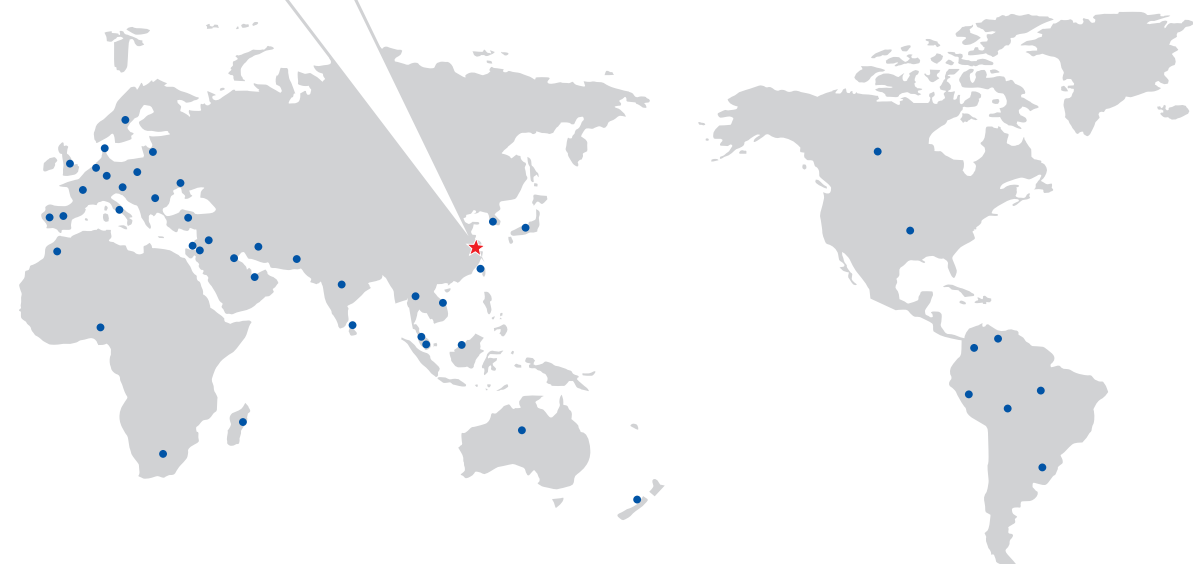




质比金坚 辉煌铭天
Trust Comes From Quality

浙江铭天科技有限公司

ZHEJIANG MINTN TECHNOLOGY CO.,LTD.

地址：浙江省温州市龙湾度山工业区天中路1466号

电话：0577-55559888

传真：0577-55559886

邮箱：tank@mintn.com

Http: //www.mintn.cn www.mintn.com

Add: No.1466, Tianzhong Road, Dushan, Yongzhong Street,
Longwan District, Wenzhou, Zhejiang, China

Tel: +86-577-55558668

Fax: +86-577-55558998

E-mail: mandy@mintn.com

Http: //www.mintn.com www.mintn.cn



关注企业微信平台



Scan To Website



2020 版



气动执行器系列
PNEUMATIC ACTUATORS SERIES



浙江铭天科技有限公司

ZHEJIANG MINTN TECHNOLOGY CO.,LTD.

产品介绍 Product description

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



② 齿轮轴 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

ASTM6005压铸铝合金缸体可以采用硬质氧化、环氧树脂喷涂（根据要求喷涂兰色、橙色、黄色等）、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.

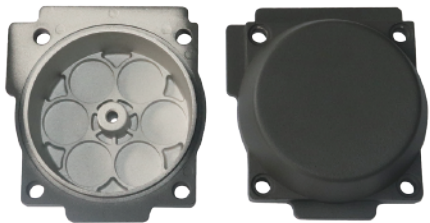


④ 端盖 End caps

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.

端盖颜色



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



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±5°的调节开关位置。

The two independent external travel stop adjustment bolts can adjust ±5° 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。能够按期、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 coatingsprings are made from the high quality material for resistant to corrosion and longer service life which can be, demounted safely and conveniently to satisfy requirement of torque by changing quantity of springs.



⑧ 轴承、导板 Bearing & 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 密封 O-rings

在常温工作条件下使用丁腈橡胶温度是：-20°C~+80°C

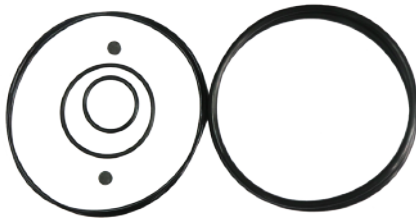
在高温使用氟橡胶温度是：-15°C~+150°C

在低温使用硅橡胶温度是：-60°C~+80°C

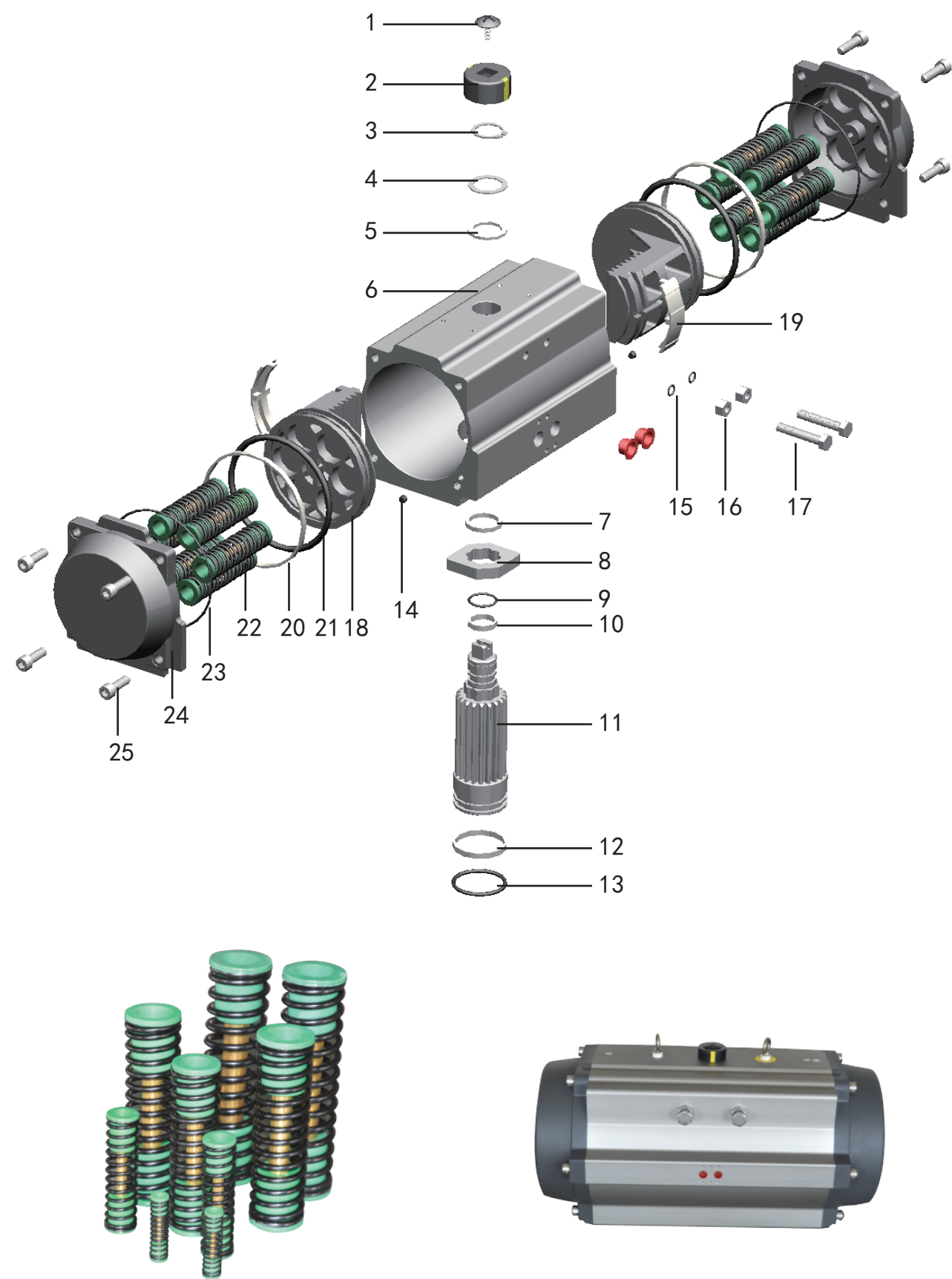
Temperature conditions to use NBR: -20°C~+80°C

In High temperature conditions to use Viton: -15°C~+150°C

In Low temperature conditions to use Silicone: -60°C~+80°C



零件和材料 Parts and Material



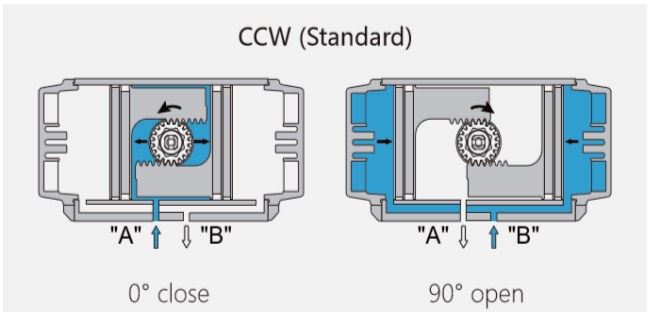
参数 Parameters

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	轴挡	1	不锈钢		
4	金属垫片	1	不锈钢		
5	外垫片	1	工程塑料		
6	缸体	1	铝合金	硬质氧化	
7	内垫片	1	工程塑料		
8	凸轮	1	合金钢		
9	上轴O型圈	1	丁腈橡胶		氟橡胶/硅橡胶
10	上轴支撑圈	1	工程塑料		
11	轴	1	合金钢	镀镍	不锈钢
12	下轴支撑圈	1	工程塑料		
13	下轴O型圈	1	丁腈橡胶		氟橡胶/硅橡胶
14	塞头	2	丁腈橡胶		氟橡胶/硅橡胶
15	调节螺栓O型圈	2	丁腈橡胶		氟橡胶/硅橡胶
16	螺母	2	不锈钢		
17	调节螺栓	2	不锈钢		
18	活塞	2	压铸铝合金	硬质氧化	
19	活塞导板	2	工程塑料		
20	活塞支撑圈	2	工程塑料		
21	活塞O型圈	2	丁腈橡胶		氟橡胶/硅橡胶
22	弹簧	0-12	琴钢丝	浸漆	
23	端盖O型圈	2	丁腈橡胶		氟橡胶/硅橡胶
24	端盖	2	压铸铝合金	粉末喷涂	
25	端盖紧固螺栓	8	不锈钢		

NO.	Description	Qty	Standard Material	Protection	Optional Material
1	Indicator screw	1	Plastic		
2	Indicator	1	Plastic		
3	Axis block	1	Stainless steel		
4	Metal gasket	1	Stainless steel		
5	Outside washer	1	Engineering plastics		
6	Body	1	Aluminum	Hard anodized etc	
7	Inside washer	1	Engineering plastics		
8	Cam	1	Alloy steel		
9	Bearing(Pinion top)	1	NBR		Viton/Silicone
10	Shaft support ring	1	Engineering plastics		
11	Axis	1	Alloy steel	Nickel plated	Stainless steel
12	Lower shaft support ring	1	Engineering plastics		
13	Bearing(Pinion bottom)	1	NBR		Viton/Silicone
14	Plugs	2	NBR		Viton/Silicone
15	O-ring (Adjusting bolt)	2	NBR		Viton/Silicone
16	Screw nut	2	Stainless steel		
17	Adjusting bolt	2	Stainless steel		
18	Piston	2	Die-casting aluminum	Hard anodized etc	
19	Piston guides	2	Stainless steel		
20	Piston support ring	2	Engineering plastics		
21	O-ring (Piston)	2	NBR		Viton/Silicone
22	Spring	0-12	Spring steel	Dip coating	
23	Plug	2	NBR		Viton/Silicone
24	End cap	2	Die-casting aluminum	Powder polyster painted etc	
25	End cap fastening bolt	8	Stainless steel		

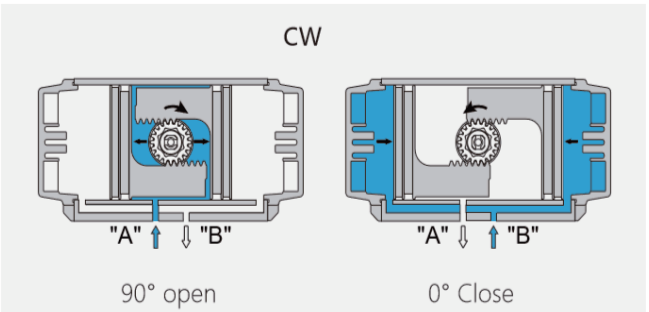
工作原理 Operating Principle

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°→90°), 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°→0°), A口排气。

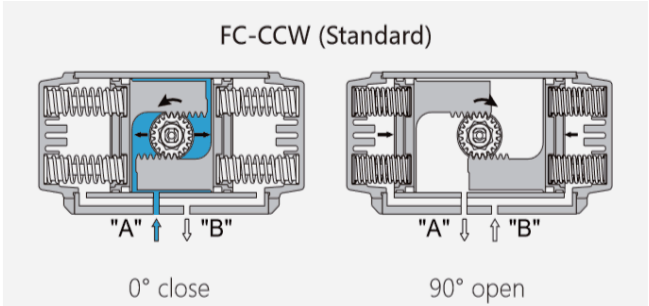
Air to Port A forces the pistons outwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port A.



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

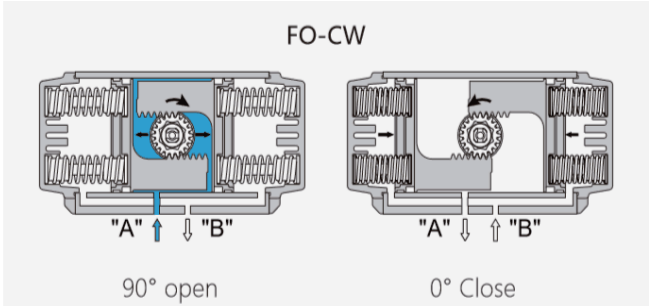
Air to Port A forces the pistons outwards, causing the drive shaft to turn clockwise while the air is being exhausted from Port B. Air to Port B forces the pistons inwards, causing the drive shaft to turn counterclockwise while the air is being exhausted from Port A.

单作用执行器 Spring Return Actuators



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°→90°), 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°→0°), A口排气。

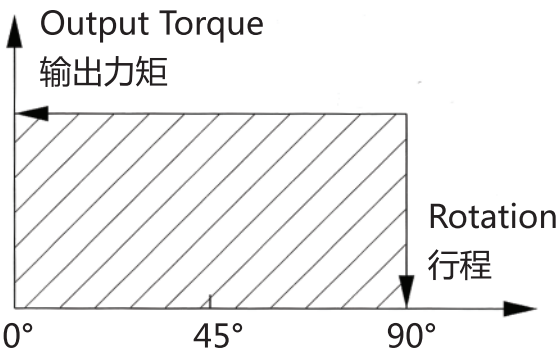
Air to port A forces the pistons outwards, causing the springs to compress. The drive shaft turns counterclockwise while air is being exhausted from port B. Loss of air pressure on port A, the stored energy in the springs forces the pistons inwards. The drive shaft turns clockwise while air is being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



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°→0°), 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°→90°), 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.

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
DA-32	3	4	5	6	7	8	8	9	11	12
DA-40	5	6	7	10	11	12	13	14	17	19
DA-52	8	10	12	16	18	20	22	24	28	32
DA-63	15	18	22	29	33	36	40	44	51	58
DA-75	20	25	30	40	45	50	55	60	70	80
DA-83	31	39	47	63	70	78	86	94	110	125
DA-92	45	56	68	90	102	113	124	135	158	181
DA-105	66	83	99	132	149	165	182	198	231	264
DA-125	100	125	150	200	226	251	276	301	351	401
DA-140	171	214	256	342	385	427	470	513	598	684
DA-160	266	332	399	532	598	665	731	798	931	1064
DA-190	426	532	638	851	958	1064	1170	1277	1490	1702
DA-210	532	665	798	1064	1197	1330	1463	1596	1862	2128
DA-240	769	962	1154	1539	1731	1924	2116	2308	2693	3078
DA-270	1170	1462	1754	2339	2632	2924	3216	3509	4094	4679
DA-300	1526	1908	2289	3052	3434	3815	4197	4578	5341	6104
DA-350	2285	2856	3427	4570	5141	5712	6283	6854	7997	9139
DA-400	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DA105。

Sizing:Double Acting Actuator

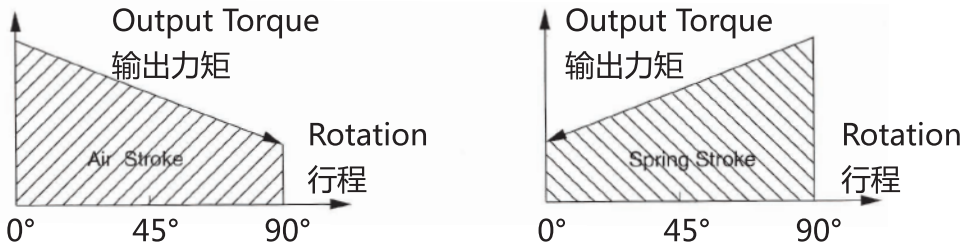
The suggested safety factor for double acting actuators under normal working conditions is 20%-30%.

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 choose the minimum model is DA105.

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

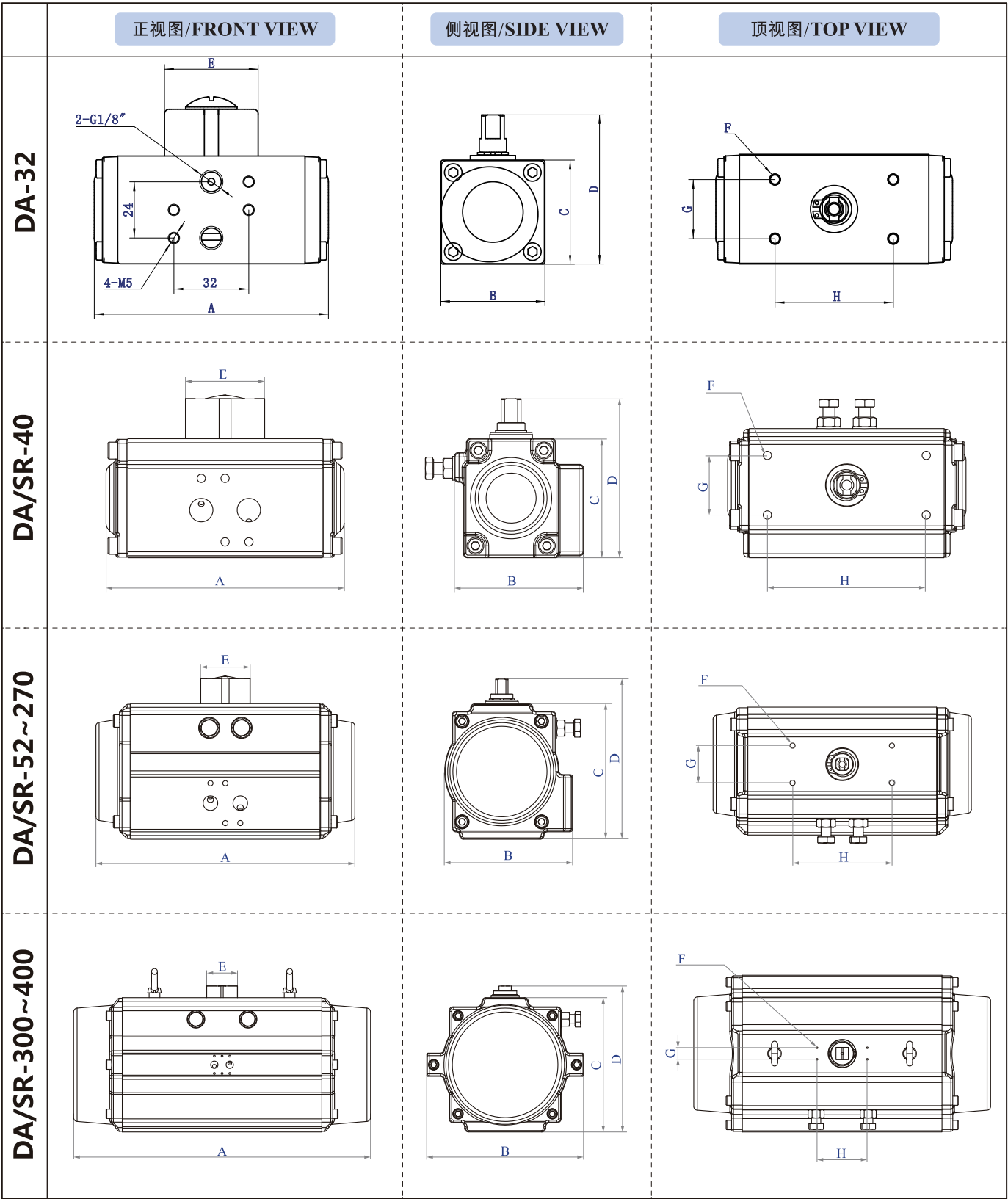


输出扭矩Output torque of air to springs																	Unit:Nm	
																	Springs' output	
气压Air pressure	2.5BAR			3BAR		4BAR		5BAR		6BAR		7BAR		8BAR				
型号Model	Spring Qty.	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	90° Start	0° End	
SR-40	K2	1.3		2.7		5.0	1.4	7.5	3.1	9.8	4.5					7.5	4.8	
SR-52	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
	K12							9.7	4.2	13.8	9.1	17.8	12.2	21.8	17.1	14.8	10.2	
SR-63	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						14	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
	K12									28.7	18.6	34.6	25.9	41.9	33.3	25.0	16.4	
SR-75	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
	K12							24.9	15.4	34.9	25.4	44.9	35.4	54.9	45.4	34.7	25.3	
SR-83	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
	K12							40.4	23.2	56.1	38.9	71.7	54.5	87.4	70.2	55.2	38.0	
SR-92	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
	K12							56.8	30.4	79.4	53.0	101.9	75.5	124.5	98.1	82.5	56.0	
SR-105	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
	K12							89.4	47.5	122.5	80.6	155.5	113.6	188.6	146.7	118.1	75.9	
SR-125	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	297	245	157	105
	K11								136	78	186	128	236	178	286	228	173	115
	K12							125	63	176	113	226	163	276	213	188	125	

Unit:Nm

输出扭矩Output torque of air to springs																Springs' output	
气压Air pressure	2.5BAR		3BAR		4BAR		5BAR		6BAR		7BAR		8BAR				
型号Model	Spring Qty.	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
SR-140	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
SR-160	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
SR-190	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
SR-210	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
SR-240	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
SR-270	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
SR-300	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
SR-350	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
SR-400	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

10、外形尺寸图 Dimensions

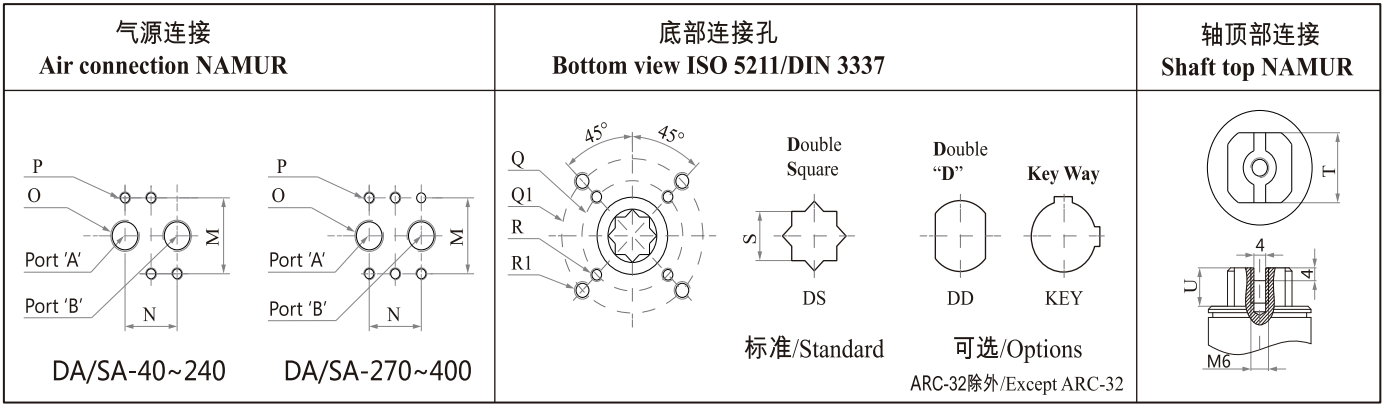


外形尺寸表 Dimensions

单位：毫米 / Unit:mm

型号 Model	32	40	52	63	75	83	92	105	125	140	160	190	210	240	270	300	350	400
A	110	122	147	168	186	212	262	268	301	390	458	534	538	602	718	782	920	940
B	46	65	71.5	83	95	103	108.5	121.5	142	152.5	174	206	226	260	294	336	385	520
C	46	60	72	88	99.5	109	116.5	133	155	172	197	230	255	289	326	350	410	466
D	66	80	92	108	119.5	129	136.5	153	185	202	227	260	285	319	356	380	440	496
E	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø40	Ø55	Ø55	Ø55	Ø80	Ø80	Ø80	Ø80	Ø80	Ø80	Ø80
F	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
H	50	80	80	80	80	80	80	80	80	80/130	80/130	80/130	130	130	130	130	130	130

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	125	140	160	190	210	240	270	300	350	400
M	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	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"	G1/2"	G1/2"	G1/2"	G1/2"
P	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	F10	F10	/	/	/	/	F16	F16	F16
Q1	F03	F05	F05	F07	F07	F07	F07	F10	F10	F12	F12	F14	F14	F16	F16	Ø215	F25	F25
R	/	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M8x13	M8x13	M10x16	M10x16	/	/	/	/	M20x25	M20x25	M20x25
R1	M5x6	M6x9	M6x9	M8x13	M8x13	M8x13	M8x13	M10x16	M10x16	M12x19	M12x19	M16x23	M16x23	M20x25	M20x25	M20x25	M16x24	M16x24
S	9x12	11x14	11x14	14x18	14x18	17x21	17x21	22x26	22x26	27x31	27x31	36x50	36x50	46x60	46x60	46x60	46x60	55x60
T	10	10	10	10	10	10	14	14	22	22	22	32	32	32	32	32	32	32
U	10.5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

* 8个连接孔。 8 screw holes

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

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SR140K7

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。

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 out torque of SR140 K7 is:

Air stroke 0°=308N·m

Air stroke 90°=247N·m

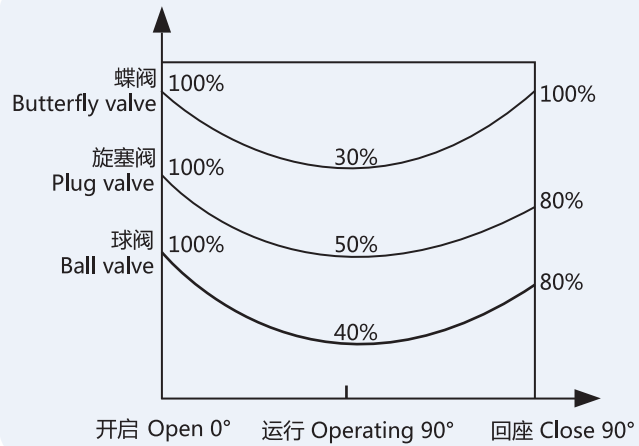
Spring stroke 90°=181N·m

Spring stroke 0°=120N·m

All the output torque is large than we needed.

Attention

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



例如：

蝶阀原最大扭矩=104N·m

打开后扭矩104×30%=32N·m

气源压力=5Bar

我们可以选择 SR125 K11

空气行程0°=136N·m>104N·m

空气行程90°=78N·m>32N·m

弹簧行程90°=173N·m>32N·m

弹簧行程0°=115N·m>104N·m

以上数据显示可以满足该蝶阀的正常启闭。

注意 确保执行器的输出扭矩和驱动阀门所需要的扭矩相符（执行器的型号和气源压力）。
请注意，选型扭矩不仅取决于阀门，还要考虑相关的工况、安全系数等参数。

Note Make sure that the torque necessary to operate the valve is compatible with the actuator torque (it depends on both actuator type and air supply).
Please note that the requested torque depends not only on the valve,but on the working conditions and the safety margins of the plant in question,too.

重量表 Weight Table

型号Model	32	40	52	63	75	83	92	105	125
重量 (DA)	0.7kg	1kg	1.4kg	2kg	2.7kg	3.5kg	4.7kg	5.7 kg	8.1kg
重量 (SR)	-	1.1kg	1.5 kg	2.1kg	2.9 kg	4 kg	5.4kg	7.0 kg	10.5kg

型号Model	140	160	190	210	240	270	300	350	400
重量 (DA)	12.3 kg	20kg	33kg	37.8 kg	56 kg	80kg	100.6 kg	160kg	197.3 kg
重量 (SR)	16kg	25.4kg	39kg	47.4kg	69.2kg	102.2kg	128.2kg	209.2kg	243kg

注：1、SR为12根弹簧；2、重量为净重量

耗气量 Air Consumption

开向体积和关向体积Air Volume Opening&Closing

型号Model	Air volume opening 开向体积 (升)	Air volume closing 关向体积 (升)
32	0.04	0.05
40	0.08	0.11
52	0.12	0.16
63	0.21	0.23
75	0.3	0.34
83	0.43	0.47
92	0.64	0.73
105	0.95	0.88
125	1.6	1.4

型号Model	Air volume opening 开向体积 (升)	Air volume closing 关向体积 (升)
140	2.5	2.2
160	3.7	3.2
190	5.9	5.4
210	7.5	7.5
240	11	9
270	17	14
300	23.8	29.7
350	35.1	46.3
400	52.6	56

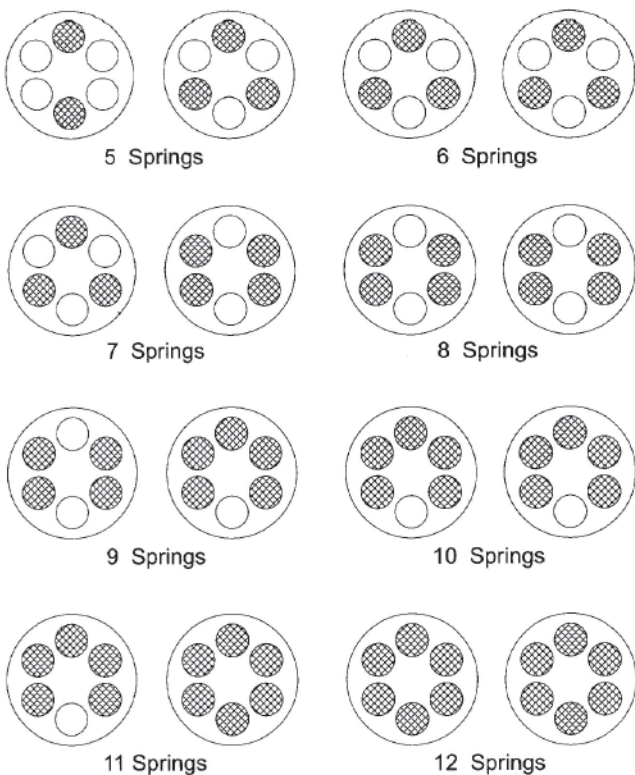
耗气量取决于供气压力、开关行程、体积及动作次数，计算如下：

升/分=气缸体积（开向体积+关向体积）× $\frac{\text{供气压力 (Kpa)} + 101.3}{101.3}$ ×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)× $\frac{\text{Air Supply(Kpa)} + 101.3}{101.3}$ ×Action cycle times/min

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 differe nt torque needed by the valve working at ope ning, operating and closing.

Example:

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

The torque after

opened(operating)104×30%=32N.m

Air Supply=5Bar

We can select the SR125 K11

output torque is:

Air stroke 0°136N.m>104N.m

Air stroke 90°=78N.m>32N.m

Spring stroke 90°=173N.m > 32N.m

Spring stroke 0°=115N.m > 104N.m

The above datas show the actuator' s torque can satisfy

the requirement of the butterfly valve

气动执行器配件区域 Pneumatic actuator accessories area

给客户提供更加全面选择
provide customers with a more comprehensive choice

缸体氧化/hard anodized			
标准硬质氧化 standard hard anodized	彩色氧化 colorful hard anodized	本色氧化 natural color hard anodized	拉丝氧化 bursh finished
			

端盖的颜色/Color of end caps											
											

司有许多其他颜色详细请咨询公司/Any other Custom color pls contact with us

指转接套/Adaptor											
											

指示器/indicator											
											

Company Profile
公司简介

浙江铭天科技有限公司，位于浙江省温州市龙湾区天中路1466号，毗邻温州龙湾国际机场，是集气动控制阀门研发、生产、销售于一体的浙江省科技型企业。

公司引进海外先进的阀门技术，致力于打造中小型不锈钢气动控制阀门标杆，主要生产不锈钢气动角座阀、气动灌装阀、气动梭阀、气动球阀、气动蝶阀等，广泛应用于纺织印染、泡塑、空分、灭菌、化工、食品、制药等行业。产品远销全球多个国家，并与企业保持着良好长期的合作关系，以先进的工艺技术，卓越的产品质量，以及优秀的售后服务赢得客户的信任与好评。

公司拥有先进的不锈钢精密铸造、精密加工、阀门装配及检测等多条生产线，配置了德国进口光谱仪、三坐标检测仪、影像仪、粗糙度检测仪、硬度表、拉伸试验机检测仪器，并通过了ISO9001-2015质量管理体系认证。自公司成立以来共连续获得9项专利，其中发明专利1项，实用新型专利8项。并于2019获得温州市龙湾区“雄鹰企业”荣誉称号。

公司秉承“质比金坚、辉煌铭天”的企业宣言，用金石般的品质和服务表达对客户的诚意和敬意，并立志于打造气控阀门行业的标杆企业。

Zhejiang Mintn Technology Co.,Ltd. is located in Wenzhou City of China adjoining Longwan International Airport Station. We are dedicating in offering R&D and manufacturing services of pneumatic control valves. We also provide OEM services.

Our products mainly include penumatic angle seat valve, pneumatic filling valve, pneumatic shuttle valve, pneumatic ball valve and pneumatic butterfly valve. These products are widely applied in such fields as Textile printing & Dyeing, Foam plastic industry, Pharmaceuticals, Chemicals, Disinfection and Water treatment. All of our products have been widely exported to many countries around the world.

All of our products are made under ISO9001:2015-certified processes. Our company has production lines of advanced stainless steel precision casting, precision machining, valve assembly and testing. We have a strict QC team equipped with German imported spectrograph, CMM, surface roughness instrument, hardness tester, stretch tester and other professional testing equipments. Since the establishment of the company, it has obtained 9 patents, including 1 invention patent and 8 utility model patents. In 2019, we are awarded the honorary title of "Eagle Enterprise".

Since establishment, MINTN sticks to theory of "Science& Technology as Priority, Quality as Basis" and devotes to building up a model enterprise in pneumatic valves industry.

“MINTN” 可在包含以下重点行业的众多行业中为您提供以阀门为主的流体控制解决方案：

- | | | |
|------------------------|-----------------------|-------------------------------|
| ◆泡塑 Molding | ◆制药 Pharmaceutical | ◆化工 Chemical engineering |
| ◆橡胶 Rubber processing | ◆印染 Textile dyeing | ◆生物发酵 Biological fermentation |
| ◆空分 Air separation | ◆汽车 Automobile | ◆啤酒饮料 Food & beverage |
| ◆洗涤 Industrial laundry | ◆灌装 Filling operation | ◆超声波 Ultrasonic |
| ◆灭菌 Sterilization | ◆环保 Environmental | ◆气力输送 Pneumatic conveying |

