

# Contents

## 目 录

- 
- 01** JATConstruction JAT结构
  - 02** Parts and Material 零件与材料
  - 03** Double Acting Actuators 双作用执行器
  - 04~05** Spring Return Actuators  
单作用执行器  
Output Torque of Spring Return Actuators  
单作用执行器输出力矩
  - 06** Outline and Main Sizes外表及主要尺寸图表  
Weight Table 重量表
  - 07~08** Sizing: Spring Return Actuators  
单作用执行器的 选型
  - 09** GT Series GT系列  
GT Parts Material GT零件材料
  - 10** Table of Output Torque for GTD Double-Pneumatic-Control Type  
GTD双气控型输出扭矩表  
Table of Output Torque for GTE Single-PneumaticControl Type  
GTE 单气控型输出扭矩表
  - 11** B Series Actuator Dimension Table  
B系列执行器安装尺寸表

## ■ JATConstruction JAT结构

### 1、Indicator 指示器

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

### 2、Pinion 输出轴

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.

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。

### 3、Actuator Body 缸体

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.

ASTM6005 压铸铝合金缸体可以采用硬质氧化、环氧树脂喷涂（根据要求喷涂蓝色、橙色、黄色等）、PTFE涂层或镀镍满足不同要求。

### 4、End caps 端盖

Die-casting aluminum powder polyester painted in different colours, PTFE or Nickel plated.

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。

### 5、Pistons 活塞

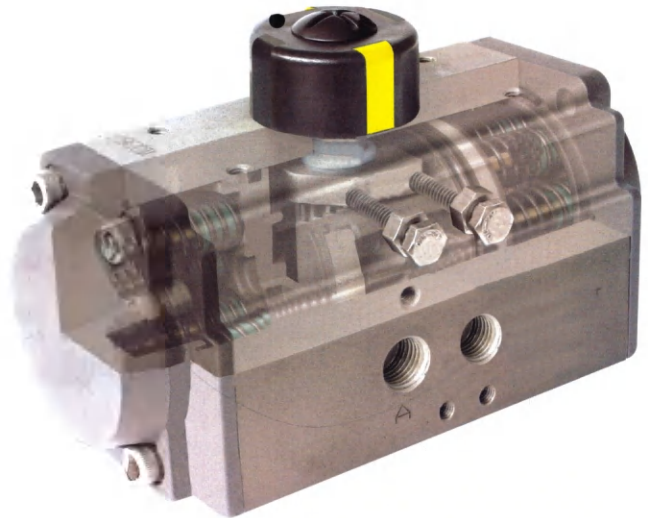
The twin rack pistons are made from Die-casting aluminum treated with Hard anodized or made from Cast steel with galvanization. Symmetric mounting position, long cycle life and fast operation, reversing rotation by simply inverting the pistons.

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。

### 6、Travel adjustment 行程调节

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

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。



### 7、High performance springs 高性能弹簧

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.

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。

### 8、Bearings & Guides 轴承、导板

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

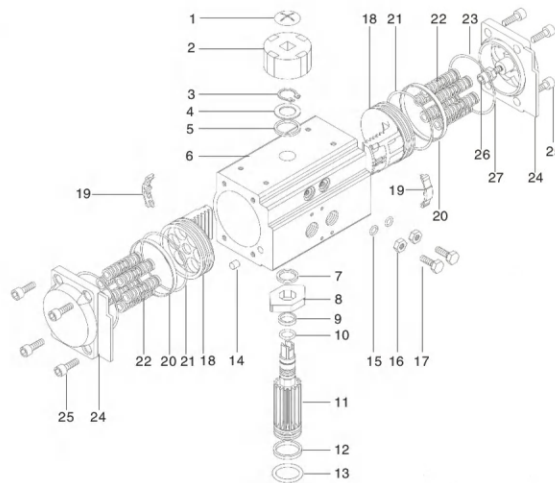
采用低摩擦、长寿命复合材料，避免了金属与金属的直接接触，维修更换简单方便。

### 9、O-rings 密封

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

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。

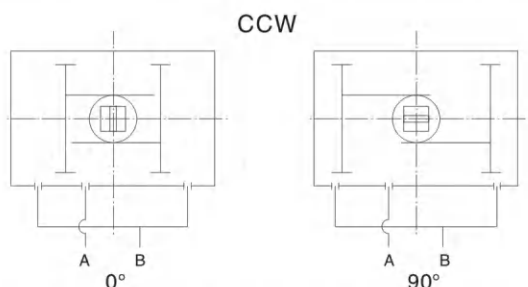
## ■ Parts and Material 零件与材料



NO. 序 号	Description 名 称	Qty 数 量	STANDARD MATERIAL 材 料	PROTECTION 防腐处理	OPTIONAL MATERIAL 可选材料
1	Indicator screw 指示器螺钉	1	Plastic 塑料		
2	Indicator 指示器	1	Plastic 塑料		
3	Spring clip 卡簧	1	Stainless Steel 不锈钢		
4	Thrust washer 垫圈	1	Stainless Steel 不锈钢		
5	Outside washer 外垫片	1	engineering plastics 工程塑料		
6	Body 缸体	1	Extruded aluminum alloy 铸铝	Hard anodized etc 硬质氧化等	
7	Inside washer 内垫片	1	engineering plastics 工程塑料		
8	Cam 凸轮	1	Alloy steel 合金钢		
9	O-ring(pinion top) 上轴O圈	1	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
10	Bearing(pinion top) 上轴轴承	1	engineering plastics 工程塑料		
11	Pinion 齿轴	1	Alloy steel 合金钢	Nickel plated 镀镍	Stainless Steel 不锈钢
12	O-ring(pinion bottom) 下轴O圈	1	engineering plastics 工程塑料		
13	Bearing(pinion bottom) 下轴O圈	1	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
14	Plug 堵头	2	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
15	O-ring(adjust screw) 调节螺钉O圈	2	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
16	Washer(adjust screw) 调节螺钉垫圈	2	Stainless Steel 不锈钢		
17	Nut(Adjust screw) 调节螺钉螺母	2	Stainless Steel 不锈钢		
18	Adjust screw 调节螺栓	2	Stainless Steel 不锈钢		
19	Piston 活塞	2	Cast aluminum/casting 铸铝/铸钢	Anodized/Zinc galvanized 氧化/镀锌	Stainless Steel 不锈钢
20	Guide(piston) 活塞导板	2	engineering plastics 工程塑料		
21	Bearing(Piston) 活塞轴承	2	engineering plastics 工程塑料		
22	O-ring(Piston) 活塞O圈	2	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
23	Spring 弹簧	0~12	Spring steel 弹簧钢	dip coating 浸漆	
24	O-ring(End cap) 端盖O圈	2	NBR 丁腈橡胶		Viton/Silicone 氟橡胶/硅橡胶
25	End cap 端盖	2	Cast aluminum 铸铝	powder polyester painted etc 粉末喷涂等	
26	Cap screw 端盖螺栓	8	Stainless Steel 不锈钢		
27	Stop screw 限位螺栓	2	Stainless Steel 不锈钢		
28	Nut(Stop screw) 限位螺母	2	Stainless Steel 不锈钢		



## ■ DOUBLE ACTING ACTUATORS 双作用执行器

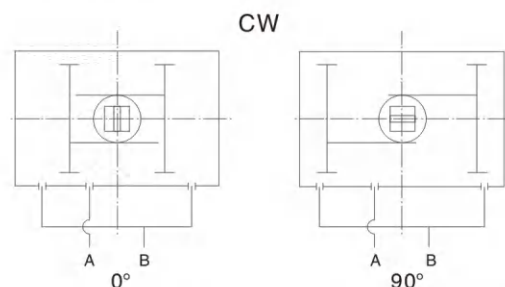


Air to port A forces the pistons outwards, causing the pinion to turn counterclockwise while the air is being exhausted from port B.

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

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 ( $0^\circ - 90^\circ$ ), 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 ( $90^\circ - 0^\circ$ ), A口排气。



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.

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 ( $0^\circ - 90^\circ$ ), B口排气。

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

### OUTPUT TORQUE OF DOUBLE ACTING ACTUATORS 双作用执行器输出力矩 (Unit:Nm)

Model 型号	Air supply pressure (Unit:Bar) 输入气源压力 (单位: 巴)									
	2	2.5	3	4	4.5	5	5.5	6	7	8
JAT052	8.0	10.0	12.0	16.0	18.0	20.0	21.9	23.9	27.9	31.9
JAT065	14.6	18.2	21.9	29.2	32.8	36.5	40.1	43.8	51.1	58.4
JAT083	31.4	39.2	47.0	62.7	70.5	78.4	86.2	94.1	109.7	125.4
JAT105	66.1	82.7	99.2	132.2	148.8	165.3	181.8	198.4	231.4	264.5
JAT130	100.3	125.4	150.5	200.6	225.7	250.8	275.9	301.0	351.1	401.3
JAT140	171.0	213.8	256.5	342.0	384.8	427.5	470.3	513.0	598.5	684.0
JAT160	266.0	332.5	399.0	532.0	598.5	665.0	731.5	798.0	931.0	1064.0
JAT190	425.6	532.0	638.4	851.2	957.6	1064.0	1170.4	1276.8	1489.6	1702.4
JAT210	532.0	665.0	798.0	1064.0	1197.0	1330.0	1463.0	1596.0	1862.0	2128.0

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 RT160DA.

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%。

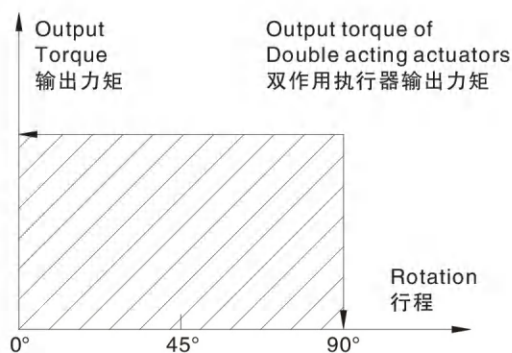
示例:

阀门力矩=100Nm

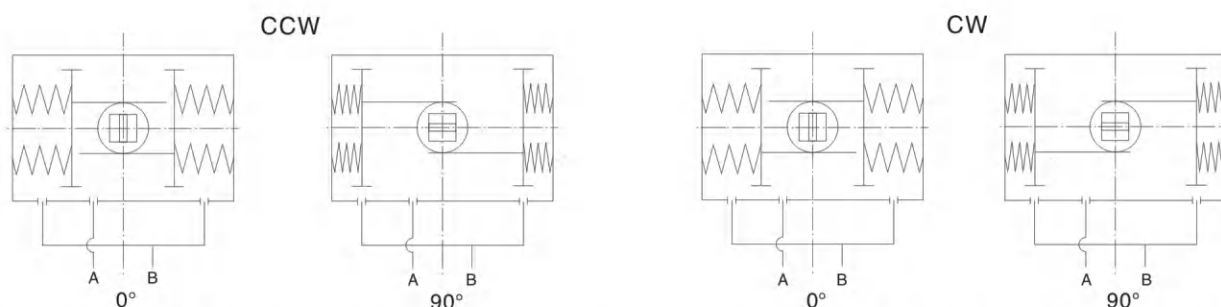
安全力矩=100×(1+30%)=130Nm

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RT160DA。



## ■ SPRING RETURN ACTUATORS 单作用执行器



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 B 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（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，执行器输出轴逆时针转动（90° - 0°），A口排气。

## OUTPUT TORQUE OF SPRING RETURN ACTUATORS 单作用执行器输出力矩 (Unit:Nm)

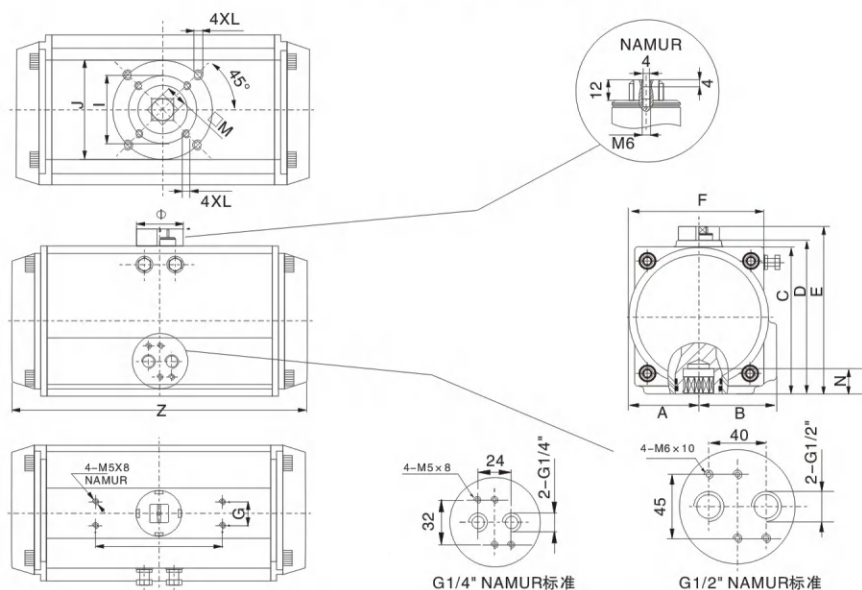
Output torque of air to springs 气源克服弹簧输出力矩															Springs'output 弹簧输出力矩	
Air pressure 气源压力		3Bar		4Bar		5Bar		6Bar		7Bar		8Bar				
Model 型号	Spring Q.ty 弹簧 数量	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
		Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	
SR52	5	7.6	5.7											6.2	4.3	
	6	6.9	4.5	10.9	8.5									7.4	5.0	
	7	6.0	3.3	9.8	7.3	14.0	10.4							8.6	5.9	
	8	5.2	2.0	9.2	6.0	13.2	9.1	17.2	14.1					9.9	6.7	
	9	4.3	0.8	8.3	4.8	12.3	7.9	16.3	12.8	20.3	16.8			11.1	7.6	
	10			7.4	3.6	11.5	6.7	15.5	11.6	19.5	15.6			12.4	8.5	
	11			6.6	2.3	10.6	5.4	14.6	10.4	18.6	14.3	22.6	18.3	13.6	9.3	
	12					9.7	4.2	13.8	9.1	17.8	12.2	21.8	17.1	14.8	10.2	
SR65	5	15.0	11.4	22.3	14.9									10.4	6.8	
	6	13.6	9.3	20.9	16.6	28.3	23.9							12.5	8.2	
	7	12.5	7.2	19.5	14.5	26.8	21.9							14.6	9.6	
	8	10.9	5.1	18.2	12.4	25.5	19.8	32.8	27.0	40.1	34.3			16.7	10.9	
	9			16.8	10.4	24.1	17.7	31.4	24.9	38.7	32.2			18.8	12.3	
	10			1.4	8.2	22.8	15.6	30.0	22.8	37.3	30.1	44.7	37.4	20.9	13.7	
	11					21.5	13.5	28.7	20.7	36.0	28.0	43.3	35.3	22.9	15.0	
	12					20.0	11.4	27.3	18.6	34.6	25.9	41.9	33.3	25.0	16.4	



# OUTPUT TORQUE OF SPRING RETURN ACTUATORS 单作用执行器输出力矩

Output torque of air to springs 气源克服弹簧输出力矩																Springs' output 弹簧输出力矩	
Air pressure 气源压力		3Bar		4Bar		5Bar		6Bar		7Bar		8Bar					
Model 型号	Spring Q.ty 弹簧 数量	0°		90°		0°		90°		0°		90°		0°		90°	
		Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束	Start 开始	End 结束
SR 83	5	31.1	24.0	46.8	39.7											23.0	15.8
	6	28.0	19.3	43.7	35.1	59.4	50.7									27.6	19.0
	7	24.8	14.8	40.5	30.5	56.2	46.2									32.2	22.1
	8	21.7	10.1	37.4	25.8	53.1	41.5	68.8	57.2	84.5	72.9					36.8	25.3
	9			34.2	21.3	49.9	37.0	65.6	52.6	81.2	68.3					41.4	28.5
	10			31.0	16.6	46.7	32.3	62.4	48.0	78.1	63.7	93.8	79.3	46.0	31.6		
	11					43.6	27.7	59.3	43.4	75.0	59.1	90.6	74.8	50.6	34.8		
SR 105	5	67.5	49.9	100.6	83.0											49.2	31.6
	6	61.1	40.0	94.2	73.2	127.3	106.2									59.1	38.0
	7	54.9	30.3	87.9	63.4	121.0	96.4									68.9	44.3
	8	48.5	20.4	81.6	53.5	114.7	86.5	147.7	119.6	180.8	152.7					78.7	50.6
	9			75.3	43.7	108.4	76.8	141.5	109.8	174.5	142.9					88.6	56.9
	10			68.9	33.4	102.0	66.5	135.1	99.6	168.2	132.6	201.2	165.7	98.4	63.3		
	11					95.7	57.0	128.7	90.1	161.8	123.1	194.8	156.2	108.3	69.6		
SR 130	5	98	72	148	122											79	52
	6	88	56	138	107	188	157									94	63
	7	77	40	127	90	178	141									110	73
	8	67	25	117	75	167	125	217	176	268	226					125	84
	9			107	59	157	109	207	159	257	210					141	94
	10			96	44	146	94	196	144	247	194	297	245	157	105		
	11					136	78	186	128	236	178	286	228	173	115		
SR 140	5	171	127	256	213											129	86
	6	154	102	239	187	325	273									155	103
	7	137	76	222	162	308	247									181	120
	8	120	50	205	136	291	221	376	307	462	392					206	137
	9			187	110	273	196	358	281	444	367					232	155
	10			170	84	256	169	341	255	427	340	512	426	258	172		
	11					238	143	324	229	409	314	495	400	284	189		
SR 160	5	259	191	392	324											208	140
	6	232	149	365	282	498	415									250	168
	7	203	107	336	240	469	373									292	196
	8	176	66	309	199	442	237	575	465	708	598					333	223
	9			280	157	413	290	546	423	679	556					375	251
	10			253	115	386	248	519	381	652	514	785	647	417	279		
	11					358	207	491	340	624	473	757	606	458	307		
SR 190	5	438	329	651	542											309	200
	6	398	267	611	480	824	693									371	240
	7	358	205	571	418	784	631									433	280
	8	318	143	531	356	744	569	957	782	1169	995					495	320
	9			491	295	704	507	917	720	1130	933					557	360
	10			451	233	664	446	877	658	1090	871	1302	1084	618	400		
	11					624	384	837	597	1050	809	1263	1022	680	440		
SR 210	5	523	418	789	684											380	275
	6	468	342	734	608	1000	874									456	330
	7	413	266	679	532	945	798									532	385
	8	358	190	624	456	890	722	1156	988	1422	1254					608	440
	9			569	380	835	646	1101	912	1367	1178					684	495
	10			514	304	780	570	1046	836	1312	1102	1578	1368	760	550		
	11					725	494	991	760	1257	1026	1523	1292	836	605		
SR 210	12					670	418	936	684	1202	950	1468	1216	912	660		

## ■ Outline and Main Sizes 外表及主要尺寸图表



Model 型号	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Z	Ø	Air connection 气源接口
JAT52	30	41.5	65.5	72	95	65	30	80		Ø50		M6 × 10	11	14	147	Ø40	NAMUR G1/4"
JAT65	36	47	81	89	107.5	72	30	80	Ø50	Ø70	M6 × 10	M8 × 13	14	18	168	Ø40	NAMUR G1/4"
JAT83	46	57	98.5	108.7	128.7	92	30	80	Ø50	Ø70	M6 × 10	M8 × 13	17	21	204	Ø40	NAMUR G1/4"
JAT105	57.5	64	122.5	133	153	109.5	30	80	Ø70	Ø102	M8 × 13	M10 × 16	22	26	268	Ø40	NAMUR G1/4"
JAT130	67.5	74.5	145.5	160	175	127.5	30	80	Ø70	Ø102	M8 × 13	M10 × 16	22	26	301	Ø55	NAMUR G1/4"
JAT140	75	77	161	172	192	137.5	30	80	Ø102	Ø125	M10 × 16	M12 × 20	27	31	390	Ø55	NAMUR G1/4"
JAT160	87	87	184	197	217	158	30	80	Ø102	Ø125	M10 × 16	M12 × 20	27	31	458	Ø55	NAMUR G1/4"
JAT190	103	103	216	230	260	189	30	130		Ø140		M16 × 25	36	50	525	Ø80	NAMUR G1/4"
JAT210	113	113	235.5	255	285	210	30	130		Ø140		M16 × 25	36	50	532	Ø80	NAMUR G1/4"

## ■ Weight Table 重量表

Model 型号	JAT52	JAT65	JAT83	JAT105	JAT130
重量 (JAT) Weight	1.38kg	2.03kg	3.13kg	6.77kg	8.9kg
重量 (SR) Weight	1.45kg	2.05kg	3.6kg	6.85kg	10.1kg

型号	JAT140	JAT160	JAT190	JAT210
重量 (JAT) Weight	13.25kg	20.14kg	31.3kg	46.80kg
重量 (SR) Weight	15.55kg	24kg	35.25kg	54.8kg

注：1、SR 为12根弹簧；2、重量为净重量



### Sizing: 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%) = 104N.m

Air Supply=5Bar

According to the table of spring return actuators' output, we find output torque of RT435SR K7 is:

Air stroke 0° =308N.m

Air stroke 90° =247N.m

Spring stroke 90° =181N.m

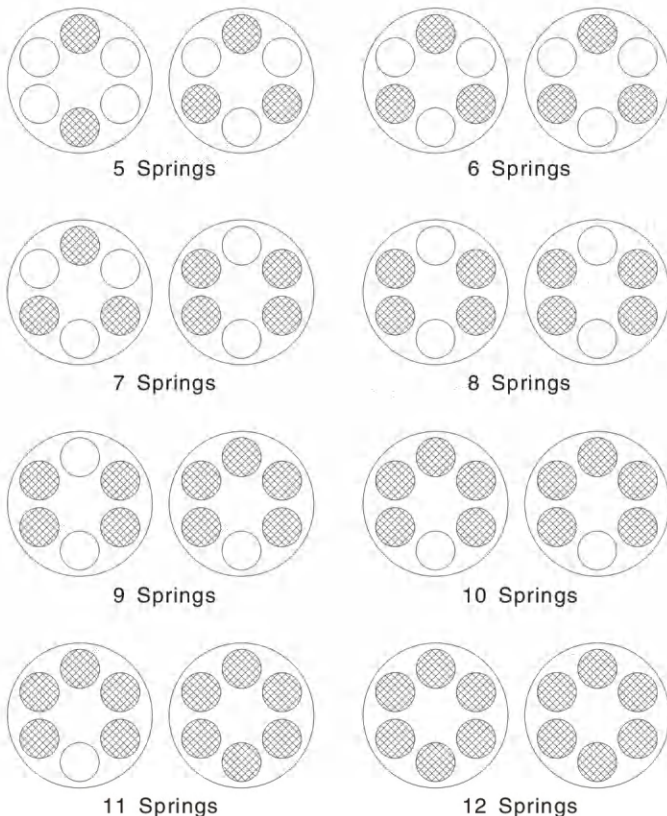
Spring stroke 0° =120N.m

All the output torque is larger than we needed.

#### 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.

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



### 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RT435SR 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。

#### 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。

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

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。

#### Example:

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

The torque after opened (operating)  $104 \times 30\% = 32\text{N.m}$

Air Supply=5Bar

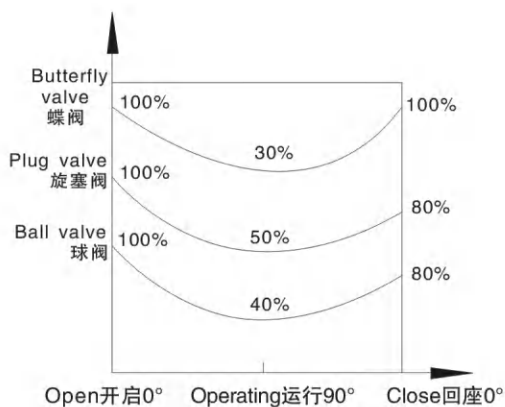
We can select the RT255SR K11

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.





Example:

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

the torque after opened(operating)  $104 \times 30\% = 32\text{N.m}$

Air supply=5Bar

We can select the RT255SR K11

Output torque is:

Air stroke  $0^\circ = 136\text{N.m} > 104\text{N.m}$

Air stroke  $90^\circ = 78\text{N.m} > 32\text{N.m}$

Spring stroke  $90^\circ = 173\text{N.m} > 32\text{N.m}$

Spring stroke  $0^\circ = 115\text{N.m} > 104\text{N.m}$

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

例如:

蝶阀原最大扭矩=104N.m

打开后扭矩  $104 \times 30\% = 32\text{N.m}$

气源压力=5Bar

我们可以选择 RT255SR K11

空气行程  $0^\circ = 136\text{N.m} > 104\text{N.m}$

空气行程  $90^\circ = 78\text{N.m} > 32\text{N.m}$

弹簧行程  $90^\circ = 173\text{N.m} > 32\text{N.m}$

弹簧行程  $0^\circ = 115\text{N.m} > 104\text{N.m}$

以上数据显示可以满足该蝶阀的正常启闭。

## Operating conditions:

### 1. Operating media

Dry or lubricated air, or the non-corrosive gases

The maximum particle diameter must less than  $30\mu\text{m}$

### 2. Air supply pressure

The minimum supply pressure is 2.5Bar

The maximum supply pressure is 8Bar

### 3. Operating temperature

Standard:  $-20^\circ\text{C} \sim +80^\circ\text{C}$

Low temperature:  $-35^\circ\text{C} \sim +80^\circ\text{C}$

High temperature:  $-15^\circ\text{C} \sim +150^\circ\text{C}$

### 4. Travel adjustment

Have adjustment range of  $\pm 5^\circ$  for the rotation at  $0^\circ$  and  $90^\circ$

### 5. Application

Either indoor or outdoor

## 工作技术条件

### 1、工作介质

干燥或润滑的空气或无腐蚀性气体介质中杂质微粒小于  $30\mu\text{m}$ 。

### 2、气源压力

最小气源压力2.5巴，最大气源压力8巴。

### 3、介质环境温度

标准:  $-20^\circ\text{C} \sim +80^\circ\text{C}$

低温:  $-35^\circ\text{C} \sim +80^\circ\text{C}$

高温:  $-15^\circ\text{C} \sim +150^\circ\text{C}$

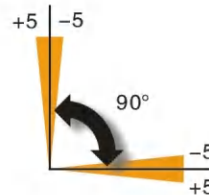
### 4、行程调节

$0^\circ$  和  $90^\circ$  两个位置

有  $\pm 5^\circ$  的调节范围

### 5、使用场合

室内或室外安装



## Operating type

Double acting and spring return

## 动作形式

单作用和双作用



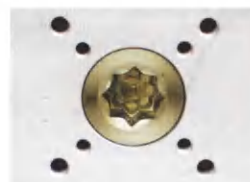
Air supply connection is designed in accordance with NAMUR Standard to install solenoid valves.

气源接口符合 NAMUR 标准，可简单方便地安装电磁阀。



The Namur drive pinion and the Namur top mounting connection permit direct installation of accessories such as limit switch box and positioner.

输出轴的 NAMUR 标准槽和缸体上部分标准安装孔，可使限位开关、定位器直接啮合和安装。

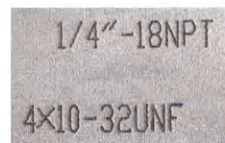
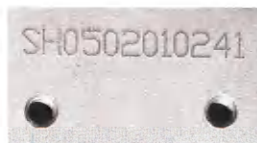


Bottom mounting connection is designed in accordance with ISO5211 and DIN3337 standards for direct mounting with valve gear boxes or mounting brackets.

底部安装孔设计符合 ISO5211、DIN3337 标准，可以直接安装离合器（手动手轮机构）或安装支架。

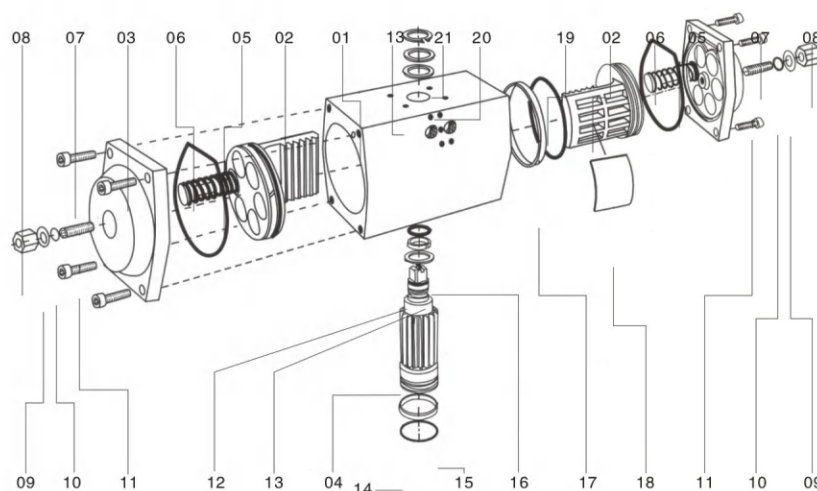
Each actuator is marked with a serial number, air connection and bottom mounting holes are marked for easy track and distinction.

产品序列号、气源接口及底部安装孔全部电脑打字，易于辨识和跟踪服务。



## ■ GT Series GT系列

### Part Materials 零件材料



Serial No. 序号	Part name 零件名称	Quantity 数量	Material 材料	Antisepsis 防腐
01	Cylinder Body 缸体	1	Pressed Aluminium Alloy 压制铝合金	Hard Anodized Oxidation 硬质阳极氧化
02	Piston 活塞	2	Aluminium Alloy 铝合金	Oxidation 氧化
03	End Cover 端盖	2	Aluminium Alloy 铝合金	Spray Plastic 喷塑
04	Export Axle 输出轴	1	Superior Carbon Structural Steel 优质碳素结构钢	Plating Nickel and Phosphorus 镀镍磷
05	Spring 弹簧	8~12	Alloy Spring Steel 合金弹簧钢	Oxidation 氧化
06	Seal Ring 密封圈	2	Acrylonitrile-butadiene Rubber 丁腈橡胶	
07	Bolt 螺钉	8	Stainless Steel 不锈钢	
08	Nut 螺母	2	Stainless Steel 不锈钢	
09	Washer 垫圈	2	Stainless Steel 不锈钢	
10	Seal Ring 密封圈	2	Acrylonitrile-butadiene Rubber 丁腈橡胶	
11	Fastening Bolt 紧定螺钉	2	Stainless Steel 不锈钢	
12	Backup Ring 支承环	1	F4 Multiple Guide Belt F4复合导向带	
13	Washer 垫圈	1	Stainless Steel 不锈钢	
14	Seal Ring 密封圈	1	Acrylonitrile-butadiene Rubber 丁腈橡胶	
15	Backup Ring 支承环	1	F4 Multiple Guide Belt F4复合导向带	
16	Seal Ring 密封圈	1	Acrylonitrile-butadiene Rubber 丁腈橡胶	
17	Backup Ring 支承环	2	F4 Multiple Guide Belt F4复合导向带	
18	Guide Ring of Piston 活塞导向环	2	Nylon 尼龙	
19	Seal Ring 密封圈	2	Acrylonitrile-butadiene Rubber 丁腈橡胶	
20	Washer 垫圈	1	Nylon 尼龙	
21	Elastomeric washer for axle 轴用弹性挡圈	1	Alloy Steel 合金钢	

■ Table of Output Torque for GTD Double-Pneumatic-Control Type  
GTD双气控型输出扭矩表

N.m

Model 型号	气源压力 Mpa					
	0.3	0.4	0.5	0.6	0.7	0.8
GTD52	12.7	16.9	21.2	25.4	29.7	33.9
GTD63	18.7	24.9	31.1	37	43.6	49.8
GTD75	31.8	42.4	53	63.6	74.2	84.8
GTD83	45.4	60.6	75.7	90.8	106	121.1
GTD92	63.8	84.8	106	127.2	148.4	169.6
GTD110	91.2	121.6	152	182.4	212.8	243.2
GTD127	182.4	243.2	304	364.8	425.6	486.2
GTD160	361.9	482.4	603.1	723.6	844.2	964.8
GTD190	754	1005	1256	1507	1759	2010
GTD255	1654	2206	2757	3309	3860	4412
GTD300	2544	3392	4241	5089	5937	6784
GTD350	4040	5387	6734	8081	9428	10774

■ Table of Output Torque for GTE Single-PneumaticControl Type  
GTE单气控型输出扭矩表

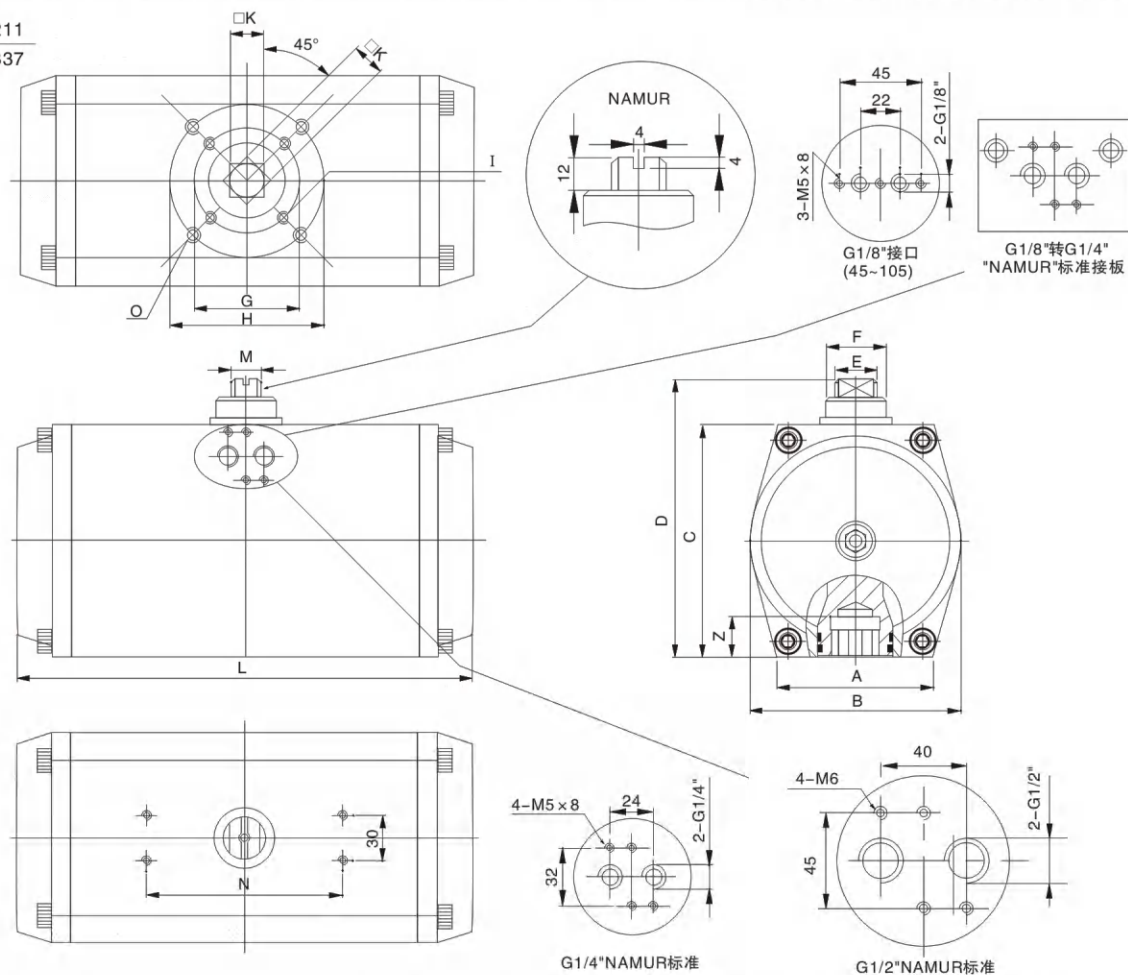
N.m

Model 型号	Number of Springs 弹簧数量	气源压力 Mpa								Spring Return 弹簧复位	
		0.3		0.4		0.5		0.6			
		Start 开始	Terminal 终点	Start 开始	Terminal 终点	Start 开始	Terminal 终点	Start 开始	Terminal 终点	Start 开始	Terminal 终点
GTE52	8			11.3	4.1	15.6	8.4	19.8	12.6	12.8	5.6
	10			9.9	0.9	14.2	5.2	18.4	9.4	16	7
	12					14.2	2	18.4	6.2	19.2	8.4
GTE63	8			16.6	6.1	22.8	12.3	28.7	18.2	18.8	8.3
	10			14.5	1.4	20.7	7.6	26.6	13.5	23.5	10.4
	12					18.6	2.9	24.5	8.8	28.2	12.5
GTE75	8	17.7	3.3	28.3	13.9	38.9	24.5	49.5	35.1	28.5	14.1
	10			24.8	6.2	35.4	16.8	46	27.4	36.2	17.6
	12					31.8	9.4	42.4	20	43.6	21.2
GTE83	8	25.2	5.1	40.4	20.3	55.5	35.4	70.6	50.6	40.3	20.2
	10			35.4	10.2	50.5	25.3	65.6	40.4	50.4	25.2
	12					45.5	15.2	60.6	30.3	60.5	30.2
GTE92	8	35.5	6.8	56.5	27.8	77.7	49	98.9	70.2	57	28.3
	10			49.3	11.8	70.5	33	91.7	54.2	73	35.5
	12					63.5	19.8	84.7	41	86.2	42.5
GTE110	8			85.8	29.5	116.2	59.5	146.6	90.3	92.1	35.8
	10			76.8	6.4	107.2	36.8	137.6	67.2	115.2	44.8
	12					98.3	13.8	128.7	44.2	138.2	53.7
GTE127	8	105.6	19.2	166.4	80	227.2	140.8	288	201.6	163.2	76.8
	10			147.2	39.2	208	100	268.8	160.8	204	96
	12					188.8	59.2	249.6	120	244.8	115.2
GTE160	8	225.1	52.3	345.6	172.8	466.3	293.5	586.8	414	309.6	136.8
	10			311.4	95.4	432.3	216.1	552.6	336.6	387	171
	12			277.2	18	397.9	138.7	518.4	259.2	464.4	205.2
GTE190	8	419.2	78	669.2	329	920.2	580	1171.2	831	676	335.8
	10			587	156	837.3	407	1088.3	658	849	418.7
	12					753.4	241	1004.4	492	1015	502.6
GTE255	8	920	185	1472	737	2023	1288	2575	1840	1469	734
	10			1288	360	1839	911	2391	1463	1846	918
	12					1656	549	2208	1101	2208	1101
GTE300	8	1416	278	2264	1126	3113	1975	3961	2823	2266	1128
	10			1982	562	2831	1411	3679	2259	2830	1410
	12					2549	846	3397	1694	3395	1692
GTE350	8	2248	450	3595	1797	4942	3144	6289	4491	3590	1792
	10			3147	897	4494	2240	5841	3591	4490	2240
	12			3119	17	4046	1364	5393	2711	5370	2688



## ■ GT Series Actuator Dimension Table GT 系列执行器安装尺寸表

ISO 5211  
DIN 3337



## ■ GT Series Actuator Dimension Table GT 系列执行器安装尺寸表

单位 Unit:mm

Model 型号	A	B	C	D	E	G	H	I	K	L	M	N	O	Z	Air Connection 接口螺纹
GTD/GTE52	50	59	74	94	12	F03.φ36	F05.φ50	M5×8	11×11	130	10	80	M6×10	15	G1/8"
GTD/GTE63	60	70	88	108	12	F05.φ50	F07.φ70	M6×10	14×14	140	10	80	M8×12	15	G1/8"
GTD/GTE83	65	91	108	128	18	F05.φ50	F07.φ70	M6×10	17×17	186	10	80	M8×12	17	G1/8"
GTD/GTE110	90	120	140	160	25	F07.φ70	F10.φ102	M8×12	22×22	254	14	80	M10×16	25	G1/8"
GTD/GTE127	103	137	160	180	30	F07.φ70	F10.φ102	M8×12	22×22	296	20	80	M10×16	25	NAMUR G1/4"
GTD/GTE160	128	173	198	228	45	F10.φ102	F12.φ125	M10×16	27×27	384	28	130	M12×20	30	NAMUR G1/4"
GTD/GTE190	118	208	227	257	50	F10.φ102	F12.φ125	M10×16	36×36	501	32	130	M16×24	34	NAMUR G1/4"
GTD/GTE210	135	224	255	285	45		F14.φ120		36×36	533	32	130	M16×24	34	NAMUR G1/4"
GTD/GTE300	196	322	350	380	75		200×140		46×46	638	32	150	M20×28	52	NAMUR G1/2"
GTD/GTE350	220	378	408	438	90		260×160		60×60	721	32	150	M20×28	72	NAMUR G1/2"