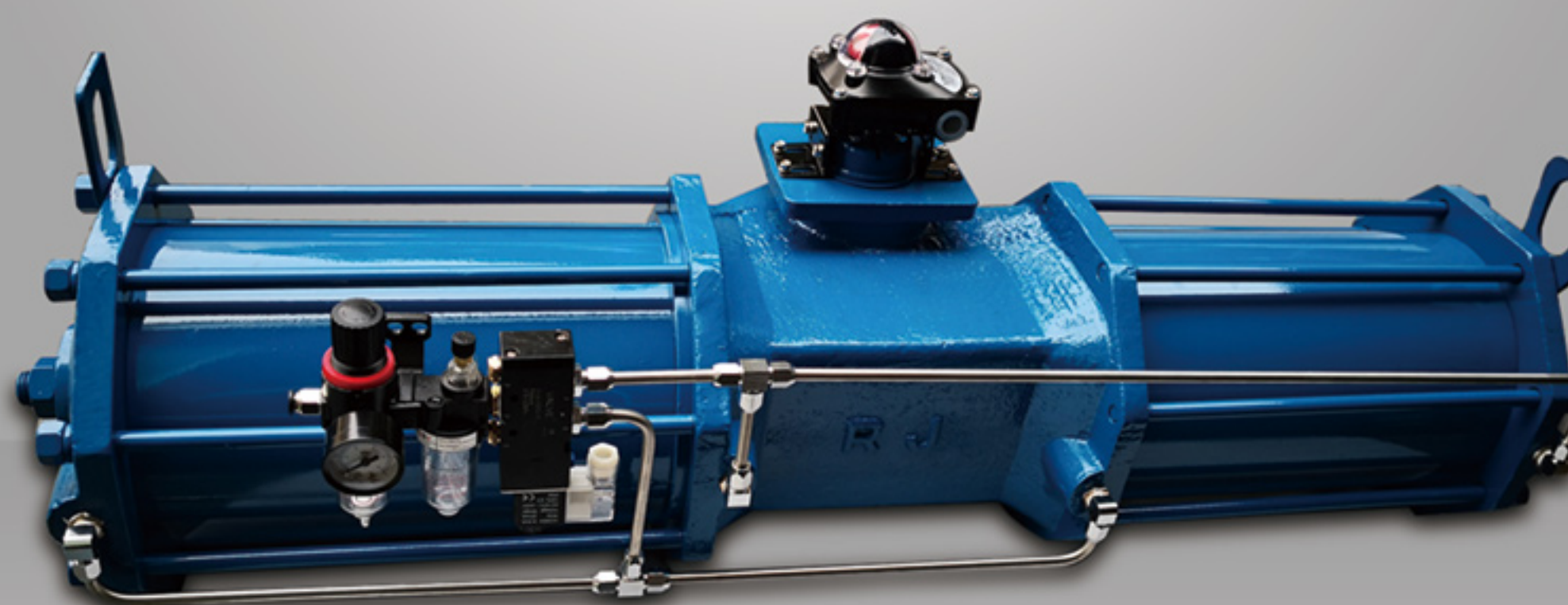


AW Series
AW17/20/25/28/35/40/50/60



AW Series Pneumatic Actuator

Safety and Explosion-proof

AW Series

Compared with AT series actuator, the output torque of AW series pneumatic actuator is larger. Because the use of fork type transmission mechanism, so output torque can be changed with angles. In the open or close position of the valve, the torque of the valve is the largest.

Because the fork and fork arm height overlap, it will greatly save the space, to meet the needs of a variety of large rotary valve.

With the advantages of safety and explosion-proof, it is widely used in the production process of power plant, chemical industry, oil refining and so on.

Main Performance Characteristics

1. AW series pneumatic actuator is divided into double acting and single acting type (spring reset), And the two split cylinders, make it easy to manufacture. As well as large size cylinders to meet the demand of all kinds of large rotating valves.

2. Large output torque, flexible balance cylinder wall and piston shaft with hard chrome plated and has good property of anti friction, and all the moving parts with or without oil lubrication of the shaft and the guide ring can reduce the friction coefficient, and prolong the service life of AW series pneumatic U type actuator, which is more suitable for large size ball valves and butterfly valves.

3. The sliding device is made of low friction materials, which can avoid the direct contact between metal and metal.

4. AW series actuator is equipped with fixed hole in the bottom surface, by which the right connection of the actuator and the valve will realize, conform to the ISO5211/DIN3337 standard.

5. The bottom assembly hole is square, easy to connect with the valve stem, and can rotate 45 degrees in corner installation.

6. Rotation angle: double acting =90 degrees; single acting =90 degrees, from both ends, the adjustable angle is $\pm 50^\circ$ degrees.

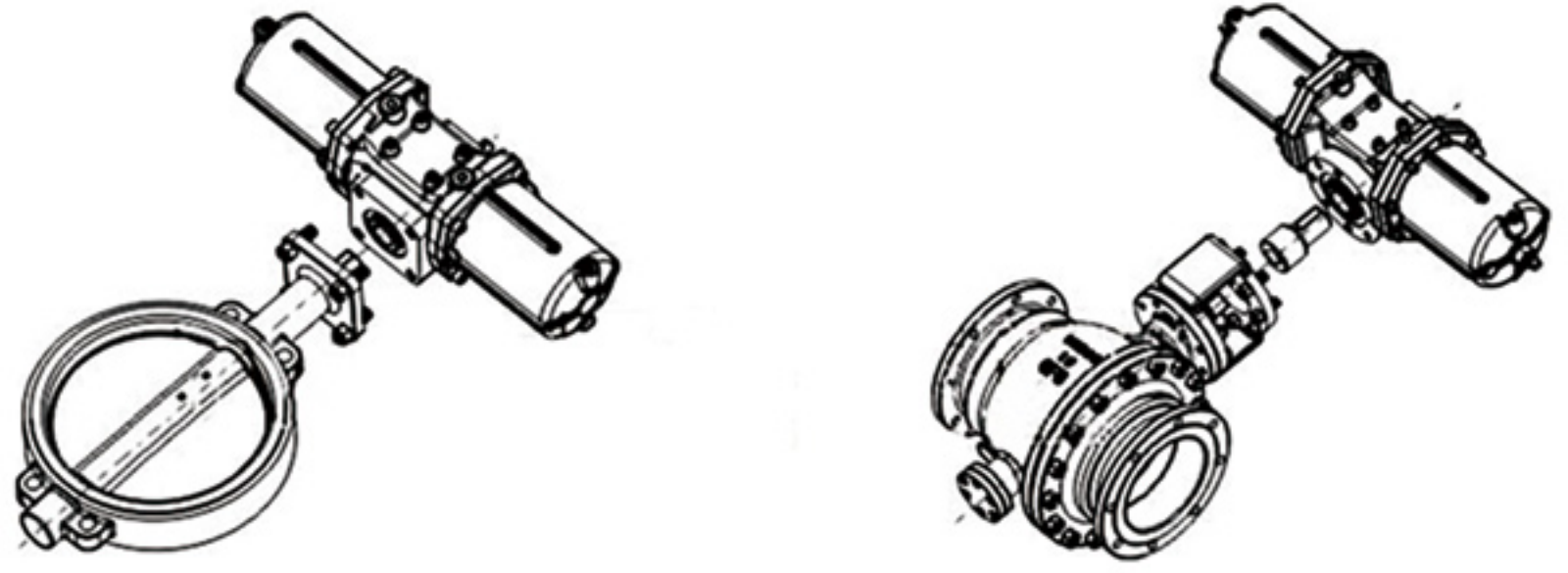
7. Working environment temperature: from -20 degrees to -80 degrees.

8. Air source: filter, dry or refueling lubrication of clean air minimum pressure is 0.1Mpa, and maximum pressure is 1Mpa.

9. Basic design: pneumatic double cylinder, double piston shifting fork drive mechanism. Model AW= double acting; model AWS= single acting type (spring reset).

10. The AW series pneumatic actuators are suitable for valves with 1/4 turning (90 rpm). Such as ball valve, butterfly valve, plug valve and so on. The design and manufacture of this product adopts JIS standard, and as well as the international standard ISO5211.

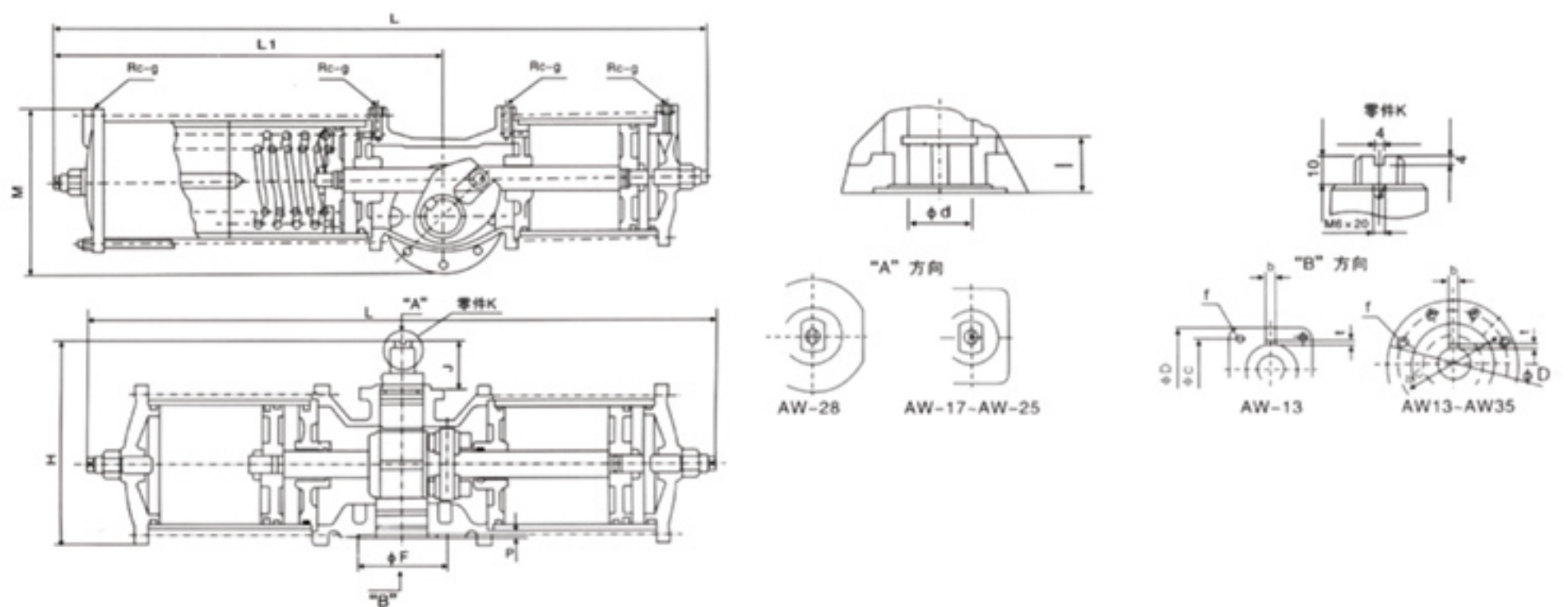
Product use



Function:

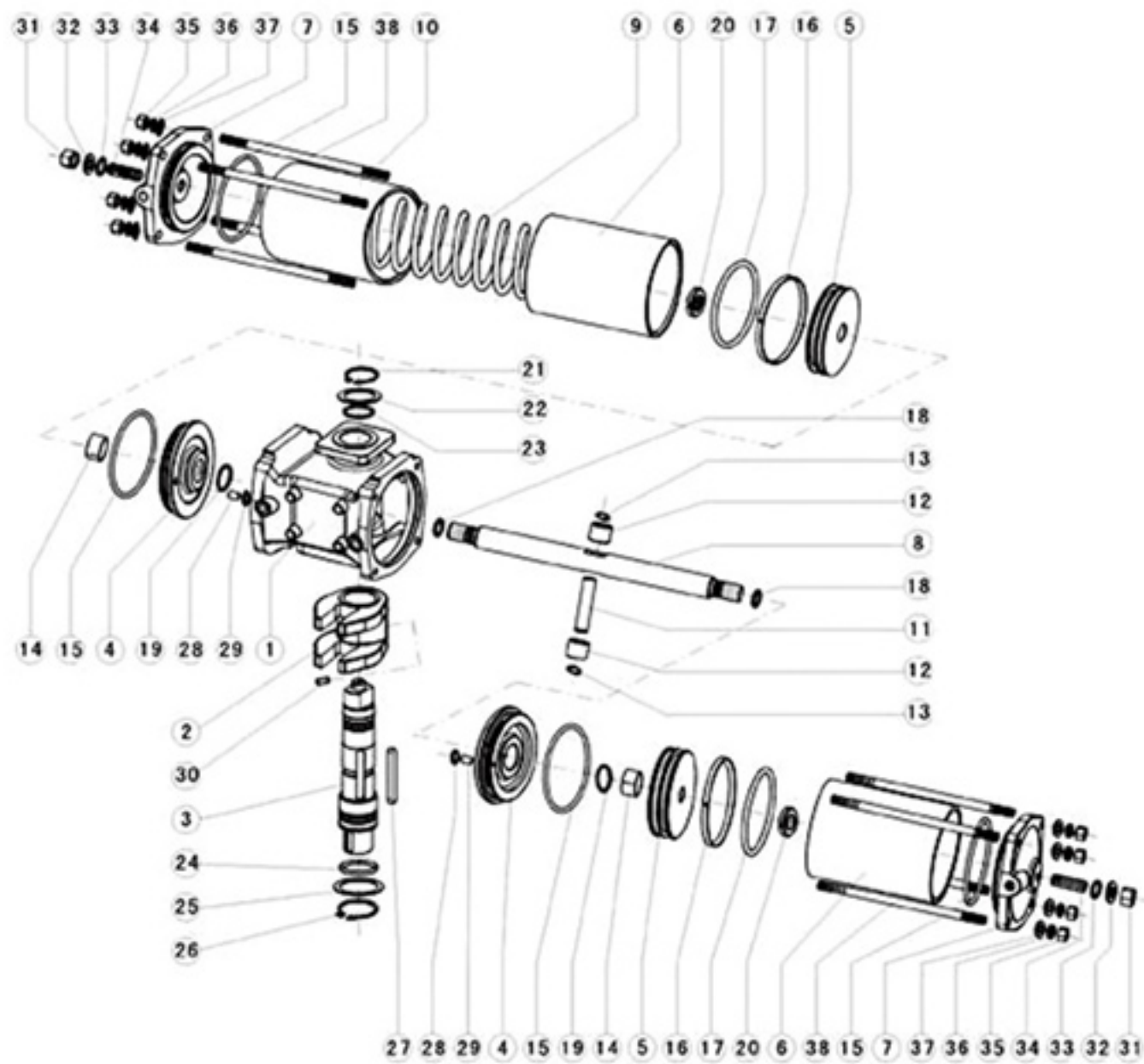
- ☛ Double acting pneumatic actuator: Two position control of valve opening and closing. Spring reset: when the circuit is broken down, the valve opens or closes automatically.
- ☛ Single acting electronically controlled solenoid valve: When power supply the valve open or closed, when the power off the valve closed or open (can provide explosion-proof type).
- ☛ Double acting electronically controlled solenoid valve: When one coil is powered, the valve open, and the other coil powered, the valve closed, there is memory function (can provide explosion proof type).
- ☛ Limit switch back detector: It is the signal that transmits the switch position of the valve remotely (can provide explosion proof type).
- ☛ Electrical positioner: According to the current signal (standard 4-20mA), to control valve medium flow size (can provide explosion-proof type).
- ☛ Electrical converter: it will convert the current signal to an air pressure signal, which is used in conjunction with the pneumatic positioner (can provide an explosion proof type).
- ☛ Air source treatment of triple parts: including air pressure reducing valve, fitter, oil mist. the gas supply voltage, cleaning and moving parts lubrication.
- ☛ Manual operating mechanism: automatic control can be operated manually under abnormal conditions.

Dimension



Model	L	L1	M	H	ΦC	ΦD	f	Φd	l	ΦF	P	b	t	J	g
AW13/13S	640/850	538	201	230	100	132	4-M16	28	35	80	4	8	3.5	58	G1/4
AW17/17S	827/1090	675	270	285	160	190	8-M16	40	45	120	4	12	3.5	65	G3/8
AW20/20S	1080/1430	890	320	300	180	215	8-M16	45	50	130	4	14	4	78	G1/2
AW22/22S	1190/1560	960	355	330	200	230	8-M16	55	62	140	4	16	4	78	G1/2
AW25/25S	1330/1875	1200	404	380	240	275	8-M18	55	70	180	5	16	5	78	G1/2
AW28/28S	1380/1950	1260	460	430	280	318	8-M20	60	85	220	4	18	5	87	G1/2
AW35/35S	1860/2065	1670	545	440	300	350	8-M24	105	100	220	10	28×2	6.4	-	G1/2
AW40	1860	-	570	490	300	350	8-M24	105	100	220	10	28×2	6.4	-	G1/2

Model Specification



Overview of AW Pneumatic Actuator Products

AW series pneumatic actuators are suitable for turning at 90 deg (1/4 rpm) valves. Such as: ball valve, butterfly valve, plug valve etc. This product is designed and manufactured with JIS standard. It is manufactured in accordance with the international standard ISO5211. AW/AW-S pneumatic actuator, and the performance is excellent and the quality is stable.

Model specification	Gas pressure(Mpa)				
	0.3	0.4	0.5	0.6	0.7
AW13	515	620	770	930	1080
AW17	950	1270	1590	1910	2230
AW20	2150	2870	3580	4300	5020
AW25	3360	4480	5600	6720	7850
AW28	5150	6860	8580	10300	12020
AW35	10120	13500	16870	20250	23620
AW40	13220	17630	22040	26450	30860

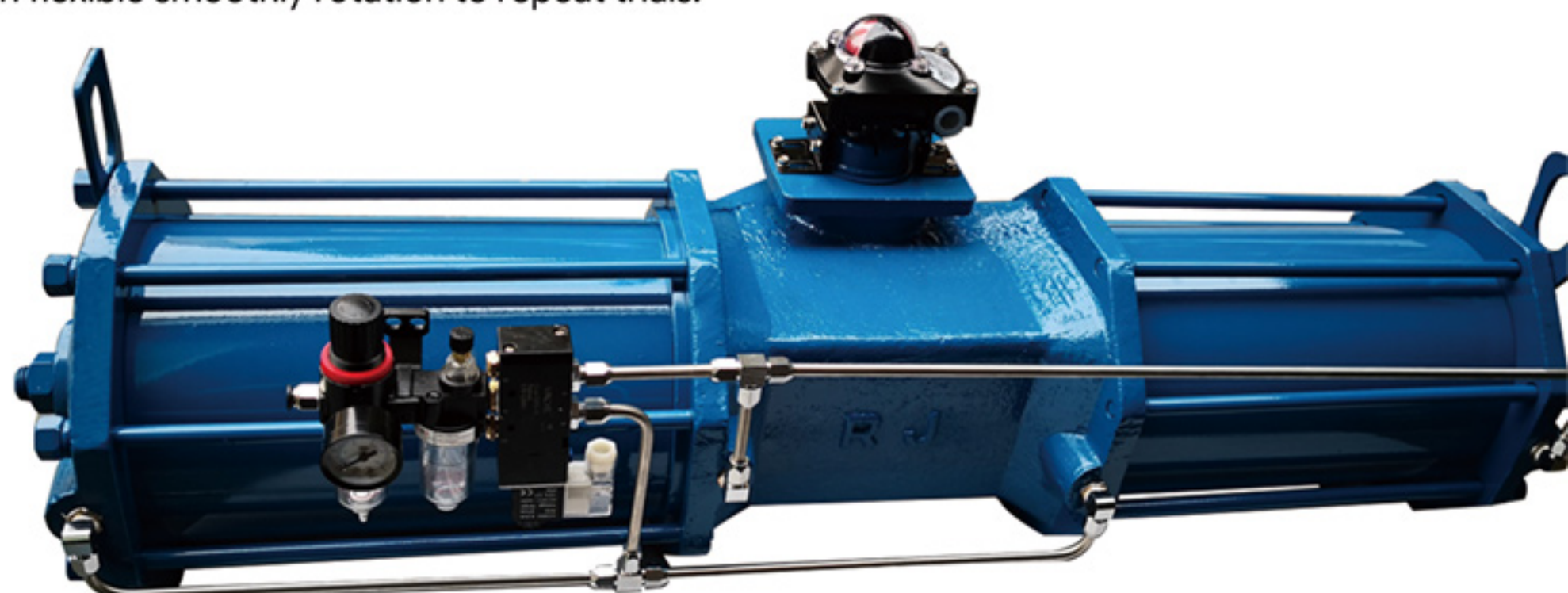
Parts Description

No.	Name	Number	No.	Name	Number	No.	Name	Number	No.	Name	Number
1	Box	1	11	Pin shaft	1	21	Circlip	1	31	Lock nut	2
2	Fork	1	12	Roll sleeve	2	22	Antifriction washer	1	32	Flat washer	2
3	Shaft	1	13	Circlip	2	23	O-ring	1	33	O-ring	2
4	A partition	2	14	Oilless bearing	2	24	O-ring	1	34	Adjusting screw	2
5	Piston	2	15	O-ring	2	25	Antifriction washer	1	35	Nut	8
6	Cylinder block	2/3	16	Guide ring	2	26	Circlip	1	36	Spring washer	8
7	Cylinder head	2	17	O-ring	2	27	Flat key	1	37	Flat washer	8
8	Piston rod	1	18	O-ring	2	28	O-ring	2	38	Stud	8
9	Spring	1/2/4	19	O-ring	2	29	Dowel pin	2	39		
10	Spring cylinder	1	20	Lock nut	2	30	Set screw	1	40		

AW Pneumatic Actuator Series for Use:

First, we should determine the valve torque, considering the pipeline medium: water vapor or non-lubricating medium need to increase 25% security value; While Non-lubricated dry gas medium increases 60% security value; Powder medium non-lubricated gas transmission increases 100% security value; For cleaning lubrication friction free medium a 20% increase in security value. Then, according to the source of work pressure, to find the double acting or single acting type torque meter, thus, we can get accurate actuator model.

The pneumatic actuator and valve installation accuracy is correct or not will directly affect the safe operation and service life of the actuator. The reasonable installation is that the center shaft of the actuator and the valve stem must be absolutely coaxial and properly connected and installed. Before the actuator and valve are assembled, the torque shall be measured and shall not exceed the required torque. After the assembly, the pneumatic actuator and the wide doors will be tested at the same time. The valve rated pressure and seal pressure, actuator to supply pressure of 4~8bar or according to user needs to switch the intake air pressure, the two inlet pneumatic actuator, pneumatic open and close observation of the situation of the valve should not stop, when the crawling phenomenon appears, After the assembly, the pneumatic actuator and the wide doors at the same time test, the valve rated pressure to seal pressure, actuator to supply pressure of 4~8bar or according to user needs to switch the intake air pressure. The observation of the situation of the valve should not stop when the two inlet pneumatic actuators open and close. When the crawling phenomenon appears, should switch flexible smoothly rotation to repeat trials.



ABOUT

AEN.TECH is an integrated machinery manufacturing group company. It has 18 years of development history since its first plant was put into operation. Currently, it has three factories in China and mainly produces various types of valves and machined products. Over the years, the products have been widely used in metallurgy, chemical industry, sewage treatment, heating and construction, gas, and other fields, and AEN committed to providing customers with a full range of industrial valve solutions.



World Headquarters, Anshan, China

The factory has advanced processing equipment and the products are produced in accordance with API, ANSI, JIS, ISO, BS, JB, and GB standards. The production technology is advanced and the testing methods are perfect.

Over the years, the company has served the world's industrial sectors with its advantages of good reputation, stable product quality, modern enterprise management, automated processing equipment and advanced technology.

The main products: valves, pipe fittings.

Worldwide Sales and Services Network



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