

Ball Valves TECHNICAL BULLETIN

1

MICRO PNEUMATICS PVT. LTD.

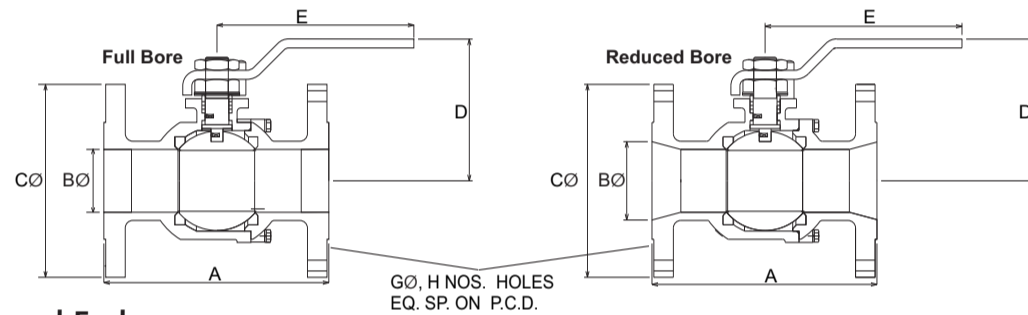


Micro Pneumatics Pvt. Ltd., an indigenous venture commenced operation at Vasai Road in 1986 with pneumatic rotary actuators. With the addition of investment cast ball valves, the company gained expertise and grew stronger as manufacturer of state-of-the-art pneumatic automated high performance memory retention, open and close pressure balanced, line friction torque ball valves for on-off, control, stay-put and coarse/fine filling requirements of the industry. Micro offers full and reduced bore ball valves in 2 way, 3 way diverting and mixing, triport diverting and mixing control & 3 way shut-off application.



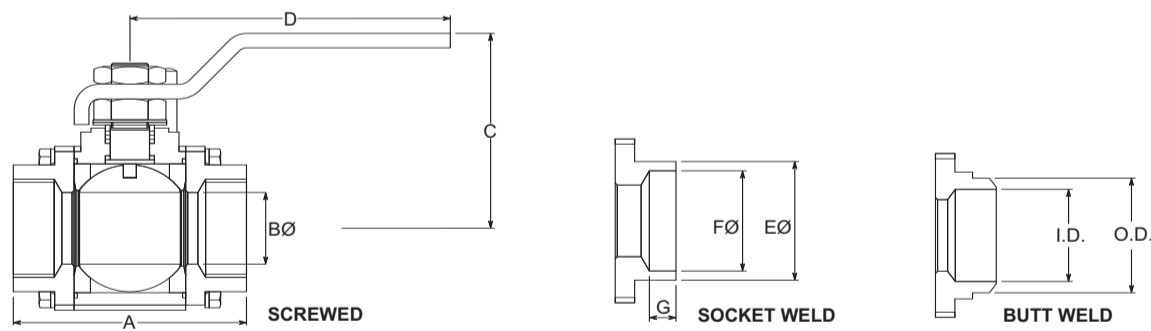
Micro Pneumatics Pvt. Ltd. ball valves are designed to qualify to BS 5351 and API-607 4th edition standard, hence fire safe with anti-blow-out-proof stem is a standard feature. The integral body ISO 5211 mounting pad is interfaced for single, two and three piece ball valves in screwed / triclover end, socket / butt / orbit weld, wafer and flange ends. Valve components are finished on special purpose machine for ultra-finish surface to enhance life of valve seals and deflecting flex seats for radio active grade as well as for food and pharma grade application. For contaminated and viscous service Micro offers ball encapsuled integral and split cavity filled and metal touch ball valves.

Micro Pneumatics Pvt. Ltd. ball valves are poised to enhance its applicable presence in all industrial sector at home and global.



Two Piece Flanged End

Valve Size	A		BØ		CØ		D		E		P.C.D.		GØ Hole		H Nos.		Wt.
	#150	#300	RB	FB	#150	#300	RB	FB	RB	FB	#150	#300	#150	#300	#150	#300	FB
15	108	140	9	12.7	89	95	74	76	117	117	60.5	66.7	16	16	4	4	1.5
20	118	152	14	19	98	117	76	91	117	150	69.9	82.6	16	19	4	4	1.7
25	127	165	20	25	108	124	91	97	150	150	79.3	88.9	16	19	4	4	2.5
32	140	178	25	32	117	133	97	130	150	250	88.9	98.5	16	19	4	4	4.5
40	165	190	32	38	127	156	130	133	250	250	98.6	114.3	16	19	4	4	5.2
50	178	216	38	50	152	165	133	160	250	585	121	127	19	19	4	8	7.5
65	190	241	50	65	178	191	160	173	585	585	140	149	19	22	4	8	11.0
80	203	283	63	80	191	210	167	196	585	737	152	168	19	22	4	8	18.0
100	229	305	80	100	229	254	205	245	737	925	191	200	19	22	8	8	24.5
150	267	403	100	152	279	318	245	280	925	1110	241	270	22	22	8	12	63.0
200	292	419	150	203	343	381	280	320	1110	1300	299	330	22	26	8	12	110.0



Three Piece Screwed / Socket Weld / Butt Weld Ends

Valve Size	A	BØ		C		D		EØ	FØ	G	SCH.40	SCH.80	O.D.	Wt. Kgs
		RB	FB	RB	FB	RB	FB				I.D.	I.D.		
15	65	9.0	12.7	74	76	117	117	29	21.8	10	15.8	13.8	21.33	0.5
20	71	14.0	19.0	76	91	117	150	35	27.4	13	20.6	18.9	26.67	0.6
25	94	20.0	25.0	91	97	150	150	43	34.1	13	26.6	24.3	33.27	1.1
32	100	25.0	32.0	97	130	150	250	54	42.7	13	35.0	32.4	42.10	1.7
40	106	32.0	38.0	130	133	250	250	58	49.0	13	40.5	38.1	48.51	2.0
50	115	38.0	63.0	133	160	250	585	71	61.0	16	52.4	49.2	60.45	2.9
80	160	63.0	80.0	167	196	585	737	90.5	102.0	16	77.9	73.7	88.90	4.2

(Orbit weld and triclover end dimension on request.)

Material of Construction

Sr. No.	Description	Material
1	Body	Carbon Steel / Stainless Steel
2	Ends	Carbon Steel / Stainless Steel
3	Balls	Stainless Steel
4	Stem	Stainless Steel
5	Gland	Stainless Steel
6	Disc Spring	Stainless Steel
7	Lock Nut	Stainless Steel
8	Connector Bolt	C.S. / S.S.
9	Connector Nut	C.S. / S.S.
10	Seat	PTFE/RPTFE
11	Body Seal	PTFE/RPTFE/Graphite
12	Thrust Seal	PTFE/RPTFE
13	Gland Seal	PTFE/RPTFE/Grafoil

Other material on request

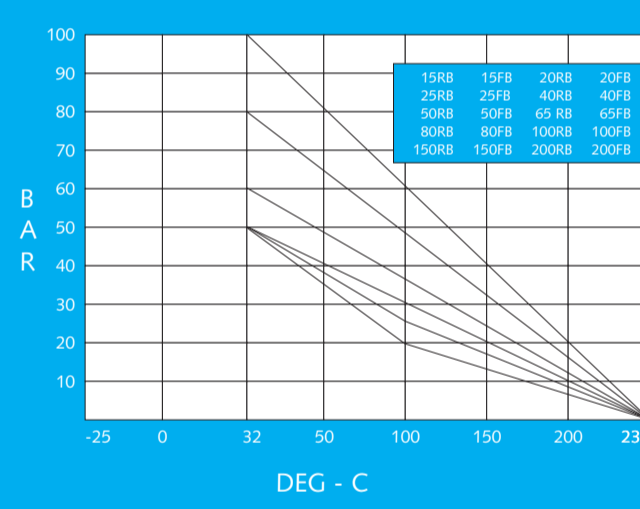
Standards

Design and Testing Standard		
Description	Product	Standard
Design Standard	Valve	BS 5351
Pressure Temp. Rating	Shell	ANSI B 16.34
Pressure Temp. Rating	Seat	BS 5351 / Manufacturers
Shell Thickness	Body	BS 5351 / ANSI B 16.34
Face to Face	Valve	ANSI B 16.10
Flange Dimensions	Ends	ANSI B 16.5
Screwed Dimensions	Ends	ANSI B 1.20.1 / BS 21 / 5351
Socketed Weld Dimensions	Ends	ANSI B 16.11 / BS 5351
Butt Weld Dimensions	Ends	ANSI B 16.25 / BS 5351
Testing	Valves	BS 6755 Part 1 / API 598
Fire Safe Testing	Valves	API 607 / BS 6755 PART II
Non Destructive Testing	Shell	ANSI B 16.34

Break Away Torques in Kg-M

Size	Class 150	Class 300	Class 800
15RP	0.2	0.3	0.4
20RP 15FB	0.25	0.4	0.6
25RP 20FB	0.3	0.5	0.7
32RP 25FB	1.0	1.4	1.6
40RP 32FB	1.5	2.3	2.9
50RP 40FB	1.9	2.5	3.1
65RP 50FB	2.7	3.5	4.5
80RP 65FB	4.8	8.0	—
100RP 80FB	8.0	13.0	—
150RP 100FB	12.0	19.0	—
200RP 150FB	27.0	41.0	—
200FB	57.0	86.0	—

Pressure - Temperature Rating for PTFE



Valve Co - efficient : Cv (USGPM)

Valve Size	15	20	25	32	40	50	65	80	100	150	200
Full Bore	12.50	28.00	44.64	80.00	112.00	195.00	315.00	440.00	775.00	1745.00	3110.00
Reduced Bore	6.80	14.80	30.00	47.00	68.00	108.25	—	—	—	—	—



MICRO PNEUMATICS PVT. LTD.

Regd. Office : 3, Maqsood Industrial Estate,
Marol Naka, Andheri (E), Mumbai - 400 059
Tel. : 91-22-2850 1429, 2850 4276
Fax : 91-22-2850 1429

Works & Marketing : Plot No. 133, Vasai Municipal
Indl. Area, Dhovali Village, Umela Phata, Papdy,
Vasai Road (W) - 401 207. Maharashtra
Tel/Fax : (0250) 232 0458, 62 / 232 4731, 41, 73
E-mail : micropneumatics@vsnl.net
website : micropneumatic.com