

CAST STEEL

PILOT CONTROLLED METALLIC DIAPHRAGM TYPE PRESSURE REDUCING VALVE

**CONFIRM TO HIGH
QUALITY & LONG LIFE**

DESCRIPTION :

'WJ' Cast Steel Pilot Controlled Metallic Diaphragm Type Pressure Reducing Valve with flanged ends to BS-10 Table 'J' are suitable for 350 psig (24.6 kg/Cm²g) Max. working pressure at 425°C Temp. and are Tested to 700 psig (49.2 Kg/Cm²g) Hydraulic Pressure. These Valves are available in three reduced pressure ranges of 5/60, 20/80 and 40/125 on the down stream side.

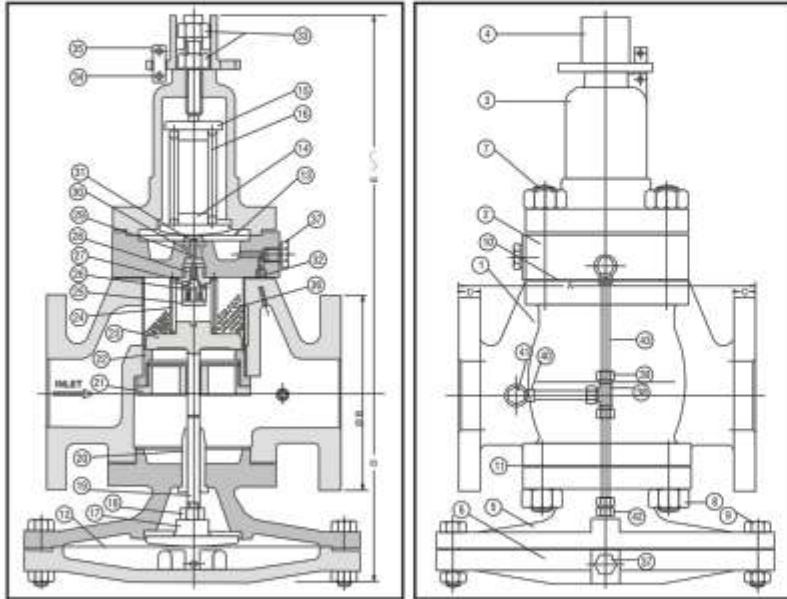
INSTRUCTIONS FOR INSTALLATION :

1. The Valves should be installed in a horizontal pipe line.
2. Stop valves should be installed at inlet & outlet sides of reducing valve.
3. A safety valve should be installed on the down stream side of reducing valve.
4. A steam trap & a strainer should be installed on the upstream side just before the reducing valve.
5. Clean all scale and jointing material from the pipe line before installing the reducing valve.

TESTING AND CERTIFICATION :

All reducing valves are tested at double the max. working pressure. Each valve is supplied with IBR Test certificate in Form III-C issued by The Director of Boilers, Punjab.





DIMENSIONS					
Nominal Size	A	B	C	D	E
25mm (1")	181	120.7	19.05	135	220
40mm (1½")	225	140.0	22.2	187	338
50mm (2")	260	165.1	25.4	168	320
65mm (2½")	292	184.5	25.4	180	360
80mm (3")	325	203.2	31.8	212	384

MATERIALS

PART No.	NAME OF PART	MATERIAL	SPECIFICATION
1.	Body	C.S.	IBR 73 To 80
2.	Bonnet	C.S.	IBR 73 To 80
3.	Spring Chamber	C.I.	IBR-86 To 93 Gr. A
4.	Locking Guard	C.I.	IBR-86 To 93 Gr. A
5.	Diaphragm Chamber	C.S.	IBR 73 To 80
6.	Bottom Diaphragm Chamber Cover	C.S.	IBR 73 To 80
7.	Studs with Nuts	M.S.	----
8.	Studs with Nuts	M.S.	----
9.	Bolts with Nuts	M.S.	----
10.	Gasket	C.A.F.	IS - 2712
11.	Gasket	C.A.F.	IS - 2712
12.	Lower Diaphragm	S.S.	AISI-304
13.	Upper Diaphragm	S.S.	AISI-304
14.	Lower Spring Disc	S.S.	AISI-410
15.	Upper Spring Disc	S.S.	AISI-410
16.	Spring	Spring Steel	----
17.	Diaphragm Disc	Bronze	IBR-282 (a) IV Gr. B
18.	Locking Nut	M.S.	----
19.	Extension Stem	S.S.	AISI-410
20.	Guide Sleeve	Bronze	IBR-282 (a) IV Gr. B
21.	Seat Ring Guide	Bronze	IBR-282 (a) IV Gr. B
22.	Body Seat Ring	S.S.	AISI-410
23.	Valve Disc	S.S.	AISI-410
24.	Disc Spring	S.S.	AISI-302
25.	Pilot Nut	Extruded Brass Rod	----
26.	Pilot Spring	S.S.	AISI-302
27.	Pilot Ball	S.S.	AISI-304
28.	Pilot Body	S.S.	AISI-410
29.	Pilot Stem	S.S.	AISI-410
30.	Bush	S.S.	AISI-410
31.	Pilot Stem Cap	Bronze	IBR-282 (a) IV Gr. B
32.	Nipple	S.S.	AISI-410
33.	Spring Adjusting Screw	M.S.	----
34.	Pin	M.S.	----
35.	Locking Lever	M.S.	----
36.	Strainer	S.S.	AISI-304
37.	Side Plug with Copper Washer	S.S.	AISI-410
38.	T Connector	S.S.	AISI-410
39.	Connector Nut	S.S.	AISI-410
40.	Sensing Pipe Connector	S.S.	AISI-410
41.	Nipple for Pipe Connector	S.S.	AISI-410
42.	Tube Connector for Diaphragm Chamber	S.S.	AISI-410
43.	Steel Tube	S.S.	----



**CAPACITIES OF 'WJ' PRESSURE REDUCING VALVES
FOR STEAM IN Kg. PER HOUR**

SET PRESSURE Kg. / Cm ² g	OUTLET PRESSURE Kg. / Cm ² g	VALVE SIZE				
		25 mm (1")	40 mm (1½")	50 mm (2")	65 mm (2½")	80 mm (3")
2	0.75	190	520	920	1360	2000
4	1.5	300	820	1470	2150	3100
	2.75	275	740	1290	1950	2800
6	2.0	385	1020	1850	2720	3900
	3.5	350	920	1650	2420	3530
7	3.5	490	1275	2275	3365	5000
	4	475	1230	2190	3280	4790
	6	375	980	1750	2560	3740
9	4	600	1590	2820	4140	6140
	6	555	1485	2620	3840	5650
	7	465	1230	2180	3180	4770
10	5	710	1800	3250	4950	7000
	7	650	1720	3035	4520	6550
	9	500	1300	2550	3450	4950
13	6	850	2210	3900	5720	8230
	7	810	2180	3760	5720	8000
	9	715	1920	3400	5050	7230
	10	550	1465	2610	3840	5480
15	7	920	2380	4340	6380	9565
	9	880	2280	4100	5920	8650
	10	800	2140	3730	5460	7960
17.58	8	1130	3050	5360	7730	11370
	10	1100	2910	5230	7500	11140



CAST STEEL SINGLE POST FULL LIFT SAFETY VALVE DISCHARGE CAPACITY FOR SATURATED STEAM (Kg/hr.) AT 5% OVER PRESSURE CONSTANT 'C' = 0.50

Size of Valves	Orifice Dia	SET PRESSURE (Kg. / Cm ²)					
		3.5	7.00	10.54	13	15	17.58
25 x 40 mm	19.00 mm	600	1160	1650	2030	2300	2680
40 x 50 mm	25.00 mm	1135	2015	2910	3530	4035	4680
50 x 80 mm	32.50 mm	1915	3410	4925	5975	6830	7920
65 x 90 mm	40.00 mm	2910	5175	7466	9055	10345	12010
80 x 100 mm	48.50 mm	4290	7620	10990	13320	15215	17660
100 x 150 mm	72.00 mm	9490	16830	24250	29400	33600	39000
150 x 200 mm	115.00 mm	23820	43250	61190	74270	84800	98580