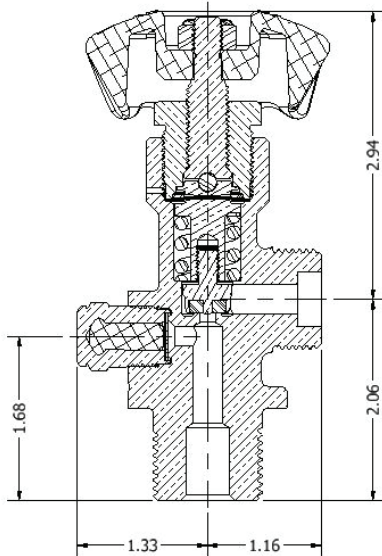


Specialty Gas Valves

8074 Series

Brass Diaphragm Packless Cylinder Valves



The 8074 Series Brass Diaphragm Packless Valves are designed for a variety of high purity and high pressure applications, Ultra high purity mixtures, pharmaceutical and pure gas applications.

Key Features & Benefits

- New smooth operating stem ensures ease of operation during filling and use
- Precisely machined internal components meet the most stringent international valve performance standards
- Superior anti-extrusion seat for longer life
- Rated at 3000 PSI cylinder service pressure
- Available with unitized pressure relief device having fuse-metal backed or unbacked burst disc
- 100% Helium leak tested
- Inlet and outlet thread configurations are available for a broad spectrum of customer, country and code specifications
- Pressure Relief Device (PRD) is a unitized plug design that provides excellent flow characteristics, ensures proper assembly and tamper resistance
- Inlet tapped (1/4" NPT) for dip tube as required

For Product Markings Reference, see  in the Appendix

8074 Series

Brass Diaphragm Packless Cylinder Valves

Design Specifications		
	English	Metric
Maximum Working Pressure	3000 PSI	207 Bar
Operating Temperature	-50° F to +130° F	-45° C to +54° C
Storage Temperature	-60° F to +149° F	-51° C to +65° C
Operating Torque	20-40 in.-lbs.	2.3-4.5 N-m
Closing Torque	40 in.-lbs.	4.5 N-m
Leak Rate	1x10 ⁻⁷ atm cc/s	1x10 ⁻⁷ Bar mL/sec
Handwheel nut Installation torque	25-45 in.-lbs.	2.8-5.0 N-m
PRD Installation Torque	35-45 ft.-lbs.	47-61 N-m
Cv Flow Factor	.36	.36
Minimum Cycle Life	2000 Minimum	2000 Minimum

Standards Conformance	
CGA V-9	Standard for Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications
ISO 10297	International Standard for Cylinder Valves Design Specifications
ISO 11363-1	25E Inlet Thread Specifications
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves

Materials of Construction	
Part Description	Materials of Construction
Body	Brass C37700/Chrome Plating When Applicable
Bonnet	Brass C36000/Chrome Plating When Applicable
Handwheel	Aluminum A380
Handwheel Nut	Steel Class 8, Zinc Plating
Stem	Brass C48500
Seat holder	Brass C36000
Seat	Nylon 6/6
Pressure Relief Device	
Plug	Brass C36000; Chrome Plating When Applicable
Rupture Disc	Nickel Alloy 201; Copper C22000
Seal Gasket	Copper C11000
Diaphragm	Stainless Steel/Hastelloy (Gas Wetted)
Spring Retainer	Brass C36000
Spring	Stainless Steel
Stem Bearing Button	Brass C48500
Ball Bearing	Stainless Steel

Specialty Gas Valves

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Brass Diaphragm Packless Cylinder Valves

Ordering Information				
Sherwood Part Number	Gas Service @ 70° F	CGA Outlet	Outlet Thread Size	Inlet Thread Size
<i>Oxidizing Mixtures</i>				
807429661-XXX	0 PSI–3000 PSI	296	.803–14 UNS RH Int.	¾" NGT
807429651-XXX	0 PSI–3000 PSI	296	.803–14 UNS RH Int.	1.125"–12 UNF
<i>Carbon Dioxide</i>				
807432061-XX	0 PSI–3000 PSI	320	.825–14 NGO RH Ext.	¾" NGT
8074320651-XXX	0 PSI–3000 PSI	320	.825–14 NGO RH Ext.	1.125"–12 UNF
<i>Nitrous Oxide</i>				
807432661-XXX	0 PSI–3000 PSI	326	.825–14 NGO RH Ext.	¾" NGT
8074326651-XXX	0 PSI–3000 PSI	326	.825–14 NGO RH Ext.	1.125"–12 UNF
<i>Carbon Monoxide and Hydrogen</i>				
807435065-XXX	0 PSI–3000 PSI	350	.825–14 NGO LH Ext.	¾" NGT
807435065-XXX-7	0 PSI–3000 PSI	350	.825–14 NGO LH Ext.	¾" NGT-7 Threads O/S
807435051-XX	0 PSI–3000 PSI	350	.825–14 NGO LH Ext.	1.125"–12 UNF
807435055-XXX-75	0 PSI–3000 PSI	350	.825–14 NGO LH Ext.	.750"–16 UNF
<i>Oxygen</i>				
807454061-XXX	0 PSI–3000 PSI	540	.903–14 NGO RH Ext.	¾" NGT
<i>Argon, Helium, Krypton, Neon, Nitrogen and Xenon</i>				
807458061-XXX	0 PSI–3000 PSI	580	.965–14 NGO RH Int.	¾" NGT
807458051-XXX	0 PSI–3000 PSI	580	.965–14 NGO RH Int.	1.125"–12 UNF
<i>Sulfur Hexafluoride</i>				
807459061-XXX	0 PSI–3000 PSI	590	.965–14 NGO LH Int.	¾" NGT
807459051-XXX	0 PSI–3000 PSI	590	.965–14 NGO LH Int.	1.125"–12 UNF
807459051-XXX-75	0 PSI–3000 PSI	590	.965–14 NGO LH Int.	.750"–16 UNF
<i>Refrigerant</i>				
807466061-XXX	0 PSI–3000 PSI	660	1.030–14 NGO RH Ext.	¾" NGT

Chrome plating: To order, add letter "A" after the letters 8074 in the Part Number. For example 807454061-XXX becomes 8074A54061-XXX

Fusible back pressure relief devices: For 165° F or 212° F nominal melting temperatures, change 1 in the Part Number to 4 (165° F) or 5 (212° F) (ie. 807435061-XXX becomes 807435064-XXX for 165° F, or 807435065-XXX for 212° F).

For valves not listed in the table above, please call for price and availability.