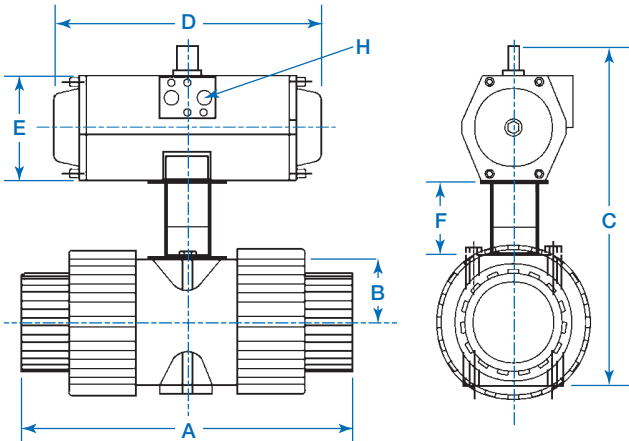


# SERIES ABR • Air Actuated Ball Valves 3" & 4"

## Rack & Pinion Pneumatic Actuator engineered for corrosion resistance Double-Acting or Spring Return

The ABR rack and pinion pneumatic actuator produces linear torque output in a compact design utilizing the same body and end caps for double-acting and spring return units.



Each actuator is 100% individually inspected and tested prior to shipment.

### Accessories & Options:

- Electroless nickel plating available for improved exterior corrosion resistance.
- Limit switches with corrosion resistant technopolymer enclosure available in NEMA 4 (standard) and NEMA 7.
- Solenoid valves with standard NAMUR mount available in 110 VAC (standard), 12 VDC, 24 VDC, 24 VAC, 48 VAC and 220 VAC.
- Positioners for modulating service controlled with 3-15 PSI signal or 4-20mA signal.

### Features:

- NAMUR VDI/VDE 3845 and ISO 5211 dimensions on all sizes. No special blocks required to mount solenoid valves, limit switches or positioners.
- The standard angle of rotation is 90°. Additional travel rotations of 120°, 135°, 150° and 180° are available. Actuators feature a travel stop with ±10° adjustment in both open and close direction.
- The bottom plate design secures a captive pinion (Anti-blowout system) and permits flexibility in mounting by retaining AISI 304 nuts (standard) or optional AISI 304 bolts in either dual ISO patterns.
- All pinions are supplied with anti-blowout retention in both directions.
- The female pinion drive is standard with double square output drive.
- Shaft bearings isolate the pinion gear from the housing and support the shaft for high cycle applications.
- The pinion teeth are engaged for the full length and stroke of the piston. The piston height allows manual override without disturbing the position indication.
- Extruded aluminum body is internally machined and lapped to exact specifications. All internal and external surfaces are anodized for corrosion resistance.
- External open/closed indicator is standard, available for all rotations.
- Pistons incorporate double wear pads to separate the rack from the actuator wall and serve as both guide and wear bearings.
- Epoxy coated special steel springs are pre-loaded with non-metallic materials. The stainless steel end cap fasteners are extra long to allow for spring relaxation. All parts are corrosion resistant.
- Air pressure operation from 40 to 150 PSI. Water, nitrogen and compatible hydraulic fluids may also be used to power the actuator.
- All external fasteners are corrosion resistant stainless steel.
- All units are permanently lubricated at the factory with non-silicone grease.
- All units are factory pressure and leak tested, and externally stamped with a progressive traceable serial number.

### VALVE & ACTUATOR ASSEMBLY – MODEL NUMBERS & DIMENSIONS

Pipe Size	Actuator* with Valve Model No.	A		B		C		D		E		F		H
		IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM	
3"	ABRA-300 –	11.93	303.00	7.28	184.90	15.27	387.0	6.50	165.0	5.22	5.58	2.78	70.60	1/4" NPT
4"	ABRA-400 –	12.83	325.80	10.35	262.80	18.34	465.0	6.50	165.0	5.22	5.58	2.78	70.60	1/4" NPT

\* To complete the Model Numbers refer to the ordering chart below.

### Ordering Information

Order by part number and specify exact chemicals, temperatures and pressures. To arrive at the proper part number, please consult diagram below. The letters and numbers used in this part number are for example only!

<b>ABRA*</b>	<b>300</b>	<b>V</b>	<b>T</b>	<b>-PV</b>
<b>AIR ACTUATED BALL VALVE</b>	<b>VALVE PIPE SIZE</b>	<b>SEAL MATERIAL</b>	<b>CONNECTIONS</b>	<b>BODY MATERIAL</b>
	300 3"	V FKM	S Socket Ends	-PV Polyvinyl Chloride (PVC)
	400 4"	EP EPDM	T Threaded Ends	-CP Chlorinated Polyvinyl Chloride (CPVC)
			F Flanges*	-PP Virgin Polypro
			*Flanges are not usually needed with true-union ball valves.	-PF PVDF
<b>VENTED BALL —</b>				
Add "Z-ABR-VENT" for sodium hypochlorite.				
*For Air x Spring, change ABRA to ABRS.				