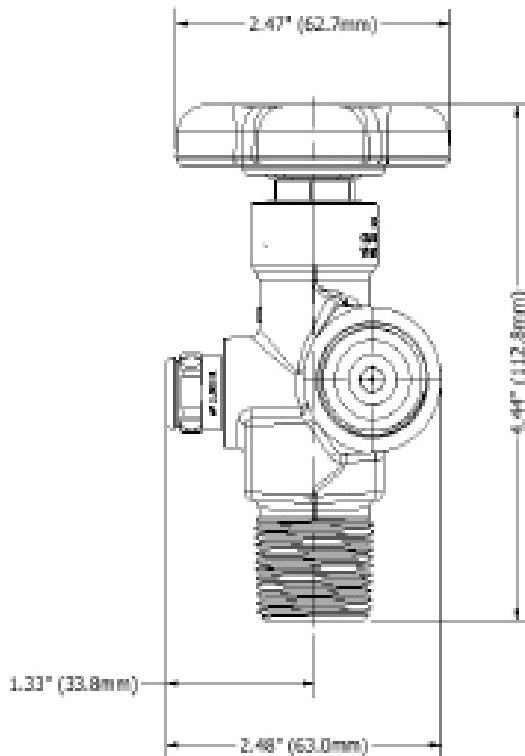


GSRPV Series

Residual Pressure Valves



GSRPV58061-XX



Residual pressure valve designed to protect cylinder and remaining cylinder gas contents.

Key Features & Benefits

- Prevents backflow of impurities and foreign substances
- Automated assembly and testing processes ensure exceptional quality
- 100% helium leak tested
- Durable forged brass body, precisely machined internal components and design elements meet the most stringent domestic and international valve performance standards
- Innovative design and quality construction offer protection of cylinder contents without the expense of a time-consuming purge-and-clean cycle
- Retains approximately 55 to 85 PSI pressure, maintaining the integrity of the cylinder contents against contaminants, even if the valve is left open
- Protects and extends life of cylinder by preventing ingress of moisture
- Pressure Relief Device (PRD) unitized plug design provides excellent flow characteristics
- Dynamic front piston seal design is not in direct contact with the flow passage during filling
- Inlet and outlet thread configurations are available for a broad spectrum of customer, country and code specifications
- Exclusive “webbed washer” design protects burst disc during handling and bulk shipment
- Inlets tapped (1/4" NPT) for dip tube as required

For Product Markings Reference, see **A** in the Appendix

Industrial Gas Valves

GSRPV Series

Residual Pressure Valves

For further ordering information, refer to the Selection of Pressure Relief Devices, the Pressure Relief Device Numbering Matrix, and the Valve Part Numbering Matrix.

Ordering Information				
Sherwood Part Number	Gas Service @ 70° F	CGA Outlet	Outlet Thread Size	Inlet Thread Size
<i>Air</i>				
GSRPV346R61-XX	0 PSI–3000 PSI	346R	.825–14 NGO RH Ext.	¾" NGT
GSRPV346R25E1-XX	0 PSI–3000 PSI	346R	.825–14 NGO RH Ext.	25E
<i>Argon</i>				
GSRPV580R41-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	½" NGT
GSRPV580R61-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	¾" NGT
GSRPV580R25E1-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	25E
<i>Carbon Dioxide</i>				
GSRPV320R41-XX	0 PSI–3000 PSI	320R	.825–14 NGO RH Ext.	½" NGT
GSRPV320R61-XX	0 PSI–3000 PSI	320R	.825–14 NGO RH Ext.	¾" NGT
GSRPV320R51-XX	0 PSI–3000 PSI	320R	.825–14 NGO RH Ext.	1.125"–12 UNF
GSRPV320R25E1-XX	0 PSI–3000 PSI	320R	.825–14 NGO RH Ext.	25E
<i>Helium</i>				
GSRPV580R41-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	½" NGT
GSRPV580R61-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	¾" NGT
GSRPV580R25E1-XX	0 PSI–3000 PSI	580R	.965–14 NGO RH Int.	25E
<i>Hydrogen</i>				
GSRPV350R45-XX	0 PSI–3000 PSI	350R	.825–14 NGO LH Ext.	½" NGT
GSRPV350R65-XX	0 PSI–3000 PSI	350R	.825–14 NGO LH Ext.	¾" NGT
GSRPV350R25E5-XX	0 PSI–3000 PSI	350R	.825–14 NGO LH Ext.	25E
<i>Nitrogen</i>				
GSRPV580R41-XX	0 PSI–3000 PSI	580	.965–14 NGO RH Int.	½" NGT
GSRPV580R61-XX	0 PSI–3000 PSI	580	.965–14 NGO RH Int.	¾" NGT
GSRPV580R25E1-XX	0 PSI–3000 PSI	580	.965–14 NGO RH Int.	25E
<i>Oxygen</i>				
GSRPV540R41-XX	0 PSI–3000 PSI	540R	.903–14 NGO RH Ext.	½" NGT
GSRPV540R61-XX	0 PSI–3000 PSI	540R	.903–14 NGO RH Ext.	¾" NGT
GSRPV540R25E1-XX	0 PSI–3000 PSI	540R	.903–14 NGO RH Ext.	25E
<i>Sulfur Hexafluoride</i>				
GSRPV590R41-XX	0 PSI–3000 PSI	590	.965–14 NGO LH Int.	½" NGT
GSRPV590R61-XX	0 PSI–3000 PSI	590	.965–14 NGO LH Int.	¾" NGT

Upsize Inlets: 4 & 7 and 24 thread upsize inlets: To order add -4, -7 or -24 to the end of the Part Number. For example GSRPV58061-XX becomes GSRPV58061-XX-7

Chrome plating: To order, add letter "A" after the letters GSRPV in the Part Number. For example GSRPV58061-XX becomes GSRPVA58061-XX

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. GSRPV35061-XX becomes GSRPV35064-XX for 165° F, or GSRPV35065-XX for 212° F).

NOTE: GSRPV valves are not approved for CNG service. For CNG Service, see NGSRPV Series. Not all valve are available in all configurations. Contact factory for availability. Orders may be subject to minimum quantities.

For Product Markings Reference, see **A** in the Appendix

GSRPV Series

Residual Pressure Valves

Design Specifications		
	English	Metric
Maximum Working Pressure	3500 PSI	413 Bar
Burst Pressure	10,000 PSI	1035 Bar
Operating Temperature Range	-50° F to +149° F	-45° C to +65° C
Storage Temperature Range	-65° F to +155° F	-54° C to +68° C
Leak Rate Internal/External	1x10 ⁻³ atm cc/sec.	1x10 ⁻³ Bar mL/sec.
Minimum Cycle Life	2000 Cycles	
Cv Flow Factor	Standard: .26	
Closing Torque	20–30 in.-lbs.	2.2–3.3 N-m
Operating Torque	10–20 in.-lbs.	1.1–2.2 N-m
Bonnet Installation Torque	50–60 ft.-lbs.	68–81 N-m
Handwheel Nut Installation Torque	25–45 in.-lbs.	2.8–5.2 N-m
PRD Installation Torque	25–35 ft.-lbs.	34–47 N-m
PRD Flow Capacity	60 cfm @ 100 PSI	1700 L/min. @ 6.9 Bar

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
Lower Plug	Brass C48500
Lower Plug Seat	Nylon Zytel 101
Pressure Relief Device	
Plug	Brass C36000; Chrome Plating When Applicable
Rupture Disc	Nickel Alloy 201; Copper C22000
Seal Gasket	Copper C11000
Stem	Brass C36000
O-Ring	Ethylene Propylene (EPDM)
Back-up O-Ring	Ethylene Propylene (EPDM)
Thrust Washer	Delrin® 500 AF
RPV Piston	Brass C37700
RPV Plug	Brass C36000/Chrome Plating When Applicable
RPV Spring	Beryllium Copper
Piston O-Ring	Ethylene Propylene (EPDM)
Piston O-Ring	Ethylene Propylene (EPDM)
RPV Plug O-Ring	Ethylene Propylene (EPDM)

NOTE: GSV Series valves are not for use with CNG applications. For CNG Service, see NGV and NGVHM Series. No mechanical addition of force is to be used with handwheel-style valves without the use of controlled torque.

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
ISO 15996	International Standard for Residual Pressure Valves Design Specifications
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves

Inlet O-Ring for Straight Threaded GSRPV Series Residual Pressure Valves			
Sherwood Part Number	Size	Material	Quantity
G216APK	1.125 UNF	Buna-N	100

Replacement Parts		
Sherwood Part Number	Description	Quantity
1251-6PK	Handwheel Nut	100
1919APK	Handwheel	200
1919LPK	Lexan Handwheel	50
1500-30-101KIT	Stem and Bonnet Subassembly	25
1500-40PK	Plug and Small valve seat	50
1500-40APK	Plug and Large valve seat for CO2 and manifold valves	50
1500-3SKT	Socket for Bonnet	1
P625-19X9-XXPK	Pressure Relief Device Unitized Assembly Includes Plug, Rupture Disc and Webbed Seal Washer	50