

VATTEK Germany
Valves & Controls



Pneumatic Actuator

Authorised India Stockist



MARSH AUTOMATION PVT. LTD.

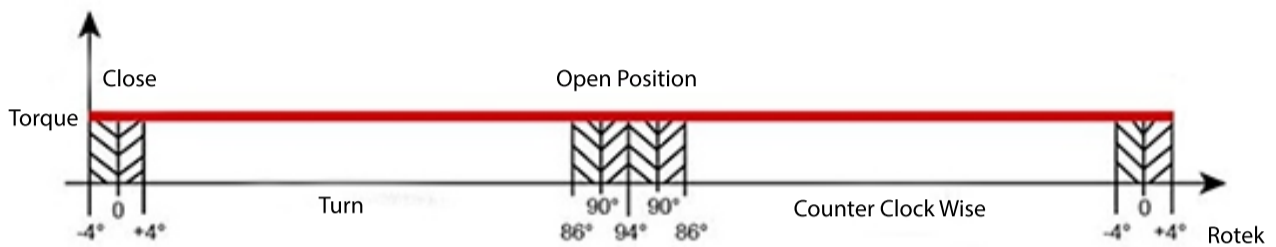
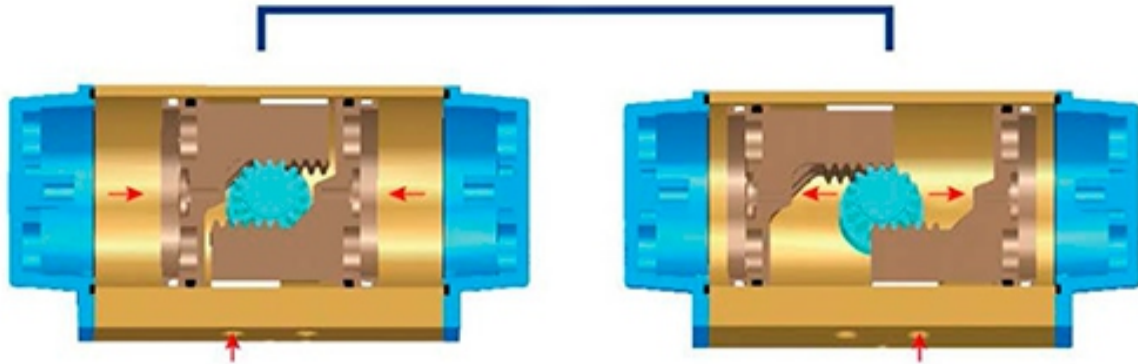
Pneumatic Actuator



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



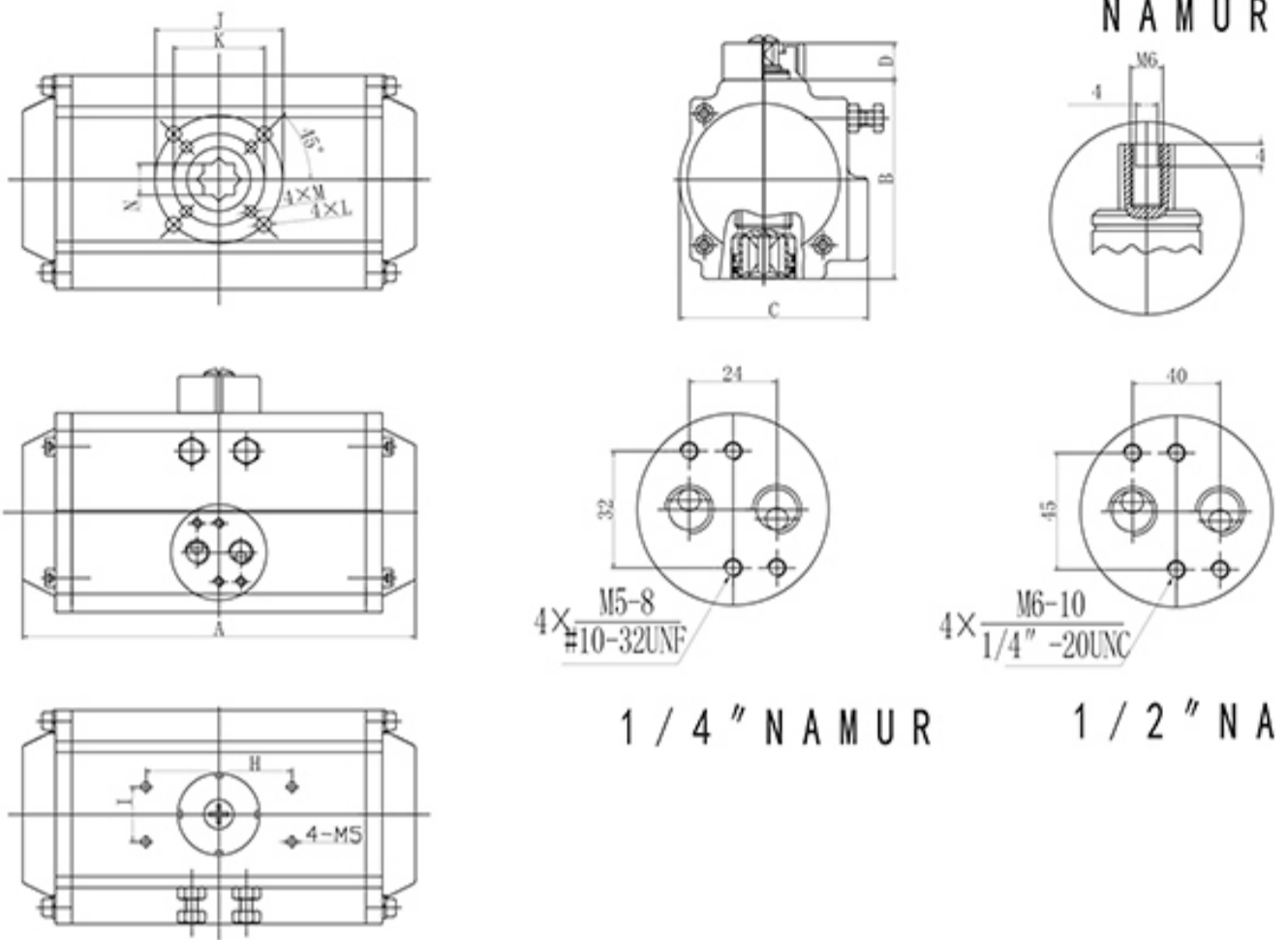
OPERATING SPECIFICATION

1. PRESSURE RANGE 3 BAR TO 7 BAR
2. OPERATING TEMPERATURE -20 DEGREE TO + 80 DEGREE CENTIGRADE
3. LOW TEMP APPLICATION -40 DEGREE TO + 80 DEGREE CENTIGRADE (HNBR)
4. HIGH TEMP APPLICATION - 20 DEGREE CENTIGRADE TO + 150 DEGREE CENTIGRADE (VITON)
5. HIGH TEMP AND LOW TEMP REQUIRE SPECIAL GREASE
6. OPERATING MEDIUM: DRY OR LUBRICATED AIR
7. STROKE ADJUSTMENT: STANDARD STRUCTURE 90 DEGREE ROTATION +/- 4 DEGREE 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 PNEUMATIC ACTUATOR TORQUE

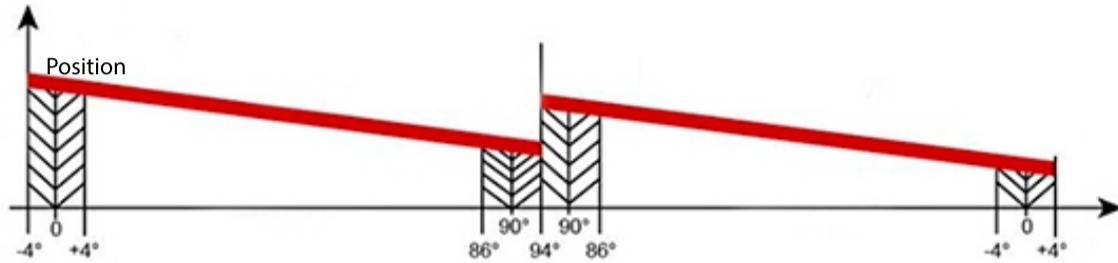
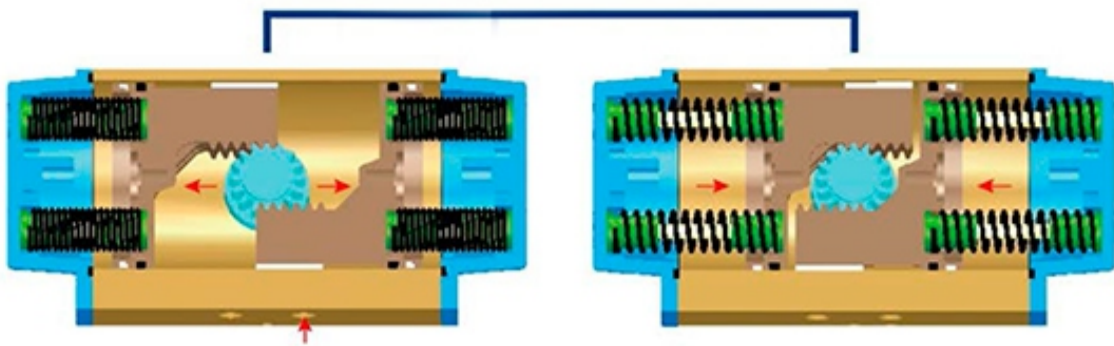
Model	Air supply pressure(bar)					
	3	4	5	6	7	8
Torque output (NM)						
VT-DA52	12.0	16.0	20.0	24.0	28.0	32.0
VT-DA63	21.7	28.9	36.0	43.4	50.6	57.8
VT-DA75	30.0	40.0	50.0	60.0	70.0	80.0
VT-DA83	46.8	62.4	78.0	93.6	109.2	124.8
VT-DA92	67.6	90.1	112.6	135.2	157.7	180.2
VT-DA105	97.7	130.3	162.9	195.5	228.0	260.6
VT-DA125	150.5	200.6	250.8	301.0	351.1	401.3
VT-DA140	260.7	347.6	433.8	521.4	608.3	695.2
VT-DA160	397.2	529.6	662.0	794.4	926.8	1059.2
VT-DA190	640	853	1067	1280	1493	1707
VT-DA210	798	1064	1330	1596	1862	2128
VT-DA240	1154	1539	1923	2308	2693	3078
VT-DA270	1755	2340	2924	3510	4095	4680

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

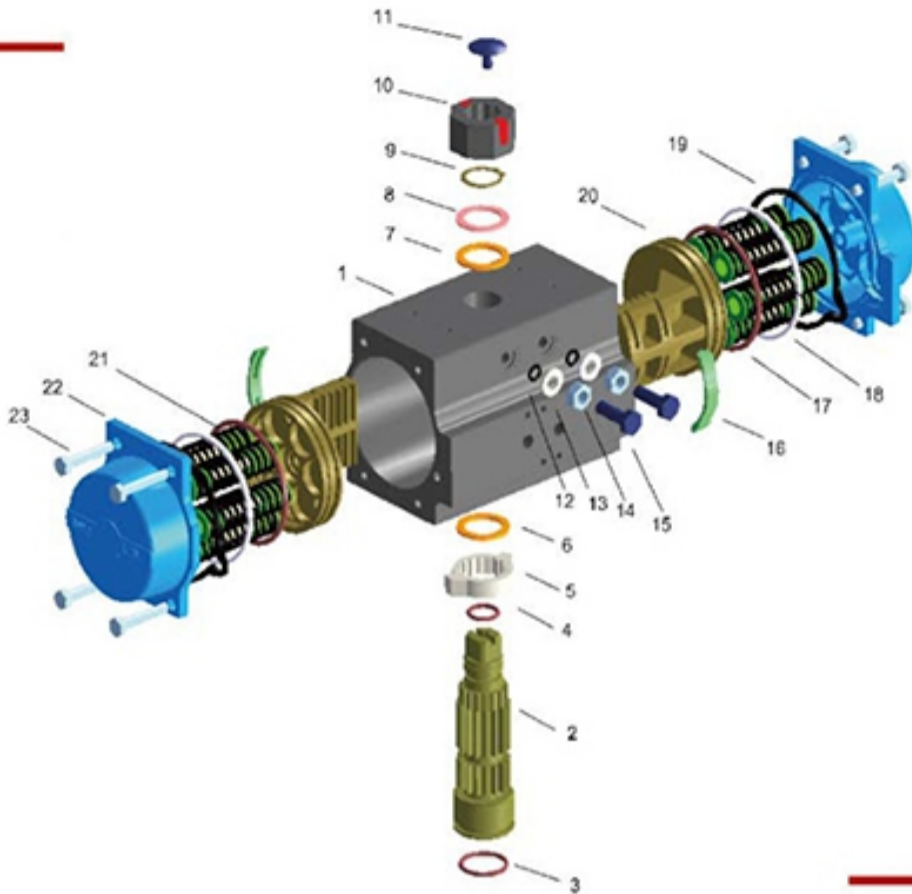


» SINGLE ACTING PNEUMATIC ACTUATOR TORQUE

Model	Spring NO.	Spring output torque(N.m)		Air supply pressure(bar)									
				3		4		5		6		7	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
VT-SR52	5	4.0	6.2	8.1	5.8	12.1	9.8						
	6	4.7	7.4	7.3	4.6	11.3	8.6						
	7	5.5	8.7	6.5	3.3	10.5	7.3	14.5	11.3				
	8	6.3	9.9			9.7	6.1	13.7	10.1				
	9	7.1	11.2			8.9	4.8	12.9	8.8	16.9	12.8		
	10	7.9	12.4			8.1	3.6	12.1	7.6	16.1	11.6	20.1	15.6
	11	8.7	13.6			7.3	2.4	11.3	6.4	15.3	10.4	19.3	14.4
VT-SR63	5	6.8	10.4	14.9	11.3	22.1	18.5						
	6	8.2	12.5	13.5	9.2	20.7	16.4						
	7	9.6	14.6	12.1	7.1	19.3	14.3	26.5	21.5				
	8	10.9	16.7			18.0	12.2	25.2	19.4				
	9	12.3	18.9			16.6	10.0	23.8	17.2	31.1	24.5		
	10	13.7	20.9			15.2	8.0	22.4	15.2	29.7	22.5	36.9	29.7
	11	15.0	22.9					21.1	13.2	28.4	20.5	35.6	27.7
VT-SR75	5	10.0	15.0	20.0	15.0	30.0	25.0						
	6	12.0	18.0	18.0	12.0	28.0	22.0						
	7	14.0	21.0	16.0	9.0	26.0	19.0						
	8	16.0	24.0			24.0	16.0	34.0	26.0				
	9	18.0	27.0			22.0	13.0	32.0	23.0	42.0	33.0		
	10	20.0	30.0			20.0	10.0	30.0	20.0	40.0	30.0	50.0	40.0
	11	22.0	33.0			18.0	7.0	28.0	17.0	38.0	27.0	48.0	37.0
VT-SR83	5	15.5	23.0	30.5	23.0	46.5	39.0						
	6	18.6	27.6	27.4	18.4	43.4	34.4						
	7	21.7	32.2			40.3	29.8	56.3	45.8				
	8	24.8	36.8			37.2	25.2	53.2	41.2				
	9	27.9	41.4			34.1	20.6	50.1	36.6	65.1	51.6		
	10	31.0	46.0			31.0	16.0	47.0	32.0	62.0	47.0	77.0	62.0
	11	34.1	50.6					43.9	27.4	58.9	42.4	73.9	57.4
VT-SR92	5	23.0	33.0	44.6	34.7	67.1	57.2						
	6	27.6	39.5	40.0	28.1	62.5	50.6						
	7	32.2	46.1			57.9	44.0	80.4	66.5				
	8	36.8	52.7			53.3	37.4	75.8	59.9				
	9	41.4	59.3			48.7	30.8	71.2	53.3	93.8	75.9		
	10	46.0	65.9			44.1	24.2	66.6	46.7	89.2	69.3	111.7	91.8
	11	50.6	72.5					62.0	40.1	84.6	62.7	107.1	85.2
VT-SR105	5	31.8	49.3	66.0	48.4	98.6	81.0						
	6	38.1	59.2	59.6	38.5	92.2	71.1						
	7	44.5	69.0			85.9	61.3	118.5	93.9				
	8	50.8	78.9			79.5	51.4	112.1	84.0				
	9	57.2	88.7			73.2	41.6	105.8	74.2	138.4	106.8		
	10	63.5	98.6			66.8	31.7	99.4	64.3	132.0	96.9	164.5	129.4
	11	69.9	108.5					93.1	54.4	125.7	87.0	158.2	119.5
VT-SR125	5	50	78	100	72	150	122						
	6	60	94	90	56	140	106						
	7	70	109			130	91	181	142				
	8	80	125			120	75	171	126				
	9	90	140			110	60	161	110	211	161		
	10	100	156			100	44	151	95	201	145	251	195
	11	110	172					141	79	191	129	241	179

» SINGLE ACTING PNEUMATIC ACTUATOR TORQUE

Model	Spring NO.	Spring output torque(N.m)		Air supply pressure(bar)									
				3		4		5		6		7	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
VT-SR140	5	86	129	174	131	261	218						
	6	103	155	157	105	244	192						
	7	120	181			227	166	314	253				
	8	138	206			209	141	296	228				
	9	155	232			192	115	279	202	366	289		
	10	172	258			175	89	262	176	349	263	436	350
	11	189	284					245	150	332	237	585	324
	12	206	310					228	124	315	211	402	298
VT-SR160	5	140	193	258	205	390	337						
	6	167	231	230	166	362	298						
	7	195	270			334	260	467	393				
	8	223	308			306	221	439	354				
	9	251	347			278	183	411	316	543	448		
	10	279	385			250	144	383	277	515	409	647	541
	11	307	424					355	239	487	371	619	503
	12	335	462					327	200	459	332	591	464
VT-SR190	5	190	320	451	320	664	533						
	6	227	384	413	256	626	469						
	7	265	448			588	405	802	619				
	8	303	512			550	341	764	555				
	9	341	576			512	277	726	491	939	704		
	10	379	640			474	213	688	427	901	640	1114	853
	11	417	704					650	363	863	576	1076	789
	12	455	768					612	299	825	512	1038	725
VT-SR210	5	261	400	538	398	804	664						
	6	313	480	485	318	751	584						
	7	365	560			699	504	965	770				
	8	417	640			647	424	913	690				
	9	469	720			595	344	861	610	1127	876		
	10	521	800			543	264	809	530	1075	796	1341	1062
	11	573	880					757	450	1023	716	1289	982
	12	625	960					705	370	971	636	1237	902
VT-SR240	5	389	583	766	572	1151	957						
	6	467	700	688	455	1073	840						
	7	545	816			995	724	1379	1108				
	8	622	933			918	607	1302	991				
	9	700	1049			840	491	1224	875	1610	1261		
	10	778	1166			762	374	1146	758	1532	1144	1916	1528
	11	856	1283					1068	641	1454	1027	1838	1411
	12	934	1399					990	525	1376	911	1760	1295
VT-SR270	5	505	960	1250	795	1835	1380						
	6	606	1152	1149	603	1734	1188						
	7	707	1344			1633	996	2217	1580				
	8	808	1536			1532	804	2116	1388				
	9	909	1728			1431	612	2015	1196	2601	1782		
	10	1010	1920			1330	420	1914	1004	2500	1590	3085	2175
	11	1111	2112					1813	812	2399	1398	2984	1983
	12	1212	2304					1712	620	2298	1206	2883	1791



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 o 1000cm³)

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.



Ball Valve



Authorised India Stockist



MARSH AUTOMATION PVT. LTD.

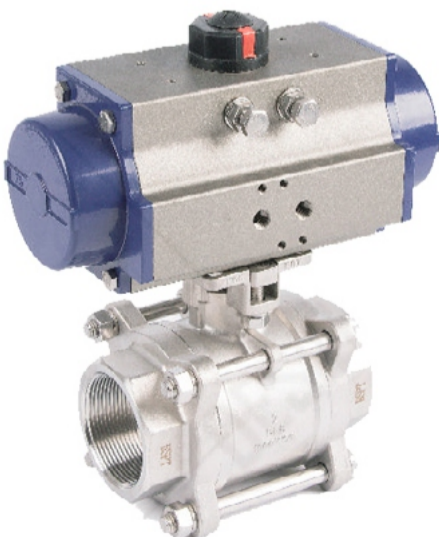
Pneumatic Actuator Operated Ball Valves



**2 piece Ball Valve
Flanged Ends**



**3 Way Ball Valve
Flanged Ends**



**3- Piece Screwed / Socket weld
Ball Valves**

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

DETAILS OF BALL VALVES

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

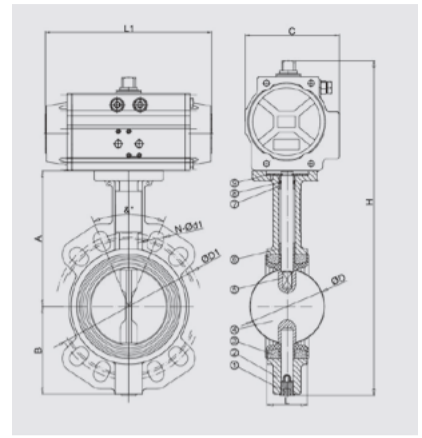
Pneumatic Actuator Operated Butterfly Valve



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

DETAILS OF BUTTERFLY VALVES

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

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.



Flange Type

Corporate Office

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