7000 Series Valves

Introducing the NEW

SUPERIOR®

Diaphragm Packless Valves

Superior's 7074 Series of 303 SS 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 SS Diaphragm Packless Valves are used in corrosive gas applications, cylinder phosphine gas, atmospheric and purging gases, dopant gases and reactant gases.

Key Features & Benefits

- New smooth operating stem ensures ease of operation during filling and use.
- Standardized anti-extrusion pin feature prevents seat extrusion and cold flow of the polymeric seat.
- Internal surface areas 32mc finish
- 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
- Available with standard CGA connections as well as international inlets and outlets

Design Specifications

Working Pressure (Maximum)	3000 PSI (200 Bar)
Operating Temperature	-50° F to +149° F (-45° C to +65° C)
Storage Temperature	-65° F to +155° F (-54° C to +68° C)
Leak Rate Internal/External	1 x 10-7 atm cc/sec. (mL/sec.)
Closing Torque	65 in.-lbs. @ 3000 PSI (7.3 N-m)
Operating Torque	30-50 in.-lbs. @ 3000 PSI (3.40 to 5.65 N-m)
Flow Data Cv	.36
Cycle Life (Minimum)	2000 Cycles (Minimum)

MADE IN USA

SUPERIOR® SPECIALTY GAS VALVES

SHERWOOD®

888.508.2583
specgas@sherwoodvalve.com
www.sherwoodvalve.com

7000 Series Valves

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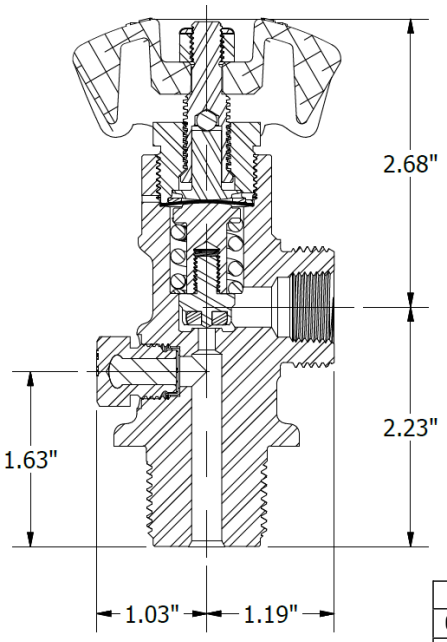

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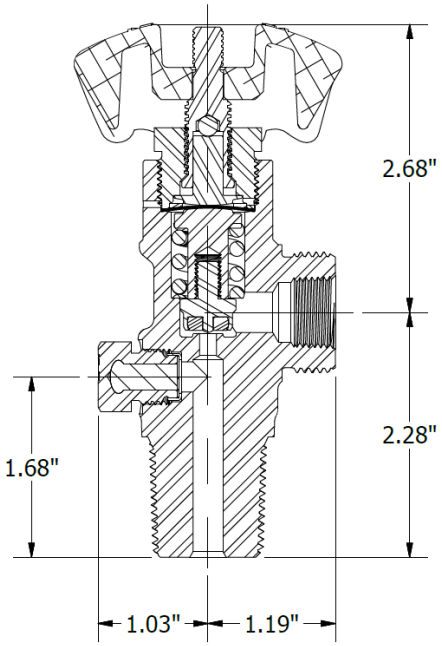

Body Material
0 = 303 Stainless Steel
7 = 316L Stainless Steel

Ordering Information

7 X 74 XX XXX X X - XX X XXX

Outlet Code*
(NONE) = CGA Outlet
BS = British Standard
DIN = German

*Additional outlet options available upon request

Outlet Designation
Letter or number from the associated specification

Inlet Designation
5 = Straight Thread 1 1/8"-12 UNF (unless changed by special feature)
6 = 3/4"-14 NGT
25E = 25,8 ISO/DIS & DIN 28,8

Safety Type
0 = No Safety
1 = Unbacked Frangible Disc
4 = Backed Frangible Disc with 165° Fuse Metal
5 = Backed Frangible Disc with 212° Fuse Metal

Safety Pressure
28 = 3000 PSIG
32 = 3360 PSIG
35 = 3775 PSIG
38 = 4000 PSIG

Burst Disc Material
N = Nickel
P = Platinum
S = Stainless

Special Features
-3 = 3 Threads Oversize
-4 = 4 Threads Oversize
-7 = 7 Threads Oversize
R = Tapped for Flow Restrictor
T = Tapped for Inlet Dip Tube
V = Vespel Seat
K = Kynar Seat
CC = Cap and Chain
-75 = 3/4-16UNF Inlet Thread (When Inlet Designation is 5)

Materials of Construction

Part Description	Materials of Construction
Body	303 or 316L Stainless Steel
Bonnet	316 Stainless Steel
Stem	420 Stainless Steel
Ball Bearing	440C Stainless Steel
Stem Bearing Button	420 Stainless Steel
Diaphragm Support	Nylon 6/6
Diaphragm	301 Stainless Hastelloy
Spring Retainer	316 Stainless Steel
Spring	316 Stainless Steel
Seat Holder	316 Stainless Steel
Seat Insert	CTFE, Vespel or Kynar

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