

AIRCAN

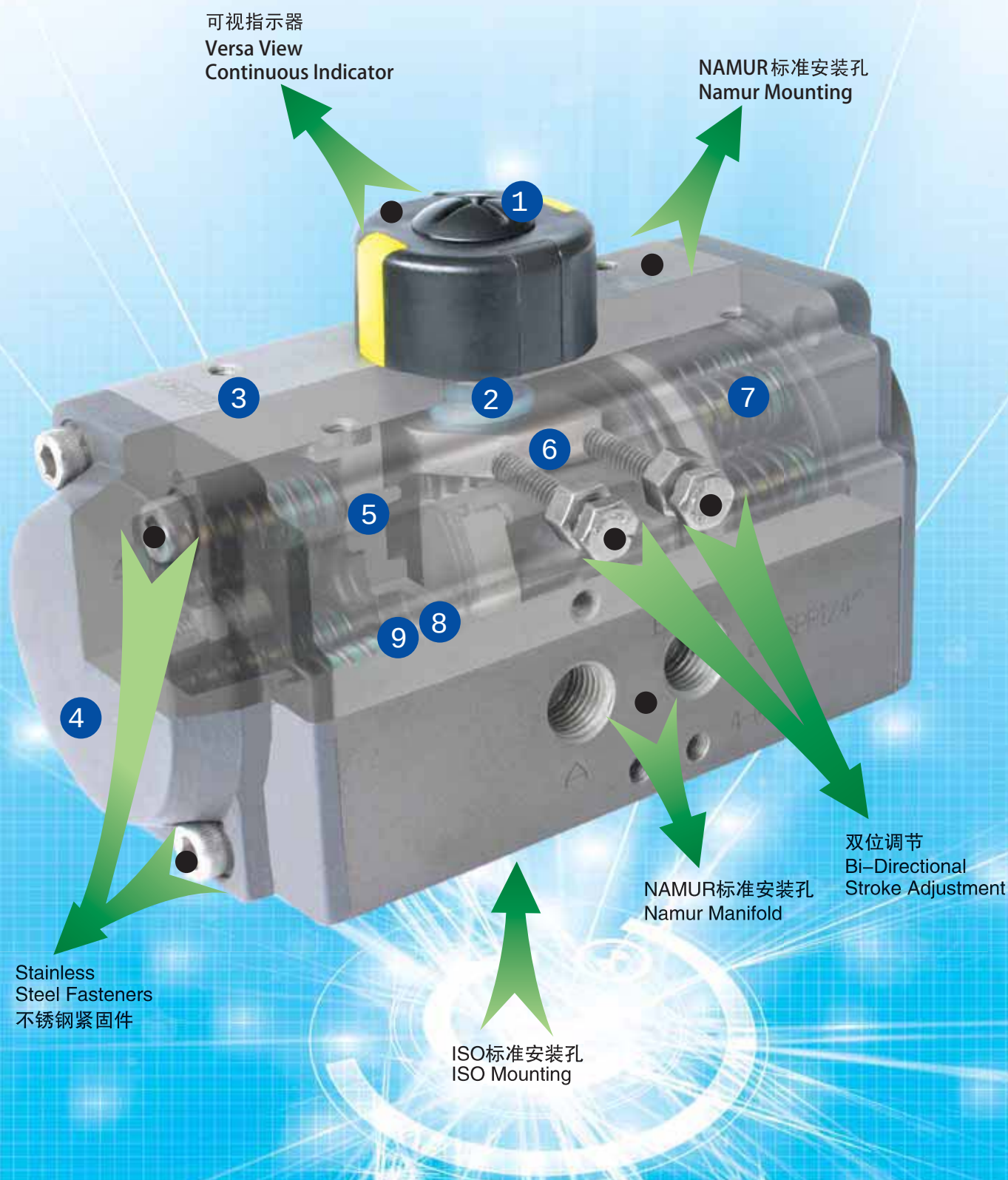
PNEUMATIC ACTUATOR

AC系列气动执行器



Keep your valve
in motion

结构 Construction



① 指示器 Indicator

NAMUR 标准指示器便于安装位置开关、定位器等附件。
Position indicator with NAMUR is convenient for mounting accessories such as Limit Switch box, Positioner and so on.

② 输出轴 Pinion

镀镍合金钢、高精度一体式输出轴同时符合NAMUR、ISO5211、DIN3337标准。可根据客户要求定制尺寸和不锈钢材料。

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

③ 缸体 Actuator Body

6005-T5挤压铝合金缸体可以采用硬质氧化、环氧树脂喷涂（根据要求喷涂蓝色、黑色、红色等）、PTFE涂层或镀镍满足不同要求。

According to the different requirements, the extruded aluminum alloy ASTM6005 Body can be treated with hard anodized, powder polyester painted (different colours is available such as blue, orange, yellow etc.), PTFE or Nickel plated.

④ 端盖 End caps

压铸铝合金表面金属粉末喷涂各种颜色、PTFE涂层或镀镍处理。
Die-casting aluminum powder polyester painted in different colours, PTFE or Nickel plated.

⑤ 活塞 Pistons

双活塞齿条、采用铸铝硬质氧化或者铸钢镀锌处理，安装位置对称、运作迅速、使用寿命长，简单的颠倒活塞可以改变旋转方向。

The twin rack pistons are made from Die-casting aluminum treated with Hard anodized or made from Cast steel with galvanization. Symmetric mounting position, long cycle life and fast operation, reversing rotation by simply inverting the pistons.

⑥ 行程调节 Travel adjustment

两个独立的行程调节螺钉可以进行方便、精确 $\pm 5^\circ$ 的调节开关位置。

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



⑦ 高性能弹簧 High performance springs

采用优质材料、涂层处理，预压装配。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 coating springs are made from the high quality material for resistant to corrosion and longer service life, which can be demounted safely and conveniently to satisfy different requirements of torque by changing quantity of springs.

⑧ 轴承、导板 Bearings & Guides

采用低摩擦、长寿命复合材料，避免了金属与金属的直接接触，维修更换简单方便。

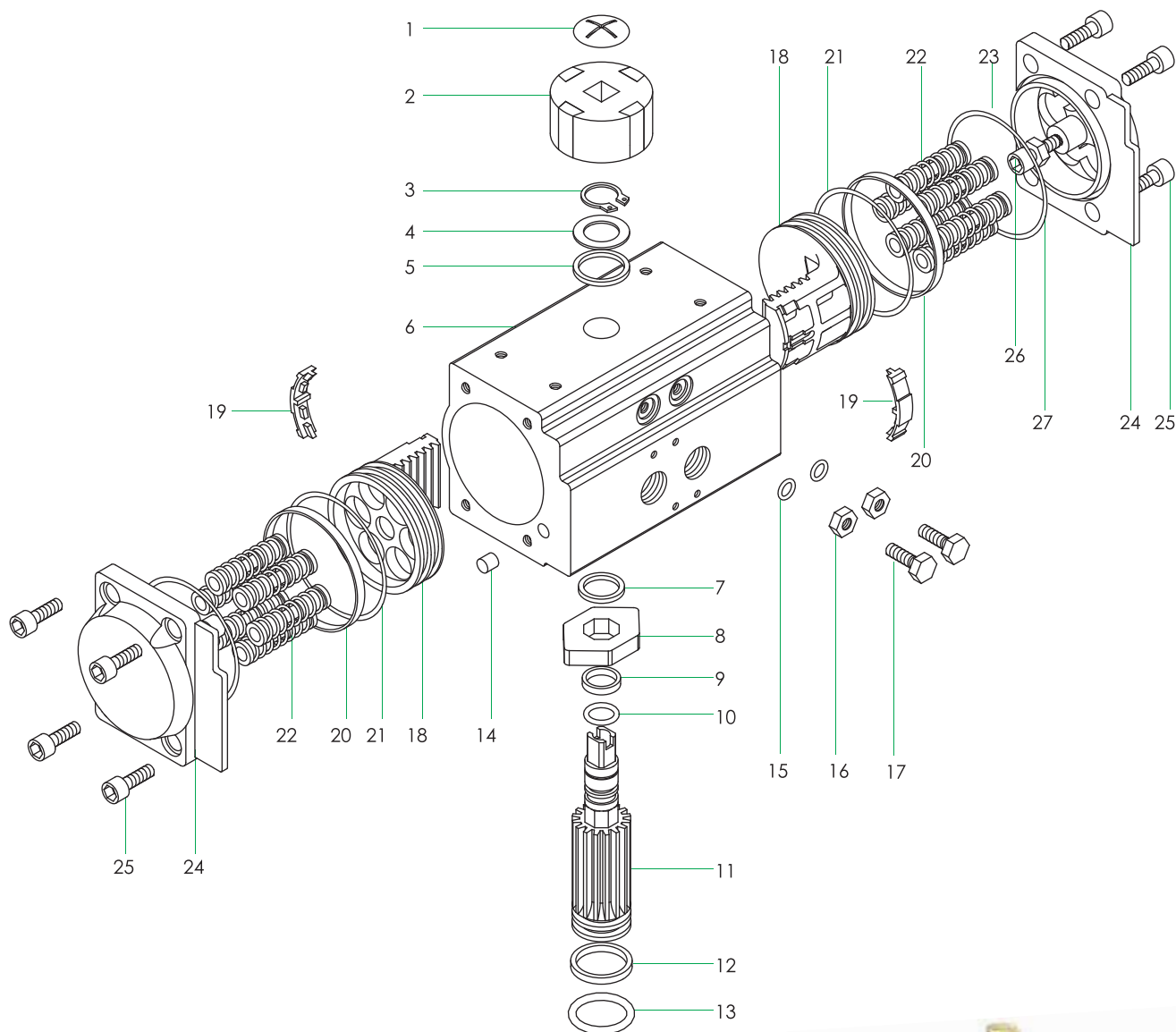
Made from low friction, long-life compound material, to avoid the direct contact between metals. The maintenance and replacement are easy and convenient.

⑨ O-rings 密封

在常温工作条件下使用丁腈橡胶，在高温或低温时采用氟橡胶或硅橡胶。

NBR rubber O-rings provide trouble-free operation at standard temperature ranges. For high and low temperature applications Viton or Silicone.

零件和材料 Parts and Material



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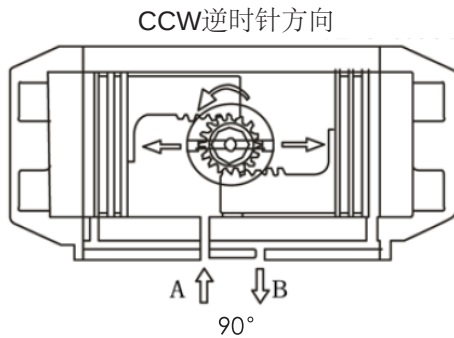
序 号	名 称	数 量	材 料	防腐处理	可选材料
1	指示器螺钉	1	塑 料		
2	指示器	1	塑 料		
3	卡 簧	1	弹簧钢	镀镍	
4	垫 圈	1	不锈钢		
5	外垫片	1	POM+20%PTFE		
6	缸 体	1	挤压铝6005A-T5	硬质氧化	
7	内垫片	1	POM+20%PTFE		
8	凸 轮	1	合金钢		
9	上轴轴承	1	POM+20%PTFE		
10	上轴O圈	1	丁腈橡胶		氟橡胶/硅橡胶
11	齿轮轴	1	合金钢	镀 镍	不锈钢
12	下轴轴承	1	POM+20%PTFE		
13	下轴O圈	1	丁腈橡胶		氟橡胶/硅橡胶
14	堵 头	2	丁腈橡胶		氟橡胶/硅橡胶
15	调节螺钉O圈	2	丁腈橡胶		氟橡胶/硅橡胶
16	调节螺钉螺母	2	不锈钢		
17	调节螺栓	2	不锈钢		
18	活 塞	2	ADC12/ZL101A	氧化	
19	活塞导板	2	POM+20%PTFE		
20	活塞轴承	2	POM+20%PTFE		
21	活塞O圈	2	丁腈橡胶		氟橡胶/硅橡胶
22	弹 簧	0~12	琴钢丝	电泳	
23	端盖O圈	2	丁腈橡胶		氟橡胶/硅橡胶
24	端 盖	2	ADC12/ZL101A	粉末喷涂等	
25	端盖螺栓	8	不锈钢		
26	限位螺栓	2	不锈钢		
27	限位螺母	2	不锈钢		

No.	Description	Qty	STANDARD MATERIAL	PROTECTION	OPTIONAL MATERIAL
1	Indicator screw	1	plastic		
2	Indicator	1	plastic		
3	Spring clip	1	Spring Steel	Nickel plated	
4	Thrust washer	1	POM+20%PTFE		
5	Outside washer	1	POM+20%PTFE		
6	Body	1	Extruded aluminum 6005A-T5	Hard anodized	
7	Inside washer	1	POM+20%PTFE		
8	Cam	1	Alloy steel		
9	O-ring (pinion top)	1	NBR		Viton/Silicone
10	Bearing(pinion top)	1	POM+20%PTFE		
11	Pinion	1	Alloy steel	Nickel plated	Stainless Steel
12	O-ring pinion bottom)	1	POM+20%PTFE		
13	Bearing(pinion bottom)	1	NBR		Viton/Silicone
14	Plug	2	NBR		Viton/Silicone
15	O-ring(Adjust screw)	2	NBR		Viton/Silicone
16	Nut(Adjust screw)	2	Stainless Steel		
17	Adjust screw	2	Stainless Steel		
18	Piston	2	Cast aluminum/casting	anodized	
19	Guide(Piston)	2	POM+20%PTFE		
20	Bearing(Piston)	2	POM+20%PTFE		
21	O-ring(Piston)	2	NBR		Viton/Silicone
22	Spring	0~12	SWPB	cataphoresis	
23	O-ring(End cap)	2	NBR		Viton/Silicone
24	End cap	2	Cast aluminum	powder polyster painted	
25	Cap screw	8	Stainless Steel		
26	Stop screw	2	Stainless Steel		
27	Nut(stop screw)	2	Stainless Steel		

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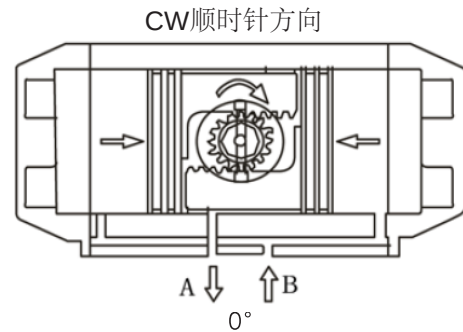
工作原理 Operating Principle

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。

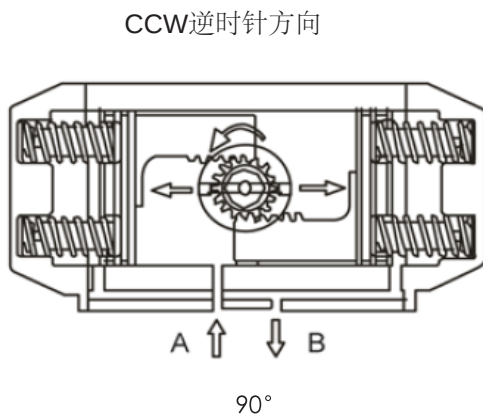
Air to Port A forces the pistons outwards, causing the pinion to turn counterclockwise while the air is being exhausted from Port B.



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。

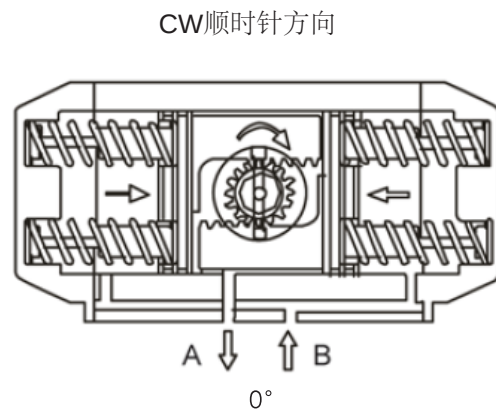
Air to Port B forces the pistons inwards, causing the pinion to turn clockwise while the air is being exhausted from Port A.

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;

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.



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。

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.

操作条件 Operating Conditions

1. 气源压力范围 Pressure Ranges

2bar (29psig) to 8bar(116psig) Double Acting 双作用气缸
3bar (44psig) to 8bar(116psig) Single Acting 单作用气缸

2. 工作温度 Temperature Ranges

- (1) 标准 丁晴橡胶
Standard NBR O-ring $-20^\circ\text{C} - +80^\circ\text{C}$
- (2) 高温 氟橡胶
High Temp. Viton O-ring $-20^\circ\text{C} - +150^\circ\text{C}$
- (3) 低温 硅橡胶
Low Temp. Silastic O-ring $-40^\circ\text{C} - +80^\circ\text{C}$

3. 工作介质 Operating Media

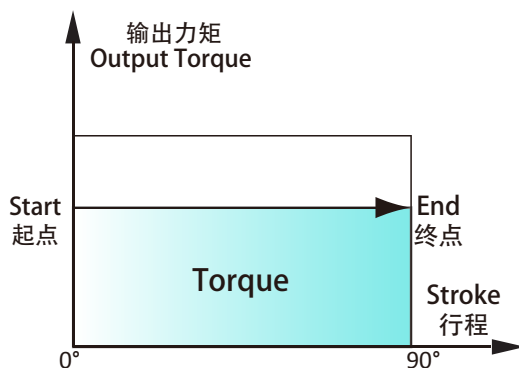
已干燥或润滑的空气, 无腐蚀性气体、水、轻质液压油。最大容许颗粒大小不超过30u。

Filtered dry or lubricated air for non-corrosive gas, water, or light hydraulic oil. The maximum particle size must not exceed 30u.

4. 润滑 Lubrication

所有气缸移动部件均涂有润滑油脂, 工作寿命内油脂免维护。
All moving parts are lubricated for the entire cycle life of actuators.

双作用输出力矩 Output Torque of Double Acting Actuators



Unit: Nm

型号Model	气源压力Air supply pressure (Unit: bar)									
	2	2.5	3	4	4.5	5	5.5	6	7	8
AC032D	3.1	3.8	4.6	6.1	6.9	7.6	8.4	9.2	10.7	12.2
AC052D	8	10	12	16	18	20	22	24	28	32
AC063D	15	18	22	29	33	36	40	44	51	58
AC075D	20	25	30	40	45	50	55	60	70	80
AC083D	31	39	47	63	70	78	86	94	110	125
AC092D	45	56	68	90	102	113	124	135	158	181
AC105D	66	83	99	132	149	165	182	198	231	264
AC125D	100	125	150	200	226	251	276	301	351	401
AC140D	171	214	256	342	385	427	470	513	598	684
AC160D	266	332	399	532	598	665	731	798	931	1064
AC190D	426	532	638	851	958	1064	1170	1277	1490	1702
AC210D	532	665	798	1064	1197	1330	1463	1596	1862	2128
AC240D	769	962	1154	1539	1731	1924	2116	2308	2693	3078
AC270D	1170	1462	1754	2339	2632	2924	3216	3509	4094	4679
AC300D	1526	1908	2289	3052	3434	3815	4197	4578	5341	6104
AC350D	2285	2856	3427	4570	5141	5712	6283	6854	7997	9139
AC400D	3256	4070	4884	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至少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 **AC105D**。

Sizing: Double Acting Actuator

The suggested safety factor for double acting actuators under normal working conditions is **at least** 30%.

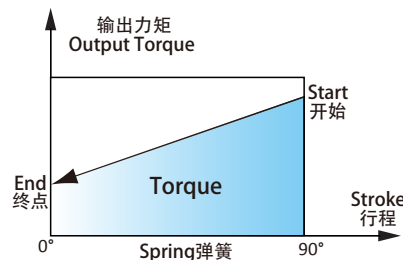
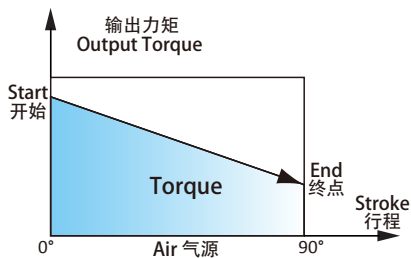
Example:

- 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 **AC105D**.

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单作用输出力矩 Output Torque of Spring Return Actuators



Unit: Nm

		输出扭矩 Output torque																Spring torque	
气压 Air pressure	型号 Model	2.5BAR		3BAR		4BAR		5BAR		6BAR		7BAR		8BAR					
	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	90° Start	0° End	90° Start	0° End
AC052	K5	5.7	3.8	7.6	5.7											6.2	4.3		
	K6	4.9	2.5	6.9	4.5	10.9	8.5									7.4	5.0		
	K7	4.0	1.3	6.0	3.3	9.8	7.3	14.0	10.4							8.6	5.9		
	K8			5.2	2.0	9.2	6.0	13.2	9.1	17.2	14.1					9.9	6.7		
	K9			4.3	0.8	8.3	4.8	12.3	7.9	16.3	12.8	20.3	16.8			11.1	7.6		
	K10					7.4	3.6	11.5	6.7	15.5	11.6	19.5	15.6			12.4	8.5		
	K11					6.6	2.3	10.6	5.4	14.6	10.4	18.6	14.3	22.6	18.3	13.6	9.3		
AC063	K5	11.4	7.7	15.0	11.4	22.3	14.9									10.4	6.8		
	K6	10.1	5.7	13.6	9.3	20.9	16.6	28.3	23.9							12.5	8.2		
	K7	8.6	3.6	12.5	7.2	19.5	14.5	26.8	21.9							14.6	9.6		
	K8			10.9	5.1	18.2	12.4	25.5	19.8	32.8	27.0	40.1	34.3			16.7	10.9		
	K9					16.8	10.4	24.1	17.7	31.4	24.9	38.7	32.2			18.8	12.3		
	K10					1.4	8.2	22.8	15.6	30.0	22.8	37.3	30.1	44.7	37.4	20.9	13.7		
	K11							21.5	13.5	28.7	20.7	36.0	28.0	43.3	35.3	22.9	15.0		
AC075	K5	14.5	10.6	19.4	15.5	29.5	25.7									14.5	10.5		
	K6	12.4	7.6	17.3	12.6	27.4	22.7	37.5	32.8							17.4	12.7		
	K7	10.4	4.8	15.2	9.7	25.3	19.9	35.4	29.9							20.3	14.8		
	K8			13.1	6.8	23.1	16.9	33.3	27.0	43.2	37.0	53.3	47.0			23.2	16.9		
	K9					21.0	14.1	31.2	24.1	41.1	34.1	51.2	44.2			26.1	19.0		
	K10					19.0	11.1	28.8	21.2	39.0	31.2	49.1	41.2	59.1	51.2	29.0	21.1		
	K11							27.0	18.3	37.0	28.3	47.0	38.4	57.0	48.4	31.9	23.2		
AC083	K5	23.3	16.1	31.1	24.0	46.8	39.7									23.0	15.8		
	K6	20.1	11.5	28.0	19.3	43.7	35.1	59.4	50.7							27.6	19.0		
	K7	17.0	6.9	24.8	14.8	40.5	30.5	56.2	46.2							32.2	22.1		
	K8			21.7	10.1	37.4	25.8	53.1	41.5	68.8	57.2	84.5	72.9			36.8	25.3		
	K9					34.2	21.3	49.9	37.0	65.6	52.6	81.2	68.3			41.4	28.5		
	K10					31.0	16.6	46.7	32.3	62.4	48.0	78.1	63.7	93.8	79.3	46.0	31.6		
	K11							43.6	27.7	59.3	43.4	75.0	59.1	90.6	74.8	50.6	34.8		
AC092	K5	33.1	22.0	44.2	33.2	66.8	55.9									34.4	23.3		
	K6	28.4	15.2	39.6	26.4	62.2	49.0	84.8	71.6							41.2	28.0		
	K7	23.8	8.2	34.9	19.4	57.5	42.1	80.2	64.7							48.1	32.7		
	K8			31.3	12.6	52.9	35.2	75.5	57.9	98.1	80.5	120.7	103.0			55.0	37.3		
	K9					48.2	28.4	70.9	51.0	93.5	73.6	116.0	96.1			61.9	42.0		
	K10					43.6	21.5	66.2	44.1	88.8	66.7	111.3	89.2	134.0	111.8	68.7	46.7		
	K11							61.5	37.2	84.1	59.9	106.6	82.4	129.2	105.0	75.6	51.4		
AC105	K5	51.0	33.4	67.5	49.9	100.6	83.0									49.2	31.6		
	K6	44.7	23.5	61.1	40.0	94.2	73.2	127.3	106.2							59.1	38.0		
	K7	38.4	13.7	54.9	30.3	87.9	63.4	121.0	96.4							68.9	44.3		
	K8			48.5	20.4	81.6	53.5	114.7	86.5	147.7	119.6	180.8	152.7			78.7	50.6		
	K9					75.3	43.7	108.4	76.8	141.5	109.8	174.5	142.9			88.6	56.9		
	K10					68.9	33.4	102.0	66.5	135.1	99.6	168.2	132.6	201.2	165.7	98.4	63.3		
	K11							95.7	57.0	128.7	90.1	161.8	123.1	194.8	156.2	108.3	69.6		
AC125	K5	73	47	98	72	148	122									79	52		
	K6	63	31	88	56	138	107	188	157							94	63		
	K7	52	15	77	40	127	90	178	141							110	73		
	K8			67	25	117	75	167	125	217	176	268	226			125	84		
	K9					107	59	157	109	207	159	257	210			141	94		
	K10					96	44	146	94	196	144	247	194			157	105		
	K11							136	78	186	128	236	178	286	228	173	115		
AC140	K5	128	85	171	127	256	213									129	86		
	K6	111	59	154	102	239	187	325	273							155	103		
	K7	94	33	137	76	222	162	308	247							181	120		
	K8			120	50	205	136	291	221	376	307	462	392			206	137		
	K9					187	110	273	196	358	281	444	367			232	155		
	K10					170	84	256	169	341	255	427	340	512	426	258	172		
	K11							238	143	324	229	409	314	495	400	284	189		
AC140	K5	128	85	171	127	256	213									129	86		
	K6	111	59	154	102	239	187	325	273							155	103		
	K7	94	33	137	76	222	162	308	247							181	120		
	K8			120	50	205	136	291	221	376	307	462	392			206	137		
	K9					187	110	273	196	358	281	444	367			232	155		
	K10					170	84	256	169	341	255	427	340	512	426	258	172		
	K11							238	143	324	229	409	314	495	400	284	189		
	K12							221	118	307	203	392	289	478	374	310	206		

单作用输出力矩 Output Torque of Spring Return Actuators

输出扭矩Output torque

输出扭矩Output torque																	Spring torque	
气压Air pressure		2.5Bar		3Bar		4Bar		5Bar		6Bar		7Bar		8Bar				
型号Model	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	90° Start	0° End	
AC160	K5	193	124	259	191	392	324									208	140	
	K6	165	83	232	149	365	282	498	415							250	168	
	K7	137	41	203	107	336	240	469	373							292	196	
	K8			176	66	309	199	442	237	575	465	708	598			333	223	
	K9					280	157	413	290	546	423	679	556			375	251	
	K10					253	115	386	248	519	381	652	514	785	647	417	279	
	K11							358	207	491	340	624	473	757	606	458	307	
	K12							330	165	463	298	596	431	729	564	500	335	
AC190	K5	332	222	438	329	651	542									309	200	
	K6	292	161	398	267	611	480	824	693							371	240	
	K7	252	99	358	205	571	418	784	631							433	280	
	K8			318	143	531	356	744	569	957	782	1169	995			495	320	
	K9					491	295	704	507	917	720	1130	933			557	360	
	K10					451	233	664	446	877	658	1090	871	1302	1084	618	400	
	K11							624	384	837	597	1050	809	1263	1022	680	440	
	K12							584	322	797	535	1010	748	1223	960	742	480	
AC210	K5	390	285	523	418	789	684									380	275	
	K6	335	209	468	342	734	608	1000	874							456	330	
	K7	280	133	413	266	679	532	945	798							532	385	
	K8			358	190	624	456	890	722	1156	988	1422	1254			608	440	
	K9					569	380	835	646	1101	912	1367	1178			684	495	
	K10					514	304	780	570	1046	836	1312	1102	1578	1368	760	550	
	K11							725	494	991	760	1257	1026	1523	1292	836	605	
	K12							670	418	936	684	1202	950	1468	1216	912	660	
AC240	K5	552	409	744	600	1129	985									554	410	
	K6	470	297	662	489	1047	874	1432	1259							665	492	
	K7	388	187	580	379	964	764	1349	1149							775	575	
	K8			498	268	883	653	1267	1037	1652	1422	2037	1807			886	656	
	K9					800	542	1185	926	1569	1311	1954	1696			998	739	
	K10					718	431	1103	816	1488	1201	1872	1586	2257	1970	1108	821	
	K11							1021	705	1406	1090	1791	1474	2176	1859	1219	903	
	K12							939	594	1323	979	1708	1363	2093	1748	1330	985	
AC270	K5	903	675	1195	968	1779	1552									787	560	
	K6	790	519	1083	811	1667	1396	2252	1981							943	672	
	K7	679	361	972	654	1556	1238	2141	1823							1101	783	
	K8			860	497	1444	1081	2029	1666	2614	2252	3199	2836			1258	895	
	K9					1332	923	1917	1509	2502	2094	3087	2678			1416	1007	
	K10					1220	767	1805	1352	2390	1937	2974	2521	3560	3107	1572	1119	
	K11							1693	1194	2278	1779	2862	2364	3448	2949	1730	1231	
	K12							1582	1037	2167	1623	2751	2207	3336	2792	1887	1342	
AC300	K5	1097	729													1061	730	
	K6	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	
AC350	K5	1553	964													1702	1173	
	K6	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	3336	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	
AC400	K7	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	

单作用执行器的选型 Spring Return Actuators Sizing:

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AC140K7 输出力矩为

气源扭矩0°=308N·m

气源扭矩90°=247N·m

弹簧扭矩90°=181N·m

弹簧扭矩0°=120N·m

所有输出力矩均大于我们需求。

注意：

单作用执行器弹簧复位过程中，执行器B口通气不影响执行器输出力矩，相反帮助弹簧的复位。

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%)=104N.m

Air Supply=5Bar

According to the table of spring return actuators' output,

we find output torque of AC140K7 is:

Air torque 0°=308N.m

Air torque 90°=247N.m

Spring torque 90°=181N.m

Spring torque 0°=120N.m

All the output torque is larger than we need.

Attention:

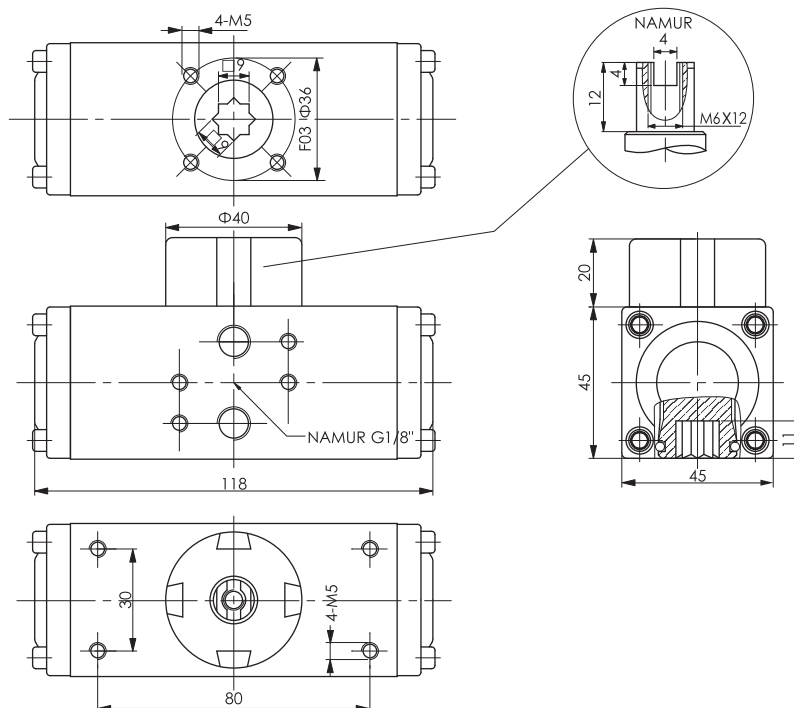
During the restoration, the spring return actuators' output torque will not be affected by the inputing air from the port B. On the contrary, it will help the restoration of springs.

注意 型号的选择不仅取决于阀门的扭矩，还要考虑相关的工况、安全系数等因素。

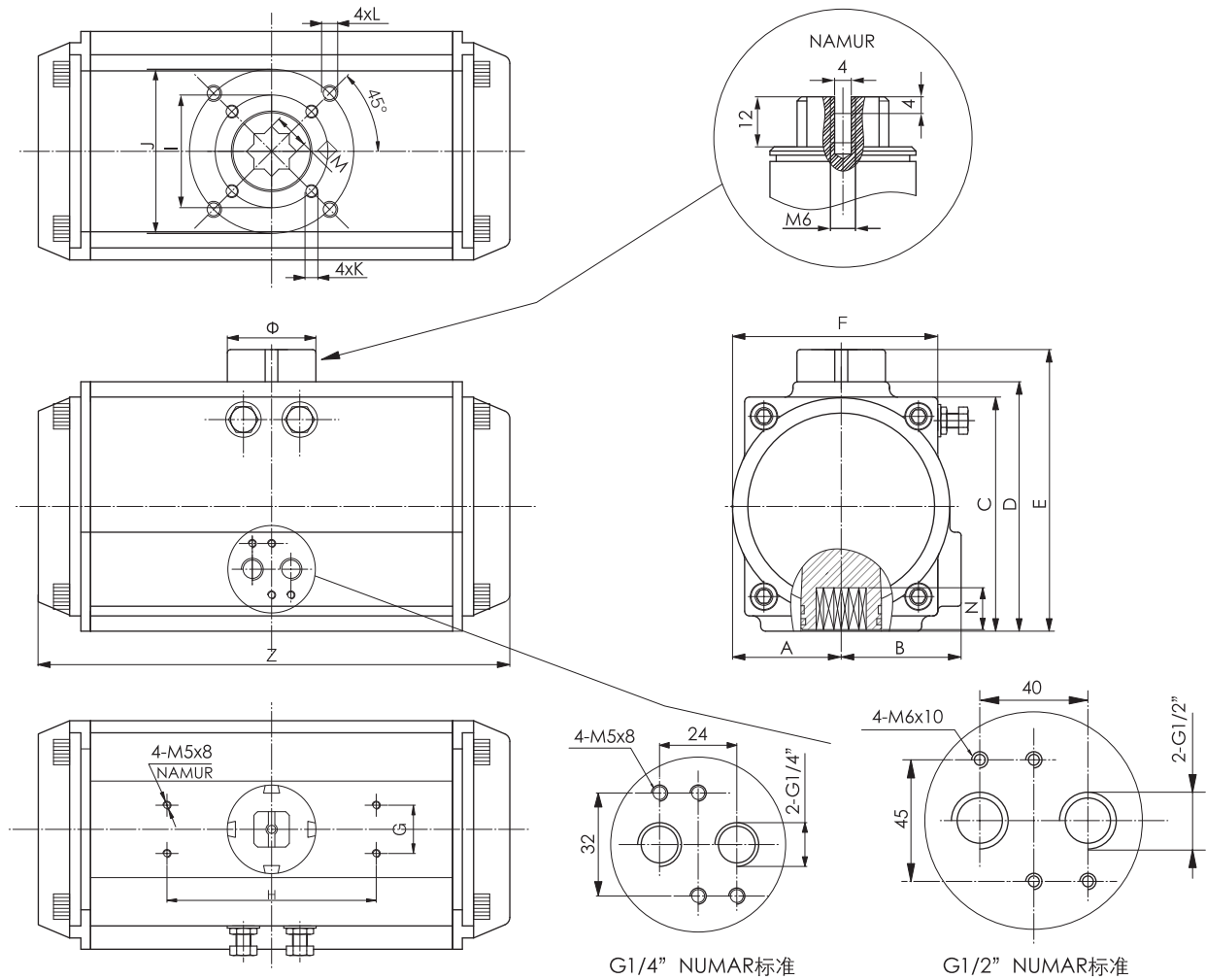
Note Please note that the requested actuator type depends not only on the torque of valve, but also on the working conditions and safety safety factor.

外形尺寸 Dimension

AC032



AC032-AC400

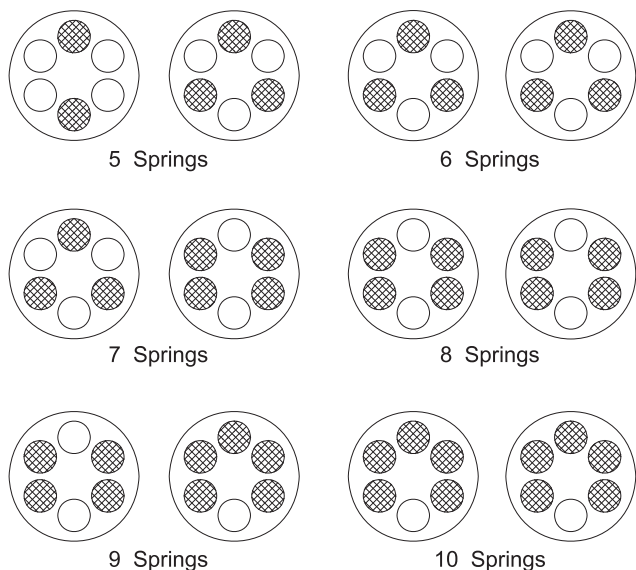


G1/4" NUMAR标准

G1/2" NUMAR标准

型号 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Z	Φ	气源接口 Air Connection
AC052	30	41.5	65.5	72	92	65	30	80	Φ36	Φ50	M5x8	M6x10	11	14	147	Φ40	NAMUR G1/4"
AC063	36	47	81	87.5	107.5	72	30	80	Φ50	Φ70	M6x10	M8x13	14	18	168	Φ40	NAMUR G1/4"
AC075	42	53	94	99.5	119.5	81	30	80	Φ50	Φ70	M6x10	M8x13	14	18	184	Φ40	NAMUR G1/4"
AC083	46	57	98.5	108.7	128.7	92	30	80	Φ50	Φ70	M6x10	M8x13	17	21	204	Φ40	NAMUR G1/4"
AC095	50	58.5	111	116.5	136.5	98	30	80	Φ50	Φ70	M6x10	M8x13	17	21	262	Φ40	NAMUR G1/4"
AC105	57.5	64	122.5	133	153	109.5	30	80	Φ70	Φ102	M8x13	M10x16	22	26	268	Φ40	NAMUR G1/4"
AC125	67.5	74.5	145.5	155	175	127.5	30	80	Φ70	Φ102	M8x13	M10x16	22	26	301	Φ55	NAMUR G1/4"
AC140	75	77	161	172	192	137.5	30	80	Φ102	Φ125	M10x16	M12x20	27	31	390	Φ55	NAMUR G1/4"
AC160	87	87	184	197	217	158	30	80	Φ102	Φ125	M10x16	M12x20	27	31	458	Φ55	NAMUR G1/4"
AC190	103	103	213	230	260	189	30	130		Φ140		M16x25	36	40	525	Φ80	NAMUR G1/4"
AC210	113	113	235.5	255	285	210	30	130		Φ140		M16x25	36	40	532	Φ80	NAMUR G1/4"
AC240	130	130	264.5	289	319	245	30	130		Φ165		M20x25	46	50	602	Φ80	NAMUR G1/4"
AC270	147	147	299	326	356	273	30	130		Φ165		M20x25	46	50	722	Φ80	NAMUR G1/2"
AC300	162	162	348	348	378	324	30	130	Φ165	Φ215	M20x25	M20x25	46	50	742	Φ80	NAMUR G1/2"
AC350	190	190	402	402	432	380	30	130	Φ165	Φ215	M20x25	M20x25	46	50	860	Φ80	NAMUR G1/2"
AC400	258	258	464	464	494	298	30	130	Φ165	Φ254	M20x25	8-M16x25	55	60	924	Φ80	NAMUR G1/2"

单作用执行器弹簧安装形式 Spring mounting 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 needed by the valve open and close.

重量表 Weight Table

Model 型号	AC052	AC063	AC075	AC083	AC095	AC105	AC125	AC140	AC160
重量(DA)	1.4kg	2kg	2.7kg	3.1kg	4.6kg	6.8kg	8.9kg	13kg	20kg
重量(SR)	1.5kg	2.1kg	2.9kg	3.6kg	5.2kg	6.9kg	10.1kg	15kg	24kg

Model 型号	AC190	AC210	AC240	AC270	AC300	AC350	AC400
重量(DA)	31kg	47kg	67kg	97kg	110kg	186kg	289kg
重量(SR)	35kg	55kg	80kg	118kg	130kg	234kg	360kg

注：1、SR为12根弹簧；
2、重量为净重量。
Note: 1. SR for spring return actuators; 2. Net weight

耗气量 Air Consumption

开向体积和关向体积 Air Volume Opening & Closing

Model 型号	Air volume opening 开向体积(升)	Air volume closing 关向体积(升)
AC052	0.12	0.16
AC063	0.21	0.23
AC075	0.3	0.34
AC083	0.43	0.47
AC095	0.64	0.73
AC105	0.95	0.88
AC125	1.6	1.4
AC140	2.5	2.2
AC160	3.7	3.2

Unit: L

Model 型号	Air volume opening 开向体积(升)	Air volume closing 关向体积(升)
AC190	5.9	5.4
AC210	7.5	7.5
AC240	11	9
AC270	17	14
AC300	23.8	29.7
AC350	35.1	46.3
AC400	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：

$$\text{升/分} = \text{气缸体积 (开向体积+关向体积)} \times \left[\frac{\text{供气压力(Kpa)} + 101.3}{101.3} \right] \times \text{次数/分钟}$$

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

$$\text{L/Min} = \text{Air volume (Air volume Opening+Air volume closing)} \times \left[\frac{\text{Air Supply (Kpa)} + 101.3}{101.3} \right] \times \text{Action cycle times (/min)}$$