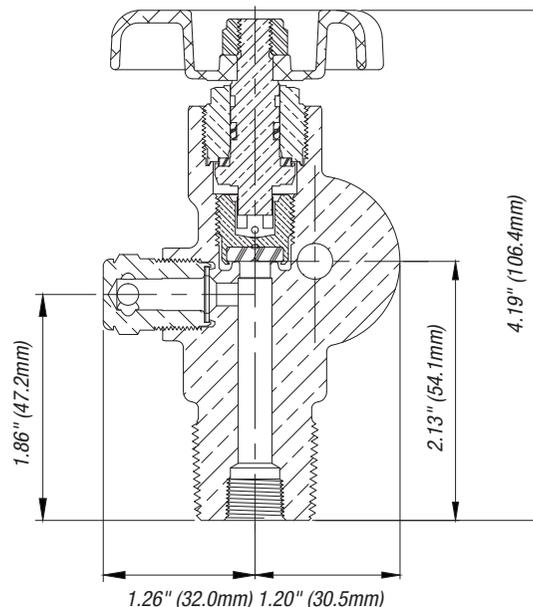


GSRPV Series Residual Pressure Valves

Residual pressure valve designed to protect cylinder and contents.

- 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 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 30 to 50 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
- Optical Character Recognition technology utilized to verify appropriate burst disc pressure rating
- Exclusive "webbed washer" design protects burst disc during handling and bulk shipment
- Maximizes optimum fill flow rate and provides high flow for delivery of product with Cv factor of .43



Design Specifications

| | English | Metric |
|--|---|--------------------------------|
| Maximum Working Pressure | 3500 PSI | 413 Bar |
| Burst Pressure | 10,000 PSI | 1035 Bar |
| Operating Temperature Range | -50° F → +149° F | -45° C → +65° C |
| Storage Temperature Range | -65° F → +155° F | -54° C → +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: .28 CO ₂ /Manifold: .50 | |
| 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 | 15–35 in.-lbs. | 1.7–3.9 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 |

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 |
| AS2473 | Australian Standard for Compressed Gas Cylinder Valves |
| TPED/ADR | Transportable Pressure Equipment Directive |
| A-A-59860 | U.S. General Services Administration Standards for Gas Cylinder Valves |

Materials of Construction

Sherwood

| Part Number | Part Description | Materials of Construction |
|----------------------|------------------|--|
| N/A | Body | Brass C37700/Chrome Plating When Applicable |
| N/A | Bonnet | Brass C36000/Chrome Plating When Applicable |
| 1919A | Handwheel | Aluminum A380 |
| 1251-6 | Handwheel Nut | Steel Class 8, Zinc Plating |
| N/A | Lower Plug | Brass C48500 |
| N/A | Lower Plug Seat | Nylon Zytel 101 |
| See Chart on Page 62 | PRD | Plug: Brass C36000/Chrome Plating When Applicable |
| | | Rupture Disc: Nickel Alloy 201; Copper C22000 |
| | | Webbed Seal Gasket: Copper Dead Soft C11000 |
| N/A | Stem | Brass C36000 |
| G011EP | O-Ring | Ethylene Propylene (EPDM) |
| N/A | Back-up O-Ring | Ethylene Propylene (EPDM) |
| N/A | Thrust Washer | Delrin® 500 AF |
| N/A | RPV Piston | Brass C37700 |
| N/A | RPV Plug | Brass C36000/Chrome Plating When Applicable |
| N/A | RPV Spring | Beryllium Copper |
| N/A | Piston O-Ring | Ethylene Propylene (EPDM) |
| N/A | Piston O-Ring | Ethylene Propylene (EPDM) |
| N/A | RPV Plug O-Ring | Ethylene Propylene (EPDM) |

Inlet O-Ring for Straight Threaded GRPV Series Residual Pressure Valves

| Sherwood Part Number | Size | Material |
|----------------------|-----------|----------|
| G216A | 1.125 UNF | Buna-N |

Lubricants

| | |
|---------------------|--|
| Christo-Lube | Used in Valves for All Industrial Gas Applications |
| Turmoxygen | Used in Valves for Oxygen Service |

Parts Breakdown for GSRPV Series Residual Pressure Valves

A. Handwheel Nut

B. Handwheel

C. Bonnet and Stem Assembly
Includes: Bonnet, Back-Up O-Ring, O-Ring, Thrust Washer and Stem

D. Lower Plug and Seat Assembly
Includes: Lower Plug and Seat

E. Pressure Relief Device
Includes: Plug, Rupture Disc and Webbed Seal Washer

F. Includes RPV Assembly, Plug, O-Rings, Spring and Piston

G. Includes O-Rings and Piston Assembly

1251-6

1919A

1400-30-100 (Oxygen)

1400-30-101 (All others)

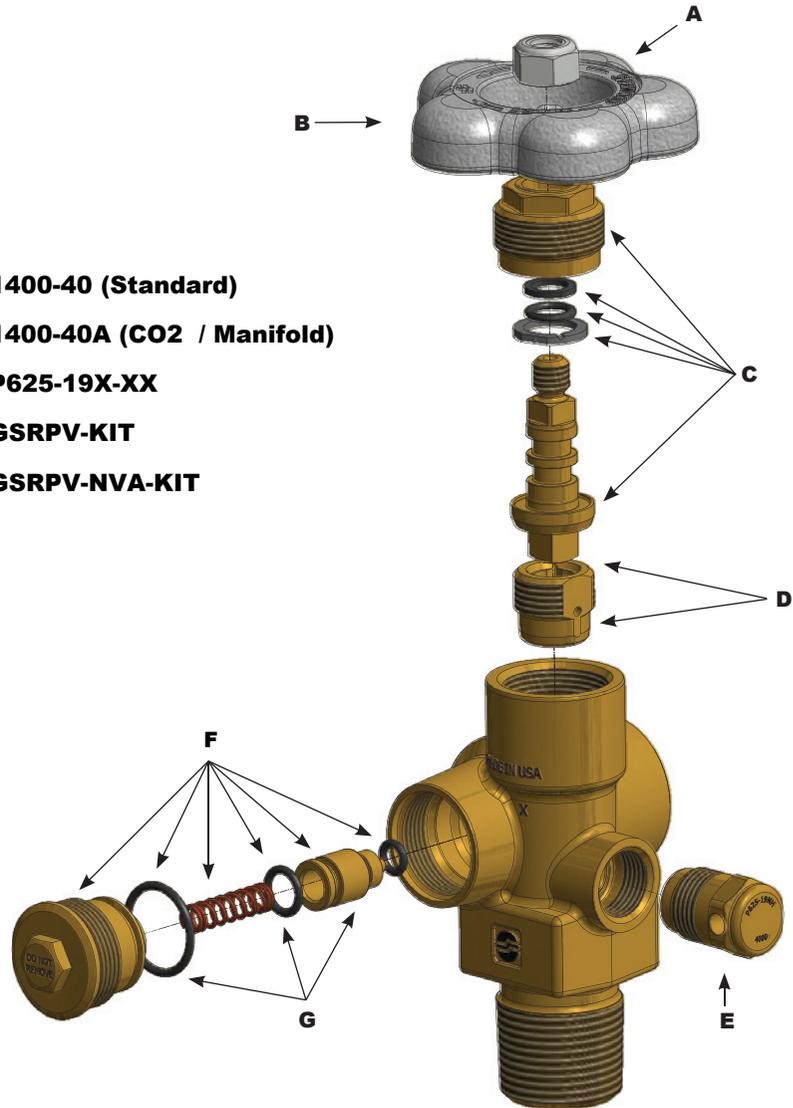
1400-40 (Standard)

1400-40A (CO2 / Manifold)

P625-19X-XX

GSRPV-KIT

GSRPV-NVA-KIT



GSRPV Key Replacement Parts

Sherwood Part

GSRPV-KIT

GSRPV-NVA-KIT

Description

Total RPV Assembly Kit, 50 ea

Piston Assembly Kit Only, 25 ea