

MUELLER CANADA

VALVES, BOXES, HYDRANTS,
CASTINGS, TAPPING SLEEVES,
TAPPING MACHINES &
SERVICE LINE PRODUCTS



EMCO
WATERWORKS

MUELLER® 2360 SERIES™ RESILIENT WEDGE GATE VALVE

Mueller Co.

10.1

Rev. 2-05

MUELLER® 2300 Series Resilient Wedge Gate Valves

Mueller® Resilient Wedge Gate Valves have features to make them easier to operate and to preserve the sealing capability and interior coating integrity for many years of reliable service. In addition to popular end connection options, Mueller brand RW valves can be ordered with Mueller's exclusive Aqua-Grip™ System that incorporates an O-ring sealed compression connection and integral pipe restraint in one "ready to use" easy and quick to install package.

Mueller 2" – 12" 2360 Series Resilient Wedge Gate Valve Features

- ❑ **TRIPLE O-RING SEALS PLUS DIRT SEAL** – two above thrust collar and one below, retain lubricant in this critical area. Top two are replaceable with valve fully open and under pressure. Fourth seal at top serves as dirt seal.
- ❑ **TWO ANTI-FRICTION WASHERS WITH LUBRICATION** – made of polymer, one above and one below the thrust collar, reduce operating torque to open or close valve.
- ❑ **STEM** – forged manganese bronze bar stock is upset, then machined to form a thrust collar for superior strength in this critical area.
- ❑ **WEDGE** – cast iron, fully encapsulated in molded rubber – no exposed iron.
- ❑ **EXTENDED WEDGE GUIDES** – molded as part of wedge, ride inside body channels to maintain wedge alignment throughout its travel.
- ❑ **GUIDE CAP BEARINGS** – made of polymer and snapped over rubber covered wedge guides, provide bearing surfaces that protect both wedge and interior body coating from wear and aid in easy operation – even the largest valves installed horizontally. Rollers, trucks or scrapers are not needed.



- ❑ **SMOOTH, UNOBSTRUCTED FLOW WAY** – full, round, unobstructed flow way accommodates full size cutters, provides superior flow characteristics and reduces pumping costs.**
- ❑ **MUELLER® PRO-GARD™ FUSION EPOXY COATING** – 10 mils* thick protects all inside and outside iron surfaces, and complies with AWWA C550 and certified to ANSI/NSF 61.
- ❑ **250 PSIG MAXIMUM WORKING PRESSURE** – Hydraulically tested at 500 psig. Surpasses ANSI/AWWA Standard C509 by 25% UL/FM: 200 psig MWP***
- ❑ **AMERICAN MADE QUALITY** – factory in Chattanooga, TN with ISO 9001:2000 certification, and UL 262, FM 1120/1130. Certified to ANSI/NSF 61. Manufactured and tested in compliance with ANSI/AWWA Standard C509. UL Listed and FM Approved.
- ❑ **BI-DIRECTIONAL FLOW**
- ❑ **FLAT BOTTOM SURFACES** – stands upright for easier handling and storage.
- ❑ **10-YEAR LIMITED WARRANTY** – assured reliability (see separate Mueller Warranty document for terms).

Mueller 14" – 48" 2361 Series Resilient Wedge Gate Valve Features

In addition to all the features of the smaller 2360 series valves, large size Mueller 2361 series RW valves offer these features:

- ❑ **STEM** – Manganese bronze casting with integral thrust collar.
- ❑ **WEDGE** – Ductile iron, fully encapsulated in molded rubber.
- ❑ **BODY AND BONNET** – Ductile iron.
- ❑ **COMPLIANCE** – In addition to those above, ANSI/AWWA Standard C515.
- ❑ **MAXIMUM WORKING PRESSURE** – 14"–48" AWWA valves rated at 250 psig – tested at 500 psig. UL/FM valves 200 psig MWP (14"–16" 250 psig MWP)***



*Nominal

**16" valve requires 1/2" undersized cutter

***250 psi UL/FM rating available as an option

*Dirt seal on 4"-12" valves

Double-Disc Style gate valves follow the RW valve pages

2361 SERIES RESILIENT WEDGE VALVES WITH MUELLER® AQUA-GRIP™ SYSTEM

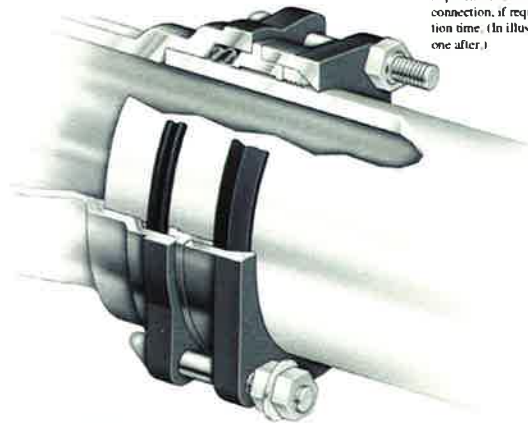
Rev. 9-09 (shaded area indicates change)

MUELLER® 2361 SERIES RESILIENT WEDGE GATE VALVES WITH AQUA-GRIP™ SYSTEM

The Mueller® Aqua-Grip™ System is offered in 4" through 12" sizes of the Mueller 2361 Series Resilient Wedge Gate Valves. This Mueller exclusive combines both the compression connection and the pipe restraint system in one convenient, quick installation package. This eliminates the need for anchor couplings, tie rods or separate gland-type restrains. A typical Aqua-Grip connection uses fewer bolts than a conventional mechanical joint end, and substantially fewer than a gland-type restraint, significantly reducing installation time. This "labor saving" system is also available on Mueller Centurion® Fire Hydrants, and as separate couplings and fittings to complement water main installation needs.

- ❑ **ACCEPTS VARIED TYPES OF PIPE** – DIPS style fits DL C900 PVC and DIPS PE pipe. IPS style fits PVC, IPS PE. No disassembly or adapters, no special pipe end preparation, and no liner for PE pipe (DR9-DR17) required.

- ❑ **FULLY ASSEMBLED STAB CONNECTION** – arrives ready to invert the pipe, tighten the bolts and it's done. No need to change-out, add or remove parts. Nothing additional to inventory or handle in the field. No extra bolts to assemble or tighten. Substantially reduces labor and inventory costs.
- ❑ **VISUALLY SHOWS WHEN PROPERLY TIGHTENED** – break-away nuts snap off using a standard wrench. No special torque requirements. Inner nut remains in place to allow future access to connection, if required. Reduces crew training and saves installation time. (In illustration, lower nut shown before tightening, upper one after.)



- ❑ **PRESSURE RESPONSIVE O-RING SEAL** – a double O-ring uses hydrostatic pressure from inside the pipe to enhance the seal as line pressure increases.
- ❑ **FULL CIRCUMFERENTIAL RESTRAINT** – gripper ring encircles pipe for uniform grip without creating points of high stress in pipe wall that could contribute to pipe failure.
- ❑ **INSTALLS IN WET CONDITIONS** – no special field conditions required, even installs under water.
- ❑ **DUCTILE IRON CONSTRUCTION** – valve body, bonnet and the Aqua-Grip System components.
- ❑ **PLUS ALL THE OTHER FEATURES OF THE 2300 SERIES VALVES**

Rev. 2-09

Mueller Co.

4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x FL. ENDS

Fig. 2-26. Resilient wedge gate valve.

- Catalog number—
A-2361-76 Aqua-Grip ends x flanged ends for DIPS pipe in sizes 4", 6", 8", 10", 12"
A-2361-86 Aqua-Grip ends x flanged ends for IPS pipe in sizes 4", 6", 8"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- Ductile Iron body and bonnet with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), with fourth O-ring serving as dirt seal
- 2" square wrench nut or handwheel available – open left or open right
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- UL Listed, FM Approved – 200 psig (1379 kPa)



A-2361-76

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- Handwheel

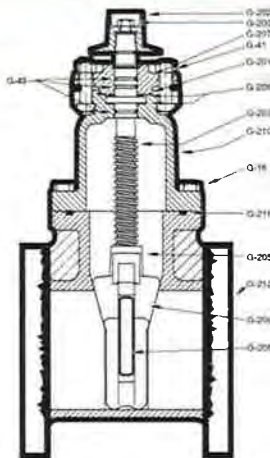
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box O-ring	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Bronze	ASTM B158
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast Iron Rubber	ASTM A126 CL B
G-208	Anti-friction Washers (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron [*] SBR	ASTM A126 CL B
G-210	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536 Grade 65-45-12
G-213	Double O-ring**	Rubber	
G-214	Intermediate ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-215	Grip ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-216	End ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-217	Breakaway nut/washer***	Steel	
G-218	T-head Bolt***	Steel	

*Fully encapsulated in molded rubber with no iron exposed

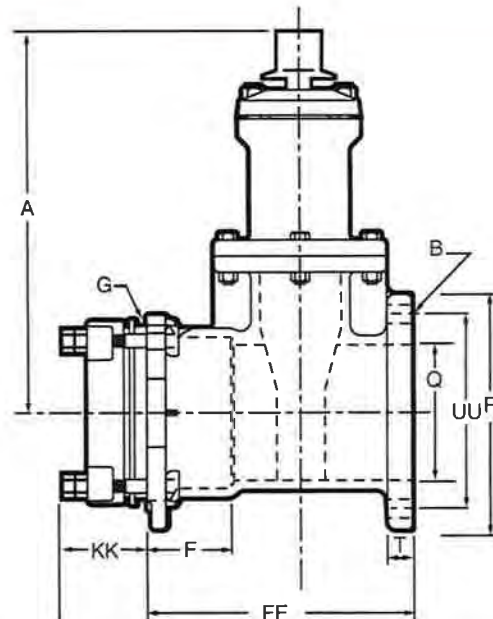
**Parts for Aqua-Grip connection not shown – one required for each Aqua-Grip connection

***Not shown. See dimension drawing on next page for number required for each size Aqua-Grip connection



4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x FL. ENDS

Fig. 2-26



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.10	18.00	21.50	25.50	28.62
B (number and size of holes for FL)	8-3/8	8-3/8	6-3/8	12-1/8	12-1/8
F	3.70	3.70	3.70	3.89	3.89
G (number and size of holes for Aqua-Grip)	4-3/8	4-3/8	6-3/8	8-3/8	8-3/8
T	.78	.93	.93	1.06	1.00
R	9.00	11.00	13.50	16.00	19.00
Q (Bore)	4.30	6.30	8.30	10.30	12.30
FF	10.84	12.91	14.22	15.53	16.45
KK	2.75	3.75	3.75	3.75	3.75
UU (bolt circle diameter for FL)	7.50	9.50	11.75	14.25	17.00
Turns to open	14	20.5	26.5	33.0	38.5
Weight*	107	140	225	365	450

*All dimensions are in inches. All weights are in approximate pounds

4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x AQUA-GRIP™ ENDS

Fig. 10.6. Shaded area indicates standard.

- Catalog number—
A-2361-77 Aqua-Grip ends x Aqua-Grip ends for DIPS pipe in sizes 4", 6", 8", 10", 12"
A-2361-87 Aqua-Grip ends x Aqua-Grip ends for IPS pipe in sizes 4", 6", 8"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Ductile Iron body and bonnet with nominal 10 mils MUELLER® Pro-Gard™ Epoxy Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), **with fourth O-ring serving as dirt seal**
- 2" square wrench nut (optional handwheel available)—open left or open right
- 250 psig (1723 kPa) maximum working pressure,
500 psig (3447 kPa) static test pressure
- UL Listed, FM Approved — 200 psig (1379 kPa)



A-2361-77

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- Handwheel

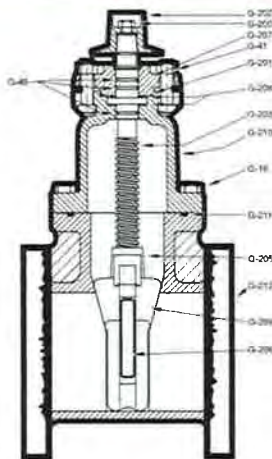
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (2)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box O-ring	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Bronze	ASTM B118
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Grade Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast iron Rubber	ASTM A126 CL.B ---
G-208	Anti-friction Washers (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron* SBR	ASTM A126 CL.B ---
G-210	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536 Grade 65-45-12
G-213	Double O-ring**	Rubber	
G-214	Intermediate ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-215	Gripper ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-216	End ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-217	Breakaway nut w/washer***	Steel	
G-218	T-head Bolt***	Steel	

*Fully encapsulated in molded rubber with no iron exposed

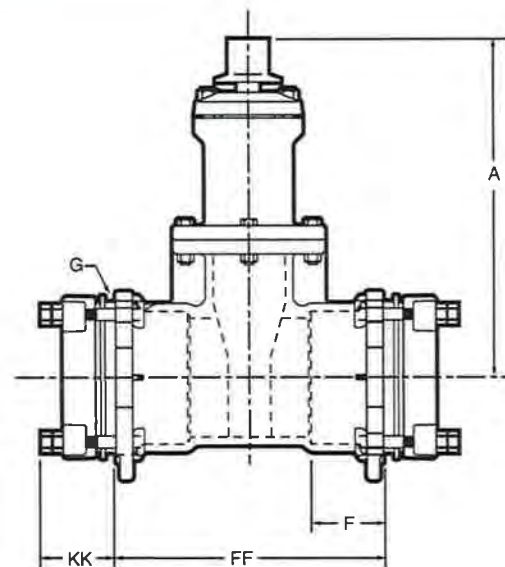
**Parts for Aqua-Grip connection not shown — one required for each Aqua-Grip connection

***Not shown. See dimension drawing on next page for number required for each size Aqua-Grip connection



4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x AQUA-GRIP™ ENDS

Fig. 2.00



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.19	18.00	21.50	25.52	28.62
FF	12.68	15.12	16.94	18.06	18.90
G (number and size of holes for Aqua-Grip)	4—8/8	4—8/8	6—8/8	8—8/8	8—8/8
F	3.70	3.70	3.70	3.89	3.89
KK	2.75	3.75	3.75	3.75	3.75
Turns to open	14	20.3	26.5	33.0	38.5
Weight*	119	162	256	380	475

*All dimensions are in inches. All weights are in approximate pounds

4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x MJ. ENDS

Fig. 3.79. Shaded area represents forest

- ❑ Catalog number-
 - A-2361-78 Aqua-Grip ends x mechanical joint for DIPS pipe in sizes 4", 6", 8", 10", 12"
 - A-2361-88 Aqua-Grip ends x mechanical joint for IPS pipe in sizes 4", 6", 8"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- ❑ Ductile Iron body and bonnet with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- ❑ Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-rings, with fourth O-ring serving as dirt seal)
- ❑ 2" square wrench nut (optional handwheel available) – open left or open right
- ❑ 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- ❑ UL Listed, FM Approved & 200 psig (1379 kPa)



A-2361-78

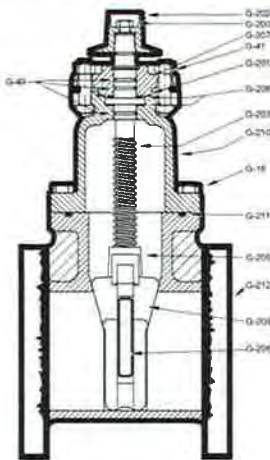
Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- ☐ Position indicators
- ☐ ASTM B98-C66100/H02 stem
- ☐ Stainless steel fasteners: Type 316
- ☐ Handwheel

Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stern O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screws	Stainless Steel	Type 304
G-201	Stuffing Box O-ring	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stern	Brass	ASTM B118
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stern Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast Iron Rubber	ASTM A126 CL.B --
G-208	Anti-Friction Washers (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron ^a SBR	ASTM A126 CL.B --
G-210	Bonnet	Ductile Iron	ASTM A536 Grade 65-45-12
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536 Grade 65-45-12
G-213	Double O-ring**	Rubber	
G-214	Intermediate ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-215	Gripper ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-216	End ring**	Ductile Iron	ASTM A536 Grade 65-45-12
G-217	Breakaway nut with washer**	Steel	
G-218	T-head Bolt**	Steel	



*Fully encapsulated in molded rubber with no iron exposed

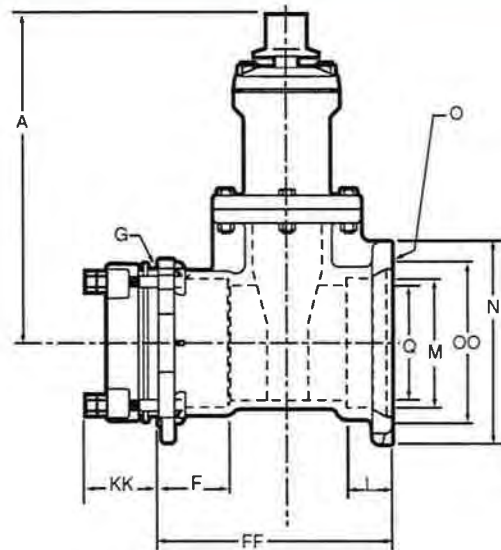
**Parts for Aqua-Grip connection not shown – one required for each Aqua-Grip connection

***Not shown. See dimension drawing on next page for number require for each size Aqua-Grip connection

SEE PAGE 10.43 FOR ORDERING INSTRUCTIONS

4"-12" A-2361 RESILIENT WEDGE GATE VALVE WITH AQUA-GRIP™ x MJ. ENDS

136-2-10



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.19	18.00	21.50	25.50	28.62
F	3.70	3.70	3.70	3.89	3.89
G (number and size of holes for Aqua-Grips)	3- .88	4- .88	6- .88	8- .88	8- .88
L	2.50	2.50	2.50	2.50	2.50
M	4.90	7.00	9.15	11.20	13.30
N	9.12	11.12	13.37	15.62	17.58
O (number and size of holes for MJ)	4- .88	6- .88	6- .88	8- .88	8- .88
FF	11.34	13.31	14.72	16.41	18.89
Q	4.40	6.50	8.30	10.30	12.30
KK	2.75	3.75	3.75	3.75	3.75
OO (both circle diameter for MJ)	7.50	9.50	11.75	14.00	16.25
Turns to open	14	20.5	26.5	33.0	38.5
Weight*	108	169	294	393	565

*All dimensions are in inches. All weights are in approximate pounds.

Rev. 9-09 Shaded area indicates change

- Catalog number - A-2360-6 flanged ends
 - Sizes - 2", 2-1/2", 3", 4", 6", 8", 10", 12"
 - Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61 †
 - Flanged end dimensions and drilling comply with ANSI B16.1, class 125
 - Iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
 - Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
 - Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
 - Non-rising stem (NRS)
 - Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), with fourth O-ring serving as dirt seal††
 - Handwheel (2" square wrench nut optional) - open left or open right
 - 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
 - 2-1/2"-12" sizes - UL Listed, FM Approved; 200 psig (1379 kPa)
- † Approved for backflow prevention devices by USC (for 2-1/2" - 10" sizes)
 †† Dirt seal on 4"-12" valves



A-2360-6

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- 2" square wrench nut
- PN 10/16 Drilling

Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal††	Cast Iron, Rubber	ASTM A126-CL B
G-208	Anti-friction Washer (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron* Rubber	ASTM A126 CL B
G-210**	Bonnet	Cast Iron	ASTM A126 CL B
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron	ASTM A126 CL B

* Fully encapsulated in molded rubber with no iron exposed

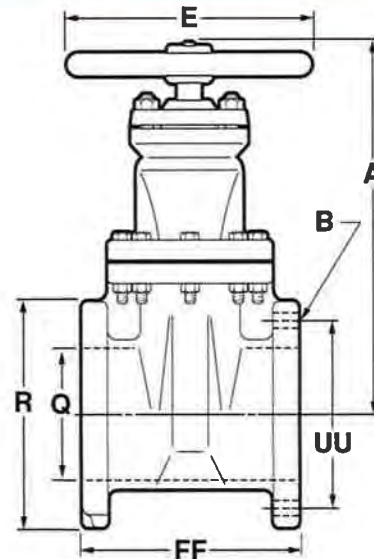
** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts (2"-3" sizes retain neoprene gasket design affecting these parts) Confirm the type of seal when ordering a replacement gasket or O-ring

†† Dirt seal on 4"-12" valves

*Body and bonnet of 12" valves are ductile iron standard wall thickness in compliance with C509

SEE PAGE 10.43 FOR ORDERING INSTRUCTIONS

Rev. 2-09



Dimensions

Dimension*	Nominal size							
	2"	2-1/2"	3"	4"	6"	8"	10"	12"
A	9.80	12.38	12.38	14.19	18.00	21.50	25.50	28.62
E	6.00	6.00	8.00	11.00	17.00	14.00	16.00	16.00
R	6.00	7.00	7.50	9.00	11.00	13.50	16.00	19.00
FF	7.00	7.50	8.00	9.00	10.50	11.50	13.00	14.00
Q (stem)	2.30	2.80	3.30	4.30	6.30	8.30	10.30	12.30
UU (both circle diameters)	4.75	5.50	6.00	7.50	9.50	11.75	14.25	17.00
B (number and size of holes)	4-75	4-75	4-75	6-75	8-88	8-88	12-100	12-100
Turns to open	8	11	11	14	20.5	26.5	35	38.5
Weights*	37	71	73	96	154	250	400	500

*All dimensions are in inches. All weights are in pounds and are approximate

4"-12" A-2360 RESILIENT WEDGE GATE VALVES - M.J. x FL.

Rev. 9-20 Shaded area indicates change

- ❑ Catalog number-
A-2360-16 mechanical joint x flanged ends (with accessories unassembled)
A-2360-19 mechanical joint x flanged ends (less accessories)
- ❑ Size- 4", 6", 8", 10", 12"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- ❑ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ❑ Mechanical joint end complies with ANSI/AWWA C111 Standard
- ❑ Iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- ❑ Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), with fourth O-ring serving as dirt seal
- ❑ 2" square wrench nut (optional handwheel available) - open left or open right
- ❑ 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- ❑ UL Listed, FM Approved - 200 psig (1379 kPa)



A-2360-16

M.J. accessories
shipped unassembled

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- ❑ Position indicators
- ❑ Stainless steel fasteners: Type 316
- ❑ ASTM B98-C66100H02 stem
- ❑ Handwheel

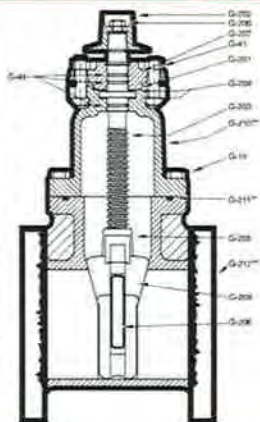
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast Iron, Rubber	ASTM A126 CL B
G-208	Anti-friction Washer (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron* Rubber	ASTM A126 CL B
G-210**	Bonnet	Cast Iron	ASTM A126 CL B
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron	ASTM A126 CL B

* Fully encapsulated in molded rubber with no iron exposed

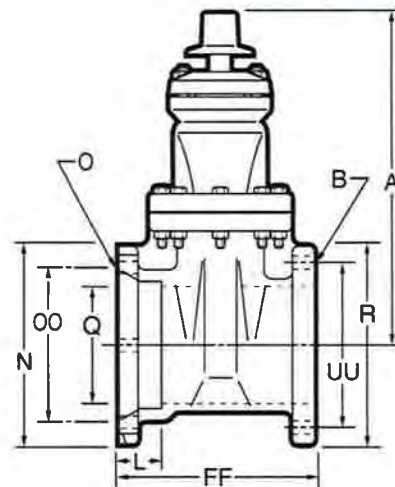
** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts. Confirm the type of seal when ordering a replacement gasket or O-ring

♣ Body and bonnet of 12" valves are ductile iron standard wall thickness in compliance with C509



4"-12" A-2360 RESILIENT WEDGE GATE VALVE - M.J. x FL.

Rev. 7-20



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.19	18.00	21.50	25.50	28.62
B	2.50	2.50	2.50	2.50	2.50
N	9.12	11.12	13.17	15.62	17.88
O (number and size of holes for MJ)					
	4- .88	6- .88	6- .88	8- .88	8- .88
Q (hole)					
	4.30	4.30	4.30	10.30	12.30
OO (bolt circle diameter for MJ)					
	7.50	9.50	11.75	14.00	16.25
R	9.00	11.00	13.50	16.00	19.00
UU (bolt circle diameter for FL)					
	7.50	9.50	11.75	14.25	17.00
FF	9.50	11.00	12.00	13.88	14.44
B (number and size of holes for FL)					
	8- .75	8- .88	8- .88	12- 1.00	12- 1.00
Turns to open					
	14	20.5	26.5	33	38.5
Weight*	115	168	275	400	570

* All dimensions are in inches. All weights include accessories are in pounds and are approximate

FIG. 10.09. Shaded area indicates changes.

- ❑ Catalog number-
A-2360-20 Mechanical joint ends (with accessories unassembled)
A-2360-23 Mechanical joint ends (less accessories)
A-2360-25 Mechanical joint ends (with transition gaskets accessories unassembled)
- ❑ Sizes - 2", 3", 4", 6", 8", 10", 12"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- ❑ Standard mechanical joint ends comply with ANSI/AWWA C111
- ❑ Iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- ❑ Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), with fourth O-ring serving as dirt seal††
- ❑ 2" square wrench nut (optional handwheel available)—open left or open right
- ❑ 250 psig (1723 kPa) maximum working pressure,
500 psig (3447 kPa) static test pressure
- ❑ 3"-12" sizes - UL Listed, FM Approved; 200 psig (1379 kPa)

††Dirt seal on 4"-12" valves



A-2360-20 M.J. accessories shipped unassembled

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- ❑ Position indicators
- ❑ Stainless steel fasteners: Type 316
- ❑ ASTM B98-C66100/H02 stem
- ❑ Handwheel

Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal††	Cast Iron, Rubber	ASTM A126 CL B
G-208	Anti-friction Washer (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron* Rubber	ASTM A126 CL B
G-210**	Bonnet	Cast Iron ♦	ASTM A126 CL B
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron ♦	ASTM A126 CL B

* Fully encapsulated in molded rubber with no iron exposed

** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts (2"-3" sizes retain neoprene gasket design affecting these parts). Confirm the type of seal when ordering a replacement gasket or O-ring

††Dirt seal on 4"-12" valves

♦ Body and bonnet of 12" valves are ductile iron standard in all thickness in compliance with C509

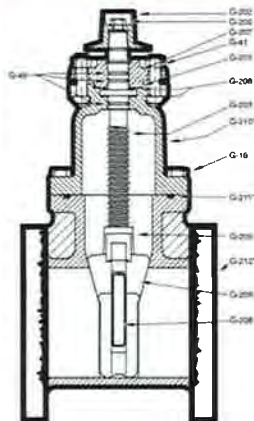
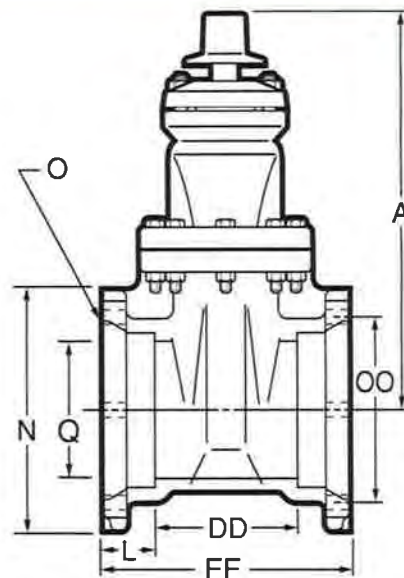


FIG. 10.09



Dimensions

Dimension*	Nominal size						
	2"	3"	4"	6"	8"	10"	12"
A	9.88	12.38	14.19	18.00	21.50	25.50	28.62
FF	8.50	9.00	10.00	11.50	12.50	14.75	14.88
L	2.50	2.50	2.50	2.50	2.50	2.50	2.50
N	4.62	7.50	9.12	11.12	13.37	15.62	17.88
O (number and size of holes)	4-.88	4-.88	4-.88	6-.88	6-.88	6-.88	8-.88
DD	3.50	4.00	5.00	6.50	7.50	9.75	9.88
Q (hole)	2.30	3.30	4.30	6.30	8.30	10.30	12.30
OO (both circle diameter)	5.00	6.19	7.50	9.50	11.75	14.00	16.25
Turns to open	8	11	14	20.5	26.5	33	38.5
Weight*	40	83	120	186	280	405	540

*All dimensions are in inches. All weights include accessories are in pounds and are approximate

Rev. 9-09 Shaded area indicates change.

- ❑ Catalog number-
A-2360-38 Slip-on* ends with gasket
A-2360-40 Slip-on* ends less gasket
- ❑ Sizes - 4", 6", 8", 10", 12"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- ❑ Slip-on ends fit plain end of classes 150, 200 and 250 cast iron; ductile iron and classes 150 and 200 cast iron O.D. PVC
- ❑ Iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces.
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- ❑ Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-ring), with fourth O-ring serving as dirt seal
- ❑ 2" square wrench nut (optional handwheel available) - open left or open right
- ❑ 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- ❑ UL Listed, FM Approved: 200 psig (1379 kPa)



A-2360-38

*Design and dimensions of the joint are manufactured under license of U.S. Pipe and Foundry Company

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- ❑ Position indicators
- ❑ Stainless steel fasteners: Type 316
- ❑ ASTM B98-C66100/H02 stem
- ❑ Handwheel

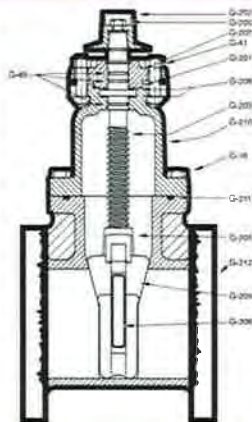
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Brass	ASTM B138
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast Iron, Rubber	ASTM A126 CL.B
G-208	Anti-friction Washer (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron*, Rubber	ASTM A126 CL.B
G-210**	Bonnet	Cast Iron	ASTM A126 CL.B
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron	ASTM A126 CL.B

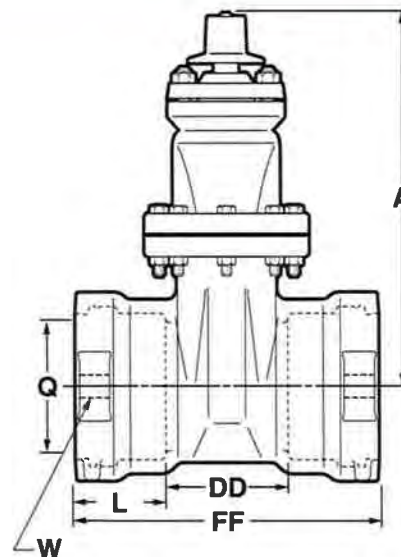
* Fully encapsulated in molded rubber with no iron exposed

** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts. Confirm the type of seal when ordering a replacement gasket or O-ring

◆ Body and bonnet of 12" valves are ductile iron standard wall thickness in compliance with C509



Rev. 2-09



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.19	19.00	21.50	25.50	29.62
Q (lower)	4.50	6.50	8.50	10.50	12.50
W (distance between stem supports, top flange across face of valve body)	8.62	10.62	13.12	16.38	18.12
FF	12.81	14.51	17.88	19.43	19.62
L	4.12	4.38	5.62	5.62	5.62
DD	4.57	6.05	6.64	7.19	7.38
Turns to open	14	20.5	26.5	35	36.5
Weight*	90	165	280	400	565

* All dimensions are in inches. All weights are in pounds and are approximate

4"-12" A-2360 RESILIENT WEDGE GATE VALVES - SL. x FL.

Rev. 9-09: Shaded area indicates change.

- Catalog number-
A-2360-41 Slip-on† end (with gasket) x flange end
A-2360-43 Slip-on† end (less gasket) x flange end
- Sizes - 4", 6", 8", 10", 12"
- Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed FM Approved, and certified to ANSI/NSF 61
- Slip-on ends fit plain end of classes 150, 200 and 250 cast iron, ductile iron and classes 150 and 200 cast iron O.D. PVC
- Flange end dimensions and drilling comply with ANSI B16.1, class 125
- Iron body with nominal 10 mils MUELLER® Pro-Gard™ Epoxy Fusion Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings), with fourth O-ring serving as dirt seal
- 2" square wrench nut (optional handwheel available) - open left or open right
- 250 psig (1723 kPa) maximum working pressure;
500 psig (3447 kPa) static test pressure
- UL Listed, FM Approved; 200 psig (1379 kPa)



A-2360-41

†Design and dimensions of the joint are manufactured under license of U.S. Pipe and Foundry Company.

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C6610VH02 stem
- Handwheel

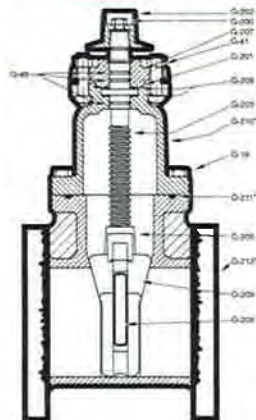
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box with dirt seal	Cast Iron, Rubber	ASTM A126 CL.B
G-208	Anti-friction Washer (2)	Celcon	
G-209	Wedge, Rubber Encapsulation	Cast Iron* Rubber	ASTM A126 CL.B
G-210**	Bonnet	Cast Iron*	ASTM A126 CL.B
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron*	ASTM A126 CL.B

* Fully encapsulated in molded rubber with no iron exposed

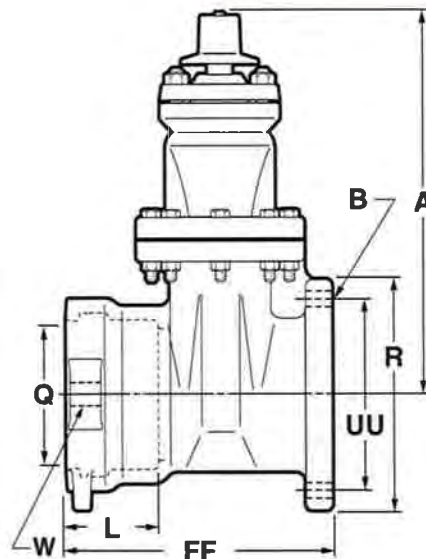
** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts. Confirm the type of seal when ordering a replacement gasket or O-ring

†Body and bonnet of 12" valves are ductile iron standard wall thickness in compliance with C509



4"-12" A-2360 RESILIENT WEDGE GATE VALVE - SL. x FL.

Rev. 9-09



Dimensions

Dimension*	Nominal size				
	4"	6"	8"	10"	12"
A	14.19	18.00	21.50	25.50	28.62
Q (bonnet)	4.30	6.30	8.30	10.30	12.30
L	4.12	4.38	5.62	5.62	5.62
R	9.00	11.00	13.50	16.00	19.00
UU (bolt circle diameter for FL)	7.50	9.50	11.75	14.25	17.00
B (number and size of holes for FL)	6-7/8	8-3/8	8-3/8	12-1/8	12-1/8
W (distance between trapping lug holes across face of valve body)	8.62	10.62	13.12	16.38	18.12
FF	10.91	12.66	14.69	15.72	16.31
Turns to open	14	20.5	26.5	33	38.5
Weight*	90	165	260	400	565

*All dimensions are in inches. All weights are in pounds and are approximate

Fig. 2-01. Radial seal resilient wedge.

- Catalog number-
A-2360-37 radial compression ends
- Sizes - 2", 2-1/2", 3", 4", 6", 8"
- Meets or exceeds all applicable requirements of ANSI/AWWA C500 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Radial compression ends fit IPS PVC plastic pipe
- Iron body with nominal 10 mils MUELLER® Pro-Gard™ Epoxy Fusion Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings) with fourth O-ring serving as dirt seal††
- 2" square wrench nut (optional handwheel available) - open left or open right
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- 2 1/2" - 8" sizes - UL Listed, FM Approved: 200 psig (1379 kPa)

††Dirt seal on 4"-8" valves



A-2360-37

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicator
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- Handwheel

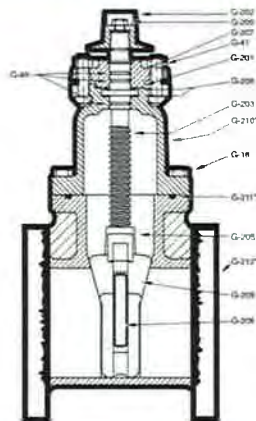
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CLB
G-203	Stem	Brass	ASTM B138
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CLB
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box dirt seal††	Cast iron Rubber	ASTM A126 CLB
G-208	Anti-friction Washers (2)	Celcon	
G-209	Wedge Rubber Encapsulation	Cast Iron [*] SBR	ASTM A126 CLB
G-210**	Bonnet	Cast Iron	ASTM A126 CLB
G-211**	Bonnet O-ring	Nitrile	
G-212**	Body	Cast Iron	ASTM A126 CLB

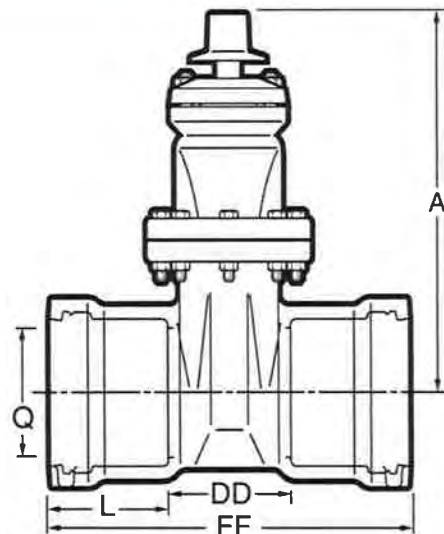
* Fully encapsulated in molded rubber with no iron exposed

** Previous to 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts (2"-3" sizes retain neoprene gasket design affecting these parts). Confirm the type of seal when ordering a replacement gasket or O-ring

††Dirt seal on 4"-8" valves



Rev. 2-01



Dimensions

Dimension*	Nominal size					
	2"	2-1/2"	3"	4"	6"	8"
A	9.88	12.38	12.38	14.19	18.00	21.50
FF	10.25	10.75	11.75	13.43	15.91	18.40
L	3.50	3.69	4.12	4.46	5.46	6.20
Q (chase)	2.30	2.80	3.30	4.30	6.30	8.30
DD	3.25	3.37	3.51	4.51	4.90	6.00
Turns to open	8	11	11	14	20.5	26.5
Weight*	35	65	67	96	155	240

*All dimensions are in inches. All weights are in pounds and are approximate

Rev. 2-06, 29x44 and 29x44 views

- Catalog number-
A-2360-8 threaded ends
- Sizes - 2", 2-1/2", 3"
- Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Threaded end dimensions comply with ANSI B2.1
- Iron body with nominal 10 mils MUELLER® Pro-Gard™ Epoxy Fusion Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings)
- 2" square wrench nut (optional handwheel available) - open left or open right
- 250 psig (1723 kPa) maximum working pressure,
500 psig (3447 kPa) static test pressure
- 3" size - UL Listed, FM Approved; 200 psig (1379 kPa)



A-2360-8

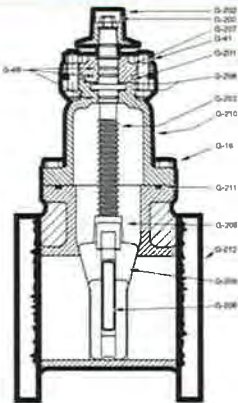
Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- Handwheel

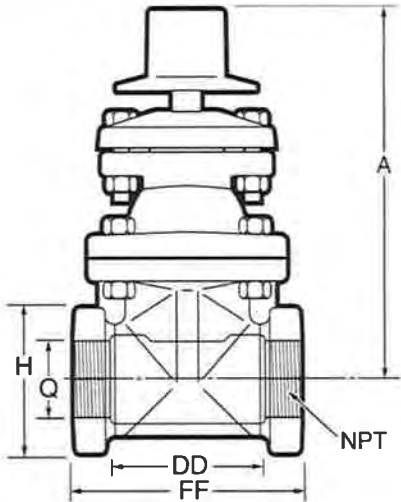
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast iron	ASTM A126 CL.B
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel (not shown)	Cast iron	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Grade Cap Bearings	Celcon	
G-207	Stuffing Box	Cast iron	ASTM A126 CL.B
G-208	Anti-friction Washers (2)	Celcon	
G-209	Wedge Rubber Encapsulation	Cast iron* SPR	ASTM A126 CL.B
G-210	Bonnet	Cast iron	ASTM A126 CL.B
G-211	Bonnet Gasket	Neoprene	
G-212	Body	Cast iron	ASTM A126 CL.B



* Fully encapsulated in molded rubber with no iron exposed

Rev. 2-06



Dimensions

Dimension*	Nominal size		
	2"	2-1/2"	3"
A	9.88	12.38	12.38
FF	5.88	5.88	6.88
Q (bore)	2.30	2.80	3.30
H (flange - across flats)	5.88	4.25	5.00
DD	4.12	4.12	5.12
Turns to open	8	11	11
Weight*	31	60	62

* All dimensions are in inches. All weights are in pounds and are approximate

Rev. 4-00. Shaded area indicates change.

- Catalog number—
A-2361-6 flanged ends
- Sizes — 14", 16", 18", 20", 24", 30", 36", 42", 48"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- Ductile iron body and bonnet with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy coating interior and exterior surfaces; **42" and 48" valves coated with Mueller HP Epoxy coating.**
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Ductile iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- 2" square wrench nut (optional bevel or spur gearing) - open left or open right
30" - 48" require a Spur Gear or Bevel Gear
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- 14" and 16" sizes — UL Listed, FM Approved; 250 psig (1723 kPa)



A-2361-6

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- ASTM B98-C66100H02 stem 14"-16"
- ASTM B763-C99500: 18"-48"
- Stainless steel fasteners: Type 304, Type 316
- Bypass 18"-48" (2" on 18"-20"; 2.5" on 24"; 3" on 30"-36", 4" on 42"-48")
- Handwheel
- Spur or bevel geared actuator

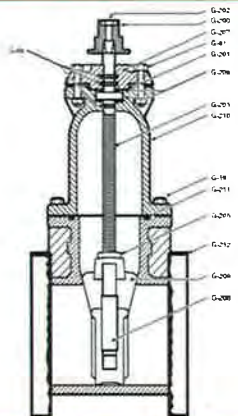
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-41	Stuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Stuffing Box O-Ring Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Bronze	ASTM B138**
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B62
G-206	Gudge Cap Bearings	Cast Iron	
G-207	Stuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge, Rubber Encapsulation	Ductile Iron*	ASTM A536
G-210	Bonnet	Ductile Iron	ASTM A536
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536

* Fully encapsulated in molded rubber with no iron exposed

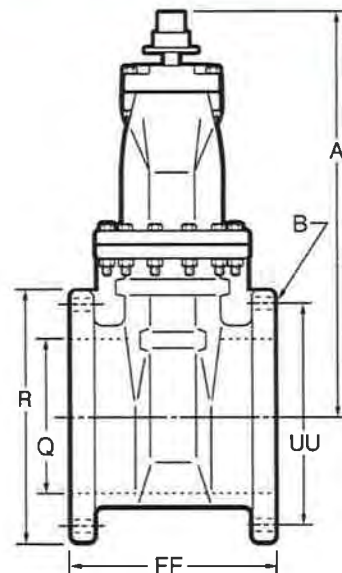
** 18" - 48" ASTM B584

† 18" - 48" EPDM standard



SEE PAGE 10.43 FOR ORDERING INSTRUCTIONS

Rev. 2-00. Shaded area indicates change.



Dimensions

Dimension*	Nominal size								
	14"	16"	18"	20"	24"	30"	36"	42"	48"
A	32.75	37.88	44.19	48.25	53.88	See A for Spur or Bevel Gear			
B	21.00	23.50	25.00	27.50	32.00	38.75	46.00	53.00	59.50
FF	15.06	16.06	17.00	18.00	20.00	26.00	30.00	38.00	43.00
Q (hole)	14.38	16.00	18.38	20.38	24.38	30.38	36.38	42.38	48.38
UU (hoil circle diameter)	18.75	21.25	22.75	25.00	29.50	36.00	42.75	49.50	56.00
B (number and size of holes)	12-1/12	16-1/12	16-1/25	20-1/25	20-1/38	28-1/38	32-1/63	36-1/63	44-1/63
A - Spur Gear	38.50	43.58	49.41	53.01	59.51	70.81	83.08	97.84	109.70
A - Bevel Gear**	34.00	37.38	44.50	47.69	54.06	64.93	77.19	90.75	102.61
Turns to open (without gearing)	43.5	49	57	63	75	-	-	-	-
Turns to open (Spur gearing)	178	201	234	258	308	381	455	524	596
Turns to open (Bevel gearing)	196	221	257††	284††	338††	372	444	524	596
Weight*	659	841	1230	1507	2398	5100	8400	13300	19700

*All dimensions are in inches. All weights are in pounds and are approximate. Weights for 30"-48" valves are with gearing; for all others without gearing.

**Center line of operating nut to center line of valve

††Spur or Bevel Gear must be used with 30", 36", 42", 48" valves.

††Turns shown for Master Gear bevel gearing. Valves with Limitorque bevel gearing: 18" - 227, 20" - 251, 24" - 300

Rev. 9-09. Shaded area indicates change.

- Catalog number—
A-2361-16 mechanical joint x flanged ends (with accessories unassembled)
A-2361-19 mechanical joint x flanged ends (less accessories)
- Sizes—14", 16", 18", 20", 24", 30", 36", 42", 48"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- Mechanical joint end complies with ANSI/AWWA C111 Standard
- Ductile iron body and bonnet with nominal 10 mils. MUELLER® Pro-Gard™ Fusion Epoxy coated interior and exterior surfaces. 42" and 48" valves coated with Mueller HP Epoxy coating.
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61.
- Ductile iron wedge, symmetrical & fully encapsulated with molded rubber, no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- 2" square wrench nut (optional bevel or spur gearing) – open left or open right
30" - 48" require a Spur Gear or Bevel Gear
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- 14" and 16" sizes – UL Listed, FM Approved; 250 psig (1723 kPa)



A-2361-19

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 304, Type 316
- Handwheel
- ASTM B98-C66100/H02 stem: 14"-16"
- Bypass 18" - 48" (2" on 18"-20"; 2.5" on 24"; 3" on 30"-36", 4" on 42"-48")
- Spur or bevel geared actuator
- ASTM B763-C90300: 18" - 48"

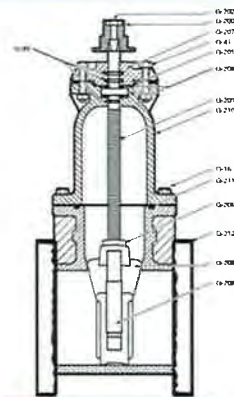
Resilient wedge gate valve parts

Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-41	Stuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-49	Stem O-Ring (3)	Rubber	
G-200	Wrench Nut Cap Screws	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Stuffing Box O-Ring Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CLB
G-203	Stem	Brass	ASTM B138**
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 C L B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge, Rubber Encapsulated	Ductile Iron** NBR†	ASTM A536
G-210	Bonnet	Ductile Iron	ASTM A536
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536

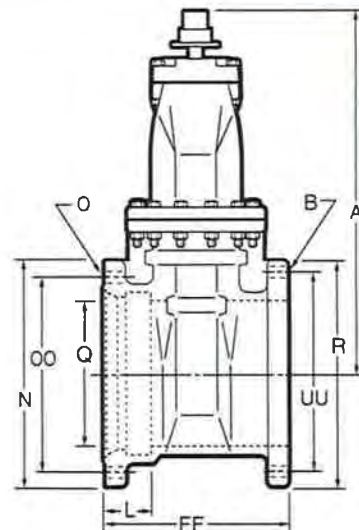
* Fully encapsulated in molded rubber with no iron exposed

** 18" - 48" ASTM B594

† 18" - 48" EPDM standard



Rev. 9-09. Shaded area indicates change.



Dimensions

Dimension*	14"	16"	18"	20"	24"	30"	36"	42"	48"
A	32.75	37.00	44.19	48.25	53.00		See A for Spur or Bevel Gear		
L	3.50	3.50	3.50	3.50	3.50	4.00	4.00	4.00	4.00
N	20.25	22.56	24.76	27.35	31.51	39.53	46.41	53.93	60.41
O (number and size of holes for MJ)	16-1/8	12-5/8	12-3/8	14-3/8	16-3/8	20-1/2	24-1/2	28-1/2	32-1/2
Q (throat)	14.38	16.00	18.38	20.00	24.38	30.38	36.38	42.38	48.38
QO (bolt circle diameter for MJ)	18.75	21.00	23.25	25.50	30.00	36.88	43.75	50.62	57.50
R	21.00	23.50	25.00	27.50	32.00	38.75	46.00	53.00	59.50
UU (bolt circle diameter for FL)	18.75	21.25	22.75	25.00	29.50	36.00	42.75	49.50	56.00
FF	17.41	17.91	19.25	19.75	21.75	29.75	33.75	40.38	43.75
R (number and size of holes for FL)	12-1/2	16-1/2	16-1/2	20-1/2	20-1/2	28-1/2	32-1/2	36-1/2	44-1/2
A - Spur Gear	38.50	43.50	49.41	53.01	59.51	70.81	83.00	97.84	109.70
A - Bevel Gear**	34.00	37.38	44.50	47.89	54.00	64.00	77.19	90.75	102.61
Turns to open (without gearing)	43.5	40	37	63	75				
Turns to open (Spur gearing)	178	201	234	258	308	381	455	524	596
Turns to open (Bevel gearing)	196	221	257	284	338	372	444	524	596
Weight*	655	875	1226	1500	2175	3100	4200	5300	6700

* All dimensions are in inches. All weights are in pounds and are approximate. Weights for 30"-48" valves are with gearing; for all others without gearing.

** Center line of operating nut to center line of valve.

† Spur or Bevel Gear must be used with 30", 36", 42", 48" valves.

‡ Turns shown for Master Gear bevel gearing. Valves with Limitorque bevel gearing: 18" - 227, 20" - 251, 24" - 300.

14"-48" A-2361 D.I. RESILIENT WEDGE GATE VALVE - M.J. x M.J. ENDS

Fig. 10-09 Shaded area indicates change

- ❑ Catalog number-
A-2361-20 Mechanical joint ends (with accessories unassembled)
A-2361-23 Mechanical joint ends (less accessories)
- ❑ Sizes - 14", 16", 18", 20", 24", 30", 36", 42", 48"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- ❑ Mechanical joint end complies with ANSI/AWWA C111 Standard
- ❑ Ductile Iron body and bonnet with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy coated interior and exterior surfaces; **42" and 48" valves coated with Mueller HP Epoxy coating.**
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- ❑ Ductile Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- ❑ 2" square wrench nut (optional bevel or spur gearing) - open left or open right.
30", 36", 42", 48" require a Spur Gear or Bevel Gear
- ❑ 250 psig (1723 kPa) maximum working pressure. 500 psig (3447 kPa) static test pressure
- ❑ 14" and 16" sizes - UL Listed, FM Approved; 250 psig (1723 kPa)



A-2361-23

Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- ❑ Position indicators
- ❑ ASTM B98-C66100H02 stem: 14"-16"
- ❑ ASTM B763-C99500: 18"-48"
- ❑ Stainless steel fasteners: Type 304, Type 316
- ❑ Bypass 18"-48" (2" on 18"-20"; 2.5" on 24" 3" on 30"-36"; 4" on 42"-48")
- ❑ Handwheel
- ❑ Spur or bevel geared actuator

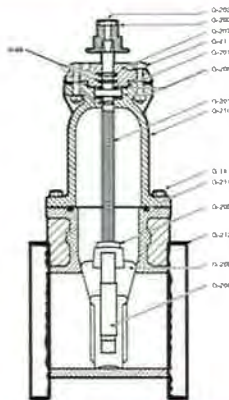
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-41	Stuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Brass	ASTM B138**
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Carbon	
G-207	Stuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge Rubber Encapsulation	Ductile Iron* SBR?	ASTM A536
G-210	Bonnet	Ductile Iron	ASTM A536
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536

* Fully encapsulated in molded rubber with no iron exposed

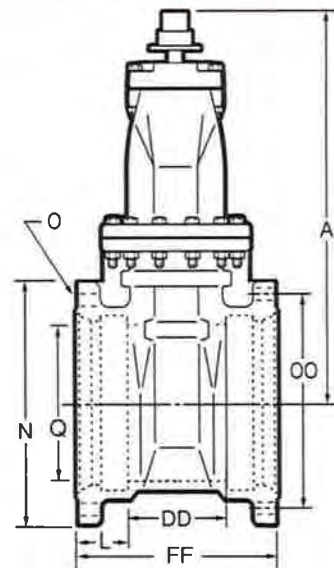
** 18" - 48" ASTM B584

† 18" - 48" EPDM standard



14"-48" A-2361 D.I. RESILIENT WEDGE GATE VALVE - M.J. x M.J.

Fig. 10-09 Shaded area indicates change



Dimensions

Dimension*	Nominal size								
	14"	16"	18"	20"	24"	30"	36"	42"	48"
A	32.75	37.88	44.19	48.23	53.88	See A for Spur or Bevel Gear			
FF	19.25	19.75	21.00	21.50	23.50	31.50	37.50	42.75	45.00
L	3.50	3.50	3.50	3.50	3.50	4.00	4.00	4.00	4.00
N	20.25	22.56	24.76	27.01	31.51	39.53	46.41	53.53	60.41
O (number and size of holes)	10- $\frac{1}{8}$	12- $\frac{1}{8}$	12- $\frac{1}{8}$	14- $\frac{1}{8}$	16- $\frac{1}{8}$	20- $\frac{1}{2}$	24- $\frac{1}{2}$	28- $\frac{1}{2}$	32- $\frac{1}{2}$
Q (mm)	14.38	16.00	18.38	20.38	24.38	30.38	36.38	42.38	48.38
OO (bolt circle diameter)	18.75	21.00	23.25	25.50	30.00	36.58	43.75	50.62	57.50
A - Spur Gear	38.50	43.58	49.41	53.01	59.51	70.81	83.08	97.84	109.70
A - Bevel Gear**	34.00	37.38	44.50	47.69	54.06	64.93	77.19	90.75	102.61
Turns to open (without gearing)	43.5	49	57	63	75	-	-	-	-
Turns to open (spur gearing)	178	201	234	258	308	381	455	524	596
Turns to open (bevel gearing)	196	221	257**	284**	338**	372	464	524	596
Weight*	650	931	1222	1494	2352	5100	8400	13300	19700

*All dimensions are in inches. All weights are in pounds and are approximate. Weights for 30"-48" valves are with gearing; for all others without gearing

**Center line of operating nut to center line of valve

(Spur or Bevel Gear must be used with 30", 36", 42", 48" valves)

**Turns shown for Master Gear bevel gearing. Valves with Lamotte bevel gearing: 18" - 227, 20" - 251, 24" - 300

Rev. 2-06. Shaded area indicates change.

- Catalog number--
A-2361-38 Slip-on* ends with gasket
A-2361-40 Slip-on* ends less gasket
- Sizes - 14", 16"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61
- Slip-on ends fit plain end of classes 50 and 100 cast iron, ductile iron and AWWA C905 cast iron O.D. PVC
- Ductile iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coating interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Ductile iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- 2" square wrench nut (optional bevel or spur gearing) - open left or open right
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- UL Listed, FM Approved - 250 psig (1723 kPa)



A-2361-40

*Design and dimensions of the joint are manufactured under license of U.S. Pipe and Foundry Company.

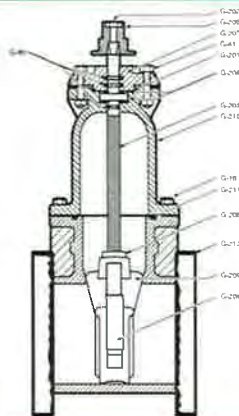
Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel fasteners: Type 304, Type 316
- Spur or bevel geared actuator
- ASTM B98-C66100/H02 stem
- Handwheel

Resilient wedge gate valve parts

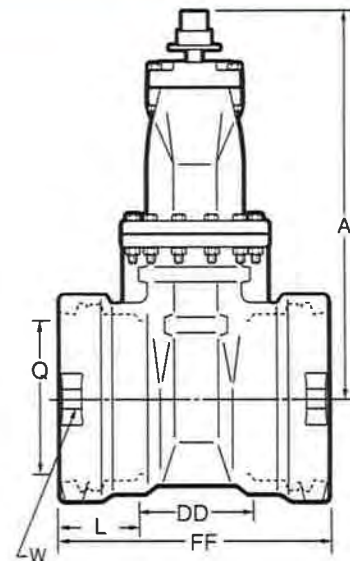
Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-41	Stuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Stuffing Box Seal	Rubber	
G-202	Wrench Nut	Cast Iron	ASTM A126 CL.B
G-203	Stem	Brass	ASTM B113
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge Rubber Encapsulation	Ductile Iron* SHR	ASTM A536
G-210	Bonnet	Ductile Iron	ASTM A536
G-211	Bonnet O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536



* Fully encapsulated in molded rubber with no iron exposed

SEE PAGE 10.43 FOR ORDERING INSTRUCTIONS

Rev. 2-06. Shaded area indicates change.



Dimensions

Dimension*	Nominal size	
	14"	16"
A	32.75	37.88
Q (over)	14.38	16.00
W (distance between strapping lug holes across face of valve ends)	22.50	23.12
FF	24.43	25.39
L	6.00	6.00
DD	12.43	13.39
A - Spur Gear	38.50	46.78
A - Bevel Gear**	34.00	37.38
Turns to open (without gearing)	43.5	49
Turns to open (spur gearing)	178	201
Turns to open (bevel gearing)	198	221
Weight*	682	860

*All dimensions are in inches. All weights are in pounds and are approximate

**Center line of operating nut to center line of valve

10.32 **Mueller Co.**

**14", 16" A-2361 D.I. RESILIENT
WEDGE GATE VALVE - SL. x FL.**



A-2361-43

- Catalog number-
A-2361-41 Slip-on* end (with gasket) x flange end
A-2361-43 Slip-on* end (less gasket) x flange end
- Sizes – 14", 16"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61.
- Slip-on ends fit plain end of classes 50 and 100 cast iron, ductile iron and AWWA C905 cast iron O.D. PVC
- Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- Ductile iron body and bonnet with nominal 10 mils. MUELLER® Pro-Gard™ Fusion Epoxy Coating interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Ductile iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- 2" square wrench nut (optional bevel or spur gearing) – open left or open right
- 250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure
- UL Listed, FM Approved – 250 psig (1723 kPa)

[†]Design and dimensions of the joint are manufactured under license of U.S. Pipe and Foundry Company.

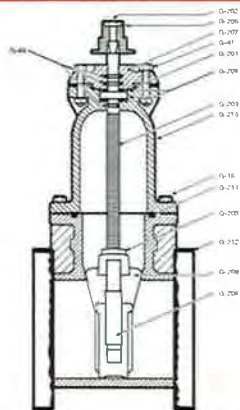
Options

See page 10.40 for more information on Resilient Wedge Gate Valve options

- | | | |
|---|---|--|
| ☐ Position indicators | ☐ Stainless steel fasteners Type 304, Type 316 | ☐ Spur or bevel geared actuator |
| ☐ ASTM B98-C66100/H02 stem | ☐ Handwheel | |

Resilient wedge gate valve parts

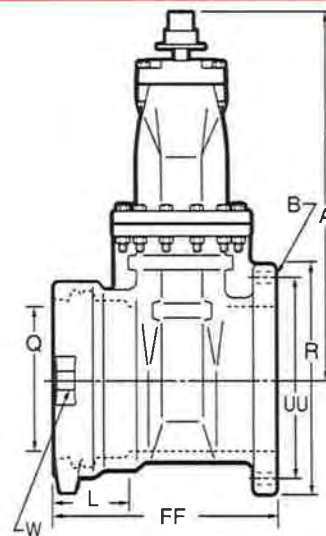
Catalog Part No.	Description	Material	Material standard
G-16	Booster Bolts & Nuts	Carbon Steel	ASTM A307 Grade II, Zinc Plated
G-41	Snuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade II, Zinc Plated
G-49	Stem O-rings (3)	Rubber	
G-200	Wrench Nut Cap Screw	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Snuffing Box Seal	Rubber	
G-302	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Brass	ASTM B118
G-204	Hard Wheel (not shown)	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Snuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge, Rubber Encapsulation	Ductile Iron [®] SBR	ASTM A536
G-210	Booster	Ductile Iron	ASTM A536
G-211	Booster O-ring	Rubber	
G-212	Body	Ductile Iron	ASTM A536



* Fully encapsulated in molded rubber with no urn exposed

SEE PAGE 10-43 FOR ORDERING INSTRUCTIONS

**14", 16" A-2361 D.I. RESILIENT
WEDGE GATE VALVE - SL. x FL.**



Dimensions

Dimension*	Nominal size	
	14"	16"
A	32.75	37.88
Q (bore)	14.38	16.00
W (distance between strapping lug holes across face of valve ends)	22.50	23.12
L	6.00	6.00
R	21.00	23.50
U1'	18.75	21.25
B (number and size of holes)	12-1/12	16-1/12
FF	19.74	20.69
A - Spur Gear	30.50	46.78
A - Bevel Gear**	34.00	37.38
Turns to open (without gearing)	43.5	49
Turns to open (spur gearing)	178	201
Turns to open (bevel gearing)	198	221
Weight*	68.2	360

*All dimensions are in inches. All weights are in pounds and are approximate.

**Center line of operating nut to center line of valve

- ❑ Catalog number-
A-2380-6 (flanged ends)
- ❑ Sizes - 14", 16", 18", 20", 24", 30", 36"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C500 Standard
- ❑ Flange ends comply with ANSI B16.1, Class 125
- ❑ Iron body - bronze mounted
- ❑ Double disc parallel seat with four point wedging mechanism
- ❑ Non-rising stem (NRS)
- ❑ O-ring sealed stuffing box
- ❑ With handwheel (2" square wrench nut optional)
- ❑ 150 psig (1034 kPa) maximum working pressure
300 psig (2068 kPa) test pressure



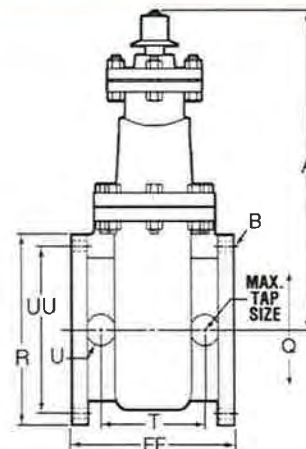
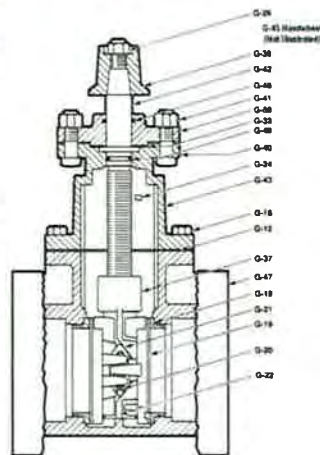
A-2380-6

Double-disc gate valve parts

Catalog Part No.	Description	Material	Material standard
G-15	Bonnet gasket	Composition	ASTM D1170
G-16	Bonnet bolts & nuts	Steel	ANSI B18.2 plated
G-18	Seat ring	Brass	ASTM B62
G-19	Disc and disc ring	Cast iron *	ASTM A126 CL.B
G-20	Disc pin	Brass	ASTM B21
G-21	Side spreader	Brass	ASTM B62
G-22	Bottom wedge	Cast iron	ASTM A126 CL.B
G-24	Test plug	Iron	
G-26	Nut for wrench nut	Steel	ANSI B18.2 plated
G-32	Stuffing box gasket	Fiber	
G-37	Top wedge nut	Cast iron *	ASTM A126 CL.B
G-38	Wrench nut	Cast iron	ASTM A126 CL.B
G-41	Stuffing box bolt & nut	Steel	ANSI B18.2 plated
G-42	Stem	Brass	ASTM B118**
G-43	Bonnet	Cast iron	ASTM A126 CL.B
G-45	Hand wheel	Cast iron	ASTM A126 CL.B
G-47	Body	Cast iron	ASTM A126 CL.B
G-48	Stuffing box O-ring	Rubber	
G-49	Stem O-ring	Rubber	
G-50	Stuffing box	Cast iron	ASTM A126 CL.B

* Cast iron discs with rolled-in bronze facings; cast iron top wedge nut with integrally cast bronze bushing.

** 18" - 36" ASTM B584



Dimension*	Nominal Size						
	14"	16"	18"	20"	24"	30"	36"
A	34.12	39.00	43.00	47.50	55.75	66.50	76
Q (bore)	14.00	16.00	18.00	20.00	24.00	30.00	36.00
FF	15.00	20.25	22.00	22.25	25.50	28.75	32.00
R	21.00	23.50	25.00	27.50	32.00	38.75	46.00
T	9.00	N/A	N/A	N/A	N/A	N/A	N/A
U	3.00	N/A	N/A	N/A	N/A	N/A	N/A
U/U (bolt circle diameter)	18.75	21.25	22.75	25.00	29.50	36.00	42.75
B (number and size of holes)	12--1/8"	16--1/8"	16--1/8"	20--1/4"	20--1/8"	28--1/8"	32--1/8"
Max. tap size	2"	N/A	N/A	N/A	N/A	N/A	N/A
Turns to open	46	53	59	65	77	65	78

*All dimensions are in inches. All weights are in pounds and are approximate.

**36" valves sold only with gear operators; dimension depends on style of operator selected. Contact Customer Service for Dimension.

Options

See pages 10.40 and 10.41 for more information on Gate Valve options.

- ❑ Bevel gearing with grease case
- ❑ Spur gearing with grease case
- ❑ Tracks, rollers, scrapers
- ❑ Position indicators
- ❑ ASTM B48-C66100/H02 stem and disc pins
ASTM B763-C99500 Stem 18" - 36"
- ❑ NRS by-pass valve
- ❑ 2" square wrench nut
- ❑ MUELLER HP® Epoxy Coating
- ❑ Stainless steel fasteners

- Catalog number—
A-2380-16 flanged x mechanical joint (with accessories unassembled)
A-2380-18 flanged x mechanical joint (accessories and bonding set screws in gland unassembled)
A-2380-19 flanged x mechanical joint (less accessories)
- Sizes - 30" & 36"
- Meets or exceeds all applicable requirements of ANSI/AWWA C500 Standard
- Flange ends comply with ANSI B16.1, Class 125
- Mechanical joint ends comply with ANSI/AWWA C111 Standard
- Iron body - bronze mounted
- Double disc parallel seal with four point wedging mechanism
- Non-rising stem (NRS)
- O-ring sealed stuffing box
- 2" square wrench nut (handwheel optional)
- 150 psig (1034 kPa) maximum working pressure.
300 psig (2068 kPa) test pressure



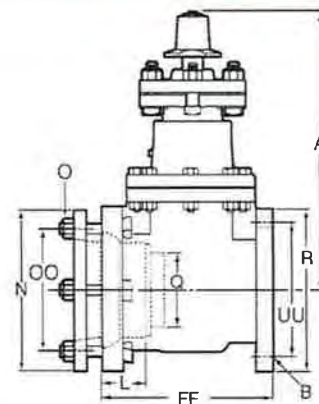
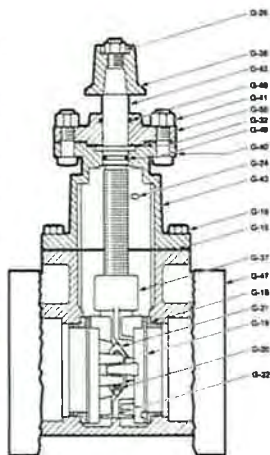
A-2380-18

Double-disc gate valve parts

Catalog Part No.	Description	Material	Material standard
G-15	Bonnet gasket	Composition	ASTM D1170
G-16	Bonnet bolts & nuts	Steel	ANSI B18.2 plated
G-18	Seal ring	Bronze	ASTM B62
G-19	Disc and disc ring	Cast iron *	ASTM A126 CL.B
G-20	Disc pin	Bronze	ASTM B21
G-21	Side spreader	Bronze	ASTM B62
G-22	Bottom wedge	Cast iron	ASTM A126 CL.B
G-24	Test plug	Iron	
G-26	Nut for wrench nut	Steel	ANSI B18.2 plated
G-32	Stuffing box gasket	Fiber	
G-37	Top wedge nut	Cast iron *	ASTM A126 CL.B
G-38	Wrench nut	Cast iron	ASTM A126 CL.B
G-41	Stuffing box bolt & nut	Steel	ANSI B18.2 plated
G-42	Stem	Bronze	ASTM B584**
G-43	Bonnet	Cast iron	ASTM A126 CL.B
G-45	Hand wheel	Cast iron	ASTM A126 CL.B
G-47	Body	Cast iron	ASTM A126 CL.B
G-48	Stuffing box O-ring	Rubber	
G-49	Stem O-ring	Rubber	
G-50	Stuffing box	Cast iron	ASTM A126 CL.B

** Cast iron discs with rolled-in bronze facings; cast iron top wedge nut with integrally cast bronze bushing

*** 1/4" - 3/4" ASTM B583



Dimension*	Nominal Size	
	30"	36"
A	66.50	**
L	4.00	4.00
N	39.12	46.00
OO (bolt circle diameter)	36.88	43.75
Q (bore)	30.00	36.00
R	38.75	46.00
UU	36.00	42.75
XX	24.38	27.50
FF	28.38	31.50
B (number and size of bolts for FL)	28-1-3/8	32-1-5/8
O (number and size of holes for MJ)	20-1-1/8	24-1-1/8
Turns to open	65	78
Weights*	5100	8300

* All dimensions are in inches. All weights are in pounds and are approximate

** 36" valves sold only with gear operators; dimension depends on style of operator selected. Contact Customer Service for Dimension

Options

See pages 10.40 and 10.41 for more information on Gate Valve options.

- Bevel gearing with grease case
- Spur gearing with grease case
- Stainless steel fasteners
- ASTM B98-C66100/H02 disc pins
- ASTM B763-C99500 stem
- Position indicators
- NRS by-pass valve
- Bronze internal parts
- Tracks, rollers, scrapers
- MUELLER HP® Epoxy Coating
- Handwheel

Rev. 7-06

- ❑ Catalog number-
A-2380-20 standard mechanical joint ends (with accessories unassembled)
A-2380-22 standard mechanical joint ends (with accessories and bonding set screws in glands unassembled)
A-2380-23 standard mechanical joint ends (less accessories)
- ❑ Sizes - 14", 16", 18", 20", 24", 30", 36"
- ❑ Meets or exceeds all applicable requirements of ANSI/AWWA C500 Standard
- ❑ Mechanical joint ends comply with ANSI/AWWA C111 Standard
- ❑ Iron body - bronze mounted
- ❑ Double disc parallel seat with four point wedging mechanism
- ❑ Non-rising stem (NRS)
- ❑ O-ring sealed stuffing box
- ❑ 2" square wrench nut (handwheel optional)
- ❑ 30" & 36" sizes - 150 psig (1034 kPa) maximum working pressure.
300 psig (2068 kPa) test pressure



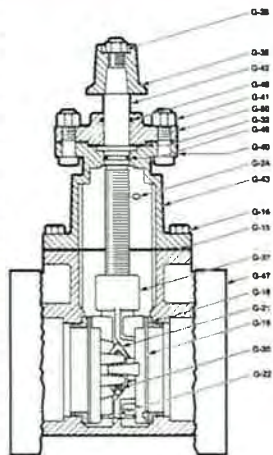
A-2380-20

Double-disc gate valve parts

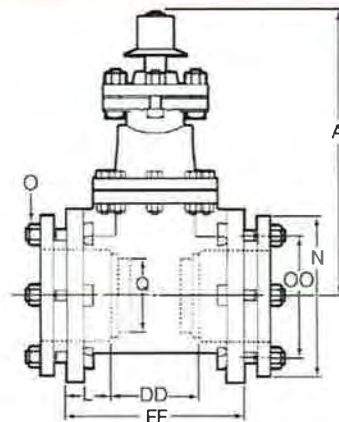
Catalog Part No.	Description	Material	Material standard
G-15	Bonnet gasket	Composition	ASTM D1170
G-16	Bonnet bolts & nuts	Steel	ANSI B18.2 plated
G-18	Seal ring	Bronze	ASTM B62
G-19	Disc and disc ring	Cast iron *	ASTM A126 CL B
G-20	Disc pin	Bronze	ASTM B21
G-21	Side spreader	Bronze	ASTM B62
G-22	Bottom wedge	Cast iron	ASTM A126 CL B
G-24	Test plug	Iron	
G-26	Nut for wrench nut	Steel	ANSI B18.2 plated
G-32	Stuffing box gasket	Fiber	
G-37	Top wedge nut	Cast iron *	ASTM A126 CL B
G-38	Wrench nut	Cast iron	ASTM A126 CL B
G-41	Stuffing box bolt & nut	Steel	ANSI B18.2 plated
G-42	Stem	Bronze	ASTM B584**
G-43	Bonnet	Cast iron	ASTM A126 CL B
G-45	Hand wheel	Cast iron	ASTM A126 CL B
G-47	Body	Cast iron	ASTM A126 CL B
G-48	Stuffing box O-ring	Rubber	
G-49	Stem O-ring	Rubber	
G-50	Stuffing box	Cast iron	ASTM A126 CL B

** Cast iron discs with rolled-in bronze facings, cast iron top wedge nut with integrally cast bronze bushing

***18" - 36" ASTM B583



Rev. 7-06



Dimension*	Nominal Size						
	14"	16"	18"	20"	24"	30"	36"
A	34.12	39.00	43.00	47.50	55.75	66.50	**
FF	15.00	19.75	21.00	21.50	23.50	28.00	31.00
L	3.50	3.50	3.50	3.50	3.50	4.00	4.00
N	30.31	22.56	24.83	27.08	31.58	39.12	46.00
O (number and size of holes)	10--7/8	12--7/8	12--7/8	14--7/8	16--7/8	20--1-1/8	24--1-1/8
DD	8.00	12.75	14.00	14.50	16.50	20.00	23.00
Q (bore)	14.00	16.00	18.00	20.00	24.00	30.00	36.00
OO (bolt circle diameter)	18.75	21.00	23.25	25.50	30.00	36.88	43.75
Turns to open	46	57	59	65	77	65	78
Weight*	805	1108	1488	1810	2605	5100	8300

*All dimensions are in inches. All weights are in pounds and are approximate

**36" valves sold only with gear operators, dimension depends on style of operator selected. Contact Customer Service for Dimension

Options

See pages 10.40 and 10.41 for more information on Gate Valve options.

- ❑ Bevel gearing with grease case
- ❑ Spur gearing with grease case
- ❑ Stainless steel fasteners
- ❑ ASTM B98-C66100/H02 stem and disc pins
- ❑ ASTM B763-C90500 Stem 18" - 36"
- ❑ Position indicators
- ❑ NRS by-pass valve
- ❑ Bronze internal parts
- ❑ Tracks, rollers, scrapers
- ❑ MUELLER HP® Epoxy Coating
- ❑ Handwheel

Fig. 9-01 Shaded area indicates change.

Resilient Wedge Options

Clean out Port Option on 24"-48" RWGV

Cleanout port option is available for 24"-48" resilient wedge gate valves. 24" valves would utilize a 1-1/2" port while 30"-48" valves utilize a 2" port. Please refer to option 202 (i.e. 24QA236 106LN202) when ordering.



Resilient Wedge and Double-Disc Gate Valve Options

Needle and Slot (Universal) Position Indicator

Can be furnished on 4" and larger non-rising stem valves with or without gearing. Mechanism is fully enclosed and uses a moving pointer on a scale to show relative position of valve gate.

Stainless Steel External Fasteners

Stainless steel (type 304 or 316) external fasteners are available. Note: Resilient Wedge Gate Valves through 12" have stainless steel type 304 fasteners as standard.



N.R.S. Bypass

N.R.S. Bypass

Bypass valves are AWWA non-rising stem type. On resilient wedge valves, the bypass valve is also the RW type. On double-disc valves, it is the DD type. Bevel geared or horizontally installed valves have the bypass mounted on the bottom end of the valve. Spur geared or vertically installed valves have the bypass mounted on the disc of the valve body.

Available on 18"-48" Gate Valves Only

Valve size/type	Bypass valve size
18"-20" RW	2"
24" RW	2-1/2"
30", 36" RW	3"
42", 48" RW	4"
14" DD	2"
18" - 20" DD	3"
24", 30" DD	4"
36" DD	6"


Spur Gearing
with Grease case

Bevel Gearing
with Grease case

Gearing

Non-rising stem gate valves 4" and larger can be furnished with bevel gearing, or 14" and larger with spur gearing (for double-disc valves, does not apply to 14"). Gearing is recommended for all resilient wedge gate valves 30" and larger, and for all double-disc gate valves 24" and larger. Gearing provides an additional bearing to support the extreme end of the valve stem. Bevel and spur gearing includes a grease case. All gears have machine cut teeth. Bevel geared valves are for horizontal installation and spur geared valves for vertical. Styles shown are typical - actual appearance may vary.

2" Square Wrench Nut or Handwheel

The 2" square wrench nut is standard on all N.R.S. resilient wedge and double-disc gate valves except flange x flange and thread x thread valves, which have a handwheel as standard. The wrench nut and handwheel are optional alternatives to these standard features.

How to order

Accessories are ordered by adding a suffix number to the basic gate valve catalog number. See chart below for accessory suffix numbers.

Catalog number for options*

Catalog number suffix	Description	Valve size	
Without indicator	With indicator		
02	102	Bevel gearing**	4" and larger
03	103	Spur gearing**	4" and larger
06	106	Bevel gearing and bypass	18"-48"
07	107	Spur gearing and bypass	18"-48"
09		Bypass only	18", 24"
	108	Position indicator only	4"-36"

*Fasteners, coatings, operators and other options not included in this chart are ordered by including them in the valve specification notations.

**Includes grease case. Not available for 14" double-disc gate valves.

Fig. 2-09

Double-Disc Gate Valve Options



Rollers, Tracks and Scrapers (Double-disc gate valves only)

Double-disc gate valves in sizes 16" through 36" for vertical installations are furnished with a shoe on each side of the disc assembly for guiding the disc assembly throughout its entire travel. Gate valves in sizes 16" through 36" for horizontal installations are furnished with rollers which travel on a bronze track in the body and bonnet. These rollers support the weight of the disc assembly throughout its entire travel. The roller carriage has scrapers for cleaning the track ahead of the rollers. Rollers and tracks are required on 16" and larger double-disc gate valves when the main valve stem is horizontal. They are not required on bevel geared valves specified for vertical installation.



O-ring conversion kit contains the following

- (1) G-70 Stuffing box
- (2) G-48 O-rings
- (1) G-32 Stuffing box gasket
- G-41 belts and nuts
 - (2) for 2" valve
 - (4) for 3"-14" valves
 - (6) for 16"-24" valves

Double disc gate valve O-ring conversion kit

MUELLER CO. offers kits to convert non-rising stem conventionally packed gate valves to O-ring sealed type. The conversion replaces the conventional packing with two O-ring seals above the thrust collar and a gasket seal between the bonnet and new stuffing box.

Valve size	Conversion kit part number
2"	181338
3"	181303*
4"	181340
6"	181341
8"	181342
10"	181343
12"	181344
14"	181388
16"	181390
18"	181390
20"	181391
24"	181392

*1956 Design. For valves made prior to 1956 use kit number 181339

Accessory Kits

Type	Part Number	Size *	Included
Flange end	A-199206	4"-12"	Flat gasket, bolts/nuts
MI end - D1	A-199000	2", 3"-12"	Ring gasket, DI gland, bolts/nuts
MI end - C1	A-199100	2", 3"-24"	Ring gasket, CI gland, bolts/nuts

NOTE: Basic kits listed here. Contact MUELLER Customer Service Center regarding the many options available.

Gland Packs
Mechanical Joint Accessories

Size valve *	Standard Mechanical Joint Gland Part No.	Gland with Bonding Set Screws Part No.	Plain Rubber Gasket Part No.
2"	155163	181299	194629
3"	155024	181301	194531
4"	155014	181302	194532
6"	155016	181303	194533
8"	155018	181304	194534
10"	155020	181305	194535
12"	155022	181306	194536
14"	155273	181307	194684
16"	155170	181308	194632
18"	155352	181314	194729
20"	155264	181309	194679
24"	155263	181310	194671
30"	155481	-	194779
36"	155079	-	195169

Gland Packs
D-150 Mechanical Joint Accessories

Size valve *	D-150 Mechanical Joint Gland Part No.	D-150 Mechanical Joint Gland with Bonding Screws Part No.	D-150 Plain Gasket Part No.	D-150 Duck-Tipped Gasket Part No.
4"	160519	186610	194738	194732
6"	160520	186611	194739	194733
8"	160521	186612	194740	194734
10"	160522	186613	194741	194735
12"	160523	186614	194742	194736

Slip - on Gaskets

Size valve *	Part Number
4"	195204
6"	195205
8"	195206
10"	195207
12"	195208
14"	195210
16"	199046

Radial Compression Gaskets

Size valve *	Part Number
2"	195290
3/4/2"	195291
3"	195292
4"	195293
6"	195294
8"	195375

"T" Head Bolts and Nuts (size supplied will be appropriate for size of valve) - specify quantity

Size valve *	Part Number
2"	280033
3"	280036
4"	280037
4**	280042 **
6"	280037
6**	280042 **
8"	280038
8**	280043 **
10"	280038
10**	280043 **
12"	280038
12**	280043 **
14"	280038
16"	280039
18"	280039
20"	280039
24"	280040
30"	280041
36"	280041

GATE VALVE
ORDERING INSTRUCTIONS

To order Gate Valves specify:

Quantity

If more than one size, specify quantity of each

Size

Nominal size of valve

Catalog number

Special catalog number suffix

See chart at bottom of page 10-40 if gearing, grease cases, bypass valves or position indicators are required. The appropriate suffix number is added to the base catalog number.

Direction of opening

Specify open left (counter-clockwise) or open right (clockwise). Wrench nuts on valves that open to the right are painted red for identification purposes.

Method of operation

N.R.S. valves are available with either a 2" square wrench nut or a handwheel. Handwheels are standard on flanged x flanged and thread x thread valves; all other NRS valves have a 2" square wrench nut as standard. Outside screw and yoke type valves are available with handwheel only. When ordering NRS valves, specify wrench nut or handwheel.

* 30"-48" resilient wedge and double-disc gate valves must be ordered with actuator

Special Requirements

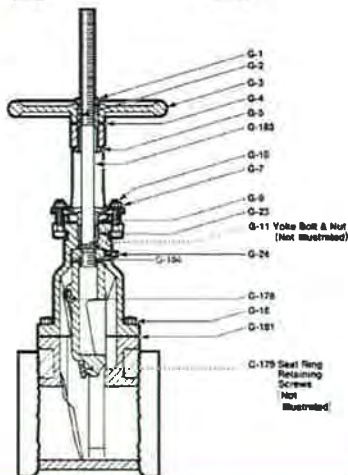
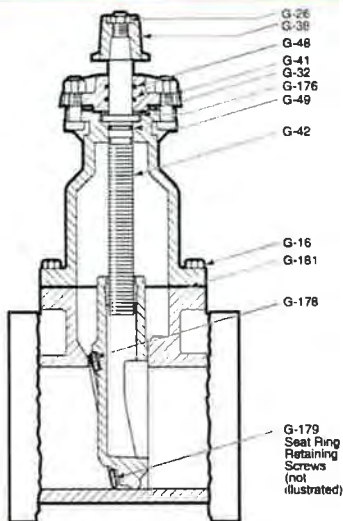
Contact MUELLER Customer Service Center with special requirements such as special paints or coatings, low zinc bronze stems, stainless steel fasteners etc.

Gate Valve Repair Parts

To order repair parts specify size of valve, direction of opening, year date on body, part number, catalog number of valve if known, and type of ends if ordering body.

Resilient Seal Valve Parts

Catalog Part No.	Description	Material	Material standard
G-1	Cap nut	Bronze	ASTM B62
G-2	Key	Steel	
G-3	Handwheel	Cast iron	ASTM A126 CL B
G-4	Washer	Brass	
G-5	Bush nut	Bronze	ASTM B62
G-7	Gland nut	Bronze	ASTM B21 Alloy 464
G-9	Gland	Bronze	ASTM B62
G-10	Gland bolt	Steel	ANSI B18 2.1
G-11	Yoke bolt and nut	Steel	ANSI B18 2.1
G-16	Bonnet bolts & nuts	Steel	ANSI B18 2 plated
G-23	Stem packing	Lubricated flax	
G-24	Test plug	Iron	
G-26	Nut for wrench out	Steel	ANSI B18 2 plated
G-32	Stuffing box gasket	Fiber	
G-38	Wrench nut	Cast iron	ASTM A126 CL B
G-41	Stuffing box bolt & nut	Steel	ANSI B18 2 plated
G-42	Stem	Bronze	ASTM B138
G-45	Hand wheel	Cast iron	ASTM A126 CL B
G-48	Stuffing box O-ring	Rubber	ASTM D2000
G-49	Stem O-ring	Rubber	ASTM D2000
G-176	Anti-friction washer	Celcon	
G-178	Seat ring	Rubber	ASTM D2000
G-179	Retaining screw	Stainless steel	
G-181	Bonnet gasket	Composition	ASTM D1170
G-183	Stem	Bronze	CDA Alloy 676
G-184	Pin	Bronze	



SWING CHECK AND FLEXIBLE DISC CHECK VALVES

Mueller Co.

13.1

Shaded area indicates change, Rev. 1-11

MUELLER® Swing Check Valve Features

- ☐ Meets or exceeds all applicable requirements of ANSI/AWWA C508 Standard
- ☐ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ☐ Iron body, bronze mounted (IBBM)
- ☐ Choice of gravity operated, weight and lever operated, or spring and lever operated valves
- ☐ For vertical or horizontal installation; gravity operated vertical installation only
- ☐ Epoxy coated interior & exterior for corrosion resistance.
- ☐ Choice of bronze or rubber faced disc
- ☐ O-ring sealed stuffing box
- ☐ 2" thru 12" sizes---200 psig (1379 kPa) maximum working pressure, 400 psig (2758 kPa) test pressure
- ☐ Certified to NSF 61



2"-12" Style Shown

8001 Series Swing Check Valves

- ☐ Meets all applicable parts of ANSI/AWWA C508 Standard
- ☐ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ☐ Iron body, bronze mounted (IBBM)
- ☐ For vertical or horizontal installation
- ☐ Epoxy coated interior & exterior for corrosion resistance.
- ☐ O-ring sealed stuffing box
- ☐ Adjustable weight or spring to control opening and closing of clapper
- ☐ 14" thru 36" sizes---150 psig (1034 kPa) maximum working pressure, 300 psig (2068 kPa) test pressure
- ☐ Certified to NSF 61



8001 Series Style Shown

MUELLER® Flexible Disc Check Valve

- ☐ Non-slam, flexible disc set at 45 degree angle reduces potential for water hammer.
- ☐ EDPM encapsulated steel disc, reinforced with nylon fabric.
- ☐ Epoxy coated interior & exterior for corrosion resistance.
- ☐ 2" thru 24" sizes---250 psig (1724 kPa) maximum working pressure, 500 psig (3447 kPa) test pressure
- ☐ Certified to NSF 61



Flexible Disc

*Contact our Customer Service Department or your local representative for upgraded check valves to handle your specific application.

13.2

Mueller Co.

2"-12" SWING TYPE GRAVITY OPERATED CHECK VALVES – FL. X FL.

1-11

- ❑ Catalog number---
A-2600-06BB flanged ends, with bronze disc facing
A-2602-06B1 flanged ends, with rubber disc facing
- ❑ Sizes – 2", 2-1/2", 3", 4", 6", 8", 10", 12"
- ❑ Meets all applicable parts of ANSI/AWWA C508 Standard
- ❑ Epoxy coated interior & exterior for corrosion resistance
- ❑ Certified to NSF 61
- ❑ Flanged end dimensions and drilling comply with ANSI B16.1
- ❑ Iron body, bronze mounted (IBBM)
- ❑ Choice of bronze or rubber disc facing
- ❑ For horizontal installation only
- ❑ O-ring sealed stuffing box
- ❑ Swing type, gravity operated
- ❑ 200 psig (1379 kPa) maximum working pressure, 400 psig (2758 kPa) test pressure



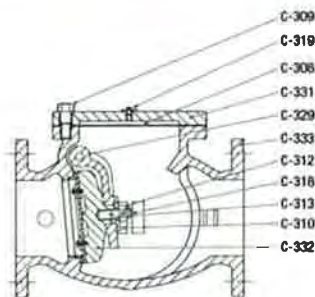
A-2600-06BB

Options

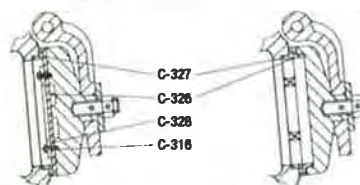
- ❑ PN 10/PN 16 Flange Drilling 4" - 12"
- ❑ Stainless Steel Nuts & Bolts ❑ Tapped Bosses

Check Valve Parts (2011-present)

Catalog Part No.	Description	Material	Material Standard
C-305	Hinge Plug	Brass	ANSI B21
C-308	Gasket	Rubber	ASTM D2000 BK 807
C-309	Cover Bolt	Zinc Coated Steel	A307 Grade B
C-310	Washer	Brass	ANSI B21
C-311	Spacer	Brass	ANSI B21
C-312	Disc Nut	Brass	ANSI B21
C-313	Disc Stud	Brass	ANSI B21
C-318	Pin	Stainless Steel	ASTM A276 Type 304
C-319	Test Plug	Malleable Iron	A47
C-321	Hinge Pin	Stainless Steel	ASTM A276 Type 304
C-327	Body Seat Ring	Bronze	ANSI B62
C-329	Arm	Ductile Iron	A536 Gr 65-45-12
C-331	Cover	Cast Iron	ASTM A126 C1 B
C-332	Disc	Cast Iron	ASTM A126 C1 B
C-333	Body	Cast Iron	ASTM A126 C1 B
Rubber Faced Disc Parts			
C-316	Disc Seat Bolt	Stainless Steel	ASTM A276 Type 304
C-326	Disc Seat Ring	Rubber	ASTM D2000 BK 807
C-328	Seat Holder	Cast Iron*	ASTM A126 C1 B
Bronze Faced Disc Parts			
C-326	Disc Seat Ring	Bronze	ANSI B62

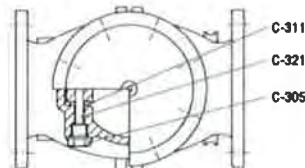


**Valve body and clapper
Rubber faced disc shown**



Rubber faced disc clapper

Bronze faced disc clapper



Hinge pin and stuffing box

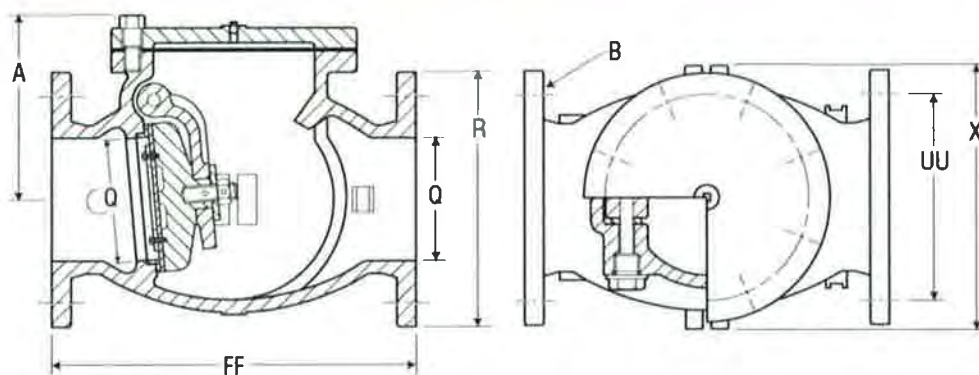
*2" - 6" sizes are cast iron ASTM A126 C1 B 8" - 12" sizes are ductile iron ASTM A536 Gr 65-45-12

2"-12 SWING TYPE GRAVITY OPERATED CHECK VALVE DIMENSIONS - FL. X FL.

Mueller Co.

13.3

1-11



Dimension**	Size*			
	2"	2-1/2"	3"	4"
Q (bore)	2 00	2 50	3 00	4 00
R	6 00	7 00	7 50	9 00
FF	8 00	8 50	9 50	11 50
A	4 94	5 69	6 06	6 88
X	5 63	7 13	8 13	9 88
B (number and size of bolts)	4- .75	4- .75	4- .75	8- .75
UU (bolt circle diameter)	4 75	5 50	6 00	7 50
Weight	15	22	27	37

Dimension**	Size*			
	6"	8"	10"	12"
Q (bore)	6 00	8 00	10 00	12 00
R	11 00	13 50	16 00	19 00
FF	14 00	19 50	24 50	27 50
A	8 50	9 94	11 19	13 56
X	11 88	16 13	18 38	21 63
B (number and size of bolts)	8- .88	8- .88	12- 1 00	12- 1 00
UU (bolt circle diameter)	9 50	11 75	14 25	17 00
Weight	67	119	181	275

*Nominal

**All dimensions are in inches All weights are in pounds and are approximate

13.4

Mueller Co.

2"-12 SWING TYPE LEVER AND WEIGHT CHECK VALVES – FL. X FL.

1-11

- ❑ Catalog number---
A-2600-6-01BB flanged ends, with bronze disc facing
A-2602-6-01B1 flanged ends, with rubber disc facing
- ❑ Sizes---2", 2-1/2", 3", 4", 6", 8", 10", 12"
- ❑ Meets all applicable parts of ANSI/AWWA C508 Standard
- ❑ Epoxy coated interior & exterior for corrosion resistance
- ❑ Certified to NSF 61
- ❑ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ❑ Iron body, bronze mounted (IBBM)
- ❑ Choice of bronze or rubber disc facing
- ❑ For vertical or horizontal installation
- ❑ O-ring sealed stuffing box
- ❑ Adjustable weight to control opening and closing of clapper, lever can be installed on either side of valve
- ❑ 200 psig (1379 kPa) maximum working pressure, 400 psig (2758 kPa) test pressure



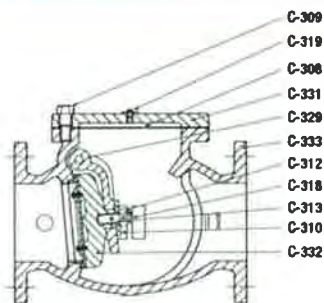
A-2600-6-01BB

Options

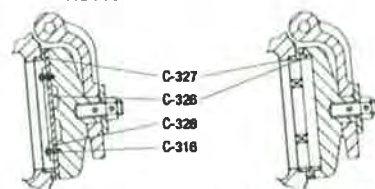
- ❑ Stainless Steel Nuts & Bolts ❑ Tapped Bosses
- ❑ Allen Bradley Limit Switch ❑ PN 10/PN 16 Flange Drilling 4"-12"

Check Valve Parts (2011-present)

Catalog Part No.	Description	Material	Material Standard
C-301	Retaining Plug	Brass	ANSI B21
C-306	O-ring C	Rubber	ASTM D2000 BK 707
C-307	O-ring B	Rubber	ASTM D2000 BK 707
C-308	Gasket	Rubber	ASTM D2000 BK 807
C-309	Cover Bolt	Zinc Coated Steel	A307 Grade B
C-310	Washer	Brass	ANSI B21
C-311	Spacer	Brass	ANSI B21
C-312	Disc Nut	Brass	ANSI B21
C-313	Disc Stud	Brass	ANSI B21
C-314	Snap Ring	Stainless Steel	—
C-315	Weight Bolt & Nut	Zinc Coated Steel	A307 Grade B
C-318	Pin	Stainless Steel	ASTM A276 Type 304
C-319	Test Plug	Malleable Iron	A47
C-320	Key	Stainless Steel	ASTM A276 Type 304
C-321	Hinge Pin	Stainless Steel	ASTM A276 Type 304
C-322	Weight Arm	Ductile Iron	A536 Gr. 65-45-12
C-323	Bolt & Nut	Zinc Coated Steel	A307 Grade B
C-325	Seat Nut	Brass	ANSI B21
C-327	Body Seat Ring	Bronze	ANSI B62
C-329	Arm	Ductile Iron	A536 Gr. 65-45-12
C-330	Weight	Cast Iron	ASTM A126 Cl. B
C-331	Cover	Cast Iron	ASTM A126 Cl. B
C-332	Disc	Cast Iron	ASTM A126 Cl. B
C-333	Body	Cast Iron	ASTM A126 Cl. B
Rubber Faced Disc Parts			
C-316	Disc Seat Bolt	Stainless Steel	ASTM A276 Type 304
C-326	Disc Seat Ring	Rubber	ASTM D2000 BK 807
C-328	Seat Holder	Cast Iron*	ASTM A126 Cl. B
Bronze Faced Disc Parts			
C-326	Disc Seat Ring	Bronze	ANSI B62

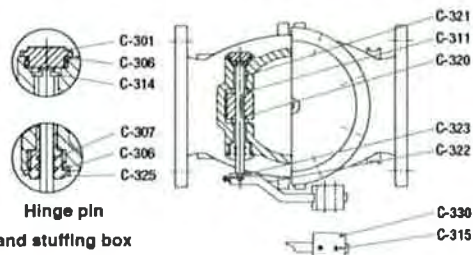


Valve body and clapper
Rubber faced disc shown



Rubber faced disc clapper

Bronze faced disc clapper



Hinge pin
and stuffing box

Lever assembly and weight

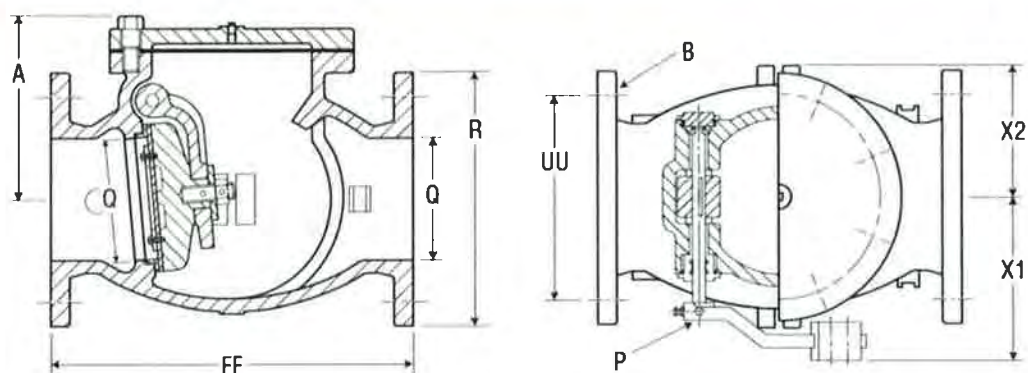
*2"-6" sizes are cast iron, ASTM A126 Cl. B. 8"-12" sizes are ductile iron ASTM A536 Gr. 65-45-12

2"-12" SWING TYPE LEVER AND WEIGHT CHECK VALVE DIMENSIONS-FL.X FL.

Mueller Co.

13.5

1-11



Dimension**	Size*			
	2"	2-1/2"	3"	4"
Q (bore)	2.00	2.50	3.00	4.00
R	6.00	7.00	7.50	9.00
FF	8.00	8.50	9.50	11.50
X1	5.13	5.13	6.31	7.13
X2	2.81	3.56	4.06	4.94
A	4.31	5.69	6.06	6.88
P (hinge pin diameter)	.38	.38	.50	.50
B (number and size of bolts)	4-- .75	4-- .75	4-- .75	8-- .75
UU (bolt circle diameter)	4.75	5.50	6.00	7.50
Weight	35	51	67	91

Dimension**	Size*			
	6"	8"	10"	12"
Q (bore)	6.00	8.00	10.00	12.00
R	11.00	13.50	16.00	19.00
FF	14.00	19.50	24.50	27.50
X1	8.69	10.88	12.25	14.38
X2	5.94	8.06	9.19	10.81
A	8.50	9.94	11.19	13.56
P	.75	.88	1.00	1.13
B (number and size of bolts)	8-- .88	8-- .88	12-- 1.00	12-- 1.00
UU (bolt circle diameter)	9.50	11.75	14.25	17.00
Weight	164	282	420	638

*Nominal

**All dimensions are in inches. All weights are in pounds and are approximate.

13.6

Mueller Co.

8001 SERIES 14"-36" SWING TYPE LEVER AND WEIGHT CHECK VALVE-FL.X FL.

Rev. 1-11 Shaded area indicates change.

Catalog Number

Flanged ends, with bronze disc facing

- ☐ 14" - 1400-8001BBLW
- ☐ 16" - 1600-8001BBLW
- ☐ 18" - 1800-8001BBLW
- ☐ 20" - 2000-8001BBLW
- ☐ 24" - 2400-8001BBLW
- ☐ 30" - 3000-8001BBLW
- ☐ 36" - 1400-8001BBLW

- ☐ Meets all applicable parts of ANSI/AWWA C508 Standard
- ☐ Flanged end dimensions and drilling comply with ANSI B16.1, class 125

Epoxy coated interior & exterior for corrosion resistance

Certified to NSF 61

- ☐ Iron body, bronze mounted (IBBM)
- ☐ Choice of bronze or rubber disc facing
- ☐ For vertical or horizontal installation
- ☐ O-ring sealed stuffing box
- ☐ Adjustable weight to control opening and closing of clapper
- ☐ 150 psig (1034 kPa) maximum working pressure, 300 psig (2068 kPa) test pressure

Options

- ☐ Spring Kits
- ☐ 304 Stainless Steel Nuts & Bolts
- ☐ Drain Plug/Flush port
- ☐ Braided Teflon Hinge Pin Packing



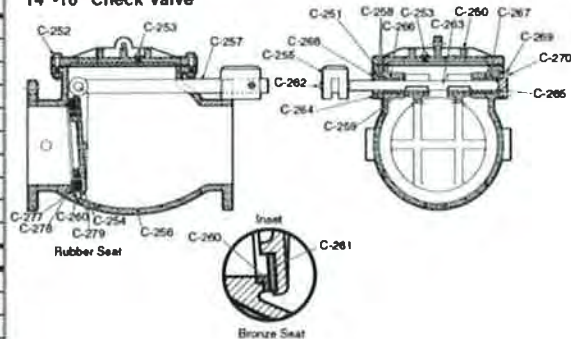
1600-8001BBLW

NOTE: 8001 series Valves on this page cannot be adapted with cylinders. Use 9001 series valve if cylinders might be added after the valves are installed.

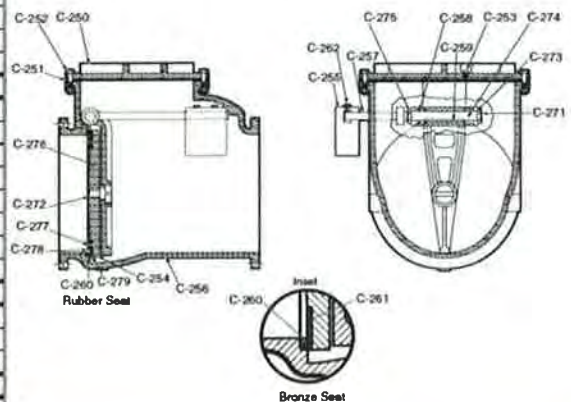
Check Valve Parts

Catalog Part No.	Description	Material	Material Standard
C-250	Cover	Cast Iron	ASTM A126 CL B
C-251	Cover Gasket	Rubber	ASTM D2000 AA 7008
C-252	Cover Bolt and Nut	Zinc Coated Steel	A 307 Grade B
C-253	Test Plug	Malleable Iron	A 47
C-255	Weight	Cast Iron	ASTM A126 CL B
C-256	Body	Cast Iron	ASTM A126 CL B
C-258	O-ring	Rubber	ASTM D2000
C-259	Key	Stainless Steel	ASTM A276 Type 304
C-260	Body Seat Ring	Bronze	ANSI B 62
C-262	Weight Bolt	Zinc Coated Steel	ASTM A307 Grade B
14"-16"			
C-254	Disc	Ductile Iron	ASTM A536 Gr 65-45-12
C-257	Weight Arm	Zinc Coated Steel	A307 Grade B
C-263	Hinge Pin	Stainless Steel	ASTM A276 Type 304
C-264	O-ring	Rubber	ASTM D2000
C-265	Snap Ring	Stainless Steel	
C-266	Bushing A	Bronze	ANSI B 62
C-267	Bushing B	Bronze	ANSI B 62
C-268	End Plate A	Bronze	ANSI B 62
C-269	End Plate B	Ductile Iron	A 536 Gr 65-45-12
C-270	End Plate Bolt	Zinc Coated Steel	ASTM A307 Grade B
18"-36"			
C-254	Disc	Cast Iron	A 126 Class B
C-257	Weight Arm	Ductile Iron	A 536 Gr 65-45-12
C-271	Gasket	Rubber	ASTM D2000
C-272	Disc Bolt	Stainless Steel	ASTM A276 Type 304
C-273	Retaining Plug	Bronze	B21
C-274	Clapper Arm Shaft	Stainless Steel	ASTM A276 Type 304
C-275	Seat Nut	Bronze	B21
C-276	Arm	Ductile Iron	ASTM A536 Gr 65-45-12
Rubber Faced Disc Parts			
C-277	Seat Holder Bolt	Stainless Steel	ASTM A276 Type 304
C-278	Seat Holder	Ductile Iron	ASTM A536 Gr 65-45-12
C-279	Disc Seat Ring	Rubber	ASTM D2000 AA 7008
Bronze Faced Disc Parts			
C-261	Disc Seat Ring	Bronze	ANSI B 62

14"-16" Check Valve



18"-36" Check Valve



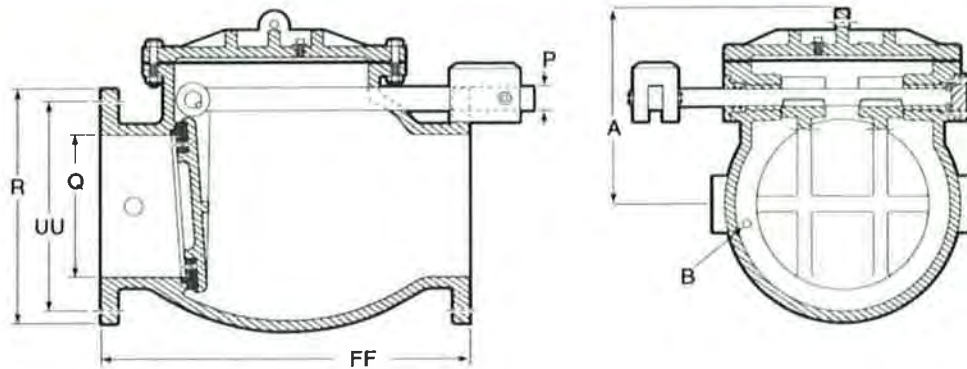
8001 SERIES 14"-36" SWING TYPE LEVER AND WEIGHT CHECK VALVE DIMENSIONS-FL.X FL.

Mueller Co.

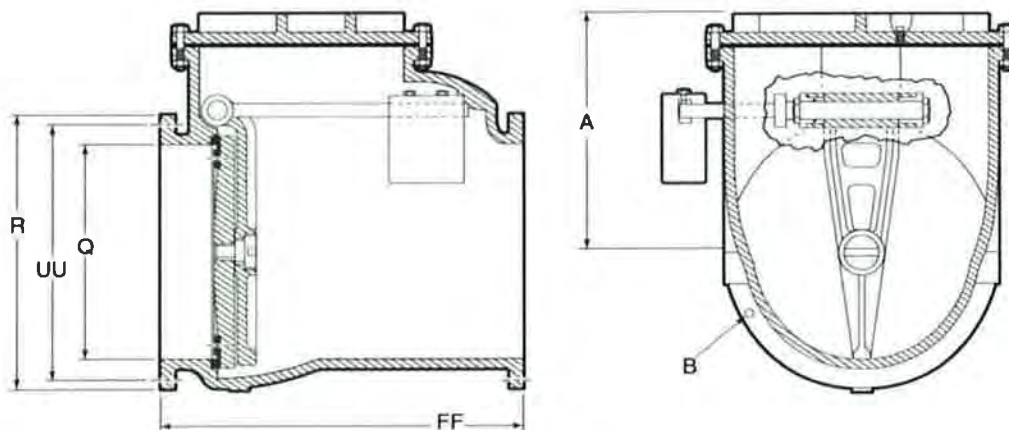
13.7

Shaded area indicates change, Rev. 1-11

14"-16" Check Valve



18"-36" Check Valve



Dimension**	Size*						
	14"	16"	18"	20"	24"	30"	36"
Q	14.00	16.00	18.00	20.00	24.00	30.00	36.00
R	21.00	23.50	25.00	27.50	32.00	38.75	46.00
FF	31.00	36.00	36.00	39.50	45.00	52.50	60.50
A	19.31	21.50	24.50	26.38	30.25	36.38	40.00
P	1.50	1.50	-	-	-	-	-
UU (bolt circle diameter)	18.75	21.25	22.75	25.00	29.50	36.00	42.75
B (number and size of bolts)	12 - 1/2"	16 - 1/2"	16 - 1/2"	20 - 1/2"	20 - 1/2"	28 - 1/2"	32 - 1/2"
Weight	1,111	1,458	1,804	2,194	3,076	4,093	7,645

*Nominal

**All dimensions are in inches. All weights are in pounds and are approximate.

13.8

Mueller Co.

2"-12 SWING TYPE SPRING AND LEVER CHECK VALVES WITH FL. X FL.

1-11

- ❑ Catalog number---
A-2600-6-02BB flanged ends, with bronze disc facing
A-2602-6-02B1 flanged ends, with rubber disc facing
- ❑ Sizes--2", 2-1/2", 3", 4", 6", 8", 10", 12"
- ❑ Meets all applicable parts of ANSI/AWWA C508 Standard
- ❑ Epoxy coated interior & exterior for corrosion resistance
- ❑ Certified to NSF 61
- ❑ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ❑ Iron body, bronze mounted (IBBM)
- ❑ Choice of bronze or rubber disc facing
- ❑ For vertical or horizontal installation
- ❑ O-ring sealed stuffing box
- ❑ Adjustable spring tension to control opening and closing of clapper, lever and spring can be installed on either side of valve
- ❑ 200 psig (1379 kPa) maximum working pressure,
400 psig (2758 kPa) test pressure

Options

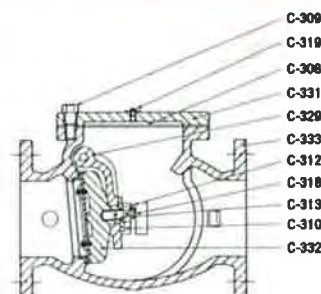
- ❑ PN 10/PN 16 Flange Drilling 4"-12"
- ❑ Stainless Steel Nuts & Bolts ❑ Tapped Bosses ❑ Allen Bradley Limit Switch



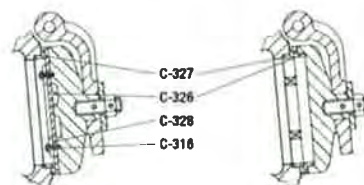
A-2600-6-02BB

Check Valve Parts (2011-present)

Catalog Part No.	Description	Material	Material Standard
C-301	Retaining Plug	Brass	ANSI B21
C-302	Stud Nut & Nut	Zinc Coated Steel	A307 Grade B
C-303	Arm B	Zinc Coated Steel	A36
C-306	O-ring C	Rubber	ASTM D2000 BK 707
C-307	O-ring B	Rubber	ASTM D2000 BK 707
C-308	Gasket	Rubber	ASTM D2000 BK 807
C-309	Cover Bolt	Zinc Coated Steel	A307 Grade B
C-310	Washer	Brass	ANSI B21
C-311	Spacer	Brass	ANSI B21
C-312	Disc Nut	Brass	ANSI B21
C-313	Disc Stud	Brass	ANSI B21
C-314	Snap Ring	Stainless Steel	—
C-317	Spring	Zinc Coated Steel	A307 Grade B
C-318	Pin	Stainless Steel	ASTM A276 Type 304
C-319	Test Plug	Malleable Iron	A47
C-320	Key	Stainless Steel	ASTM A276 Type 304
C-321	Hinge Pin	Stainless Steel	ASTM A276 Type 304
C-322	Weight Arm	Ductile Iron	A536 Gr 65-45-12
C-323	Bolt & Nut	Zinc Coated Steel	A307 Grade B
C-324	Bolt	Zinc Coated Steel	A307 Grade B
C-325	Seat Nut	Brass	ANSI B21
C-327	Body Seat Ring	Bronze	ANSI B62
C-329	Arm	Ductile Iron	A536 Gr 65-45-12
C-331	Cover	Cast Iron	ASTM A126 C1 B
C-332	Disc	Cast Iron	ASTM A126 C1 B
C-333	Body	Cast Iron	ASTM A126 C1 B
Rubber Faced Disc Parts			
C-316	Disc Seat Bolt	Stainless Steel	ASTM A276 Type 304
C-326	Disc Seat Ring	Rubber	ASTM D2000 BK 807
C-328	Seat Holder	Cast Iron*	ASTM A126 C1 B
Bronze Faced Disc Parts			
C-326	Disc Seat Ring	Bronze	ANSI B62

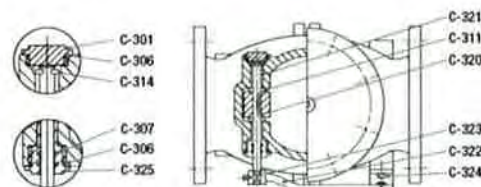


**Valve body and clapper
Rubber faced disc shown**

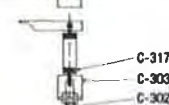


Rubber faced disc clapper

Bronze faced disc clapper



**Hinge pin
and stuffing box**



Spring lever assembly

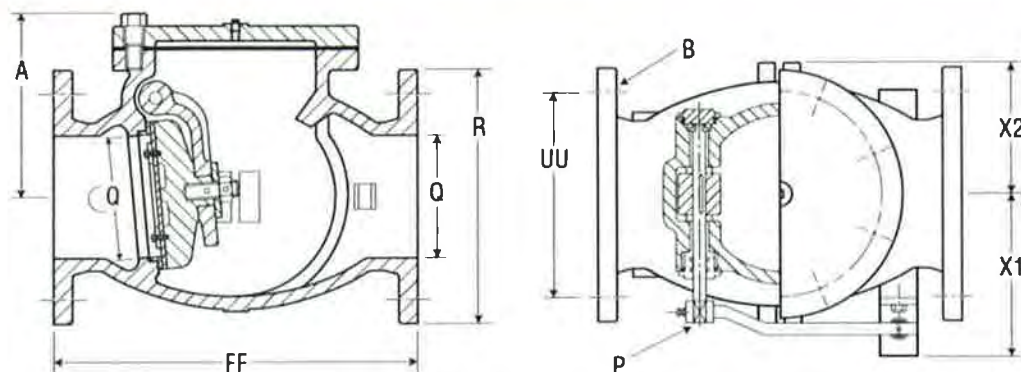
*2"-6" sizes are cast iron, ASTM A126 C1 B, 8"-12" sizes are ductile iron ASTM A536 Gr 65-45-12

2"-12 SWING TYPE SPRING AND LEVER CHECK VALVE DIMENSIONS-FL. X FL.

Mueller Co.

13.9

1-11



Dimension**	Size*			
	2"	2-1/2"	3"	4"
Q (bore)	2.00	2.50	3.00	4.00
R	6.00	7.00	7.50	9.00
FF	8.00	8.50	9.50	11.50
X1	5.13	5.13	6.31	7.13
X2	2.81	3.56	4.06	4.94
A	4.31	5.69	6.06	6.88
P (hinge pin diameter)	38	38	50	50
B (number and size of bolts)	4- 75	4- 75	4- 75	8- 75
UU (bolt circle diameter)	4.75	5.50	6.00	7.50
Weight	35	51	67	91

Dimension**	Size*			
	6"	8"	10"	12"
Q (bore)	6.00	8.00	10.00	12.00
R	11.00	13.50	16.00	19.00
FF	14.00	19.50	24.50	27.50
X1	8.69	10.88	12.25	14.38
X2	5.94	8.06	9.19	10.81
A	8.50	9.94	11.19	13.56
P	75	88	100	113
B (number and size of bolts)	8- 88	8- 88	12- 100	12- 100
UU (bolt circle diameter)	9.50	11.75	14.25	17.00
Weight	164	282	420	638

*Nominal

**All dimensions are in inches. All weights are in pounds and are approximate.

13.10 **Mueller Co.**

8001 SERIES 14"-36" SWING TYPE SPRING AND LEVER CHECK VALVES WITH FL. X FL.

Rev. 1-11 Shaded area indicates change.

Catalog Number

Flanged ends, with bronze disc facing Flanged ends, with rubber disc facing

- ☐ 14" - 1400-8001BBLS
- ☐ 16" - 1600-8001BBLS
- ☐ 18" - 1800-8001BBLS
- ☐ 20" - 2000-8001BBLS
- ☐ 24" - 2400-8001BBLS
- ☐ 30" - 3000-8001BBLS
- ☐ 36" - 1400-8001BBLS
- ☐ Meets all applicable parts of ANSI/AWWA C508 Standard
- ☐ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ☐ Epoxy coated interior & exterior for corrosion resistance
- ☐ Certified to NSF 61
- ☐ Iron body, bronze mounted (IBBM)
- ☐ Choice of bronze or rubber disc facing
- ☐ For vertical or horizontal installation
- ☐ O ring sealed stuffing box
- ☐ Adjustable spring tension to control opening and closing of clapper
- ☐ 150 psig (10.34 kPa) maximum working pressure, 300 psig (2068 kPa) test pressure

Options

- ☐ Spring Kits
- ☐ Drain Plug/Flush port
- ☐ 304 Stainless Steel Nuts & Bolts
- ☐ Braided Teflon Hinge Pin Packing



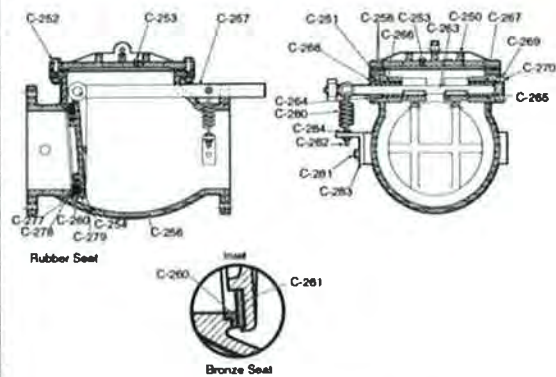
8001 Series
1600-8001BBLW

NOTE: 8001 series Valves on this page cannot be adapted with cylinders. Use 9001 series valve if cylinders might be added after the valves are installed.

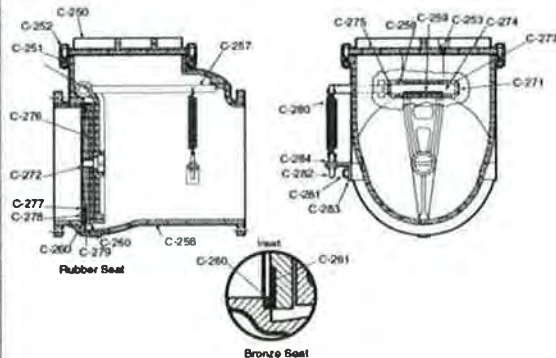
Check Valve Parts

Catalog Part No.	Description	Material	Material Standard
C-250	Cover	Cast Iron	ASTM A126 CL B
C-251	Cover Gasket	Rubber	ASTM D2000 AA 7008
C-252	Cover Bolt and Nut	Zinc Coated Steel	ANSI B18.2.1
C-253	Test Plug	Iron	A 47
C-255	Weight	Cast Iron	ASTM A126 CL B
C-256	Body	Cast Iron	ASTM A126 CL B
C-258	O-ring	Rubber	ASTM D2000
C-259	Key	Stainless Steel	ASTM A276 Type 304
C-260	Body Seat Ring	Bronze	ANSI B 62
C-261	Disc Seat Ring	Bronze	ANSI B 62
C-280	Spring	Plated Steel	
C-281	Bolt	Zinc Coated Steel	ASTM A307 Grade B
C-282	Straight Bolt	Stainless Steel	A 276 Type 304
C-283	Bracket	Cold Rolled Steel	A 1008
C-284	Nut	Zinc Coated Steel	ASTM A307 Grade B
14"-16"			
C-254	Disc	Ductile Iron	ASTM A536 Gr. 65-45-12
C-257	Weight Arm	Zinc Coated Steel	A 307 Grade B
C-263	Hinge Pin	Stainless Steel	ASTM A276 Type 304
C-264	O-ring	Rubber	ASTM D2000
C-265	Snap Ring	Stainless Steel	
C-266	Bushing A	Bronze	ANSI B 62
C-267	Bushing B	Bronze	ANSI B 62
C-268	End Plate A	Bronze	ANSI B 62
C-269	End Plate B	Ductile Iron	A 536 Gr. 65-45-12
C-270	End Plate Bolt	Zinc Coated Steel	ASTM A307 Grade B
18"-36"			
C-254	Disc	Cast Iron	A 126 Class B
C-257	Weight Arm	Ductile Iron	A 536 Gr. 65-45-12
C-271	Gasket	Rubber	ASTM D2000
C-272	Disc Bolt	Stainless Steel	ASTM A276 Type 304
C-273	Retaining Plug	Bronze	B21
C-274	Clapper Arm Shaft	Stainless Steel	ASTM A276 Type 304
C-275	Seat Nut	Bronze	B21
C-276	Arm	Ductile Iron	ASTM A536 Gr. 65-45-12
Rubber Faced Disc Parts			
C-277	Seat Holder Bolt	Stainless Steel	ASTM A276 Type 304
C-278	Seat Holder	Ductile Iron	ASTM A536 Gr. 65-45-12
C-279	Disc Seat Ring	Rubber	ASTM D2000 AA 7008
Bronze Faced Disc Parts			
C-261	Disc Seat Ring	Bronze	ANSI B 62

14"-16" Check Valve



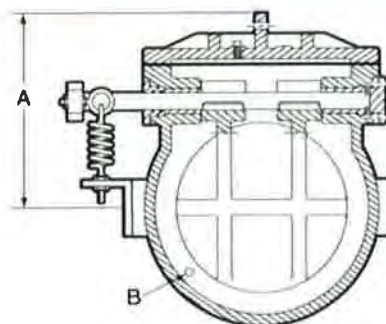
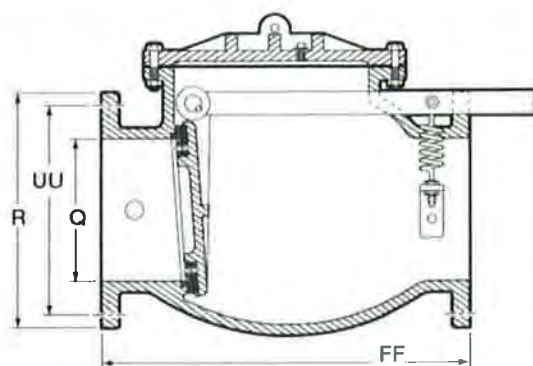
18"-36" Check Valve



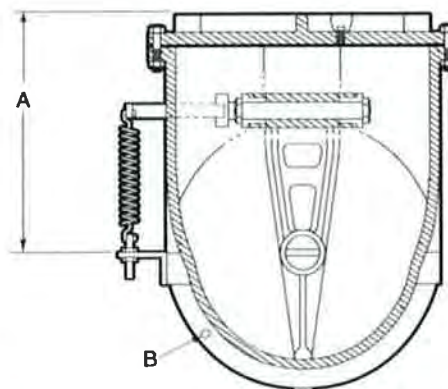
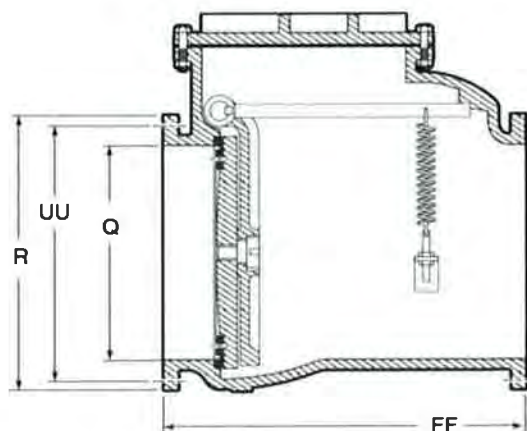
8001 SERIES 14"-36" SWING TYPE SPRING AND LEVER CHECK VALVES WITH FL. X FL.

Mueller Co. **13.11**

Shaded area indicates change. Rev. 1-11



18"-36" Check Valve



Dimension**	Size*						
	14"	16"	18"	20"	24"	30"	36"
Q	14.00	16.00	18.00	20.00	24.00	30.00	36.00
R	21.00	23.50	18.00	27.50	32.00	38.75	46.00
FF	31.00	36.00	36.00	39.50	45.00	52.50	60.50
A	19.32	21.50	24.50	26.38	30.25	36.38	40.00
UU (bolt circle diameter)	18.75	21.25	22.75	25.00	29.50	36.00	42.75
B (number and size of bolts)	12 - 1/13	16 - 1/13	16 - 1/25	20 - 1/25	20 - 1/38	28 - 1/13	32 - 1/38
Weight	1,111	1,458	1,804	2,194	3,076	4,093	7,645

*Nominal

**All dimensions are in inches. All weights are in pounds and are approximate.

13.12 **Mueller Co.**

MUELLER® FLEXIBLE DISC CHECK VALVE

Rev. 1-11 Shaded area indicates change.

- ☐ Sizes -2", 2-1/2", 3", 4", 6", 8", 10", 12", 14", 16", 18", 20", 24"
- ☐ Ductile iron body and cover
- ☐ Epoxy coated interior & exterior for corrosion resistance
- ☐ Certified to NSF 61
- ☐ Stainless steel bolts
- ☐ Buna encapsulated steel flexible disc with nylon fabric reinforcement
- ☐ Vertical or horizontal (flow upwards) installation
- ☐ 250 psig (1724 kPa) maximum working pressure, 500 psig (3447 kPa) test pressure

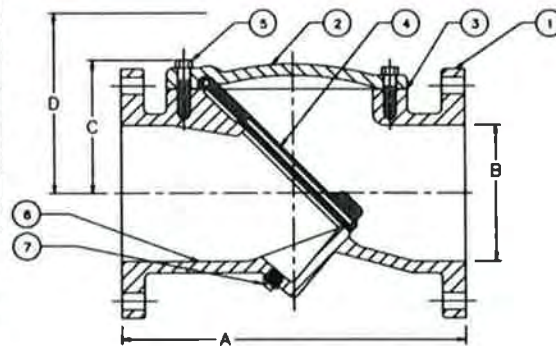
Options

- ☐ EPDM disc



Check Valve Parts

Part No.	Description	Material	Material Standard
1	Body	Ductile Iron	ASTM A536 GR 65-45-12
2	Bonnet	Ductile Iron	ASTM A536 GR 65-45-12
3	Gasket	Rubber	
4	Disc	Steel/Buna or EPDM	ASTM A-36/D-2000
5	Bonnet Bolts	Steel	SAE Grad 5
6	Interior Lining	Epoxy	
7	Plug	Malleable	



Dimensions**				
Valve Size*	A	B	C	D
2"	8.00	2.00	3.38	8.38
2-1/2"	8.50	2.50	3.38	8.38
3"	9.50	3.00	3.88	9.00
4"	11.50	4.00	4.63	9.63
5"	13.75	5.00	5.13	10.25
6"	15.00	6.00	5.88	11.00
8"	19.50	8.00	7.63	13.75
10"	24.50	10.00	9.88	16.00
12"	27.50	12.00	11.38	18.50
14"	31.00	14.00	13.38	20.50
16"	32.00	16.00	15.38	23.50
18"	36.00	18.00	17.13	25.25
20"	40.00	20.00	19.13	29.25
24"	18.00	24.00	22.75	32.75

Valve Size*	Weight**
2"	22
2-1/2"	30
3"	40
4"	71
5"	120
6"	125
8"	222
10"	372
12"	514
14"	696
16"	987
18"	1,340
20"	1,670
24"	2,147

*Nominal

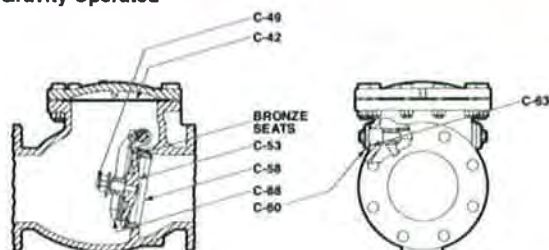
**All dimensions are in inches. All weights are in pounds and are approximate.

1959-2010 — 2-1/2"-12" SWING TYPE CHECK VALVES WITH FL. X FL.

Mueller Co. **13.13**

1-11

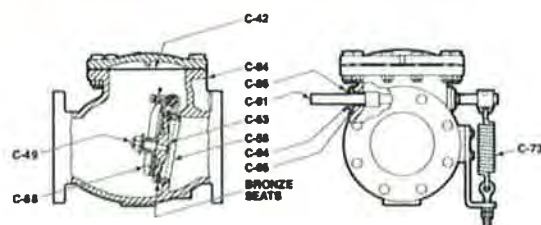
Gravity Operated



Valve body and clapper
2-1/2"-12"
Metal faced disc shown

Hinge pin and stuffing box†
2-1/2", 3"

Lever and Spring



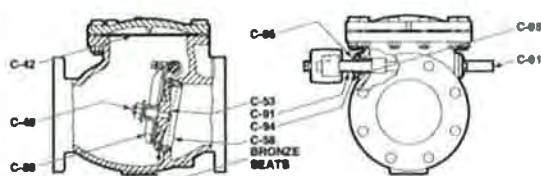
Valve body and clapper
2-1/2"-12"
Metal faced disc shown

Spring Lever Assembly
2-1/2"-12"
Hinge pin and stuffing box†
2-1/2", 3"

Check Valve Parts (1959-2010)

Catalog Part No.	Description	Material	Material Standard
C-42	Cover Gasket	Cloth inserted Rubber	ASTM D2000
C-58	Seat Ring	Bronze	ASTM B584
C-60 2-1/2"-3"	Hinge Plug and Pin (1 pc.)	Bronze	ASTM B138
C-63	Body O-ring	Rubber	ASTM D2000
C-73	Spring	Steel	
C-86 2-1/2"-3"	Stuffing Box	Bronze	ASTM B126
C-88	Clapper Arm	Bronze	ASTM B584
C-91	Hinge Pin	Stainless Steel	ASTM A276
C-94	Hinge Pin O-ring	Rubber	ASTM D2000
C-95	Body O-ring	Rubber	ASTM D2000
C-101	Hinge Pin	Stainless Steel	ASTM A276 Type 303
C-102	Hinge Pin O-ring (small)	Rubber	ASTM D2000
C-103	Hinge Pin O-ring (large)	Rubber	ASTM D2000
C-104	Snap Ring	Stainless Steel	
C-105	Stuffing Box O-ring	Rubber	ASTM D2000
C-106	Stuffing Box	Bronze	ASTM B138
Metal Faced Disc Parts			
C-48	Stud Nut	Bronze	ASTM B62
C-49	Disc Stud	Bronze	ASTM B21
C-53	Disc*	Cast Iron	ASTM A126 CL B
Rubber Faced Disc Parts			
C-50	Disc Stud	Bronze	ASTM B21
C-54	Disc**	Cast Iron	ASTM A126 CL B
C-55	Rubber Disc Facing	Rubber	ASTM D2000
C-56	Retainer Washer	Bronze	ASTM B584
C-57	Retainer Nut	Bronze	ASTM B62

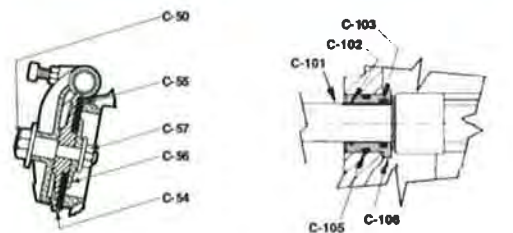
Lever and Weight



Valve body and clapper
2-1/2"-12"
Metal faced disc shown

Lever Assembly
2-1/2"-12"
Hinge pin and stuffing box†
2-1/2", 3"

Gravity, Lever and Weight, Lever and Spring



Rubber faced disc
and clapper
2-1/2"-12"

Hinge pin and stuffing box††
4"-12"

13.14 **Mueller Co.**

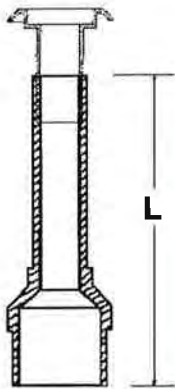
T-11



www.muellercompany.com
moreinfo@muellercompany.com

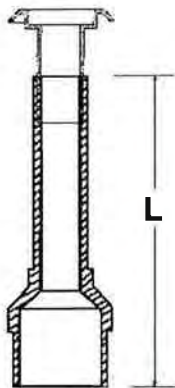
MVB Valve Box Specifications

MVB Valve Box Complete with Cast Iron Lid and 12" Ductile Iron Adjustable® Top



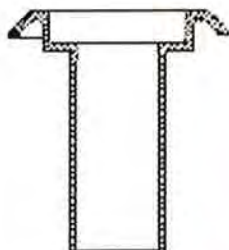
Code	Nominal Length (L)** (ft)	Nominal Length (L)** (m)	Weight (lbs)	Weight (kg)	Maximum Extension (ft/in)	Maximum Extension (metres)
MVB050C	5	1.6	41.8	19.0	5'6"	1.7
MVB070C	7	2.2	44.4	20.2	7'6"	2.3
MVB090C	9	2.8	47.0	21.4	9'6"	2.9
MVB110C	11	3.3	49.6	22.6	11'6"	3.5
MVB130C	13	3.9	52.2	23.8	13'6"	4.1

MVB Valve Box Complete with Cast Iron Lid and 27" Ductile Iron Adjustable® Top



Code	Nominal Length (L)** (ft)	Nominal Length (L)** (m)	Weight (lbs)	Weight (kg)	Maximum Extension (ft/in)	Maximum Extension (metres)
MVB050C-27	5	1.6	52.8	24.0	6'6"	1.9
MVB070C-27	7	2.2	55.4	25.2	8'6"	2.5
MVB090C-27	9	2.8	58.1	26.4	10'6"	3.2
MVB110C-27	11	3.3	60.6	27.6	12'6"	3.8
MVB130C-27	13	3.9	63.2	28.8	14'6"	4.1

Ductile Iron Adjustable® Top



Code	Weight (lbs)	Weight (kg)	Length (ft)	Length (m)
AJBV-4D	22	10	12	305
AJBV-4D-27	33	16	27	686

** Other lengths (L) available on request.

NOTE: MVB's are easily cut to required length using ordinary hand tools.

MVB Valve Box Specifications

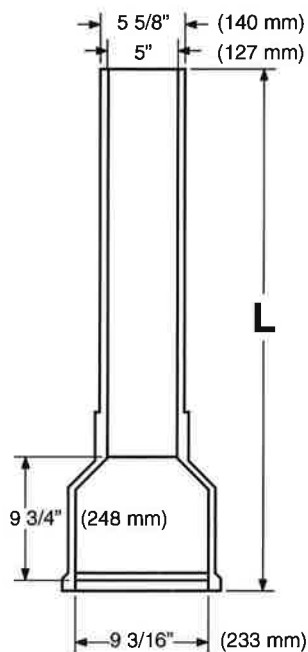
MVB Valve Box Lid

Code	Weight (lbs)	Weight (kg)
AJBV-4C WATER	11	5

MVB Guide Plate

Code	Weight (lbs)	Weight (kg)
MVB875	0.3	0.14

MVB Bottom Section

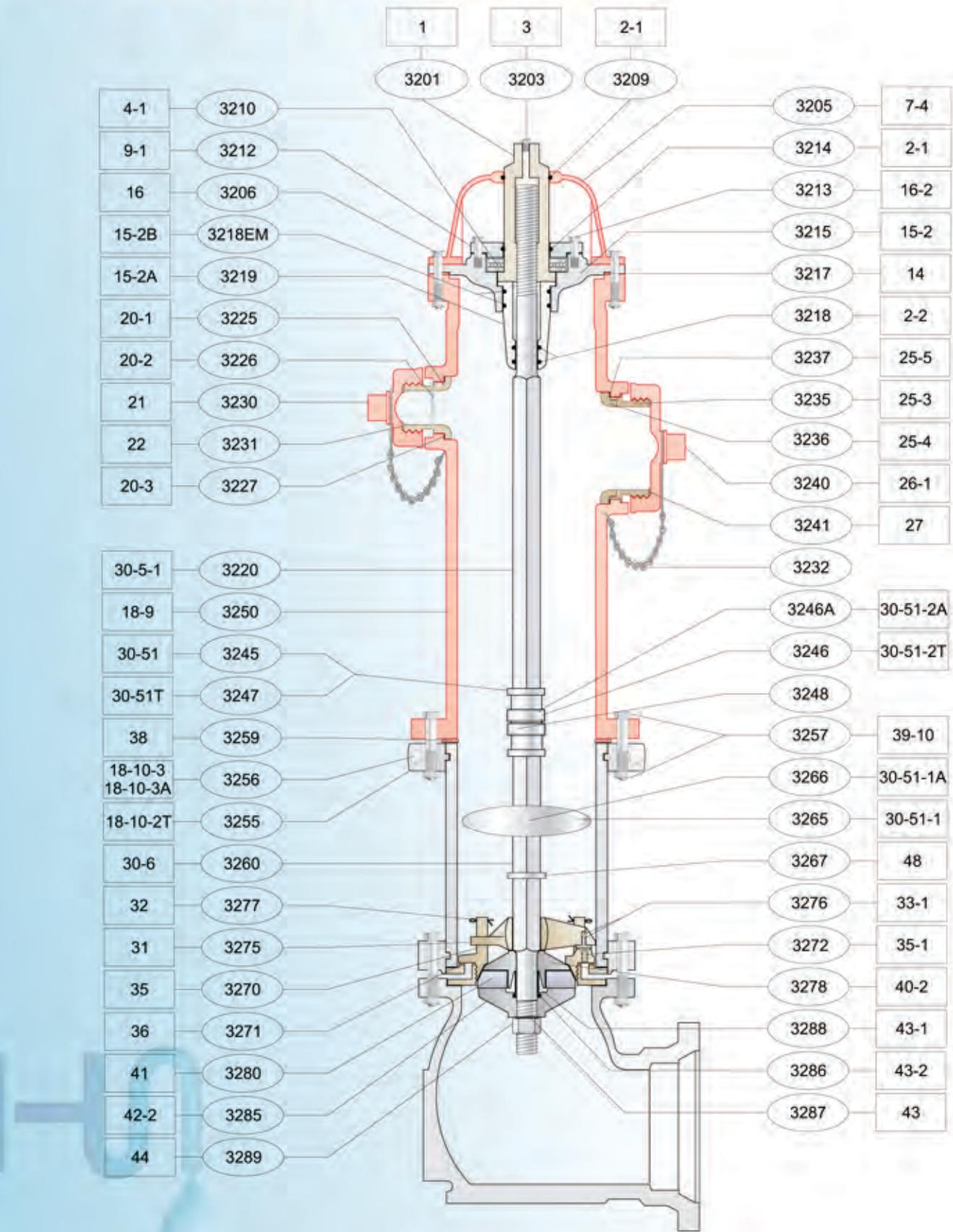


Code	Length (L)** (ft)	Length (L)** (m)	Weight (lbs)	Weight (kg)
MVB050	5	1.6	8.8	4.0
MVB070	7	2.2	11.4	5.2
MVB090	9	2.8	14.0	6.4
MVB110	11	3.3	16.6	7.6
MVB130	13	3.9	19.2	8.8

** Other lengths (L) available on request.

NOTE: MVB's are easily cut to required length using ordinary hand tools.

DARLING B50-B18 / B50-B24 EM



DESCRIPTION	#HS	FAB.	DESCRIPTION
Ensemble de garnitures 4½" ou 5"	3200		Complete restoration gasket kit 4½" or 5"
Écrou de manoeuvre	3201	1	Operating nut
Vis de graissage	3203	3	Lubricating screw
Chapeau	3205	7-4	Bonnet
Boulon et écrou du chapeau	3206	16	Bonnet nut & bolt
Joint torique du chapeau	3209	2-1	Bonnet O-ring
Coussinet à bille	3210	4-1	Ball thrust bearing
Coussinet en Delrin (non illustré)	3210-D	4-1	Delrin thrust bearing for E/M model (not shown)
Couvercle du coussinet	3212	9-1	Bearing housing cover
Boulon du couvercle du coussinet (Req. 4)	3213	16-2	Housing cover cap screw (req'd 4)
Joint torique du couvercle	3214	2-1	Bearing cover O-ring
Carter E/M avec manchon	3215	15-2	Bearing housing for E/M system
Garniture du carter	3217	14	Housing gasket
Joint torique du carter	3218	2-2	O-ring, bearing-housing stem
Joint torique ext. du manchon du carter	3218-EM	15-2b	O-ring for upper rod sleeve
Manchon du carter E/M (polymer)	3219	15-2a	Polymer upper rod sleeve E/M
Tige supérieure 18"	3220-18	30-5-1	Top rod less couplings, 18"
Tige supérieure 24"	3220-24	30-5-1	Top rod less couplings, 24"
Prise de boyau 2 ½" *	3225*	20-1	Hose nozzle 2½" *
Anneau de retenue de la prise de boyau	3226	20-2	Hose nozzle retaining ring
Garniture de la prise de boyau	3227	20-3	Hose nozzle gasket
Bouchon 2 ½" *	3230*	21	Hose cap 2½" *
Garniture du bouchon 2 ½"	3231	22	Hose nozzle cap gasket 2½"
Chaîne de bouchon avec crochet et anneau	3232		Chain with s-hook and cap ring
Prise de pompage	3235	25-3	Pumper nozzle
Prise de pompage storz (non illustré)	3235-STZ	25-3	Pumper Nozzle, storz (not shown)
Anneau de retenue de la prise de pompage	3236	25-4	Pumper nozzle retaining ring
Garniture de la prise de pompage	3237	25-5	Pumper nozzle gasket
Bouchon de prise de pompage	3240	26-1	Pumper nozzle cap
Bouchon de la prise de pompage storz (non illustré)	3240-STZ	26-1-stz	Storz pumper cap
Garniture du bouchon de prise de pompage std & stz	3241	27	Pumper cap gasket (standard or storz)
Coupleur	3245	30-51	Coupling
Clavette du coupleur	3246	30-51-2T	Clevis pin for rod coupling
Goupille du coupleur	3246A	30-51-2a	Cotter pin for rod coupling
Coupleur sécuritaire	3247	30-51T	Rod coupling - traffic type
Boulon et écrou du coupleur	3248		Coupling bolt & nut
Corps **	3250**	18-9	Upper barrel **
Bride sécuritaire	3255	18-10-2T	Traffic flange
Boulon et écrou de jonction de la bride	3256	18-10-3+3A	Flange side - bolt & nut
Boulon et écrou de la bride	3257	39-10	Flange nut & bolt
Garniture de la bride	3259	38	Flange gasket
Tige inférieure	3260	30-6	Lower rod
Guide de tige	3265	30-51-1	Rod guide
Vis du guide de tige	3266	30-51-1A	Set screw for rod guide
Cheville de blocage	3267	48	Stop pin
Siège avec garniture 4½"	3270-4	35	Main valve seat c/w gasket 4½"
Siège avec garniture 5"	3270-5	35	Main valve seat c/w gasket 5"
Garniture du siège 4½"	3271-4	36	Main valve seat gasket 4½"
Garniture du siège 5"	3271-5	36	Main valve seat gasket 5"
Bouchon de drain 4½"	3272-4	35-1	Drain plug 4½"
Bouchon de drain 5"	3272-5	35-1	Drain plug 5"
Robinet purgeur	3275	31	Drip lever
Garniture du purgeur avec bague	3276	33-1	Drip lever washer c/w retainer
Goupille du robinet purgeur	3277	32	Drip lever cotter pin
Entre vanne 4½"	3278-4	40-2	Valve ball top 4½"
Entre vanne 5"	3278-5	40-2	Valve ball top 5"
Caoutchouc de vanne 4½", polyuréthane	3280-4	41	Main valve disc, polyurethane 4½"
Caoutchouc de vanne 5", polyuréthane	3278-5	41	Main valve disc, polyurethane 5"
Support inférieur du caoutchouc 4½"	3285-4	42-2	Valve ball bottom 4½"
Support inférieur du caoutchouc 5"	3285-5	42-2	Valve ball bottom 5"
Joint torique de l'entre vanne	3286	43-2	Valve ball O'ring
Bague de polyuréthane	3287	46	Valve ball gasket, polyurethane
Tube de plastique	3288	43-1	Valve ball plastic sleeve
Écrou du support inférieur (nylon)	3289	44	Rod nut nylock style

* S.V.P. spécifier le type de filet / Please specify thread type ** S.V.P. spécifier la configuration des sorties et le type de filet / Please specify outlets configuration and thread type

DARLING B50-B18 / B50-B24 EM

MUELLER® Tapping Sleeves and Crosses

- Full range of Tapping Sleeves and Crosses to fit most types of pipe including cast iron, ductile iron, A-C, and cast iron O.D. PVC—Also outlet sealed Tapping Sleeves for steel pipe size O.D. PVC plastic pipe, steel pipe and all class of pipe through Class D pit cast gray iron.
- Sizes range from 4"x4" to 36"x30".
- All sleeves have outlet flange with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSS SP-60
- Available with optional MUELLER HP® Epoxy Coating—A-C sleeves are coated with orange primer T-28 sleeve has epoxy coating and 304SS nuts and bolts as standard
- Maximum working pressures: see product listings.



MUELLER Tapping Valves

- Choice of Resilient Wedge or IBBM types.
- Sizes 4" through 24" Resilient Wedge 14" through 48" IBBM.
- One end flanged with alignment lip\ to attach to Tapping Sleeve, other end available with a variety of end connections with a special flange to permit attachment of Drilling Machine and Adapter
- Meets all applicable parts of ANSI/AWWA C500 and C509 Standards
- Non-rising stem (NRS)
- RWGV: maximum working pressure 250 psig (1723 kPa)—test pressure 500 psig (3447 kPa)
- IBBM: maximum working pressure 14"-24" 150 psig (1034 kPa)— test pressure 300 psig (2068 kPa).



MUELLER Stainless Steel Tapping Sleeves

- Sizes to fit iron pipe size PVC, C900 cast iron O.D. PVC, A-C, cast iron and ductile iron pipe
- Sizes range from 4"x4" through 24"x12"
- Test plug standard.
- Fully passivated
- Choice of outlet flange materials include stainless steel, carbon steel or ductile iron, all with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSS SP-60
- "Waffle" 360° gasket with integral gap bridge.
- Maximum working pressures: see product listings



MUELLER® Split Repair Sleeves

- Heavy cast iron construction
- Long length for support and rigidity
- 4" thru 24" sizes.
- 4" - 12" sizes—200 psig (1379 kPa) maximum working pressure .
- 14" - 24" sizes—200 psig (1379 kPa) maximum working pressure



MUELLER Cut-In Sleeve and Valve

- MUELLER Cut-In Sleeve and Valve are used to install a gate valve in an existing cast iron, ductile iron or cast iron O.D. PVC plastic pipe main when water interruption is permissible.
- Cut-In Sleeves are marked with length of pipe that is to be cut from main.
- Mechanical joint ends speed installation.



12.2 Mueller Co. MECHANICAL JOINT TAPPING SLEEVE FOR CENTRIFUGAL C.I., D.I., & PVC PIPE

Rev. 5-05

- ☐ Catalog number--
H-615 Mechanical Joint Tapping Sleeve
- ☐ Sizes-- 4"-24" main and outlet (see chart below for available size combinations)
- ☐ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60.
- ☐ Certified to ANSI/NSF 61.
- ☐ Ductile Iron body with 3/4" NPT test plug
- ☐ 4"-24" sizes--250 psig (1723 kPa) maximum working pressure



H-615

Tapping Sleeve pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
4"	4.74"-4.86"	120.5-123.3	Cast iron classes 100, 150, 200 and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195824
	4.87"-5.32"	123.8-135.0	Cast iron classes B, C, and D - A-C classes 100 and 150	195653
6"	6.84"-6.96"	173.8-176.7	Cast iron classes 100, 150, 200, and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195825
	6.97"-7.40"	177.1-187.9	Cast iron classes B, C, and D - A-C classes 100 and 150	195654
8"	8.99"-9.11"	228.4-231.3	Cast iron classes 100, 150, 200, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195826
	9.12"-9.62"	231.7-244.2	Cast iron classes B, C, and D - A-C classes 100 and 150	195655
10"	11.04"-11.16"	280.5-283.4	Cast iron classes 150, 200, 250, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194680
12"	13.14"-13.26"	333.9-336.7	Cast iron classes 150, 200, 250, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194638
14"	15.22"-15.35"	386.7-389.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195127
16"	17.32"-17.45"	440.0-443.1	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195128
18"	19.42"-19.55"	493.4-496.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195266
20"	21.52"-21.65"	546.7-549.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195129
24"	25.72"-25.85"	653.4-656.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195130

Sizes available

Nominal size of main	Outlet size							
	4"	6"	8"	10"	12"	14"	16"	24"
4"	X							
6"	X	X						
8"	X	X	X					
10"	X	X	X	X				
12"	X	X	X	X	X			
14"		X	X	X	X	X		
16"		X	X	X	X	X	X	
18"	X	X	X	X	X		X	
20"		X	X	X	X	X	X	X
24"	X	X	X	X	X	X	X	X

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MECHANICAL JOINT TAPPING SLEEVE Mueller Co. 12.3 FOR CENTRIFUGAL C.I., D.I., & PVC PIPE

Rev. 9-06

- ☐ Catalog number--
T-9 Mechanical Joint Tapping Sleeve
- ☐ Sizes--30" & 36" main (see chart below for available size combinations)
- ☐ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60.
- ☐ Certified to ANSI/NSF 61
- ☐ Ductile Iron body with 3/4" NPT test plug
- ☐ 150 psig (1034 kPa) maximum working pressure



T-9

Tapping Sleeve pipe information

Nominal size of main	O.D. Range of sleeve		Class and type of pipe
	Inch	mm	
30"	31.74	806.19	Cast Iron Classes A
	32.00	812.80	Cast Iron Classes B, DI, C-900 PVC
	32.40	822.96	Cast Iron Classes C
36"	37.96	964.18	Cast Iron Classes A
	38.3	972.82	Cast Iron Classes B, DI, C-900 PVC
	38.7	982.98	Cast Iron Classes C

Sizes available

Nominal size of main	Outlet size						
	4"	6"	8"	12"	16"	20"	24"
30"	X	X	X	X	X	X	X
36"	X	X	X	X	X	X	

MECHANICAL JOINT TAPPING SLEEVE FOR PITCAST C.I. PIPE

Rev. 5-08

- ❑ Catalog number--
H-616 Mechanical Joint Tapping Sleeve
- ❑ Sizes-- 10"-24" main and 4"-24" outlet (see chart below for available size combinations)
- ❑ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60
- ❑ Iron body with 3/4" NPT test plug
- ❑ 10"-12" sizes--200 psig (1379 kPa) maximum working pressure
- ❑ 14"-24" sizes--200 psig (1379 kPa) maximum working pressure



H-616

Tapping Sleeve pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
10"	11.34"-11.46"	288.1-291.0	Cast iron classes C and D	194681
12"	13.44"-13.56"	341.5-344.3	Cast iron classes C and D	194642
14"	15.89"-15.71"	399.1-398.9	Cast iron classes C and D	195131
16"	17.74"-17.86"	450.7-453.5	Cast iron classes C and D	195132
18"	19.84"-20.00"	504.1-507.9	Cast iron classes C and D	195268
20"	21.98"-22.14"	558.4-562.3	Cast iron classes C and D	195133
24"	26.24"-26.40"	666.6-670.5	Cast iron classes C and D	195134

Sizes available

Nominal size of main	Outlet size									
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
10"	X	X	X	X	-	-	-	-	-	-
12"	X	X	X	X	X	-	-	-	-	-
14"	X	X	X	X	X	X	-	-	-	-
16"	X	X	X	X	X	X	X	-	-	-
18"	X	X	X	X	X	-	X	X	-	-
20"	X	X	X	X	X	X	X	X	X	-
24"	X	X	X	X	X	X	X	-	X	X

MECHANICAL JOINT TAPPING SLEEVE FOR A-C PIPE

Rev. 8-09



H-619

- ❑ Catalog number--
H-619 Mechanical Joint Tapping Sleeve
- ❑ 4"-12" main and outlet (see chart below for available size combinations)
- ❑ Specially designed for use on A-C pipe.
- ❑ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and MSS SP-60
- ❑ Iron body with 3/4" NPT test plug
- ❑ 4"-12" sizes--200 psig (1379 kPa) maximum working pressure

Tapping Sleeve pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
4"	4.97"-5.57"	126.3 - 141.4	A-C classes 150 and 200	195656
6"	7.05"-7.60"	179.2 - 192.9	A-C classes 100, 150 and 200	195657
8"	9.22"-9.79"	234.3 - 248.6	A-C classes 100, 150 and 200	195658
10"	11.77"-12.25"	299.1 - 311.1	A-C classes 150 and 200	195307
12"	14.03"-14.51"	356.5 - 368.5	A-C classes 150 and 200	195289

Sizes available

Size of main	Outlet size				
	4"	6"	8"	10"	12"
4"	X	-	-	-	-
6"	X	X	-	-	-
8"	X	-	X	-	-
10"	X	X	X	X	-
12"	X	X	X	X	X

NOTE: The actual diameter A-C pipe varies among manufacturers and from piece to piece. It is important to measure the pipe diameter at the point where the sleeve will be installed. The O.D. of A-C pipe can be reduced by following the recommendations of the specific pipe manufacturer.



Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

OUTLET SEALED TAPPING SLEEVE FOR STEEL O.D. SIZE PVC PLASTIC PIPE

Rev. 5-05

- Catalog number--
H-612 Mechanical joint, outlet sealed Tapping Sleeve
- Sizes--4"-8" main and outlet (see chart below for available size combinations)
- Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and MSS SP-60.
- Certified to ANSI/NSF 61
- Iron body.
- Specially designed Buna-N outlet seal gasket.
- Specifically designed for use on steel O.D. size PVC plastic pipe meeting ASTM specifications D2241 and D1785
- 4", 6", and 8" main sizes--150 psig (1034 kPa) maximum working pressure.



H-612

Tapping Sleeve pipe information

Size of main	O.D. range of sleeve		Class and type of pipe
	Inch	mm	
4"	4.491 - 4.509	114.2 - 114.4	Steel O.D. size PVC plastic pipe
6"	5.614 - 6.636	168.1 - 168.5	Steel O.D. size PVC plastic pipe
8"	6.610 - 8.640	218.8 - 219.4	Steel O.D. size PVC plastic pipe

Sizes available

Size of main	Outlet size		
	4"	6"	8"
4"	X	-	-
6"	X	X	-
8"	X	X	X

Outlet Seal Gaskets

Outlet size	Gasket part number
4"	195504
6"	195502
8"	195511

U.S. PIPE T-28 DUCTILE IRON TAPPING SLEEVE

Shaded area indicates change. Rev. 4-12

- Catalog number--T-28 Dual Compression Seal Tapping Sleeve
- Sizes--range from 6"-16" main and outlet (see chart below for available size)
- Fits all classes of pipe through Class D pit cast gray iron.
- 3/8" test plug standard.
- Epoxy coated ductile iron construction
- O-ring seals on outlet and flange connection
- Outlet flange dimensions and drilling comply with ANSI B16.1, Class 125 and with MSS SP-60
- Stainless steel bolts.
- 250 psig (1724 kPa) maximum working pressure.



T-28

Tapping Sleeve pipe information

Nominal size of main	O.D. Range of sleeve		Class and type of pipe
	Inch	mm	
4"	4.80 - 5.00	121.92 - 127.00	Fits all classes of pipe through Class D pit cast gray iron
6"	6.90 - 7.10	175.26 - 180.34	
8"	9.05 - 9.03	229.87 - 236.22	
10"	11.10 - 11.40	281.94 - 289.56	
12"	13.20 - 13.50	335.28 - 342.90	
16"	17.40 - 17.80	441.96 - 452.12	

Sizes available

Nominal size of main	Outlet size				
	4"	6"	8"	10"	12"
4"	X	-	-	-	-
6"	X	X	-	-	-
8"	X	X	X	-	-
10"	X	X	X	X	-
12"	X	X	X	X	X
16"	X	X	X	X	X

STAINLESS STEEL TAPPING SLEEVE

4" - 24"

Rev. 5-09



H-304SS



H-304MJ

- Catalog number-- H-304 Stainless Steel Tapping Sleeve
- Size--4"-24" main and outlet (see chart below for available size combinations)
- Outlet choice-- flange or integral MJ outlet
- Outlet flange material options: 304L Stainless steel, carbon steel, or ductile iron outlet flange which meets or exceeds all applicable requirements of ANSI B16.1, class 125 and in accordance with MSS-SP60.
- Integral MJ flange is 304L stainless steel
- Certified to ANSI/NSF 61
- 3/4" NPT brass test plug (Stainless Steel optional)
- 4"-12" sizes--250 psig (1723 kPa) maximum working pressure
- 14"-24" sizes--200 psig (1379 kPa) maximum working pressure.

How to determine a Mueller Tapping Sleeve Part Number

Select the appropriate numbers from the pipe information chart that follows.

Example: For 6"x6" with 7.30-7.50 O.D. Range and stainless steel flange

Revolving Part No. 0606H304SS0750

*1" outlet flange only available in stainless steel

** H-304 is constant for all Mueller Stainless Steel Tapping Sleeves listed here

** SS = stainless steel flange; CS = carbon steel flange

DI = ductile iron flange; MJ=integral mechanical joint outlet *

Main Size	Outlet Size	Model No.	Flange Material	Maximum O.D.
06	06	H-304*	SS**	07.50

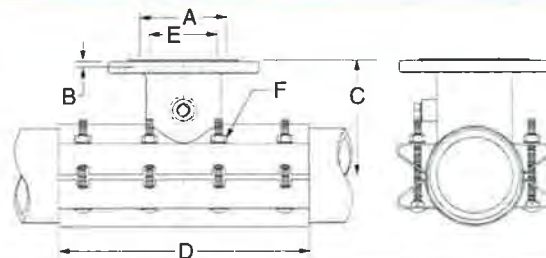
Tapping Sleeve pipe information

Size of main flange	Size of outlet flange	Available sleeve O.D. ranges		Class and type of pipe
		Inch	mm	
4"	3", 4"	4.50 - 4.90 4.80 - 5.00	114.30 - 124.46	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100
6"	4", 6"	6.59 - 6.99 6.90 - 7.30 7.10 - 7.50 7.40 - 7.80	167.30 - 177.55 175.00 - 185.42 180.34 - 190.50 187.06 - 198.12	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150
8"	4", 6", 8"	7.90 - 8.30 8.62 - 9.06 9.04 - 9.45 9.20 - 9.60 9.60 - 10.00	200.66 - 210.82 214.95 - 230.12 229.62 - 249.03 233.68 - 243.84 243.84 - 254.00	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150, 200
10"	4", 6", 8", 10"	9.50 - 10.50 10.13 - 11.13 11.00 - 11.45 11.70 - 12.10 12.00 - 12.40	251.46 - 266.62 272.54 - 282.70 280.67 - 290.83 297.18 - 307.34 304.95 - 314.96	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150, 200
12"	4", 6", 8", 10", 12"	12.50 - 12.90 13.16 - 13.56 13.60 - 14.00 14.10 - 14.58	317.50 - 327.66 334.26 - 344.42 345.44 - 374.46 358.14 - 370.33	C900 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150, 200; C905 IPS O.D. PVC (14")
14"	4", 6", 8", 10", 12"	15.25 - 15.65 15.60 - 16.00 16.18 - 16.73 16.48 - 16.88	387.35 - 397.51 396.24 - 406.40 416.05 - 424.94 418.90 - 428.75	C905 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150, 200; C905 IPS O.D. PVC (16")
16"	4", 6", 8", 10", 12"	17.40 - 17.80 17.54 - 17.94 17.85 - 18.25 18.15 - 18.55 18.60 - 19.00	441.96 - 452.12 444.26 - 454.42 445.52 - 461.55 461.01 - 471.17 472.34 - 482.60	C905 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; AC 100, 150, 200; C905 IPS O.D. PVC (18")
18"	4", 6", 8", 10", 12"	19.30 - 19.70 19.70 - 20.10	490.22 - 500.38 500.38 - 510.54	C905 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron; C905 IPS O.D. PVC (20")
20"	4", 6", 8", 10", 12"	21.40 - 21.80 21.90 - 22.30 22.30 - 22.70	543.56 - 553.72 556.26 - 566.42 566.42 - 576.58	C905 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron
24"	4", 6", 8", 10", 12"	23.30 - 23.70 23.80 - 24.10 25.60 - 26.00	591.82 - 601.98 604.52 - 614.14 650.24 - 660.40	C905 Cast Iron OD PVC; Cast Iron 100-250; A, B, C, D; Ductile iron

STAINLESS STEEL TAPPING SLEEVE

4" - 24"

Rev. 5-09



Nominal Size		Dimensions* Outlet Flange		Sleeve			Bolts Per Side
Main	Outlet	A	B	C	D	E	
4"	4"	5.0315	.25	7.00	15	4.50	4
6"	4"	5.0315	.25	7.50	15	4.50	4
6"	6"	7.0315	.31	8.00	15	6.50	4
8"	4"	5.0315	.25	8.50	15	4.50	4
8"	6"	7.0315	.31	9.00	15	6.50	4
8"	8"	9.0315	.31	9.50	18	8.50	6
10"	4"	5.0315	.25	10.00	15	4.50	4
10"	6"	7.0315	.31	10.50	15	6.50	4
10"	8"	9.0315	.31	11.00	18	8.50	6
10"	10"	11.0315	.31	11.50	24	10.50	8
12"	4"	5.0315	.25	12.00	15	4.50	4
12"	6"	7.0315	.31	12.00	15	6.50	4
12"	8"	9.0315	.31	12.00	18	8.50	6
12"	10"	11.0315	.31	12.00	24	10.50	8
12"	12"	13.0315	.31	12.00	30	12.50	8
14"	4"	5.0315	.25	13.63	15	4.50	4
14"	6"	7.0315	.31	13.63	15	6.50	4
14"	8"	9.0315	.31	13.63	18	8.50	6
14"	10"	11.0315	.31	13.63	24	10.50	8
14"	12"	13.0315	.31	13.63	30	12.50	8
16"	4"	5.0315	.25	14.59	15	4.50	4
16"	6"	7.0315	.31	14.59	15	6.50	4
16"	8"	9.0315	.31	14.59	18	8.50	6
16"	10"	11.0315	.31	14.59	24	10.50	8
16"	12"	13.0315	.31	14.59	30	12.50	8
18"	4"	5.0315	.25	16.00	15	4.50	4
18"	6"	7.0315	.31	16.00	15	6.50	4
18"	8"	9.0315	.31	16.00	18	8.50	6
18"	10"	11.0315	.31	16.00	24	10.50	8
18"	12"	13.0315	.31	16.00	30	12.50	8
20"	4"	5.0315	.25	16.88	15	4.50	4
20"	6"	7.0315	.31	16.88	15	6.50	4
20"	8"	9.0315	.31	16.88	18	8.50	6
20"	10"	11.0315	.31	16.88	24	10.50	8
20"	12"	13.0315	.31	16.88	30	12.50	8
24"	4"	5.0315	.25	19.00	15	4.50	4
24"	6"	7.0315	.31	19.00	15	6.50	4
24"	8"	9.0315	.31	19.00	18	8.50	6
24"	10"	11.0315	.31	19.00	24	10.50	8
24"	12"	13.0315	.31	19.00	30	12.50	10

* All dimensions are in inches.

*With MJ option, this flange is replaced by an integral SS outlet pipe extension and MJ gland welded permanently in place allowing the sleeve to bolt directly to the outlet of any standard MJ valve. Dimensions for MJ option are compatible with standard connections, and A and B dimensions in chart do not apply.

OUTLET SEAL STAINLESS STEEL TAPPING SLEEVE 4" - 12"



H-300

- Catalog number—**H-300** Stainless Steel Tapping Sleeve
- Sizes—4"-12" main and outlet (see chart below for available size combinations).
- 304L Stainless steel, carbon steel, or ductile iron outlet flange which meets or exceeds all applicable requirements of ANSI B16.1, class 125 and in accordance with MSS-SP60.
- Certified to ANSI/NSF 61.
- 3/4" NPT brass test plug (Stainless Steel optional).
- 4"-12" sizes—250 psig (1723 kPa) maximum working pressure.

How to determine a Mueller Tapping Sleeve Part Number

Select the appropriate numbers from the pipe information chart that follows.

Example: For 6" x6" with 7.30-7.50 O.D. Range and stainless steel flange
Resulting Part No. **0606H300SS0750**

* H-300 is constant for all Mueller Stainless Steel Tapping Sleeves listed here.

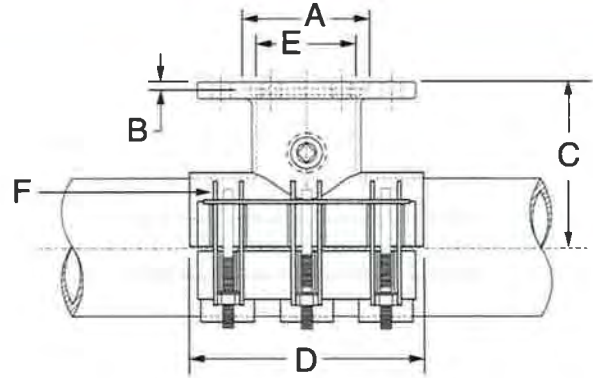
** SS = stainless steel; CS = carbon steel.

DI = ductile iron.

Main Size	Outlet Size	Model No.	Flange Material	Maximum O.D.
06	06	H-300*	SS**	0750

Size of main	Size of outlet flange	Available sleeve O.D. ranges		Class and type of pipe
		Inch	mm	
4"	4"	4.50 - 4.90	114.30 - 124.46	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250, A, B, C, D; Ductile iron, AC 100
6"	4", 6"	6.59 - 6.99	167.39 - 177.55	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250, A, B, C, D; Ductile iron, AC 100, 150
		6.89 - 7.30	175.00 - 185.42	
		7.10 - 7.50	180.34 - 190.50	
		7.40 - 7.80	187.96 - 198.12	
8"	4", 6", 8"	7.90 - 8.30	200.66 - 210.82	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250, A, B, C, D; Ductile iron, AC 100, 150, 200
		8.62 - 9.06	218.95 - 230.12	
		9.04 - 9.45	229.62 - 240.03	
		9.20 - 9.60	233.08 - 243.84	
10"	4", 6", 8", 10"	9.60 - 10.00	243.84 - 254.00	Iron Pipe Size PVC; C900 Cast Iron OD PVC; Cast Iron 100-250, A, B, C, D; Ductile iron, AC 100, 150, 200
		9.90 - 10.30	251.46 - 261.62	
		10.72 - 11.13	272.54 - 282.70	
		11.05 - 11.45	280.67 - 290.83	
12"	4", 6", 8", 10", 12"	11.70 - 12.10	297.18 - 307.34	C900 Cast Iron OD PVC; Cast Iron 100-250, A, B, C, D; Ductile iron, AC 100, 150, 200, C905 IPS O.D. PVC (14")
		12.00 - 12.40	304.80 - 314.96	
		12.50 - 12.90	317.50 - 327.66	
		13.16 - 13.56	334.26 - 344.42	
		13.60 - 14.09	345.44 - 378.46	
		14.10 - 14.58	358.14 - 370.33	

OUTLET SEAL STAINLESS STEEL TAPPING SLEEVE 4" - 12"



Nominal size		Dimension*					Bolts per side
		Outlet flange		Sleeve			
Main	Outlet	A	B	C	D	E	F
4"	4"	3.0315	25	7.50	16	4.000	4
6"	4"	5.0315	25	7.50	16	4.50	4
6"	6"	3.0315	31	9.00	12	6.000	4
8"	4"	5.0315	25	8.50	16	4.50	4
8"	6"	7.0315	31	9.00	12	6.50	4
8"	8"	9.0315	31	9.50	18	8.000	6
10"	4"	5.0315	25	10.00	10	4.50	4
10"	6"	7.0315	31	10.50	12	6.50	4
10"	8"	9.0315	31	11.00	15	8.50	6
10"	10"	11.0315	31	11.50	18	10.000	8
12"	4"	5.0315	25	12.00	10	4.50	4
12"	6"	7.0315	31	12.00	12	6.50	4
12"	8"	9.0315	31	12.00	15	8.50	6
12"	10"	11.0315	31	12.00	18	10.50	8
12"	12"	13.0315	31	12.00	20	12.000	8

12.12 **Muller Co.** MECHANICAL JOINT TAPPING CROSS FOR CENTRIFUGAL CAST, C.I., D.I., & PVC PIPE

Rev. 5-09



H-715

- ❑ Catalog number--
H-715 Mechanical Joint Tapping Cross
- ❑ Sizes--4"-24" main and outlet (see chart below for available size combinations)
- ❑ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60.
- ❑ Iron body with 3/4" NPT test plug.
- ❑ 4"-12" sizes--200 psig (1379 kPa) maximum working pressure
- ❑ 14" - 24" sizes--150 psig (1034 kPa) maximum working pressure

Tapping Cross pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
4"	4.74"-4.86"	120.5-123.3	Cast iron classes 100, 150, 200 and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195824
	4.87"-5.32	123.8-135.0	Cast iron classes B, C, and D - A-C classes 100 and 150	195653
6"	6.84"-6.96"	173.8-176.7	Cast iron classes 100, 150, 200, and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195825
	6.97"-7.40"	177.1-187.9	Cast iron classes B, C, and D - A-C classes 100 and 150	195654
8"	8.99"-9.11"	228.4-231.3	Cast iron classes 100, 150, 200, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195826
	9.12"-9.62"	231.7-244.2	Cast iron classes B, C, and D - A-C classes 100 and 150	195655
10"	11.04"-11.16"	280.5-283.4	Cast iron classes 150, 200, 250, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194680
12"	13.14"-13.26"	333.9-336.7	Cast iron classes 150, 200, 250, A and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194638
14"	15.22"-15.35"	386.7-389.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195127
16"	17.32"-17.45"	440.6-443.1	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195128
18"	19.42"-19.55"	493.4-496.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195126
20"	21.52"-21.65"	546.7-549.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195129
24"	25.72"-25.85"	653.4-656.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195130

Sizes available

Nominal size of main	Outlet size									
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
4"	X	-	-	-	-	-	-	-	-	-
6"	X	X	-	-	-	-	-	-	-	-
8"	X	X	X	-	-	-	-	-	-	-
10"	X	X	X	X	-	-	-	-	-	-
12"	X	X	X	X	X	-	-	-	-	-
14"	X	X	X	X	X	X	-	-	-	-
16"	X	X	X	X	X	X	X	-	-	-
18"	X	X	X	X	X	X	X	X	-	-
20"	X	X	X	X	X	X	X	X	X	-
24"	X	X	X	X	X	X	X	X	X	X

MECHANICAL JOINT TAPPING CROSS FOR PITCAST C.I. PIPE

12.13 **Muller Co.**

Rev. 5-09



H-716

- ❑ Catalog number
H-716 Mechanical Joint Tapping Cross
- ❑ Sizes--4"-24" main and outlet (see chart below for available size combinations)
- ❑ Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60.
- ❑ Iron body with 3/4" NPT test plug
- ❑ 10"-12" sizes--200 psig (1379 kPa) maximum working pressure
- ❑ 14"-24" sizes--150 psig (1034 kPa) maximum working pressure

Tapping Cross pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
10"	11.34"-11.46"	288.1-291.0	Cast iron classes C and D	194631
12"	13.44"-13.56"	341.5-344.3	Cast iron classes C and D	194642
14"	15.59"-15.71"	396.1-398.9	Cast iron classes C and D	195131
16"	17.74"-17.86"	450.7-453.5	Cast iron classes C and D	195132
18"	19.84"-20.00"	504.1-507.9	Cast iron classes C and D	195268
20"	21.99"-22.14"	558.4-562.3	Cast iron classes C and D	195133
24"	26.24"-26.40"	666.6-670.5	Cast iron classes C and D	195134

Sizes available

Nominal size of main	Outlet size									
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
10"	X	X	X	X	-	-	-	-	-	-
12"	X	X	X	X	X	-	-	-	-	-
14"	-	X	X	X	X	X	-	-	-	-
16"	X	X	X	X	X	X	X	-	-	-
18"	X	X	X	X	X	-	X	X	-	-
20"	X	X	X	X	X	X	X	X	X	-
24"	X	X	X	X	X	X	X	-	X	X

MECHANICAL JOINT TAPPING CROSS FOR A-C PIPE

Rev. 8/09



H-719

- Catalog number—
H-719 Mechanical Joint Tapping Cross
- Sizes— 4"-12" main and outlet (see chart below for available size combinations).
- Specially designed for use on A-C pipe.
- Outlet flange dimensions and drilling comply with ANSI B16.1, class 125 and with MSS SP-60.
- Iron body.
- 4"-12" sizes—200 psig (1379 kPa) maximum working pressure

Tapping Cross pipe information

Nominal size of main	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
	Inch	mm		
4"	4.97" - 5.57"	126.3 - 141.4	A-C classes 150 and 200	195656
6"	7.05" - 7.60"	179.2 - 192.9	A-C classes 100, 150 and 200	195657
8"	9.22" - 9.79"	234.3 - 248.6	A-C classes 100, 150 and 200	195658
10"	11.77" - 12.25"	299.1 - 311.1	A-C classes 150 and 200	195307
12"	14.03" - 14.51"	356.5 - 368.5	A-C classes 150 and 200	195289

Sizes available

Size of main	Outlet size				
	4"	6"	8"	10"	12"
4"	X	-	-	-	-
6"	X	X	-	-	-
8"	X	X	X	-	-
10"	X	X	X	X	-
12"	X	X	X	X	X

NOTE: The actual diameter A-C pipe varies among manufacturers and from piece to piece. It is important to measure the pipe diameter at the point where the sleeve will be installed. The O.D. of A-C pipe can be reduced by following the recommendations of the specific pipe manufacturer.

MECHANICAL JOINT SPLIT REPAIR SLEEVE FOR CENTRIFUGAL CAST, C.I., D.I., & PVC PIPE

Should area indicate change. Rev. 8/09

- Catalog number—
H-785 Mechanical Joint Split Repair Sleeve
- Sizes —4" through 24"
(see chart below for sizes, O.D. ranges and sleeve lengths)
- Mechanical joint ends with duck-tipped end gaskets
- Iron body with 3/4" NPT test plug
- 4"-12" sizes—250 psig (1724 kPa) maximum working pressure
- 14" - 24" sizes—150 psig (1034 kPa) maximum working pressure



H-785

Tapping Sleeve pipe information

Nominal size of main	Sleeve length**	O.D. Range of sleeve		Class and type of pipe	End Gasket part number
		Inch	mm		
4"	11-1/2"	4.47-4.86	120.5-123.3	Cast iron classes 100, 150, 200 and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195824
		4.87-5.32	123.8-135.0	Cast iron classes B, C, and D - A-C classes 100 and 150	195653
6"	13-1/2"	6.84-6.96	173.8-176.7	Cast iron classes 100, 150, 200 and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195825
		6.97-7.40	177.1-187.9	Cast iron classes B, C, and D - A-C classes 100 and 150	195654
8"	15-1/2"	8.99-9.11	228.4-231.3	Cast iron classes 100, 150, 200 and A - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	195826
		9.12-9.62	231.7-244.2	Cast iron classes B, C, and D - A-C classes 100 and 150	195655
10"	17-1/2"	11.04-11.16	280.5-283.4	Cast iron classes 150, 200, 250, A, and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194680
12"	19-1/2"	13.14-13.26	333.9-336.7	Cast iron classes 150, 200, 250, A, and B - all classes ductile iron - cast iron O.D. PVC plastic pipe classes 150 and 200	194638
14"	22-1/2"	15.22-15.32	386.7-389.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195127
16"		17.32-17.45	440.0-443.1	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195128
18"		19.42-19.55	493.4-496.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195266
20"		21.52-21.65	546.7-549.8	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195129
22"		23.72-23.85	603.4-606.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195130
24"		25.92-26.05	658.4-661.5	Cast iron classes 50, 100, 150, 200, 250, A and B - all classes ductile iron	195131
30"	35.00	31.74	806.19	Cast iron classes A	542141
		32.00	812.80	Cast iron classes B, DI, C-900 PVC	542142
		32.40	822.96	Cast iron classes C	542143
36"	30.00	37.96	964.18	Cast iron classes A	542147
		38.3	972.82	Cast iron classes B, DI, C-900 PVC	542148
		38.7	982.98	Cast iron classes C	542149

**This length does not include end glands or bolts



H-786

**MECHANICAL JOINT SPLIT REPAIR
SLEEVE FOR PITCAST C.I. PIPE**

- Catalog number
H-786 Mechanical Joint Split Repair Sleeve
- Sizes---10" through 24"
(see chart below for sizes, O.D. ranges, sleeve lengths)
- Mechanical joint ends with plain rubber end gaskets
- Iron body with 3/4" NPT test plug
- 10"-12" sizes---200 psig (1379 kPa) maximum working pressure
- 14"-24" sizes---150 psig (1034 kPa) maximum working pressure

Split Repair Sleeve pipe information

Nominal size of main	Sleeve length**	O.D. range of sleeve		Class and type of pipe	End Gasket part numbers
		Inch	mm		
10"	17"-1/2"	11.34"-11.46"	288.1-291.0	Cast iron classes C and D	1946R1
12"	19"-1/2"	13.44"-13.56"	341.5-344.3	Cast iron classes C and D	1946R2
14"		15.59"-15.71"	396.1-398.9	Cast iron classes C and D	195131
16"		17.74"-17.86"	450.7-453.5	Cast iron classes C and D	195132
18"	22"-1/2"	19.84"-20.00"	504.1-507.9	Cast iron classes C and D	19526R
20"		21.98"-22.14"	558.4-562.3	Cast iron classes C and D	195133
24"		26.24"-26.40"	666.6-670.5	Cast iron classes C and D	195134

**This length does not include end glands or bolts



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- Catalog number--
T-2360-16 mechanical joint x flanged ends (with mechanical joint unassembled accessories)
T-2360-19 mechanical joint x flanged ends (less mechanical joint accessories)
- Sizes--2", 3", 4", 6", 8", 10", 12"
- Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard, certified to ANSI/NSF 61 standard, listed by Underwriters Laboratories Inc and ULCC, approved by Factory Mutual Corp.
- Inlet flange complies with ANSI B16.1, class 125 drilling and with MSS SP-60
- Mechanical joint outlet complies with ANSI/AWWA C111 Standard
- Iron body with nominal 10 mils MUELLER® Pro-Gard™ Epoxy Fusion Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring), with fourth O-ring serving as dirt seal**
- 2" square wrench nut (optional handwheel available)—open left or open right
- 2"-12" sizes--250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure



T-2360-16

**Dirt seal on 4"-12" valves

Options

- Position indicators
- Stainless steel fasteners: Type 316
- ASTM B98-C66100/H02 stem
- Handwheel

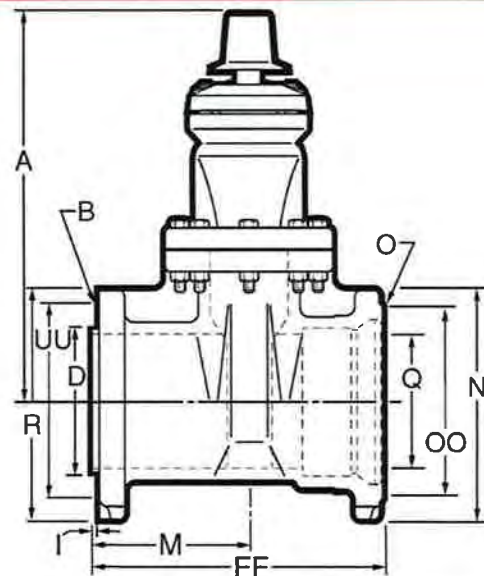
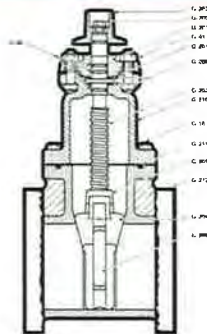
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material standard
G-118	Flanged Bolt & Nut	Stainless Steel	Type 316
G-141	Stuffing Box Bolt & Nut	Stainless Steel	Type 316
G-142	Stem O-Rings (2)	Rubber	ASTM D2001
G-176	Inlet Flange gasket	Composition	
G-381	Upper Flange Bolt and nut	Steel	
G-238	Wrench Nut Cap Screw	Stainless Steel	Type 316
G-209	Stuffing Box Seal	Rubber	ASTM D2001
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Flange	Rubber	ASTM A126 CL B
G-204	Main Wedge Gate Gasket	Cast Iron	ASTM A126 CL B
G-205	Lower Flange	Rubber	ASTM A126 CL B
G-206	Gate Cap Gasket	Rubber	ASTM A126 CL B
G-207	Stuffing Box with dirt seal**	Cast Iron Rubber	ASTM A126 CL B
G-208	Applastic Water 2"	Cast Iron	ASTM A126 CL B
G-209	Wedge Rubber Encapsulation	Cast Iron	ASTM A126 CL B
G-210	Flange	Cast Iron	ASTM A126 CL B
G-211	Flange Gasket	Rubber	ASTM D2001
G-212	Body	Cast Iron	ASTM A126 CL B

* Fully encapsulated in molded rubber with no iron exposed

** Flange sizes 10" 1999 these parts on 4"-12" valves were designed with a gasket instead of an O-ring and with additional bolts. Confirm the type of seal when ordering a replacement gasket or O-ring

**Dirt seal on 4"-12" valves



Dimensions

Dimension*	Nominal size					
	2"	3"	4"	6"	8"	12"
A	9.88	12.38	14.19	18.00	21.50	28.62
R	6.00	7.50	9.00	11.00	13.50	19.00
D	2.97	3.97	5.00	7.00	9.00	13.00
I	0.16	0.18	0.18	0.25	0.25	0.25
M	4.46	4.73	6.24	6.75	7.75	8.52
U' (bolt circle diameter for FL)	4.75	6.00	7.50	9.50	11.75	17.00
N	6.25	7.50	9.12	11.12	13.38	18.68
B (number and size of holes for FL)	4- 75	4- 75	8- 75	8- 88	8- 88	12- 100
Q (hole)	2.30	3.30	4.30	6.30	8.30	10.30
FF	8.55	8.99	11.91	13.00	14.62	15.95
O (number and size of holes for MJ)	4- 75	4- 75	4- 88	6- 88	6- 88	8- 88
OO (bolt circle diameter for MJ)	4.75	6.00	7.50	9.50	11.75	17.00
Turns to open	8	11	14	20.5	26.5	38.5
Weight*	42	69	118	163	260	401

* All dimensions are in inches. All weights include accessories are in pounds and approximate

12.20 **Mueller Co.** 14"-48" MUELLER® T-2361 RESILIENT WEDGE GATE VALVE - D.I. - M.J. X FL. ENDS

Rev. 5/02

- ❑ Catalog number--
T-2361-16 mechanical joint x flanged ends (with mechanical joint unassembled accessories)
T-2361-19 mechanical joint x flanged ends (less mechanical joint accessories)
- ❑ Size-- 14", 16", 18", 20", 24", 30", 36", 42", 48"
- ❑ Certified to ANSI/NSF 61 standard
- ❑ Inlet flange complies with ANSI B16.1, class 125 drilling and with MSS SP-60
- ❑ Flanged end dimensions and drilling comply with ANSI B16.1, class 125 (supplied without alignment lip)
- ❑ Mechanical joint end complies with ANSI/AWWA C111 Standard
- ❑ Ductile iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces; 42" and 48" valves coated with Tnemec Liquid epoxy.
- ❑ Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61.
- ❑ Ductile iron wedge symmetrical & fully encapsulated with molded rubber; no exposed iron
- ❑ Non-rising stem (NRS)
- ❑ Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- ❑ 2" square wrench nut - open left or open right
30"-48" require a Spur Gear or Bevel Gear
- ❑ 250 psig (1723 kPa) maximum working pressure; 500 psig (3447 kPa) static test pressure
- ❑ 14" and 16" UL Listed: 175 psig (1207 kPa); FM Approved: 250 psig (1723 kPa)



M.J. accessories shipped unassembled
T-2361-16

Options

- ❑ Position indicators
- ❑ Stainless steel fasteners: Type 304, Type 316
- ❑ Spur or Bevel Geared actuator
- ❑ ASTM B98-C66100/H02 stem: 14"-16"
- ❑ Bypass 18"-48" (2" on 18"-20"; 2.5 on 24"; 3" on 30"-48")
- ❑ ASTM B763-C99500; 18"-36"

Resilient wedge gate valve parts

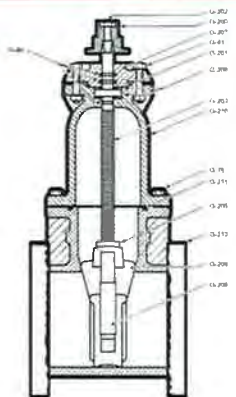
Catalog Part No.	Description	Material	Material standard
G-16	Bonnet Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-41	Stuffing Box Bolts & Nuts	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-49	Stem O-rings (2)	Rubber	ASTM D2000
G-200	Wrench Nut Cap Screw	Carbon Steel	ASTM A307 Grade B, Zinc Plated
G-201	Stuffing Box O-Ring Seal	Rubber	ASTM D2000
G-202	Wrench Nut	Cast Iron	ASTM A126 CL-B
G-203	Stem	Brass	ASTM B138**
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL-B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Cricon	
G-207	Stuffing Box	Ductile Iron	ASTM A536
G-208	Anti-friction Washers (2)	Brass	
G-209	Wedge, Rubber Encapsulated	Ductile Iron* SBR†	ASTM A536
G-210	Bonnet	Ductile Iron	ASTM A536
G-211	Bonnet O-ring	Rubber	ASTM D2000
G-212	Body	Ductile Iron	ASTM A536

* Fully encapsulated in molded rubber with no iron exposed

** 18" - 36" ASTM B594

*42" and 48" EPDM standard

†† Must use 1/2" under size shell cutter

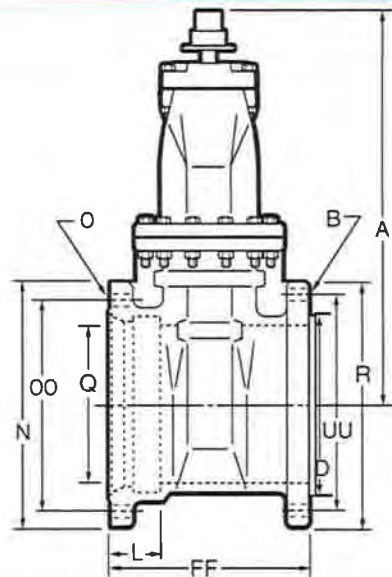


14"-48" MUELLER® T-2361 RESILIENT WEDGE GATE VALVE - D.I. - M.J. X FL. ENDS

Mueller Co.

12.21

Rev. 9/02



Dimensions

Dimension*	Nominal size								
	14"	16"	18"	20"	24"	30"	36"	42"	48"
A	32.75	37.88	44.19	48.25	53.58	See A for Spur or Bevel Gear			
B	3.525	3.725	3.947	4.147	4.547	30.94	36.94	43.44	49.44
D	3.50	3.50	3.50	3.50	3.50	4.00	4.00	4.00	4.00
E	3.50	3.50	3.50	3.50	3.50	4.00	4.00	4.00	4.00
N	20.25	22.56	24.76	27.25	31.51	39.53	46.41	53.53	60.41
O (number and size of holes for MJ)	10-3/8	12-3/8	12-3/8	14-3/8	16-3/8	20-1/2	24-1/2	28-1/2	32-1/2
Q (holes)	14.38	16.00	18.38	20.38	24.38	30.38	36.38	42.38	48.38
OO (bolt circle diameter for MJ)	18.75	21.00	23.25	25.50	30.00	36.68	43.75	50.62	57.50
R	21.00	23.50	25.00	27.50	32.00	38.75	46.00	53.00	60.50
UU (bolt circle diameter for FL)	18.75	21.25	22.75	25.00	29.50	36.00	42.75	49.50	56.00
FF	17.41	17.91	19.25	19.75	21.75	29.75	33.75	40.38	43.79
B (number and size of holes for FL)	12-1/2	16-1/2	16-1/2	20-1/2	20-1/2	28-1/2	32-1/2	36-1/2	44-1/2
A - Spur Gear	39.50	43.58	49.41	53.01	59.51	70.81	83.08	97.84	109.70
A - Bevel Gear**	34.00	37.38	44.30	47.69	54.06	64.91	77.19	90.75	105.61
Turns to open (without gearing)	43.5	49	57	63	75	-	-	-	-
Turns to open (Spur gearing)	178	201	234	258	308	381	455	524	596
Turns to open (Bevel gearing)	196	221	257	284	337	412	444	524	596
Weight†	655	875	1226	1500	2375	5100	8400	13300	19700

*All dimensions are in inches. All weights are in pounds and are approximate. Weights for 30" - 48" valves are with gearing; for all others without gearing

**Center line of operating nut to center line of valve

†Spur or Bevel Gear must be used with 30", 36", 42", 48" valves

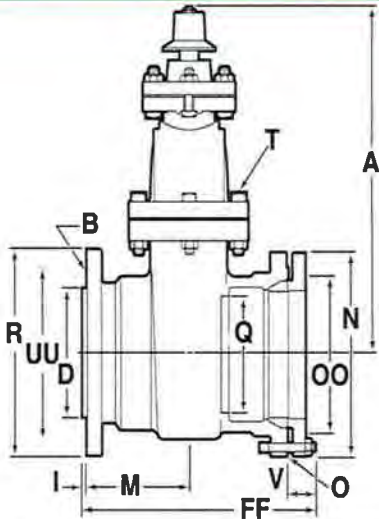
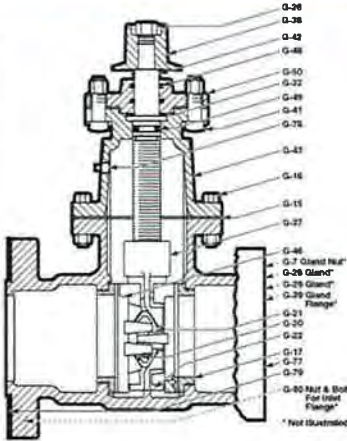
††Turns shown for Master Gear bevel gearing. Valves with Laminar bevel gearing: 18" - 227, 20" - 251, 24" - 300

- Meets or exceeds all applicable requirements of ANSI/AWWA C500 Standard, certified to ANSI/NSF 61.
- Catalog number--
H-667 flanged x mechanical joint with M.J. accessories
- Sizes--14", 16", 18", 20", 24"

Double-disc Tapping Valve parts

Catalog Part No.	Description	Material	Material Standard
G-15	Bonnet gasket	Compositon	ASTM D1170
G-16	Bonnet bolts & nuts	Steel	ANSI B18.2 plated
G-17	Seat ring	Bronze	ASTM B62
G-46	Disc and disc ring	Cast iron**	ASTM A126 CL-B
G-20	Disc pin	Bronze	ASTM B21
G-21	Side spreader	Bronze	ASTM B62
G-22	Bottom wedge	Cast iron	ASTM A126 CL-B
G-78	Test plug	Iron	
G-26	Nut for wrench nut	Steel	ANSI B18.2 plated
G-32	Stuffing box gasket	Fiber	
G-37	Top wedge nut	Cast iron**	ASTM A126 CL-B
G-38	Wrench nut	Cast iron	ASTM A126 CL-B
G-41	Stuffing box bolt & nut	Steel	ANSI B18.2 plated
G-42	Stem	Brinze	ASTM B138
G-43	Bonnet	Cast iron	ASTM A126 CL B
G-45	Hand Wheel	Cast iron	ASTM A126 CL B
G-77	Body	Cast iron	ASTM A126 CL-B
G-48	Stuffing box O-ring	Rubber	ASTM D2000
G-49	Stem O-ring	Rubber	ASTM D2000
G-50	Stuffing box	Cast iron	ASTM A126 CL-B
G-79	Inlet flange gasket	Compositon	
G-80	Inlet flange bolts and nuts	Steel	

** Cast iron discs with rolled-in bronze facings, cast iron top wedge nut with integrally cast bronze bushing



Dimension*	Size**	14"	16"	18"	20"	24"
A		34-1/8	38	43	47-1/2	55-3/4
B (height)		14-1/4	16-1/4	18-1/4	20-1/4	24-1/4
R		21	23-1/2	25	27-1/2	32
D		15-1/4	17-1/4	19-1/2	21-1/2	25-1/2
I		1/4	1/4	1/4	1/4	1/4
M		7-1/2	10-3/8	11	11-1/8	12-3/4
FF		17-7/8	23-9/16	24-3/4	25-1/16	28-1/16
V		2-5/8	3-1/16	3	2-15/16	3-5/16
N		20-5/16	22-9/16	24-13/16	27-1/16	31-9/16
T		18	18	20	20	24
B (number and size of bolts for FL)		12-1/2	16-1/2	20-1/2	24-1/2	30-1/2
O (number and size of bolts for MJ)		10-7/8	12-3/4	14-3/4	16-3/4	20-3/4
UU (bolt circle diameter for FL)		18.75	21.25	22.75	25.00	29.50
OO (bolt circle diameter for MJ)		18.75	21.00	21.25	24.50	30.00
Turns to open		40	50	50	60	70
Weight*		826	1144	1653	2300	3190

* All dimensions are in inches. All weights include accessories are in pounds and approximate

** Nominal

* First number is number of bolt holes, second is bolt size

Options --

- Bevel gearing with grease case
- Position indicators
- MUELLER HP[®] Epoxy Coating
- ASTM B98-C66100/H04 stem and disc pins
- Stainless steel fasteners
- Bronze internal parts
- Handwheel

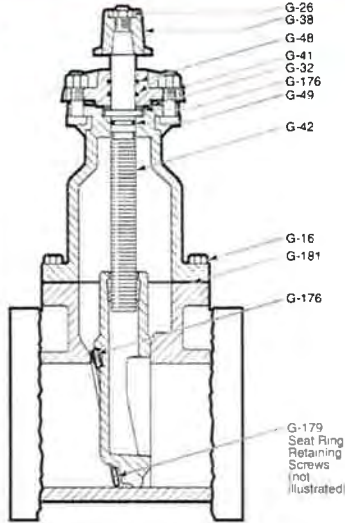
12.24 **Mueller Co.** MUELLER® SUPER-SEAL™ RESILIENT SEAT NRS TAPPING VALVE REPLACEMENT PARTS

Rev. 5/06

- ❑ Complete valves of this type are no longer available; only replacement parts are available.
- ❑ Catalog number--
H-6M7 mechanical joint x flanged end
- ❑ Sizes-- 4", 6", 8", 10", 12"

Resilient seat tapping valve parts

Catalog Part No.	Description	Material	Material standard
G-16	Bonnet bolts & nuts	Steel	ANSI B1K 2 plated
G-24	Test plug	Iron	
G-26	Nut for wrench nut	Steel	ANSI B1K 2 plated
G-32	Stuffing box gasket	Fiber	
G-38	Wrench nut	Cast iron	ASTM A126 CL B
G-41	Stuffing box bolt & nut	Steel	ANSI B1K 2 plated
G-42	Stem	Bronze	ASTM B138
G-45	Hand wheel	Cast iron	ASTM A126 CL B
G-48	Stuffing box O-ring	Rubber	ASTM D2000
G-49	Stem O-ring	Rubber	ASTM D2000
G-176	Anti-friction washer	Celcon	
G-178	Seat ring	Rubber	ASTM D2000
G-179	Retaining screw	Stainless steel	
G-181	Bonnet gasket	Copper/bronze	ASTM D1170



TAPPING VALVE ORDERING INSTRUCTIONS

12.25 **Mueller Co.**

Rev. 5/06

To order Tapping Valves specify:

Quantity

If more than one size, specify quantity of each

Size

Nominal size of valve

Catalog number

Special catalog number suffix

See chart at bottom of page 10.68 if gearing, grease cases, by-pass valves or position indicators are required. The appropriate suffix number is added to the base catalog number.

Direction of opening

Specify open left (counter-clockwise) or open right (clockwise). Wrench nuts on valves that open to the right are painted red for identification purposes.

Method of operation

Non-rising valves are available with either a 2" square wrench nut or a handwheel. Handwheels are standard on flanged x flanged valves; all other NRS valves have a 2" square wrench nut as standard (24" also has bevel gearing). When ordering NRS valves, specify wrench nut or handwheel.

Special requirements

Contact MUELLER Customer Service Center with special requirements such as special paints or coatings, low zinc bronze stems, stainless steel fasteners etc.

Tapping Valve Repair Parts

To order repair parts specify size of valve, direction of opening, year date on body, catalog part number, catalog number of valve if known, and type of ends if ordering body.

Discontinued Item

Please contact your Mueller Customer Service Representative for equipment and parts availability.

- ❑ Catalog number—
H-800 inserting valve
- ❑ Sizes—4", 6", and 8"

INSERTING VALVE AND BASIC EQUIPMENT



H-800

Inserting Valve basic equipment

Catalog number—

- H-811—Basic equipment used with MUELLER CL-12 Drilling Machine
- H-810—Basic equipment used with MUELLER CC-25 Drilling Machine

Discontinued Item

Please contact your Mueller Customer Service Representative for equipment and parts availability.

Basic equipment and weights

Catalog Number	Weight
H-811	700lbs.
H-810	700lbs.

Part	Part Numbers	
	H-811	H-810
Short adapter	80594	80594
Long adapter	80592	80592
Slide valve	83542	83542
Flange gasket	79740	79740
Flange washers	92576	92576
Flange bolts and nuts	36446	36446
Double end wrench (small)	96536	96536
Double end wrench (large)	58196	58196
Socket wrench (small)	33124	33124
Socket wrench (large)	33125	33125
Ratchet wrench	40233	40233
Ratchet brace	51963	51963
Hex wrench (short)	40327	40327
Hex wrench (long)	33113	33113
Boring bar socket	83780	80601
Guide supports	40780	40780
Grease	90968	90968
Pressure release valve	3/4" H-11055	3/4" H-11055



Short adapter



Boring bar socket



Slide valve



Double end wrenches



Grease



Ratchet brace



Long adapter



Socket wrenches



Long hexagon wrench



Ratchet wrench



Guide support



Flange bolt



Short hexagon wrench



Flange gasket



Flange washer



Pressure release valve

CUT-IN SLEEVES

- ❑ Catalog numbers—
H-440 cut-in sleeve with duck-tipped gasket*
H-442 cut-in sleeve with duck-tipped gasket* and bonding set screws in gland
H-441 cut-in sleeve with plain rubber gasket*
H-443 cut-in sleeve with plain rubber gasket* and bonding set screws in gland
- ❑ Sizes—4", 6", 8", 10", and 12"
- ❑ Cast iron construction
- ❑ Spigot end corresponds to class 150 ductile iron pipe
- ❑ Sleeves are marked with dimensional information to show how much of existing main must be removed for installation of sleeve and valve
- ❑ 200 psig (1379 kPa) maximum working pressure

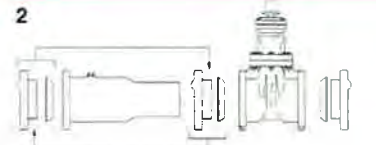
*See page 12.30 for extra gaskets and classes of pipe that cut-in sleeve will fit.



Fast, simple installation



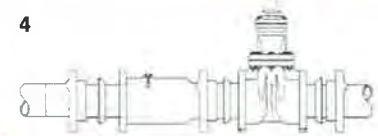
Clean pipe. With water pressure shut off, cut out the appropriate length of main.



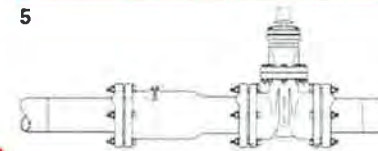
Disassemble the gland and gasket from the sleeve and interchange with the gland and gasket from one end of the cut-in valve.



Back the stop screw out until flush with the inside of the sleeve, and slide the sleeve over the end of pipe. Make sure end of pipe isn't hitting the stop screw.



Position cut-in valve on end of main. Slide sleeve spigot end into end of valve. Tighten stop screw so it clears end of pipe.



Position gaskets and glands. Install all tee-head pipe gland bolts and tighten. Open the cut-in valve and turn on water pressure in main.

- Catalog number--
C-2360-44 D-150 mechanical joint ends with accessories and duck tipped rubber gaskets*
C-2360-45 D-150 mechanical joint ends with accessories and plain tipped rubber gaskets†
C-2360-54 D-150 mechanical joint ends with accessories and duck tipped rubber gaskets† and bonding set screws in gland
C-2360-55 D-150 mechanical joint ends with accessories and plain tipped rubber gaskets† and bonding set screws in gland
- Sizes-- 4", 6", 8"
- Meets or exceeds all applicable requirements of ANSI/AWWA C509 Standard and is certified to ANSI/NSF 61
- Iron body with nominal 10 mils MUELLER® Pro-Gard™ Fusion Epoxy Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard and is certified to ANSI/NSF 61
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-ring)
- 2" square wrench nut (optional handwheel available)--open left or open right
- 4" - 8" sizes--250 psig (1723 kPa) maximum working pressure, 500 psig (3447 kPa) static test pressure

* See page 12.30 for extra gaskets and classes of pipe that cut-in valve will fit

Options

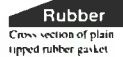
- Position indicators
- ASTM B98-C66100/H02 stem
- Stainless steel fasteners, Type 316
- Handwheel

Resilient Wedge Cut-In Valve Parts

Catalog Part No.	Description	Material	Material standard
G-10	Bonnet Bolts & Nuts	Stainless Steel	Type 304
G-41	Stuffing Box Bolts & Nuts	Stainless Steel	Type 304
G-49	Stem O-rings (3)	Rubber	ASTM D2000
G-200	Wrench Nut Cap Screw	Stainless Steel	Type 304
G-201	Stuffing Box Seal	Rubber	ASTM D2000
G-202	Wrench Nut	Cast Iron	ASTM A126 CL B
G-203	Stem	Brass	ASTM B113
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL B
G-205	Stem Nut	Brass	ASTM B62
G-206	Guide Cap Bearings	Celcon	
G-207	Stuffing Box	Cast iron	ASTM A126 CL B
G-208	Anti-friction Washers (2)	Celcon	
G-209	Wedge Rubber Encapsulated	Cast Iron**	ASTM A126 CL B
G-210***	Bonnet	Cast Iron	ASTM A126 CL B
G-211***	Bonnet Gasket	Rubber	ASTM D2000
G-212***	Bolts	Cast Iron	ASTM A126 CL B

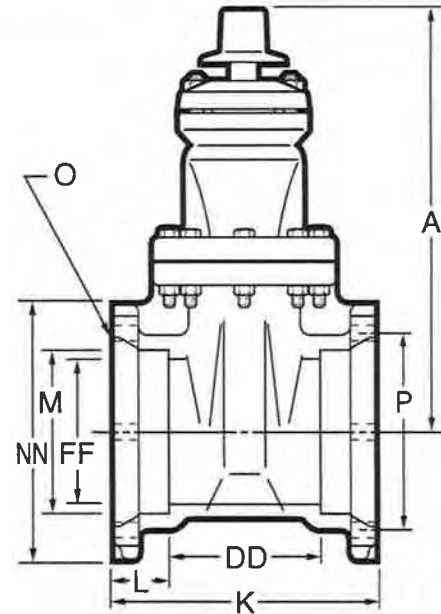
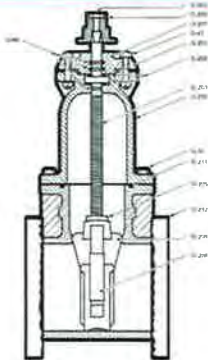
* Fully encapsulated in molded rubber with no iron exposed

** Previous to 1999 these parts on 4"-8" valves were designed with a gasket instead of an O-ring and with additional bolts. Confirm the type of seal when ordering a replacement gasket or O-ring



C-2360-44

D-150 M.J. accessories shipped unassembled



Dimensions

Dimension*	Nominal Size		
	4"	6"	8"
A	14.19	19.00	21.50
E	10.00	11.50	12.50
L	2.50	2.50	2.50
M	5.17	7.27	9.47
O (number and size of holes)	4 - .88	6 - .88	8 - .88
P (bolt circle diameter)	7.75	9.75	12.125
DD	5.00	6.50	7.50
FF	4.30	6.30	8.30
NN	9.44	11.44	13.81
Turns to open	14	20.5	26.5
Weight*	120	186	280

* All dimensions are in inches. All weights include accessories are in pounds and approximate

Extra gaskets for Mueller Cut-in Valves

Mueller Cut-in Valves are furnished with one of two types of gaskets, either duck-tipped or plain rubber. The type of gaskets furnished is determined by the valve catalog number selected.

Each type of gasket is for a specific type and class of pipe. In general for a given nominal size of pipe, duck-tipped gaskets are used with pipe having the smaller outside diameter, while plain rubber gaskets are used with pipe having the larger outside diameter.

For all Mueller Cut-in Valves of a given nominal size, the body and end glands are the same regardless of the type of gaskets furnished. Therefore, one valve with two sets of gaskets (one set each of duck-tipped and plain rubber) will fit all classes of pipe listed below. If there is any question as to the type of pipe involved when using a cut-in sleeve and cut-in valve, we recommend ordering and stocking cut-in valves with duck-tipped gaskets and separate plain rubber gaskets for each valve.

Duck-tipped gaskets for Mueller® Cut-In Sleeves and Valves

Duck-tipped gaskets must be used with the following pipe:

Centrifugally cast pipe, classes 50-250
ANSI A21.6 AWWA C106
ANSI A21.8 AWWA C108

Pit cast pipe, classes 50-250
ANSI A21.8 AWWA C102

Ductile iron pipe, classes 50-56
ANSI A21.51 AWWA C151

Cast iron pipe, AWWA Specification, class A and 8", 10" and 12" class B

Cast iron, old AGA Standard

Federal Specifications WW-P-421, classes 150 and 250

Cast iron O.D. PVC pipe, class 200 AWWA C900

**Duck-tipped gaskets**

Gasket part number	Pipe size*	Approximate pipe O.D.	Approximate pipe circumference
194732	4"	4.80"	15.14"
194733	6"	6.90"	21.34"
194734	8"	9.05"	28.12"
194735	10"	11.10"	35"
194736	12"	13.20"	41.58"

*Nominal

Plain rubber gaskets for Mueller® Cut-In Sleeves and Valves

Plain rubber gaskets must be used with the following pipe:

Cast iron, AWWA Specifications, class C and D, and 4" and 6" class B

**Plain rubber gaskets**

Gasket part number	Pipe size*	Approximate pipe O.D.	Approximate pipe circumference
194738	4"	5.00"	15.78"
194739	6"	7.10"	22.12"
194740	8"	9.30"	29.38"
194741	10"	11.40"	36"
194742	12"	13.50"	42.58"

*Nominal

MUELLER®

OPERATING INSTRUCTIONS for TRU-CUT™ DRILLING MACHINE

MAIN OFFICE and PLANT
500 West Eldorado Street
Decatur, Illinois 62522



WARNING

1. Read and follow instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage.
2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.

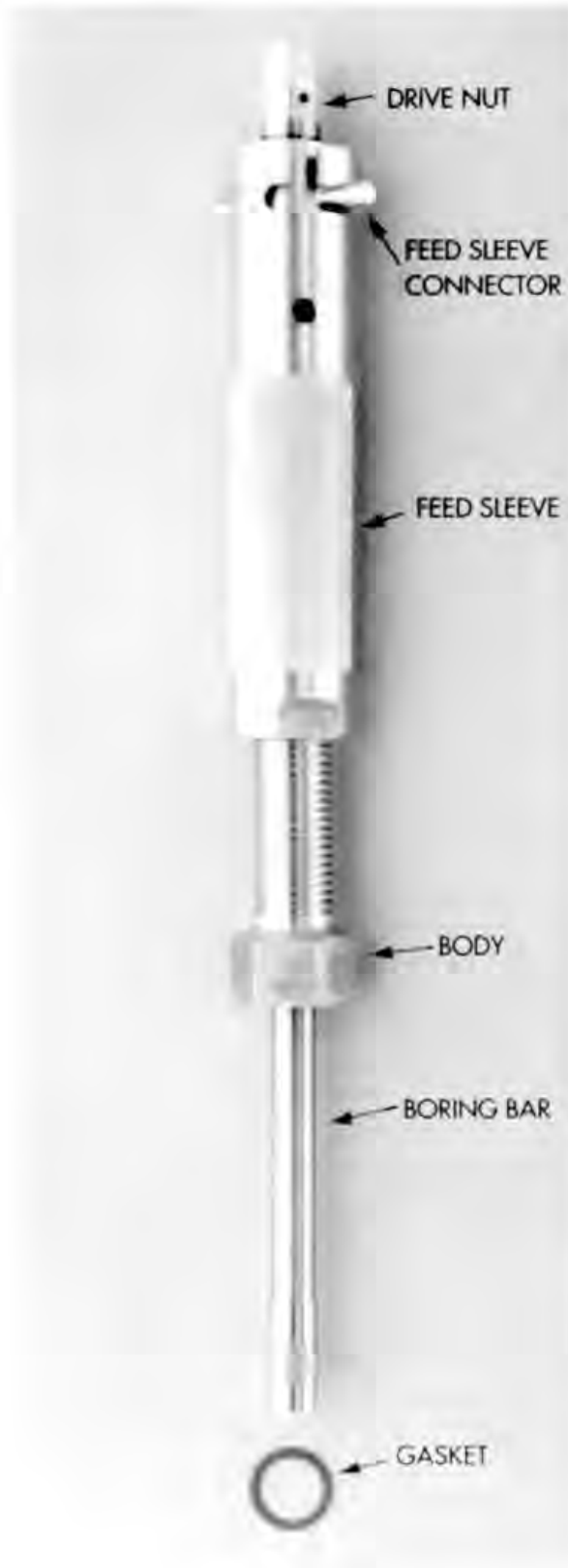
MUELLER® Drilling Machines and Equipment have been carefully designed and engineered to work together as a unit. The use of equipment manufactured by someone other than Mueller Co. may cause excessive wear or a malfunction of the MUELLER Machines.

Mueller Co. will assume no responsibility or liability, either express or implied, for any malfunction or damage caused by or to a MUELLER machine when the use of shell cutters or equipment manufactured by someone other than Mueller Co. is involved.

All warranties, express and implied, for Mueller Drilling Machines are rendered null and void if the machines are used with shell cutters or equipment manufactured by someone other than Mueller Co.

Mueller Co.

TRU-CUT™ DRILLING MACHINE



INSTALLATION OF CORPORATION VALVE WITH SERVICE CLAMP ON PVC PLASTIC WATER MAIN

The Mueller Tru-Cut™ Drilling Machine is used to install corporation valves using a service clamp on PVC plastic water main with a wall thickness up to 1¹/₈". The machine operates easily by hand, and allows independent control of tool rotation (cutting action) and boring bar feed (tool advancement). It includes a feature that allows the boring bar to be disconnected from the feed sleeve and repositioned quickly.

CAUTION

Use of serrated jaw wrenches or pipe wrenches on any machine parts or accessories may result in deformation or other damage which would render the machine or an accessory unusable. Use only smooth jawed wrenches with this equipment.

OTHER EQUIPMENT REQUIRED

The following items are not supplied with the machine and are purchased separately, according to the application – see the current Mueller Water Distribution Products Catalog.

MACHINE ADAPTER

MACHINE ADAPTER GASKET (Supplied with Adapter)

SHELL CUTTER

LOCK WASHER (Supplied with Cutter)

CUTTING GREASE

Also needed: smooth jawed wrenches to tighten Machine Adapter and Shell Cutter to Tru-Cut™ Drilling Machine, and Adapter to corporation valve outlet; wrench to drive Boring Bar (Machine Drive Nut will accommodate ³/₄" socket, ³/₄" wrench, or ³/₈" socket drive); and Drift Pin (part no. 63264) or Coupon Removal Tool (part no. 681242) and hammer to remove coupon from Shell Cutter.

MACHINE SET UP

1. Attach service clamp and corporation valve at the appropriate angle to the water main using accepted installation procedures, and tighten all components to specified torque requirements. Make sure corporation valve is in fully open position.

TRU-CUT™ DRILLING MACHINE

2. Attach proper Machine Adapter and Gasket to Machine Body wrench tight using a smooth jawed wrench. Selection of Adapter depends upon the type and size of outlet connection on the corporation valve.
3. Attach proper Shell Cutter with its Lock Washer to Boring Bar. Use wrench flats on Shell Cutter and Machine Body to tighten Shell Cutter securely – do not use any tool in the slots of the Shell Cutter.
4. Lightly lubricate outside of Shell Cutter using Mueller Cutting Grease.
5. Disengage Feed Sleeve Connector from Feed Sleeve and pull Boring Bar to the rearmost position and hold in this position during the next step.
6. Check to be sure corporation valve is open. Attach Machine assembly (with Cutter, Adapter, and Gasket) to corporation valve outlet and tighten wrench tight.
7. Push Boring Bar forward until Feed Sleeve Connector can be engaged in slot at top of Feed Sleeve (turn the Sleeve counter-clockwise if necessary).
8. Turn Connector clockwise in slot, then advance Feed Sleeve by turning clockwise until Cutter contacts main.
9. Cut hole by turning Boring Bar clockwise, while turning Feed Sleeve clockwise a little at a time. Do not force Cutter into the main. Use a light even feed at the start, then a somewhat heavier feed and finish with a light even feed. Completion of hole through the main will be accompanied by an obvious reduction in resistance felt while turning Boring Bar and Feed Sleeve.

IMPORTANT

Continue turning Boring Bar and Feed Sleeve a few additional revolutions to make sure the coupon is completely removed from the wall of the main.

CAUTION

Once hole has been completely cut through the wall of the main, the Boring Bar will be under full line pressure, resulting in a piston action that will tend to force the Boring Bar to the rearmost position. Control or restrain rearward movement of Boring Bar at all times by keeping the Feed Sleeve Connector engaged with the Feed Sleeve, and by turning the Feed Sleeve in a counter-clockwise direction to back the Cutter out of the main and clear of the corporation valve. To avoid possible injury, keep head and body away from the end of Boring Bar at all times.

10. Using both hands, turn Feed Sleeve in counter-clockwise direction to move Boring Bar to the rearmost position and retract Cutter from main. For larger holes or thicker pipe, a smooth jawed wrench may be used on Feed Sleeve flats to facilitate turning Feed Sleeve.
11. Make sure Cutter is clear of corporation valve, then close valve and remove Machine and Adapter as a unit.
12. Remove plastic coupon using one of the following methods:
 - A. Use Drift Pin (part no. 63264) to pry between the coupon and the top (or root) of the cutter slot and push the coupon from the cutter. If plastic fills the entire slot area, engage the plastic in the slot with the tip of the Drift Pin and use a hammer to drive the coupon from the cutter.

CAUTION

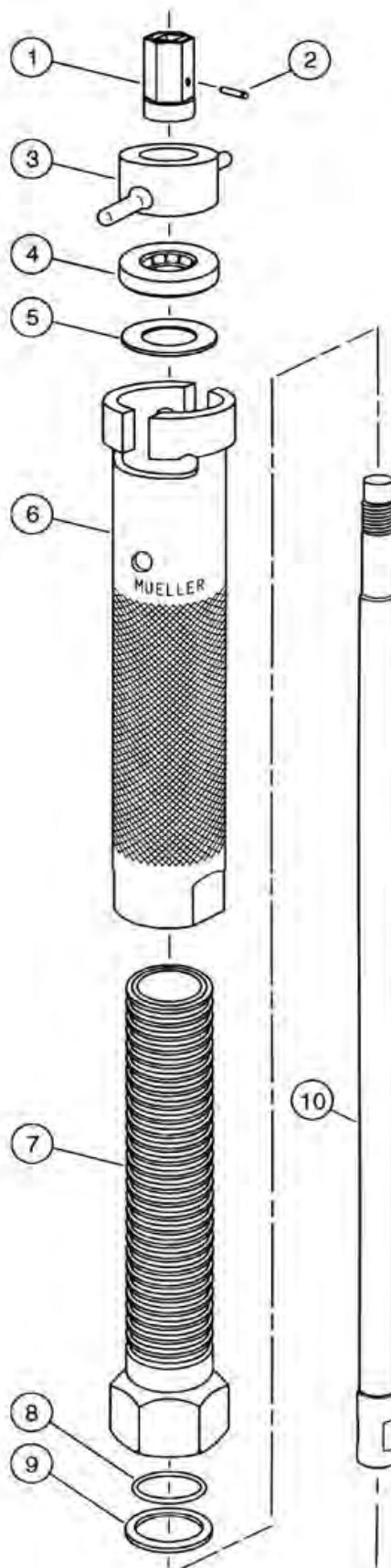
Prying against the sides of the cutter slot or using a prying tool that is wider than the slot can damage the cutter and make it unusable.

- B. With the cutter removed from the machine, use a Coupon Removal Tool (part no. 681242) inserted through the tapped hole in the cutter shank to drive the coupon out of the cutter.
13. Remove all remnants of plastic material from interior of Cutter and relubricate its exterior before using Machine to make another cut.

PARTS

FOR TRU-CUT™ DRILLING MACHINE

Item No.	Part Number	Part Name
	039431	Machine Complete
1	528716	Drive nut
2	507143	Pin
3	89073	Connector
4	78855	Bearing
5	78856	Collar
6	528725	Feed sleeve
7	528717	Body
8	78858	O-Ring
9	58733	Gasket
10	528718	Boring bar



NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. MUELLER CO. offers a machine repair service, and field tapping service. Contact MUELLER® Customer Service Center for details.
TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).

MUELLER®

OPERATING INSTRUCTIONS FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE



WARNING

1. Read and follow instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage.
2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.

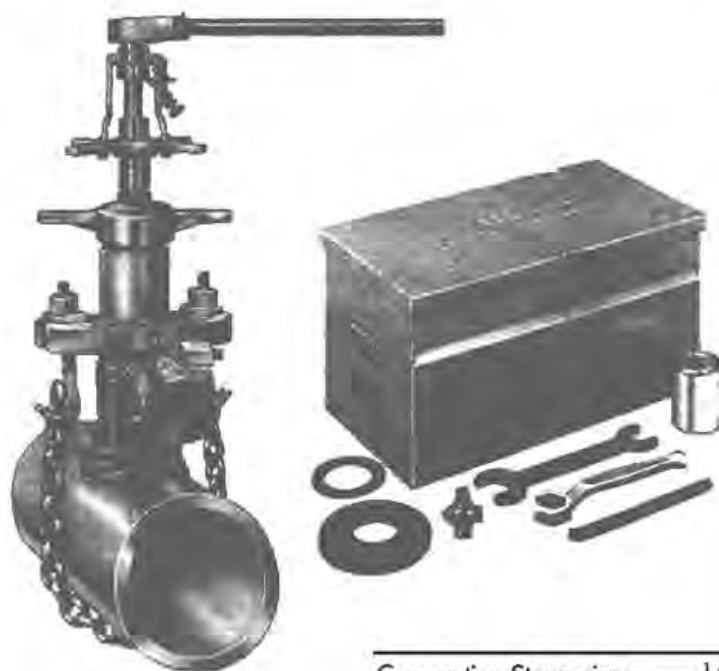
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Mueller Co.

MAIN OFFICE and PLANT
500 West Eldorado Street
Decatur, Illinois 62522

B-101™ AND B-100™ DRILLING AND TAPPING MACHINE



CAPACITY AND USE:

The B-101 drilling and tapping machine drills and taps mains, and inserts stops, tees or plugs into the tapped hole in the main under pressure.

The B-101 machine has a special mechanism that permits the boring bar to be locked to the feed nut and yoke to prevent the drill from spiraling into the hole before the hole is completely drilled. It also prevents the drill from dropping to the threaded section of the combined drill and tap. This design eliminates unnecessary tool damage and is recommended for low pressure drillings.

Tools and equipment for the B-101 and earlier B-100 machines are the same. The following items can be inserted with the B-101 or B-100 machine.

See notice on page 14 regarding use of Blow-off Valve.

Corporation Stops, sizes	1/2"	5/8"	3/4"	1"				
Gas Main Stops, sizes	1/2"		3/4"	1"				
NO-BLO Machine Inserted								
Valve Tees, size			3/4"					
Pipe Plugs, sizes	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"

B-101 AND B-100 MACHINE AND EQUIPMENT FURNISHED

Shipped in Metal Case.

Total Shipping Weight 113 Pounds.

EQUIPMENT FURNISHED WITH EACH MACHINE:

Ratchet Handle	Chain Hook Nut and Tool
Small Saddle Gasket	Retaining Screw Wrench
Large Saddle Gasket	E-Z Release
Round Link Chain	Screw Plug Wrench
Chain Hooks and Nuts	Body Cleaning Chisel
Chain Washers	Cutting Grease
Blow-off Valve	

MAXIMUM WORKING PRESSURE

90 p.s.i. without power devis

250 p.s.i. with power devis

Tools and saddles are offered for use with cast iron, steel, and asbestos-cement pipe in sizes from 2" to 48" inclusive.

RECOMMENDED MINIMUM SIZE OF CAST IRON MAIN FOR EACH SIZE OF TAPPING FOR SERVICE CONNECTION*

Size of Tapping	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Smallest Size of Main	3"	3"	3"	4"	6"	6"	8"	10"
Approximate Number of Full Threads	5"	4 3/4"	4 1/2"	4 1/2"	4 1/4"	4"	4"	4"

* Corporation Stops, Service Tees, and Gas Main Stops with MUELLER Compression Joint Inlet may be used with smaller sizes of pipe.

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

NOTICE: The machine used to illustrate this manual may differ somewhat in appearance from currently produced machines. If one of these differences is of significance, it will be referred to in the instructions.

BEFORE USE

Clean and lubricate all wearing and bearing surfaces and threads EXCEPT the boring bar thrust collar which requires no lubrication.

NOTE: If lubricated, service life of boring bar thrust collar may be shortened.

Boring bar is lubricated between upper and lower "O" ring seal in feed sleeve and cap by a reservoir containing light machine oil. Remove oil plug in feed sleeve near lower end and occasionally fill with light oil.

Inspect and clean all tools, particularly the shank ends, and remove any burrs or scale which would prevent proper alignment with the boring bar.

Inspect and clean the socket in the end of the boring bar and remove any burrs or scale which would prevent the tool from seating properly.

AFTER USE

Thoroughly clean the entire machine and all tools, and lubricate all machined surfaces.

Remove all chips from inside of body, including the flop valve recess. A special body cleaning chisel is furnished for this purpose. If chips are permitted to accumulate in the machine, they will rust and become caked and will interfere with the operation of the flop valve.

NOTE: Do not bump machine on hard surface to shake chips out of body. Saddle gasket surface is damaged by this type of operation.

The machine and all tools and equipment should be stored in the machine chest. Carefully, place tools in their individual compartments to prevent damage to threads or cutting edges.

BORING BAR PACKING

Machine is equipped with "O" ring packings, which are nonadjustable. When leakage occurs, replacement is necessary.

These packings are replaced in the following manner:

1. Remove ratchet handle and feed nut and yoke from boring bar.
2. Punch out boring bar thrust collar retaining pin. Slide collar off bar.
3. Unscrew feed sleeve and cap from cylinder and slide feed sleeve and cap off bar.
4. Remove wiper ring and "O" rings from recess in top and bottom of feed sleeve and cap.

MAINTENANCE INSTRUCTIONS

5. Check wiper ring and "O" ring packing recesses to be sure they are clean before placing new rings in these grooves. New wiper ring and "O" ring packings should be lubricated with machine oil or light cup grease before they are placed in the feed sleeve and cap.
6. Be sure the top end of boring bar at squared end has no rough edges or burrs that would damage the new wiper ring and "O" ring packings as the feed sleeve and cap are replaced on the boring bar. Screw feed sleeve and cap back on cylinder.
7. Replace boring bar thrust collar and replace retaining pin.
8. Remove oil hole plug in feed sleeve and fill recess between "O" rings with light machine oil. Move bar up and down while filling to remove air pockets.
9. Replace oil hole plug.

AUTOMATIC FEED DRILLING ATTACHMENT

The only maintenance required for the automatic drill feed gear case (furnished with the H-603 Electric Power Operator, or H-604 Air Power Operator) is the occasional check to see that it has sufficient lubrication.

The gear case contains one pint or one pound of SAE 90 gear oil (multipurpose grease). The oil level may be checked by removing the small oil plug located on the side of the gear case when the gear case is positioned level with the driving sockets on the bottom. Oil should be level with this plug hole. Oil may be added through the plug located on top of the gear case.

MAINTENANCE INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

BY-PASS VALVE – FIGURE 1

A push-pull type valve is used on B-101 Machines for by-passing and relieving pressure. (The valve is available as a separate part to replace the ground-key style valve used on older B-101 and B-100 machines.) The valve is attached to the machine by two screws and can be removed easily for cleaning the valve or machine body passages.

A. OPERATION

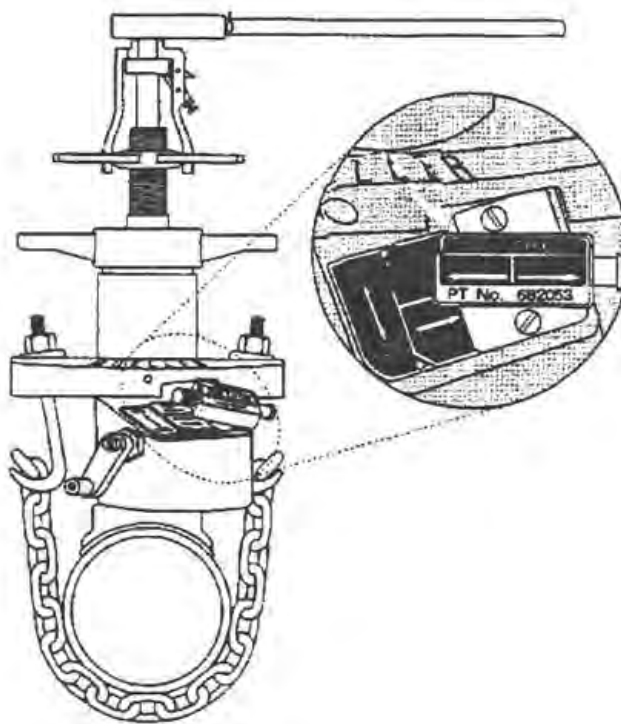
1. Bypass: push the knurled knob in all the way against the by-pass valve body.
2. Relief: pull the knob out all the way until it stops, away from the valve body.

B. MAINTENANCE

The spool should be periodically removed and cleaned

1. Remove retaining ring.
2. Pull spool out of by-pass valve body.
3. Clean the spool and O-rings of old lubricant and foreign matter.
4. Clean the bore inside the valve body and examine for deep scratches that could cause leakage or abrade the O-rings. Replace the entire valve and its sealing gasket if necessary. (Gasket is supplied attached to valve body.)
5. Examine the O-rings for damage and replace if necessary. Lubricate the O-rings with a silicone grease.
6. Reassemble the spool and retaining ring.

NOTE: It is recommended that a spare Repair Kit, part number 682078, be kept available for timely repairs.



FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

OPERATING INSTRUCTIONS

A. SELECT THE EQUIPMENT REQUIRED

1. Select the proper combined drill and tap according to:
 - a. Size and type of inlet thread on stop, tee, or plug to be inserted.
 - b. Material from which the pipe to be tapped is made.
 - c. Size and class of pipe to be tapped.
2. Select the proper saddle according to the size and type of pipe to be tapped.
3. Select the proper screw plug.
 - a. For corporation stops according to the size and type of outlet.
 - b. For tees according to the size of the outside thread at the top of the tee.
 - c. For plugs according to the size.
4. Select the proper extracting tool.
 - a. For corporation stops according to the size and type of outlet.
 - b. For tees according to the size of the outside thread at the top of the tee.
 - c. For plugs according to the size.
5. Select the items of special equipment which may be required because of special operating conditions.

B. ATTACH THE MACHINE TO THE PIPE

1. Thoroughly clean the pipe at the location for the tap; include an area greater than the large saddle gasket.
2. Place the large saddle gasket on top of the pipe even with the location for the tap, with the raised projection up away from the pipe.
3. Place the saddle on the large saddle gasket.
4. Place the small saddle gasket in the recess in the top of the saddle. FIGURE 2.
5. Unscrew the feed sleeve and cap containing the boring bar assembly from the cylinder of the machine (2 1/2 turns).

NOTE: This can be done more conveniently if the boring bar is in the retracted position.

6. Place the body and cylinder of the machine on top of the small saddle gasket. Position the machine so that the by-pass valve is on the upper side, if the machine is to be operated in any position other than vertical. Flop valve lever handle will be on the lower side of machine.
7. Unscrew nuts on chain hooks until nuts are flush with end of threaded stem.
8. Hang chain hooks and washers in chain yoke.



FIGURE 2



FIGURE 3

9. Attach chain to chain hooks. Hook chain into one hook and bring under the pipe and hook to nearest link. FIGURE 3.
10. Tighten chain hook nuts evenly hand tight.
11. Slide machine on pipe to desired position or angle.
12. Tighten the chain hook nuts evenly, using wrench furnished with machine. A "cheater" or extension handle should not be used on this wrench. Hammer the chain around the pipe to remove any twist in the chain and continue tightening both chain hook nuts until the machine is bearing solidly against the pipe. New type chain hooks and washers prevent rotation of chain hooks and provide a better grip for round link chain.

IMPORTANT: Do not tighten chain hook nuts after starting to drill as it will throw the machine out of alignment.

OPERATING INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE



FIGURE 4



FIGURE 5



FIGURE 6

NOTE: Use chain spreader (Part No. 40321) when tapping pipe 3" in size and smaller to spread the chain so that it will clear the lower edge of the body of the machine.

B-101 and B-100 Machine chain is for use on pipe up to 12" in size.

Use the proper length and type of extension chain when tapping pipe in larger sizes.

C. ATTACH TOOL TO BORING BAR

1. Slide knockout pin in boring bar socket to its outward position using pin extending through bottom of boring bar bearing as a handle.
2. Insert shank end of combined drill and tap into boring bar socket aligning driving pins on tool with slots in end of boring bar. FIGURE 4.
3. Strike tool on drill end with a block of wood to be sure it fits tightly in socket.
4. Tighten tool retaining screw in boring bar using small socket end of chain hook nut and tool retaining screw wrench. FIGURE 5.
5. Retract boring bar to its rearmost position in feed sleeve and cap.
6. Coat drill end and tap threads with Mueller cutting grease. Do not use cutting grease when drilling or tapping asbestos-cement or concrete pipe.

D. ASSEMBLE THE MACHINE

1. Open flop valve to its wide open position by pushing lever handle down. If desired, handle screw may be engaged into socket on side of body to retain flop valve in open position during this operation. FIGURE 6.
2. Attach boring bar, feed sleeve and tool assembly to cylinder of machine and tighten cap securely (2 1/2 turns).
3. Push boring bar down by hand until tool contacts pipe.
4. When using B-100 machine, adjust feed nut and yoke on feed sleeve and cap so that the yoke engages thrust collar on boring bar. When using B-101 machine, adjust feed nut and yoke in the same manner and raise the pivot arm of locking mechanism on side of yoke so that it is positioned under the collar, then lock in place with operating screw and lock nut.

NOTE: Spring loaded detents in yoke will keep yoke from falling away from the bar.

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

OPERATING INSTRUCTIONS

5. Push by-pass valve to "by-pass" position. Arrow on by-pass valve body indicates valve position. See FIGURE 1.

NOTE: The socket in the end of the chain hook nut and tool retaining screw wrench may also be used to turn the handle on the by-pass valve.

E. DRILL AND TAP THE MAIN – HAND OPERATED METHOD

1. Place ratchet handle on boring bar and set for **clockwise** rotation by pulling outward on ratchet detent knob and adjusting it for **clockwise** rotation.

NOTE: The standard ratchet handle length is 18 $\frac{11}{32}$ ". When making cuts larger than 1" an optional handle bar is available which increases the length to 30 $\frac{11}{32}$ ".

2. Drill the main by operating the ratchet handle **clockwise** and turning the feed nut and yoke **clockwise** a little at a time. Use a light even feed at the start. If possible pull the ratchet handle in an arc parallel the the axis of the pipe thereby reducing the tendency of the machine to slip on the pipe. It will be found convenient to turn the feed nut as the boring bar is being turned. FIGURE 7.

NOTE: See instructions and illustration on page 14 for removing drilling chips from the main while drilling and tapping.

3. Continue the drilling operation until the boring bar feeds easily and rotates easily, indicating the drill portion of the tool is through the pipe.
4. Rotate ratchet handle clockwise and rotate feed nut clockwise to engage tap part of tool into main. Continue to rotate feed nut until tap is securely started into main and feed yoke is no longer needed to take thrust of boring bar. At this point, the feed yoke may be removed from contact with the thrust collar and allow the tool to feed itself. When using the B-101 machine, turn the operating screw on locking mechanism counter-clockwise to unlock the pivot arm and remove the feed yoke from contact with the thrust collar.

NOTE: Feed yoke should remain in contact with boring bar thrust collar and follow the thrust collar when machine is being used on high pressure mains, thin wall steel pipe, or asbestos-cement pipe.

DO NOT OVERFEED FASTER THAN THE TAP IS CUTTING BECAUSE THIS WILL STRIP THE



FIGURE 7



FIGURE 8

THREADS BEING TAPPED IN THE MAIN.

5. Continue tapping operation until tapping line on boring bar is flush with the top of the feed sleeve part of the cap. FIGURE 9. When tapping asbestos-cement pipe, it may be advisable to tap about $\frac{1}{8}$ " beyond the tapping line to provide more engagement of corporation stop threads when using one piece Cem-Res® tools.

OPERATING INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE



FIGURE 9



FIGURE 10



FIGURE 11

E-A. DRILL & TAP THE MAIN – POWER OPERATED METHOD USING MUELLER H-603 ELECTRIC POWER OPERATOR, OR H-604 AIR POWER OPERATOR

The B-101 and B100 drilling and tapping machines have been designed to permit the addition of a power operator with no modification of the standard machine. The power operator will drive the combined drill and tap and provide automatic feed during the drilling operation.

Extra precautions are required when using a power operator with the B-100 machine and working on a pipe which is not under pressure. The power operator weighs approximately 35 pounds. Its weight bears directly on the boring bar tending to push the bar downward. Normally, the pressure in the machine counter balances this downward thrust caused by the extra weight and therefore does not adversely affect the operation of the machine.

This precaution is not necessary on the B-101 machine when the special locking mechanism is engaged with the boring bar, as this locking mechanism controls the downward motion of the boring bar.

The power operator consists of a gear case and motor using either an electric or air motor for the power source.

IMPORTANT – WHEN USING H-604 AIR MOTOR POWER OPERATORS-MAINTAIN PRESSURE OF 90 P.S.I. WE RECOMMEND THE USE OF A GAUGE AT THE THROTTLE TO DETERMINE THE ACTUAL PRESSURE OF AIR AT THE AIR MOTOR.

NOTE: Either unit is suitable for:

Power drilling with automatic feed 1/2" through 1 1/4" inclusive with combined drill and tap.

Power cutting with automatic feed 1 1/4" through 2 1/2" inclusive with shell cutter and tap.

Power tapping by hand feed.

The gear case attaches to the machine by the means of two sockets. The inner or small socket drives the boring bar. The outer or large socket drives the feed yoke through a gear reduction as the boring bar is rotated. The resulting feed on the drill is .010" per revolution of the boring bar.

The operator takes the torque of the motor resulting from the drilling operation, so the motors are equipped with a squeeze type trigger throttle. If for some reason a drill should stick, the motor can be shut off quickly.

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

OPERATING INSTRUCTIONS

1. Place the gear case and motor on the drilling and tapping machine aligning the sockets with the square shanks on the boring bar and feed yoke. Socket which contacts feed yoke should be closed and wing nut tightened securely. FIGURE 10.

2. Set position of air or electric motor switch to give clockwise rotation of boring bar.

NOTE: See instructions and illustration on page 14 for removing drilling chips from the main while drilling and tapping.

3. Start drilling operation (FIGURE 11 shows the H-603 Electric Power Operator and FIGURE 12 shows the H-604 Air Power Operator) and continue drilling until drilling operation is completed. Completion of drilling operation can be easily detected by torque required to resist power unit and sound of power unit.

NOTE: The tapping line is located just below the thrust collar on the boring bar. A distance of 1 1/4" below the tapping line is limit for use of automatic feed. Actual drilling is always completed before this distance is reached.

When using the B-100 machine and drilling metal pipe, use extra precaution to control the downward movement of the boring bar just before the drilling operation is completed. This is necessary to prevent the drill point from breaking through into the pipe just before the hole is completely drilled. This is particularly important when drilling pipe with low pressure or no pressure. When using the B-101 machine, the locking mechanism will automatically control this downward movement.

4. Loosen wing nut on feed yoke drive socket and swing open socket. FIGURE 13.
5. Start motor and rotate feed nut clockwise by hand to engage top part of tool into main. Continue to rotate feed nut until tap is securely started into main and feed yoke is no longer needed to take thrust of boring bar. At this point, the feed yoke may be removed from contact with thrust collar (on the B-101, turn the operating screw counter-clockwise to unlock the pivot arm and remove the feed yoke) allowing the boring bar to move downward and the tool to feed itself. FIGURE 14.



FIGURE 12



FIGURE 13



FIGURE 14

OPERATING INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

NOTE: Feed yoke should remain in contact with the boring bar thrust collar and follow the thrust collar when machine is being used on high pressure mains, thin wall steel pipe, or asbestos-cement pipe. **DO NOT OVERFEED FASTER THAN THE TAP IS CUTTING BECAUSE THIS WILL STRIP THE THREADS BEING TAPPED IN THE MAIN.**



FIGURE 15



FIGURE 16

During the tapping operation with either the B-101 or B-100 machines, extra precaution is required because the additional weight of the power operator tends to cause overfeeding of the tap resulting in stripped threads. This is more serious when tapping asbestos-cement pipe - dry. **IMPORTANT:** We recommend only hand operation of the B-101 or B-100 machines during the tapping operation of asbestos-cement pipe which is not under pressure.

6. Continue tapping until tapping line on boring bar is flush with the top of the feed sleeve part of the cap. See FIGURE 9. When tapping asbestos-cement with one piece Cem-Res® combined drills and taps, it is advisable to exceed the tapping line enough to allow corporation stops to be inserted with only one to three threads exposed. The exact amount may be determined by making a "shop-tap" ahead of time. Use 50 to 80 foot pounds of torque to tighten stop into main after removal of machine.

F. REMOVE THE TOOL FROM MAIN

1. If hand ratchet was used to make the tap, reverse ratchet handle by pulling outward on ratchet detent knob and adjusting it for counter-clockwise rotation. Rotate the ratchet handle counter-clockwise carefully and back-out the tool. do not force the tool when removing it, as this may cause breakage of the tap teeth.
CAUTION: When this machine is under pressure, control the piston action of the boring bar to prevent bodily injury or damage to machine.

2. If power operation has been used to make the tap, reverse the motor and back out the tool. Control the upward movement of the boring bar by maintaining a firm hold on the gear case and motor for the same reason described above under the Caution Note.
3. When the tap is entirely free from the pipe, withdraw the boring bar to the uppermost position again applying some downward pressure to prevent uncontrolled withdrawal of the boring bar.

If the pressure in the main is 90 p.s.i. or over, a power devis, H-10802, may be used to control the upward movement of the boring bar. FIGURE 15.

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

OPERATING INSTRUCTIONS

A power clevis is used as follows to allow the upward movement of the boring bar to be done under controlled conditions. If a power drive unit has been used to tap the main, the power unit is removed and a hand ratchet used to replace the gear case.

- a. Hook the bent hook ends of the standard over the cap handles of the machine.
- b. With the ratchet handle in place on the boring bar, bring the center point of the control screw down into contact with the center hole in end of boring bar.
- c. Rotate the ratchet handle **counter-clockwise** and the control screw on the power clevis at the same rate. As the tap backs out of the pipe, the power clevis controls the upward movement.
- d. When the tap threads are out of the main, rotation of the ratchet handle can stop while the control screw is rotated to raise the boring bar to its uppermost position.

4. With the boring bar in its uppermost position, close flop valve by loosening handle screw (if lever handle was locked open) and raising upward on lever handle.

If machine is being operated on low pressure, it is advisable to retain flop valve in closed position by use of handle screw on lever handle. The handle screw in lever handle is tightened against wedge on side of body. FIGURE 16.

5. With flop valve closed, pull by-pass valve to "relieve" position. See FIGURE 1. This relieves the pressure above the flop valve and allows the line pressure to keep flop valve closed, which is assisted by handle screw if it is used.
6. Retain boring bar in its uppermost position, while feed sleeve and cap and boring bar assembly is removed from cylinder of machine.
7. Remove combined drill and tap from boring bar by first loosening the tool retaining screw with the socket end of the chain hook nut and tool retaining screw wrench, but do not remove screw.
8. Strike the head of the knockout pin a light blow which loosens the combined drill and tap. FIGURE 17.
9. Remove combined drill and tap from boring bar socket.

G. ATTACH STOP, TEE, OR PLUG TO BORING BAR

IMPORTANT: Check to be sure that the stop or tee to be inserted is full closed.

1. Screw together the proper screw plug and the stop, tee, or plug to be inserted. See instruction



FIGURE 17



FIGURE 18

"A-3" page 5. Lubricate these threads and check to be sure these threads screw together freely without binding.

When using an E-Z Release screw plug, also lubricate and check the acme threads between the two parts of the screw plug. FIGURE 18 and 18A.

2. Slide knockout pin in boring bar socket to its outward position using pin extending through bottom of boring bar bearing as a handle.
3. Insert shank end of screw plug into boring bar socket aligning driving pins on tool with slots in end of boring bar and firmly push screw plug and stop or tee assembly to its rearmost position.
4. Tighten tool retaining screw in boring bar using small socket end of chain hook nut and tool retaining screw wrench.

OPERATING INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

5. Push the cap down on the boring bar as far as possible.
6. Coat the inlet threads of the corporation stop or tee with heavy grease or nonhardening pipe "dope" FIGURE 19 and 19A.
7. Replace feed sleeve and cap and boring bar assembly onto cylinder of machine and tighten cap securely so that a pressure tight joint is formed.



FIGURE 18A



FIGURE 19



FIGURE 19A

H. INSERT THE STOP, TEE OR PLUG

1. Hold boring bar assembly in uppermost position and push by-pass valve to "by-pass" position. See FIGURE 1.
2. Attach ratchet handle and set for **clockwise** rotation.
3. Open flop valve by loosening handle screw, if it was tightened, and pushing lever handle all the way down.
If desired, handle screw may be engaged into socket on side of body to retain flop valve in open position during this operation. See FIGURE 6.
4. Push the boring bar down until the inlet threads of stop, tee, or plug contact the pipe. For pressures greater than 90 p.s.i. use a power clevis to force the boring bar down. Refer to instruction F-3.
5. Adjust feed nut and yoke and slip yoke over thrust collar on boring bar.
6. Rotate boring bar clockwise while feed nut is also carefully rotated clockwise.
After the threads on the stop, tee or plug have engaged the tapped hole in the main, rotation of the feed nut may be stopped and the yoke removed from contact with the thrust collar, while the fitting is screwed into its seat. When the stop, tee or plug is being inserted in thin wall or asbestos-cement pipe or into pipe under high pressure, the feed yoke should be used to follow the collar all the way down.
7. Screw the stop, tee, or plug into the tapped hole until it feels solid. **DO NOT ATTEMPT TO FORCE IT TO ITS PERMANENT TIGHTNESS WITH THE MACHINE.**

I. RELEASE THE SCREW PLUG

1. Pull out on ratchet detent knob and adjust it for **counter-clockwise** rotation.
2. Turn the ratchet handle **counter-clockwise** to take out the play and strike the end of the handle a sharp blow **counter-clockwise** with palm of the other hand. FIGURE 20. This will release the threaded connection between the screw plug and the stop, tee, or plug. If using an E-Z Release screw plug, this will release the threaded connection between the two parts of the screw plug.
3. Rotate ratchet handle **counter-clockwise** until screw plug is completely free.
4. Pull the by-pass valve to "relieve" position which will release the pressure from the machine and indicate the tightness of the connection between

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

OPERATING INSTRUCTIONS

the stop, tee, or plug and the pipe. If there is full pressure flow from the by-pass valve, the screw plug has not released and the stop, tee, or plug should be screwed in again a little tighter than before and another attempt be made to release the screw plug.

J. REMOVE THE MACHINE

1. Loosen the chain hook nuts.
2. Unhook the chain and remove hooks and chain.
3. Remove machine, saddle and gaskets.
4. Tighten stop, tee, or plug to final tightness with a suitable wrench on the inlet side. FIGURE 21.

NOTE: If the fitting being installed is a machine inserted valve tee or corporation stop with compression type inlet gasket, clean chips from under gasket before tightening compression nut to a pressure tight joint on the main using wrench (Part No. 37137).

5. If using an E-Z Release screw plug, remove the nut part from the stop or tee with the E-Z Release screw plug wrench furnished with the machine.

K. TO REMOVE A STOP, TEE, OR PLUG INSTALLED IN PIPE UNDER PRESSURE

1. Shut off the stop or tee.
2. Disconnect service line piping.
3. Slightly loosen the stop or tee using a wrench on the inlet side.
4. Separate the two parts of the extracting tool.
5. When using an extracting tool having inside threads, screw the nut into the outside threads of stop or tee very securely using the right hand thread. FIGURE 22. When using an extracting tool having outside threads, screw the plug into the inside threads of stop or plug very securely using the right hand threads.
6. Unscrew the feed sleeve and cap containing the boring bar assembly from the cylinder of the machine (2 1/2 turns).
7. Open flop valve to its wide open position by pushing lever handle down. If desired, handle screw may be engaged into socket on side of body to retain flop valve in open position during this operation.
8. Assemble large saddle gasket, saddle, small saddle gasket, and the body and cylinder of the machine centrally over the installed stop, tee or plug.
9. Place chain hooks and washers into chain yoke and attach chain.
10. Tighten chain hook nuts hand tight. See instruction "B," page 5.



FIGURE 20



FIGURE 21



FIGURE 22

11. Attach the shank part of the extracting tool into the boring bar socket being sure the knockout pin is in its outward position and the drive pins align with slots in the boring bar. See FIGURE 22.
12. Tighten tool retaining screw in boring bar using small socket end of chain hook nut and tool retaining screw wrench.
13. Push the feed sleeve and cap down on the boring bar as far as possible.

OPERATING INSTRUCTIONS

FOR B-101™ AND B-100™ DRILLING AND TAPPING MACHINE

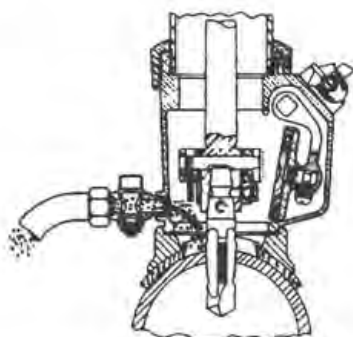
14. Attach boring bar, feed sleeve and tool assembly to cylinder of machine and tighten cap securely (2 1/2 turns). Be sure boring bar is held in its upper position while cap is being attached.
15. Slowly move boring bar downward to engage left hand thread of extracting tool shank with mating thread in nut part attached to corporation stop or tee. Attach ratchet handle to boring bar, pull outward on ratchet detent knob and adjust it for **counter-clockwise** rotation.
16. As soon as the extracting tool shank contacts the nut part on corporation stop or tee, slowly rotate the ratchet handle **counter-clockwise** to engage the left hand threads. This is a very sensitive operation and extreme caution must be taken to be sure threads properly engage. It is very likely it will be necessary to slightly shift the machine during this operation to get proper alignment.
17. As soon as boring bar is permanently attached to extracting tool, chain hook nuts can be tightened, but here also, considerable caution is required to bring the machine down evenly on the pipe. If machine is tightened down unevenly, a strain will be placed on boring bar and if old corporation stop or tee is removed under these conditions, the new one will not start in the old hole.
18. Push by-pass valve to "by-pass" position and rotate ratchet handle **counter-clockwise** to extract the stop or tee. Raise boring bar to upper position as soon as old stop or tee becomes disengaged from main.
19. Close flop valve and pull by-pass valve to "relieve" position.
20. Proceed with the use of the machine as described in previous instructions.

NOTICE

The tapping machine body has a boss with 1/2" I.P. tapping and is shipped with a brass plug installed. A blow-off valve is also shipped with each machine. The blow-off valve provides a means to prevent pipe chips and other drilling and tapping residue from entering the main during pressure taps.

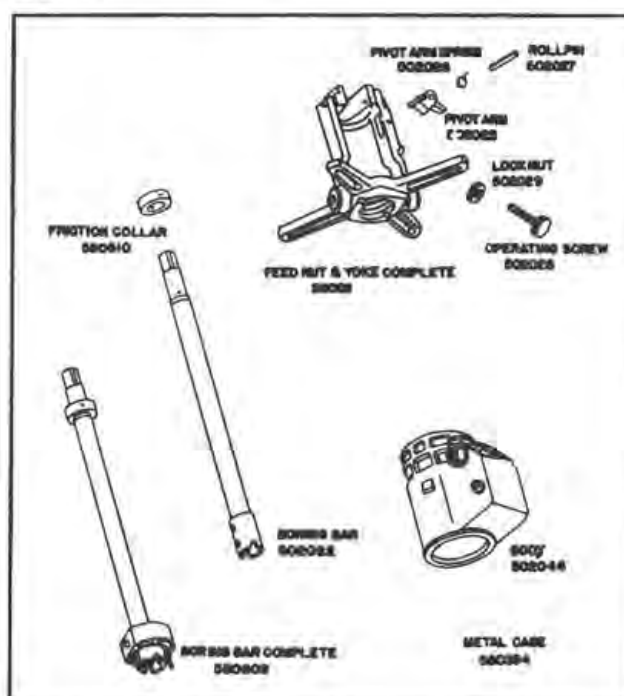
To properly use the blow-off valve, follow these instructions:

1. Remove the brass plug from the boss of machine body.
2. Apply non-hardening dope to the inlet threads of the blow-off valve and install the valve in the tapped boss of machine body. The valve should be tightened sufficiently to provide a pressure tight joint and then positioned so that the valve key does not interfere with the pipe saddle.
3. Attach a length of hose to the blow-off valve outlet. Valve outlet is 3/4" National Hose Thread (regular garden hose coupling size).



4. When starting to drill and tap the main, open the valve. Main pressure will flush the chips out through the hose outlet.
5. Close the valve after the tapping operation has been completed.

Parts for the B-101 machine (Model No. 1) are the same as the B-100 machine except for the parts shown below.



PARTS

Storage chest
89265
(not illustrated)

NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. MUELLER CO. offers a machine repair service, and field tapping service. Contact MUELLER® Customer Service Center for details.

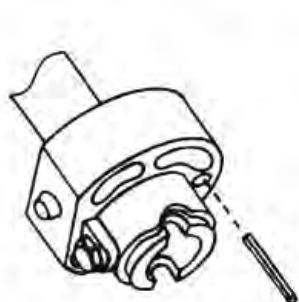
TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME
(include catalog number and model number of machine)

REMOVAL AND REPLACEMENT OF BORING BAR BEARING

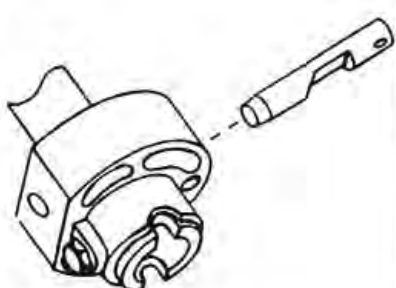
**FOR B-101™ AND
B-100™ DRILLING
AND TAPPING MACHINE**

TO REMOVE THE BEARING:

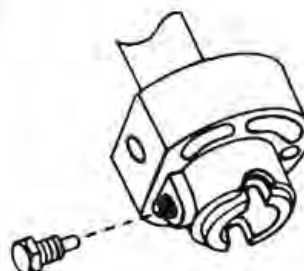
NOTE: It is not necessary to remove the Boring Bar from the Feed Sleeve and Cap.



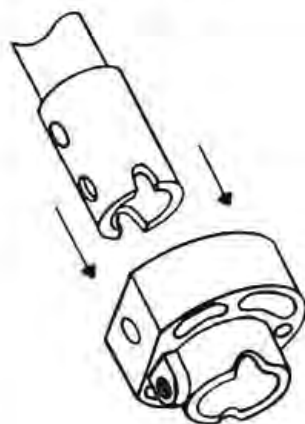
1. Punch or pull out the Retaining Pin (part no. 48130) from the Knockout Pin (part no. 500693).



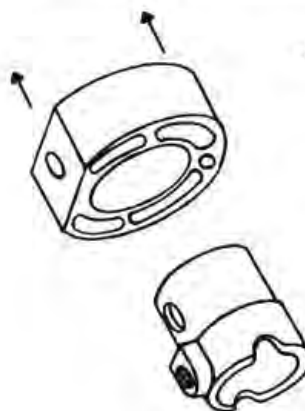
2. Remove the Knockout Pin.



3. Remove the Tool Retaining Screw (part no. 500694) from the Bearing Sleeve (part no. 500691).



4. Slide the Bearing and Bearing Sleeve off the lower end of the Boring Bar.



5. Slide Bearing (part no. 500692) off the Bearing Sleeve (part no. 500691) with a twisting motion.

TO REPLACE THE BEARING:

1. Place Bearing on Bearing Sleeve. When the Bearing is placed on the Bearing Sleeve the bottom of the Bearing should rest on Bearing Sleeve Shoulder and the top of the Bearing should be flush with the top of the Bearing Sleeve. Knockout Pin holes in both Bearing and Bearing Sleeve will then be easily aligned.
2. Slide Bearing and Bearing Sleeve on Boring Bar, align holes and replace Tool Retaining Screw.
3. Align Knockout Pin holes in Bearing with holes in Bearing Sleeve and replace Knockout Pin – keep the flattened portion in the middle of the Knockout Pin facing the lower end of the Boring Bar.
4. Replace Retaining Pin through bottom hole in Bearing and into hole in the Knockout Pin.

MAINTENANCE and OPERATING INSTRUCTIONS FOR THE CL-12 DRILLING MACHINE

MAIN OFFICE and PLANT
500 West Eldorado Street
Decatur, Illinois 62522
www.muellercompany.com



1. Read and follow instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage.

2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.

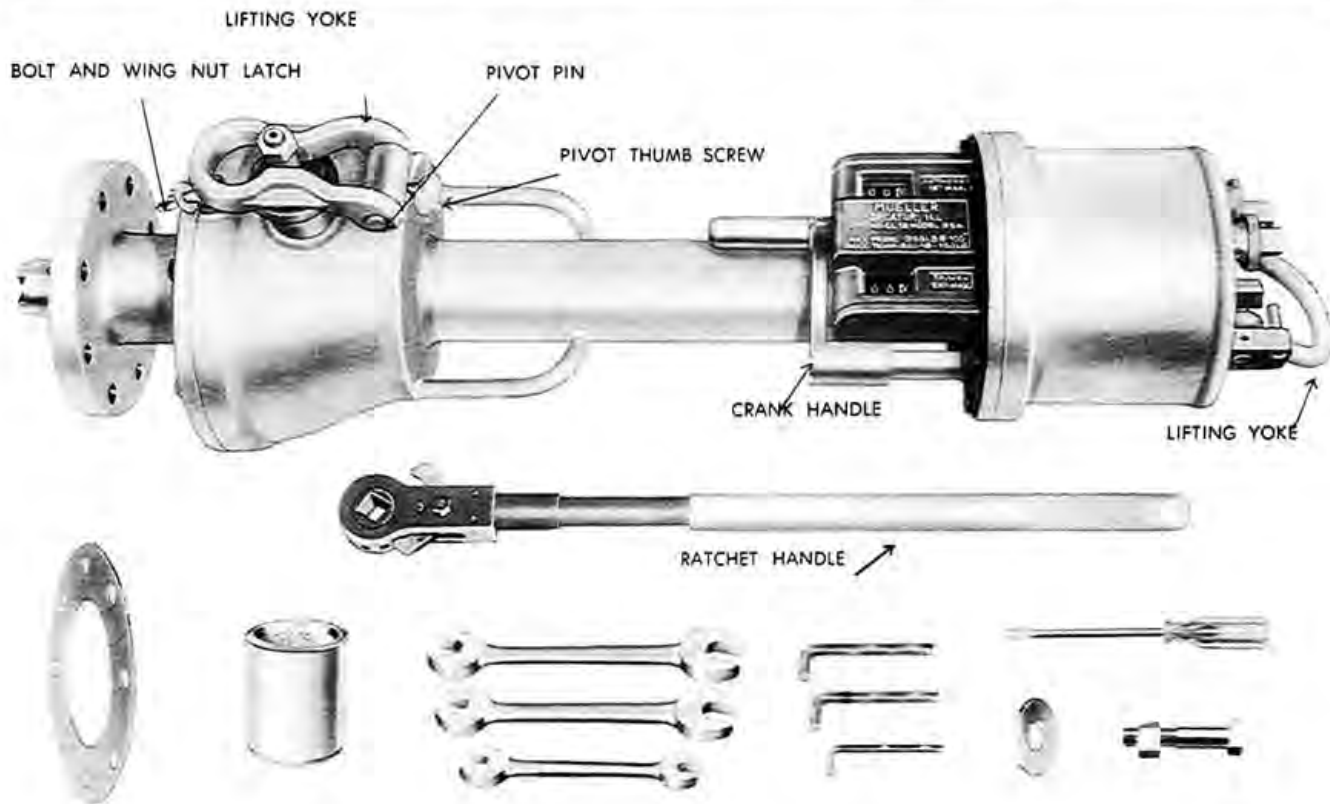
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.

MUELLER® Drilling Machines and Equipment have been carefully designed and engineered to work together as a unit. The use of equipment manufactured by someone other than Mueller Co. may cause excessive wear or a malfunction of the MUELLER machines.

All warranties, express and implied, for Mueller Drilling Machines are rendered null and void if the machines are used with shell cutters or equipment manufactured by someone other than Mueller Co.

Mueller Co.

CL-12 DRILLING MACHINE



CL-12 MACHINE AND EQUIPMENT FURNISHED

CAPACITY AND USE:

The CL-12 Machine may be hand operated by means of a ratchet handle or power operated by either the H-601 Air motor and Holder, H-600 Air Motor and Holder* or H-602 Gasoline Engine Drive Unit*.

* Use of the H-600 Air Motor or the H-602 Power Units requires the use of an adapter, (part no. 83746), to adapt the H-600 Air Motor Holder or H-602 Gear Box to the CL-12 Machine.

The H-600 Air Motor can also be used with the H-601 Air Motor Holder (part no. 83800) without the use of the adapter.

CAUTION: When using the H-600 Air Motor on the CL-12 Machine, do not reverse the Air Motor as this will cause damage to the cutters.

When used with tapping valves it will make cuts up to 11½" diameter, under pressure, for lateral connections.

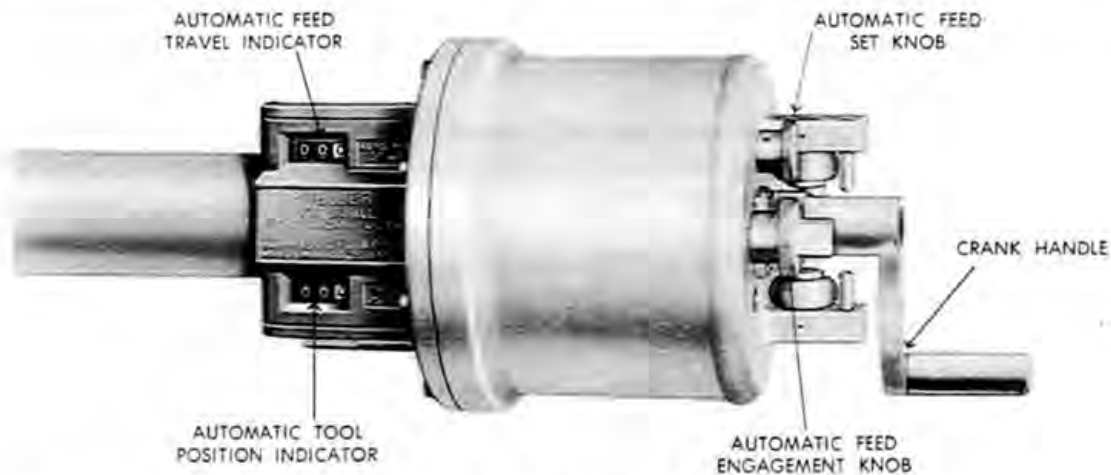
Used with proper equipment it will insert a 4", 6" or 8" special Mueller Gate Valve (Inserting Valve) into a main of equal size.

The CL-12 Machine has an automatic over travel protection device which automatically disengages tool feed when maximum 25" travel of machine is reached. Damage is prevented even though the automatic feed had been set for travel beyond the maximum travel of the machine.

This machine is equipped with an automatic feed setting device. The amount of travel required in automatic feed can be set in inches and tenths of an inch. The automatic feed will disengage automatically when the pre-set amount of travel is completed.

The CL-12 Machine also has a full time automatic feed travel indicator, this indicator subtracts as the cut is made and indicates at all times the amount of travel remaining in automatic feed.

CL-12 DRILLING MACHINE



The CL-12 Machine is also equipped with a full time automatic tool position (or boring bar) travel indicator. The position of the shell cutter and pilot drill in relation to its rearmost or full retracted position is indicated at all times. This indicator adds as the tools advance and subtracts as they are retracted.

WORKING PRESSURE & TEMPERATURE:

250 p.s.i. Maximum working pressure at 100° F.

500° F. Maximum temperature rating at 150 p.s.i.

LENGTH OF TRAVEL:

25" — this is adequate for all sizes of Mueller Tapping Sleeves and Valves and Mueller Inserting Valves within the capacity of the machine. The CL-12 Machine can be set to automatic feed for any 12" of this travel.

EQUIPMENT FURNISHED WITH EACH MACHINE:

- Ratchet Handle
- Screw Driver
- 3 - Double Open End Wrenches
- 3 - Allen Screw Wrenches
- 8 - $\frac{5}{8}$ " x 3" Bolts and Nuts - Machine to Adapter
- 8 - $\frac{11}{16}$ " D-Type Washers - Machine to Adapter
- Gasket - Machine to Adapter
- Cutting Grease

EQUIPMENT TO BE SELECTED:

See page 4 for equipment required for use with Mueller Tapping Sleeves and Valves to make lateral connections.

See page 5 for Drilling equipment and Boring Bar Socket required for use with Inserting Valves. Select power unit from page 6.

MACHINE WEIGHT CHART

	CL-12
Machine & Equipment	
Shipped in Strong	400 lbs.
Wooden Chest	
Machine Only	260 lbs.

DRILLING EQUIPMENT

FOR TAPPING SLEEVES AND VALVES



SHELL CUTTER



CUTTER HUB



PILOT DRILL



HUB END
ADAPTER GASKET



HUB END ADAPTER



WASHER



NUT AND BOLT



MECHANICAL
JOINT
"O" RING
ADAPTER
GASKET



MECHANICAL
JOINT
ADAPTER

SELECT THE FOLLOWING EQUIPMENT FOR MAKING LATERAL CONNECTIONS TO MAINS BY DRILLING THROUGH TAPPING SLEEVES AND VALVES:

SHELL CUTTER—According to size of valve to be used.

CUTTER HUB—According to size of shell cutter.

PILOT DRILL—According to size of shell cutter.

DRILL—When used with 2" and 2¼" tapping valves it replaces shell cutter, cutter hub and pilot drill.

Size of Tapping Valve	2"	2¼"	3"	4"	6"	8"	10"	12"
Size of Shell Cutter or Drill	2"	2"	2½"	3½"	5½"	7½"	9½"	11½"
Shell Cutter			83617	83203	83134	83135	83140	83141
Cutter Hub			83599	83671	83673	83676	83679	83682
Pilot Drill			83634	83634	83639	83675	83678	83681
Drill	64567	64567						
Boring Bar Adapter	83666	83666						

ADAPTER—According to size and type of tapping valve to be used.
(These Adapters are for a working pressure of 200 p.s.i. at 100° F.)

FOR H-660, H-662 & H-663 HUB END TAPPING VALVE: Adapter Complete (including gasket, bolts, nuts, and washers)*	SIZE OF TAPPING VALVE							
	2"	2¼"	3"	4"	6"	8"	10"	12"
Adapter Complete	83770		83361	83362	83363	83364	83365	83366
Adapter Only	47980		54560	54527	54515	54537	54658	54548
Adapter Gasket Only	59771		59772	59773	59774	59775	54677	54686
Bolts & Nuts Only	54806		56682	56682	54162	54162	94407	94407
Number Required	6		6	6	6	6	10	10
Washers Only	54597		58321	58321	92576	92576	98919	98919
Number Required	12		12	12	12	12	20	20
FOR H-665, H-667 & H-668 MECHANICAL JOINT TAPPING VALVE: Adapter Complete (including gasket)*								
	2"	2¼"	3"	4"	6"	8"	10"	12"
Adapter Complete	83668	83669	83367	83368	83369	83370	83371	83372
Adapter Only	47981	47982	46269	46268	46267	46266	46265	46264
"O" Ring Adapter Gasket only	52162	43922	46387	46388	79020	46389	46390	46391
Bolts, Nuts & Washers	2 ea. 36445	2 ea. 36445	Furnished with each Mechanical Joint Tapping Valve					

*2" and 2¼" Adapter includes 2 bolts and nuts, part number 36445.

DRILLING EQUIPMENT

FOR INSERTING VALVES

SELECT THE FOLLOWING EQUIPMENT* FOR
DRILLING THROUGH INSERTING VALVES:

Size of Inserting Valve	4"	6"	8"
Shell Cutter	82995	82994	80699
Cutter Hub	83685	83682	83689
Pilot Drill	89357	89358	89359
Boring Bar Socket**	83780	83780	83780

* Shell Cutters, cutter hubs and pilot drills listed in the 4", 6" and 8" special equipment for Catalog W-96 were for the CC & C-1 Machines only. When using CL-12 Machine, specify the equipment listed above.

** Boring bar socket listed in the H-810 basic equipment is designed for use with CC & C-1 Machines only. When using CL-12 Machine, specify the boring bar socket listed above.

See the latest Mueller Waterworks Catalog for the rest of equipment required to install Inserting Valves.



SHELL CUTTER



CUTTER HUB



PILOT DRILL



BORING BAR SOCKET

POWER UNIT

FOR CL-12
DRILLING MACHINE



H-601 MUELLER AIR MOTOR, MODEL 2

Total Shipping Weight: 82 lbs.

H-601 MUELLER AIR MOTOR, MODEL 2

CAPACITY AND USE:

The H-601 Model 2 Air Motor is designed to operate the MUELLER CL-12 Drilling Machine. The Air Motor Spindle with its Holder (part number 83800) attaches directly to the CL-12 machine. The H-601 Air Motor is supplied with a muffler, which should be on the exhaust port of the unit before the air motor is put into service.

MAXIMUM FREE SPEED: 86 RPM

SPEED WITH FULL LOAD: Not less than 56 RPM

AIR REQUIRED: 90 cubic feet of free air per minute at 90 p.s.i. pressure (full load)

IMPORTANT—MAINTAIN PRESSURE OF 90 p.s.i. WE RECOMMEND THE USE OF A GAGE AT THE THROTTLE TO DETERMINE THE ACTUAL PRESSURE OF AIR AT THE AIR MOTOR.

FOR CL-12 DRILLING MACHINE

MAINTENANCE INSTRUCTIONS

MAINTENANCE OF MACHINES AND EQUIPMENT

LUBRICATION:

Drain and replace lubricant (gear oil) after the first 10 hours of operation and after each 50 hours of operation thereafter.

Keep the front gear case and rear gear case properly filled with gear oil. This level may be checked by removing oil plugs on gear cases while machine is lying on level surface. Drive spindle and indicators would be on top during this check. Oil level should be even with gear case oil plug threads.

CL-12 Machine requires four pints (4 lbs.) of gear oil in front gear case and four pints in rear gear case.

Mueller Part No. 89347 gear oil is used, which is an extreme pressure fluid gear oil with a Saybolt Universal viscosity of 80-85 seconds at 210°F. This gear oil needs no thinning in cold weather.

PACKING:

Boring bar packing on machines is a "V" or chevron type packing, which is automatically adjusted by a spring. There is no take up. When packings leak, they should be replaced with new ones. Packings are good for water, steam, gas, or petroleum products.

To replace Boring bar packing, see Special Instructions on page 20.

Packing leakage may be determined by observing two small drain holes in sides of machine behind front flange. These vents prevent pressure from entering into the gear case.

All oil seals in CL-12 Machines are "O" ring seals, which are non-adjustable. If leakage occurs, new rings are required.

CUTTING EQUIPMENT:

Sharpen cutters and pilot drills by touching them up with an oilstone before each cut. Front edge of cutter tips should be lightly honed.

If cutters are very dull or show excessive wear, return to MUELLER CO. for reconditioning. CAUTION: Keeping cutters sharp assures maximum efficiency in cutting operations. When cutters are dull they not only make cutting more difficult but place an additional strain on the tips which can cause tip breakage.

When not in use keep cutters in a wooden container. (NOTE: Be careful not to drop cutter and damage cutter tips). If necessary to set cutter on tips, place upon wood rather than brick, concrete or metal.

Cutters used with CL-12 Machines are either tungsten carbide tipped for making lateral connections through tapping valves or high speed steel tipped for use with inserting valves.

Tungsten carbide tipped cutters are designed for cutting cast iron, cement-lined cast iron, asbestos-cement reinforced concrete and steel pipe.

High speed steel tipped cutters are used for cutting steel or cast iron pipe only.

A cutter which has been used on cast iron or steel pipe can be used on cement-lined, asbestos-cement or reinforced concrete pipe without resharpening.

A cutter which has been used on abrasive materials cannot be used on metal pipe without resharpening.

Steel cutter hubs are used with CL-12 Machines.

All pilot drills are threaded into the cutter hub with thread sizes arranged to prevent wrong use of drills and cutters. Drills are provided with wrench flats permitting removal of pilot without removing cutter. All pilot drills have spring loaded detents to retain coupon cut by shell cutter. These detents are removable for cleaning or replacement.

Always check detents before using to be sure they are operating correctly.

AFTER USE:

Dirt and excess grease should be cleaned from machine after use. Boring bar should be given a light coat of oil to prevent rust, and this should be done with boring bar slightly extended. Oiled bar will pull lubrication into packings as bar is retracted.

Cutters, drills, hubs, etc. should be lightly oiled after use to prevent rusting.

STORAGE:

When not in use the CL-12 Machine should be kept in wooden chest during period of being transported to jobs or stored.

OPERATING INSTRUCTIONS

FOR CL-12 DRILLING MACHINE



FIGURE 1



FIGURE 2

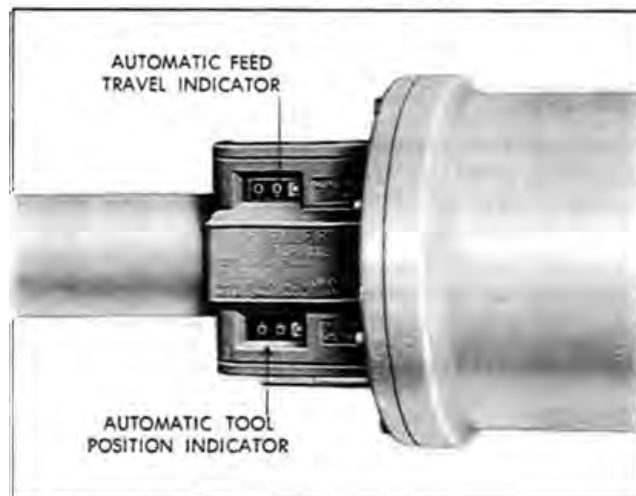


FIGURE 3

1. Inspect cutter and pilot drill to make sure that they are sharp. If cutter is dull it should be sharpened as described in maintenance instructions. Check pilot drill detents before each operation to make sure they will move completely to the submerged position.
2. Bolt proper size of adapter to front of machine. **Figure 1.** Check to be sure machine to adapter gasket is in good condition and in place. (All gaskets should be periodically replaced.)

NOTE: On the rear case of the CL-12 Machine you will see two Knurled Knobs. One is marked Automatic Feed Set. This knob is used to set the amount of travel required in automatic feed to complete the cut. See instruction **13.**

The other Knurled Knob is the Automatic Feed Engagement Knob which is used to place the machine in automatic feed. See instruction **3** below.

To disengage these knobs—push them in or towards the gear case.

To engage these knobs—pull them out or away from the gear case.

3. Disengage automatic feed by pushing in on Automatic Feed Engagement Knob on rear of machine, **Figure 2.** This knob has squared end and is indicated by a name panel on rear of machine.
4. Remove crank handle from its position on the combination shaft and pipe plug located below and alongside Automatic Feed travel and Tool Position Indicators. **Figure 3.** Attach crank handle to center squared shaft and rotate **clockwise** to advance boring bar. **Figure 4.** Boring bar should be advanced enough to expose hub retaining screw hole beyond face of the machine adapter.
5. Attach proper drilling equipment to the boring bar.

(a.) 2" size. Remove retaining screw from boring bar adapter. Insert boring bar adapter into socket in the boring bar. Align holes in boring bar adapter and boring bar. Replace retaining screw by inserting it through hole in boring bar and into boring bar adapter tapped hole. Tighten securely with screw driver. Screw solid drill into boring bar adapter. Wrench flats on drill may be used to tighten drill into boring bar adapter.*

- * Place the front lifting yoke over the square drive spindle to prevent rotation of boring bar when attaching tools. **Figure 9.**

FOR CL-12 DRILLING MACHINE

OPERATING INSTRUCTIONS

(b.) 2½" size. Remove retaining screw from cutter arbor. Insert cutter arbor into socket in the boring bar. Align holes in cutter arbor and boring bar. Replace retaining screw by inserting it through hole in boring bar and into cutter arbor tapped hole. Tighten securely with screw driver.

(c.) 3½" size and larger. Remove hub retaining bolt and lock washer from cutter hub. Slide cutter hub onto boring bar. Align the holes in the cutter hub and the boring bar. Replace hub retaining bolt and lock washer by inserting it through hole in hub, boring bar and into cutter hub tapped hole. Tighten securely with wrench. **Figure 5.**

NOTE: If cutter hub is E-Z Release type (5½" size and larger), tighten allen head cap screws so that the backing ring is rigid with the cutter hub. **Figure 6.** This must be done before shell cutter is attached to hub.

Lubricate cutter hub threads with cup grease and attach shell cutter threading it onto hub hand tight.* **Figure 7.** Lubricate pilot drill threaded shank end and screw it securely into cutter hub. Wrench flats are provided on pilot drill.* **Figure 8.** Check detents on pilot drill to be sure they are operating correctly.

6. Coat solid drill or shell cutter and pilot drill thoroughly with MUELLER cutting grease. **Do not** use cutting grease when drilling or cutting A-C or concrete pipe.
7. Open valve completely and measure the exact size of opening and size of cutter to make

* Place the front lifting yoke over the square drive spindle to prevent rotation of boring bar when attaching tools. **Figure 9.**

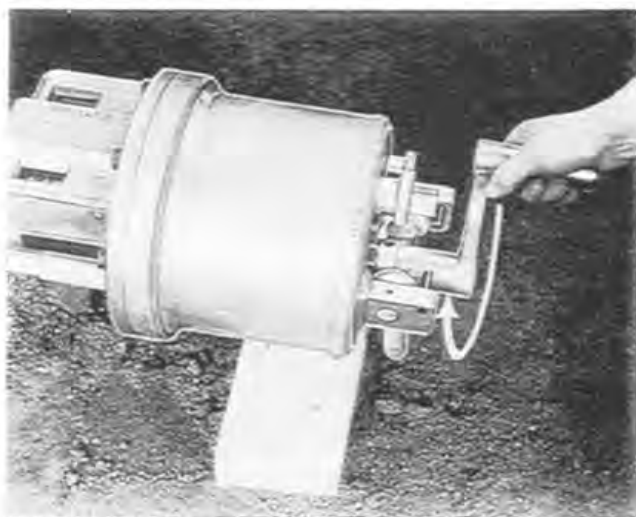


FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7

OPERATING INSTRUCTIONS

FOR CL-12 DRILLING MACHINE



FIGURE 8



FIGURE 9



FIGURE 10

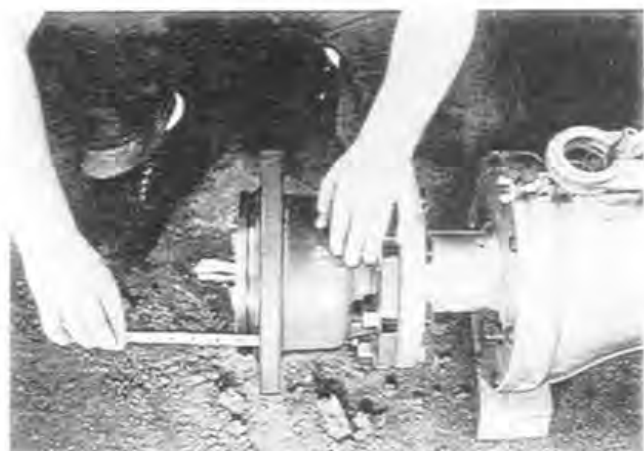


FIGURE 11

sure the entire opening is clear and unobstructed and the cutter will pass freely.

NOTE: Diameter of boring bar is 2" which will pass through 2" tapping valves.

8. Retract boring bar to its rearmost position by rotating feed crank handle **counter-clockwise**. **Figure 10**. Tool Position Indicator, **Figure 3**, will read 000 when tools are fully retracted. Measure the distance the pilot drill extends beyond or behind the face of the machine adapter flange. **Figure 11**. This information will be used later for check purposes in instruction No. 11. Also measure the distance from gate valve outlet flange to gate valve gate to be sure pilot drill or cutter will not interfere with operation of the valve.
9. Place the machine (with adapter and drilling equipment assembled) in drilling position. For horizontal use, support the assembly by blocking up under the machine or valve.

For hand operation the driving spindle should be on the left side of the machine when facing the main. For power operation the driving spindle should be at a right angle to the main.

Check to be sure that adapter gasket is in good condition and in place.

OPERATING INSTRUCTIONS

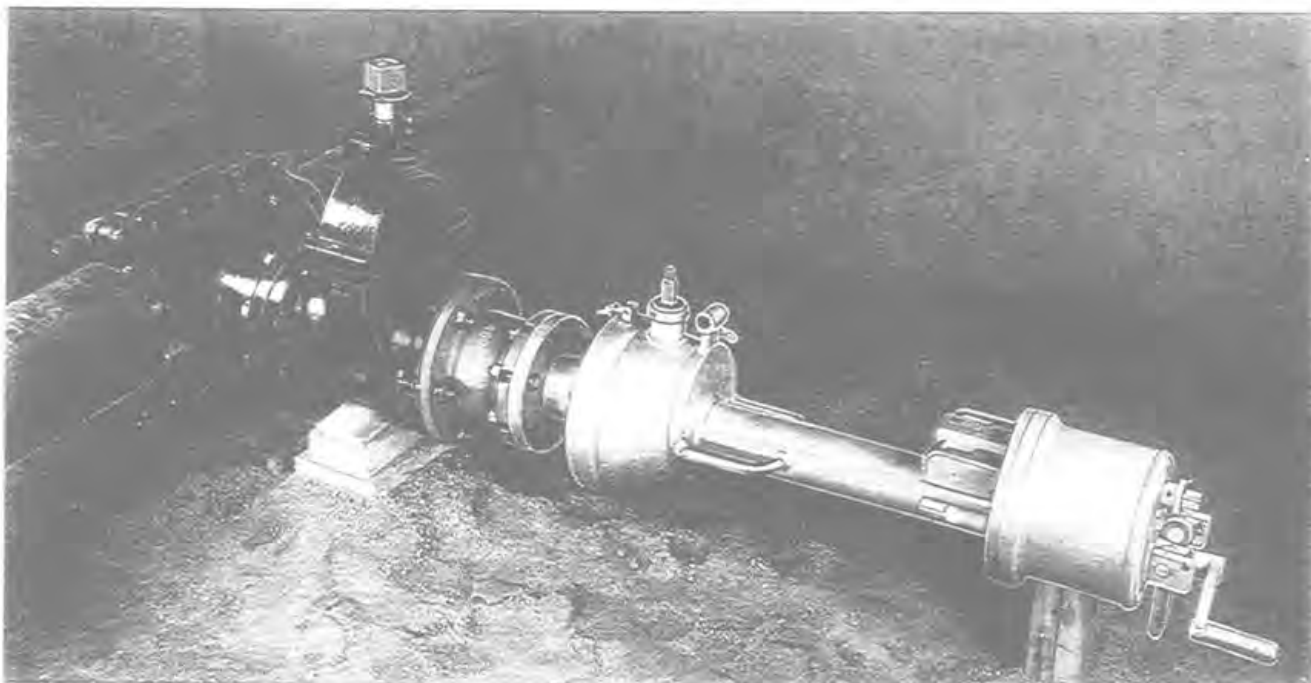


FIGURE 12

Place machine and adapter against valve, allowing cutter and pilot drill to extend into the end of the valve. Cutter must not interfere with the operation of the valve. Bolt adapter to outlet flange of the valve. **Figure 12.**

10. Test set up for pressure tightness.
11. Lay a scale or rule alongside the tapping sleeve and valve and measure the distance from the main to the face of the machine adapter flange. **Figure 13.** This distance, plus or minus the amount the pilot drill extends or is behind the face of the machine adapter flange, is the approximate distance the pilot drill should travel to reach the main.
12. Rotate feed crank handle **clockwise** to advance the boring bar until the pilot drill contacts the main. **Figure 14.**

Tool Position Indicator (see **Figure 3**). should now read the approximate amount that was computed in instruction 11.

CAUTION: If Tool Position Indicator does not read approximately the same as the computed amount, it indicates that the pilot drill has encountered an obstruction and is not contacting the main.

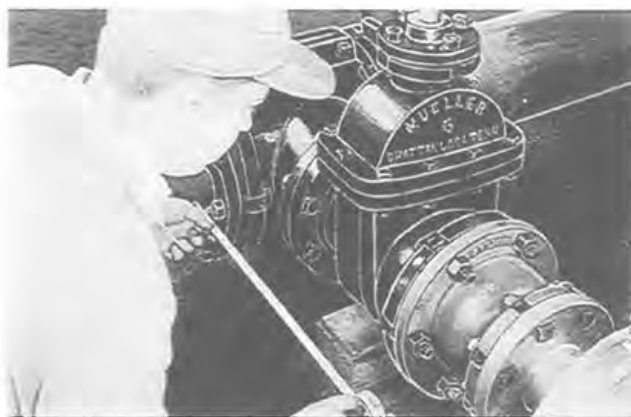


FIGURE 13

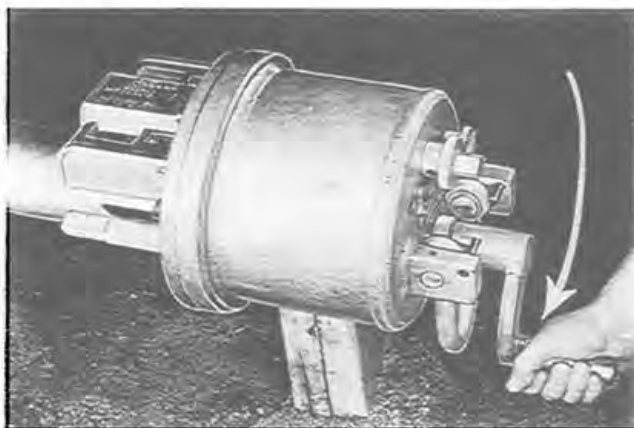


FIGURE 14

OPERATING INSTRUCTIONS

FOR CL-12 DRILLING MACHINE

13. Check to be sure Automatic Feed Set Knob is disengaged. (Push in on knob to disengage.) Turn Automatic Feed Set Knob **counter-clockwise** to set the desired amount of automatic feed on Automatic Feed Travel Indicator. **Figure 15.** Pull out on Automatic Feed Set Knob to engage the Automatic Feed Travel Indicator after correct amount has been set. See Travel Charts on page 16, 17, 18 and 19.

While cut is being made, the amount set on the Automatic Feed Travel Indicator, see **Figure 3**, will subtract until the completion of the cut. It will then register 000.

NOTICE: It is always necessary to pre-set for some amount of feed to permit machine to automatically advance the boring bar, otherwise it will not feed.

To replace or reset either Indicator, see Special Instructions on page 20.

14. Pull out on Automatic Feed Engagement Knob and rotate feed crank **counter-clockwise** until dive key engages. **Figure 16.** This can be felt when crank handle ceases to freely rotate. This rotation releases the ten-



FIGURE 15



FIGURE 16

- sion between pilot drill and main and does not change the pre-set disengagement point.
- 15A. **When hand operating the CL-12 Machine—** Loosen the pivot thumb screw. This permits the pivot pin to be removed so that the front lifting yoke may be removed.

Attach ratchet handle to drive spindle and set for **clockwise** rotation. Always operate the machine according to instructions with one man only on ratchet and using automatic feed to assure correct drilling and tapping rate.

If cut becomes too difficult for one man, do not force machine as this may damage cutter or machine. Follow one of the methods listed in instruction 23.

Hand operated CL-12 Machine should have a boring bar advance of about .015" per minute, if operator can maintain 5 RPM on input spindle. This rate would require about 60 minutes to advance one inch. Smaller cuts permit higher input speed and cutting times will be reduced accordingly.

- 15B. **When power operating the CL-12 Machine with the Mueller H-601 Air Motor—**

Loosen the pivot thumb screw, this permits the pivot pin to be removed so that the front lifting yoke may be removed and the motor holder (or air motor holder with air motor assembled to it, **Figure 17**) may be attached to the holder pivot on the front gear case of the CL-12 Machine. Position air motor holder (or air motor holder with air motor assembled to it) and replace pivot pin. Tighten the pivot thumb screw and latch the air motor holder in position with the bolt and wing nut latch provided on gear case to prevent movement of the air motor holder.

Remove retaining screws from air motor that are used for attaching motor to holder.

Place air motor in holder, open throttle slightly. Spindle will turn until square in motor spindle aligns with square on drive spindle. Motor will then drop into place.

Place retaining screws which hold air motor to air motor holder in place and tighten securely. **Figure 18.**

NOTE: Once the air motor has been assembled into the air motor holder, it need not be removed from the holder but may remain assembled to it for future use. See **Figure 17.**

OPERATING INSTRUCTIONS

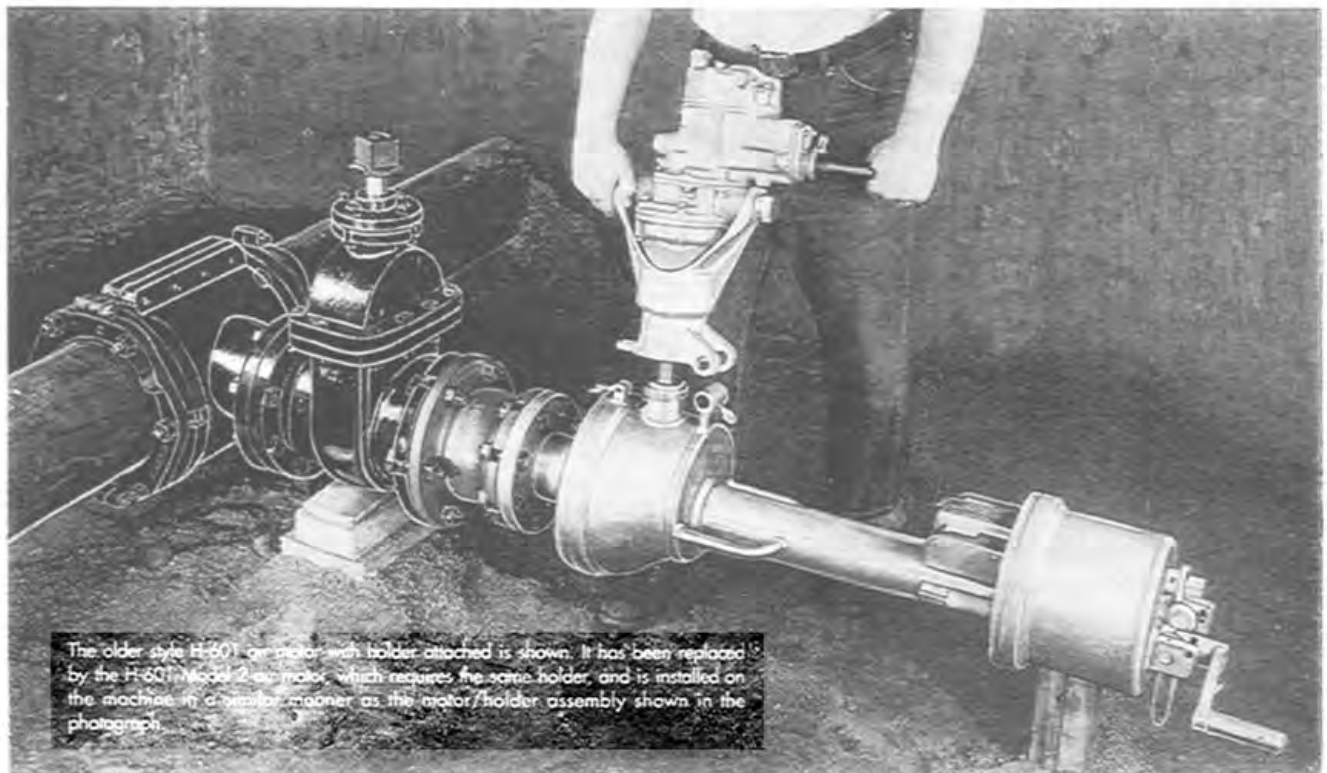


FIGURE 17

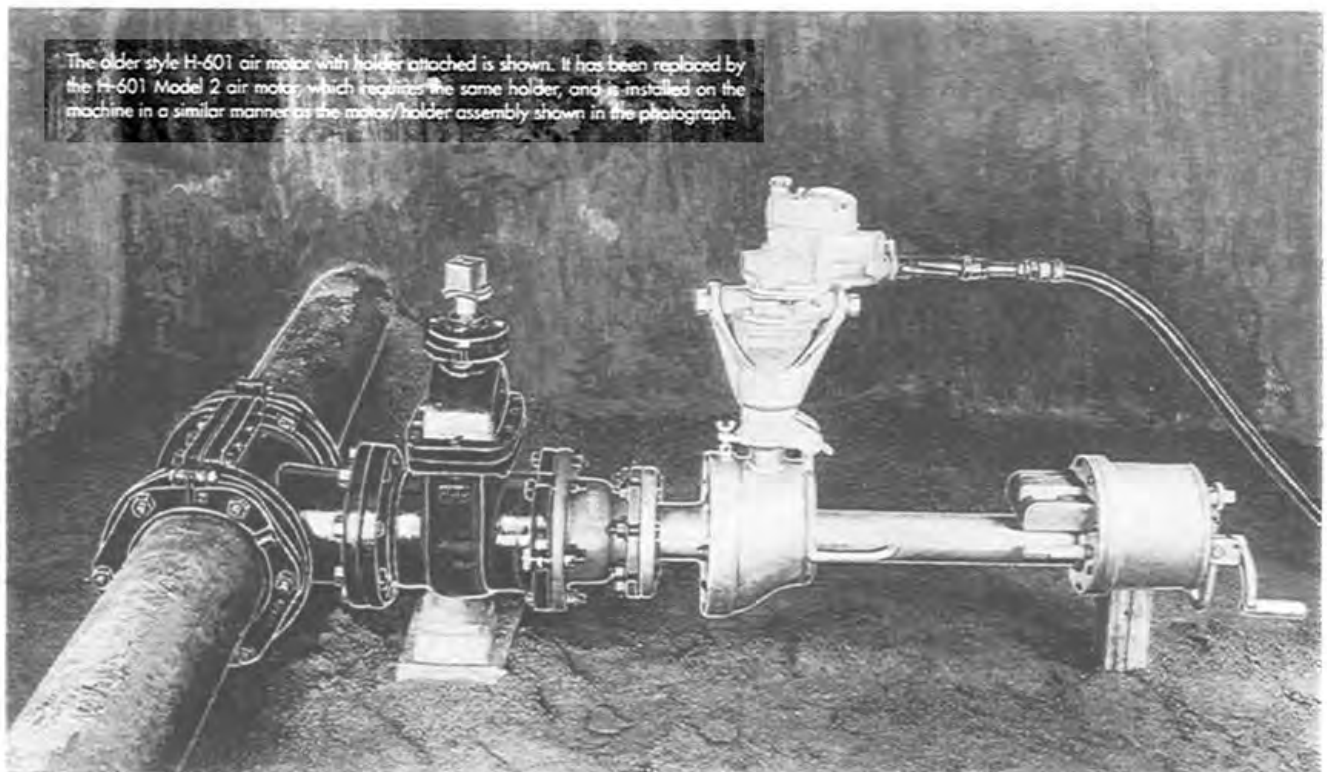


FIGURE 18

OPERATING INSTRUCTIONS

FOR CL-12
DRILLING MACHINE

Open air motor throttle fully so that the motor is operating at proper speed (50 to 60 rpm). IMPORTANT—MAINTAIN PRESSURE OF 90 P.S.I. WE RECOMMEND THE USE OF A GAGE AT THE THROTTLE TO DETERMINE THE ACTUAL PRESSURE OF AIR AT THE AIR MOTOR. This pressure should rotate motor drive spindle from 50 to 60 RPM, depending on size of cut.

When power operating the CL-12 Machine, the boring bar in automatic feed should advance about .187 per minute or require 5+ minutes to advance an inch.

If cutting becomes difficult and stalling occurs follow one of the methods listed in instruction 23.

16. Continue cutting operation until automatic feed disengages. If for some reason the preset automatic feed was set for more than the travel remaining in machine, feed will be automatically disengaged when boring bar travel limit is reached.

When cut is completed, both the Automatic Feed Set Knob and Automatic Feed Engagement Knob will be in the forward or disengaged positions. **Figure 19.**

If the pre-set automatic feed was not disengaged when cutting is completed for some reason, a safety device is built in to prevent damage to this mechanism.

17. Check to see if cut is completed by attempting to advance boring bar by hand advance. Rotate crank **clockwise**. See **Figure 4**. If boring bar advances easily, cut is completed.

FOR CL-12 DRILLING MACHINE

OPERATING INSTRUCTIONS

18. Rotate crank handle **counter-clockwise** to return boring bar to rearmost position. See **Figure 10**.
19. Close valve securely.
20. Remove the power operator with its holder from the machine pivot.
21. Unbolt adapter from valve and remove adapter, cutting equipment, and drilling machine as a unit.
22. Advance boring bar by rotating feed crank **clockwise** until cutter hub retaining screw is exposed. Remove retaining screw and remove cutter hub, pilot drill, and cut-out section of pipe or coupon.*

If pilot is to be removed from cutter hub or cutter from hub, leave hub on boring bar until pilot drill is loosened and cutter is loosened from hub.*

To remove the shell cutter from the E-Z Release Cutter Hub, loosen allen head cap screws in backing ring. Shell Cutter may then be easily taken off.*

Coupon may be slipped over pilot drill detents and out of cutter or pilot may be removed from hub to remove coupon.*

* Replace the front lifting yoke and place the front lifting yoke over the square drive spindle to prevent rotation of boring bar when removing tools. See **Figure 9**.

23. If cutting operation becomes difficult, follow one of these methods:
 - (a.) If cutter has difficulty in cutting, becomes dull or should stall after the cut is started it is probably due to scale on the main or excessive hardness of pipe.

Mark down the settings on both the Automatic Feed Travel Indicator and the Tool Position Indicator. This is for reference when reassembling the set up.

Push in on both Automatic Feed Set Knob and Automatic Feed Engagement Knob—this will disengage the Automatic Feed Travel Indicator and will also disengage the automatic feed.



FIGURE 19

TRAVEL CHART

**FOR CL-12
DRILLING MACHINE**

TRAVEL REQUIRED TO COMPLETE A CUT FOR LATERAL CONNECTION WITH POINT OF PILOT DRILL (OR SOLID DRILL) CONTACTING MAIN

Nominal Size of Pipe to be Cut	Outside Diameter of Cutter	CAST IRON PIPE								STEEL PIPE		Asbestos Cement Pipe	
		ASA A21.6-1953 ASA A21.8-1953 AWWA C106-53 AWWA C108-53 Class 150	ASA A21.2-1953 AWWA C102-53 Class 150	ASA A21.3-1953 Class 10	ASA A21.7-1953 ASA A21.9-1953 Class 10	AGA Old Standard	AWWA 1908 Stand. Class B	AWWA 1908 Stand. Class D	Federal Spec. WW-P-421 Class 150	Schedule 40	Schedule 80	Class 150	Class 200
3"	2"	1.5	1.6				1.6	1.7		1.4	1.5	1.8	1.8
	2 1/2"	2.5	2.6				2.6	2.7		2.4	2.6	2.8	2.8
4"	2"	1.4	1.5	1.5	1.4	1.5	1.5	1.6	1.4	1.3	1.4	1.7	1.9
	2 1/2"	2.3	2.4	2.4	2.3	2.4	2.4	2.5	2.3	2.2	2.4	2.6	2.8
	3 1/2"	2.9	3.0	3.0	2.9	3.0	3.0	3.1	2.9	2.8	3.0	3.2	3.4
6"	2"	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.3	1.4	1.7	2.0
	2 1/2"	2.2	2.3	2.3	2.2	2.3	2.3	2.4	2.2	2.1	2.3	2.5	2.8
	3 1/2"	2.5	2.6	2.6	2.5	2.6	2.6	2.7	2.5	2.4	2.6	2.8	3.1
	5 1/2"	4.0	4.1	4.1	4.0	4.1	4.1	4.2	3.9	3.9	4.3	4.5	4.9
8"	2"	1.4	1.4	1.4	1.4	1.4	1.5	1.6	1.4	1.3	1.5	1.7	2.1
	2 1/2"	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.2	2.1	2.3	2.5	2.9
	3 1/2"	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.4	2.3	2.5	2.8	3.1
	5 1/2"	3.3	3.4	3.4	3.3	3.4	3.5	3.6	3.4	3.3	3.5	3.8	4.2
	7 1/2"	4.9	5.0	5.0	4.9	5.0	5.2	5.2	4.9	5.0	5.7	5.6	6.4
10"	2"	1.4	1.5	1.4	1.4	1.4	1.5	1.6	1.4	1.3	1.5	1.9	2.2
	2 1/2"	2.2	2.3	2.2	2.2	2.2	2.3	2.4	2.2	2.1	2.3	2.7	3.0
	3 1/2"	2.3	2.4	2.4	2.3	2.4	2.4	2.6	2.3	2.2	2.5	2.9	3.1
	5 1/2"	3.1	3.2	3.2	3.1	3.2	3.3	3.4	3.2	3.1	3.3	3.7	4.0
	7 1/2"	4.1	4.3	4.2	4.1	4.2	4.3	4.4	4.2	4.1	4.5	4.7	5.1
	9 1/2"	5.9	6.1	6.0	5.9	6.0	6.2	6.3	5.9	6.0	7.0	6.6	7.5
12"	2"	1.4	1.5	1.4	1.4	1.4	1.5	1.7	1.4	1.3	1.6	2.0	2.3
	2 1/2"	2.2	2.3	2.2	2.2	2.2	2.3	2.4	2.2	2.1	2.4	2.8	3.1
	3 1/2"	2.3	2.4	2.4	2.3	2.4	2.4	2.6	2.3	2.2	2.5	2.9	3.2
	5 1/2"	3.0	3.1	3.1	3.0	3.1	3.2	3.3	3.0	3.0	3.3	3.6	4.0
	7 1/2"	3.8	4.0	3.9	3.8	3.9	4.0	4.1	3.9	3.8	4.2	4.5	4.9
	9 1/2"	4.9	5.1	5.0	4.9	5.0	5.2	5.3	5.0	4.9	5.4	5.6	6.1
	11 1/2"	6.5	6.8	6.7	6.5	6.7	7.0	7.0	6.6	6.8	8.1*	7.4	8.6
14"	2"	1.4	1.5				1.6	1.7	1.4	1.3	1.7	2.2	2.5
	2 1/2"	2.2	2.3				2.3	2.5	2.2	2.1	2.4	2.9	3.3
	3 1/2"	2.3	2.4				2.4	2.6	2.3	2.2	2.6	3.0	3.5
	5 1/2"	2.9	3.1				3.1	3.3	3.0	2.9	3.3	3.7	4.1
	7 1/2"	3.6	3.7				3.8	4.0	3.7	3.7	4.1	4.4	4.8
	9 1/2"	4.5	4.6				4.7	4.9	4.5	4.7	5.1	5.3	5.8
	11 1/2"	5.3	5.5				5.7	5.8	5.4	5.8	6.6	6.3	6.8

NOTE: All dimensions are in inches and tenths of an inch and are the travels required to complete the cuts plus 1/4" of over travel unless otherwise noted.

* These dimensions are based on the shell cutter advancing to the center of the main.

**FOR CL-12
DRILLING MACHINE**

TRAVEL CHART

**TRAVEL REQUIRED TO COMPLETE A CUT FOR LATERAL CONNECTION WITH POINT
OF PILOT DRILL (OR SOLID DRILL) CONTACTING MAIN**

Nominal Size of Pipe to be Cut	Outside Diameter of Cutter	CAST IRON PIPE								STEEL PIPE		Asbestos Cement Pipe	
		ASA A21.6-1953 ASA A21.8-1953 AWWA C106-53 AWWA C108-53 Class 150	ASA A21.2-1953 AWWA C102-53 Class 150	ASA A21.3-1953 Class 10	ASA A21.7-1953 ASA A21.9-1953 Class 10	AGA Old Standard	AWWA 1908 Stand. Class B	AWWA 1908 Stand. Class D	Federal Spec. WW-P-421 Class 150	Schedule 40	Schedule 80	Class 150	Class 200
16"	2"	1.4	1.6	1.5	1.4	1.5	1.6	1.8	1.5	1.4	1.7	2.3	2.7
	2 1/2"	2.2	2.3	2.2	2.2	2.3	2.4	2.6	2.3	2.2	2.5	3.0	3.5
	3 1/2"	2.3	2.4	2.3	2.3	2.4	2.5	2.6	2.3	2.3	2.6	3.1	3.6
	5 1/2"	2.9	3.0	2.9	2.8	3.0	3.1	3.3	2.9	2.9	3.3	3.7	4.2
	7 1/2"	3.5	3.6	3.6	3.5	3.6	3.7	3.9	3.6	3.6	4.0	4.4	4.9
	9 1/2"	4.2	4.4	4.3	4.2	4.4	4.4	4.6	4.3	4.4	4.8	5.1	5.7
	11 1/2"	4.8	5.0	5.0	4.9	5.0	5.1	5.3	4.9	5.2	5.7	5.8	6.4
18"	2"	1.5	1.7				1.6	1.8	1.5	1.4	1.8	2.4	
	2 1/2"	2.2	2.4				2.4	2.6	2.3	2.2	2.6	3.2	
	3 1/2"	2.3	2.5				2.5	2.7	2.4	2.3	2.7	3.2	
	5 1/2"	2.9	3.1				3.1	3.3	2.9	2.9	3.3	3.8	
	7 1/2"	3.4	3.7				3.6	3.8	3.5	3.5	3.9	4.4	
	9 1/2"	4.1	4.3				4.3	4.5	4.1	4.2	4.7	5.1	
	11 1/2"	4.5	4.8				4.8	5.0	4.6	4.8	5.3	5.6	
20"	2"	1.5	1.7	1.5	1.4	1.6	1.7	1.9	1.6	1.5	1.9	2.5	
	2 1/2"	2.3	2.5	2.3	2.2	2.3	2.4	2.7	2.3	2.2	2.7	3.3	
	3 1/2"	2.3	2.5	2.4	2.3	2.4	2.5	2.7	2.4	2.3	2.8	3.4	
	5 1/2"	2.9	3.1	2.9	2.8	2.9	3.1	3.3	2.9	2.9	3.3	3.9	
	7 1/2"	3.4	3.6	3.4	3.3	3.5	3.6	3.8	3.4	3.4	3.9	4.4	
	9 1/2"	4.0	4.2	4.0	3.9	4.1	4.2	4.4	4.0	4.1	4.6	5.0	
	11 1/2"	4.4	4.6	4.4	4.3	4.5	4.6	4.8	4.4	4.6	5.1	5.5	
24"	2"	1.6	1.8	1.6	1.5	1.6	1.8	2.0	1.6	1.6	2.1	2.8	
	2 1/2"	2.4	2.6	2.4	2.3	2.4	2.5	2.8	2.4	2.3	2.9	3.6	
	3 1/2"	2.4	2.6	2.4	2.3	2.4	2.6	2.9	2.4	2.4	2.9	3.6	
	5 1/2"	2.9	3.1	2.9	2.8	3.0	3.1	3.3	2.9	2.9	3.4	4.1	
	7 1/2"	3.4	3.6	3.4	3.3	3.4	3.6	3.8	3.4	3.4	4.0	4.6	
	9 1/2"	3.9	4.1	3.9	3.8	3.9	4.1	4.3	3.9	3.9	4.5	5.1	
	11 1/2"	4.1	4.4	4.2	4.1	4.2	4.4	4.6	4.2	4.3	4.9	5.4	
30"	2"	1.7	2.0	1.7	1.6	1.7	1.9	2.2				3.3	
	2 1/2"	2.5	2.7	2.5	2.3	2.5	2.6	3.0				4.0	
	3 1/2"	2.5	2.8	2.5	2.4	2.5	2.7	3.0				4.1	
	5 1/2"	3.0	3.2	3.0	2.9	3.0	3.2	3.5				4.5	
	7 1/2"	3.4	3.6	3.4	3.3	3.4	3.6	3.9				5.0	
	9 1/2"	3.8	4.1	3.8	3.7	3.8	4.0	4.3				5.4	
	11 1/2"	4.0	4.2	4.0	3.9	4.0	4.2	4.5				5.6	

NOTE: All dimensions are in inches and tenths of an inch and are the travels required to complete the cuts plus 1/4" of over travel unless otherwise noted.

TRAVEL CHART

FOR CL-12
DRILLING MACHINE

TRAVEL REQUIRED TO COMPLETE A CUT FOR LATERAL CONNECTION WITH POINT OF PILOT DRILL (OR SOLID DRILL) CONTACTING MAIN

Nominal Size of Pipe to be Cut	Outside Diameter of Cutter	CAST IRON PIPE								STEEL PIPE		Asbestos Cement Pipe Class 150
		ASA A21 6 1953 ASA A21 8 1953 AWWA C106-52 AWWA C108-52 Class 150	ASA A21 2 1953 AWWA C102-52 Class 150	ASA A21 3 1953 Class 10	ASA A21 7 1953 ASA A21 9 1953 Class 10	AGA Old Standard	AWWA 1908 Stand. Class B	AWWA 1908 Stand. Class D	Federal Spec WW P 421 Class 150	Schedule 40	Schedule 80	
36"	2"	1.8	2.1	1.8	1.7	1.8	2.0	2.4				3.8
	2½"	2.5	2.8	2.6	2.4	2.6	2.8	3.2				4.5
	3½"	2.6	2.9	2.6	2.5	2.6	2.8	3.2				4.6
	5½"	3.0	3.3	3.1	2.9	3.0	3.2	3.7				5.0
	7½"	3.4	3.7	3.4	3.3	3.4	3.6	4.0				5.4
	9½"	3.8	4.0	3.8	3.6	3.8	4.0	4.4				5.8
	11½"	3.9	4.2	3.9	3.7	3.9	4.1	4.5				5.9
42"	2"	1.9	2.2	1.9	1.8	1.9	2.1	2.6				
	2½"	2.6	3.0	2.7	2.5	2.7	2.9	3.4				
	3½"	2.7	3.0	2.7	2.5	2.7	2.9	3.4				
	5½"	3.1	3.4	3.1	3.0	3.1	3.3	3.8				
	7½"	3.4	3.7	3.5	3.3	3.5	3.7	4.2				
	9½"	3.8	4.1	3.8	3.6	3.8	4.0	4.5				
	11½"	3.8	4.1	3.9	3.7	3.9	4.1	4.6				
48"	2"	2.0	2.3	2.0	1.8	2.1	2.3	2.8				
	2½"	2.7	3.1	2.8	2.6	2.9	3.0	3.6				
	3½"	2.8	3.1	2.8	2.6	2.9	3.0	3.6				
	5½"	3.2	3.5	3.2	3.0	3.3	3.5	4.0				
	7½"	3.5	3.8	3.5	3.3	3.6	3.8	4.3				
	9½"	3.8	4.1	3.8	3.6	3.9	4.1	4.6				
	11½"	3.8	4.2	3.9	3.7	4.0	4.1	4.7				
54"	2"		2.5				2.4	3.1				
	2½"		3.2				3.1	3.8				
	3½"		3.2				3.2	3.8				
	5½"		3.6				3.6	4.2				
	7½"		4.0				3.9	4.6				
	9½"		4.2				4.2	4.8				
	11½"		4.2				4.2	4.9				
60"	2"		2.7				2.5	3.2				
	2½"		3.5				3.3	4.0				
	3½"		3.5				3.3	4.0				
	5½"		3.9				3.7	4.4				
	7½"		4.2				4.0	4.7				
	9½"		4.5				4.2	4.9				
	11½"		4.4				4.2	4.9				

NOTE: All dimensions are in inches and tenths of an inch and are the travels required to complete the cuts plus ¼" of over travel unless otherwise noted.

**FOR CL-12
DRILLING MACHINE**

TRAVEL CHART

**TRAVEL REQUIRED TO COMPLETE A CUT FOR LATERAL CONNECTION WITH POINT
OF PILOT DRILL (OR SOLID DRILL) CONTACTING MAIN**

Nominal Size of Pipe to be Cut	Outside Diameter of Cutter	CAST IRON PIPE								STEEL PIPE		Asbestos Cement Pipe Class 150
		ASA A21 6 1953 ASA A21 8 1953 AWWA C106 53 AWWA C108 53 Class 150	ASA A21 2 1953 AWWA C102 53 Class 150	ASA A21 3 1953 Class 10	ASA A21 7 1953 ASA A21 9 1953 Class 10	AGA Ord Standard	AWWA 1908 Stand Class B	AWWA 1908 Stand Class D	Federal Spec WW P 421 Class 150	Schedule 40	Schedule 80	
72"	2"						2.8					
	2½"						3.5					
	3½"						3.6					
	5½"						3.9					
	7½"						4.2					
	9½"						4.5					
	11½"						4.4					
84"	2"						3.1					
	2½"						3.8					
	3½"						3.8					
	5½"						4.2					
	7½"						4.5					
	9½"						4.7					
	11½"						4.6					

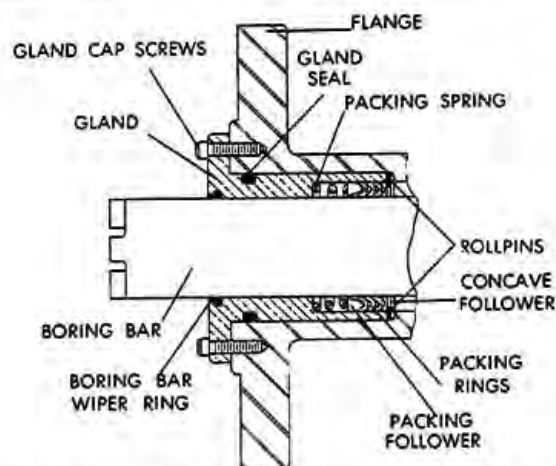
NOTE: All dimensions are in inches and tenths of an inch and are the travels required to complete the cuts plus ¼" of over travel unless otherwise noted.

SPECIAL INSTRUCTIONS

TO REPLACE BORING BAR PACKING

1. Remove the Four Gland Cap Screws (Part No. 92754) from the Brass Gland (Part No. 48138).
2. Insert the Gland Cap Screws into the alternate tapped holes in the Brass Gland and screw them in all the way. This should be done evenly, tightening each cap screw a little at a time. This will cause the Gland to move forward evenly out of the flange recess until the Gland Seal (Part No. 48296) is exposed.
3. Rotate Crank Handle clockwise and advance the Boring Bar approximately 6 or 8 inches. This will usually cause the Gland, Packing Spring, Packing Follower, 3 Packing Rings and Concave Follower to move forward into an exposed position.
4. Remove the Gland from the Boring Bar.
5. Punch out the two Rollpins (Part No. 47092) which retain the entire packing assembly. CAUTION: Place the gland assembly in a vise to retain the Concave Packing Follower before punching out the Rollpins. Since the packing is spring loaded, these parts will fly out when the pins are removed if they are not properly retained.
6. Remove Concave Follower, 3 Packing Rings, Convex Follower, and Packing Spring from the gland and clean the packing cavity.
7. Remove the Boring Bar Wiper Ring (Part No. 48137) and the Gland Seal (Part No. 48296) and replace, if necessary.
8. Replace Packing Spring (Part No. 98001), Convex Packing Follower (Part No. 44320), 3 Packing Rings (Part No. 45121), and Concave Packing Follower (Part No. 44978) into Gland (Part No. 48138). Make sure the Rollpin holes in the Concave Packing Follower align with the holes in the Gland during this assembly.

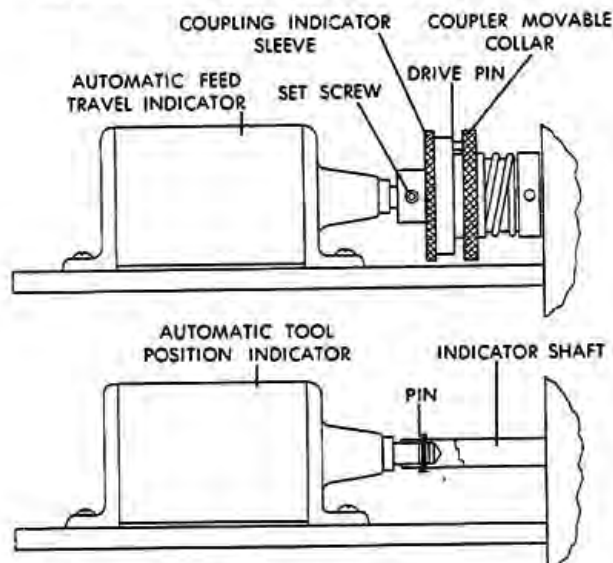
NOTE: Make sure the new packing rings are installed in the same direction that the old ones were in when removed. Packing ring lips should face the pressure or front end of the machine.



9. Retain the assembled gland in a vise while inserting the two Rollpins (Part No. 47092) in the gland to retain Concave Packing Follower.
10. Remove any "burrs" or "nicks" from the Boring Bar Drive Lugs. Lubricate the boring bar and the inside of the packing rings with a light film of oil or cup grease.
11. Remove the Four Gland Cap Screws (Part No. 92754) from the tapped holes in the gland.
12. Carefully slide the Gland Assembly onto the lubricated Boring Bar and slide into place. Insert the Gland Cap Screws through the drilled holes and tighten Gland Cap Screws securely.

TO REPLACE OR RESET AUTOMATIC FEED TRAVEL INDICATOR*

1. Rotate crank handle counter-clockwise to retract boring bar to its rearmost position.
2. Remove Brass Indicator Cover.
3. Loosen set screw in Coupling Indicator Sleeve.
4. Remove screws which hold Automatic Feed Travel Indicator to body of the machine.
5. Remove Automatic Feed Travel Indicator.
6. With the Automatic Feed Travel Indicator set at 000, place the shaft of the indicator into the Coupling Indicator Sleeve, and replace screws which hold the Automatic Feed Travel Indicator to the body of the machine.
7. Rotate the Automatic Feed Set Knob counter-clockwise and pull out on it to place the machine in Automatic Feed. If the shaft fails to stay out, rotate the knob some more and pull out again.
8. Rotate the Crank Handle clockwise until the Automatic Feed Shaft moves forward. This will be the zero point of the Automatic Feed.
9. Tighten the Set Screw in Coupling Indicator Sleeve against the shaft of the Automatic Feed Travel Indicator.
10. Set Automatic Feed Travel Indicator for some amount above 005 (five tenths advance in Automatic Feed is usually the minimum setting and rotate crank handle clockwise until automatic feed disengages.)
11. If Automatic Feed Travel Indicator does not read exactly 000 after disengaging, reset it to 000 as follows:
 - (1) Pull the Knurled Coupler Movable Collar toward the rear of machine. (This collar will move approximately $\frac{1}{8}$ ".)
 - (2) Hold it in this position until the Knurled Coupling Indicator Sleeve is turned the required amount to obtain the 000 setting on the Automatic Feed Travel Indicator.
 - (3) Then release the Knurled Coupler Movable Collar so that the drive pin in it engages the nearest hole in the Coupling Indicator Sleeve.
12. Replace Brass Indicator Cover.



TO REPLACE AND RESET AUTOMATIC TOOL POSITION INDICATOR*

1. Rotate crank handle counter-clockwise to retract boring bar to its rearmost position.
2. Remove Brass Indicator Cover.
3. Remove screws which hold Automatic Tool Position Indicator to body of machine.
4. Remove Automatic Tool Position Indicator.
5. With the Automatic Tool Position Indicator set at 000, place the shaft of the Automatic Tool Position Indicator into the end of the Indicator Shaft.
6. Make sure the notch in the Automatic Tool Position Indicator Shaft engages the pin in the Indicator Shaft.
7. Replace screws which hold Automatic Tool Position Indicator to body of the machine.
8. Replace Brass Indicator Cover.

*The Automatic Feed Travel Indicator has a grey finish. The Tool Position Indicator has a black finish.

MUELLER® 540 AND 550 SERIES FULL- SEAL® STAINLESS STEEL REPAIR CLAMPS



15.1

Rev. 9-03

Mueller 540 and 550 Series Full-Seal Clamps provide economical repairs and resist corrosion

MUELLER Full-Seal clamps provide an economical repair for circumferential breaks or cracks, multiple leaks or holes in pipe. They are available in standard lengths for cast and ductile iron, standard steel, PVC, and A-C. Each clamp size can accommodate a wide range of O.D. variations.

Lightweight all stainless steel pipe repair clamps resist corrosive atmospheres and hot soils. Available in single-section Full-Seal® style (Series 540), in two-section Xtra-Range® style (Series 550), and in Servi-Seal® style with welded-in service outlet. Servi-Seal style is available in either single-section (Series 541-549) or two-section (Series 551-559).

❑ **HIGH STRENGTH STAINLESS STEEL STUDS** - have spin-fit threads. For fast installation and Teflon coated heavy hex nuts for anti-galling

❑ **MAXIMUM WATER WORKING PRESSURE*** - for properly installed clamps at 150°F maximum working temperature:
2"-12" 540 series 150 psig (2068 kPa);
3"-8" 550 series 300 psid (1379 kPa);
10", 12" 550 series 150 psig (1034 kPa)

❑ **TAPERED END GRIDDED GASKET** - is made of specially compounded Nitrile rubber, has a gridded pattern for positive sealing and tapered ends to make installation quick and easy

❑ **BANDS** - are made of type 304L stainless steel and are machine-welded then passivated in welded area to restore full corrosion-resistance

❑ **Repair circumferential breaks, cracks**

❑ **Repair leaks and holes in pipe**

❑ **3304L STAINLESS STEEL "GAP BRIDGES"** - recessed in and cemented to gasket where band sections join, add support to provide 360° clamping pressure

❑ **Repair pulled services, broken pipe with Servi-Seal Clamp**

❑ **Repair longitudinal cracks**



540 SERIES CLAMP



SERVI-SEAL Clamp



550 Series Clamp

*IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design cut seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the uniformity of bolt tightening (where there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.



WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.



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MUELLER® 500 AND 510 SERIES FULL-SEAL® PIPE REPAIR CLAMPS

Mueller 500 and 510 Series Full-Seal Pipe Repair Clamps provide economical repairs

MUELLER Full-Seal Pipe Repair Clamps provide an economical repair for circumferential breaks or cracks, multiple leaks or holes in pipe. They are available in standard lengths for cast iron, ductile iron, standard steel pipe, PVC and A-C pipe. Each clamp size can accommodate a wide range of O.D. variations.

High efficiency pipe repair clamp offers long life in most soils and atmospheres. Available in three styles to answer several repair needs: single-section Full-Seal® style (Series 500), two-section Xtra-Range® style (Series 510), and Servi-Seal® style with welded-in service outlet. Servi-Seal® style is available in either single-section (Series 501-509) or two-section (Series 511-519).

- ❑ **CORROSION-RESISTANT ALLOY STEEL LUG BOLTS AND NUTS** - Bolts and other clamp components have service life expectancies compatible with the rest of your system.
- ❑ **EXCLUSIVE MUELLER LUG DESIGN** - of lightweight, strong ductile iron is coated with rust inhibitor. Lugs are self-aligning to provide uniform pressure along full length of clamp. They locate pulling force close to pipe surface for easy tightening without bolt bending.
- ❑ **MAXIMUM WORKING PRESSURE*** - for properly installed clamps at 150°F maximum working temperature:
 2"-8" 500/510 series 300 psig (1034 kPa);
 10"-12" 500/510 series 200 psig (2068 kPa);
 14"-36" 510 series 150 psig (1034 kPa)
- ❑ Repair circumferential breaks, cracks.
- ❑ Repair pulled services, broken pipe with Servi-Seal Clamp.



- ❑ **304L STAINLESS STEEL "GAP BRIDGES"** - recessed in and cemented to gasket where hand sections join, add support to provide 360° clamping pressure
- ❑ **CAPTIVE BOLTS**— have deep non-galling, spin-fit thread and one is extended in length for fast installation. Plus heavy shoulders to prevent turning in lug. Heavy hex nuts provide more thread contact for strength
- ❑ **TAPERED END GRIDDED GASKET** - is made of specially compounded Nitrile rubber, has a gridded pattern for positive sealing and tapered ends to make installation quick and easy.
- ❑ **LONGER LENGTH STARTER BOLT & NUT** - for easier installation (one per side on 4" and larger sizes).

- ❑ Repair leaks and holes in pipe.
- ❑ Repair longitudinal cracks
- ❑ BANDS - are made of type 304L stainless steel.

500 SERIES CLAMP



SERVI-SEAL Clamp

510 Series Clamp

*IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. To achieve the pressure that a rising column of water exerts there is stress that one-half the weight of the pipe and extent of pipe damage, surface conditions of the pipe, non-optimal conditions, and installation workmanship.

⚠ WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® 230 SERIES MINI-BAND™ CLAMP

Mueller 230 Series Clamps

The stainless steel 230 Series Mini-Band Clamp features full 360° sealing capability for repairing pinholes, punctures, splits and small abrasions on 1/2"-2" rigid pipe (copper, steel or PVC). It is

available in 3" and 6" lengths. The gasket includes integral stainless steel gap bridges that are recessed and bonded to the gasket. Zinc-plated steel bolts are standard; stainless steel bolts optional.

MUELLER 230 SERIES MINI-BAND CLAMP

- ❑ FULL ENCIRCLEMENT - gasket wraps 360° for uniform seal on larger leaks.

- ❑ BANDS - are made of Type 304L Stainless Steel with Ductile Iron Lugs.

- ❑ BOLTS - are zinc plated steel and have spin-fit threads to speed installation 304 stainless steel bolts and nuts are optional.



- ❑ COMPACT, CONVENIENT SIZE - small size fits in tight spaces, available to repair 1/2" to 2" pipes made of copper, PVC or steel. Choice of 3" or 6" length.

- ❑ 304L STAINLESS STEEL "GAP BRIDGES" - stainless steel plates recessed and bonded to gasket assure uniform sealing pressure all around pipe circumference.

- ❑ PRESSURE RATING* - for properly installed clamp: 150 psig on steel or copper — 60 psig on PVC.

230 SERIES CLAMP



*IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the uniformity of bolt tightening (where there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

MUELLER® 200 SERIES PIPE-SAVER® REPAIR CLAMPS AND BELL JOINT REPAIR CLAMPS

Mueller 200 Series Clamps

The stainless steel 200 Series Pipe-Saver Clamp comes in 3", 6", 9", 12", and 18" lengths, in single section to fit 1/2" - 8" standard steel pipe, and in two sections to fit 10" - 24" standard steel pipe. Cemented-in gaskets are available with a choice of smooth

or gridded surfaces. A clamp is also available with a separate cone gasket to close holes or deep pits. High carbon steel bolts with corrosion-resistant plating are standard; stainless steel bolts optional. The stainless steel 200 Series Pipe-Saver Clamp

- ❑ Repair holes
- ❑ Repair splits
- ❑ Heavy bolt shoulders prevent turning in lug
- ❑ Steel bolt has rolled, spin-fit threads to speed installation
- ❑ Heavy, hex nut provides more thread contact for greater strength
- ❑ Type 304L stainless steel band
- ❑ Ductile iron lugs are shaped to provide uniform clamping pressure on pipe
- ❑ Maximum water working pressure for properly installed clamps with nuts tightened to 500 inch-pounds torque*: 1/2"-4" 350 psig; 6"-8" 200 psig; 10"-12" 150 psig; 14"-16" 100 psig; 18" - 24" 60 psig



*IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the uniformity of bolt tightening (where there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

MUELLER® 200 SERIES PIPE- SAVER® PIPE REPAIR CLAMPS

Rev. 8-04 Shaded area indicates change

Typical 200 Series Pipe-Saver Clamps



220



218



221



213

Mueller 200 Series Pipe-Saver® Pipe Repair Clamps - for 1/2" through 24" standard steel pipe

To specify the catalog number, use the charts to select the following information for the desired clamp:

1. Style number
2. Length
3. Size number

Example:

The catalog number for a 220 Style Clamp, 3" long for 1-1/2" steel pipe is 220-3-190

Clamp style number	Clamp length	Clamp size number
220	3	190

Clamp style number

Style number	Type of gasket	Gasket coverage	Bolts	Corrosion resistive plating	Stainless steel	Sizes* available
210	Smooth†	Full	X	-	-	1/2" - 24"
211	Smooth†	Full	-	-	X	1/2" - 24"
212	Gridded	Full	X	-	-	1/2" - 24"
213	Gridded	Full	-	-	X	1/2" - 24"
218	Smooth†	Regular	X	-	-	1-1/2" - 24"
219	Smooth†	Regular	-	-	X	1-1/2" - 24"
220	Gridded	Regular	X	-	-	1-1/2" - 24"
221	Gridded	Regular	-	-	X	1-1/2" - 24"

*Clamps available to fit specific size standard steel pipe within this nominal size range.

†Smooth gasket material is reinforced for 1-1/2" - 24" sizes.

Clamp length and clamp size number

Std. steel pipe size	Clamp size number	Std. steel pipe O.D.	Number of clamp sections	Clamp lengths available	Number of bolts
1/2"	0084	0.840		4"	1
3/4"	0105	1.050		6"	2
1"	0131	1.315		9"	3
1-1/4"	0166	1.660		12"	4
1-1/2"	0190	1.900		18"	6
2"	0237	2.375			
2-1/2"	0267	2.675			
3"	0350	3.500			
3-1/2"	0400	4.000			
4"	0450	4.500			
5"	0556	5.563			
6"	0662	6.625			
8"	0867	8.625			
10"	1075	10.750			
12"	1275	12.750			
14"	1400	14.000			
16"	1600	16.000			
18"	1800	18.000			
20"	2000	20.000			
24"	2400	24.000			

†† Nominal Sizes

MUELLER® 230 SERIES MINI-BAND™ PIPE REPAIR CLAMPS AND MISCELLANEOUS EQUIPMENT

Rev. 8-04 Shaded area indicates change

Typical MINI-BAND Clamp



Style number 230

Mueller 230 Series Mini-Band Pipe Repair Clamps - for 1/2" through 2" rigid copper, steel and PVC pipe.

To specify the catalog number, use the charts to select the following information for the desired clamp:

1. Style number 230 (change "0" to "1" for stainless steel bolt option)
2. Length "03" for 3" or "06" for 6"
3. Size number (from chart below)

Example:

The catalog number for a 230 Style clamp, 6" long for 1" rigid copper pipe, with the stainless steel bolt option is 231-06-0113

Clamp style number	Clamp length	Clamp size number
231	06	0113

Nominal pipe size	Clamp size number	Pipe O.D.	
		Standard steel, PVC	Type "K" copper
1/2"	0063	-	0.625
	0064	0.640	-
3/4"	0088	-	0.875
	0105	1.050	-
1"	0113	-	1.125
	0132	1.315	-
	0138	-	1.375
1-1/4"	0166	1.660	-
	0163	-	1.625
1-1/2"	0190	1.900	-
	0213	-	2.125
2"	0238	2.375	-

Clamp size	Bolt size	Part numbers	
		Corrosion resistive plating	Stainless steel
1/2" - 1"	3/8" x 3"	584534	513363
1-1/4", 1-1/2"	3/8" x 3-1/2"	584535	513364
2" - 5"	7/16" x 4"	584537	513366
6" - 24"	7/16" x 5"	584538	513367



IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the secularity of bolt tightening (when there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the secularity of bolt tightening (when there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

MUELLER® SINGLE SECTION FULL-SEAL® PIPE REPAIR CLAMPS

Rev. 5-09

Typical Single Section Full-Seal Clamp



Style number 500



Standard nut



Standard bolt & nut

510 Series nuts and bolts



Bonding device



Bonding device



Add-on feature

Mueller 500 Series Single Section Full-Seal Pipe Repair Clamps - for 2" through 12" cast iron, ductile iron, steel pipe, A-C and PVC pipe
To specify the catalog number, provide the following information

1. Style number—500
2. Length—Standard length available (inches): 6, 7-1/2 (list as "7"), 9, 12, 15, 18, 20, 24, 30
3. Size number—from chart on page 15.8
4. Catalog number prefix or suffix for optional features, if desired
- The catalog number for 500 Single Section Full-Seal Repair Clamp, 12" long for 8" cast iron pipe is 500-12-899

Clamp style number	Clamp length	Clamp size number
500	12	899

Extra bolts and nuts for 500 series Mueller Single Section Full Seal Repair Clamps

Clamp size	Bolt size	Bolt part number	Nut part number
2" - 3-1/2"	1/2" x 4-1/2"	521009	521010
4" - 12" (Standard Bolt & nut)	5/8" x 6"	521008	195236
4" - 12" (Starter Bolt & nut)	5/8" x 7"	524308	526655

NOTE: 4" and larger 500 Series Clamps are provided with one starter bolt/nut per size as standard

Stainless steel bolts

For optional 304 stainless steel bolts, washers and nuts, add "S-" prefix to clamp catalog number.
Example: S-500-12-899

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps.
Long ratchet handle has thumb-clip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.



Part number	Description
515204	15-3/4" reversible Ratchet Handle
520344	7/8" Socket for 2" through 3-1/2" clamps
515207	1-1/16" Socket for 4" and larger clamps
519575	1/2" x 3/4" Adapter

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.

Example: 2-500-12-899

Add-on feature allows long lengthwise repairs

The gasket is cemented into the band in a 1" offset position. This allows overlapping the gasket with the band of another offset clamp when repairing a longer than usual area of pipe. This feature is not available on Serv-Seal style clamps.

To specify optional add-on feature for longer than usual repairs, add a prefix of "1" to catalog number.

Example: 1-500-12-899

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressure againsts encountered in water systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain is affected by the torque applied in the bolts, the uniformity of bolt tightening (there is 1 inch that one bolt), the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® SINGLE SECTION FULL-SEAL® PIPE REPAIR CLAMPS

Rev. 5-09

Mueller 500 Series Single Section Full-Seal® Pipe Repair Clamps — for 2" through 12" cast iron, ductile iron, steel, A-C and PVC pipe.
Standard Lengths: 6", 7-1/2", 9", 10", 12", 15", 18", 20", 24", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range *				Cast iron	Ductile iron	Cast iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
2"	235	2.35	2.63	59.7	66.8	50-250 A,B,C,D	ALL	-	2"	-
2-1/2"	270	2.70	2.98	68.6	75.7	50-250 A,B,C,D	ALL	-	2-1/2"	-
3"	297	2.97	3.25	75.5	82.5	-	-	-	3" O.D.	-
3-1/2"	346	3.46	3.72	87.9	94.4	-	-	-	3"	-
4"	373	3.73	4.00	94.8	101.6	50-250 A,B,C,D	ALL	-	-	-
4-1/2"	396	3.96	4.25	100.6	107.9	-	-	-	3-1/2" (4" O.D.)	-
4"	445	4.45	4.87	113.3	123.6	50-250 A	ALL	CL 150,200	STD	-
4"	474	4.74	5.14	120.4	130.5	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100**, 150
4"	495	4.95	5.35	125.8	135.8	-	-	-	-	CL 100**, 150
4"	520	5.20	5.60	132.1	142.2	-	-	-	-	CL 150,200
6"	566	5.66	5.91	143.7	150.1	-	-	-	-	-
6"	594	5.94	6.34	150.9	161.0	-	-	-	8" O.D.	-
6"	634	6.34	6.74	163.3	171.2	-	-	-	STD	-
6"	655	6.55	6.97	164.4	177.0	50-250 A	ALL	CL 150,200	STD	-
6"	684	6.84	7.24	173.8	183.8	50-250 A,B,C,D	ALL	CL 150,200	-	-
6"	704	7.04	7.44	178.9	188.9	-	-	-	-	CL 100**, 150
6"	722	7.22	7.62	183.4	193.5	-	-	-	-	CL 200
8"	792	7.92	8.32	201.1	211.3	-	-	-	8" O.D.	-
8"	836	8.36	8.76	212.3	222.2	-	-	-	-	-
8"	853	8.53	8.93	216.7	226.8	-	-	-	STD	-
8"	899	8.99	9.39	228.4	238.5	50-250 A,B,C,D	ALL	CL 150,200	-	-
8"	925	9.25	9.65	235.0	245.1	-	-	-	-	CL 100**, 150
8"	940	9.40	9.80	238.8	248.9	-	-	-	-	CL 200
10"	990	9.90	10.30	251.4	261.6	-	-	-	10" O.D.	-
10"	1040	10.40	10.80	264.1	274.3	-	-	-	-	-
10"	1064	10.64	11.04	270.3	280.4	-	-	-	STD	-
10"	1104	11.04	11.46	280.5	291.0	50-250 A,B,C,D	-	CL 150,200	-	-
10"	1137	11.37	11.77	288.8	298.9	-	-	-	-	CL 100**
10"	1175	11.75	12.15	298.5	308.6	-	-	-	12" O.D.	CL 150,200
12"	1200	12.00	12.40	304.8	315.0	-	-	-	-	-
12"	1220	12.20	12.60	309.9	320.0	-	-	-	-	-
12"	1246	12.46	12.86	316.5	326.6	-	-	-	-	-
12"	1260	12.60	13.00	320.1	330.2	-	-	-	STD	-
12"	1314	13.14	13.56	333.8	344.4	50-250 A,B,C,D	ALL	CL 150,200	-	-
12"	1356	13.56	13.96	344.5	354.5	-	-	-	-	CL 100**
12"	1400	14.00	14.40	355.7	365.7	-	-	-	14"	CL 150,200

* Verify pipe O.D. before selecting clamp size

** CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection

*** Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

Typical Single Section
Servl-Seal Clamp

Style number 501-509



Starter nut



Standard bolt & nut

510 Series nuts and bolts

**MUELLER® SINGLE SECTION
SERVI-SEAL® PIPE REPAIR CLAMPS**

Mueller Single Section Servi-Seal Pipe Repair Clamps - with Integral 3/4" through 2" IP/CC Threaded service outlet - for 2" through 12" cast iron, ductile iron, steel pipe, A-C and PVC pipe.

To specify the catalog number, provide the following information:

1. Style number—501-509 (see chart below)
 2. Length—Standard length available (inches): 5, 6, 7-1/2 (list as "7"), 9, 12, 15, 18, 20, 24, 30
 3. Size number—from chart on page 15.10
 4. Catalog number prefix or suffix for optional features, if desired.
- The catalog number for a Single Section Servi-Seal Repair Clamp with 3/4" IP outlet, 12" long for 8" cast iron pipe is 501-12-899.

Clamp Style Number	Clamp length	Clamp Size Number
501	12	899

Clamp style number

Style number	Size/type of outlet tapping thread	Sizes available*
501	3/4" IP	2.35, 14.00
502	1/4" CC	2.35, 14.00
503	1" IP	2.35, 14.00
504	1" CC	2.35, 14.00
505	1-1/4" IP	4.45, 14.00
506	1-1/2" CC	4.45, 14.00
507	1-1/2" IP	4.45, 14.00
508	2" CC	4.45, 14.00
509	2" IP	4.45, 14.00

*Clamps available in 16 specific size pipe within the standard size range

Extra bolts and nuts for Mueller Single Section Servi-Seal Repair

Clamp size	Bolt size	Bolt part number	Nut part number
2" - 3-1/2"	1/2" x 6"	521009	521010
4" - 12" (Standard Bolt & nut)	5/8" x 6"	521008	195236
4" - 12" (Starter Bolt & nut)	5/8" x 7"	524308	526655

NOTE: 4" and larger 500 Series Clamps are provided with one starter bolt/nut per sale as standard.

Stainless steel bolts

For optional 304 stainless steel bolts, washers and nuts, add "SS" prefix to clamp catalog number. Example: S-501-12-899.

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (1 1/2") and 1/2" square drive.



Part number	Description
515704	15-3/4" reversible Ratchet Handle
520344	7/8" Socket for 2" through 3-1/2" clamps
515207	1-1/16" Socket for 4" and larger clamps
519575	1/2" x 3/4" Adapter

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number. Example: 2-501-12-899.

**MUELLER® SINGLE SECTION
SERVI-SEAL® PIPE REPAIR CLAMPS**

Mueller 501-509 Series Single Section Servi-Seal Pipe Repair Clamps — for 2" through 12" cast iron, ductile iron, steel, A-C and PVC pipe.

Standard Lengths: 6", 7-1/2", 9", 10", 12", 15", 18", 20", 24", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range*				Cast Iron	Ductile Iron	Cast Iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
2"	235	2.35	2.63	59.7	66.8	50-250 A,B,C,D	ALL	-	2"	-
2-1/2"	270	2.70	2.98	68.6	75.7	50-250 A,B,C,D	ALL	-	2-1/2"	-
3"	297	2.97	3.25	75.5	82.5	-	-	-	3" O.D.	-
3"	346	3.46	3.72	87.9	94.4	-	-	-	3"	-
3"	373	3.73	4.00	94.8	101.6	50-250 A,B,C,D	ALL	-	-	-
3-1/2"	396	3.96	4.25	100.6	107.9	-	-	-	3-1/2" (4" O.D.)	-
4"	445	4.45	4.87	113.1	123.6	50-250 A	-	CL 150,200	STD	-
4"	474	4.74	5.14	120.4	130.5	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150
4"	495	4.95	5.35	125.8	135.8	-	-	-	-	CL 100** 150
4"	520	5.20	5.60	132.1	142.2	-	-	-	-	CL 150,200
6"	566	5.66	5.91	143.7	150.1	-	-	-	-	-
6"	594	5.94	6.34	150.9	161.0	-	-	-	6" O.D.	-
6"	634	6.34	6.74	161.3	171.2	-	-	-	STD	-
6"	655	6.55	6.97	164.4	177.0	50-250 A	ALL	CL 150,200	STD	-
6"	684	6.84	7.24	173.8	183.8	50-250 A,B,C,D	ALL	CL 150,200	-	-
6"	704	7.04	7.44	178.9	188.9	-	-	-	-	CL 100** 150
6"	722	7.22	7.62	183.4	193.5	-	-	-	-	CL 200
8"	792	7.92	8.32	201.1	211.3	-	-	-	8" O.D.	-
8"	836	8.36	8.76	212.3	222.5	-	-	-	-	-
8"	853	8.53	8.93	216.7	226.8	-	-	-	STD	-
8"	899	8.99	9.39	228.4	238.5	50-250 A,B,C,D	ALL	CL 150,200	-	-
8"	925	9.25	9.65	235.0	245.1	-	-	-	-	CL 100** 150
8"	940	9.40	9.80	238.8	248.9	-	-	-	-	CL 200
10"	990	9.90	10.30	251.4	261.6	-	-	-	-	-
10"	1040	10.40	10.80	264.1	274.3	-	-	-	-	-
10"	1064	10.64	11.04	270.3	280.4	-	-	-	STD	-
10"	1104	11.04	11.46	280.5	291.0	50-250 A,B,C,D	ALL	CL 150,200	-	-
10"	1137	11.37	11.77	288.8	298.9	-	-	-	-	CL 100**
10"	1175	11.75	12.15	298.5	308.6	-	-	-	12" O.D.	CL 150,200
12"	1200	12.00	12.40	304.8	315.0	-	-	-	-	-
12"	1220	12.20	12.60	309.9	320.0	-	-	-	-	-
12"	1246	12.46	12.86	316.5	326.6	-	-	-	-	-
12"	1260	12.60	13.00	320.1	330.2	-	-	-	STD	-
12"	1314	13.14	13.56	333.8	344.4	50-250 A,B,C,D	ALL	CL 150,200	-	-
12"	1356	13.56	13.96	344.5	354.5	-	-	-	-	CL 100**
12"	1400	14.00	14.40	355.7	365.7	-	-	-	14"	CL 150,200

*Verify pipe O.D. before selecting clamp size

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection.

***Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressure systems installed in distribution systems. Mueller clamps of a given design seal and operate better pressures than larger sizes. In addition, the pressure that a clamp can contain is affected by the torque applied to the bolts, the sealability of the gasketing system, the size of the hole, as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

See the O.D. not shown contact our Customer Service Center or your Mueller Sales Representative.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

Typical XTRA-RANGE
Full-Seal Clamp

Style number 510



Starter nut

Standard bolt & nut
510 Series nuts and bolts

Bonding device



Bonding device



Add-on feature

Mueller 510 Series Xtra-Range Full-Seal Pipe Repair Clamps - for
4" through 24" cast iron, ductile iron, steel pipe, A-C and PVC pipe.

To specify the catalog number, provide the following information:

1. Style number—510
 2. Length—Standard length available (inches): 6, 7-1/2 (list as "7"), 9, 12, 15, 18, 20, 24, 30
 3. Size number—from chart on page 15.12
 4. Catalog number prefix or suffix for optional features, if desired
- The catalog number for a 510 Xtra-Range Full-Seal Repair Clamp, 12" long for 6" cast iron pipe is 510-12-675.

Clamp style number	Clamp length	Clamp size number
510	12	675

Extra bolts and nuts for Mueller Xtra-Range Full Seal Repair Clamps

Clamp size	Bolt size	Bolt part number	Nut part number
4" - 24" (Standard Bolt & Nut)	5/8" x 6"	521008	189236
4" - 24" (Starter Bolt & Nut)	5/8" x 7"	524308	526655

NOTE: 4" and larger 510 Series Clamps are provided with one starter bolt/nut per size as standard.

Stainless steel bolts

For optional 304 stainless steel bolts, washers and nuts, add "S-" prefix to clamp catalog number.
Example: S-510-12-675.

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps.
Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.

Part number	Description
515201	1-1/16" Socket
515204	15-3/16" with 1/2" drive reversible Ratchet Handle
519575	1/2" x 3/4" Adapter

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.
To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.
Example: 2-510-12-675.

Add-on feature allows long lengthwise repairs

The gasket is cemented into the band in a 1" offset position. This allows overlapping the gasket with the band of another offset clamp when repairing a longer than usual area of pipe. This feature is not available on Servi-Seal style clamps.

To specify optional add-on feature for longer than usual repairs, add a prefix of "1" to catalog number.

Example: 1-510-12-675.

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in ductile iron systems. Smaller diameter clamps of a given design can and against higher pressures than larger ones. In addition, the pressure that a clamp can contain is effected by the torque applied to the bolts, the uniformity of both tightening (where there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

Mueller 510 Series Xtra-Range Full-Seal Pipe Repair Clamps — for 4" through 24" cast iron, ductile iron, steel, A-C and PVC pipe

Standard Lengths: 6", 7-1/2", 9", 10", 12", 15", 18", 20", 24", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range*				Cast Iron	Ductile Iron	Cast Iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
4"	470	4.70	5.50	119.4	139.7	50-250,A,B,C,D	ALL	CL 150,200		CL 100** 150,200
6"	662	6.62	7.42	168.1	188.5				STD	
6"	675	6.75	7.55	171.5	191.7	50-250,A,B,C,D	ALL	CL 150,200		CL 100** 150,200
8"	862	8.62	9.42	218.9	239.3				STD	
8"	888	8.88	9.68	225.6	245.8	50-250,A,B,C,D	ALL	CL 150,200		CL 100** 150,200
10"	1072	10.72	11.72	272.3	297.7				STD	
10"	1105	11.05	12.05	280.7	306.0	50-250,A,B,C,D	ALL	CL 150,200	12" O.D.	CL 100** 150,200
12"	1246	12.46	13.26	316.5	336.8				STD	
12"	1319	13.10	14.30	332.8	363.2	50-250,A,B,C,D	ALL	CL 150,200	14"	CL 100** 150,200
14"	1433	14.33	15.13	364.0	384.3					
14"	1510	15.10	15.90	383.0	403.8	50-250,A,B,C,D	ALL			CL 100**
16"	1590	15.90	16.70	403.9	424.1				16"	
16"	1655	16.55	17.35	420.4	440.6					14" CL 150,200
16"	1729	17.20	18.00	436.9	457.2	50-250,A,B,C,D	ALL			CL 100**
18"	1760	17.60	18.40	447.1	467.3				18"	
18"	1841	18.41	19.21	467.7	487.9					16" CL 150,200
18"	1922	19.22	20.02	488.2	508.5	50-250,A,B,C,D	ALL			
20"	1990	19.90	20.70	505.5	525.7				20"	CL 100**
20"	2070	20.70	21.50	525.8	546.1					18" CL 150
20"	2145	21.45	22.25	544.9	565.1	50-250,A,B,C,D	ALL		20"	
20"	2220	22.20	23.00	563.9	584.2					20" CL 100** 18" CL 200
20"	2280	22.80	23.60	579.2	599.4					
24"	2344	23.44	24.24	595.4	615.6				24"	20" CL 150
24"	2420	24.20	25.00	614.7	635.0					20" CL 200
24"	2490	24.90	25.70	632.5	652.7					20" CL 200
24"	2566	25.66	26.46	651.8	672.0	50-250,A,B,C,D			26"	
24"	2672	26.72	27.52	678.7	699.0					CL 100**
24"	2772	27.72	28.52	704.1	724.4				28"	CL 150
24"	2863	28.63	29.83	727.3	757.6					
24"	2957	29.57	30.77	751.1	781.5				30"	CL 200
30"	3122	31.22	32.42	793.0	823.5					
36"	3786	37.86	39.16	961.6	994.7					

*Verify pipe O.D. before selecting clamp size.

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection.

***Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above.

**MUELLER® XTRA-RANGE® SERVI-SEAL®
PIPE REPAIR CLAMPS****Typical Mueller Xtra-Range
Servi-Seal Clamp**

Style number—511-519



Standard bolt & nut

511-519 Series nuts
and bolts

Mueller 511-519 Series Xtra-Range Servi-Seal Pipe Repair Clamps - with integral 3/4" through 2" IP/CC threaded service outlet - for 4" through 24" cast iron, ductile iron, steel pipe, A-C and PVC plastic pipe.

To specify the catalog number, provide the following information:

1. Style number—511-519 (see chart below)
 2. Length—Standard length available (inches): 6, 7-1/2 (list as "7"), 9, 12, 15, 18, 20, 24, 30
 3. Size number—from chart on page 15.14
 4. Catalog number prefix or suffix for optional features, if desired.
- The catalog number for a Xtra-Range Servi-Seal Repair Clamp, with 3/4" IP thread tapped outlet, 12" clamp length for 6" cast iron pipe is 511-12-675.

Clamp style number	Clamp length	Clamp size number
511	12	675

Clamp Style number

Style number	Size/type of outlet tapping thread	Sizes available*
511	3/4" IP	4.70-37.86
512	3/4" CC	4.70-37.86
513	1" IP	4.70-37.86
514	1" CC	4.70-37.86
515	1-1/4" IP	4.70-37.86
516	1-1/2" CC	4.70-37.86
517	1-1/2" IP	4.70-37.86
518	2" CC	4.70-37.86
519	2" IP	4.70-37.86

*Clamps available in 60 specific size pipe or sizes from nominal range

Extra bolts and nuts for Mueller Xtra-Range Full Seal Repair Clamps

Clamp size	Bolt size	Bolt part number	Nut part number
4" - 24" (Standard Bolt & Nut)	5/8" x 6"	521009	195236
4" - 24" (Starter Bolt & Nut)	5/8" x 3"	524308	526655

NOTE: 4" and larger 510 Series Clamps are provided with one starter bolt/nut per side as standard.

Stainless steel bolts

For optional 304 stainless steel bolts, washers and nuts, add "S-" prefix to clamp catalog number.

Example: S-511-12-675

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.



Bonding device



Bonding device

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.

Example: 2-511-12-675

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against waste pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger sizes. In addition, the pressure that a clamp can contain depends upon the torque applied to the bolts, the condition of the gasketing/sealant, and the condition of the pipe. For O.D. size clamps contact our Customer Service Center or your Mueller Sales Representative.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

**MUELLER® XTRA-RANGE® SERVI-SEAL®
PIPE REPAIR CLAMPS**

Mueller 511-519 Series Xtra-Range Full-Seal Pipe Repair Clamps — for 4" through 24" cast iron, ductile iron, steel, A-C and PVC pipe.

Standard Lengths: 6", 7-1/2", 9", 10", 12", 15", 18", 20", 24", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range*				Cast iron	Ductile iron	Cast Iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
4"	470	4.70	5.59	119.4	139.7	50-250 A,B,C,D	ALL	CL 150-200	-	CL 100** (150-200)
6"	662	6.62	7.42	168.1	188.5	-	-	-	-	STD
6"	675	6.75	7.55	171.5	191.7	50-250 A,B,C,D	ALL	CL 150-200	-	CL 100** (150-200)
8"	862	8.62	9.42	218.9	239.3	-	-	-	-	STD
8"	888	8.88	9.68	225.6	245.8	50-250 A,B,C,D	ALL	CL 150-200	-	CL 100** (150-200)
10"	1072	10.72	11.72	272.3	297.7	-	-	-	-	STD
10"	1105	11.05	12.05	280.7	306.0	50-250 A,B,C,D	ALL	CL 150-200	12" O.D.	CL 100** (150-200)
12"	1246	12.46	13.26	316.5	336.8	-	-	-	-	STD
12"	1310	13.10	14.30	332.8	363.2	50-250 A,B,C,D	ALL	CL 150-200	14"	CL 100** (150-200)
14"	1433	14.33	15.13	364.0	384.3	-	-	-	-	-
14"	1510	15.10	15.90	383.6	403.8	50-250 A,B,C,D	ALL	-	-	CL 100**
16"	1590	15.90	16.70	403.9	424.1	-	-	-	-	16"
16"	1655	16.55	17.35	420.4	440.6	-	-	-	-	14" CL 150-200
16"	1720	17.20	18.00	436.9	457.2	50-250 A,B,C,D	ALL	-	-	CL 100**
18"	1768	17.68	18.48	447.1	467.3	-	-	-	-	18"
18"	1841	18.41	19.21	467.7	487.9	-	-	-	-	16" CL 150-200
18"	1922	19.22	20.02	488.2	508.5	50-250 A,B,C,D	ALL	-	-	-
20"	1990	19.90	20.70	505.5	525.7	-	-	-	-	20"
20"	2070	20.70	21.50	525.8	546.1	-	-	-	-	18" CL 150
20"	2145	21.45	22.25	544.9	565.1	50-250 A,B,C,D	ALL	-	-	22"
20"	2220	22.20	23.00	563.9	584.2	-	-	-	-	20" CL 100** 18" CL 200
20"	2280	22.80	23.60	579.2	599.4	-	-	-	-	-
24"	2344	23.44	24.24	595.4	615.6	-	-	-	-	24"
24"	2420	24.20	25.00	614.7	635.0	-	-	-	-	20" CL 150
24"	2490	24.90	25.70	632.5	652.7	-	-	-	-	20" CL 200
24"	2566	25.66	26.46	651.8	672.0	50-250 A,B,C,D	-	-	-	26"
24"	2672	26.72	27.52	678.7	699.0	-	-	-	-	CL 100**
24"	2772	27.72	28.52	704.1	724.4	-	-	-	-	CL 150
24"	2863	28.63	29.83	727.3	757.6	-	-	-	-	-
24"	2957	29.57	30.77	751.1	781.5	-	-	-	-	30" CL 200
30"	3122	31.22	32.42	793.0	823.5	-	-	-	-	-
36"	3786	37.86	39.16	961.6	994.7	-	-	-	-	-

*Verify pipe O.D. before selecting clamp size

**CAUTION—O.D. of class 150 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection.

***Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above

NOTE: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed

**MUELLER® SINGLE SECTION FULL-SEAL®
ALL STAINLESS STEEL PIPE REPAIR CLAMPS**

Rev. 9-09

**Typical All Stainless Steel
Series 540 Clamp**

Style number 540

Mueller 540 Series Single Section Full-Seal All Stainless Steel Pipe Repair Clamps - for 2" through 12" cast iron, ductile iron, steel pipe, A-C and PVC pipe.

To specify the catalog number, provide the following information:

1. Style number—540
2. Length—Standard length available (inches): 7-1/2 (Std. as "7"), 12-1/2, 15, 20, 30
3. Size number—from chart on page 15.16
4. Catalog number prefix or suffix for optional features, if desired

The catalog number for a 540 Single Section Full-Seal Repair Clamp, 12" long for 8" cast iron pipe is 540-12-899.

Clamp style number	Clamp length	Clamp size number
540	12	899

**Extra Nuts & Washers for Mueller Single Section Full Seal All Stainless
Repair Clamps**

Clamp size	Nut size	Nut part no.	Washer part no.
4"-12" (Standard Nut)	5/8"	311581	311582

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.



Part no.	Description
515204	15-3/4" with reversible Ratchet Handle
515207	1-1/16" Socket for 2" and larger clamps

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.
Example: 2-540-12-899

Add-on feature allows long lengthwise repairs

The gasket is cemented into the band in a 1" offset position. This allows overlapping the gasket with the band of another offset clamp when repairing a longer than usual area of pipe. This feature is not available on Servi-Seal style clamps.

To specify optional add-on feature for longer than usual repairs, add a prefix of "1" to catalog number.
Example: 1-540-12-899

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain depends upon the unique application of the tools, the condition of both equipment and pipe to be repaired, as well as the type and extent of pipe damage, existing condition of the pipe, environmental conditions, and installation workmanship.

Now For O.D. and dimensions contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

**MUELLER® SINGLE SECTION FULL-SEAL®
ALL STAINLESS STEEL PIPE REPAIR CLAMPS**

Rev. 9-09

Mueller 540 Series Single Section Full-Seal® All Stainless Steel Pipe Repair Clamps — for 2" through 12" cast iron, ductile iron, steel, A-C and PVC pipe.
Standard Lengths: 7-1/2", 10", 12-1/2", 15", 20", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range *				Cast Iron	Ductile Iron	Cast Iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
2"	235	2.35	2.63	59.7	66.8	50-250 A,B,C,D	ALL	-	2"	-
2 1/2"	270	2.70	3.00	68.6	76.2	50-250 A,B,C,D	ALL	-	2 1/2"	-
3"	297	2.97	3.25	75.5	82.5	-	-	-	3" O.D.	-
3 1/2"	345	3.45	3.70	87.6	94.0	-	-	-	3 1/2"	-
4"	373	3.73	4.00	94.8	101.6	50-250 A,B,C,D	ALL	-	-	-
4 1/2"	395	3.95	4.25	100.3	107.9	-	-	-	3 1/2" (4" O.D.)	-
4"	445	4.45	4.85	113.1	123.2	50-250 A	ALL	CL 150,200	STD	-
4"	474	4.74	5.14	120.4	130.5	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150
4"	495	4.95	5.35	125.8	135.8	-	-	-	-	CL 100** 150
4"	522	5.22	5.62	132.6	142.7	-	-	-	5" STD	CL 150,200
6"	595	5.95	6.35	151.1	161.3	-	-	-	6" O.D.	-
6"	656	6.56	6.96	166.6	176.8	50-250 A	ALL	CL 150,200	STD	-
6"	684	6.84	7.24	173.8	183.8	50-250 A,B,C,D	ALL	CL 150,200	-	-
6"	705	7.05	7.45	179.1	189.2	-	-	-	-	CL 100** 150
6"	740	7.40	7.80	188.0	198.1	-	-	-	-	CL 200
8"	795	7.95	8.35	201.9	212.1	-	-	-	-	-
8"	854	8.54	8.94	216.9	227.1	-	-	-	STD	-
8"	899	8.99	9.39	228.4	238.5	50-250 A,B,C,D	ALL	CL 150,200	-	-
8"	927	9.27	9.67	235.5	245.6	-	-	-	-	CL 100** 150
10"	970	9.70	10.10	246.4	256.5	-	-	-	10" O.D.	CL 200
10"	1070	10.70	11.10	271.8	281.9	-	-	-	STD	-
10"	1104	11.04	11.44	280.5	290.6	50-250 A,B,C,D	ALL	CL 150,200	-	-
10"	1140	11.40	11.80	289.6	299.7	-	-	-	-	CL 100**
10"	1175	11.75	12.15	298.5	308.6	-	-	-	-	CL 150,200
12"	1200	12.00	12.40	304.8	315.0	-	-	-	-	-
12"	1262	12.62	13.02	320.5	330.7	-	-	-	STD	-
12"	1310	13.10	13.50	332.7	342.9	50-250 A,B,C,D	ALL	CL 150,200	-	-
12"	1340	13.40	13.80	340.4	350.5	-	-	-	-	CL 100**
12"	1400	14.00	14.40	355.7	365.7	-	-	-	-	CL 150,200

*Verify pipe O.D. before selecting clamp size

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection

***Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above

Now For O.D. and dimensions contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® SINGLE SECTION SERVI-SEAL® ALL STAINLESS STEEL PIPE REPAIR CLAMPS

Rev. 9-09

Typical Single Section Servi-Seal Clamp



Style number 541-549

Mueller 541 - 549 Series Single Section Servi-Seal All Stainless Steel Pipe Repair Clamps - with integral 3/4" through 2" IP/CC Threaded service outlet-for 2" through 12" cast iron, ductile iron, steel pipe, A-C and PVC pipe.

To specify the catalog number, provide the following information

1. Style number—541-549 (see chart below)
2. Length—Standard length available (inches): 7-1/2 (list as "7"), 10, 12-1/2, 15, 20, 30
3. Size number—from chart on page 15.18
4. Catalog number prefix or suffix for optional features, if desired.

The catalog number for a Single Section Servi-Seal Repair Clamp with 3/4" IP outlet, 12" clamp length for 8" cast iron pipe is 541-12-899.

Clamp style number	Clamp length	Clamp size number
541	12	599

Clamp style number

Style number	Size/type of outlet tapping thread	Sizes available*
541	3/4" IP	2.35-14.40
542	3/4" CC	2.35-14.40
543	1" IP	2.35-14.40
544	1" CC	2.35-14.40
545	1-1/4" IP	4.45-14.00
546	1-1/2" CC	4.45-14.00
547	1-1/2" IP	4.45-14.00
548	2" CC	4.45-14.00
549	2" IP	4.45-14.00

*Clamps available to fit specific size pipe within this nominal range

Extra Nuts and Washers for Mueller Single Section Full Seal All Stainless Repair Clamps

Clamp size	Nut size	Nut part no.	Washer part no.
4" - 12" (Standard Nut)	5/8"	311581	311582

*Clamps available to fit specific size pipe within this nominal size range

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.



Part number	Description
515204	15-5/4" Reversible Ratchet Handle
515207	1-1/16" Socket for 2" and larger clamps

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number. Example: 2-541-12-899.



Bonding device

IMPORTANT: ALL FULLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressure continuously when tested in distribution systems. Mueller's bonded clamps of a given design seal and against higher pressures than larger ones. In addition, the pressure that a clamp can contain depends upon the proper application to the hole, the maintenance of tight latching (where there is more than one bolt), as well as the type and extent of pipe leakage, surface condition of the pipe, external conditions, and installation workmanship.

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® SINGLE SECTION SERVI-SEAL® ALL STAINLESS STEEL PIPE REPAIR CLAMPS

Rev. 9-09

Mueller 541-549 Series Single Section Servi-Seal All Stainless Steel Pipe Repair Clamps — for 2" through 12" cast iron, ductile iron, steel, A-C and PVC pipe.
Standard Lengths: 7-1/2", 10", 12-1/2", 15", 20", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range *				Cast Iron	Ductile Iron	Cast Iron O.D. PVC	Steel***	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
2"	235	2.35	2.63	59.7	66.8	50-250 A,B,C,D	ALL	-	2"	-
2 1/2"	270	2.70	3.00	68.6	76.2	50-250 A,B,C,D	ALL	-	2 1/2"	-
3"	297	2.97	3.25	75.5	82.5	-	-	-	3" O.D.	-
3 1/2"	345	3.45	3.70	87.6	94.0	-	-	-	3 1/2"	-
4"	373	3.73	4.00	94.8	101.6	50-250 A,B,C,D	ALL	-	-	-
5 1/2"	395	3.95	4.25	100.3	107.9	-	-	-	5 1/2" (4" O.D.)	-
4"	445	4.45	4.85	113.3	123.2	50-250 A	ALL	CL 150,200	STD	-
4"	474	4.74	5.14	120.4	130.5	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150
4"	495	4.95	5.35	125.8	135.8	-	-	-	-	CL 100** 150
4"	522	5.22	5.62	132.6	142.7	-	-	-	5" STD	CL 150,200
6"	595	5.95	6.35	151.1	161.3	-	-	-	6" O.D.	-
6"	656	6.56	6.96	166.6	176.8	50-250 A	ALL	CL 150,200	STD	-
6"	684	6.84	7.24	173.8	183.8	50-250 A,B,C,D	ALL	CL 150,200	-	-
6"	705	7.05	7.45	179.1	189.2	-	-	-	-	CL 100** 150
6"	740	7.40	7.80	188.0	198.1	-	-	-	-	CL 200
8"	795	7.95	8.35	201.9	212.1	-	-	-	-	-
8"	854	8.54	8.94	216.9	227.1	-	-	-	STD	-
8"	899	8.99	9.39	228.4	238.5	50-250 A,B,C,D	ALL	CL 150,200	-	-
8"	927	9.27	9.67	235.5	245.6	-	-	-	-	CL 100** 150
10"	970	9.70	10.10	246.4	256.5	-	-	-	10" O.D.	CL 200
10"	1070	10.70	11.10	271.8	281.9	-	-	-	STD	-
10"	1104	11.04	11.46	280.5	291.0	50-250 A,B,C,D	ALL	CL 150,200	-	-
10"	1140	11.40	11.80	289.6	299.7	-	-	-	-	CL 100**
10"	1175	11.75	12.15	298.5	308.6	-	-	-	-	CL 150,200
12"	1200	12.00	12.40	304.8	315.0	-	-	-	-	-
12"	1262	12.62	13.02	320.5	330.7	-	-	-	STD	-
12"	1310	13.10	13.50	332.7	342.9	50-250 A,B,C,D	ALL	CL 150,200	-	-
12"	1340	13.40	13.80	340.4	350.5	-	-	-	-	CL 100**
12"	1400	14.00	14.40	355.7	365.7	-	-	-	-	CL 150,200

*Verify pipe O.D. before selecting clamp size.

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection.

***Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above.

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

**Typical Xtra-Range
Full-Seal Clamp**

Style number 550



550 Series nut & washer

Mueller 550 Series Xtra-Range Full-Seal All Stainless Steel Pipe Repair Clamps - for 3" through 12" cast iron, ductile iron steel pipe, A-C and PVC pipe.

To specify the catalog number, provide the following information:

1. Style number—550
2. Length—Standard length available (inches): 7-1/2, 10, 12-1/2, 15, 20, 30
3. Size number—from chart on page 15.20
4. Catalog number prefix for optional features, if desired.

The catalog number for a 550 Xtra-Range Full-Seal Repair Clamp, 12" long for 6" cast iron pipe is 550-12-684.

Clamp style number	Clamp length	Clamp size number
550	12	684

Extra Nuts and Washers for Mueller Xtra-Range Full Seal All Stainless Steel Repair Clamps

Clamp size	Nut size	Nut part no.	Washer part no.
3" - 12" (Standard Nut)	1/2"	311591	311592

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (1/2 pt.) and 1/2" square drive.



Part no.	Description
515204	15-1/4" with 1/2" drive reversible Ratchet Handle
515207	1-1/16" Socket for 4" and larger clamps

Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 550 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.

Example: 2-550-12-684.

Add-on feature allows long lengthwise repairs

The gasket is cemented into the band in a 1" offset position. This allows overlapping the gasket with the band of another offset clamp when repairing a longer than usual area of pipe. This feature is not available on Serv-Seal style clamps.

To specify optional add-on feature for longer than usual repairs, add a prefix of "1" to catalog number.

Example: 1-550-12-684.

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressure only. They are not intended to direct pressure to remote locations. Clamping of a pipe designates and against higher pressures than design. To add to this, the pressure that a clamp is on creates depends upon the torque applied to the bolts, the uniformity of bolt tightening (how close is more than one bolt, as well) and the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

Mueller 550 Series Xtra-Range Full-Seal All Stainless Steel Pipe Repair Clamps — for 3" through 12" cast iron, ductile iron, A-C and PVC pipe.

Standard Lengths: 7-1/2", 10", 12-1/2", 15", 20", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range*				Cast iron	Ductile iron	Cast iron O.D. PVC	Steel	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
3"	349	3.49	4.29	88.6	109.0	-	-	-	-	-
4"	344	4.44	5.24	112.8	133.1	-	-	-	-	-
4"	474	4.74	5.57	120.4	141.5	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150,200
6"	662	6.62	7.42	168.1	189.5	-	-	-	-	STD
6"	684	6.84	7.64	173.7	194.7	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150,200
8"	862	8.62	9.42	218.9	239.3	-	-	-	-	STD
8"	899	8.99	9.79	228.3	248.7	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100** 150,200
10"	1075	10.75	11.55	271.0	293.4	-	-	-	-	-
10"	1110	11.10	11.90	281.9	302.3	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100**
10"	1160	11.60	12.40	294.6	315.0	-	-	-	-	CL 150,200
12"	1279	12.75	13.55	323.8	344.2	-	-	-	-	-
12"	1320	13.20	14.00	335.3	355.6	50-250 A,B,C,D	ALL	CL 150,200	-	CL 100**
12"	1365	13.65	14.45	346.7	367.0	-	-	-	-	CL 100** 150,200
12"	1400	14.00	14.80	355.6	378.9	-	-	-	-	-

*Verify pipe O.D. before selecting clamp size.

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection.

**Typical Xtra-Range
Servi-Seal Clamp**

Style number 551-559

Mueller 551 - 559 Xtra-Range Servi-Seal All Stainless Steel Pipe Repair Clamps - with 3/4" through 2" IP/CC Threaded service outlet - for 3" through 12" cast iron, ductile iron, A-C and PVC pipe

To specify the catalog number, provide the following information:

1. Style number—551-559 (see chart below)
2. Length—Standard length available (inches): 7-1/2, 10, 12-1/2, 15, 20, 30
3. Size number—from chart on page 15.22
4. Catalog number prefix for optional features, if desired

The catalog number for a Xtra-Range Servi-Seal Repair Clamp, with a 3/4" IP outlet, 12" clamp length for 6" cast iron pipe is 551-12-684

Clamp Style Number	Clamp Length	Clamp Size Number
551	12	684

Clamp Style number

Style number	Size/type of outlet tapping thread	Sizes available*
551	3/4" IP	3.49-14.90
552	3/4" CC	3.49-14.90
553	1" IP	3.49-14.90
554	1" CC	3.49-14.90
555	1-1/2" IP	4.74-14.90
556	1-1/2" CC	4.74-14.90
557	1-1/2" IP	4.74-14.90
558	2" CC	4.74-14.90
559	2" IP	4.74-14.90

*Clamps available in 30 specific cast pipe widths (see second chart)

Extra Nuts and Washers for Mueller Single Section Full Seal All Stainless Repair Clamps

Clamp size	Nut part no.	Washer part no.
3" - 12" (Standard Nuts)	311581	311582

551-559 Series nut & washer
Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (1/2 pt.) and 1/2" square drive.



Part number	Description
515204	15-3/4" with 1/2" drive reversible Ratchet Handle
515207	1-1/16" Socket for 2" and larger clamps


Bonding device
Bonding device for cathodic protection

Metallic conductors are set in the gasket to provide contact between the band and the pipe surface and are available on all 500 series clamps. These conductors permit electrical current flow by establishing positive contact with pipe and band on each side of the pipe crack or break.

To specify optional bonding device for cathodic protection, add a prefix of "2" to catalog number.
Example: 2-551-12-684


Bonding device

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressures commonly encountered in distribution systems. Smaller diameter clamps of a given design can seal against higher pressures than larger ones. In addition, the pressure that a clamp can contain depends upon the location of the leak, the tightness of the ratcheting handle (there is more than one bolt), as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

Mueller 551-559 Series Xtra-Range Servi-Seal All Stainless Steel Pipe Repair Clamps — for 3" through 12" cast iron, ductile iron, A-C and PVC plastic pipe.
Standard Lengths: 7-1/2", 10", 12-1/2", 15", 20", 30"

Nominal pipe size	Clamp size number	Clamp O.D. range*				Cast Iron	Ductile Iron	Cast Iron O.D. PVC	Steel	A-C Rough Barrel
		Inches		Millimeters						
		Min.	Max.	Min.	Max.					
3"	349	3.49	4.29	88.6	109.0					
4"	444	4.44	5.24	112.8	133.1					
4"	474	4.74	5.57	120.4	141.5	50-250 A,B,C,D	ALL	CL 150-200		CL 100** 150-200
6"	662	6.62	7.42	168.1	188.5				STD	
6"	684	6.84	7.64	173.7	194.7	50-250 A,B,C,D	ALL	CL 150-200		CL 100** 150-200
8"	862	8.62	9.42	218.9	239.3				STD	
8"	899	8.99	9.79	228.3	248.7	50-250 A,B,C,D	ALL	CL 150-200		CL 100** 150-200
10"	1075	10.75	11.55	273.0	293.4					
10"	1110	11.10	11.90	281.9	302.3	50-250 A,B,C,D	ALL	CL 150-200		CL 100**
10"	1160	11.60	12.40	294.6	315.0					CL 150-200
12"	1275	12.75	13.55	323.8	344.2					
12"	1320	13.20	14.00	335.3	355.6	50-250 A,B,C,D	ALL	CL 150-200		CL 100**
12"	1365	13.65	14.45	346.7	367.0					CL 100** 150-200
12"	1400	14.00	14.80	355.6	375.9					

*Verify pipe O.D. before selecting clamp size

**CAUTION—O.D. of class 100 A-C pipe varies greatly. Measure pipe O.D. to assure proper clamp selection

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

Typical Solvent Weld PVC Joint Repair Clamp

Style number 773

Mueller 773 Series™ Joint Repair Clamp — for use on PE-160 PVC pipe solvent weld joints.

The 730 series clamp has a stepped gasket that fits over the solvent weld joint in PE-160 PVC pipe to stop leaks in the joint.

Catalog number	Nominal clamp/pipe size	Clamp length
773-06-0238	2"	6"
773-07-0289	2-1/2"	7-1/2"
773-07-0350	3"	7-1/2"
773-07-0450	4"	7-1/2"
773-07-0663	6"	7-1/2"
773-07-0863	8"	7-1/2"

Extra bolts and nuts for 773 series Mueller Single Section Full Seal Repair Clamps

773 Series nuts and bolts

Clamp size	Bolt size	Bolt part number	Nut part number
2" - 3-1/2"	1/2" x 4-1/2"	521009	521010
4" - 12" (Standard Bolt & nut)	5/8" x 6"	521008	195236

NOTE: 4" and larger 773 Series Clamps are provided with one starter bolt/nut per side as standard

Stainless steel bolts

For optional 304 stainless steel bolts, washers and nuts, add "S-" prefix to clamp catalog number
Example: S-773-06-863

Deep socket wrenches

Specially designed for use with Mueller Full-Seal Repair Clamps. Long ratchet handle has thumb-tip reverse. Deep sockets (3-1/4") have double hex (12 pt.) and 1/2" square drive.

Part number	Description
515204	15-3/4" reversible Ratchet Handle
520344	7/8" Socket for 2" and 3" clamps
515207	1-1/16" Socket for 4" and larger clamps
519575	1/2"x3/4" Adapter

IMPORTANT: MUELLER PIPE REPAIR CLAMPS have demonstrated their capability to seal against water pressure consistent with maximum rated distribution systems. Mueller designs clamps of a given design to seal against higher pressure than larger sizes. In addition, the pressure that a clamp can contain depends upon the region applied to the bolts, the uniformity of bolt tightening when there is more than one bolt, as well as the type and extent of pipe damage, surface condition of the pipe, environmental conditions, and installation workmanship.
Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative.

Tapered screw plugs


Tapered screw plugs are used to stop leaks in steel pipe lines, boilers, tanks and large diameter pipe lines. They are self threading. Install tapered screw plugs by screwing into hole and welding in place. Plugs are made of heat treated steel alloy.

Part number	Size
514258	3/8" Hex x 1-1/4"
514259	5/8" Hex x 2-1/8"
514260	13/16" Hex. x 2-3/4"
514261	1" Hex x 3-3/16"

Gasket material for pipe repair clamps

Smooth Nitrile gasket material

Minimum order 1yd ² (0.84m ²)					
Part number	Thickness		Size		Approximate weight
	Inch	(mm)	Inch	(mm)	lb (kg)
518341	3/32	(2.4)	36 x 36	(914 x 914)	13 (1.4)


Smooth reinforced Nitrile gasket material

Minimum order 1yd ² (0.84 m ²)					
Part number	Thickness		Size		Approximate weight
	Inch	(mm)	Inch	(mm)	lb (kg)
519149	9/64	(3.6)	36 x 36	(914 x 914)	10 (4.5)


Gridded Nitrile gasket material

Part number	Dimensions		Minimum order
	Inch	(mm)	
307264	Slab 24 x 60	(610 x 1524)	1 slab - approximately 13 lb (5.9 kg)

Note: For O.D. not shown contact our Customer Service Center or your Mueller Sales Representative



www.muellercompany.com • moreinfo@muellercompany.com

Machine inserted corporation stops were developed by Hieronymus Mueller in conjunction with his development of the drilling and tapping machine used to make pressure taps in water mains. During the development of the machine inserted corporation stop, Mr. Mueller designed an inlet thread which became known as the MUELLER or "CC" thread. This thread form was eventually adopted by the American Water Works Association and is listed in ANSI/ AWWA Standard C800 as the AWWA Taper thread.

MUELLER Co. pioneered other design concepts in the waterworks industry such as the copper flare

connection, MUELLER 110® Compression Connection and the MUELLER ORISEAL® Valves, which use O-ring seals to assure leak-tight performance.

MUELLER Co. offers corporation stops in three designs: machined key (commonly referred to as ground key), ORISEAL type (1-1/2" and 2" sizes only) and ball type.

All three designs are available with a wide range of inlet/outlet combinations including the MUELLER 110 Compression Connection and Pack Joint Connection. These three designs are all compatible with the MUELLER line of drilling and tapping machines, and small drilling machines.

MUELLER 300™ Ball Type Corporation Valves

- ❑ **BLOW-OUT PROOF STEM DESIGN** - prevents separation and assures dependable, safe operation.
- ❑ **DOUBLE O-RING STEM SEALS** - are supported in precision machined grooves and provide secure, leak tight sealing.
- ❑ **STAINLESS STEEL REINFORCED SEAT SEAL** - assures reliable seal under full flow and pressure.
- ❑ **300 PSIG** - maximum working pressure.
- ❑ **EXTRA STRONG** - key to ball connection provides strong, reliable performance and resists breakage.
- ❑ **OUTLETS** - include copper flare connection, MUELLER 110 Compression Connection, MUELLER INSTA-TITE, Pack Joint Connection and iron pipe thread connection.
- ❑ **STEM ROTATION** - full 360 degree.
- ❑ **MANUFACTURED AND TESTED** - to ANSI/AWWA C800 standard.
- ❑ **INLET THREADS** - are either AWWA taper (MUELLER "CC") or AWWA iron pipe.
- ❑ **END PIECE O-RING** provides secondary seal to prevent leakage.
- ❑ **FLUOROCARBON COATED BALL** - ensures smooth, easy turning operation.



The MUELLER ORI-CORP® Corporation Valve is an easy turning, O-ring sealed, balanced pressure, plug type valve having a round, full open unobstructed flow way. These valves also feature a heavy one-piece bronze body with integral wrench flats.

The integral plug and key head construction provides maximum strength and positive operation. The large operating head provides more than adequate wrench gripping area for easy operation.

MUELLER ORI-CORP Corporation Valve

- ❑ **INTEGRAL WRENCH FLATS** on inlet and outlet of body provide generous wrench gripping area.

- ❑ **TOP SEALING O-RING** - seals valve from exterior leakage and adds to easy turning qualities.

- ❑ **LARGE OPERATING HEAD** - provides more than adequate wrench gripping area.

- ❑ **INTEGRAL ONE-PIECE PLUG AND OPERATING HEAD** provides strength and assures positive operation. Quarter turn in either direction activates valve. An integrally cast flange at the top of the plug functions as a dirt seal to protect the top O-ring.



- ❑ **INLET** - is available with either AWWA taper (MUELLER "CC") thread or AWWA iron pipe thread.

- ❑ **STRONG, ONE-PIECE BODY** - has no cavities that could allow debris to collect and cause damage to the plug.

- ❑ **BRONZE RETAINING RING** secures plug in body and also functions as a dirt seal to protect bottom O-ring. Since this valve is a balanced pressure type, there is no force tending to eject the plug or load the retaining mechanism.

- ❑ **BOTTOM SEALING O-RING** - seals valve from leakage and adds to easy turning qualities.

- ❑ **OUTLET PORT SEALING O-RING** is totally confined in a machined groove to provide positive leak-tight shutoff.

- ❑ **INTEGRAL OUTLET** is available with either MUELLER 110° Conductive Compression Connection, outside iron pipe thread or inside iron pipe thread.
- ❑ **175 PSIG** - maximum working pressure.

MUELLER CO. has been manufacturing ground key corporation stops since 1870 and many features of the modern day stops were developed by MUELLER CO.

These features include a brass alloy, and inlet thread and outlet connections that were eventually adopted as American Water Works Association Standards.

MUELLER® Ground Key Design Corporation Valves

- ❑ **BODY** - is cast from 85-5-5 ASTM B62 brass alloy for strength and corrosion resistance.

- ❑ **KEY AND BODY** - are precision machined to assure sealing surfaces match.

- ❑ **INLET THREADS** are either AWWA taper thread (MUELLER "CC") or AWWA iron pipe thread.

- ❑ **INTEGRAL OUTLET** available with a wide variety of outlet end connections including the MUELLER 110° Compression Connection, MUELLER Pack Joint Connection, MUELLER INSTA-TITE® Connection, copper flare, inside iron pipe, outside iron pipe, increasing iron pipe, MUELLER Coupling Thread and other popular connections.



- ❑ **MANUFACTURED AND TESTED** - to ANSI/AWWA C800 Standard.

- ❑ **STRAIGHT THROUGH DESIGN** - allows maximum flow with minimum pressure loss.

- ❑ **100 PSIG** - maximum working pressure for 1/2", 3/4" and 1" sizes.
- ❑ **80 PSIG** - maximum working pressure for 1-1/4", 1-1/2" and 2" sizes.

- ❑ **"D" SHAPED WASHER** - turns with key to prevent loosening of key nut.

- ❑ **KEY NUT** - is designed so overtightening will strip stem threads instead of breaking stem.

Corporation valve inlet threads

- ❑ **AWWA taper (MUELLER "CC") thread.**



- ❑ **AWWA iron pipe thread.**

MUELLER Screw plug thread

- ❑ Increasing I.P. thread is one size larger than inlet.



- ❑ Screw plug thread is same nominal size as inlet.

3/4" - 2" MUELLER® 300™ BALL CORPORATION VALVES

Rev 9-09 Shaded area indicates changes

**B-25008**

MUELLER® 300™ Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER® 110" Conductive Compression Connection for CTS O.D. tubing

3/4"	3/4" x 1"	1"	1-1/2"	1-1/2" x 2"	2"
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**B-25028**

MUELLER® 300™ Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER® 110" Conductive Compression Connection for CTS O.D. tubing

3/4"	3/4" x 1"	1"	1-1/2"	1-1/2" x 2"	2"
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**B-25009**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER® 110" Compression Connection for IPS PE" pipe

3/4"	3/4" x 1"	1"
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**B-25029**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER 110" Compression Connection for IPS PE" pipe

3/4"	3/4" x 1"	1"
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**E-25009**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER Pack Joint for IPS PE" pipe
**Note: 3/4" size only may also be used on PVC

3/4"	1"	1-1/2"	2"
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**E-25029**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Pack Joint for IPS PE" pipe
**Note: 3/4" size only may also be used on PVC

3/4"	1"	1-1/2"	2"
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**V-25056**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER Pack Joint for IPS PVC" pipe

1"	1-1/2"	2"
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**V-25058**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Pack Joint for IPS PVC" pipe

1"	1-1/2"	2"
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**P-25008**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER Pack Joint Connection for CTS O.D. tubing

3/4"	3/4" x 1"	1"	1-1/2"	1-1/2" x 2"	2"
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**P-25028**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Pack Joint Connection for CTS O.D. tubing

3/4"	3/4" x 1"	1"	1-1/2"	1-1/2" x 2"	2"
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*See charts on pages 5.12-5.16 for tubing and pipe that may be used with these connections.

NOTE: Sizes shown above represent nominal size of inlet and outlet connections. When two sizes are given, the first is size of inlet and the second is size of outlet.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.

MUELLER Corporation Valves are manufactured and tested in accordance with ANSI/AWWA C800.

3/4" - 2" MUELLER® 300™ BALL CORPORATION VALVES

Shaded area indicates changes Rev 9-09

**B-25006**

MUELLER® 300™ Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER® INSTA-TITE® Connection for CTS PE" pipe

3/4"	1"
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**B-25024**

MUELLER® 300™ Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER® INSTA-TITE® Connection for CTS PE" pipe

3/4"	1"
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**B-25005**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: MUELLER® INSTA-TITE® Connection for IPS PE" pipe

3/4"	1"
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**B-25026**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER® INSTA-TITE® Connection for IPS PE" pipe

3/4"	1"
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**B-25000**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: Copper flare straight connection

3/4"	3/4" x 1"	1"	1-1/2"	2"
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**B-25025**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: Copper flare straight connection

3/4"	3/4" x 1"	1"	1-1/2"	2"
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**B-25020**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: Copper flare x 90 Bend CS

3/4"	1"	1-1/2"	2"
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**B-25010**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: Copper flare x 45 Bend

1-1/2"	2"
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**B-20045**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper (MUELLER "CC") thread
Outlet: F.I.P. thread

3/4"	3/4" x 1"	1"	1-1/2"	2"
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**B-20046**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: F.I.P. thread

3/4"	3/4" x 1"	1"	1-1/2"	2"
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*See charts on pages 5.12-5.16 for tubing and pipe that may be used with these connections.

NOTE: Sizes shown above represent nominal size of inlet and outlet connections. When two sizes are given, the first is size of inlet and the second is size of outlet.

† For identification purposes, MUELLER INSTA-TITE Connections for CTS O.D. PE tubing have red gripper rings, and the connections for IPS PE pipe have white gripper rings.

MUELLER® Corporation Valves are manufactured and tested in accordance with ANSI/AWWA C800.

3/4" - 2" MUELLER® 300™ BALL CORPORATION VALVES

Rev 9-09 (Shaded area indicates change)

**B-2996**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: M.I.P. thread

**B-20013**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: M.I.P. thread (Full size diameter inlet to outlet)

**B-20003**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: Increasing M.I.P. thread

**B-2969**

MUELLER 300 Ball Corporation Valve
Inlet: AWWA I.P. thread
Outlet: M.I.P. thread
 (Full size diameter inlet to outlet).

OPTIONAL T-HEAD:

All ball corporation valves are available with a 360° turn T-head cap by adding ".10" to catalog number. Example: B-25008-10
 For a 3/4" or 1" detachable T-head caps for corporation valves add ".00" to catalog number. Example: B-25008-00

RECLAIMED WATER STYLE:

All ball corporation valves are available marked for "reclaimed water" by adding ".20" to the catalog number. Example: B-25006-20

NOTE: Sizes shown above represent nominal size of inlet and outlet connections. When two sizes are given, the first is size of inlet and the second is size of outlet.

1-1/2" & 2" MUELLER® ORI-CORP® CORPORATION VALVES

Rev 4-01

**H-15013**

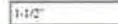
MUELLER ORI-CORP Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: MUELLER® 110° Conductive Compression Connection for CTS O.D.* tubing

**H-15023**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER 110° Conductive Compression Connection for CTS O.D.* tubing

**P-15013**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: MUELLER Pack Joint Connection for CTS O.D.* tubing

**P-15023**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Pack Joint Connection for CTS O.D.* tubing

**H-15014**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: F.I.P. thread

**H-15015**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA I.P. thread
Outlet: F.I.P. thread

**H-9968**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: M.I.P. thread

**H-9969**

MUELLER ORI-CORP Corporation Valve
Inlet: AWWA I.P. thread
Outlet: M.I.P. thread

*See charts on pages 5.12-5.16 for tubing and pipe that may be used on these connections.

** For use with Service Saddle only—cannot be machine inserted.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.

NOTE: Sizes shown above represent nominal size of inlet and outlet connections.

MUELLER® Corporation Valves are manufactured and tested in accordance with ANSI/AWWA C800.

1/2" - 1" GROUND KEY DESIGN
CORPORATION VALVES

H-15008

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER® 110°
 Conductive Compression
 Connection for CTS O.D.* tubing

1/2"	3/8"	3/4"	3/4" x 1"	1"	1-1/2"	2"
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H-15028

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER 110 Con-
 ductive Compression Connec-
 tion for CTS O.D.* tubing

1/2"	3/4"	1"	1-1/2"	2"
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H-15031

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER 110
 Conductive Compression Con-
 nection for CTS O.D. tubing
 eighth bend connection

3/4"	1"
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H-15009

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER 110 Com-
 pression Connection for
 IPS PE* pipe

3/4"	1"
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H-15030

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER 110
 Conductive Compression Con-
 nection for CTS O.D. tubing
 quarter bend connection

3/4"	1"
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H-15029

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER 110
 Compression Connection for
 IPS PE* pipe

3/4"	1"
------	----



P-15008

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER® Pack Joint
 Connection for CTS O.D.* tub-
 ing

3/4"	3/4" x 1"	1"
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P-15028

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Pack Joint
 Connection for CTS O.D.* tub-
 ing

3/4"	1"
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1/2" - 2" GROUND KEY DESIGN
CORPORATION VALVES

H-15006

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER®
 INSTA-TITE® Connection for
 CTS PE tubing*

3/4"	3/4" x 1"	1"
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H-15024

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER®
 INSTA-TITE® Connection for
 CTS PE tubing*

3/4"	1"
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H-15005

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: MUELLER
 INSTA-TITE Connection for
 IPS PE pipe*

3/4"	3/4" x 1"	1"
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H-15026

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER
 INSTA-TITE Connection for
 IPS PE pipe*

3/4"	1"
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H-15000

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: Copper flare straight
 connection

3/8"	1/2"	5/8" x 3/4"	3/4"	3/4" x 1"	1"
1" x 1-1/4"	1-1/4"	1-1/2"	1-1/2" x 2"	2"	



H-15025

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: Copper flare straight
 connection

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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H-15010

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: Copper flare eighth
 bend connection

3/4"	1"	1-1/2"	2"
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H-15035

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: Copper flare eighth
 bend connection

3/4"	1"	1-1/2"	2"
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H-15020

Ground Key Corporation Valve
Inlet: AWWA taper
 (MUELLER "CC") thread
Outlet: Copper flare quarter
 bend connection

5/8" x 3/4"	3/4"	3/4" x 1"	1"	1-1/2"	2"
-------------	------	-----------	----	--------	----



H-15045

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: Copper flare quarter
 bend connection

3/4"	1"	1-1/2"	2"
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*See charts on pages 5.12-5.16 for tubing and pipe that may be used on these connections.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.

NOTE: Sizes shown above represent nominal size of inlet and outlet connections. When two sizes are given, the first is size of inlet and the second is size of outlet.

MUELLER® Corporation Valves are manufactured and tested in accordance with ANSI/AWWA C800.

*See charts on pages 5.12-5.16 for tubing and pipe that may be used on these connections.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.

NOTE: Sizes shown above represent nominal size of inlet and outlet connections. When two sizes are given, the first is size of inlet and the second is size of outlet.

1/2" - 2" GROUND KEY DESIGN
CORPORATION VALVES

H-10045

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: F.I.P. thread

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----



H-15027

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: I.P. thread copper flare
connection - this connection
thread is one size larger than
the copper tubing to be flared

3/4"	1"	1-1/2"	2"
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H-9996

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: M.I.P. thread

3/4"	1"	1-1/2"	2"
------	----	--------	----



H-10003

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: Increasing I.P. thread
(outlet is one size larger than
inlet)

1/2"	5/8" (3/4" outlet)	3/4"	1"	1-1/4"	1-1/2"	2"
------	--------------------	------	----	--------	--------	----



H-9971

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: MUELLER Coupling
thread

5/8"	3/4"	1"
------	------	----



H-10046

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: F.I.P. thread

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----



H-15002

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: I.P. thread copper flare
connection - this connection
thread is one size larger than the
copper tubing to be flared

3/4"	1"
------	----



H-10013

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: M.I.P. thread

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----



H-9979

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: Increasing I.P. thread
(outlet is one size larger than
inlet)

1/2" (3/4" outlet)	5/8" (3/4" outlet)	3/4"	1"	1-1/2"	2"
--------------------	--------------------	------	----	--------	----



H-9976

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Coupling
thread

3/4"	1"
------	----

1/2" - 2" GROUND KEY DESIGN
CORPORATION VALVES

H-9991

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: MUELLER Coupling
thread 1-1/64" I.D. thru valve - for
use with pito tube

1"

See page 5-14 for installation tools



H-9992

Ground Key Corporation Valve
Inlet: AWWA taper
(MUELLER "CC") thread
Outlet: Increasing I.P. thread
(outlet is one size larger than
inlet) 1-1/32" I.D. thru valve - for
use with pito tube

1"

See page 5-14 for installation tools



H-9995

Ground Key Corporation Valve
Inlet: AWWA I.P. thread
Outlet: MUELLER Coupling
thread (with coupling nut and
leather washer) 1-1/64" I.D. thru
valve - for use with pito tube

1"

See page 5-14 for installation tools



H-10012

Ground Key Corporation Valve
Inlet: Standard I.P. thread**
Outlet: M.I.P. thread

3/4"	1"	1-1/2"	2"
------	----	--------	----

CORPORATION VALVE MUELLER 110® TOOLS & MISCELLANEOUS EQUIPMENT

Rev. 9-09

MUELLER Drilling and Tapping Machine equipment required to install corporation valves having MUELLER 110® Compression Connection outlet

Valve size (nominal) (If two numbers: Inlet x Outlet)	1/2"	3/4"	1"	1 1/2"	2"
	CTS	CTS	IPS PE	CTS	CTS
Combined drill and tap size—see section 1 for part numbers	1/2"	3/4"	1"	1 1/2"	2"
B-101/B-100 inserting tool	680598	680600	680601	680602	680603
A-3 inserting tool	-	-	-	680604	680605
Maximum allowable size drill or shell cutter—see section 2 for part numbers	1/2"	3/4"	1"	1 1/2"	2"
Mega-Cut™/E-5 machine adapter nipple	52019	508919	508920	508921	508922
D-5 machine adapter nipple	37900	37902	37903	37904	37905
Tri-Cut™/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	-	507632	507633	507634	507635

*Ball and ORI-CORP® Corporation valves IP and CC inlet, 1.75" maximum.

Tubing, pipe and liners used with MUELLER 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.045 - 0.053	-	-
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
1" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	504281
1 1/4" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1 1/2" CTS	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	504335
2" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
2 1/2" CTS	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
3" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
3 1/2" CTS	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
4" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
4 1/2" CTS	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	506141
5" CTS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
5 1/2" CTS	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
6" CTS	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
6 1/2" CTS	Polyethylene	1.329 - 1.394	0.150 - 0.170	1.029 - 1.059	505142
7" CTS	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
7 1/2" CTS	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785

Liner

MUELLER 110 Compression Connection replacement parts

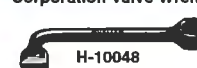
Size	Kit	Gasket part number*	Connection nut
1/2" CTS	-	681516	147542
3/4" CTS	682600	581949	507831
1" CTS	682601	581951	507835
1 1/2" CTS	-	581955	507847
2" CTS	-	581957	507851
3/4" IPS PE	-	805889	508826
1" IPS PE	-	807888	508827

*Gasket and gripper band assembly



Nut

Corporation Valve Wrench



For operating up to and including 1" corporation valves.

CORPORATION VALVE MUELLER® INSTA-TITE® TOOLS & MISCELLANEOUS

Shaded area indicates changes. Rev. 9-04

MUELLER® Drilling and Tapping Machine equipment required to install corporation valves having MUELLER INSTA-TITE Connection outlets

Valve size (nominal) (If two numbers: Inlet x Outlet)	3/4" CTS PE or IPS PE	3/4" x 1" CTS PE or IPS PE	1" CTS PE or IPS PE
Combined drill and tap size—see section 1 for part numbers	3/4"	3/4"	1"
B-101/B-100 inserting tool	680600	680601	680602
A-3 inserting tool	-	-	680603
Maximum allowable size drill or shell cutter—see section 2 for part numbers	1 1/16"	1 1/16"	7/8"
Mega-Cut™/E-5 machine adapter nipple	52019	36750	36750
D-5 machine adapter nipple	37902	37903	37904
Tri-Cut™/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	507632	507633	507634

Polyethylene PE tubing and pipe used with MUELLER INSTA-TITE Connections

Nominal size of connection	Material	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches
3/4" CTS PE	Polyethylene PE	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685
1" CTS PE	Polyethylene PE	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880
3/4" IPS PE	Polyethylene PE	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834
1" IPS PE	Polyethylene PE	1.329 - 1.399	0.130 - 0.170	1.029 - 1.059

CTS polyethylene (PE) per ASTM D-2737 - SDR-9

IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7

MUELLER INSTA-TITE Connection replacement parts

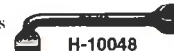
Size	Gripper ring part number*	O-Ring part number
3/4" CTS PE	506325	506324
1" CTS PE	506327	506326
3/4" IPS PE	505885	505883
1" IPS PE	505886	505884

*Gasket and gripper band assembly



Corporation Valve Wrench

For operating up to and including 1" corporation stops and valves



MUELLER INSTA-TITE Connection optional equipment Pipe beveling tool

To assure proper installation, the end of the pipe or tubing must be properly beveled before it is inserted into the MUELLER INSTA-TITE Connection. MUELLER CO. offers special beveling tool for CTS PE tubing and IPS PE pipe.



PART NUMBER: H-18015 for 3/4" and 1" CTS tubing

PART NUMBER: H-18017 for 3/4" and 1" IPS pipe

Pipe removal tool

Pipe or tubing may be removed from the MUELLER INSTA-TITE Connection using special removal tools. Use one tool for 3/4" size connection and two tools for 1" size.



PART NUMBER : 506336

CORPORATION VALVE PACK JOINT TOOLS AND MISCELLANEOUS

Rev 5/03

MUELLER® Drilling and Tapping Machine equipment required to install corporation having MUELLER Pack Joint Connection outlets

Valve size (nominal) (If two numbers: Inlet x Outlet)	3/4" CTS	IPS PE PVC	3/4"x1" CTS	IPS PE PVC	1" CTS	IPS PE PVC	1-1/2" CTS	IPS PE PVC	2" CTS	IPS PE PVC		
Combined drill and tap size—see section 1 for part numbers	3/4"	3/4"	1"	1-1/2"	2"							
B-101/B-100 inserting tool	680600	680601	680601				680421		680422			
A-3 inserting tool				680601								
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA LP 1 1/16"	1 1/16"	7/8"	1 7/16"	1 3/16"	1 3/4"	1 3/4"					
Mega-Cut™/E-5 machine adapter nipple	52019	508919	36750	682256	36750	682256	501949	508199**	682257	508199	682258	682258
D-5 machine adapter nipple	37902	500917	37903	682259	37903	682259	507644	507645**	682013	507645	682014	682014
Tri-Cut™/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	507632	509050	507633		507633	682290						

* Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum. ** Adapter is also used on 2" CTS 110

Tubing, pipe and liners used with MUELLER Pack Joint Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Liner part number
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.509 - 1.659	528707
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-
1-1/4" IPS	Polyethylene	1.754 - 1.832	0.197 - 0.221	1.360 - 1.390	512787
	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
1-1/2" IPS	1-1/2" Sch. 40 PVC	1.894 - 1.906	0.145 - 0.165	-	-
	1-1/2" Sch. 80 PVC	1.894 - 1.906	0.200 - 0.224	-	-
2" IPS	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
	2" Sch. 40 PVC	2.369 - 2.381	0.154 - 0.174	-	-
	2" Sch. 80 PVC	2.369 - 2.381	0.218 - 0.244	-	-

*Type "K" with copper tubing per ASTM B88. CTS polyethylene (PE) per ASTM D 2731. SDR-9 IPS polyethylene (PE) per ASTM D-2239. PE SDR-7 IPS polyvinylchloride (PVC) per ASTM D1785

Liner

MUELLER Pack Joint Connection Kit

Size	Connection kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924

Connection Kit
(includes Pack Joint, Gasket and Washer)

Corporation Valve Wrench

For operating up to and including 1" corporation valves.



H-10048

CORPORATION VALVE COPPER FLARE TOOLS & MISCELLANEOUS

Standard and indication changed. Rev. 5/03

MUELLER® Drilling and Tapping Machine equipment required to install corporation valves having copper flare connection outlet

Valve size (nominal) (If two numbers: Inlet x Outlet)	1/2"	1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"	1-1/4"	1-1/2"	2"
Combined drill and tap size - see section 1 for part numbers	1/2"	1/2"	5/8"	3/4"	3/4"	1"	1-1/4"	1-1/2"	2"
B-101/B-100 inserting tool	680558	680600	680600	680600	680601	680601	-	-	-
A-3 inserting tool	-	-	-	-	-	680601	680602	680603	88041
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA LP 7/16"	7/16"	9/16"	11/16"	11/16"	7/8"	1-1/8"	1-7/16"	1-3/4"
Mega-Cut™/E-5 machine adapter nipple	61796	52019	52019	52019	52019	36750	682256	501947	508201
D-5 machine adapter nipple	37900	37902	37902	37902	37903	37903	682259	37905	37906
Tri-Cut™/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	-	-	-	507632	507633	507633	-	-	-

* Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum

I.P. thread copper flare connection optional equipment

I.P. thread copper flare nut

This connection thread is one size larger than the copper tubing to be flared.

CATALOG NUMBER: **H-15432**

Solid copper disc

Used with regular copper flare nut to shut off line.

CATALOG NUMBER: **H-15535**

Brass cap

Fits on copper flare spud to cap off line.

CATALOG NUMBER: **H-15540**

Flaring Tool



Used to make 45° flare on type "K" copper tubing.

CATALOG NUMBER: **H-18000**

Drilled Flaring Tool



Used to make 45° flare on type "K" copper tubing without shutting off water—drilled to exhaust water at right angle to tubing.

CATALOG NUMBER: **H-18005**

Reamer



Used to ream the inside of type "K" copper tubing to remove burrs prior to flaring.

CATALOG NUMBER: **H-18010**

Brass Hammer



Solid brass head with 10" wooden handle. Weight 2-3/4 lb. CATALOG NUMBER: **H-18025**

Compression to Flare Push-in-Bushing



CATALOG NUMBER: **682332**

Corporation Valve Wrench



For operating up to and including 1" corporation valves. CATALOG NUMBER: **H-10048**

Note: When using any striking tool, safety eye protection must be worn. Inspect hammer and tools for any damage after each use and repair or replace if mushrooming or chipping evident.

MUELLER® Drilling and Tapping Machine equipment required to install corporation valves having female I.P. thread outlet

Valve size (nominal)	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Combined drill and tap size—see section 1 for part numbers	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
B-101/B-100 inserting tool	680630	680631	680632	-	-	-
A-3 inserting tool	-	-	680632	681512	681513	M1214
Maximum allowable size drill or shell cutter—see section 2 for part numbers	7/16"	11/16"	1"	1-1/8"	1-7/16"	1-3/4" *
CC (A/W/A taper)	7/16"	11/16"	1-1/16"	1-1/8"	1-7/16"	1-13/16" *
Mega-Cut™ 5 machine adapter nipple	36967	36920	36918	36753	363435	36907
D-5 machine adapter nipple	-	33566	36523	36385	36386	36388
Tri-Cut™ 2 machine adapter nipple for use on 1-1/2" max. wall PVC	-	-	-	-	-	-

MUELLER Drilling and Tapping Machine equipment required to install corporation valves having male I.P. thread outlet

Valve size (nominal)	3/4"	1"	1-1/4"	1-1/2"	2"
Combined drill and tap size—see section 1 for part numbers	3/4"	1"	1-1/4"	1-1/2"	2"
B-101/B-100 inserting tool	680595	680596	-	-	-
A-3 inserting tool	-	680596	680597	63065	63066
Maximum allowable size drill or shell cutter—see section 2 for part numbers	11/16"	7/8"	1-1/8"	1-7/16"	1-3/4" *
CC (A/W/A taper)	11/16"	1-1/16"	1-1/8"	1-7/16"	1-13/16" *
Mega-Cut™ 5 machine adapter nipple	36919	36917	36928	361048	368200
D-5 machine adapter nipple	36010	36011	36012	36013	36525
Tri-Cut™ 2 machine adapter nipple for use with 1-1/2" maximum wall PVC	607630	607631	-	-	-

MUELLER Drilling and Tapping Machine equipment required to install corporation valves having Increase I.P. thread outlet

Valve size (nominal)	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
Combined drill and tap size—see section 1 for part numbers	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
B-101/B-100 inserting tool	680595	680595	680596	680597	-	-	-
A-3 inserting tool	-	-	-	680597	63065	63066	63137
Maximum allowable size drill or shell cutter—see section 2 for part numbers	7/16"	9/16"	3/4"	1-1/8"	-	1-7/16"	1-3/4"
CC (A/W/A taper)	7/16"	9/16"	11/16"	1-1/8"	1"	1-7/16"	1-13/16"
Mega-Cut™ 5 machine adapter nipple	36919	36916	36917	36928	361048	368200	-
D-5 machine adapter nipple	-	-	36013	36012	36013	36525	36526

MUELLER Drilling and Tapping Machine equipment required to install corporation valves having MUELLER coupling thread outlet

Valve size (nominal)	1/2"	5/8"	3/4"	1"
Combined drill and tap size—see section 1 for part numbers	1/2"	5/8"	3/4"	1"
B-101/B-100 inserting tool	680630	680631	680632	680632
A-3 inserting tool	-	-	-	680632
Maximum allowable size drill or shell cutter—see section 2 for part numbers	7/16"	9/16"	3/4"	1-1/8"
CC (A/W/A taper)	7/16"	9/16"	1-1/16"	1-1/8"
Mega-Cut™ 5 machine adapter nipple	35469	35468	35465	35466
D-5 machine adapter nipple	-	-	64165	77375

MUELLER Drilling and Tapping Machine equipment required to install corporation valves shown in chart heading

Valve size (nominal)	1" H-19991	1" H-19995	1" H-19992	3/4" H-19902	1" H-19902
Combined drill and tap size—see section 1 for part numbers	1"	1"	1"	3/4"	1"
B-101/B-100 inserting tool	680632	680632	680797	680633	680634
A-3 inserting tool	680632	680632	680797	-	680634
Maximum allowable size drill or shell cutter—see section 2 for part numbers	-	-	-	11/16"	1-1/16"
CC (A/W/A taper)	-	-	-	11/16"	1-1/16"
Mega-Cut™ 5 machine adapter nipple	-	-	-	47900	47970
D-5 machine adapter nipple	-	-	-	45360	53104

* Ref and ORI-CORP® Corporation valves IP and CC inlet 1-7/8" maximum

The MUELLER 300 Ball Valve is an optimized design combining a strong, reliable ball/stem connection with other desired features, including a blow-

out-proof stem, double O-rings and a 300 psig working pressure rating. The design offers true bi-directional (two way) flow.

MUELLER 300 Ball Curb Valve

- ❑ **BLOW-OUT-PROOF STEM DESIGN** - prevents separation and assures dependable, safe operation.

- ❑ **OPTIMIZED KEY TO BALL CONNECTION** provides strong, reliable performance and resists breakage.

- ❑ **FULL THREAD DEPTH** - undrill depth on F.I.P. thread ends (meets ANSI/ AWWA C800 Standard).

- ❑ **FULL ROUNDWAY** provides straight-through flow (reduced port available).

- ❑ **END PIECES O-RING SEALED** - to provide additional protection against leaking.

- ❑ **MANUFACTURED AND TESTED** - to ANSI/AWWA C800 Standard.

- ❑ **DOUBLE O-RING SEALS** - are supported in precision machined grooves and provide secure, leak-tight sealing.



- ❑ **SUITABLE** - for use as test valves on Backflow Preventers (complies with Notice 89-001 of F.C.C.C. and H.R.).

- ❑ **300 PSIG** - maximum working pressure.

- ❑ **QUARTER TURN CHECK** - is integrally cast on body to assure positive action. Checkless 360° turn is optional.

- ❑ **FLUOROCARBON COATED BALL** - ensures smooth, easy turning operation.

- ❑ **STAINLESS STEEL REINFORCED SEAT** assures reliable seal under full flow and pressure.

- ❑ **END CONNECTIONS** include copper flare, MUELLER 110° Compression Connection, Pack Joint Connection, Copper Flare, M.I.P and F.I.P thread.

- ❑ **HEAVY BRASS COMPONENTS** - constructed of solid 85-5-5-5 ASTM B62 brass for strength and durability.

MUELLER® MARK II ORISEAL® CURB VALVES

The MUELLER® MARK II ORISEAL® Curb Valve has a sturdy one-piece, closed-bottom body that differs from other designs by reducing the number of potential leakage points. The closed bottom design minimizes exposed moving parts. The large tee head and plug are integrally cast as one strong piece to resist twisting and breaking. In addition, the O-ring

sealed design allows the plug to turn easily in the body, with a minimum of torque. The top and port O-rings are fully supported in machined grooves to provide positive sealing. All of these features combine in the MUELLER MARK II ORISEAL Curb Valve to provide reliable performance and long-term reliability.

MUELLER MARK II ORISEAL Curb Valve

- ❑ TOP SEALING O-RING - seals top of valve.
- ❑ FREE TURNING PLUG - eliminates metal-to-metal seating for easy turning.

- ❑ LARGE TEE HEAD is an integral part of the plug. The tee head also indicates if the valve is opened or closed.

- ❑ LOW FRICTION THRUST WASHER reduces friction between plug and snap ring for easy turning.

- ❑ PROTECTIVE TOP - has diameter larger than body and tee head to prevent a curb box from interfering with the tee head operation.

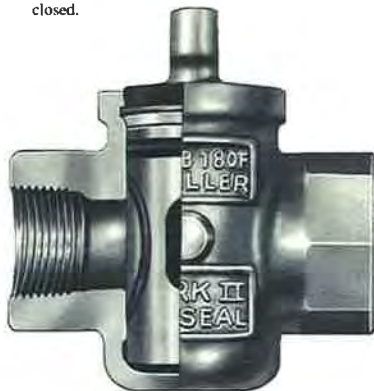
- ❑ 175 PSIG - maximum working pressure.

- ❑ ELONGATED ROUND WAY - provides straight through flow passage with low pressure loss.

- ❑ HEAVY BRASS COMPONENTS constructed of 85-5-5 ASTM B62 brass for strength and durability.

- ❑ ENGINEERED ENTRY ANGLE provides smooth transition to flow passage with minimum flow loss.

- ❑ PORT SEALING O-RING - assures positive shut-off and easy turning.



- ❑ HIGH STRENGTH INTEGRAL CHECKS - assure positive quarter turn operation and are equal in strength to the tee head.

- ❑ CLOSED BOTTOM minimizes exposed moving parts.

- ❑ MANUFACTURED AND TESTED - to ANSI/AWWA C800 standard.

- ❑ END CONNECTIONS include copper flare, MUELLER 110® Compression Connection, MUELLER INSTA-TITE® Connection, Mueller Pack Joint and F.I.P. thread.

MUELLER® ORISEAL III® AND MUELLER ORISEAL® CURB VALVES

MUELLER ORISEAL III Curb Valve

- ❑ MANUFACTURED AND TESTED - to ANSI/AWWA C800 standard.

- ❑ INTEGRAL TEE HEAD AND PLUG for solid one-piece strength.

- ❑ LOW FRICTION THRUST WASHER reduces friction for easy turning.

- ❑ 175 PSIG maximum working pressure

- ❑ HEAVY BRASS COMPONENTS constructed of 85-5-5 ASTM B62 brass for strength and durability.

- ❑ END CONNECTIONS include copper flare, MUELLER 110® Compression Connection, MUELLER INSTA-TITE Connection, and F.I.P. thread.

- ❑ HIGH STRENGTH INTEGRAL CHECKS assure positive quarter turn operation. Checkless 360° turn design also available.

- ❑ CLOSED BOTTOM minimizes exposed moving parts.

- ❑ TOP O-RING provides pressure sealing to outside.

- ❑ PORT O-RING provides effective sealing regardless of flow direction.

- ❑ FULL ROUND PORT OPENING for maximum flow and minimum pressure loss.



MUELLER ORISEAL Curb Valve

- ❑ HEAVY BRASS COMPONENTS constructed of 85-5-5 ASTM B62 brass for strength and durability.

- ❑ MANUFACTURED AND TESTED - to ANSI/AWWA C800 standard.

- ❑ END CONNECTIONS include copper flare and F.I.P. thread.

- ❑ HIGH STRENGTH INTEGRAL CHECKS assure positive quarter turn operation.

- ❑ INTEGRAL TEE HEAD AND PLUG - for solid one-piece strength.



- ❑ FLUOROCARBON COATED PLUG - assures easy turning.

- ❑ TOP AND BOTTOM O-RINGS - for positive pressure sealing, easy turning.

- ❑ 175 PSIG - maximum working pressure.

- ❑ PORT O-RING assures positive shut-off and easy turning.

- ❑ FULL OPENING ROUND PORT - for maximum flow and minimum pressure loss.

INVERTED KEY, SOLID TEE HEAD ROUND WAY, AND "H" PATTERN CURB VALVES

Rev. 4-01

MUELLER® Inverted Key Curb Valve



- ❑ Strong operating head to key attachment.
- ❑ Heavy brass components constructed of 85-5-5-5 ASTM B62 brass for strength and durability.
- ❑ Manufactured and tested in accordance with ANSI/AWWA C800 standard.
- ❑ Strong checks provide positive quarter turn operation.
- ❑ End connections include copper flare connection, MUELLER 110° Compression Connection, Pack Joint Connection and F.I.P. thread.
- ❑ Elongated round way port.
- ❑ 100 psig (690 kPa) maximum working pressure (through 1" size).

As the name implies, the large diameter of the Inverted key is on the bottom. The key is held in place by a bronze base cap. Water pressure from the inlet side of the body exerts an upward force on the bottom of the key, providing additional seating action. The stop is operated by tapping on the combined cap and tee head to unscrew the key; the water pressure will reseal the key.

MUELLER Solid Tee Head Curb



- ❑ Key nut is designed so overtightening will strip threads instead of breaking stem.
- ❑ Heavy brass components constructed of 85-5-5-5 ASTM B62 brass for strength and durability.
- ❑ Manufactured and tested in accordance with ANSI/AWWA C800 standard.
- ❑ 100 psig (690 kPa) maximum working pressure through 1" size - (larger valves rated 80 psig, 552 kPa, maximum working pressure).

MUELLER® 300™ BALL CURB VALVES WITH MUELLER 110° CONNECTION

Shaded area indicates change. Rev. 9-09



B-25209

3/4" R	3/4"	1" R	1"	1-1/2"	1-1/2"x2"
2"					



B-25155

3/4"	1"	1-1/2"	2"
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B-25172

3/4" R	3/4"	3/4"x1"	1" R	1"	1-1/2"	2"
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B-25210

3/4"	1"
------	----



B-25211

3/4"	1"
------	----



B-25122

3/4" R	3/4"	3/4"x1"	1" R	1"	1-1/2"	2"
--------	------	---------	------	----	--------	----



B-25171

3/4"	1"
------	----



B-25152

3/4"	1"
------	----



B-25163

3/4"	1"	1-1/2"	2"
------	----	--------	----



B-25219

3/4"	1"	1-1/2"	2"
------	----	--------	----

MUELLER 300 Ball Curb Valve
MUELLER 110° Conductive
Compression Connection for CTS O.D.*
tubing - **both ends**. Quarter turn check - this
valve may be ordered with 360° turn option by
adding -3 to end of catalog number (B-25209-3)

MUELLER 300 Ball Curb Valve
MUELLER 110° Conductive
Compression Connection for CTS O.D.*
tubing - **both ends**. Quarter turn check and
Minneapolis top thread - this valve may be
ordered with 360° turn option by adding -3 to
end of catalog number (B-25155-3)

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110° Conductive
Compression Connection for CTS
O.D.* tubing
Outlet: F.I.P. thread. Quarter turn check
this valve may be ordered with 360° turn option
by adding -3 to end of catalog number (B-
25172-3)

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110° Conductive
Compression Connection for CTS O.D.*
tubing
Outlet: MUELLER 110° Compression
Connection for IPS PE* pipe
Quarter turn check - this valve may be ordered
with 360° turn option by adding -3 to end of
catalog number (B-25210-3)

MUELLER 300 Ball Curb Valve
MUELLER 110° Conductive
Compression Connection for IPS PE* pipe -
both ends.
Minneapolis top thread - this valve may be
ordered with 360° turn option by adding -3 to
end of catalog number (B-25211-3)

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110° Conductive
Compression Connection for CTS
O.D.* tubing
Outlet: M.I.P. thread. Quarter turn
check - this valve may be ordered with 360°
turn option by adding -3 to end of catalog
number (B-25122-3)

MUELLER 300 Curb Valve
Inlet: MUELLER 110° Compression
Connection for IPS PE* pipe
Outlet: F.I.P. thread
Quarter turn check - this valve may be ordered
with 360° turn option by adding -3 to end of
catalog number (B-25171-3)

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110° Conductive
Compression Connection for CTS
O.D.* tubing
Outlet: MUELLER 110° Compression
Connection for IPS PE* pipe
Minneapolis top thread - this valve may be
ordered with 360° turn option by adding -3 to
end of catalog number (B-25152-3)

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110° Conductive
Compression Connection for CTS
O.D.* tubing
Outlet: F.I.P. thread
Minneapolis top thread - this valve may be
ordered with 360° turn option by adding -3
to end of catalog number (B-25163-3)

MUELLER 300 Ball Curb Valve
MUELLER 110° Conductive
Compression Connection for CTS O.D.* tubing
with drain - **both ends**.
Minneapolis top thread - this valve may be
ordered with 360° turn option by adding -3 to
end of catalog number (B-25219-3)

*See page 7.18 for tubing and pipe that can be used with this connection.

NOTE: Sizes shown above represent nominal size of valve.

R = means Reduced port. Ball waterway is one nominal size smaller than inlet/outlet.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

MUELLER® 300™ BALL CURB VALVES WITH MUELLER 110® CONNECTION

Rev. 9-00 Shaded area indicates change

**B-25132**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER 110 Conductive
 Compression Connection for CTS
 O.D.* tubing
Outlet: Copper Flare, Quarter turn check
 - this valve may be ordered with 360° turn
 option by adding -3 to end of catalog number
 (B-25132-3)

RECLAIMED WATER STYLE:

All ball curb valves are available marked for "reclaimed water" by adding
 -20* to the catalog number. Example: B-25132-20

3/4"

MUELLER® 300™ BALL CURB VALVES WITH PACK JOINT CONNECTION

Shaded area indicates change Rev. 9-00

**P-25209**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
CTS O.D.* tubing - both ends.
 Quarter turn check - this valve may be
 ordered with 360° turn option by adding
 -3 to end of catalog number
 (P-25209-3)

3/4" R 3/4" 1" R 1" 1-1/2" 2"

**P-25155**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
CTS O.D.* tubing - both ends.
 Quarter turn check and Minneapolis top
 thread - this valve may be ordered with
 360° turn option by adding -3 to end of
 (P-25155-3)

3/4" R 1" 1-1/2" 2"

**P-25172**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER Pack Joint
 Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
 Quarter turn check - this valve may be
 ordered with 360° turn option by adding
 -3 to end of catalog number
 (P-25172-3)

3/4" R 3/4" 1" R 1" 1-1/2" 2"

**V-25100**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER Pack Joint
 Connection for IPS PVC tubing
Outlet: F.I.P. thread
 Quarter turn check - this valve may be
 ordered with 360° turn option by adding
 -3 to end of catalog number
 (V-25100-3)

1" 1-1/2" 2"

**V-25101**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER Pack Joint
 Connection for PVC pipe
Outlet: M.I.P. thread
 Quarter turn check - this valve may be ordered
 with 360° turn option by adding -3 to end of
 catalog number (V-25101-3)

1-1/2" 2"

**P-25122**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER Pack Joint
 Connection for CTS O.D.* tubing
Outlet: M.I.P. thread
 Quarter turn check - this valve may be ordered
 with 360° turn option by adding -3
 to end of catalog number (P-25122-3)

3/4" R 3/4" 1" R 1" 1-1/2" 2"

**V-25226**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
IPS PVC* - both ends.
 Quarter turn check - this valve may be
 ordered with 360° turn option by adding
 -3 to end of catalog number (V-25226-3)

1" 1-1/2" 2"

**E-25211**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
IPS PE* - both ends
 Quarter turn check - this valve may be
 ordered with 360° turn option by
 adding -3 to end of catalog number
 (E-25211-3)

3/4" 1-1/2" 2"

**E-25171**

MUELLER 300 Curb Valve
Inlet: MUELLER Pack Joint
 Compression Connection for IPS
 PE* pipe
Outlet: F.I.P. thread
 Quarter turn check - this valve may be
 ordered with 360° turn option by adding
 -3 to end of catalog number (E-25171-3)
 **Note: 3/4" size only may also be used on PVC

3/4" 1" 1-1/2" 2"

**V-25226**

MUELLER 300 Ball Curb Valve
Inlet: MUELLER Pack Joint
 Connection for PVC pipe - **both ends.**
 2 pc. construction assembled wrench tight

1" 1-1/2" 2"

*See page 7.18 for tubing and pipe that can be used with this connection.

NOTE: Sizes shown above represent nominal size of valve.

"R" means Reduced port. Ball waterway is one nominal size smaller than inlet/outlet.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

*See page 7.19 for tubing and pipe that can be used with this connection.

**2-piece construction assembled wrench tight.

NOTE: Sizes shown above represent nominal size of valve.

"R" means Reduced port. Ball waterway is one nominal size smaller than inlet/outlet.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

MUELLER® 300™ BALL CURB VALVES WITH PACK JOINT CONNECTION

Rev. 9-09 Shaded area indicates change

**V-25109**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
IPS® PVC tubing- both ends
 Quarter turn check and Minneapolis top
 thread - this valve may be ordered with
 360° turn option by adding -3 to end of
 (V-25109-3)

1-1/2"	2"
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**E-25142**

MUELLER 300 Ball Curb Valve
MUELLER Pack Joint Connection for
IPS® PE tubing- both ends
 Quarter turn check and Minneapolis top
 thread - this valve may be ordered with
 360° turn option by adding -3 to end of
 (E-25142-3)

1-1/2"	2"
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MUELLER® 300™ BALL CURB VALVES WITH COPPER FLARE, F.I.P. & M.I.P. CONNECTION

Shaded area indicates change Rev. 9-09

**B-25204**

MUELLER 300 Ball Curb Valve
Copper flare nut - both ends.
 Quarter turn check.
 This valve may be ordered with
 checkless 360° turn option by
 adding -3 to end of catalog
 number (B-25204-3).

3/4" R	3/4"	1" R	1"	1-1/2"	2"
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**B-25174**

MUELLER 300 Ball Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
 Quarter turn check.
 This valve may be ordered with
 checkless 360° turn option by
 adding -3 to end of catalog num-
 ber (B-25174-3).

3/4" R	3/4"	3/4" x 1"	1" R	1"
1" x 3/4" R	1" x 3/4"	1-1/2"	2"	

**B-20283**

MUELLER 300 Ball Curb Valve
F.I.P. thread - both ends
 Quarter turn check.
 This valve may be ordered
 with 360° turn option by
 adding -3 to end of catalog num-
 ber (B-20283-3)

3/4" R	3/4"	1" R	1"	1-1/2"	2"
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**B-20285**

MUELLER 300 Ball Curb Valve
Inlet: M.I.P. thread
Outlet: F.I.P. thread
 Quarter turn check.
 This valve may be ordered
 with 360° turn option by
 adding -3 to end of catalog num-
 ber (B-20285-3)

3/4" R	3/4"	1"	1-1/2"	2"
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**B-25154**

MUELLER 300 Ball Curb Valve
Copper flare nut - both ends
 Quarter turn check and
 Minneapolis thread top.
 This valve may be ordered with
 checkless 360° turn option by
 adding -3 to end of catalog
 number (B-25154-3).

3/4"	1"	1-1/2"	2"
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**B-25124**

MUELLER 300 Ball Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
 Quarter turn check and Minne-
 apolis thread top.
 This valve may be ordered with
 checkless 360° turn option by
 adding -3 to end of catalog num-
 ber (B-25124-3).

3/4"	1"	1-1/2"	2"
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**B-20287**

MUELLER 300 Ball Curb Valve
F.I.P. thread - both ends.
 Quarter turn check -
 Minneapolis top thread.
 This valve may be ordered
 with 360° turn option by
 adding -3 to end of catalog num-
 ber (B-20287-3)

3/4"	1"	1-1/2"	2"
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**B-20276**

MUELLER 300 Ball Curb Valve
Inlet: M.I.P. thread
Outlet: M.I.P. thread
 Quarter turn check.
 This valve may be ordered
 with 360° turn option by
 adding -3 to end of catalog
 number (B-20276-3)

3/4"	1"	1-1/2"	2"
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NOTE: Sizes shown above represent nominal size of valve. When two sizes are given, the first is size of inlet and the second is size of outlet

R means threaded port. Ball workways in one direction only.
 MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

7.10

Rev. 9-09 Shaded area indicates change

MUELLER® MARK II ORISEAL® CURB VALVES WITH MUELLER 110®



MUELLER MARK II ORISEAL
Curb Valve, MUELLER 110
Conductive Compression
Connection for CTS O.D.*
tubing-both ends Quarter turn check

H-15209

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve MUELLER 110
Conductive Compression
Connection for CTS O.D.*
tubing-both ends
Quarter turn check with drain

H-15219

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER 110
Compression Connection for
IPS PE* pipe - both ends
Quarter turn check and
Minneapolis top thread

H-15159

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve
Inlet: MUELLER 110 Compression
Connection for IPS PE* pipe
Outlet: F.I.P. thread
Quarter turn check

H-15171

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve
Inlet: MUELLER 110 Conductive
Compression Connection for CTS
O.D. tubing
Outlet: F.I.P. thread
Quarter turn check
Minneapolis top thread

H-15127

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER 110
Compression Connection for
IPS PE* pipe- both ends
Quarter turn check

H-15211

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER 110
Conductive Compression Connection
for CTS O.D.* tubing-both ends
Quarter turn check and
Minneapolis top thread

H-15155

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER 110
Compression Connection for
CTS O.D.* pipe - both ends
Quarter turn check with drain and
Minneapolis top thread

H-15165

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve
Inlet: MUELLER 110
Conductive Compression
Connection for CTS O.D. tubing
Outlet: F.I.P. thread
Quarter turn check

H-15172

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve
Inlet: MUELLER 110
Conductive Compression
Connection for CTS O.D. tubing
Outlet: F.I.P. thread
Quarter turn check and drain

H-15182

3/4" 1" 1-1/2" 2"

MUELLER® MARK II ORISEAL® CURB VALVES 7.11

Rev. 9-09



MUELLER MARK II ORISEAL
Curb Valve, MUELLER Pack Joint
Connection for CTS O.D.*
tubing-both ends
Quarter turn check

P-15209

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER Pack
Joint Connection for CTS O.D.*
tubing-both ends
Quarter turn check and
Minneapolis top thread

P-15155

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER Pack Joint
Connection for IPS PE*
tubing-both ends
Quarter turn check

E-15211

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve, MUELLER Pack Joint
Connection for CTS O.D.*
tubing-both ends
Quarter turn check with drain

P-15219

3/4" 1" 1-1/2" 2"



MUELLER MARK II ORISEAL
Curb Valve
Inlet: MUELLER Pack Joint
Connection for CTS O.D. tubing
Outlet: F.I.P. thread
Quarter turn check

P-15172

3/4" 1" 1-1/2" 2"

*See page 7.19 for tubing and pipe that can be used with this connection.

NOTE: Sizes shown above represent nominal size of valve. Unless otherwise noted, checks on MUELLER MARK II ORISEAL valves allow 90 degree turn
MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

*See page 7.20 for tubing and pipe that can be used with this connection.

**Note: 3/4" size only may also be used on PVC.

NOTE: Sizes shown above represent nominal size of valve. Unless otherwise noted, checks on MUELLER MARK II ORISEAL valves allow 90 degree turn
MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

7.12 MUELLER® MARK II ORISEAL® CURB VALVES WITH MUELLER INSTA-TITE® CONNECTIONS

Rev 9-09



H-15215

MUELLER MARK II
ORISEAL Curb Valve
MUELLER INSTA-TITE
Connection for CTS PE*
tubing - **both ends**
Quarter turn check

3/4" 1"



H-15213

MUELLER MARK II
ORISEAL Curb Valve
MUELLER INSTA-TITE
Connection for IPS PE*
pipe - **both ends**
Quarter turn check

3/4" 1"



H-15192

MUELLER MARK II
ORISEAL Curb Valve
Inlet: MUELLER INSTA-TITE
Connection for CTS PE* tubing
Outlet: F.I.P. thread
Quarter turn check

3/4" 1"



H-15156

MUELLER MARK II
ORISEAL Curb Valve
MUELLER INSTA-TITE
Connection for IPS PE*
pipe - **both ends**
Quarter turn check and
Minneapolis top thread

3/4" 1"



H-15191

MUELLER MARK II
ORISEAL Curb Valve
Inlet: MUELLER INSTA-TITE
Connection for IPS PE* pipe
Outlet: F.I.P. thread
Quarter turn check

3/4" 1"



H-15128

MUELLER MARK II
ORISEAL Curb Valve
Inlet: MUELLER INSTA-TITE
Connection for IPS PE* pipe
Outlet: F.I.P. thread
Quarter turn check and
Minneapolis top thread

3/4" 1"



H-15158

MUELLER MARK II
ORISEAL Curb Valve
MUELLER INSTA-TITE
Connection for IPS PE*
pipe with drain - **both ends**
Quarter turn check and
Minneapolis top thread

3/4" 1"

MUELLER® MARK II ORISEAL® CURB VALVES WITH COPPER FLARE CONNECTION

 7.13

Rev 9-09



H-15204

MUELLER MARK II
ORISEAL Curb Valve
Copper flare nut - **both ends**
Quarter turn check

3/4" 1" 1-1/4" 1-1/2" 2"



H-15214

MUELLER MARK II
ORISEAL Curb Valve
Copper flare nut - **both ends**
Quarter turn check and drain

3/4" 1" 1-1/4" 1-1/2" 2"

NOTE: 3/4" and 1" sizes are bi-directional and can be installed with flow from either direction. Sizes larger than 1" are one way flow and must be installed with flow as indicated by arrow and inlet lettering cast on valve body.



H-15154

MUELLER MARK II
ORISEAL Curb Valve Copper
flare nut - **both ends**
Quarter turn check and
Minneapolis thread top

3/4" 1" 1-1/4" 1-1/2" 2"



H-15164

MUELLER MARK II
ORISEAL Curb Valve
Copper flare nut - **both ends**
Quarter turn check,
Minneapolis thread top and drain

3/4" 1" 1-1/4" 1-1/2" 2"

NOTE: 3/4" and 1" sizes are bi-directional and can be installed with flow from either direction. Sizes larger than 1" are one way flow and must be installed with flow as indicated by arrow and inlet lettering cast on valve body.



H-15174

MUELLER MARK II
ORISEAL Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check

3/4" 1" 1-1/4" 1-1/2" 2"



H-15184

MUELLER MARK II
ORISEAL Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check with drain

3/4" 1" 1-1/4" 1-1/2" 2"

NOTE: 3/4" and 1" sizes are bi-directional and can be installed with flow from either direction. Sizes larger than 1" are one way flow and must be installed with flow as indicated by arrow and inlet lettering cast on valve body.



H-15124

MUELLER MARK II
ORISEAL Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check and
Minneapolis top thread

3/4" 1"

NOTE: Sizes shown above represent nominal size of valve.

* See page 7.22 for tubing and pipe that can be used with this connection.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

NOTE: Sizes shown above represent nominal size of valve.

† Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

MUELLER® MARK II ORISEAL® CURB VALVES WITH F.I.P. CONNECTION

Rev 9-09



H-10283

MUELLER MARK II ORISEAL Curb Valve F.I.P. thread - **both ends**
Quarter turn check



NOTE: 3/4" and 1" sizes are bi-directional and can be installed with flow from either direction. Sizes larger than 1" are one way flow and must be installed with flow as indicated by arrow and in/out lettering cast on valve body



H-10284

MUELLER MARK II ORISEAL Curb Valve F.I.P. thread - **both ends**
Quarter turn check and drain



H-10287

ORISEAL Curb Valve F.I.P. thread - **both ends**
Quarter turn check and Minneapolis top thread



NOTE: 3/4" and 1" sizes are bi-directional and can be installed with flow from either direction. Sizes larger than 1" are one way flow and must be installed with flow as indicated by arrow and in/out lettering cast on valve body



H-10288

MUELLER MARK II ORISEAL Curb Valve F.I.P. thread - **both ends**
Quarter turn check, drain and Minneapolis top thread



* Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability

NOTE: Sizes shown above represent nominal size of valve

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

Rev 9-09



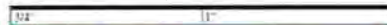
H-1504-1

MUELLER ORISEAL III Curb Valve MUELLER 110° Conductive Compression Connection for CTS O.D.* tubing-**both ends**
Checkless - 360° turn



H-1504-2

MUELLER ORISEAL III Curb Valve MUELLER 110° Conductive Compression Connection for CTS O.D.* tubing-**both ends**
Quarter turn check



H-1503-1

MUELLER ORISEAL III Curb Valve
Inlet: MUELLER 110 Conductive Compression Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
Checkless-360° turn



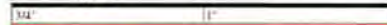
H-1503-2

MUELLER ORISEAL III Curb Valve
Inlet: MUELLER 110 Conductive Compression Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
Quarter turn check



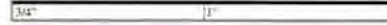
H-1502-1

MUELLER ORISEAL III Curb Valve Copper flare nut - **both ends**
Checkless-360° turn



H-1502-2

MUELLER ORISEAL III Curb Valve Copper flare nut - **both ends**
Quarter turn check



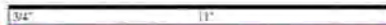
P-1504-1

MUELLER ORISEAL III Curb Valve MUELLER Pack Joint Connection for CTS O.D.* tubing-**both ends** Checkless - 360° turn



P-1504-2

MUELLER ORISEAL III Curb Valve MUELLER Pack Joint Connection for CTS O.D.* tubing-**both ends**
Quarter turn check



P-1503-1

MUELLER ORISEAL III Curb Valve
Inlet: MUELLER Pack Joint Compression Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
Checkless-360° turn



P-1503-2

MUELLER ORISEAL III Curb Valve
Inlet: MUELLER Pack Joint Compression Connection for CTS O.D.* tubing
Outlet: F.I.P. thread
Quarter turn check



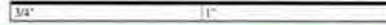
H-1500-1

MUELLER ORISEAL III Curb Valve F.I.P. thread-**both ends**
Checkless - 360° turn



H-1500-2

MUELLER ORISEAL III Curb Valve F.I.P. thread - **both ends**
Quarter turn check



NOTE: Sizes shown above represent nominal size of valve. Unless otherwise noted, checks on MUELLER ORISEAL III valves allow 90 degree turn

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

MUELLER® ORISEAL® CURB VALVES (ORIGINAL STYLE - "GREEN KEY")

Rev 9-09 Shaded area indicates change



H-15201

MUELLER ORISEAL
Curb Valve
Copper flare nut - **both ends**
Quarter turn check



H-15151

MUELLER ORISEAL
Curb Valve
Copper flare nut - **both ends**
Quarter turn check and
Minneapolis top thread



H-15176

MUELLER ORISEAL
Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check



H-10291

MUELLER ORISEAL
Curb Valve
F.I.P. thread - **both ends**
Quarter turn check



H-10297

MUELLER ORISEAL
Curb Valve
F.I.P. thread - **both ends**
Quarter turn check
Minneapolis top thread



H-15126

MUELLER ORISEAL
Curb Valve
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check
Minneapolis top thread



*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of valve.

MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

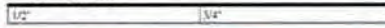
INVERTED KEY AND SOLID TEE HEAD CURB VALVES

Shaded area indicates change Rev 9-09



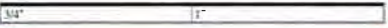
H-15207

Inverted key curb stop MUELLER 110° Conductive Compression Connection for CTS O.D.* tubing-**both ends**
Quarter turn check



H-15200

Inverted key curb stop
Copper flare nut - **both ends**
Quarter turn check



H-15175

Inverted key curb stop
Inlet: Copper flare nut
Outlet: F.I.P. thread
Quarter turn check



H-15210

Inverted key curb stop
Copper flare nut - **both ends**
Quarter turn check and drain



H-10201

Inverted key curb stop
F.I.P. thread - **both ends**
Quarter turn check



H-10202

Inverted key curb stop
F.I.P. thread - **both ends**
Quarter turn check and drain



H-15275

Solid tee head curb stop
Inlet: Copper flare nut
Outlet: F.I.P. thread
Checkless - 360° turn



H-15300

Solid tee head curb stop
Copper flare nut - **both ends**
Checkless - 360° turn



H-12918

Inverted key curb stop
Inlet: MUELLER 110° Conductive Compression Connection for CTS O.D.* tubing-
Outlet: F.I.P. thread
Quarter turn check



H-10203

Solid tee head curb stop
F.I.P. thread - **both ends**
Checkless - 360° turn



*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of valve.

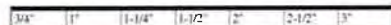
MUELLER Curb Valves are manufactured and tested in accordance with ANSI/AWWA C800.

Rev. 9-00 Shaded area indicates change



Bronze gate valve solid wedge
F.I.P. thread - both ends
200 psig maximum working
pressure, cold water
non-shock service and wheel
handle

H-10914



**2" Brass square wrench
nut adapter**
For use on MUELLER® 300™
Ball Valves - one size fits both
1-1/2" and 2" valves.

B-20299



Brass locking device
(padlock and stop not included)
For use on MUELLER®
MARK II ORISEAL® Curb
Valves - cannot be used on
valves with angle lever handles.

H-14338



Rev. 9-00



Brass straight lever handle
For use on MUELLER®
MARK II ORISEAL® Curb
Valves and MUELLER
ORISEAL III® Curb Valves.

H-10298



1" H-10298 can be use on 1-1/2" & 2" Ball Curb Valves



Brass angle lever handle
For use on MUELLER®
MARK II ORISEAL® Curb
Valves and MUELLER
ORISEAL III® Curb Valves.

H-14339



1" H-14339 can be use on 1-1/2" & 2" Ball Curb Valves



Brass straight lever handle
For use on MUELLER® 300™
Ball Curb Valves - one size fits
both 3/4" and 1" valves. 4.25"
overall handle length.

B-20298



Brass angle lever handle
For use on MUELLER® 300™
Ball Curb Valves - one size fits
both 3/4" and 1" valves.

B-24339



Brass straight lever handle
For use on MUELLER® 300™
Ball Curb Valves - one size fits
both 3/4" and 1" valves. 3.21"
overall handle length for use in
confined areas where longer
handle will not work.

B-20298-99000



**"RECLAIMED WATER"
straight lever handle**
Provided with marking and
purple sleeve color for posi-
tive identification. For use on
MUELLER® 300™ Ball Valves
- one size fits both 3/4" and 1"
valves. 3.21" overall handle
length for use in confined areas.

B-20298-99001



H-10298-99001

**"RECLAIMED WATER"
straight lever handle**
Provided with marking and
purple sleeve color for posi-
tive identification. For use on
MUELLER® 300™ Ball Valves
- one size fits both 1-1/2" and
2" valves. 3.21" overall handle
length for use in confined areas.

Tubing, pipe and liners used with MUELLER 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.045 - 0.053	-	-
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.665	504281
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	504385
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.097 - 0.070	-	-
	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	506141
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
1" IPS	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785

Liner

MUELLER 110 Compression Connection replacement parts

Size	Kit	Gasket part number	Connection nut
1/2" CTS	681516	581516	507542
3/4" CTS	682600	581949	507631
1" CTS	682601	581951	507835
1-1/2" CTS		581955	507847
2" CTS		581957	507851
3/4" IPS PE		89590	508826
1" IPS PE		89780	508827

*Gasket and gripper band assembly



Adapter Nut for pre-1976 style Mueller 110 Compression Connection for CTS tubing

Kit includes one standard Gasket (same used with current style 110 connections) and a special Nut that adapts to the older style connection threads on the fittings. It is installed in the same way as the current style connection (Gasket conductor spring should be toward fitting body).

Size	Connection kit
3/4" CTS	682552
1" CTS	682553



Tubing, pipe and liners used with MUELLER® Pack Joint Connections

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Liner part number
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
1" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1-1/2" CTS	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
2" CTS	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
3/4" IPS	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	528707
	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
1-1/4" IPS	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-
1-1/2" IPS	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
	1-1/2" Sch. 40 PVC	1.894 - 1.906	0.145 - 0.165	-	-
2" IPS	1-1/2" Sch. 80 PVC	1.894 - 1.906	0.200 - 0.224	-	-
	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
	2" Sch. 40 PVC	2.569 - 2.581	0.154 - 0.174	-	-
	2" Sch. 80 PVC	2.369 - 2.381	0.218 - 0.244	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785

Liner

MUELLER Pack Joint Connection Kit

Size	Connection Kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924
3/4" IPS PE	682377
1" IPS PE	682556
1-1/2" IPS PE	682557
2" IPS PE	682558
3/4" IPS PVC	682377
1" IPS PVC	682553
1-1/2" IPS PVC	682554
2" IPS PVC	682555



Rev. 9-05

Copper flare connection optional equipment
Copper flare nut

Solid copper disc

Brass cap


Used with regular
copper flare nut to shut off line.
CATALOG NUMBER: **H-15535**

Fits on copper
flare spud to cap off line.
CATALOG NUMBER: **H-15540**

CATALOG NUMBER: **H-15430**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----

1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	------	----	--------	--------	----

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----

Flaring tool


Used to make 45° flare
on type "K" copper tubing.
CATALOG NUMBER: **H-18000**

5/8"	1"
------	----

Drilled flaring tool


Used to make 45° flare on type
"K" copper tubing without shut-
ting off water-drilled to exhaust
water at right angle to tubing.
CATALOG NUMBER: **H-18005**

3/4"	1"
------	----

Reamer


Used to ream the inside of
type "K" copper tubing to
remove burrs prior to flaring.
CATALOG NUMBER: **H-18010**

3/4"

Brass Hammer


Solid brass head with
10" wooden handle.
Weight 2-3/4 lb.

CATALOG NUMBER:
H-18025

**Note: When using any striking tool,
safety eye protection must be worn.
Inspect hammer and tools for any
damage after each use and repair or
replace if mushrooming or chipping
is evident.**

Rev. 9-05

Polyethylene PE Tubing and pipe used with MUELLER INSTA-TITE Connections

Nominal size of connection	Material	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches
3/4" CTS	Polyethylene PE	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685
1" CTS	Polyethylene PE	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880
3/4" IPS	Polyethylene PE	1.045 - 1.110	0.118 - 0.138	0.806 - 0.834
1" IPS	Polyethylene PE	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059

CTS polyethylene (PE) per ASTM D-2737 SDR-9
IPS polyethylene (PE) per ASTM D-2239 PE SDR-7

MUELLER INSTA-TITE Connection replacement parts

Size	Gripper ring part number†	O-Ring part number
3/4" CTS PE (red gripper)	506325	506324
1" CTS PE (red gripper)	506327	506326
3/4" IPS PE (white gripper)	505885	505883
1" IPS PE (white gripper)	505886	505884



Gripper rings



O-rings

Optional tools for use with MUELLER INSTA-TITE Connections
Pipe beveling tool

To assure proper installation, the end of the pipe or tubing must be properly beveled before it is inserted into the MUELLER INSTA-TITE Connection. MUELLER CO. offers a special beveling tool for both CTS PE tubing and IPS PE pipe.



PART NUMBER: **H-18015** for 3/4" and 1" CTS tubing
PART NUMBER: **H-18017** for 3/4" and 1" IPS pipe

Pipe removal tool

Pipe or tubing may be removed from the MUELLER INSTA-TITE Connection using special removal tools. Use one tool for 3/4" size connection and two tools for 1" size.



PART NUMBER: **506336**

CURB BOXES - IMPROVED EXTENSION TYPE WITH ARCH PATTERN BASE

Rev. 9-09



Improved extension type curb box with arch pattern base - for 1/2" through 2" curb valves

The arch extends around the curb valve and has a large foot surface to transmit loads into the ground beneath the curb valve, rather than to the curb valve itself. The box is cast iron and is furnished with a cast iron lid and brass pentagon plug. The upper part of the box is spring loaded and telescopes into the base to allow for grade adjustment within the range given in the dimensions charts. Stationary rods, shut-off rods and pentagon keys are optional and are ordered separately.



Foot piece
(valve not included)

Optional foot pieces

Optional foot pieces provide a firm base for the curb valve and helps to prevent the curb valve from moving when the valve is operated. This is especially important when a plastic service line is used.

Box Selection

Curb Valve & Size	Box		Optional Foot Piece
	Catalog Number	Inside Diameter	
300" Ball			
3/4"	H-10385	1-1/4"	H-10396
	H-10316	2"	H-10391
1"	H-10385	1-1/4"	H-10397
	H-10316	2"	H-10401**
1-1/2"	H-10386	1-1/4"	H-10400
	H-10336	2"	-
2"	H-10336	2"	-
MARKII®			
3/4"	H-10385	1-1/4"	H-10396
	H-10316	2"	H-10391
1"	H-10385	1-1/4"	H-10397
	H-10316	2"	H-10401**
1-1/4"	H-10336	2"	-
1-1/2"	H-10386	1-1/4"	H-10400
	H-10336	2"	-
2"	H-10336	2"	-
ORISEALIII®			
3/4"	H-10385	1-1/4"	H-10396
	H-10316	2"	H-10391
1"	H-10385	1-1/4"	H-10397
	H-10316	2"	H-10401**
ORISEAL® (GreenKey)			
3/4"	H-10385	1-1/4"	H-10396
1"	H-10385	1-1/4"	H-10397
1-1/2"	H-10386	1-1/4"	H-10400
2"	H-10386	1-1/4"	H-10400

CURB BOXES - IMPROVED EXTENSION TYPE WITH ARCH PATTERN BASE

Shaded area indicates change - Rev. 9-09

Dimensions and Optional Stationary Rod

H-10385 and H-10386 Curb Boxes

Curb box catalog number	Box length extended		Box length fully retracted		Weight		Optional stationary rod
	Inch	mm	Inch	mm	lbs.	kg.	
H-10385	24	610	17.75	450.8	13.8	6.2	84774 12-3/4
	30	762	20.50	520.7	14.8	6.7	84346 15
	36	914	26.50	673.1	16.0	7.3	84275 21
	42	1067	32.50	825.5	17.0	7.7	84233 27
	48	1219	38.50	977.9	18.3	8.3	84245 33
	54	1372	44.50	1130.3	19.3	8.7	84247 39
	60	1524	50.50	1282.7	20.3	9.2	84154 45
	66	1676	56.50	1435.1	21.5	9.8	84261 51
	72	1829	62.50	1587.5	22.8	10.3	84341 57
	78	1981	68.50	1739.9	24.0	10.9	84297 63
	84	2134	74.50	1892.3	25.0	11.3	84152 69
	90	2286	80.50	2044.7	26.0	11.8	88703 75
H-10386	96	2438	86.50	2197.1	27.0	12.2	84274 81
	24	610	21.00	533.0	18.5	8.4	58058 14
	30	762	21.00	533.0	19.8	9.0	58059 16
	36	914	26.50	673.1	21.0	9.5	58056 18
	42	1067	32.50	825.5	22.0	10.0	58056 24
	48	1219	38.50	977.9	23.3	10.5	58056 30
	54	1372	44.50	1130.3	24.3	11.0	58056 36
	60	1524	50.50	1282.7	25.5	11.6	58056 42
	66	1676	56.50	1435.1	26.5	12.0	58056 48
	72	1829	62.50	1587.5	27.8	12.6	58056 54
	78	1981	68.50	1739.9	29.0	13.2	58064 60
	84	2134	74.50	1892.3	30.0	13.6	58064 66
H-10386	90	2286	80.50	2044.7	31.0	14.1	58065 72
	96	2438	86.50	2197.1	32.0	14.5	58065 78

H-10316 and H-10336 Curb boxes

Curb box catalog number	Box length extended		Box length fully retracted		Weight	
	Inch	mm	Inch	mm	lbs.	kg.
H-10316	24	610	19.50	495.3	15.3	6.9
	30	762	21.00	533.0	16.0	7.3
	36	914	27.00	686.0	16.8	7.6
	42	1067	33.00	838.0	17.5	7.9
	48	1219	39.00	991.0	18.3	8.3
	54	1372	45.00	1143.0	19.0	8.6
	60	1524	51.00	1295.0	19.8	9.0
	66	1676	57.00	1448.0	20.3	9.2
	72	1829	63.00	1600.0	21.3	9.6
	78	1981	69.00	1753.0	22.0	10.0
	84	2134	75.00	1905.0	22.8	10.3
	90	2286	81.00	2057.0	23.5	10.7
H-10336	96	2438	87.00	2210.0	24.3	11.0
	24	610	21.25	539.8	18.0	8.2
	30	762	21.25	539.8	18.8	8.5
	36	914	27.00	686.0	19.5	8.8
	42	1067	33.00	838.0	20.3	9.2
	48	1219	39.00	991.0	21.0	9.5
	54	1372	45.00	1143.0	21.8	9.9
	60	1524	51.00	1295.0	22.5	10.2
	66	1676	57.00	1448.0	23.3	10.5
	72	1829	63.00	1600.0	24.0	10.9
	78	1981	69.00	1753.0	24.8	11.2
	84	2134	75.00	1905.0	25.5	11.6
H-10336	90	2286	81.00	2057.0	26.3	11.9
	96	2438	87.00	2210.0	27.0	12.2

Extra lids and plugs

Lids are cast iron with an integrally cast brass bushing which allows for easy removal of pentagon plug.



Plug Only



Lid with Plug

Curb Box Catalog number	Lid with plug part number	Plug only part number	
		Cast Iron	Brass
H-10316	89981	59478	63684
H-10336	89981	59478	63684
H-10385	89375	58039	63670
H-10386	89375	58039	63670

** Foot piece not useable with valves having IPS PE MUELLER 110° Compression connections

TO ORDER BOXES SPECIFY EXTENDED LENGTH AND CATALOG NUMBER

TO ORDER BOXES SPECIFY EXTENDED LENGTH AND CATALOG NUMBER

CURB BOXES - EXTENSION TYPE WITH
ARCH PATTERN BASE

Rev. 9-08

Extension type curb box with
arch pattern base-for 1/2" through 2" curb valves

The arched base rests on top of the valve and extends down around the valve head to help exclude dirt and debris. The box is cast iron and is furnished with a cast iron lid and brass pentagon plug (the H-10314 is furnished with a one piece lid that requires a spanner wrench to remove - wrench ordered separately). The upper part of the box is spring loaded and telescopes into the base to allow for grade adjustment within the range given in the dimension charts. Stationery rods, shut-off rods, and pentagon keys are optional and are ordered separately.

Box Selection

Curb Valve & Size	Box	
	Catalog Number	Inside Diameter
300" Ball		
3/4"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314	1"
	H-10334	1"
1"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314	1"
	H-10334	1"
1-1/2"	H-10310	2"
	H-10310	2"
MARKII®		
3/4"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10306	1-1/4"
	H-10308	1-1/2"
1"	H-10310	2"
	H-10314**	1"
	H-10334**	1"
	H-10310	2"
1-1/2"	H-10310	2"
	H-10310	2"
ORISEALIII®		
3/4"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314**	1"
	H-10334**	1"
1"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314**	1"
	H-10334**	1"
Inverted Key Curb Valve		
3/4"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314**	1"
	H-10334**	1"
1"	H-10306	1-1/4"
	H-10308	1-1/2"
	H-10314**	1"
	H-10334**	1"

**The H-10314 and H-10334 boxes are the same except the H-10314 is furnished with a one piece lid. The H-10334 has a combination lid and pentagon plug

TO ORDER BOXES SPECIFY EXTENDED LENGTH AND CATALOG NUMBER

CURB BOXES - EXTENSION TYPE
WITH ARCH PATTERN BASE

Rev. 9-08

Dimensions and Optional Stationary Rod

H-10306 and H-10308 Curb Boxes

Curb box catalog number	Box length extended		Box length fully retracted		Weight		Optional stationary rod	
	Inch	mm	Inch	mm	lbs.	kg.	Part No.	L'gth inch
H-10306	24	610	18.00	457.0	12.0	5.4	84774	12.75
	30	762	18.00	457.0	14.0	6.4	84346	15.0
	36	914	24.00	610.0	15.0	6.8	84275	21.0
	42	1067	30.00	762.0	16.0	7.3	84233	27.0
	48	1219	36.00	914.0	17.0	7.7	84245	33.0
	54	1372	42.00	1067.0	18.0	8.2	84247	39.0
	60	1524	48.00	1219.0	19.0	8.6	84154	45.0
	66	1676	54.00	1372.0	20.0	9.1	84261	51.0
	72	1829	60.00	1524.0	22.0	10.0	84341	57.0
	78	1981	66.00	1676.0	23.0	10.4	84297	63.0
	84	2134	72.00	1829.0	24.0	10.9	84152	69.0
	90	2286	78.00	1981.0	25.0	11.3	88703	75.0
H-10308	24	610	20.44	519.2	13.0	5.9		
	30	762	20.44	519.2	15.0	6.8	84742	15.0
	36	914	24.00	610.0	16.0	7.3	84256	21.0
	42	1067	30.00	762.0	17.0	7.7	84326	27.0
	48	1219	36.00	914.0	18.0	8.2	84305	33.0
	54	1372	42.00	1067.0	20.0	9.1	84338	39.0
	60	1524	48.00	1219.0	21.0	9.5	84353	45.0
	66	1676	54.00	1372.0	22.0	10.0	88702	51.0
	72	1829	60.00	1524.0	23.0	10.4	84255	57.0
	78	1981	66.00	1676.0	25.0	11.3	83299	63.0
	84	2134	72.00	1829.0	26.0	11.8	80643	69.0
	90	2286	78.00	1981.0	27.0	12.2	84832	75.0
H-10308	24	610	20.44	519.2	13.0	5.9		
	30	762	20.44	519.2	15.0	6.8	84742	15.0
	36	914	24.00	610.0	16.0	7.3	84256	21.0
	42	1067	30.00	762.0	17.0	7.7	84326	27.0
	48	1219	36.00	914.0	18.0	8.2	84305	33.0
	54	1372	42.00	1067.0	20.0	9.1	84338	39.0
	60	1524	48.00	1219.0	21.0	9.5	84353	45.0
	66	1676	54.00	1372.0	22.0	10.0	88702	51.0
	72	1829	60.00	1524.0	23.0	10.4	84255	57.0
	78	1981	66.00	1676.0	25.0	11.3	83299	63.0
	84	2134	72.00	1829.0	26.0	11.8	80643	69.0
	90	2286	78.00	1981.0	27.0	12.2	84832	75.0
H-10308	24	610	20.44	519.2	13.0	5.9		
	30	762	20.44	519.2	15.0	6.8	84742	15.0
	36	914	24.00	610.0	16.0	7.3	84256	21.0
	42	1067	30.00	762.0	17.0	7.7	84326	27.0
	48	1219	36.00	914.0	18.0	8.2	84305	33.0
	54	1372	42.00	1067.0	20.0	9.1	84338	39.0
	60	1524	48.00	1219.0	21.0	9.5	84353	45.0
	66	1676	54.00	1372.0	22.0	10.0	88702	51.0
	72	1829	60.00	1524.0	23.0	10.4	84255	57.0
	78	1981	66.00	1676.0	25.0	11.3	83299	63.0
	84	2134	72.00	1829.0	26.0	11.8	80643	69.0
	90	2286	78.00	1981.0	27.0	12.2	84832	75.0

H-10310, H-10314 and H-10334 Curb boxes

Curb box catalog number	Box length extended		Box length fully retracted		Weight		Optional stationary rod	
	Inch	mm	Inch	mm	lbs.	kg.	Part No.	L'gth inches
H-10310	24	610	21.44	544.5	21.0	9.5		
	30	762	21.44	544.5	23.0	10.4	84146	15.0
	36	914	24.00	610.0	25.0	11.3	84162	21.0
	42	1067	30.00	762.0	27.0	12.2	84147	27.0
	48	1219	36.00	914.0	28.0	12.7	84176	33.0
	54	1372	42.00	1067.0	30.0	13.6	84139	39.0
	60	1524	48.00	1219.0	32.0	14.5	84140	45.0
	66	1676	54.00	1372.0	34.0	15.4	84128	51.0
	72	1829	60.00	1524.0	35.0	15.9	84143	57.0
	78	1981	66.00	1676.0	37.0	16.8	84222	63.0
	84	2134	72.00	1829.0	39.0	17.7	84169	69.0
	90	2286	78.00	1981.0	41.0	18.6		
H-10314**	24	610	18.00	457.0	12.0	5.4	82875	11.25
	30	762	18.00	457.0	10.0	4.5	82892	16.75
	36	914	24.00	610.0	11.0	5.0	82862	21.0
	42	1067	30.00	762.0	12.0	5.4	82863	27.0
	48	1219	36.00	914.0	14.0	6.4	82864	33.0
	54	1372	42.00	1067.0	15.0	6.8	82865	39.0
	60	1524	48.00	1219.0	16.0	7.3	82866	45.0
	66	1676	54.00	1372.0	17.0	7.7	82867	51.0
	72	1829	60.00	1524.0	18.0	8.2	82868	57.0
	78	1981	66.00	1676.0	19.0	8.6	82869	63.0
	84	2134	72.00	1829.0	20.0	9.1	82870	69.0
	90	2286	78.00	1981.0	21.0	9.5	82871	75.0

Extra lids and plug

Lids are cast iron with an integrally cast brass bushing which allows for easy removal of pentagon plug.



Lid with Plug



Plug only



One piece lid

Curb Box Catalog number	One piece lid part number	Lid with brass pentagon plug - part number	Lid with brass bushing and cast iron plug	Plug only part number	
				Cast iron	Brass
H-10306	-	89369	89375	58039	63670
H-10308	-	581642	89980	58116	63683
H-10310	89982	681714	89981	59478	63684
H-10314	-	-	-	-	-
H-10334	-	89376	89376	-	36571

* Stationary rods are supplied with H-10314 and H-10334 only. Stationary rods are optional with all other boxes shown on this page and must be ordered separately.

** The H-10314 and H-10334 boxes are the same except the H-10314 is furnished with a one piece lid. The H-10334 has a combination lid and pentagon plug.

TO ORDER BOXES SPECIFY EXTENDED LENGTH AND CATALOG NUMBER

CURB BOXES - EXTENSION TYPE WITH MINNEAPOLIS PATTERN BASE

Rev 5-09



Extension type curb box with Minneapolis pattern base - for 1/2" through 2" curb valves

The base is tapped to attach to the threaded top of the Minneapolis pattern curb valves. This arrangement helps to prevent frost heave from separating the box from the valve, and excludes dirt and debris. The box is cast iron and is furnished with a cast iron lid and pentagon plug (the H-10312 is furnished with a one piece lid that requires a spanner wrench to remove - wrench ordered separately). The upper part of the box is spring loaded and telescopes into the base to allow for grade adjustments within the range given in the dimension charts. Stationary rods, shut-off rods, and pentagon keys are optional and are ordered separately.

Box Selection

Curb Valve & Size	Box Catalog Number	Inside Diameter	Base Tapping
300" Ball			
3/4"	H-10300	1-1/4"	1-1/2"
	H-10302	1-1/2"	2-1/2" (1-1/2" bushing)
	H-10312**	1"	1-1/2"
	H-10332**	1"	1-1/2"
	H-10300-99008	1-1/4"	2" (1-1/2" bushing)
1"	H-10302-99004	1-1/2"	2" (1-1/2" bushing)
	H-10300	1-1/4"	1-1/2"
	H-10302	1-1/2"	2-1/2" (1-1/2" bushing)
	H-10312**	1"	1-1/2"
	H-10332**	1"	1-1/2"
1-1/2"	H-10300-99008	1-1/4"	2" (1-1/2" bushing)
	H-10302-99004	1-1/2"	2" (1-1/2" bushing)
	H-10300-99002	1-1/4"	2"
	H-10302-99005	1-1/2"	2"
	H-10302-99007	1-1/2"	2-1/2" (2" bushing)
2"	H-10312-99000	1"	2"
	H-10332-99000	1"	2"
	H-10300-99002	1-1/4"	2"
	H-10302-99005	1-1/2"	2"
	H-10302-99007	1-1/2"	2-1/2" (2" bushing)
MARK II*			
3/4"	H-10300	1-1/4"	1-1/2"
	H-10302	1-1/2"	2-1/2" (1-1/2" bushing)
	H-10312**	1"	1-1/2"
	H-10332**	1"	1-1/2"
	H-10300-99008	1-1/4"	2" (1-1/2" bushing)
1"	H-10302-99004	1-1/2"	2" (1-1/2" bushing)
	H-10300-99002	1-1/4"	2"
	H-10302-99005	1-1/2"	2"
	H-10312-99000	1"	2"
	H-10332-99000	1"	2"
1-1/4"	H-10302-99006	1-1/2"	2-1/2"
	H-10304	2"	2-1/2"
	H-10308	1-1/4"	2-1/2"
1-1/2"	H-10304-99000	2"	3"
	H-10304-99007	2"	3-1/2" (3" bushing)
	H-10304-99001	2"	3-1/2"
ORISEAL*			
3/4"	H-10300-99002	1-1/4"	2"
	H-10302-99005	1-1/2"	2"
	H-10312-99000	1"	2"
	H-10332-99000	1"	2"
	H-10302-99006	1-1/2"	2-1/2"
1"	H-10304	2"	2-1/2"
	H-10308	1-1/4"	2-1/2"

** The H-10312 and H-10332 are the same except that the H-10312 has a one piece lid and the H-10332 has a combination lid and pentagon plug.

TO ORDER BOXES SPECIFY EXTENDED LENGTH, SIZE OF MINNEAPOLIS THREAD AND CATALOG NUMBER

CURB BOXES - EXTENSION TYPE WITH MINNEAPOLIS PATTERN BASE

Rev 5-09

Dimensions and Optional Stationary Rod

H-10300, H-10302 and H-10304 Curb boxes

Curb box catalog number	Box length extended	Box length fully retracted	Weight	Optional stationary rod
	Inch	mm	lbs.	Part No. L'gth inches
H-10300	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0
H-10302	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0
H-10304	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0

H-10312, H-10332, and H-10388 Curb

Curb box catalog number	Box length extended	Box length fully retracted	Weight	Optional stationary rod
	Inch	mm	lbs.	Part No. L'gth inches
H-10312**	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0
H-10332**	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0
H-10388	24	610	18.00	457.0 12.0 1.3 64774 12.75
	30	762	18.00	457.0 15.0 1.3 64774 15.0
	36	914	24.00	610.0 15.0 1.3 64774 15.0
	42	1067	30.00	762.0 15.0 1.3 64774 15.0
	48	1219	36.00	914.0 15.0 1.3 64774 15.0
	54	1372	42.00	1067.0 15.0 1.3 64774 15.0
	60	1524	48.00	1219.0 15.0 1.3 64774 15.0
	66	1676	54.00	1372.0 15.0 1.3 64774 15.0
	72	1829	60.00	1524.0 15.0 1.3 64774 15.0
	78	1981	66.00	1676.0 15.0 1.3 64774 15.0

Extra lids and plug

					
Lid with Plug	Plug only	One piece lid			
Curb box catalog number	One piece lid part number	Quantity per carton	Lid with plug part number	Quantity per carton	Plug part number only
H-10300	-	10	64774	10	64774
H-10302	-	10	64774	10	64774
H-10304	-	10	64774	10	64774
H-10312	64774	10	-	-	-
H-10332	64774	10	-	-	-

*Stationary rods are supplied with H-10312 and H-10332 only. Stationary rods are optional with all other boxes within these pages and must be ordered separately.

** The H-10312 and H-10332 are the same except that the H-10312 has a one piece lid and the H-10332 has a combination lid and pentagon plug.

TO ORDER BOXES SPECIFY EXTENDED LENGTH, SIZE OF MINNEAPOLIS THREAD AND CATALOG NUMBER



H-10321 Shut-off rod
Lengths: 2', 3', 4', 5', 6', 7' and 8'
 For use with all Buffalo type boxes and the following curb boxes: H-10300, H-10302, H-10304, H-10306, H-10308, H-10310, H-10316, H-10336, H-10385, H-10386, H-10387, H-10388 will fit stops and valves to 2" in size. One end is flattened like a chisel and the other end is pointed for digging ice or dirt away from lid of box. Made of steel.



H-10322 Curb box key
Lengths: 2', 3', 4', 5' and 6'
 Designed especially for use with H-10312, H-10314, H-10332, and H-10334 Curb boxes. One end of the crossbar handle has a curved point for digging ice or dirt away from lid of box. Other end has a spanner wrench for removing lids from the H-10312 or H-10314 boxes. Made of steel.



H-10330 Clean-out auger for 2-1/2" Buffalo boxes
Lengths: 4', 5' and 6'
H-10331 Clean-out auger for 3" Buffalo boxes
 Used to open clogged Buffalo type curb boxes quickly and easily. Eliminates digging up box to reach the curb stop. One end of the handle is pointed for digging ice or dirt away from lid of box. Rod and crossbar handle are made of steel and auger spiral is made of malleable iron.



H-10356 Combination key
Lengths: 18", 27", 36", and 48"
 For use with Buffalo type curb boxes to remove screw in lid and operate stationary shut-off rods. Will not fit tee head of curb valves or stops.



H-10323 Pentagon key - Ductile Iron
 Used for operating the screws of MUELLER and Buffalo type curb boxes or repair lids. One end is pointed for digging ice or dirt away from lid of box. Other end is a hammer head. Fits standard water works pentagon.

Repair Lids



H-10373



H-10374

H-10373 Repair lid for new style Buffalo type curb boxes
 Size: 2-1/2"

H-10374 Repair lid for old style Buffalo type curb boxes
 Size: 2-1/2", 3"



H-10374



H-10374

Size of lid	Minimum diameter	Maximum diameter
2-1/2"	2-1/16"	3-3/4"
3"	3-3/8"	4-1/8"

The sizes (size of lid) refer to the Buffalo box size at the base, not the upper section. Both types of repair lids are heavily constructed of gray iron, have a stainless steel standard pentagon screw*, and the word "WATER" in raised letters.

Note: When the top section of the box is broken off completely, whether old or new style, always use the old style (H-10374) repair lid.

* Repair lids only

Curb Box Sleeve



Curb Box Sleeve Installed

H-10342 curb boxes having a 1" upper section.

This cast iron curb box sleeve provides a convenient method of setting a curb box in cement. It prevents cement from adhering to the lid, a condition which could make it difficult or even impossible to remove the lid. To install the sleeve, the lid is first removed from the box, the sleeve is slipped over the upper section, and the lid is replaced. The sliding upper section of the curb box is raised or lowered, along with the sleeve, to the level of the concrete as it is poured.

Curb box adapter



H-10344 Curb box adapter
 Sizes: 2-1/2"x2", 3"x2", 3-1/2"x2-1/2", 3-1/2"x2", 3-1/2"x2-1/2"

Sizes	2-1/2"x2"	3"x2"	3-1/2"x2-1/2"	3-1/2"x2"	3-1/2"x2-1/2"
Size of male Minneapolis thread	2"	2"	2-1/2"	2"	2-1/2"
Size of female Minneapolis thread	2-1/2"	3"	3"	3-1/2"	3-1/2"

This cast iron curb box adapter allows a Minneapolis pattern curb box to be used on 1-1/4", 1-1/2", and 2" Minneapolis pattern curb valves and stops. The adapter will add 5" to the length of the box. These adapters are not recommended for boxes with 1" upper section.

Standard pentagon screw



This screw is used in Buffalo type curb box lids, is made of red brass, and has a standard pentagon head.

H-10324 Standard pentagon screw



www.muellercompany.com **moreinfo@muellercompany.com**

MUELLER CO. offers a variety of proven service connections to fit most pipe and tubing used in today's service lines. These connections include the MUELLER 110® Compression Connection, MUELLER Pack Joint Connection, MUELLER INSTA-TITE® Connection, copper flare connection and several types of threaded connections.

The MUELLER 110 Compression Connection offers high resistance to pull-out, fast installation, and a visual means to check for proper tightness. This connection is available on most MUELLER valves and stops in sizes from 3/4" to 2", and for CTS tubing or IPS pipe.

MUELLER 110® Compression Connection Features

- ❑ **BODY AND NUT** - corrosion resistant cast bronze ASTM B62 (85- 5-5-5).

- ❑ **NUT** - bottoms out on shoulder of coupling to give quick visual indication of proper tightening.

- ❑ **FLUOROCARBON COATING** - on inside surface of nut reduces tightening effort and avoids gasket distortion.

- ❑ **TWO DESIGNS** conductive compression connection fits type "K" copper tubing and CTS O.D. PE plastic tubing. A separate design fits IPS PE plastic pipe. Recommended stainless steel liners for plastic tubing and pipe available.



- ❑ **PRESSURE RATING** The pressure holding capability of the MUELLER 110 Compression Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).

- ❑ **ENTIRE GASKET** - is enclosed to resist cold flow and creep.

- ❑ **CONDUCTOR SPRING** - provides metal-to-metal contact between copper tubing and fitting for electrical conductivity.

- ❑ **GASKET** - compresses concave gripper band and seals against fitting body, pipe and nut. Uniform pressure is applied around the concave gripper, forcing each outer edge to grip the pipe for pull-out resistance.

- ❑ **GRIPPER BAND** - is stainless steel and overlaps itself so no gasket material can get underneath.

SERVICE FITTINGS

MUELLER® INSTA-TITE® Connection

- ❑ BODY - is cast from corrosion resistant bronze ASTM B62 (85-5-5-5)
- ❑ LARGE WRENCH FLATS - provide generous gripping area for tightening connections to valve bodies.
- ❑ TWO DESIGNS - are available to fit either CTS O.D. PE plastic tubing or IPS PE plastic pipe.
- ❑ SIMPLE DESIGN - eliminates flaring, heating, threading, cementing, and nut tightening. Liners (inserts) are not required.
- ❑ O-RING - between the connection housing and the tubing or pipe creates a positive seal. Any increase in pressure, up to the maximum rating of the PE tubing or pipe, increases the sealing force.
- ❑ PRESSURE RATING - The pressure holding capability of the MUELLER INSTA-TITE Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).



- ❑ MUELLER INSTA-TITE CONNECTION - is used on polyethylene (PE) pipe or tubing only.
- ❑ GRIP RING - is made from a high strength plastic and is designed to allow easy installation of the pipe or tubing while providing high resistance to pullout.
- ❑ COLOR CODED - grip ring, RED for CTS O.D. and WHITE for IPS, aids in proper selection and use.

Copper Flare Connection



- ❑ CONNECTION MEETS - all applicable parts of AWWA C800 standard.
- ❑ MUELLER CO. - was instrumental in introducing the copper flare connection to the water industry as an alternative to the old lead connections.
- ❑ PRESSURE RATING - The pressure holding capability of the MUELLER Copper Flare Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).

- ❑ MUELLER® COPPER FLARE CONNECTION - is for use on type "K" copper tubing.
- ❑ CONVEX SURFACE - on nut opposes convex surface on body to provide a line contact, assuring greater pullout resistance and a dependable seal.
- ❑ EXTRA LONG SKIRT - on copper flare nut provides added support to tubing and reduces possibility of leaks.

Pack Joint Connection



- ❑ NUT - corrosion resistant cast bronze ASTM B62 (85-5-5-5).
- ❑ GASKET - compressed against the fitting and pipe outer surface by tightening of nut. Not interchangeable with the Mueller 110 Compression Connection gasket.
- ❑ MUELLER PACK JOINT CONNECTION - available in three styles: for type "K" copper and PE tubing (CTS), for IPS PE (PEP) and PVC pipe.

- ❑ PRESSURE RATING - The pressure holding capability of the MUELLER Pack Joint Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).

- ❑ 3/4" & 1" CTS NUT/GASKET ASSEMBLY ARE INTERCHANGABLE - with comparable size of Mueller 110® Compression Connections nut/gasket assembly CTS only. (Note that 1-1/2" and 2" CTS components and all sizes of IPS components are NOT interchangeable.)

SERVICE FITTINGS
WITH COPPER FLARE CONNECTION

Two Part Union
Copper flare nut x female
copper flare thread

H-15405

3/4"	1"	1-1/2"	2"
------	----	--------	----



Eighth bend coupling
Copper flare nut x F.I.P.

H-15455

3/4"	1"
------	----



Straight three part union
Copper flare nut-both ends

H-15400

1/2"	3/4"	3/4"x1"	1"	1-1/4"	1-1/2"x1"	1-1/2"
2"						



Quarter bend coupling
Copper flare nut x F.I.P.

H-15460

3/4"	1"	1-1/4"	1-1/2"	2"
------	----	--------	--------	----



Eighth bend three part union
Copper flare nut-both ends

H-15522

3/4"	1"
------	----



Straight coupling
Copper flare nut x M.I.P.

H-15425

1/2"	1/2"x3/4"	3/4"	3/4"x1/2"	3/4"x1"	1"
1"x3/4"	1"x1-1/4"	1-1/4"	1-1/2"	2"	



Quarter bend three part union
Copper flare nut-both ends

H-15525

3/4"	1"	1-1/2"	2"
------	----	--------	----



Quarter bend coupling
Copper flare nut x M.I.P.

H-15530

1/2"	3/4"	1"	1"x3/4"	1-1/2"	2"
------	------	----	---------	--------	----



Straight coupling
Copper flare nut x F.I.P.

H-15450

1/2"	1/2"x3/4"	3/4"	3/4"x1/2"	1"	1"x3/4"	1-1/4"	1-1/2"	2"
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Eighth bend coupling M.I.P.
x copper flare nut

H-15539

3/4"	1"
------	----

NOTE: Sizes shown above represent normal size of fitting. When two sizes are given, the first is size of copper flare nut and second is size of threaded end. Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability. MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

SERVICE FITTINGS WITH COPPER FLARE CONNECTION

Rev. 9-09 Shaded area indicates changes



Eighth bend coupling
Swivel nut with female
copper flare thread x cop-
per flare nut

H-15064

3/4"	1"
------	----



Eighth bend coupling
Swivel nut with female
MUELLER® Coupling
thread x copper flare nut

H-15486

1/2"x3/4"	5/8"x3/4"	3/4"	1"
-----------	-----------	------	----



Quarter bend coupling
Swivel nut with female
copper flare thread x cop-
per flare nut

H-15069

3/4"	1"	1-1/2"	2"
------	----	--------	----



Quarter bend coupling
Swivel nut with female
MUELLER Coupling
thread x copper flare nut

H-15491

1/2"x3/4"	5/8"x3/4"	3/4"	1"
-----------	-----------	------	----



Eighth bend coupling
Swivel nut with female
increasing I.P. thread (this
thread is one size larger than
nominal size of fit-
ting) x copper flare nut

H-15471

3/4"	1"
------	----



Straight coupling Female
copper flare thread x cop-
per flare nut

H-15062

3/4"x1"	1"x3/4"	1"x1-1/4"
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Quarter bend coupling
Swivel nut with female
increasing I.P. thread (this
thread is one size larger
than nominal size of fit-
ting) x copper flare nut

H-15476

3/4"	1"
------	----



Eighth bend coupling
Female copper flare thread
x copper flare nut

H-15063

3/4"	1"	1-1/2"	2"
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Note: Sizes shown above represent nominal size of fitting. When two sizes are listed, the first is the size of threaded end and the second is size of copper flare nut.
Requires minimum ordering quantity. Contact MUELLER Customer Center for minimum order requirements and availability.
MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

SERVICE FITTINGS WITH COPPER FLARE CONNECTION

Shaded area indicates changes Rev. 9-09



Quarter bend coupling
Female copper flare thread x
copper flare nut

H-15068

3/4"	1"	1"x3/4"	1-1/4"	1-1/2"	2"
------	----	---------	--------	--------	----



Straight coupling Female
increasing I.P. thread (this
thread is one size larger than
nominal size of fitting) x
copper flare nut

H-15465

3/4"	1-1/2"	2"
------	--------	----



Eighth bend coupling Female
increasing I.P. thread (this
thread is one size larger than
nominal size of fitting) x
copper flare nut

H-15470

3/4"	1"	1-1/4"	1-1/2"	2"
------	----	--------	--------	----



Quarter bend coupling
Female increasing I.P. thread
(this thread is one size larger
than nominal size of fitting) x
copper flare nut

H-15475

3/4"	1"	1-1/2"	2"
------	----	--------	----



Straight coupling Female
copper flare thread x M.I.P.
thread

H-15098

3/4"	1"
------	----



Straight coupling Female
MUELLER® Coupling
thread x copper flare nut

H-15480

1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"	1"x3/4"
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Eighth bend coupling
Female MUELLER Cou-
pling thread x copper flare
nut

H-15485

1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"	1"x3/4"
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Quarter bend coupling
Female MUELLER
Coupling thread x copper
flare nut

H-15490

1/2"x3/4"	5/8"x3/4"	3/4"	1"	1"x3/4"
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Quarter bend coupling
Internal swivel connection
for 110 compression or
pack joint CTS x copper
flare nut

H-15551

3/4"	1"
------	----



Straight coupling Female
copper flare thread x F.I.P.
thread

H-15082

3/4"	1"	1-1/2"	2"
------	----	--------	----

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are listed, the first is the size of the threaded end and the second is size of copper flare nut.
Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.
MUELLER Service Fittings are manufactured in accordance with ANSI/AWWA C800.

SERVICE FITTINGS WITH COPPER FLARE CONNECTIONS

Rev. 9-09 Shaded area indicates change



Straight union
Extra strong (XS) lead
flange coupling x copper
flare nut

H-15506

5/8"x3/4"	3/4"
-----------	------



Eighth bend coupling Swivel
nut with female extra strong
(XS) lead flange thread x
copper flare nut

H-15516

5/8"x3/4"	3/4"	1"
-----------	------	----



Straight coupling Female
extra strong (XS) lead
flange thread x copper flare
nut

H-15505

1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"
1"x3/4"	1-1/4"x1"	1-1/2"	2"	



Straight coupling Female
double extra strong (XSS)
lead flange thread x copper
flare nut

H-15510

5/8"x3/4"	3/4"
-----------	------



Eighth bend coupling
Female extra strong (XS)
lead flange thread x copper
flare nut

H-15515

1/2"x3/4"	5/8"x3/4"	3/4"	1"
-----------	-----------	------	----



Quarter bend coupling
Female extra strong (XS)
lead flange thread x copper
flare nut

H-15513

1/2"x3/4"	5/8"x3/4"	3/4"	1"
-----------	-----------	------	----



Quarter bend coupling
Female extra strong (XS)
lead flange thread x copper
flare nut

H-15513-03

1"x3/4"

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of lead flange end and second is size of copper flare nut.
Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.
MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C600.

COPPER FLARE TOOLS AND MISCELLANEOUS EQUIPMENT

Shaded area indicates change. Rev. 9-09

Copper flare connection optional equipment

Copper flare nut



CATALOG NUMBER: H-15430

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----

Solid copper disc



Used with regular
copper flare nut to shut off line.

CATALOG NUMBER: H-15535

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	----	--------	--------	----

Brass cap



Fits on copper
flare spud to cap off line.

CATALOG NUMBER: H-15540

3/4"	1"	1-1/2"	2"
------	----	--------	----

Flaring tool



Used to make 45° flare on type
"K" copper tubing.

CATALOG NUMBER: H-18000

1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
------	------	------	----	--------	--------	----

Drilled flaring tool



Used to make 45° flare on type
"K" copper tubing without shut-
ting off water drilled to exhaust
water at right angle to tubing.

CATALOG NUMBER: H-18005

3/4"	1"
------	----

Reamer



Used to ream the inside of type
"K" copper tubing to remove burrs
prior to flaring.

CATALOG NUMBER: H-18010

1/2"	3/4"	1"
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Brass Hammer



Solid brass head with
10" wooden handle.
Weight 2-3/4 lb.

CATALOG NUMBER: H-18025

Note: When using any striking
tool, safety eye protection must
be worn. Inspect hammer and
tools for any damage after each
use and repair or replace if mush-
rooming or chipping is evident.

**H-15403**

Straight three part union
MUELLER 110® Conductive
Compression Connection for
CTS O.D.* tubing-both ends

1/2"	1/2"x3/4"	5/8"x3/4"	3/4"	1"	1"x3/4"
1-1/4"	1-1/4"x1"	1-1/2"		1-1/2"x1"	2"

**H-15428**

Straight coupling
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x M.I.P.
thread

1/2"	3/4"	3/4"x1"	1"	1"x3/4"	1-1/4"
1-1/4"x1"	1-1/2"	1-1/2"x1"	1-1/2"x2"	2"	2"x1-1/2"

**H-15404**

Straight three part union
MUELLER 110® Compression
Connection for CTS O.D.*
pipe-both ends

3/4"	1"	1"x3/4"
------	----	---------

**E-15409**

Straight coupling MUELLER 110
Conductive Compression Con-
nection for CTS O.D. tubing x
Pack Joint Connection for IPS PE
pipe
**Note: 3/4" size only may also be used on PVC

3/4"	3/4"x1"	1"	1"x3/4"
------	---------	----	---------

**H-15413**

Straight coupling MUELLER 110
Conductive Compression Con-
nection for CTS O.D. tubing x
Female copper flare thread

1"

**H-15451**

Straight coupling
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x F.I.P.
thread

1/2"	3/4"	3/4"x1"	1"	1"x3/4"	1"x1-1/4"
1-1/4"	1-1/4"x1"	1-1/2"	1-1/2"x1"	2"	2"x1-1/2"

**H-15429**

Straight coupling
MUELLER 110 Compression
Connection for IPS PE* pipe
x M.I.P. thread

3/4"	1"	1"x3/4"
------	----	---------

**H-15409**

Straight three part union
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x 110
Compression Connection for
IPS PE* pipe

3/4"	3/4"x1"	1"	1"x3/4"
------	---------	----	---------

**H-15454**

Straight coupling
MUELLER 110 Compression
Connection for IPS PE* pipe
x F.I.P. thread

3/4"	1"	1"x3/4"
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*See chart on page 6-11 for tubing and pipe that may be used with these connections.

†Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER 110 Compression Connection and second is size of threaded end.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

**H-15533**

Quarter bend coupling
MUELLER 110® Conductive
Compression Connection for
CTS O.D.* tubing x F.I.P.
thread

3/4"	1"	1-1/2"	2"
------	----	--------	----

**H-15526**

Quarter bend union
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing -both ends

3/4"	1"	1-1/2"	2"
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**H-15528**

Eighth bend union
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing -both ends

3/4"	1"
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**H-15534**

Eighth bend coupling
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x F.I.P.
thread

3/4"	1"
------	----

**H-15531**

Quarter bend coupling
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x M.I.P.
thread

3/4"	1"	1-1/2"	2"
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**H-15529**

Eighth bend coupling
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing x M.I.P.
thread

3/4"	1"
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**H-15550**

Quarter bend union
Internal swivel connection for
110 compression or pack joint
CTS x MUELLER 110 Conduc-
tive Compression Connection for
CTS O.D.* tubing

3/4"	1"
------	----

*See chart on page 6-11 for tubing and pipe that may be used with these connections.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

SERVICE FITTINGS WITH MUELLER 110® COMPRESSION CONNECTION



H-15487

3/4"	1"
------	----



H-15067

3/4"	1"
------	----



H-15076

3/4"	1" x 3/4"	1"
------	-----------	----



H-15492

3/4"	1"
------	----



H-15075

3/4"	1"
------	----

*See chart on page 6.11 for tubing and pipe that may be used with these connections.

** When two sizes are given, first is size of lead flange thread and second is size of MUELLER 110 Compression Connection.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER 110 Compression Connection and second is size of threaded end.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.



H-15512

3/4"	1"
------	----



H-15072

3/4"	1"
------	----



H-15509

5/8" x 3/4" **	3/4"	1"
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H-15077

1"	1"
----	----



H-15071

1/2"	3/4"	3/4" x 1"	1"	1" x 3/4"	1-1/4"
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1" x 3/4" - 1/4"	1-1/2"	2"
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MUELLER 110® COMPRESSION CONNECTION INFORMATION

Tubing, pipe and liners used with MUELLER 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - Inches	Tubing or pipe I.D. range - Inches	Tubing or pipe I.D. range - Inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.645 - 0.653	-	-
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	504281
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	504385
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	506141
	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
3/4" IPS	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Liner

MUELLER 110 Compression Connection replacement parts

Size	Gasket part number:	Connection nut
1/2" CTS	681516	147542
3/4" CTS	581940	507831
1" CTS	581951	507835
1-1/4" CTS	581953	507843
1-1/2" CTS	581955	507847
2" CTS	581957	507851
3/4" IPS	89599	508826
1" IPS PE	89788	508827

*Gasket and gripper hand assembly.



Gasket assembly



Nut

Adapter Nut for pre-1976 style Mueller 110 Compression Connection for CTS tubing

Kit includes one standard Gasket (same used with current style 110 connections) and a special Nut that adapts to the older style connection threads on the fittings. It is installed in the same way as the current style connection (Gasket conductor spring should be toward fitting body).

Size	Connection kit
3/4" CTS	682552
1" CTS	682551



SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Rev. 9-00 Shaded area indicates changes



P-15403

Straight three part union
MUELLER Pack Joint
Connection for CTS O.D.*
tubing - both ends

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
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P-15528

Eighth bend union
MUELLER Pack Joint
Connection for CTS O.D.*
tubing - both ends

3/4"	1"
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P-15526

Quarter bend union
MUELLER Pack Joint
Connection for CTS O.D.*
tubing - both ends

3/4"	1"	1-1/2"	2"
------	----	--------	----



P-15451

Straight coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x F.I.P. thread

3/4"	3/4"x1"	1"	1"x3/4"	1-1/2"	2"	2"x1-1/2"
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P-15534

Eighth bend coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x F.I.P. thread

3/4"	1"
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P-15533

Quarter bend coupling
MUELLER Pack Joint
Connection for CTS
O.D.* tubing x F.I.P.
thread

3/4"	1"	1-1/2"	2"
------	----	--------	----



P-15428

Straight coupling
MUELLER Pack Joint
Connection for CTS
O.D.* tubing x M.I.P.
thread

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
------	----	---------	--------	-----------	----



P-15531

Quarter bend coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x M.I.P. thread

3/4"	1"	1-1/2"	2"
------	----	--------	----

*See chart on page 6.15 for tubing and pipe that may be used with these connections

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800

SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Shaded area indicates changes Rev. 9-00



E-15404

Straight coupling MUELLER
Pack Joint Connection for IPS
PE pipe - both ends
**Note: 3/4" size only may also be used on
PVC

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
------	----	---------	--------	-----------	----



E-15443

Straight coupling MUELLER
Pack Joint Connection for IPS
PE pipe x Pack Joint Connection
for CTS O.D. tubing
**Note: 3/4" size only may also be used on PVC

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
------	----	---------	--------	-----------	----



E-15454

Straight coupling
MUELLER Pack Joint Con-
nection for IPS PE* x F.I.P.
thread
**Note: 3/4" size only may also be used on
PVC

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
------	----	---------	--------	-----------	----



E-15429

Straight coupling
MUELLER Pack Joint
Connection for IPS PE* x
M.I.P. thread
**Note: 3/4" size only may also be used on PVC

3/4"	3/4"x1"	1"	1"x3/4"	1-1/2"	2"
------	---------	----	---------	--------	----



V-15445

Straight coupling MUELLER Pack
Joint Connection for IPS PVC pipe
x MUELLER 110° Conductive
Compression Connection for CTS
O.D.* tubing, 2 pc. const. Assem-
bled wrench tie.

3/4"	1"	1-1/2"	2"
------	----	--------	----



V-15401

Straight coupling MUELLER
Pack Joint Connection for
IPS PVC pipe - both ends
**Note: 3/4" size only may also be used on
IPS PE

1"x3/4"



V-15441

Straight coupling
MUELLER Pack Joint Con-
nection for IPS PVC pipe x
Pack Joint Connection for
CTS O.D. tubing

1"	1"x3/4"	1-1/2"	1-1/2"x3/4"	2"
----	---------	--------	-------------	----



V-15442

Straight coupling
MUELLER Pack Joint
Connection for IPS PVC*
pipe x F.I.P. thread

1"	1"x3/4"	1-1/2"	1-1/2"x3/4"	1-1/2"x1"	2"
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V-15440

Straight coupling
MUELLER Pack Joint
Connection for IPS PVC*
pipe x M.I.P. thread

1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
----	---------	--------	-----------	----

*See chart on page 6.15 for tubing and pipe that may be used with these connections

**Note: 3/4" size only may also be used on PVC

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800

SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Rev. 9-09 Shaded areas indicate changes



P-15071

Straight coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x female copper
flare thread

3/4"	1"	1"x3/4"	1-1/2"	2"
------	----	---------	--------	----



P-15075

Eighth bend coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x swivel nut with female
copper thread

**Note: 3/4" size only may also be used on PVC

3/4"x1"	1"
---------	----



P-15067

Quarter bend coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x female copper flare thread

**Note: 3/4" size only may also be used on PVC

1"x3/4"x1"



P-15076

Quarter bend coupling
MUELLER Pack Joint
Connection for CTS O.D.*
tubing x swivel nut with
female copper thread

1"	1"x3/4"
----	---------



P-15409

Straight three part union
MUELLER Pack Joint
Connection for CTS O.D.
tubing x 110 Compression
Connection for IPS PE*
pipe

3/4"	1"
------	----

*See chart on page 6.15 for tubing and pipe that may be used with these connections

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800

MUELLER® PACK JOINT CONNECTION INFORMATION

Shaded areas indicate changes Rev. 8-04

Tubing, pipe and liners used with MUELLER Pack Joint Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - Inches	Tubing or pipe O.D. range - Inches	Tubing or pipe I.D. range - Inches	Liner part number
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
1" CTS	Type "K" copper	1.121 - 1.129	0.125 - 0.137	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	528707
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.899 - 0.934	505141
	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509750
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
1" IPS	Polyethylene	1.320 - 1.309	0.150 - 0.170	1.020 - 1.059	505142
	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-
1-1/4" IPS	Polyethylene	1.754 - 1.832	0.197 - 0.221	1.360 - 1.300	512787
1-1/2" IPS	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
	1-1/2" Sch. 40 PVC	1.894 - 1.906	0.145 - 0.165	-	-
	1-1/2" Sch. 80 PVC	1.894 - 1.906	0.200 - 0.224	-	-
2" IPS	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
	2" Sch. 40 PVC	2.369 - 2.381	0.154 - 0.174	-	-
	2" Sch. 80 PVC	2.369 - 2.381	0.218 - 0.244	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR 7; IPS polyvinylchloride (PVC) per ASTM D1785



Liner

MUELLER Pack Joint Connection Kit

Size	Connection Kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924
3/4" IPS PE	682377
1" IPS PE	682556
1-1/2" IPS PE	682557
2" IPS PE	682558
3/4" IPS PVC	682377
1" IPS PVC	682553
1-1/2" IPS PVC	682554
2" IPS PVC	682555



Connection Kit
(Includes Pack Joint, Gasket and washer)

SERVICE FITTINGS WITH MUELLER® INSTA-TITE® CONNECTION

Rev. 8-04 Shaded area indicate changes



H-15406



H-15408



H-15424



H-15426



H-15457



H-15456



H-15074



H-15073



H-15464



* See chart on page 6.17 for tubing and pipe that can be used with these connections.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of threaded end and second is size of MUELLER INSTA-TITE Connection.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

MUELLER® INSTA-TITE® CONNECTION INFORMATION

Rev. 8-04

Polyethylene PE Tubing and pipe used with MUELLER INSTA-TITE Connections

Nominal size of connection	Material	Tubing or pipe O.D. range - in.	Tubing or pipe wall thickness range - in.	Tubing or pipe I.D. range - in.
3/4" CTS PE	Polyethylene PE	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685
1" CTS PE	Polyethylene PE	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880
3/4" IPS PE	Polyethylene PE	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834
1" IPS PE	Polyethylene PE	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059

CTS polyethylene (PE) per ASTM D-2737 - SDR-9
IPS polyethylene (PE) per ASTM D-2239 - SDR-7

MUELLER INSTA-TITE Connection replacement parts

Size	Gripper ring part number†	O-Ring part number
3/4" CTS PE (red gripper)	506325	506324
1" CTS PE (red gripper)	506327	506326
3/4" IPS PE (white gripper)	505885	505883
1" IPS PE (white gripper)	505886	505884



Gripper ring



O-ring

Optional tools for use with MUELLER INSTA-TITE Connections

Pipe beveling tool

To assure proper installation, the end of the pipe or tubing must be properly beveled before it is inserted into the MUELLER INSTA-TITE Connection. MUELLER CO. offers a special beveling tool for both CTS PE tubing and IPS PE pipe.



PART NUMBER: **H-18015** for 3/4" and 1" CTS PE tubing
PART NUMBER: **H-18017** for 3/4" and 1" IPS PE pipe

Pipe removal tool

Pipe or tubing may be removed from the MUELLER INSTA-TITE Connection using special removal tools. Use one tool for 3/4" size connection and two tools for 1" size.



PART NUMBER: **506336**

SERVICE FITTINGS WITH THREADED CONNECTIONS



Straight coupling
Swivel nut with female
increasing I.P. thread (this
thread is one size larger than
the nominal size of the fitting)
x M.I.P. thread

H-10094

3/4"



Quarter bend coupling
Swivel nut with female
increasing I.P. thread (this
thread is one size larger than
the nominal size of the fitting)
x M.I.P. thread

H-10096

3/4"	1"	1-1/4"	1-1/2"	2"
------	----	--------	--------	----



Straight coupling
Compression connection with
set screw for use on steel pipe
x M.I.P. thread

H-15423-10

3/4"	1"
------	----



Straight coupling Compression
connection for use on
steel pipe x F.I.P. thread

H-14232

3/4"	1"
------	----



Quarter bend coupling
MUELLER Coupling thread
M.I.P. thread - both ends

H-15538

3/4"	1"	1-1/2"	2"
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Eighth bend coupling
Swivel nut with female
MUELLER® Coupling thread
x M.I.P. thread

H-10022

5/8"	3/4"	1"
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Quarter bend coupling
Swivel nut with female
MUELLER Coupling thread
x M.I.P. thread

H-10023

5/8"	3/4"	1"
------	------	----



Straight coupling
Compression connection with
set screw (drilled for wire seal)
for use on steel pipe x F.I.P.
thread

H-14233-10

3/4"	1"
------	----



Straight coupling Compression
connection with set screw for use
on steel pipe x F.I.P. thread

H-14233

3/4"	1"
------	----



Eighth bend coupling
F.I.P. thread x both ends

H-10076

3/4"	1"
------	----

* Both ends of coupling are 3/4" size.

* Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.

NOTE: Sizes shown above represent nominal size of fitting.

MUELLER Service Fittings are manufactured in accordance with ANSI/AWWA C300.

SERVICE FITTINGS WITH HOSE CLAMP RIBBED INSERT TYPE CONNECTION



Straight coupling Ribbed
insert connection for IPS PE
pipe (includes 2 stainless steel
hose clamps) x female copper
flare thread

H-12200

3/4"	1"
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Straight coupling Ribbed
insert connection for IPS PE
pipe (includes 2 stainless
steel hose clamps) x F.I.P.
thread

H-12215

3/4"	1"
------	----



Straight coupling Ribbed
insert connection for IPS
PE pipe (hose clamps NOT
included) x female copper
flare thread

H-12203

3/4"	1"
------	----



Straight coupling Ribbed
insert connection for IPS
PE pipe (hose clamps NOT
included) x F.I.P. thread

H-12218

3/4"	1"
------	----



Straight coupling
Ribbed insert connection
for IPS PE pipe (includes 2
stainless steel hose clamps)
x M.I.P. thread

H-12210

3/4"	1"
------	----



Stainless steel hose clamp
for 3/4" pipe-
PART NUMBER : 504030
Stainless steel hose clamp
for 1" pipe-
PART NUMBER: 504031

504030 - 3/4" Size

504031 - 1" Size



Straight coupling
Ribbed insert connection
for IPS PE pipe (hose
clamps NOT included) x
M.I.P. thread

H-12213

3/4"	1"
------	----

NOTE: Sizes shown above represent nominal size of fitting.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C300.

SERVICE FITTINGS WITH I.P. THREADED COPPER FLARE CONNECTION

Rev. 8-04



Straight three part union
I.P. threaded copper flare
nut -both ends

H-15402

3/4"



Straight coupling I.P.
threaded copper flare nut x
M.I.P. thread

H-15427

3/4"



Copper flare nut I.P.
threaded

H-15432

3/4" 1"



Straight coupling I.P.
threaded copper flare nut x
F.I.P. thread

H-15452

3/4" 1"



Straight coupling
I.P. threaded copper flare nut
x female increasing I.P. thread
(this thread is one size larger
than nominal size of fitting)

H-15467

3/4"

SERVICE FITTINGS WITH LEAD FLANGE CONNECTION

Shaded area indicates changes. Rev. 9-09



Straight coupling
Extra strong (XS) lead flange
coupling x F.I.P. thread

H-10050

1/2" 1/2" x 3/4" 5/8" x 3/4" 3/4" 1" 1-1/2"



Straight coupling
Double extra strong (XXS)
lead flange coupling x F.I.P.
thread

H-10054

3/4"



Straight coupling
Extra strong (XS) lead flange
coupling x M.I.P. thread

H-10051

5/8" x 3/4" 3/4"



Straight coupling
Extra strong (XS) lead flange
coupling -both ends

H-10052

5/8"

FOR OTHER FLARE CONNECTION OPTIONAL EQUIPMENT, SEE PAGE 6.7

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of fitting.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of lead flange coupling and second is size of threaded connection.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

**H-15381**

Service tee
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing-all ends

3/4"	1/2"x3/4"x1"	1"	1"x1"x3/4"	1-1/2"x1-1/2"x3/4"
1-1/2"x1-1/2"x1"	1-1/2"x1-1/2"x1-1/2"	2"x2"x3/4"		
2"x2"x1"	2"x2"x2"			

**P-15381**

Service tee
MUELLER Pack Joint
Connection for CTS O.D.*
tubing-all ends

3/4"	3/4"x3/4"x1"	1"	1"x1"x3/4"	1-1/2"	2"
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**H-15444**

Service tee
MUELLER 110 Conductive
Compression Connection for
IPS* PE tubing-all ends

3/4"		
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**E-15444**

Service tee
MUELLER Pack Joint
Connection for IPS PE*
tubing-all ends

3/4"		
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**H-15385**

Service tee
M.I.P. thread x M.I.P. thread x
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing

3/4"	1"	1"x1"x3/4"
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**P-15385**

Service tee
M.I.P. thread x M.I.P. thread x
MUELLER Pack Joint
Connection for CTS O.D.* tubing

3/4"	3/4"x3/4"x1"	1"
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**H-15392**

Service tee
F.I.P. thread x F.I.P. thread x
MUELLER 110 Conductive
Compression Connection for
CTS O.D.* tubing

3/4"	1"	
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**P-15392**

Service tee
F.I.P. thread x F.I.P. thread x
MUELLER Pack Joint
Connection for CTS O.D.*
tubing

3/4"	1"	
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Service tee sizing - sizes of ends are listed in the order shown
above - when all three end sizes are the same, only one size is listed.

1 Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

* See page 6-29 for tubing that can be used with this connection.

MUELLER Service Tees are manufactured and tested in accordance with ANSI/AWWA C900.

**H-15391**

Service tee
MUELLER 110 Conductive
Compression Connection for CTS
O.D.* tubing x 110 Conductive
Compression Connection for CTS
O.D.* tubing x F.I.P. thread

3/4"	1"	2"x2"x1"
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**H-15393**

Service tee
MUELLER 110 Conductive
Compression Connection for CTS
O.D.* tubing x 110 Conductive
Compression Connection for CTS
O.D.* tubing x Inside CC thread

2"x2"x3/4"	2"x2"x1"
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**H-15382**

Service tee
Copper flare nut x M.I.P. thread
x copper flare nut

3/4"		
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**H-15384**

Service tee
M.I.P. thread x M.I.P.
thread x copper flare nut

3/4"		
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**H-15380**

Service tee
Copper flare nut-all ends

1/2"	3/4"	3/4"x3/4"x1"	1"	1"x3/4"x3/4"
1"x1"x1/2"	1"x1"x3/4"	1-1/4"	1-1/4"x1-1/4"x3/4"	1-1/4"x1-1/4"x1"
1-1/2"	1-1/2"x3/4"	1-1/2"x1"	2"	2"x2"x3/4"

**H-15386**

Service tee
Copper flare nut x copper
flare nut x M.I.P. thread

3/4"	3/4"x3/4"x1"
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**H-10097**

Service tee
F.I.P. thread - all ends

3/4"	1"	
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**H-15387**

Service tee
MUELLER 110 Conductive
Compression Connection for CTS
O.D.* tubing x 110 Conductive
Compression Connection for CTS
O.D.* tubing x M.I.P. thread

3/4"	3/4"x3/4"x1"	1"
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Service tee sizing - sizes of ends are listed in the order shown
above - when all three end sizes are the same, only one size is listed.

1 Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

* See page 6-29 for tubing that can be used with this connection.

MUELLER Service Tees are manufactured and tested in accordance with ANSI/AWWA C900.



H-15373

Inlet: MUELLER® 110® Conductive Compression Connection for CTS O.D.* tubing
Outlets: MUELLER 110 Conductive Compression Connection for CTS O.D.* tubing straight line



P-15373

Inlet: MUELLER Pack Joint Connection for CTS O.D.* tubing
Outlets: MUELLER Pack Joint Connection for CTS O.D.* tubing straight line

1"x3/4"x7-1/2"	1-1/2"x3/4"x7-1/2"
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1"x3/4"x7-1/2"	1-1/2"x3/4"x7-1/2"
----------------	--------------------



H-15363

Inlet: MUELLER 110 Conductive Compression Connection for CTS O.D.* tubing
Outlets: M.I.P. thread straight line



P-15363

Inlet: MUELLER® Pack Joint Connection for CTS O.D.* tubing
Outlets: M.I.P. thread straight line

3/4"x3/4"x7-1/2"	1"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1"x3/4"x13-1/2"
1"x3/4"x7-1/2"	1-1/2"x3/4"x7-1/2"	1-1/2"x3/4"x7-1/2"	

3/4"x3/4"x7-1/2"	1"x3/4"x7-1/2"	1"x3/4"x13-1/2"
1-1/2"x1"x7-1/2"		



H-15369

Inlet: MUELLER 110 Conductive Compression Connection for CTS O.D.* tubing
Outlets: M.I.P. threads right angle



H-15360

Inlet: Copper flare nut
Outlets: Copper flare nut straight line

1"x3/4"x7"

1"x3/4"x10"



H-15362

Inlet: Copper flare nut
Outlets: M.I.P. thread straight line

3/4"x3/4"x7"	3/4"x3/4"x7-1/2"	3/4"x3/4"x13-1/2"	1"x3/4"x6-1/2"
1"x3/4"x7"	1"x3/4"x7-1/2"	1"x3/4"x13-1/2"	



H-15368

Inlet: Copper flare nut
Outlets: M.I.P. thread right angle

3/4"x3/4"x7"	1"x3/4"x7"
--------------	------------

NOTE: Inline or Angle valves with tip threads can be added to any U Branch with MIP Ends

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability

* See page 6.29 for tubing that can be used with this connection

NOTE: Sizes shown above represent nominal size of end connections. First is size of inlet, second is size of outlets, and third is center-to-center dimension between outlets

MUELLER "U" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.



H-15364

Inlet: M.I.P. thread
Outlets: M.I.P. thread straight line

3/4"x3/4"x13-1/2"	1"x3/4"x6-1/2"	1"x3/4"x7-1/2"
1"x3/4"x8"	1"x3/4"x13-1/2"	1"x1"x13-1/2"



H-15365

Inlet: F.I.P. thread
Outlet: M.I.P. thread straight line

3/4"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1-1/4"x3/4"x13-1/2"
------------------	----------------	---------------------



H-15367

Inlet: F.I.P. thread
Outlets: F.I.P. thread straight line

1"x3/4"x7-1/2"



V-15361

Inlet: Pack Joint Connection for PVC tubing
Outlet: M.I.P. thread straight line with 7-1/2" Center
 Two piece factory assembled

1"x3/4"x7-1/2"

NOTE: Inline or Angle valves with tip threads can be added to any U Branch with MIP Ends

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability

* See page 6.29 for tubing that can be used with this connection

NOTE: Sizes shown above represent nominal size of end connections. First is size of inlet, second is size of outlets, and third is center-to-center dimension between outlets

MUELLER "U" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.

SPECIAL "U" BRANCH CONNECTIONS ASSEMBLY WORKSHEET

Rev. 5-04

Mueller Co. has the capability to supply "U" Branches with virtually any combination of end connections, including styles with any standard Mueller valve or fitting attached to one or more of the connections. Use the illustrations below to sketch what is needed. Label each of the three positions with the type/size of connection (eg: MUELLER 110 Connection, M.I.P., etc.), and type/size valve/fitting to be attached if applicable. Best availability will result by selecting a standard "U" Branch from the preceding page, however special configurations may be available.

Enter catalog number of standard "U" branch, otherwise mark the appropriate illustration below to show important dimensions of the special "U" branch you require, such as distance between outlets, Position #1 Type/size connection: _____

- ☐ Check this box if nothing is to be attached at position #1, otherwise provide the following information.
Valve/fitting catalog number: _____
Valve options (eg: handles): _____

Position #2 Type/size connection: _____

- ☐ Check this box if nothing is to be attached at position #2, otherwise provide the following information.
Valve/fitting catalog number: _____
Valve options (eg: handles): _____

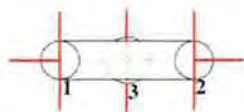
Position #3 Type/size connection: _____

- ☐ Check this box if nothing is to be attached at position #3, otherwise provide the following information.
Valve/fitting catalog number: _____
Valve options (eg: handles): _____

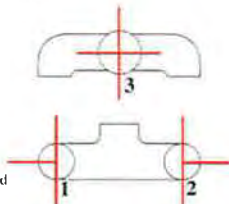
If angle valves are needed: Draw an arrow head on the end of the red line at each of the appropriate positions to show the direction the angle valve outlet should point. If ordering inline valves: Draw an arrow head to show the direction the valve head (cap) or access cover should point.

Note: Although the arrow lines are shown in the 12, 3, 6 and 9 o'clock positions, which are most common and preferred, other angles can be ordered. If some other angle is required, draw in your own arrow line and mark the angle in degrees referenced to the centerline of the "U" branch body.

**Straight line "U" branch
viewed from outlet end**



**Right angle "U" branch
- top right illustration:
viewed from Inlet end;
bottom right illustration:
viewed from outlet end**



There are three possible locations where a special fitting can be attached: at outlets 1 and 2, or inlet 3.

FAX this page to Mueller Customer Service (217) 425-7537. A representative will contact you to discuss availability. Submitting this page does not constitute placing an order.

"Y" BRANCH CONNECTIONS

Shaded area indicates change. Rev. 3-09



H-15343

Two branch-short body
Inlets: MUELLER 110 Conductive Compression Connection for CTS O.D.** tubing
*Outlet: MUELLER 110 Conductive Compression Connection for CTS O.D.** tubing



P-15343

Two branch-short body
Inlets: MUELLER Pack Joint Connection for CTS O.D.** tubing
*Outlet: MUELLER Pack Joint Connection for CTS O.D.** tubing



H-15347

Two branch-short body
Inlets: MUELLER 110 Conductive Compression Connection for CTS O.D.** tubing
*Outlet: M.I.P. thread



P-15347

Two branch-short body
Inlets: MUELLER Pack Joint Connection for CTS O.D.** tubing
*Outlet: M.I.P. thread



H-15341

Two branch
*Inlets: Copper flare nut
*Outlet: M.I.P. thread



H-15340

Two branch
*Inlets: Copper flare nut
*Outlet: Copper flare nut
Three branch



H-15346

*Inlets: Copper flare nut
*Outlet: M.I.P. thread
Three branch



H-15350

Four branch
*Inlets: Copper flare nut
*Outlet: Copper flare nut



H-15351

Four branch
*Inlets: Copper flare
*Outlet: M.I.P. thread



H-15345

*Inlets: Copper flare nut
*Outlet: Copper flare nut



NOTE: Minimum length of copper tubing "goose-neck" is 3/4" size 30" 1" size 40"

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

**Inlets and outlet can be reversed.

**See page 6.29-6.30 for tubing that can be used with this connection.

MUELLER "Y" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.



H-15342

Two branch

*Inlets: Copper flare nut

*Outlet: F.I.P. thread



H-10070

Two branch-short body

Inlets: M.I.P. thread

Outlet: M.I.P. thread

1" x 2"	3/4" x 1"
---------	-----------

NOTE: Minimum length of copper tubing "goose-neck" is: 3/4" size-30", 1" size-40"

*Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

*Inlets and outlet can be reversed.

** See page 6.29 for tubing that can be used with this connection.

MUELLER "Y" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.

Tubing, pipe and liners used with MUELLER 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.045 - 0.053	-	-
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	504281
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.546 - 0.580	504585
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.590 - 1.659	506141
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.826	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
1" IPS	1" Sch. 40 PVC	1.310-1.320	0.133-0.153	-	-
	1" Sch. 80 PVC	1.310-1.320	0.179-0.200	-	-

*Type "K" soft copper tubing per ASTM B88, CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Liner

MUELLER 110 Compression Connection replacement parts

Size	Gasket part number	Connection nut
1/2" CTS	681516	147542
3/4" CTS	581949	507831
1" CTS	581951	507835
1-1/4" CTS	581953	507843
1-1/2" CTS	581955	507847
2" CTS	581957	507851
3/4" IPS	49599	508826
1" IPS PE	49788	508827

(Gasket and gripper band assembly)

Gasket
assembly

Nut

Adapter Nut for pre-1976 style Mueller 110 Compression Connection for CTS tubing

Kit includes one standard Gasket (same used with current style 110 connections) and a special Nut that adapts to the older style connection threads on the fittings. It is installed in the same way as the current style connection (Gasket conductor spring should be toward fitting body).

Size	Connection kit
3/4" CTS	682552
1" CTS	682551



MUELLER PACK JOINT CONNECTION INFORMATION

Rev. 8-04

Tubing, pipe and liners used with MUELLER® Pack Joint Connections

Nominal size of connection	Material*	Tubing or pipe O.D. range - Inches	Tubing or pipe O.D. range - Inches	Tubing or pipe I.D. range - Inches	Liner part number
3/4" CTS	Type "K" copper Polyethylene	0.872 - 0.878 0.871 - 0.879	0.061 - 0.069 0.097 - 0.107	- 0.657 - 0.685	- 528704
1" CTS	Type "K" copper Polyethylene	1.121 - 1.129 1.120 - 1.130	0.061 - 0.069 0.125 - 0.137	- 0.846 - 0.880	- 528705
1-1/2" CTS	Type "K" copper Polyethylene	1.621 - 1.630 1.619 - 1.631	0.067 - 0.077 0.181 - 0.199	- 1.221 - 1.260	- 528706
2" CTS	Type "K" copper Polyethylene	2.120 - 2.130 2.119 - 2.131	0.076 - 0.090 0.236 - 0.260	- 1.599 - 1.659	- 528707
3/4" IPS	Polyethylene 3/4" Sch. 40 PVC 3/4" Sch. 80 PVC	1.045 - 1.110 1.046 - 1.054 1.046 - 1.054	0.118 - 0.138 0.113 - 0.133 0.154 - 0.174	0.809 - 0.834 0.780 - 0.828 0.698 - 0.746	505141 509759 509760
1" IPS	Polyethylene 1" Sch. 40 PVC 1" Sch. 80 PVC	1.329 - 1.399 1.310 - 1.320 1.310 - 1.320	0.150 - 0.170 0.133 - 0.153 0.179 - 0.200	1.029 - 1.059 -	505142 -
1-1/4" IPS	Polyethylene	1.753 - 1.832	0.197 - 0.221	1.360 - 1.390	512787
1-1/2" IPS	Polyethylene 1-1/2" Sch. 40 PVC 1-1/2" Sch. 80 PVC	2.05 - 2.141 1.894 - 1.906 1.894 - 1.906	0.230 - 0.258 0.145 - 0.165 0.200 - 0.224	1.500 - 1.625 -	529116 -
2" IPS	Polyethylene 2" Sch. 40 PVC 2" Sch. 80 PVC	2.637 - 2.742 2.569 - 2.581 2.569 - 2.581	0.295 - 0.330 0.154 - 0.174 0.218 - 0.244	2.047 - 2.082 -	529117 -

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Liner

MUELLER Pack Joint Connection Kit

Size	Connection Kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924
3/4" IPS PE	682377
1" IPS PE	682556
1-1/2" IPS PE	682557
2" IPS PE	682558
3/4" IPS PVC	682377
1" IPS PVC	682553
1-1/2" IPS PVC	682554
2" IPS PVC	682555



Connection Kit
(includes Pack Joint.)

PIPE PLUGS AND BUSHING

Rev. 8-04



H-10034

Brass plug - Machine inserted*
AWWA taper
(MUELLER "CC") thread



H-10033

Brass plug** - Square head with
AWWA taper
(MUELLER "CC") thread



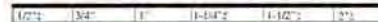
H-10037

Brass plug - Machine inserted*
I.P. thread



H-10035

Brass plug - Square head with
I.P. thread



H-10036

Brass bushing
Male AWWA taper
(MUELLER "CC") thread x
female AWWA taper
(MUELLER "CC") thread



Brass Bushings

- 47162** 1-1/4" MIP x 1" FIP
- 47163** 2" MIP x 3/4" FIP
- 47164** 2" MIP x 1" FIP
- 47165** 1" MIP x 3/4" FIP
- 47168** 1-1/2" MIP x 3/4" FIP
- 47169** 1-1/2" MIP x 1" FIP
- 47172** 2" MIP x 1-1/2" FIP

*Nominal size

†Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

6.32

Mueller Co.

Rev. 5-04



www.muellercompany.com

moreinfo@muellercompany.com

Features Of All Styles Of Mueller® Bronze Saddles For O.D. Controlled PVC Pipe

- ❑ **THICK TAPPING BOSS** – and precision machined, full length threads to provide a pressure-tight connection that resists pull-out. Generous wrenching surfaces to provide sure grip while installing corporation valve.



- ❑ **NITRILE O-RING SEALED** – glued in place and confined in a groove to resist cold-flow or distortion and provide a pressure tight seal against the main.

- ❑ **SILICON BRONZE SCREWS** – for strength and corrosion resistance (also hinge pin on swing hinge style).



- ❑ **WIDE STRAP** – is specially shaped to fit the contour of the O.D. controlled plastic main and seal dependably without pipe distortion. Double-wide straps on saddles with 1-1/2" or 2" tapped outlets for added stability.

- ❑ **MANUFACTURED AND TESTED** – in accordance with all applicable parts of ANSI/AWWA C800-NSF 61 Certified.



MUELLER® Bronze Service Saddles for cast iron, ductile iron, A-C pipe, & AWWA C900 PVC plastic pipe.

- ❑ **THICK TAPPING BOSS** – and precision machined, full-length threads for a pressure tight connection that resists pull-out.
- ❑ **HEAVY BODY** – provides strength at critical stress points. Constructed of 85-5-5-5 ASTM B62 brass.
- ❑ **STRAPS** – Silicon Bronze are flattened to provide increased gripping surface. 304L stainless steel - for additional pipe support.*



- ❑ **ROLLED STRAP THREADS** – for added strength.
- ❑ **MANUFACTURED AND TESTED** – in accordance with all applicable parts of ANSI/AWWA C800 – NSF 61 Certified
- ❑ **NITRILE O-RING GASKET** – is cemented in place and confined in a retaining groove, for pressure tight seal on the main.
- ❑ **BODY CURVATURE** – designed to fit pipe accurately for secure clamping and uniform sealing pressure.

*Stainless steel strap recommended for saddle used on AWWA OD C900 PVC

MUELLER® Ductile Iron Service Saddles for cast iron, ductile iron, steel, A-C pipe, & AWWA C900 PVC plastic pipe.

- ❑ **ROLLED STRAP THREADS** – for added strength.
- ❑ **BODY CURVATURE** – designed to fit pipe accurately for secure clamping and uniform sealing pressure.
- ❑ **STRONG** – ductile iron body per ASTM A-395.
- ❑ **STRAPS** – Forged alloy steel straps – are zinc plated and are extra large and flattened to provide increased gripping surface. 304L Stainless steel - for additional pipe support.*



- ❑ **LARGE TAPPING BOSS** – and precision machined, full-length threads for a pressure tight connection that resists pull-out.
- ❑ **MANUFACTURED AND TESTED** – in accordance with all applicable parts of ANSI/AWWA C800 – NSF 61 Certified.
- ❑ **NITRILE O-RING** – oil resistant seal cemented in a controlled groove to resist blow out at higher pressures.
- ❑ **NYLON 11** – fluidized bed applied, 10-12 mil thick coating is standard - superior corrosion resistance, non-conductive, and unique capability to flex with saddle as it is tightened to conform to pipe OD.

*Stainless steel strap recommended for saddle used on AWWA OD C900 PVC



WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® SS Series Stainless Steel Service Saddle for 4" through 12" cast iron, ductile iron, steel and PVC plastic pipe.

- ❑ **SELECTION** - Available with single stud, 3/4" and 1" tapping boss (CC or IP); or double stud, 3/4", 1", 1-1/4", 1-1/2" and 2" tapping boss (CC or IP). Offered in both 5" and 7-1/2" lengths.
- ❑ **SHELL** - 304L stainless steel shell is cut to exacting tolerances. Low carbon chemistry minimizes carbon precipitation corrosion.



- ❑ **NSF 61 Certified**
- ❑ **STUDS, NUTS & WASHERS** - Studs are 304 stainless steel with spin-fit threads. Nuts are also heavy hex 304 stainless steel and have an anti-galling compound coating. 304 stainless washers prevent galling and facilitate tightening.
- ❑ **NITRILE GASKET** - Ribbed gasket covers saddle edge to edge. Multiple concentric ribs for a dependable pressure tight seal.
- ❑ **FINGER LUGS** - 304L stainless finger lug design
- ❑ **WELDING** - State-of-the-art robotic MIG welds are continuous bead to provide superior strength.
- ❑ **PRESSURE RATING** - 150 psig (1034 kPa)

4.4

MUELLER® H-13000 & S-13000 SERIES BRONZE SERVICE SADDLES FOR C900 PVC PIPE

MUELLER® Service Saddles for AWWA C900 PVC pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. (F.I.P.T.) thread
- For use on cast iron O.D. PVC pipe made to ANSI/AWWA C900 standard
- 3/4" - 2" tap sizes
- NSF 61 Certified



MUELLER® Service Saddles for cast iron O.D. PVC pipe

Nominal Main Size	Type Of Thread In Service Saddle Outlet					Design	AWWA Iron Pipe Thread (F.I.P.T)					Design
	AWWA Taper Thread (C.C.)						Catalog Tapping Size					
	Catalog	Tapping Size					Catalog	Tapping Size				
	Number	3/4"	1"	1-1/2"	2"		number	3/4"	1"	1-1/2"	2"	
4"	S-13440	X	X			Two-piece	S-13490	X	X		Two-piece	
4"	H-13440	X	X	X	X		H-13490	X	X	X		X
6"	S-13441	X	X				S-13491	X	X			
6"	H-13441	X	X	X	X		H-13491	X	X	X		X
8"	S-13442	X	X				S-13492	X	X			
8"	H-13442	X	X	X	X		H-13492	X	X	X		X
10"	H-13443	X	X	X	X		H-13493	X	X	X		X
12"	H-13444	X	X	X	X		H-13494	X	X	X		X

These machines may be used with the service saddles illustrated on this page

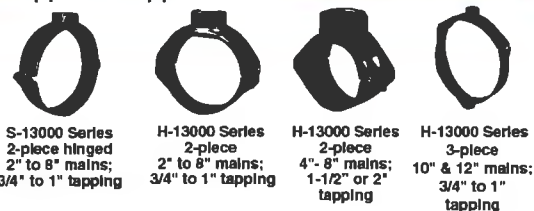
Machine	Service Saddle Tap Size			
	3/4"	1"	1-1/2"	2"
E-5™	X	X	X	X
D-5™	X	X	X	X
TRU-CUT™	X	X	X	X
MEGA-CUT™	X	X	X	X
PL-2™	X	X	X	X

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

MUELLER® H-13000 & S-13000 SERIES BRONZE SERVICE SADDLES FOR IPS PVC PIPE

MUELLER® Service Saddles for Iron pipe size PVC pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. (F.I.P.T.) thread
- For use on IPS PVC pipe (O.D. controlled)
- 3/4" - 2" tap sizes
- NSF 61 Certified



MUELLER® Service Saddles for IPS PVC pipe

Nominal Main Size	Type Of Thread In Service Saddle Outlet						Design	Awwa Iron Pipe Thread (F.I.P.T.)						Design
	Awwa Taper Thread (C.C.)							Catalog						
	Catalog Number	Tapping Size						Catalog Number	Tapping Size					
		3/4"	1"	1-1/2"	2"			3/4"	1"	1-1/2"	2"			
2"	S-13420	X	X	-	-	Two piece	S-13470	X	X	-	-	Two piece		
2"	H-13420	X	X	-	-		H-13470	X	X	-	-			
2-1/2"	S-13422	X	X	-	-		S-13472	X	X	-	-			
2-1/2"	H-13422	X	X	-	-		H-13472	X	X	-	-			
3"	S-13425	X	X	-	-		S-13475	X	X	-	-			
3"	H-13425	X	X	-	-		H-13475	X	X	-	-			
4"	S-13428	X	X	-	-		S-13478	X	X	-	-			
4"	H-13428	X	X	X	X		H-13478	X	X	X	X			
6"	S-13431	X	X	-	-		S-13481	X	X	-	-			
6"	H-13431	X	X	X	X		H-13481	X	X	X	X			
8"	S-13433	X	X	-	-		S-13483	X	X	-	-			
8"	H-13433	X	X	X	X		H-13483	X	X	X	X			
10"	H-13434	X	X	-	-	Three piece	H-13484	X	X	-	-	Three piece		
12"	H-13435	X	X	-	-		H-13485	X	X	-	-			

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size			
	3/4"	1"	1-1/2"	2"
E-5™	X	X	X	X
D-5™	X	X	X	X
TRU-CUT™	X	X	X	X
MEGA-CUT™	X	X	X	X
PL-2™	X	X	X	X

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

MUELLER® BR1B SERIES BRONZE SERVICE SADDLES - SINGLE STRAP

MUELLER® Service Saddles for use on A-C, cast iron, ductile iron pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- For use on A-C pipe, cast iron or ductile iron pipe
- 200 psig (1379 kPa) maximum working pressure
- Available in single strap designs
- Brass body
- Flattened silicon bronze straps
- Roll strap threads
- O-ring sealed outlet
- 1/2" thru 1" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



BR 1 B Series

MUELLER® Service Saddles with Bronze Single Strap

Pipe O.D. Range*		Kind and Size of Pipe			Bronze Single Straps				
Inch	mm	A-C	Cast or Ductile Iron	Tap*** Thread	Base Catalog Number	Size of Tapping (add to "Base" to complete catalog number)			
						1/2"	5/8"	3/4"	1"
4.74-5.32	121.0-135.0	--	4"	CC or IP	BR1B0474	062	075	075	100
6.84-7.45	174.0-189.0		6"	CC or IP	BR1B0684	062	075	075	100
8.99-9.67	229.0-245.0		8"	CC or IP	BR1B0899	062	075	075	100
11.04-12.12	281.0-307.0		10"	CC or IP	BR1B1104	062	075	075	100
13.14-14.58	334.0-370.0		12"	CC or IP	BR1B1314	062	075	075	100

*A-C pipe: classes 150-200 per ASTM C295 and AWWA C400 - actual O.D. of pipe being used must fall within the pipe O.D. range listed in the preceding charts. Centrifugally cast pipe: classes 50-250 per ANSI/AWWA C102/A21.2; ANSI/AWWA C106/A21.6; ANSI/AWWA C108/A21.8; and Federal specification WW-P-421. Ductile iron pipe: classes 50-56 per ANSI/AWWA C151/A21.51; Cast iron O.D. PVC plastic pipe per AWWA C900.

** The outside diameter of A-C pipe varies from manufacturer to manufacturer; to make certain you select the proper clamp: 1) Determine the O.D. of the pipe at the point of saddle installation; 2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter.

***CC=AWWA Taper; IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service saddle tap size			
	1/2"	5/8"	3/4"	1"
E-5™	X	X	X	X
D-5™	-	-	X	X
TRU-CUT™	-	-	X	X
MEGA-CUT™	X	X	X	X
PL-2	-	-	X	X

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® BR1S SERIES BRONZE SERVICE SADDLES - SINGLE STRAP

MUELLER® Service Saddles for use on A-C, cast iron, ductile iron, and AWWA C900 PVC plastic pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- For use on A-C pipe, cast iron or ductile iron pipe and C900 PVC pipe
- 200 psig (1379 kPa) maximum working pressure
- Available in single strap designs
- Brass body
- 304L stainless steel straps
- Roll strap threads
- O-ring sealed outlet
- 1/2" thru 1" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



BR 1 S Series

MUELLER® Service Saddles with Stainless Steel Single Strap

Pipe O.D. Range*		Kind and Size of Pipe			Stainless Steel Single Straps				
Inch	mm	A-C	Cast or Ductile Iron, C900 PVC	Tap*** Thread	Base Catalog Number	Size of Tapping (add to "Base" to complete catalog number)			
						1/2"	5/8"	3/4"	1"
4.74-5.32	121.0-135.0	--	4"	CC or IP	BR1S0474	050	062	075	100
6.84-7.45	174.0-189.0		6"	CC or IP	BR1S0684	050	062	075	100
8.99-9.67	229.0-245.0		8"	CC or IP	BR1S0899	050	062	075	100
11.04-12.12	281.0-307.0		10"	CC or IP	BR1S1104	050	062	075	100
13.14-14.58	334.0-370.0		12"	CC or IP	BR1S1314	050	062	075	100

*A-C pipe: classes 150-200 per ASTM C295 and AWWA C400 - actual O.D. of pipe being used must fall within the pipe O.D. range listed in the preceding charts. Centrifugally cast pipe: classes 50-250 per ANSI/AWWA C102/A21.2; ANSI/AWWA C106/A21.6; ANSI/AWWA C108/A21.8; and Federal specification WW-P-421. Ductile iron pipe: classes 50-56 per ANSI/AWWA C151/A21.51; Cast iron O.D. PVC plastic pipe per AWWA C900.

** The outside diameter of A-C pipe varies from manufacturer to manufacturer; to make certain you select the proper clamp: 1) Determine the O.D. of the pipe at the point of saddle installation; 2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter.

***CC=AWWA Taper; IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service saddle tap size			
	1/2"	5/8"	3/4"	1"
E-5™	X	X	X	X
D-5™	-	-	X	X
TRU-CUT™	-	-	X	X
MEGA-CUT™	X	X	X	X
PL-2	-	-	X	X

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® BR2B SERIES BRONZE SERVICE SADDLES - DOUBLE STRAP

Rev. 9-09 (Rev. 12-09)

MUELLER® Service Saddles for use on A-C, cast iron, ductile iron

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- For use on A-C pipe, cast iron or ductile iron pipe and cast iron O.D.
- 200 psig (1379 kPa) maximum working pressure
- Available in double strap designs
- Brass body
- Flattened silicon bronze straps
- Rolled strap threads
- O-ring sealed outlet
- 3/4" thru 2" tap sizes (5/8" some styles)
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



BR 2 B Series

MUELLER® Service Saddles with Bronze Double Straps

Pipe O.D. Range*		Kind and Size of Pipe			Bronze Double Straps							
Inch	mm	A-C	Cast or Ductile Iron	Tap*** Thread	Base Catalog Number	Size of Tapping (add to "Base" to complete catalog number)						
						1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
4.74-5.32	121.0-135.0		4"	CC or IP	BR2B0474	050	062	075	100	-	-	-
4.74-5.10	121.0-129.4		4"	CC or IP	BR2B0474	-	-	-	-	125	150	200
5.10-5.60	129.4-142.2		4"	CC or IP	BR2B0510	-	-	-	-	125	150	200
6.84-7.45	174.0-189.0		6"	CC or IP	BR2B0684	050	062	075	100	125	150	200
8.99-9.67	229.0-245.0		8"	CC or IP	BR2B0899	050	062	075	100	125	150	200
11.04-12.12	281.0-307.0		10"	CC or IP	BR2B1104	050	062	075	100	125	150	200
13.14-14.58	334.0-370.0		12"	CC or IP	BR2B1314	050	062	075	100	125	150	200
15.22-16.88	386.6-428.7		14"	CC or IP	BR2B1522	-	-	075	100	-	150	200
17.32-19.19	439.9-487.4		16"	CC or IP	BR2B1732	-	-	075	100	-	150	200
18.00-19.50	457.2-495.3		18"	CC or IP	BR2B1800	-	-	075	100	125	150	200
20.00-24.30	508.0-624.8		20"	CC or IP	BR2B2000	-	-	075	100	125	150	200
24.00-25.30	609.6-655.3		24"	CC or IP	BR2B2400	-	-	075	100	125	150	200

*A-C pipe: classes 150-200 per ASTM C295 and AWWA C400 - actual O.D. of pipe being used must fall within the pipe O.D. range listed in the preceding charts. Continuously cast pipe: classes 50-250 per ANSI/AWWA C102/A21.2, ANSI/AWWA C106/A21.6, ANSI/AWWA C108/A21.8, and Federal specification WW-P-421. Ductile iron pipe: classes 50-56 per ANSI/AWWA C151/A21.51. Cast iron O.D. PVC plastic pipe per AWWA C900.

**The outside diameter of A-C pipe varies from manufacturer to manufacturer. To make certain you select the proper clamp: 1) Determine the O.D. of the pipe at the point of saddle installation; 2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter.

***CC=AWWA Taper; IP=AWWA I.P. thread (F.I.P.T.).

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size						
	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
E-57 TM	X	X	X	X	-	X	X
D-57 TM	-	-	X	X	X	X	X
TRU-CUT TM	-	-	X	X	-	-	-
MEGA-CUT TM	X	X	X	X	-	-	X
PL-27 TM	-	-	X	X	-	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® BR2S & BR2W SERIES BRONZE SERVICE SADDLES - DOUBLE STRAP

Rev. 9-09 (Rev. 12-09)

MUELLER® Service Saddles for use on A-C, cast iron, ductile iron, and AWWA C900 PVC plastic pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- For use on A-C pipe, cast iron or ductile iron pipe and cast iron O.D. PVC pipe
- 200 psig (1379 kPa) maximum working pressure
- Available in double strap designs
- Brass body
- Flattened silicon bronze straps (standard)
- Optional 304L stainless steel straps
- Rolled strap threads
- O-ring sealed outlet
- 3/4" thru 2" tap sizes (5/8" some styles)
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified

BR 2 S Series
BR 2 W Series

MUELLER® Service Saddles with Stainless Steel Double Straps

Pipe O.D. Range*		Kind and Size of Pipe			Stainless Steel Double Straps							
Inch	mm	A-C	Cast or Ductile Iron	Tap*** Thread	Base Catalog	Size of Tapping (add to "Base" to complete catalog number)						
						1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
4.74-5.32	121.0-135.0		4"	CC or IP	BR2S0474	050	062	075	100	-	-	-
4.74-5.10	121.0-129.4		4"	CC or IP	BR2S0474	-	-	-	-	125	150	200
5.10-5.60	129.4-142.2		4"	CC or IP	BR2S0510	-	-	-	-	125	150	200
6.84-7.45	174.0-189.0		6"	CC or IP	BR2S0684	050	062	075	100	125	150	200
8.99-9.67	229.0-245.0		8"	CC or IP	BR2S0899	050	062	075	100	125	150	200
11.04-12.12	281.0-307.0		10"	CC or IP	BR2S1104	050	062	075	100	125	150	200
13.14-14.58	334.0-370.0		12"	CC or IP	BR2S1314	050	062	075	100	125	150	200
15.22-16.88	386.6-428.7		14"	CC or IP	BR2S1522	-	-	075	100	-	150	200
17.32-19.19	439.9-487.4		16"	CC or IP	BR2S1732	-	-	075	100	-	150	200
18.00-19.50	457.2-495.3		18"	CC or IP	BR2S1800	-	-	075	100	125	150	200
20.00-24.30	508.0-624.8		20"	CC or IP	BR2S2000	-	-	075	100	125	150	200
24.00-25.30	609.6-655.3		24"	CC or IP	BR2S2400	-	-	075	100	125	150	200

*A-C pipe: classes 150-200 per ASTM C295 and AWWA C400 - actual O.D. of pipe being used must fall within the pipe O.D. range listed in the preceding charts. Continuously cast pipe: classes 50-250 per ANSI/AWWA C102/A21.2, ANSI/AWWA C106/A21.6, ANSI/AWWA C108/A21.8, and Federal specification WW-P-421. Ductile iron pipe: classes 50-56 per ANSI/AWWA C151/A21.51. Cast iron O.D. PVC plastic pipe per AWWA C900.

**The outside diameter of A-C pipe varies from manufacturer to manufacturer. To make certain you select the proper clamp: 1) Determine the O.D. of the pipe at the point of saddle installation; 2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter.

***CC=AWWA Taper; IP=AWWA I.P. thread (F.I.P.T.).

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size						
	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
E-57 TM	X	X	X	X	-	X	X
D-57 TM	-	-	X	X	X	X	X
TRU-CUT TM	-	-	X	X	-	-	-
MEGA-CUT TM	X	X	X	X	-	-	X
PL-27 TM	-	-	X	X	-	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® DR1S SERIES DUCTILE IRON SERVICE SADDLES - SINGLE STRAP

Rev 9-09

Nylon Ductile Iron Service Saddles for use on cast iron, ductile iron, AWWA C900 PVC plastic, steel and A-C pipe

- Outlet tapped with AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- Single strap design rated at 250 psig (1724 kPa) maximum working pressure
- ASTM A395 ductile iron body
- Body is Nylon 11 (10-12 mil)
- 304L stainless steel strap
- Rolled strap threads
- Nitrile O-ring gasket
- 1/2" thru 2" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



DR 1 S Series

MUELLER® Service Saddles with Stainless Steel Single Strap

Pipe O.D. Range*		Kind and Size of Pipe		Single Stainless Steel Strap									
Inch	mm	A-C	Std. Steel, IPS PVC	Cast Iron, Ductile Iron C900 PVC	Tap*** Thread	Base Catalog Number	Size of Tapping (add to "Base" to complete catalog number)						
							1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
2.35-2.50	59.7-63.5	**	2"	2 1/2"	CC or IP	DR1S0235	050	075	100	-	-	-	-
2.85-2.91	72.4-73.9		2-1/2"	3-1/2"	CC or IP	DR1S0285	050	075	100	-	-	-	-
3.56-4.00	91.0-101.0		3-1/2"	3"	CC or IP	DR1S0356	050	075	100	-	-	-	-
4.47-5.32	113.5-135.1		4"	4"	CC or IP	DR1S0447	050	075	100	125	150	200	
6.59-7.37	167.4-187.2		6"	6"	CC or IP	DR1S0659	050	075	100	125	150	200	
8.54-9.79	216.9-248.7		8"	8"	CC or IP	DR1S0845	050	075	100	125	150	200	
10.64-12.12	270.3-307.8		10"	10"	CC or IP	DR1S1064	050	075	100	-	-	-	-
12.62-14.38	320.5-365.3		12"	12"	CC or IP	DR1S1262	050	075	100	-	-	-	-

* Important—carefully check the range of the saddle with the O.D. of the pipe being used

** The outside diameter of A-C pipe varies from manufacturer to manufacturer, to make certain you select the proper clamp:

1) Determine the O.D. of the pipe at the point of saddle installation;

2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter

***CC=AWWA Taper, IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size				
	1/2"	3/4"	1"	1-1/2"	2"
E-5™	X	X	X	X	X
D-5™	-	X	X	X	X
TRU-CUT™	-	X	X	-	-
MEGA-CUT™	X	X	X	X	X
PL-2™	-	X	X	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

4.11

Rev 9-09

Nylon Ductile Iron Service Saddles for use on cast iron, ductile iron, steel pipe

- Outlet tapped with either AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- Single strap design rated at 250 psig (1724 kPa) maximum working pressure
- ASTM A395 ductile iron body
- Body is Nylon 11 (10-12 mil)
- Forged alloy steel strap
- Rolled strap threads
- Nitrile O-ring gasket
- 1/2" thru 2" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



DR 1 A Series

MUELLER® Service Saddles with Single Alloy Strap

Pipe O.D. Range*		Kind and Size of Pipe		Single Alloy Strap									
Inch	mm	A-C	Std. Steel	Cast Iron, Ductile Iron	Tap*** Thread	Base Catalog Number	Size of Tapping (add to "Base" to complete catalog number)						
							1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
2.35-2.50	59.7-63.5	**	2"	2 1/2"	CC or IP	DR1A0235	050	075	100	-	-	-	-
2.85-2.91	72.4-73.9		2-1/2"	3-1/2"	CC or IP	DR1A0285	050	075	100	-	-	-	-
3.56-4.00	91.0-101.0		3-1/2"	3"	CC or IP	DR1A0356	050	075	100	-	-	-	-
4.47-5.32	113.5-135.1		4"	4"	CC or IP	DR1A0447	050	075	100	125	150	200	
6.59-7.37	167.4-187.2		6"	6"	CC or IP	DR1A0659	050	075	100	125	150	200	
8.54-9.79	216.9-248.7		8"	8"	CC or IP	DR1A0845	050	075	100	125	150	200	
10.64-12.12	270.3-307.8		10"	10"	CC or IP	DR1A1064	050	075	100	-	-	-	-
12.62-14.38	320.5-365.3		12"	12"	CC or IP	DR1A1262	050	075	100	-	-	-	-

* Important—carefully check the range of the saddle with the O.D. of the pipe being used

** The outside diameter of A-C pipe varies from manufacturer to manufacturer, to make certain you select the proper clamp:

1) Determine the O.D. of the pipe at the point of saddle installation;

2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter

***CC=AWWA Taper, IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size				
	1/2"	3/4"	1"	1-1/2"	2"
E-5™	X	X	X	X	X
D-5™	-	X	X	X	X
TRU-CUT™	-	X	X	-	-
MEGA-CUT™	X	X	X	X	X
PL-2™	-	X	X	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

4.12 Mueller Co.

MUELLER® DR2A SERIES DUCTILE IRON SERVICE SADDLES - DOUBLE STRAP

Nylon Ductile Iron Service Saddles for use on cast iron, ductile iron, steel pipe

- Outlet tapped with AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- Double strap design rated at 500 psig (3447 kPa) maximum working pressure
- ASTM A395 ductile iron body
- Body is Nylon 11 (10-12 mil)
- Forged alloy steel strap
- Rolled strap threads
- Nitrile O-ring gasket
- 1/2" thru 2" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



DR 2 A Series

MUELLER® Service Saddles with Double alloy strap Strap

Pipe O.D. Range*		Kind and Size of Pipe			Double Steel Alloy Strap		Size of Tapping (add to "Base" to complete catalog number)						
Inch	mm	A-C	Std. Steel	Cast Iron, Ductile Iron	Tap** Thread	Base Catalog Number	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
2.35-2.50	59.7-63.5	**	2"	2"	CC or IP	DR2A0235	050	075	100	-	-	-	-
3.56-4.00	91.0-101.6		3-1/2"	3"	CC or IP	DR2A0356	050	075	100	-	-	-	-
4.47-5.32	113.5-135.1		4"	4"	CC or IP	DR2A0447	050	075	100	125	150	200	
6.59-7.37	167.4-187.2		6"	6"	CC or IP	DR2A0659	050	075	100	125	150	200	
8.54-9.79	216.9-248.7		8"	8"	CC or IP	DR2A0854	050	075	100	125	150	200	
10.64-12.12	270.3-307.8		10"	10"	CC or IP	DR2A1064	050	075	100	125	150	200	
12.62-14.38	320.5-365.3		12"	12"	CC or IP	DR2A1262	050	075	100	125	150	200	
17.40-18.80	442.0-477.5		-	16"	CC or IP	DR2A1740	-	075	100	125	150	200	
18.00-19.50	457.2-495.3		-	18"	CC or IP	DR2A1800	050	075	100	125	150	200	
20.00-21.60	508.0-548.6		-	20"	CC or IP	DR2A2000	050	075	100	125	150	200	
24.00-25.80	609.0-655.3		-	24"	CC or IP	DR2A2400	050	075	100	125	150	200	

* Important—carefully check the range of the saddle with the O.D. of the pipe being used

** The outside diameter of A-C pipe varies from manufacturer to manufacturer. To make certain you select the proper clamp:

1) Determine the O.D. of the pipe at the point of saddle installation;

2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter

**CC=AWWA Taper, IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size		1"	1-1/2"	2"
	1/2"	3/4"			
E-5TH	X	X	X	X	X
D-5TH	-	X	X	-	X
TRU-CUT™	-	X	X	-	-
MEGA-CUT™	X	X	X	X	X
PL-2TH	-	X	X	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® DR2S SERIES DUCTILE IRON SERVICE SADDLES - DOUBLE STRAP

4.13 Mueller Co.

Nylon Ductile Iron Service Saddles for use on cast iron, ductile iron, AWWA C900 PVC plastic, steel and A-C pipe.

- Outlet tapped with AWWA taper (C.C.) or AWWA I.P. thread (F.I.P.T.)
- Double strap design rated at 500 psig (3447 kPa) maximum working pressure
- ASTM A395 ductile iron body
- Body is Nylon 11 (10-12 mil)
- 304L stainless steel strap
- Rolled strap threads
- Nitrile O-ring gasket
- 1/2" thru 2" tap sizes
- Meets all applicable parts of ANSI/AWWA C800
- NSF 61 Certified



DR 2 S Series

MUELLER® Service Saddles with Double stainless steel strap

Pipe O.D. Range*		Kind and Size of Pipe			Double Stainless Steel Strap		Size of Tapping (add to "Base" to complete catalog number)						
Inch	mm	A-C	Std. Steel IPS PVC	Cast Iron, Ductile Iron PVC C900	Tap** Thread	Base Catalog Number	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
2.35-2.50	59.7-63.5	**	2"	2"	CC or IP	DR 2 S 0235	050	075	100	-	-	-	-
3.56-4.00	91.0-101.6		3-1/2"	3"	CC or IP	DR 2 S 0356	050	075	100	-	-	-	-
4.47-5.32	113.5-135.1		4"	4"	CC or IP	DR 2 S 0447	050	075	100	125	150	200	
6.59-7.37	167.4-187.4		6"	6"	CC or IP	DR 2 S 0659	050	075	100	125	150	200	
8.54-9.79	216.9-248.7		8"	8"	CC or IP	DR 2 S 0854	050	075	100	125	150	200	
10.64-12.12	270.3-307.8		10"	10"	CC or IP	DR 2 S 1064	050	075	100	125	150	200	
12.62-14.38	320.5-365.3		12"	12"	CC or IP	DR 2 S 1262	050	075	100	125	150	200	
17.40-18.80	442.0-477.5		-	16"	CC or IP	DR 2 S 1740	-	075	100	125	150	200	
18.00-19.50	457.2-495.3		-	18"	CC or IP	DR 2 S 1800	050	075	100	125	150	200	
20.00-21.60	508.0-548.6		-	20"	CC or IP	DR 2 S 2000	050	075	100	125	150	200	
24.00-25.80	609.0-655.3		-	24"	CC or IP	DR 2 S 2400	050	075	100	125	150	200	

* Important—carefully check the range of the saddle with the O.D. of the pipe being used

** The outside diameter of A-C pipe varies from manufacturer to manufacturer. To make certain you select the proper clamp:

1) Determine the O.D. of the pipe at the point of saddle installation;

2) From the pipe O.D. range column of the above chart, choose a saddle that has a pipe O.D. range that includes the determined pipe diameter

3) Ductile Iron Double Stainless Strap Saddles can be specifically sized for IPS PVC or C900

**CC=AWWA Taper, IP=AWWA I.P. thread (F.I.P.T.)

These machines may be used with the service saddles illustrated on this page

Machine	Service Saddle Tap Size		1"	1-1/2"	2"
	1/2"	3/4"			
E-5TH	X	X	X	X	X
D-5TH	-	X	X	-	X
TRU-CUT™	-	X	X	-	-
MEGA-CUT™	X	X	X	X	X
PL-2TH	-	X	X	-	-

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.

MUELLER® SS Series Stainless Steel Service Saddle for 4" through 12" cast iron, ductile iron, steel and PVC plastic pipe.

- ❑ Single stud, 3/4" and 1" tapping boss (CC or IP); or Double stud, 3/4", 1", 1-1/4", 1-1/2" and 2" tapping boss (CC or IP). Offered in both 5" and 7-1/2" lengths.
- ❑ Shell - 304L stainless steel.
- ❑ Nitrile Gasket
- ❑ 304 SS Finger Lugs, Studs, Nuts & Washers
- ❑ Pressure rating - 150 psig (1034 kPa)
- ❑ NSF 61 Certified



Stainless Steel Service Saddle

Standard Lengths: 5" and 7-1/2"

Pipe O.D. range*		Nominal Pipe Size	Saddle Size Number
Inches	Millimeters		
4.50-4.80	114.3-122.0	4"	0450
6.63-6.90	168.4-175.3	6"	0663
8.63-9.05	219.2-229.9	8"	0863
10.75-11.10	273.1-282.0	10"	1075
12.75-13.20	323.9-335.3	12"	1275

* Important - carefully check the range of the saddle with the O.D. of the pipe being used

**Also fits PVC Plastic Pipe - ASTM D2241 SDR 17 and lower and ASTM D1785 schedule 80 and above

How to determine a Mueller® SS Saddle Part Number

Select the appropriate numbers/letters from the charts to build the 13 digit part number.

Example: SS7D0663CC150 is a 7-1/2" long saddle for pipe 6.63" to 6.9" with double studs and 1-1/2" CC tap

Material*	Length*	Number of Studs	Saddle Size Number	Thread Style	Tap Size
SS	5x5" (S or D)	SeSingle	From chart above	CC	075=3/4" (S or D)
	7x7-1/2" (D only)	DeDouble		IP	100=1" (S or D)
					125=1-1/4" (D only)**
					150=1-1/2" (D only)
					200=2" (D only)

*7-1/2" only available in "D" (double stud) style

**1-1/4" in IP only

TO ORDER SPECIFY QUANTITY, OUTLET TAPPING SIZE AND CATALOG NUMBER.

THE ADJUSTABLE[®]

Floating
System

Stronger

Saves
Money

Easier to
Install

Mueller Canada

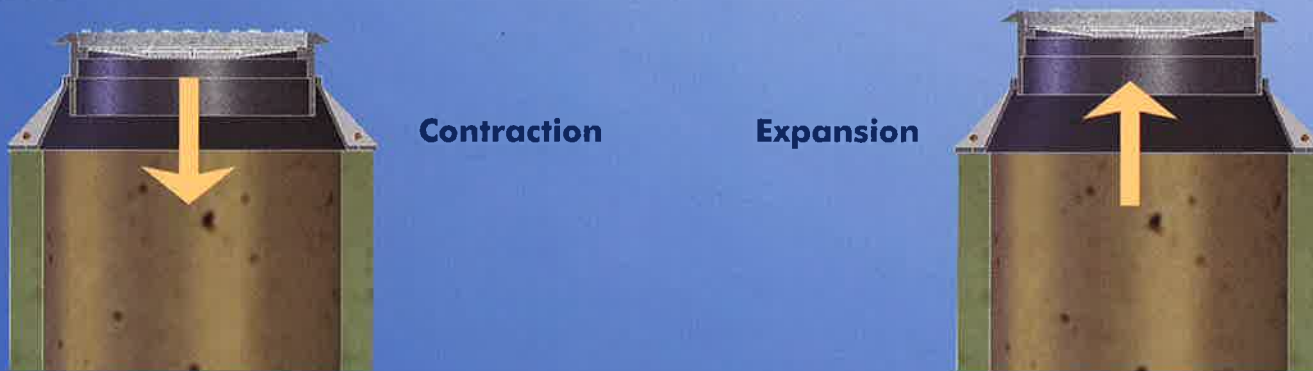
Mueller Co.

Municipalities are continually striving to improve cost efficiency and maximize their return on "Public Works Money". In response to this, Mueller Canada has developed the Adjustable, a revolutionary floating frame and cover system designed to save time and money when building or re-surfacing roads.

The Adjustable system is designed to be paved right into the road surface; it sits on the surface instead of the concrete infrastructure. This allows the shock from traffic to be transmitted to the sub-surface rather than the manhole itself.



The floating system allows movement of the frame with the road surface. If the road heaves or settles it eliminates the need for costly repairs. Our resilient system eliminates most of the noise due to the rocking of the cover.



The Saving\$ for Municipalities

- Lower installation costs
- Extends the life of existing installations - especially older brick chimneys
- Extends the life of new installations and protects the concrete from heavy traffic
- Lowers the cost of resurfacing in the future - clean, lift and pave
- Can be installed on existing infrastructure and adapted to existing installations
- Smooth driving surface - installation according to crown and slope

Features of our Resilient Seated Adjustable

- Rubber pads inserted on the side to prevent pull-out
- Tested to provide a secure installation
- Absorbs shock and reduces noise

- Can be easily changed if damaged
- Designed to provide a stable seating area even if damaged
- Successful installation for more than 10 years

Bevelled Edge

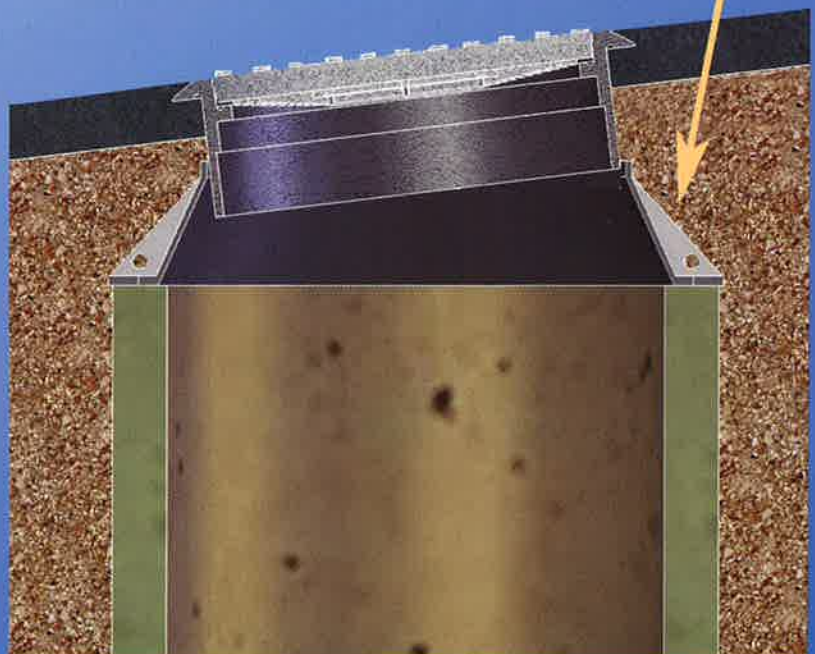
Rubber Pads

Ductile Iron Frame

Allows Up to 8" of Adjustment

Cone Shaped Guide Frame

The cone shaped guide frame allows installation to conform with the crown as well as installation on a slope up to 17%.



Mueller offers a wide range of manholes, catch basins and valve boxes

Models presently available:

- | | |
|------------|---|
| AJ775 | 30 1/2" adjustable frame and cover |
| AJ775SR | 30 1/2" adjustable resilient seated frame and cover |
| AJ775 | 30 1/2" adjustable catch basin |
| AJ750 | 29 1/2" adjustable catch basin |
| AJ750 | 29 1/2" adjustable manhole frame and cover |
| AJ633 | 24 5/8" adjustable frame and cover |
| AJ633SR | 24 5/8" adjustable resilient seated frame and cover |
| AJ633 | 24 5/8" adjustable catch basin |
| AJ22.5 | 22 1/2" adjustable frame and cover |
| AJ22.5 | 22 1/2" adjustable catch basin |
| CB501 | 8" x 24" self-lock adjustable catch basin |
| AJBV-5D/5C | 5 1/4" adjustable valve box |
| AJBV-4D/4C | 4 1/4" adjustable valve box |



Valve Box Top Section



Manhole



Locking Catch Basin



Catch Basin

Check our website frequently for new dimensions and new products or call your local Mueller representative for special inquiries.

Mueller Canada

8069 Lawson Road
Milton, Ontario
L9T 5C4
905-878-0541
Fax: 905-878-3888

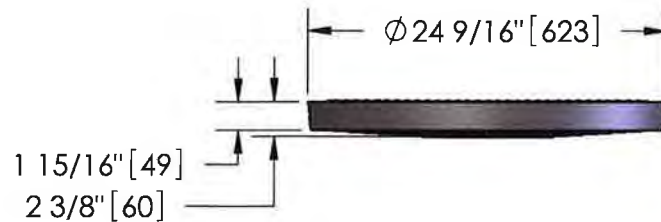
Mueller Co.

The *Adjustable*[®]

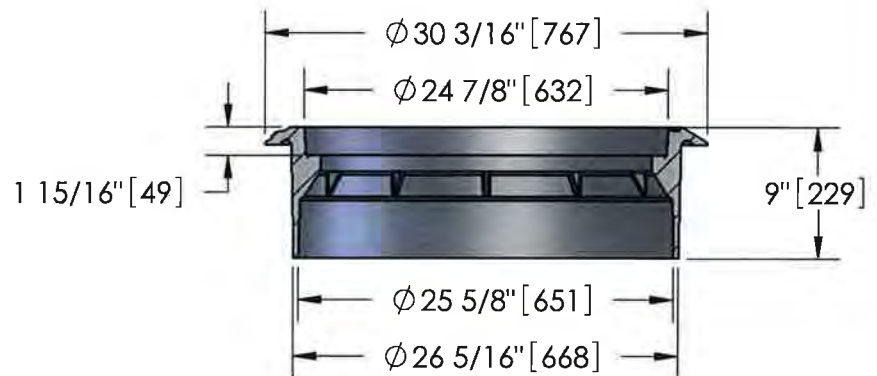


MODEL AJ633

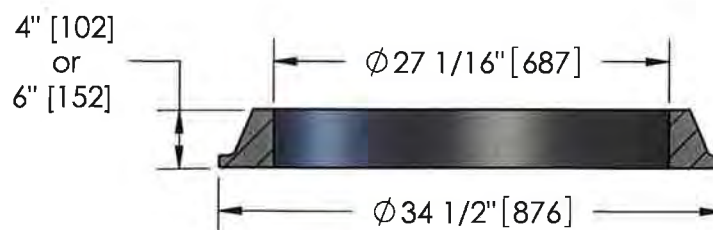
AJ633C COVER
183lbs 83kg
GRAY IRON
ASTM A48 CL30



AJ633.200 FRAME
160lbs 73kg
DUCTILE IRON
ASTM A536 65-45-12



AJ633 GUIDE
4": 137lbs 62kg
6": 146lbs 66kg
GRAY IRON
ASTM A48 CL30



TOTAL WEIGHT 4": 506lbs 229kg 6": 515lbs 234kg

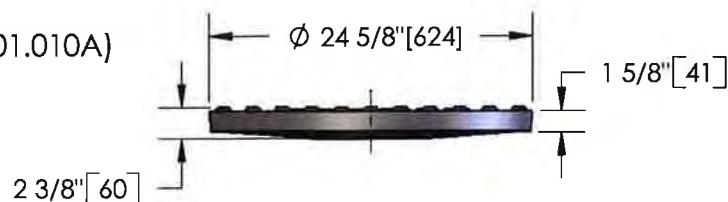
Mueller Canada

THE *Adjustable*®

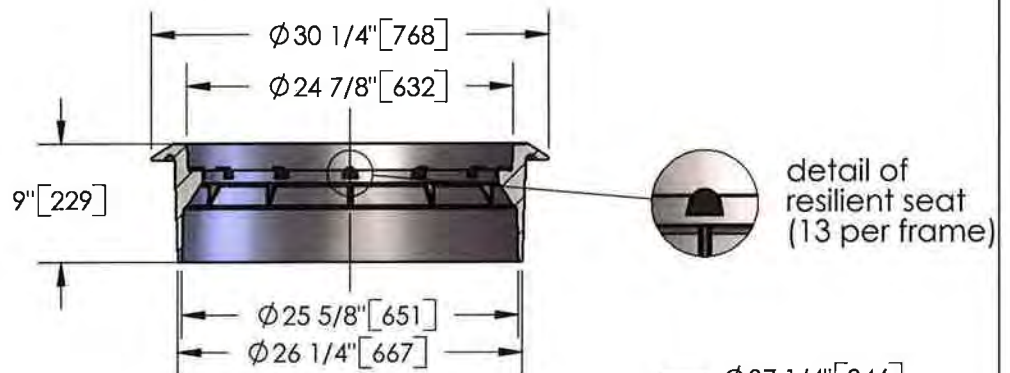
Model AJ633ESR resilient seated
With conical guide
24 5/8" [624mm]



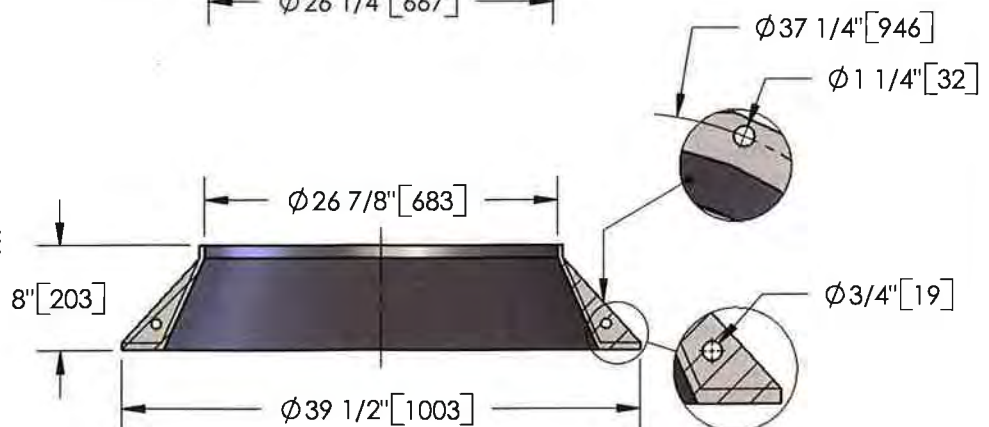
S412 C COVER (OPSD 401.010A)
 24 5/8" [624mm]
 172 lbs 78 kg
 DUCTILE OR GRAY IRON
 ASTM A536 65-45-12
 ASTM A48 Class 30



AJ633 ESR FRAME
 24 5/8" [624mm]
 168 lbs 76 kg
 DUCTILE IRON
 ASTM A536 65-45-12



AJ633 CONICAL GUIDE
 24 5/8" [624mm]
 136 lbs 62 kg
 GRAY IRON
 ASTM A48 Class 30



TOTAL WEIGHT 476 lbs 216 kg

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 CERTIFIED ISO 9001 : 2000

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