



# JDZ SERIES STRAIGHT STROKE PNEUMATIC ACTUATOR

**ZHEJIANG JIUDING**  
AUTOMATIC CONTROL EQUIPMENT CO., LTD.

[www.jdacv.com](http://www.jdacv.com)





## JIUDING AUTOMATIC CONTROL EQUIPMENT, GOOD COMMITMENT



## About JiuDing

Jiuding Automation Equipment Co., Ltd. specializing in the production of pneumatic actuator, electric actuator, hydraulic actuator, electric valve, pneumatic valve manufacturing (gas pneumatic butterfly valve, pneumatic ball valve), hydraulic valve, regulating valve, automatic control valve and all kinds of industrial valves and other various specifications of the various series.

Jiuding Automation Equipment Co., Ltd. is located in "China valve village" - Oubei Town Code No. 62 North Road (next to the building, pump technology) company will keep with a new look, new ideas, continuous reform and innovation, design and produce more and better products to update the users feedback. Facing the new market competition and the pattern of global economic integration, Jiuding automation will be adhering to the "development concept of quality decision power", adhere to the "integrity-based, authoritative, abide by the commitment, innovation, forge ahead, steady development" policy, vigorously promote technological innovation, capital operation, internationalization development strategy three promote the transformation from the traditional enterprise Jiuding automation to high-tech industry, respect knowledge talent, build an uplifting, unity and hard work of the "Jiuding" humanistic spirit, to create "strength of enterprises" striving for the new brilliant Jiuding automatic control.

Jiuding Automatic Control Equipment Co., Ltd. mainly produces pneumatic valves, pneumatic butterfly valves, pneumatic ball valves, and various industrial valves and other specifications of a variety of series of automatic control valves. Strive in the petroleum and chemical industry, metallurgy, electric power, building, heating, water supply and drainage, water treatment and other industries with high visibility and influence, continuous innovation in science and technology, and strive to develop the country generation, mainly by Chinese GB, JB, API, ANSI American Standard, British BS, German standard DIN, France, NF Japan JIS, JPI standard production. And, according to the special requirements of users smelting and manufacturing. The products are widely used in chemical industry, water treatment equipment, fertilizer, metallurgy, power, pharmaceutical, petrochemical introduction of the valve device ancillary products sold throughout the country and exported to the Middle East, Southeast Asia, Europe and the United States for all developed countries and regions. Welcome to inquire, order.



The longest journey begins with the first step, the reputation of sound source in service. Jiu Ding automatic control products have been all over the north and south, continue to deduce a unique "Jiu Ding Automatic Control" masterpiece. The implementation of boutique strategy, create brand benefits, with the spirit of truth-seeking, quality products, more perfect after-sales service, so that all users using "JIU DING" brand closely linked to join hands in creating a better future.

## The Longest Journey Begins With The First Step, The Reputation Of Sound Source In Service





# JDZ SERIES

STRAIGHT STROKE PNEUMATIC ACTUATOR

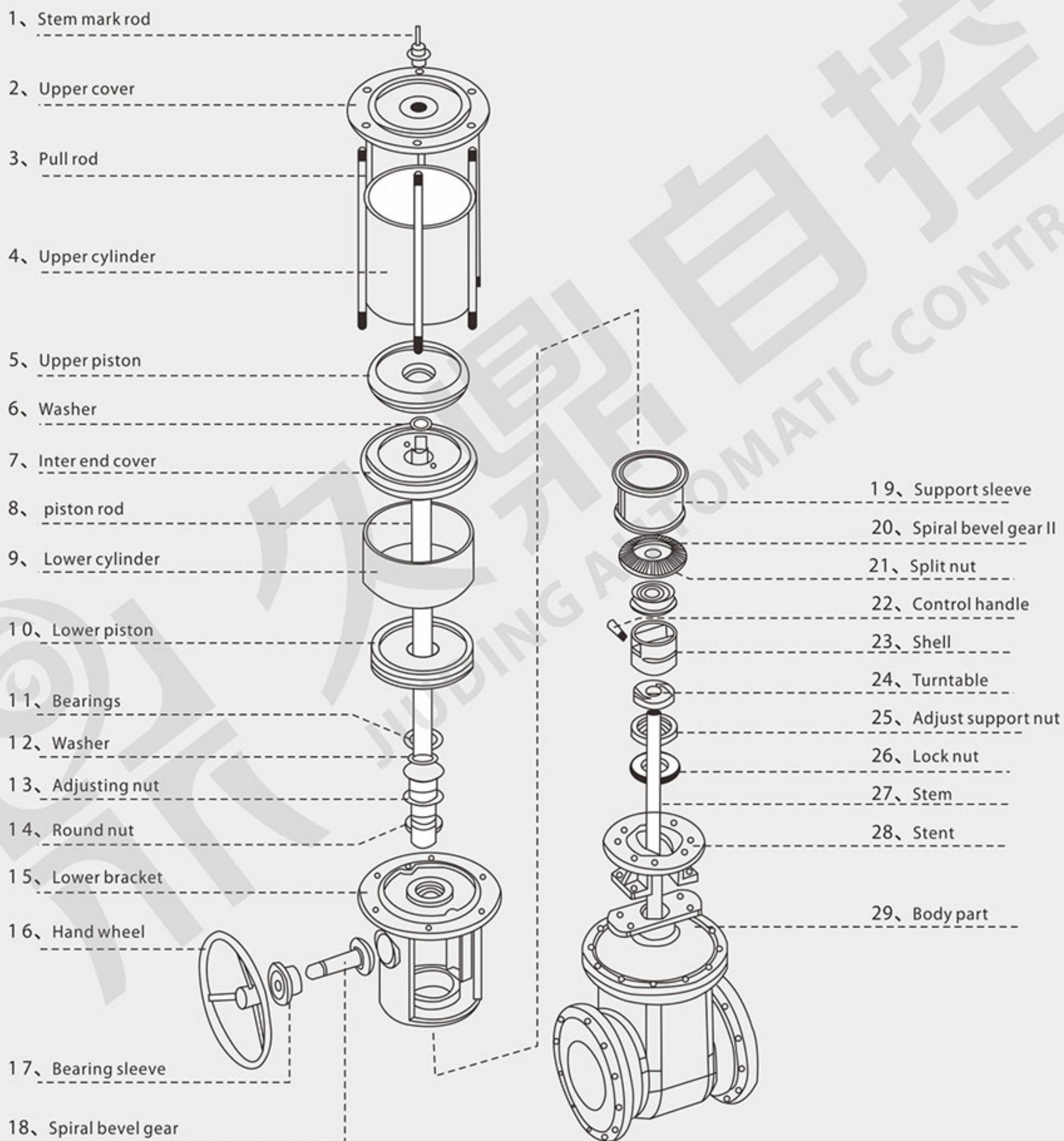


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■ **Structural Style**







## Working Principle

JDZ series straight stroke pneumatic actuators are manufactured in strict accordance with the quality standards to ensure the reliability and safety of the use. This sample lists the standard models of products, designed to cover a wide range of applications, and can be designed and manufactured according to user needs.

JDZ series valve pneumatic actuator with 0.4~0.6MPa (g) purification of compressed air for the work force, push the piston to drive the valve gate linear motion perpendicular to the fluid so as to realize the regulation, opening and closing of the valve, JDZ series actuator is applicable to all types of wedge gate valve, flat gate valve, knife gate valve and the cut-off valve, discharge valve, ball valves and plug valves and other rail track.

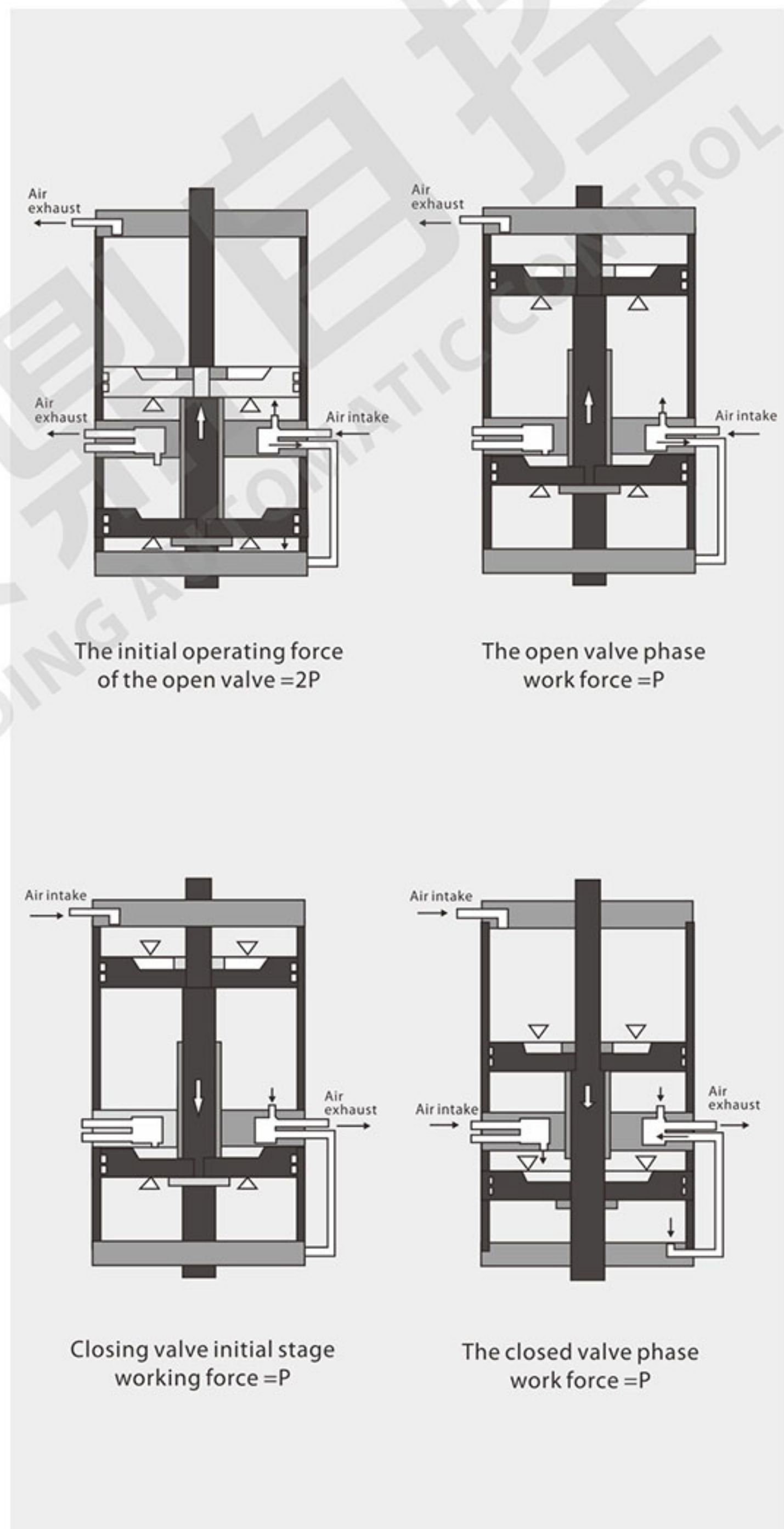
Taking JDZ series double acting double piston pneumatic actuator as an example, the pneumatic actuator adopts the working principle of double cylinder and buffer mechanism, and the four stages of valve work are as follows: (schematic diagram 1, 2, 3, 4)

1. Stage: the upper valve opens before the piston of the cylinder (hereinafter referred to as the piston and the lower piston) of the cylinder (hereinafter referred to as the piston) force at the same time, promote the stem of the upper and lower piston, piston to nearly two times the lifting force, overcome the maximum static friction of the valve plate sealing surface and the sealing surface of the valve body. The gate drive up. The compressed air is made up of the lower air chamber of the upper cylinder and is connected to the lower air chamber of the lower cylinder through the connecting pipe through the specific channel provided by the clapboard, so as to push the upper and lower pistons to work simultaneously. The gas in the air chamber of the lower cylinder passes through another specific channel in the separator. Unimpeded discharge of cylinders in vitro.

2. Valve opening in the later stage: after the gate is slightly opened, the lower piston will run to the top dead center and stop moving, the gate under the drive of the piston, continue to ascend, until the full open position.

3. Gate valve closed in the first stage: under the push of the upper piston, the gate from the full open position, began to decline.

4. Stage valve off: when the piston piston boss hit, and driven by the piston continues to decline, due to the exhaust passage inlet passage under the cylinder chamber and the cylinder gas chamber is provided with a block, clearly slowed down the speed, to the gate down to the fully closed position. The gate buffer not only prevents the valve plate from closing too tightly, but also protects the sealing surface from damage caused by heavy shock.







## ■ Structure Characteristics

### ■ Powerful

JIUDING automatic control can provide different types of JDZ series pneumatic actuators meet the personalized needs of customers, can also be customized for clients to solve the full set of professional engineering programs, pneumatic valve series of complete sets of equipment can be equipped with valve position, the valve positioner, solenoid valve, gas processing device, gas / manual switching mechanism, hydraulic component, gas tank and other accessories to meet the needs of field conditions, remote control, and can realize the multi station centralized control valve operation.

### ■ Safe and Reliable

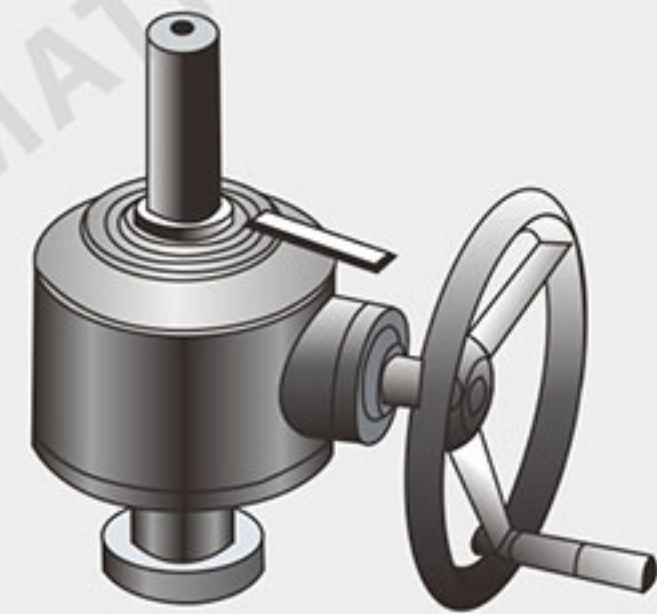
JDZ series of pneumatic actuator protection level in line with the IP65 standard(dust, waterproof). When the pneumatic actuator is equipped with gas/manual switching mechanism, the scene to snuff out the power down or the solenoid valve control circuit is at fault, can conveniently rotate the operating handle, quickly converted from pneumatic to manual mode of operation, to ensure the normal operation of the line, to avoid accidents, at the same time before the automatic control system the new project is not completed, this series of products can be reliably used as a manual valve.

### ■ Standardization

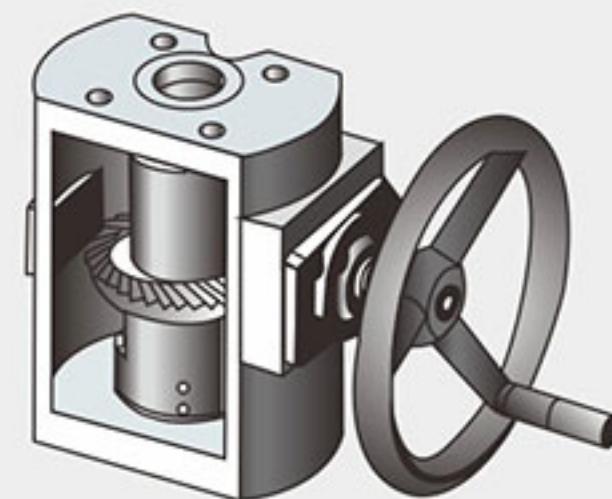
JIUDING automatic control in order to expand the straight stroke pneumatic actuators market universal degree, convenient installation and use of the product and customer service service, the company based on market data analysis for many years, is committed to the straight stroke pneumatic actuator series of products to achieve market standardization, by simplifying the product variety, accelerate product design and production preparation process. To ensure and improve the product quality and engineering, expand the interchangeability of parts, reduce the cost of products and projects, provide excellent quality, affordable products for customers. The dimension of the product conforms to ISO5211 international standard.



Top mounted manual mechanism TM2



Top mounted manual mechanism TM3

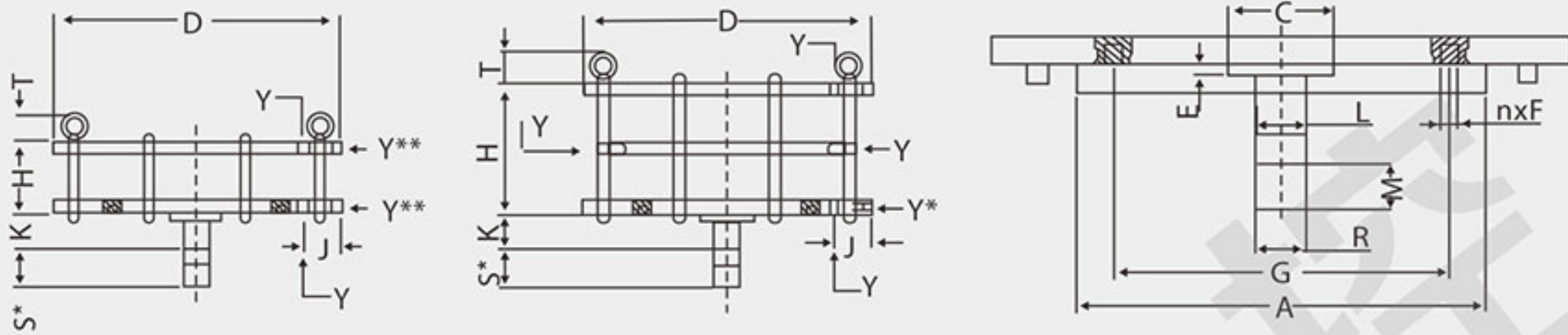


Side loading manual mechanism SM





**Actuator Size**



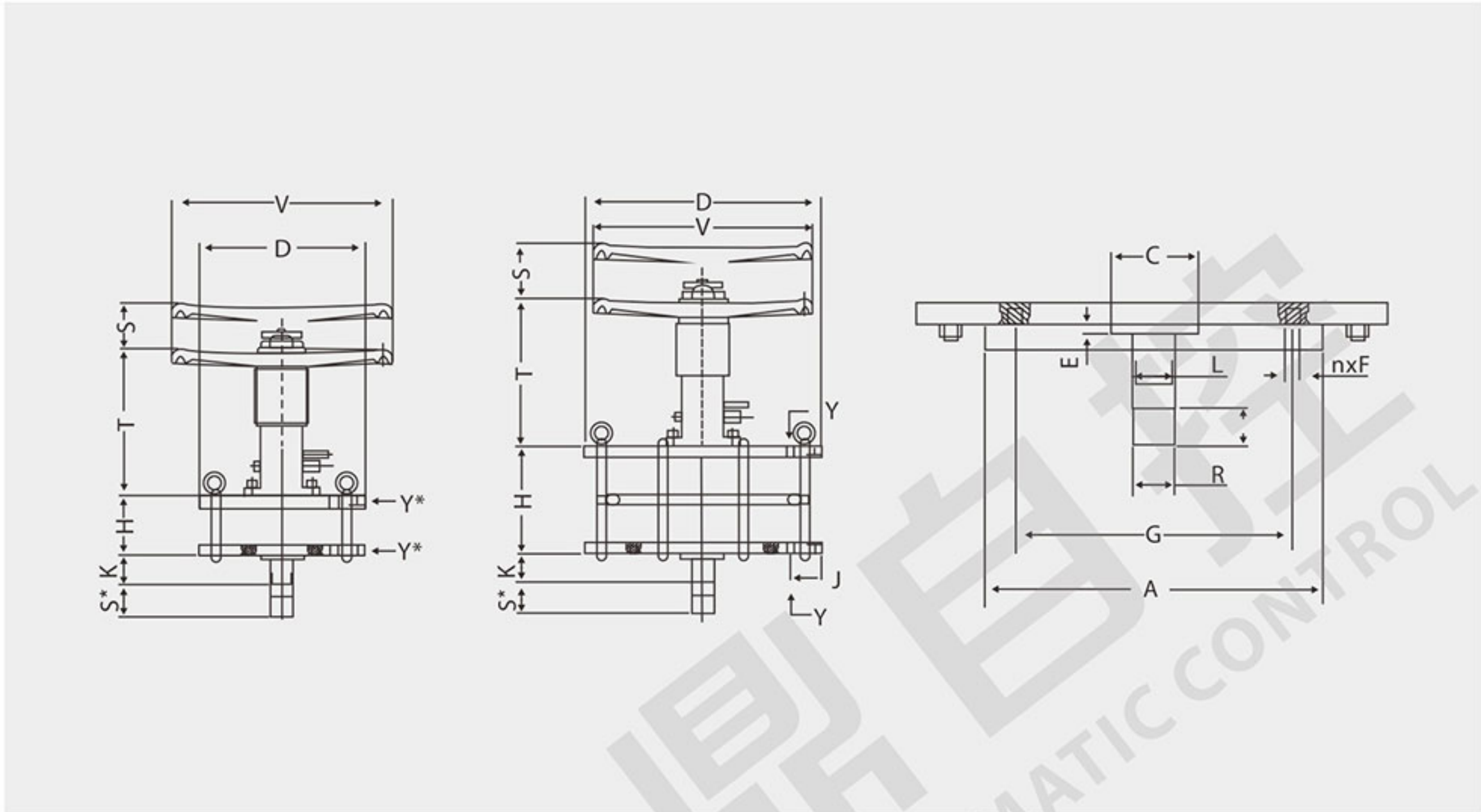
TYPE	ΦA	ΦC	ΦD	E	n° xF	ΦG	H	J	K	ΦL	M	R	T	Y
JDZ125DA-1P	90	55	185	3	M8*4	F07	100+S*	/	80	25	30	M22*1.5	35	G1/4
JDZ160DA-1P	125	70	220	3	M10*4	F10	115+S*	/	80	25	30	M22*1.5	35	G1/4
JDZ200DA-1P	125	70	265	3	M10*4	F10	120+S*	/	80	30	35	M24*1.5	35	G1/4
JDZ250DA-1P	150	85	325	4	M12*4	F12	140+S*	/	80	30	35	M27*1.5	35	G3/8
JDZ300DA-1P	150	100	375	4	M12*4	F12	145+S*	65	100	35	40	M32*2	55	G3/8
JDZ350DA-1P	150、175	100	430	5	M12*4、M16*4	F12/F14	155+S*	65	100	40	45	M36*2	55	G1/2
JDZ400DA-1P	175、210	130	485	5	M16*4、M20*4	F14/F16	170+S*	70	100	45	50	M42*2	55	G1/2
JDZ450DA-1P	210	130	535	5	M20*4	F16	170+S*	70	100	55	60	M52*2	65	G1/2
JDZ500DA-1P	300	200	605	5	M16*8	F25	180+S*	70	100	60	65	M58*2	65	G1/2
JDZ550DA-1P	300	200	655	5	M16*8	F25	180+S*	70	120	60	65	M58*2	65	G1/2
JDZ600DA-1P	300、350	200	705	5	M16*8、M20*8	F25/F30	190+S*	75	120	70	75	M68*2	80	G1/2
JDZ650DA-1P	300、350	200	760	5	M16*8、M20*8	F25/F30	190+S*	75	120	70	75	M68*2	80	G1/2
JDZ700DA-1P	350	200	810	5	M20*8	F30	190+S*	75	120	75	85	M68*2	80	G1/2
JDZ800DA-1P	415	230	915	5	M30*8	F35	200+S*	85	140	80	85	M68*2	80	G3/4
JDZ900DA-1P	415	230	1020	5	M30*8	F35	200+S*	85	140	80	85	M68*2	80	G3/4
JDZ450DA-2P	300	200	535	5	M16*8	F25	230+S*	70	100	55	60	M52*2	65	G1/2
JDZ500DA-2P	350	230	605	5	M20*8	F30	240+S*	70	100	60	65	M58*2	65	G1/2
JDZ550DA-2P	350	230	655	5	M20*8	F30	240+S*	75	120	60	65	M58*2	65	G1/2
JDZ600DA-2P	350	230	705	5	M20*8	F30	250+S*	75	120	70	75	M68*2	80	G1/2
JDZ650DA-2P	350	230	760	5	M20*8	F30	250+S*	75	120	70	75	M68*2	80	G1/2
JDZ700DA-2P	415	230	810	5	M30*8	F35	260+S*	75	120	75	85	M78*2	80	G1/2
JDZ800DA-2P	350、415	260	915	5	M30*8、M36*8	F35/F40	320+S*	85	140	80	85	M78*2	80	G3/4
JDZ900DA-2P	350、415	260	1020	5	M30*8、M36*8	F35/F40	350+S*	85	140	80	85	M78*2	80	G3/4

Note: The above data is for reference only.  
All products are subject to the product, JIUDING automatic control reserves the right of interpretation.





■ Double Acting Mechanism -TM1 Simple Overhead Handwheel Mechanism



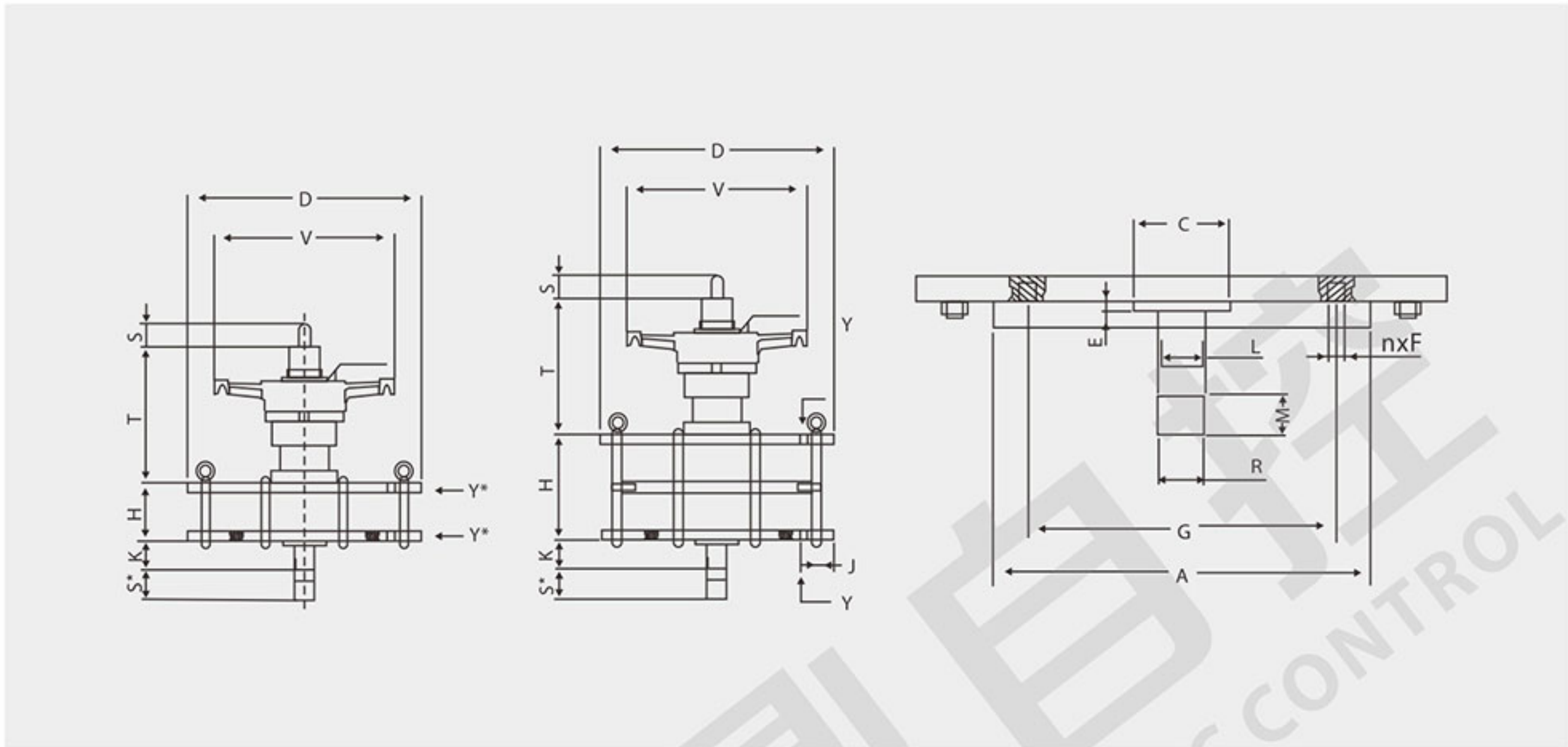
TYPE	ΦA	ΦC	ΦD	E	n° xF	ΦG	H	J	K	ΦL	M	R	T	Y	ΦV
JDZ125DA-1P	90	55	185	3	M8*4	F07	100+S*	/	80	25	30	M22*1.5	250+S	G1/4	250
JDZ160DA-1P	125	70	220	3	M10*4	F10	115+S*	/	80	25	30	M22*1.5	250+S	G1/4	250
JDZ200DA-1P	125	70	265	3	M10*4	F10	120+S*	/	80	30	35	M24*1.5	250+S	G1/4	250
JDZ250DA-1P	150	85	325	4	M12*4	F12	140+S*	/	80	30	35	M27*1.5	400+S	G3/8	350
JDZ300DA-1P	150	100	375	4	M12*4	F12	145+S*	65	100	35	40	M32*2	400+S	G3/8	350
JDZ350DA-1P	150, 175	100	430	5	M12*4, M16*4	F12/F14	155+S*	65	100	40	45	M36*2	550+S	G1/2	500
JDZ400DA-1P	175, 210	130	485	5	M16*4, M20*4	F14/F16	170+S*	70	100	45	50	M42*2	550+S	G1/2	500
JDZ450DA-1P	210	130	535	5	M20*4	F16	170+S*	70	100	55	60	M52*2	550+S	G1/2	500

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■ Double Acting Actuator-TM2 Light Top Mounted Handwheel Mechanism



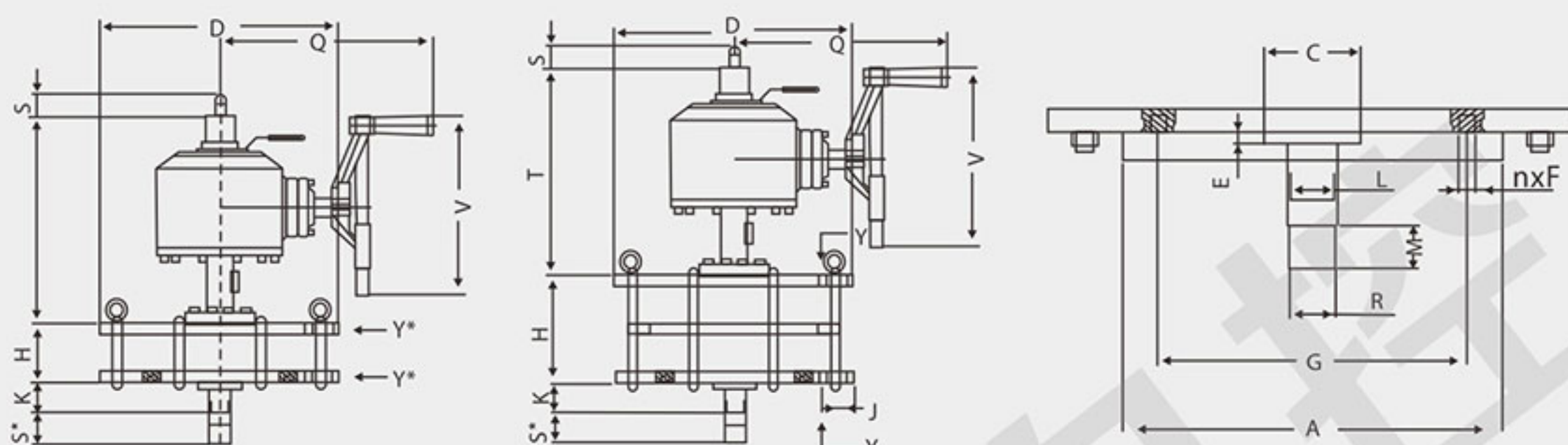
TYPE	ΦA	ΦC	ΦD	E	n° xF	ΦG	H	J	K	ΦL	M	R	T	Y	V
JDZ200DA-1P	125	70	265	3	M10*4	F10	120+S*	/	80	30	35	M24*1.5	180+S	G1/4	300
JDZ250DA-1P	150	85	325	4	M12*4	F12	140+S*	/	80	30	35	M27*1.5	180+S	G3/8	300
JDZ300DA-1P	150	100	375	4	M12*4	F12	145+S*	65	100	35	40	M32*2	180+S	G3/8	300
JDZ350DA-1P	150, 175	100	430	5	M12*4, M16*4	F12/F14	155+S*	65	100	40	45	M36*2	200+S	G1/2	450
JDZ400DA-1P	175, 210	130	485	5	M16*4, M20*4	F14/F16	170+S*	70	100	45	50	M42*2	200+S	G1/2	450
JDZ450DA-1P	210	130	535	5	M20*4	F16	170+S*	70	100	55	60	M52*2	250+S	G1/2	450
JDZ500DA-1P	300	200	605	5	M16*8	F25	180+S*	70	100	60	65	M58*2	250+S	G1/2	600
JDZ550DA-1P	300	200	655	5	M16*8	F25	180+S*	70	120	60	65	M58*2	250+S	G1t2	600
JDZ600DA-1P	300, 350	200	705	5	M16*8, M20*8	F25/F30	190+S*	75	120	70	75	M68*2	250+S	G1/2	700
JDZ450DA-2P	300	200	535	5	M16*8	F25	230+S*	70	100	55	60	M52*2	250+S	G1/2	600
JDZ500DA-2P	350	230	605	5	M20*8	F30	240+S*	70	100	60	65	M58*2	250+S	G1/2	700
JDZ550DA-2P	350	230	655	5	M20*8	F30	240+S*	75	120	60	65	M58*2	250+S	G1/2	700

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■ Double Acting Mechanism -TM3 Heavy Top Loading Handwheel Mechanism



TYPE	ΦA	ΦC	ΦD	E	n° xF	ΦG	H	J	K	ΦL	M	R	T	Y	ΦV	Q
JDZ350DA-1P	150、175	100	430	5	M12*4、M16*4	F12/F14	155+S*	65	100	40	45	M36*2	300+S	G1/2	350	360
JDZ400DA-1P	175、210	130	485	5	M16*4、M20*4	F14/F16	170+S*	70	100	45	50	M42*2	300+S	G1/2	350	360
JDZ450DA-1P	210	130	535	5	M20*4	F16	170+S*	70	100	55	60	M52*2	300+S	G1/2	350	360
JDZ500DA-1P	300	200	605	5	M16*8	F25	180+S*	70	100	60	65	M58*2	300+S	G1/2	350	360
JDZ550DA-1P	300	200	655	5	M16*8	F25	180+S*	70	120	60	65	M58*2	300+S	G1/2	350	360
JDZ600DA-1P	300、350	200	705	5	M16*8、M20*8	F25/F30	190+S*	75	120	70	75	M68*2	340+S	G1/2	410	550
JDZ650DA-1P	300、350	200	760	5	M16*8、M20*8	F25/F30	190+S*	75	120	70	75	M68*2	340+S	G1/2	410	550
JDZ700DA-1P	350	200	810	5	M20*8	F30	190+S*	75	120	75	85	M68*2	395+S	G1/2	500	600
JDZ800DA-1P	415	230	915	5	M30*8	F35	200+S*	85	140	80	85	M68*2	395+S	G3/4	500	600
JDZ900DA-1P	415	230	1020	5	M30*8	F35	200+S*	85	140	80	85	M68*2	395+S	G3/4	500	600
JDZ450DA-2P	300	200	535	5	M16*8	F25	230+S*	70	100	55	60	M52*2	340+S	G1/2	410	550
JDZ500DA-2P	350	230	605	5	M20*8	F30	240+S*	70	100	60	65	M58*2	340+S	G1/2	410	550
JDZ550DA-2P	350	230	655	5	M20*8	F30	240+S*	75	120	60	65	M58*2	340+S	G1/2	410	550
JDZ600DA-2P	350	230	705	5	M20*8	F30	250+S*	75	120	70	75	M68*2	340+S	G1/2	410	550
JDZ650DA-2P	350	230	760	5	M20*8	F30	250+S*	75	120	70	75	M68*2	395+S	G1/2	500	600
JDZ700DA-2P	415	230	810	5	M30*8	F35	260+S*	75	120	75	85	M78*2	395+S	G1/2	500	600
JDZ800DA-2P	350、415	260	915	5	M30*8、M36*8	F35/F40	320+S*	85	140	80	85	M78*2	395+S	G3/4	500	600
JDZ900DA-2P	350、415	260	1020	5	M30*8、M36*8	F35/F40	350+S*	85	140	80	85	M78*2	395+S	G3/4	500	600

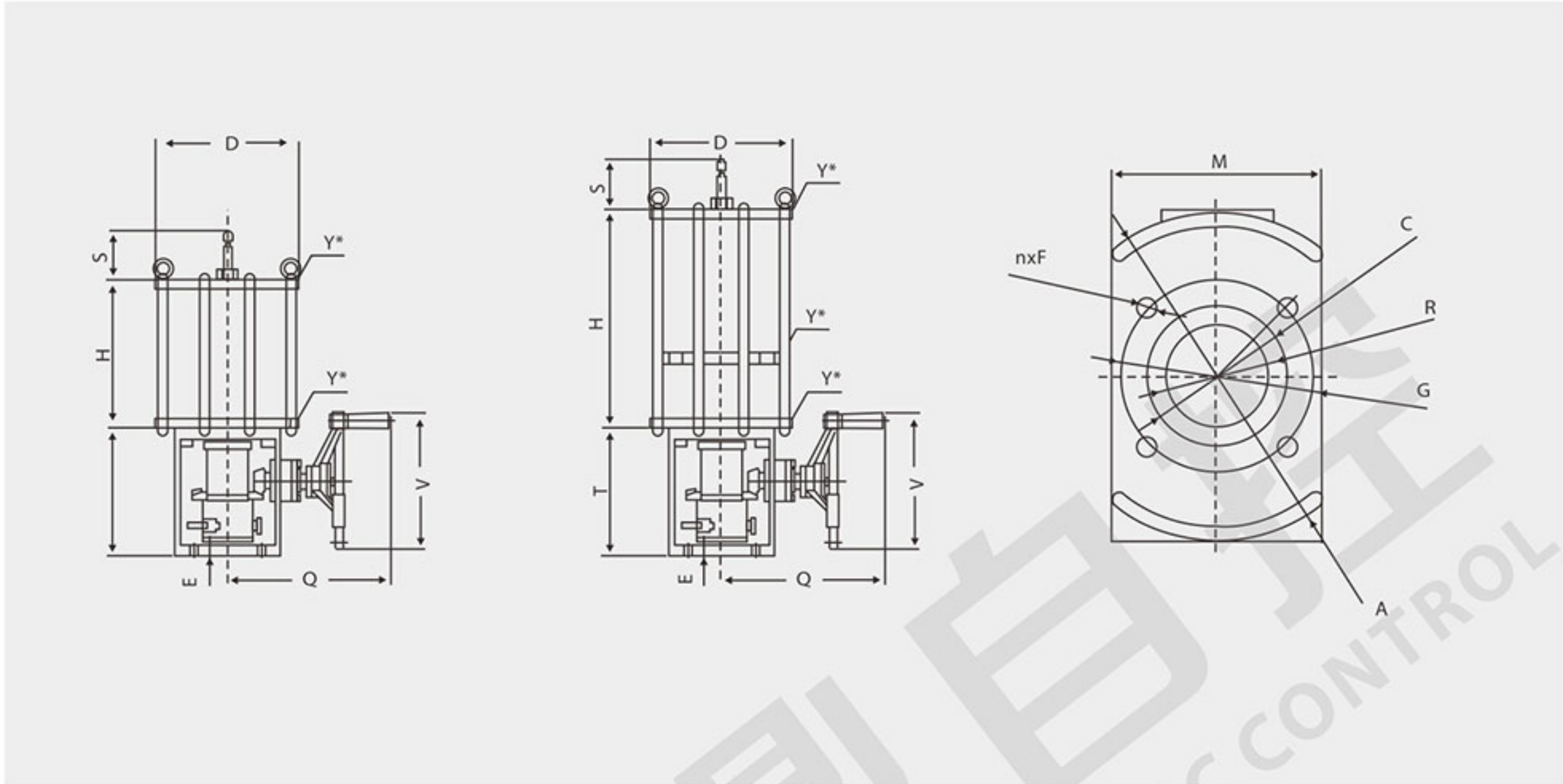
Note: The above data is for reference only.

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■ Double Acting Actuator -SM Side Loading Handwheel Mechanism



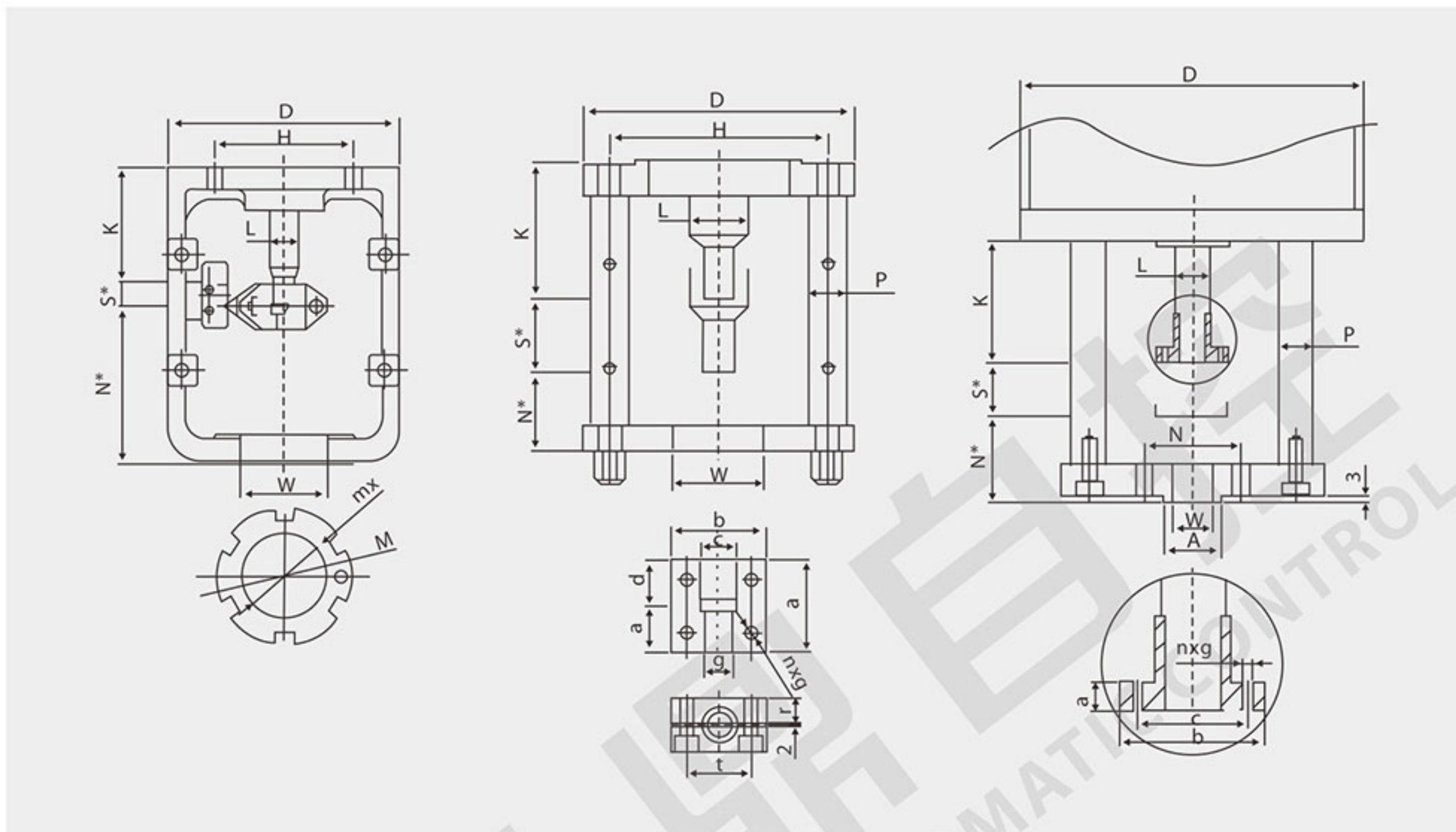
TYPE	ΦA	ΦC	ΦD	E	n° xF	H	ΦG	Q	ΦV	M	R	T	Y
JDZ200DA-1P	235	100	265	4	M16*4	120+S	F14	350	350	150	50	305	G1/4
JDZ250DA-1P	235	100	325	4	M16*4	140+S	F14	350	350	150	50	305	G3/8
JDZ300DA-1P	235	100	375	4	M16*4	145+S	F14	350	350	150	50	305	G3/8
JDZ350DA-1P	235	100	430	4	M16*4	155+S	F14	350	350	150	50	305	G1/2
JDZ400DA-1P	320	130	485	5	M20*4	170+S	F16	550	500	190	70	419	G1/2
JDZ450DA-1P	320	130	535	5	M20*4	170+S	F16	550	500	190	70	419	G1/2
JDZ500DA-1P	320	130	605	5	M20*4	180+S	F16	550	500	190	70	419	G1/2
JDZ550DA-1P	320	130	655	5	M20*4	180+S	F16	550	500	190	70	419	G1/2
JDZ600DA-1P	480	230	705	5	M20*8	190+S	F30	580	600	350	100	815	G1/2
JDZ650DA-1P	480	230	760	5	M20*8	190+S	F30	580	600	350	100	815	G1/2
JDZ700DA-1P	480	230	810	5	M20*8	190+S	F30	580	600	350	100	815	G1/2
JDZ800DA-1P	480	230	915	5	M20*8	200+S	F30	580	600	350	100	815	G3/4
JDZ900DA-1P	480	230	1020	5	M20*8	200+S	F30	580	600	350	100	815	G3/4
JDZ450DA-2P	320	130	535	5	M20*4	230+S	F16	550	500	190	70	419	G1/2
JDZ500DA-2P	320	130	605	5	M20*4	240+S	F16	550	500	190	70	419	G1/2
JDZ550DA-2P	320	130	655	5	M20*4	240+S	F16	550	500	190	70	419	G1/2
JDZ600DA-2P	480	230	705	5	M20*8	250+S	F30	580	600	350	100	815	G1/2
JDZ650DA-2P	480	230	760	5	M20*8	250+S	F30	580	600	350	100	815	G1/2
JDZ700DA-2P	480	230	810	5	M20*8	260+S	F30	580	600	350	100	815	G1/2
JDZ800DA-2P	480	230	915	5	M20*8	320+S	F30	580	600	350	100	815	G3/4
JDZ900DA-2P	480	230	1020	5	M20*8	350+S	F30	580	600	350	100	815	G3/4

Note: The above data is for reference only.  
All products are subject to the product, JIUDING automatic control reserves the right of interpretation.

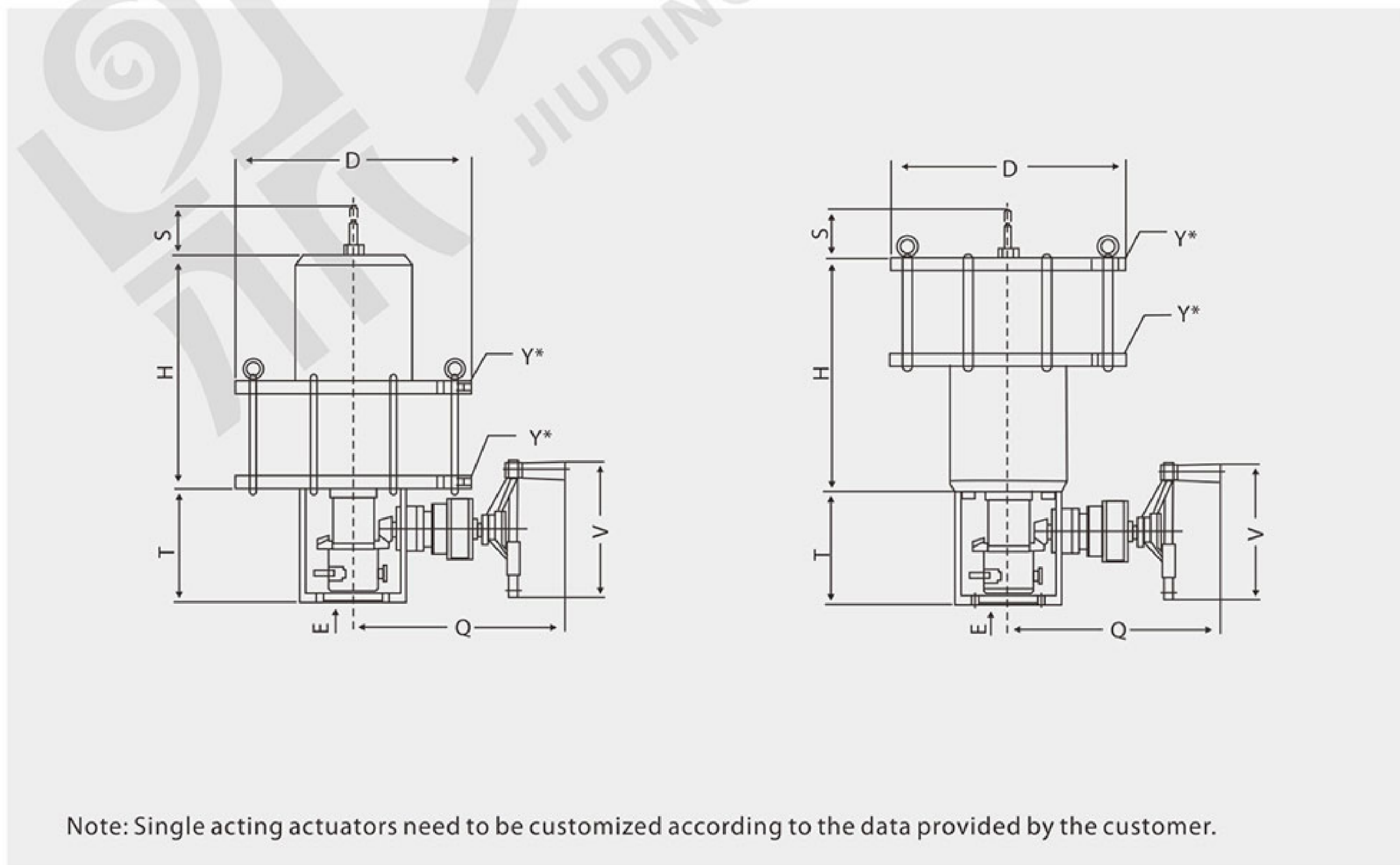




■ Connecting Dimensions Of The Lower End Cover Of The Actuator With The Support Or Column



■ Single Acting Actuator-Band Spring

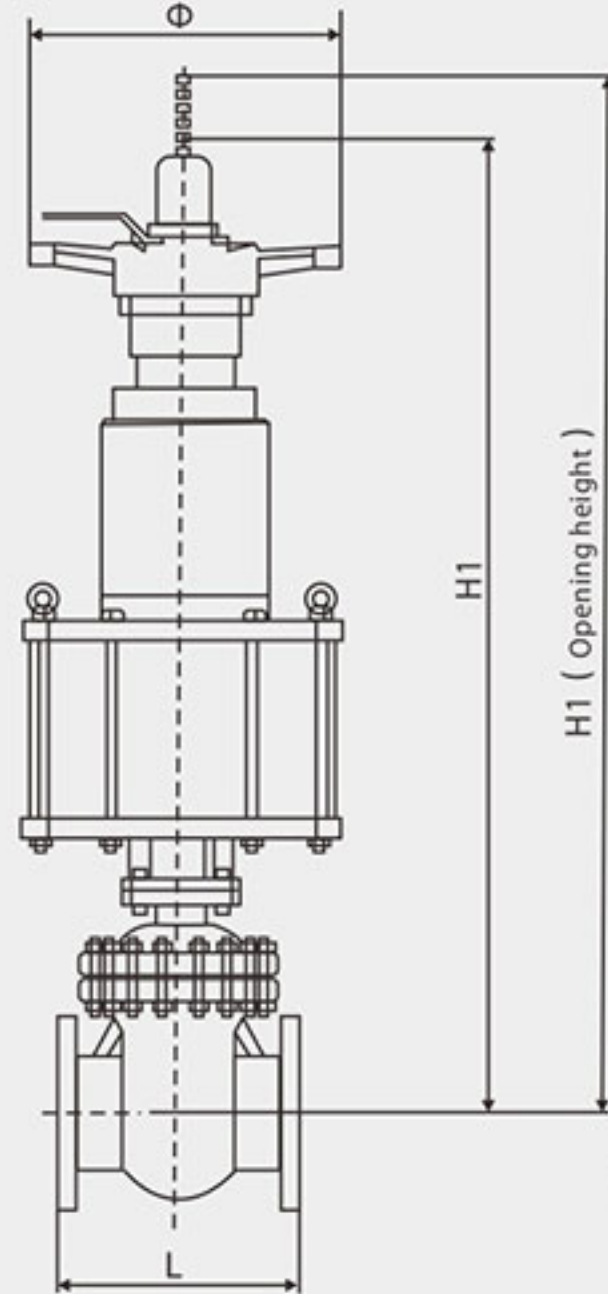


Note: Single acting actuators need to be customized according to the data provided by the customer.

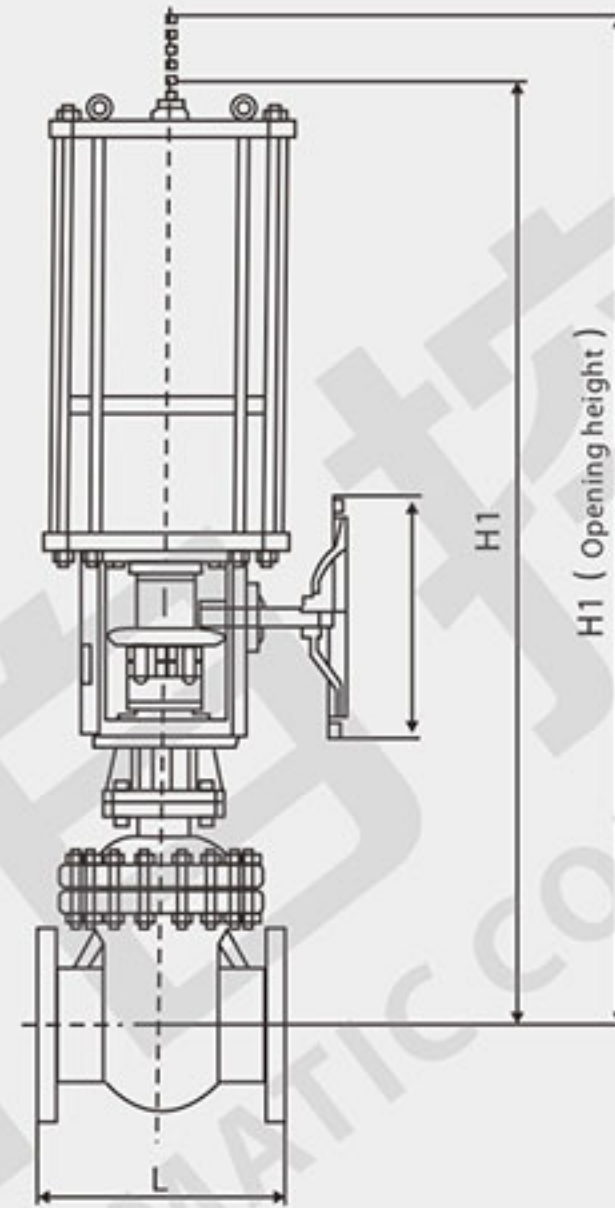




**Pneumatic Gate Valve Size**



Single acting pneumatic gate valve  
150LB



Double acting pneumatic gate valve  
300LB

NPS	150lb								300lb							
	L		H	H1	H2	H3	Φ	WT (Kg)	RF		H	H1	H2	H3	Φ	WT (Kg)
	RF	RJ							RF	RJ						
1"	130	143	870	895	-	-	180	25	168	181	870	895	-	-	200	30
1-1/2"	168	181	910	950	-	-	180	40	193	206	910	950	-	-	200	40
2"	181	194	905	955	785	835	200	35	219	235	925	985	-	-	250	45
3"	206	219	1060	1140	885	965	250	65	286	301	1185	1265	795	845	300	90
4"	232	244	1225	1325	1055	1155	250	90	308	324	1305	1405	915	995	400	120
5"	257	270	1395	1520	1125	1250	300	152	384	400	1485	1610	1105	1205	400	180
6"	270	282	1525	1675	1245	1395	300	180	406	422	1700	1850	1185	1310	400	220
8"	295	308	1885	2085	1525	1725	400	380	422	438	2055	2255	1310	1460	450	450
10"	333	346	2255	2505	1705	1955	400	500	460	476	2425	2675	1765	1965	450	610
12"	359	371	2435	2735	1935	2235	450	600	505	521	2605	2905	1885	2135	500	880
14"	384	397	-	-	2165	2515	450	880	765	781	-	-	2025	2325	500	1210
16"	409	422	-	-	2335	2735	500	1200	841	857	-	-	2125	2475	550	1650
18"	435	448	-	-	2545	2995	500	1480	917	933	-	-	2405	2805	550	2050
20"	460	473	-	-	2755	3255	550	1875	994	1013	-	-	2545	2995	600	2380
24"	511	524	-	-	3085	3685	550	2500	1146	1168	-	-	2825	3325	650	3020
28"	613	-	-	-	3575	4275	600	3000	1349	1375	-	-	3185	3785	700	3700
32"	663	-	-	-	4175	4975	700	3250	1400	1556	-	-	3595	4295	800	4250
36"	714	-	-	-	4605	5505	800	4800	1730	1759	-	-	4255	5055	900	5860
40"	814	-	-	-	5155	6155	900	6480	-	-	-	-	4715	5615	-	-





**Pneumatic Gate Valve Size**

NPS	600Lb								900Lb							
	L		H	H1	H2	H3	Φ	WT (Kg)	RF		H	H1	H2	H3	Φ	WT (Kg)
	RF	RJ							RF	RJ						
1"	221	221	930	955	-	-	250	45	-	-	-	-	-	-	-	-
1-1/2"	246	246	985	1025	-	-	300	92	-	-	-	-	-	-	-	-
2"	297	300	1060	1110	930	980	350	122	373	376	1265	1315	1060	1110	350	197
3"	361	364	1230	1310	1000	1080	350	158	386	389	1550	1630	1270	1350	400	285
4"	411	440	1420	1520	1080	1180	400	280	462	465	1830	1930	1450	1550	450	460
5"	513	606	1560	1685	1250	1375	400	480	-	-	-	-	-	-	-	-
6"	564	567	1760	1910	1370	1520	450	625	615	618	2060	2210	1760	1910	500	845
8"	665	669	2215	2415	1590	1790	500	1000	742	745	-	-	2040	2240	550	1225
10"	792	796	2670	2920	1940	2190	550	1450	843	846	-	-	2390	2640	550	1625
12"	843	846			2070	2370	550	1520	970	973	-	-	2560	2850	600	1875
14"	894	897			2260	2610	600	2040	1034	1043	-	-	2950	3300	650	2400
16"	996	999			2550	2950	600	2380	1135	1145	-	-	3060	3460	650	2860
18"	1097	1100			2630	3080	650	2900	1225	1237	-	-	3400	3850	700	3200
20"	1199	1205			2920	3420	700	3210	1326	1339	-	-	3610	4110	750	3900
24"	1402	1412			3270	3870	750	4000	1554	1573	-	-	4060	4660	800	4855

Note: Single acting actuators need to be customized according to the data provided by the customer.

**Standard Parameter**

Basic design	Single piston, double piston, multi piston Single action and double action
Output torque	For single action, see Table 3. See Table 1 and table 2 for dual action
Stroke	25~1200mm
Gas pressure	0.3~0.8MPa (Maximum 1.0MPa)
Ambient temperature	Standard type (standard): -20°C~+80°C Low temperature type (optional): -35°C~+80°C High temperature type (optional): -15°C~+150°C
Matching accessories	Solenoid valve, limit switch, filter pressure reducing valve, positioner, stroke switch, etc.





■ Double Acting - Single Piston Actuator Thrust Table(1)

Unit: N

Model and specification	0.3Mpa open and close	0.4Mpa open and close	0.5Mpa open and close	0.6Mpa open and close
JDZ125DA-1P	3312	4416	5520	6623
JDZ140DA-1P	4154	5539	6924	8308
JDZ160DA-1P	5426	7235	9043	10852
JDZ180DA-1P	6867	9156	11445	13734
JDZ200DA-1P	8478	11304	14130	16956
JDZ220DA-1P	10258	13678	17097	20517
JDZ250DA-1P	13247	17663	22078	26494
JDZ280DA-1P	16617	22156	27695	33234
JDZ300DA-1P	19076	25434	31793	38151
JDZ320DA-1P	21704	28938	36173	43407
JDZ350DA-1P	25964	34619	43273	51928
JDZ380DA-1P	30606	40807	51009	61211
JDZ400DA-1P	33912	45216	56520	67824
JDZ420DA-1P	37388	49851	62313	74776
JDZ450DA-1P	42920	57227	71533	85840
JDZ480DA-1P	48833	65111	81389	97667
JDZ500DA-1P	52988	70650	88313	105975
JDZ520DA-1P	57311	76415	95519	114623
JDZ550DA-1P	64115	85487	106858	128230
JDZ580DA-1P	71300	95067	118833	142600
JDZ600DA-1P	76302	101736	127170	152604
JDZ620DA-1P	81474	108631	135789	162947
JDZ650DA-1P	89549	119399	149248	179098
JDZ680DA-1P	98006	130674	163343	196011
JDZ700DA-1P	103856	138474	173093	207711
JDZ750DA-1P	119222	158963	198703	238444
JDZ800DA-1P	135648	180864	226080	271296
JDZ850DA-1P	153134	204179	255223	306268
JDZ900DA-1P	171680	228906	286133	343359





■ Double Acting-Dual Piston Actuator Thrust Table(2)

Unit: N

Model and specification	0.3Mpa open and close	0.4Mpa open and close	0.4Mpa open and close	0.6Mpa open and close
JDZ180DA-2P	13734	18312	22890	27468
JDZ200DA-2P	16956	22608	28260	33912
JDZ220DA-2P	20516	27356	34194	41034
JDZ250DA-2P	26494	35326	44156	52988
JDZ280DA-2P	23234	44312	55390	66468
JDZ300DA-2P	37152	50868	63586	76302
JDZ320DA-2P	43408	57876	72346	86814
JDZ350DA-2P	51928	69238	86546	103856
JDZ380DA-2P	61212	81614	102018	122422
JDZ400DA-2P	67824	90432	113040	135648
JDZ420DA-2P	74776	99702	124626	149552
JDZ450DA-2P	85840	114454	143066	171680
JDZ480DA-2P	97666	130222	162778	195334
JDZ500DA-2P	105976	141300	176626	211950
JDZ520DA-2P	114622	152830	191038	229246
JDZ550DA-2P	128230	170974	213716	256460
JDZ580DA-2P	142600	190134	237666	285200
JDZ600DA-2P	152604	203472	254340	305208
JDZ620DA-2P	162948	217262	271578	325894
JDZ650DA-2P	179098	238798	298496	358196
JDZ680DA-2P	196012	261348	326686	392022
JDZ700DA-2P	207712	276948	346186	415422
JDZ750DA-2P	238444	317926	397406	476888
JDZ800DA-2P	271296	361728	452160	542592
JDZ850DA-2P	306268	408358	510446	612536
JDZ900DA-2P	343360	457812	572266	686718





■ **Single Acting - Single Piston Actuator Thrust Table(3)**

Unit: N

Model and specification	0.3Mpa		0.4Mpa		0.5Mpa		0.6Mpa	
	The maximum air force	Spring force	The maximum air force	Spring force	The maximum air force	Spring force	The maximum air force	Spring force
JDZ125SR-1P	2150	1162	2866	1549	3583	1937	4299	2324
JDZ140SR-1P	2697	1458	3595	1943	4494	2429	5393	2915
JDZ160SR-1P	3522	1904	4696	2538	5870	3173	7044	3808
JDZ180SR-1P	4458	2410	5944	3213	7429	4016	8915	4819
JDZ200SR-1P	5503	2975	7338	3966	9172	4958	11007	5949
JDZ220SR-1P	6659	3599	8879	4799	11098	5999	13318	7199
JDZ250SR-1P	8599	4648	11465	6197	14331	7747	17198	9296
JDZ280SR-1P	10786	5830	14382	7774	17977	9717	21573	11661
JDZ300SR-1P	12382	6693	16510	8924	20637	11155	24765	13386
JDZ320SR-1P	14088	7615	18784	10154	23481	12692	28177	15231
JDZ350SR-1P	16854	9110	22472	12147	28090	15184	33707	18220
JDZ380SR-1P	19867	10739	26489	14318	33111	17898	39734	21478
JDZ400SR-1P	22013	11899	29351	15865	36688	19832	44026	23798
JDZ420SR-1P	24269	13119	32359	17491	40449	21864	48539	26237
JDZ450SR-1P	27860	15060	37147	20079	46434	25099	55721	30119
JDZ480SR-1P	31699	17134	42265	22846	52831	28557	63398	34269
JDZ500SR-1P	34395	18592	45861	24789	57326	30987	68791	37184
JDZ520SR-1P	37202	20109	49603	26812	62003	33515	74404	40218
JDZ550SR-1P	41618	22496	55491	29995	69364	37494	83237	44993
JDZ580SR-1P	46282	25018	61710	33357	77137	41696	92565	50035
JDZ600SR-1P	49529	26773	66039	35697	82549	44621	99059	53545
JDZ620SR-1P	52886	28587	70515	38116	88144	47645	105773	57174
JDZ650SR-1P	58128	31421	77504	41894	96880	52368	116256	62841
JDZ680SR-1P	63618	34388	84824	45851	106030	57313	127235	68776
JDZ700SR-1P	67415	36441	89887	48587	112358	60734	134830	72881
JDZ750SR-1P	77390	41832	103186	55776	128983	69720	154779	83664
JDZ800SR-1P	88052	47596	117403	63461	146754	79326	176104	95192
JDZ850SR-1P	99403	53731	132537	71642	165671	89552	198805	107462
JDZ900SR-1P	111441	60238	148588	80318	185735	100397	222882	120477

Note: The above data is for reference only.  
All products are subject to the product, JIUDING automatic control reserves the right of interpretation.





**Order Type Table**

JDZ Series customer selection form												
Example	JDZ	300	DA	-	2P	-	100	-	FO	-	TM3	JDZ series, double acting cylinder, inner diameter 300mm, double livePlug linkage, actuator travel 100mm. fault location open, Heavy duty top mounted manual mechanism.
Series	JDZ											Linear large thrust pneumatic actuator
Cylinder size	300											Bore 125mm – 900mm
Action form			DA	-								Double action
			SR	-								Single action
Piston number					1P	-						Double piston linkage
					2P	-						Three piston linkage
					3P	-	100	-				Please contact with the technical staff of the JIUDING automatic control
Fault location									FL	-		Double action, fault position locking
									FO	-		With spring, the fault position is open
									FC	-		With spring, the fault position is off
									CO	-		Equipped with gas storage tank, the fault location is open
									CC	-		Equipped with gas storage tank, the fault position is off
Manual part											TM1	Simple top mounting manual
											TM2	Light top mounted manual
											TM3	Heavy top mounted manual
											SM1	Light side mounting manual
											SM2	Heavy side loading manual
											SM3	Heavy side loading manual and deceleration mechanism
											HD	Hydraulic manual





## ■ Order Notice

JDZ series valve pneumatic actuators are complex automation control instrument, the pneumatic actuators, valves and various of pneumatic components and accessories, the user can according to the needs of field control, please select parts in detail, and indicated on the technical contract.

### 1、Pneumatic actuator:

Gas pressure, mode of action, cylinder thrust, full travel time, connecting bracket, manual mechanism;

### 2、Valve:

Specifications, nominal pressure, nominal diameter, valve thrust, circulation medium, actual working pressure, service temperature and installation position;

### 3、Filter pressure reducing valve:

Brand and model, oil mist, automatic drainage, use temperature, material of valve body and pressure gauge, air source interface dimension;

### 4、Solenoid valve:

Brand and model, double action or single action, single electronic control or double electric control, two position three pass or two bit five pass, voltage, power, protection grade, explosion proof grade, electrical interface size, air source interface size, operating temperature, manual operation;

### 5、Travel switch:

Brand and model, machinery or proximity, DPDT or SPDT or P&F, protection grade, explosion-proof grade, electrical interface size, accessories material;

### 6、Locator:

Brand and model, double action or single function, protection grade, explosion-proof grade, input signal, output signal, feedback signal, feedback bracket, HART module, LED display, use temperature, accessories material;

### 7、Other accessories:

Pneumatic control valve, check valve, fast exhaust valve, speed control valve, lock valve, amplifier and so on;

### 8、Special requirements:

Material, paint, interface size, installation space and so on, please contact JIUDING automatic control sales representative.

## ■ Special Specification

If there is any special requirement, please contact JIUDING automatic control sales representative. The company can design and manufacture the professional products for customers.

- Special inspection: flow characteristics inspection, material inspection, Low temperature test, steam test, non destructive inspection, Radioactivity examination
- Complete oil removal and water treatment
- Obtaining qualification of high pressure gas law
- Sand control and dustproof type
- Anticorrosion type
- Cold area
- Tropical area
- Copper free treatment
- Special air piping special joints
- Vacuum working conditions
- Contact with the atmosphere stainless steel bolts and nuts
- Customized coating color
- Special material
- Installation space and interface size





## ■ Installation And Use

- 1, The pneumatic actuator has passed the necessary performance test at the factory, and has been adjusted according to the order requirements. The user can be installed and used directly. The bottom mounting hole design conforms to the ISO5211 standard, and the bracket can be directly installed;
- 2, After opening the packaging box to check whether the product has accidental damage, the parts are complete, especially after long storage of products to be fully maintained before installation and use;
- 3, The actuator and valve should be checked before the installation of model specifications, whether the valve required thrust requirements in line with;
- 4, Check the actuator and valve connection bracket flange size is consistent, installation space is sufficient;
- 5, If the pneumatic / manual switching mechanism is adopted, after the actuator is installed, the working state of the switching mechanism should be checked whether it is consistent with the actual situation, so as to prevent misoperation. The valve with manual operating mechanism can not use "pneumatic one hand" switch in the process of spring reset (closing valve) or pneumatic opening (closing) valve;
- 6, Such as the selection of gas that the dynamic switching mechanism, using the handwheel before operation, the residual gas in the cylinder through the electromagnetic valve (or control element) (emptying residual gas within the cylinder case), manual operation after confirmation of pneumatic check trial;
- 7, If the pneumatic / manual switching mechanism is used, the handwheel can not be forced too large, and the external force tool can not be used on the manual mechanism.

## ■ Maintenance and Repair

- 1, To ensure that the entire pneumatic instrument control system is in normal working condition, need to check the pneumatic actuator every month should not less than once, overhaul once a year, keep the executive body clean, no dust accumulation, no oil pollution;
- 2, To ensure the implementation of the seal is good, the sealing surface, points should be intact, solid, tight and lossless;
- 3, Regularly check the cylinder and air piping system parts, regular inspection of each pipe, and then part of the leak, keep the gas pressure normal, trachea is not allowed to sag, keep smooth;
- 4, Overhaul, should check and clean the cylinder liner and piston, if found O ring seal damage or aging should be replaced in time, assembly should be in the cylinder wall and sealing groove coated with lubricating oil, and pay attention to slowly push the piston cylinder, so as not to damage the O type sealing ring;
- 5, Complete pneumatic valve with pneumatic / manual switching device, the manual operating mechanism should be well lubricated, open and close flexible, the switch shaft bearings and other transmission parts every three months or six months plus enough lubrication grease;
- 6, The gas pressure should be in the range of 0.3-0.8Mpa (G), the gas source should be treated by dust removal, dehydration and other purification. Regularly carry out the air filter for the actuator to drain, drain, so as not to enter the solenoid valve and actuator, affecting the normal work;
- 7, The electrical part of the signal should be no phase, short circuit, open circuit fault, enclosure protection joints should be tight, tight, to prevent water and dust erosion;
- 8, The packing gland is not allowed to skew, to avoid friction on the stem and bite, resulting in the actuator is not working or not work properly.





### Common Faults And Troubleshooting Methods

Fault phenomenon	Inspection items	Elimination method
Valve not action	Whether the solenoid valve is normal, the coil is burned, whether the electromagnetic valve stuck by dirt	Replace the solenoid valve, replace the coil, remove dirt
	The actuator alone supply is normal, if not normal cylinder leakage,Disassemble the actuator to check if the seal is damaged, and whether the inner surface of the cylinder is damaged	Replace the broken seal ring and replace the cylinder
	The valve has impurities to hold the ball core	Remove impurities and replace valve parts
	The handle of the hand operated mechanism is in the manual position	Pull the handle to the automatic position
Slow operation of valve	Insufficient gas pressure	Increase gas pressure
	The thrust of pneumatic actuator is too small	Increase actuator type specification
	Valve spool or other valve assembly too tight unreasonable	Repair, assemble, adjust thrust
Back to the hearing of no signal	The blockage of gas pipeline is too small	Exclude blockage
	Signal power line, short circuit, open circuit	Maintenance power line
	The position of concave wheel is inaccurate	Adjust the concave wheel to the correct position
	Fretting switch damage	Replacing microswitch

### After-sale Service

The company's products from the date of departure within one year to implement the "three package", such as customer order inspection, the use of the process of technical advice or troubleshooting, please with our company sales department and after-sales service contact, we will be the fastest speed for you to solve problems, to meet your requirements!







The specification of the technical  
parameters are changed without notice!



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