



ARC 系列气动执行器

ARC SERIES PNEUMATIC ACTUATORS

无锡爱圣拓克流体控制有限公司
Ascend Torque Flow Controls Co., Ltd.



爱圣拓克是中国较早研制、开发和生产齿轮齿条式气动执行器的工厂之一。经过近多年的改革与创新，爱圣拓克正向世界各地供应高质量的气动执行器和阀门控制产品。

为了给客户创造价值，爱圣拓克坚持不断改进并引进先进的生产工艺，严格控制产品质量。高精度的加工中心和专业的产品研发团队，为产品质量的可靠性、稳定性提供了有力保障，同时也保证了新产品研发的质量和效率。

公司本着“传承匠心，融合创新”的核心理念，竭诚为新老客户提供更周到的服务，更专业的技术，更卓越的产品。



关于我们

ABOUT US



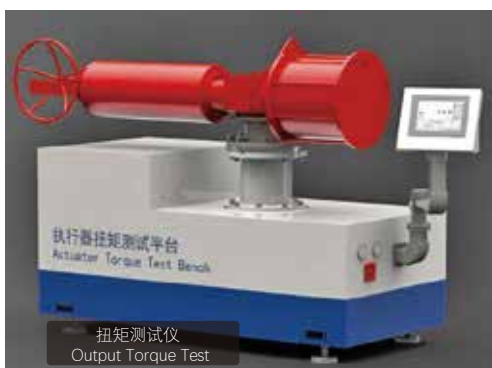
ASCEND TORQUE is a professional manufacturer of rack & pinion pneumatic actuator. With many years reform and innovation, ASCEND TORQUE is supplying the high-quality pneumatic actuators and other valve control products to all over the world.

To create customer value, **ASCEND TORQUE** continues to improve and introduce advanced production technology and strict control of product quality all the time. The world class production equipment and professional engineering team provides strong guarantee for the reliability and stability of product quality, and also for the quality and efficiency of researching and developing new products.

ASCEND TORQUE will offer all of our new and regular customers more attentive service, more professional technology and more excellent products.

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1、技术特点 Technical Characteristics

ARC系列气动执行器，综合使用先进的精密加工设备、优质材料、工业美术设计技术。经过严格测试、生产线优化，使得该系列执行器具有运行平稳可靠、工作寿命长、可调范围大、防腐性能高、选型灵活、经济实惠等优点。

ARC series pneumatic actuators, with the integrated use of advanced precision machining equipment, high-quality materials and industrial art design technology. After rigorous testing and optimization of production line, ARC series pneumatic actuators have lots of advantages like smooth and reliable operation, long working life, high corrosion resistance, flexible selection, competitive price and so on.

活塞 Piston

活塞齿面经过 CNC 加工后精度更高，运行更平稳，性能更可靠；表面阳极氧化处理，增加了活塞的抗腐蚀性和耐磨性。

The teeth of piston machined by CNC machining center, makes the operation smoother and performance more reliable. Anodized treatment improves the corrosion and wear resistance.



端盖 End cap

优化设计了端盖95度限位功能，无需另外安装螺栓进行限位，使产品可靠性得到提高。

The function of 95° position limit is optimally designed on the end cap, instead of extra limit screw. This design improves the safety and reliability.



紧固件 Fasteners

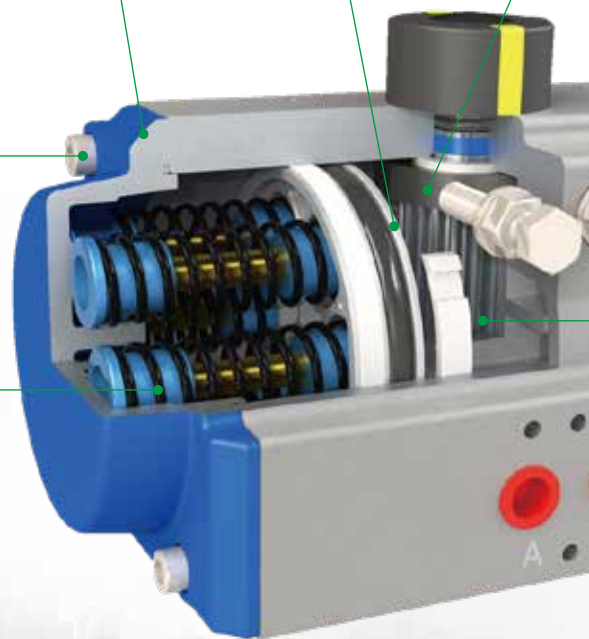
不锈钢紧固件，安全美观，抗腐蚀性强。

The stainless steel fasteners, are safe and beautiful with high corrosion resistance.

弹簧 Spring

预压装配的弹簧采用优质材料、涂层处理，具有较强的抗腐蚀性和使用寿命，能够安全、简单的拆卸单作用执行器。通过改变弹簧数量满足不同的力矩输出范围。

Preloaded and coated springs are made from high quality material for higher corrosion resistance and longer service life, which can be demounted safely and conveniently to satisfy different requirements of torque by changing quantity of springs.

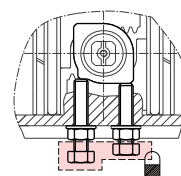




凸轮 Cam

凸轮升级*, 当要求将执行器锁定在全开 (90°) 或全关 (0°) 位置时, 执行器可以配有专用的螺栓和锁定装置, 可将执行器位置锁定, 防止误操作。

Cam with lock function*, when the actuator is required to be locked in full open (90°) or fully closed (0°) position, the actuator can be equipped with special bolts and locking device, the actuator position can be locked, and prevent misuse.



*: 现仅支持ARC40~ARC125型号 / ARC40~ARC125 are available at this time

缸体 Body

铝合金缸体可以采用硬质氧化、户外型聚酯粉末喷涂 (根据要求喷涂黑色、蓝色、橙色、红色等)、PTFE 涂层或电镀镍磷合金满足不同要求。

According to different requirements, the surface of aluminum body can be treated with hard anodizing, powder polyester coating in colors (like black, blue, orange, red etc.), PTFE coating or Nickel plated.

调节螺栓 Adjust screw

两个独立的行程调节螺栓, 非常方便的对开位、关位进行精确的调节(±5°范围内)。

The two independent external travel stop adjust screws can adjust $\pm 5^\circ$ at both open and close positions easily and precisely.

驱动轴 Drive shaft

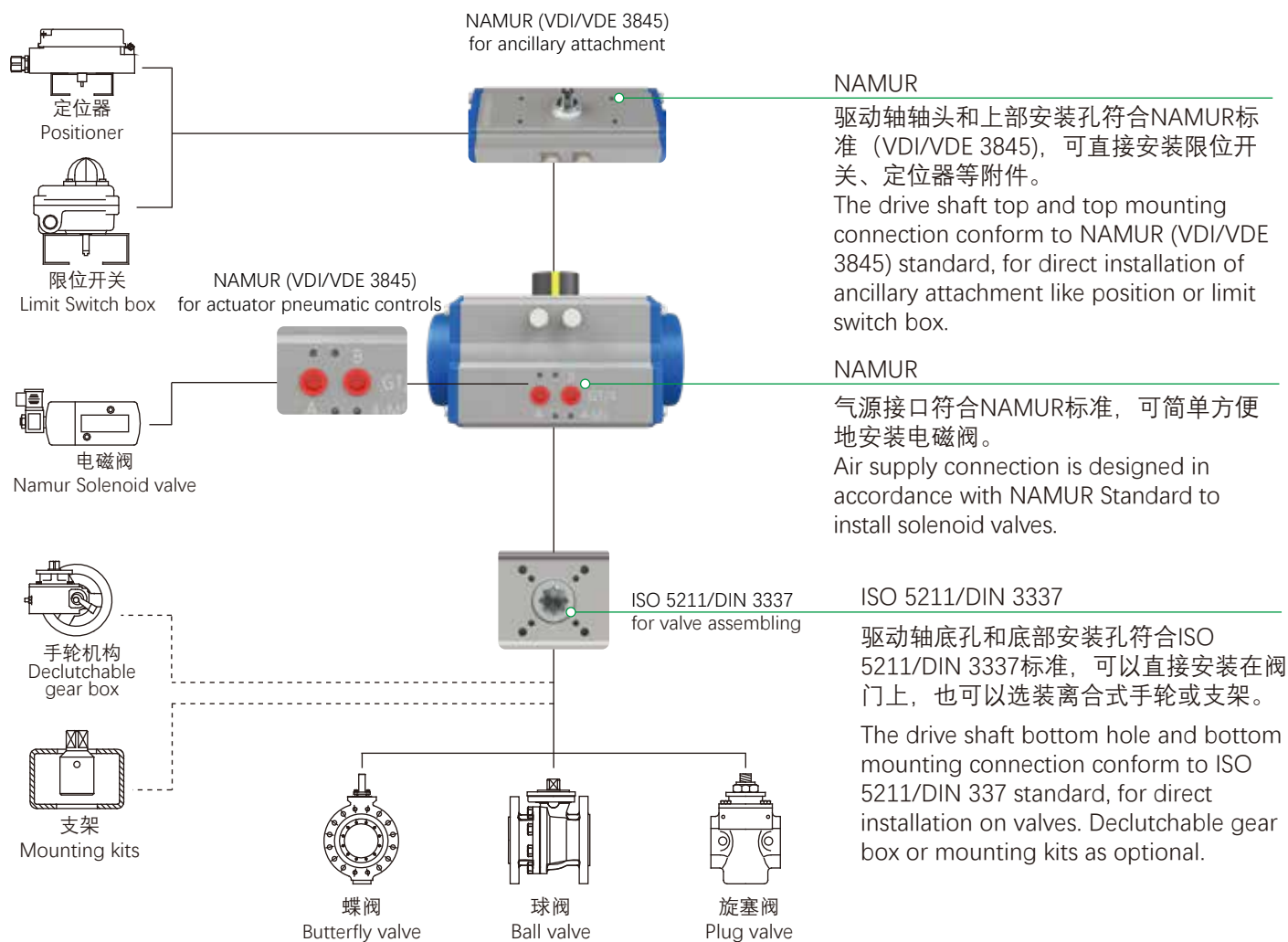
镍磷合金、高精密一体式驱动轴同时符合NAMUR、ISO5211/DIN3337标准。可根据客户要求定制尺寸和不锈钢材料。

The drive shaft is high-precision and integrative, made from nickel plated alloy steel, full conform to the latest standards of ISO5211, DIN3337, NAMUR. The dimensions can be customized and the stainless steel is available.





2、安装规范 Installation Specification

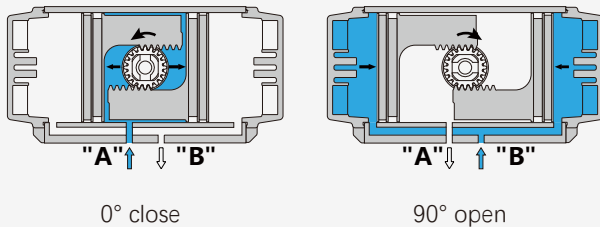
限位开关
Limit Switch box定位器
Positioner智能定位器
Smart Positioner电磁阀
NAMUR Solenoid valve蝶阀
Butterfly valve球阀
Ball valve旋塞阀
Plug valve手轮机构
Dec clutchable gear box



3、工作原理 Operating Principle

双作用执行器 Double Acting Actuators

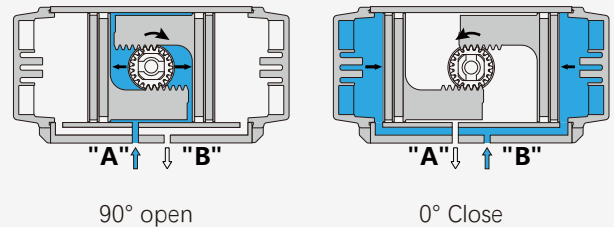
CCW (Standard)



A口进气, 压缩空气推动活塞向外运动, 使执行器输出轴逆时针旋转($0^\circ \rightarrow 90^\circ$), B口排气。B口进气, 压缩空气推动活塞向内运动, 使执行器输出轴顺时针旋转($90^\circ \rightarrow 0^\circ$), A口排气。

Air to Port A forces the pistons outwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port A.

CW

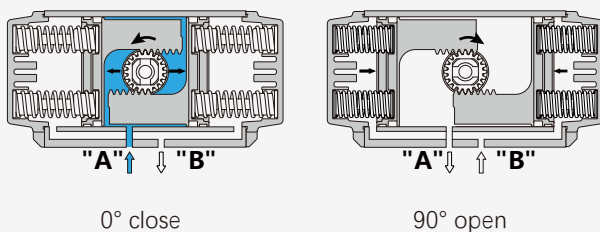


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Air to Port A forces the pistons outwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port A.

单作用执行器 Spring Return Actuators

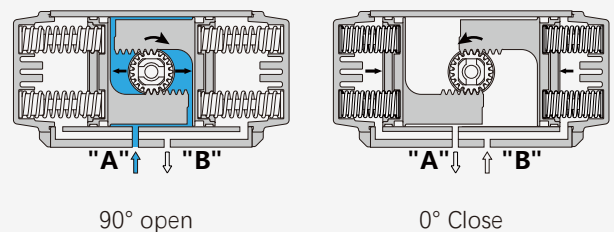
FC-CCW (Standard)



A口进气, 压缩空气克服弹簧力, 推动活塞向外运动, 执行器输出轴逆时针转动($0^\circ \rightarrow 90^\circ$), B口排气; 执行器失气, 活塞在弹簧力的作用下向内运动, 执行器输出轴顺时针转动($90^\circ \rightarrow 0^\circ$), A口排气。

Air to port A forces the pistons outwards, causing the springs to compress. The drive shaft turns counterclockwise while air is being exhausted from port B. Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The drive shaft turns clockwise while air is being exhausted from port A.

FO-CW



A口进气, 压缩空气克服弹簧力, 推动活塞向外运动, 执行器输出轴顺时针转动($90^\circ \rightarrow 0^\circ$), B口排气; 执行器失气, 活塞在弹簧力的作用下向内运动, 执行器输出轴逆时针转动($0^\circ \rightarrow 90^\circ$), A口排气。

Air to port A forces the pistons outwards, causing the springs to compress. The drive shaft turns clockwise while air is being exhausted from port B. Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The drive shaft turns counterclockwise while air is being exhausted from port A.



4、工作条件 Operating Conditions

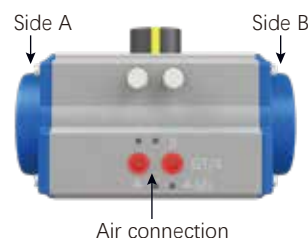
- **操作介质**
干燥或润滑的空气或非腐蚀性气体，最大粒径必须小于30μm
- **供气压力**
最低供气压力为2巴，最大供气压力为8巴
- **工作温度**
标准型（丁腈橡胶O型圈） -20℃ ~ +80℃
高温型（氟素橡胶O型圈） -20℃ ~ +150℃
低温型（低温丁腈橡胶O型圈） -40℃ ~ +80℃
- **行程调整**
在0°和90°处的旋转调整范围为±5°
- **润滑**
在正常工作条件下，不需添加润滑剂
- **应用**
可安装于室内或室外
- **Operating media**
Dry or lubricated air, or the non-corrosive gases. The maximum particle diameter must less than 30 μm
- **Air supply pressure**
The minimum supply pressure is 2 Bar, the maximum supply pressure is 8 Bar
- **Operating temperature**
Standard (NBR O-rings): -20℃ ~ +80℃
High temperature (FKM O-rings): -20℃ ~ +150℃
Low temperature (LTNBR O-rings): -40℃ ~ +80℃
- **Travel adjustment**
Have adjustment range of ±5° for the rotation at 0° and 90°
- **Lubrication**
Actuators are factory lubrication located. Under normal operating condition, need not to add lubricant
- **Application**
Either indoor or outdoor

5、弹簧配置 Spring Set Configuration

单作用执行器弹簧安装形式 **Spring mounting form for spring return actuators**

在单作用执行器的选配过程中，如果能够了解阀门在开启、运行和关闭时的扭矩分配，我们就可以更加经济、更加合理地选配执行器。

During selecting the spring return actuators, we can choose the more reasonable and more economical actuators, if we know the different torques of the valve at opening, operating and closing.



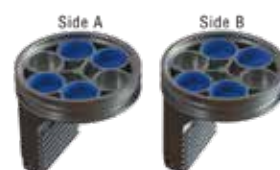
5 Springs



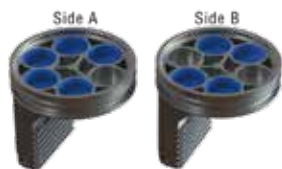
6 Springs



7 Springs



8 Springs



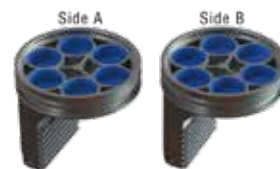
9 Springs



10 Springs



11 Springs



12 Springs

6、产品重量 Weight

单位：千克 / Unit: kg

型号	32	40	52	63	75	83	92	105	115	125	130	140	160	190	210	240	270	300	350	400
DA	0.8	0.97	1.22	2.02	2.60	3.23	4.58	5.92	8.18	8.68	11.20	14.1	20.6	33.2	39.7	57.0	78.7	114	171	240
SR12	-	1.10*	1.35	2.19	2.86	3.64	5.35	6.76	9.30	10.06	13.70	16.5	24.4	40.2	49.2	70.0	100.3	141	220	285

*ARC40单作用仅有2根弹簧。ARC40SR only use 2 springs.

注意：ARC32~ARC270重量含包装盒。Note: Weights of ARC32~ARC270 include carton.



7、工作时间 Operation Time

气源压力：5巴 / Air Pressure: 5 bar

单位：秒 / Unit: s

双作用 Double Acting			单作用（弹簧数量） / Spring Return （Spring Qty.）															
				3+3	3+3	3+4	3+4	4+4	4+4	4+5	4+5	5+5	5+5	5+6	5+6	6+6	6+6	
Size	0°~90°	90°~0°	Size	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	0°~90°	90°~0°	
32DA	0.5	0.5	32SR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40DA	0.5	0.5	40SR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
52DA	0.6	0.6	52SR	2.46	0.48	2.48	0.46	2.50	0.44	2.52	0.42	2.54	0.40	2.56	0.38	2.58	0.36	
63DA	0.7	0.7	63SR	2.54	0.56	2.56	0.54	2.58	0.52	2.60	0.50	2.62	0.48	2.64	0.46	2.66	0.44	
75DA	0.8	0.7	75SR	2.62	0.64	2.64	0.62	2.66	0.60	2.68	0.58	2.70	0.56	2.72	0.54	2.74	0.52	
83DA	0.9	0.8	83SR	2.71	0.73	2.73	0.71	2.75	0.69	2.77	0.67	2.79	0.65	2.81	0.63	2.83	0.61	
92DA	1	1	92SR	2.89	0.86	2.91	0.84	2.93	0.82	2.95	0.80	2.97	0.78	2.99	0.76	3.01	0.74	
105DA	1.5	1.5	105SR	3.14	0.91	3.16	0.89	3.18	0.87	3.20	0.85	3.22	0.83	3.24	0.81	3.26	0.79	
115DA	1.7	1.7	115SR	3.59	1.02	3.61	1.00	3.62	0.98	3.64	0.96	3.66	0.95	3.67	0.93	3.69	0.91	
125DA	2	2	125SR	4.24	1.20	4.26	1.18	4.28	1.16	4.30	1.14	4.32	1.12	4.34	1.10	4.36	1.08	
130DA	2.2	2.2	130SR	4.24	1.25	4.26	1.23	4.36	1.21	4.38	1.19	4.40	1.17	4.42	1.15	4.43	1.13	
140DA	2.5	2.5	140SR	4.40	1.35	4.40	1.33	4.62	1.31	4.64	1.29	4.66	1.27	4.68	1.25	4.68	1.22	
160DA	4	3	160SR	4.74	1.77	4.76	1.75	4.78	1.73	4.80	1.71	4.82	1.69	4.82	1.67	4.84	1.65	
190DA	5	4	190SR	5.75	3.70	5.77	3.50	5.75	3.48	5.77	3.46	5.79	3.44	5.80	3.42	5.83	3.40	
210DA	5	4	210SR	8.25	4.80	8.40	4.60	8.42	4.58	8.44	4.56	8.46	4.54	8.48	4.52	8.50	4.50	
240DA	6	6	240SR	16.20	5.14	16.40	5.12	16.42	5.10	16.44	4.90	16.60	4.98	16.80	4.86	17.00	4.84	
270DA	8	8	270SR	17.60	6.28	17.80	6.26	17.60	6.24	17.80	6.20	18.00	6.18	18.20	6.16	18.40	6.14	
300DA	12	12	300SR	24.00	13.20	24.50	13.00	24.40	12.80	24.30	12.60	24.50	12.58	24.70	12.56	24.90	12.54	
350DA	14	14	350SR	31.00	17.30	31.50	17.00	31.30	16.80	31.00	16.60	31.20	16.58	31.40	16.56	31.60	16.54	
400DA	15	15	400SR	45.00	27.00	51.00	27.00	51.30	26.80	51.50	26.80	51.70	26.60	51.90	26.40	52.10	26.20	

* 执行器动作时间与电磁阀、减压阀、气管等配件的CV值，气源压力、负载等因素有关。
The operation time of the actuator depends on the CV values of the solenoid valves, filter regulator and pipes, it also depends on the air pressure, operating load and so on.

8、耗气量 Air Consumption

单位：升 / Unit: L

型号 Model	气开 Air volume opening	气关 Air volume closing	型号 Model	气开 Air volume opening	气关 Air volume closing
ARC-32	0.04	0.05	ARC-130	2.3	2.1
ARC-40	0.08	0.11	ARC-140	2.5	2.2
ARC-52	0.12	0.16	ARC-160	3.7	3.2
ARC-63	0.21	0.23	ARC-190	5.9	5.4
ARC-75	0.30	0.34	ARC-210	7.5	7.5
ARC-83	0.43	0.47	ARC-240	11	9
ARC-92	0.64	0.73	ARC-270	17	14
ARC-105	0.95	0.88	ARC-300	23.8	29.7
ARC-115	1.3	1.2	ARC-350	35.1	46.3
ARC-125	1.6	1.4	ARC-400	52.6	56

耗气量取决于供气压力、开关行程、体积及动作次数，计算如下：

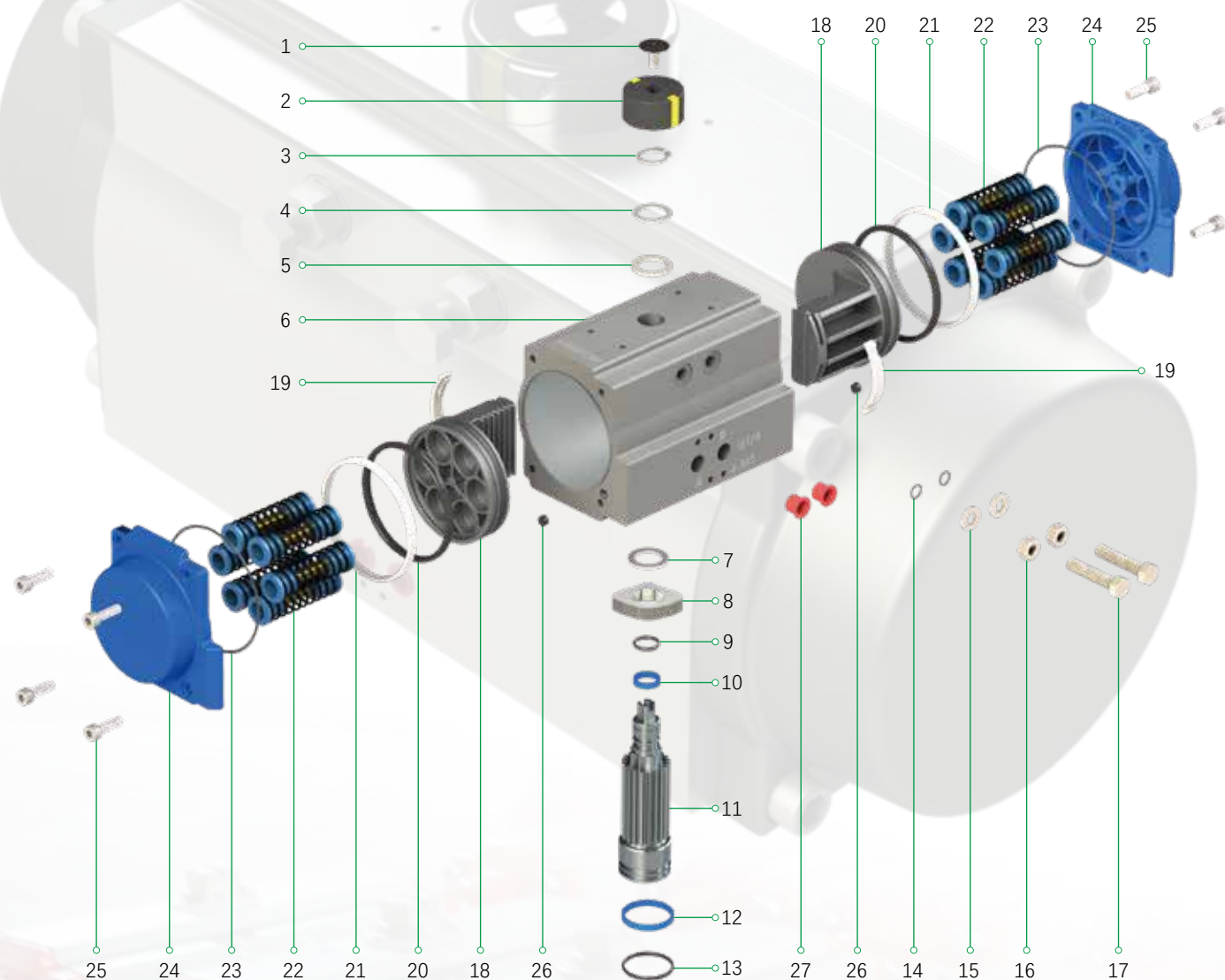
升/分=气缸体积(开向体积+关向体积)×[(供气压力(Kpa)+101.3)÷101.3]×次数/分钟

Air consumption rest with Air Supply. Air volume and Action cycle times, expressions:

L/Min=Air volume(Air volume Opening+Air volume closing)×[(Air Supply (Kpa)+101.3) ÷101.3]×Action cycle times/min



9、零件和材料 Parts and Material





序 号 No.	名 称 Description	数 量 Qty.	材 料 Standard Material	防腐处理 Protection	可选材料 Optional Material
1	指示器螺钉 Indicator screw	1	工程塑 料+不锈钢 Plastic+Stainless steel		
2	指示器 Indicator	1	工程塑 料 ABS Plastic		
3	卡簧 Spring clip	1	不锈钢(304) Stainless steel		
4	垫圈 Thrust washer	1	不锈钢(304) Stainless steel		
5	外垫片 Outside washer	1	工程塑料 POM		
6	缸体 Body	1	铝型材(6005-T5) Extruded aluminum(6005-T5)	硬质氧化等 Hard anodized etc	
7	内垫片 Inside washer	1	工程塑料 POM		
8	凸轮 Cam	1	45钢 45# steel		
9	上轴O型圈 O-ring (Shaft top)	1	丁腈橡胶 NBR		氟橡胶/氢化丁腈橡胶 FKM / LTNBR
10	上轴支承圈 Bearing (Shaft top)	1	工程塑料 POM		
11	驱动轴 Drive Shaft	1	合金钢 Alloy steel	镍磷 Nickel plated	不锈钢(304) Stainless steel
12	下轴支承圈 Bearing (Shaft bottom)	1	工程塑料 POM		
13	下轴O型圈 O-ring (Shaft bottom)	1	丁腈橡胶 NBR		氟橡胶/氢化丁腈橡胶 FKM / LTNBR
14	调节螺栓O型圈 O-ring (Adjust screw)	2	丁腈橡胶 NBR		氟橡胶/氢化丁腈橡胶 FKM / LTNBR
15	垫片 Gasket	2	不锈钢(304) Stainless steel		
16	螺母 Nut	2	不锈钢(304) Stainless steel		
17	调节螺栓 Adjust screw	2	不锈钢(304) Stainless steel		
18	活塞 Piston	2	铸铝 Cast aluminum	氧化 Anodized	
19	活塞导板 Guide (Piston)	2	工程塑料 Nylon 66		
20	活塞O型圈 O-ring (Piston)	2	丁腈橡胶 NBR		氟橡胶/氢化丁腈橡胶 FKM / LTNBR
21	活塞支承圈 Bearing (Piston)	2	工程塑料 POM		
22	弹簧 Spring	0~12	弹簧钢 Spring steel	电泳漆 Electrophoretic paint	
23	端盖O型圈 O-ring (End cap)	2	丁腈橡胶 NBR		氟橡胶/氢化丁腈橡胶 FKM / LTNBR
24	端盖 End cap	2	铸 铝 Cast aluminum	粉末喷涂等 Powder polyester painted etc	
25	端盖螺钉 Cap screw	8	不锈钢(304) Stainless steel		
26	堵头 Plug	2	丁腈橡胶 NBR		
27	防尘塞 Dustproof plug	2	塑料 Plastic		



10、外形尺寸图 Dimensions

	正视图/FRONT VIEW	侧视图/SIDE VIEW	顶视图/TOP VIEW
ARC-32			
ARC-40			
ARC-52~270			
ARC-300~400			

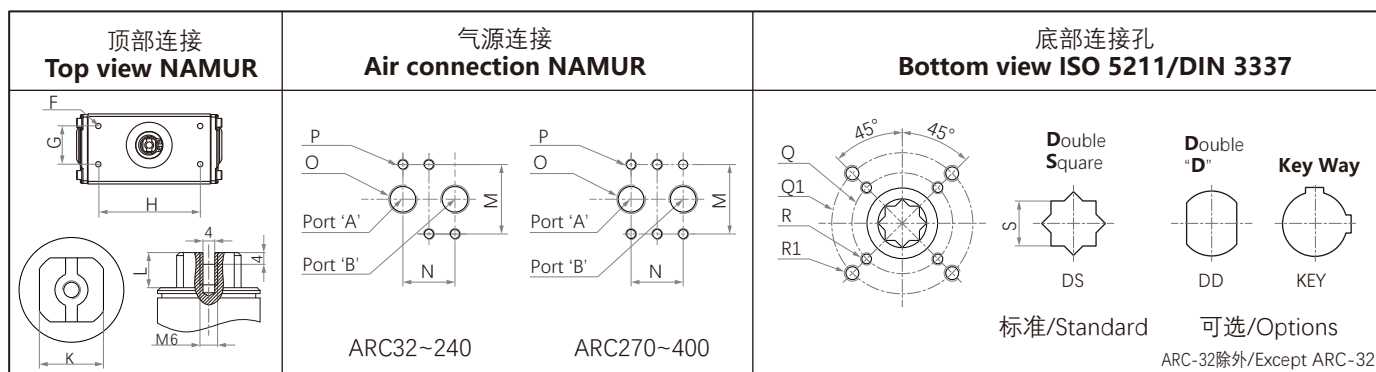


外形尺寸表 Dimensions

单位: 毫米 / Unit:mm

型号 Model	32	40	52	63	75	83	92	105	115	125	130	140	160	190	210	240	270	300	350	400
A	116	120	147	165	182	208	262	270	298	301	367	395	454	528	536	608	721	769	909	925
B	51	65	71.5	83	95	103	108.5	124.5	134	142	149.5	152.5	174	206	226	260	294	406	460	516
C	45	60	72	88	99.5	109	116.5	133	144	155	160	172	197	230	255	289	328	348	408	480
D	65	80	92	108	119.5	129	136.5	153	164	175	180	192	217	260	285	319	358	378	438	510
E	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø55	Ø55	Ø55	Ø55	Ø55	Ø55	Ø80	Ø80	Ø80	Ø80	Ø80	Ø80

连接尺寸图 Connection



连接尺寸表 Connection

单位: 毫米 / Unit:mm

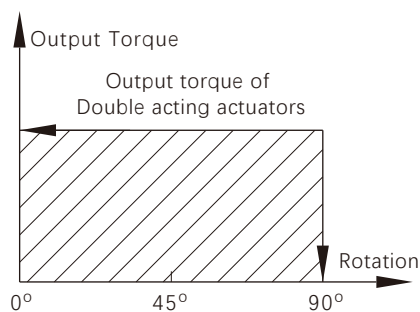
型号 Model	32	40	52	63	75	83	92	105	115	125	130	140	160	190	210	240	270	300	350	400
F	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8
G	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
H	80	80	80	80	80	80	80	80	80	80/130	80/130	80/130	80/130	130	130	130	130	130	130	130
J	20	20	20	20	20	20	20	20	20	20	20	20	20	30	30	30	30	30	30	30
K	10	10	10	10	10	10	14	14	22	22	22	22	22	32	32	32	32	32	32	32
L	12	12	12	12	12	12	12	12	10	10	10	10	10	12	12	12	12	12	12	12
M	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	45	45	45	45
N	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	40	40	40	40
O	G1/8"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/2"	G1/2"	G1/2"	G1/2"
P	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10
Q	/	F03	F03	F05	F05	F05	F05	F07	F07	F07	F10	F10	F10	/	/	/	/	F16	F16	F16
Q1	F03	F05	F05	F07	F07	F07	F07	F10	F10	F10	F12	F12	F12	F14	F14	F16	F16	Ø215	F25	F25
R	/	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M8x13	M8x13	M8x13	M10x16	M10x16	M10x16	/	/	/	/	M20x25	M20x25	M20x25
R1	M5x8	M6x9	M6x9	M8x13	M8x13	M8x13	M8x13	M10x16	M10x16	M10x16	M12x19	M12x19	M12x19	M16x24	M16x24	M20x25	M20x25	M20x25	M16x24*	M16x24*
S	9x11	11x14	11x14	14x18	14x18	17x21	17x21	22x26	22x26	22x26	27x31	27x31	27x31	36x40	36x40	46x50	46x50	46x60	46x60	55x60

*8个连接孔。8 screw holes



11、输出力矩 Output Torque

双作用执行器输出扭矩 For Double Acting Actuator



扭矩单位:牛米 / Torque Unit: Nm

型号 Model	气源压力(单位:巴) / Air supply pressure (Unit: Bar)										
	2Bar	2.5Bar	3Bar	3.5Bar	4Bar	4.5Bar	5Bar	5.5Bar	6Bar	7Bar	8Bar
ARC-32DA	3	4	5	6	6	7	8	8	9	11	12
ARC-40DA	5	6	7	8	10	11	12	13	14	17	19
ARC-52DA	8	10	12	14	16	18	20	22	24	28	32
ARC-63DA	15	18	22	25	29	33	36	40	44	51	58
ARC-75DA	20	25	30	35	40	45	50	55	60	70	80
ARC-83DA	31	39	47	55	63	70	78	86	94	110	125
ARC-92DA	45	56	68	79	90	102	113	124	135	158	181
ARC-105DA	66	83	99	116	132	149	165	182	198	231	264
ARC-115DA	86	108	130	151	173	194	216	238	259	302	346
ARC-125DA	100	125	150	176	200	226	251	276	301	351	401
ARC-130DA	138	173	208	243	277	312	346	381	416	485	555
ARC-140DA	171	214	256	299	342	385	427	470	513	598	684
ARC-160DA	266	332	399	466	532	598	665	731	798	931	1064
ARC-190DA	426	532	638	745	851	958	1064	1170	1277	1490	1702
ARC-210DA	532	665	798	931	1064	1197	1330	1463	1596	1862	2128
ARC-240DA	769	962	1154	1347	1539	1731	1924	2116	2308	2693	3078
ARC-270DA	1170	1462	1754	2047	2339	2632	2924	3216	3509	4094	4679
ARC-300DA	1526	1908	2289	2671	3052	3434	3815	4197	4578	5341	6104
ARC-350DA	2285	2856	3427	3998	4570	5141	5712	6283	6854	7997	9139
ARC-400DA	3256	4070	4884	5698	6512	7326	8140	8954	9768	11396	13024

* 双作用执行器的选型:

在正常操作条件下, 双作用执行器考虑的安全系数为20%-30%

示例:

阀门力矩=100Nm

安全力矩=100×(1+30%)=130Nm

气源压力=5Bar

对照双作用力矩表, 选配双作用执行器规格为ARC105-DA。

Sizing: Double Acting Actuator

The suggested safety factor for double acting actuators under normal working conditions is 20%-30%

Example:

The torque needed by valve=100N.m

The torque considered safety factor (1+30%)=130N.m

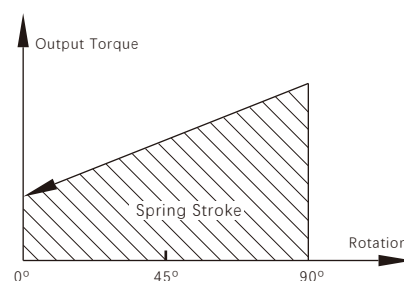
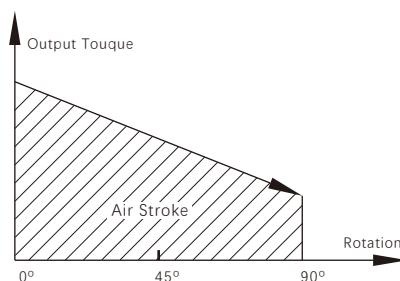
Air Supply=5Bar

According to the above table, we can select the model ARC105-DA.





单作用执行器输出扭矩 For Spring Return Actuator



扭矩单位: 牛米 / Torque Unit: Nm

		输出扭矩 Output torque of air to springs																				弹簧输出扭矩 Spring's output	
气压 Air Pressure		2.5 Bar		3 Bar		3.5 Bar		4 Bar		4.5 Bar		5 Bar		5.5 Bar		6 Bar		7 Bar		8 Bar			
型号 Model	弹簧数量 Spring Qty.	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End
ARC-40	SR2					4.0	1.8	5.6	3.4	6.4	4.2	7.6	5.4	8.8	5.4	9.6	7.4	12.6	10.4	14.6	12.4	6.6	4.4
ARC-52	SR5	5.7	3.8	7.6	5.7	9.7	7.8															6.2	4.3
	SR6	4.9	2.5	6.9	4.5	9.0	6.6	10.9	8.5	13.0	10.6											7.4	5.0
	SR7	4.0	1.3	6.0	3.3	8.1	5.4	9.8	7.3	12.1	9.4	14.0	10.4	16.1	13.4							8.6	5.9
	SR8			5.2	2.0	7.3	4.1	9.2	6.0	11.3	8.1	13.2	9.1	15.3	12.1	17.2	14.1					9.9	6.7
	SR9			4.3	0.8	6.4	2.9	8.3	4.8	10.4	6.9	12.3	7.9	14.4	10.9	16.3	12.8	20.3	16.8			11.1	7.6
	SR10					5.5	1.6	7.4	3.6	9.5	5.6	11.5	6.7	13.5	9.6	15.5	11.6	19.5	15.6			12.4	8.5
	SR11					4.7	0.4	6.6	2.3	8.7	4.4	10.6	5.4	12.7	8.4	14.6	10.4	18.6	14.3	22.6	18.3	13.6	9.3
ARC-63	SR12									7.8	3.2	9.7	4.2	11.8	7.2	13.8	9.1	17.8	12.2	21.8	17.1	14.8	10.2
	SR5	11.4	7.7	15.0	11.4	18.4	14.8	22.3	14.9	25.6	22.0											10.4	6.8
	SR6	10.1	5.7	13.6	9.3	17.0	12.7	20.9	16.6	24.2	19.9	28.3	23.9	31.4	27.1							12.5	8.2
	SR7	8.6	3.6	12.5	7.2	15.6	10.6	19.5	14.5	22.8	17.8	26.8	21.9	30.0	25.0							14.6	9.6
	SR8			10.9	5.1	14.3	8.5	18.2	12.4	21.5	15.7	25.5	19.8	28.7	22.9	32.8	27.0	40.1	34.3			16.7	10.9
	SR9					12.9	6.4	16.8	10.4	20.1	13.6	24.1	17.7	27.3	20.8	31.4	24.9	38.7	32.2			18.8	12.3
	SR10					11.5	4.3	14.0	8.2	18.7	11.5	22.8	15.6	25.9	18.7	30.0	22.8	37.3	30.1	44.7	37.4	20.9	13.7
ARC-75	SR11									17.4	9.5	21.5	13.5	24.6	16.7	28.7	20.7	36.0	28.0	43.3	35.3	22.9	15.0
	SR12									16.0	7.4	20.0	11.4	23.2	14.6	27.3	18.6	34.6	25.9	41.9	33.3	25.0	16.4
	SR5	14.5	10.6	19.4	15.5	24.5	20.5	29.5	25.7	34.5	30.5											14.5	10.5
	SR6	12.4	7.6	17.3	12.6	22.3	17.6	27.4	22.7	32.3	27.6	37.5	32.8	42.3	37.6							17.4	12.7
	SR7	10.4	4.8	15.2	9.7	20.2	14.7	25.3	19.9	30.2	24.7	35.4	29.9	40.2	34.7							20.3	14.8
	SR8			13.1	6.8	18.1	11.8	23.1	16.9	28.1	21.8	33.3	27.0	38.1	31.8	43.2	37.0	53.3	47.0			23.2	16.9
	SR9					16.0	8.9	21.0	14.1	26.0	18.9	31.2	24.1	36.0	28.9	41.1	34.1	51.2	44.2			26.1	19.0
ARC-83	SR10					13.9	6.0	19.0	11.1	23.9	16.0	28.8	21.2	33.9	26.0	39.0	31.2	49.1	41.2	59.1	51.2	29.0	21.1
	SR11									21.8	13.1	27.0	18.3	31.8	23.1	37.0	28.3	47.0	38.4	57.0	48.4	31.9	23.2
	SR12									19.7	10.3	24.9	15.4	29.7	20.3	34.9	25.4	44.9	35.4	54.9	45.4	34.7	25.3
	SR5	23.3	16.1	31.1	24.0	38.8	31.6	46.8	39.7	54.4	47.2											23.0	15.8
	SR6	20.1	11.5	28.0	19.3	35.6	27.0	43.7	35.1	51.2	42.6	59.4	50.7	66.8	58.2							27.6	19.0
	SR7	17.0	6.9	24.8	14.8	32.5	22.4	40.5	30.5	48.1	38.0	56.2	46.2	63.7	53.6							32.2	22.1
	SR8			21.7	10.1	29.3	17.8	37.4	25.8	44.9	33.4	53.1	41.5	60.5	49.0	68.8	57.2	84.5	72.9			36.8	25.3
ARC-92	SR9					26.1	13.2	34.2	21.3	41.7	28.8	49.9	37.0	57.3	44.4	65.6	52.6	81.2	68.3			41.4	28.5
	SR10					23.0	8.6	31.0	16.6	38.6	24.2	46.7	32.3	54.2	39.8	62.4	48.0	78.1	63.7	93.8	79.3	46.0	31.6
	SR11									35.4	19.6	43.6	27.7	51.0	35.2	59.3	43.4	75.0	59.1	90.6	74.8	50.6	34.8
	SR12									32.2	15.0	40.4	23.2	47.8	30.6	56.1	38.9	71.7	54.5	87.4	70.2	55.2	38.0
	SR5	33.1	22.0	44.2	33.2	55.8	44.7	66.8	55.9	78.4	67.3											34.4	23.3
	SR6	28.4	15.2	39.6	26.4	51.1	37.9	62.2	49.0	73.7	60.5	84.8	71.6	96.3	83.1							41.2	28.0
	SR7	23.8	8.2	34.9	19.4	46.4	31.0	57.5	42.1	69.0	53.6	80.2	64.7	91.6	76.2							48.1	32.7
ARC-92	SR8			31.3	12.6	41.8	24.1	52.9	35.2	64.4	46.7	75.5	57.9	87.0	69.3	98.1	80.5	120.7	103.0			55.0	37.3
	SR9					37.1	17.2	48.2	28.4	59.7	39.8	70.9	51.0	82.3	62.4	93.5	73.6	116.0	96.1			61.9	42.0
	SR10					32.4	10.4	43.6	21.5	55.0	33.0	66.2	44.1	77.6	55.6	88.8	66.7	111.3	89.2	134.0	111.8	68.7	46.7
	SR11									50.3	26.1	61.5	37.2	72.9	48.7	84.1	59.9	106.6	82.4	129.2	105.0	75.6	51.4
	SR12									45.7	19.2	56.8	30.4	68.3	41.8	79.4	53.0	101.9	75.5	124.5	98.1	82.5	56.0



扭矩单位: 牛米 / Torque Unit: Nm

输出扭矩 Output torque of air to springs																							弹簧输出扭矩 Spring's output	
气压 Air Pressure		2.5 Bar		3 Bar		3.5Bar		4 Bar		4.5 Bar		5 Bar		5.5 Bar		6 Bar		7 Bar		8 Bar		90° Start 90° End		
型号 Model	弹簧数量 Spring Qty.	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End			
ARC-105	SR5	51.0	33.4	67.5	49.9	83.9	66.3	100.6	83.0	116.9	99.3											49.2	31.6	
	SR6	44.7	23.5	61.1	40.0	77.5	56.4	94.2	73.2	110.5	89.4	127.3	106.2	143.5	122.4							59.1	38.0	
	SR7	38.4	13.7	54.9	30.3	71.2	46.6	87.9	63.4	104.2	79.6	121.0	96.4	137.2	112.6							68.9	44.3	
	SR8			48.5	20.4	64.9	36.8	81.6	53.5	97.9	69.8	114.7	86.5	130.9	102.8	147.7	119.6	180.8	152.7			78.7	50.6	
	SR9					58.6	26.9	75.3	43.7	91.6	59.9	108.4	76.8	124.6	92.9	141.5	109.8	174.5	142.9			88.6	56.9	
	SR10					52.2	17.1	68.9	33.4	85.2	50.1	102.0	66.5	118.2	83.1	135.1	99.6	168.2	132.6	201.2	165.7	98.4	63.3	
	SR11									78.9	40.2	95.7	57.0	111.9	73.2	128.7	90.1	161.8	123.1	194.8	156.2	108.3	69.6	
	SR12									72.6	30.4	89.4	47.5	105.6	63.4	122.5	80.6	155.5	113.6	188.6	146.7	118.1	75.9	
ARC-115	SR5	65	43	87	65	108.2	86.2	130	108	151	129											65	43	
	SR6	56	30	78	52	99.2	73.2	121	95	142	116	164	138	186	160							78	52	
	SR7	47	17	69	39	90.2	60.2	112	82	133	103	155	125	177	147							91	61	
	SR8			61	26	82.2	47.2	104	69	125	90	147	112	169	134	190	155	233	198			104	69	
	SR9					73.2	34.2	95	56	116	77	138	99	160	121	181	142	224	185			117	78	
	SR10					64.2	21.2	86	43	107	64	129	86	151	108	172	129	215	172	259	216	130	87	
	SR11									99	51	121	73	143	95	164	116	207	159	251	203	143	95	
	SR12									90	38	112	60	134	82	156	104	198	146	242	190	156	104	
ARC-125	SR5	73	47	98	72	123.7	96.7	148	122	174	147											79	52	
	SR6	63	31	88	56	112.7	81.7	138	107	163	132	188	157	213	182							94	63	
	SR7	52	15	77	40	102.7	65.7	127	90	153	116	178	141	203	166							110	73	
	SR8			67	25	91.7	50.7	117	75	142	101	167	125	192	151	217	176	268	226			125	84	
	SR9					81.7	34.7	107	59	132	85	157	109	182	135	207	159	257	210			141	94	
	SR10					70.7	18.7	96	44	121	69	146	94	171	119	196	144	247	194	297	245	157	105	
	SR11									111	53	136	78	161	103	186	128	236	178	286	228	173	115	
	SR12									101	38	125	63	151	88	176	113	226	163	276	213	188	125	
ARC-130	SR5	107	68	142	103	177	138	211	172	246	207											105	66	
	SR6	93	46	128	81	163	116	197	150	232	185	266	219	301	254							127	80	
	SR7	80	25	115	60	150	95	184	129	219	164	253	198	288	233							148	93	
	SR8			101	39	136	74	170	108	205	143	239	177	274	212	309	247	378	316			169	107	
	SR9					123	53	157	87	192	122	226	156	261	191	296	226	365	295			190	120	
	SR10					110	31	144	65	179	100	213	134	248	169	283	204	352	273	422	343	212	133	
	SR11									165	79	199	113	234	148	269	183	338	252	408	322	233	147	
	SR12									151	57	185	91	220	126	255	161	324	230	394	300	255	161	
ARC-140	SR5	128	85	171	127	212.9	169.9	256	213	298	255											129	86	
	SR6	111	59	154	102	195.9	143.9	239	187	281	229	325	273	367	315							155	103	
	SR7	94	33	137	76	178.9	117.9	222	162	264	203	308	247	350	289							181	120	
	SR8			120	50	161.9	92.9	205	136	247	178	291	221	333	264	376	307	462	392			206	137	
	SR9					143.9	66.9	187	110	229	152	273	196	315	238	358	281	444	367			232	155	
	SR10					126.9	40.9	170	84	212	126	256	169	298	212	341	255	427	340	512	426	258	172	
	SR11									195	100	238	143	281	186	324	229	409	314	495	400	284	189	
	SR12									178	74	221	118	264	160	307	203	392	289	478	374	310	206	
ARC-160	SR5	193	124	259	191	325.5	257.5	392	324	459	391											208	140	
	SR6	165	83	232	149	297.5	215.5	365	282	431	349	498	415	564	482							250	168	
	SR7	137	41	203	107	269.5	173.5	336	240	403	307	469	373	536	440							292	196	
	SR8			176	66	242.5	132.5	309	199	376	266	442	237	509	399	575	465	708	598			333	223	
	SR9					214.5	90.5	280	157	348	224	413	290	481	357	546	423	679	556			375	251	
	SR10					186.5	48.5	253	115	320	182	386	248	453	315	519	381	652	514	785	647	417	279	
	SR11									292	141	358	207	425	274	491	340	624	473	757	606	458	307	
	SR12									264	99	330	165	397	232	463	298	596	431	729	564	500	335	
ARC-190	SR5	332	222	438	329	544.8	435.8	651	542	758	649											309	200	
	SR6	292	161	398	267	504.8	373.8	611	480	718	587	824	693	930	799							371	240	
	SR7	252	99	358	205	464.8	311.8	571	418	678	525	784	631	890	737							433	280	
	SR8			318	143	424.8	249.8	531	356	638	463	744	569	850	675	957	782	1169	995			495	320	
	SR9					384.8	187.8	491	295	598	401	704	507	810	613	917	720	1130	933			557	360	
	SR10					344.8	126.8	451	233	558	340	664	446	770	552	877	658	1090	871	1302	1084	618	400	
	SR11									518	278	624	384	730	490	837	579	1050	809	1263	1022	680	440	
	SR12									478	216	584	322	690	428	797	535	1010	748	1223	960	742	480	



扭矩单位: 牛米 / Torque Unit: Nm

输出扭矩 Output torque of air to springs																							弹簧输出扭矩 Spring's output	
气压 Air Pressure		2.5 Bar		3 Bar		3.5Bar		4 Bar		4.5 Bar		5 Bar		5.5 Bar		6 Bar		7 Bar		8 Bar				
型号 Model	弹簧数量 Spring Qty.	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	0° 开始 Start	90° 结束 End	90° 开始 Start	0° 结束 End	
ARC-210	SR5	390	285	523	418	656	551	789	684	922	817											380	275	
	SR6	335	209	468	342	601	475	734	608	867	741	1000	874	1133	1007							456	330	
	SR7	280	133	413	266	546	399	679	532	812	665	945	798	1078	931							532	385	
	SR8			358	190	491	323	624	456	757	589	890	722	1023	855	1156	988	1422	1254			608	440	
	SR9					436	247	569	380	702	513	835	646	968	779	1101	912	1367	1178			684	495	
	SR10					381	171	514	304	647	437	780	570	913	703	1046	836	1312	1102	1578	1368	760	550	
	SR11									592	361	725	494	858	627	991	760	1257	1026	1523	1292	836	605	
	SR12									537	285	670	418	803	551	936	684	1202	950	1468	1216	912	660	
ARC-240	SR5	552	409	744	600	936.8	792.8	1129	985	1322	1178											554	410	
	SR6	470	297	662	489	854.8	681.8	1047	874	1240	1067	1432	1259	1624	1451							665	492	
	SR7	388	187	580	379	771.8	571.8	964	764	1157	957	1349	1149	1541	1341							775	575	
	SR8			498	268	690.8	460.8	883	653	1076	846	1267	1037	1460	1230	1652	1422	2037	1807			886	656	
	SR9					607.8	348.8	800	542	993	734	1185	926	1377	1118	1569	1311	1954	1696			998	739	
	SR10					525.8	238.8	718	431	911	624	1103	816	1295	1008	1488	1201	1872	1586	2257	1970	1108	821	
	SR11									829	513	1021	705	1213	897	1406	1090	1791	1474	2176	1859	1219	903	
	SR12									747	402	939	594	1131	786	1323	979	1708	1363	2093	1748	1330	985	
ARC-270	SR5	903	675	1195	968	1487	1260	1779	1552	2072	1845											787	560	
	SR6	790	519	1083	811	1375	1104	1667	1396	1960	1689	2252	1981	2544	2273							943	672	
	SR7	679	316	972	654	1264	945.8	1556	1238	1849	1531	2141	1823	2433	2115							1101	783	
	SR8			860	497	1152	788.8	1444	1081	1737	1374	2029	1666	2321	1958	2614	2252	3199	2836			1258	895	
	SR9					1040	630.8	1332	923	1625	1216	1917	1509	2209	1800	2502	2094	3087	2678			1416	1007	
	SR10					927.8	474.8	1220	767	1513	1060	1805	1352	2097	1644	2390	1937	2974	2521	3560	3107	1572	1119	
	SR11									1401	902	1693	1194	1985	1486	2278	1779	2862	2364	3448	2949	1730	1231	
	SR12									1290	745	1582	1037	1874	1329	2167	1622	2751	2207	3336	2793	1881	1342	
ARC-300	SR5	1097	729																			1061	730	
	SR6	935	494	1316	875	1795	1398															1273	876	
	SR7	772	258	1153	639	1649	1186	1916	1402	2412	1949											1485	1022	
	SR8			991	403	1503	973.5	1754	1166	2266	1737	2517	1929	3029	2500							1697	1168	
	SR9					1357	761.5	1592	930	2120	1525	2355	1693	2883	2288	3118	2456					1909	1314	
	SR10					1211	548.5	1430	695	1974	1312	2193	1458	2737	2075	2956	2221	3719	2984	4482	3747	2122	1460	
	SR11									1828	1100	2030	1222	2591	1863	2793	1985	3556	2748	4319	3511	2334	1606	
	SR12									1682	888	1868	986	2445	1651	2631	1749	3394	2512	4157	3275	2546	1752	
ARC-350	SR5	1553	964																			1702	1173	
	SR6	1292	586	1863	1157	2590	1955															2043	1408	
	SR7	1031	208	1602	779	2356	1615	2745	1922	3499	2758											2383	1642	
	SR8			1341	401	2121	1274	2484	1544	3264	2417	3626	2686	4406	3559							2724	1877	
	SR9					1886	934.4	2224	1165	3029	2077	3336	2307	4171	3219	4508	3449					3064	2112	
	SR10					1652	593.4	1963	787	2795	1736	3105	1929	3937	2878	4247	3071	5390	4214	6532	5356	3405	2346	
	SR11									2560	1396	2844	1551	3702	2538	3986	2693	5129	3836	6271	4978	3745	2581	
	SR12									2325	1055	2584	1172	3467	2197	3726	2314	4869	3457	6011	4599	4086	2816	
ARC-400	SR7	2028	869																			2880	1837	
	SR8	1736	411	2550	1225																	3292	2100	
	SR9			2259	768	3336	1995	3887	2396													3703	2362	
	SR10			1967	311	3074	1583	3595	1939	4702	3211	5223	3567									4115	2624	
	SR11					2811	1172	3303	1482	4439	2800	4931	3110	6067	4428	6559	4738					4526	2887	
	SR12					2549	760	3012	1025	4177	2388	4640	2653	5805	4016	6268	4281	7895	5908	9523	7536	4938	3149	
	SR13									3914	1977	4348	2195	5542	3605	5976	3823	7603	5450	9231	7078	5349	3412	
	SR14									3652	1565	4057	1738	5280	3193	5685	3366	7312	4993	8940	6621	5761	3674	
	SR15									3389	1154	3765	1281	5017	2782	5393	2909	7020	4536	8648	6164	6172	3937	
	SR16													4755	2370	5101	2452	6728	4079	8356	5707	6584	4199	



* 单作用执行器标准选型:

在正常操作条件下, 单作用执行器考虑的安全系数为30%-50%

示例:

阀门需要力矩=120N.m

安全力矩=120×(1+30%)=156Nm

气源压力=5Bar

对照单作用力矩表, 选配单作用执行器规格为ARC-140SR10。



* Standard Sizing: Spring Return

The suggested safety factor for spring return actuator under normal working conditions is 30-50%

Example:

The torque needed by valve=120Nm

The torque considered safety factor =120×(1+30%)=156Nm

Air Supply=5Bar

According to the above table, we can select the model ARC-140SR10.

* 单作用执行器经济选型:

如果能够更了解阀门开启、运行、关闭时的力矩分配, 可以更经济、合理的选配执行器。

示例: 蝶阀需要力矩=104Nm (含安全力矩)

阀门打开后力矩=104×30%=32Nm

气源压力=5Bar。

对照单作用执行器力矩表, ARC-125SR10的力矩为

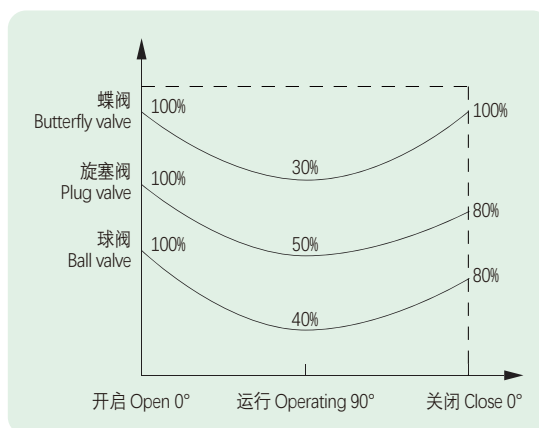
气动行程0°=146Nm >104Nm

气动行程90°=94Nm >32Nm

弹簧行程90°=157Nm >32Nm

弹簧行程0°=105Nm >104Nm

以上数据显示, ARC-125SR10满足该蝶阀的开启和关闭要求。



* Economical Sizing: Spring Return

We can choose the more reasonable and more economical actuators, if we know the different torque of the valve by opening, operating and closing.

Example:

The max torque needed by the butterfly valve=104Nm

The torque after opened (operating)=104×30%=32Nm

Air Supply=5Bar

We can select the model ARC125SR10, output torque is:

Air stroke 0°=146Nm >104Nm

Air stroke 90°=94Nm >32Nm

Spring stroke 90°=157Nm >32Nm

Spring stroke 0°=105Nm >104Nm

The above datas show the actuator's torque can satisfy the requirement of the butterfly valve.



12、选型 How To Order

示例 Example: ARC-75SR10 FC-CCW HT

1	2	3	4	5	6	7
ARC	75	SR10	BLANK	FC-CCW	HT	BLANK
产品代号 Series	型号 Model	类型 Type	行程 Travel	装配类型 Assembly	工作温度 Operating Temperature	连接 Connection
ARC	32 40 . .	DA SR*	BLANK(90) 120 135 180	FC-CCW CCW . .	标准型 BLANK: -20°C~+80°C 高温型 HT: -20°C~+150°C 低温型 LT: -40°C~+80°C	BLANK (Standard) Options*
		*SR+弹簧数量 SR+Spring Qty.				*示例/Example: F04.DS11.30~80 H30

代码/Code		说明/Description
1	ARC	ARC系列气动执行器 / ARC series pneumatic actuators
2	75	ARC系列气动执行器型号 (见第09页) / Model of ARC series pneumatic actuators (P09)
3	SR10	DA: 双作用 / Double Acting SR: 单作用+弹簧数量 / Spring Return+Number of springs
4	BLANK	BLANK : 90°行程(标准) / 90°Rotation (Standard) 120 : 120°行程(仅双作用执行器) / 120° Rotation (only Double Acting) 135 : 135°行程(仅双作用执行器) / 135° Rotation (only Double Acting) 180 : 180°行程(仅双作用执行器) / 180° Rotation (only Double Acting)
5	DA	CCW CW
	SR	FC-CCW FO-CW
6	HT	BLANK: 标准型/Standard (NBR O-ring): -20°C ~ +80°C HT: 高温型/High temperature (Viton O-ring): -20°C ~ +150°C LT: 低温型/Low temperature (LTNBR): -40°C ~ +80°C
7	BLANK	标准连接/Standard Connection

型号 Model	法兰连接 (ISO 5211) Flange Connection		轴底孔 (ISO 5211) Drive Shaft Bottom Hole		附件连接 (VDI/VDE 3845) Accessory Connection		气源连接 Air Connection	
	标准 Standard	可选 Options	标准 Standard	可选 Options	标准 Standard	可选 Options	标准 Standard	可选 Options
ARC-32DA	F03		DS09×11		30×80 H20		G1/8"	/
ARC-40DA	F03+F05	F04	DS11×14		30×80 H20		G1/4"	NPT 1/4"
ARC-52DA	F03+F05	F04	DS11×14		30×80 H20		G1/4"	NPT 1/4"
ARC-63DA	F05+F07	F04+F07	DS14×18		30×80 H20		G1/4"	NPT 1/4"
ARC-75DA	F05+F07	F04+F07	DS14×18		30×80 H20		G1/4"	NPT 1/4"
ARC-83DA	F05+F07		DS17×21		30×80 H20		G1/4"	NPT 1/4"
ARC-92DA	F05+F07		DS17×21		30×80 H20		G1/4"	NPT 1/4"
ARC-105DA	F07+F10		DS22×26		30×80 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-115DA	F07+F10		DS22×26		30×80 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-125DA	F07+F10		DS22×26		30×80/130 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-130DA	F10+F12		DS27×31		30×80/130 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-140DA	F10+F12		DS27×31		30×80/130 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-160DA	F10+F12		DS27×31		30×80/130 H20	30×130 H30 (20)	G1/4"	NPT 1/4"
ARC-190DA	F14	F12	DS36×40		30×130 H30		G1/4"	NPT 1/4"
ARC-210DA	F14	F12	DS36×40		30×130 H30		G1/4"	NPT 1/4"
ARC-240DA	F16	F14	DS46×50		30×130 H30		G1/4"	NPT 1/4"
ARC-270DA	F16	F14	DS46×50		30×130 H30		G1/2"	NPT 1/2"
ARC-300DA	F16+Ø215		DS46×60	ARC-32除外 Except ARC-32	30×130 H30		G1/2"	NPT 1/2"
ARC-350DA	F16+F25		DS46×60		30×130 H30		G1/2"	NPT 1/2"
ARC-400DA	F16+F25		DS55×60		30×130 H30		G1/2"	NPT 1/2"



13、120°, 135°, 180°双作用气动执行器

120°, 135°, 180° Pneumatic Actuator (Double Acting only)

为满足不同类型阀门及机械自动化的驱动要求，我司可根据客户要求定制不同行程(例120°、135°、180°等)的气动执行器。

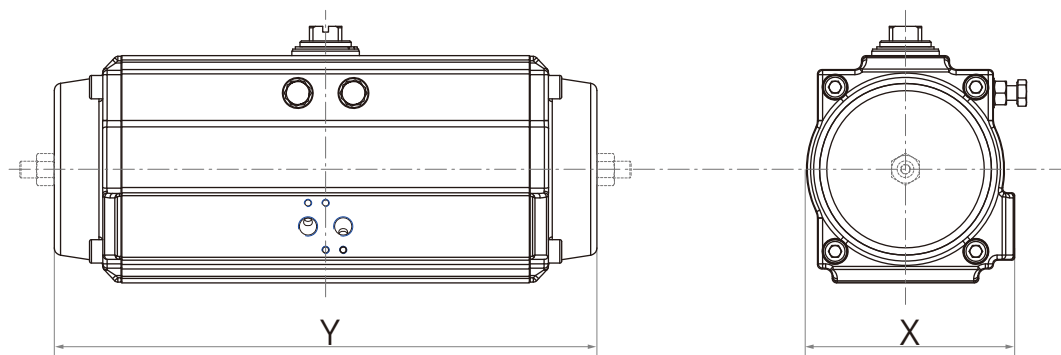
In order to meet the special requirements of control valve, we produce special strokes actuators on customer request (e.g. 120°,135°,180°etc.).

输出扭矩 Output Torque

输出扭矩请参考 90°行程气动执行器扭矩表。

Output torque of special strokes actuators, please refer to the torque of 90° actuators (P11).

180°双作用执行器尺寸表 Length of 180° pneumatic actuator



单位：毫米 / Unit:mm

型号 Model	ARC-52DA -180	ARC-63DA -180	ARC-75DA -180	ARC-83DA -180	ARC-92DA -180	ARC-105DA -180	ARC-125DA -180	ARC-130DA -180	ARC-140DA -180	ARC-160DA -180	ARC-190DA -180	ARC-210DA -180	ARC-240DA -180
X	71.5	83	95	103	108.5	124.5	142	149.5	152.5	174	206	226	260
Y	210	241	258	302	375	396	440	540	585	675	781	789	750

联系我们获取更多信息。Please contact us for more information.

14、三位式执行器 Three Position Pneumatic Actuator

三位式气动执行器是一种特殊规格的执行机构，提供了 0°，45°，90°或 0°，90°，180°的三位式操作方式。中间位置是依靠两个辅助活塞的移动产生的机械制动来实现的。中间位置是可调的。如 90°行程的执行器能提供 20°，30°，50°，70°等的中间位置。

Three position actuator provide an operation of 0°, 45°, 90°or 0°, 90°, 180°. The midway position is achieved by a mechanical stop of movement on the 2 auxiliary pistons. This midway stop position is adjustable, for example, 90° three position actuator can provide midway position of 20°, 30°, 40°, 50°, 70° or else.



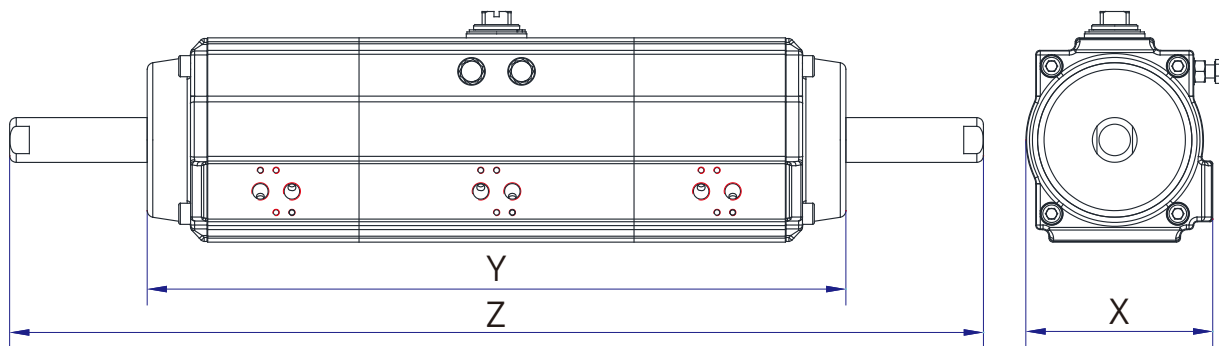


输出扭矩 Output Torque

输出扭矩请参考 90°行程气动执行器扭矩表。

Output torque of three position actuators, please refer to the torque of 90°actuators (P11~P14).

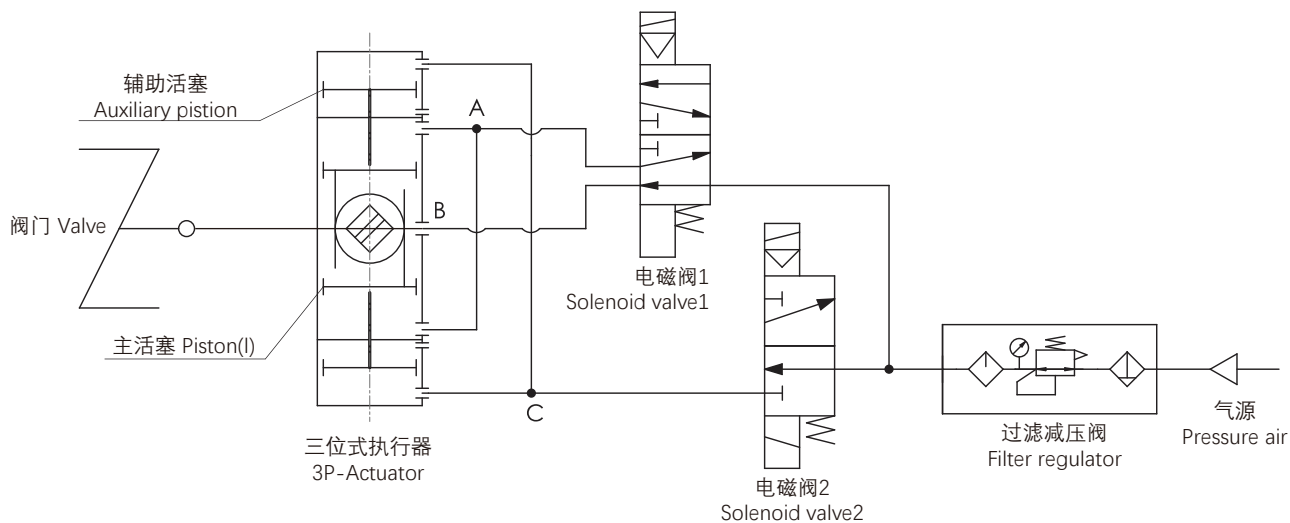
90°/180°三位式执行器尺寸表 Length of three position pneumatic actuator (90°/180°)



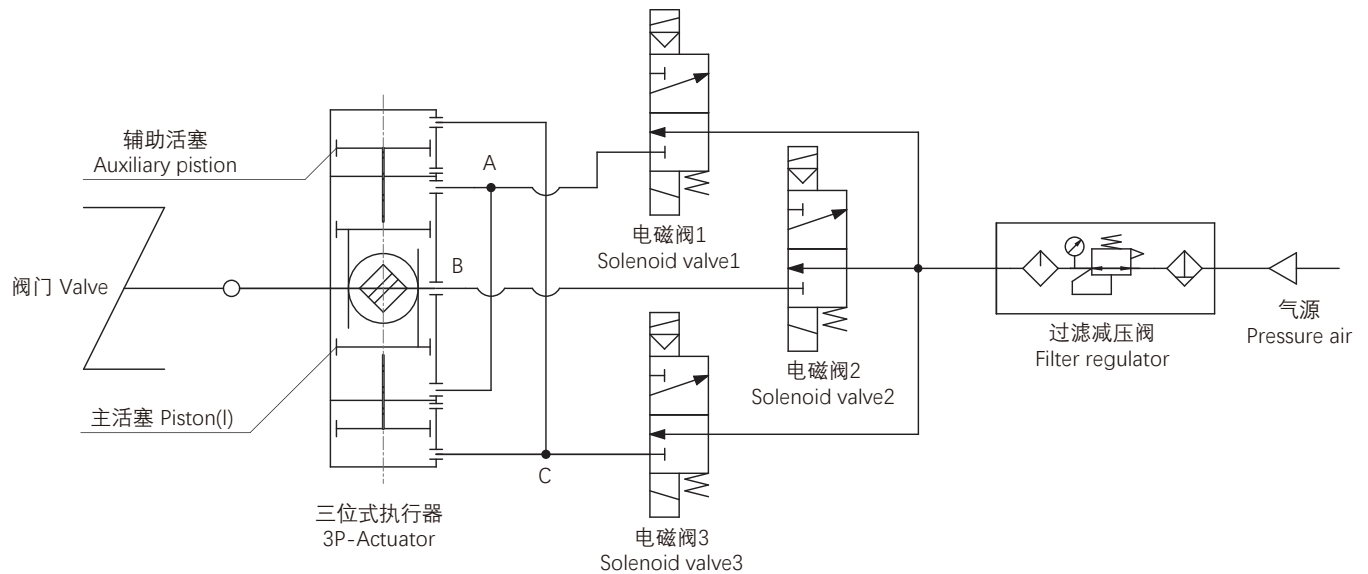
单位：毫米 / Unit:mm

型号 Model	ARC-52 -3P	ARC-63 -3P	ARC-75 -3P	ARC-83 -3P	ARC-92 -3P	ARC-105 -3P	ARC-125 -3P	ARC-130 -3P	ARC-140 -3P	ARC-160 -3P	ARC-190 -3P	ARC-210 -3P	ARC-240 -3P
X	71.5	83	95	103	108.5	124.5	142	149.5	152.5	174	206	226	260
Y (90°)	267	297	332	374	472	480	531	633	693	790	918	938	1064
Z (90°)	382	418	471	523	647	661	740	854	926	1039	1233	1253	1438
Y (180°)	330	373	408	468	585	607	670	806	883	1011	1171	1191	1348
Z (180°)	445	494	547	617	760	788	879	1027	1116	1260	1486	1506	1722

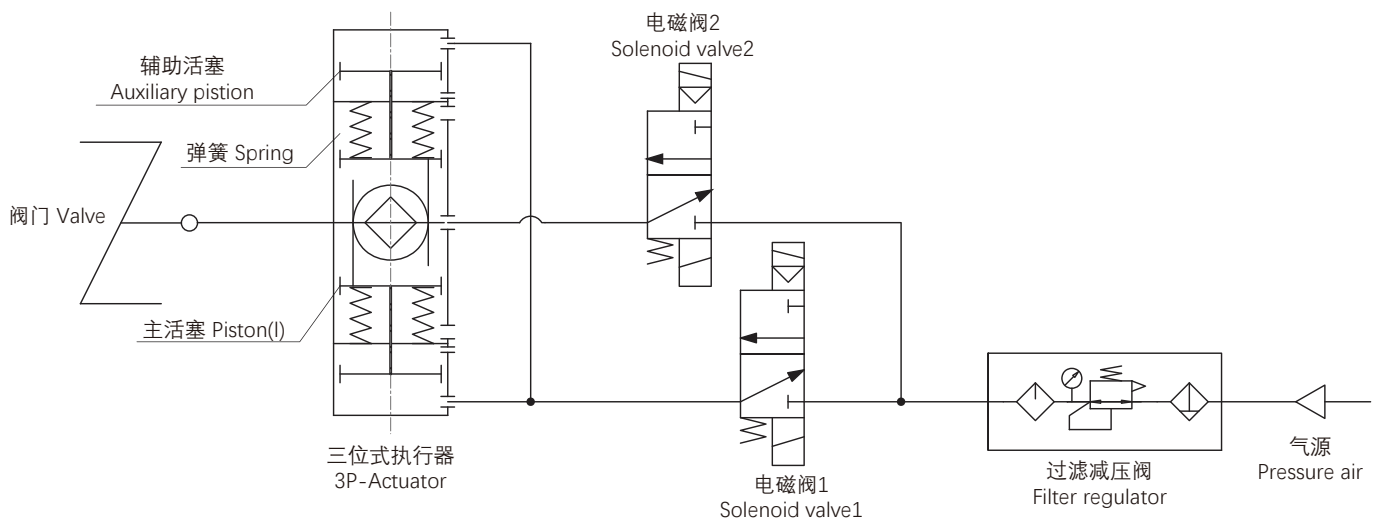
三位式气动执行器工作原理图 Schematic Diagram



	0°	90°	30°	0°
电磁阀 1 SOLENOID VALVE1	OFF	ON	OFF	OFF
电磁阀 2 SOLENOID VALVE2	OFF	OFF	ON	OFF



	0°	30°	90°	30°	0°
电磁阀 1 SOLENOID VALVE1	OFF	OFF	ON	OFF	OFF
电磁阀 2 SOLENOID VALVE2	ON	OFF	OFF	ON	ON
电磁阀 3 SOLENOID VALVE3	OFF	ON	ON	ON	OFF



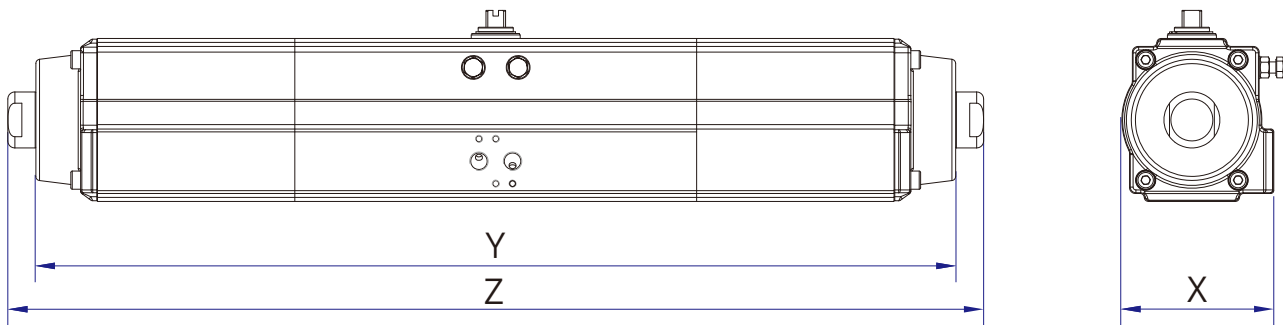
	0°	30°	90°	30°	0°
电磁阀 1 SOLENOID VALVE1	OFF	ON	OFF	ON	OFF
电磁阀 2 SOLENOID VALVE2	OFF	ON	ON	ON	OFF



15、180°单作用执行器，可弹簧复位至中间90°

180° Spring Return Actuator with Fail Middle Position 90°

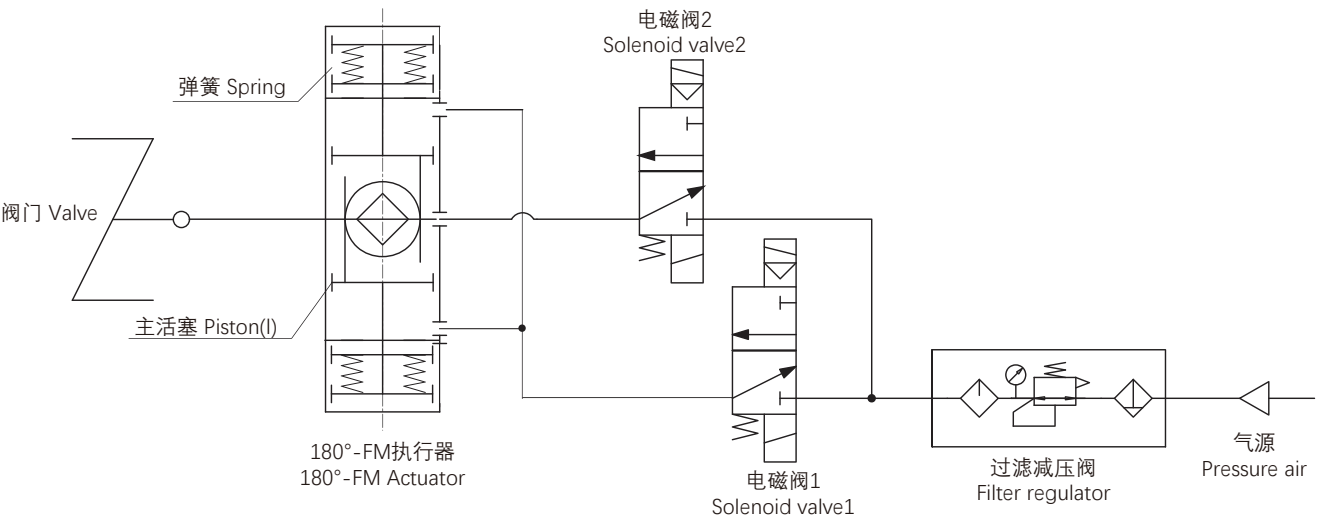
尺寸表 Length of pneumatic actuator



单位：毫米 / Unit:mm

型号 Model	ARC-75SR -180-FM	ARC-83SR -180-FM	ARC-92SR -180-FM	ARC-105SR -180-FM	ARC-125SR -180-FM	ARC-130SR -180-FM	ARC-140SR -180-FM	ARC-160SR -180-FM	ARC-190SR -180-FM	ARC-210SR -180-FM	ARC-240SR -180-FM
X	95	103	108.5	124.5	142	149.5	152.5	174	206	226	260
Y	462	532	659	687	774	894	1013	1159	1343	1353	1532
Z	502	572	699	727	834	954	1073	1219	1403	1413	1592

工作原理图 Schematic Diagram



	0°	180°	90°
电磁阀 1 SOLENOID VALVE1	ON	OFF	OFF
电磁阀 2 SOLENOID VALVE2	OFF	ON	OFF



产品配色 Color options:



端盖/End cap: PT300C
体/Body: 硬质氧化/Hard anodized



端盖/End cap: RAL3020
体/Body: 硬质氧化/Hard anodized



端盖/End cap: RAL9005
体/Body: 硬质氧化/Hard anodized



端盖/End cap: PT300C
体/Body: PT300C



端盖/End cap: PT165C
体/Body: PT165C



端盖/End cap: RAL9005
体/Body: RAL9005

更多个性化定制需求，请联系我们。Please contact us for more requirements of customization.

Note:

Date:



开拓进取 精益求精 Pioneering Excellence

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