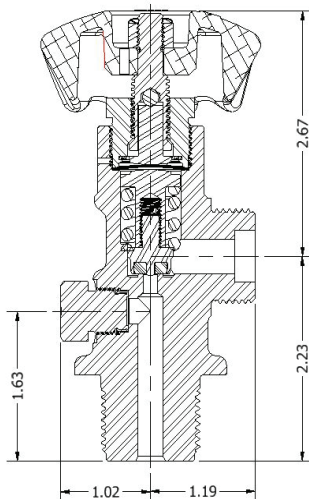


## 7074 / 7774 Series

### Stainless Steel Diaphragm Packless Cylinder Valves

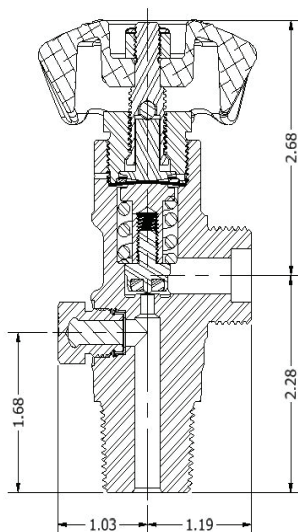


The 7074 Series 303 Stainless Steel Diaphragm Packless Valves are designed for a variety of high purity and high pressure applications including analytical & instrumentation gases, EPA protocol gases, environmental monitoring and medical applications using pharmaceutical gases.

The 7774 Series of 316L Diaphragm Packless Valves are used in corrosive gas applications, cylinder phosphine gas, atmospheric and purging gases, dopant and reactant gases.

#### 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.
- Diaphragm in wetted gas area are a nickel based alloy for corrosion resistance.
- 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 **G** in the Appendix

Specialty Gas Valves

# 7074 / 7774 Series

## Stainless Steel 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	30-50 in.lbs.	3.4-5.6 N-m
Closing Torque	50 in.lbs.	5.6 N-m
Leak Rate	1x10 <sup>-7</sup> atm cc/s	1x10 <sup>-7</sup> Bar mL/sec
Handwheel nut Installation torque	30-50 in.lbs.	3.4-5.6 N-m
PRD Installation Torque	20-30 ft.lbs.	27-41 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	7074 Materials of Construction	7774 Materials of Construction
Body	303 Stainless Steel	316L Stainless Steel
Bonnet	Stainless Steel	Stainless Steel
Handwheel	Powder coated aluminum	Powder coated aluminum
Handwheel Nut	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Seat holder	Stainless Steel	Stainless Steel
Seat	PCTFE, Vespel, PVDF	PCTFE, Vespel, PVDF
<b>Pressure Relief Device</b>		
Plug	Stainless Steel	Stainless Steel
Rupture Disc	Nickel Alloy; Platinum, Stainless	Nickel Alloy; Platinum, Stainless
Seal Gasket	Silver	Silver
Diaphragm	Stainless Steel/Hastelloy (Gas Wetted)	Stainless Steel/Hastelloy (Gas Wetted)
Spring	Stainless Steel	Stainless Steel
Diaphragm Support	Nylon 6/6	Nylon 6/6
Ball Bearing	Stainless Steel	Stainless Steel
Stem Bearing Button	Stainless Steel	Stainless Steel

## 7074 / 7774 Series

## Stainless Steel Diaphragm Packless Cylinder Valves

7074 Ordering Information					
Sherwood Part Number	Gas Service @ 70° F	CGA Outlet	PRD	Outlet Thread Size	Inlet Thread Size
<i>Carbon Dioxide</i>					
707432040	0 PSI–3000 PSI	320	None	.825–14 NGO RH Ext.	¾" NGT
7074320651-XXX	0 PSI–3000 PSI	320	CG-1	.825–14 NGO RH Ext.	1.125"–12 UNF
<i>Fluorides, Chlorides mixtures</i>					
707433060	0 PSI–3000 PSI	330	None	.825–14 NGO RH Ext.	¾" NGT
707433044-XXX	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	½" NGT
707433064-XXX	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	¾" NGT
707433054-XXX	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	1.125"–12 UNF
<i>Carbon Monoxide and Hydrogen</i>					
707435060	0 PSI–3000 PSI	350	None	.825–14 NGO LH Ext.	¾" NGT
707435064-XXX	0 PSI–3000 PSI	350	CG-4	.825–14 NGO LH Ext.	¾" NGT
707435054-XXX	0 PSI–3000 PSI	350	CG-4	.825–14 NGO LH Ext.	1.125"–12 UNF
<i>Argon, Helium, Krypton, Neon, Nitrogen and Xenon</i>					
707458060	0 PSI–3000 PSI	580	None	.965–14 NGO RH Int.	¾" NGT
707458061-XXX	0 PSI–3000 PSI	580	CG-1	.965–14 NGO RH Int.	¾" NGT
707458051-XXX	0 PSI–3000 PSI	580	CG-1	.965–14 NGO RH Int.	1.125"–12 UNF
<i>Sulfur Hexafluoride</i>					
707459061-XXX	0 PSI–3000 PSI	590	CG-1	.965–14 NGO LH Int.	¾" NGT
707459051-XXX	0 PSI–3000 PSI	590	CG-1	.965–14 NGO LH Int.	1.125"–12 UNF
<i>Boron Trichloride, Ethyl Fluoride, Phosgene, Nitric Oxide, Various Refrigerants, Sulfur dioxide, and other mixtures covered under CGA V1, CGA 660 connection.</i>					
70746660	0 PSI–3000 PSI	660	None	1.030–14 NGO RH Ext.	¾" NGT
707466061-XXX	0 PSI–3000 PSI	660	CG-1	1.030–14 NGO RH Ext.	¾" NGT
707466064-XXX	0 PSI–3000 PSI	660	CG-4	1.030–14 NGO RH Ext.	¾" NGT
707466051-XXX	0 PSI–3000 PSI	660	CG-1	1.030–14 NGO RH Ext.	1.125"–12 UNF
707466054-XXX	0 PSI–3000 PSI	660	CG-4	1.030–14 NGO RH Ext.	1.125"–12 UNF
707466054-XXX-75	0 PSI–3000 PSI	660	CG-4	1.030–14 NGO RH Ext.	.750"–16 UNF
<i>Ammonia, Dimethylamine, Monoethylamine, Trimethylamine</i>					
707470564-XXX	0 PSI–3000 PSI	705	CG-4	1.125–14 UNS RH Ext.	¾" NGT
707470554-XXX	0 PSI–3000 PSI	705	CG-4	1.125–14 UNS RH Ext.	1.125"–12 UNF
7774 Ordering Information					
Sherwood Part Number	Gas Service @ 70° F	CGA Outlet	PRD	Outlet Thread Size	Inlet Thread Size
<i>Carbon Dioxide</i>					
777432061-XXX	0 PSI–3000 PSI	320	CG-1	.825–14 NGO RH Ext.	¾" NGT
<i>Fluorides, Chlorides mixtures</i>					
777433060	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	¾" NGT
777433044-XXX	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	½" NGT
777433064-XXX	0 PSI–3000 PSI	330	CG-4	.825–14 NGO RH Ext.	¾" NGT
<i>Carbon Monoxide and Hydrogen</i>					
777435040	0 PSI–3000 PSI	350	None	.825–14 NGO LH Ext.	½" NGT
777435060	0 PSI–3000 PSI	350	None	.825–14 NGO LH Ext.	¾" NGT
777435064-XXX	0 PSI–3000 PSI	350	CG-4	.825–14 NGO LH Ext.	¾" NGT
<i>Argon, Helium, Krypton, Neon, Nitrogen and Xenon</i>					
777458060	0 PSI–3000 PSI	580	None	.965–14 NGO RH Int.	¾" NGT
777458061-XXX	0 PSI–3000 PSI	580	CG-1	.965–14 NGO RH Int.	¾" NGT
<i>Sulfur Hexafluoride</i>					
777459061-XXX	0 PSI–3000 PSI	590	CG-1	.965–14 NGO LH Int.	¾" NGT
<i>Boron Trichloride, Ethyl Fluoride, Phosgene, Nitric Oxide, Various Refrigerants, Sulfur dioxide, and other mixtures covered under CGA V1, CGA 660 connection.</i>					
77746660	0 PSI–3000 PSI	660	None	1.030–14 NGO RH Ext.	¾" NGT
777466061-XXX	0 PSI–3000 PSI	660	CG-1	1.030–14 NGO RH Ext.	¾" NGT
777466064-XXX	0 PSI–3000 PSI	660	CG-4	1.030–14 NGO RH Ext.	¾" NGT
7774666025E0	0 PSI–3000 PSI	660	CG-1	1.030–14 NGO RH Ext.	25E ISO

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