

Hand Shut-Off Valves

for Standard and Extended Bonnets

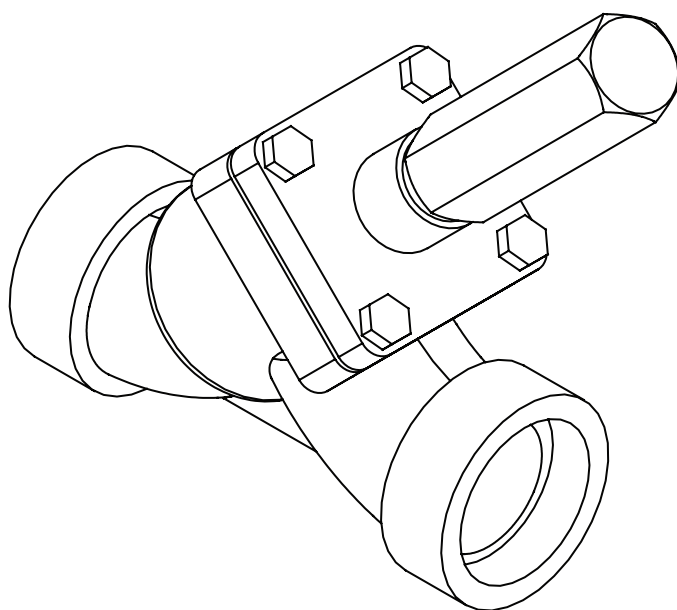
Product Bulletin 80-01 L

Type: Angle, Globe "T" & Globe "Y"



Purpose:

Refrigerating Specialties Division offers a complete line of cast steel body valves with stainless steel trim. Hand valves are available in threaded (FPT), socket weld (SW) and weld neck (WN) connections with options in globe "T", angle, and globe "Y" body style. Designed and built to maintain reliability both in their seating and back seating functions. Maintenance costs are reduced and simplified with bolt-on bonnets.



Contact Information: Product Features:

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- Suitable for Ammonia, R-22, R-507, R-134a, Nitrogen and other common refrigerants.
- Type 303 Stainless Steel Stem and packing nut; 304 Stainless Steel Bolts.
- Reliable Back Seating.
- Complete Line of Bolted Bonnets.
- 25% Carbon Filled PTFE Seat.
- Linear flow "Y" Pattern Globe Bodies from 32 to 300 mm (1¼ to 12") for Low Pressure Drop.
- Extended Bonnets for Insulation.
- Hand wheel and Seal Cap Interchangeable on Same Valve.



ENGINEERING YOUR SUCCESS.

Hand Shut-Off Valves Technical Data

Material:

Body	Cast Steel (A-352 GR, LCB)
Standard Bonnet:	
6 to 100mm (¼ to 4")	A350 Forged Steel
125 to 200mm (5 to 8")	Ductile Iron
250 to 300mm (10 to 12")	Fabricated Steel
Extended Bonnet:	
6 to 100mm (¼ to 4")	LCB Cast Steel
Stem	304 Stainless Steel
Packing	25% Carbon Filled PTFE

Temperature Range:

6 to 100mm (¼ to 4").....-51 to 204°C (-60 to 400°F)

125 to 300mm (5 to 12").....-29 to 204°C (-20 to 400°F)

Maximum Rated Pressure (MRP) 27.6 bar (400 psig)

Description

This complete line of all steel bodied valves with bolt-on bonnets is designed and built to maintain reliability both in their seating and back seating functions. This entire line is supplied with stainless steel stems for maximum corrosion resistance and back seating capability. A unique carbon filled PTFE seat is standard throughout the line, lending durability to the seating surface. In addition, a dual O-ring stem packing design along with a stem packing seal is standard on all valves ¼" thru 12". This innovative design seals both the valve stem and bonnet bore with independent O-rings, which are captured in a carbon PTFE carrier. The addition of the packing provides for backup sealing capability in the unlikely event of an O-ring failure.

A packing nut design with either ¼" or ⅝" flats provides a generous wrench engagement area, with little likelihood of "rounding" the flats. With the O-ring cartridge used in all valve bonnets, there will typically be no need to loosen the packing nut when opening or closing a valve. In most cases, stem resistance will be negligible, allowing the valve to be easily repositioned.

Extended Bonnet

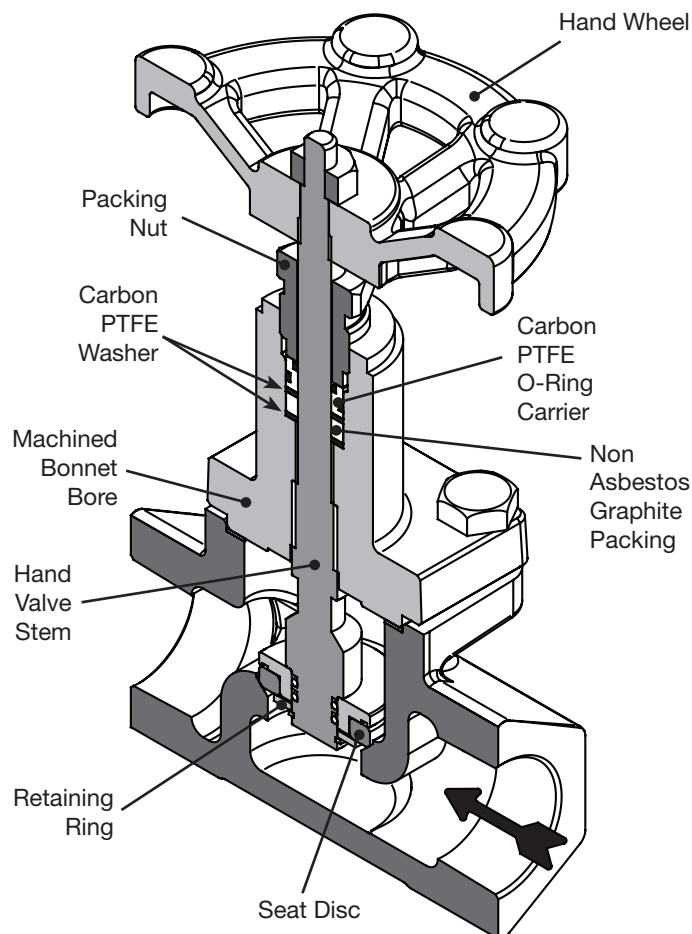
The extended bonnet is available for globe style valves in the tee body configuration and in angle style bodies. Valves are available with either hand wheel or seal cap. These caps are exclusive to this series of valves and should not be exchanged with seal caps from other R/S service valves.

Note: The new hand shut-off valve plugs and bonnet assemblies will not retrofit to either a prior design hand shut-off valve body or to prior design stop valve.

Installation

Screwed End

The most important factor other than the valve itself in achieving a leak-tight and secure threaded valve installation is selection and preparation of mating piping. Pipe 1½" and smaller should be Schedule 80 Steel ASTM A-106 Grade B or equal, properly cut to correct length and cleanly and properly threaded with U.S. National Tapered Male Pipe Threads. The male thread sealant is recommended. Sealant should be applied evenly to act as a lubricant between the threads to avoid any chance of metal-to-metal galling. Valve and piping should be adequately tightened with two wrenches positioned as close together as possible, but not touching the pipe threads. In horizontal piping of suction, overfeed gas return, or condenser drain lines, globe valve or angle valve stems should be horizontal to avoid liquid trapping of gas flow at the valve body casting seat orifice.



Cross-Section: Hand Shut-Off Valve Part Descriptions.

Before putting valves into service, all pipe connections, valve seats, bonnet seals, and stem seals should be tested for leaks at pressure levels called for in appropriate codes.

Socket Weld (SW) and Weld Neck (WN)

Welding valves may be installed in horizontal or vertical pipelines. Stems may be horizontal, vertical, or angled upward. Globe valves in horizontal suction lines or liquid overfeed return lines, condenser drain lines, purge lines, oil pot drain lines, and level control column isolation valves should preferably have stems horizontal, rather than upward, to avoid liquid or gas trapping at valve seat orifices. Inlet pressure for all valve sizes should normally be under seat valve disc, although not required.

The valve stem should be open during welding. Normally, it is not necessary to disassemble valves for welding. However, if welding is prolonged enough to overheat the body, a wet rag should be wrapped around the valve bonnet and upper body during welding. The codes applicable to the welding of socket weld valves require that the pipe be inserted into the socket until bottomed against the stop. The pipe is then to be backed out approximately 1/16 of an inch before welding.

Use of welding rings is optional but recommended for Weld Neck valves. They help alignment, control gap for full penetration welding, and reduce welding debris entry. Welds should be annealed as necessary in accordance with good practice. Painting of valves and welds is recommended for corrosion protection. Pipe covering where applied, should have proper moisture barrier.

Shut-off valves leading to atmosphere, even if it is temporary, must be plugged or capped to prevent corrosion inside of the valve as well as leakage due to vibration, pressure shock, or improper opening; the valve seat should be cracked open to prevent hydrostatic expansion between the valve and the cap. Valves should never directly feed a water tank because of potential internal corrosion or seat opening caused by vibration.

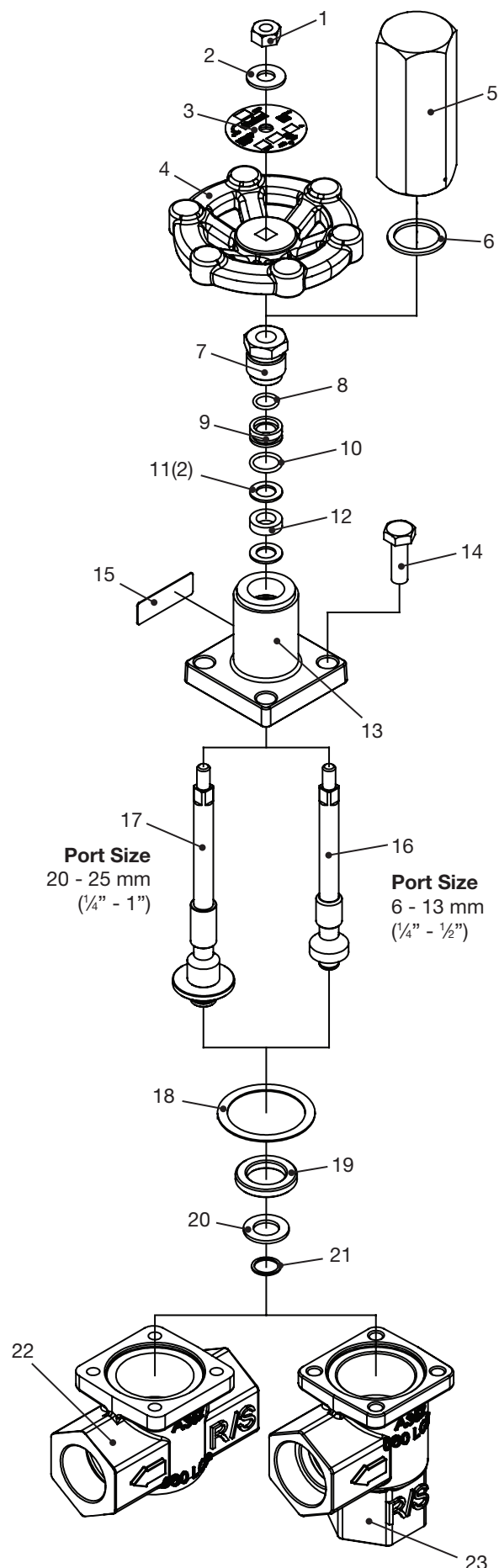
Before putting valves into service, all pipe connections, valve seats, bonnet seats, and stem seals should be tested for leaks at pressure levels called for in appropriate codes.

Hand Shut-Off Valve - Specifications						
Flow Path	Globe	Angle	Globe	Angle	Globe	Angle
Connections	Threaded & S.W.		S.W. & B.W.		Weld Neck	
Sizes (mm)	6,10,13, 20, 25, 32, 38, 50, 65, 75,100		125, 150, 200		250, 300	
Sizes (inches)	¼, ⅜, ½, ¾, 1, 1¼, 1½, 2, 2½, 3, 4		5", 6", 8"		10", 12"	
Bonnet Material	ASTM A350 Forged Steel		Ductile Iron		ASTM A36 or SAE 1020 Steel	
Body Material			Cast Steel A-352 GR, LCB			
Packing Material			Non-Asbestos Graphite			
Seat Materials			25% Carbon Filled PTFE			

Hand Shut-Off Valve - Weights and Capacities													
Port Size		Flow Coefficients						Weights					
		Globe "T"		Globe "Y"		Angle		Globe "T"		Globe "Y"		Angle	
mm	in	Kv	Cv	Kv	Cv	Kv	Cv	kg	lb	kg	lb	kg	lb
6	$\frac{1}{4}$	2.2	2.6	—	—	3.1	3.6	1.2	2.6	—	—	1.1	2.4
10	$\frac{3}{8}$	3.5	4.1	—	—	4.8	5.5	1.2	2.6	—	—	1.1	2.4
13	$\frac{1}{2}$	6.2	7.2	—	—	6.9	8.0	2.0	4.5	—	—	2.0	4.5
20	$\frac{3}{4}$	12.1	14.0	—	—	14.7	17.0	2.0	4.5	—	—	2.0	4.5
25	1	19.0	22.0	—	—	23.4	27.0	2.0	4.5	—	—	2.0	4.5
32	$1\frac{1}{4}$	26.0	30.0	40.7	47.0	30.3	35.0	5.4	11.8	4.1	9.1	5.0	11.0
38	$1\frac{1}{2}$	37.2	43.0	45.8	53.0	39.8	46.0	8.3	18.4	4.3	9.5	5.0	11.0
50	2	52.8	61.0	80.1	92.6	73.5	85.0	8.9	19.7	5.3	11.7	6.8	15.0
65	$2\frac{1}{2}$	89.1	103.0	132.4	153.0	128.9	149.0	14.7	32.3	8.9	19.6	10.0	22.0
75	3	98.6	114.0	179.9	208.0	185.1	214.0	20.6	45.5	15.3	33.8	15.0	33.0
100	4	174.7	202.0	294.1	340.0	302.8	350.0	34.0	75.0	22.2	49.0	18.1	40.0
125	5	—	—	621.1	718.0	639.3	739.0	—	—	44.9	99.0	38.6	85.1
150	6	—	—	792.4	916.0	815.7	943.0	—	—	79.8	176.0	46.2	101.8
200	8	—	—	1250.9	1446.0	1288.1	1489.0	—	—	116.1	256.0	87.1	192.0
250	10	—	—	2058.8	2380.0	2141.0	2475.0	—	—	191.4	422.0	160.1	353.0
300	12	—	—	2837.4	3280.0	2958.5	3420.0	—	—	276.7	610.0	208.7	460.0

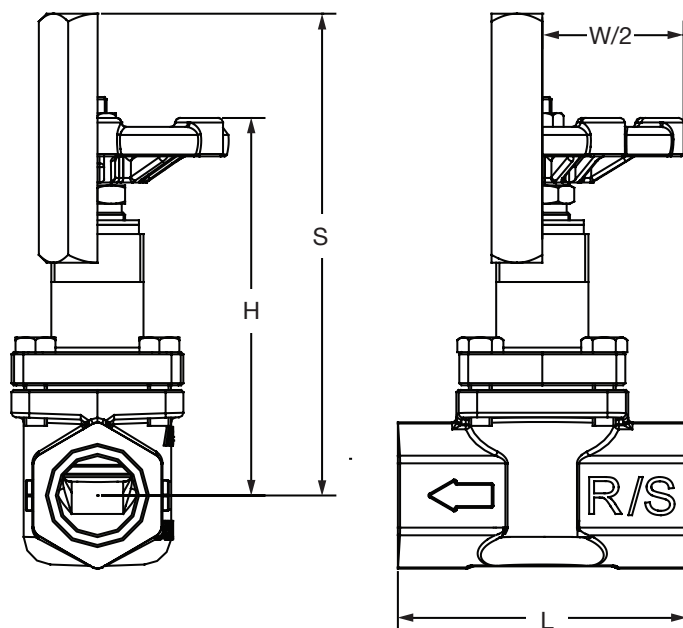
Hand Shut-Off Valve - Bolt Torque Recommendations							
Port Size		Bolt Size	Qty	Torque			
				Bonnet Screws		Packing Nut	
mm	in			N m	ft lb	N m	ft lb
6 - 25	$\frac{1}{4}$ - 1	$\frac{5}{16}$ " - 18 x 1"	4	25.8	19.0	3.4	2.5
32	$1\frac{1}{4}$	$\frac{3}{8}$ " - 16 x 1"	4	42.0	31.0	3.4	2.5
40 - 50	$1\frac{1}{2}$ - 2	$\frac{7}{8}$ " - 14 x $1\frac{1}{4}$ "	4	61.0	45.0	3.4	2.5
65	$2\frac{1}{2}$	$\frac{1}{2}$ " - 13 x $1\frac{1}{2}$ "	4	81.3	60.0	3.4	2.5
75	3	$\frac{1}{2}$ " - 13 x $1\frac{1}{2}$ "	4	101.7	75.0	3.4	2.5
100	4	$\frac{5}{8}$ " - 11 x $1\frac{1}{2}$ "	4	101.7	75.0	3.4	2.5
125 - 150	5 - 6	$\frac{5}{8}$ " - 11 x 2"	6	189.8	140.0	9.1	6.7
200	8	$\frac{5}{8}$ " - 11 x 2"	8	189.8	140.0	9.1	6.7
250 - 300	10 - 12	$\frac{7}{8}$ " - 9 x $2\frac{3}{4}$ "	12	189.8	140.0	9.1	6.7

Hand Shut-Off Valve FPT Standard Bonnet Parts List			
No.	Description	Material	Qty
1	1/4"-20 Hex Jam Nut	Nylon, S.S.	1
2	Washer, Flat	S.S.	1
3	Name Plate	Aluminum	1
4	Handwheel	Ductile Iron	1
5	Seal Cap	Aluminum 2011-T3	1
6	Gasket, Seal Cap	Nylon	1
7	Nut, Packing	303 S.S.	1
8	O-ring	Neoprene	1
9	Gland, O-ring	Carbon, PTFE	1
10	O-ring	Neoprene	1
11	Washer, Packing	Teflon, Carbon	2
12	Packing, Stem	Crane Foil	1
13	Bonnet	A105	1
14	Bolts, 5/16"-18 x1"	304 S.S.	4
15	Sticker, Warning	—	1
16	Stem, 6 - 13mm (1/4" - 1/2")	303 S.S.	1
17	Stem, 20 - 25mm (3/4" - 1")	303 S.S.	1
18	Gasket	Garlock 2930	1
19	Seat Disc	Ebolon 48, Carbon	1
20	Washer, Flat	Zinc	1
21	Ring, Retaining	Carbon	1
22	Globe-T Body	LCB ASTM A-352	1
23	Angle Body	LCB ASTM A-352	1



Explosion View: FPT Globe "T" and Angle Standard Bonnet Hand Shut-Off Valves.

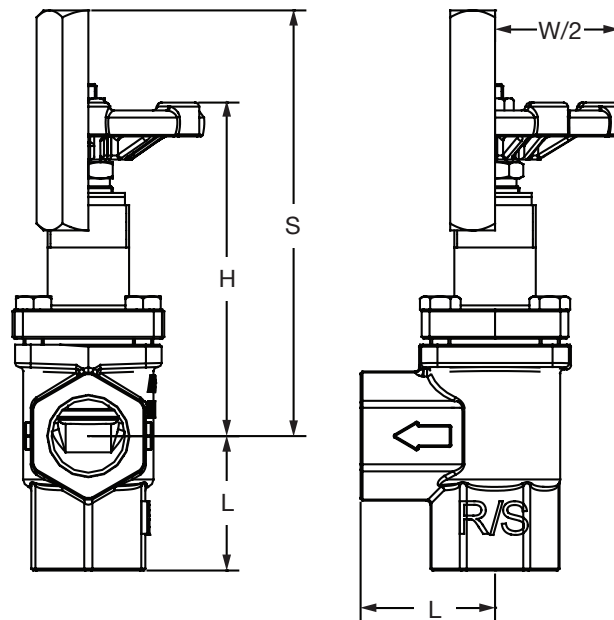
Hand Shut-Off Valve FPT Standard Bonnet Replacement Part Kits						
Item	Kit Description	Port Size				
		6 mm ($\frac{1}{4}$ ")	10 mm ($\frac{3}{8}$ ")	13 mm ($\frac{1}{2}$ ")	20 mm ($\frac{3}{4}$ ")	25 mm (1")
1, 2, 4	Hand Wheel	204267	204267	204267	204268	204268
5, 6	Seal Cap	204273	204273	204273	204273	204273
7 - 12	Packing	204471	204471	204471	204471	204471
7 - 12, 16, 18 - 21	Disc/Plug Stem	204297	204297	204297	—	—
7 - 12, 17 - 21	Disc/Plug Stem	—	—	—	204298	204298
7 - 16, 18 - 21	Bonnet Assembly	205684	205684	205684	—	—
7 - 15, 17 - 21	Bonnet Assembly	—	—	—	205685	205685
18(6)	Gasket Pkg, Bonnet	204281	204281	204281	204282	204282
6(6)	Gasket Pkg, Seal Cap	204292	204292	204292	204292	204292



Port Size	L	H**	S	W
6 mm ($\frac{1}{4}$ ")	93.7 mm (3.69")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
10 mm ($\frac{3}{8}$ ")	93.7 mm (3.69")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
13 mm ($\frac{1}{2}$ ")	93.7 mm (3.69")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
20 mm ($\frac{3}{4}$ ")	99.6 mm (3.92")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
25 mm (1")	99.6 mm (3.92")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")

** Valve completely open.

Dimensional Data: FPT Globe "T" Standard Bonnet Hand Shut-Off Valves.



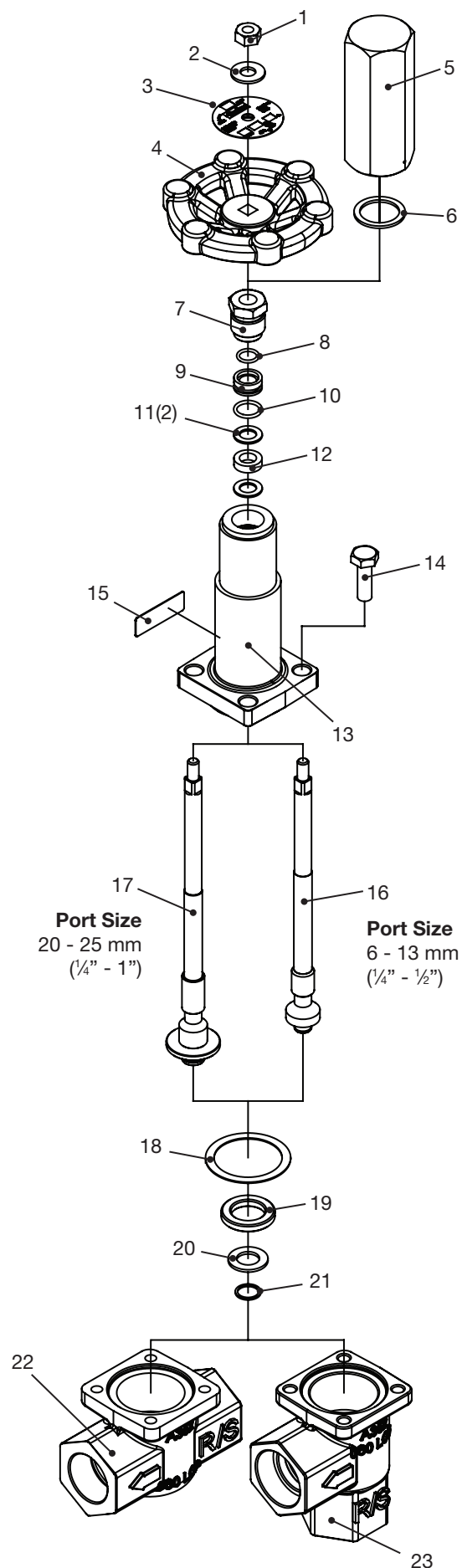
Port Size	L	H**	S	W
6 mm ($\frac{1}{4}$ ")	44.5 mm (1.75")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
10 mm ($\frac{3}{8}$ ")	44.5 mm (1.75")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
13 mm ($\frac{1}{2}$ ")	44.5 mm (1.75")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
20 mm ($\frac{3}{4}$ ")	52.4 mm (2.06")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
25 mm (1")	52.4 mm (2.06")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")

** Valve completely open.

Dimensional Data: FPT Angle Standard Bonnet Hand Shut-Off Valves.

**Hand Shut-Off Valve
FPT Extended Bonnet Parts List**

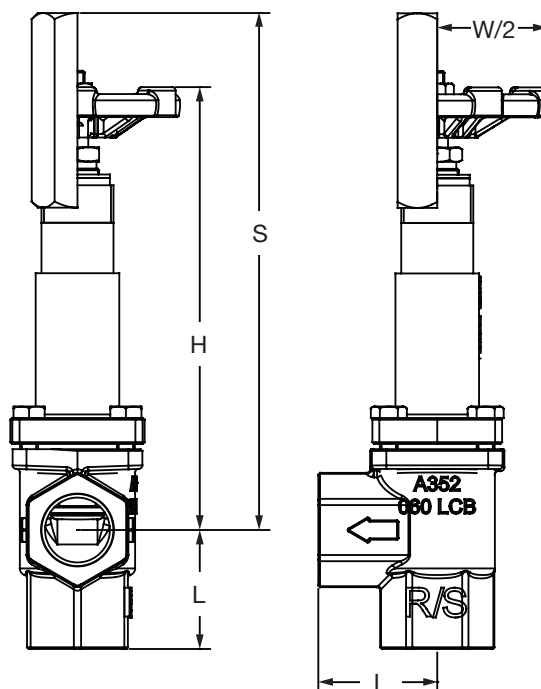
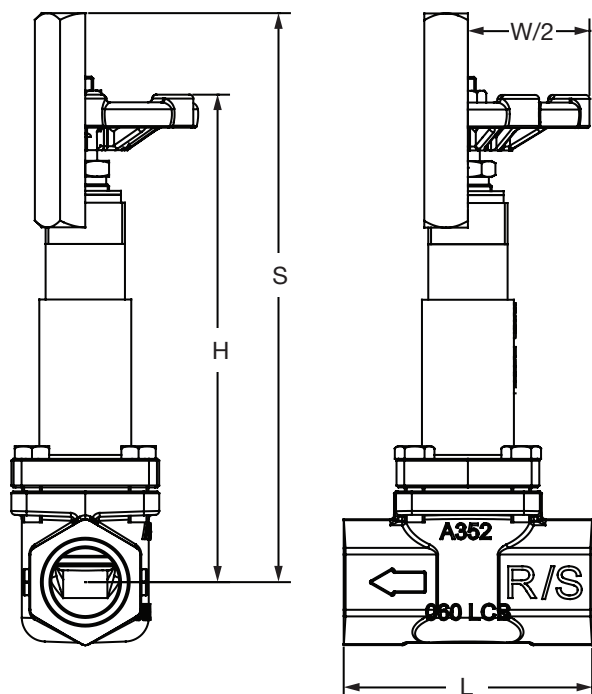
No.	Description	Material	Qty
1	1/4"-20 Hex Jam Nut	Nylon, S.S.	1
2	Washer, Flat	S.S.	1
3	Name Plate	Aluminum	1
4	Handwheel	Ductile Iron	1
5	Seal Cap	Aluminum 2011-T3	1
6	Gasket, Seal Cap	Nylon	1
7	Nut, Packing	303 S.S.	1
8	O-ring	Neoprene	1
9	Gland, O-ring	Carbon, PTFE	1
10	O-ring	Neoprene	1
11	Washer, Packing	Teflon, Carbon	2
12	Packing, Stem	Crane Foil	1
13	Bonnet	A105	1
14	Bolts, 5/16"-18 x1"	304 S.S.	4
15	Sticker, Warning	—	1
16	Stem, 6 - 13mm (1/4" - 1/2")	303 S.S.	1
17	Stem, 20 - 25mm (3/4" - 1")	303 S.S.	1
18	Gasket	Garlock 2930	1
19	Seat Disc	Ebolon 48, Carbon	1
20	Washer, Flat	Zinc	1
21	Ring, Retaining	Carbon	1
22	Globe-T Body	LCB ASTM A-352	1
23	Angle Body	LCB ASTM A-352	1



Explosion View: FPT Globe "T" and Angle Extended Bonnet Hand Shut-off Valves.

Hand Shut-Off Valve FPT Extended Bonnet Replacement Part Kits

Item	Kit Description	Port Size				
		6 mm ($\frac{1}{4}$ ")	10 mm ($\frac{3}{8}$ ")	13 mm ($\frac{1}{2}$ ")	20 mm ($\frac{3}{4}$ ")	25 mm (1")
1, 2, 4	Hand Wheel	204267	204267	204267	204268	204268
5, 6	Seal Cap	204273	204273	204273	204273	204273
7 - 12	Packing	204471	204471	204471	204471	204471
7 - 15, 16, 18 - 21	Bonnet Assembly	205975	205975	205975	—	—
7 - 15, 17 - 21	Bonnet Assembly	—	—	—	205976	205976
18(6)	Gasket Pkg, Bonnet	204281	204281	204281	204282	204282
6(6)	Gasket Pkg, Seal Cap	204292	204292	204292	204292	204292



Port Size	L	H**	S	W
13 mm ($\frac{1}{2}$ ")	93.7 mm (3.69")	190.5 mm (7.50")	209.6 mm (8.25")	63.5 mm (2.50")
20 mm ($\frac{3}{4}$ ")	99.6 mm (3.92")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
25 mm (1")	99.6 mm (3.92")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")

** Valve completely open.

Dimensional Data: FPT Globe "T" Extended Bonnet Hand Shut Off Valves.

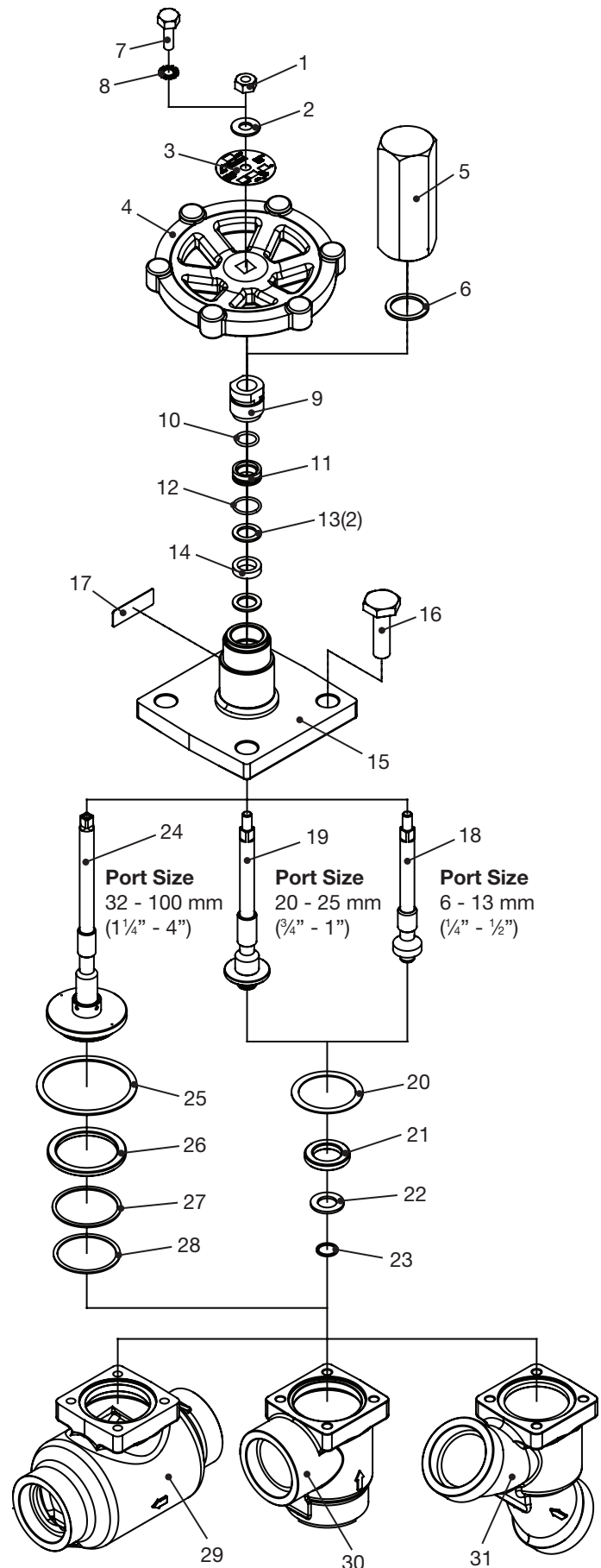
Port Size	L	H**	S	W
13 mm ($\frac{1}{2}$ ")	44.5 mm (1.75")	190.5 mm (7.50")	215.9 mm (8.50")	63.5 mm (2.50")
20 mm ($\frac{3}{4}$ ")	52.4 mm (2.06")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
25 mm (1")	52.4 mm (2.06")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")

** Valve completely open.

Dimensional Data: FPT Angle Extended Bonnet Hand Shut-Off Valves.

Hand Shut-Off Valve Socket Weld (SW) Standard Bonnet Parts List

No.	Description	Material	Qty
1	¼"-20 Hex Jam Nut	Nylon, S.S.	1
2	Washer, Flat	S.S.	1
3	Name Plate	Aluminum	1
4	Handwheel	Ductile Iron	1
5	Seal Cap	Aluminum	1
6	Gasket, Seal Cap	Nylon	1
7	Screw, Hex ¼" - 20	S.S.	1
8	Washer, Ext - Star ¼" ID	S.S.	1
9	Nut, Packing	303 S.S.	1
10	O-ring	Neoprene	1
11	Gland, O-ring	Carbon, PTFE	1
12	O-ring	Neoprene	1
13	Washer, Packing	Teflon, Carbon	2
14	Packing, Stem	Crane Foil	1
15	Bonnet	A105	1
16	Bolts: 6 - 25 mm (¼" - ¾") 5/16" - 18 x 1"	304 S.S.	4
	32 mm (1¼") 3/8"-16 x 1"		
	40 - 50 mm (1½" - 2") 7/8" - 14 x 1¼"		
	65 - 75 mm (2½" - 3") ½" - 13 x 1½"		
	100 mm (4") 5/8" - 11 x 1½"		
	17		
18	Stem, 6 - 13mm (¼" - ½")	303 S.S.	1
19	Stem, 20 - 25mm (¾" - 1")	303 S.S.	1
20	Gasket	Garlock 2930	1
21	Seat Disc	Ebolon, Carbon	1
22	Washer, Flat	Zinc	1
23	Ring, Retaining	Carbon	1
24	Stem, 32 - 100 mm (1¼" - 4")	303 S.S.	1
25	Gasket	Garlock 2930	1
26	Seat Disc	Ebolon, Carbon	1
27	Washer, Retaining	Zinc - Chromate	1
28	Ring, Retaining	Carbon - Termper Steel	1
29	Globe-T Body	LCB ASTM A-352	1
30	Angle Body	LCB ASTM A-352	1
31	Glove-Y Body	LCB ASTM A-352	1

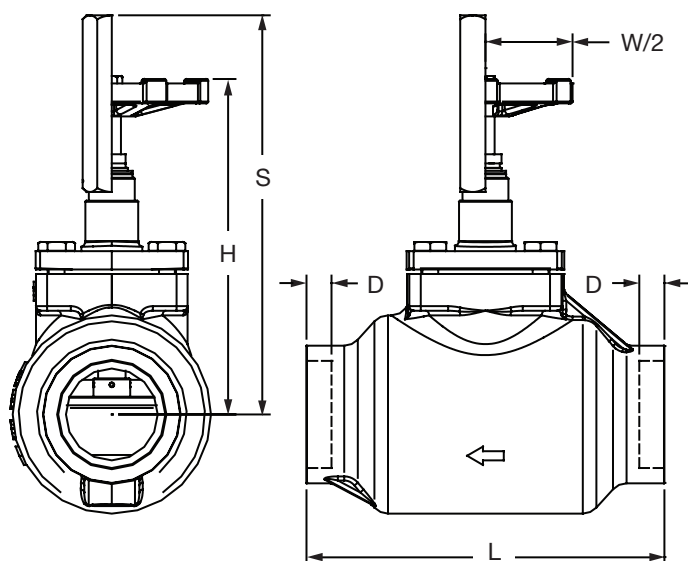


Explosion View: Socket Weld (SW) Standard Bonnet Hand Shut-Off Valve.

Hand Shut-Off Valve Socket Weld (SW) Standard Bonnet Replacement Part Kits

Item	Kit Description	Port Size										
		6 mm ($\frac{1}{4}$ ")	10 mm ($\frac{3}{8}$ ")	13 mm ($\frac{1}{2}$ ")	20 mm ($\frac{3}{4}$ ")	25 mm (1")	32 mm (1 $\frac{1}{4}$ ")	40 mm (1 $\frac{1}{2}$ ")	50 mm (2")	65 mm (2 $\frac{1}{2}$ ")	75 mm (3")	100 mm (4")
1, 2, 4	Hand Wheel	204267	204267	204267	204268	204268	—	—	—	—	—	—
2, 4, 7, 8	Hand Wheel	—	—	—	—	—	204269	204269	204269	204269	204270	204270
5, 6	Seal Cap	204273	204273	204273	204273	204273	251084	251084	251084	251084	251177	251177
9 - 14	Packing	204471	204471	204471	204471	204471	204472	204472	204472	204472	204473	204473
9 - 14, 18, 20 - 23	Disc/Plug Stem	204297	204297	204297	—	—	—	—	—	—	—	—
9 - 14, 19 - 23	Disc/Plug Stem	—	—	—	204298	204298	—	—	—	—	—	—
9 - 14, 24 - 28	Disc/Plug Stem	—	—	—	—	—	204300	204300	204301	204302	204303	204304
25 - 28	Disc	—	—	—	—	—	204322	204322	204323	204324	204325	—
9 - 18, 20 - 23	Bonnet Assembly	205684	205684	205684	—	—	—	—	—	—	—	—
9 - 17, 19 - 23	Bonnet Assembly	—	—	—	205685	205685	—	—	—	—	—	—
9 - 17, 24 - 28	Bonnet Assembly	—	—	—	—	—	205687 *205688	205688	205688	205689	205690	205691
20(6)	Gasket Pkg, Bonnet	204281	204281	204281	204282	204282	—	—	—	—	—	—
25(6)	Gasket Pkg, Bonnet	—	—	—	—	—	204283	204283	204284	204285	204286	204287
6(6)	Gasket Pkg, Seal Cap	204292	204292	204292	204292	204292	204292	204292	204292	204292	—	—
6(2)	Gasket Pkg, Seal Cap	—	—	—	—	—	—	—	—	—	204293	204293

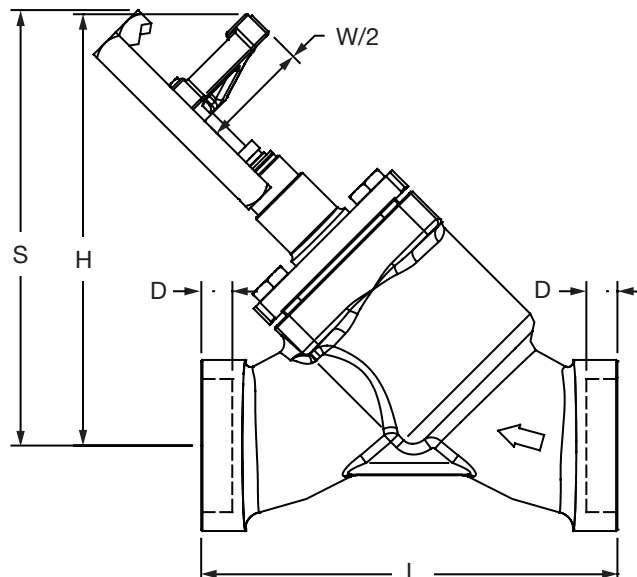
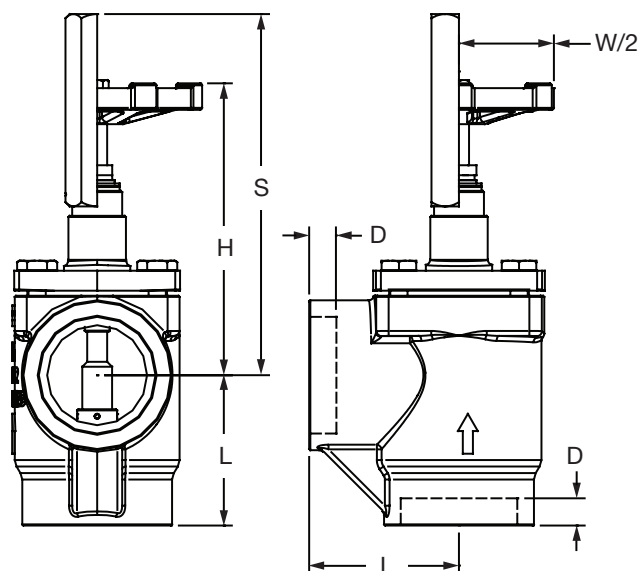
* 1 $\frac{1}{2}$ " Globe "T" valve body only.



** Valve completely open.

Dimensional Data: SW Globe "T" Standard Bonnet Hand Shut-Off Valves.

Port Size	L	D	H**	S	W
6 mm ($\frac{1}{4}$ ")	93.7 mm (3.69")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
10 mm ($\frac{3}{8}$ ")	93.7 mm (3.69")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
13 mm ($\frac{1}{2}$ ")	93.7 mm (3.69")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
20 mm ($\frac{3}{4}$ ")	99.5 mm (3.92")	12.7 mm (0.50")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
25 mm (1")	99.5 mm (3.92")	12.7 mm (0.50")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
32 mm (1 $\frac{1}{4}$ ")	174.8 mm (6.88")	14.3 mm (0.56")	228.6 mm (9.00")	241.3 mm (9.50")	136.5 mm (5.38")
40 mm (1 $\frac{1}{2}$ ")	207.8 mm (8.18")	14.3 mm (0.56")	254.0 mm (10.00")	266.7 mm (10.50")	136.5 mm (5.38")
50 mm (2")	207.8 mm (8.18")	17.3 mm (0.68")	254.0 mm (10.00")	254.0 mm (10.0")	136.5 mm (5.38")
65 mm (2 $\frac{1}{2}$ ")	241.3 mm (9.50")	17.3 mm (0.68")	279.4 mm (11.00")	285.8 mm (11.25")	136.5 mm (5.38")



Port Size	L	D	H**	S	W
6 mm (1/4")	44.5 mm (1.75")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
10 mm (3/8")	44.5 mm (1.75")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
13 mm (1/2")	44.5 mm (1.75")	10.4 mm (0.41")	127.0 mm (5.00")	146.1 mm (5.75")	63.5 mm (2.50")
20 mm (3/4")	52.4 mm (2.06")	13.6 mm (0.53")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
25 mm (1")	52.4 mm (2.06")	12.7 mm (0.50")	152.4 mm (6.00")	165.1 mm (6.50")	108.0 mm (4.25")
32 mm (1 1/4")	67.6 mm (2.66")	14.3 mm (0.56")	184.1 mm (7.25")	203.2 mm (8.00")	136.5 mm (5.38")
40 mm (1 1/2")	66.3 mm (2.61")	14.3 mm (0.56")	184.1 mm (7.25")	203.2 mm (8.00")	136.5 mm (5.38")
50 mm (2")	78.1 mm (3.08")	17.3 mm (0.68")	215.9 mm (8.50")	222.3 mm (8.75")	136.5 mm (5.38")
65 mm (2 1/2")	92.1 mm (3.63")	17.3 mm (0.68")	235.0 mm (9.25")	241.3 mm (9.50")	136.5 mm (5.38")
75 mm (3")	92.7 mm (3.65")	17.3 mm (0.68")	279.4 mm (11.00")	298.5 mm (11.75")	158.8 mm (6.25")
100 mm (4")	112.0 mm (4.41")	20.8 mm (0.82")	298.5 mm (11.75")	311.2 mm (12.25")	158.8 mm (6.25")

Port Size	L	D	H**	S	W
32 mm (1 1/4")	158.8 mm (6.25")	14.3 mm (0.56")	222.3 mm (8.75")	203.2 mm (8.00")	136.5 mm (5.38")
40 mm (1 1/2")	158.8 mm (6.25")	14.3 mm (0.56")	222.3 mm (8.75")	203.2 mm (8.00")	136.5 mm (5.38")
50 mm (2")	202.4 mm (7.97")	17.3 mm (0.68")	254.0 mm (10.00")	228.6 mm (9.00")	136.5 mm (5.38")
65 mm (2 1/2")	228.6 mm (9.00")	17.3 mm (0.68")	279.4 mm (11.00")	254.0 mm (10.00")	136.5 mm (5.38")
75 mm (3")	285.8 mm (11.25")	17.3 mm (0.68")	317.5 mm (12.50")	304.8 mm (12.00")	158.8 mm (6.25")
100 mm (4")	339.7 mm (13.38")	20.8 mm (0.82")	355.6 mm (14.00")	330.2 mm (13.00")	158.8 mm (6.25")

** Valve completely open.

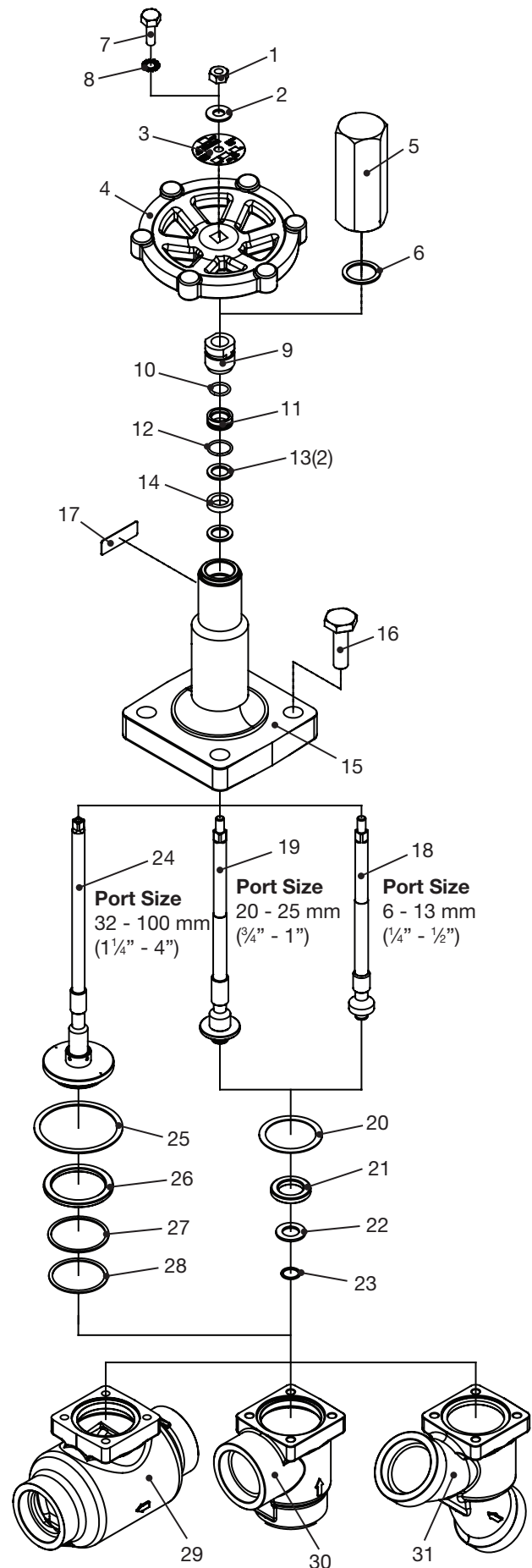
Dimensional Data: SW Globe "Y" Standard Bonnet Hand Shut-Off Valves.

** Valve completely open.

Dimensional Data: SW Angle Standard Bonnet Hand Shut-Off Valves.

**Hand Shut-Off Valve
Socket Weld (SW) Extended Bonnet Parts List**

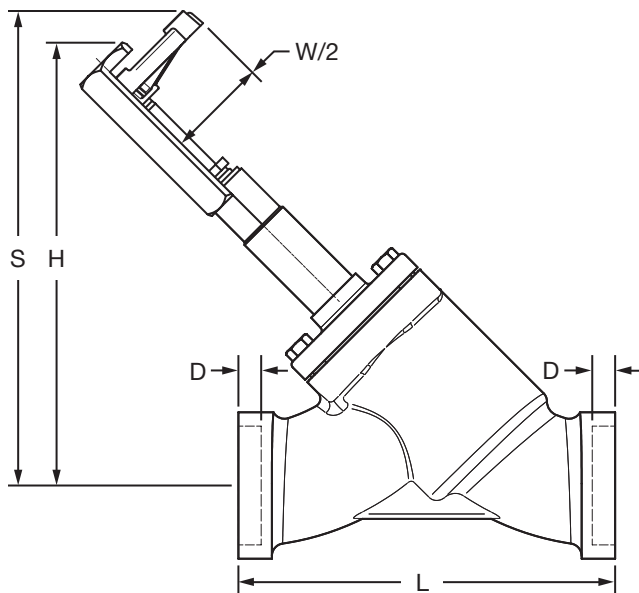
No.	Description	Material	Qty
1	1/4"-20 Hex Jam Nut	Nylon, S.S.	1
2	Washer, Flat	S.S.	1
3	Name Plate	Aluminum	1
4	Handwheel	Ductile Iron	1
5	Seal Cap	Aluminum	1
6	Gasket, Seal Cap	Nylon	1
7	Screw, Hex 1/4" - 20	S.S.	1
8	Washer, Ext - Star 1/4" ID	S.S.	1
9	Nut, Packing	303 S.S.	1
10	O-ring	Neoprene	1
11	Gland, O-ring	Carbon, PTFE	1
12	O-ring	Neoprene	1
13	Washer, Packing	Teflon, Carbon	2
14	Packing, Stem	Crane Foil	1
15	Bonnet	A105	1
Bolts:			
6 - 25mm (1/4" - 3/4")			
5/16" - 18 x 1"			
32mm (1 1/4")			
3/8" - 16 x 1"			
16	40 - 50mm (1 1/2" - 2")	304 S.S.	4
7/8" - 14 x 1 1/4"			
65 - 75mm (2 1/2" - 3")			
1/2" - 13 x 1 1/2"			
100 mm (4")			
5/8" - 11 x 1 1/2"			
17	Sticker, Warning	—	1
18	Stem, 6 - 13mm (1/4" - 1/2")	303 S.S.	1
19	Stem, 20 - 25mm (3/4" - 1")	303 S.S.	1
20	Gasket	Garlock 2930	1
21	Seat Disc	Ebolon, Carbon	1
22	Washer, Flat	Zinc	1
23	Ring, Retaining	Carbon	1
24	Stem, 32 - 100 mm (1 1/4" - 4")	303 S.S.	1
25	Gasket	Garlock 2930	1
26	Seat Disc	Carbon - Ebolon 48	1
27	Washer, Retaining	Zinc - Chromate	1
28	Ring, Retaining	Carbon - Termper Steel	1
29	Globe-T Body	LCB ASTM A-352	1
30	Angle Body	LCB ASTM A-352	1
31	Globe-Y Body	LCB ASTM A-352	1



Explosion View: Socket Weld (SW) Extended Bonnet Hand Shut-Off Valves.

Hand Shut-Off Valves Socket Weld (SW) Extended Bonnet Replacement Part Kits												
Item	Kit Description	Port Size										
		6 mm (¼")	10 mm (⅜")	13 mm (½")	20 mm (¾")	25 mm (1")	32 mm (1¼")	40 mm (1½")	50 mm (2")	65 mm (2½")	75 mm (3")	100 mm (4")
1, 2, 4	Hand Wheel	204267	204267	204267	204268	204268	—	—	—	—	—	—
2, 4, 7, 8	Hand Wheel	—	—	—	—	—	204269	204269	204269	204269	204270	204270
5, 6	Seal Cap	204273	204273	204273	204273	204273	251084	251084	251084	251084	251177	251177
9 - 14	Packing	204471	204471	204471	204471	204471	204472	204472	204472	204472	204473	204473
25 - 28	Disc	—	—	—	—	—	204322	204322	204323	204324	204325	—
9 - 14, 25 - 28	Disc/Plug Stem	—	—	—	—	—	—	—	—	—	—	210537
9 - 18, 20 - 23	Bonnet Assembly	205975	205975	205975	—	—	—	—	—	—	—	—
9 - 17, 19 - 23	Bonnet Assembly	—	—	—	205976	205976	—	—	—	—	—	—
9 - 17, 24 - 28	Bonnet Assembly	—	—	—	—	—	205977	205977 *205978	205978	205979	205980	205981
20(6)	Gasket Pkg, Bonnet	204281	204281	204281	204282	204282	—	—	—	—	—	—
25(6)	Gasket Pkg, Bonnet	—	—	—	—	—	204283	204283	204284	204285	204286	204287
6(6)	Gasket Pkg, Seal Cap	204292	204292	204292	204292	204292	204292	204292	204292	204292	—	—
6(2)	Gasket Pkg, Seal Cap	—	—	—	—	—	—	—	—	—	204293	204293

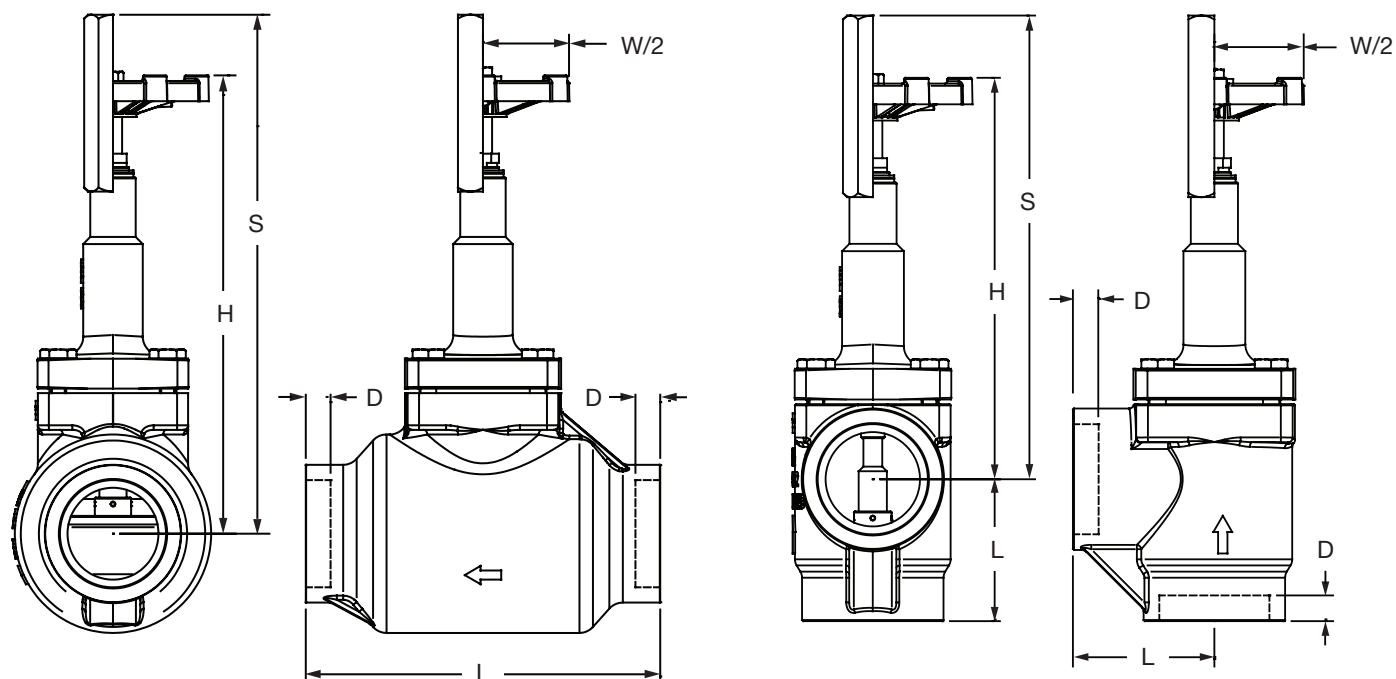
* 1½" Globe "T" valve body only.



Port Size	L	D	H**	S	W
32 mm (1¼")	158.8 mm (6.25")	14.3 mm (0.56")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
40 mm (1½")	158.8 mm (6.25")	14.3 mm (0.56")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
50 mm (2")	202.4 mm (7.97")	17.3 mm (0.68")	279.4 mm (12.50")	279.4 mm (11.00")	136.5 mm (5.38")
65 mm (2½")	228.6 mm (9.00")	17.3 mm (0.68")	311.2 mm (12.25")	311.2 mm (12.25")	136.5 mm (5.38")
75 mm (3")	285.8 mm (11.25")	17.3 mm (0.68")	323.9 mm (12.75")	349.3 mm (13.75")	158.8 mm (6.25")
100 mm (4")	339.7 mm (13.38")	20.8 mm (0.82")	355.6 mm (14.00")	368.3 mm (14.50")	158.8 mm (6.25")

** Valve completely open.

Dimensional Data: SW Globe "Y" Extended Bonnet Hand Shut-Off Valves.



Port Size	L	D	H**	S	W
13 mm (½")	93.7 mm (3.69")	10.4 mm (0.41")	190.5 mm (7.50")	209.6 mm (8.25")	63.5 mm (2.50")
20 mm (¾")	99.5 mm (3.92")	12.7 mm (0.50")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
25 mm (1")	99.5 mm (3.92")	12.7 mm (0.50")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
32 mm (1¼")	174.8 mm (6.88")	14.3 mm (0.56")	292.1 mm (11.50")	304.8 mm (12.00")	136.5 mm (5.38")
40 mm (1½")	207.8 mm (8.18")	14.3 mm (0.56")	317.5 mm (12.50")	330.2 mm (13.00")	136.5 mm (5.38")
50 mm (2")	207.8 mm (8.18")	17.3 mm (0.68")	317.5 mm (12.50")	330.2 mm (13.00")	136.5 mm (5.38")
65 mm (2½")	241.3 mm (9.50")	17.3 mm (0.68")	362.0 mm (14.25")	368.3 mm (14.50")	136.5 mm (5.38")

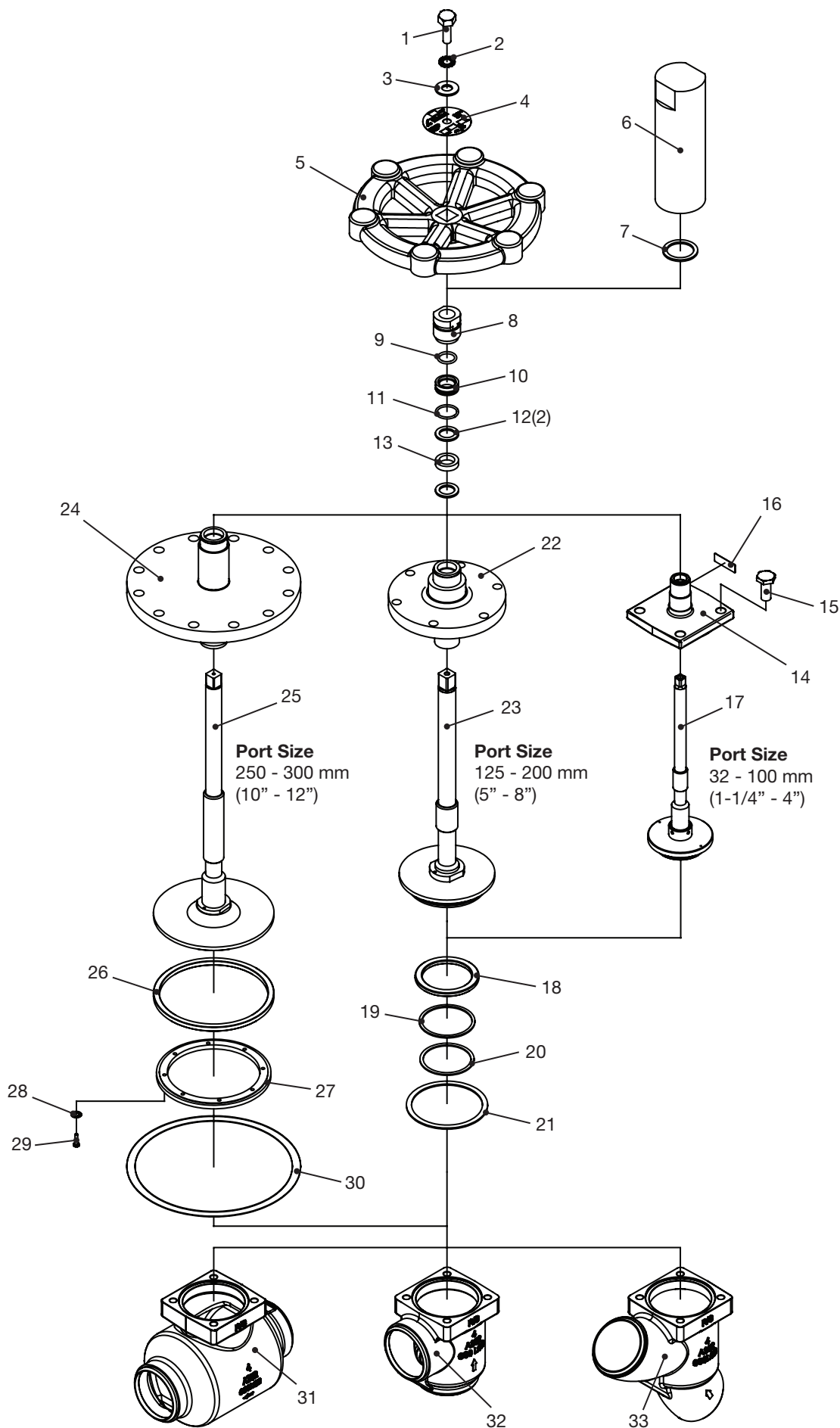
** Valve completely open.

Dimensional Data: SW Globe "T" Extended Bonnet Hand Shut-Off Valves.

Port Size	L	D	H**	S	W
13 mm (½")	44.5 mm (1.75")	44.5 mm (1.75")	190.5 mm (7.50")	215.9 mm (8.50")	63.5 mm (2.50")
20 mm (¾")	52.4 mm (2.06")	52.4 mm (2.06")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
25 mm (1")	52.4 mm (2.06")	52.4 mm (2.06")	215.9 mm (8.50")	228.6 mm (9.00")	108.0 mm (4.25")
32 mm (1¼")	67.6 mm (2.66")	67.6 mm (2.66")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
40 mm (1½")	66.3 mm (2.61")	66.3 mm (2.61")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
50 mm (2")	78.1 mm (3.08")	78.1 mm (3.08")	279.4 mm (12.50")	279.4 mm (11.00")	136.5 mm (5.38")
65 mm (2½")	92.1 mm (3.63")	92.1 mm (3.63")	311.2 mm (12.25")	311.2 mm (12.25")	136.5 mm (5.38")
75 mm (3")	92.7 mm (3.65")	92.7 mm (3.65")	323.9 mm (12.75")	349.3 mm (13.75")	158.8 mm (6.25")
100 mm (4")	112.0 mm (4.41")	112.0 mm (4.41")	355.6 mm (14.00")	368.3 mm (14.50")	158.8 mm (6.25")

** Valve completely open.

Dimensional Data: SW Angle Extended Bonnet Hand Shut-Off Valves.



Explosion View: Weld Neck (WN) Standard Bonnet Hand Shut-Off Valves.

Hand Shut-Off Valve Weld Neck (WN) Standard Bonnet Replacement Part Kits							
Item	Kit Description	Port Size					
		32 mm (1¼")	40 mm (1½")	50 mm (2")	65 mm (2½")	75 mm (3")	100 mm (4")
1, 2, 3, 5	Hand Wheel	204269	204269	204269	204269	204270	204270
6, 7	Seal Cap	251084	251084	251084	251084	251177	251177
8 - 12	Packing	204472	204472	204472	204472	204473	204473
8 -13, 17 - 21	Disc/Plug Stem	204300	204300	204301	204302	204303	204304
18 - 21	Disc	204322	204322	204323	204324	204325	—
8 - 17	Bonnet Assembly	205687	205687 * 205688	205688	205689	205690	205691
21(6)	Gasket, Bonnet	204283	204283	204284	204285	204286	204287
7(6)	Gasket, Seal Cap	204292	204292	204292	204292	—	—
7(2)	Gasket, Seal Cap	—	—	—	—	204293	204293

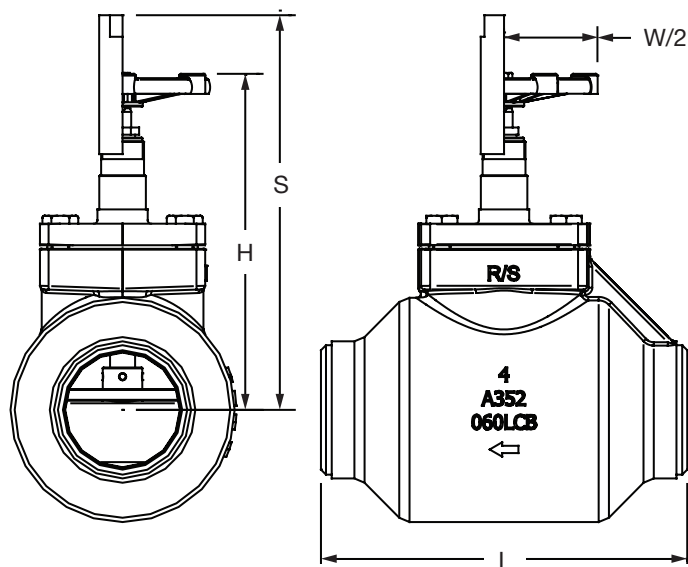
* 1½" Globe "T" valve body only.

Hand Shut-Off Valve Weld Neck (WN) Standard Bonnet Replacement Part Kits						
Item	Kit Description	Port Size				
		125 mm (5")	150 mm (6")	200 mm (8")	250 mm (10")	300 mm (12")
1, 2, 4	Hand Wheel Kit	204271	204271	204271	207232	207232
6, 7	Seal Cap	204633	204633	204634	204635	204635
8 - 12	Packing	204474	204474	204474	208487	208488
18 - 20, 23	Disc/Plug Stem	* 204305	* 204306	* 204307	—	—
25 - 29	Disc/Plug Stem	—	—	—	251801	208482
18 - 21	Disc	204327	204328	204329	—	—
26 - 30	Disc	—	—	—	204330	205033
8 - 13, 18 - 21, 22 - 23	Bonnet Assembly	205692	205693	205694	—	—
8 - 13, 24 - 30	Bonnet Assembly	—	—	—	208483	208484
21(2)	Gasket, Bonnet	204288	204289	204290	—	—
30(2)	Gasket, Bonnet	—	—	—	204291	209171
7(2)	Gasket, Seal Cap	204295	204295	204295	204296	204296

* Plug stem are for valve 2006 and present. For valves older than 2006 purchase a complete bonnet assembly kit.

Hand Shut-Off Valve Weld Neck (WN) Standard Bonnet Parts List

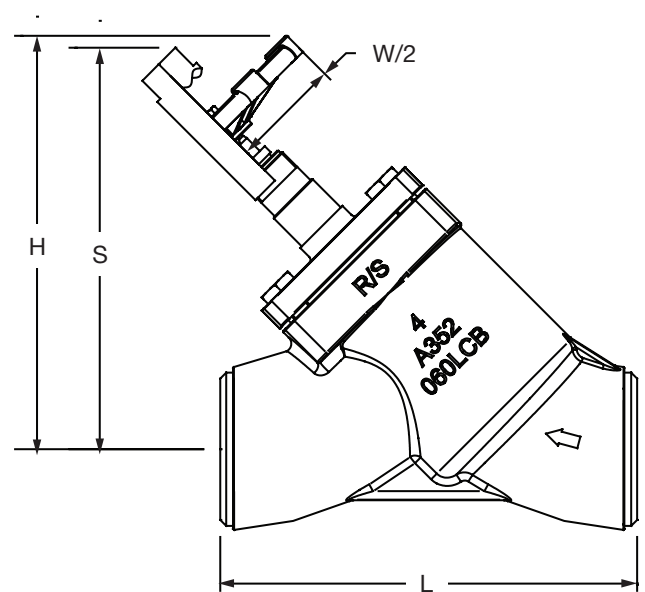
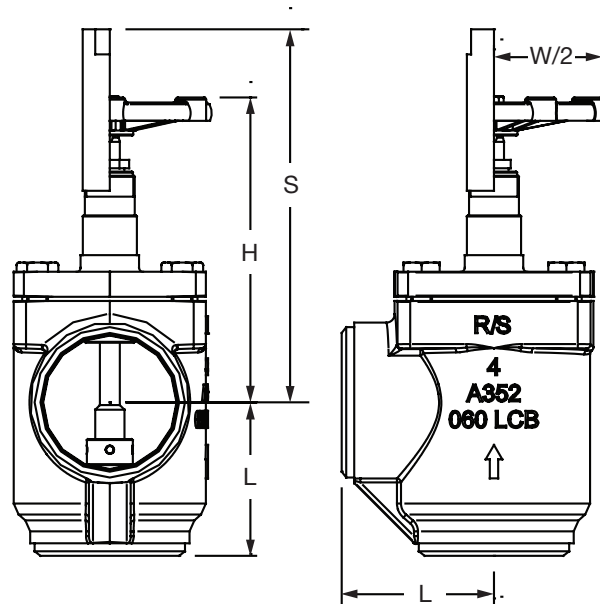
No.	Description	Material	Qty
1	Screw, Hex 1/4" - 20	S.S.	1
2	Washer, Ext - Star 1/4" ID	S.S.	1
3	Washer, Flat	S.S.	1
4	Name Plate	Aluminum	1
5	Handwheel	Ductile Iron	1
6	Seal Cap	Aluminum 2011-T3	1
7	Gasket, Seal Cap	Nylon	1
8	Nut, Packing	303 S.S.	1
9	O-ring	Neoprene	1
10	Gland, O-ring	Carbon, PTFE	1
11	O-ring	Neoprene	1
12	Washer, Packing	Teflon, Carbon	2
13	Packing, Stem	Crane Foil	1
14	Bonnet: 32 - 100 mm (1 1/4" - 4")	A105	1
Bolts:			
32 mm (1 1/4")			
3/8"-16 x 1"			
40 - 50 mm (1 1/2" - 2")			
7/8" - 14 x 1 1/4"			
65 - 75 mm (2 1/2" - 3")			
1/2" - 13 x 1 1/2"			
15	100 mm (4")	304 S.S.	4
5/8" - 11 x 1 1/2"			
125 - 150 mm (5" - 6")			
5/8" - 11 x 2"			
200 mm (8")			
5/8" - 11 x 2"			
250 - 300 mm (10" - 12")			
7/8" - 9 x 2 3/4"			
16	Sticker, Warning	—	1
17	Stem: 32 - 100 mm (1 1/4" - 4")	303 S.S.	1
18	Seat Disc	Ebolon 48, Carbon	1
19	Washer, Retaining	Zinc - Chromate	1
20	Ring, Retaining	Carbon - Steel	1
21	Gasket	Garlock 2930	1
22	Bonnet: 125 - 200 mm (5" - 8")	Ductil Iron	1
23	Stem: 125 - 200 mm (5" - 8")	303 S.S.	1
24	Bonnet: 250 - 300 mm (10" - 12")	Fabricated Steel	1
25	Stem: 250 - 300 mm (10" - 12")	303 S.S.	1
26	Seat Disc	Carbon PTFE	1
27	Ring, Retaining	A36	1
28	Washer, Int. Star 0.25 ID	S.S.	1
29	Screw, 1/4"-20 x 1"	S.S.	8
30	Gasket	Garlock 2930	1
31	Globe-T Body	LCB ASTM A-352	1
32	Angle Body	LCB ASTM A-352	1
33	Glove-Y Body	LCB ASTM A-352	1



Port Size	L	H**	S	W
75 mm (3")	282.6 mm (11.13")	342.9 mm (13.50")	362.0 mm (14.25")	158.8 mm (6.25")
100 mm (4")	304.8 mm (12.00")	368.3 mm (14.50")	393.7 mm (15.50")	158.8 mm (6.25")

** Valve completely open.

Dimensional Data: Weld Neck (WN) Globe "T" Standard Bonnet Hand Shut-Off Valves.



Port Size	L	H**	S	W
32 mm (1¼")	67.6 mm (2.66")	184.2 mm (7.25")	203.2 mm (8.00")	136.5 mm (5.38")
40 mm (1½")	66.3 mm (2.61")	184.2 mm (7.25")	203.2 mm (8.00")	136.5 mm (5.38")
50 mm (2")	77.1 mm (3.04")	215.9 mm (8.50")	222.3 mm (8.75")	136.5 mm (5.38")
65 mm (2½")	92.1 mm (3.63")	235.0 mm (9.25")	241.3 mm (9.5")	136.5 mm (5.38")
75 mm (3")	91.4 mm (3.60")	279.4 mm (11.00")	298.5 mm (11.75")	158.8 mm (6.25")
100 mm (4")	112.0 mm (4.41")	298.5 mm (11.75")	311.2 mm (12.25")	158.8 mm (6.25")
125 mm (5")	154.0 mm (6.06")	381.0 mm (15.00")	406.4 mm (16.00")	304.8 mm (12.00")
150 mm (6")	162.6 mm (6.40")	393.7 mm (15.50")	431.8 mm (17.00")	304.8 mm (12.00")
200 mm (8")	200.0 mm (7.88")	444.5 mm (17.50")	495.3 mm (19.50")	304.8 mm (12.00")
250 mm (10")	247.7 mm (9.75")	647.7 mm (25.50")	711.2 mm (28.00")	412.8 mm (16.25")
300 mm (12")	266.7 mm (10.50")	660.4 mm (26.00")	736.6 mm (29.00")	412.8 mm (16.25")

** Valve completely open.

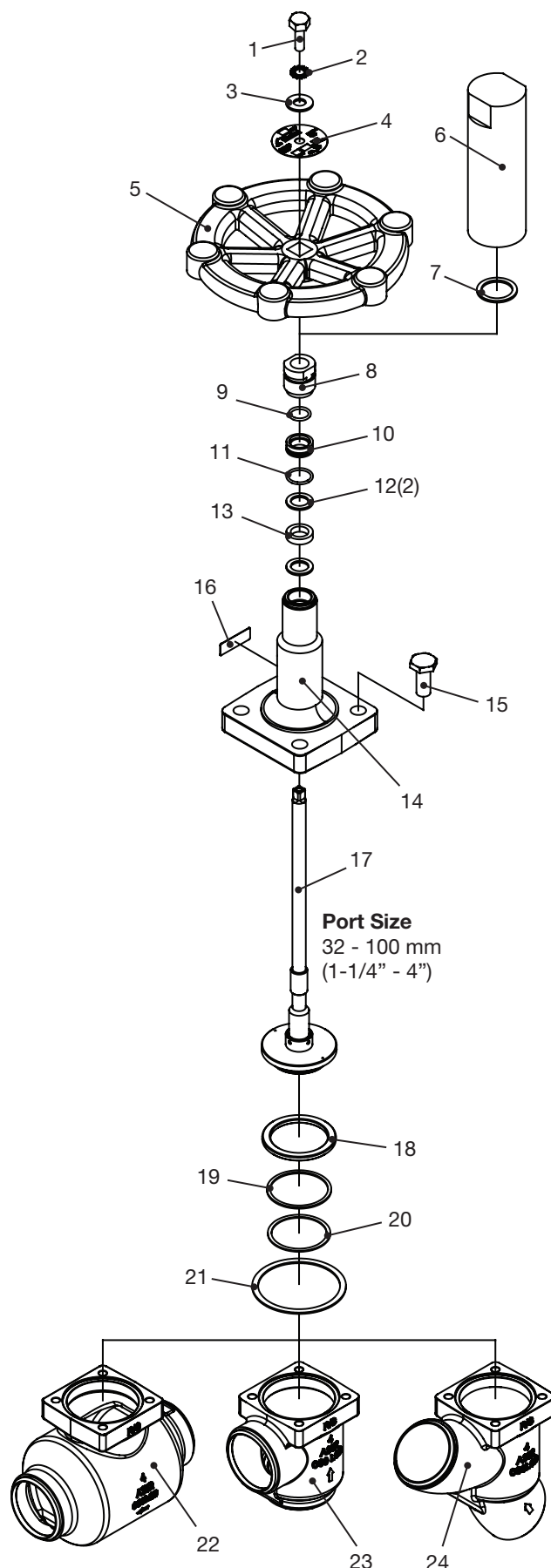
Dimensional Data: Weld Neck (WN) Angle Standard Bonnet Hand Shut-Off Valves.

Port Size	L	H**	S	W
32 mm (1¼")	177.8 mm (7.00")	222.3 mm (8.75")	203.2 mm (8.00")	136.5 mm (5.38")
40 mm (1½")	193.8 mm (7.63")	222.3 mm (8.75")	203.2 mm (8.00")	136.5 mm (5.38")
50 mm (2")	206.2 mm (8.12")	254.0 mm (10.00")	228.6 mm (9.00")	136.5 mm (5.38")
65 mm (2½")	247.7 mm (9.75")	279.4 mm (11.00")	254.0 mm (10.00")	136.5 mm (5.38")
75 mm (3")	285.8 mm (11.25")	317.5 mm (12.50")	304.8 mm (12.00")	158.8 mm (6.25")
100 mm (4")	300.1 mm (11.82")	355.6 mm (14.00")	330.2 mm (13.00")	158.8 mm (6.25")
125 mm (5")	489.0 mm (19.25")	533.4 mm (21.00")	558.8 mm (22.00")	304.8 mm (12.00")
150 mm (6")	555.6 mm (21.88")	558.8 mm (22.00")	596.9 mm (23.50")	304.8 mm (12.00")
200 mm (8")	717.6 mm (28.25")	711.2 mm (28.00")	711.2 mm (28.00")	304.8 mm (12.00")
250 mm (10")	892.2 mm (35.13")	876.3 mm (34.50")	876.3 mm (34.50")	412.8 mm (16.25")
300 mm (12")	1027.4 mm (40.45")	939.8 mm (37.00")	939.8 mm (37.00")	412.8 mm (16.25")

** Valve completely open.

Dimensional Data: Weld Neck (WN) Globe "Y" Standard Bonnet Hand Shut-Off Valves.

Hand Shut-Off Valve Weld Neck (WN) Extended Bonnet Parts List			
No.	Description	Material	Qty
1	Screw, Hex 1/4" - 20	S.S.	1
2	Washer, Ext - Star 1/4" ID	S.S.	1
3	Washer, Flat	S.S.	1
4	Name Plate	Aluminum	1
5	Handwheel	Ductile Iron	1
6	Seal Cap	Aluminum 2011-T3	1
7	Gasket, Seal Cap	Nylon	1
8	Nut, Packing	303 S.S.	1
9	O-ring	Neoprene	1
10	Gland, O-ring	Carbon, PTFE	1
11	O-ring	Neoprene	1
12	Washer, Packing	Teflon, Carbon	2
13	Packing, Stem	Crane Foil	1
14	Bonnet: 32 - 100 mm (1 1/4" - 4")	A105	1
Bolts:			
32 mm (1 1/4")			
3/8" - 16 x 1"			
40 - 50 mm (1 1/2" - 2")			
7/8" - 14 x 1 1/4"			
15	65 - 75 mm (2-1/2" - 3")	304 S.S.	4
1/2" - 13 x 1 1/2"			
100 mm (4")			
5/8" - 11 x 1 1/2"			
16	Sticker, Warning	—	1
17	Stem: 32 - 100 mm (1 1/4" - 4")	303 S.S.	1
18	Seat Disc	Ebolon 48, Carbon	1
19	Washer, Retaining	Zinc - Chromate	1
20	Ring, Retaining	Carbon - Steel	1
21	Gasket	Garlock 2930	1
22	Globe-T Body	LCB ASTM A-352	1
23	Angle Body	LCB ASTM A-352	1
24	Globe-Y Body	LCB ASTM A-352	1

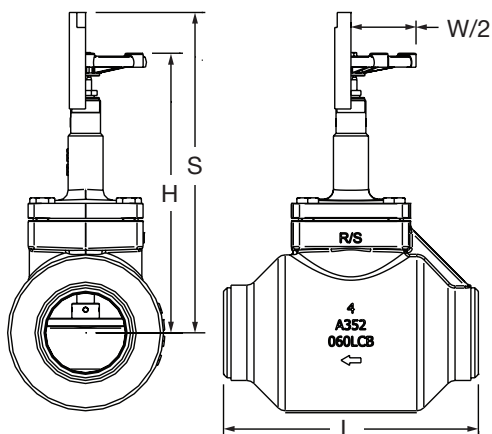


Explosion View: Weld Neck (WN) Extended Bonnet Hand Shut-Off Valves.

Hand Shut-Off Valve Weld Neck (WN) Extended Bonnet Replacement Part Kits

Item	Kit Description	Port Size					
		32 mm (1¼")	40 mm (1½")	50 mm (2")	65 mm (2½")	75 mm (3")	100 mm (4")
1, 2, 3, 5	Hand Wheel	204269	204269	204269	204269	204270	204270
6, 7	Seal Cap	251084	251084	251084	251084	251177	251177
8 - 13	Packing	204472	204472	204472	204472	204473	204473
18 - 21	Disc	204322	204322	204323	204324	204325	—
8 - 13, 17 - 21	Disc/Plug Stem	—	—	—	—	—	210537
8 - 21	Bonnet Assembly	205977	205977 *205978	205978	205979	205980	205981
21(6)	Gasket Pkg, Bonnet	204283	204283	204284	204285	204286	204287
7(6)	Gasket Pkg, Seal Cap	204292	204292	204292	204292	—	—
7(2)	Gasket Pkg, Seal Cap	—	—	—	—	204293	204293

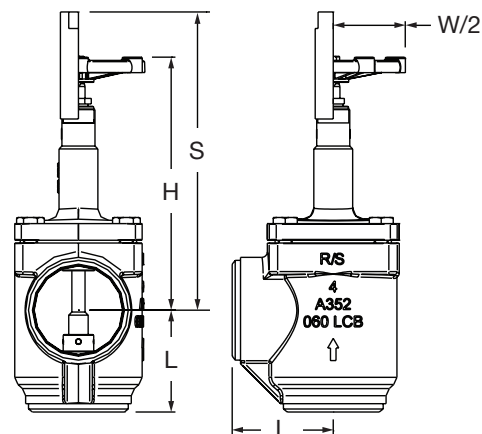
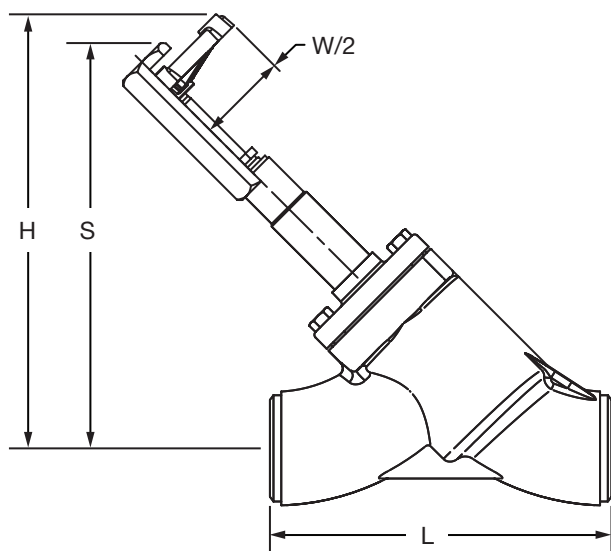
* 1½" Globe "T" valve body only.



Port Size	L	H**	S	W
75 mm (3")	282.6 mm (11.125")	387.4 mm (15.25")	406.4 mm (16.00")	158.8 mm (6.25")
100 mm (4")	323.9 mm (12.75")	419.1 mm (16.50")	444.5 mm (17.50")	158.8 mm (6.25")

** Valve completely open.

Dimensional Data: Weld Neck (WN) Globe "T" Extended Bonnet Hand Shut-Off Valves.



Port Size	L	H**	S	W
32 mm (1¼")	67.6 mm (2.66")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
40 mm (1½")	66.3 mm (2.61")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
50 mm (2")	78.1 mm (3.08")	279.4 mm (11.0")	279.4 mm (11.00")	136.5 mm (5.38")
65 mm (2½")	92.1 mm (3.63")	311.2 mm (12.25")	311.2 mm (12.25")	136.5 mm (5.38")
75 mm (3")	92.7 mm (3.65")	323.9 mm (12.75")	349.3 mm (13.75")	158.8 mm (6.25")
100 mm (4")	112.0 mm (4.41")	349.3 mm (13.75")	368.3 mm (14.50")	158.8 mm (6.25")

** Valve completely open.

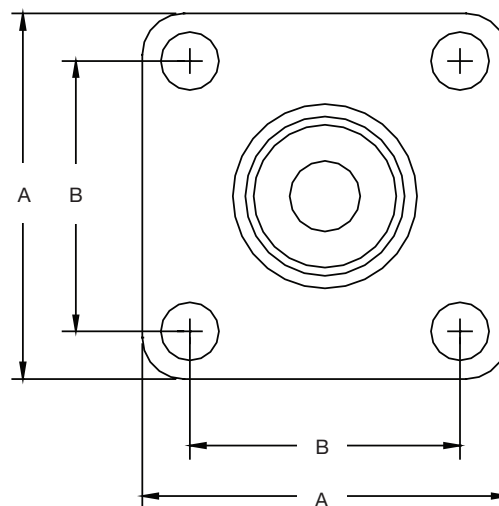
Dimensional Data: Weld Neck (WN) Angle Extended Bonnet Hand Shut-Off Valves.

Port Size	L	H**	S	W
40 mm (1½")	193.8 mm (7.63")	247.7 mm (9.75")	266.7 mm (10.50")	136.5 mm (5.38")
50 mm (2")	206.2 mm (8.12")	279.4 mm (11.0")	279.4 mm (11.00")	136.5 mm (5.38")
65 mm (2½")	247.7 mm (9.75")	311.2 mm (12.25")	311.2 mm (12.25")	136.5 mm (5.38")
75 mm (3")	285.8 mm (11.25")	323.9 mm (12.75")	349.3 mm (13.75")	158.8 mm (6.25")
100 mm (4")	300.1 mm (11.82")	349.3 mm (13.75")	368.3 mm (14.50")	158.8 mm (6.25")

** Valve completely open.

Dimensional Data: Weld Neck (WN) Globe "Y" Extended Bonnet Hand Shut-Off Valves.

Hand Shut-Off Bonnet Hole Dimensions		
Port Size	A	B
6 mm ($\frac{1}{4}$ "		
10 mm ($\frac{3}{8}$ "	44.5 mm (1.75")	31.5 mm (1.24")
13 mm ($\frac{1}{2}$ "		
20 mm ($\frac{3}{4}$ "	56.9 mm (2.24")	42.7 mm (1.68")
25 mm (1"		
32 mm (1 $\frac{1}{4}$ "	69.9 mm (2.75")	51.6 mm (2.03")
40 mm (1 $\frac{1}{2}$ "		
50 mm (2"	88.9 mm (3.50")	65.0 mm (2.56")
65 mm (2 $\frac{1}{2}$ "	104.9 mm (4.13")	76.2 mm (3.00")
75 mm (3"	120.7 mm (4.75")	91.9 mm (3.62")
100 mm (4"	146.1 mm (5.75")	110.0 mm (4.33")



Handwheel Kit for Hubbel Valves				
Hubbell Valve	O.D. Reference	R/S Valve Size	Kit	Stem Dimension
0080025900	2 $\frac{1}{2}$ "	$\frac{1}{4}$ " to $\frac{1}{2}$ "	204267	5/16" Square
0080100900	3 $\frac{1}{2}$ "	$\frac{3}{4}$ " to 1"	204268	5/16" Square
0080150900	4 $\frac{3}{4}$ "	1 $\frac{1}{4}$ " to 2 $\frac{1}{2}$ "	204269	3/8" Square
0081000900				
0080300900	6"	3" to 4"	204270	1/2" Square
0080500900	12"	5" to 8"	204271	3/4" Square
0081000900	16	10"	207232	3/4" Square

Safe Operation (See Bulletin RSBHV)

People doing any work on a refrigeration system must be qualified and completely familiar with the system and the Refrigerating Specialties Division valves involved, or all other precautions will be meaningless. This includes reading and understanding pertinent Refrigerating Specialties Division Product Bulletins and Safety Bulletin RSB prior to installation or servicing work.

Where cold refrigerant liquid lines are used, it is necessary that certain precautions be taken to avoid damage which could result from liquid expansion. Temperature increase in a piping section full of solid liquid will cause high pressure due to the expanding liquid which can possibly rupture a gasket, pipe or valve. All hand valves isolating such sections should be marked, warning against accidental closing, and must not be closed until the liquid is removed. Check valves must never be installed upstream of solenoid valves, or regulators with electric shut-off, nor should hand valves upstream of solenoid valves or downstream of check valves be closed until the liquid has been removed.

It is advisable to properly install relief devices in any section where liquid expansion could take place. Avoid all piping or control arrangements which might produce thermal or pressure shock.

For the protection of people and products, all refrigerant must be removed from the section to be worked on before a valve, strainer, or other device is opened or removed. Flanges with ODS connections are not suitable for ammonia service.

Warranty

All Refrigerating Specialties products are under warranty against defects in workmanship and materials for a period of one year from date of shipment from factory. This warranty is in force only when products are properly installed, field assembled, maintained, and operated in use and service as specifically stated in Refrigerating Specialties Catalogs or Bulletins for normal refrigeration applications, unless otherwise approved in writing by the Refrigerating Specialties Division. Defective products, or parts thereof returned to the

factory with transportation charges prepaid and found to be defective by factory inspection, will be replaced or repaired at Refrigerating Specialties option, free of charge, F.O.B. factory. Warranty does not cover products which have been altered, or repaired in the field, damaged in transit, or have suffered accidents, misuse, or abuse. Products disabled by dirt or other foreign substances will not be considered defective.

The express warranty set forth above constitutes the only warranty applicable to Refrigerating Specialties products, and is in lieu of all other warranties, expressed or implied, written including any warranty of merchantability, or fitness for a particular purpose. In no event is Refrigerating Specialties responsible for any consequential damages of any nature whatsoever. No employee, agent, dealer or other person is authorized to give any warranties on behalf of Refrigerating Specialties, nor to assume, for Refrigerating Specialties, any other liability in connection with any of its products.



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