

PLUG VALVES

PTFE SLEEVE PLUG HYDRANT VALVES

series 10SHS



FEATURES

- TFV LINE OF PTFE SLEEVE PLUG VALVES ARE DESIGNED FOR HIGH STANDARD OF PERFORMANCE.
- THESE TIGHT SHUT – OFF, BI – DIRECTIONAL VALVES WITH CAVITY – FREE PASSAGE CAN BE USED ON BOTH PRESSURE AND VACUUM SERVICES. VALVES INSURE LONG – TERM RELIABLE OPERATIONS WITH SIMPLIFIED IN – LINE MAINTENANCE.
- INVESTMENT CAST BODY
- 360° LIPS TO AVOID PLUG ROTATES
- HIGH PRESSURE SEALING RIBS.
- TOP AND DOWN RETENTION OF SLEEVE.
- SLEEVE RELIEF AREA.
- FULLY ADJUSTABLE IN LINE SEAL (THREE TOP BOLTS)
ADVANTAGE THREE INDEPENDENT ENVIRONMENTAL SEAL.
- DESIGN STD API 599 & BS 5353
- TESTING STD API 598
- **NO DEAD SPACE** PLUG IS ALWAYS SURROUNDED BY PTFE SLEEVE 360 AROUND AND THEREFORE THE LIQUID IN THE PLUG INTERNAL CANNOT FLOW IN TO NO DEAD SPACE WHETHER IT'S OPEN OR CLOSE. WHEN THE VALVE IS OPEN THE LINE FLOW WOULD FLUSH OUT THE LIQUID IN THE PLUG INTERNALS.
- **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 CASES.. 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.
- **ZERO LEAKAGE** THE THEREEFOLD STEM SEAL SYSTEM THE ZERO LEAKAGE STEM SEALING IS ACHIEVED BY THREEFOLD SEALING SYSTEM. THE PRIMARY SEAL IS PROVIDED BY THE SLEEVE. THE SEALING IS SO TIGHT THAT NO LEAKAGE CAN BE OBSERVED EVEN WITHOUT A VALVE COVER. THE SECONDARY AND TERTIARY SEAL (TOP SEAL PACKAGE) ARE PROVIDED BY A PTFE TEFLON DELTA RING AND A DIAPHRAGM. THE SEALING IS ALSO SO TIGHT THAT NO LEAKAGE CAN BE OBSERVED EVEN WITHOUT A SLEEVE. A TEST REPORT IS AVAILABLE AT REQUEST.

PLUG VALVES

PTFE SLEEVE PLUG HYDRANT VALVES

FEATURES

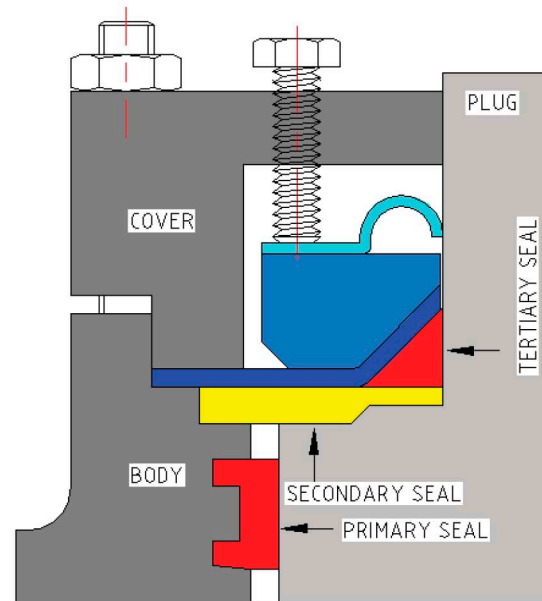
ABSOLUTE PRESSURE SEALING IS INDEPENDENT TO LINE PRESSURE. SEALING IS ESTABLISHED BY THE ME-CHANCEL FORCES (ADJUSTING BOLTS) INDEPENDENT TO THE LINE PRESSURE, THEREFORE SEALING IS MADE UP STREAM, DOWN STREAM, UPPER PART, AND LOW PART OF THE PLUG. THE LOWER THE PLUG POSITION IS THE HIGHER SEALING PRESSURE. THE SEALING PRESSURE IS ALWAYS CONSTANT. REGARDLESS OF LINE PRESSURE.

AREA SEAL SYSTEM SEALING IS ESTABLISHED BY AN AREA OF TEFLON SLEEVE 360 CIRCUMFERENTIAL SURFACES. EVEN THOUGH THERE IS SCRATCH ON THE SLEEVE DURING OPERATION THE SCRATCH OF 90°, CONDENSATION AREA IS LARGE, SCALING AREA IS STABILIZED AND THEREFORE HAS LONG LIFE.

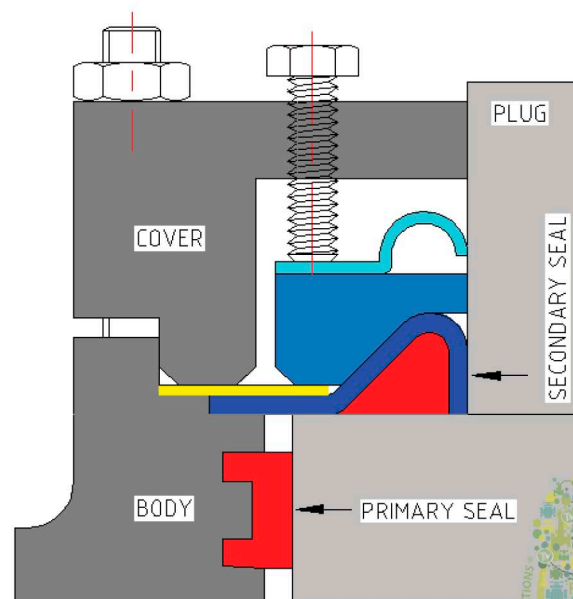
OPTIONS & CONFIGURATIONS

- JACKETED CONSTRUCTION FOR HEATING OR COOLING MEDIA AVAILABLE.
- MULTI-PORT ARRANGEMENTS AVAILABLE
- CAGED PLUG CAN BE USED FOR HIGH PRESSURE DROP, HIGH VELOCITY THROTTLING AND SLURRY APPLICATIONS.
- FIRE SAFE DESIGN

ATMOSPHERIC SEAL DESIGN 1



ATMOSPHERIC SEAL DESIGN 2



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PTFE SLEEVED PLUG HYDRANT VALVES

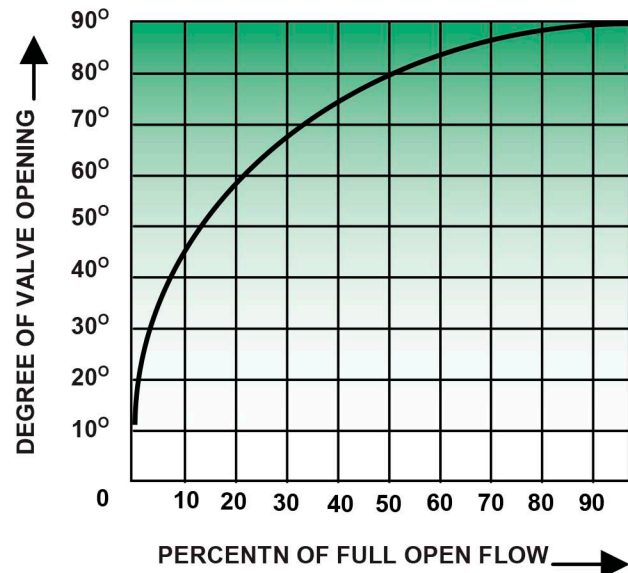
MATERIAL LIST

NO.	PART NAME	MATERIAL
01	BODY	DI ²⁾ WCB CF8 CF8M CN7M
02	PLUG	CA15 CF8 CF8M CN7M
03	COVER	DI ²⁾ WCB CF8 CF8M CN7M
04	SLEEVE	PTFE
05	PTFE DIAPHRAGM	PTFE
07	METAL DIAPHRAGM	ASTM A240 TP.304
08	THRUST COLLAR	ASTM A276 TP.304
09	STATIC ELIMINATOR	ASTM A240 TP.304
9A	STATIC ELMTR. PLATE	ASTM A276 TP.304
10	STUD -BODY	A193 Gr. B7 A193 Gr. B8
	NUT -BODY	A194 Gr. 2H A194 Gr. 8
13	ADJ. SCREW	SS 304
14	LEVER	STEEL
15	ADAPTER	STEEL
16	WASHER	ALUMINUM
17	HEX. SCREW	STEEL
19	BRACKET	STEEL
20	GEAR ACTUATOR	C.I. HOUSING
29	WEDGE RING	GRAFOIL
30	BODY GASKET	GRAFOIL
31	CAGE	CA15 CF8 CF8M CN7M
32	ADJUSTER BOLT	ASTM A276 TP.304
33	PLUG ADJUSTER	WCB
46	GLAND	WCB
50	ADJUSTER BOLT	ASTM A276 TP.304

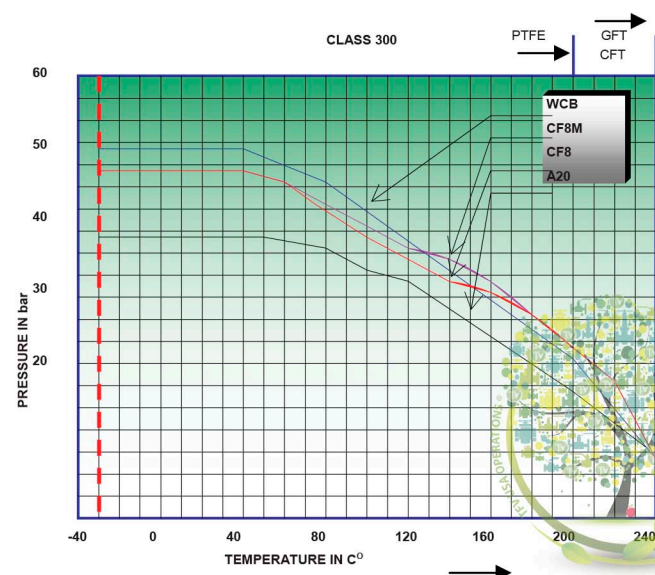
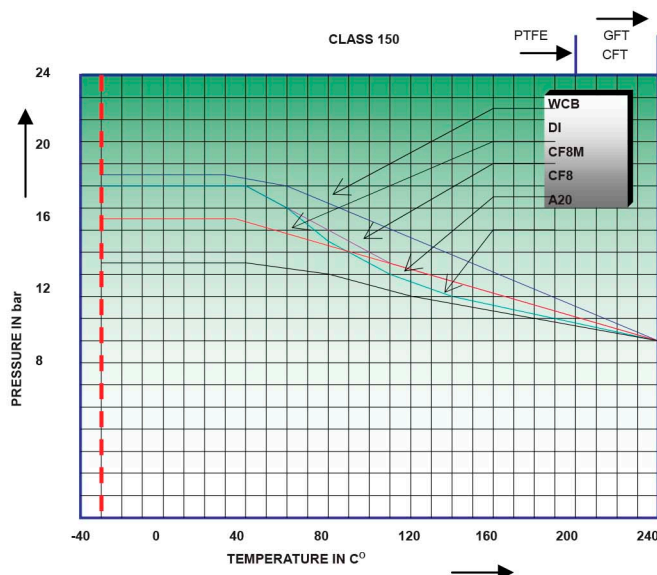
NOTE :

- 1) OTHER MATERIALS AVAILABLE UPON REQUEST
- 2) FOR CLASS 150 ONLY, FLAT FACE AVAILABLE ON REQUEST.
- 3) FIRE SAFE DESIGN IS ONLY FOR EXTERNAL LEAKAGE AS PER API : 607 - IV EDITION, NOT FOR THROUGH SEAT LEAKAGE.

FLOW CHARACTERISTIC

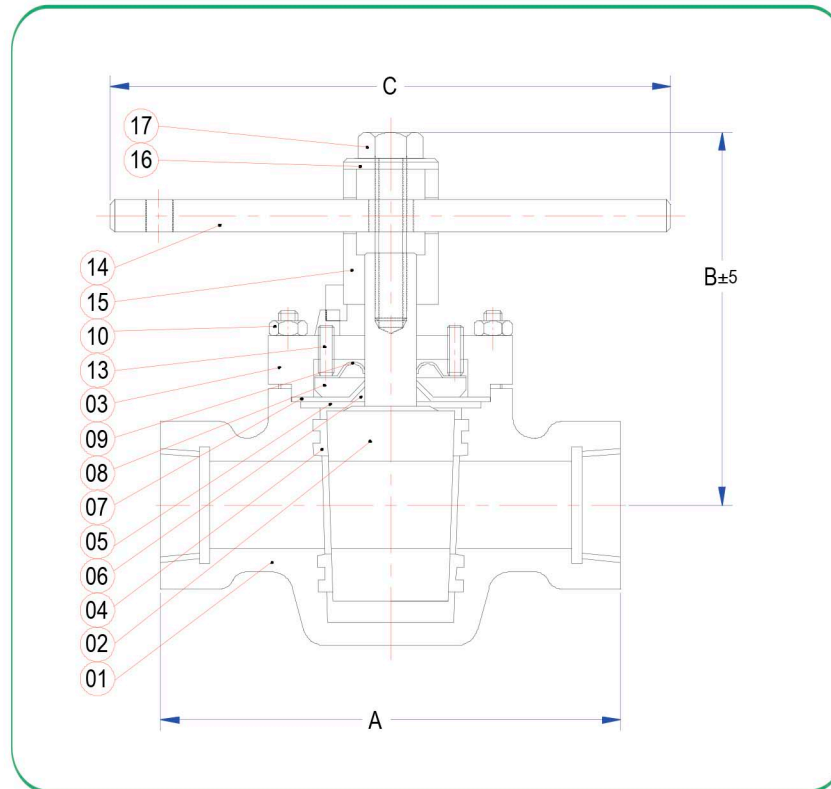


PRESSURE-TEMPERATURE CHART



PLUG VALVES

PTFE SLEEVED PLUG HYDRANT VALVES



NOTE: FROM 1 1/2" TO 2 1/2"

DIMENSION (INCHES)

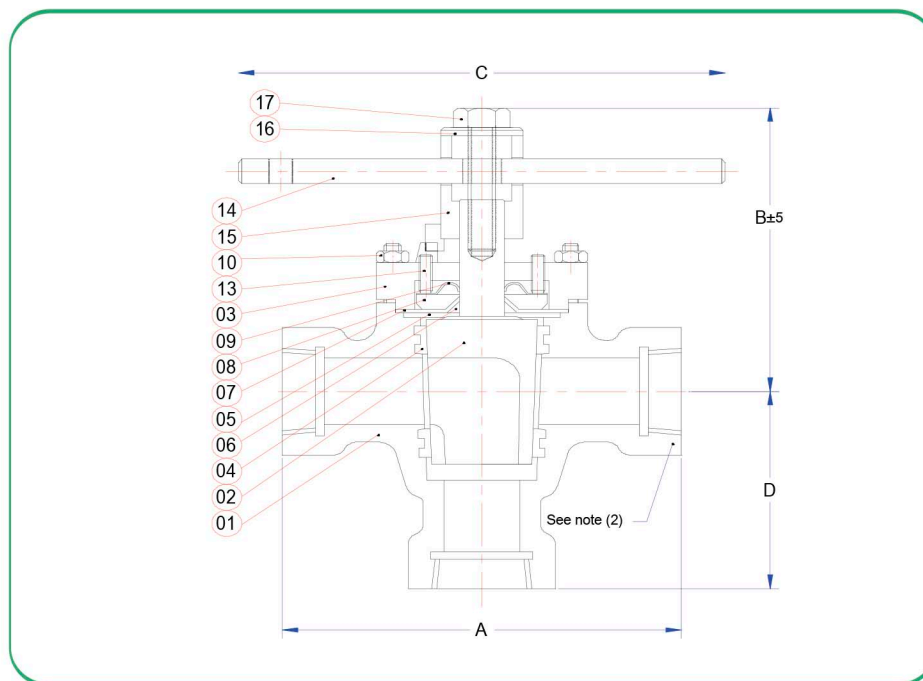
SIZE			A		B	C	D		E	T		WEIGHT (LBS)				TORQUE (IN-LB)		CV VALUE CLASS 150 & 300
			TH, SW, BW	Extended BW			150#	300#		150#	300#	Flanged	SE, SW, BW	Extended BW		150#	300#	
1 1/2"	6.50	7.48	5.51	12.99	4.72	12.80	5.12	6.10	2.87	0.57	0.83	16.50	24.20	9.90	11.00	354	372	92
2 1/2"	7.48	9.49	7.48	15.75	6.89	23.62	7.09	7.48	4.13	0.69	1.00	33.00	41.80	20.90	20.90	797	974	245



PLUG VALVES

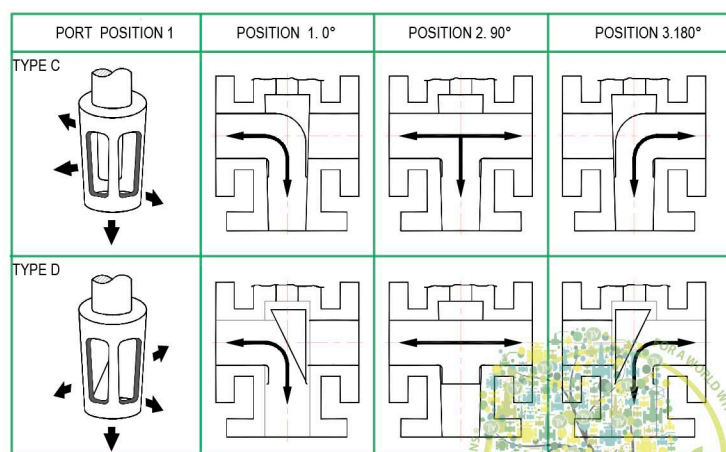
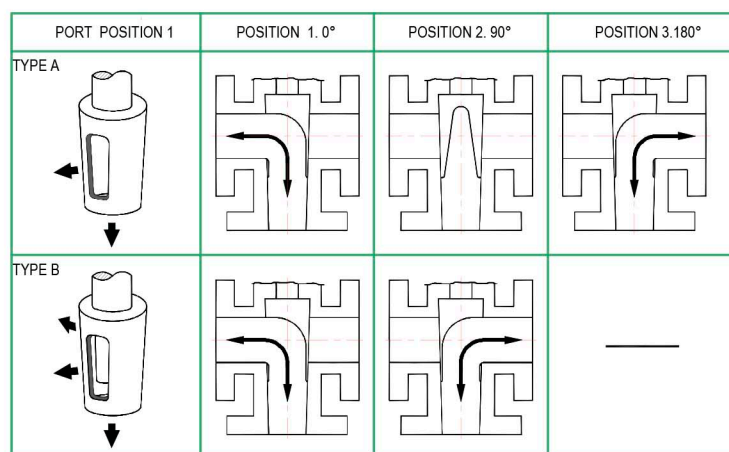
SLEEVED PLUG VALVES

3 WAYS FLOW ARRANGEMENTS



DIMENSION (INCHES)

SIZE	A (Face to face Dimensions)					B	C	D		E	F		SE, SWE BWE	I	WEIGHT (LBS)			
	Class 150#	Class 300#	THR	SW	BW			Class 150#	Class 300#		Class 150#	Class 300#			Flanged 150#	300#	THR SW	BW
11/2"	6.50	7.48	5.51	12.99	4.72	12.80	5.12	6.10	2.87	4.13	4.33	2.87	0.57	0.83	16.50	24.20	9.90	
21/2"	7.48	9.49	7.48	15.75	6.89	23.62	7.09	7.48	4.13	5.12	5.51	—	0.69	1.00	33.00	41.80	20.90	





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HOW TO ORDER

VALVE BODY DESIGN (SERIES)	FEATURES	MATERIAL			ENDS	CLASS	SIZE ⁽²⁾	OPERATION
		BODY	TRIM	SEAT				
10S Sleeve Plug valve	NONE None	6 DI	C CA15	P PTFE	B Butt Weld	0 ANSI 150#	01.5 1 1/2"	L Lever Operator
	HS Hydrant Valve	2 WCB	3 316SS	R RPTFE	T Threaded	3 ANSI 300#	02.5 2 1/2"	
	CC Caged Control valve	3 CF8M	4 304SS	C PTFE carbon filled	S Socket weld	6 ANSI 600# ⁽¹⁾		G Gear Operator ⁽³⁾
	F Fire Safe	8 Alloy 20	8 Alloy 20					E Electric Actuator
	G Fire Safe / NACE	0 Monel	0 Monel	H HIGH TEMPERATURE (475°F)				P Pneumatic Actuator
	O Oxygen Service							B Bare Shaft
	FE Fugitive Emissions							O Oval operator
	N NACE							
	FJ Full Jacketed							
	PJ Partial Jacketed							
	FW 3 way Full Jacketed							
	PJ 3 ways Partial Jacketed							
	WA 3 Ways Port "A"							
	WB 3 Ways, Port "B"							
	WC 3 Ways Port "C"							
	WD 3 Ways Port "D"							

Example

Sleeve Hydrant Plug Valve, Bpdy WCB, Trim 316 SS, Sleeve PTFE, Threaded, ANSI Class 300#, Size 2-1/2" with Lever.

10SHS-23P-T302.5L

(1) Under Design for flanged ends Only

(2) Threaded from 1/2" to 3" Only

(3) Mandatory from 6" and above

