VATTEN Germany

Valves & Controls

Pneumatic Actuator

Authorised India Stockist

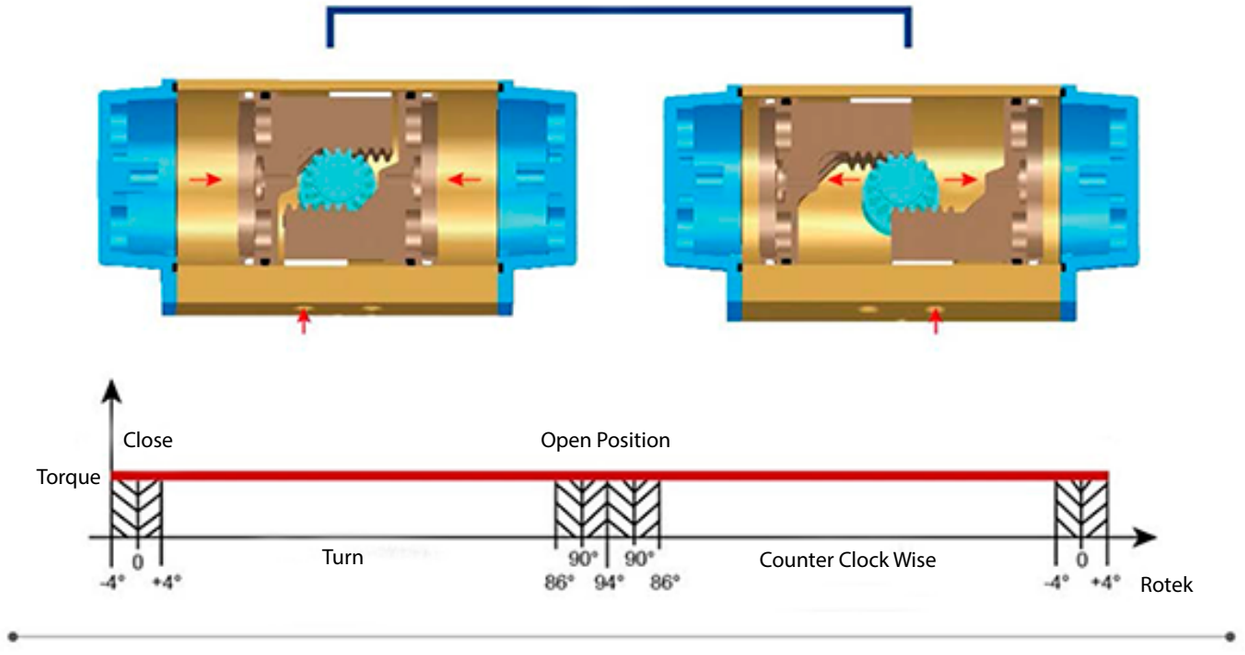
MARSH® MARSH AUTOMATION PVT. LTD.

Pneumatic Actuator

FEATURE

1. DIFFERENT CYLINDER MODELS
2. RACK AND PINION STRUCTURE
3. ONE PIECE DESIGN, DOUBLE – ACTING / SINGLE ACTING
4. SPRING RETURN TYPE COMMON CYLINDER END CAPS
5. NAMUR INTERFACE FOR EASY SOLENOID VALVE INTSALLATION
6. CYLINDER ISO5211 STANDARD FOR EASY VALVE INSTALLATION
7. HARDENDED CYLINDER, SPRAY END CAP, STAINLESS STEEL FASTNERS,
8. DUAL STROKE ADJUSTMENT FOR +/- 4 DEGRESS AT BOTH ENDS
9. SAFE AND CORROSION RESISTANT.
10. ALL SLIDING PARTS ARE MADE OF PLASTIC BEARING, BUSHINGS, GUIDED TO MAINTAIN MINIMUM FRICTION AND EFFECTIVELY REDUCE GRINDING

DOUBLE ACTING ACTUATOR



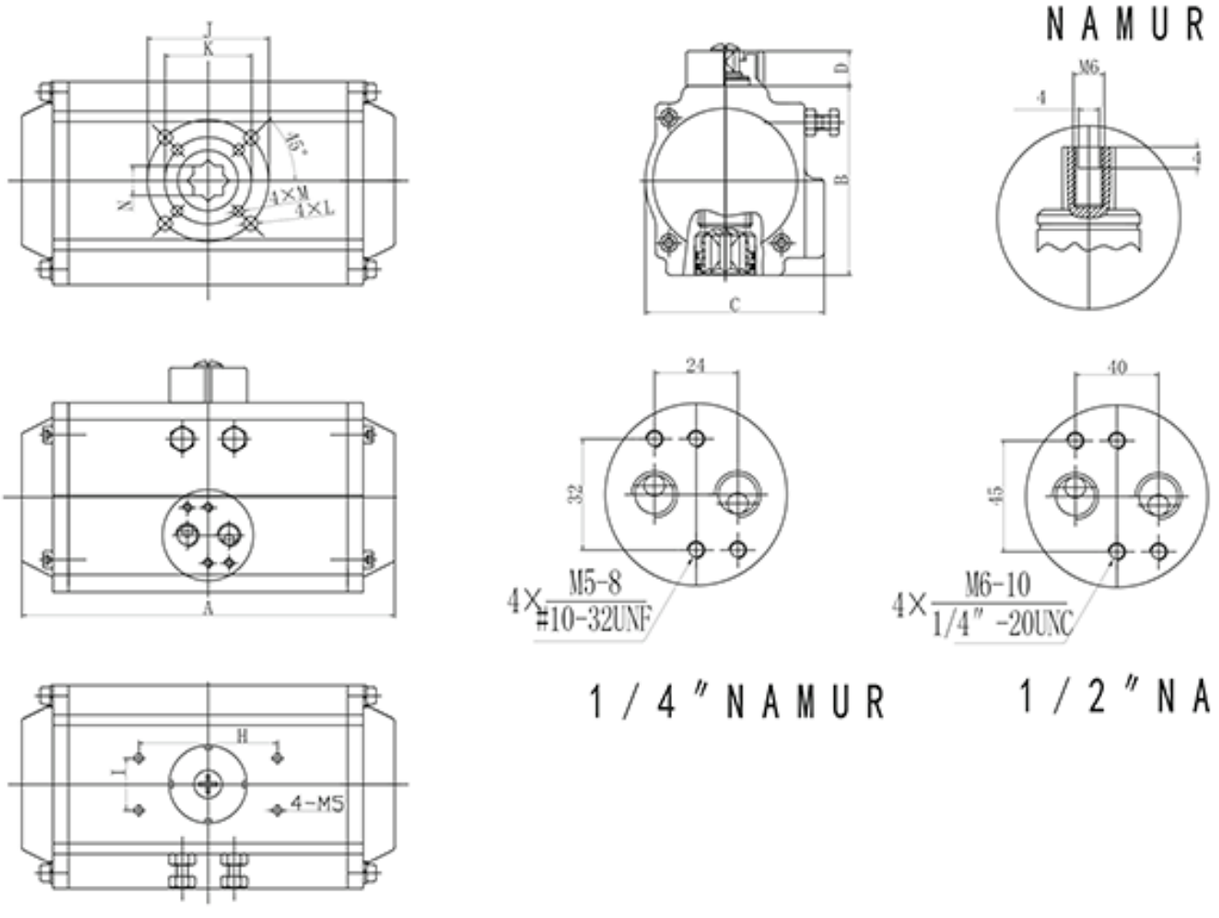
OPERATING SPECIFCATION

1. PRESSURE RANGE 3 BAR TO 7 BAR
2. OPERATING TEMPERTURE -20 DEGRESS TO + 80 DEGRESS CENTIGRADE
3. LOW TEMP APPLICATION -40 DEGRESS TO + 80 DEGRESS CENTIGRADE (HNBR)
4. HIGH TEMP APPLICATION – 20 DEGRESS CENTIGRADE TO + 150 DEGRESS CENTIGRADE (VITON)
5. HIGH TEMP AND LOW TEMP REQUIRE SPECIAL GREASE
6. OPERATING MEDIUM: DRY OR LUBRICATED AIR
7. STROKE ADJUSTMENT: STANDARD STRUCTURE 90 DEGRESS ROTATION +/- 4 DEGRESS ADJUSTMENT RANGE AT BOTH ENDS
8. THERE IS NO NEED TO ADD ADDITIONAL LUBRICATION PARTS DURING LUBRICATION WORK, AND IT HAS BEEN PROCESSED AT THE FACTORY

DOUBLE ACTING ACTUATOR SELECTION DATA

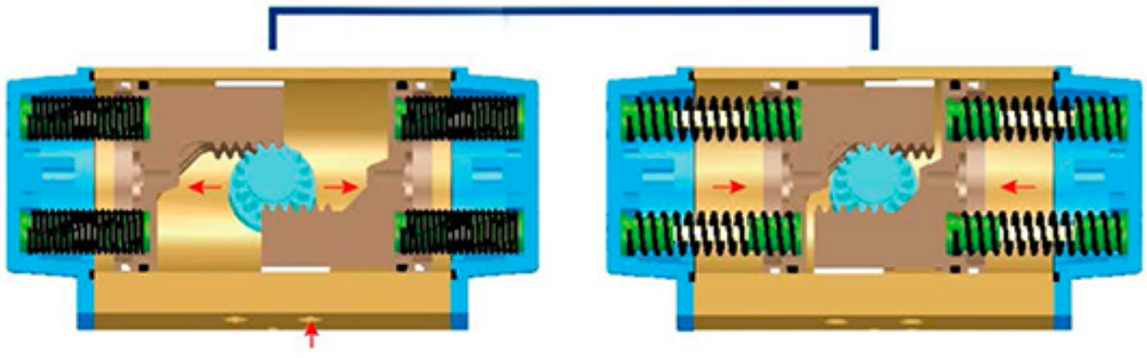
Model	Air pressure in BAR					
	Double acting actuator torque					
	3	4	5	6	7	8
	OUTPUT TORQUE IN NM					
DA32	4.2	6	7.5	9	10	11.5
DA52	12	16	20	24	28	32
DA63	21	28	36	43	50	57
DA75	30	40	50	60	70	80
DA88	46	62	78	93	109	124
DA105	97	130	162	195	228	260
DA125	150	200	250	301	351	401
DA145	261	348	435	522	609	696
DA160	340	454	567	681	794	908
DA180	459	613	766	919	1072	1225
DA200	638	851	1064	1276	1489	1702
DA240	1392	1857	2321	2785	3249	3713
DA270	1958	2611	3264	3916	4569	5222

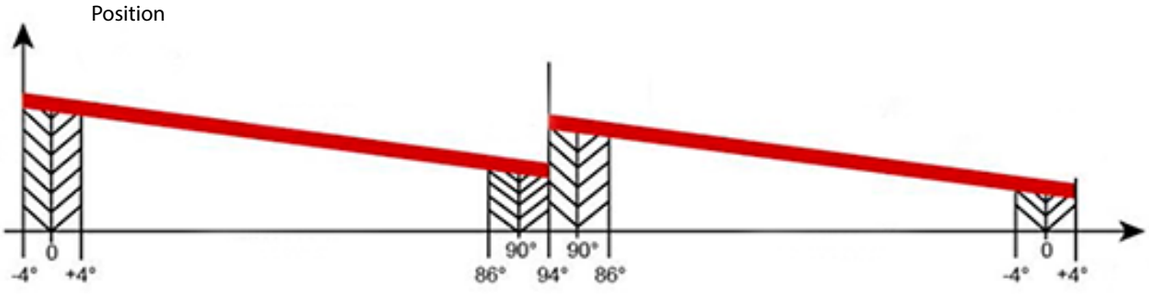
VT PNEUMATIC ACTUATOR SIZE CHART



Model	ISO5211	A	B	C	D	H*I	N	J	K	L	M
52	F03-F05	147	72	72	20	80*30	11	50	36	M6*10	M5*7.5
63	F05-F07	172	88	83	20	80*30	14	70	50	M8*13	M6*10
75	F05-F07	184	100	95	20	80*30	14	70	50	M8*13	M6*10
88	F05-F07	204	109	103	20	80*30	17	70	50	M8*13	M6*10
105	F07-F10	268	133	121	20	80*30	22	102	70	M10*16	M8*13
125	F07-F10	301	155	143	20	80*30	22	102	70	M10*16	M8*13
145	F10-F12	401	179	168.5	30	130*30	27	125	102	M12*18	M10*15
160	F10-F12	430	192	186.5	30	130*30	27	125	102	M12*18	M10*15
180	F14	482	222	204	30	130*30	36	-	140	-	M16*25
200	F14	532	244	224	30	130*30	36	-	140	-	M16*25
240	F16	662	288	266	30	130*30	46	-	165	-	M20*30
270	F16	730	323	306	30	130*30	46	-	165	-	M20*30

SINGLE ACTING ACTUATOR

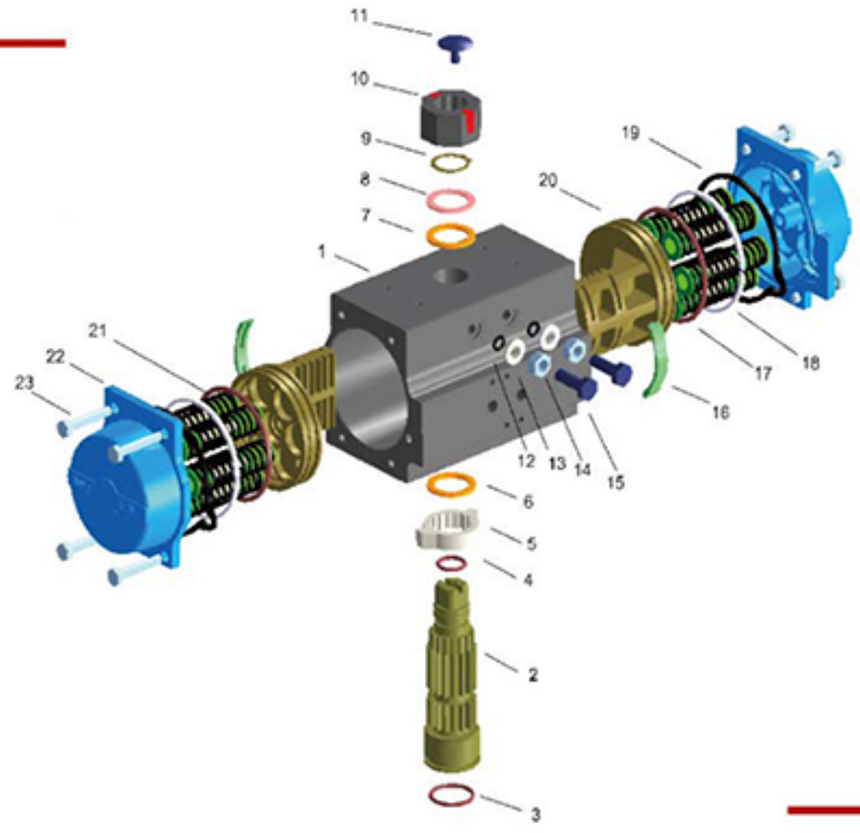




SINGLE ACTING ACTUATOR SELECTION DATA

MODEL	QTY	TORQUE NM		AIR SOURCE PRESSURE (BAR)									
				3		4		5		6		7	
				PNEUMATIC TORQUE (NM)									
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
SR 52	6	5	7	7	5	11	9						
	8	6	10			10	6	14	10				
	10	8	12			8	4	12	8	16	12	20	16
	12	10	15					11	5	15	9	19	13
SR 63	6	8	13	14	9	21	16						
	8	11	17			18	12	25	19				
	10	14	21			15	8	22	15	30	23	37	30
	12	16	25					20	11	27	18	34	26
SR 75	6	12	18	18	12	28	22						
	8	16	24			24	16	34	26				
	10	20	30			20	10	30	20	40	30	50	40
	12	24	36					26	14	36	24	46	34
SR 88	6	19	28	27	18	43	34						
	8	25	37			37	25	53	41				
	10	31	46			31	16	47	32	62	47	77	62
	12	37	55					41	23	56	38	71	53
SR 105	6	38	59	60	39	92	71						
	8	51	79			80	51	112	84				
	10	64	99			67	32	99	64	132	97	165	129
	12	76	118					87	45	119	77	152	110

MODEL	QTY	TORQUE NM		AIR SOURCE PRESSURE (BAR)									
				3		4		5		6		7	
				PNEUMATIC TORQUE (NM)									
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
SR 125	6	60	94	90	56	140	106						
	8	80	125			120	75	171	126				
	10	100	156			100	44	151	95	201	145	251	195
	12	120	187					131	64	181	114	231	164
SR 145	6	99	155	162	106	249	193	336	280				
	8	132	206			216	142	303	229	390	316	477	403
	10	165	258					270	177	357	264	444	351
	12	198	309							324	213	411	299
SR 160	6	135	199	206	141	319	255	433	368				
	8	180	266			274	188	388	302	501	415	615	528
	10	224	332					343	235	156	349	570	462
	12	269	399							411	282	525	396
SR 180	6	190	284	270	175	423	329	576	482				
	8	253	379			360	324	513	387	666	540	819	693
	10	316	474					450	292	606	445	756	599
	12	379	568							540	351	693	504
SR 200	6	255	378	383	260	596	473	808	686				
	8	340	504			511	347	723	560	936	772	1149	958
	10	425	630					638	434	851	646	1064	859
	12	510	756							766	520	979	733
SR240	6	563	842	830	550	1294	1014	1758	1478				
	8	750	1123			1107	733	1571	1198	2035	1662	2499	2126
	10	937	1404			920	453	1384	917	1848	1381	2312	1846
	12	1124	1685					1197	636	1661	1100	2125	1564
SR 270	6	790	1184	1168	774	1821	1427	2473	2079				
	8	1054	1579			1557	1032	2210	1684	2863	2337	3515	2990
	10	1317	1974			1294	637	1947	1290	2599	1942	3252	2595
	12	1580	2369					1683	895	2336	1548	2989	2200



PART NO	NAME	MATERIAL	DEAL WITH	QUANTITY DA	QUANTITY SA
1	CYLINDER BLOCK	AL PROFILE	HARD OXIDTION	1	1
2	PINION	CARBON STEEL	RHODIUM PLATING	1	1
3	SEAL UNDER SHAFT RING	NBR 70	--	1	1
6	SHAFT WEAR PAD	POM	--	1	1
5	ADJ CAM	SS 304	--	1	1
4	SEAL ON SHAFT RING	NBR 70	--	1	1
7	SHAFT WEAR PAD	POM	--	1	1
8	SHAFT WASHER	SS304	--	1	1
9	CIRCLIP	SS 304	--	1	1
10	INDICATOR	NYLON	--	1	1
11	INDCATOR SCREW	NYLO + SS STEEL	--	1	1
18	PISTON RING	POM	--	1	1
17	PISTON RING	NBR 70	--	1	1
16	THRUST SLIDER	POM	--	2	2
20	PISTON	DI CAST AL	--	2	2
19	FACE SEAL	NBR 70	--	2	2
22	END CAP	DI CAST AL	SPRAY	2	2
23	END CAP SCREW	SS 304	--	2	2
15	ADJ. BOLT	SS 301	--	2	2
14	NUT	SS 304	--	2	2
13	NUT GASKET	SS304	--	8	8
12	O CIRCLE	--	--	2	2
21	SPRING	SPRING STEEL	Phospating	NA	MAX 12

Technical Data

Actuator air consumption chart (litre)
(1 liter = 1000cm^3)

Model	32	52	63	75	85	100	115	125	140	160	180	200	240	270
DA	0.07	0.23	0.44	0.83	1.15	1.88	3.03	3.96	5.42	8.42	11.46	15.59	33	46.3
SR	-	0.1	0.18	0.35	0.53	0.82	1.31	1.7	2.4	3.5	4.58	6.26	14	19.5

Double Acting Volume is CW+CCW Cycle

Weight Chart (kg)

Model	32	52	63	75	85	100	115	125	140	160	180	200	240	270
DA	0.5	1.1	1.6	2.9	4.2	5.6	9.1	10	15	21.3	26.8	36.7	60	86
SR	-	1.4	1.7	3.2	4.7	6.4	10.8	13.5	20.5	24.5	32	42.8	70	102

Working time (sec)

Model	32	52	63	75	85	100	115	125	140	160	180	200	240	270
CW DA	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.1	1.4	1.7	2.3	3.2	4.6	6
CCW DA	0.1	0.2	0.3	0.3	0.4	0.5	0.7	1	1.2	1.5	2	2.7	4	5.5
CW SR	-	0.3	0.4	0.5	0.6	0.9	1	1.4	1.8	2.1	2.9	4	5.5	7.4
CCW SR	-	0.3	0.3	0.4	0.5	0.7	0.9	1.2	1.6	2	2.5	3.6	5	7

Cycle time got without valve and should be use as aguide only.
Cycle time can be increase dramatically for actual application.

VATTEN
Valves & Controls

Ball Valve

Authorised India Stockist

MARSH®

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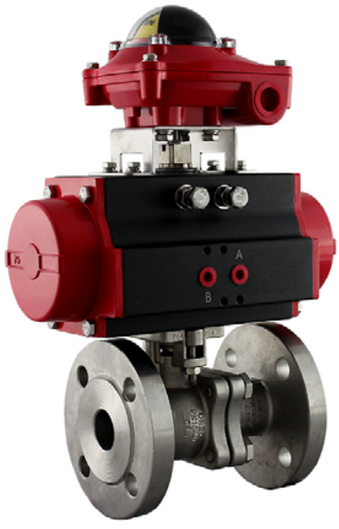
Pneumatic Actuator Operated Ball Valves

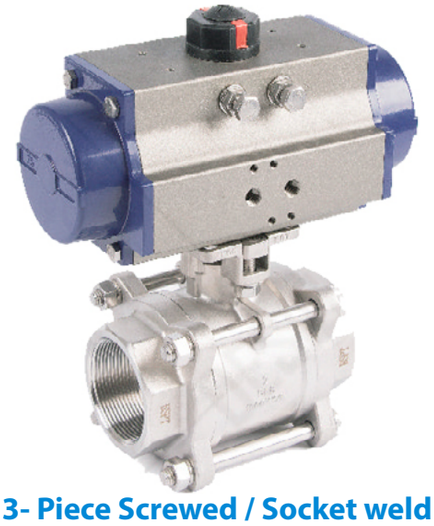


2 piece Ball Valve
Flanged Ends

Features of Actuators

- Heavy duty Rack and pinion design
- Spring return or double acting
- Open and close adjustment stops
- True NAMUR accessory and ISO mounting
- Visual indicator, Top Mount indicator
- High temperature and corrosion resistant models available
- Solenoid, limit switches, positioner, AFR and other accessories are available
- Fully adjustable limit switches allow for fine control of on-off position

3 Way Ball Valve
Flanged Ends



3- Piece Screwed / Socket weld
Ball Valves

DETAILS OF BALL VALVES

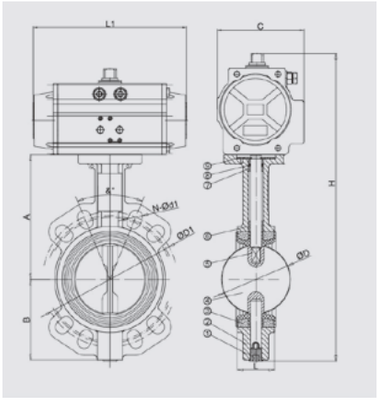
VALVE SIZE MM	END CONNECTIONS	TYPE	PRESSURE RATING	MATERIAL OF CONSTRUCTION			
				BODY	BALL	STEM	SEAT
10 TO 200	SCREWED SOCKET WELD FLANGED	REGULAR FULL BORE ONE / TWO THREE / PIECE	CLASS # 150 # 300 # 600 # 800	CARBON STEEL FORGED STEEL S.S. 304/ 316	S.S. 304/316 MIRROR FINISH	S. S.	PTFE / G. F. T.

Pneumatic Actuator Operated Butterfly Valve

Wafer Type

PNEUMATIC ACTUATOR

- Rack and pinion design
- Spring return or double acting
- Open and closed adjustment stops
- True NAMUR accessory mounting
- Visual indicator



Lug Type

Flange Type

DETAILS OF BUTTERFLY VALVES

Valve Size	Type	Material of Construction		
		Body	Disc	Shaft
50 65 80 100 125 150 200 250 300 350 400 450 500 600 700 800 1000	Wafer/ Flangeless Or Wafer/ Lugged Double Flanged Body	Cast Iron S. G. Iron . Carbon Steel S. S.	Cast Iron SG Iron encapsulated in EPDM SG Iron Coated with nylon S. S. (CF8) S. S. (CF8M) Aluminium bronze	Carbon Steel S. S.

TEST PRESSURE

Seat	Working Pressure	Test Pressures (Bar)	
		Body	Seat
PN 10	10	15	11
PN 16	16	24	17

*For other material of Body, Ball , Disc contact Marsh Automation Pvt Ltd.

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