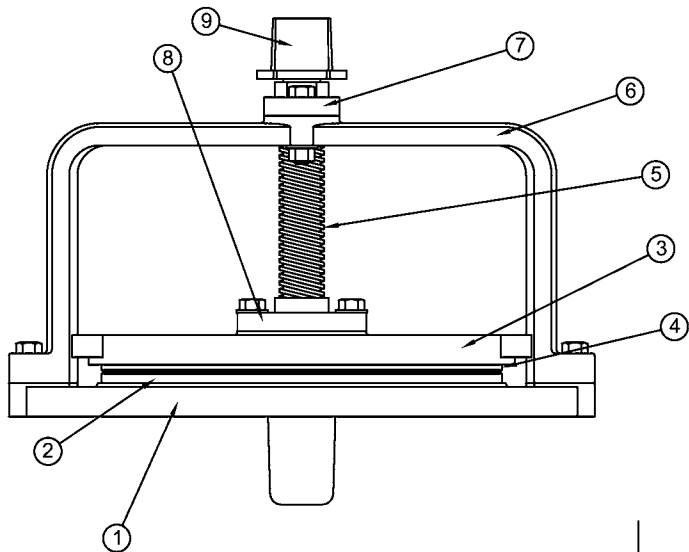
See page 10 for installation options.



VALVE POSITION INDICATORS
are recommended
on all Mud Valves
(consult Trumbull)

Typical Mud Valve Installation

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



Item	Part	Materials
1	Base Flange (Body)	Gray Iron, ASTM A126 (B)
2	Seat, Base Flange	Bronze, ASTM B62; B584
3	Gate	Gray Iron, ASTM A126 (B)
4	Seat, Gate	Bronze, ASTM B62; B584
5	Stem	Bronze, ASTM B584
6	Yoke (4" thru 10")	Gray Iron, ASTM A126 (B)
6	Yoke (12" thru 24")	Ductile Iron, ASTM A536 (65-45-12)
7	Guide, unthreaded	Gray Iron, ASTM A126 (B)
8	Guide, threaded	Bronze, ASTM B584
9	Operating Nut, 2" sq.	Gray Iron, ASTM A126 (B)

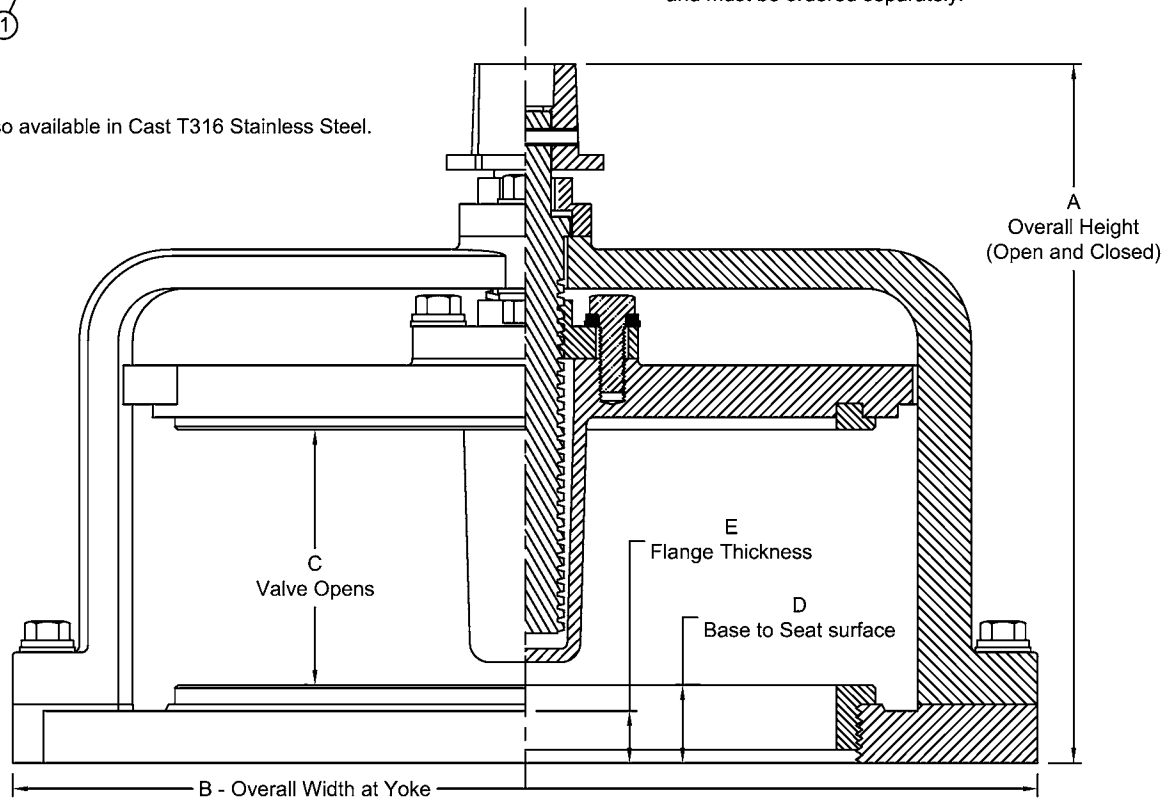
All Fasteners are Stainless Steel

Standard 125 pound drilling template.

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

All cast iron surfaces, except machined surfaces, to be finished with NSF61 (TNEMEC 140-1211) coating.
Flange mounting gasket and fasteners are not included, and must be ordered separately.

Also available in Cast T316 Stainless Steel.



Drawn: Drawing Revision:
Date Rev. Date
6/28/94 Q 02/05/2018

TRUMBULL MANUFACTURING, INC.
3850 HENDRICKS RD.
YOUNGSTOWN, OHIO 44515-1528
330-270-7888 FAX: 330-392-0756

Drawn to Scale
**MUD VALVES - CAST IRON
NON-RISING STEM TYPE**

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

Standard 125 pound drilling template.

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

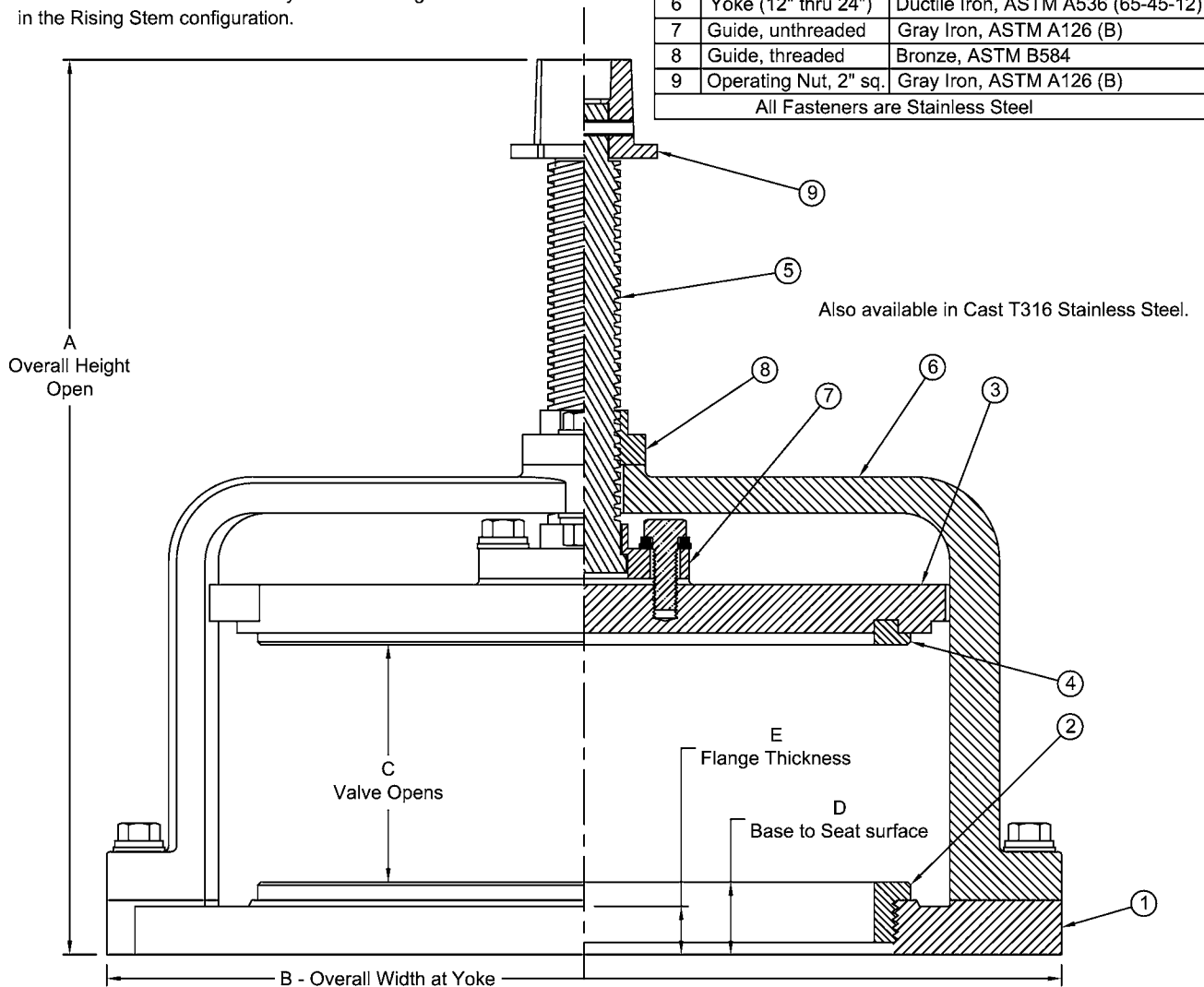
All cast iron surfaces, except machined surfaces, to be finished with NSF61 (TNEMEC 140-1211) coating.

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

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

Item	Part	Materials
1	Base Flange (Body)	Gray Iron, ASTM A126 (B)
2	Seat, Base Flange	Bronze, ASTM B62; B584
3	Gate	Gray Iron, ASTM A126 (B)
4	Seat, Gate	Bronze, ASTM B62; B584
5	Stem	Bronze, ASTM B584
6	Yoke (4" thru 10")	Gray Iron, ASTM A126 (B)
6	Yoke (12" thru 24")	Ductile Iron, ASTM A536 (65-45-12)
7	Guide, unthreaded	Gray Iron, ASTM A126 (B)
8	Guide, threaded	Bronze, ASTM B584
9	Operating Nut, 2" sq.	Gray Iron, ASTM A126 (B)

All Fasteners are Stainless Steel



Drawn:	Drawing Revision:	TRUMBULL MANUFACTURING		Drawn to Scale
Date	Rev.	Date	3850 Hendricks Road	MUD VALVES - CAST IRON
6/28/94	P	12/08/10	Youngstown, Ohio 44515	RISING STEM TYPE

Other Adaptations for Mud Valves



**Bench
Stand**

Sliding Stem Mud Valve

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



Stainless Steel Mud Valve Extended Bonnet with Pneumatic Cylinder

For remote operation.



Floorstand with Limit Switches

For remote indication
of valve position.

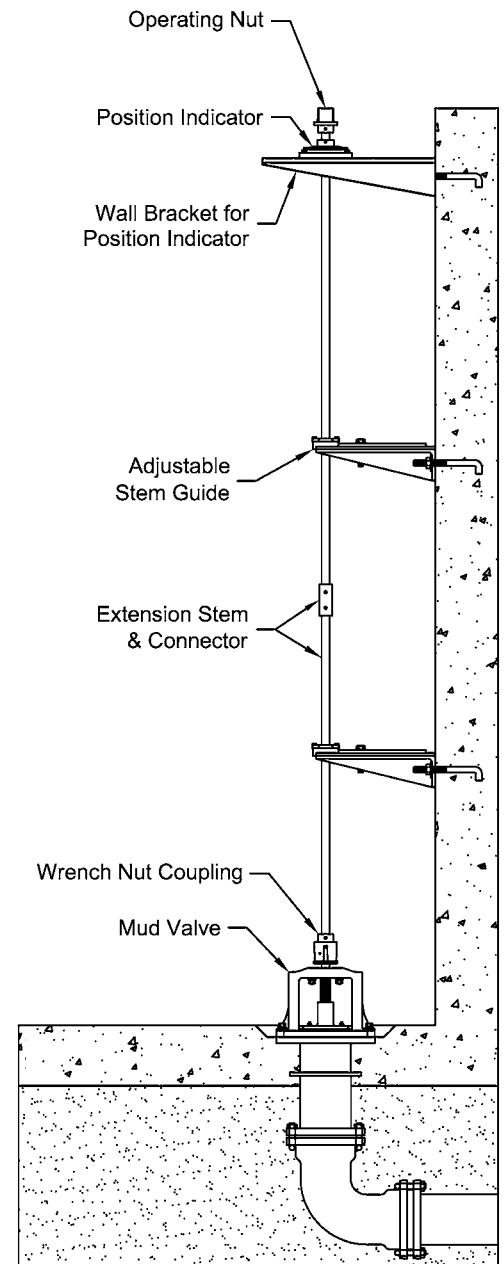
Cast 316 Stainless Steel Mud Valves

Heavy-Duty Design – Certified to NSF-61 & NSF-372 in U.S.A. & Canada

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

Due to the corrosive applications in which Mud Valves are used, the yoke, flange, guides and gate are cast from Type 316 stainless steel. The one-piece, Type 316 stem has a permanently bonded coating to protect against galling for a lifetime of maintenance-free operation. Cast components eliminate corrosion problems frequently caused when stainless steel is welded. Castings are passivated after machining, per ASTM A-967. Heavy-duty design incorporates generous wall thicknesses and stem diameters for maximum strength and corrosion protection. Seat is SBR rubber for positive shutoff. Mechanically retained seat is field-replaceable. Fasteners are Type 316 stainless. See pages 8 and 9 for drawings.

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



Typical Mud Valve Installation

Size	Non-Rising Stem		Rising Stem	
	Domestic	Non-Domestic	Domestic	Non-Domestic
3"	1367-1349	----	1367-1369*	----
4"	1367-1350	367-1350*	1367-1370*	367-1370
6"	1367-1351	367-1351*	1367-1371*	367-1371
8"	1367-1352	367-1352*	1367-1372*	367-1372
10"	1367-1353	367-1353*	1367-1373*	367-1373
12"	1367-1354	367-1354*	1367-1374*	367-1374
14"	spec/ord	367-1355	* Consult Trumbull for availability.	
16"	spec/ord	367-1356		
18"	spec/ord	367-1357		
20"	spec/ord	367-1358		
24"	spec/ord	367-1359		

See pages 8 & 9 for weights; page 10 for installation options.

POSITION INDICATORS

Recommended on all Mud Valves (consult Trumbull)



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

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

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

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

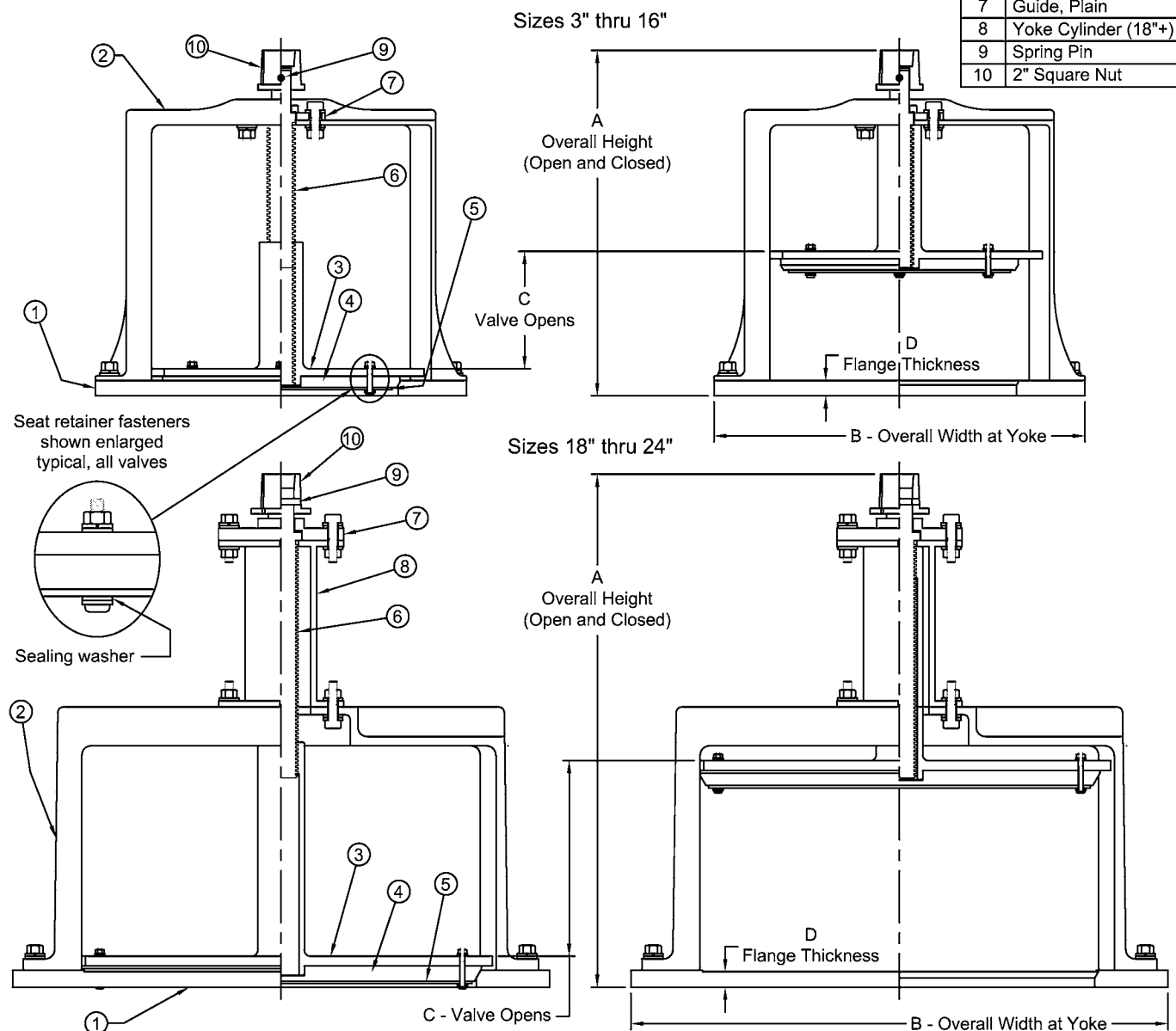
Seal and sealing washers are SBR.

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

Stem is coated and greased to prevent galling.

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

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



Drawn:
 Date: 7/24/07

Drawing Revision:
 Rev. F
 Date: 02/05/2018

TRUMBULL MANUFACTURING, INC.

3850 HENDRICKS RD.
YOUNGSTOWN, OHIO 44515-1528
330-270-7888 FAX: 330-392-0756

Drawn to Scale

**MUD VALVES - T316SS
NON-RISING STEM TYPE**

Valve Size (Bore Dia.)	4	6	8	10	12
A - Overall height, closed	8-3/4	10-1/2	12-1/2	14	17
A - Overall height, open	11-1/2	16	19-1/4	22-3/4	28-1/2
B - Width at Yoke	10-1/4	12-5/8	15-1/8	17-3/8	19
C - Valve opening	2-1/4	5	7	8-1/4	11-1/2
D - Flange thickness	3/4	3/4	3/4	3/4	3/4
Flange O.D.	9	11	13-1/2	16	19
Bolt Circle Diameter	7.50	9.50	11.75	14.25	17.00
Bolt Hole Dia.	3/4	7/8	7/8	1	1
Bolt / Stud Size	5/8	3/4	3/4	7/8	7/8
Bolts in full Pattern*	8	8	8	12	12
Stem Diameter	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2
Turns to Open	13-1/2	26-1/2	30-1/2	36-1/2	50-1/2
Weight, pounds	25	34	48	59	78

16**	18**	20**
23	18	18
38-1/4	27	28
25-3/4	27-3/4	27-1/2
15-1/8	9	10
3/4	3/4	3/4
23-1/2	25	27-1/2
21.25	22.75	25.00
1-1/8	1-1/4	1-1/4
1	1-1/8	1-1/8
16	16	20
1-1/2	1-3/4	1-3/4
75-1/2	45	50
xx	xx	xx

Part	Description
1	Base Flange (Body)
2	Yoke
3	Gate
4	Seat
5	Seat Retainer
6	Stem
7	Guide, Plain
8	Yoke Cylinder (18"+)
9	Gate Cap (18"+)
10	Spring Pin
11	2" Square Nut

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

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

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

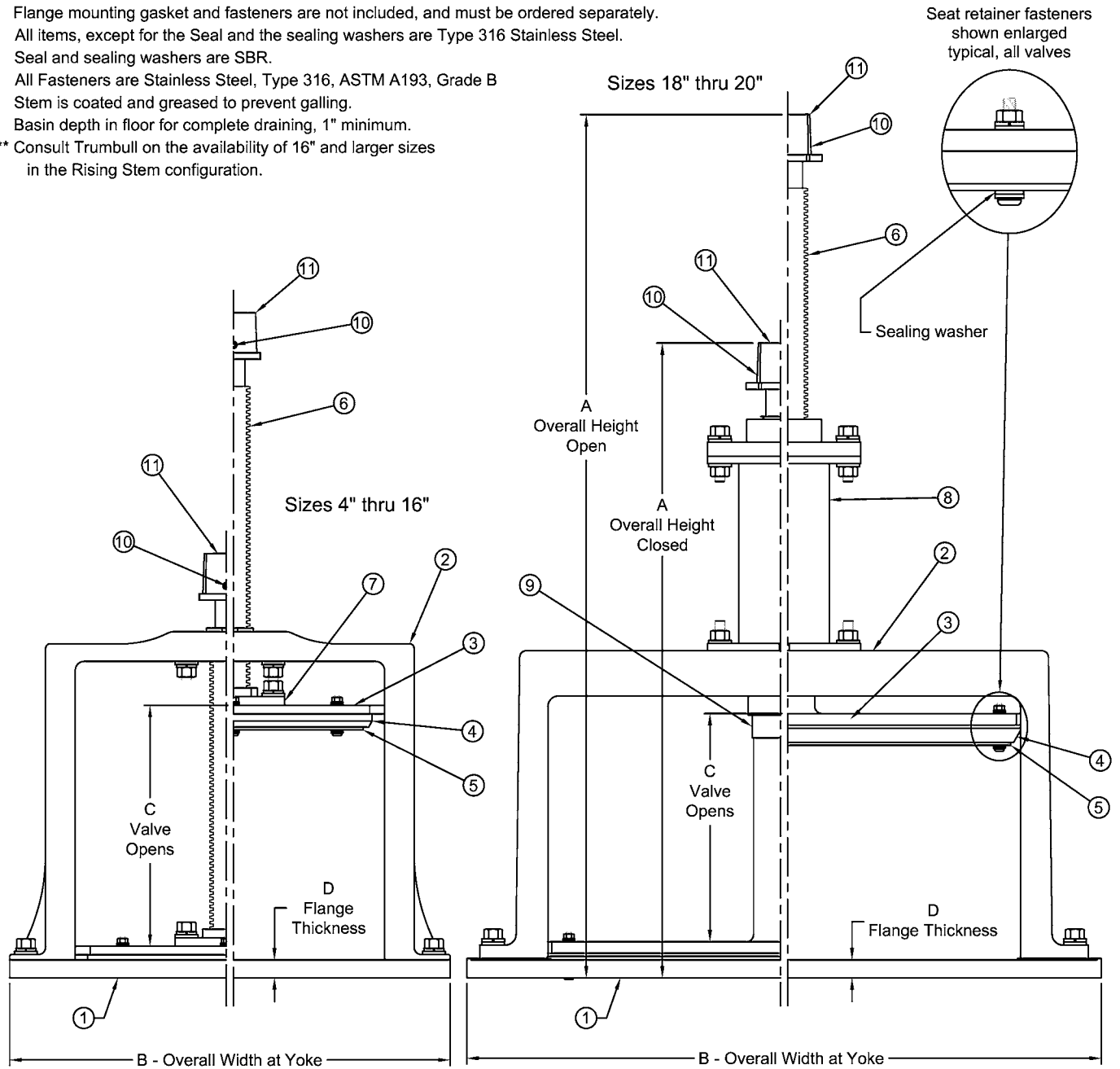
Seal and sealing washers are SBR.

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

Stem is coated and greased to prevent galling.

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

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



Drawn:	Drawing Revision:	
Date	Rev.	Date
7/24/07	C	02/18/2013

TRUMBULL MANUFACTURING
3850 Hendricks Road
Youngstown, Ohio 44515

Drawn to Scale
MUD VALVES - T316SS
RISING STEM TYPE

Optional Mud Valve Installations

Standard options are shown on right

Mud Valve: Cast iron or cast 316 stainless steel

Stem Guide: Ductile iron or cast 316 stainless steel

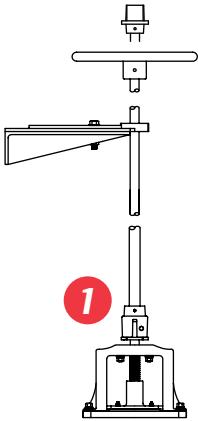
Floorstand: Ductile iron (30" or 36") or cast 316 SS (36")

Pedestal: Ductile iron or cast 316 SS

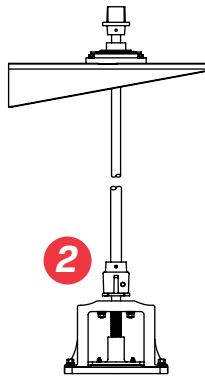
Extension Stem: Carbon steel or stainless steel

Wall Bracket: Ductile iron or cast 316 stainless steel

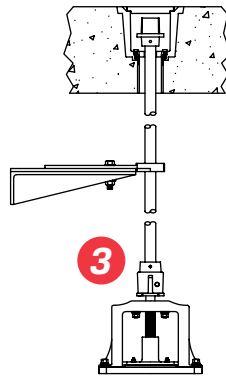
Floor Box: Sealed or unsealed, cast iron or cast SS



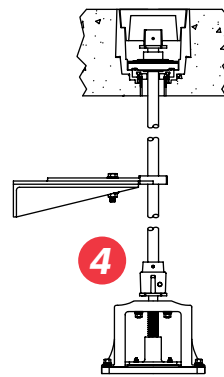
1
Stem Guide
with Handwheel
or 2" square nut



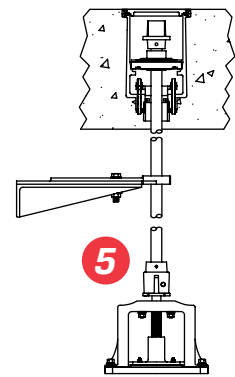
2
Wall Bracket with
Position Indicator



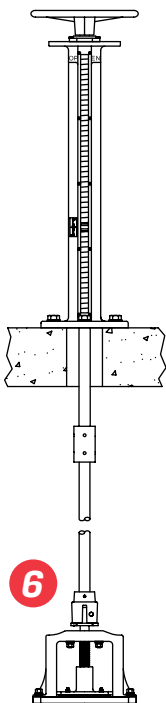
3
Floor Box w/out
Position Indicator



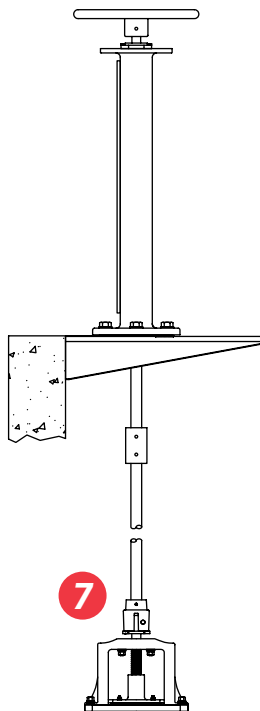
4
Floor Box with
Position Indicator



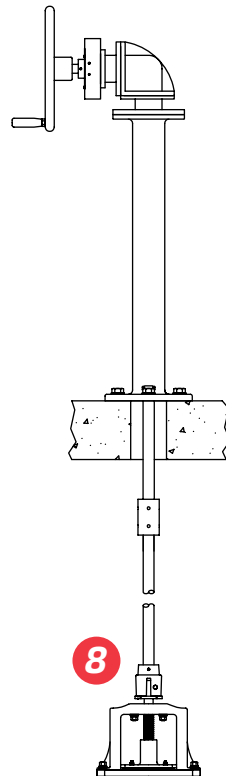
5
Cast Sealed
Floor Box with
Position Indicator



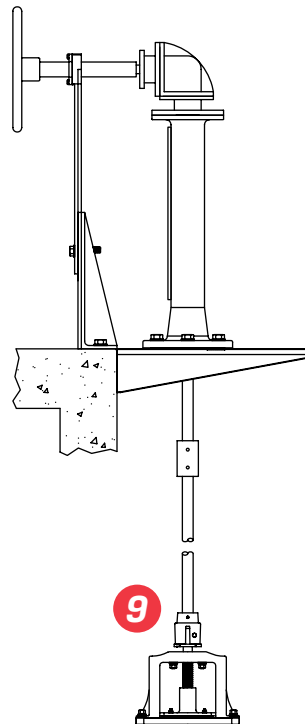
6
Indicating
Floorstand



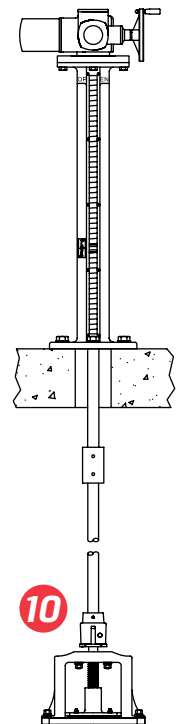
7
Indicating Floorstand
with Wall Bracket*



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



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



10
Indicating
Floorstand
with Actuator*

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

Stainless Mud Valve Design & Test Results

Independent Testing of Stainless Mud Valves

STORK®
Materials Technology

8/13/2008

F Craig Newmeyer
Trumbull Industries
1040 N Meridian Rd
PO Box 1556
Youngstown, OH 44501-1556

Date Received: 1/30/2008

Test Report No.: TRU040-08-01-53169-1

P.O. No.: EXPIRED

Stork Herron Testing Laboratories

Material Testing and Non-Destructive Testing

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

TEST REPORT

SET-UP
Three (3) T316 Stainless Steel 6" Mud Valves were assembled and tested as shown in Figure 1.



FIGURE 1

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

Michael R. Gaydos
Michael R. Gaydos
General Manager, COO

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**TEST REPORT
& VIDEO OF
INDEPENDENT TESTING
AVAILABLE UPON
REQUEST**

TRUMBULL

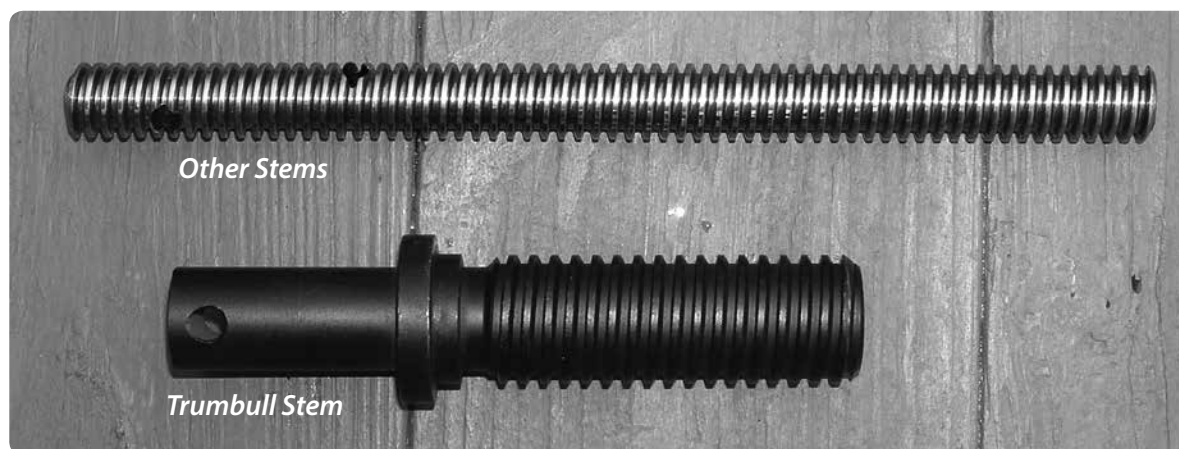
TRUMBULL MANUFACTURING, INC.

3850 Hendricks Road, Youngstown, Ohio 44515

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

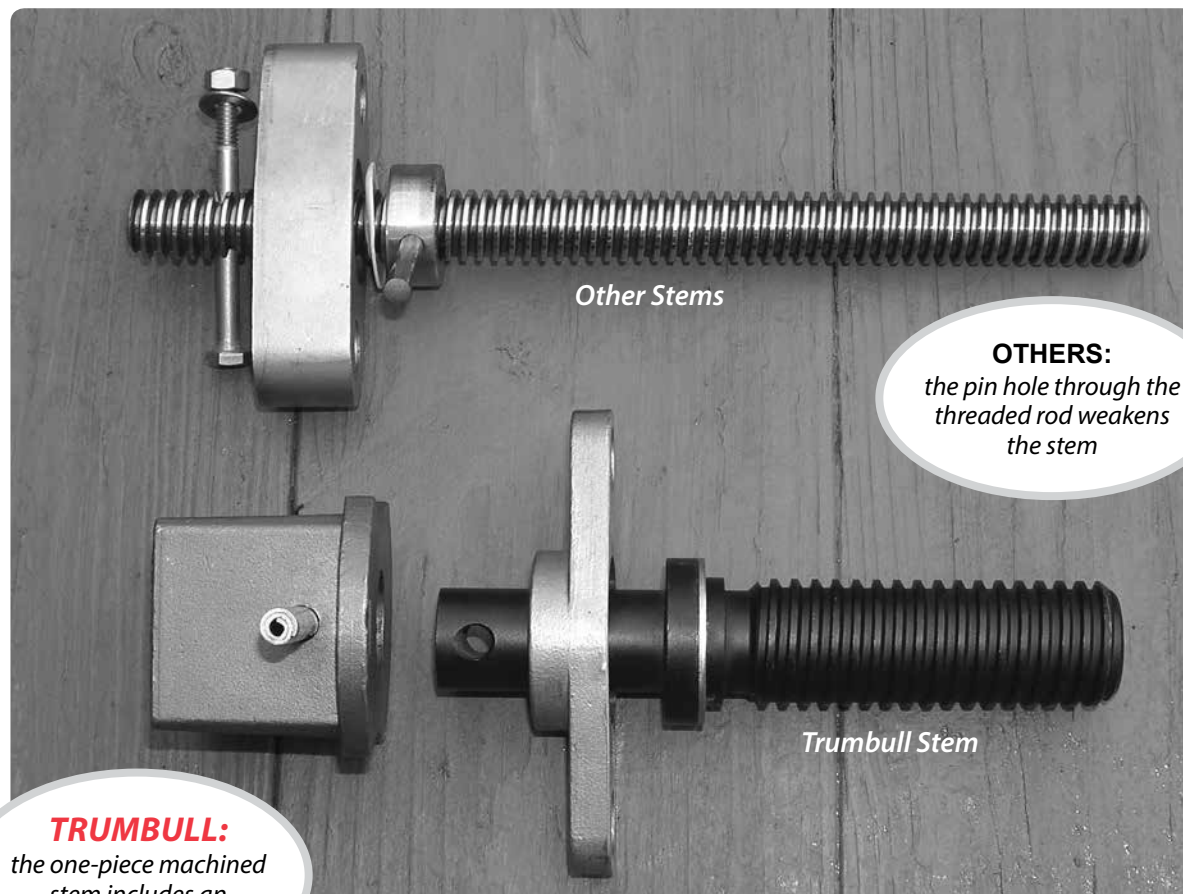
www.trumbull-mfg.com

Stem Diameters



Stem Designs

Trumbull Stem is Machined One-Piece, vs. All-Thread Rod with a Pinned Collar



RESULTS OF TORQUE TESTING BY INDEPENDENT TEST LAB:

Stem with drilled holes = **165 ft-lb** (fastener and stem failed)

Trumbull one-piece stem = **625 ft-lb** (connecting pin sheared, stem intact)

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Seat Design

Stainless Mud Valves

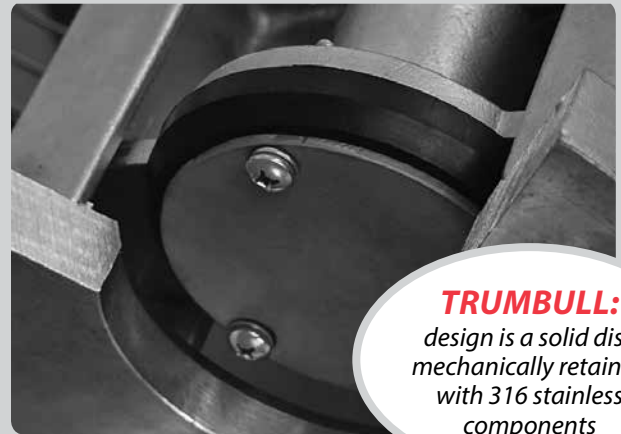
OTHERS:

May split, separate from gate, or stick to base flange



TRUMBULL:

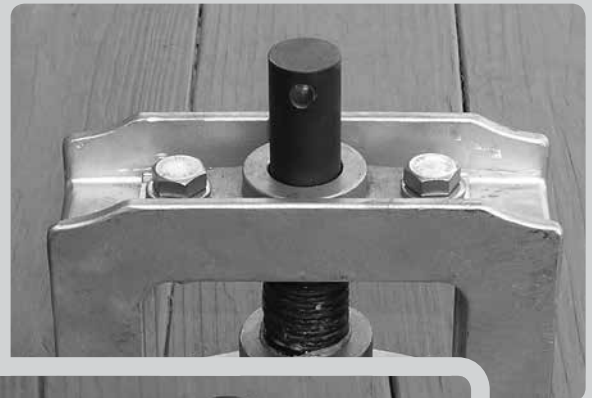
design is a solid disk mechanically retained with 316 stainless components



Trumbull's standard seating material is SBR rubber; optional seat materials available, including BUNA, EPDM & Viton.

Yoke Bolt Design

Stainless Mud Valves



OTHERS:

stainless bolts threaded into tapped holes may gall and require a bolt extractor

TRUMBULL:

uses bolted attachment for easy removal, if necessary

Cycle Tests

Independent Testing of Stainless Mud Valves

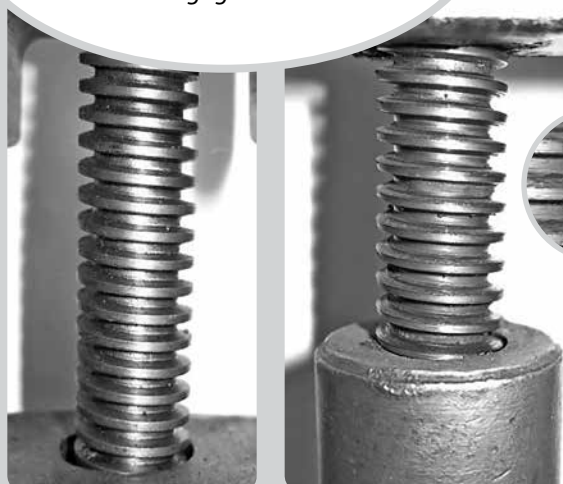


**OTHERS
BY 500 CYCLES:**
*shredded material from
the internal sleeve
was ejected*

of Cycles Results of Other Models

500	Nylon sleeve damage
700	Nylon sleeve completely shredded
1,000	Build-up of fine metal shavings
1,308	Required increased torque to continue rotation
5,000	Deformation of threads

**OTHERS
BY 7,500 CYCLES:**
*stem threads that engaged the
internal threads during cycling showed
deformation when compared to
non-engaged threads*



Non-Engaged

Engaged

**TESTING OF
TRUMBULL'S MUD VALVE:**
Stem has anti-galling coating
with anti-seize lubricant

AFTER 7,500 CYCLES:

- no damage
- slight wear

AFTER 15,000 CYCLES:

- no damage
- slight wear



**TRUMBULL:
BY 500 CYCLES:**
*little wear and no damage to
stem or internal thread*



**TRUMBULL:
BY 7,500 CYCLES:**
*stem threads that engaged
the internal threads during cycling
showed some wear and no
damage when compared to
non-engaged threads*

TRUMBULL

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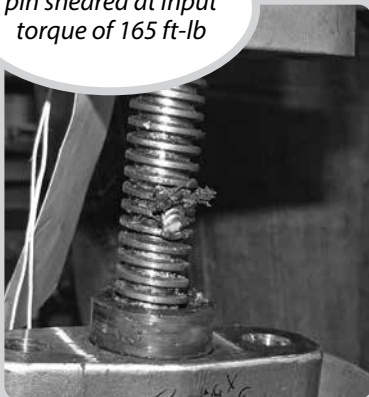
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Torque Tests

Independent Testing of Stainless Mud Valves

OTHERS:
pin sheared at input
torque of 165 ft-lb



OTHERS:
broken pin, metal
shavings, deformed
threads and
pin hole



OTHERS:
broken pin,
non-functional
stem collar



TRUMBULL:
pin sheared at
input torque of
625 ft-lb

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Thank you for your interest in
Trumbull Mud Valves!