

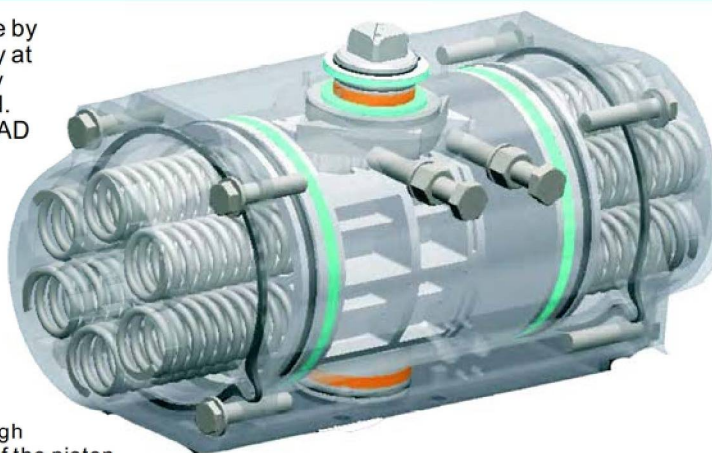
AT/ATK SERIES PNEUMATIC ACTUATOR



EDMUND VALVE COMPANY (1965) LTD

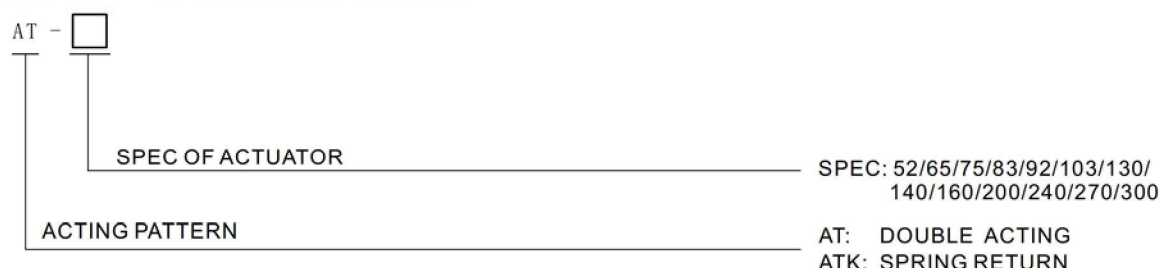
OVERVIEW

AT/ATK series product is a new design made by our company. It utilized the latest technology at home and abroad. Meanwhile, It completely conforms to the latest international standard. The design also be optimized using AUTOCAD 3D Software. Benefit from the new craft, the product have high quality and reliable performance as well as good look. There are two configurations in this series, that is double acting and spring return. It includes 9 models. The customer could choose suitable model to save cost.

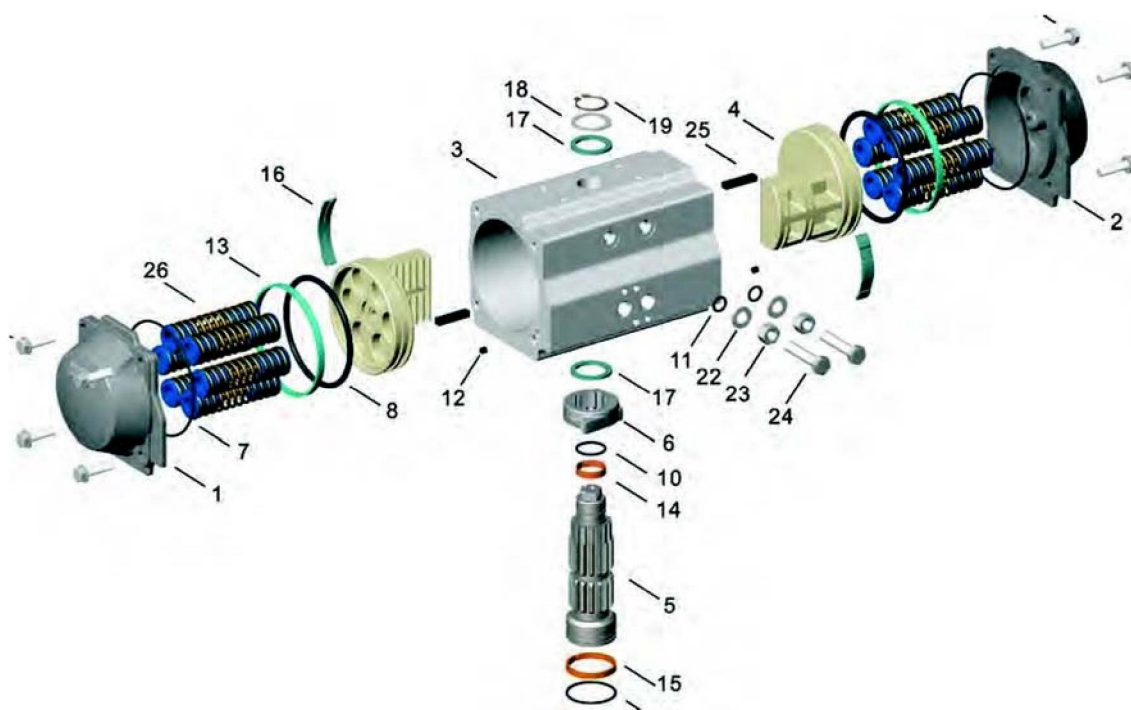


- ① symmetrical double-piston rack and pinion structure design, quick and stable action, high precision and high output power, is capable of reverse rotation through simple change in the installation position of the piston.
- ② It has long service life and small friction coefficient, with the excellent extruded aluminum alloy cylinder, high-precision processed inner bore and hard anodized (in special situation, anodizing + Teflon coating) outer surface.
- ③ The integrated design and same cylinders and end caps of different models of single-acting and double-acting actuators enable changing the acting mode simply by assembling springs or disassembling springs.
- ④ The combined pre-loading safe spring assembly enables convenient and safe installation or reduction of springs in the process of assembly or
- ⑤ The two individual regulating screws fixed on the outer side of the actuator enable more precise and convenient adjustment of the opening or closing position of the valve; if it requires full-stroke adjustment, you need to fix two extra longer regulating screws on its two end caps.
- ⑥ The multi-function position indicator, with on-site visual instruction, in line with VDI/VDE3845 and NAMUR standards, is capable of installing and outputting all accessories, such the limit switch box, electric positioner and position sensor (Pepperl+Fuchs and Turck sensor).
- ⑦ The gas source interface, which is in compliance with the NRMAR standard, can be directly fixed on the NUMAR standard solenoid valve.
- ⑧ The composite bushing, piston guiding ring and the bearing of output shaft on the back of the rack can be used for preventing metal-to-metal friction, enhancing lubrication and enabling low friction and long service life.
- ⑨ All fastening pieces are made of stainless steel, and thus are corrosion-resistant for a long time.
- ⑩ The connection part is consistent with the latest international standard ISO5211 and DIN3337(F03-F25) specifications, and thus enable interchanging and general installation.

MODEL DESIGNATION



EXPLODED VIEW

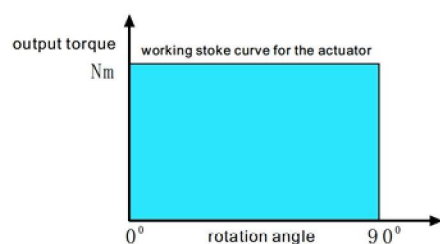
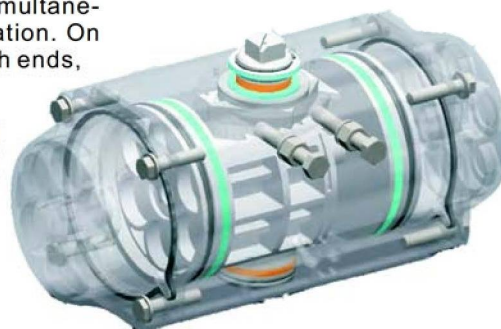
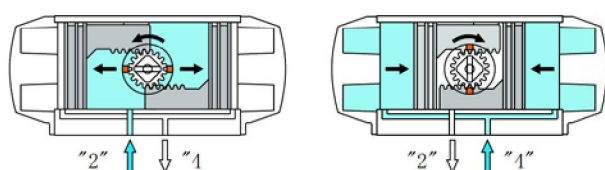


No.	Quantity	Part Name	Standard material	Applicable material
01	1 ⁽¹⁾	left end cap	die-casting aluminum alloy	stainless steel
02	1 ⁽¹⁾	right end cap	die-casting aluminum alloy	stainless steel
03	1	cylinder	extruded aluminum alloy	stainless steel
04	2	piston	die-casting aluminum alloy	-----
05	1	shaft	carbon steel	stainless steel
06	1	regulating cam	stainless steel	-----
07 *	2	O-ring (end cap)	NBR	fluorine or silicon rubber
08 *	2	O-ring (piston)	NBR	fluorine or silicon rubber
09 *	1	O-ring (bottom of shaft)	NBR	fluorine or silicon rubber
10 *	1	O-ring (top of shaft)	NBR	fluorine or silicon rubber
11 *	2	O-ring regulating bolt	NBR	fluorine or silicon rubber
12 *	2	plug (cylinder)	NBR	fluorine or silicon rubber
13 *	2	bearing (piston)	fluorocarbon composite materials	-----
14 *	1	bearing (top of shaft)	nylon 46	-----
15 *	1	bearing (bottom of shaft)	nylon 46	-----
16 *	1	guiding bearing (back of piston)	nylon 46	-----
17 *	2	thrust block (shaft)	nylon 46	-----
18	2	gasket (shaft)	nylon 46	-----
19	1	snap ring	stainless steel	-----
20	8/12/16 ⁽²⁾	end cap bolt	stainless steel	-----
21	8/12/16 ⁽²⁾	end cap gasket	stainless steel	-----
22	2	gasket	stainless steel	-----
23	2	nut	stainless steel	-----
24	2	regulating bolt	stainless steel	-----
25	2	guiding block	nylon 66+30%FG	-----
26	5-12	spring components	alloy spring steel	-----

WORKING PRINCIPLE

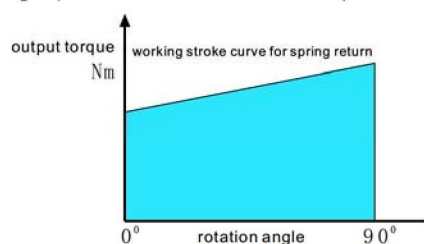
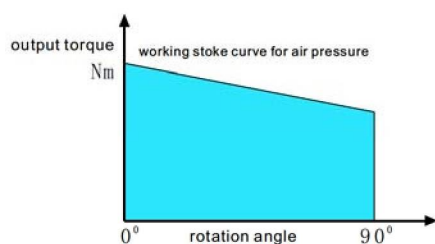
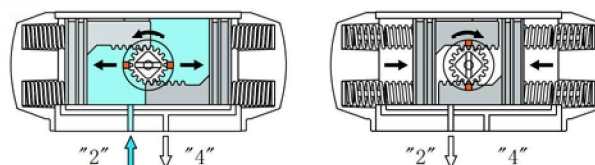
working principle for double-acting

When the air supply pressure enters the middle chamber between two cylinder pistons from the air port (2), it will separate the two pistons and make them move toward both ends of the cylinder, air in the air chamber be discharged from the air port (4) and the rack of two pistons simultaneously drive (gears of) the output shaft in counterclockwise rotation. On the contrary, when the air supply enters the air chambers on both ends, it will make two pistons move toward the middle of the cylinder, where the air is discharged from the air port (2) and make the rack of two pistons simultaneously drive (gears of) the output shaft in clockwise rotation. (If the piston is fixed in the opposite direction, the output shaft will be in opposite rotation.)



working principle for spring return

When the air supply pressure enters the middle chamber between two cylinder pistons from the air port (2), it will separate the two pistons and make them move toward both ends of the cylinder, air in the air chamber be discharged from the air port (4) and the rack of two pistons simultaneously drive (gears of) the output shaft in counterclockwise rotation. On the contrary, when the air supply enters the air chambers on both ends, it will make two pistons move toward the middle of the cylinder, where the air is discharged from the air port (2) and make the rack of two pistons simultaneously drive (gears of) the output shaft in clockwise rotation. (If the piston is fixed in the opposite direction, the output shaft will be in opposite rotation.)



OUTPUT TORQUE

AT MODELS OUTPUT TORQUE (Nm)

MODEL	2.5bar	3.0bar	3.5bar	4.0bar	4.5bar	5.0bar	5.5bar	6.0bar	7.0bar	8.0bar
AT-52	12	14	17	19	22	24	26	29	34	38
AT-63	21	25	29	33	37	41	45	49	57	66
AT-75	29	35	41	46	52	58	64	70	81	93
AT-83	45	53	63	71	80	89	98	107	124	142
AT-92	59	70	82	94	105	117	129	140	164	187
AT-103	88	105	123	141	158	176	194	211	246	282
AT-130	155	187	218	249	280	311	343	374	436	499
AT-140	216	260	304	347	390	434	477	520	607	694
AT-160	330	396	462	528	595	661	727	793	925	1057
AT-200	664	796	929	1062	1195	1328	1461	1593	1859	2125
AT-240	1062	1275	1487	1700	1912	2125	2337	2550	2975	3400
AT-270	1613	1936	2259	2582	2904	3227	3550	3873	4518	5164
AT-300	2390	2868	3347	3852	4303	4781	5259	5737	6694	7650

ATK MODELS OUTPUT TORQUE (Nm)

MODEL	num of spr-ing	spring torque		air supply pressure																									
				2.5bar		3.0bar		3.5bar		4.0bar		4.5bar		5.0bar		5.5bar		6.0bar		7.0bar		8.0bar							
		0°		90°		0°		90°		0°		90°		0°		90°		0°		90°		0°		90°		0°		90°	
		start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end
ATK -52	01	1.6	4.0	10.4	8.0	12.7	10.3	15.1	12.7	17.5	15.1	19.9	17.5	22.3	20	24.7	22.3	27.2	24.8	31.9	29.5	36.7	34.3						
	02	3.2	8.0	8.8	4.0	11.2	6.4	13.6	8.7	15.9	11.1	18.4	13.6	20.8	16	23.2	18.4	25.6	20.8	30.4	25.5	35.1	30.0						
	03	4.7	12.0			9.6	2.4	9.6	4.8	14.4	7.2	16.8	9.6	19.2	12.0	21.6	14.4	24.0	16.8	28.7	21.6	33.6	26.4						
	04	6.3	16.0							12.8	3.2	15.2	5.6	17.6	8.0	20.0	10.4	22.4	12.8	27.2	17.6	32.0	22.4						
	05	7.8	20.0											13.6	1.6	16.0	4.0	18.4	6.4	20.8	8.8	25.6	13.6	30.4	18.3				
	06	9.5	24.0													16.9	2.4	19.2	4.8	24.0	9.6	28.8	14.4						
ATK -65	01	2.7	6.8	17.7	13.6	21.8	17.7	26	21.9	34.2	30	38.3	34.2	42.4	38.3	42.4	38.3	46.4	42.4	54	50.5	62.9	58.7						
	02	5.4	13.6	15.1	6.8	19.1	10.9	23.3	15	31.5	23.2	35.6	27.3	39.7	31.4	39.7	31.4	43.7	35.5	52	43.7	60.1	51.9						
	03	8.1	20.5			16.4	4.1	8.2	24.6	28.7	16.3	32.8	20.5	37	24.6	37	24.6	41.0	28.7	49.2	36.9	57.4	45						
	04	10.8	27.3					21.9	5.4	26	9.5	30.1	13.6	34.2	17.7	34.2	17.7	38.3	21.8	46.5	30	54.7	38.2						
	05	13.6	34.2							23.3	2.7	27.4	6.8	31.5	10.9	31.5	10.9	35.6	15	43.8	23.1	52	31.4						
	06	16.3	41.1											28.7	4.0	28.7	4.0	32.9	8.1	41	16.3	49.3	24.5						
ATK -75	01	3.9	9.7	25.1	19.4	31	25.2	36.8	31	42.6	36.8	48.4	42.6	54.2	48.4	60	54.2	65.9	60	77.4	71.6	89.3	83.3						
	02	7.7	19.4	21.3	9.7	27.1	33	33	21.3	38.2	27.1	44.6	33	50.4	33	56.2	44.5	62	50.3	73.6	62.0	85.2	73.6						
	03	11.5	29			23.3	5.8	29.1	11.6	35	17.4	40.7	23.2	46.5	23.2	52.3	34.8	58.1	40.6	69.7	52.3	81.4	64						
	04	15.4	38.7					25.2	1.9	31	7.7	36.9	13.5	42.7	13.5	48.5	25.1	54.3	30.9	66.0	42.6	77.5	54.2						
	05	19.3	48.4											33	3.8	38.8	9.6	44.6	15.4	50.4	21.3	62	32.9	73.7	44.5				
	06	23.1	58.1													40.7	5.8	46.6	11.6	58.1	23.1	76.9	34.8						
ATK -83	01	6.0	14.8	38.6	29.7	47.4	38.6	56.3	47.5	65.2	56.4	74.1	65.3	83	74.1	91.9	83.1	110.8	91.9	118	109	136	127.5						
	02	11.8	29.6	32.6	14.9	41.5	23.8	50.4	32.7	59.3	41.6	68.2	50.5	77.1	59.3	86	68	94.9	77.1	112	94.9	130	112.7						
	03	17.7	44.4			44.5	8.9	44.5	17.9	53.4	26.8	62.3	35.6	71.2	44.5	80	53	88.9	62.3	106.7	80.1	124	92.9						
	04	23.7	59.2					38.6	3.1	47.5	11.9	56.4	20.8	65.3	29.7	74.2	38.6	83.1	47.5	100.8	65.3	118	83.1						
	05	29.6	74									50.4	6.0	59.3	14.9	68.2	23.8	77.1	32.7	94.9	50.5	112	68.3						
	06	35.5	88.8													62.3	9.0	71.2	17.9	89	35.7	106	53.5						
ATK -92	01	7.7	19.5	50.7	39	62.5	50.7	74.2	62.5	85.9	74.1	97.6	85.8	109	97.6	121	109	132.7	121	156.2	144.4	179.6	167.8						
	02	15.5	39	43	19.5	54.7	32.2	66.5	42.9	78.1	54.7	89.8	66.4	101.6	78	113	89.8	125	101	148.4	124.9	171.8	148.5						
	03	23.3	58.5			46.9	11.7	58.7	23.4	70.4	35.1	82.1	46.8	93.8	58.6	105	70.3	117	82	140	105	164.1	128.8						
	04	31.1	78					50.9	3.9	62.7	15.7	74.4	27.4	86	39	97.8	50.8	109	62.5	132	85.9	156.3	109						
	05	38.7	97.5									66.6	7.8	78.3	19.6	90	31.3	101.7	43	125	66.4	148.6	89.8						
	06	46.5	117													82	11.8	94	23.5	117.4	46.9	140.8	70.3						
ATK -103	01	11.7	29.3	76.3	58.7	93.9	76.3	111.6	93.9	128	111	146	129	164	146	182	164	199	182	234	217	270	252						
	02	23.4	58.6	64.6	29.4	82.2	47	99.8	64.6	117	82.2	135	99.8	152	117	170	135	187	152.7	223	187	258.4	223						
	03	35.1	87.9			70.6	17.7	88.1	35.3	105	52.9	123	70.5	141	88.1	158	105	176	123	211	158.6	246	193						
	04	46.8	117.3					76.4	5.9	94.1	23.5	111.7	41.2	129	58.8	146	76.4	164	94	199	129	235	164						
	05	58.5	146.4									100	11.8	117	29.5	135	47.1	152	64.7	188	99.9	223	135.8						
	06	70.2	175.9													123	17.7	141	35.4	176	70.6	211	105						
ATK -130	01	20.7	52	135	103	166	135	197.4	166.3	228	197	259	228	291	259	322	291	353	322	415	384	478	446						
	02	41.5	103	114	52	145	83	176	114	207	145	239	176	270	207	301	239	332	270	394	332	457	394						
	03	62	155.8			124	31.2	155	62.4	187	93.6	218	124	249	155	280	187	311	218	374	280	436	343						
	04	83	207					135	10.5	166	41.6	197	72	228	104	259	135	291	166	353	228	415	291						
	05	103.7	259									176	20	207	52	239	83.2	270	114	332	176	395	239						
	06	124	311													218	31.3	249	62.5	311	124	374	187						
ATK -140	01	28.8	72.2	188	144	231	188	274	231	318	274	361	318	405	361	448	404	491	448	578	535	665	621						
	02	57.7	144.5	159	72	202	115	246	159	289	205	332	245	376	289	419	332	462	376	549	462	636	549						
	03	86.5	216.8			1																							

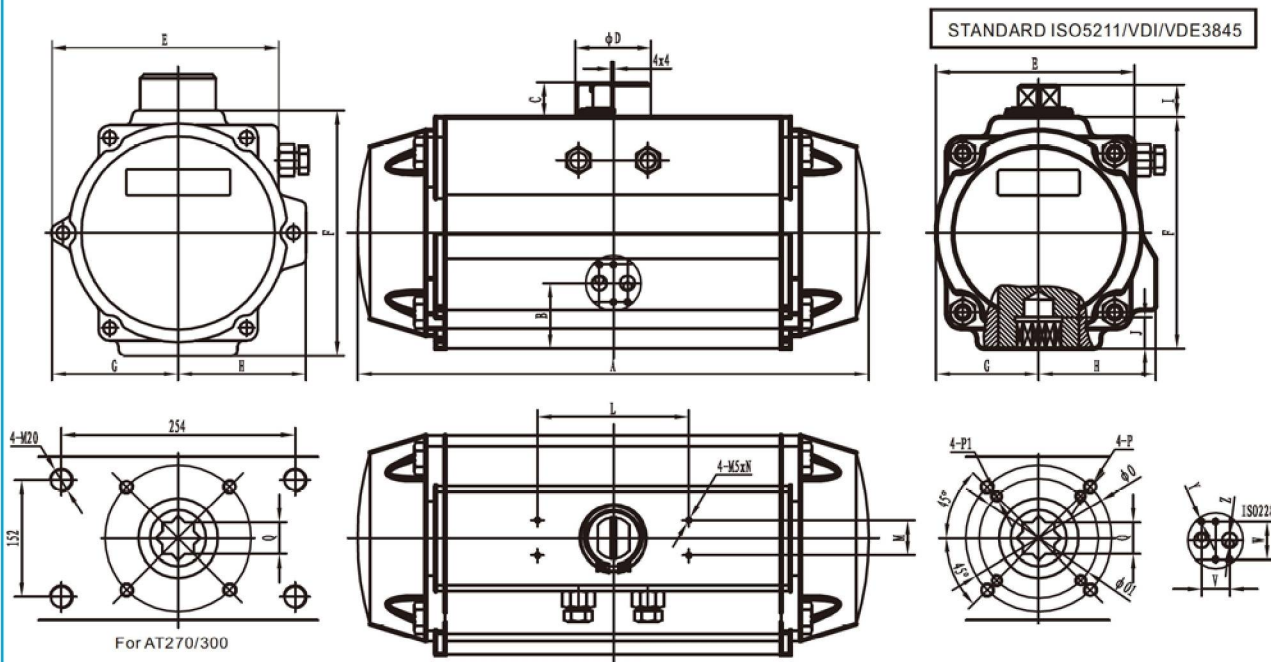
OUTPUT TORQUE

ATK MODELS OUTPUT TORQUE {CONTINUED} (Nm)

MODEL	num of spr- ing	spring torque		2. 5bar		3. 0bar		3. 5bar		4. 0bar		4. 5bar		5. 0bar		5. 5bar		6. 0bar		7. 0bar		8. 0bar		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	
		start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end	
ATK -130	01	20. 7	52	135	103	166	135	197. 4	166. 3	228	197	259	228	291	259	322	291	353	322	415	384	487	446	
	02	41. 5	103	114	52	145	83	176	114	207	145	239	176	270	207	301	239	332	270	394	332	457	394	
	03	62	155. 8			124	31. 2	155	62. 4	187	93. 6	21. 8	124	249	155	280	187	311	218	374	280	436	343	
	04	83	207					135	10. 5	166	41. 6	197	72	228	104	259	135	291	166	353	228	415	291	
	05	103. 7	259									176	20	207	52	239	83. 2	270	114	332	176	395	239	
	06	124	311													218	31. 3	249	62. 5	311	124	374	187	
ATK -140	01	28. 8	72. 2	188	144	231	188	274	231	318	274	361	318	405	361	448	404	491	448	578	535	665	621	
	02	57. 7	144. 5	159	72	202	115	246	159	289	205	332	245	376	289	419	332	462	376	549	462	636	549	
	03	86. 5	216. 8			175	43	217	86. 8	260	130	303	173	347	217	390	260	434	303	520	390	607	477	
	04	115	289					188	14. 5	231	57	275	101	318	144	361	188	405	231	492	318	578	405	
	05	144	361									246	29	289	72	332	115	376	159	463	246	549	332	
	06	173	443. 7																					
ATK -160	01	44	110	286	220	352	286	418	352	484	418	551	484	617	550	683	617	749	683	881	815	1013	947	
	02	88	220	242	110	308	176	374	242	440	308	507	374	573	440	639	507	705	573	837	705	969	837	
	03	131	330			264	66	330	132	396	198	463	264	529	330	595	396	661	463	793	595	925	727	
	04	175	440					286	22. 4	353	88. 5	419	154	485	220	551	286	617	352	749	485	881	617	
	05	219	550									375	44	441	110	507	176	573	242	705	375	837	507	
	06	263	660													463	66	529	132	661	264	793	397	
ATK -200	01	88	221	575	442	708	575	841	708	974	841	1106	974	1239	1106	1372	1239	1505	1372	1770	1638	2036	1903	
	02	177	442	487	221	619	354	752	487	885	619	1018	752	1151	885	1283	1018	1416	1151	1682	1416	1948	1682	
	03	265	664			531	132	664	265	796	398	929	531	1062	664	1195	796	1328	929	1593	1195	1859	1461	
	04	354	885					575	44	708	177	841	309	974	442	1106	575	1239	708	1505	974	1770	1239	
	05	442	1106									752	88	885	221	1018	354	1151	487	1416	752	1682	1018	
	06	531	1328													929	132	1062	265	1328	531	1593	796	
ATK -240	01	141	354	920	708	1133	921	1345	1133	1558	1346	1771	1558	1983	1771	2196	1983	2408	2196	2833	2196	3258	3046	
	02	284	708	779	354	991	566	1204	779	1416	991	1629	1204	1841	1417	2054	1629	2266	1824	2691	1842	3116	2692	
	03	424	1062			850	212	1062	425	1275	637	1487	850	1700	1062	1912	1275	2125	1487	2550	1487	2975	2338	
	04	566	1416					921	71	1133	283	1346	496	1558	708	1771	921	1983	1133	2408	1133	2833	1983	
	05	708	1770									1204	142	1417	354	1629	567	1842	779	2267	779	2697	1629	
	06	849	2124													1487	213	1700	425	2125	425	2550	1275	
ATK -270	01	215	537	1398	1075	1721	1398	2044	1721	2366	2044	2689	2366	3012	2689	3385	3012	3658	3335	4303	3980	4949	4626	
	02	430	1075	1183	538	1506	860	1829	1183	2151	1506	2474	1829	2797	2151	3120	2474	3442	2797	4088	3442	4733	4088	
	03	645	1613			1291	322	1614	645	1936	968	2259	1291	2582	1613	2905	1936	3227	2259	3873	2905	4518	3550	
	04	860	2151					1399	107	1821	430	2044	753	2367	1076	2690	1395	3012	1721	3658	2367	4303	3012	
	05	1075	2689									1829	215	2152	538	2474	860	2797	1183	3433	1829	4088	2474	
	06	1290	3227													2259	323	2582	645	3228	1291	3873	1936	
ATK -300	01	318	717	2072	1673	2550	2151	3028	2629	3506	3108	3984	3586	4462	4062	4940	4542	5419	5020	6375	5977	7331	6933	
	02	637	1434	1753	953	2231	1434	2709	1912	3187	2390	3665	2869	4144	3347	4622	3825	5100	4303	6056	5259	7013	6216	
	03	956	2151	1434	239	1912	717	2390	1195	2868	1673	3347	2151	3825	2630	4303	3108	4781	3586	5737	4542	6694	5499	
	04	1275	2868					2072	478	2550	956	3028	1434	3506	1912	3984	2391	4462	2869	5419	3825	6375	4781	
	05	1593	3385								2231	239	2709	717	3187	1195	3665	1673	4414	2151	5100	3108	6056	4064
	06	1912	4303													2868	487	3347	956	3825	1434	4871	2391	5737

DIMENSIONS

DIMENSIONS



MODEL	AT/ATK												
	52	65	75	83	92	103	130	140	160	200	240	270	300
A	149	167	188	206	246	271	327	387	448	603	683	877	908
B	23.5	27	29	33	28.5	33	38	39	47	66	83	165	205
C	20	20	20	20	20	20	30	20	30	30	30	30	30
D	35	35	35	35	35	35	45	45	49	60	60	80	80
E	64.5	73.5	81	91.5	94.5	109	133	137.5	156	208	251	342	342
F	71.5	89.5	102	108	117	132	160	173	196	245	299	330	348
G	30	36.5	42	45.5	49.5	57	70.5	65	74.5	110	134	170	185
H	45	45.5	52	57	59	64.5	74.5	75	85	112	134	172	185
I	22	22	22	22	22	22	22	32	32	32	32	32	32
J	12	16	16	20	23	24	28	30	33	40	50	50	60
L	80	80	80	80	80	80	80	130	130	130	130	130	130
M	30	30	30	30	30	30	30	30	30	30	30	30	30
Φ0	50	70	70	70	70	102	102	102	125	140	165	165	165
Φ01	36	50	50	50	50	70	70	70	102	-	-	-	-
ΦP	M6	M8	M8	M8	M10	M10	M10	M10	M12	M16	M20	M20	M20
ΦP1	M5	M6	M6	M6	M8	M8	M8	M8	M10	-	-	-	-
Q	11	14	14	17	17	22	22	27	27	27	36	36	46
V	24	24	24	24	24	24	24	24	24	24	24	24	24
W	32	32	32	32	32	32	32	32	32	32	32	32	32
Y	M5	M5	M5	M5	M5	M5	M5	M5	M5	M5	M5	M5	M5
Z	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	1/2"

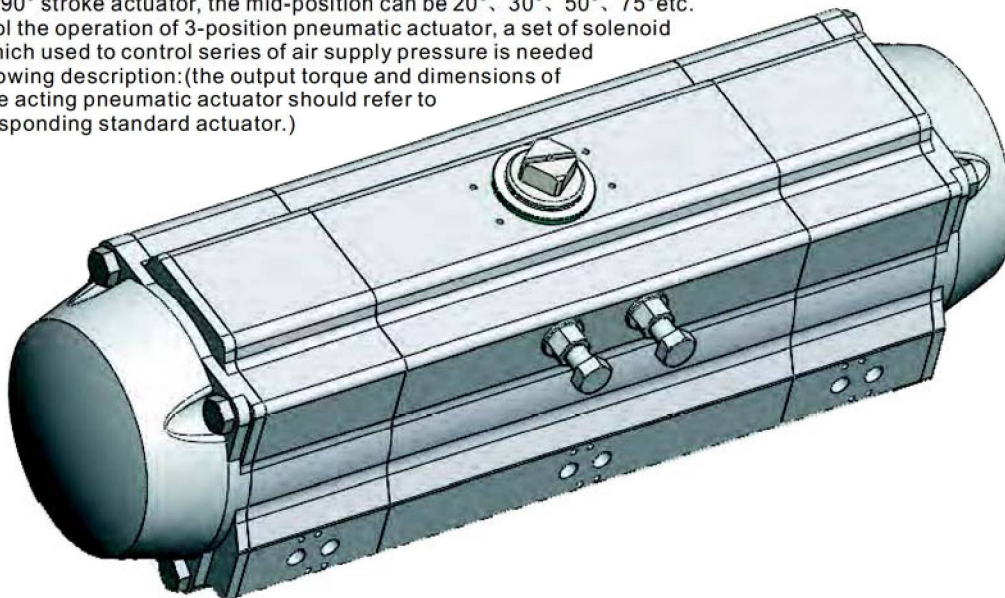
AT/ATK 3-POSITION PNEUMATIC ACTUATORS

0°-45°-90° AND 0°-90°-180°

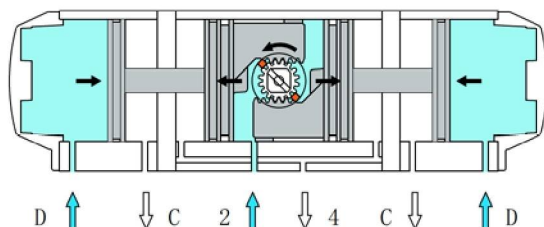
3-POSITION PNEUMATIC ACTUATORS

3-position pneumatic actuator provides two operation modes, 0°-45°-90° and 0°-90°-180°. The mid-position is carried out by two assisting pistons' movement which produced the mechanical brake. The mid-position is adjustable on the request. For example, as 90° stroke actuator, the mid-position can be 20°, 30°, 50°, 75° etc.

In order to control the operation of 3-position pneumatic actuator, a set of solenoid valve system which used to control series of air supply pressure is needed according to following description: (the output torque and dimensions of 3-position double acting pneumatic actuator should refer to the data of corresponding standard actuator.)

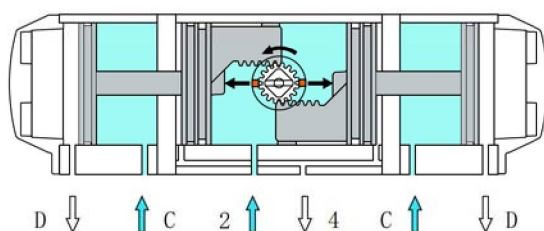


WORKING PRINCIPLE



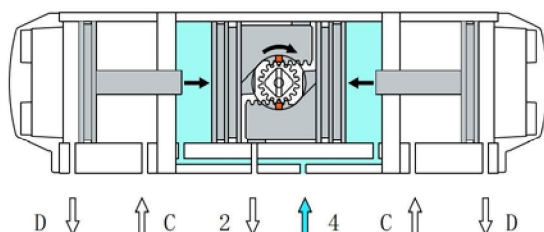
Position 1 (mid-position):

The compressed air enters into port 2 and port D simultaneously, and exhaust from port 4 and port C. The compressed air entered into the port 2 cause the outward movement of inner pistons. While the compressed air entered into the port D force the auxiliary pushrod to move inward and then compel the inner pistons to stop at the assigned mid-position.



Position 2 (fully open)

The compressed air enters into port 2 and port C simultaneously, and exhaust from port 4 and port D. The compressed air entered into the port 2 cause the outward movement of inner pistons. While the compressed air entered into the port C force the auxiliary pushrod to move outward and then remove the limitation for inner pistons so as to the inner pistons can extend fully.



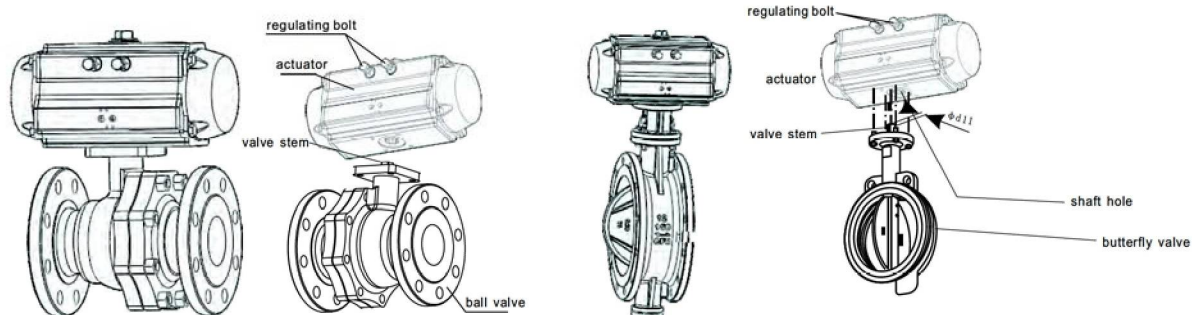
Position 3 (fully closed)

The compressed air enters into port 4 and exhaust from port 2. When the compressed air enter into the port 4, the inner pistons will be forced to move inward, the actuator will be fully closed accordingly.

The spring return model can be customized according to the requirement.

ASSEMBLY AND MAINTENANCE

◎ MOUNTING ACTUATOR TO VALVES



1. the output shaft transferred to the relevant location of the device, while keeping the valve closed then installed at the output shaft hole vertical rod core and fitness equipment, the bolt can be tight with solid valve bracket. 2. valves and pneumatic device clofibrate, to conduct operational testing switches, light switches, no death card, Position accuracy is qualified. Instead investigation to find the reasons for exclusion. 3.a note. :A. The use of natural gas resources dry cleaner, blend into the cylinder to avoid affecting the normal work of pneumatic device. B. Regular maintenance of the device and the surface dust. C. Conduct regular inspections.

the General Assembly actuator and valve assembly is conducted mostly through the support and connectivity. can be directly inserted through customized pneumatic valve actuator shaft hole, pay attention to the implementation of axle shaft hole depth should not be higher than the first , Otherwise, the top will work for implementation of die failure caused all of the components used in connection with high precision. otherwise affectits switching valve angle have leaked, according to the standard components with tolerances, the axle hole shaft(stem) Tolerance and with the first hole-by H11/d11, parallelism, symmetry shaped by 9 tolerance level. GB/T1095-79 by ordinary flat key dimensions and tolerances. Woodruff Key dimensions and tolerances by GB/T1098-79, GB/T1099-79.

◎ MAINTENANCE

For the daily maintenance of the pneumatic actuator, the air source should keep dry and clean. Regularly discharge water and waste for air strainer which matched with actuator to make sure work normally. The surface of actuator should keep clean and no pollute from steam, water and oil stain. The seal of pneumatic actuator should be good, fitting and no damage. The entrance nipple of air cylinder should not be damaged. The parts of air cylinder and pipe system should inspect carefully to keep air source pressure normally. The pipe should no dent and keep flowing freely, no leakage which may affect the performance. The pipeline connection of magnetic valve, air source handling triple-component and locator should be no damage and leakage. The electrical signal and adjusting current signal should be no faulty, short circuit and break circuit. The shell protector nipple connection should be tight, anti-water damp and dust, make sure the magnetic or locator normal working. The signal feedback machine should be good condition to assure signal of on-off transmitting. The manual device should lubricate and on-off flexible.

The surface of valve on the pneumatic should be clean, clear the dust, oil stain, medium stain and other dirt regularly. The movement parts of valve should be clean that avoid wearing and corrupting. In the operating, the valve should be in good condition, no leakage, on-off flexibility. The valve parts should be complete and in good condition. The bolts of flange and bracket are essential, and thread should be no damage. The bolts do not allow to loose, if loose, should be tight it in order to avoid incorrect position of on and off and leakage. The packing gland should no tilt, or it will block of the stem parts friction, and the actuator dumb or abnormal working. Therefore, the maintenance to pneumatic is very important, that will make the whole pneumatic instrument control system in normal working condition. It required no less one time inspection per month and one time examine and repair annually in the normal working condition.

**SOLENOID VALVE CONFORMS TO
VDI/VDE3845/NAMUR NORM STANDARD**



**LIMIT SWITCH AND POSITIONER CONFORMS TO
VDI/VDE3845/NAMUR NORM STANDARD**



PNEUMATIC BALL VALVE



PNEUMATIC BUTTERFLY VALVE

