



INTERVALVE[®] (INDIA) LTD.



Ball Valves Series V8F

Class 600/800, Regular/Full port, Screwed, Socket, Butt Weld Floating design



3-PIECE BALL VALVES / 2-WAY.

- 3-Piece swing-Out Design, Easy In-line Maintenance.
- ISO 5211 Mounting Pad
Allows for mounting of actuator.
- Maintenance free live loaded double sealing stem packing ensures high cycles life and positive sealing.
- Blow-Out Proof Stem.

The 3-piece design is available for various schedule pipes. This type of construction is of swing-out design and easy inline maintenance. By removing body bolts & nuts the complete valve may be lifted out of the line or swing-out by keeping one bolt. The valve can easily swing out of the line providing complete entry and fast disassembly or maintenance. The swing away feature also maintains pipe alignment during inline maintenance. The 3-piece design offers the function of both valve as well as a union. It can be used in screw pipe ends, socket weld pipe ends, butt weld ends, extended butt weld pipe ends. These ball valves can be easily used for automation by using pneumatic and electric actuators.

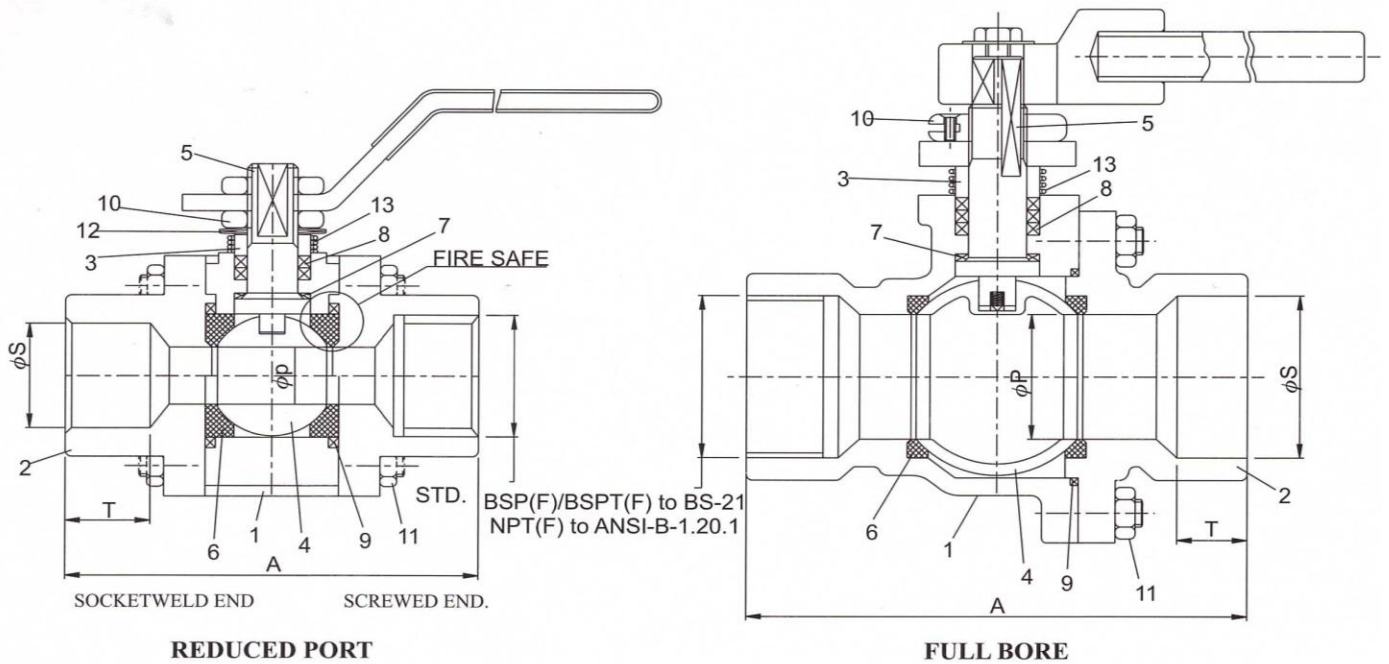
Conformity to codes & standards:

General design & manufacturing.	:	EN-17292 API-6D
Valve face to face dimensions.	:	Manufacturers standard.
Valve inspection & testing	:	EN 12266
	:	Hydro shell: 211 kg/sq.cm
	:	Seat test : 69 kg/sq.cm
	:	Air seat : 7 kg/sq.cm
Special features	:	Fire safe to API-607/6FA
	:	Metal to Metal Seat

Technical specification:

Valve type	:	Floating design ball valve.
Body type	:	3 pc
Seat Type	:	Soft / Metal.
End connection	:	Screwed, socket & butt weld ends./Nipple Extn.
Size range	:	15NB to 50NB
Pressure rating	:	Class 800
seat leakage	:	Class VI - soft seat, Class V-Metal seat.
Operation	:	Hand lever/ Gear /Actuator (Electrical / Pneumatic).

CLASS 600 / 800 FLOATING DESIGN BALL VALVE



Dimensional Data In mm

Size	A	ϕP		ϕS	T
		RP	FB		
15	65	9.5	13	21.8	10
20	75	13	19	27.4	13
25	88	19	25	34.1	13
32	105	25	32	42.7	13
40	115	32	38	49	13
50	125	38	50	61	16

Standard material of construction:

- | | |
|--|--|
| 1. Body : A105, WCB, CF8, CF8M, CF3, CF3M, F304, F316, CN7M. | 6. Seat : PTFE, GFT, CFT / Metal to Metal / Delrin, Nylon. |
| 2. Pipe end : A105, WCB, CF8, CF8M, CF3, CF3M, F304, F316, CN7M. | 7. Stem seal : GFT |
| 3. Gland : ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C. | 8. Gland Packing : PTFE, Grafoil. |
| 4. Ball : ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C. | 9. Body seal : PTFE, Grafoil. |
| 5. Stem : ANSI410, 304, 316, 316L, MONEL, ALLOY20, HAST-B, C. | 10. Gland nut : Carbon steel. |
| | 11. Body stud/nut : B7/2H, B8/B8M. |
| | 12. Belleville spring : Spring steel |
| | 13. Antistatic spring : SS 304 |

Valves above 50 mm size can be offered in 2-Piece Design on request, solid ball on request.

All sizes of ball valves can also be provided with Gear, Actuator (Electrical/ Pneumatic).

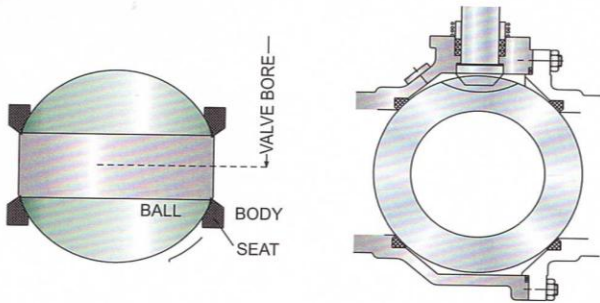
For Cast Valves, Pressure rating will be class 600

For forged Valves, Pressure rating will be class 800



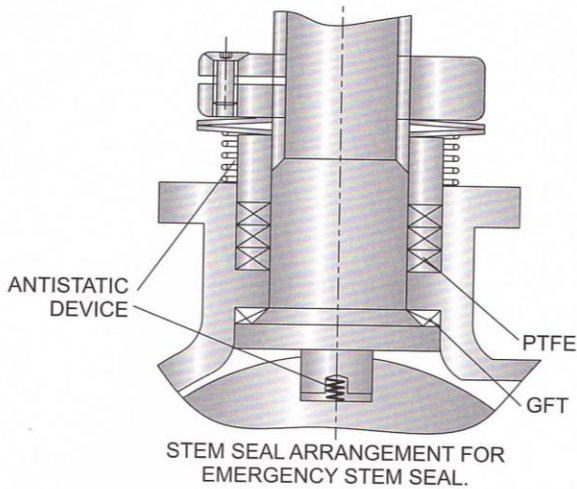
Ball Valves

Salient design features and benefits of our range .



Trunion Mounted design

Trunion mounted design offers precise locational accuracy for the ball within the upstream and downstream seat, which ensures leaktight sealing with lower operative torques. The sealing takes place by allowing the seats to move towards the ball. This design ball valves can hold very high pressures.

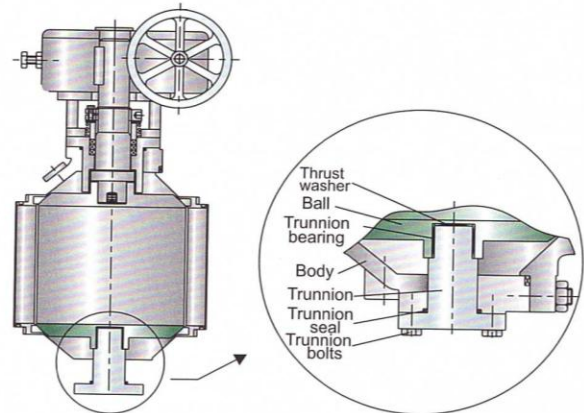


Fire-safe

Valves exposed to the risk of accidental external fire need to have additional secondary metal sealing system to make it fire safe. Special design features are built into the valve to ensure continued sealing performance even after burn out of the soft sealing parts of the valve. A metal seat located on the body comes in direct contact with the ball on burnout of the soft parts ensuring continued sealing. Full range approved as per latest edition

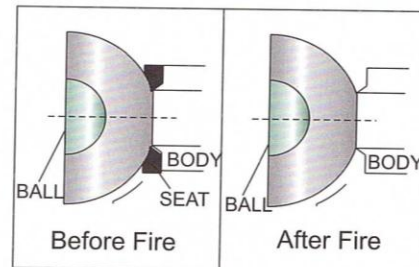
Floating design

A floating ball design offers efficient sealing with simple construction. As the name indicates, the ball has some freedom to move along the axis of the pipeline, which offers efficient downstream sealing. When line pressure is applied to the closed ball, it moves slightly (or floats) downstream to maintain contact with the downstream seat where primary sealing occurs. A quarter turn motion from full open to full close ensures quick open-close action, an inherent advantage for automatic remote control application. Floating ball valve offers effective bidirectional sealing.



Anti static design feature

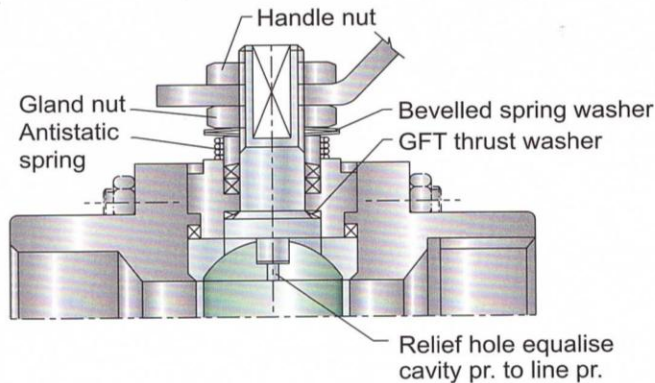
Anti-static design feature provided in the valve prevents any accidental fire due to static electric discharge. With the low resistance short circuit path created between the ball and the valve body, any build up of static electric charge on the ball due to constant rubbing within the PTFE seat is prevented. The ball valve is completely conductive between ball and body in which no static electricity may develop - a requirement essential to the treatment of such low flashing point fluids as gasoline, natural liquefied gas, propane gas etc.



Valve in Closed condition.

Blow out proof and Self-compensating stem

IV Ball valves have safe blow out proof stem assembly, which eliminates the possibilities of hazards. With GFT thrust washer the stem is inserted through the valve body cavity and rests against a shoulder machined in the valve body. PTFE / Graphoil gland packings above the shoulder are held in place by a gland which is machined taper to give sealing between stem and packing.



Block and bleed

This is a function for providing seal of fluids by upstream and downstream seats with the valve in close position and for draining the fluids accumulated in the body cavity. The benefits are:

Leaks and damage to the seats are checked in advance

Contamination caused during changing fluid types is minimized.

Parts of the gland seal can be changed under pressure.

Metal seated ball valve

The metal seated ball valves are available in all ranges. Its quality starts with the sphericity of the ball and the surface finish. The ball is of mirror quality finish. This provides outstanding smoothness and roundness, resulting in a prime contribution to low torque and reduced leakage up to class V. The metal seated ball valves typically can be used for higher temperature ranges & abrasive service.

Key Lock

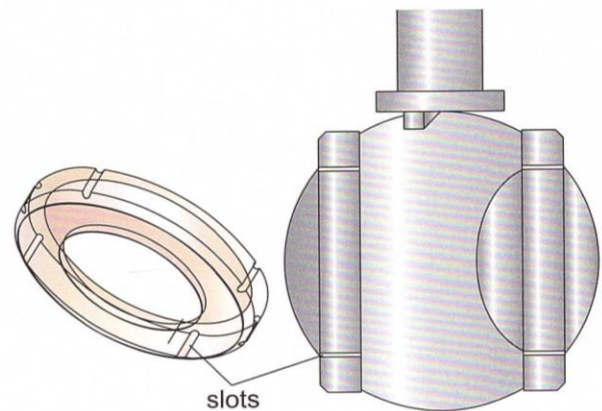
Especially when installed outdoors, to prevent the valve from wrong operation, it is lockable with a pad lock at two points fully closed or fully open positions. In other words, an operation of the valve is limited to protect it against the possibilities that an outsider may accidentally operate the lever or the valve may be opened or closed due to vibrations, especially when an inflammable petroleum product or chemicals are handled.

Self-compensating stem

Above the gland two belleville washers (disc springs) and gland nut are provided. The gland nut allows gland-packing adjustment, and disc spring automatically compensates for normal wear as well as seal expansion and contraction from temperature fluctuations. The gland nut is provided below the handle permitting the handle to be removed without disturbing the stem adjustment or causing an unsafe condition.

Pressure relief slots

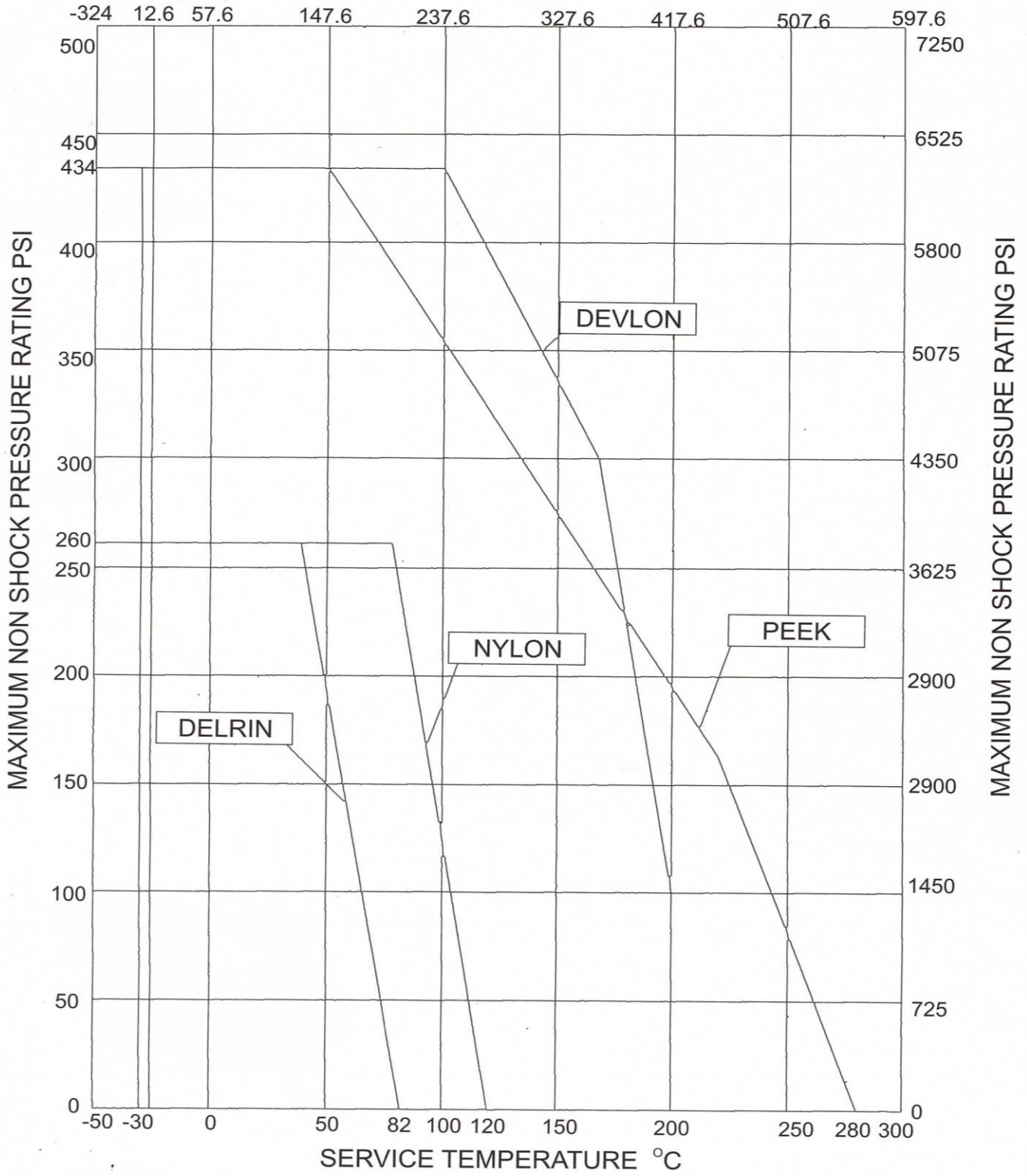
If the pressure of the fluid inside the valve body cavity exceeds the line pressure due to thermal expansion of the liquids entrapped in the valve body, seats provide automatic pressure relief, without the aid of the safety or vent valve. During closing of the valve, the maximum surge pressure occurs, during which the downstream seat can be forced to intrude into the ball port and valve can become inoperative. The pressure relief slots prevent this potential failure. When pressure causes the upstream seat to move against the ball and the ball moves downstream, the pressure simply leaks in to the ball port through the relief slot.



In addition to this we also provide

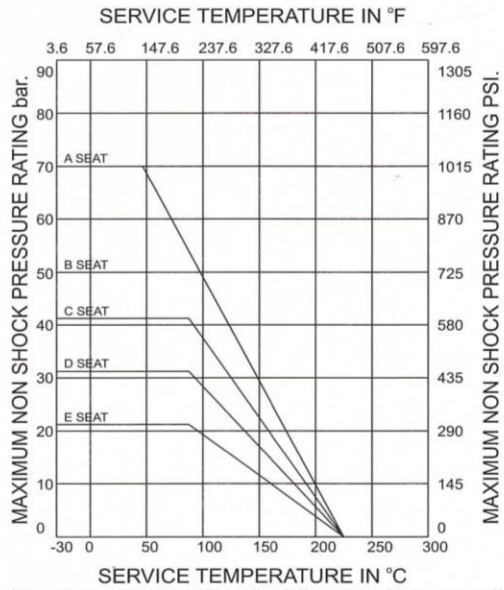
- ✗ Single-seal and double-seal system.
- ✗ Sealant injection system can be provided on request.
- ✗ Ball valves for cryogenic service, oxygen, chlorine service.
- ✗ Jacketed & V-notch ball valves
- ✗ Tungsten Carbide & Chromium Carbide coating is available for ball & seat.

The PRESSURE - Temperature rating given below is for reference only.
 For other Temperature / Pressure consult factory
 SERVICE TEMPERATURE



Ball valves Pressure - Temperature Characteristics

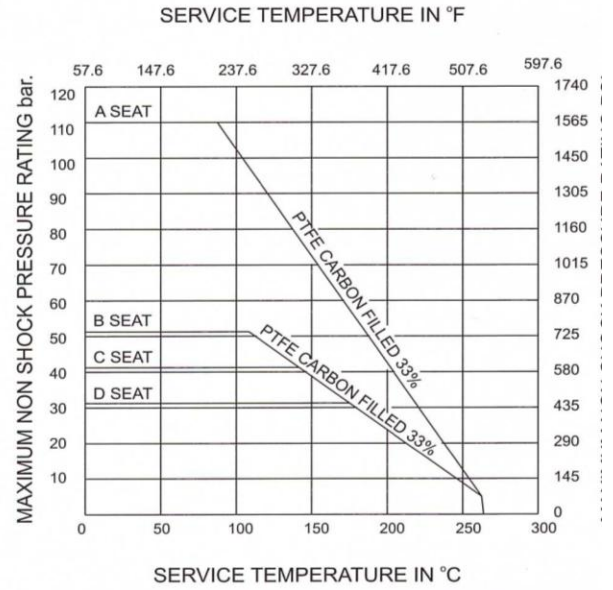
Variation of max. non shock pressure w.r.t service temperature.



Note : Values for regular port valves. For full port consider next smaller size.

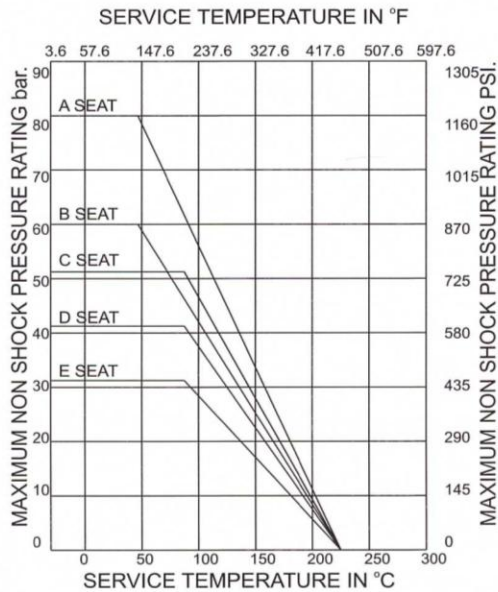
Seat Symbol	Nominal Valve Size	Seat Symbol	Nominal Valve Size
A	8 to 25 RP	D	200 & 250 RP
B	32 to 80 RP	E	300 RP
C	100 & 150 RP		

PTFE seats.



Seat Symbol	Nominal Valve Size	Seat Symbol	Nominal Valve Size
A	8 to 50	D	200 to 300
B	65 to 100	E	---
C	150		

CFT seats.



Note : Values for regular Port valves. For full port consider next smaller size.

Seat Symbol	Nominal Valve Size	Seat Symbol	Nominal Valve Size
A	8 to 25 RP	D	200 & 250 RP
B	30 to 80 RP	E	300 RP
C	100 & 150 RP		

25% GFT seats.