

Pneumatic Actuators



RINGO 
VALVULAS



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COMPANY OVERVIEW

Ringo Válvulas (RV) is located in the industrial city of Zaragoza, Spain. Since its establishment RV has designed and manufactured its own cast and forged valves. Our experience of over 40 years on the valve industry is the key to our international success and recognition. We export more than 75% of our production all over the world.

RV activities include the design, material procurement, manufacturing, assembly and testing of valves. We supply Gate, Globe, Check, Ball Plug, Butterfly, Control and Special Valves produced according to different standards (ASME-ANSI, DIN, API, BS), sizes, pressure ratings and materials (Carbon Steel, Alloy Steel, Stainless Steel, Duplex, Monel, etc.).

Our valves are used in many different applications such as Oil & Gas, chemical and Petrochemical, Cryogenic and Power Generation (including Nuclear, Combined Cycle, Thermoelectric and Hydraulic Plants).

RV facilities are modern and fitted with advanced equipment for manufacturing, assembly, testing and inspection. This equipment guarantees the conformity with the most stringent specifications.



Actuators

RINGO VALVULAS valves can be operated by any type of actuators, at customer request. When pneumatic actuators are requested we used our well proved, stiff and versatile RV models. Our scoped of supply of these kinds of actuators are divided in two different branches:

- **DIAPHRAGM ACTUATORS**
- **PISTON ACTUATORS**

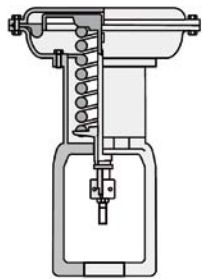
■ DIAPHRAGM ACTUATORS

Special designs are available when seismic conditions are specified, to increase stiffness and natural frequency. Standard materials are WCB cast steel yoke, stamped steel for cover and base plates, reinforced Buna, Neoprene, EPDM, etc., diaphragm.

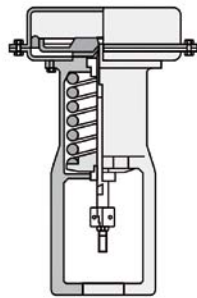
All parts are protected against rust and corrosion.

Any type of accessories such as positioners, converters, air-sets, solenoid valves, limit switches and others as well hand wheel are fitted as necessary.

We use positioners and accessories from all mayor manufacturers providing the latest technology for smart instrumentation with diagnostic capabilities as well as partial stroke testing.



DIRECT ACTING



REVERSE ACTING



SIDE MOUNTED
HAND WHEEL



TOP MOUNTED
HAND WHEEL

■ Maximum thrust in N.

OPERATOR MODEL	EFFECTIVE DIAPHRAGM	DIRECT ACTING TRAVEL (1)					REVERSE ACTING TRAVEL					
		1"	2"	3"	4"	5"	1"	2"	3"	4"	5"	
330	387 cm ²	13.630 *					5.450 *					
350	645 cm ²	29.550	22.720 *				13.640	9.090 *				
380	1.032 cm ²	50.910	43.640	36.360 *			25.450	18.180	10.900 *			
390	1.032 cm ²	53.820	52.730	50.910	47.270	36.360 *	30.980	25.600	20.220	14.840	9.450 *	

■ PISTON ACTUATORS

RINGO VALVULAS manufactures a comprehensive range of double-acting and spring-return piston pneumatic actuators which suit all valve sizes.

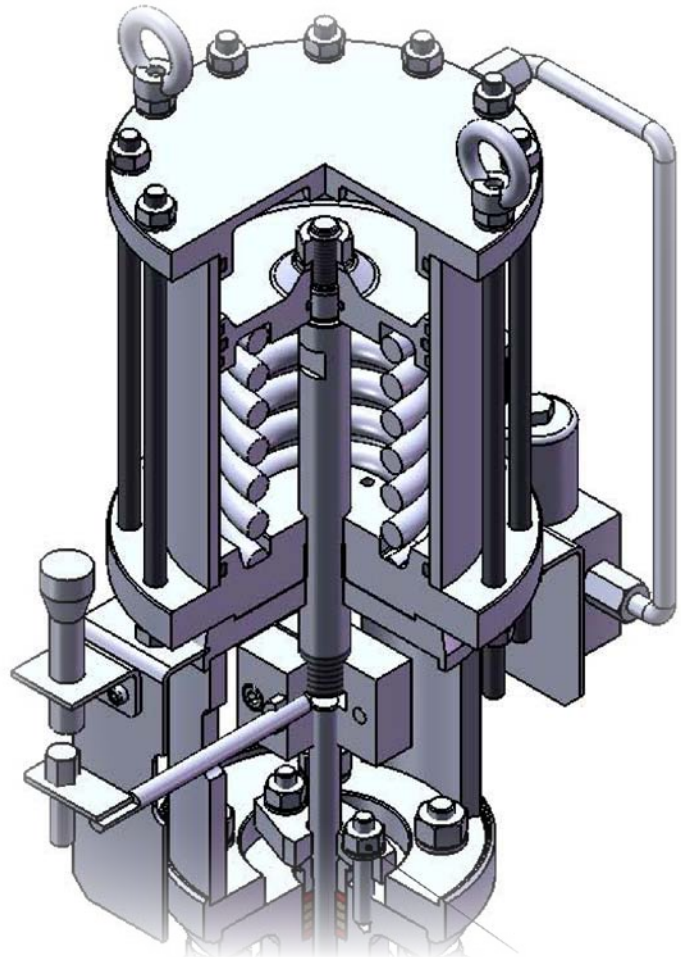
The sizing of these units is specifically calculated for each application.

Operating Pressure	Pneumatic up to 12 Bar
Max. Thrust	Pneumatic double-acting 1,320,000 N Pneumatic Spring-Return 600,000 N
Temperature Ranges	Standard: -30°C to 100°C High: -20°C to 160°C Low: -40°C to 160°C Extreme low: -60°C to 160°C



■ Key design features

- Carbon steel design single and double acting cylinders, electroless nickel-plated to reduce the surface roughness and to provide minimum friction and maximum protecting against corrosion.
- PTFE / rubber seals are added to nickel plated carbon steel piston to reduce friction and avoid stick slip effect even after prolonged periods without operation.
- Carbon steel chromium plated piston rods included in order to prevent corrosion and to minimize sliding friction on the dynamic seals.
- Visual position indicator directly connected to the valve stem showing actuator/ valve full linear stroke.
- Totally enclosed carbon steel spring cartridge with additional safety feature to avoid injury during the disassembly of the spring enclosure.
- Adaptor in open type made in carbon steel with bottom flange machined according to the valve flange.
- Actuators can be fitted with handweel on request.



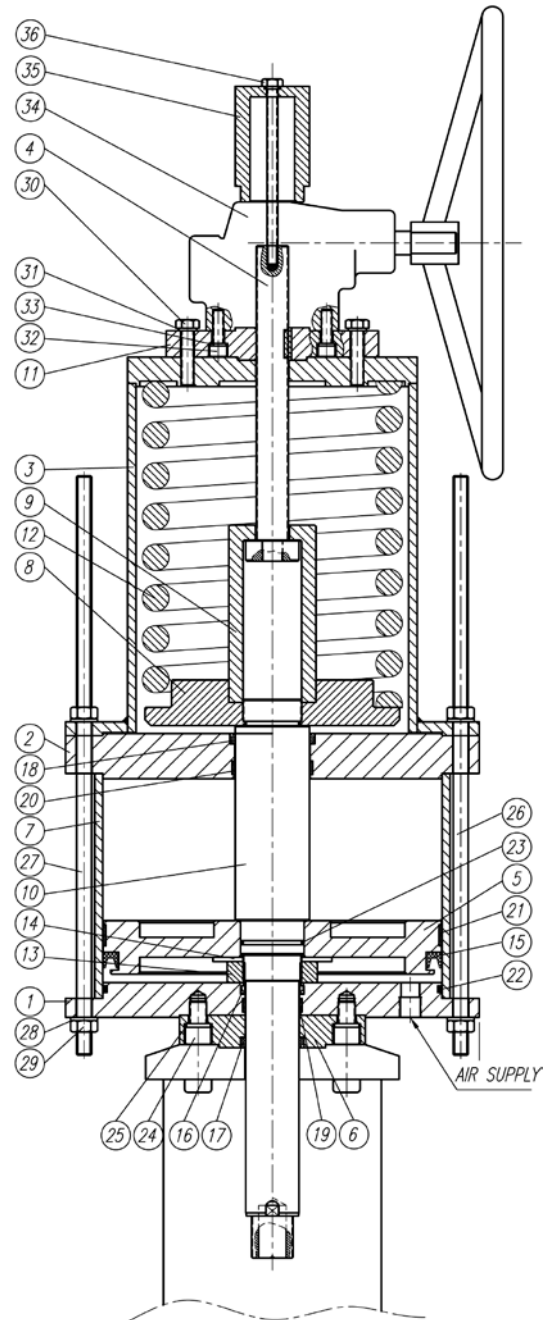
■ Override options

Many valve/ actuators applications request a dependable manual override facility.

Ringo Valvulas offers a wide variety of options to meet clients' requirements.

These options include handwheel jackscrew, hydraulic hand pump and gearbox solutions.

ITEM	DESCRIPTION	MATERIAL	QTY
1	Lower bonnet	Carbon steel	1
2	Upper bonnet	Carbon steel	1
3	Yoke	Carbon steel	1
4	Stem	F-114 + ENP	1
5	Piston	Carbon steel + ENP	1
6	Flange	Carbon steel	1
7	Cylinder	Carbon steel + ENP	1
8	Spring	Carbon steel	1
9	Pulling nut	F-110	1
10	Stem	F-114	1
11	Sujection flange	Carbon steel	1
12	Spring	F-143	1
13	Piston nut	Carbon steel	2
14	Spring washer	Commercial	2
15	Piston "u" cup seal	NBR	1
16	Lower bonnet "u" cup seal	NBR	1
17	Lower flange seal	NBR	1
18	Upper bonet seal	NBR	1
19	Lower bonnet guide	Commercial	1
20	Upper bonnet guide	Commercial	1
21	Piston guide	PTFE	1
22	Bonet o-ring	NBR	1
23	Piston o-ring	NBR	1
24	Bolt	Gr8.8	4
25	Washer	Commercial	12
26	Thread rod	Commercial	8
27	Thread rod	Commercial	4
28	Washer	Commercial	24
29	Nut	Gr8	24
30	Bolt	Gr8.8	4
31	Washer	Commercial	4
32	Bolt	Gr8.8	4
33	Washer	Commercial	4
34	Gear	RV1508	1
35	Gear protection	Carbon steel	1
36	Stud	Gr8	1



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