



SCV VALVE
Innovative Valve Solutions®



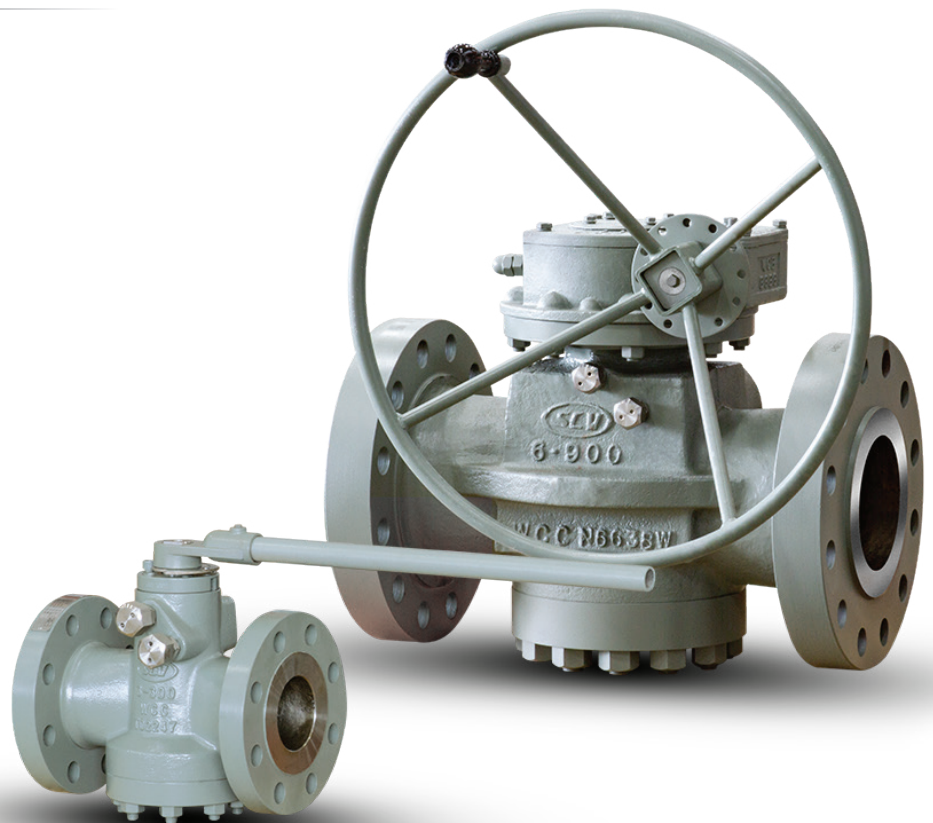
[281] 482-4728 • www.scvvalve.com



Pressure Balanced Lubricated Plug Valves - API 6D

Short Pattern
Regular Pattern
Venturi Pattern

Class: 150 - 2500
Sizes: 1/2" - 36"





SCV VALVE manufactures some of the most dependable cast and forged steel Pressure Balance Lubricated Valves in the industry. SCV Valve Lubricated Type Plug Valves are available in Short, Regular, and Venturi Pattern. The different patterns vary as regards end to end dimension and port area for a given size of valve. Regular Pattern valves have the largest port area. Short Pattern valves have a reduced port area as a consequence of their compact face-to-face dimensions which are identical to those for wedge gate valves. Venturi Pattern valves have a reduced port area and a flow path approximating a venturi shape to aid pressure recovery. The valve designs conform to API 599, API 6D, and B16.34. Face-to-face and end-to-end dimensions conform to ANSI B16.10.

Innovative Valve Solutions.®

SCV Pressure Balanced Lubricated Plug Valves

[Product Preview]

For more information call us @ [281] 482-4728 or visit our website @ www.scvvalve.com

Pressure Balanced Lubricated Plug Valves - API 6D

- Basic Design: API 6D
- Wall Thickness: API 6D
- Face-to-Face Dimension: API 6D
- Flange End Dimension: API 6D
- Inspection & Testing: API 6D
- Fire Safe Design: API 6FA/BS 6755

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

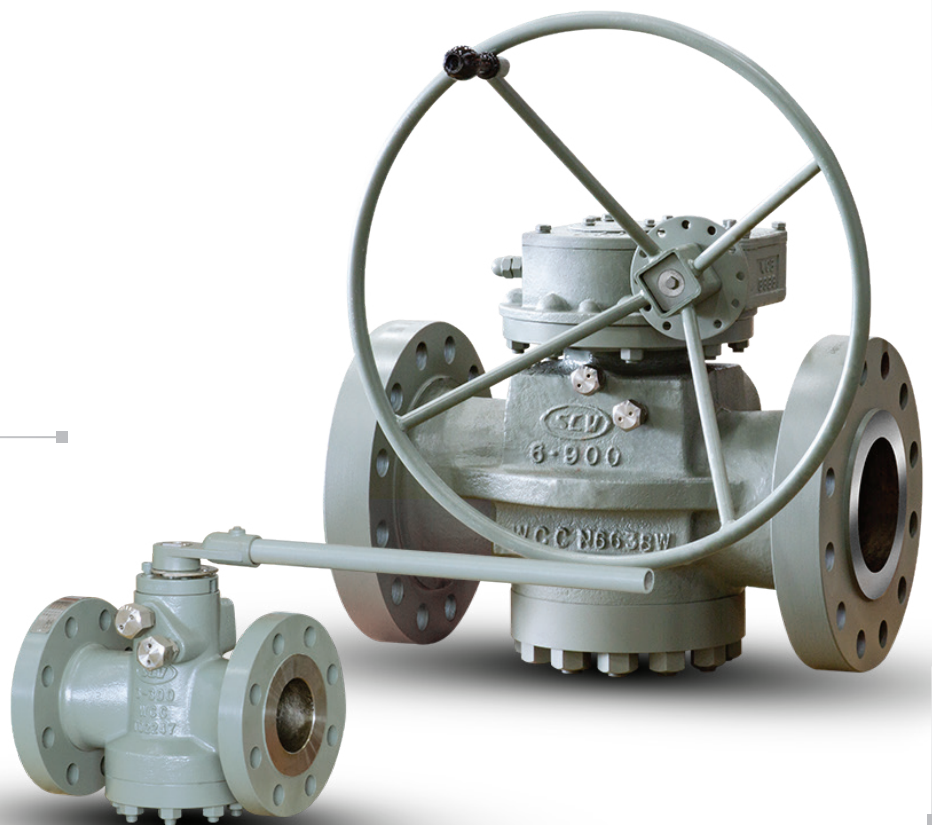


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Complete Product Line

Call SCV Valve today @ (281) 482-4728 for all your valve needs or visit us on the web @ www.scvvalve.com.

THRU CONDUIT GATES - SLAB & EXPANDING

Design: API 6D
Sizes: 2" - 42"
Class: 150 - 1500
Standard stock.

Design: API 6A
Sizes: 9", 11" & 13-5/8"
Pressure: 2000, 3000, 5000
Limited inventory availability.
All sizes and pressure classes made to order.



PISTON CHECKS

Design: API 6D
Sizes: 2" - 24"
Class: 150 - 2500
Standard stock.



GLOBES

Design: API 623
Sizes: 2" - 24"
Class: 150 - 2500

Limited inventory availability.
All sizes and pressure classes made to order.



3-PIECE TRUNNION BALLS

Design: API 6D
Sizes: 2" - 42"
Class: 150 - 2500
Standard stock.

Bore Coating: Scotchkote™ 134

Design: API 6A
Sizes: 2-1/16" - 7-1/6"
Pressure: 2000, 3000, 5000
Limited inventory availability.
All sizes and pressure classes made to order.



FULL PORT SWING CHECKS

Design: API 6D
Sizes: 2" - 36"
Class: 150 - 2500
Standard stock.



Exterior Coating: Epoxy

WEDGE GATES

Design: API 600
Sizes: 2" - 48"
Class: 150 - 2500

Limited inventory availability. All sizes and pressure classes made to order.



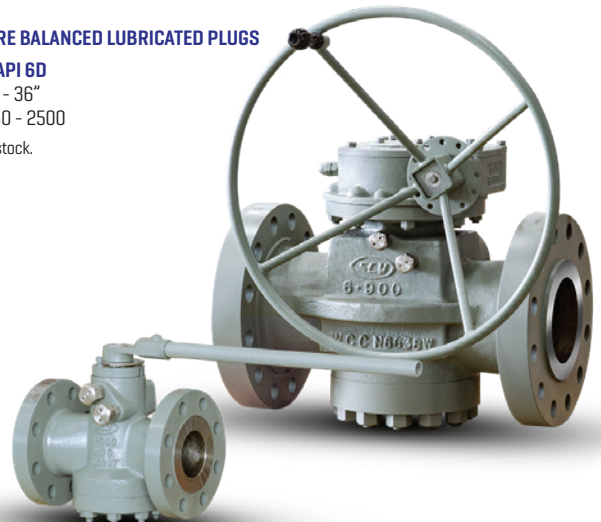
FLOATING BALL VALVES

Design: B16.34
Sizes: 1/2" - 12"
Class: 150 - 1500
Standard stock.



PRESSURE BALANCED LUBRICATED PLUGS

Design: API 6D
Sizes: 2" - 36"
Class: 150 - 2500
Standard stock.



Certifications & Registrations

American Petroleum Institute (API)

API 6A Certification



Note: Extension letter available on our website.

API 6D Certification



Note: Extension letter available on our website.

ISO 9001:2015 Certificate



CE PED Certificate



Canadian Registration Number

- Alberta
- OC07063.2
- New Brunswick
- OC07063.27
- Northwest Territory
- OC07063.25
- Nunavut
- OC07063.2N
- Ontario
- OC07063.25
- Yukon
- OC07063.2
- British Columbia
- OC07063.21
- New Foundland & Laborador
- OC07063.20
- Novascotia
- OC07063.27
- Manitoba
- OC07063.24
- Prince Edward island
- OC07063.29

SCV Figure Number Chart

Note: SCV Figure Chart is subject to change without notice.

1

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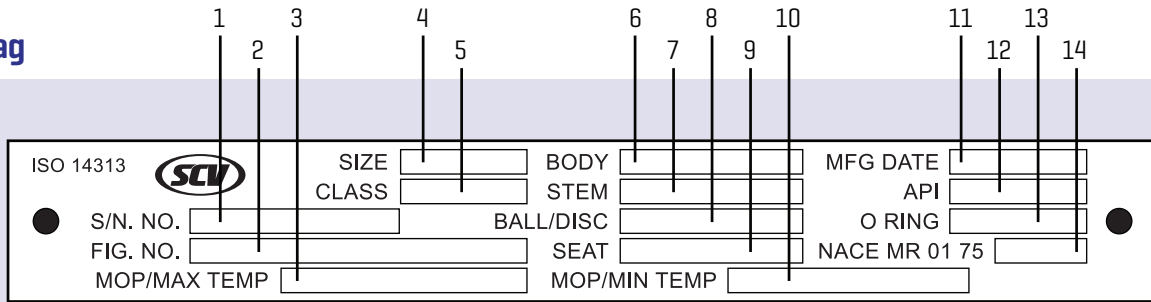
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Valve Type	Bore Size	Class	Body/Bonnet Conf.	Body Material	Obturator Material	Ends	Operator
BAL = Trunnion Ball Valve	50 = 1/2"	01 = 150	B = Bolted	02 = A352 LCC	01 = A352 LLC + 410	A = RF x WE	/ = N/A
CEG = Compact Expanding Gate Valve	75 = 3/4"	03 = 300	L = Lug Style	06 = A351 CF8M	02 = A352 LCC + ENP	B = RTJ x WE	B = Bare Stem
DCK = Dual Plate Check Valve	01 = 1"	04 = 400	P = Pressure Seal	08 = A216 WCC	06 = A216 WCC + ENP	D = RF x RTJ	D = Dual Acting Actuator
EPG = Expanding Gate Valve	15 = 1-1/2"	06 = 600	S = Seal Weld	10 = A216 WCB	09 = A351 CF8M	E = RTJ x RF	E = Electric Actuator
FBV = Floating Ball Valve	02 = 2"	09 = 900	T = Top Entry	11 = A352 LCB	10 = A216 + CR13	J = RTJ	G = Gear
FCK = Full Port Swing Check Valve	21 = 2-1/16"	15 = 1500	U = Union	12 = A350 LF2	11 = CR13 HF	K = WE x RF	H = Handwheel
GAT = Wedge Gate Valve	25 = 2-1/2"	20 = 2000		13 = A105	12 = A105 + CR13	L = WE x RTJ	I = Linear Actuator
GLB = Globe Valve	27 = 2-9/16"	25 = 2500		16 = A217 WCG	13 = A105 + ENP	R = RF	L = Lever
PCK = Piston Check Valve	03 = 3"	30 = 3000		30 = A29 4130	14 = A694 Gr. F60 + ENP	W = WE	
PLG = Lubricated Plug Valve	31 = 3-1/8"	50 = 5000		36 = A182 316	15 = A350 LF2 + ENP		
PSG = Parallel Slide Gate Valve	37 = 3-9/16"	10 = 10000		51 = A182 F51 Duplex	16 = A216 WCC + 316		
RSB = Rising Stem Ball Valve	04 = 4"			55 = A182 F55 Duplex	17 = 17-4 PH		
SCK = Conv. Port Swing Check Valve	41 = 4-1/16"			60 = A216 WCC + Inconel 625	20 = A216 WCB + Ni65		
TCG = Slab Gate Valve	05 = 5"			87 = A487 4C	23 = A182 316L + Stellite 21		
	51 = 5-1/8"			88 = A890-4A	34 = A182 304		
	06 = 6"				35 = A182 316 HF		
	71 = 7-1/16"				36 = A182 316		
	08 = 8"				41 = A182 F6A Class 2		
	09 = 9"				42 = A182 F6A + Nitride		
	10 = 10"				51 = A182 F51 Duplex		
	23 = 10-3/8"				52 = A351 CF8M + Stellite 6		
	11 = 11"				54 = A182 F51 Duplex + CoCr-A		
	12 = 12"				59 = A352 LCC + Stellite 6		
	19 = 12-3/8"				60 = A105 + HF		
	13 = 13-5/8"				61 = A105 + Nitride + Stellite 6		
	14 = 14"				62 = A105 + Inconel 625		
	16 = 16"				69 = A350 LF2 + Tungsten Carbide		
	17 = 16-3/4"				73 = A182 410 + Tungsten Carbide		
	18 = 18"				81 = A350 LF2 + Nitride + HF		
	20 = 20"				85 = A743 CA15 + Nitride		
	22 = 22"				88 = A890-4A		
	24 = 24"				96 = A216 WCB + CR13		
	26 = 26"						
	28 = 28"						
	30 = 30"						
	32 = 32"						
	34 = 34"						
	36 = 36"						
	38 = 38"						
	40 = 40"						
	42 = 42"						
	48 = 48"						
	52 = 52"						
	56 = 56"						
	60 = 60"						

Valve ID Tag & Valve Markings Identification

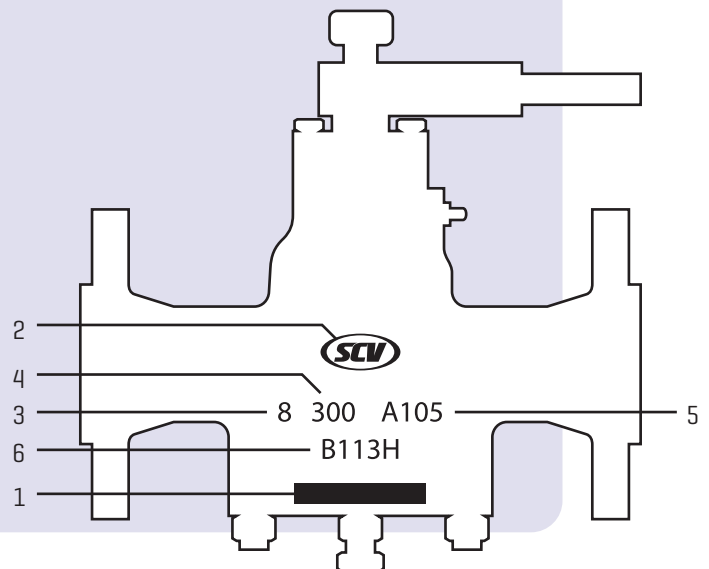
Valve ID Tag



No.	Figure Number Code	Description
1	Serial Number	Identifies certified manufacturers serial number
2	Figure Number	Identifies the detailed valve configuration (valve type, bore size, pressure class, materials, etc.)
3	MOP/Max. Temp.	Identifies the maximum operating pressure in PSI and maximum operating temperature in Fahrenheit
4	Size	Identifies bore size
5	Pressure Class	Identifies pressure classifications per API requirements
6	Body Material	Identifies body metal material composition (A105, WCB, F51, CF8M, etc.)
7	Stem Material	Identifies stem material composition (A105, 410SS, 17-4pH, etc.)
8	Ball/Disc Material	Identifies ball/disc material composition (A105, 316SS, ENP, etc.)
9	Seat Material	Identifies seat material composition (PEEK, Teflon, Nylon, etc.)
10	MOP/Min. Temp.	Identifies the maximum operating pressure in PSI and minimum operating temperature in Fahrenheit
11	Manufacturing Date	Identifies the date the valve manufacturing completion date
12	API Conformance	Identifies API conformance (600, 6D, 6A, etc.)
13	O Ring	Identifies the O Ring material composition (Viton, Viton GLT, etc.)
14	NACE MR 01 75	Identifies corrosion resistance

Valve Markings

No.	Valve ID Components
1	Tag
2	Brand
3	Size
4	Pressure Class
5	Body Material
6	Heat Number



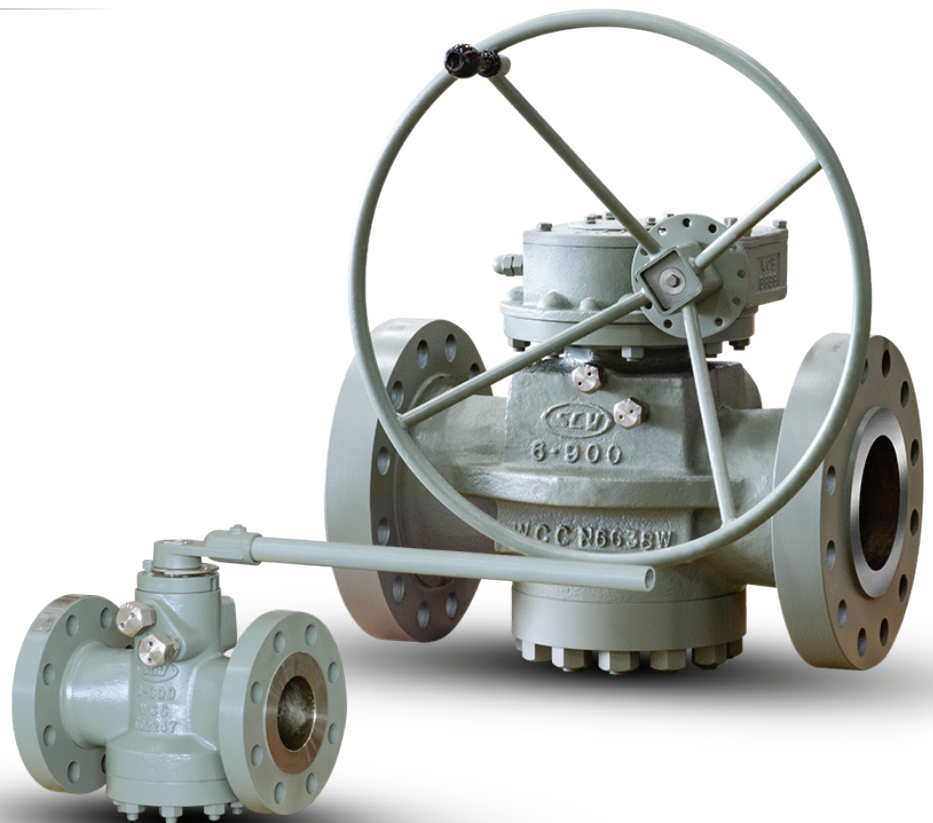
Note: SCV reserves the right to modify our products for improvement without prior notice.



Pressure Balanced Lubricated Plug Valves - API 6D

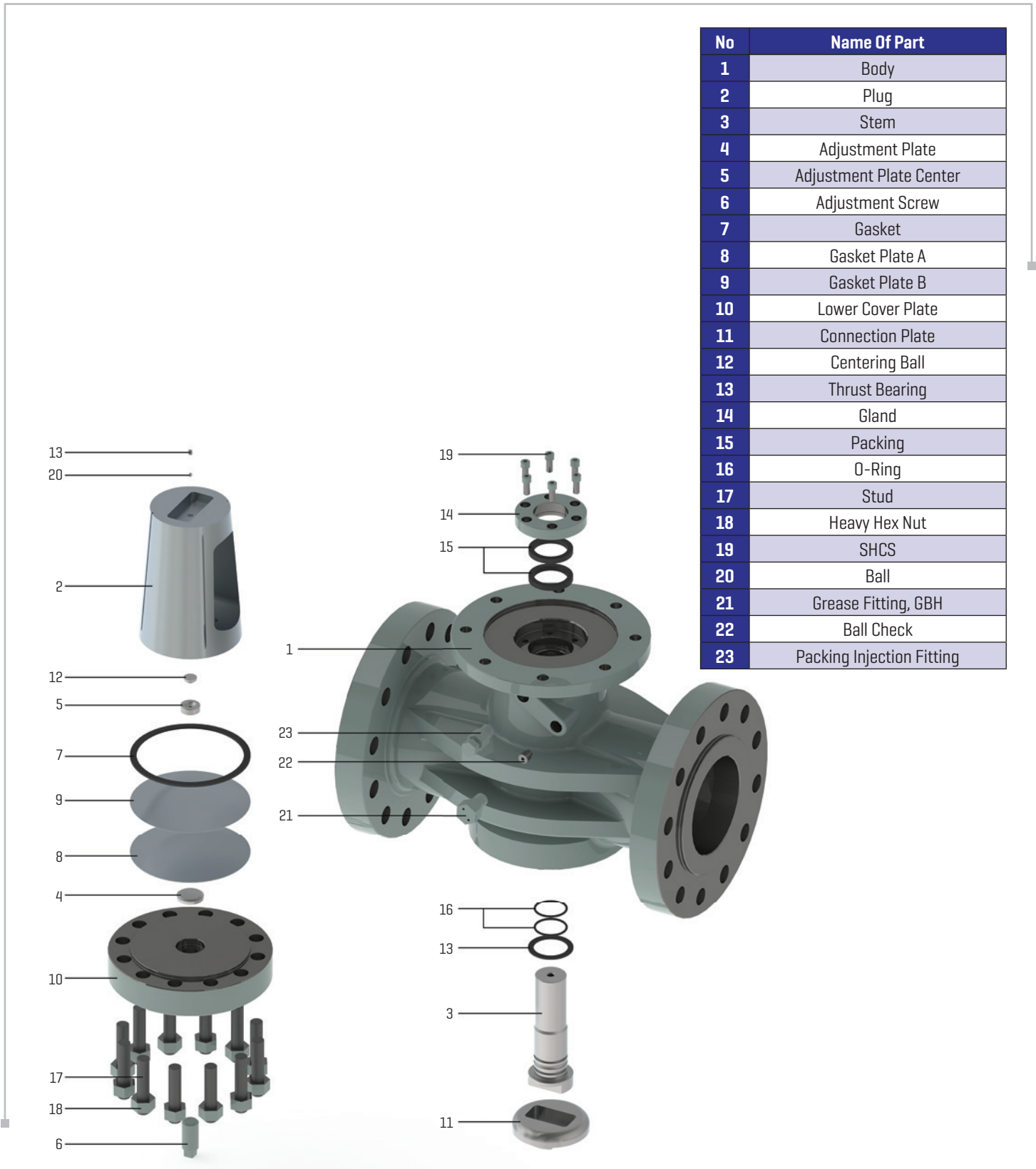
Class: 150 - 2500/Sizes: 2" - 36"

Design and Manufacturing Standards	
Basic Design	API 6D
Wall Thickness	API 6D
Face-to-Face Dimension	API 6D
Flange End Dimension	API 6D
Inspection & Testing	API 6D
Fire Safe Design	API 6FA/BS 6755



Pressure Balanced Lubricated Plug Valves - API 6D

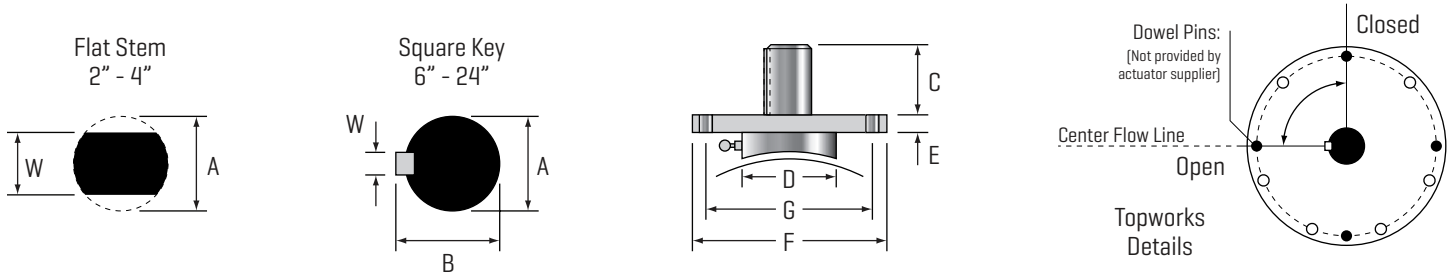
[Expanded View]



No	Name Of Part
1	Body
2	Plug
3	Stem
4	Adjustment Plate
5	Adjustment Plate Center
6	Adjustment Screw
7	Gasket
8	Gasket Plate A
9	Gasket Plate B
10	Lower Cover Plate
11	Connection Plate
12	Centering Ball
13	Thrust Bearing
14	Gland
15	Packing
16	O-Ring
17	Stud
18	Heavy Hex Nut
19	SHCS
20	Ball
21	Grease Fitting, GBH
22	Ball Check
23	Packing Injection Fitting

Pressure Balanced Lubricated Plug Valve

Mounted Flanges & Stem Torque Information



NPS	CL	ISO 5211 Code	A	B	C	D	E	F Flange Dia.	G Bolt Center	H Stud Size	I Hole Dia.	L No. of Holes	W	Max. Stem Shear Torque N.M.	Break Torque N.M.
2	150	F10	28	/	34	78	17	125	102	M10	11	4	20	409	58
2	300	F10	28	/	34	78	17	125	102	M10	11	4	20	409	101
2	600	F10	28	/	33	78	17	125	102	M10	11	4	20	409	172
3	150	F12	34	/	33	90	19	150	125	M12	13.5	4	24	706	121
3	300	F12	34	/	33	90	19	150	125	M12	13.5	4	24	706	213
3	300	F12	34	37	70	90	19	150	125	M12	13.5	4	10	1141	213
3	600	F12	34	/	33	90	19	150	125	M12	13.5	4	24	706	366
4	150	F14	38	/	39	108	21	175	140	M16	18	4	28	1076	242
4	300	F14	38	/	39	108	21	175	140	M16	18	4	28	1076	435
4	600	F14	38	41	67	108	21	175	140	M16	18	4	10	1616	757
6S	150	F14	42	/	43	105	20	175	140	M16	18	4	30	1379	600
6R	150	F14	42	45	65	105	22	175	140	M16	18	4	12	2180	600
6	300	F16	50	53.5	70	120	22	210	165	M20	22	4	14	3698	1112
6R	600	F25	50	53.5	80	120	25	300	254	M16	18	8	14	3698	2035
8S	150	F16	48	/	49	116	24	210	165	M20	22	4	34	2008	1097
8S	150	F16	48	51.5	80	116	24	210	165	M20	22	4	14	3256	1097
8R	150	F25	52	56	80	116	26	300	254	M16	18	8	16	4122	1280
8S	300	F25	52	56	80	122	26	300	254	M16	18	8	16	4122	2045
8R	300	F25	52	56	90	122	22	300	254	M16	18	8	16	4122	2355
8R	600	F25	62	66	90	150	25	300	254	M16	18	8	16	7025	4505
10S	150	F25	52	56	80	115	26	300	254	M16	18	8	16	4122	1609
10R	150	F25	52	56	80	115	26	300	254	M16	18	8	16	4122	2240
10S	300	F25	62	66	90	130	25	300	254	M16	18	8	16	7025	3038
10R	300	F25	66	70.5	85	150	28	300	254	M16	18	8	20	8445	4418
10R	600	F30	78	83	130	170	28	350	298	M20	22	8	20	14000	8478
10V	600	F25	68	72.5	115	140	25	300	254	M16	18	8	20	9271	5623
12S	150	F25	62	66.4	80	134	20	300	254	M16	18	8	18	7025	2466
12R	150	F25	68	72.5	90	130	23	300	254	M16	18	8	20	9271	3380
12R	300	F30	78	83	130	160	25	350	298	M20	22	8	22	14000	7483
12V	300	F25	68	72.5	90	144	22	300	254	M16	18	8	20	9271	4248
12R	600	F30	90	95	120	168	30	350	298	M20	22	8	25	21680	12801
12V	600	F30	78	83	130	170	28	350	298	M20	22	8	22	14000	8478
14V	150	F25	66	70.5	80	143	25	300	254	M16	18	8	20	8445	2835
14V	300	F25	78	83	120	170	25	300	254	M16	18	8	22	14000	5650
14V	600	F30	90	95	120	170	30	350	298	M20	22	8	25	21680	10930
16V	150	F25	78	83	120	150	26	350	298	M20	22	8	22	14000	4174
16V	300	F30	90	95	120	164	30	350	298	M20	22	8	25	21680	8128
16V	600	F35	98	104	150	190	35	415	356	M30	33	8	28	27914	16393
18V	150	F30	90	95	120	180	26	350	298	M20	22	8	25	21680	5700
18V	300	F35	98	104	150	190	32	415	356	M30	33	8	28	27914	11531
18V	600	F35	108	114	150	200	32	415	356	M30	33	8	28	37740	22472
20v	150	F30	95	100	140	180	32	350	298	M20	22	8	25	25640	8260
20V	300	F35	108	114	150	200	35	415	356	M30	33	8	28	37750	15701
20V	600	F35	118	125	160	210	35	415	356	M30	33	8	32	49089	30554
24V	150	F35	108	114	150	210	35	415	356	M30	33	8	28	37740	14911
24V	300	F35	118	125	160	210	35	415	356	M30	33	8	32	49089	26614
24V	600	F40	138	146	200	250	40	475	406	M36	39	8	36	78915	46757

1. Nominal Torque of the actuator = the break torque * 1.5 (safety coefficient).
 2. The torques shown in the table is made out at the max. delt pressure when the valve is closed.
 3. An extra torque may be taken into account for different media, on/off frequency and different materials internal parts.

Pressure Balanced Lubricated Plug Valve Range & Index

● = Short Pattern

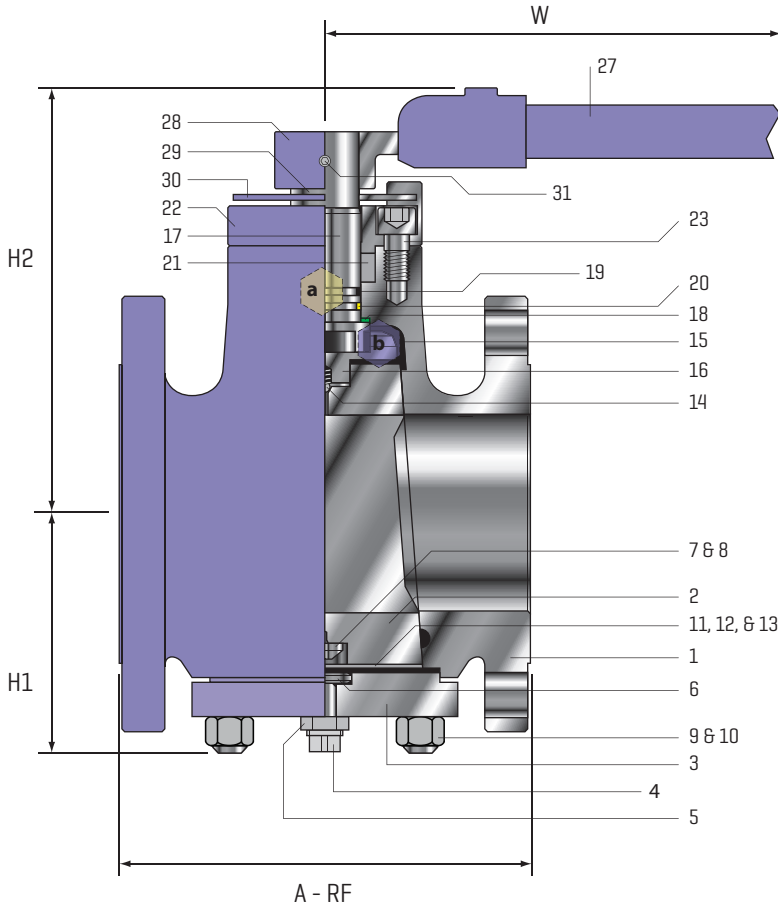
■ = Regular Pattern

▲ = Venturi Pattern

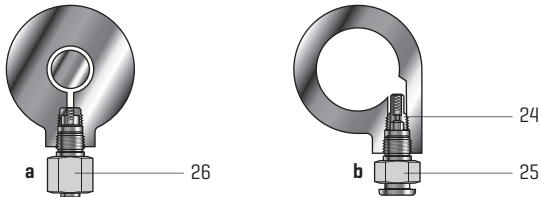
CLASS	150			300			600		900		1500		2500
STYLE	S	R	V	S	R	V	R	V	R	V	R	V	R
2	●			●			■		■		■		■
50													
3	●			●			■		■		■		■
75													
4	●			●			■		■		■		■
100													
6	●	■		●	■		■	▲	■		■		■
150													
8	●	■			■		■	▲	■		■		■
200													
10	●	■			■			▲	■		■		■
250													
12	●	■			■			▲	■		■		■
300													
14			▲			▲		▲		▲		▲	
350													
16			▲			▲		▲		▲		▲	
400													
18			▲			▲		▲		▲		▲	
450													
20			▲			▲		▲		▲		▲	
500													
24			▲			▲		▲		▲		▲	
600													
26			▲			▲							
650													
28			▲			▲							
700													
30			▲			▲							
750													
36			▲			▲							
900													

Short Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 6" Class: 150



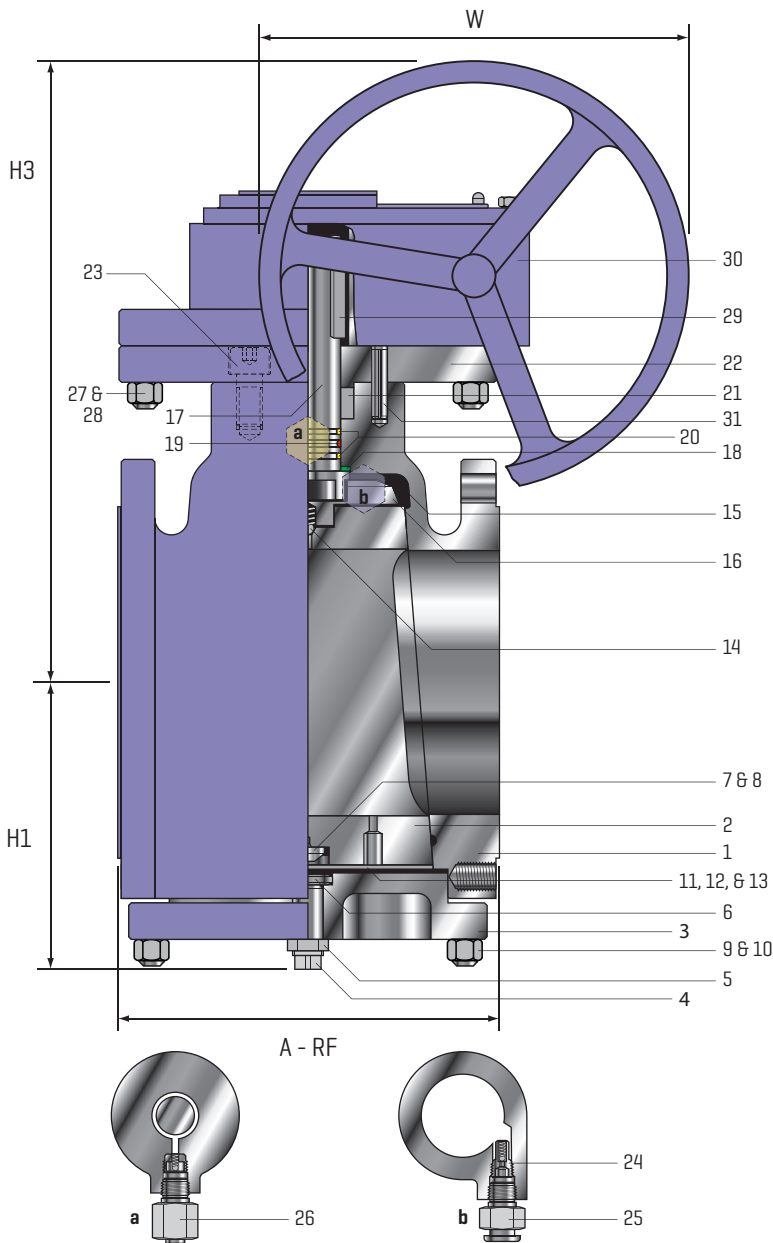
No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel



CLASS 150	Size		A - RF	H1	H2	W	WGT LBS/KG
	IN	2	7.00	3.84	5.83	14.00	42
MM	50	178	95	148	350	19	
IN	3	8.00	4.25	6.61	20.00	73	
MM	75	203	108	168	500	33	
IN	4	9.00	5.00	7.91	24.00	115	
MM	100	229	127	201	600	52	
IN	6	10.50	6.65	9.90	32.00	176	
MM	150	267	169	251	800	80	

Short Pattern - Pressure Balanced Lubricated Plug Valves

Size: 6" - 12" Class: 150

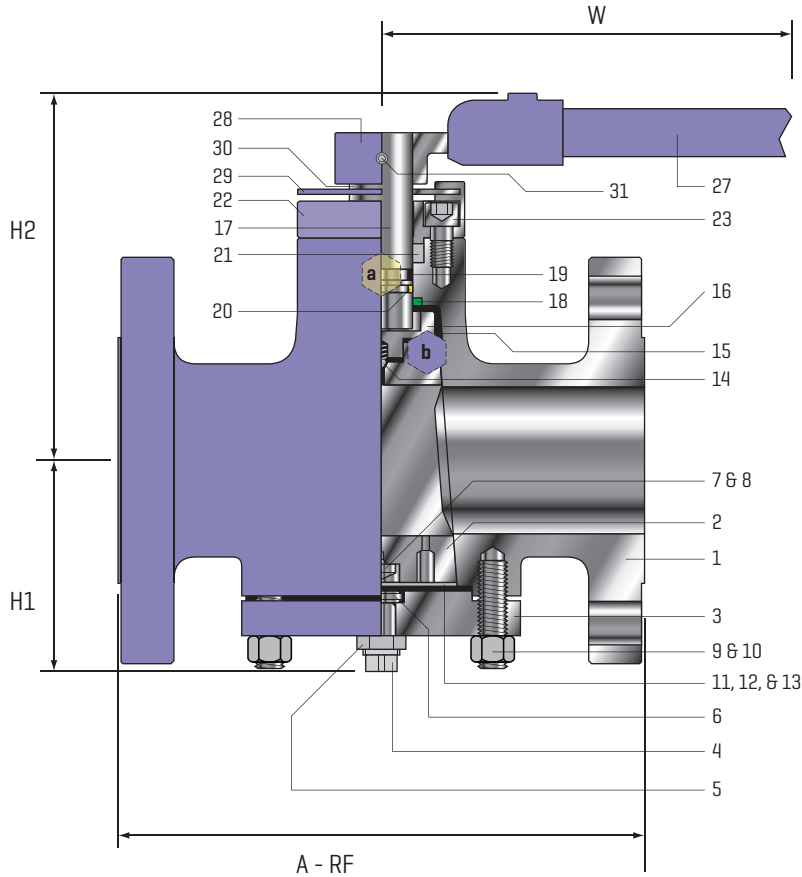


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Ductile Iron
31	Positioning Pin	Carbon Steel

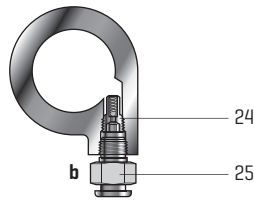
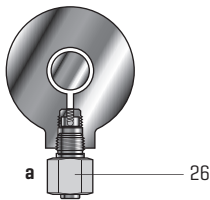
CLASS 150	SIZE		A - RF	H1	H3	W	WGT LBS/KG
	IN	6	10.50	6.85	19.33	18.00	176
MM	150	267	174	491	450	80	
IN	8	11.50	8.46	23.31	24.00	348	
MM	200	292	215	592	600	158	
IN	10	13.00	9.65	24.29	24.00	540	
MM	250	330	245	617	600	245	
IN	12	14.00	11.22	25.98	24.00	772	
MM	300	356	285	660	600	350	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 6" Class: 150



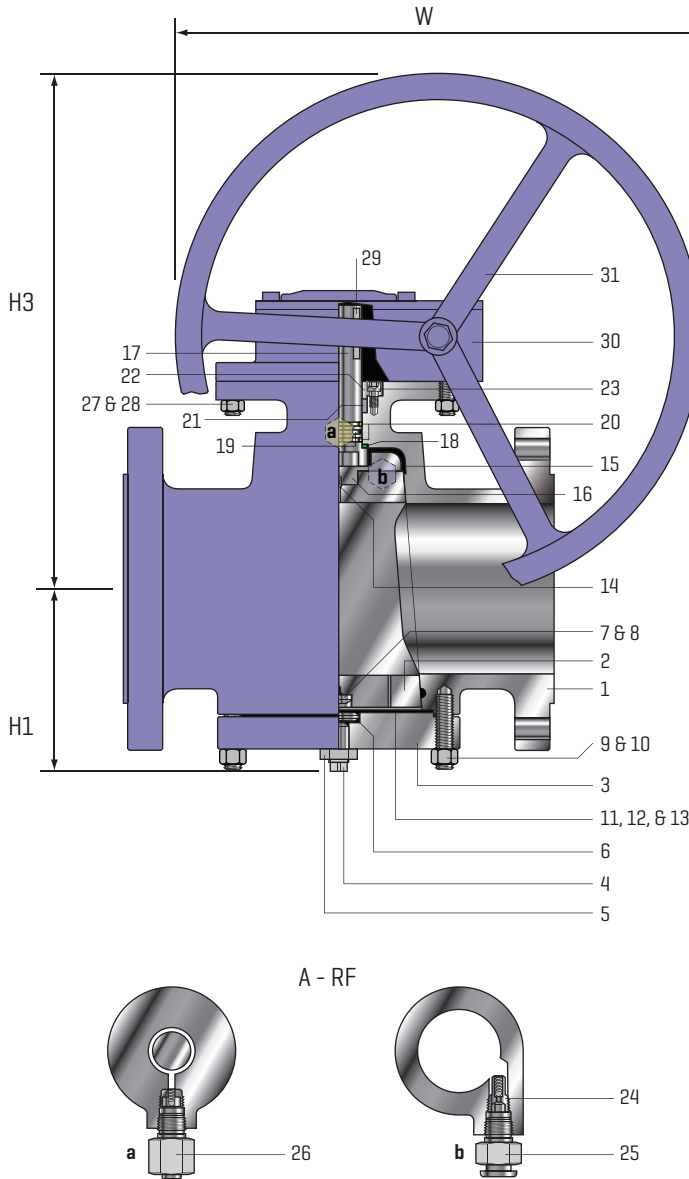
No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel



CLASS 150	Size		A - RF	H1	H2	W	WGT LBS/KG
	IN	2	8.00	4.63	7.00	14.00	47
MM	50	203	118	178	350	21.3	
IN	3	9.50	6.34	8.63	20.00	101	
MM	75	241	161	219	500	46	
IN	4	12.00	7.05	9.25	24.00	187	
MM	100	305	179	235	600	85	
IN	6	15.50	7.20	10.40	32.00	187	
MM	150	432	183	264	800	85	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 6" - 12" Class: 150

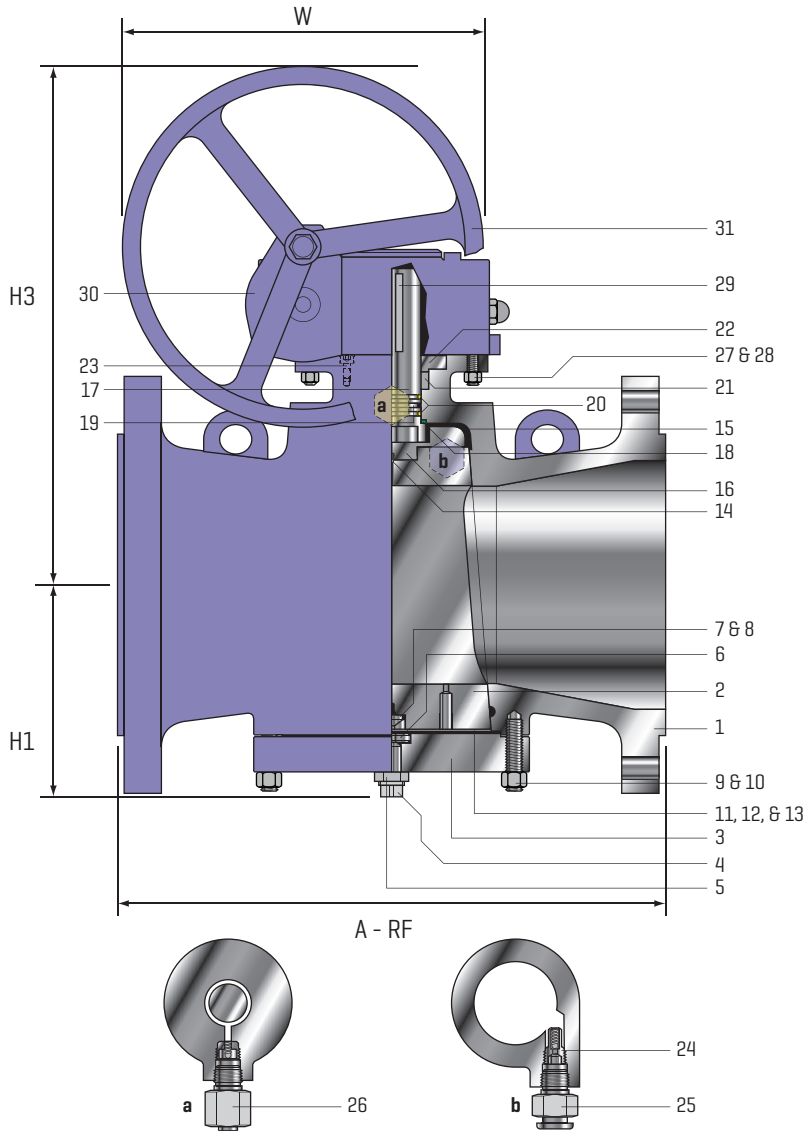


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Gland	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

CLASS 150	SIZE		A - RF	H1	H3	W	WGT LBS/KG
	IN	6	15.50	7.20	20.16	18.00	202
	MM	150	394	183	512	450	92
	IN	8	18.00	9.40	24.21	24.00	400
	MM	200	457	239	615	600	182
	IN	10	21.00	11.00	26.73	24.00	620
	MM	250	533	279	679	600	282
	IN	12	24.00	12.80	29.92	24.00	887
MM	300	610	325	760	600	403	

Venturi Pattern - Pressure Balanced Lubricated Plug Valves

Size: 14" - 36" Class: 150

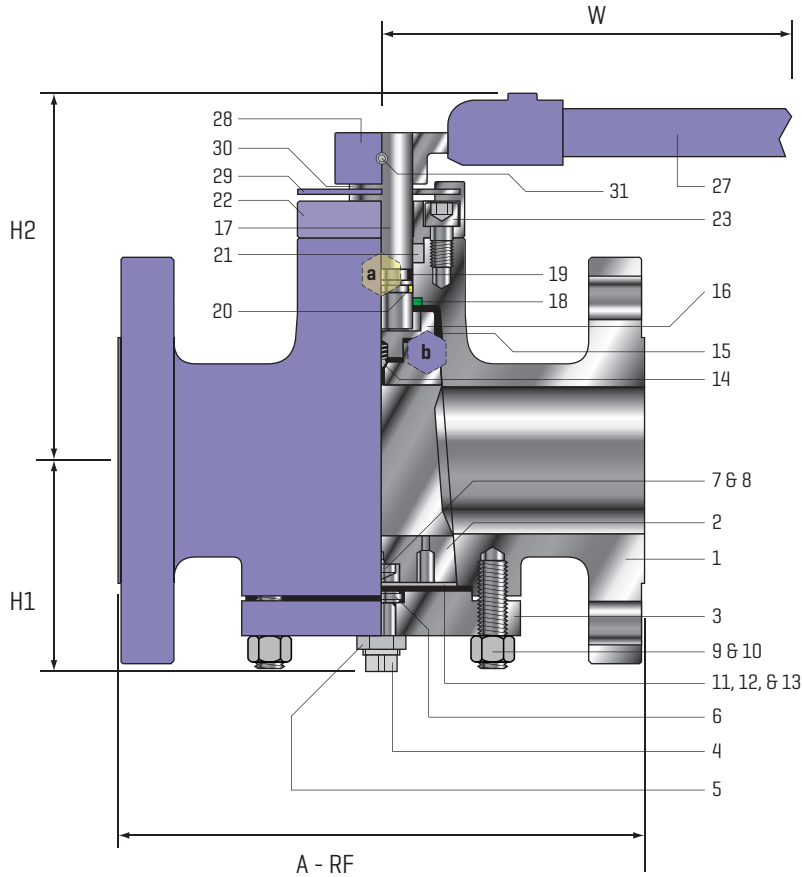


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

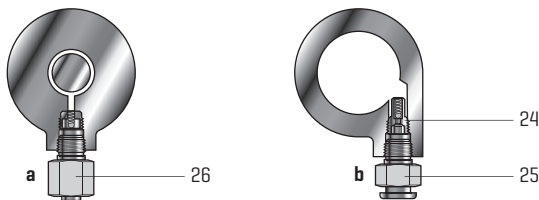
CLASS 150	SIZE		A - RF	H1	H3	W	WGT LBS/KG
	IN	14	27.00	10.43	26.18	24.00	1477
	MM	350	686	265	665	600	640
	IN	16	30.00	12.48	32.60	24.00	1731
	MM	400	762	317	828	600	785
	IN	18	34.00	16.40	30.10	24.00	1951
	MM	450	864	416	765	600	885
	IN	20	36.00	18.40	30.80	24.00	2130
	MM	500	914	467	785	600	966
	IN	24	42.00	20.30	31.50	24.00	4092
MM	600	1067	516	800	600	1856	
IN	30	51.00	228.00	41.10	24.00	8155	
MM	750	1295	579	1044	600	3699	
IN	36	63.00	*	*	24.00	*	
MM	900	1600	*	*	600	*	

Short Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 6" Class: 300



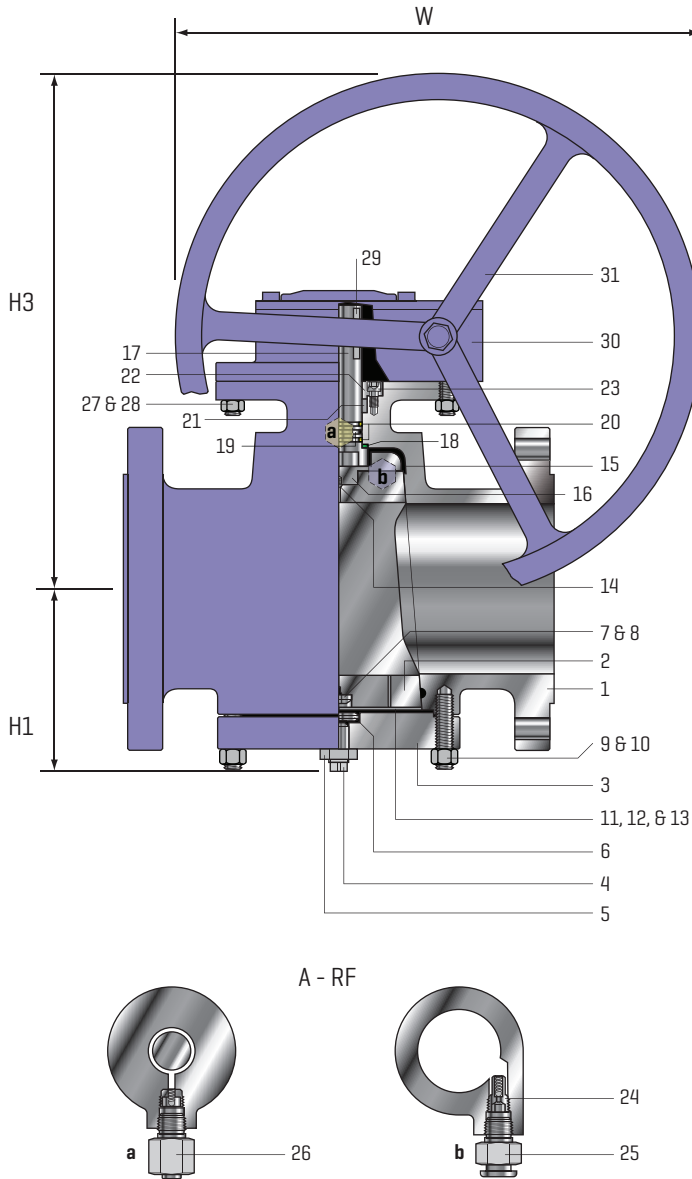
No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel



CLASS 300	Size		A - RF	H1	H2	W	WGT LBS/KG
	IN	2	8.50	3.74	5.83	14	46
MM	50	216	95	148	350	21	
IN	3	11.13	4.41	6.61	20	84	
MM	75	283	112	168	500	38	
IN	4	12.00	5.35	7.91	24	132	
MM	100	305	136	201	600	60	
IN	6	15.88	6.9	9.72	32	188	
MM	150	403	175	247	800	85	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 6" - 12" Class: 300

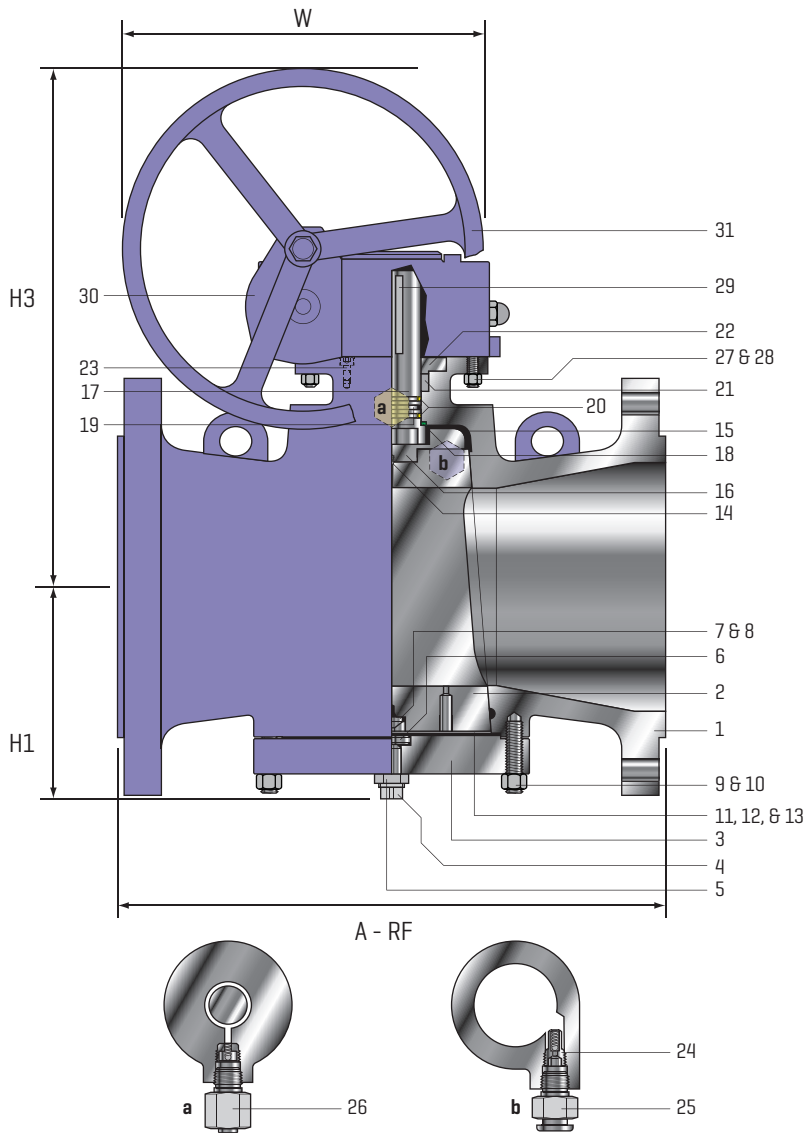


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Gland	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

CLASS 300	Size		A - RF	H1	H3	W	WGT LBS/KG
	IN	6	15.88	6.89	10.55	14.00	392
	MM	150	403	175	268	350	178
	IN	8	19.75	8.23	11.46	18.00	609
	MM	200	502	209	291	450	276
	IN	10	22.38	9.69	12.91	24.00	784
	MM	250	568	246	328	600	356
	IN	12	28.00	11.22	18.70	32.00	1120
MM	300	711	285	475	800	508	

Venturi Pattern - Pressure Balanced Lubricated Plug Valves

Size: 14" - 36" Class: 300

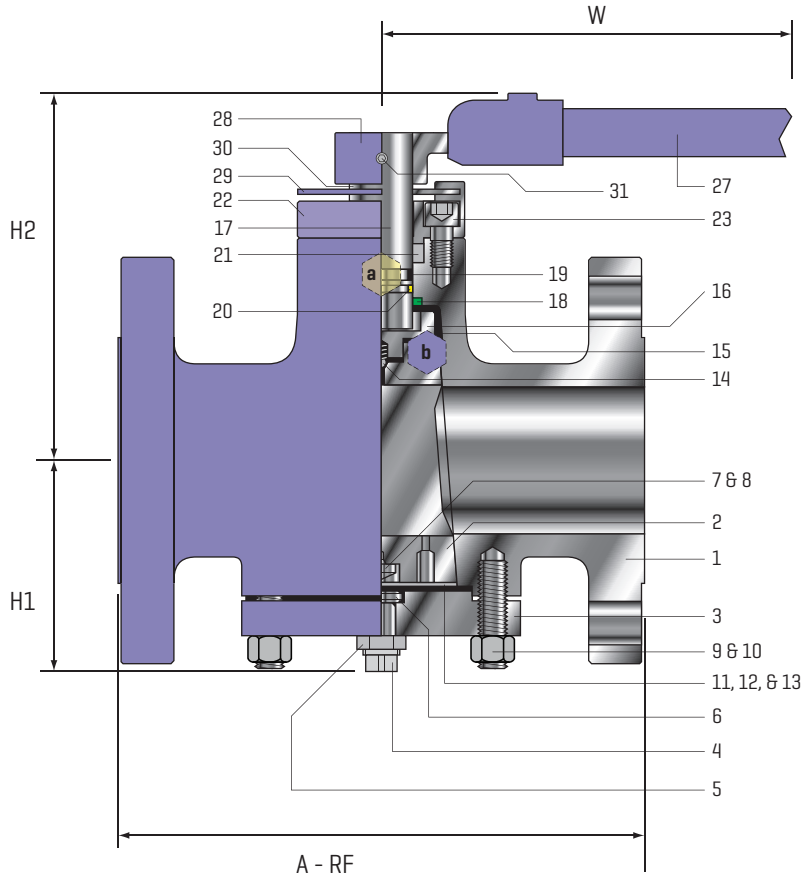


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

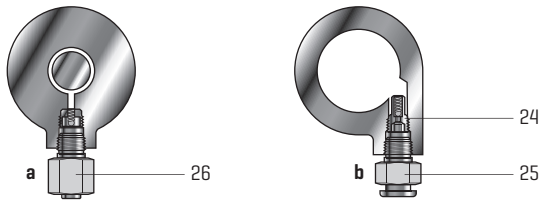
CLASS 300	Size		A - RF	H1	H3	W	WGT LBS/KG
	IN	14	30.00	10.43	26.18	24.00	1755
	MM	350	762	265	665	600	796
	IN	16	33.00	12.48	32.60	24.00	1989
	MM	400	838	317	828	600	902
	IN	18	36.00	16.40	30.10	24.00	2418
	MM	450	914	416	765	600	1097
	IN	20	39.00	18.50	37.00	24.00	3474
	MM	500	991	470	940	600	1576
	IN	24	45.00	20.70	38.20	24.00	4530
MM	600	1143	525	970	600	2060	
IN	30	55.00	*	*	24.00	*	
MM	750	1397	*	*	600	*	
IN	36	68.00	*	*	24.00	*	
MM	900	1727	*	*	600	*	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 4" Class: 600



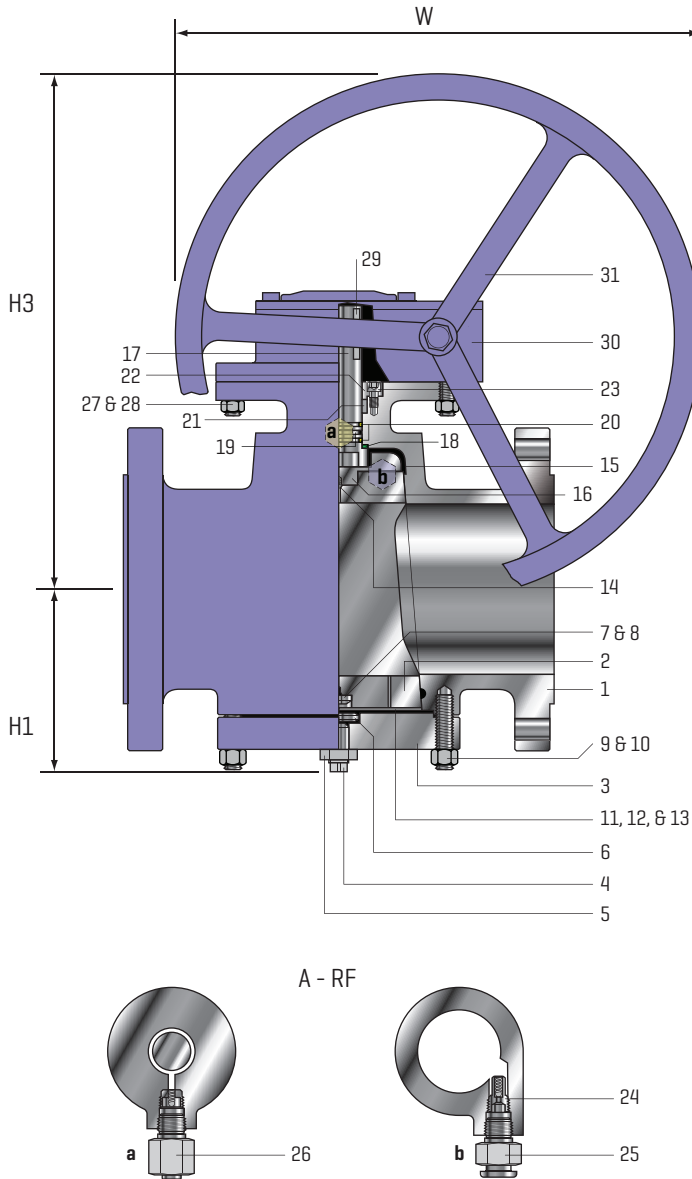
No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel



600	Size		A - RF	A - RTJ	H1	H2	W	WGT LBS/KG
	IN	2	11.50	11.60	3.82	5.83	22.00	47
MM	50	292	295	97	148	550	21.3	
IN	3	14.00	14.10	4.41	6.61	28.00	101	
MM	75	356	359	112	168	700	46	
IN	4	17.00	17.10	5.35	8.27	40.00	187	
MM	100	432	435	136	210	1000	85	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 4" - 12" Class: 600

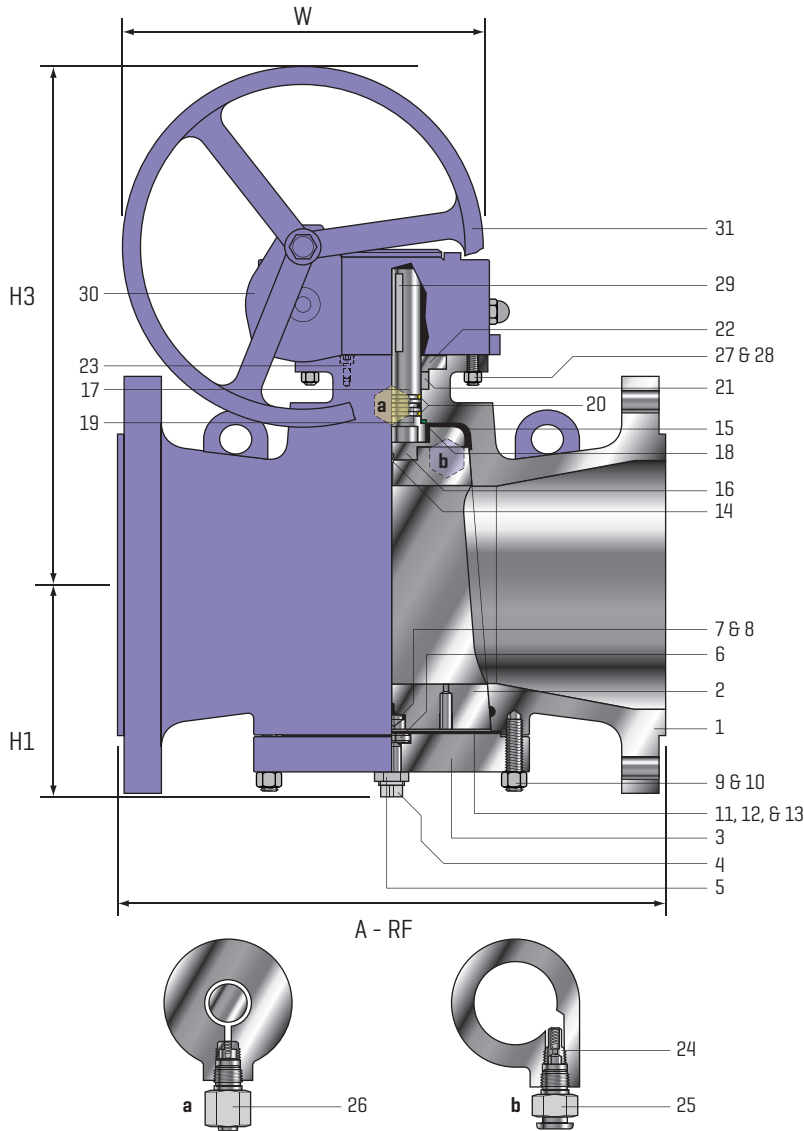


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Gland	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

CLASS 600	Size		A - RF	A - RTJ	H1	H3	W	WGT LBS/KG
	IN	4	17.00	17.12	5.35	13.78	10.00	187
	MM	100	432	435	136	350	250	85
	IN	6	22.01	22.12	9.75	17.52	14.00	560
	MM	150	559	562	248	445	350	254
	IN	8	26.00	26.12	11.80	22.83	18.00	896
	MM	200	660	664	298	580	450	406
	IN	10	31.00	31.12	12.30	30.5	18.00	1290
	MM	250	787	791	313	775	450	584
	IN	12	33.00	33.12	14.80	27.7	24.00	1367
MM	300	838	841	375	704	600	620	

Venturi Pattern - Pressure Balanced Lubricated Plug Valves

Size: 6" - 24" Class: 600

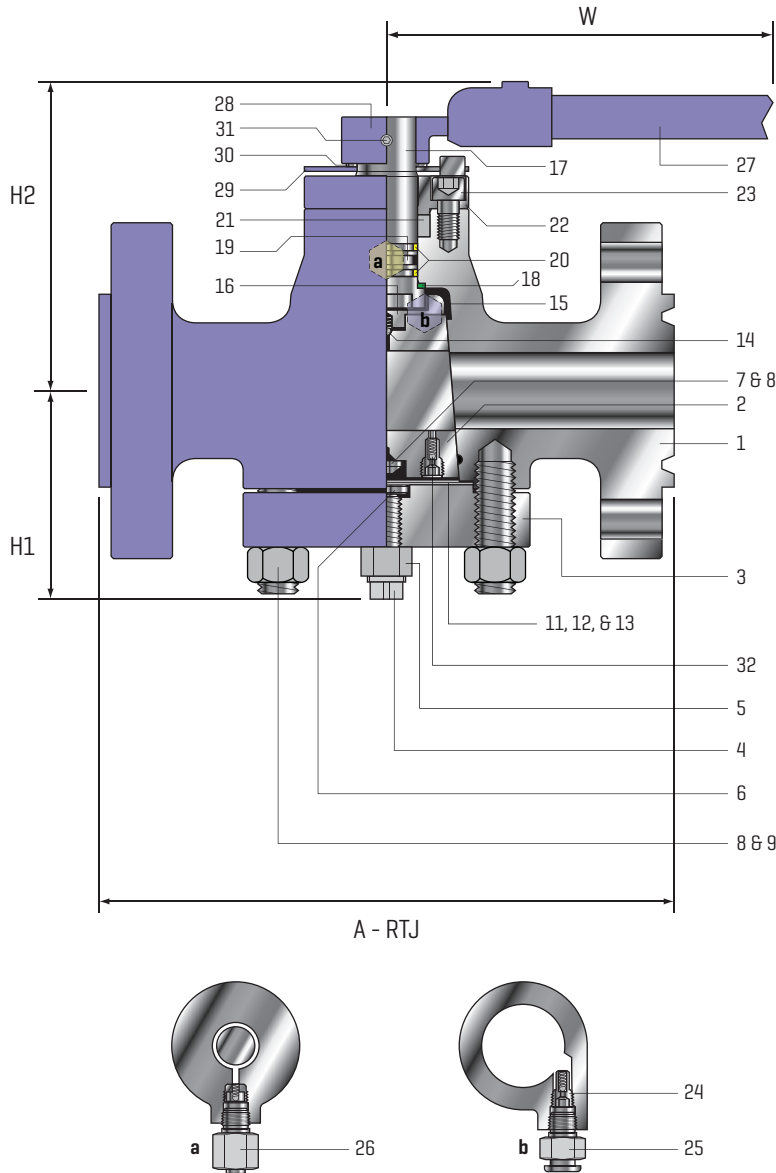


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

CLASS 600	Size		A - RF	A - RTJ	H1	H3	W	WGT LBS/KG
	IN	6	22.00	22.12	5.35	20.67	24.00	330
MM	150	559	562	136	525	600	150	
IN	8	26.00	26.12	7.28	22.44	24.00	670	
MM	200	660	664	185	570	600	304	
IN	10	31.00	31.12	9.13	24.02	24.00	965	
MM	250	787	791	232	610	600	437	
IN	12	33.00	33.12	13.20	30.40	24.00	1358	
MM	300	838	841	335	773	600	616	
IN	14	35.00	35.12	14.80	32.50	24.00	1905	
MM	350	889	892	375	825	600	864	
IN	16	39.00	39.12	16.90	33.30	32.00	2575	
MM	400	991	994	429	845	800	1168	
IN	18	43.00	43.12	18.30	35.40	32.00	3644	
MM	450	1092	1095	464	900	800	1653	
IN	20	47.00	47.25	18.80	37.20	32.00	4079	
MM	500	1194	1200	477	945	800	1850	
IN	24	55.00	55.38	19.50	34.30	32.00	4764	
MM	600	1397	1407	496	870	800	2161	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 3" Class: 900

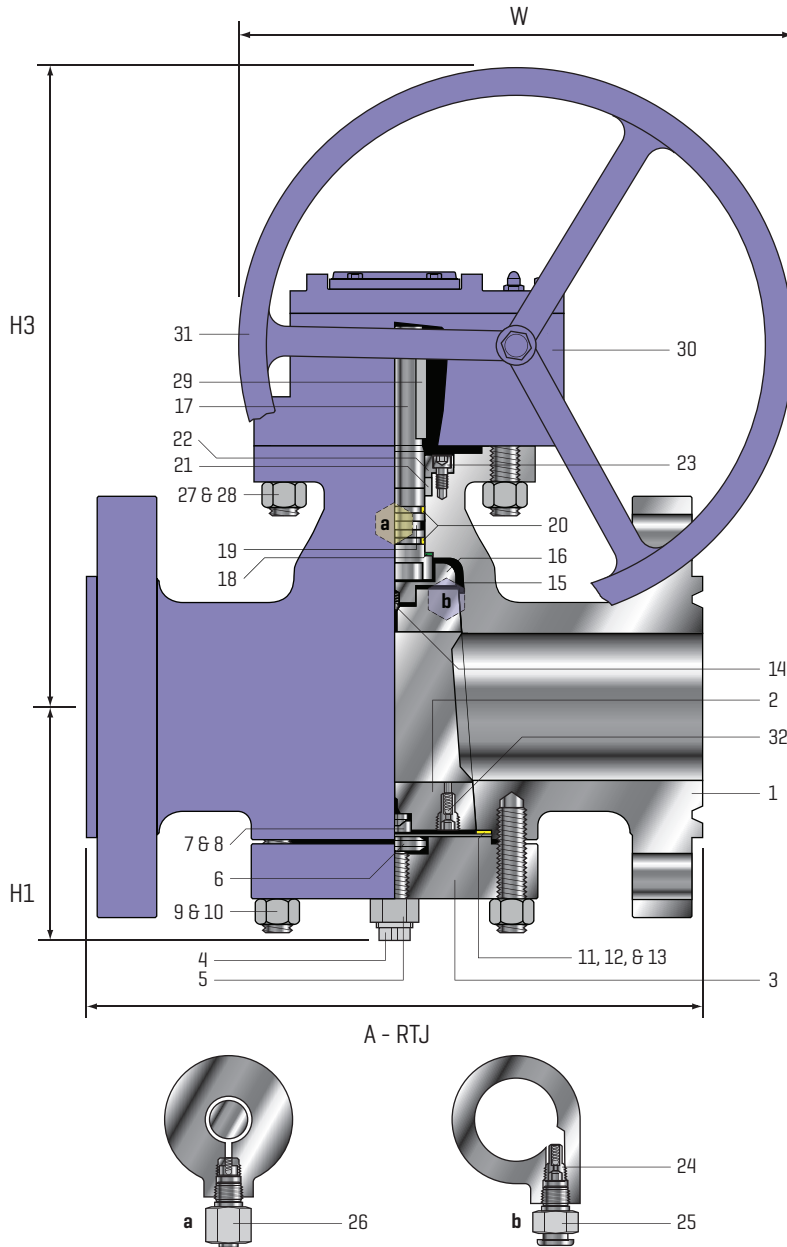


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel
32	Inline Check	Carbon Steel/Stainless Steel

900	SIZE		A - RF	A - RTJ	H1	H2	W	WGT LBS/KG
	IN	2	14.50	14.62	5.31	7.13	32	54
	MM	50	368	371	135	181	800	24.5
	IN	3	15.00	15.12	7.09	8.70	40	250
MM	75	381	384	180	221	1000	114	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 4" - 12" Class: 900

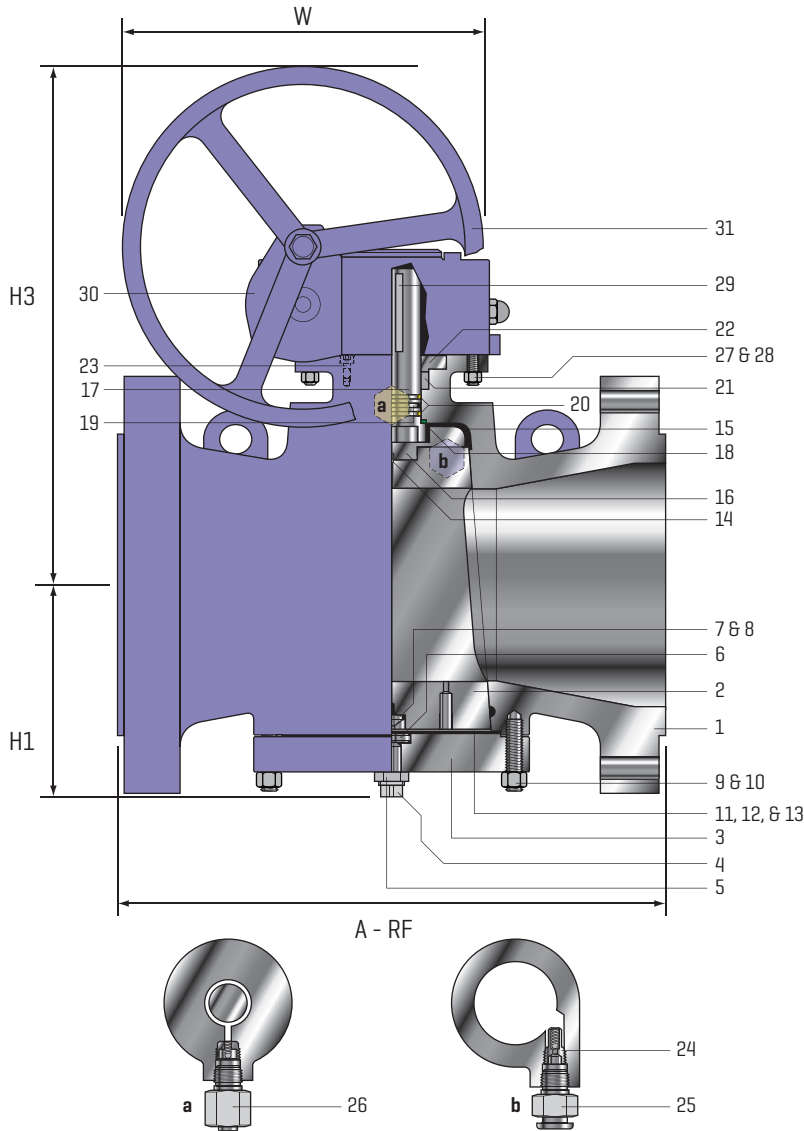


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Gland	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel
32	Inline Check	Carbon Steel/Stainless Steel

CLASS 900	SIZE	A - RF	A - RTJ	H1	H3	W	GEAR	WGT LBS/KG
	IN 4	18	18.11	6.57	9.08	18	108W	276
	MM 100	457	460	167	249	450		125
	IN 6	24	24.13	10.04	15.16	24	208W	581
	MM 150	610	613	255	385	600		264
	IN 8	29	29.13	11.89	17.56	24	308W	1300
	MM 200	737	740	302	446	600		591
	IN 10	33	33.11	12.8	19.09	24	408W	1456
	MM 250	838	841	352	485	600		662
	IN 12	38	38.11	15.94	21.1	24	408W	2854
MM 300	965	968	405	536	600	1295		

Venturi Pattern - Pressure Balanced Lubricated Plug Valves

Size: 14" - 24" Class: 900

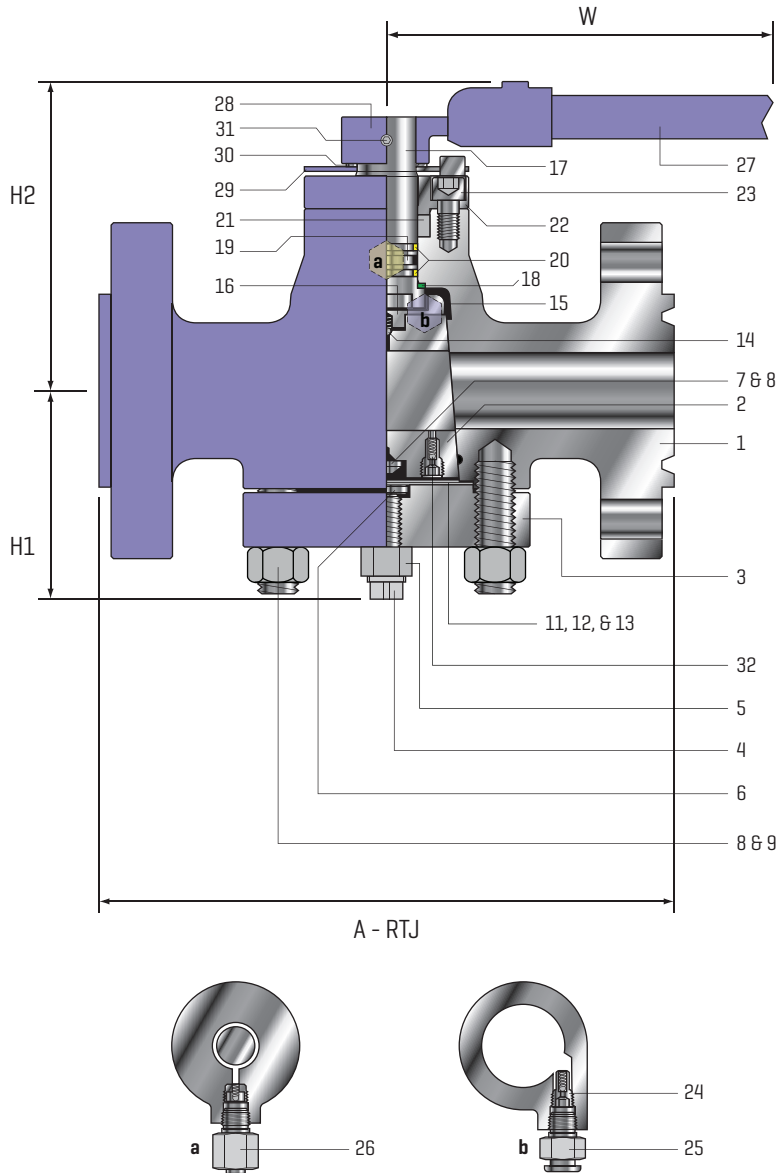


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

CLASS 900	SIZE		A - RF	A-RTJ	H1	H3	W	WGT LBS/KG
	IN	14	40.5	40.9	14.8	32.5	24	*
	MM	350	1029	1038	375	825	600	*
	IN	16	44.5	44.9	16.9	33.3	32	4365
	MM	400	1130	1140	429	845	800	1980
	IN	18	48	48.5	18.3	35.4	32	*
	MM	450	1219	1232	464	900	800	*
	IN	20	52	52.5	18.8	37.2	32	9000
	MM	500	1321	1334	477	945	800	4082
	IN	24	61	61.7	19.5	34.3	32	*
MM	600	1549	1568	496	870	800	*	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 3" Class: 1500

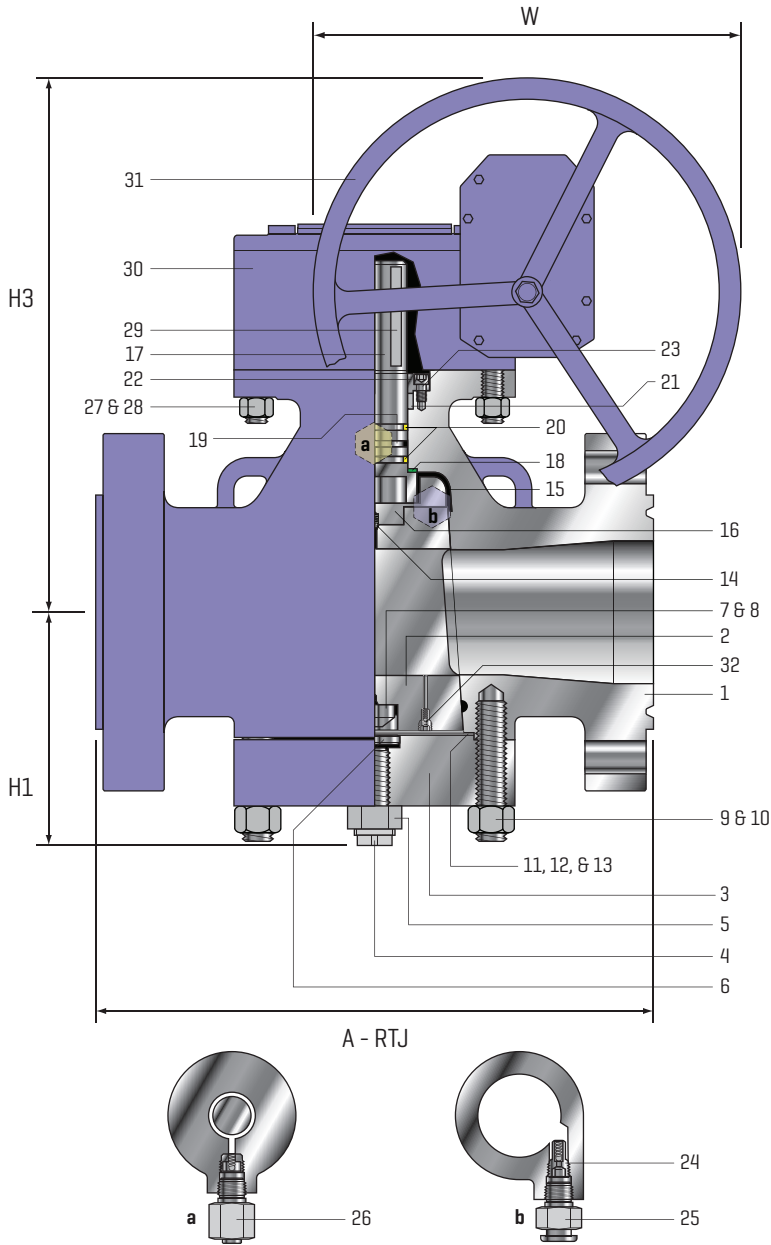


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel
32	Inline Check	Carbon Steel/Stainless Steel

1500	SIZE		A - RF	A - RTJ	H1	H2	W	WTS LBS/KG
	IN	2	14.5	14.6	5.31	7.13	32	150
	MM	50	368	371	135	181	800	68
	IN	3	18.5	18.62	7.2	8.82	40	260
MM	75	470	473	183	224	1000	118	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 4" - 12" Class: 1500

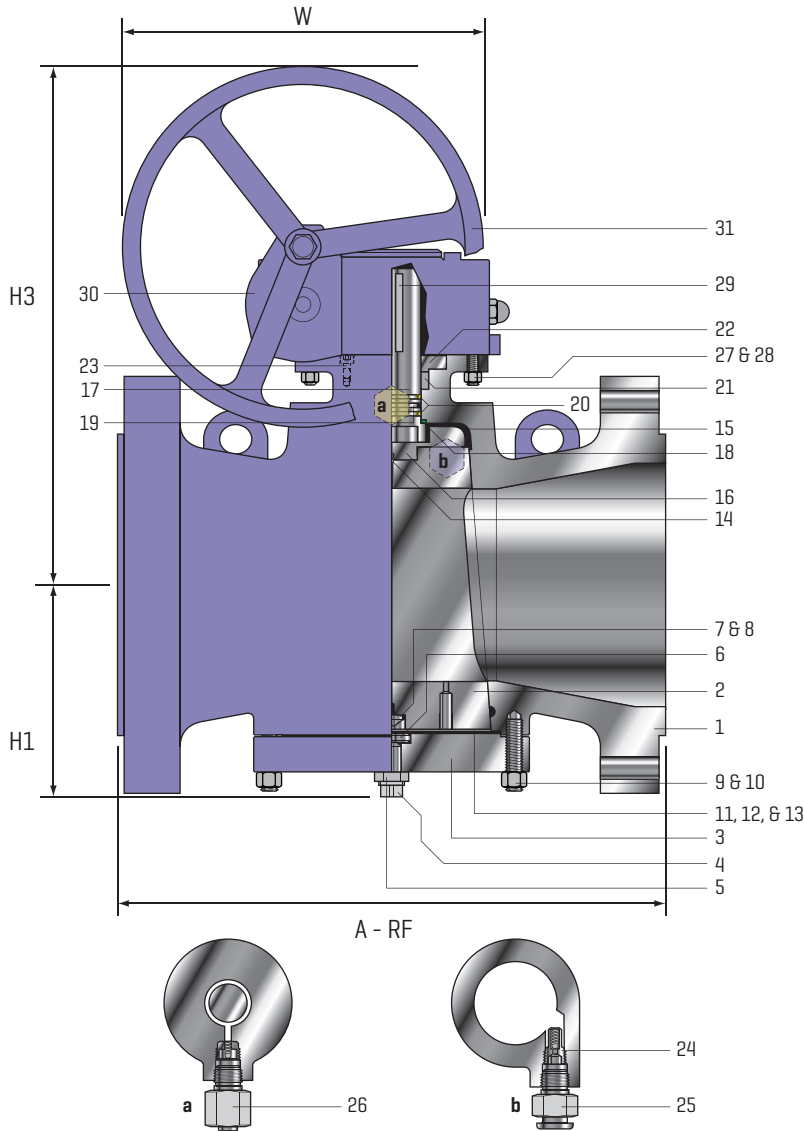


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Gland	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel
32	Inline Check	Carbon Steel/Stainless Steel

CLASS 1500	SIZE		A - RF	A - RTJ	H1	H3	W	GEAR	WGT LBS/KG
	IN	4	21.5	21.61	8.86	22.44	24	208W	355
	MM	100	546	549	225	570	600		161
	IN	6	27.8	27.99	10.83	28.54	24	308W	1130
	MM	150	705	711	275	725	600		513
	IN	8	32.8	33.11	12.6	30.12	24	408W	1710
	MM	200	832	841	320	765	600		776
	IN	10	39	39.37	10.57	31.69	24	408W	2720
	MM	250	991	1000	370	805	600		1234
	IN	12	44.5	45.12	16.93	34.06	24	508W	3760
MM	300	1130	1146	430	865	600	1706		

Venturi Pattern - Pressure Balanced Lubricated Plug Valves

Size: 14" - 18" Class: 1500

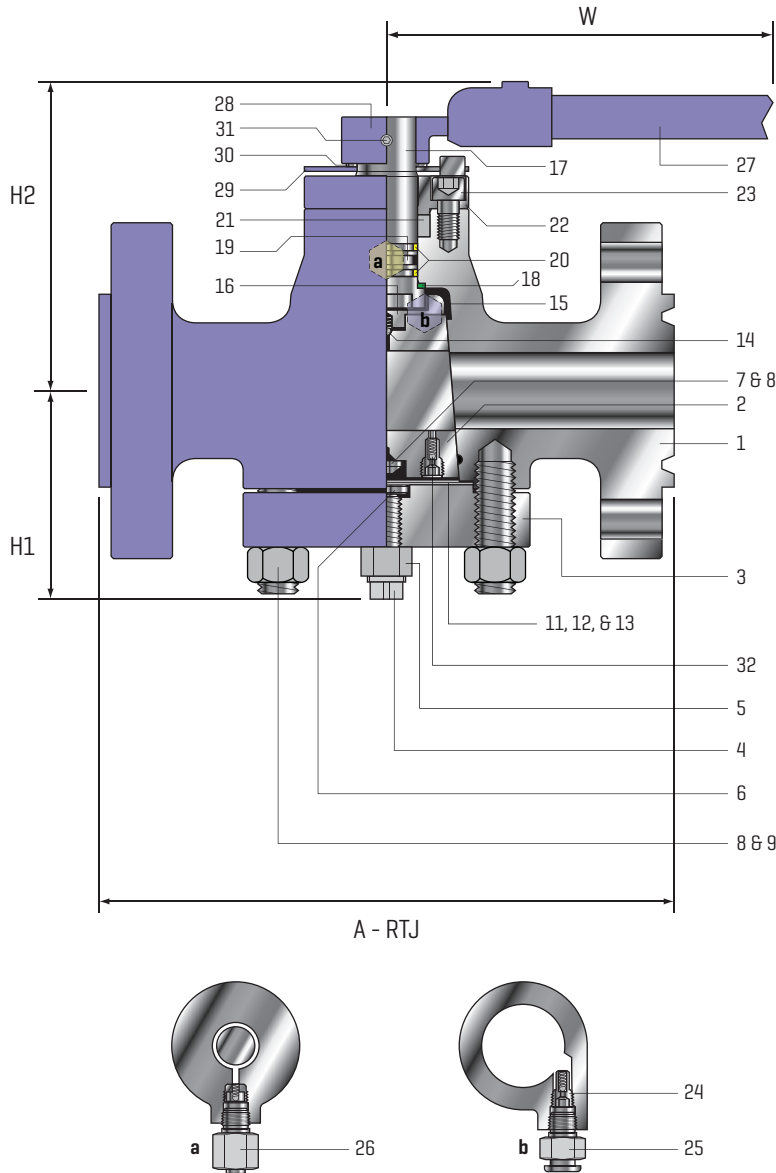


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7M
28	Nut	A194 2HM
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel

1500	SIZE		A - RF	A-RTJ	H1	H3	W	WGT LBS/KG
	IN	14	49.5	50.2	16.97	37.36	24	*
	MM	350	1257	1276	431	949	600	*
	IN	16	54.5	55.4	19.41	38.27	24	7900
	MM	400	1384	1407	493	927	600	3583
	IN	18	60.5	61.4	21	40.75	32	*
	MM	450	1537	1559	534	1035	800	*

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 2" - 3" Class: 2500

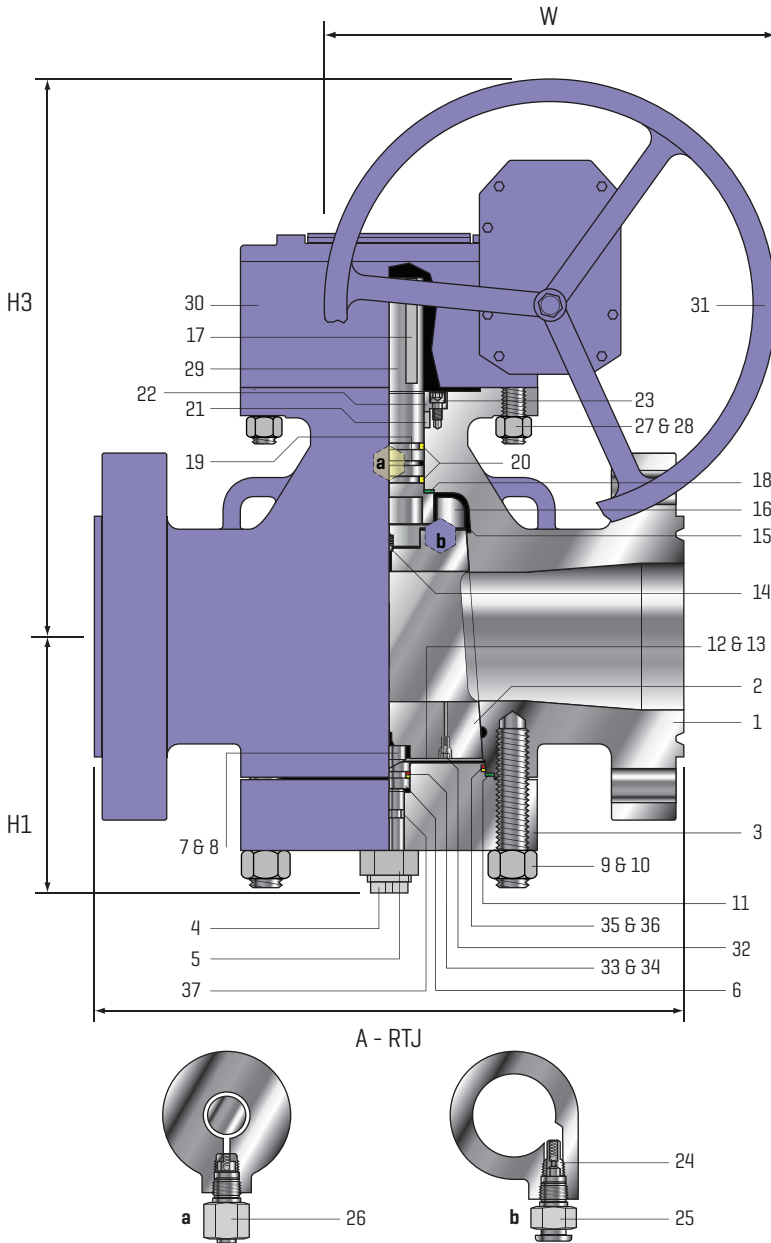


No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105 WCC
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Lever	Carbon Steel
28	Hub	Carbon Steel
29	Indicator Stop Plate	Carbon Steel
30	Stop Plate Retainer	AISI 1566
31	Set Screw	Carbon Steel
32	Inline Check	Carbon Steel/Stainless Steel

2500	SIZE		A - RF	A - RTJ	H1	H2	W	WGT LBS/KG
	IN	2	17.8	17.87	5.71	7.52	40	163
	MM	50	451	454	145	191	1000	82
	IN	3	22.8	22.99	7.6	9.21	40	342
MM	75	578	584	193	234	1000	155	

Regular Pattern - Pressure Balanced Lubricated Plug Valves

Size: 4" - 12" Class: 2500



No	Name Of Part	Material
1	Body	A216 WCC
2	Plug	CA15 + Nitriding
3	Bonnet	A105
4	Plug Adjustment Screw	A193 B7M
5	Plug Adjustment Lock Nut	Carbon Steel
6	Lower Pivot Disc	AISI 1035
7	Upper Pivot Disc	AISI 1035
8	Pivot Center	AISI 1035
9	Stud	A193 B7M
10	Nut	A194 2HM
11	Gasket	Flexible Graphite + 304
12	Washer	304SS
13	Steel Spacer	A36
14	Ball Spring Check	304SS
15	Lube/Sealant Reservoir	/
16	Stem Plug Adapter	A105
17	Stem	A276 410
18	Thrust Bearing	PTFE
19	Grease Groove	/
20	O Ring	Viton
21	Packing	Flexible Graphite
22	Top Cover	A105
23	Gland Cap Screw	Carbon Steel
24	Inline Check	Carbon Steel/Stainless Steel
25	Lube/Sealant Injector	Carbon Steel/Stainless Steel
26	Stem Packing Injector	Carbon Steel/Stainless Steel
27	Stud	A193 B7
28	Nut	A194 2H
29	Key	AISI 1045
30	Gear	Carbon Steel/Stainless Steel
31	Handwheel	Carbon Steel/Stainless Steel
32	Inline Check	Carbon Steel/Stainless Steel
33	O Ring	Viton
34	Back Ring	PTFE
35	O Ring	Viton
36	Back Ring	PTFE
37	Packing	Flexible Graphite

CLASS 2500	SIZE		A - RF	A - RTJ	H1	H3	W	Gear	WGT LBS/KG
	IN	4	26.5	26.89	9.92	23.7	24	308W	570
	MM	100	673	683	252	602	600		259
	IN	6	36	36.5	11.85	29.72	24	308W	1440
	MM	150	914	927	301	755	600		653
	IN	8	40.2	40.87	13.39	30.98	24	408W	2370
	MM	200	1022	1038	340	787	600		1075
	IN	10	50	50.87	15.59	32.83	24	508W	4050
	MM	250	1270	1292	396	834	600		1837
	IN	12	56	56.89	17.8	34.84	24	508W	5730
MM	300	1422	1445	452	885	600	2599		

Pressure Temperature Ratings - ASME B16.34

Note: Pressures in PSI

150	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	285	285	285	290	265	290	290	290	290	290	290	275	275	290
200	260	260	260	260	255	260	260	260	260	260	260	235	235	260	260
300	230	230	230	230	230	230	230	230	230	230	230	215	215	230	230
400	200	200	200	200	200	200	200	200	200	200	200	195	195	200	200
500	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
600	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
650	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
700	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
750	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
800	80	80	80	80	80	80	80	80	80	80	80	80	80	/	/
850	65	65	65	65	65	65	65	65	65	65	65	65	65	/	/
900	50	50	50	50	50	50	50	50	50	50	50	50	50	/	/
950	35	35	35	35	35	35	35	35	35	35	35	35	35	/	/
1000	20	20	20	20	20	20	20	20	20	20	20	20	20	/	/
1050	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1100	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1150	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1200	/	/	/	/	/	/	15	/	15	20	20	20	20	/	/
1250	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1300	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1350	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1400	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1450	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1500	/	/	/	/	/	/	/	/	/	/	/	15	15	/	/

300	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	740	740	740	750	695	750	750	750	750	750	750	720	720	750
200	680	680	680	750	660	750	750	750	750	750	750	620	620	745	745
300	655	655	655	730	640	720	730	730	730	730	730	560	560	665	665
400	635	635	635	705	615	695	705	705	705	705	705	515	515	615	615
500	605	605	605	665	585	665	665	665	665	665	665	480	480	580	580
600	570	570	570	605	550	605	605	605	605	605	605	450	450	555	555
650	550	550	550	590	535	590	590	590	590	590	590	440	440	545	545
700	530	530	530	555	510	570	555	570	570	570	570	435	435	540	540
750	505	505	505	505	475	530	505	530	530	530	530	425	425	530	530
800	410	410	410	410	390	510	410	510	510	510	510	420	420	/	/
850	320	320	320	320	300	485	320	485	485	485	485	420	420	/	/
900	230	230	230	225	200	450	225	375	450	450	450	415	415	/	/
950	135	135	135	135	135	320	135	275	375	385	385	385	385	/	/
1000	85	85	85	85	85	215	85	200	255	365	365	365	365	/	/
1050	/	/	/	/	/	145	/	145	170	360	360	160	160	/	/
1100	/	/	/	/	/	95	/	100	115	300	300	305	305	/	/
1150	/	/	/	/	/	65	/	60	75	225	225	235	235	/	/
1200	/	/	/	/	/	40	/	35	50	145	145	185	185	/	/
1250	/	/	/	/	/	/	/	/	/	/	/	145	145	/	/
1300	/	/	/	/	/	/	/	/	/	/	/	115	115	/	/
1350	/	/	/	/	/	/	/	/	/	/	/	95	95	/	/
1400	/	/	/	/	/	/	/	/	/	/	/	75	75	/	/
1450	/	/	/	/	/	/	/	/	/	/	/	60	60	/	/
1500	/	/	/	/	/	/	/	/	/	/	/	40	40	/	/

Pressure Temperature Ratings - ASME B16.34

Note: Pressures in PSI

Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	1480	1480	1480	1500	1395	1500	1500	1500	1500	1500	1440	1440	1500
200	1360	1360	1360	1500	1320	1500	1500	1500	1500	1500	1240	1240	1490	1490
300	1310	1310	1310	1455	1275	1445	1455	1455	1455	1455	1120	1120	1335	1335
400	1265	1265	1265	1405	1230	1385	1405	1410	1410	1410	1025	1025	1230	1230
500	1205	1205	1205	1330	1175	1330	1330	1330	1330	1330	995	995	1160	1160
600	1135	1135	1135	1210	1105	1210	1210	1210	1210	1210	900	900	1115	1115
650	1100	1100	1100	1175	1065	1175	1175	1175	1175	1175	885	885	1095	1095
700	1060	1060	1060	1110	1025	1135	1110	1135	1135	1135	870	870	1085	1085
750	1015	1015	1015	1015	955	1065	1015	1065	1065	1065	855	855	1065	1065
800	825	825	825	825	780	1015	825	1015	1015	1015	845	845	/	/
850	640	640	640	640	595	975	640	975	975	975	835	835	/	/
900	460	460	460	445	405	900	445	745	900	900	830	830	/	/
950	275	275	275	275	275	640	275	550	755	775	775	775	/	/
1000	170	170	170	170	170	430	170	400	505	725	725	725	/	/
1050	/	/	/	/	/	290	/	290	345	720	720	720	/	/
1100	/	/	/	/	/	190	/	200	225	605	610	610	/	/
1150	/	/	/	/	/	130	/	125	150	445	475	475	/	/
1200	/	/	/	/	/	80	/	70	105	290	370	370	/	/
1250	/	/	/	/	/	/	/	/	/	/	295	295	/	/
1300	/	/	/	/	/	/	/	/	/	/	235	235	/	/
1350	/	/	/	/	/	/	/	/	/	/	190	190	/	/
1400	/	/	/	/	/	/	/	/	/	/	150	150	/	/
1450	/	/	/	/	/	/	/	/	/	/	115	115	/	/
1500	/	/	/	/	/	/	/	/	/	/	85	85	/	/

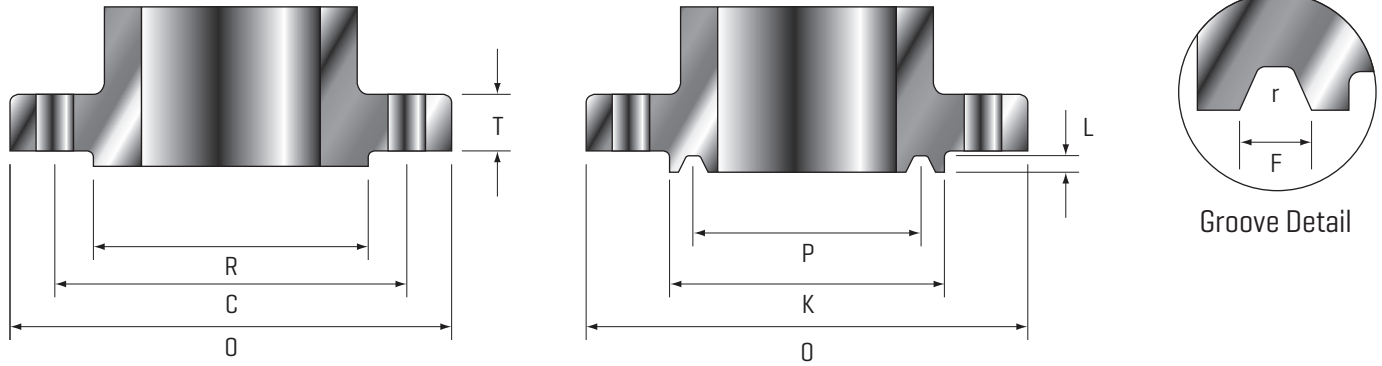
Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	2220	2220	2220	2250	2090	2250	2250	2250	2250	2250	2160	2160	2250
200	2035	2035	2035	2250	1980	2250	2250	2250	2250	2250	1860	1860	2230	2230
300	1965	1965	1965	2185	1915	2165	2185	2185	2185	2185	1680	1680	2000	2000
400	1900	1900	1900	2110	1845	2080	2110	2115	2115	2115	1540	1540	1845	1845
500	1810	1810	1810	1995	1760	1995	1995	1995	1995	1995	1435	1435	1740	1740
600	1705	1705	1705	1815	1655	1815	1815	1815	1815	1815	1355	1355	1670	1670
650	1650	1650	1650	1765	1600	1765	1765	1765	1765	1765	1325	1325	1640	1640
700	1590	1590	1590	1665	1535	1705	1665	1705	1705	1705	1305	1305	1625	1625
750	1520	1520	1520	1520	1430	1595	1520	1595	1595	1595	1280	1280	1595	1595
800	1235	1235	1235	1235	1175	1525	1235	1525	1525	1525	1265	1265	/	/
850	955	955	955	955	895	1460	955	1460	1460	1460	1255	1255	/	/
900	690	690	690	670	605	1350	670	1120	1350	1350	1245	1245	/	/
950	410	410	410	410	410	955	410	825	1130	1160	1160	1160	/	/
1000	255	255	255	255	255	650	255	595	760	1090	1090	1090	/	/
1050	/	/	/	/	/	430	/	430	515	1080	1080	1080	/	/
1100	/	/	/	/	/	290	/	300	340	905	915	915	/	/
1150	/	/	/	/	/	195	/	185	225	670	710	710	/	/
1200	/	/	/	/	/	125	/	105	155	430	555	555	/	/
1250	/	/	/	/	/	/	/	/	/	/	440	440	/	/
1300	/	/	/	/	/	/	/	/	/	/	350	350	/	/
1350	/	/	/	/	/	/	/	/	/	/	290	290	/	/
1400	/	/	/	/	/	/	/	/	/	/	225	225	/	/
1450	/	/	/	/	/	/	/	/	/	/	175	175	/	/
1500	/	/	/	/	/	/	/	/	/	/	125	125	/	/

Pressure Temperature Ratings - ASME B16.34 ■■■■■■■■■■

Note: Pressures in PSI

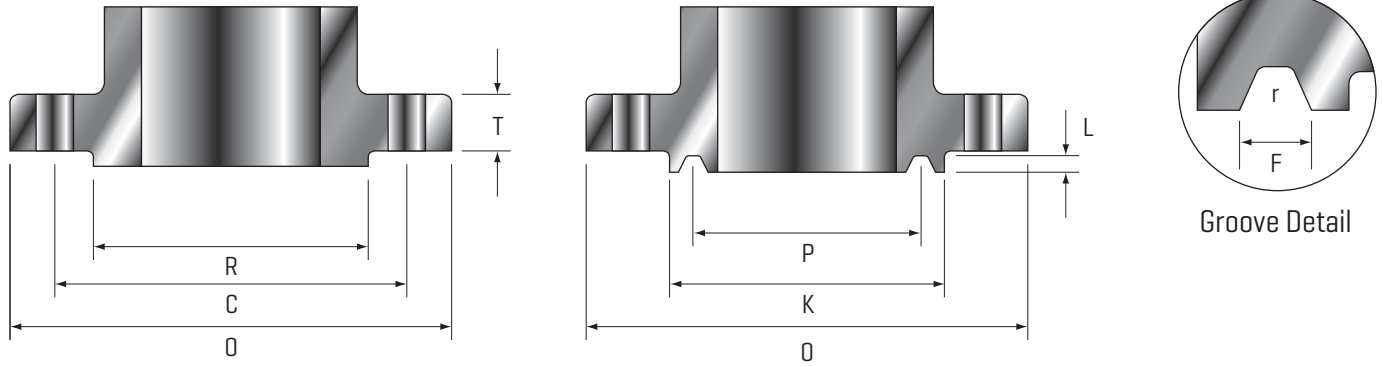
1500	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	3705	3705	3705	3750	3480	3750	3750	3750	3750	3750	3750	3600	3600	3750
200	3395	3395	3395	3750	3300	3750	3750	3750	3750	3750	3750	3095	3095	3720	3720
300	3270	3270	3270	3640	3190	3610	3640	3640	3640	3640	3640	2795	2795	3335	3335
400	3170	3170	3170	3520	3075	3465	3520	3530	3530	3530	3530	2570	2570	3070	3070
500	3015	3015	3015	3325	2930	3325	3325	3325	3325	3325	3325	2390	2390	2905	2905
600	2840	2840	2840	3025	2755	3025	3025	3025	3025	3025	3025	2255	2255	2785	2785
650	2745	2745	2745	2940	2665	2940	2940	2940	2940	2940	2940	2210	2210	2735	2735
700	2665	2665	2665	2775	2560	2840	2775	2840	2840	2840	2840	2170	2170	2710	2710
750	2535	2535	2535	2535	2385	2660	2535	2660	2660	2660	2660	2135	2135	2660	2660
800	2055	2055	2055	2055	1955	2540	2055	2540	2540	2540	2540	2110	2110	/	/
850	1595	1595	1595	1595	1490	2435	1595	2435	2435	2435	2435	2090	2090	/	/
900	1150	1150	1150	1115	1010	2245	1115	1870	2245	2245	2245	2075	2075	/	/
950	685	685	685	685	685	1591	685	1370	1885	1930	1930	1930	1930	/	/
1000	430	430	430	430	430	1080	430	995	1270	1820	1820	1820	1820	/	/
1050	/	/	/	/	/	720	/	720	855	1800	1800	1800	1800	/	/
1100	/	/	/	/	/	480	/	495	565	1510	1525	1525	1525	/	/
1150	/	/	/	/	/	325	/	310	375	1115	1185	1185	1185	/	/
1200	/	/	/	/	/	205	/	170	255	720	925	925	925	/	/
1250	/	/	/	/	/	/	/	/	/	/	735	735	735	/	/
1300	/	/	/	/	/	/	/	/	/	/	585	585	585	/	/
1350	/	/	/	/	/	/	/	/	/	/	480	480	480	/	/
1400	/	/	/	/	/	/	/	/	/	/	380	380	380	/	/
1450	/	/	/	/	/	/	/	/	/	/	290	290	290	/	/
1500	/	/	/	/	/	/	/	/	/	/	205	205	205	/	/
2500	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	6170	6170	6170	6250	5805	6250	6250	6250	3250	6250	6000	6000	6250	6250
200	5655	5655	5655	6250	5505	6250	6250	6250	6250	6250	6250	5160	5160	6200	6200
300	5450	5450	5450	6070	5315	6015	6070	6070	6070	6070	6070	4660	4660	5560	5560
400	5280	5280	5280	5865	5125	5775	5865	5880	5880	5880	5880	4280	4280	5120	5120
500	5025	5025	5025	5540	4885	5540	5540	5540	5540	5540	5540	3980	3980	4840	4840
600	4730	4730	4730	5040	4595	5040	5040	5040	5040	5040	5040	3760	3760	4640	4640
650	4575	4575	4575	4905	4440	4905	4905	4905	4905	4905	4905	3680	3680	4560	4560
700	4425	4425	4425	4630	4270	4730	4630	4730	4730	4730	4730	3620	3620	4520	4520
750	4230	4230	4230	4230	3970	4430	4230	4430	4430	4430	4430	3560	3560	4430	4430
800	3430	3430	3430	3430	3255	4230	3430	4230	4230	4230	4230	3520	3520	/	/
850	2655	2655	2655	2655	2485	4060	2655	4060	4060	4060	4060	3480	3480	/	/
900	1915	1915	1915	1855	1685	3745	1855	3115	3745	3745	3745	3460	3460	/	/
950	1145	1145	1145	1145	1145	3655	1145	2285	3145	3220	3220	3220	3220	/	/
1000	715	715	715	715	715	1800	715	1655	2115	3030	3030	3030	3030	/	/
1050	/	/	/	/	/	1200	/	1200	1430	3000	3000	3000	3000	/	/
1100	/	/	/	/	/	800	/	830	945	2515	2545	2545	2545	/	/
1150	/	/	/	/	/	545	/	515	630	1855	1970	1970	1970	/	/
1200	/	/	/	/	/	345	/	285	770	1200	1545	1545	1545	/	/
1250	/	/	/	/	/	/	/	/	/	/	1230	1230	1230	/	/
1300	/	/	/	/	/	/	/	/	/	/	970	970	970	/	/
1350	/	/	/	/	/	/	/	/	/	/	800	800	800	/	/
1400	/	/	/	/	/	/	/	/	/	/	630	630	630	/	/
1450	/	/	/	/	/	/	/	/	/	/	485	485	485	/	/
1500	/	/	/	/	/	/	/	/	/	/	345	345	345	/	/

Flange Dimensions - ANSI B16.5 & B16.47



Class	Size	Flg. Dia. O	Flg. Thick. T	Raised Face Dia. R	Drilling			Face Dia. K	Ring Joint					
					Bolt Circle Dia. C	# of Bolts	Hole Dia.		Pitch Dia. P	Grv. Depth L	Grv. Width F	Btm. Radius r	Ring No.	
150	2	6.00	0.75	3.62	4.75	4	0.75	4.00	3.250	0.250	0.344	0.03	R22	
	2.5	7.00	0.88	4.12	5.50	4	0.75	4.75	4.000	0.250	0.344	0.03	R25	
	3	7.50	0.94	5.00	6.00	4	0.75	5.25	4.500	0.250	0.344	0.03	R29	
	4	9.00	0.94	6.19	7.50	8	0.75	6.75	5.875	0.250	0.344	0.03	R36	
	6	11.00	1.00	8.50	9.50	8	0.88	8.62	7.625	0.250	0.344	0.03	R43	
	8	13.50	1.12	10.62	11.75	8	0.88	10.75	9.750	0.250	0.344	0.03	R48	
	10	16.00	1.19	12.75	14.25	12	1.00	13.00	12.000	0.250	0.344	0.03	R52	
	12	19.00	1.25	15.00	17.00	12	1.00	16.00	15.000	0.250	0.344	0.03	R56	
	14	21.00	1.38	16.25	18.75	12	1.12	16.75	15.625	0.250	0.344	0.03	R59	
	16	23.50	1.44	18.50	21.25	16	1.12	19.00	17.875	0.250	0.344	0.03	R64	
	18	25.00	1.56	21.00	22.75	16	1.25	21.50	20.375	0.250	0.344	0.03	R68	
	20	27.50	1.69	23.00	25.00	20	1.25	23.50	22.000	0.250	0.344	0.03	R72	
	22	29.50	1.81	25.25	27.25	20	1.38	/	/	/	/	/	/	/
	24	32.00	1.88	27.25	29.50	20	1.38	28.00	26.500	0.250	0.344	0.03	R76	
	26	34.25	2.69	29.50	31.75	24	1.38	/	29.500	0.500	0.781	0.060	R93	
	28	36.50	2.81	31.50	34.00	28	1.38	/	31.500	0.500	0.781	0.060	R94	
30	38.75	2.94	33.75	36.00	28	1.38	/	33.750	0.500	0.781	0.060	R95		
32	41.75	3.19	36.00	38.50	28	1.62	/	36.000	0.562	0.906	0.060	R96		
34	43.75	3.25	38.00	40.50	32	1.62	/	38.000	0.562	0.906	0.060	R97		
36	46.00	3.56	40.25	42.75	32	1.62	/	40.250	0.562	0.906	0.060	R98		
300	2	6.50	0.88	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23	
	2.5	7.50	1.00	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26	
	3	8.25	1.12	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31	
	4	10.00	1.25	6.19	7.88	8	0.88	6.88	5.875	0.312	0.469	0.03	R37	
	6	12.50	1.44	8.50	10.62	12	0.88	9.50	8.312	0.312	0.469	0.03	R45	
	8	15.00	1.62	10.62	13.00	12	1.00	11.88	10.625	0.312	0.469	0.03	R49	
	10	17.50	1.88	12.75	15.25	16	1.12	14.00	12.750	0.312	0.469	0.03	R53	
	12	20.50	2.00	15.00	17.75	16	1.25	16.25	15.000	0.312	0.469	0.03	R57	
	14	23.00	2.12	16.25	20.25	20	1.25	18.00	16.500	0.312	0.469	0.03	R61	
	16	25.50	2.25	18.50	22.50	20	1.38	20.00	18.500	0.312	0.469	0.03	R65	
	18	28.00	2.38	21.00	24.75	24	1.38	22.62	21.000	0.312	0.469	0.03	R69	
	20	30.50	2.50	23.00	27.00	24	1.38	25.00	23.000	0.375	0.531	0.06	R73	
	22	33.00	2.62	25.25	29.25	24	1.62	27.00	25.000	0.438	0.594	0.06	R81	
	24	36.00	2.75	27.25	32.00	24	1.62	29.50	27.250	0.438	0.656	0.06	R77	
	26	38.25	3.31	29.50	34.50	28	1.75	31.88	29.500	0.500	0.781	0.06	R93	
	28	40.75	3.56	31.50	37.00	28	1.75	33.88	31.500	0.500	0.781	0.06	R94	
30	43.00	3.75	33.75	39.25	28	1.88	36.12	33.750	0.500	0.781	0.06	R95		
32	45.25	3.94	36.00	41.50	28	2.00	38.75	36.000	0.562	0.906	0.06	R96		
34	47.50	4.12	38.00	43.50	28	2.00	40.75	38.000	0.562	0.906	0.06	R97		
36	50.00	4.38	40.25	46.00	32	2.12	43.00	40.250	0.562	0.906	0.06	R98		

Flange Dimensions - ANSI B16.5 & B16.47



Class	Size	Flg. Dia.	Flg. Thick.	Raised Face Dia.	Drilling			Face Dia.	Ring Joint				
					Bolt Circle Dia.	# of Bolts	Hole Dia.		Pitch Dia.	Grv. Depth	Grv. Width	Btm. Radius	Ring No.
600	2	6.50	1.00	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.12	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26
	3	8.25	1.25	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31
	4	10.75	1.50	6.19	8.50	8	1.00	6.88	5.875	0.312	0.469	0.03	R37
	6	14.00	1.88	8.50	11.50	12	1.12	9.50	8.312	0.312	0.469	0.03	R45
	8	16.50	2.19	10.62	13.75	12	1.25	11.88	10.625	0.312	0.469	0.03	R49
	10	20.00	2.50	12.75	17.00	16	1.38	14.00	12.750	0.312	0.469	0.03	R53
	12	22.00	2.62	15.00	19.25	20	1.38	16.25	15.000	0.312	0.469	0.03	R57
	14	23.75	2.75	16.25	20.75	20	1.5	18.00	16.500	0.312	0.469	0.03	R61
	16	27.00	3.00	18.50	23.75	20	1.62	20.00	18.500	0.312	0.469	0.03	R65
	18	29.25	3.25	21.00	25.75	20	1.75	22.62	21.000	0.312	0.469	0.03	R69
	20	32.00	3.50	23.00	28.50	24	1.75	25.00	23.000	0.375	0.531	0.06	R73
22	34.25	3.75	25.25	30.62	24	1.88	27.00	25.000	0.438	0.594	0.06	R81	
24	37.00	4.00	27.25	33.00	24	2.00	29.50	27.250	0.438	0.659	0.06	R77	
900	2	8.5	1.5	3.62	6.5	8	1	4.88	3.75	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.39	4.250	0.312	0.469	0.03	R27
	3	9.50	1.50	5.00	7.50	8	1.00	6.12	4.875	0.312	0.469	0.03	R31
	4	11.50	1.75	6.19	9.25	8	1.25	7.12	5.875	0.312	0.469	0.03	R37
	6	15.50	2.19	8.50	12.50	12	1.25	9.50	8.312	0.312	0.469	0.03	R45
	8	18.50	2.50	10.62	15.50	12	1.50	12.12	10.625	0.312	0.469	0.03	R49
	10	21.50	2.75	12.75	18.50	16	1.50	14.25	12.750	0.312	0.469	0.03	R53
	12	24.00	3.12	15.00	21.00	20	1.50	16.50	15.000	0.312	0.469	0.03	R57
	14	25.25	3.38	16.25	22.00	20	1.62	18.38	16.500	0.438	0.656	0.06	R62
	16	27.75	3.50	18.50	24.25	20	1.75	20.62	18.500	0.438	0.656	0.06	R66
	18	31.00	4.00	21.00	27.00	20	2.00	23.38	21.00	0.500	0.781	0.06	R70
	20	33.75	4.25	23.00	29.50	20	2.12	25.50	23.000	0.500	0.781	0.06	R74
24	41.00	5.50	27.25	35.50	20	2.62	30.38	27.250	0.625	1.062	0.09	R78	
1500	2	8.50	1.50	3.62	6.50	8	1.00	4.88	3.750	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.38	4.250	0.312	0.469	0.03	R27
	3	10.50	1.88	5.00	8.00	8	1.25	6.62	5.375	0.312	0.469	0.03	R35
	4	12.25	2.12	6.19	9.50	8	1.38	7.62	6.375	0.312	0.469	0.03	R39
	6	15.50	3.25	8.50	12.50	12	1.50	9.75	8.312	0.375	0.531	0.06	R46
	8	19.00	3.62	10.62	15.50	12	1.75	12.50	10.625	0.438	0.656	0.06	R50
	10	23.00	4.25	12.75	19.00	12	2.00	14.62	12.750	0.438	0.656	0.06	R54
	12	26.00	4.88	15.00	22.50	16	2.12	17.25	15.000	0.562	0.906	0.06	R58
	14	29.50	5.25	16.25	25.00	16	2.38	19.25	16.500	0.625	1.062	0.09	R63
	16	32.50	5.75	18.50	27.75	16	2.62	21.50	18.500	0.688	1.188	0.09	R67
	18	36.00	6.38	21.00	30.50	16	2.88	24.12	21.000	0.688	1.188	0.09	R71
	20	38.75	7.00	23.00	32.75	16	3.12	26.50	23.000	0.688	1.312	0.09	R75
24	46.00	8.00	27.25	39.00	16	3.62	31.25	27.250	0.812	1.438	0.09	R79	
2500	2	9.25	2.00	3.62	6.75	8	1.00	4.48	4.000	0.312	0.469	0.030	R26
	2.5	10.50	2.25	4.12	7.75	8	1.13	5.86	4.375	0.375	0.531	0.060	R28
	3	12.00	2.62	5.00	9.00	8	1.25	6.61	5.000	0.375	0.531	0.060	R32
	4	14.00	3.00	6.19	10.75	8	1.50	7.99	6.188	0.438	0.656	0.060	R38
	5	16.50	3.62	7.31	12.75	8	1.75	9.48	7.500	0.500	0.781	0.060	R40
	6	19.00	4.25	8.50	14.50	8	2.00	10.98	9.000	0.500	0.781	0.060	R47
	8	21.75	5.00	10.62	17.25	12	2.00	13.38	11.000	0.562	0.906	0.060	R51
	10	26.50	6.50	12.75	21.75	12	2.50	16.73	13.500	0.688	1.188	0.090	R55
12	30.00	7.25	15.00	24.38	12	2.75	19.48	16.000	0.688	1.312	0.090	R60	

Terms & Conditions

Quotation Validity

This quotation is valid for 30 days from the date quotation is sent. Validity on special metals, including Stainless Steel, is 14 days from the date the quotation is sent. All products offered from stock are subject to prior sale.

Shipments

All items quoted are EXW our Dock - [Ex Works - SCV Valve Facility Santa Fe, Texas 77510] - unless otherwise noted and agreed to in writing. Shipment may be billed either third party billing to the buyer or freight collect. Shipment dates offered above are forecasted delivery lead times and are estimated from the date payment terms [acceptable to seller] are established, clarification is received on all technical information, and resolution of customer's written approval of drawings is received [when required]. The equipment quoted shall be packed in accordance with seller's standard packing procedure unless otherwise noted and agreed to in writing by the seller.

Force Majeure

If in the case of an act of God, war, riot, fire, explosion, flood, or any other circumstances of whatsoever nature which are beyond the control of the seller and which in any way affect the ability of the seller to fulfill its delivery obligations, the delivery is hindered, impeded, or delayed the seller shall be exonerated from all responsibilities and reserves the right to postpone the delivery beyond the original schedule.

Payment terms

All terms are to be negotiated. Credit cards accepted [Master Card, Visa, American Express].

Purchase Orders

All buyer's purchase orders supplied to the seller are to be written in the English language.

Prices

All prices quoted are in USD as per the preceding pricing schedule. The minimum order value is \$5,000.00 [five thousand dollars], unless otherwise agreed to by seller. If for some reason any items are changed or additions to the order required, seller reserves the right to adjust prices accordingly. All sales are subject to approval of seller's credit department. If buyer fails to meet the agreed upon and established commercial terms of the contract, the seller may with-hold all subsequent deliveries until such time that the original commercial terms of the contract have been met by the buyer [or subsequent commercial terms have been agreed upon by the seller with the buyer].

Intellectual Property

All specifications, illustrations, drawings, certificates, and other particulars supplied by seller remain the intellectual property of the seller and should not be disclosed to any third party without the prior written consent of seller.

Governing Law; Arbitration; Jurisdiction

The terms and conditions of this quotation and any subsequent purchase order shall be construed, interpreted, and performed exclusively according to the laws of the State of Texas, USA. The courts of such state shall have exclusive jurisdiction out of all controversies arising out of or in connection with this agreement. The parties consent that process may be served upon them in any such action by registered mail at the address stated for Buyer on its purchase order, and upon SCV Valve at the address noted above in Santa Fe, Texas, or personally within or without the State of Texas. Any legal action with respect to any agreement must be commenced within one year after the cause of action has accrued. The provisions of the Uniform Commercial Code as adopted by the State of Texas, and not under the United Nations Convention on Contracts for the International Sale of Goods, shall apply.

Warranty

All seller's products are guaranteed against defects in workmanship for a period of twelve [12] months after being placed in service, but not exceeding eighteen [18] months after shipment, when products are properly installed per seller specifications and used within the service and pressure range for which they were manufactured. Full risk of loss shall pass to the buyer upon delivery at FOB point, or destination port in case of CIF. This guarantee is limited to the replacement of any valve parts/components found to be defective either in material or workmanship. This guarantee does not extend to costs of labor, freight, or any other consequential charges. The unauthorized use of third party components and workmanship in seller's products voids this warranty.

Limitation of Liability

The liability of the seller under this agreement or with respect to any products supplied or services performed pursuant to this agreement, whether in contract, in tort, in strict liability or otherwise, shall not exceed the purchase price paid by the buyer with respect thereto. In no event will the seller be liable in contract, in tort, in strict liability or otherwise for any special, indirect, incidental, or consequential damages. This is including but not limited to loss of anticipated profits or revenues, loss of use, non-operation or increased expense of operation of equipment, cost of capital, or claims from customer or buyer for failure or delay in achieving anticipated profits or products.

Cancellation

No contract may be canceled by the buyer except upon written notice to seller and upon payment to seller of all costs incurred by the contract arising out of, or in connection with, the contract. Export of goods covered hereby is subject to United States Customs Control. Standard stocking items will be subject to a twenty-five percent [25%] restocking and/or cancellation charge. Non-standard stocking items will be subject to a one-hundred percent [100%] restocking and/or cancellation charge.

Cancellation Charge

The following indicates the rates of cancellation charge of contract value for project manufactured items and/or special engineered items at various stages of production:

- | | |
|--|----------------------------------|
| • Time of cancellation: Order Acknowledgement and prior to Engineering engagement. | Cancellation Charge: 10% |
| • Time of cancellation: After start of engineering but prior to release to production. | Cancellation Charge: 30% |
| • Time of cancellation: After release to production but prior to completion of fabrication. | Cancellation Charge: 80% |
| • Time of cancellation: After completion of fabrication. | Cancellation Charge: 100% |

Return of Goods

No product shall be returned to seller without written authorization and shipping instructions having been obtained from seller. Products authorized for returns are to be shipped freight pre-paid to the SCV Valve Facility identified in writing, unless otherwise notified, and are subject to seller's standard re-stocking fees.

Documentation

MTR's are available at no charge upon request. The seller's standard document package is per ISO 10474 3.1B requirements. Additional requested documentation is subject to charge.

Inspection

The customer or his authorized representative may, with four [4] weeks prior notice given to seller, visually inspect products manufactured by seller. Such seller approved inspections will be carried out in accordance with seller's standard or seller approved customer inspection procedures. If any inspection or documentation requested by the customer is over and beyond the scope and criteria initially agreed to by the seller, any costs incurred by conducting such inspection or preparation of special documents shall be paid by the buyer prior to release of the items for shipment.

Witness Hydro-testing

Witness hydro-testing is available at a cost. A scope of buyers inspection request is to be provided to seller at order placement. Late notice of such requested inspection is subject to additional costs. The cost associated with such witness hydro request is to be agreed on prior to any such testing taking place. Payment of this type of testing to be negotiated. Additionally, any costs associated with a third party inspector will not be at the sellers expense.

The SCV valve brand was established in 1972 as a maintenance and modification company with the ability to provide full in-line valve service and repair. In the mid-1970's, after experiencing many shortcomings of other valve products in the industry, the first SCV valve was manufactured. Since that time, the SCV brand has been expanded its manufactured products to cover a broad range of valves. Industries served include the power, paper and pulp, oil and gas, and petro-chemical sectors.

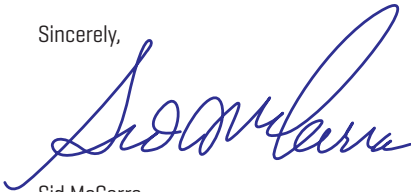
SCV Valve takes sincere pride in our ability to manufacture both commodity and specialty valves that meet and exceed the needs of our customers. All sizes, pressure classes, and metallurgical compositions are managed in house utilizing the strictest quality control measures to ensure the customer's total satisfaction.

SCV Valve products include thru conduit gates, trunnion mounted balls, floating balls, wedge gates, globes, full port swing checks, piston checks, dual plate checks and lubricated plugs. Valves utilized throughout the industry must meet rigorous quality and production standards. SCV Valve has earned its API 6A, API 6D, ISO: 9001, CE-PED, and CRN certifications while operating under the API Q1 Quality Management System.

With years of dedication and commitment to quality, design, and service, SCV Valve has grown to be one of the premier valve manufacturers in the industry with the largest inventory of high pressure ball, gate, and check valves. We pride ourselves on our high quality products, timely delivery capabilities, and competitive prices.

On behalf of all of the members at SCV Valve, we thank you for the opportunity to earn your business.

Sincerely,



Sid McCarra

President

SCV Valve, LLC

Since 1972, the SCV brand has been committed to providing quality flow control products to the Power, Paper & Pulp, Oil & Gas, and Petro Chemical industries.

As one of the largest valve manufacturers, SCV Valve's reputation is unparalleled for producing high quality commodity and specialty valves. Products range in sizes 1/2" - 48", in pressure classes from 150# - 2500# and are backed by timely deliveries and competitive prices.

Call SCV today at [281]482-4728 for all your valve needs or visit us on the web @ www.scvvalve.com.

**SALES, PROJECTS, ENGINEERING,
MANUFACTURING, & WAREHOUSING**

3521 FM 646 Rd. North
Santa Fe, TX 77510

Phone: [281] 482-4728

Fax: [281] 482-9728

Hours: 8:00 a.m. to 5:00 p.m. Central Standard

Email: sales@scvvalve.com



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