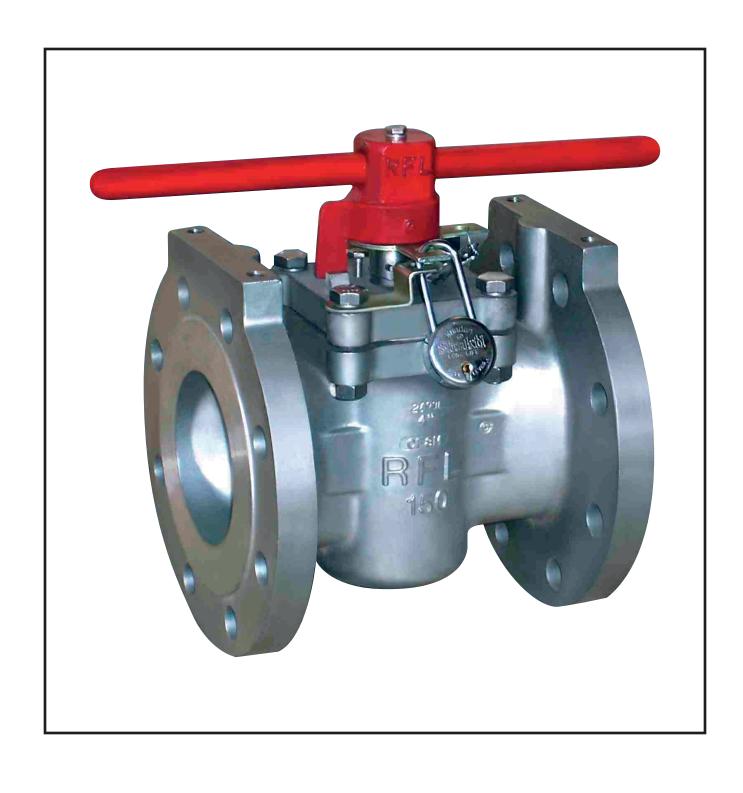


# MODEL 330 HIGH PERFORMANCE SLEEVED PLUG VALVES



# Chemvalve®



### **Design Features**

- Valves up to 4" in investment casting
- 6" and above made out of Sand or Shell Casting
- Superior Finish and longer life of valve body
- Bi-directional flow
- Positive shut-off with inline adjustment
- Positive stem seal with reverse lip design
- Inline PTFE sleeve surrounds the plug
- PTFE sleeve locked in the body and field replaceable, in line
- Designed for throttling
- Unique plug and body design for low torque operation
- Non-Lubricated, self-cleaning of plugs while in operation
- Zero leakage (Bubble tight shut-off)
- Easy assembling and disassembling
- Technologically superior design
- Cost effective and top value for your dollar
- Proven performance
- Self sealing

### Components

Body / Cover

Plug Sleeve

Diaphragm And

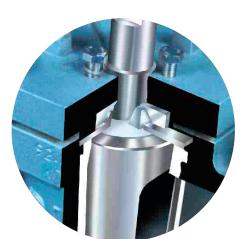
Wedge Ring Metal Diaphragm PTFE SS 316

**PTFE** 

Thrust Collar Washer SS 316 PTFE

Studs & Nut

B7 & 2H / SS 316



DIAPHRAGM AND WEDGE RING EXPOSED VIEW

### Options Available:

- ☐ Both ANSI 150# And 300#
- ☐ Fully Jacketed
- □ Partially Jacketed
- ☐ Flanged End
- ☐ Butt Weld
- ☐ Socket Weld
- ☐ 3-way
- □ 3-way Jacketed
- ☐ 4-way

### **SLEEVED PLUG VALVES WITH IMPECCABLE PERFORMANCE!**

Material and Specifications:

### For Class 150#

Si	ze	Break - Away Torque inch Lbs (Nm)	Flow (Va	
Inch	mm	EDS (MIII)	Cv	Kv
1/2	15	192 (25.5)	9.5	11
3/4	20	192 (25.5)	9.5	11
1	25	308 (35)	42	49
1½	40	460 (52)	95	112
2	50	630 (71)	190	224
3	80	965 (110)	326	384
4	100	1450 (165)	694	816
6	150	3820 (370)	1112	1308
8	200	6366 (721)	1665	1960

### **Torque**

Start - Break - Away Torque

Running - 60% of B.A.T

Close - 80% of B.A.T

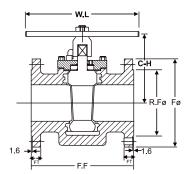
To obtain - Kv Value multiply Cv Value by 0.85

4 inch Class 300# plug valve with gear box on special request.

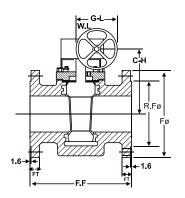


# **SLEEVED PLUG VALVE DRAWINGS**

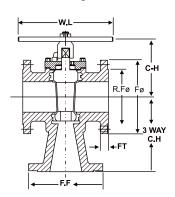
½" TO 4"



6" and Above, Gear Operated



**3-Way Valves** 



All dimensions in Inches

Size	F-	-F	F	Ø	F	.T	RFØ	RFT	P.0	C.D	NO	OH	SC	ЭH	W.L	G.L	C.	-H	3-WA	Y C.H
	CLA	ASS	CLA	ASS	CLA	ASS			CLA	ASS	CLA	ASS	CLA	ASS			CLA	ASS	CLA	ASS
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#			150#	300#	150#	300#
1/2	4.25	5.50	3.50	3.75	.44	.56	1.38	.06	2.38	2.63	4	4	.63	.63	6.38		2.92	2.92	2.75	2.88
3/4	4.63	6.00	3.88	4.63	.44	.63	1.69	.06	2.75	3.25	4	4	.63	.75	6.38		2.92	2.92	2.88	3.00
1	5.00	6.50	4.25	4.88	.44	.69	2.00	.06	3.13	3.50	4	4	.63	.75	8.75		3.25	3.25	3.50	3.78
11/2	6.50	7.50	5.00	6.13	.56	.81	2.88	.06	3.88	4.50	4	4	.63	.88	12.50		3.75	3.75	4.13	4.38
2	7.00	8.50	6.00	6.50	.63	.88	3.63	.06	4.75	5.00	4	8	.75	.75	18.00		4.50	4.50	4.50	4.78
21/2	8.00	11.13	7.50	8.25	.75	1.13	4.13	.06	5.50	5.88	4	8	.75	.88	24.00		4.75	4.75	5.13	5.58
3	8.00	11.13	7.50	8.25	.75	1.13	5.00	.06	6.00	6.63	4	8	.75	.88	24.00		5.00	5.00	6.13	5.58
4	9.00	12.00	9.00	10.00	.94	1.25	6.19	.06	7.50	7.88	8	8	.75	.88	30.00		6.10	6.10	6.00	6.78
6	10.50	15.88	11.00	12.50	1.00	1.44	8.50	.06	9.50	10.63	8	12	.88	.88		18	7.75	7.75	7.50	8.50
8	11.50	16.50	13.50	15.00	1.13	1.63	10.63	.06	11.75	13.00	8	12	.88	1.00		18	9.50	9.50	9.00	10.00
10	13.00	18.00	16.00	17.50	1.19	1.88	12.75	.06	14.25	15.25	12	16	1.00	1.13		24	11.00	11.00	11.00	12.00
12	14.00	19.75	19.00	20.50	1.25	2.00	15.00	.06	17.00	17.75	12	16	1.00	1.25		30	12.50	12.50		
14	15.00	30.00	21.00	23.00	1.38	2.12	16.25	.06	18.75	20.25	12	20	1.13	1.25		30	13.00	13.00		
16	30.00	33.00	23.50	25.50	1.44	2.25	18.50	.06	21.25	22.50	16	20	1.13	1.38		24	15.00	15.00		

### **LEGEND**

F-F	FACE TO FACE	NOH	NUMBER OF HOLES
FØ	FLANGE DIAMETER	SOH	SIZE OF HOLE
F-T	FLANGE THICKNESS	W.L	WRENCH LENGTH
RFØ	RAISED FACE DIAMETER	G.L	GEAR LENGTH
RF.T	RAISED FACE THICKNESS	C-H	CENTER OF FLANGE TO HEIGHT OF BODY
P.C.D	PITCH CIRCLE DIAMETER	3-WAY C-H	CENTER OF FLANGE TO BOTTOM FLANGE

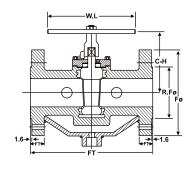


### **JACKETED TYPE VALVES (FULLY AND PARTIALLY JACKETED)**

### **Fully Jacketed Valve**



- Fully jacketed valve is specially designed for circulation of hot and/or cold gas or liquids.
- Design permits through hydrostatic or pneumatic testing of the body prior to the addition of jacket.
- Proven performance in critical temperature control applications.
- Multiple connections allow for proper jacket drainage.
- Fully jacketed sleeved plug valve is the chosen preference for complex fluid applications.
- Over-sized flange in accordance with international standards.
- Can withstand up to 270°c temperature.
- Anti-static eliminator is a standard feature in valves.



### all dimensions in Inches

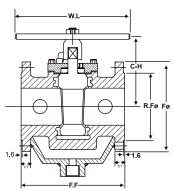
Size	F-	-F	F	Ø	F	т.	RFØ	RFT	P.0	C.D	NO	DН	SC	ЭH	C-	·H	3-WA	Y C.H.
	CLA	ASS	CLA	ASS	CLA	ASS			CLA	ASS	CLA	ASS	CLA	ASS	CLA	ASS	CLA	ASS
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#	150#	300#	150#	300#
½ x 1	5.00	6.50	4.25	4.88	.44	.69	2.00	.06	3.13	3.50	4	4	.63	.75	3.25	3.25	3.50	3.75
3/4 x 1	5.00	6.50	4.25	4.88	.44	.69	2.00	.06	3.13	3.50	4	4	.63	.75	3.25	3.25	3.50	3.75
1 x 2	7.00	8.50	6.00	6.50	.63	.88	3.63	.06	4.75	5.00	4	8	.75	.75	4.50	4.50	4.50	4.75
1½x2½	8.00	11.13	7.50	8.25	.75	1.13	4.13	.06	5.50	5.88	4	8	.75	.88	4.75	4.75	5.13	5.56
2 x 3	8.00	11.13	7.50	8.25	.75	1.13	5.00	.06	6.00	6.63	4	8	.75	.88	5.00	5.00	5.13	5.56
3 x 4	9.00	12.00	9.00	10.00	.94	1.25	6.19	.06	7.50	7.88	8	8	.75	.88	6.10	6.10	6.00	6.75
4 x 6	10.50	15.88	11.00	12.50	1.00	1.44	8.50	.06	9.50	10.63	8	12	.88	.88	7.75	7.75	7.50	8.50
6 x 8	11 50	16.50	13.50	15.00	1.13	1.63	10.63	.06	11.75	13.00	8	12	.88	1.00	9.50	9.50	9.00	10.00
8 x 10	13.00	18.00	16.00	17.50	1.19	1.88	12.75	.06	14.25	15.25	12	16	1.00	1.13	11.00	11.00	11.00	12.00
10 x 12	14.00	19.75	19.00	20.50	1.25	2.00	15.00	.06	17.00	17.75	12	16	1.00	1.25	12.50	12.50		
12 x 14	15.00	30.00	21.00	23.00	1.38	2.12	16.25	.06	18.75	20.25	12	20	1.13	1.25	13.00	13.00		

### **Partially Jacketed Valve**



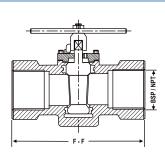
- Designed in compliance with international standards.
- Design portion extends up to body level only with standard flanges.
- Anti-static eliminator is a standard feature in valves.
- F-F Dimensions and flange diameter will vary to that of fully jacketed type.
- Total height of the valve, including handle cup, will differ.





### all dimensions in Inches

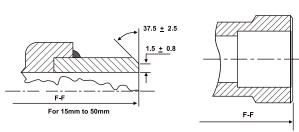
Size	F	-F	F	Ø	F	.T	RFØ	RFT	P.0	C.D	NO	ЭH	S	OH	С	-H	SWA	Y C.H
	CLA	ASS	CLASS		CLASS				CLASS		CLASS		CLASS		CLASS		CLASS	
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#	150#	300#	150#	300#
1	5.00	6.50	4.25	4.88	.44	.69	2.00	.06	3.13	3.50	4	4	.63	.75	3.25	3.25	3.50	3.75
1½	6.50	7.50	5.00	6.13	.56	.81	2.88	.06	3.88	4.50	4	4	.63	.88	3.75	3.75	4.13	4.38
2	7.00	8.50	6.00	6.50	.63	.88	3.63	.06	4.75	5.00	4	8	.75	.75	4.50	4.50	4.50	4.75
21/2	8.00	11.13	7.50	8.25	.75	1.13	4.13	.06	5.50	5.88	4	8	.75	.88	4.75	4.75	5.13	5.50
3	8.00	11.13	7.50	8.25	.75	1.13	5.00	.06	6.00	6.63	4	8	.75	.88	5.00	5.00	5.13	5.50
4	9.00	12.00	9.00	10.00	.94	1.25	6.19	.06	7.50	7.88	8	8	.75	.88	6.10	6.10	6.00	6.77
6	10.50	15.88	11.00	12.50	1.00	1.44	8.50	.06	9.50	10.63	8	12	.88	.88	7.75	7.75	7.50	8.50
8	11.50	16.50	13.50	15.00	1.13	1.63	10.63	.06	1.75	13.00	8	12	.88	1.00	9.50	9.50	9.00	10.00
10	13.00	18.00	16.00	17.50	1.19	1.88	12.75	.06	14.25	15.25	12	16	1.00	1.13	1.00	1.00	1.00	12.00



**Screwed End** 



### **Socket Weld**



### **Screwed end:**

Both straightway screwed end and 3-way screwed end valves are available upon request. Class 150 and 300 wrench standard is maintained for all valves.

SIZE	.5	.75	1	1.5	2
F-F	3.25	3.25	4.63	5.5	6.5

SIZE	15	20	25	40	50
F-F	82.55	82.55	117.6	139.7	165.1

### **Butt weld:**

Valves 6" through 12" are gear operated. Butt weld valves are machined to match schedule 40 (ANSI) piping system unless specified.

SIZE	.5	.75	1	1.5	2
F-F	11	11	12	12.50	13

SIZE	15	20	25	40	50
F-F	280	280	300	320	340

### **Socket Weld:**

Welding is possible without disassembling of the valve. Welding of ductile iron is not recommended. Manufactured in compliance with ANSI B16.11

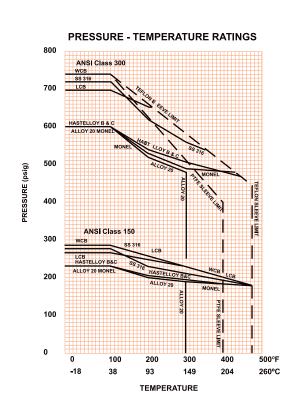
SIZE	.5	.75	1	1.5	2
F-F	3.25	3.25	4.63	5.5	6.5

SIZE	15	20	25	40	50
F-F	82.55	82.55	117.6	139.7	165.1

British Unit - all dimensions in inches, Metric Unit - all dimensions in millimeters.







PLUG	POSITION 0°	POSITION 90°	POSITION 180°	
				FLOW 1
		4		FLOW 2
	#			FLOW 3
	#			FLOW 4
		#		FLOW 5
				FLOW 6
				FLOW 7
				FLOW 8



### **VALVES WITH ACTUATOR MOUNTING AND LOCKING DEVICE**

# Ac

### **Actuator Mounting (Pneumatic Actuator)**

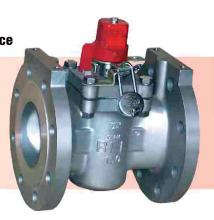
Model 330 offers actuator mounting for sleeved plug valves to suit customers' requirements. We offer mounting provisions with actuator mounting brackets, with necessary holes pre drilled for easy mounting of pneumatic actuators. The actuator style number to be specified at the time of ordering the valve.

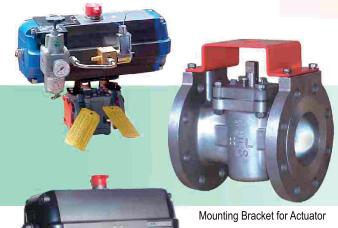
Trouble free on/off operation of valve through pneumatic actuators is assured. The valves are tailor-made according to customer order.

Vane Type Actuator

### Sleeved plug valve with locking device

Sleeved Plug Valves with locking device is also our specialty. **Model 330** provides only the provision for locking device, not the locks themselves, this ensures protection of valves from any unauthorized operation.





### **Rotary Mounting**

**Model 330** offers rotary mountings for Sleeved Plug Valves to suit customers' requirements. We offer mounting provisions with rotary mounting brackets, with necessary holes pre drilled for easy mounting of rotary actuator. Actuator style to be specified at the time of ordering. The valve is tailor-made according to customer order.

**Model 330** can also offer electrical actuator mountings for sleeved plug valve to suit customers' requirements. We offer mounting provisions with electrical actuator mounting brackets, with necessary holes pre drilled for easy mounting of electrical actuators. Electrical Actuator model is to be specified at the time of ordering the valve. Trouble free on/off operation of the valves through electrical actuator is assured.

### Sleeved plug valve with extended gland packing

Extended Gland Packing is also a Model 330 specialty. Extended Packing is available upon customers' request, when specified.



### **HOW TO ORDER YOUR SLEEVED PLUG VALVE:**

### **VALVE TYPE**

SPV	SLEEVED PLUG VALUE
SPJ	SLEEVED PLUG VALVE JACKETED

### **BODY / END PIECE MATERIAL**

DI
WCB
SS 316 (CF8M)
SS 316L (CF3M)
CD4Mcu
ALLOY 20 (CN7M)
Hastalloy 'B'
Hastalloy 'C'
Monel 400

### LINING

N	NO LINING *

<sup>\*</sup>Created as a spacer only.

### **OPERATION**

W	WRENCH OPERATED
G	GEAR OPERATED
Р	PNEUMATIC OPERATED
Е	ELECTRICAL ACTUATOR

### **PLUG**

02	DI
03	WCB
04	SS 316 (CF8M)
05	SS 316L (CF3M)
06	CD4Mcu
07	ALLOY 20 (CN7M)
08	Hastalloy 'B'
09	Hastalloy 'C'
10	Monel 400

### **SIZES**

SIZES	INCHES	MM
0050	1/2"	15
0075	3/4"	20
0100	1"	25
0150	1 ½"	40
0200	2"	50
0300	3"	80
0400	4"	100
0600	6"	150
0800	8"	200
1000	10"	250
1200	12"	300
1400	14"	350
1600	16"	400

### **PRESSURE CLASS**

1	150#
3	300#
6	600#

### **END CONNECTION**

FE	FLANGED END
SE	SCREWED END
BW	BUTT WELD
SW	SOCKET WELD
3W	3 WAY
4W	4 WAY

## **Easy Method of Ordering Using Part Numbers**

### **EXAMPLE\***

Sleeved plug valve	SPV
Class 300#	3
WCB Body	03
SS 316 Plug	04
No lining	N
Wrench Operated	W
Flanged End	FE
Size 1½"	0150

For easy method of ordering, use the chart and the part numbers specified above.

### \*Example:

SPV30304NWFE0150

SLEEVED PLUG VALVE, CLASS 300#, BODY - WCB, PLUG-SS316, SLEEVE-N(NO LINING) WRENCH OPERATED, END CONNECTION - FLANGED END, SIZE -  $1\frac{1}{2}$ "

### Note

Available in both ANSI class 150# & 300# & DIN and BS standards.

Special alloy valves are also available upon request. Pressure tested to standard API-598 and designed as per API - 599



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