



SVI
SUN VALVE INC.

PS Gate Valve

Size: 2" thru 24"
Class: 900 thru 2500
Design: API600
Ends: Flanged/BW



**Pressure Seal
Gate, Globe & Check
Valve**

Applications

- Thermal & Cogeneration Power Plant
- Nuclear Power Plants
- Chemical, Petrochemical & Other Industrial Processes

Benefit

- Low Service Rate
- Zero leakage of packing



PS Globe Valve
Size: 2" thru 16"
Class: 900 thru 2500
Design: API623
Ends: Flanged/BW

PS Check Valve

Size: 2" thru 24"
Class: 900 thru 2500
Design: API6D
Ends: Flanged/BW



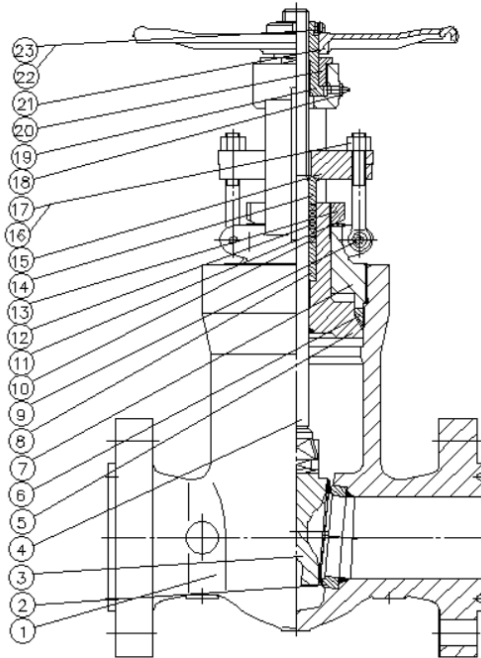
SVI Pressure Seal Gate Valve

Product Line Technical Data

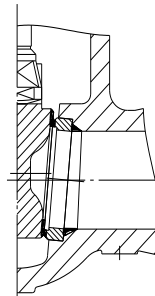
YOUR ONE-STOP VALVE SOURCING CHANNEL

Pressure Seal Gate Valve
Pressure Class: 900 thru 2500
Size: 2" thru 24"

Design and Manufacturing Standards
Valve Design: ASME B16.34 /API 600
Flange Dimensions: ASME B16.5
BW End Dimensions: ASME B16.25
Face to Face Dimensions: ASME B16.10
Tested In Accordance with: API 598



Solid Wedge for Size 2"



NO.	DESCRIPTION	Material list accordance to Application type				
		Standard	Low Temp	High Temp	Stainless	Sour Service
1	BODY	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
2	SEAT RING	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51
3	WEDGE	ASTM A105+STL	ASTM A305 LF2+STL	ASTM A217 WC6+STL	ASTM A182 F316+STL	ASTM A182 F51
4	STEM	ASTM A479 410	ASTM A479 410	ASTM A276 410	ASTM A182 F316	ASTM A182 F51
5	BONNET	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A182 F316	ASTM A182 F51
6	SEAL RING	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F316L	ASTM A182 F51
7	YOKE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
8	PACKING WASHER	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
9	PIN	AISI 1045	AISI 1045	AISI 1045	ASTM A276 420	ASTM A276 420
10	PACKING	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite
11	WASHER	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
12	PACKING	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	BONNET CLAMP	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
14	GLAND	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
15	GLAND FLANGE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
16	EYEBOLT	ASTM A193-B7/ B7M	ASTM A320-L7/ L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
17	NUT	ASTM A194 2H/ 2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
18	GREASE NIPPLE	AISI 1025	AISI 1025	AISI 1025	ASTM A276 304	ASTM A276 304
19	STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
20	RETAINING NUT	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
21	HANDWHEEL	ASTM A536	ASTM A536	ASTM A536	ASTM A536	ASTM A536
22	HANDWHEEL NUT	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
23	SCREW	AISI 1035	AISI 1035	AISI 1035	ASTM A276 304	ASTM A276 304

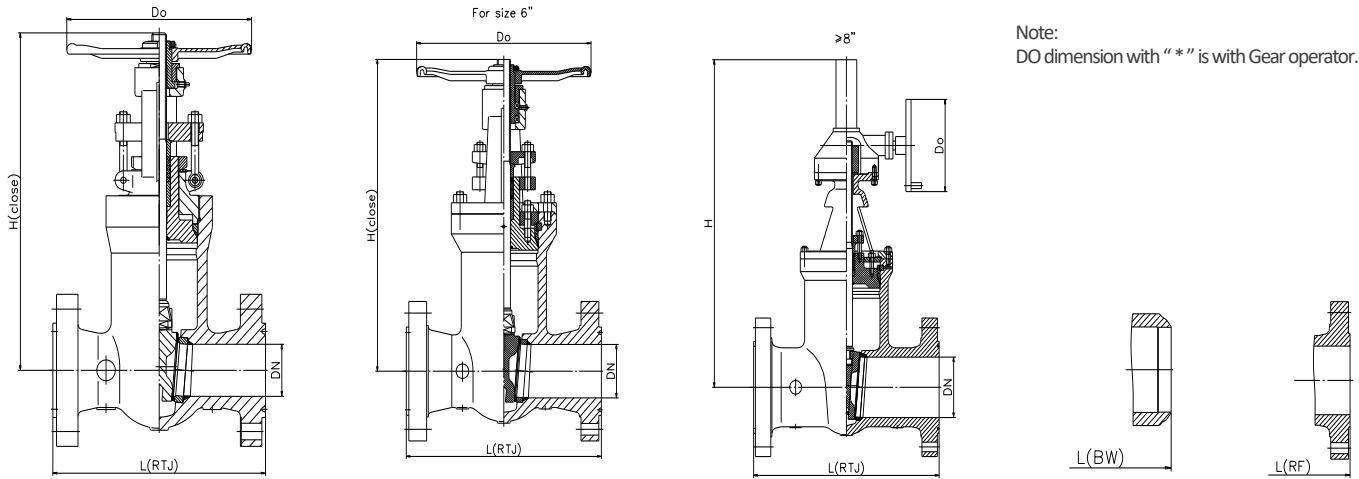
Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request

Note:
 DO dimension with "*" is with Gear operator.

SVI Pressure Seal Gate Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL



FULL PORT CLASS 900 DIMENSION (mm)							Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Do	Flanged	BW	(mm)
2"	48	368	371	216	387	300	50	26	19.10
3"	72.9	381	384	305	565	300	100	68	19.10
4"	98.3	457	460	356	589	450	160	110	21.30
6"	146.1	610	613	508	696	600	300	200	26.20
8"	190.5	737	740	660	825	600*	640	470	31.80
10"	238	838	841	787	1291	710*	860	621	36.60
12"	282.4	965	968	914	1470	710*	1300	990	42.50
14"	311.2	1029	1039	991	1690	710*	1780	1450	46.00
16"	355.6	1130	1140	1092	1780	800*	2350	1870	52.30
18"	400	1219	1232	1219	1975	810*	2900	2320	57.20
20"	444.5	1321	1334	1321	2218	810*	3900	3200	63.50
24"	533.4	1549	1568	1549	2580	810*	6200	4900	73.00

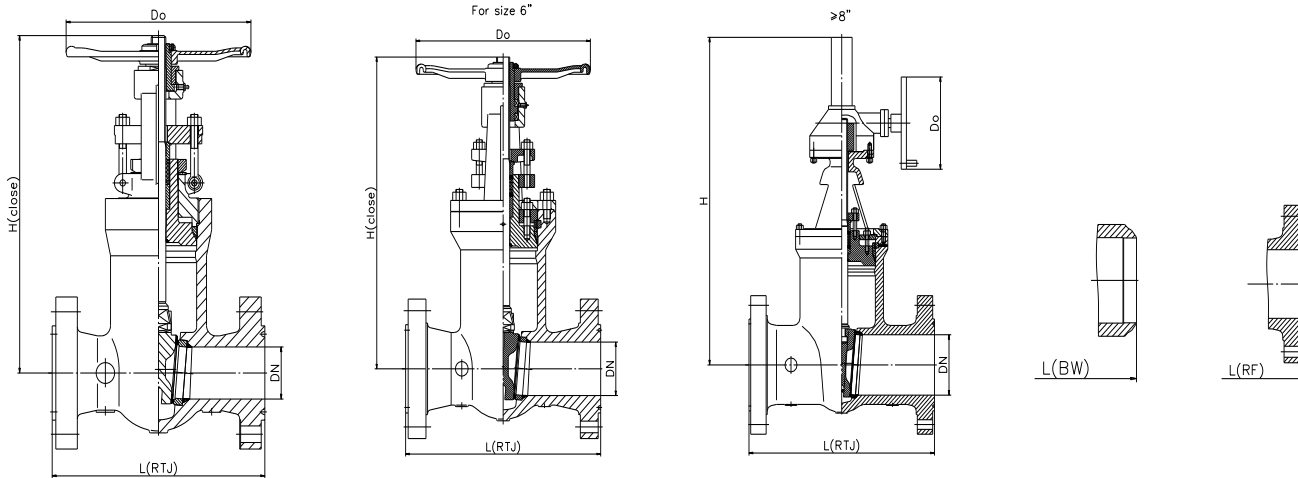
FULL PORT CLASS 1500 DIMENSION (mm)							Weight (kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Do	Flanged	BW	(mm)
2"	48	368	371	216	387	300	50	26.5	19.10
3"	70	470	473	305	593	400	130	88	23.90
4"	92	546	549	406	650	450	200	150	28.70
6"	137	705	711	559	925	460*	430	290	38.10
8"	178	832	842	711	1164	610*	765	555	47.80
10"	222.3	991	1001	864	1375	710*	1310	938	57.20
12"	263.4	1130	1146	991	1520	610*	2140	1480	66.80
14"	288.8	1257	1276	1067	1645	610*	2540	1690	70.00
16"	330.2	1384	1406	1194	1951	810*	3350	2450	80.00
18"	371	1537	1559	1346	1995	810*	4800	3500	88.90
20"	415.8	1664	1686	1473	2218	810*	5700	4300	98.60
24"	499	1943	1971	1676.4	2970	1000*	9200	6850	114.30

SVI Pressure Seal Gate Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL

Note:
DO dimension with "*" is with Gear operator.



FULL PORT CLASS 2500 DIMENSION (mm)							Weight		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Do	Flanged	BW	(mm)
2"	39	451	454	279	375	300	70	34	22.40
3"	57.2	578	584	368	550	450	180	108	30.20
4"	73	673	683	457	804	460*	340	195	35.80
6"	111	914	927	610	955	710*	800	440	48.50
8"	146.1	1022	1038	762	1130	710*	1200	670	62.00
10"	184.2	1270	1292	914	1308	610*	1800	1060	67.60
12"	218.9	1422	1444	1041	1420	800*	2480	1700	86.60
14"	241.3			1118	1900	810*		2700	122.00
16"	276			1245	2105	810*		3500	110.00
18"	311.2			1397	2137	1000*		4300	115.00
20"	342.9			1473	2063	1000*		4708	119.50
24"	412.8			1676	2390	1000*		7372	144.00

For any Size & Pressure Not Listed, please consult with SVI sales. E-mail: Sales@sunvalveinc.com

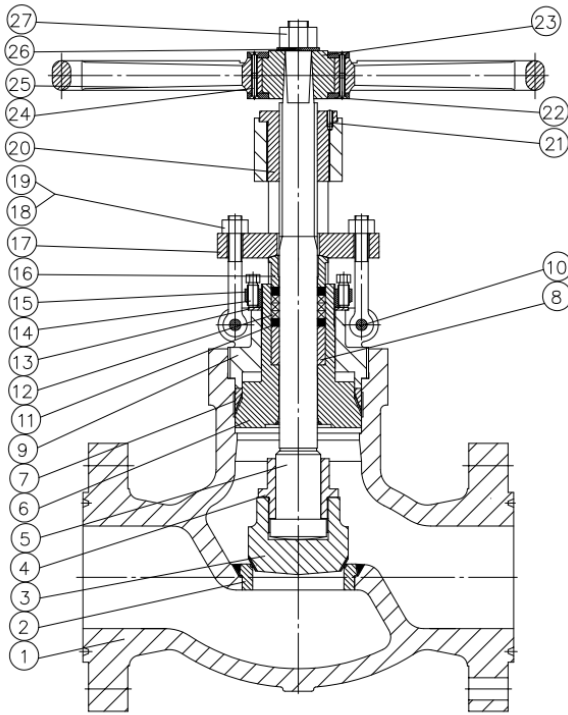
SVI Pressure Seal Globe Valve

Product Line Technical Data

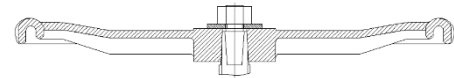
YOUR ONE-STOP VALVE SOURCING CHANNEL

Pressure Seal Globe Valve
Pressure Class: 900 thru 2500
Size: 2" thru 16"

Design and Manufacturing Standards
Valve Design: ASME B16.34 /API 623
Flange Dimensions: ASME B16.5
BW End Dimensions: ASME B16.25
Face to Face Dimensions: ASME B16.10
Tested In Accordance with: API 598



For Size 2"



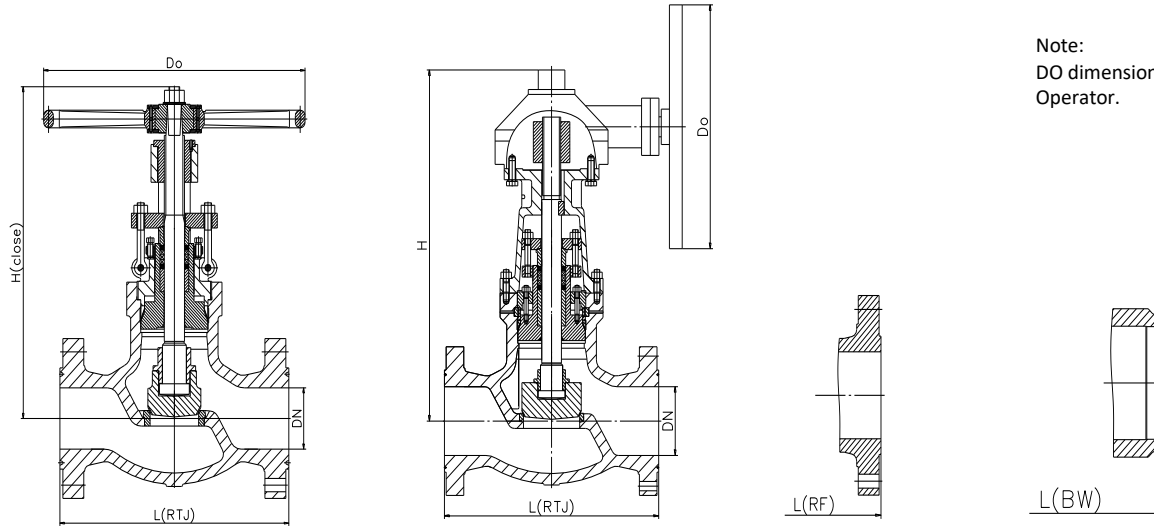
NO.	DESCRIPTION	Material list accordance to Application type				
		Standard	Low Temp	High Temp	Stainless	Sour Service
1	BODY	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
2	SEAT RING	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51
3	DISC	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51
4	DISC NUT	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 316	UNS S31803
5	STEM	ASTM A479 410	ASTM A479 410	ASTM A276 410	ASTM A182 F316	ASTM A182 F51
6	BONNET	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A182 F316	ASTM A182 F51
7	SEAL RING	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F316L	ASTM A182 F51
8	PACKING WASHER	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
9	YOKE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
10	PIN	AISI 1045	AISI 1045	AISI 1045	ASTM A276 420	ASTM A276 420
11	PACKING	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite
12	PACKING	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	WASHER	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
14	STUD	ASTM A193-B7/B7M	ASTM A320-L7/L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
15	BONNET CLAMP	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
16	GLAND	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
17	GLAND FLANGE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
18	EYEBOLT	ASTM A193-B7/B7M	ASTM A320-L7/L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
19	NUT	ASTM A194 2H/2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
20	STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
21	SCREW	AISI 1035	AISI 1035	AISI 1035	ASTM A276 304	ASTM A276 304
22	APRON PLATE	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
23	IMPACTPLATE	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB
24	SCREW	AISI 1035	AISI 1035	AISI 1035	ASTM A276 304	ASTM A276 304
25	HANDWHEEL	ASTM A536	ASTM A536	ASTM A536	ASTM A536	ASTM A536
26	WASHER	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
27	HANDWHEEL NUT	ASTM A194 2H/2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M

Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request.

SVI Pressure Seal Globe Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL



Note:
DO dimension with "*" is with Gear Operator.

FULL PORT CLASS 900 DIMENSION (mm)							Weight (kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Do	Flanged	BW	(mm)
2"	48	368	371	368	425	400	70	46	19.00
3"	72.9	381	384	305	538	450	118	86	19.10
4"	98	457	460	356	613	550	190	140	21.50
6"	146	610	613	508	791	700	400	300	25.40
8"	190.5	737	740	660	995	710*	800	630	31.80
10"	238	838	841	787	1343	1000*	1090	850	36.50
12"	282	965	968	914	1473	810*	1560	130	42.20
14"	311.2	1029	1039	991	1521	1000*	2230	1900	46.00
16"	356			1092	1634	1000*		2300	52.30

FULL PORT CLASS 2500 DIMENSION (mm)							Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Do	Flanged	BW	(mm)
2"	38.1	451	454	451	695	550	105	70	22.20
3"	57	578	584	368	749	460	210	140	30.50
4"	72.9	673	683	457	790	710	520	380	35.70
6"	111	914	927	914	1160	610	950	580	48.50
8"	146.1	1022	1038	762	1275	810	1430	900	62.00
10"	184.2	1270	1292	914	1594	1000	2250	1500	67.50
12"	219	1422	1444	1422	1710	1000	2780	2000	86.50

For any Size & Pressure Not Listed, please consult with SVI sales. E-mail: Sales@sunvalveinc.com

SVI Pressure Seal Y-type Globe Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL

Pressure Seal Y-type Globe Valve
Pressure Class: 900 thru 2500
Size: 2" thru 16"

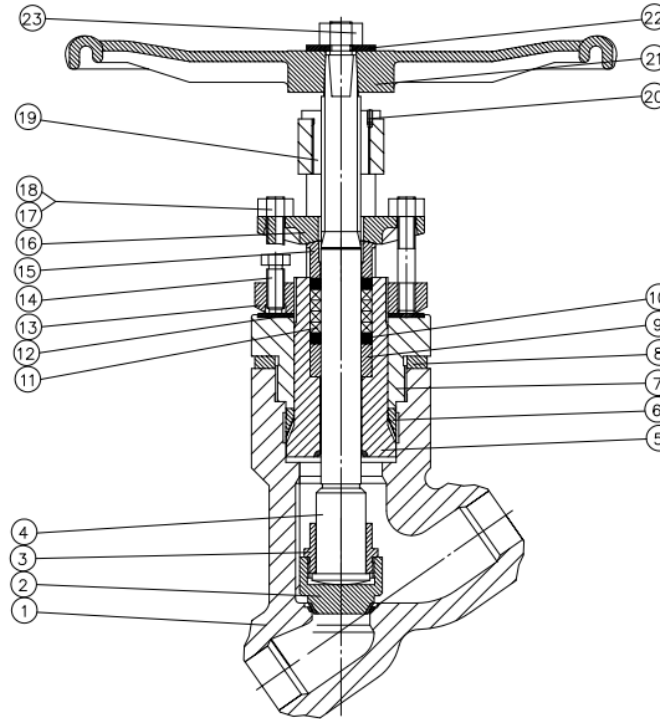
Design and Manufacturing Standards

Valve Design: ASME B16.34 /API 623

BW End Dimensions: ASME B16.25

Face to Face Dimensions: ASME B16.10

Tested In Accordance with: API 598



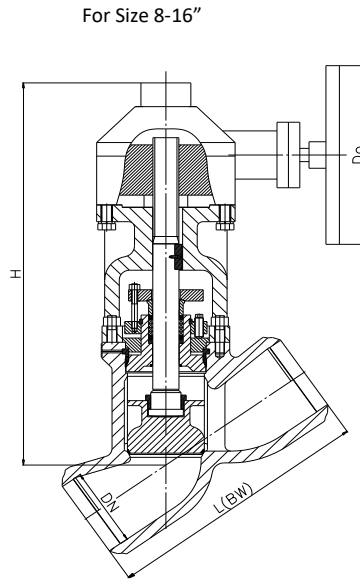
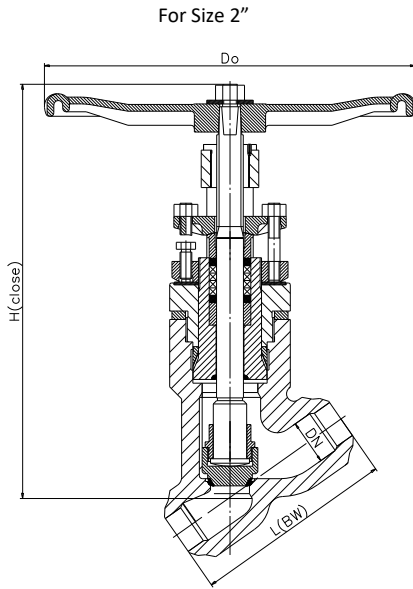
NO.	DESCRIPTION	Material list accordance to Application type				
		Standard	Low Temp	High Temp	Stainless	Sour Service
1	BODY	ASTM A216 WCB+STL	ASTM A352 LCC+STL	ASTM A217 WC6+STL	ASTM A351 CF8M+STL	ASTM A890 4A
2	DISC	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51
3	DISC NUT	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 316	UNS S31803
4	STEM	ASTM A479 410	ASTM A479 410	ASTM A276 410	ASTM A182 F316	ASTM A182 F51
5	BONNET	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A182 F316	ASTM A182 F51
6	SEAL RING	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F316L	ASTM A182 F51
7	YOKE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
8	PACKING WASHER	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
9	WASHER	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
10	PACKING	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite	Braided Graphite
11	PACKING	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
12	WASHER	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
13	BONNET CLAMP	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420	ASTM A276 420
14	STUD	ASTM A193-B7/B7M	ASTM A320-L7/L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
15	GLAND	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS S31803
16	GLAND FLANGE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
17	BOLT	ASTM A193-B7/B7M	ASTM A320-L7/L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
18	NUT	ASTM A194 2H/2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
19	STEM NUT	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2	ASTM A439 D-2
20	SCREW	AISI 1035	AISI 1035	AISI 1035	ASTM A276 304	ASTM A276 304
21	HANDWHEEL	ASTM A536	ASTM A536	ASTM A536	ASTM A536	ASTM A536
22	WASHER	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
23	HANDWHEEL NUT	ASTM A194 2H/2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
24	APRON PLATE	AISI 1025	AISI 1025	AISI 1025	ASTM A276 420	ASTM A276 420
25	SCREW	AISI 1035	AISI 1035	AISI 1035	ASTM A276 304	ASTM A276 304
26	IMPACTPLATE	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB

Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request.

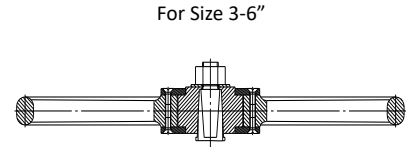
SVI Pressure Seal Y-type Globe Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL



Note:
DO dimension with "*" is with Gear Operator.



FULL PORT CLASS 900 DIMENSION (mm)					Weight	MF Minimum Wall thickness
SIZE	DN	L(BW)	H	Do	(kg)	(mm)
2"	48	216	359	400	34	19.00
3"	72.9	305	538	450	80	19.10
4"	98	356	875	550	130	21.50
6"	146.1	508	891	700	250	25.40
8"	190.5	660	995	710*	580	31.80
10"	238	787	1343	1000*	760	36.50
12"	282.4	914	1369	1000*	1225	42.20
14"	311.2	991	1522	1000*	1850	46.00
16"	355.6	1092	1680	1000*	2250	52.30

FULL PORT CLASS 1500 DIMENSION(mm)					Weight	MF Minimum Wall thickness
SIZE	DN	L(BW)	H	Do	(kg)	(mm)
2"	48	216	359	400	34	19.00
3"	70	305	714	550*	110	24.00
4"	92	406	810	460*	170	29.00
6"	136.4	559	976	710*	350	38.10
8"	178	711	1250	800*	700	47.80
10"	222.3	864	1486	1000*	1100	57.20
12"	264	991	1460	1000*	1695	66.80
14"	288.8	1067	1660	1000*	1900	57.20
16"	330.2	1194	1700	1000*	2700	66.80

FULL PORT CLASS 2500 DIMENSION(mm)					Weight	MF Minimum Wall thickness
SIZE	DN	L(BW)	H	Do	(kg)	(mm)
3"	57	368	703	460*	130	30.00
4"	72.9	457	790	460*	350	35.70
6"	111	610	1221	610*	550	48.50
8"	146	762	1340	810*	860	62.00
10"	184	914	1571	1000*	1400	67.50
12"	219	1041	1510	1000*	1900	86.60
14"	241.3	1118	1610	1000*	2800	122.00
16"	276	1245	1707	1200*	3600	96.70

For any Size & Pressure Not Listed, please consult with SVI sales. E-mail: Sales@sunvalveinc.com

SVI Pressure Seal Swing Check Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL

Pressure Seal Swing Check Valve
Pressure Class: 900 thru 2500
Size: 2" thru 24"

Design and Manufacturing Standards

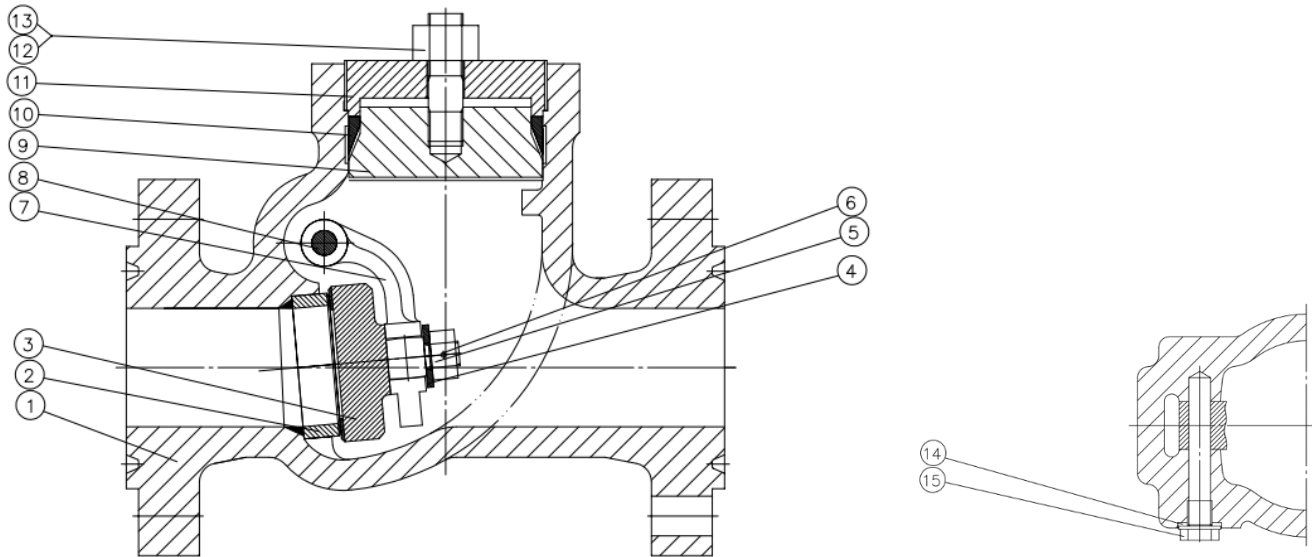
Valve Design: ASME B16.34 / API6D

Flange Dimensions: ASME B16.5

BW End Dimensions: ASME B16.25

Face to Face Dimensions: ASME B16.10

Tested In Accordance with: API 598



NO.	DESCRIPTION	Material list accordance to Application type				
		Standard	Low Temp	High Temp	Stainless	Sour Service
1	BODY	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
2	SEAT RING	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51
3	DISC	ASTM A216 WCB+STL	ASTM A352 LCC+STL	ASTM A217 WC6+STL	ASTM A351 CF8M+STL	ASTM A890 4A
4	WASHER	AISI 1035	AISI 1035	AISI 1035	ASTM A276 316	UNS 31803
5	DISC NUT	ASTM A194 2H/ 2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
6	DISC PIN	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 316	UNS 31803
7	HINGE	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
8	PIN	ASTM A479 410	ASTM A479 410	ASTM A479 410	ASTM A276 316	UNS 31803
9	BONNET	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A182 F316	ASTM A182 F51
10	SEAL RING	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F316L	ASTM A182 F51
11	COVER PLATE	AISI 1025	AISI 1025	ASTM A182 F11	ASTM A276 316	ASTM A276 316
12	BOLT	ASTM A193-B7/ B7M	ASTM A320-L7/ L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
13	NUT	ASTM A194 2H/ 2HM	ASTM A194 7/7M	ASTM A194 7/7M	ASTM A194 8M	ASTM A194 8M
14	GASKET	304+Graphite	304+Graphite	304+Graphite	316+Graphite	F51+Graphite
15	PLUG	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A276 316	ASTM A182 F51

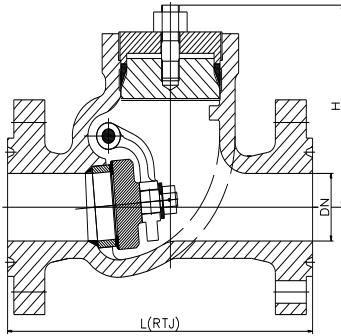
Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request

SVI Pressure Seal Swing Check Valve

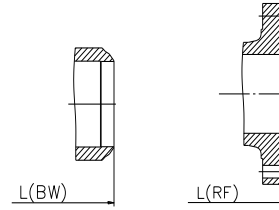
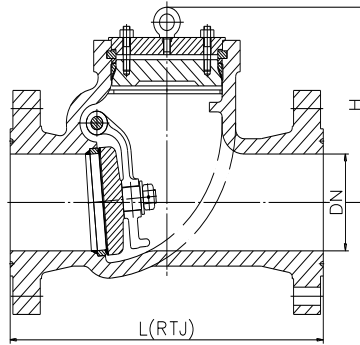
YOUR ONE-STOP VALVE SOURCING CHANNEL

Product Line Technical Data

For Size 2-4"



For Size 6-24"



FULL PORT CLASS 900 DIMENSION (mm)						Weight (kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	48	368	371	216	150	42	18	19.10
3"	76	381	384	305	227	75	43	19.10
4"	98.3	457	460	356	360	122	72	21.40
6"	150	610	613	508	435	240	140	26.10
8"	190.5	737	740	660	410	500	330	31.80
10"	238	838	841	787	480	710	470	36.60
12"	282.4	965	968	914	550	990	680	42.50
14"	311.2	1029	1038	991	639	1330	1000	46.0
16"	355.6	1130	1140	1092	675	1830	1350	52.3
18"	423	1219	1232	1219	814	2180	1600	57.2
20"	444.5	1321	1334	1321	862	2950	2250	63.5
24"	533.4	1549	1568	1549	910	4700	3400	73

FULL PORT CLASS 1500 DIMENSION(mm)						Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	48	368	371	216	150	42	18	19.10
3"	69.9	470	473	305	267	100	58	23.8
4"	102	546	549	406	366	150	104	28.7
6"	146	705	711	559	451	370	235	47.8
8"	178	832	842	711	394	540	329	47.80
10"	222	991	1001	864	632	1020	650	50.00
12"	264	1130	1146	991	601	1660	1000	66.80
14"	288.8	1257	1276	1067	641	2050	1200	70.00
16"	330.2	1384	1406	1194	695	2600	1700	80.00
18"	371	1537	1559	1346	725	3400	2110	88.90
20"	415.8	1664	1686	1664	895	4200	2800	98.60

FULL PORT CLASS 2500 DIMENSION (mm)						Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	38	451	454	279	158	57	21	22.40
3"	57.2	578	584	368	240	145	75	30.20
4"	72.9	673	683	457	350	280	135	35.80
6"	111	914	927	610	456	660	300	48.50
8"	146	1022	1038	762	645	1080	550	61.90
10"	184.2	1270	1292	914	652	1500	764	67.60
12"	219	1422	1444	1041	671	1980	1200	86.50
14"	241.3			1118	850		1800	122.00
16"	276.1			1245	895		2450	110.00

For any Size & Pressure Not Listed, please consult with SVI sales. E-mail: Sales@sunvalveinc.com

SVI Pressure Seal Tilting Disc Check Valve

Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL

Pressure Seal Tilting Disc Check Valve
Pressure Class: 900 thru 2500
Size: 2" thru 24"

Design and Manufacturing Standards

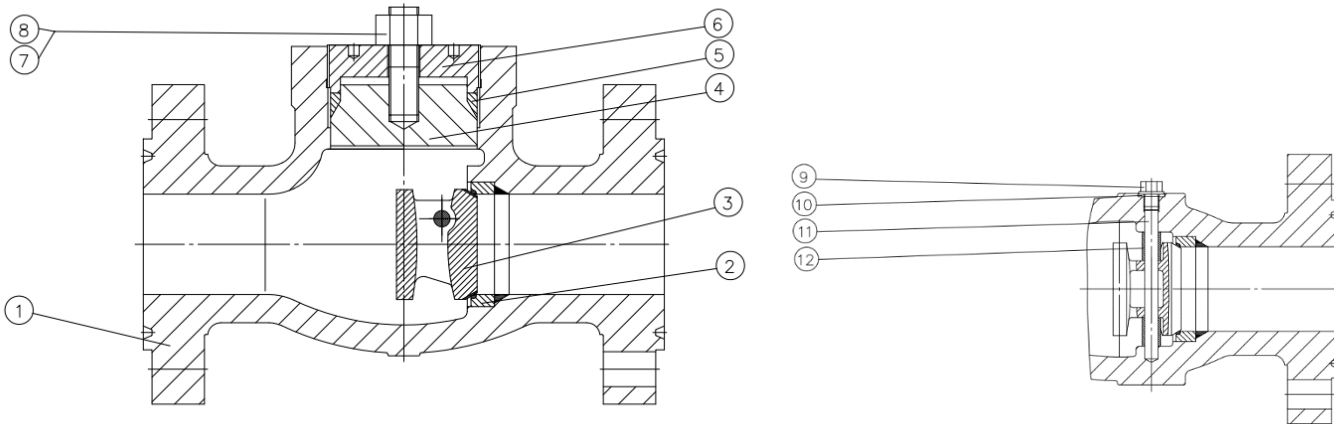
Valve Design: ASME B16.34 / API6D

Flange Dimensions: ASME B16.5

BW End Dimensions: ASME B16.25

Face to Face Dimensions: ASME B16.10

Tested In Accordance with: API 598



NO.	DESCRIPTION	Material list accordance to Application type				
		Standard	Low Temp	High Temp	Stainless	Sour Service
1	BODY	ASTM A216 WCB	ASTM A352 LCC	ASTM A217 WC6	ASTM A351 CF8M	ASTM A890 4A
2	SEAT RING	ASTM A105+STL	ASTM A350 LF2+STL	ASTM A182 F11+STL	ASTM A182 F316+STL	ASTM A182 F51+STL
3	DISC	ASTM A216 WCB+STL	ASTM A352 LCC+STL	ASTM A217 WC6+STL	ASTM A351 CF8M+STL	ASTM A890 4A+STL
4	BONNET	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A182 F316	ASTM A182 F51
5	SEAL RING	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F304L	ASTM A182 F316L	ASTM A182 F51
6	COVER PLATE	AISI 1035	AISI 1035	ASTM A182 F11	ASTM A276 316	ASTM A276 316
7	BOLT	ASTM A193-B7/ B7M	ASTM A320-L7/ L7M	ASTM A193 B16	ASTM A193 B8M CL.2	ASTM A193 B8M CL.2
8	NUT	ASTM A194 2H/ 2HM	ASTM A194 7/ 7M	ASTM A194 7/ 7M	ASTM A194 8M	ASTM A194 8M
9	PLUG	ASTM A105	ASTM A350 LF2	ASTM A182 F11	ASTM A276 316	ASTM A182 F51
10	GASKET	304+Graphite	304+Graphite	304+Graphite	316+Graphite	F51+Graphite
11	PIN	ASTM A479 420	ASTM A479 420	ASTM A479 420	ASTM A276 316	UNS 31803
12	BUSHING	ASTM A479 420	ASTM A479 420	ASTM A479 420	ASTM A276 316	UNS 31803

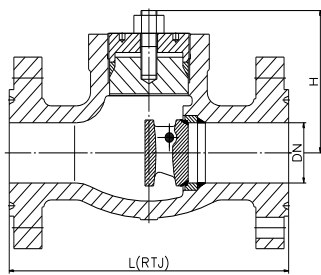
Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request

SVI Pressure Seal Tilting Disc Check Valve

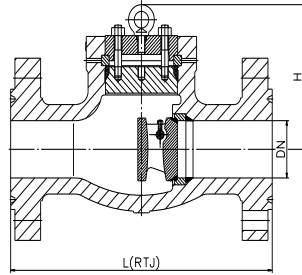
Product Line Technical Data

YOUR ONE-STOP VALVE SOURCING CHANNEL

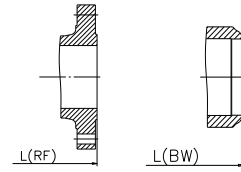
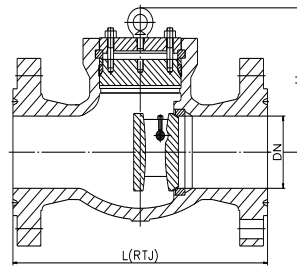
For Size 2-4"



For Size 6"



For Size 8-24"



FULL PORT CLASS 900 DIMENSION (mm)						Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	47.5	368	371	216	133	43	19	19.10
3"	70	381	384	305	182	77	45	19.10
4"	98	457	460	356	218	125	75	21.30
6"	146	610	613	508	346	245	145	26.20
8"	190	737	740	660	370	570	340	32.00
10"	238	838	841	787	465	720	480	36.60
12"	282.4	965	968	914	505	1010	700	42.50
14"	311.2	1029	1039	991	548	1350	1020	46.0
16"	355.6	1130	1140	1092	577	1780	1300	52.3
18"	400.1	1219	1232	1219	770	2230	1650	57.2
20"	444.5	1321	1334	1321	830	2900	2200	63.5
24"	533.4	1549	1568	1549	895	4750	3450	73

FULL PORT CLASS 1500 DIMENSION(mm)						Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	47.5	368	371	216	133	43	19	19.10
3"	70	470	473	305	188	102	60	24
4"	92	546	549	406	215	140	93	28.7
6"	137	705	711	559	346	350	214	38.1
8"	178	832	842	711	370	570	360	48.00
10"	222	991	1001	864	482	1030	660	57.20
12"	263	1130	1146	991	532	1690	1030	66.80
14"	288.8	1257	1276	1067	602	2030	1180	70.00
16"	330	1384	1406	1194	614	2650	1750	69.00
18"	371.3	1537	1559	1346	705	3450	2150	88.90
20"	415.8	1664	1686	1664	810	4300	2900	98.60

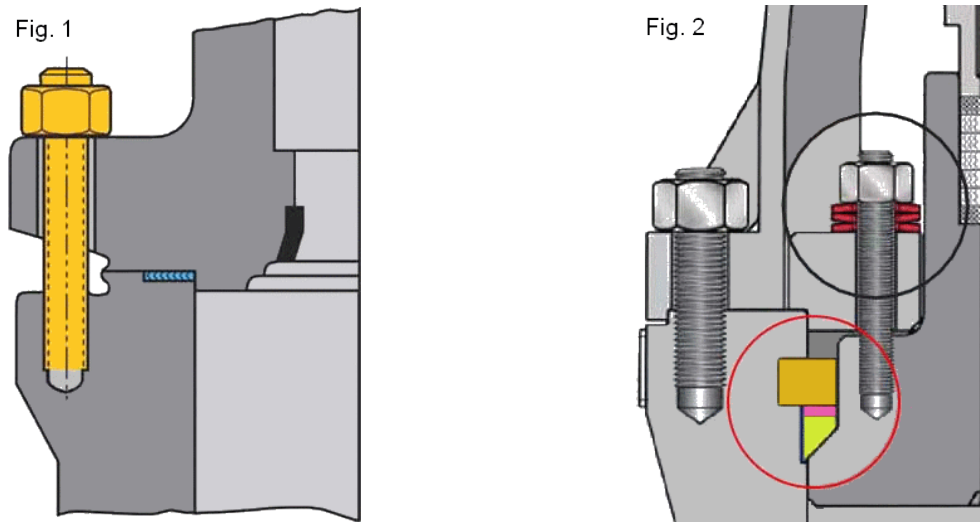
FULL PORT CLASS 2500 DIMENSION (mm)						Weight(kg)		MF Minimum Wall thickness
SIZE	DN	L(RF)	L(RTJ)	L(BW)	H	Flanged	BW	(mm)
2"	38.1	451	454	279	147	60	24	22.40
3"	57.2	578	584	368	207	150	80	30.2
4"	73	673	683	457	266	285	140	35.8
6"	111	914	927	610	399	670	310	48.5
8"	146	1022	1038	762	401	1100	580	62.00
10"	184	1270	1292	914	492	1480	738	63.50
12"	219	1422	1444	1041	583	2030	1250	86.50
14"	241.3			1118	593		1890	115.00
16"	276.1			1245	795		2500	110.00

Note: Material requested according to NACE-MR0175 as marked in red. Other material upon request

Bolted Bonnets vs. Pressure Seals

To better understand the pressure seal design concept, let's contrast the body-to-Bonnet sealing mechanism between bolted Bonnets and pressure seals. **FIG. 1** depicts the typical Bolted Bonnet valve. The body flange and Bonnet flange are joined by studs and nuts, with a gasket of suitable design/material inserted between the flange faces to facilitate sealing. Studs/nuts/bolts are tightened to prescribed torques in a pattern defined by the manufacturer to affect optimal sealing. However, as system pressure increases, the potential for leakage through the body/Bonnet joint also increases.

Now let's look at the pressure seal joint detailed in **FIG. 2**. Note the differences in the respective body/Bonnet joint configurations. Most pressure seal designs incorporate "Bonnet take-up bolts" to pull the Bonnet up and seal against the pressure seal gasket. This in turn creates a seal between the gasket and the inner dia (I.D.) of the valve body.



A segmented thrust ring maintains the load. The beauty of the pressure seal design is that as system pressure builds, so does the load on the Bonnet and, correspondingly, the pressure seal gasket. Therefore, in pressure seal Valves, as system pressure increases, the potential for leakage through the body/Bonnet joint decreases.

This design approach has distinct advantages over bolted Bonnet Valves in main steam, feedwater, turbine bypass, and other power plant systems requiring Valves that can handle the challenges inherent in high-pressure and temperature applications.

But over the years, as operating pressures/temperatures increased, and with the advent of peaking plants, this same transient system pressure that aided in sealing also played havoc with pressure seal joint integrity.

References:

[BSM Valves](#) | [Valve Magazine](#) | [Velan](#) | [Valve World](#)