

IS 5312 (Part 1) : 2004

6.10 The inside diameter of the body ring shall not be less than the nominal bore of the valve.

as to withstand satisfactorily the repeated impacts likely to occur during service.

6.10.1 The face of the body ring shall protrude clear of the surrounding cast iron by not less than 1.5 mm.

6.12 Door Faces

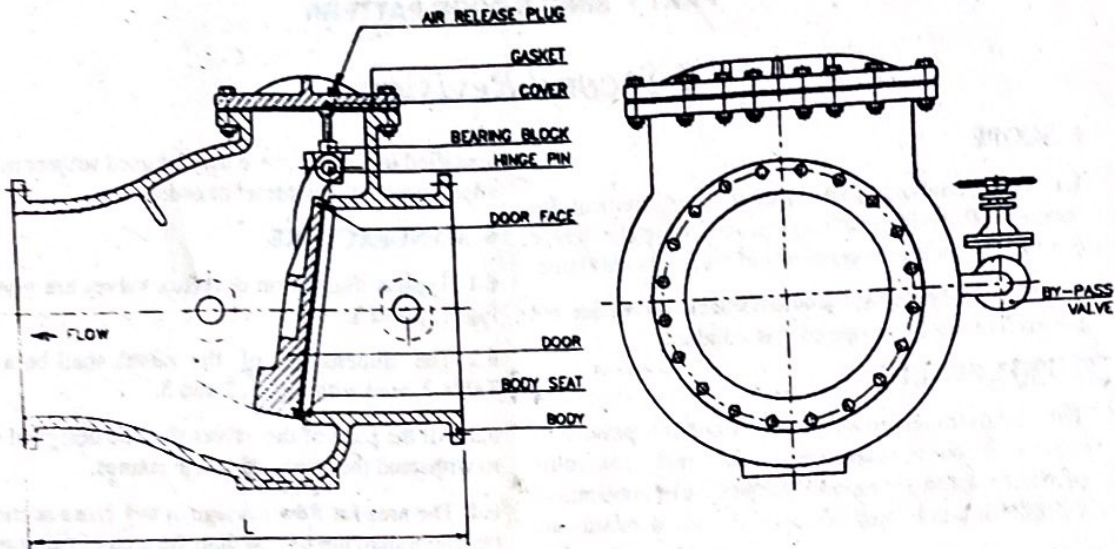
The minimum thickness of door face shall be 5 mm.

6.11 Doors and Hinges

The design of the doors and hinges shall be suitable so

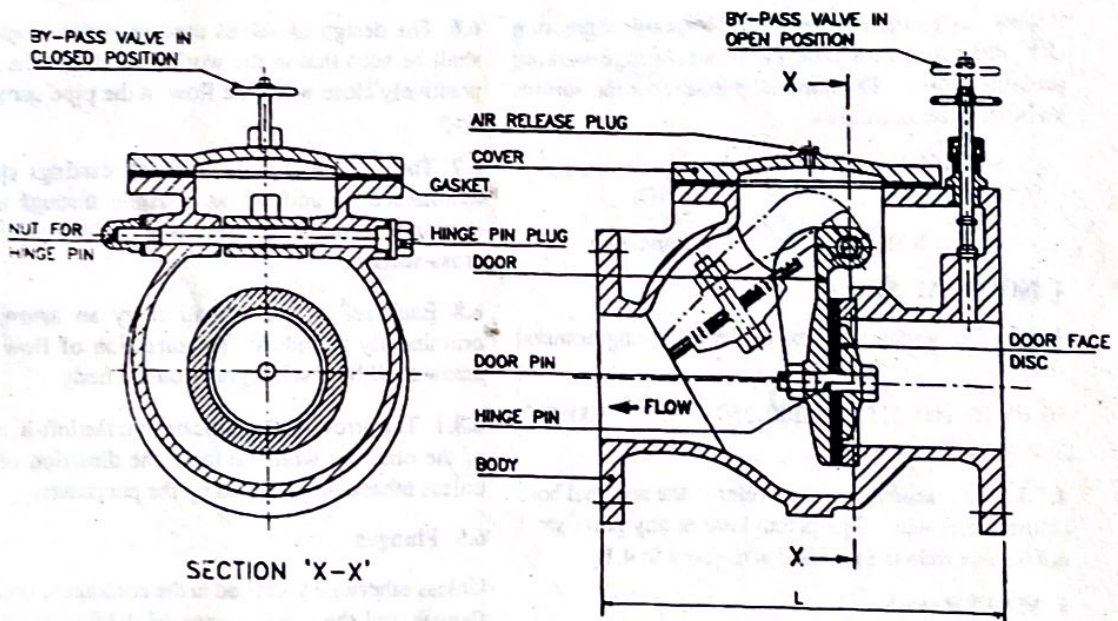
6.13 By-Pass Arrangements

The minimum size of by-pass arrangements, shall be as given in Table 4.



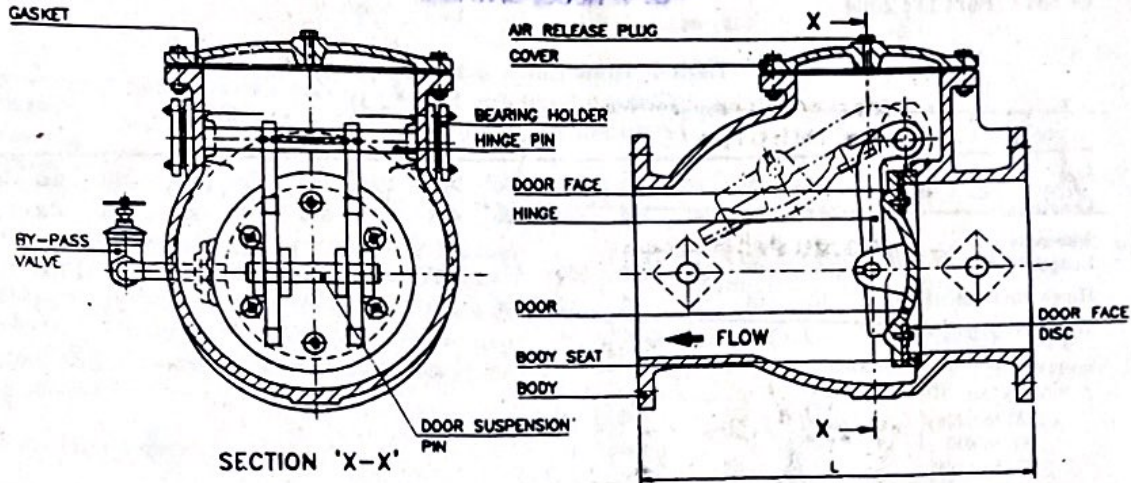
NOTE — The shapes of parts are only illustrative and the minimum requirements, where specified, are binding

FIG 1 TYPICAL ILLUSTRATION OF REFLUX VALVE WITH INCLINED SEATING AND SIDE BY-PASS ARRANGEMENT



NOTE — The shapes of parts are only illustrative and the minimum requirements, where specified, are binding

FIG 2 TYPICAL ILLUSTRATION OF REFLUX VALVE WITH VERTICAL SEATING AND INTEGRAL BY-PASS ARRANGEMENT



NOTE — The shapes of parts are only illustrative and the minimum requirements, where specified, are binding
FIG. 3 TYPICAL ILLUSTRATION OF REFLUX VALVE WITH VERTICAL SEATING AND SIDE BY-PASS ARRANGEMENT

Table 1 Material for Different Component Parts of Reflux Valves
(Clause 5)

Sl No.	Component	Preferred Material	Ref to IS No.	Grade or Designation	Alternate Material	Ref to IS No.	Grade or Designation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Body, cover, door, bearing holder	Grey cast iron	210	FG 200	Grey cast iron spheroidal or nodular cast iron cast steel	210 1865 1030	FG 260 500/7 230-450 W
ii)	Hinge pin, door pin and door suspension pin	Stainless steel	6603	12Cr12	High tensile brass, stainless steel	320 6603	HT2 04Cr19Ni9/ 04Cr17Ni12Mo2
iii)	Body seat rings	Leaded tin bronze	318	LTB 2	Stainless steel	3444	Gr 1/Gr 4/Gr 10
iv)	Door face ring	Leaded tin bronze	318	LTB 2	Natural/synthetic rubber stainless steel	3444	Gr 1/Gr 4/Gr 10
v)	Bearing bushes/ Bearing block	Leaded tin bronze	318	LTB 2	P.T.F.E.	—	—
vi)	Plugs for hinge pin/ Air release plug	Leaded tin bronze	318	LTB 2	Stainless steel	6603	12Cr12/ 04Cr19Ni 09/ 04Cr17 Ni12Mo2
vii)	Bolts	Carbon steel	1363 (Part 1)	Class 4.6	—	—	—
viii)	Nuts	Carbon steel	1363 (Part 3)	Class 4.0	—	—	—
ix)	Gaskets	Rubber	638	Type B	CAF	2712	—
x)	Hinges	Grey cast iron	210	FG 200	Malleable cast iron cast steel	14329 1030	230-450 W

Table 2 Dimensions of Reflux Valves
(Clause 6.2 and Fig. 1, 2 and 3)
All dimensions in millimetres.

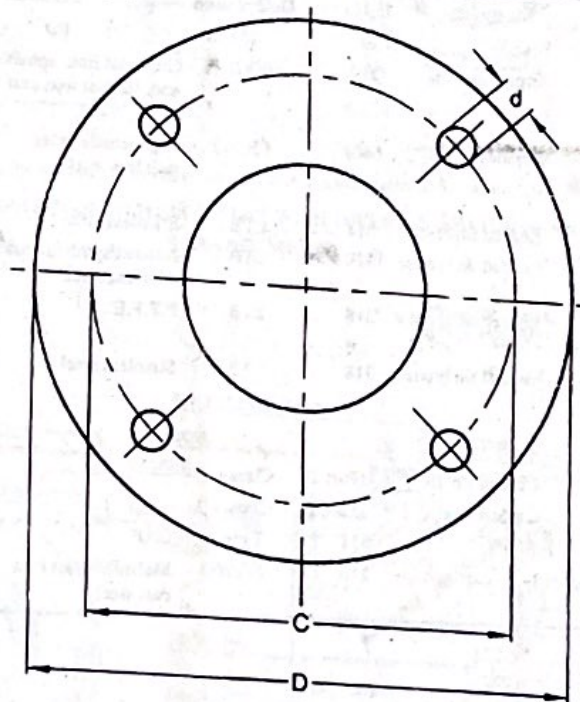
Size	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Length (L)	203	216	241	292	330	356	495	622	698	787	914	978	978	1295
Alternate Length (L)	200	240	260	300	350	400	500	600	700	800	900	1000	1100	1300
Hinge Pin Diameter, Min	10	10	10	12	12	16	20	22	25	25	32	32	38	38

Tolerance on length, mm :

Range	Tolerance
0 to 250	± 2
251 to 500	± 3
501 to 800	± 4
801 to 1000	± 5
1001 to 1300	± 6

NOTE — Alternate lengths as given above will be withdrawn after 3 years from the date of publication of this standard.

Table 3 Dimensions and Drilling of Flanges
(Clause 6.9)
All dimensions in millimetres.



Sl No.	Particulars	Dimensions for Nominal Size	
		50	65
(1)	(2)	(3)	(4)
i)	Outside diameter, D	165 ± 1.0	185 ± 1.0
ii)	Thickness of flange	16 ± 0.0	16 ± 0.0
iii)	Diameter of bolt circle, C	125 ± 1.0	145 ± 1.0
iv)	Number of holes (Equally spaced off centre)	4	4
v)	Diameter of bolt holes, d	19	19
vi)	Diameter of bolts	16	16