

无锡市圣汉斯气动阀门执行器制造有限公司

Wuxi St.Hans Pneumatic Valve Actuators Maker Co.,Ltd

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PNEUMATIC ACTUATORS ALPHA A&B 气动执行器



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WUXI ST.HANS PNEUMATIC VALVE ACTUATORS MAKER CO.,LTD





专注 专业 卓越

The Global Provider of Actuators

打造全球执行器及阀门附件专业供应商

20世纪90年代初，随着世界加工制造业向中国转移，无锡圣汉斯公司应运而生，随之诞生了圣汉斯的第一台执行器。经过近20年的艰苦奋斗、创新发展，圣汉斯集研发、制造、销售于一体，在国内外享誉盛名，成为专业一流的执行器及成套生产厂家之一。

圣汉斯品牌为“ALPHA”（阿尔法），现有产品如下：A系列不锈钢执行器，B系列铝合金执行器，RT系列铝合金执行器，HPY系列拨叉式执行器，HPL系列活塞式直行程执行器，手轮机构，成套阀门，以及位置开关、电磁阀、气控阀、减压阀等阀门控制附件。现有 $\varnothing 32 \sim \varnothing 1000$ 一百多个规格，推力从500N ~ 500000N，扭矩从5Nm ~ 300000Nm皆有覆盖。

公司于2010年初乔迁进入江南第一古镇梅村工业园区，新工厂累计投入资产达一亿元人民币。公司现有员工200多人，工厂占地面积3万平方米，年产执行机构达30万台套，年销售额逾3亿元人民币。

公司本着“专注、专业、卓越”的核心理念，竭诚为新老客户提供更专注的服务，更专业的技术，更卓越的产品。

In the early 1990s, with the transfer of world processing manufacturing industry to China, wuxi St.Hans emerged at the historic moment, and the company's first actuator was born. Through 20 years of hard work, innovation and development, St.Hans sets R&D, manufacturing and sales in one, has become a world-class professional manufacturers of actuators and accessories.

St. Hans brand is ALPHA. Products cover: A series stainless steel actuators, B and RT series aluminum alloy actuators, HPY series scotch yoke actuators, HPL series linear actuators, gear operator, actuated valves, as well as limit switches, solenoid valves, pneumatic control valves, reducing valves and other accessories. Actuator cylinder diameter cover $\varnothing 32 \sim \varnothing 1000$ more than one hundred specifications, with thrust from 500 n and 500000 n, torque range from 5 Nm to 300000 Nm.

The company has more than 200 employees, the factory covers an area of 30,000 square meters, with an annual output of 300,000 units and an annual sales volume of more than USD 47,000,000.00

The Company, taking a core idea of “being absorbed, professional and excellent”, heart and soul provides new and old clients with more absorbed service, more professional technologies, and more excellent products.



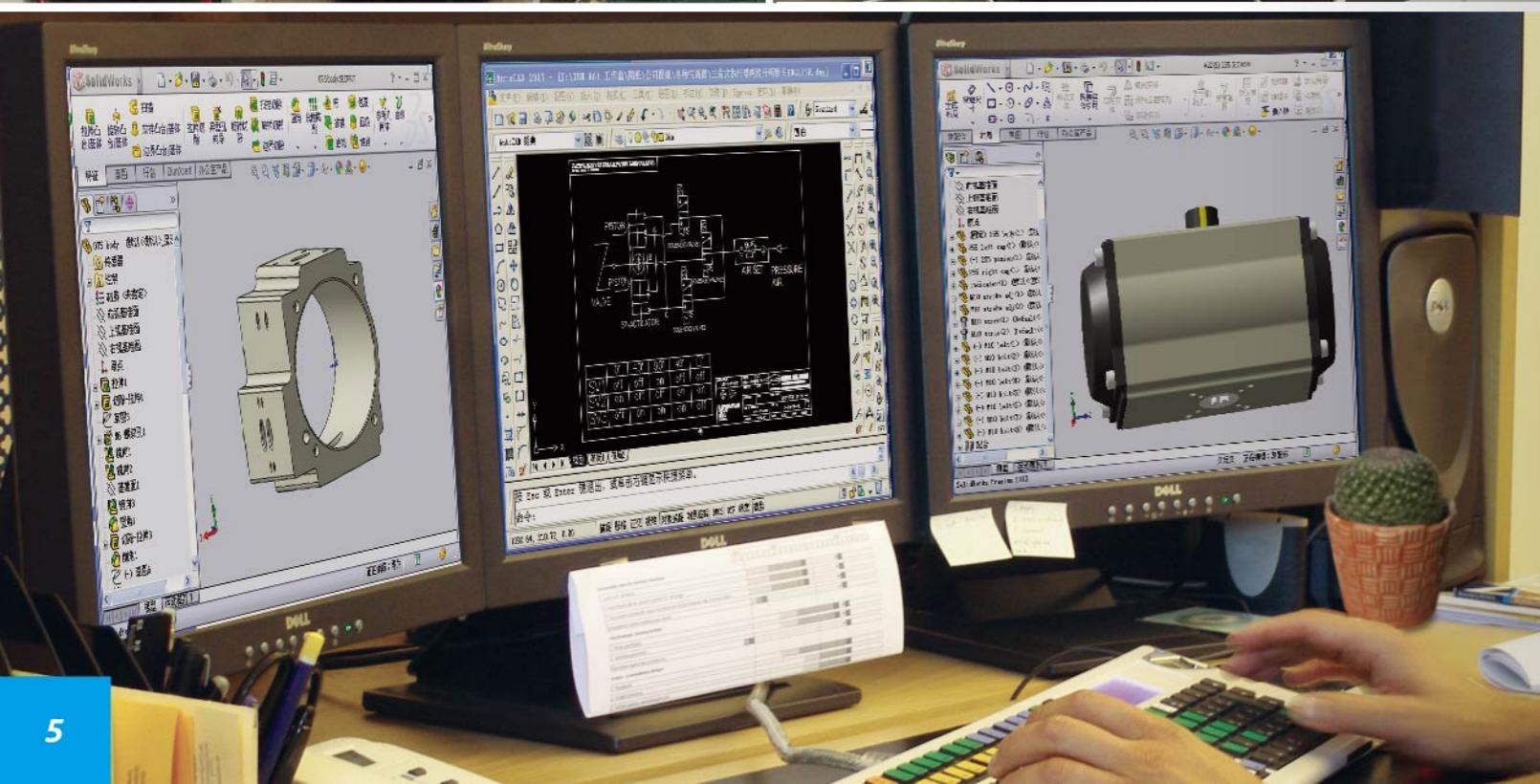
工欲善其事，必先利其器

Advanced Equipment

先进的生产设备

圣汉斯人知道，光有好的管理、好的理念、好的人才是不够的，还要有精良的设备才能代表企业拥有强大的生产和检验能力，保证产品卓越的品质。我们引进了国际先进水平的生产加工设备，拥有高精度的数控机床、各类大型加工中心和专机设备，为产品质量和企业发展提供了有力保障。

In addition to scientific management, excellent talents, but also have excellent equipments to represent the enterprise has a strong production and inspection capacity. We have introduced international advanced production and processing equipments, high-precision CNC machine tools, large processing centers and special equipments to provide a strong guarantee for product quality and enterprise development.



开拓创新，勇无止境

Elite Team

优秀的团队

圣汉斯视科技研发为企业生命力，深谙是人才团队的智慧成就了圣汉斯的品牌、品质，为使圣汉斯产品更趋完美，不吝重金聘请一批高级技术顾问和制造专业人士、高级工程师，加上生产工人孜孜以求的工作态度，注重每一个生产细节，从而形成了圣汉斯在强势品牌战略中最坚不可摧的堡垒。圣汉斯不断自主创新，保证了新产品研发的质量和速度，在研发上填补了国内多项空白，为行业发展作出了令人瞩目的贡献。

St Hans believes that technology is the vitality of the enterprise, employing senior technical consultants and manufacturing professionals, senior engineers. St. Hans' continuous independent innovation ensures the quality and speed of new product research and development. The R&D achievements fills in many gaps in this field, and makes remarkable contributions to the development of the industry.



注重细节，精益求精

Quality Assurance

完善的检测手段

圣汉斯一直坚持严格控制每一个环节、每一道工序，从设计研发到生产作业各个环节的质量状况。我们的检测系统流程从设计、选材、制造、组装到运行，每个环节都要经历苛刻的检测程序，将精度控制到最严密，将产品品质控制到最优异，对每一细微之处的精益求精，都控制到最完美，让客户在使用的同时，深切感受到圣汉斯严谨务实的品质宗旨……

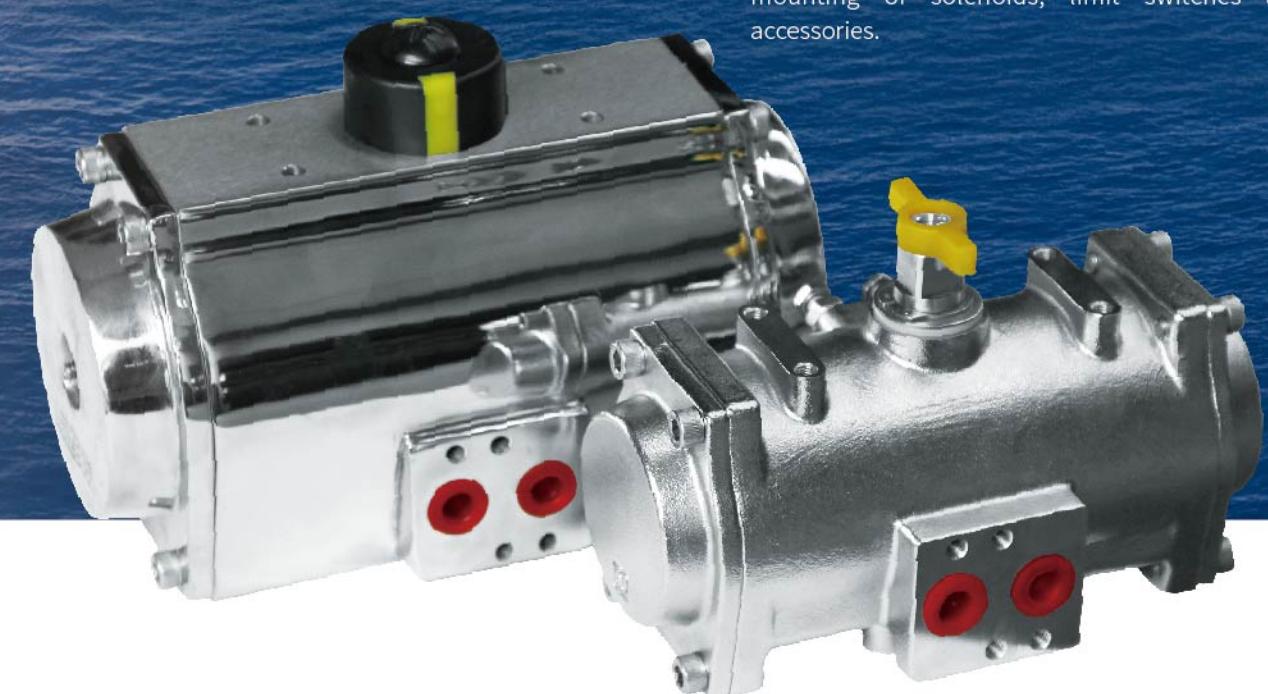
St.Hans has always insisted on strict quality control. From design, material selection, manufacturing, assembly to operation, every link has to go through rigorous testing procedures, the accuracy control to the extreme, the quality control to impeccable.



Stainless Steel Actuator

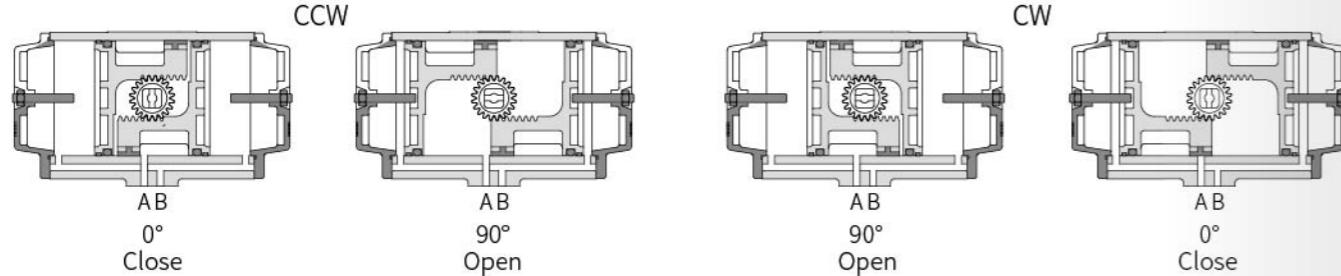
αA系列不锈钢执行器

- 316L、316、304、303 不锈钢材质执行器，外表电解抛光，光洁美观，抗腐蚀性能强，适合于抗腐蚀要求极高的工程环境。
- 双活塞齿轮齿条式设计，结构紧凑、安装位置对称、改变输出轴转向方便，使用寿命长、动作迅速。
- 活塞齿条背面装有复合轴承及导向环，动作精确、摩擦系数小、使用寿命延长。
- 组合式预负荷镀层弹簧，工作寿命长、抗腐蚀性能强。
- 高精度齿轮和齿条，啮合间隙小、精度高，输出功率大。
- 不锈钢紧固件，安全美观，抗腐蚀性强。
- 采用国际规范尺寸：
输出轴槽、螺孔；顶部安装孔尺寸符合 NAMUR 标准；
气源接口尺寸符合 NAMUR 标准；
底部安装孔尺寸符合 ISO5211、DIN3337 标准，方便安装电磁阀限位开关等附件。
- ASTM316L, 316, 304, 303 stainless steel pneumatic actuators with electro-polish finish offer excellent resistance to most corrosive chemicals as well as industrial atmospheres.
- Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation, reverse rotation can be accomplished in the field by simply inverting the pistons.
- Multiple bearings and guides on racks and pistons, low friction, high cycle life and prevent shaft blowout.
- Modular preloaded spring cartridge design, with coated spring for simple versatile range, greater safety and corrosion resistance, longer cycle life.
- Fully machined teeth on piston and pinion for accurate low backlash rack and pinion engagement, maximum efficiency.
- Stainless steel fasteners for long term corrosion resistance.
- Full conformance to the latest specifications: ISO5211, DIN 3337 and Namur or product interchangeability and easy mounting of solenoids, limit switches and other accessories.



工作原理 Operating Principle

双作用执行器 Double Acting Actuators



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。

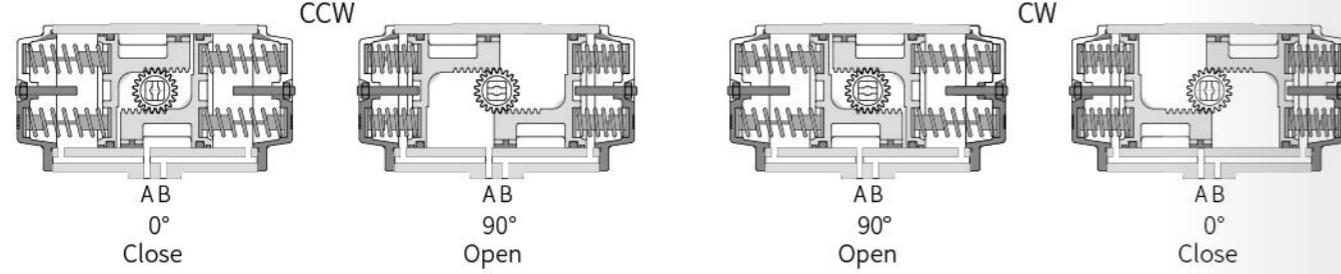
Air to Port A forces the pistons outwards, causing the pinion to turn counterclockwise while the air is being exhausted from Port B.

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

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

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

单作用执行器 Spring Return Actuators



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。

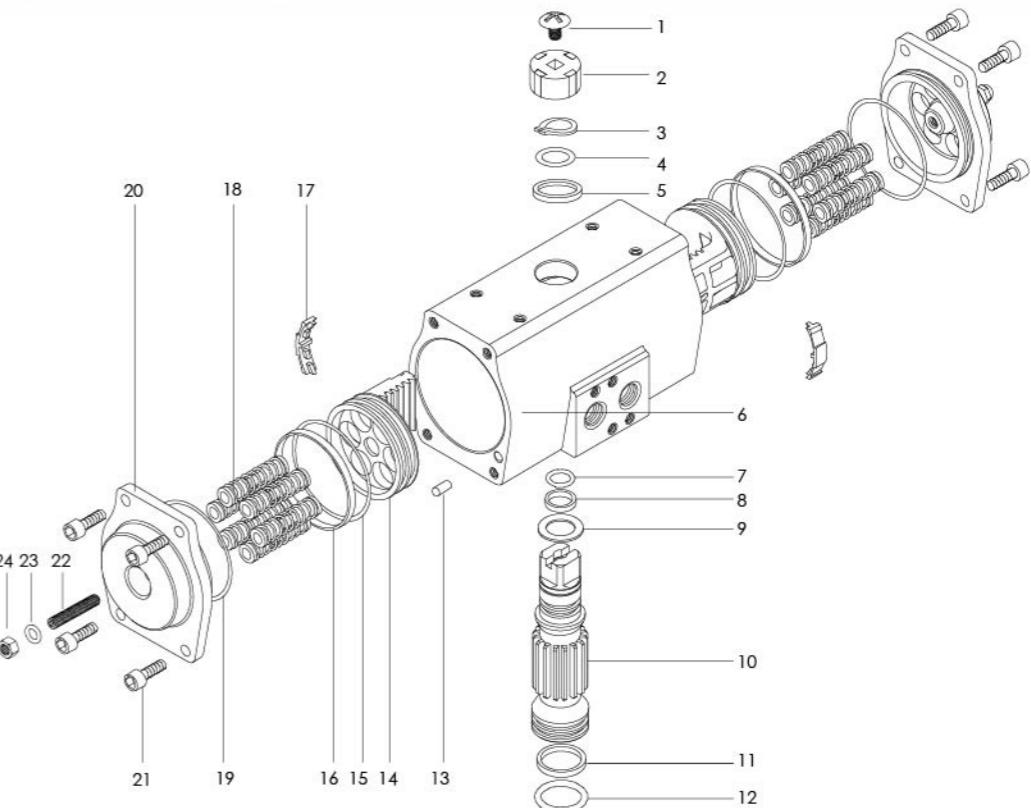
Air to port A forces the pistons outwards, causing the springs to compress, The pinion turns counterclockwise while air is being exhausted from port B.

Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The pinion turns clockwise while air is being exhausted from port A.

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；

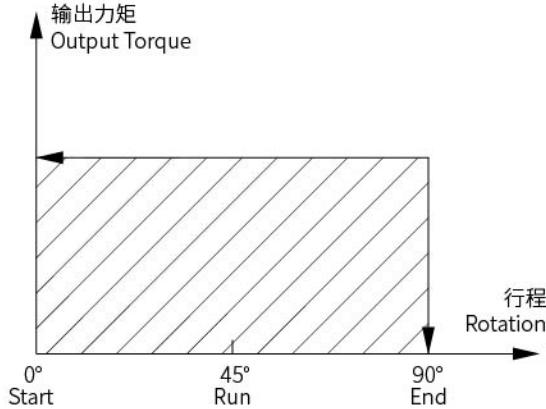
执行器失气，活塞在弹簧力的作用下向内运动，执行器输出轴逆时针转动($0^\circ \rightarrow 90^\circ$)，A口排气。

零件和材料 Parts and Materials



序号 No.	名称 Description	数量 Qty.	材 料 Standard Material	可选材料 Option
1	指示器螺钉 Indicator screw	1	塑料 Plastic(ABS)	
2	指示器 Indicator	1	塑料 Plastic(ABS)	
3	弹性挡圈 Circlip	1	不锈钢 Stainless steel(304)	
4	垫片 Thrust washer	1	不锈钢 Stainless steel(304)	
5	外垫片 Outside washer	1	工程塑料 Polyoxymethylene	
6	缸体 Body	1	不锈钢 Stainless steel CF8	CF8M/CF3M
7	上轴"O"型圈 O-ring(Pinion top)	1	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
8	上轴支承圈 Bearing(Pinion top)	1	工程塑料 Polyoxymethylene	
9	内垫片 Inside washer	1	工程塑料 Polyoxymethylene	
10	轴 Pinion	1	不锈钢 Stainless steel 304	316/316L
11	下轴支承圈 Bearing(Pinion bottom)	1	工程塑料 Polyoxymethylene	
12	下轴"O"型圈 O-ring(Pinion bottom)	1	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
13	塞头 Plug	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
14	活塞 Piston	2	不锈钢 Stainless steel CF8	CF8M/CF3M
15	活塞"O"型圈 O-ring(Piston)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
16	活塞支承圈 Bearing(Piston)	2	工程塑料 Polyoxymethylene	
17	活塞导板 Guide(Piston)	2	尼龙66 Nylon66	
18	弹簧 Spring	0~12	琴钢丝 Piano Wire	
19	端盖"O"型圈 O-ring(End-Cap)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
20	端盖 End-Cap	2	不锈钢 Stainless steel CF8	CF8M/CF3M
21	端盖紧固螺杆 End-Cap Screw	8	不锈钢 Stainless steel(304)	
22	调节螺杆 Adjust Screw	2	不锈钢 Stainless steel(304)	
23	调节螺杆"O"型圈 O-ring (Adjust Screw)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
24	调节螺杆螺母 Nut (Adjust Screw)	2	不锈钢 Stainless steel(304)	

双作用扭矩 Output Torque with Double Acting



αA 系列气动执行器双作用输出扭矩表

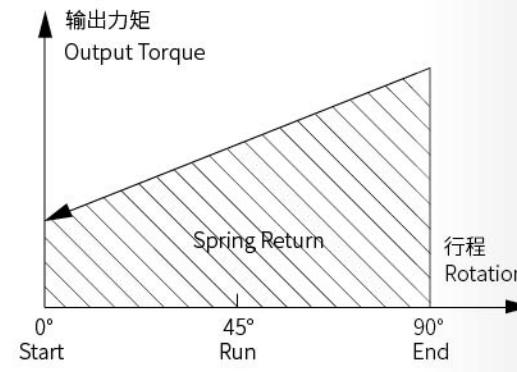
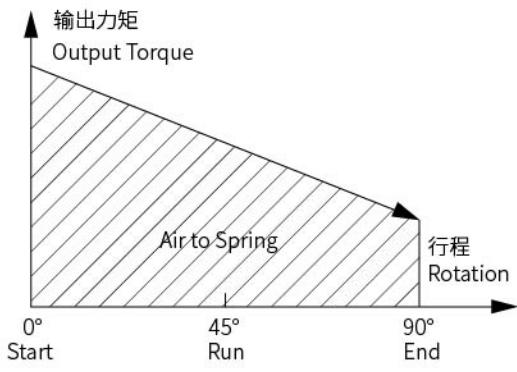
Output Torque Table of αA Series Pneumatic Actuators with Double Acting

Unit: Nm

规格 Model	气源压力(巴) Air pressure(Bar)									
	2	2.5	3	4	4.5	5	5.5	6	7	8
αA-45DA	6.0	7.6	9.1	12.1	13.6	15.1	16.6	18.1	21.1	24.2
αA-60DA	14.2	17.8	21.3	28.4	32.0	35.5	39.1	42.6	49.7	56.8
αA-85DA	30.8	38.5	46.2	61.6	69.4	77.1	84.8	92.5	107.9	123.3
αA-105DA	65.8	82.2	98.7	131.6	148.0	164.4	180.9	197.3	230.2	263.1
αA-125DA	103	128	154	205	231	256	282	308	359	410
αA-140DA	175	219	263	351	395	439	482	526	614	702
αA-160DA	267	334	401	535	601	668	735	802	935	1069
αA-210DA	526	658	789	1052	1184	1316	1447	1579	1842	2105

单作用扭矩 Output Torque with Spring Return

单作用气动执行器输出扭矩
Output Torque of Pneumatic Actuator with Spring Return



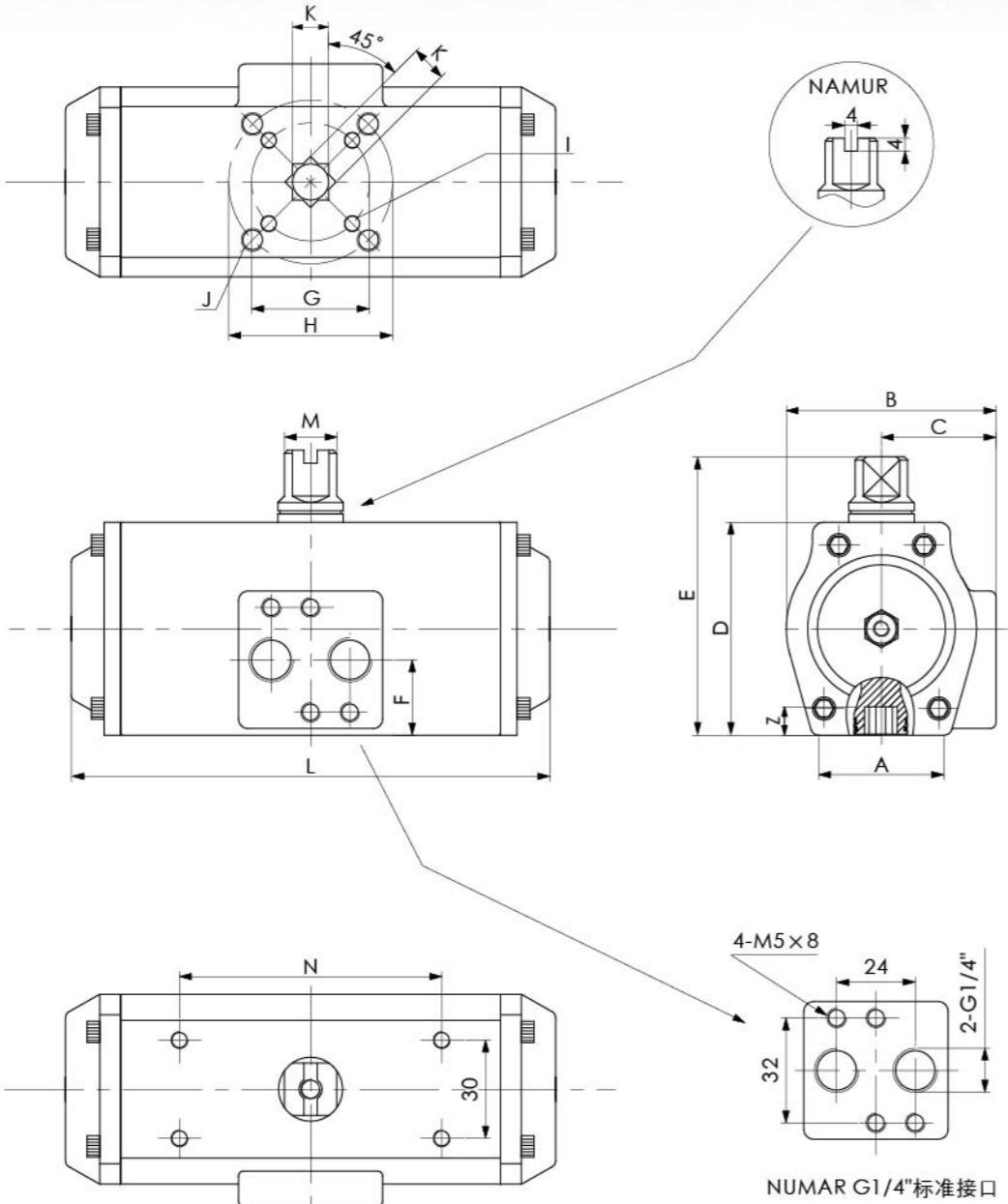
αA 系列单作用气动执行器输出扭矩表

Output Torque of αA Series Pneumatic Actuator with Spring Return

Unit: Nm

规格 (Modell)	弹簧根数 Spring Qty.	气源压力(巴) Air pressure(Bar)								弹簧输出扭矩 Springs' output									
		2		2.5		3		4		5		6		7		8			
αA-45SR	K5	3.0	1.2	4.6	2.8	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End		
	K6	2.3	0.2	3.9	1.8	5.4	3.3												
	K7			3.3	0.8	4.8	2.3	7.8	5.3										
	K8					4.2	1.3	7.2	4.3	10.2	7.3								
	K9							6.6	3.4	9.6	6.4	12.6	9.4						
	K10							6.0	2.4	9.0	5.4	12.0	8.4	15.0	11.4	18.1	14.5	10.1	
	K11									8.4	4.4	11.4	7.4	14.4	10.4	17.5	13.5	10.1	
αA-60SR	K12									7.8	3.5	10.8	6.5	13.8	9.5	16.9	12.6	11.1	
	K5	7.0	3.2	10.6	6.8													10.4	6.8
	K6	5.6	1.0	9.2	4.6	12.7	8.1											12.5	8.2
	K7		7.7	2.4	11.2	5.9	18.3	13.0										14.6	9.6
	K8				9.8	3.7	16.9	10.8	24.0	17.9								16.7	10.9
	K9					15.4	8.6	22.5	15.7	29.6	22.8							18.8	12.3
	K10						14.0	6.4	21.1	13.5	28.2	20.6	35.3	27.7	42.4	34.8	20.9	13.7	
αA-85SR	K11									19.7	11.3	26.8	18.4	33.9	25.5	41.0	32.6	22.9	15.0
	K12									18.2	9.1	25.3	16.2	32.4	23.3	39.5	30.4	25.0	16.4
	K5	14.2	6.6	21.9	14.3	26.2	17.1											23.0	15.8
	K6	10.8	1.7	18.5	9.4	15.2	4.6	22.9	12.3	38.3	27.7							27.6	19.0
	K7				19.6	7.4	35.0	22.8	50.5	38.3	62.5	48.9						32.2	22.1
	K8					31.6	18.0	47.1	33.5									36.8	25.3
	K9						28.3	13.2	43.8	28.7	59.2	44.1	74.6	59.5	90.0	74.9	46.0	31.6	
αA-105SR	K10							40.5	23.8	55.9	39.2	71.3	54.6	86.7	70.0	50.6	34.8	55.2	38.0
	K11								37.1	19.0	52.5	34.4	67.9	49.8	83.3	65.2			
	K12									84.5	40.1	117.4	73.0	150.3	105.9	183.2	138.8	118.1	75.9
	K5	32.5	14.0	48.9	30.4													49.2	31.6
	K6	25.8	3.6	42.2	20.0	58.7	36.5											59.1	38.0
	K7		35.6	9.7	52.1	26.2	85.0	59.1										68.9	44.3
	K8				45.4	15.8	78.3	48.7	111.1	81.5								78.7	50.6
αA-125SR	K9					71.7	38.4	104.5	71.2	137.4	104.1							88.6	56.9
	K10						65.0	28.0	97.8	60.8	130.7	93.7	163.6	126.6	196.5	159.5	98.4	63.3	
	K11							91.1	50.4	124.0	83.3	156.9	116.2	189.8	149.1	108.3	69.6		
	K12								84.5	40.1	117.4	73.0	150.3	105.9	183.2	138.8	118.1	75.9	
	K5	47.9	20.5	72.9	45.5													78.4	52.4
	K6	36.9	4.0	61.9	29.0	87.9	55.0											94.1	62.8
	K7			50.8	12.5	76.8	38.5	127.8	89.5										

外型尺寸 Dimension



Model 规格	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Z	Air Connection 接口螺纹
αA-45	48	70	41	65	85	23	ø36	ø50	M5x8	M6x10	11	148	16	80	14	G1/4"
αA-60	58	78	43	81	101	23	/	ø50	/	M6x10	14	167	16	80	18	G1/4"
αA-85	75	102	53.5	108	128	24	ø50	ø70	M6x10	M8x13	17	197	16	80	21	G1/4"
αA-105	92	122	63.5	133	153	24	/	ø70	/	M8x13	22	251	16	80	26	G1/4"
αA-125	96	140	72	155	185	28	ø70	ø102	M8x13	M10x16	22	284	22	130	26	G1/4"
αA-140	112	154	78	171.5	201.5	34	ø102	ø125	M10x16	M12x20	27	360	22	130	31	G1/4"
αA-160	127	173	86	197	227	39	ø102	ø125	M10x16	M12x20	27	420	22	130	31	G1/4"
αA-210	144	226	110	255	285	45	/	ø140	/	M16x25	36	530	32	130	40	G1/4"

Unit: mm

工作技术条件 Operating conditions

1. 使用介质: 压缩空气、无腐蚀性气体和油;
 2. 压力范围: 双作用2~8巴(Bar), 单作用2~8巴(Bar);
 3. 工作温度: 标准型(使用丁腈橡胶O型圈)-20°C~+80°C
 低温型(使用低温丁腈胶O型圈)-40°C~+80°C
 高温型(使用氟橡胶O型圈)-20°C~+150°C;
 4. 行程调节: 活塞在两端位置有±5°的可调范围
 (请参考ALPHA-B系列执行器);
 5. 润滑: 在正常工作条件下, 不需添加润滑剂;
 6. 安装: 适合室内或室外安装;
 7. 最高使用压力: 输入气压不超过10巴。
1. Control Medium
 Dry or lubricated air, the non-corrosive gases or oil
 2. Control Pressure
 2~8 Bar
 3. Ambient temperature Standard: -20°C~+80°C
 Low temperature: -40°C~+80°C
 High temperature: -20°C~+150°C
 4. Travel stroke and it's adjusting
 The pistons have an adjustable range of ±5° at both ends.
 (Please refer to ALPHA-B actuator.)
 5. Lubrication
 Under normal operation, users do not need to add lubricant additionally
 6. Application
 Either indoor or outdoor
 7. Highest Pressure
 The maximum input pressure is 10 Bar

耗气量计算 Air Consumption

αA 系列执行器开向体积和关向体积 αA Series Air volume opening & closing

Unit: L

型号 Model	开向体积 (升) Volume Opening	关向体积 (升) Volume Closing
αA-45DA	0.08	0.11
αA-63DA	0.20	0.23
αA-85DA	0.41	0.55
αA-105DA	0.94	1.18
αA-125DA	1.47	1.85
αA-140DA	2.43	3.20
αA-160DA	3.65	5.03
αA-210DA	7.4	9.7



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

重量表 Weight Table

αA 执行器系列 αA Series

Unit: Kg

型号 Model	αA-45	αA-60	αA-85	αA-105	αA-125	αA-140	αA-160	αA-210
Weight(SR)	2.65	4.10	7.00	12.60	19.20	27.30	37.60	100.00
Weight(DA)	2.51	3.85	6.35	11.90	18.00	24.80	35.80	91.00

Aluminium Alloy Actuator

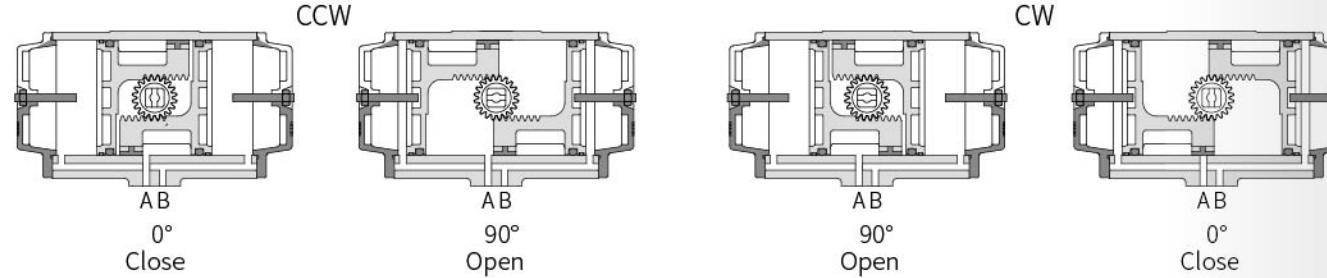
αB系列铝合金执行器



- 均采用高级防腐技术，气缸摩擦系数小，使用寿命长，抗腐蚀性能强。
- 双活塞齿轮齿条式设计，结构紧凑、安装位置对称、改变输出轴转向方便，使用寿命长、动作迅速。
活塞齿条背面装有复合轴承及导向环，动作精确、摩擦系数小、使用寿命延长。
- 组合式预负荷镀层弹簧，工作寿命长。
- 高精度齿轮和齿条，啮合间隙小、精度高，输出功率大。
- 不锈钢紧固件，安全美观，抗腐蚀性强。
- 采用国际规范尺寸：
输出轴槽、螺孔；顶部安装孔尺寸符合NAMUR标准；
气源接口尺寸符合NAMUR标准；
底部安装孔尺寸符合ISO5211、DIN3337标准，方便安装电磁阀、限位开关等附件。
- Body with both internal and external corrosion protection having honed cylinder surface for longer life and low coefficient of friction.
- Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation, reverse rotation can be accomplished in the field by simply inverting the pistons.
- Multiple bearings and guides on racks and pistons, low friction, high cycle life and prevent shaft blowout.
- Modular preloaded spring cartridge design, with coated spring for simple versatile range, greater safety and corrosion resistance, longer cycle life.
- Fully machined teeth on piston and pinion for accurate low backlash rack and pinion engagement, maximum efficiency.
- Stainless steel fasteners for long term corrosion resistance
- Full conformance to the latest specifications: ISO5211, DIN 3337 and Namur or product interchangeability and easy mounting of solenoids, limit switches and other accessories.

工作原理 Operating Principle

双作用执行器 Double Acting Actuators



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。

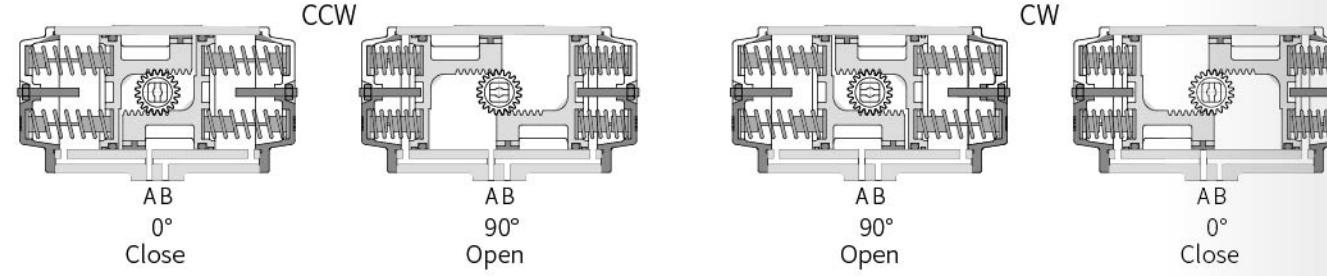
Air to Port A forces the pistons outwards, causing the pinion to turn counterclockwise while the air is being exhausted from Port B.

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

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

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

单作用执行器 Spring Return Actuators



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。

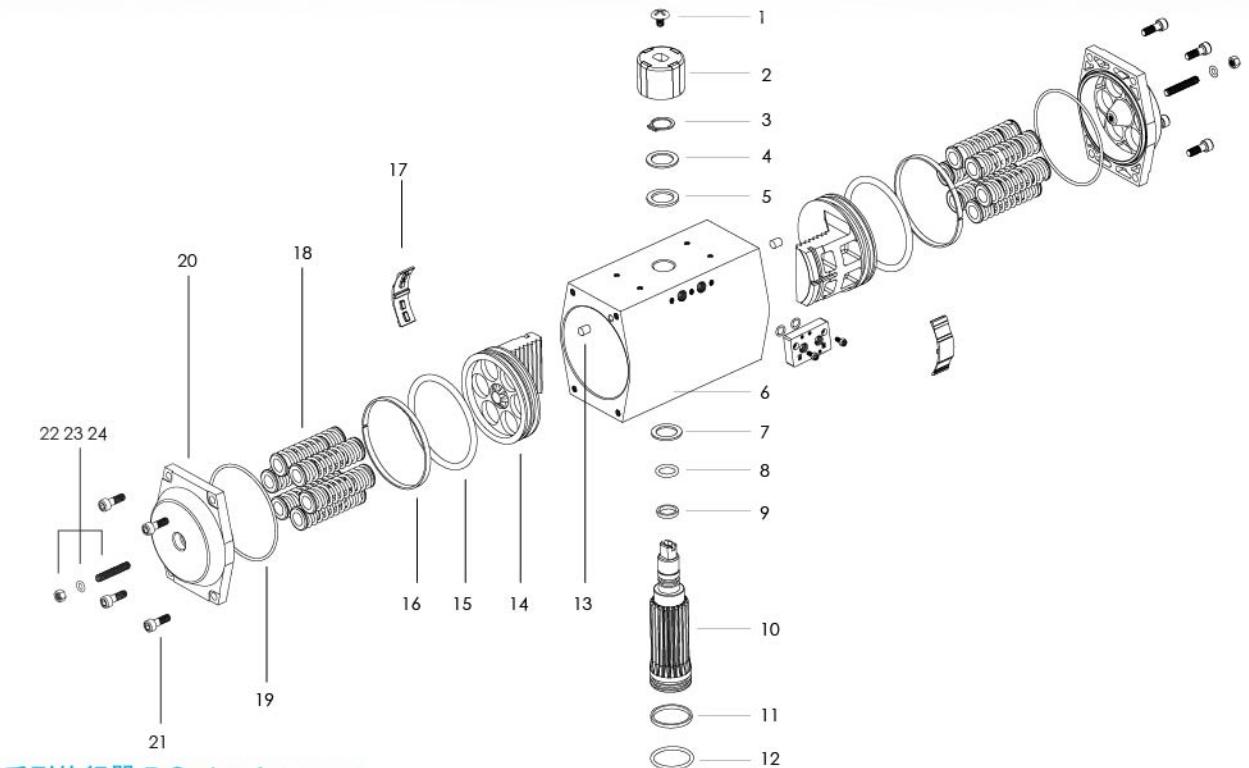
Air to port A forces the pistons outwards, causing the springs to compress, The pinion turns counterclockwise while air is being exhausted from port B.

Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The pinion turns clockwise while air is being exhausted from port A.

Air to port A forces the pistons outwards, causing the springs to compress, The pinion 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 pinion turns counterclockwise while air is being exhausted from port A.

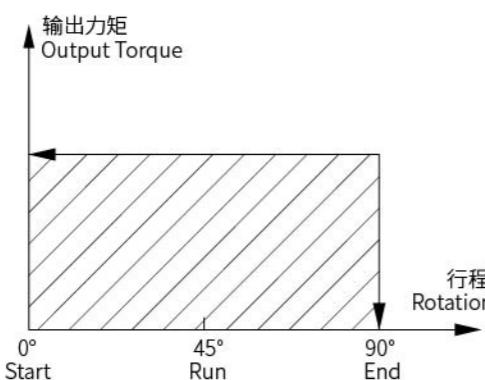
零件和材料 Parts and Materials



B系列执行器 B Series Actuators

序号 No.	名称 Description	数量 Qty.	材料 Standard Material	可选材料 Option
1	指示器螺钉 Indicator Screw	1	塑料 Plastic(ABS)	
2	指示器 Indicator	1	塑料 Plastic(ABS)	
3	弹性挡圈 Circlip	1	不锈钢 Stainless steel(304)	
4	垫片 Thrust washer	1	不锈钢 Stainless steel(304)	
5	外垫片 Outside washer	1	工程塑料 Polyoxymethylene	
6	缸体 Body	1	铝合金(6005-T5) Extruded aluminum alloy(6005-T5)	
7	内垫片 Inside washer	1	工程塑料 Polyoxymethylene	
8	上轴"O"型圈 O-ring(Pinion top)	1	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
9	上轴支承圈 Bearing(Pinion top)	1	工程塑料 Polyoxymethylene	
10	轴 Pinion	1	合金钢 Alloy Steel	
11	下轴支承圈 Bearing(Pinion Bottom)	1	工程塑料 Polyoxymethylene	
12	下轴"O"型圈 O-ring(Pinion Bottom)	1	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
13	塞头 Plug	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
14	活塞 Piston	2	压铸铝 Die-casting aluminum	
15	活塞"O"型圈 O-ring(Piston)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
16	活塞支承圈 Bearing(Piston)	2	工程塑料 Polyoxymethylene	
17	活塞导板 Guide(Piston)	2	尼龙66 Nylon66	
18	弹簧 Spring	0~12	琴钢丝 Piano Wire	
19	端盖"O"型圈 O-ring(End-cap)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
20	端盖 End-cap	2	压铸铝 Die-casting aluminum	
21	端盖紧固螺杆 End-cap screw	8	不锈钢 Stainless steel(304)	
22	调节螺杆 Adjust screw	2	不锈钢 Stainless steel(304)	
23	调节螺杆"O"型圈 O-ring(Adjust screw)	2	丁腈橡胶 NBR	氟素橡胶/低温丁腈橡胶 Viton/LNBR
24	调节螺杆螺母 Nut(Adjust screw)	2	不锈钢 Stainless steel(304)	

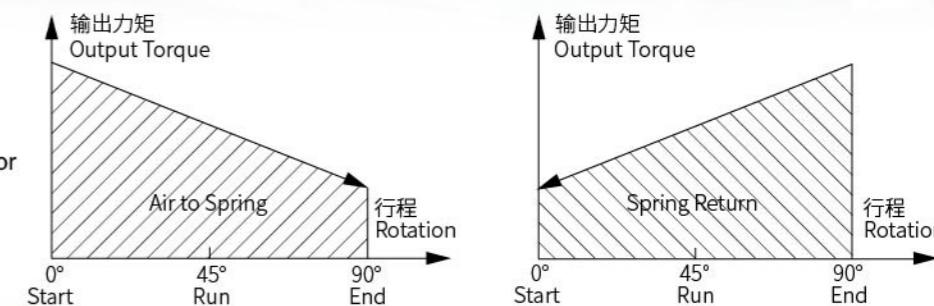
双作用扭矩 Output Torque with Double Acting



αB 系列气动执行器双作用输出扭矩表
Output Torque Table of αB Series Pneumatic Actuators with Double Acting

规格 Model	气源压力(巴) Air pressure(Bar)									
	2	2.5	3	4	4.5	5	5.5	6	7	8
αB-32DA	3.1	3.8	4.6	6.1	6.9	7.6	8.4	9.2	10.7	12.2
αB-45DA	6.0	7.6	9.1	12.1	13.6	15.1	16.6	18.1	21.1	24.2
αB-52DA	8.1	10.1	12.1	16.1	18.1	20.2	22.2	24.2	28.2	32.3
αB-63DA	14.2	17.8	21.3	28.4	32.0	35.5	39.1	42.6	49.7	56.8
αB-75DA	20.1	25.2	30.2	40.3	45.3	50.3	55.4	60.4	70.5	80.5
αB-83DA	30.8	38.5	46.2	61.6	69.4	77.1	84.8	92.5	107.9	123.3
αB-92DA	45.4	56.8	68.2	90.9	102.3	113.6	125.0	136.3	159.1	181.8
αB-105DA	65.8	82.2	98.7	131.6	148.0	164.4	180.9	197.3	230.2	263.1
αB-125DA	103	128	154	205	231	256	282	308	359	410
αB-140DA	175	219	263	351	395	439	482	526	614	702
αB-160DA	267	334	401	535	601	668	735	802	935	1069
αB-190DA	431	538	646	861	969	1077	1185	1292	1508	1723
αB-210DA	526	658	789	1052	1184	1316	1447	1579	1842	2105
αB-240DA	773	966	1160	1546	1740	1933	2126	2320	2706	3093
αB-270DA	1174	1468	1761	2349	2642	2936	3229	3523	4110	4697
αB-300DA	1526	1908	2289	3052	3434	3815	4197	4578	5341	6104
αB-350DA	2285	2856	3427	4570	5141	5712	6283	6854	7997	9139
αB-400DA	3256	4069	4883	6511	7325	8139	8953	9767	11394	13022

单作用扭矩 Output Torque with Spring Return



αB 系列单作用气动执行器输出扭矩表
Output Torque of αB Series Pneumatic Actuator with Spring Return

规格 Model	弹簧根数 Spring Qty.	气源压力(巴) Air pressure(Bar)																弹簧输出扭矩 Springs' output			
		2		2.5		3		4		5		6		7		8					
		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				
αB-45SR	K5	3.0	1.2	4.6	2.8													4.6	2.9		
	K6	2.3	0.2	3.9	1.8	5.4	3.3											5.5	3.5		
	K7			3.3	0.8	4.8	2.3	7.8	5.3									6.5	4.1		
	K8					4.2	1.3	7.2	4.3	10.2	7.3							7.4	4.6		
	K9							6.6	3.4	9.6	6.4	12.6	9.4					8.3	5.2		
	K10							6.0	2.4	9.0	5.4	12.0	8.4	15.0	11.4	18.1	14.5	9.2	5.8		
	K11									8.4	4.4	11.4	7.4	14.4	10.4	17.5	13.5	10.1	6.4		
	K12									7.8	3.5	10.8	6.5	13.8	9.5	16.9	12.6	11.1	7.0		
	K5	3.7	1.6	5.7	3.6													6.2	4.2		
	K6	2.8	0.3	4.8	2.3	6.8	4.3											7.4	5.1		
	K7			3.9	1.0	5.9	3.0	9.9	7.0									8.6	5.9		
αB-52SR	K8					5.0	1.7	9.0	5.7	13.1	9.8							9.9	6.8		
	K9							8.1	4.4	12.2	8.5	16.2	12.5					11.1	7.6		
	K10							7.2	3.1	11.3	7.2	15.3	11.2	19.3	15.2	23.4	19.3	12.4	8.5		
	K11									10.4	5.9	14.4	9.9	18.4	13.9	22.5	18.0	13.6	9.3		
	K12									9.5	4.6	13.5	8.6	17.5	12.6	21.6	16.7	14.8	10.1		
	K5	7.0	3.2	10.6	6.8													10.4	6.8		
	K6	5.6	1.0	9.2	4.6	12.7	8.1											12.5	8.2		
	K7			7.7	2.4	11.2	5.9	18.3	13.0									14.6	9.6		
	K8					9.8	3.7	16.9	10.8	24.0	17.9							16.7	10.9		
	K9							15.4	8.6	22.5	15.7	29.6	22.8					18.8	12.3		
	K10							14.0	6.4	21.1	13.5	28.2	20.6	35.3	27.7	42.4	34.8	20.9	13.7		
αB-63SR	K11									19.7	11.3	26.8	18.4	33.9	25.5	41.0	32.6	22.9	15.0		
	K12									18.2	9.1	25.3	16.2	32.4	23.3	39.5	30.4	25.0	16.4		
	K5	9.0	4.9	14.1	10.0													14.5	10.5		
	K6	6.8	1.8	11.9	6.9	16.9	11.9											17.4	12.7		
	K7			9.7	3.9	14.7	8.9	24.8	19.0									20.3	14.8		
	K8					12.4	5.8	22.5	15.9	32.5	25.9										



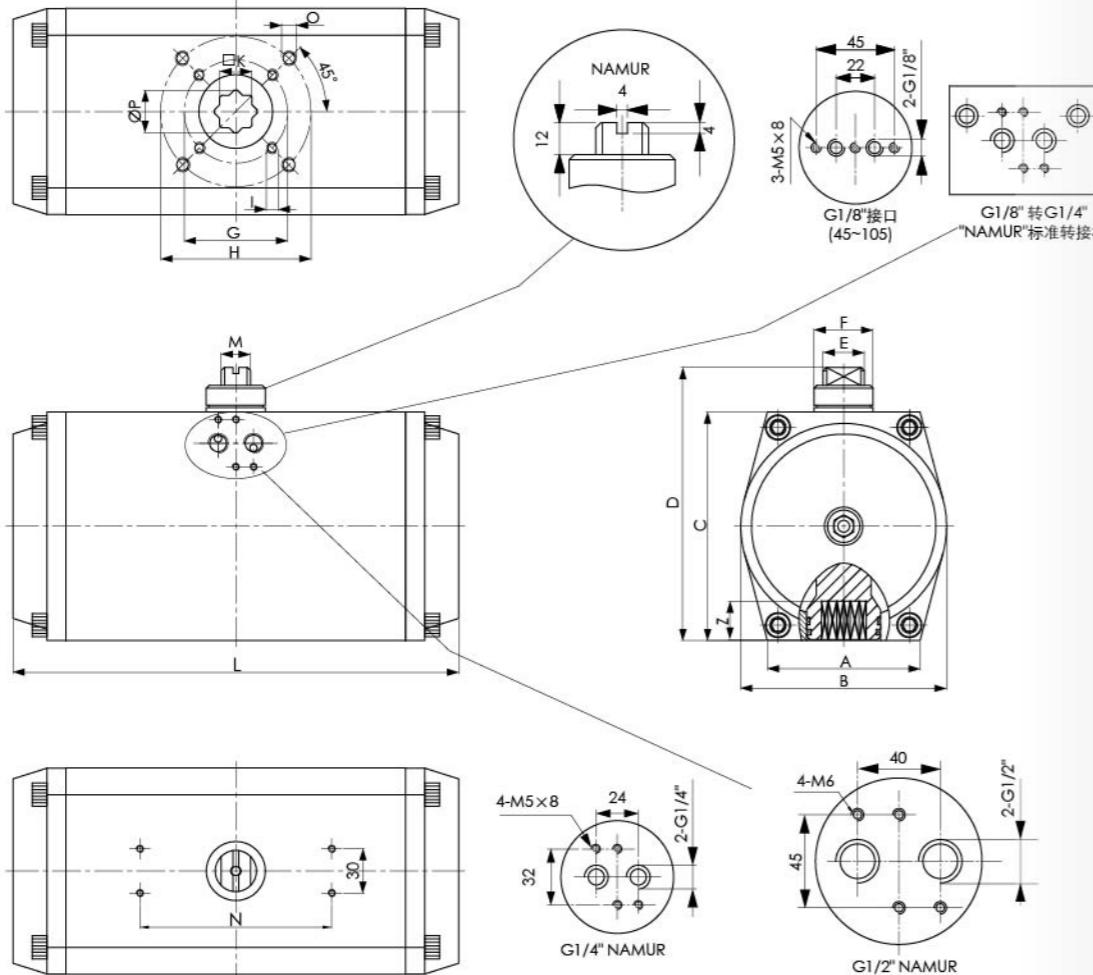
$\alpha\beta$ 系列单作用气动执行器输出扭矩表 Output Torque of $\alpha\beta$ Series Pneumatic Actuator with Spring Return
unit: Nm

规格 Model	气源压力(巴) Air pressure(Bar)																			
	弹簧根数 Spring Qty.	2		2.5		3		4		5		6		7		8		弹簧输出扭矩 Springs'output		
		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	
αB-92SR	K5	20.8	9.2	32.2	20.6														34.4	23.3
	K6	15.9	2.0	27.3	13.4	38.7	24.8												41.2	28.0
	K7			22.4	6.1	33.8	17.5	56.5	40.2										48.1	32.7
	K8					28.9	10.3	51.6	33.0	74.3	55.7								55.0	37.3
	K9							46.7	25.8	69.4	48.5	92.1	71.2						61.9	42.0
	K10							41.8	18.5	64.5	41.2	87.2	63.9	110.0	86.7	132.7	109.4	68.7	46.7	
	K11									59.5	34.0	82.2	56.7	105.0	79.5	127.7	102.2	75.6	51.4	
	K12									54.6	26.8	77.3	49.5	100.1	72.3	122.8	95.0	82.5	56.0	
αB-105SR	K5	32.5	14.0	48.9	30.4														49.2	31.6
	K6	25.8	3.6	42.2	20.0	58.7	36.5												59.1	38.0
	K7			35.6	9.7	52.1	26.2	85.0	59.1										68.9	44.3
	K8					45.4	15.8	78.3	48.7	111.1	81.5								78.7	50.6
	K9							71.7	38.4	104.5	71.2	137.4	104.1						88.6	56.9
	K10							65.0	28.0	97.8	60.8	130.7	93.7	163.6	126.6	196.5	159.5	98.4	63.3	
	K11									91.1	50.4	124.0	83.3	156.9	116.2	189.8	149.1	108.3	69.6	
	K12									84.5	40.1	117.4	73.0	150.3	105.9	183.2	138.8	118.1	75.9	
αB-125SR	K5	47.9	20.5	72.9	45.5														78.4	52.4
	K6	36.9	4.0	61.9	29.0	87.9	55.0												94.1	62.8
	K7			50.8	12.5	76.8	38.5	127.8	89.5										109.7	73.3
	K8					65.8	22.0	116.8	73.0	167.8	124.0								125.4	83.8
	K9							105.8	56.5	156.8	107.5	208.8	159.5						141.1	94.2
	K10							94.8	40.0	145.8	91.0	197.8	143.0	248.8	194.0	299.8	245.0	156.8	104.7	
	K11									134.8	74.5	186.8	126.5	237.8	177.5	288.8	228.5	172.4	115.2	
	K12									123.7	58.0	175.7	110.0	226.7	161.0	277.7	212.0	188.1	125.7	
αB-140SR	K5	84.7	39.3	128.7	83.3														129.0	85.8
	K6	66.6	12.1	110.6	56.1	154.6	100.1												154.8	102.9
	K7			92.6	29.0	136.6	73.0	224.6	161.0										180.5	120.1
	K8					118.5	45.8	206.5	133.8	294.5	221.8								206.3	137.3
	K9							188.5	106.7	276.5	194.7	363.5	281.7						232.1	154.4
	K10							170.4	79.5	258.4	167.5	345.4	254.5	433.4	342.5	521.4	430.5	257.9	171.6	
	K11									240.3	140.4	327.3	227.4	415.3	315.4	503.3	403.4	283.7	188.7	
	K12									222.3	113.2	309.3	200.2	397.3	288.2	485.3	376.2	309.5	205.9	
αB-160SR	K5	120.0	47.7	187.0	114.7														208.3	139.7
	K6	90.6	3.9	157.6	70.9	224.6	137.9												250	168
	K7			128.2	27.0	195.2	94.0	329.2	228.0										292	196
	K8					165.8	50.2	299.8	184.2	432.8	317.2								333	223
	K9							270.4	140.3	403.4	273.3	537.4	407.3						375	251
	K10							241.0	96.4	374.0	229.5	508.0	363.5	641.0	496.5	775.0	630.5	417	279	
	K11									344.6	185.6	478.6	319.6	611.6	452.6	745.6	586.6	458	307	
	K12									315.2	141.7	449.2	275.7	582.2	408.7	716.2	542.7	500	335	
αB-190SR	K5	220	105	327	212														293	190
	K6	178	40	285	147	393	255												352	227
	K7			243	82	351	190	566	405										410	265
	K8					309	125	524	340	740	556								469	303
	K9							482	275	698	491	913	706						527	341
	K10							440	210	656	426	871	641	1087	857	1302	1072	586	379	
	K11									614	361	829	576	1045	792	1260	1007	645	417	
	K12									572	296	787	511	1003	727	1218	942	703	455	

αB 系列单作用气动执行器输出扭矩表 Output Torque of αB Series Pneumatic Actuator – Spring Return unit: Nm

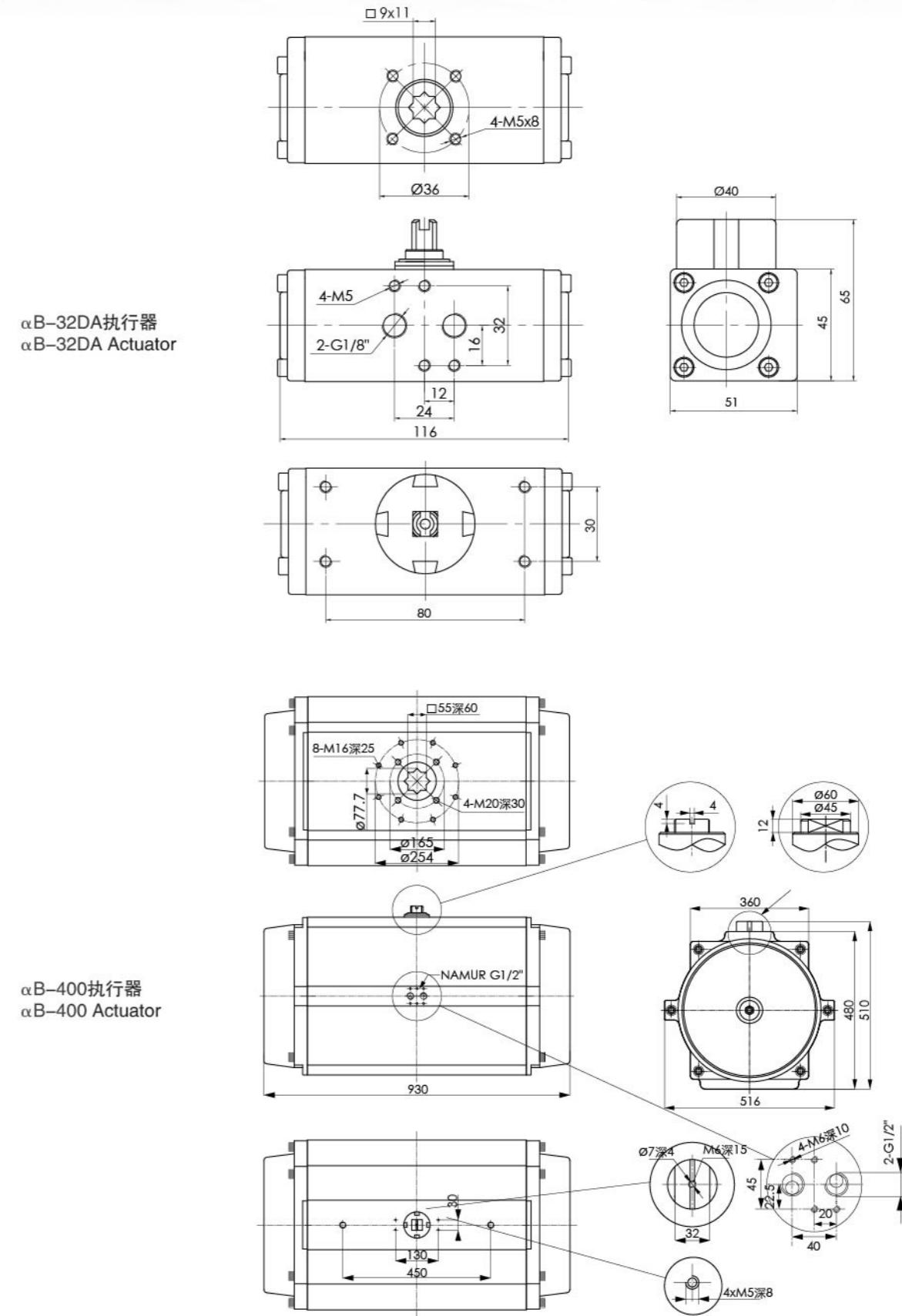
规格 Model	气源压力(巴) Air pressure(Bar)																			
	弹簧根数 Spring Qty.	2		2.5		3		4		5		6		7		8		弹簧输出扭矩 Springs' output		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	0°	
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
αB-210SR	K5	237	126	369	258													360	260	
	K6	179	46	311	178	442	309											432	313	
	K7			253	99	384	230	647	493									503	365	
	K8					326	150	589	413	853	677							575	417	
	K9							531	333	795	597	1058	860					647	469	
	K10							473	253	737	517	1000	780	1263	1043	1526	1306	719	521	
	K11									679	437	942	700	1205	963	1468	1226	791	573	
	K12									621	357	884	620	1147	883	1410	1146	863	625	
αB-240SR	K5	341	190	534	383													525	389	
	K6	255	73	448	266	642	460											630	467	
	K7			361	150	555	344	941	730									735	544	
	K8					469	227	855	613	1242	1000							840	622	
	K9							768	496	1155	883	1542	1270					945	700	
	K10								682	380	1069	767	1456	1154	1842	1540	2229	1927	1050	778
	K11									983	650	1370	1037	1756	1423	2143	1810	1155	855	
	K12									896	533	1283	920	1669	1306	2056	1693	1260	933	
αB-270SR	K5	585	346	879	640													745	530	
	K6	467	181	761	475	1054	768											894	636	
	K7			644	309	937	602	1525	1190									1043	742	
	K8					819	437	1407	1025	1994	1612							1192	848	
	K9							1289	859	1876	1446	2463	2033					1341	954	
	K10							1171	694	1758	1281	2345	1868	2932	2455	3519	3042	1490	1060	
	K11									1640	1115	2227	1702	2814	2289	3401	2876	1639	1166	
	K12									1523	950	2110	1537	2697	2124	3284	2711	1788	1272	
αB-300SR	K5	715	347	1097	729													1061	730	
	K6	553	112	935	494	1316	875											1273	876	
	K7			772	258	1153	639	1916	1402									1485	1022	
	K8					991	403	1754	1166	2517	1929							1697	1168	
	K9							1592	930	2355	1693	3118	2456					1909	1314	
	K10							1430	695	2193	1458	2956	2221	3719	2984	4482	3747	2122	1460	
	K11									2030	1222	2793	1985	3556	2748	4319	3511	2334	1606	
	K12									1868	986	2631	1749	3394	2512	4157	3275	2546	1752	
αB-350SR	K5	982	393	1553	964													1702	1173	
	K6	721	15	1292	586	1863	1157											2043	1408	
	K7			1031	208	1602	779	2745	1922									2383	1642	
	K8					1341	401	2484	1544	3626	2686							2724	1877	
	K9							2224	1165	3366	2307	4508	3449					3064	2112	
	K10							1963	787	3105	1929	4247	3071	5390	4214	6532	5356	3405	2346	
	K11									2844	1551	3986	2693	5129	3836	6271	4978	3745	2581	
	K12									2584	1172	3726	2314	4869	3457	6011	4599	4086	2816	
αB-400SR	K7	1215	56	2028	869													2880	1837	
	K8			1736	411	2550	1225											3292	2100	
	K9					2259	768	3887	2396									3703	2362	
	K10						1967	311	3595	1939	5223	3567						4115	2624	
	K11							3303	1482	4931	3110	6559	4738					4526	2887	
	K12							3012	1025	4640	2653	6268	4281	7895	5908	9523	7536	4938	3149	
	K13									4348	2195	5976	3823	7603	5450	9231	7078	5349	3412	
	K14									4057	1738	5685	3366	7312	4993	8940	6621	5761	3674	
	K15									3765	1281	5393	2909	7020	4536	8648	6164	6172	3937	
	K16											5101	2452	6728	4079	8356	5707	6584	4199	

外型尺寸 Dimension



型号 Model	A	B	C	D	E	F	G	H	I	K	L	M	N	O	ØP	Z	接口螺纹 Air Connection
αB-45	48	58	65	95	12	14	Ø36	Ø50	M5×8	11	146	10	80	M6×10	Ø15.5	14	G1/8"
αB-52	50	59	74	104	12	14	Ø36	Ø50	M5×8	11	146	10	80	M6×10	Ø15.5	14	G1/8"
αB-63	60	72	88	118	12	18	Ø50	Ø70	M6×10	14	168	10	80	M8×13	Ø19.7	18	G1/8"
αB-75	65	83	100	130	12	18	Ø50	Ø70	M6×10	14	184	10	80	M8×13	Ø19.7	18	G1/8"
αB-83	67	90	109	139	12	18	Ø50	Ø70	M6×10	17	204	10	80	M8×13	Ø24	21	G1/8"
αB-92	76	104	120	150	18	25	Ø50	Ø70	M6×10	17	260	14	80	M8×13	Ø24	21	G1/8"
αB-105	90	115	133	163	18	25	Ø70	Ø102	M8×13	22	268	14	80	M10×16	Ø29.5	26	G1/8"
αB-125	103.5	140	155	185	28	40	Ø70	Ø102	M8×13	22	298	20	130	M10×16	Ø29.5	26	NAMUR G1/4"
αB-140	107	152	171.5	201.5	28	40	Ø102	Ø125	M10×16	27	390	20	130	M12×20	Ø36.7	31	NAMUR G1/4"
αB-160	128	175.8	197	227	28	40	Ø102	Ø125	M10×16	27	458	20	130	M12×20	Ø36.7	31	NAMUR G1/4"
αB-190	135	206	230	260	44	60	/	Ø140	/	36	528	32	130	M16×25	Ø49.5	40	NAMUR G1/4"
αB-210	135	226	255	285	44	60	/	Ø140	/	36	532	32	130	M16×25	Ø49.5	40	NAMUR G1/4"
αB-240	155	256	289	319	44	60	/	Ø165	/	46	602	32	130	M20×25	Ø63.6	50	NAMUR G1/4"
αB-270	170	289	320	350	44	60	/	Ø165	/	46	722	32	130	M20×25	Ø63.6	50	NAMUR G1/2"
αB-300	196	324	348	378	44	60	Ø165	Ø215	M20×25	46	754	32	130	M20×25	Ø63.6	60	NAMUR G1/2"
αB-350	220	380	408	438	44	60	Ø165	Ø215	M20×25	46	882	32	130	M20×25	Ø63.6	60	NAMUR G1/2"

αB-32DA/400执行器安装尺寸图 Dimensional Drawing of αB-32DA/400

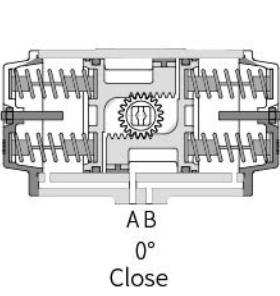
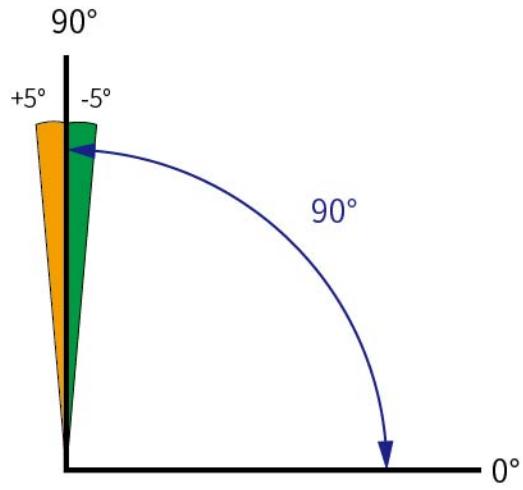


工作技术条件 Operating conditions

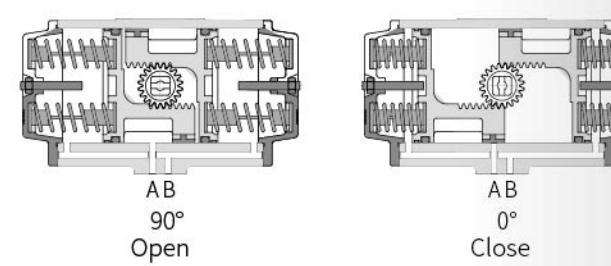
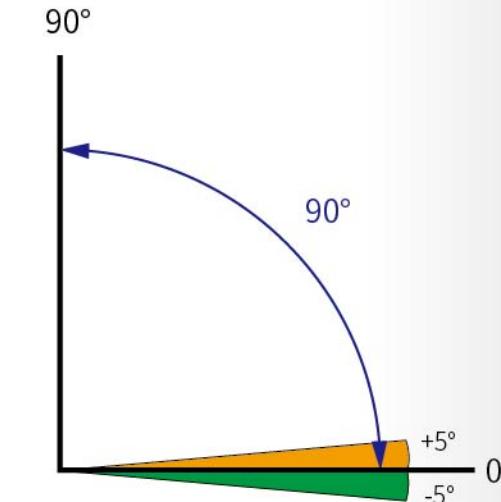
- 使用介质: 压缩空气、无腐蚀性气体和油;
- 压力范围: 双作用 2 ~ 8 巴 (Bar), 单作用 2 ~ 8 巴 (Bar)
- 工作温度: 标准型 (使用丁腈橡胶 O型圈) -20°C ~ +80°C
低温型 (使用低温丁腈胶 O型圈) -40°C ~ +80°C
高温型 (使用氟橡胶 O型圈) -20°C ~ +150°C
- 润滑: 在正常工作条件下, 不需添加润滑剂;
- 安装: 适合室内或室外安装;
- 最高使用压力: 输入气压不超过10巴。

- Control Medium
Dry or lubricated air, the non-corrosive gases or oil.
- Control Pressure
2 ~ 8 Bar
- Ambient temperature Standard: -20°C ~ +80°C
Low temperature: -40°C ~ +80°C
High temperature: -20°C ~ +150°C
- Lubrication
Under normal operating, user do not need to add lubricant additionally
- Application
Either indoor or outdoor
- Highest pressure
The maximum input pressure is 10 Bar

行程及调节 Travel stroke and it's adjusting



(Piston standard assembly)



(Piston reverse assembly)

耗气量计算 Air Consumption

αB 系列执行器开向体积和关向体积 αB Series Air volume opening & closing

Unit: L

型号 Model	开向体积 (升) Volume Opening	关向体积 (升) Volume Closing	型号 Model	开向体积 (升) Volume Opening	关向体积 (升) Volume Closing
αB-32DA	0.04	0.04	αB-140DA	2.43	3.20
αB-45DA	0.08	0.11	αB-160DA	3.65	5.03
αB-52DA	0.11	0.14	αB-190DA	5.9	7.9
αB-63DA	0.20	0.23	αB-210DA	7.4	9.7
αB-75DA	0.29	0.38	αB-240DA	10.7	14.3
αB-83DA	0.41	0.55	αB-270DA	16.9	22.5
αB-92DA	0.62	0.91	αB-300DA	23.8	29.7
αB-105DA	0.94	1.18	αB-350DA	35.1	46.3
αB-125DA	1.47	1.85	αB-400DA	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)

重量表 Weight Table

αB 执行器系列 αB Series

Unit: kg

型号 Model	αB-32	αB-45	αB-52	αB-63	αB-75	αB-83	αB-92	αB-105	αB-125
Weight(SR)	-	1.12	1.23	1.95	2.43	3.15	5.05	6.95	9.25
Weight(DA)	0.75	1.05	1.10	1.80	2.16	2.85	4.30	6.15	8.80
型号 Model	αB-140	αB-160	αB-190	αB-210	αB-240	αB-270	αB-300	αB-350	αB-400
Weight(SR)	15.30	23.80	44.80	53.60	76.80	115.00	130.00	234.40	360.40
Weight(DA)	12.15	20.10	38.10	45.10	63.00	93.80	110.00	186.50	289.00

工作时间 Operation Time

气源压力 Air Pressure: 73 psi

Unit: s

规格 Size	32DA	45DA	52DA	63DA	75DA	83DA	92DA	105DA	125DA	140DA	160DA	190DA	210DA	240DA	270DA	300DA	350DA	400DA
0°-90°	0.5	0.5	0.6	0.7	0.8	0.9	1	1.5	2	2.5	4	5	5	6	8	12	14	15
90°-0°	0.5	0.5	0.6	0.7	0.7	0.8	1	1.5	2	2.5	3	4	4	6	8	12	14	15

气源压力 Air Pressure: 73 psi

Unit: s

规格 Size	45SR	52SR	63SR	75SR	83SR	92SR	105SR	125SR	140SR	160SR	190SR	210SR	240SR	270SR	300SR	350SR	400SR
0°-90°	2	2	2	2	2.5	3	3	4	4	4	5	6	12	15	18	20	25
90°-0°	0.5	0.5	1	1	1	1	1	1	1	1	1.5	3	4	6	8	10	12

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。

我们可以根据客户要求定制气孔来改变执行器的动作时间。

The operating time of the actuators depends on the CV values of the solenoid valves, regulator valves, pipes. It depends on the air supply, operating load and so on.

We can custom the size of the holes to meet the require of the operating time of the actuators.

执行器选型 Selection of Actuator

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, 选配双作用执行器最小规格为αB-105DA。

Actuator selection of 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 choose the minimum model is αB-105DA.

单作用执行器的选型

在正常工作条件下, 单作用执行器考虑的安全系数为30%-50%。

例如:

- 阀门需要力矩=80N.m
- 安全力矩=80(1+30%)=104N.m
- 气源压力=5Bar

对照单作用执行器输出力矩表, 我们可以查到αB-140SR K7输出力矩为

空气行程 0°=308N.m

空气行程 90°=247N.m

弹簧行程 90°=181N.m

弹簧行程 0°=120N.m

所有输出力矩均大于我们需求。

Selection of Spring Return Actuators

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

Example:

- The torque needed by valve=80N.m
- The torque consider safety factor (1+30%)=104 N.m
- Air Supply=5Bar

According to the table of spring return actuators' output, we find output torque of αB-140SR K7 is:

Air stroke 0°=308N.m

Air stroke 90°=247N.m

Spring stroke 90°=181N.m

Spring stroke 0°=120N.m

All the output torque is larger than we needed.

单作用执行器的经济选型 Economical Selection of 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。

例如:

蝶阀原最大扭矩=104N.m

打开后扭矩 104x30%=32N.m

气源压力=5Bar

我们可以选择 αB-125SR K11

● 空气行程 0°=134.8N.m >104N.m

● 空气行程 90°=74.5N.m >32N.m

● 弹簧行程 90°=172.4N.m >32N.m

● 弹簧行程 0°=115.2N.m >104N.m

以上数据显示可以满足该蝶阀的正常启闭

Economical Selection of Spring Return Actuators

During selecting the spring return actuators, we can choose the more reasonable and economical actuators, if we konw the different torque needed by the valve working at opening, operating and closing.

The max torque needed by the butterfly valve=104N·m

The torque after opened (operating)104x30%=32N·m

Air Supply=5Bar

We can select the αB-125SR K11

output torque is:

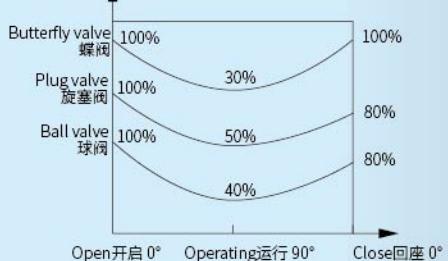
● Air stroke 0°=134.8N·m >104N·m

● Air stroke 90°=74.5N·m >32N·m

● Spring stroke 90°=172.4N·m >32N·m

● Spring stroke 0°=115.2N·m >104N·m

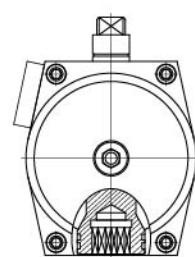
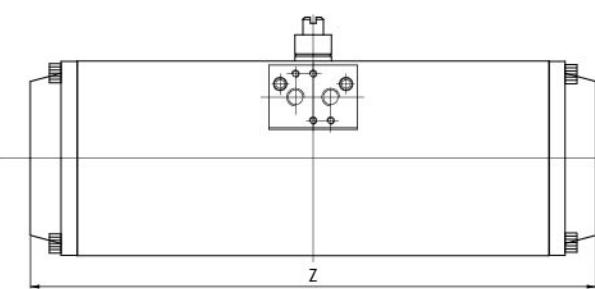
The above datas show the actuator's torque can satisfy the requirement of the butterfly valve.



特殊行程执行器简介 Introduction of Special Travel Actuator

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60°、120°、145°、180°、360°等)的阿尔法气动执行器。双作用特殊行程阿尔法气动执行器的输出扭矩和安装尺寸可参照对应的阿尔法标准系列执行器参数表。

To meet the requirements of the different types of valves and mechanical automation, we can produce special strokes ALPHA actuators on customer request (e.g. 60°, 120°, 145°, 180°, 360° etc.). The output torque and mounting size of double acting special stroke alpha pneumatic actuator can be referred to the corresponding alpha standard series actuator parameter table.

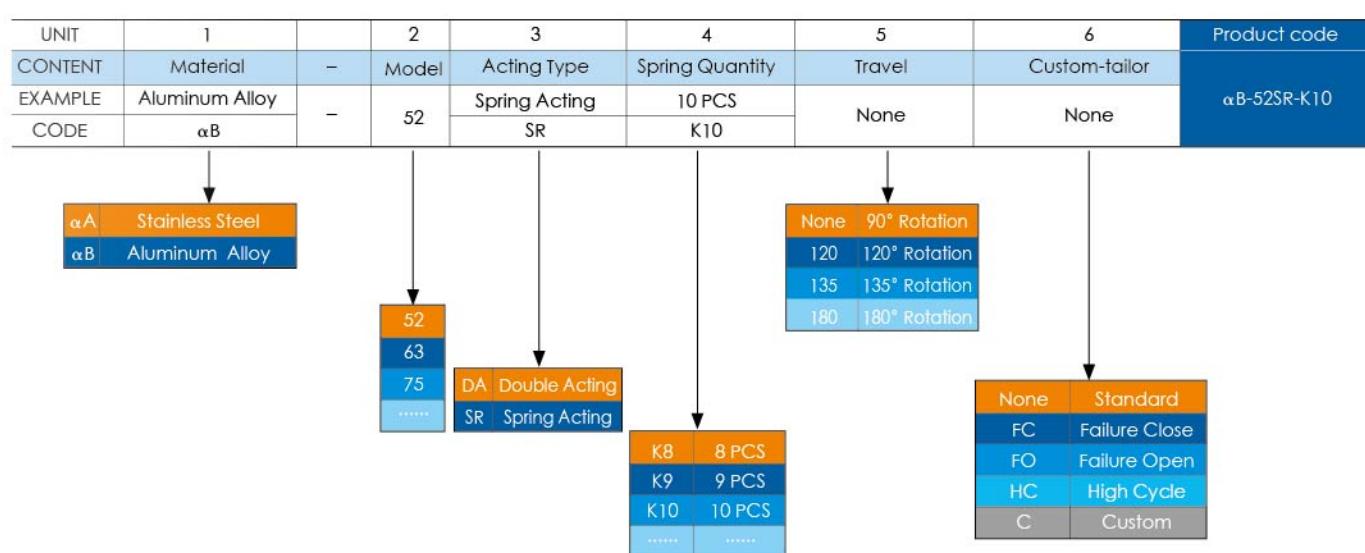


Length of DAx180°

Size	αB-52	αB-63	αB-75	αB-83	αB-92	αB-105	αB-125	αB-140	αB-160	αB-190	αB-210	αB-240	αB-270
Z(mm)	330	355	376	378	432	520	594	733	840	1034	1034	1027	1170

If you enquire any further information of spring return actuators, please do not hesitate to contact us.

订购 How to Order



Accessories 附件



Certification 资质认证

