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MUELLER

MUELLER TAPPING MATERIALS
AND SPECIALTY VALVES

Rev. 3-18

MUELLER

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MUELLER H2361 PermaSeal Insertion Valves are designed for installation in existing lines where additional valving is required and a shutdown of the line is impractical or dangerous.

TYPICAL USES FOR INSERTION VALVES:

1. Installation in a hydrant stub when no valve is present and the hydrant needs repairs
2. Installation in a line when inoperable valves, already in the line, need repairs
3. Installation in a line when better control and additional control valves are needed in an existing and operating water distribution system

PermaSeal Insertion Valves are installed under pressure with no loss of water or interruption of service. After installation, PermaSeal Insertion Valves are operated like any standard gate valve.

Equipment Required to install insertion valves.

DRILLING MACHINE

The MUELLER CL-12 or C1-36 (power operated) Drilling Machine is used for cutting and valve insertion operations.



PermaSeal Insertion Valve

ADAPTER ASSEMBLY EQUIPMENT

One set of Adapter Assembly equipment is used with 4"-8" and one set with 10"-12". The 4"- 8" Adapter Assembly equipment is used with either the CL-12 or the C1-36. The 10"-12" Adapter Assembly equipment is used with the C1-36.

FLANGE ADAPTER ASSEMBLY EQUIPMENT

A separate set of Flange Adapter Assembly equipment is required for each size of valve to be inserted. Each set is designated by the size of valve.

SPECIAL DRILLING EQUIPMENT

A separate set of Special Drilling Equipment is required to cut the pipe for each size of PermaSeal inserting valve. Each set is designated by size. Only one drilling machine needs to be chosen based on the size of the valve being inserted.

BASIC DRILLING EQUIPMENT

A separate set of Basic Drilling Equipment is required to cut the pipe for each size of PermaSeal insertion valve. Each set is designated by size.

EXAMPLE:

- To insert a 4" PermaSeal Insertion Valve with a CL-12 Machine,
 The following equipment is required:
- 1—set of 4"- 8" Adapter Assembly Equipment
 - 1—set of 4" Flange Adapter Assembly Equipment
 - 1—set of 4" Special Drilling Equipment with the CL-12 Drilling Machine
 - 1—set of 4" Basic Drilling Equipment

USE AND DESCRIPTION:

The MUELLER H-2361 PermaSeal Insertion Valve is designed to be installed in existing lines where additional valving is required. It is installed under pressure with no loss of water or interruption of service.

Each Insertion Valve consists of a sleeve and a valve body. The sleeve is in two parts, which are installed around the main. After the main is cut and a section of pipe is removed, the valve body containing the gate valve mechanism is inserted in the sleeve (gate valve mechanism is identical to that of the MUELLER A.W.W.A. Standard Gate Valves). The valve may then be operated like any standard gate valve. PermaSeal Insertion Valves can be furnished with a handwheel when specified.

SIZES:

4", 6", 8", 10", 12"

Size of valve corresponds with size of main.

All PermaSeal Insertion Valves have full-size water way.



H-2361 PermaSeal Insertion Valve

WORKING PRESSURE:

350 psi Maximum Working Pressure for standard valves

250 psi maximum working pressure for oversized valves

H815 offered for standard pipe sizes (DI, CI, and PVC pipe)

H816 offered for oversized pipe sizes (10"- 12" CI Class C,D)

H819 offered for oversized pipe (A-C pipe)

EQUIPMENT REQUIRED:

- 1—Insert Valve Assembly
- 1—set of 4"- 8" or 10"-12" Adapter Assembly Equipment
- 1—set of 4", 6", 8", 10", or 12" Flange Adapter Assembly Equipment
- 1—set of 4", 6", 8", 10", or 12" Special Drilling Equipment with either the
 - CL-12 or C1-36 Drilling Machine
- 1—set of 4", 6", 8", 10", or 12" Basic Drilling Equipment

For PermaSeal Insertion Valve Parts, see page 12.7

Shipping Weights	
4" Size	372 lbs.
6" Size	510 lbs.
8" Size	795 lbs.
10" Size	1,336 lbs.
12" Size	1,639 lbs.

H-2361 (H-816)		
Nominal Pipe Size	Type of Pipe	Sleeve O.D. Range
10"	Oversized CI	11.34" - 11.46"
12"	(Class C,D)	13.44" - 13.56"

H-2361 (H-815)		
Nominal Pipe Size	Type of Pipe	Sleeve O.D. Range
4"	IPS (Steel, PVC)	4.47" - 5.06"
	DIPS (DI, PVC C900, CI)	
	Oversized CI (Class B, C,D)	
6"	IPS (Steel, PVC)	6.57" - 7.16"
	DIPS (DI, PVC C900, CI)	
	Oversized CI (Class B,C,D)	
8"	IPS (Steel, PVC)	8.57" - 9.36"
	DIPS (DI, PVC C900, CI)	
	Oversized CI (Class C & D)	
10"	IPS (Steel, PVC) DIPS (DI, PVC C900, CI)	10.695" - 11.16"
12"	IPS (Steel, PVC) DIPS (DI, PVC C900, CI)	12.695" - 13.26"

H-2361 (H-819)		
Nominal Pipe Size	Type of Pipe	Sleeve O.D. Range
4"	A-C Class 100	4.79" - 5.26"
	A-C Class 150 & 200	4.97" - 5.57"
6"	A-C Class 100 - 200	7.05" -7.56"v
8"	A-C Class 100 - 200	9.22" - 9.74"
10"	A-C Class 150 - 200	11.77" - 12.12"
12"	A-C Class 150 - 200	14.03" - 14.38"

H-2361 PERMASEAL™ INSERTION VALVE ADAPTER EQUIPMENT



12.23

One set of adapter assembly equipment and one set of flange adapter assembly equipment are required to install an insertion valve. Select equipment from the table according to the size of the valve being installed.

Equipment	4"	6"	8"	10"	12"	QTY Per
Short/Long Adapter Assembly (includes*)		550439		550217		1
* Short Adapter Assembly		550445		549819		1
* Long Adapter Assembly		550440		549810		1
* Short Adapter to Long Adapter Fastener kit		550138		550139		1
* Knife Valve to Long Adapter Fastener kit		550399		550137		1
* Drill Machine to Short Adapter Fastener kit		550218		550219		1
* Short Adapter to Long Adapter Oring Kit		549779-KIT		549781-KIT		2
* 2" Ball Valve		020287 550N		020287 550N		2
* Ball Valve Orings		142781		142781		2
* 4" Mueller Quick Disconnect		287305		287305		2
Flange Adapter Locking Rod Guide Kit, (includes**)	550220	550221	550222	550223	550224	1
** Bottom Flange Adapter Assembly	549961	549951	549936	549844	549828	1
** Locking Rod Assembly	550497	550498	550499 and 550640	551022	551001	1
** Valve Guide Assembly	549967	549956	549942	549847	551153	1
** Flange Adapter to Knife Valve Oring Kit	549779-KIT	549779-KIT	549779-KIT	549781-KIT	549781-KIT	1
** Valve to Flange Adapter Oring kit	549419-KIT	549776-KIT	549420-KIT	549780-KIT	549422-KIT	1
** Flange Adapter to Knife Valve Fastener kit	550399	550399	550399	550134	550134	1
** Valve to Flange Adapter Fastener kit	550130	550130	550131	550131	550131	1
** Valve Guide to Valve Fastener kit	550493	550493	550495	550128	550129	1



Short Adapter Assembly



Long Adapter Assembly



Locking Rod Assembly



Valve Guide Assembly



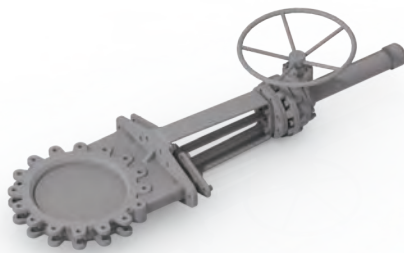
Bottom Flange Adapter Assembly

A separate set of special drilling equipment and basic drilling equipment is required for each size of insertion valve to be installed.

Select equipment from the table according to the size of the valve being installed.

Basic Drilling Equipment	4"	6"	8"	10"	12"
H-607 Hydraulic Operator	000607				
CL-12 Drilling Machine	039295			N/A	
C1-36-99002 Drilling Machine	039262				
Insertion Chip Evacuation System (ICE System)	550400			550478	
Knife Gate Valve Assembly	LV1693A4B-BG4-0001			LV2493A4B-BG4-0004	
Cutter Hub Assembly	550886			550889	

Special Drilling Equipment	4"	6"	8"	10"	12"
Shell Cutter Assembly	550895	550896	550897	550898	550899
Pilot Drill Assembly	550870	550871	550872	550873	550874
Pressure Test Plate Assembly	550582	550583	550584	550597	550598
Pressure Test Bracket Assembly	550810			551189	



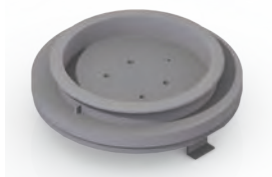
Knife Gate Assembly



Shell Cutter Assembly



Cutter Hub Assembly



Pressure Test Plate Assembly

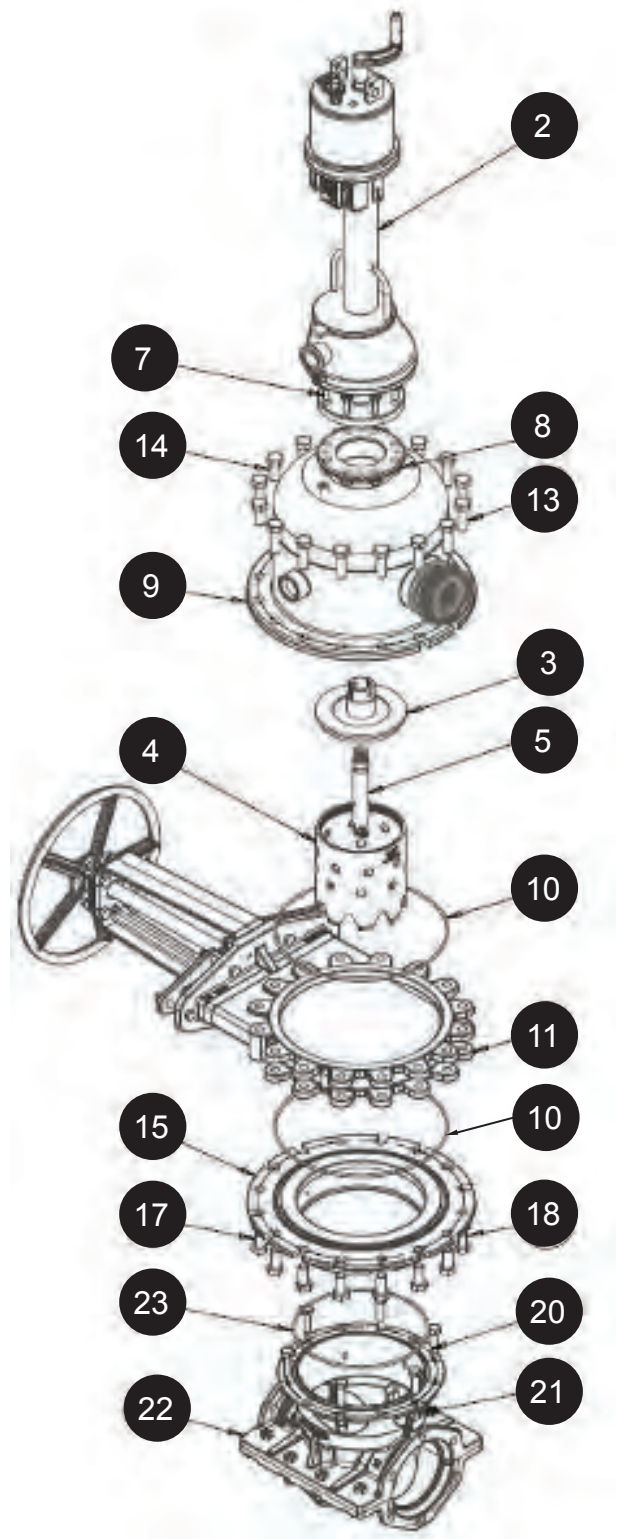


ICE System

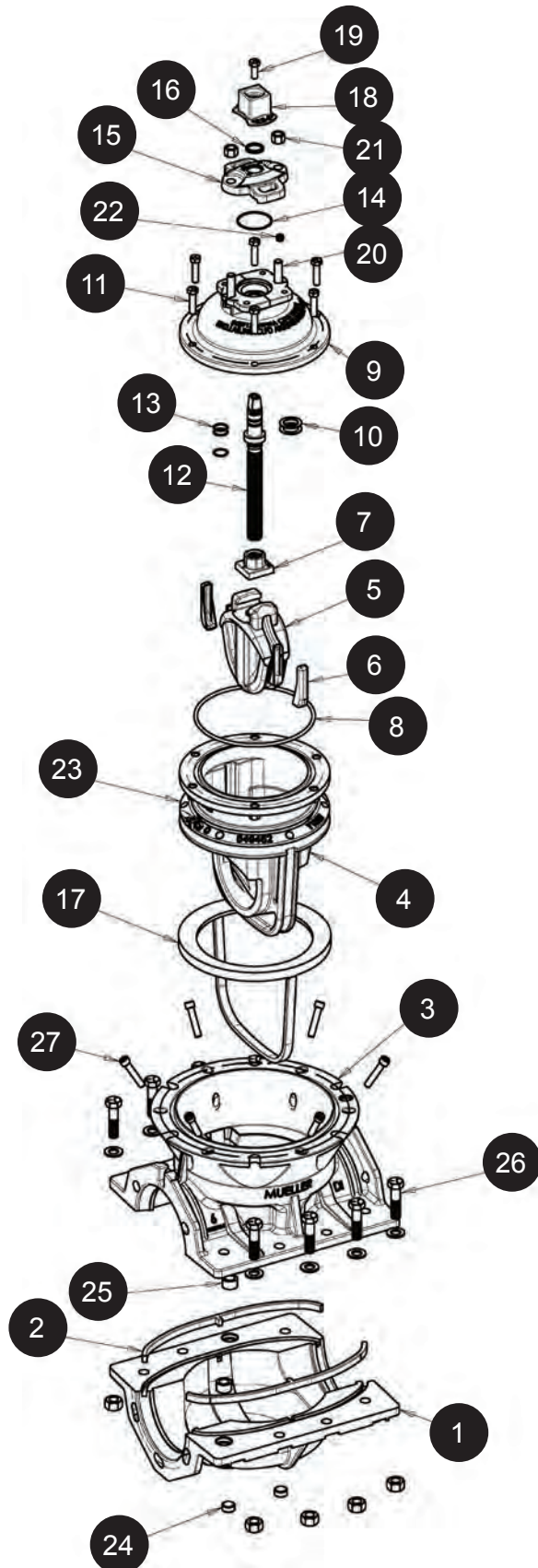


Pilot Drill Assembly

Item	Description
2	Drilling Machine
3	Cutter Hub Assembly
4	Shell Cutter Assembly
5	Pilot Drill Assembly
7	Hex Bolts
8	Hex Nuts
9	Short Adapter Assembly
10	Short Adapter To Knife Valve O-Ring
11	Knife Valve
13	Hex Nut
14	Hex Bolt
15	Bottom Flange Adapter
17	Hex Bolt
18	Hex Nut
20	Hex Bolt
21	Hex Bolt
22	Bottom Adapter To Insertion Valve Casing O-Ring
23	Insertion Valve Casing



Item	Description
1	Insert Valve Bottom Casing
2	Valve Side Casket
3	Insert Valve Top Casing
4	Insert Valve Body
5	Encapsulated Disc - EPDM
6	Guide Cap
7	Disc Nut
8	Bonnet O-Ring - EPDM
9	Bonnet
10	Anti-Friction Washer
11	Hex Cap Screw
12	Everdur Stem
13	Stem O-Ring - EPDM
14	Stuffing Box O-Ring - EPDM
15	Stuffing Box
16	Wiper Ring EPDM
17	Valve Body Gasket
18	Wrench Nut
19	Hex Bolt
20	Hex Bolt
21	Hex Nut
22	Pipe Plug
23	Packing Ring Kit
24	Pipe Plug
25	Dowel Pin/Bushing
26	Sleeve Fastener Kit
27	Angular Bolt Kit



Item	Description
2	Drilling Machine
4	Hex Bolt
5	Hex Nut
6	RWIV Locking Rod Assembly
7	Valve Guide Bracket
8	RWIV Valve Guide Assembly
9	RWIV Short Adapter Assembly
10	RWIV Long Adapter Assembly
11	Short Adapter To Long Adapter O-Ring
13	Hex Head Screw
14	Hex Nut
15	Knife Valve Assembly
17	Hex Cap Screw
18	Hex Cap Screw
19	RWIV Bottom Flange Adapter Assembly
21	Hex Cap Screw
22	Hex Cap Screw
23	Insertion Valve H819
24	Locking Rod To Valve Fastener Kit
27	Hex Cap Screw
28	Hex Nut

