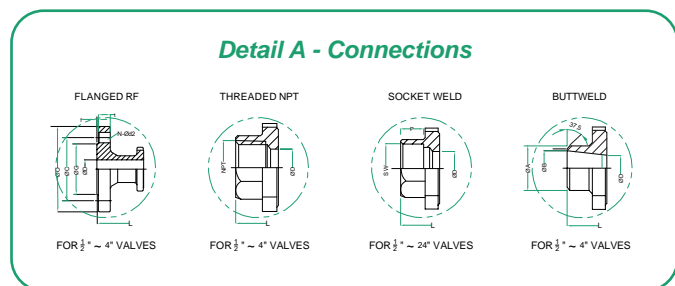
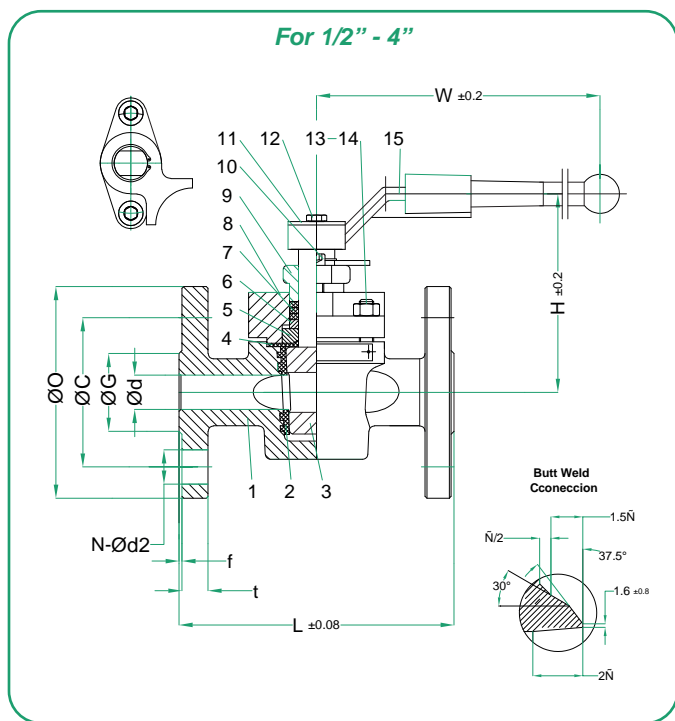


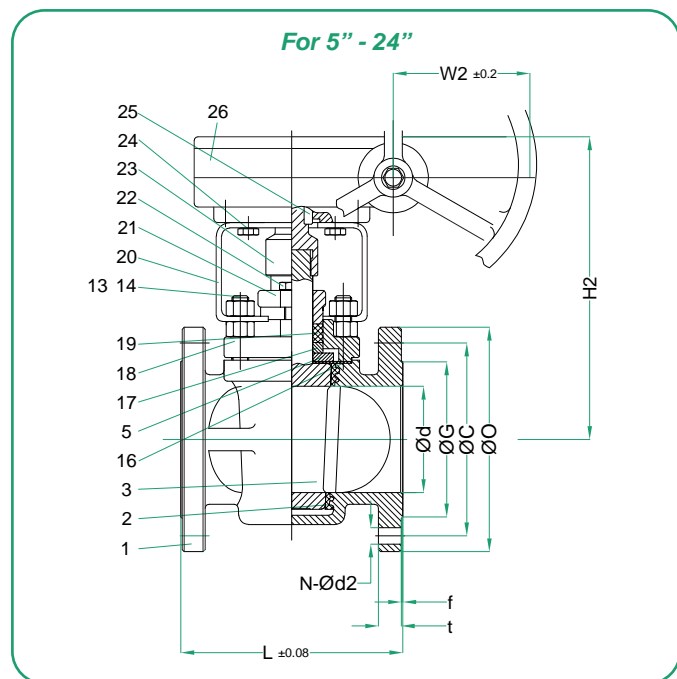


Features / Design

- 1.- TFV line of PTFE sleeve plug valves are designed for high standard of performance.
- 2.- Sleeve type soft sealing plug valve acc. to ANSI is applicable to the cutting and connection of pipelines medium in various industries such as petroleum, chemical industry, pharmacy, chemical fertilizer, power industry etc, under nominal pressure of CLASS150~300LBS, and working temperature of -29 ~ 180°C.
- 3.- The product has reasonable structure, reliable sealing, excellent performance and beautiful appearance (investment cast body).
- 4.- Its sealing is realized by the sealing face of the sleeve - high pressure sealing ribs, top and down retention of sleeve and, sleeve relief area.
- 5.- Fully adjust in line seal (two top bolts).
- 6.- **360° lips to avoid plug rotates**, it has particular 360 degrees metal edge for protection and fixing of the sleeve.
- 7.- **NO Dead Space.** There is no cavity in the valve for accumulation of medium. Plug is always surrounded by PTFE sleeve 360 around and therefore the liquid in the plug internal cannot flow in - no dead space whether it's open or close.
- 8.- Metal edge provides the function of self-cleaning when the plug is rotated, applicable to the operation condition that is glutinous and easy to scale.
- 9.- Its characteristic double-direction flow makes installation and use more convenient.
- 10.- The materials of the parts and sizes of flanges can be reasonably configured according to the actual operation condition of the requirements of the customers, so as to meet the various needs of engineering.
- 11.- **Zero Maintenance** owed to the merits of its structure, the valve is zero leakage and no maintenance is required. When seal pressure adjustment is required due to PTFE sleeve wear, a quarter turn of adjustment bolts pushes the plug down regenerating a sealing pressure as if it is a new valve. Therefore no disassembles, no repair is required for more than 10 years for the most of case. No line repair is possible because the plug is the top entry type. No maintenance eliminates repair expenses labor cost and increases productivity of plant.
- 12.- Design Std. API 599, API 6D.
- 13.- Testing Std. API 598, API 6D.
- 14.- Flanged Ends acc. to ASME B16.5 - face to face acc. to ASME B16.10. Other options available: SW ASME B16.11, NPT ASME B1.20.1, BW ASME B16.5. Please contact us for more information.



Material List



NO.	DESCRIPTION	MATERIAL
1	BODY	A216 WCB / A351 CF8M
2	VALVE SEAT	PTFE
3	PLUG	A216 WCB / A351 CF8M
4	PLATE	PTFE
5	ADJUSTING GASKET	SS304 / SS316
6	RETAINING RING	SS304 / SS316
7	PACKING	PTFE
8	VALVE COVER	A216 WCB / A351 CF8M
9	PACKING GLAND	A216 WCB / A351 CF8M
10	BOLT	A193 B7 / A193 B8
11	WASHER	SS316
12	BOLT	A193 B7 / A193 B8
13	BOLT	A193 B7 / A193 B8
14	NUT	ASTM A194 2H
15	WRENCH	ASTM A216 WCB
16	GASKET	PTFE
17	SPACING COLLAR	SS304 / SS316
18	PACKING	GRAPHITE
19	COVER	A216 WCB / A351 CF8M
20	BONNET YOKE	A3 + PLATING
21	PACKING GLAND	A216 WCB / A351 CF8M
22	BOLT	A193 B7 / A193 B8
23	TURN ROD	1045
24	NUT	ASTM A194 2H
25	KEY	1045
26	GEAR ACTUATOR	A536 60-40-18

Dimensions (inches)

CLASS 150#

SIZE	L ⁽¹⁾ (in)	L ⁽²⁾ (in)	L ⁽³⁾ (in)	Ød ⁽⁴⁾ (in)	Ød ⁽⁵⁾ (in)	SW (in)	P MIN (in)	NPT (in)	ØG (in)	ØC (in)	ØO (in)	t (in)	f (in)	N (in)	Ød2 (in)	ØA (in)	ØB (in)	N̄ (in)	W ⁽⁶⁾ (in)	H ⁽⁷⁾ (in)	W (in)	W2 (in)	H (in)	H2 (in)	
1/2"	4.252	4.252	4.252	0.512	0.512	0.866 ± 0.008	0.374	1/2"	1.378	2.382	3.543	0.315	0.079	4	0.630	0.866	0.620	0.109	7.480	3.346	7.480	/	3.346	/	
3/4"	4.606	4.606	4.606	0.748	0.748	1.078 ± 0.008	0.492	3/4"	1.693	2.756	3.937	0.350	0.079	4	0.630	1.102	0.825	0.113	7.480	3.740	7.480	/	3.740	/	
1"	5.000	5.000	5.000	0.984	0.984	1.342 ± 0.008	0.492	1"	2.008	3.130	4.331	0.378	0.079	4	0.630	1.378	1.049	0.133	7.480	4.016	7.480	/	4.016	/	
1 1/4"	5.512	/	5.512	1.260	/	1.689 ± 0.008	0.492	1 1/4"	/	/	/	/	/	/	/	1.732	1.382	0.140	11.024	4.331	11.417	/	4.331	/	
1 1/2"	6.496	6.496	6.496	1.496	1.496	1.929 ± 0.008	0.492	1 1/2"	2.874	3.878	4.921	0.500	0.079	4	0.630	1.969	1.848	0.145	11.024	4.528	11.417	/	5.827	/	
2"	7.008	7.008	7.008	2.008	1.929	2.419 ± 0.010	0.630	2"	3.622	4.744	5.906	0.563	0.079	4	0.748	2.441	2.067	0.154	11.024	5.512	13.780	/	5.315	/	
2 1/2"	7.480	7.480	7.480	2.520	2.441	2.919 ± 0.010	0.630	1 1/2"	4.134	5.492	7.087	0.626	0.079	4	0.748	3.071	2.468	0.203	13.780	5.906	20.472	/	6.496	/	
3"	7.992	7.992	7.992	2.992	1.913	3.545 ± 0.010	0.630	3"	5.000	6.004	7.480	0.689	0.079	4	0.748	3.583	3.068	0.216	32.283	6.496	30.709	/	6.693	/	
4"	9.016	9.016	9.016	4.016	4.016	4.545 ± 0.010	0.630	4"	6.181	7.500	9.055	0.878	0.079	8	0.748	4.606	4.046	0.237	35.236	6.890	11.811	/	8.031	/	
5"	/	10.000	/	/	5.000	/	/	/	7.323	8.504	10.039	0.878	0.079	8	0.866	/	/	/	/	/	12.598	/	9.370	/	
6"	/	10.512	/	/	5.984	/	/	/	8.504	9.508	11.024	0.941	0.079	8	0.866	/	/	/	/	/	12.598	11.811	*	11.811	/
8"	/	11.496	/	/	7.992	/	/	/	10.630	11.752	13.583	1.063	0.079	8	0.866	/	/	/	/	/	/	13.780	/	13.780	/
10"	/	12.992	/	/	10.000	/	/	/	12.756	14.252	15.945	1.126	0.079	12	0.984	/	/	/	/	/	/	12.598	/	12.598	/
12"	/	14.016	/	/	12.008	/	/	/	15.000	17.008	19.094	1.189	0.079	12	0.984	/	/	/	/	/	/	13.780	/	13.780	/
14"	/	15.000	/	/	13.268	/	/	/	16.260	18.740	21.063	1.315	0.079	12	1.142	/	/	/	/	/	/	14.961	/	14.961	/
16"	/	15.984	/	/	15.236	/	/	/	18.504	21.260	23.424	1.378	0.079	16	1.142	/	/	/	/	/	/	17.717	/	17.717	/
18"	/	17.008	/	/	17.244	/	/	/	20.984	22.756	25.000	1.500	0.079	16	1.260	/	/	/	/	/	/	20.472	/	20.472	/
20"	/	17.992	/	/	19.252	/	/	/	22.992	25.000	27.559	1.626	0.079	20	1.260	/	/	/	/	/	/	24.016	/	24.016	/
24"	/	20.000	/	/	23.268	/	/	/	27.244	29.508	32.087	1.815	0.079	20	1.378	/	/	/	/	/	/	27.165	/	27.165	/



Dimensions (inches) - Cont.

CLASS 300#

SIZE	L (in)	L ⁽²⁾ (in)	L ⁽³⁾ (in)	Ød ⁽⁴⁾ (in)	Ød ⁽⁵⁾ (in)	SW (in)	P MIN (in)	NPT (in)	ØG (in)	ØC (in)	ØO (in)	t (in)	f (in)	N (in)	Ød2 (in)	ØA (in)	ØB (in)	N̄ (in)	W ⁽⁶⁾ (in)	H ⁽⁷⁾ (in)	W (in)	W2 (in)	H (in)	H2 (in)
1/2"	5.512	5.512	5.512	0.512	0.512	0.866 ± 0.008	0.374	1/2"	1.378	2.618	3.740	0.315	0.079	4	0.630	0.866	0.620	0.109	7.480	3.346	3.346	/	3.346	/
3/4"	5.984	5.984	5.984	0.748	0.748	1.078 ± 0.008	0.492	3/4"	1.693	3.248	4.528	0.350	0.079	4	0.748	1.102	0.825	0.113	7.480	3.740	3.740	/	3.740	/
1"	6.496	6.496	6.496	0.984	0.984	1.342 ± 0.008	0.492	1"	2.008	3.504	4.921	0.378	0.079	4	0.748	1.378	1.049	0.133	7.480	4.016	3.937	/	3.937	/
1 1/4"	7.008	/	7.008	1.260	/	1.689 ± 0.008	0.492	1 1/4"	/	/	/	/	/	/	/	1.732	1.382	0.140	11.024	4.331	4.134	/	4.134	/
1 1/2"	7.480	7.480	7.480	1.496	1.496	1.929 ± 0.008	0.492	1 1/2"	2.874	4.508	6.102	0.500	0.079	4	0.866	1.969	1.848	0.145	11.024	4.528	5.039	/	5.039	/
2"	8.504	8.504	8.504	2.008	1.929	2.419 ± 0.010	0.630	2"	3.622	5.000	6.496	0.563	0.079	8	0.748	2.441	2.067	0.154	11.024	5.512	5.315	/	5.315	/
2 1/2"	9.488	9.488	9.488	2.520	2.441	2.919 ± 0.010	0.630	1 1/2"	4.134	5.866	7.480	0.626	0.079	8	0.866	3.071	2.468	0.203	13.780	5.906	6.102	/	6.102	/
3"	11.142	11.142	11.142	2.992	1.913	3.545 ± 0.010	0.630	3"	5.000	6.634	8.278	0.689	0.079	8	0.866	3.583	3.068	0.216	32.283	6.496	6.693	/	6.693	/
4"	12.008	12.008	12.008	4.016	4.016	4.545 ± 0.010	0.630	4"	6.181	7.874	10.039	0.878	0.079	8	0.866	4.606	4.046	0.237	35.236	6.890	8.031	/	8.031	/
5"	/	15.000	/	/	5.000	/	/	/	7.323	9.252	11.024	0.878	0.079	8	0.866	/	/	/	/	/	9.370	11.811	9.370	18.110
6"	/	15.866	/	/	5.984	/	/	/	8.504	10.630	12.598	0.941	0.079	12	0.866	/	/	/	/	/	*	12.598	*	19.764
8"	/	16.496	/	/	7.992	/	/	/	10.630	12.992	14.961	1.063	0.079	12	0.984	/	/	/	/	/	/	12.598	/	22.835
10"	/	17.992	/	/	10.000	/	/	/	12.756	15.256	17.520	1.126	0.079	16	1.142	/	/	/	/	/	/	13.780	/	24.409
12"	/	19.764	/	/	12.008	/	/	/	15.000	17.756	20.472	1.189	0.079	16	1.260	/	/	/	/	/	/	14.961	/	26.772
14"	/	30.000	/	/	13.268	/	/	/	16.260	20.256	23.031	1.315	0.079	20	1.260	/	/	/	/	/	/	17.717	/	29.921
16"	/	32.992	/	/	15.236	/	/	/	18.504	22.500	25.591	1.378	0.079	20	1.378	/	/	/	/	/	/	20.472	/	33.858
18"	/	35.984	/	/	17.244	/	/	/	20.984	24.744	27.953	1.500	0.079	24	1.378	/	/	/	/	/	/	24.016	/	38.583
20"	/	39.016	/	/	19.252	/	/	/	22.992	27.008	30.512	1.626	0.079	24	1.378	/	/	/	/	/	/	27.165	/	42.520
24"	/	45.000	/	/	23.268	/	/	/	27.244	32.008	36.024	1.815	0.079	24	1.614	/	/	/	/	/	/	31.496	/	49.213

CLASS 600#

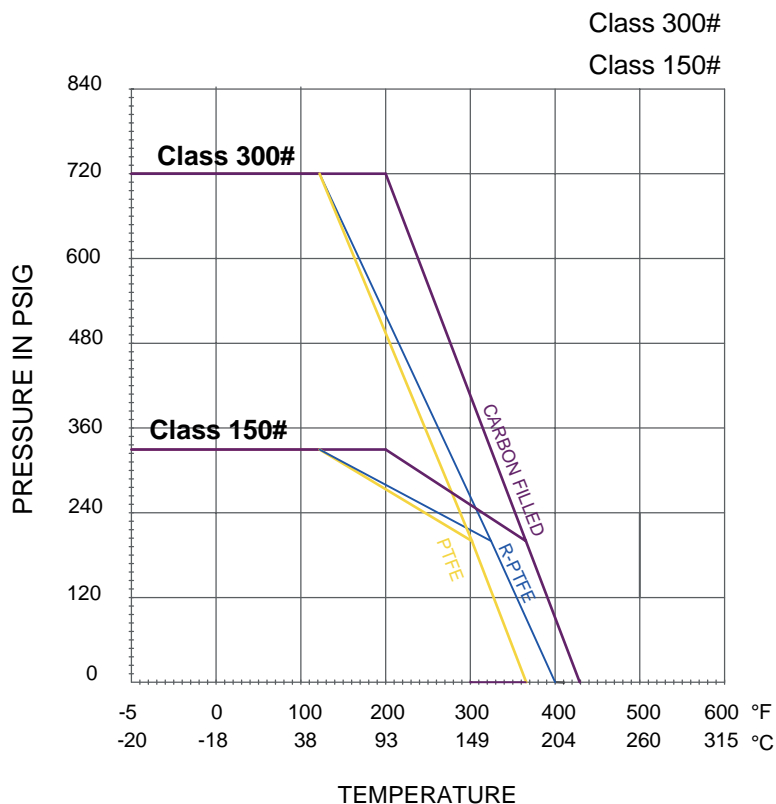
SIZE	L (in)	L ⁽²⁾ (in)	L ⁽³⁾ (in)	Ød ⁽⁴⁾ (in)	Ød ⁽⁵⁾ (in)	SW (in)	P MIN (in)	NPT (in)	ØG (in)	ØC (in)	ØO (in)	t (in)	f (in)	N (in)	Ød2 (in)	ØA (in)	ØB (in)	N̄ (in)	W ⁽⁶⁾ (in)	H ⁽⁷⁾ (in)	W (in)	W2 (in)	H (in)	H2 (in)
1/2"	6.496	6.496	6.496	0.512	0.512	0.866 ± 0.008	0.374	1/2"	1.378	2.618	3.740	0.563	0.276	4	0.630	0.866	0.620	0.109	7.480	3.346	6.890	/	4.331	/
3/4"	7.480	7.480	7.480	0.748	0.748	1.078 ± 0.008	0.492	3/4"	1.693	3.248	4.528	0.626	0.276	4	0.748	1.102	0.825	0.113	7.480	3.740	6.890	/	4.528	/
1"	8.504	8.504	8.504	0.984	0.984	1.342 ± 0.008	0.492	1"	2.008	3.504	4.921	0.689	0.276	4	0.748	1.378	1.049	0.133	7.480	4.016	6.890	/	4.528	/
1 1/4"	9.016	/	9.016	1.260	/	1.689 ± 0.008	0.492	1 1/4"	/	3.878	5.315	0.815	0.276	4	0.748	1.732	1.382	0.140	11.024	4.331	8.661	/	5.315	/
1 1/2"	9.488	9.016	9.488	1.496	1.496	1.929 ± 0.008	0.492	1 1/2"	2.874	4.508	6.102	0.878	0.276	4	0.866	1.969	1.848	0.145	11.024	4.528	11.024	/	5.512	/
2"	11.496	9.488	11.496	2.008	1.929	2.419 ± 0.010	0.630	2"	3.622	5.000	6.496	1.000	0.276	8	0.748	2.441	2.067	0.154	11.024	5.512	12.008	/	5.906	/
2 1/2"	12.992	11.496	12.992	2.520	2.441	2.919 ± 0.010	0.630	1 1/2"	4.134	5.866	7.480	1.126	0.276	8	0.866	3.071	2.468	0.203	13.780	5.906	13.780	/	6.496	/
3"	14.016	12.992	14.016	2.992	1.913	3.545 ± 0.010	0.630	3"	5.000	6.634	8.268	1.252	0.276	8	0.866	3.583	3.068	0.216	32.283	6.496	15.945	/	7.087	/
4"	17.008	10.079	17.008	4.016	4.016	4.545 ± 0.010	0.630	4"	6.181	8.504	10.827	1.500	0.276	8	0.984	4.606	4.046	0.237	35.236	6.890	11.811	/	14.961	/
5"	/	17.087	/	/	5.000	/	/	/	7.323	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6"	/	22.008	/	/	5.984	/	/	/	8.504	11.496	13.976	1.760	0.276	12	1.142	/	/	/	/	/	/	12.598	/	20.472
8"	/	35.984	/	/	7.992	/	/	/	10.630	13.780	16.535	2.189	0.276	12	1.260	/	/	/	/	/	/	12.598	/	22.835
10"	/	30.984	/	/	10.000	/	/	/	12.756	17.126	20.079	2.500	0.276	16	1.378	/	/	/	/	/	/	13.780	/	24.409
12"	/	32.992	/	/	12.008	/	/	/	15.000	19.291	22.047	2.626	0.276	20	1.378	/	/	/	/	/	/	14.961	/	26.772
14"	/	/	/	/	13.268	/	/	/	16.260	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
16"	/	/	/	/	15.236	/	/	/	18.504	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
18"	/	/	/	/	17.244	/	/	/	20.984	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
20"	/	/	/	/	19.252	/	/	/	22.992	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
24"	/	/	/	/	23.268	/	/	/	27.244	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Dimensions

Cv, Torque, Weight (USgpm, lb-in, lb)

SIZE	CV (USgpm)	TORQUE ⁽⁸⁾ (lb ^f ·in)			TORQUE ⁽⁹⁾ (lb ^f ·in)			WEIGHT ⁽¹⁰⁾ (lb)			WEIGHT ⁽¹¹⁾ (lb)		
		ASME 150#	ASME 300#	ASME 600#	ASME 150#	ASME 300#	ASME 600#	ASME 150#	ASME 300#	ASME 600#	ASME 150#	ASME 300#	ASME 600#
1/2"	8.000	37.700	522.150	734.550	371.700	522.150	734.550	5.512	6.614	8.818	6.614	8.818	11.023
3/4"	8.000	371.700	522.150	734.550	371.700	522.150	734.550	6.614	8.818	11.023	7.716	9.921	13.228
1"	38.000	1008.900	1416.000	1982.400	1008.900	1416.000	1982.400	8.818	11.023	13.228	11.023	15.432	17.637
1 1/4"	63.000	1778.850	2478.000	3451.500	177.850	2478.000	3451.500	11.023	14.330	24.251	14.330	19.842	27.558
1 1/2"	78.000	1964.700	2752.350	3849.750	1964.700	2752.350	3849.750	14.330	17.637	26.455	17.637	22.046	33.069
2"	153.000	2708.100	3787.800	5201.150	2708.100	3787.800	5301.150	20.944	24.251	30.865	24.353	30.865	39.683
2 1/2"	209.000	2832.000	3982.500	5566.650	2832.000	3982.500	5566.650	26.455	39.683	46.297	33.069	39.683	55.116
3"	254.000	2973.600	4159.500	5823.300	2973.600	4159.500	5823.300	39.683	52.911	63.934	46.297	62.832	81.571
4"	476.000	5894.100	8248.200	11549.250	5894.100	8248.200	11549.250	55.116	77.162	101.413	66.139	97.003	121.254
5"	698.000	/	/	/	10177.500	14248.500	/	/	/	/	110.231	165.347	/
6"	865.000	/	/	/	12213.000	17098.200	23939.250	/	/	/	174.165	222.667	376.991
8"	1348.000	/	/	/	19116.000	26762.400	37470.900	/	/	/	275.578	291.010	637.136
10"	1904.000	/	/	/	35577.000	49807.800	*	/	/	/	423.288	465.176	*
12"	2915.000	/	/	/	51507.000	72109.800	*	/	/	/	612.886	694.457	*
14"	*	/	/	/	56286.000	78800.400	/	/	/	/	831.143	983.262	/
16"	*	/	/	/	93456.000	130838.400	/	/	/	/	1047.197	1719.607	/
18"	*	/	/	/	98500.500	13547.500	/	/	/	/	1507.963	2138.486	/
20"	*	/	/	/	105138.000	147193.200	/	/	/	/	2237.694	2751.371	/
24"	*	/	/	/	127440.000	178416.000	/	/	/	/	2963.015	*	/

Pressure-Temperature Chart



How to Order

VALVE BODY DESIGN (SERIES)	SPECIAL FEATURES		MATERIAL			ENDS	CLASS	SIZE ⁽⁴⁾		OPERATION
			BODY	TRIM	SEAT					
10S Sleeve Plug valve	None	None	6 D1/CI	C CA15	P PTFE	F Flanged RF	0 ANSI 150#	0.5	1/2"	L Lever Operator
	CC	Caged Control valve	2 WCB	3 316SS	R R-PTFE	R Flanged RTJ	3 ANSI 300#	0.75	3/4"	G Gear Operator ⁽³⁾
			3 CFBM	4 304SS	C PTFE carbon filled	B But!Weld		6 ANSI 600#	01	1"
	F	Fire Safe	5 CF3M	5 316SL	H High Temp. (475°F)	T Threaded		01.25	1 1/4"	P Pneumatic Actuator
	G	Fire Safe / NACE	8 Alloy 20	8 Alloy 20		S Socket weld		01.5	1 1/2"	
			0 Monel	0 Monel			02	2"		
	O	Oxygen Service						02.5	2 1/2"	B Bare Shaft
	FE	Fugitive Emissions						03	3"	O Oval Operator
	N	NACE						04	4"	
	FJ	Full Jacketed						05	5"	
	PJ	Partial Jacketed						06	6"	
	FW	3way Full Jacketed						08	8"	
	PJ	3 ways Partial Jacketed						10	10"	
	WA	3 Ways Port "A"						12	12"	
	WB	3 Ways, Port "B"						14	14"	
WC	3 Ways Port "C"						16	16"		
WD	3 Ways Port "D"						18	18"		
							20	20"		
							24	24"		

Example:

Sleeve Plug Valve, Body WCB, Trim 316SS, Sleeve PTFE, Flanged RF ANSI Class 300#, Size 6" with Gear Operator.

10S23PF306G

NOTES:

- (1) Face to face for threaded and socket weld valves.
- (2) Face to face for flanged RF valves.
- (3) Face to face for flanged BW valves.
- (4) Port diameter for threaded, socket weld and butt weld valves.
- (5) Port diameter for flanged RF valves.
- (6) Lever length for valves with socket weld, threaded and butt weld connection for ASME 150#, ASME 300# and ASME 600# classes.
- (7) Center port to lever height for valves with socket weld, threaded and butt weld connection for ASME 150#, ASME 300 # and ASME 600# classes.
- (8) Torque value for threaded, socket weld and butt weld valves. The torque es measured based on the conditions of with 30% safety factor, with grease, at 0 bar pressure and ambiental temperature.
- (9) Torque value for flanged RF valves. The torque es measured based on the conditions of with 30% safety factor, with grease, at 0 bar pressure and ambiental temperature.
- (10) Weight value for threaded, socket weld and butt weld valves.
- (11) Weight value for flanged RF valves.