0300 Series

Air Operated Bellows Valves

Introduction

The 0300 Series valve is designed for applications where critical leak-tight integrity and cleanliness are required. The valve can be used for both automatic or remote operation. Both normally opened (NO) and normally closed (NC) air operators are available.



Typical Applications

- High purity/hazardous gas distribution systems
- Diffusion furnaces
- Epitaxial reactors
- Gas panels
- Purge systems
- Gas cabinets

Features & Benefits

- Operates with low air pressure and volume
- Low dead space
- Reliable shut-off
- Long cycle life insures years of maintenance free operation
- Compact design saves space in panels
- Reliable PCTFE seat increases valve life
- Normally closed (NC) or normally opened (NO) models use the same air entry position
- Special High Tolerance NPT Thread

Technical Data

	0361 SERIES (N/C)	0371 SERIES (N/O)
MAXIMUM OPERATING PRESSURE	vacuum to 200 psig	vacuum to 350 psig
TEMPERATURE RANGE	-40° F to +250° F (-40° C to +121° C)	
ORIFICE SIZE	0.170″ (4.32 mm)	
Cv FACTOR	0.28	
INTERNAL VOLUME	0.08	
HELIUM LEAK TEST -ENVELOPE MAX.	0.0005 MCFH 5.2×10^{-9} SCC/SEC	
-SEAT MAX.	0.001 MCFH 1.04×10^{-8} SCC/SEC	
BASIC MATERIAL	316 stainless steel	

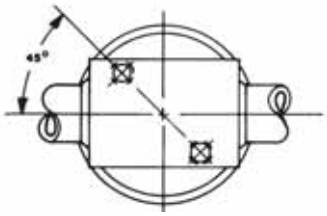
packless valves

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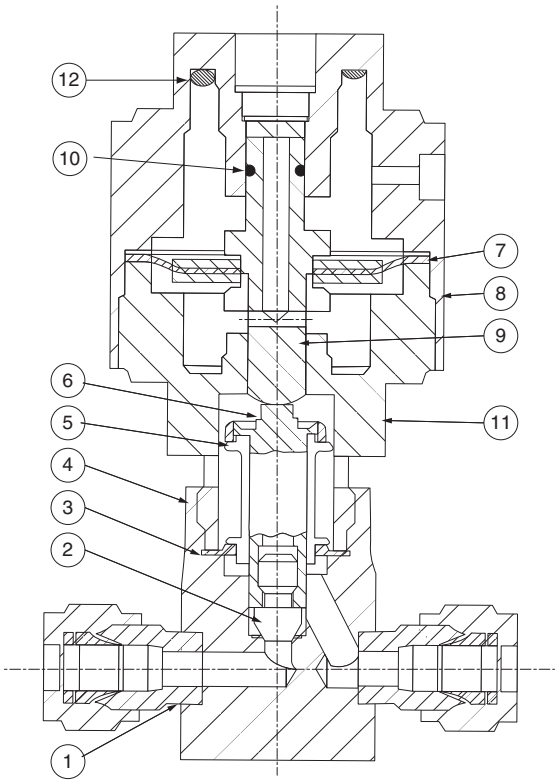
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Materials of Construction

	DESCRIPTION	MATERIAL
1	Gyrolok® fitting	316L stainless steel
2	Stem tip (replaceable)	PCTFE
3	Gasket (bellows to body seal)	PCTFE
4	Valve body	316 stainless steel
5	Bellows	316 stainless steel
6	Stem	316 stainless steel
7	Diaphragm	Fairprene®
8	Bonnet	anodized aluminum
9	Diaphragm plunger	303 stainless steel
10	O-ring seal	Buna-N®
11	Air operator body	anodized aluminum
12	Compression spring	music wire



Base mounting

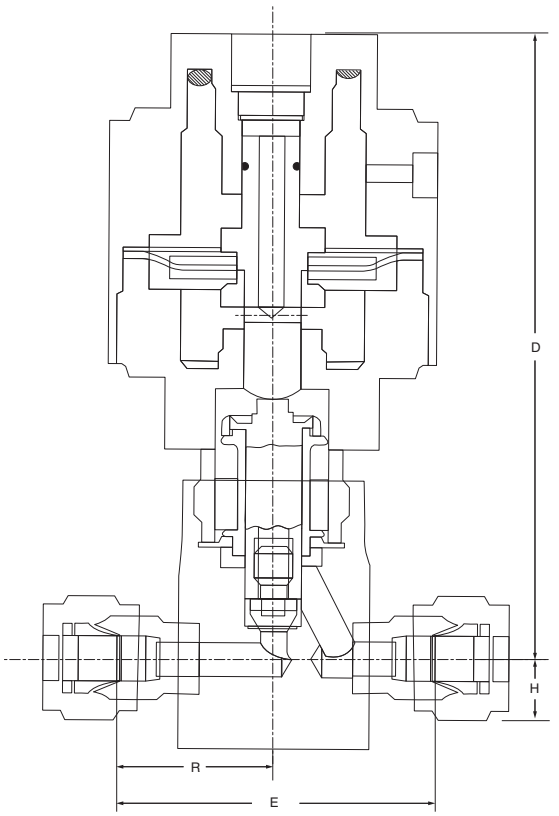


(0361G[ ]Y shown)

Dimensions

PART NUMBER		D	E	H	R	BASE MOUNTING
0361G4Y	inch	3 ¼	½	2	1	2 mounting holes 10-32UNF-2B Thd. on 1″ bolt circle
0371G4Y	mm	83	13	51	25	
0361F4Y	inch	3 ¼	½	2	1	
0371F4Y	mm	83	13	51	25	

Dimensions for reference only, subject to change.



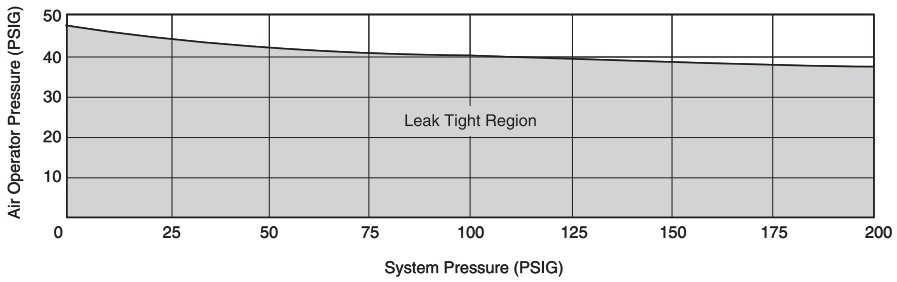
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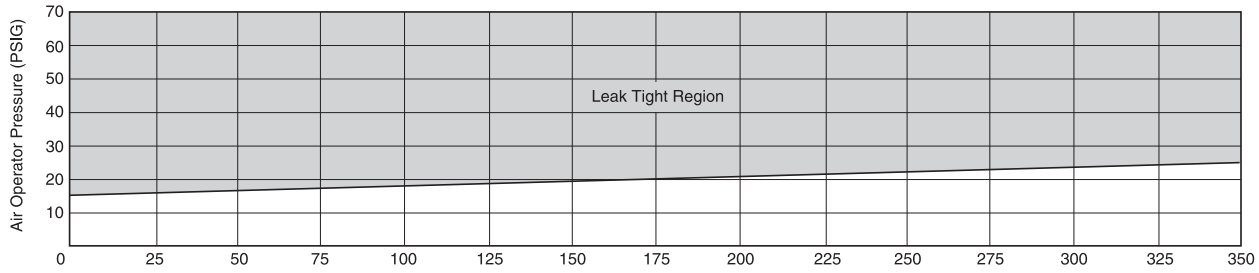
Air Operated Pressure vs. System Cracking Pressure

In process systems where fugitive emissions to atmosphere are a concern, the 0300 Series air-operated bellows valve utilizes a gasket seal between the bellows and the valve body to aid in preventing any leakage of process fluid to the atmosphere. The following graphs represent the air operator/actuator input pressure vs. the outlet system pressure. Because the air operator/actuator pressure works against a normally closed or normally open spring pressure, the leak tight region changes in relation to the valve outlet or downstream pressure. The normally closed valves, for example, have better sealing capabilities at lower operator/actuator pressures. The normally open valves work opposite to the normally closed valves.

0361 Series – Normally Closed



0371 Series – Normally Open



How to Order

Order valve by part number shown in chart.

		ORDER BY PART NUMBER		
END CONNECTIONS	FLOW PATTERN	NORMALLY OPEN	NORMALLY CLOSED	ORIFICE
¼" Gyrolok®	Straight	0371G4Y	0361G4Y	0.170
¼" Female NPT	Straight	0371F4Y	0361F4Y	0.170