

# Sherwood Cylinder Valves

Large Selection  
of Inventory of  
Sherwood Valves  
ready to ship the  
same day.



**SHERWOOD**  
MASTER DISTRIBUTOR

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**Sherwood Cylinder Valves 2/10/21**

Rev: 2/10/21, 3/9/20, 1/8/20

Durable forged brass body, precisely machined internal components and design elements meet the most stringent International valve performance standards. Automated assembly and testing processes ensure exceptional quality. All Sherwood GV valves are 100% leak tested.

Metal-to-metal seal below bonnet threads prevents pressure accumulation at top of valve body.

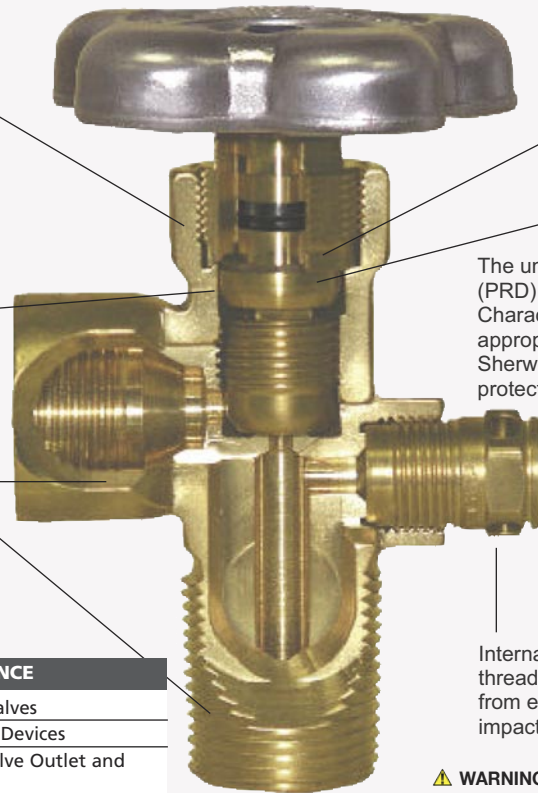
Inlet and Outlet thread configurations are available for a broad spectrum of Customer, Country and Code specifications.

High durometer back-up ring prevents extrusion of o-ring in extreme applications. Peroxide Curing of elastomeric seals enhances valve longevity.

Direct drive stem design with optimized single o-ring seal reduces friction and operates at exceptionally low torque levels.

The unitized plug design of the Pressure Relief Device (PRD) provides excellent flow characteristics. Optical Character Recognition technology utilized to verify appropriate burst disc pressure rating. Sherwood's exclusive "webbed washer" design protects burst disc during handling and bulk shipment.

Internal plug threads protected from external impact by design.



**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### 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
EN 849	International Standard for Cylinder Valves Design Specifications
AS2473	Australian Standard for Compressed Gas Cylinder Valves
TPED	Transportable Pressure Equipment Directive Modules B & D

### DESIGN SPECIFICATIONS

Maximum Working Pressure	6,000 PSIG	413 BAR
Burst Pressure	15,000 PSIG	1,035 BAR
Operating Temperature	Min: -50°F	-45°C
	Max: 130°F	55°C
Storage Temperature	Min: -65°F	-54°C
	Max: 155°F	68°C
Leak Rate Internal/External	1X10 <sup>-3</sup> atm cc/s	
Minimum Cycle Life	2,000 Cycles	
Cv Flow Factor	Standard:	.690
	CO2 / Manifold:	1.23

## Replacement Inlet O-ring for Straight Threaded GV Series Industrial and Chrome Plated Valves

Size	Part Number	Material
0.625 UNF	SHW-G907A	BUNA
0.625 UNF	SHW-G016T	PTFE
0.750 UNF	SHW-G210A-9	BUNA
0.750 UNF	SHW-G210T	PTFE
1.125 UN	SHW-G216B	BUNA
1.125 UN	CVO-2T	PTFE

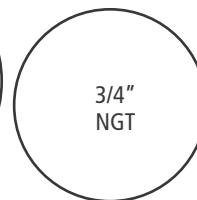
## VALVE SIZING\* CHART

Place Valve Thread End of Valve to Match Up to Diameter on the Chart

### STEEL CYLINDER GUIDE



For Steel Cylinders  
1" NGT TAPERED THREADS



3/4" NGT



1/2" NGT

#### Typical Steel Cylinder Sizes

D & E Steel Medical Tank, CO <sup>2</sup> 2-1/2#, 5#, 10#	1/2"
80 cu. ft. – 330, CO <sup>2</sup> 20#, 30#, 40 cu. ft., 50 lb. CO <sup>2</sup> Most other Cap Style Tank	3/4"
	1"

#### Thread Size

### ALUMINUM CYLINDER GUIDE



For Aluminum Cylinders  
1.125" UNF STRAIGHT THREADS



.750" UNF

#### Typical Valve Aluminum Cylinder

Medical Aluminum Cylinder Mw-M4, M6, M7, M9, D, E – 2-1/2# CO <sup>2</sup>	.750"
CO <sup>2</sup> 50 lb. thru 5 lb.	1.125"

#### Thread Size

This guide is for a typical valve.

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Not all valve and thread sizes are included. Please use this as a general guide.

\* These sizes are accurate in printed catalog.



## GSV Series: Industrial Valves

### CGA 022 Oxygen 200 PSI

1/2" NGT Tapered Thread, Brass

New Part #	Old Part #	Description
SHW-GSV02240	SHW-GV02240	NO SAFETY
SHW-GSV02240CC	SHW-GV02240CC	NO SAFETY with Cap & Chain

### CGA 023 Fuel Gas 200 PSI

1/2" NGT Tapered Thread, Brass

New Part #	Old Part #	Description
SHW-GSV02340	SHW-GV02340	NO SAFETY
SHW-GSV02340CC	SHW-GV02340CC	NO SAFETY with Cap & Chain

### CGA 024 Oxygen 200 PSI

1/2" NGT Tapered Thread, Brass

New Part #	Old Part #	Description
SHW-GSV02440	SHW-GV02440	NO SAFETY
SHW-GSV02440CC	SHW-GV02440CC	NO SAFETY with Cap & Chain

### CGA 025 Fuel Gas 200 PSI

1/2" NGT Tapered Thread, Brass

New Part #	Old Part #	Description
SHW-GSV02540	SHW-GV02540	NO SAFETY
SHW-GSV02540CC	SHW-GV02540CC	NO SAFETY with Cap & Chain

### Gas Tight Brass Plug & Chain Assemblies

- Gas tight two piece plug and chain assembly



Part No.	CGA No.	Description	Gas Tight Seal
FIT-2PC-022	022	Oxygen Std. "B" Hose Size 9/16"-18-RH-Internal	200 P.S.I.G.
FIT-2PC-023	023	Fuel Gas Std. "B" Hose Size 9/16"-18-LH-Internal	200 P.S.I.G.
FIT-2PC-024	024	Oxygen "C" Hose Size 7/8"-14-RH-Internal	200 P.S.I.G.
FIT-2PC-025	025	Fuel Gas "C" Hose Size 7/8"-14-LH-Internal	200 P.S.I.G.

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov


## Replacement Safety Reliefs



Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov



### Ratermann's Oxygen Safe Valve Leak Check

**Find your Leaks Fast and Easily with the Extending Tube to Get in the Hard to Reach Areas.**



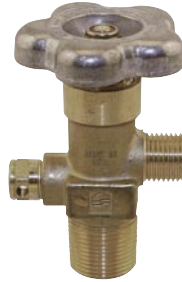
Part # LC-80Z    Part # LC-1GAL

## GSV Series: Cylinder Valves

### CGA 280 Medical Breathing Mixtures 3,000 PSI

3/4" NGT Tapered Thread, Brass

New Part #	Old Part #	Safety
SHW-GSV28061-28	SHW-GV28061-28	3000 PSI
SHW-GSV28061-32	SHW-GV28061-32	3360 PSI
SHW-GSV28061-35	SHW-GV28061-35	3775 PSI
SHW-GSV28061-38	SHW-GV28061-38	4000 PSI



New # SHW-GSV28061-32  
Old Pt # SHW-GV28061-32

3/4" NGT Tapered Thread, Chrome

New Part #	Old Part #	Safety
SHW-GSVA28061-28	SHW-GVA28061-28	3000 PSI
SHW-GSVA28061-32	SHW-GVA28061-32	3360 PSI
SHW-GSVA28061-35	SHW-GVA28061-35	3775 PSI
SHW-GSVA28061-38	SHW-GVA28061-38	4000 PSI

3/4" NGT +7 Over Size Tapered Thread, Brass

New Part #	Old Part #	Safety
SHW-GSV28061-28-7	SHW-GV28061-28-7	3000 PSI
SHW-GSV28061-32-7	SHW-GV28061-32-7	3360 PSI
SHW-GSV28061-35-7	SHW-GV28061-35-7	3775 PSI
SHW-GSV28061-38-7	SHW-GV28061-38-7	4000 PSI



New # SHW-GSV28061-32-7  
Old Pt # SHW-GV28061-32-7

3/4" NGT +7 Over Size Tapered Thread, Chrome

New Part #	Old Part #	Safety
SHW-GSVA28061-28-7	SHW-GVA28061-28-7	3000 PSI
SHW-GSVA28061-32-7	SHW-GVA28061-32-7	3360 PSI
SHW-GSVA28061-35-7	SHW-GVA28061-35-7	3775 PSI
SHW-GSVA28061-38-7	SHW-GVA28061-38-7	4000 PSI

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

## GSV Series: Cylinder Valves

### CGA 296 Industrial Oxygen Mixtures 3,000 PSI

3/4" NGT Tapered Thread, Brass

New Part #	Old Part #	Safety
SHW-GSV29661-28	SHW-GV29661-28	3000 PSI
SHW-GSV29661-32	SHW-GV29661-32	3360 PSI
SHW-GSV29661-35	SHW-GV29661-35	3775 PSI
SHW-GSV29661-38	SHW-GV29661-38	4000 PSI



New # SHW-GSV29661-32  
Old Pt # SHW-GV29661-32

3/4" NGT Tapered Thread, Chrome

New Part #	Old Part #	Safety
SHW-GSVA29661-28	SHW-GVA29661-28	3000 PSI
SHW-GSVA29661-32	SHW-GVA29661-32	3360 PSI
SHW-GSVA29661-35	SHW-GVA29661-35	3775 PSI
SHW-GSVA29661-38	SHW-GVA29661-38	4000 PSI



New # SHW-GSV29661-32-7  
Old Pt # SHW-GV29661-32-7

3/4" NGT +7 Over Size Tapered Thread, Brass

New Part #	Old Part #	Safety
SHW-GSV29661-28-7	SHW-GV29661-28-7	3000 PSI
SHW-GSV29661-32-7	SHW-GV29661-32-7	3360 PSI
SHW-GSV29661-35-7	SHW-GV29661-35-7	3775 PSI
SHW-GSV29661-38-7	SHW-GV29661-38-7	4000 PSI

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

SHERWOOD GSV SERIES INDUSTRIAL CYLINDER VALVES

Rev: 3/6/20



New # **SHW-GSV32061-32**  
Old Pt # SHW-GV32061-32

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32060	SHW-GV32060	NO SAFETY
SHW-GSV32061-28	SHW-GV32061-28	3000 PSI
SHW-GSV32061-32	SHW-GV32061-32	3360 PSI
SHW-GSV32061-35	SHW-GV32061-35	3775 PSI
SHW-GSV32061-38	SHW-GV32061-38	4000 PSI

**3/4" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA32061-28	SHW-GVA32061-28	3000 PSI
SHW-GSVA32061-32	SHW-GVA32061-32	3360 PSI
SHW-GSVA32061-35	SHW-GVA32061-35	3775 PSI
SHW-GSVA32061-38	SHW-GVA32061-38	4000 PSI

**1/2" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32040	SHW-GV32040	NO SAFETY
SHW-GSV32041-28	SHW-GV32041-28	3000 PSI
SHW-GSV32041-32	SHW-GV32041-32	3360 PSI
SHW-GSV32041-35	SHW-GV32041-35	3775 PSI
SHW-GSV32041-38	SHW-GV32041-38	4000 PSI

**1" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32081-28	SHW-GV32081-28	3000 PSI
SHW-GSV32081-32	SHW-GV32081-32	3360 PSI
SHW-GSV32081-35	SHW-GV32081-35	3775 PSI
SHW-GSV32081-38	SHW-GV32081-38	4000 PSI

**1-1/8" UNF Straight Thread, Brass with Lexan Handwheels**

New Part #	Old Part #	Safety
SHW-GSV32051-28LX	SHW-GV32051-28LX	3000 PSI
SHW-GSV32051-32LX	SHW-GV32051-32LX	3360 PSI
SHW-GSV32051-35LX	SHW-GV32051-35LX	3775 PSI
SHW-GSV32051-38LX	SHW-GV32051-38LX	4000 PSI

**3/4" UNF Straight Thread, Brass with Lexan Handwheels**

New Part #	Old Part #	Safety
SHW-GSV32051-28LX-75	SHW-GV32051-28LX-75	3000 PSI
SHW-GSV32051-32LX-75	SHW-GV32051-32LX-75	3360 PSI
SHW-GSV32051-35LX-75	SHW-GV32051-35LX-75	3775 PSI
SHW-GSV32051-38LX-75	SHW-GV32051-38LX-75	4000 PSI

**5/8" UNF Straight Thread, Brass with Lexan Handwheels**

New Part #	Old Part #	Safety
SHW-GSV32051-28LX-62	SHW-GV32051-28LX-62	3000 PSI
SHW-GSV32051-32LX-62	SHW-GV32051-32LX-62	3360 PSI
SHW-GSV32051-35LX-62	SHW-GV32051-35LX-62	3775 PSI
SHW-GSV32051-38LX-62	SHW-GV32051-38LX-62	4000 PSI



New # **SHW-GSV32051-28LX**  
Old Pt # SHW-GV32051-28LX



New # **SHW-GSV32061-32-7**  
Old Pt # SHW-GV32061-32-7

**3/4" NGT +4 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32061-28-4	SHW-GV32061-28-4	3000 PSI
SHW-GSV32061-32-4	SHW-GV32061-32-4	3360 PSI
SHW-GSV32061-35-4	SHW-GV32061-35-4	3775 PSI
SHW-GSV32061-38-4	SHW-GV32061-38-4	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32061-28-7	SHW-GV32061-28-7	3000 PSI
SHW-GSV32061-32-7	SHW-GV32061-32-7	3360 PSI
SHW-GSV32061-35-7	SHW-GV32061-35-7	3775 PSI
SHW-GSV32061-38-7	SHW-GV32061-38-7	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA32061-28-7	SHW-GVA32061-28-7	3000 PSI
SHW-GSVA32061-32-7	SHW-GVA32061-32-7	3360 PSI
SHW-GSVA32061-35-7	SHW-GVA32061-35-7	3775 PSI
SHW-GSVA32061-38-7	SHW-GVA32061-38-7	4000 PSI

**1" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA32081-28	SHW-GVA32081-28	3000 PSI
SHW-GSVA32081-32	SHW-GVA32081-32	3360 PSI
SHW-GSVA32081-35	SHW-GVA32081-35	3775 PSI
SHW-GSVA32081-38	SHW-GVA32081-38	4000 PSI

**1-1/8" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32051-28	SHW-GV32051-28	3000 PSI
SHW-GSV32051-32	SHW-GV32051-32	3360 PSI
SHW-GSV32051-35	SHW-GV32051-35	3775 PSI
SHW-GSV32051-38	SHW-GV32051-38	4000 PSI

**3/4" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32051-28-75	SHW-GV32051-28-75	3000 PSI
SHW-GSV32051-32-75	SHW-GV32051-32-75	3360 PSI
SHW-GSV32051-35-75	SHW-GV32051-35-75	3775 PSI
SHW-GSV32051-38-75	SHW-GV32051-38-75	4000 PSI



New # **SHW-GSV32081-28**  
Old Pt # SHW-GV32081-28



New # **SHW-GSV32051-28**  
Old Pt # SHW-GV32051-28

**Gas Tight Brass Plug & Chain Assemblies for CGA 320**

- Gas tight one piece plug and chain assembly



Part No.	CGA No.	Description	Gas Tight Seal
FIT-OPC-320	320	Carbon Dioxide-RH-Internal	3000 P.S.I.G

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Replacement Safety Reliefs**

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.



**Cylinder Siphon Tubes**

Siphon tubes are constructed from 3/8" type "K" copper tube. Each tube is fitted with a 1/4" male NPT brass fitting for easy attachment to most brass valves on the market today. Standard length is 53" OAL to fit most 250-300 cu. ft. cylinders. All ends are cut at 45° angle to allow for unrestricted flow.

Stainless Steel siphon tubes are available for higher purity gases. Custom sizes are available upon request. Call Customer Service for details.

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



Part # CST-C

**Cylinder Siphon Tubes**

Part #	Description
CST-S	Standard Siphon Tube, 53" OAL
CST-C	Standard Siphon Tube, 48" OAL
CST-C26	Standard Siphon Tube, 26" OAL





**New # SHW-GSV32661-28**  
Old Pt # SHW-GV32661-28

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32661-28	SHW-GV32661-28	3000 PSI
SHW-GSV32661-32	SHW-GV32661-32	3360 PSI
SHW-GSV32661-35	SHW-GV32661-35	3775 PSI
SHW-GSV32661-38	SHW-GV32661-38	4000 PSI

**3/4" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA32661-28	SHW-GVA32661-28	3000 PSI
SHW-GSVA32661-32	SHW-GVA32661-32	3360 PSI
SHW-GSVA32661-35	SHW-GVA32661-35	3775 PSI
SHW-GSVA32661-38	SHW-GVA32661-38	4000 PSI

**1/2" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32641-28	SHW-GV32641-28	3000 PSI
SHW-GSV32641-32	SHW-GV32641-32	3360 PSI
SHW-GSV32641-35	SHW-GV32641-35	3775 PSI
SHW-GSV32641-38	SHW-GV32641-38	4000 PSI

**1 NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32681-28	SHW-GV32681-28	3000 PSI
SHW-GSV32681-32	SHW-GV32681-32	3360 PSI
SHW-GSV32681-35	SHW-GV32681-35	3775 PSI
SHW-GSV32681-38	SHW-GV32681-38	4000 PSI

**1-1/8 UNF Straight Thread, Brass with Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSV32651-28LX	SHW-GV32651-28LX	3000 PSI
SHW-GSV32651-32LX	SHW-GV32651-32LX	3360 PSI
SHW-GSV32651-35LX	SHW-GV32651-35LX	3775 PSI
SHW-GSV32651-38LX	SHW-GV32651-38LX	4000 PSI

**1-1/8 UNF Straight Thread, Chrome with Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSVA32651-28LX	SHW-GVA32651-28LX	3000 PSI
SHW-GSVA32651-32LX	SHW-GVA32651-32LX	3360 PSI
SHW-GSVA32651-35LX	SHW-GVA32651-35LX	3775 PSI
SHW-GSVA32651-38LX	SHW-GVA32651-38LX	4000 PSI

**New # SHW-GSV32681-32**  
Old Pt # SHW-GV32681-32



**New # SHW-GSV32661-32-7**  
Old Pt # SHW-GV32661-32-7

**3/4" NGT +7 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32661-28-7	SHW-GV32661-28-7	3000 PSI
SHW-GSV32661-32-7	SHW-GV32661-32-7	3360 PSI
SHW-GSV32661-35-7	SHW-GV32661-35-7	3775 PSI
SHW-GSV32661-38-7	SHW-GV32661-38-7	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA32661-28-7	SHW-GVA32661-28-7	3000 PSI
SHW-GSVA32661-32-7	SHW-GVA32661-32-7	3360 PSI
SHW-GSVA32661-35-7	SHW-GVA32661-35-7	3775 PSI
SHW-GSVA32661-38-7	SHW-GVA32661-38-7	4000 PSI

**3/4" NGT +4 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV32661-28-4	SHW-GV32661-28-4	3000 PSI
SHW-GSV32661-32-4	SHW-GV32661-32-4	3360 PSI
SHW-GSV32661-35-4	SHW-GV32661-35-4	3775 PSI
SHW-GSV32661-38-4	SHW-GV32661-38-4	4000 PSI



**New # SHW-GSVA32661-32**  
Old Pt # SHW-GVA32661-32

**3/4" UNF Straight Thread, Brass with Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSV32651-28LX-75	SHW-GV32651-28LX-75	3000 PSI
SHW-GSV32651-32LX-75	SHW-GV32651-32LX-75	3360 PSI
SHW-GSV32651-35LX-75	SHW-GV32651-35LX-75	3775 PSI
SHW-GSV32651-38LX-75	SHW-GV32651-38LX-75	4000 PSI

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSV32625E1-28	SHW-GV32625E1-28	3000 PSI
SHW-GSV32625E1-32	SHW-GV32625E1-32	3360 PSI
SHW-GSV32625E1-35	SHW-GV32625E1-35	3775 PSI
SHW-GSV32625E1-38	SHW-GV32625E1-38	4000 PSI



**New # SHW-GSV32661-32-4**  
Old Pt # SHW-GV32661-32-4

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Replacement Safety Reliefs**



Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Gas Tight Brass Plug & Chain Assemblies for CGA 326 Nitrous Oxide**

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



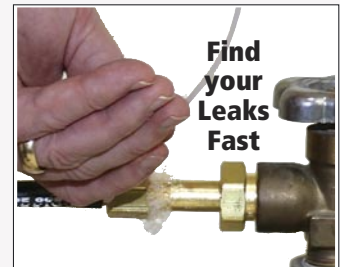
Part # FIT-2PC-326



Part # FIT-OPC-326

CGA 326 – 3000 P.S.I.G.  
Nitrous Oxide-RH-Internal

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**Find your Leaks Fast**



Part # LC-1GAL

**and Easily with the Extending Tube to Get in the Hard to Reach Areas.**

**Ratermann's Oxygen Safe Valve Leak Check**

GSV & GSHV SERIES: CGA 346 & 347 BREATHING AIR

**GSV Series:**  
**CGA 346**  
Breathing Air  
3,000-4,000 PSI



New # SHW-GSV34681-32  
Old Pt # SHW-GV34681-32



New # SHW-GSV34651-32  
Old Pt # SHW-GV34651-32



New # SHW-GSV34661-32-7  
Old Pt # SHW-GV34661-32-7



New # SHW-GSV34661-32-7  
Old Pt # SHW-GV34661-32-7

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34661-28	SHW-GV34661-28	3000 PSI
SHW-GSV34661-32	SHW-GV34661-32	3360 PSI
SHW-GSV34661-35	SHW-GV34661-35	3775 PSI
SHW-GSV34661-38	SHW-GV34661-38	4000 PSI

**3/4" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA34661-28	SHW-GVA34661-28	3000 PSI
SHW-GSVA34661-32	SHW-GVA34661-32	3360 PSI
SHW-GSVA34661-35	SHW-GVA34661-35	3775 PSI
SHW-GSVA34661-38	SHW-GVA34661-38	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34661-28-7	SHW-GV34661-28-7	3000 PSI
SHW-GSV34661-32-7	SHW-GV34661-32-7	3360 PSI
SHW-GSV34661-35-7	SHW-GV34661-35-7	3775 PSI
SHW-GSV34661-38-7	SHW-GV34661-38-7	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA34661-28-7	SHW-GVA34661-28-7	3000 PSI
SHW-GSVA34661-32-7	SHW-GVA34661-32-7	3360 PSI
SHW-GSVA34661-35-7	SHW-GVA34661-35-7	3775 PSI
SHW-GSVA34661-38-7	SHW-GVA34661-38-7	4000 PSI

**3/4" NGT +4 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34661-28-4	SHW-GV34661-28-4	3000 PSI
SHW-GSV34661-32-4	SHW-GV34661-32-4	3360 PSI
SHW-GSV34661-35-4	SHW-GV34661-35-4	3775 PSI
SHW-GSV34661-38-4	SHW-GV34661-38-4	4000 PSI

**1/2" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34641-28	SHW-GV34641-28	3000 PSI
SHW-GSV34641-32	SHW-GV34641-32	3360 PSI
SHW-GSV34641-35	SHW-GV34641-35	3775 PSI
SHW-GSV34641-38	SHW-GV34641-38	4000 PSI

**1" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34681-28	SHW-GV34681-28	3000 PSI
SHW-GSV34681-32	SHW-GV34681-32	3360 PSI
SHW-GSV34681-35	SHW-GV34681-35	3775 PSI
SHW-GSV34681-38	SHW-GV34681-38	4000 PSI

**1-1/8" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV34651-28	SHW-GV34651-28	3000 PSI
SHW-GSV34651-32	SHW-GV34651-32	3360 PSI
SHW-GSV34651-35	SHW-GV34651-35	3775 PSI
SHW-GSV34651-38	SHW-GV34651-38	4000 PSI

**1-1/8" UNF Straight Thread, Brass w/ Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSV34651-28LX	SHW-GV34651-28LX	3000 PSI
SHW-GSV34651-32LX	SHW-GV34651-32LX	3360 PSI
SHW-GSV34651-35LX	SHW-GV34651-35LX	3775 PSI
SHW-GSV34651-38LX	SHW-GV34651-38LX	4000 PSI



New # SHW-GSHV34761-55  
Old Pt # SHW-GVHM34761-55



New # SHW-GSHV34761-65-24  
Old Pt # SHW-GVHM34761-65-24



New # SHW-GSHV34725E1-71  
Old Pt # SHW-GVHM34725E1-71

**GSHV Series:**  
**CGA 347** Breathing Air 3,001-4,700 PSI

**3/4" NGT Tapered Thread Brass**

New Part #	Old Part #	Safety
SHW-GSHV34761-48	SHW-GVHM34761-48	5000 PSI
SHW-GSHV34761-55	SHW-GVHM34761-55	5833 PSI
SHW-GSHV34761-65	SHW-GVHM34761-65	6750 PSI
SHW-GSHV34761-71	SHW-GVHM34761-71	7500 PSI
SHW-GSHV34761-78	SHW-GVHM34761-78	8333 PSI

**3/4" NGT +24 Over Size Tapered Thread Brass**

New Part #	Old Part #	Safety
SHW-GSHV34761-48-24	SHW-GVHM34761-48-24	5000 PSI
SHW-GSHV34761-55-24	SHW-GVHM34761-55-24	5833 PSI
SHW-GSHV34761-65-24	SHW-GVHM34761-65-24	6750 PSI
SHW-GSHV34761-71-24	SHW-GVHM34761-71-24	7500 PSI

**3/4" NGT +24 Over Size Tapered Thread Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA34761-55-24	SHW-GVHMA34761-55-24	5833 PSI
SHW-GSHVA34761-65-24	SHW-GVHMA34761-65-24	6750 PSI
SHW-GSHVA34761-71-24	SHW-GVHMA34761-71-24	7500 PSI

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSHV34725E1-65	SHW-GVHM34725E1-65	6750 PSI
SHW-GSHV34725E1-71	SHW-GVHM34725E1-71	7500 PSI
SHW-GSHV34725E1-78	SHW-GVHM34725E1-78	8333 PSI

**European Inlet 25E, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA34725E0	SHW-GVHMA34725E0	NO SAFETY
SHW-GSHVA34725E1-65	SHW-GVHMA34725E1-65	6750 PSI
SHW-GSHVA34725E1-71	SHW-GVHMA34725E1-71	7500 PSI
SHW-GSHVA34725E1-78	SHW-GVHMA34725E1-78	8333 PSI

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

**Gas Tight Brass Plug & Chain Assemblies for CGA 347**

- Gas tight two piece plug and chain assembly



Part No.	CGA No.	Description	Gas Tight Seal
FIT-2PC-347	347	Air-RH-Internal Type 316	3001-5500 P.S.I.G.
FIT-2PC-347S5	347	Air-RH-Internal Type 316 Stainless Steel	3001-5500 P.S.I.G.

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

**Gas Tight Brass Plug & Chain Assemblies for CGA 346**

Part # FIT-2PC-346  
CGA 346 – 3000 P.S.I.G. – Air-RH-Internal

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

**Replacement Safety Reliefs**

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call for details.

**Replacement Safety Reliefs**

Part Number	Description
SHW-P625-19N9H-48	Sherwood GV Series Plug Style Safety 5000 PSI
SHW-P625-19N9H-55	Sherwood GV Series Plug Style Safety 5833 PSI
SHW-P625-19N9H-65	Sherwood GV Series Plug Style Safety 6750 PSI
SHW-P625-19N9H-71	Sherwood GV Series Plug Style Safety 7500 PSI
SHW-P625-19N9H-78	Sherwood GV Series Plug Style Safety 8333 PSI
SHW-P625-19N9H-85	Sherwood GV Series Plug Style Safety 9000 PSI
SHW-P625-19N9H-95	Sherwood GV Series Plug Style Safety 10K PSI



Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov





**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35060	SHW-GV35060	NO SAFETY
SHW-GSV35065-28	SHW-GV35065-28	3000 PSI 212° fuse
SHW-GSV35065-32	SHW-GV35065-32	3360 PSI 212° fuse
SHW-GSV35065-35	SHW-GV35065-35	3775 PSI 212° fuse
SHW-GSV35065-38	SHW-GV35065-38	4000 PSI 212° fuse

New # SHW-GSV35065-32  
Old Pt # SHW-GV35065-32



**1/2" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35040	SHW-GV35040	NO SAFETY
SHW-GSV35045-28	SHW-GV35045-28	3000 PSI 212° fuse
SHW-GSV35045-32	SHW-GV35045-32	3360 PSI 212° fuse
SHW-GSV35045-35	SHW-GV35045-35	3775 PSI 212° fuse
SHW-GSV35045-38	SHW-GV35045-38	4000 PSI 212° fuse

New # SHW-GSV35040  
Old Pt # SHW-GV35040



**1-1/8" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35055-28	SHW-GV35055-28	3000 PSI 212° fuse
SHW-GSV35055-32	SHW-GV35055-32	3360 PSI 212° fuse
SHW-GSV35055-35	SHW-GV35055-35	3775 PSI 212° fuse
SHW-GSV35055-38	SHW-GV35055-38	4000 PSI 212° fuse

New # SHW-GSV35055-28  
Old Pt # SHW-GV35055-28

**Replacement Inlet O-ring for Straight Threaded GS Series Industrial and Chrome Plated Valves**



Size	Part Number	Material
0.750 UNF	SHW-G210A-9	BUNA
0.750 UNF	SHW-G210A	PTFE

**3/4" NGT +4 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35065-28-4	SHW-GV35065-28-4	3000 PSI 212° fuse
SHW-GSV35065-32-4	SHW-GV35065-32-4	3360 PSI 212° fuse
SHW-GSV35065-35-4	SHW-GV35065-35-4	3775 PSI 212° fuse
SHW-GSV35065-38-4	SHW-GV35065-38-4	4000 PSI 212° fuse

**3/4" NGT +7 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35065-28-7	SHW-GV35065-28-7	3000 PSI 212° fuse
SHW-GSV35065-32-7	SHW-GV35065-32-7	3360 PSI 212° fuse
SHW-GSV35065-35-7	SHW-GV35065-35-7	3775 PSI 212° fuse
SHW-GSV35065-38-7	SHW-GV35065-38-7	4000 PSI 212° fuse

**1" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV35085-35	SHW-GV35085-35	3775 PSI 212° fuse
SHW-GSV35085-38	SHW-GV35085-38	4000 PSI 212° fuse



New # SHW-GSV35085-35  
Old Pt # SHW-GV35085-35

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSV35025E5-28	SHW-GV35025E5-28	3000 PSI 212° fuse
SHW-GSV35025E5-32	SHW-GV35025E5-32	3360 PSI 212° fuse
SHW-GSV35025E5-35	SHW-GV35025E5-35	3775 PSI 212° fuse
SHW-GSV35025E5-38	SHW-GV35025E5-38	4000 PSI 212° fuse

**Replacement Safety Reliefs**  
Color-Coded Safeties with 212° Fuse



Part Number	Sherwood GV Series Plug Style Safety
SHW-P625-19C9-28W	Sherwood GV Series Plug Style Safety 212° Fuse 3000 PSI
SHW-P625-19C9-32W	Sherwood GV Series Plug Style Safety 212° Fuse 3360 PSI
SHW-P625-19C9-35W	Sherwood GV Series Plug Style Safety 212° Fuse 3775 PSI
SHW-P625-19C9-38W	Sherwood GV Series Plug Style Safety 212° Fuse 4000 PSI

**Gas Tight Brass Plug & Chain Assemblies for CGA 350**

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



Part # FIT-2PC-350

CGA 350 – 3000 P.S.I.G. Hydrogen, Methane-LH-Internal



Part # FIT-OPC-350

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**GSV Series: Cylinder Valves CGA 500 Medical Mixtures 3,000 PSI**



New # SHW-GSV50061-32-7  
Old Pt # SHW-GV50061-32-7

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV50061-28	SHW-GV50061-28	3000 PSI
SHW-GSV50061-32	SHW-GV50061-32	3360 PSI
SHW-GSV50061-35	SHW-GV50061-35	3775 PSI
SHW-GSV50061-38	SHW-GV50061-38	4000 PSI

**3/4" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA50061-28	SHW-GVA50061-28	3000 PSI
SHW-GSVA50061-32	SHW-GVA50061-32	3360 PSI
SHW-GSVA50061-35	SHW-GVA50061-35	3775 PSI
SHW-GSVA50061-38	SHW-GVA50061-38	4000 PSI

**3/4" NGT +7 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV50061-28-7	SHW-GV50061-28-7	3000 PSI
SHW-GSV50061-32-7	SHW-GV50061-32-7	3360 PSI

**3/4" NGT +7 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA50061-28-7	SHW-GVA50061-28-7	3000 PSI
SHW-GSVA50061-32-7	SHW-GVA50061-32-7	3360 PSI
SHW-GSVA50061-35-7	SHW-GVA50061-35-7	3775 PSI
SHW-GSVA50061-38-7	SHW-GVA50061-38-7	4000 PSI

**Replacement Safety Reliefs**



Part Number	Sherwood GV Series Plug Style Safety
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## CGA 510 Acetylene 500 PSI

CGA 510 Acetylene Valve P.O.L.



New # SHW-GV51060  
Old Pt # SHW-GV51060

CGA 510 Vertical



New # SHW-GVT51060  
Old Pt # SHW-GVT51060

New Part #	Old Part #	ACETYLENE VALVE CGA 510
SHW-GV51040	SHW-GV51040	Acetylene Valve CGA 510 P.O.L. 1/2" -14 NGT
SHW-GV51060	SHW-GV51060	Acetylene Valve CGA 510 P.O.L. 3/4" NGT
SHW-GV51080	SHW-GV51080	Acetylene Valve CGA 510 P.O.L. 1"-11 1/2 NGT
SHW-GSVT51060	SHW-GVT51060	Vertical CGA 510 3/4" NGT, No Safety HW Operated

## CGA 300 Acetylene 500 PSI

CGA 300 Acetylene Commercial Valve with double O-Ring



New # SHW-GSV30060  
Old Pt # SHW-GV30060

New Part #	Old Part #	ACETYLENE VALVE COMMERCIAL CGA 300
SHW-GSV30040	SHW-GV30040	Acetylene Valve Commercial CGA 300 1/2" NGT
SHW-GSV30060	SHW-GV30060	Acetylene Valve Commercial CGA 300 3/4" NGT
SHW-GSV30080	SHW-GV30080	Acetylene Valve Commercial CGA 300 1" NGT
SHW-GSVT30060	SHW-GVT30060	Vertical CGA 300 3/4" NGT, HW Operated

## AV & AV-HW Acetylene Series: CGA 200 "MC" Size Acetylene 500 PSI

Packed Valve for "MC" Cylinders up to 10 cubic feet capacity



Part # SHW-AVMC201HW

Acetylene Valve MC Packed Valve for "MC" Cylinders up to 10 cubic feet capacity

Part #	ACETYLENE VALVE MC
SHW-AVMC201HW	Acetylene Valve MC 3/8" NGT w/Hand wheel

Replacement Nut Part # SHW-2000-9B35



Replacement Stem Part # SHW-5-2000A-2B00

Part #	ACETYLENE VALVE MC
SHW-AVMC201	Acetylene Valve MC 3/8" NGT

## AV & AV-HW Acetylene Series: CGA 520 "B" Size Acetylene 500 PSI

Packed Valve for "B" Cylinders up to 40 cubic feet capacity



Part # SHW-AVB521HW

Acetylene Valve B Packed Valve for "B" Cylinders up to 40 cubic feet capacity

Part #	ACETYLENE VALVE B
SHW-AVB521HW	Acetylene Valve B 3/8" NGT w/Handwheel
SHW-AVB521HWM	Acetylene Valve Manifold 3/8" NGT w/Handwheel

Part #	ACETYLENE VALVE B
SHW-AVB521	Acetylene Valve B 3/8" NGT
SHW-AVB521S	Acetylene Valve Manifold 3/8" NGT
SHW-AVB521SM	Acetylene Valve Manifold 3/8" NGT, Stainless Steel Stem
SHW-AV5160WB	Acetylene Valve Manifold CGA 510, 3/4" NGT WB Style

Part # SHW-AVB521



Part # SHW-AV5160WB

FEATURES & BENEFITS Pt # SHW-AV5160WB

- Use w/ 390 cu. ft. capacity (WB style) cylinders
- Enables easy access and operation within the cylinder collar

**WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

### Gas Tight Brass Plug & Chain Assemblies for CGA 510 Acetylene

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



Part # FIT-2PC-510



Part # FIT-OPC-510

CGA 510 Acetylene-LH-External – 250 P.S.I.G.  
Propane-LH-External – 500 P.S.I.G.

**WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

## CGA 410 Canadian Standard 500 PSI

New Part #	Old Part #	ACETYLENE VALVE CANADIAN STANDARD CGA 410
SHW-GSV41060	SHW-GV41060	Canadian Standard Acetylene Valve CGA 410 3/4" NGT

### Fusible Plugs

Part #	Material	Thread Size	Fuse Metal
PLG-A18165-B	Brass	1/8" NPT	165° F
PLG-A18212-B	Brass	1/8" NPT	212° F
PLG-A14165-B	Brass	1/4" NPT	165° F
PLG-A14212-B	Brass	1/4" NPT	212° F
PLG-A38165-B	Brass	3/8" NPT	165° F
PLG-A38212-B	Brass	3/8" NPT	212° F



**WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov





3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54060	SHW-GV54060	NO SAFETY
SHW-GSV54061-28	SHW-GV54061-28	3000 PSI
SHW-GSV54061-32	SHW-GV54061-32	3360 PSI
SHW-GSV54061-35	SHW-GV54061-35	3775 PSI
SHW-GSV54061-38	SHW-GV54061-38	4000 PSI

New # SHW-GSV54061-32  
Old Pt # SHW-GV54061-32



3/4" NGT Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA54061-28	SHW-GVA54061-28	3000 PSI
SHW-GSVA54061-32	SHW-GVA54061-32	3360 PSI
SHW-GSVA54061-35	SHW-GVA54061-35	3775 PSI
SHW-GSVA54061-38	SHW-GVA54061-38	4000 PSI

New # SHW-GSVA54061-32  
Old Pt # SHW-GVA54061-32



1" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54081-28	SHW-GV54081-28	3000 PSI
SHW-GSV54081-32	SHW-GV54081-32	3360 PSI
SHW-GSV54081-35	SHW-GV54081-35	3775 PSI

New # SHW-GSVA54061-32  
Old Pt # SHW-GVA54061-32



1/2" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54040	SHW-GV54040	NO SAFETY
SHW-GSV54041-28	SHW-GV54041-28	3000 PSI
SHW-GSV54041-32	SHW-GV54041-32	3360 PSI
SHW-GSV54041-35	SHW-GV54041-35	3775 PSI
SHW-GSV54041-38	SHW-GV54041-38	4000 PSI

New # SHW-GSV54081-32  
Old Pt # SHW-GV54081-32



1-1/8" UNF Straight Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54051-28	SHW-GV54051-28	3000 PSI
SHW-GSV54051-32	SHW-GV54051-32	3360 PSI
SHW-GSV54051-35	SHW-GV54051-35	3775 PSI
SHW-GSV54051-38	SHW-GV54051-38	4000 PSI

New # SHW-GSV54041-32  
Old Pt # SHW-GV54041-32

1-1/8" UNF Straight Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA54051-32	SHW-GVA54051-32	3360 PSI
SHW-GSVA54051-35	SHW-GVA54051-35	3775 PSI
SHW-GSVA54051-38	SHW-GVA54051-38	4000 PSI

cont. on 34A-22



3/4" NGT +7 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54061-28-7	SHW-GV54061-28-7	3000 PSI
SHW-GSV54061-32-7	SHW-GV54061-32-7	3360 PSI
SHW-GSV54061-35-7	SHW-GV54061-35-7	3775 PSI
SHW-GSV54061-38-7	SHW-GV54061-38-7	4000 PSI

New # SHW-GSV54051-32  
Old Pt # SHW-GV54051-32



3/4" NGT +7 Over Size Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA54061-28-7	SHW-GVA54061-28-7	3000 PSI
SHW-GSVA54061-32-7	SHW-GVA54061-32-7	3360 PSI
SHW-GSVA54061-35-7	SHW-GVA54061-35-7	3775 PSI
SHW-GSVA54061-38-7	SHW-GVA54061-38-7	4000 PSI

New # SHW-GSVA54051-32  
Old Pt # SHW-GVA54051-32



3/4" NGT +4 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV54061-28-4	SHW-GV54061-28-4	3000 PSI
SHW-GSV54061-32-4	SHW-GV54061-32-4	3360 PSI
SHW-GSV54061-35-4	SHW-GV54061-35-4	3775 PSI
SHW-GSV54061-38-4	SHW-GV54061-38-4	4000 PSI

1/2" NGT Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA54041-28	SHW-GVA54041-28	3000 PSI
SHW-GSVA54041-32	SHW-GVA54041-32	3360 PSI
SHW-GSVA54041-35	SHW-GVA54041-35	3775 PSI
SHW-GSVA54041-38	SHW-GVA54041-38	4000 PSI

1-1/8" UNF Straight Thread, Brass with Lexan Handwheel		
New Part #	Old Part #	Safety
SHW-GSV54051-28LX	SHW-GV54051-28LX	3000 PSI
SHW-GSV54051-32LX	SHW-GV54051-32LX	3360 PSI
SHW-GSV54051-35LX	SHW-GV54051-35LX	3775 PSI
SHW-GSV54051-38LX	SHW-GV54051-38LX	4000 PSI

1-1/8" UNF Straight Thread, Chrome with Lexan Handwheel		
New Part #	Old Part #	Safety
SHW-GSVA54051-32LX	SHW-GVA54051-32LX	3360 PSI
SHW-GSVA54051-35LX	SHW-GVA54051-35LX	3775 PSI
SHW-GSVA54051-38LX	SHW-GVA54051-38LX	4000 PSI

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

## Products to Help Seal and Maintain Your Valve Connections



PTFE Paste for Pipe Threads  
Part # OXY-OC3-40Z

## Find your Leaks Fast and Easily

with the Extending Tube to Get in the Hard to Reach Areas.

## Ratermann's Oxygen Safe Valve Leak Check



Pt # LC-80Z Pt # LC-1GAL

## Replacement Safety Reliefs

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

## Cylinder Siphon Tubes

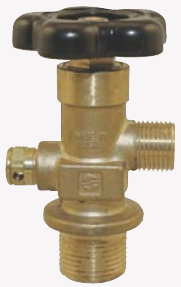


Part # CST-C

Custom sizes are available upon request. Call Customer Service for details.

Part #	Description
CST-S	Standard Siphon Tube, 53" OAL
CST-C	Standard Siphon Tube, 48" OAL
CST-C26	Standard Siphon Tube, 26" OAL

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



**New #**  
SHW-GSV54051-35-75  
Old Pt #  
SHW-GV54051-35-75

**3/4" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV54051-28-75	SHW-GV54051-28-75	3000 PSI
SHW-GSV54051-32-75	SHW-GV54051-32-75	3360 PSI
SHW-GSV54051-35-75	SHW-GV54051-35-75	3775 PSI
SHW-GSV54051-38-75	SHW-GV54051-38-75	4000 PSI

**3/4" UNF Straight Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA54051-28-75	SHW-GVA54051-28-75	3000 PSI
SHW-GSVA54051-32-75	SHW-GVA54051-32-75	3360 PSI
SHW-GSVA54051-35-75	SHW-GVA54051-35-75	3775 PSI
SHW-GSVA54051-38-75	SHW-GVA54051-38-75	4000 PSI

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSV54025E0	SHW-GV54025E0	NO SAFETY
SHW-GSV54025E1-28	SHW-GV54025E1-28	3000 PSI
SHW-GSV54025E1-32	SHW-GV54025E1-32	3360 PSI
SHW-GSV54025E1-35	SHW-GV54025E1-35	3775 PSI
SHW-GSV54025E1-38	SHW-GV54025E1-38	4000 PSI

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**New #**  
SHW-GSVA54051-28-75  
Old Pt #  
SHW-GVA54051-28-75

**3/4" UNF Straight Thread, Brass with Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSV54051-28LX-75	SHW-GV54051-28LX-75	3000 PSI
SHW-GSV54051-32LX-75	SHW-GV54051-32LX-75	3360 PSI
SHW-GSV54051-35LX-75	SHW-GV54051-35LX-75	3775 PSI
SHW-GSV54051-38LX-75	SHW-GV54051-38LX-75	4000 PSI
SHW-GSV54051-48LX-75	SHW-GV54051-48LX-75	5000 PSI

**3/4" UNF Straight Thread, Chrome with Lexan Handwheel**

New Part #	Old Part #	Safety
SHW-GSVA54051-28LX-75	SHW-GVA54051-28LX-75	3000 PSI
SHW-GSVA54051-32LX-75	SHW-GVA54051-32LX-75	3360 PSI
SHW-GSVA54051-35LX-75	SHW-GVA54051-35LX-75	3775 PSI
SHW-GSVA54051-38LX-75	SHW-GVA54051-38LX-75	4000 PSI

**European Inlet 25E, Chrome**

New Part #	Old Part #	Safety
SHW-GSVA54025E1-28	SHW-GVA54025E1-28	3000 PSI
SHW-GSVA54025E1-32	SHW-GVA54025E1-32	3360 PSI
SHW-GSVA54025E1-35	SHW-GVA54025E1-35	3775 PSI
SHW-GSVA54025E1-38	SHW-GVA54025E1-38	4000 PSI

**Shoulder Medical Oxygen USP Cylinder Labels**

**UN1072**

**OXYGEN 2**

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**1-800-000-1234**  
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**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Gas Tight Brass Plug & Chain Assemblies for CGA 540 Oxygen**

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



Part # FIT-2PC-540

Part # FIT-OPC-540

CGA 540 – 3000 P.S.I.G.  
Oxygen-RH-Internal

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

GSV Series: **Cylinder Valves CGA 555 Propane 3,000 PSI**



**New #** SHW-GV55561-32  
Old Pt # SHW-GV55561-32

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV55561-28	SHW-GV55561-28	3000 PSI
SHW-GSV55561-32	SHW-GV55561-32	3360 PSI
SHW-GSV55561-35	SHW-GV55561-35	3775 PSI
SHW-GSV55561-38	SHW-GV55561-38	4000 PSI

**1-1/8" UNF Straight Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSV55551-28	SHW-GV55551-28	3000 PSI
SHW-GSV55551-32	SHW-GV55551-32	3360 PSI
SHW-GSV55551-35	SHW-GV55551-35	3775 PSI
SHW-GSV55551-38	SHW-GV55551-38	4000 PSI

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Replacement Safety Reliefs**



Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Gas Tight Brass Plug & Chain Assemblies for CGA 555 Propane**

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



CGA 555 – 3000 P.S.I.G.  
Propane (Liquid Withdrawal)  
LH-Internal



Part # FIT-OPC-555

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)





3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV57761-32	SHW-GV57761-32	3360 PSI
SHW-GSV57761-43	SHW-GV57761-43	4450 PSI
SHW-GSV57761-47	SHW-GV57761-47	4917 PSI
SHW-GSV57761-55	SHW-GV57761-55	5833 PSI
SHW-GSV57761-65	SHW-GV57761-65	6750 PSI

New # SHW-GSV57761-32  
Old Pt # SHW-GV57761-32

GSV Series: **Cylinder Valves CGA 580 Inert** 3,000 PSI



3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV58060	SHW-GV58060	NO SAFETY
SHW-GSV58061-28	SHW-GV58061-28	3000 PSI
SHW-GSV58061-32	SHW-GV58061-32	3360 PSI
SHW-GSV58061-35	SHW-GV58061-35	3775 PSI
SHW-GSV58061-38	SHW-GV58061-38	4000 PSI
SHW-GSV58061-48	SHW-GV58061-48	5000 PSI

New # SHW-GSV58061-32  
Old Pt # SHW-GV58061-32



3/4" NGT Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA58061-28	SHW-GVA58061-28	3000 PSI
SHW-GSVA58061-32	SHW-GVA58061-32	3360 PSI
SHW-GSVA58061-35	SHW-GVA58061-35	3775 PSI
SHW-GSVA58061-38	SHW-GVA58061-38	4000 PSI

New # SHW-GSVA58061-32  
Old Pt # SHW-GVA58061-32



1/2" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV58040	SHW-GV58040	NO SAFETY
SHW-GSV58041-28	SHW-GV58041-28	3000 PSI
SHW-GSV58041-32	SHW-GV58041-32	3360 PSI
SHW-GSV58041-35	SHW-GV58041-35	3775 PSI
SHW-GSV58041-38	SHW-GV58041-38	4000 PSI

New # SHW-GSV58041-38  
Old Pt # SHW-GV58041-38

**Gas Tight Brass Plug & Chain Assemblies for CGA 580**

- Gas tight two piece plug and chain assembly
- Gas tight one piece plug and chain assembly



Part # FIT-2PC-580

Part # FIT-OPC-580

CGA 580 Inert – 3000 P.S.I.G.  
Argon, Helium, Nitrogen-RH-External

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov



New # SHW-GSV58051-28  
Old Pt # SHW-GV58051-28



New # SHW-GSV58051-28LX-75  
Old Pt # SHW-GV58051-28LX-75



New # SHW-GV58061-38-4  
Old Pt # SHW-GV58061-38-4

3/4" NGT +7 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV58061-28-7	SHW-GV58061-28-7	3000 PSI
SHW-GSV58061-32-7	SHW-GV58061-32-7	3360 PSI
SHW-GSV58061-35-7	SHW-GV58061-35-7	3775 PSI
SHW-GSV58061-38-7	SHW-GV58061-38-7	4000 PSI

3/4" NGT +7 Over Size Tapered Thread, Chrome

New Part #	Old Part #	Safety
SHW-GSVA58061-28-7	SHW-GVA58061-28-7	3000 PSI
SHW-GSVA58061-32-7	SHW-GVA58061-32-7	3360 PSI
SHW-GSVA58061-35-7	SHW-GVA58061-35-7	3775 PSI
SHW-GSVA58061-38-7	SHW-GVA58061-38-7	4000 PSI

3/4" NGT +4 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV58061-28-4	SHW-GV58061-28-4	3000 PSI
SHW-GSV58061-32-4	SHW-GV58061-32-4	3360 PSI
SHW-GSV58061-35-4	SHW-GV58061-35-4	3775 PSI
SHW-GSV58061-38-4	SHW-GV58061-38-4	4000 PSI

1-1/8" UNF Straight Thread, Brass with Lexan Handwheel

New Part #	Old Part #	Safety
SHW-GSV58051-28LX	SHW-GV58051-28LX	3000 PSI
SHW-GSV58051-32LX	SHW-GV58051-32LX	3360 PSI
SHW-GSV58051-35LX	SHW-GV58051-35LX	3775 PSI
SHW-GSV58051-38LX	SHW-GV58051-38LX	4000 PSI

European Inlet 25E, Brass

New Part #	Old Part #	Safety
SHW-GSV58025E0	SHW-GV58025E0	NO SAFETY
SHW-GSV58025E1-28	SHW-GV58025E1-28	3000 PSI
SHW-GSV58025E1-32	SHW-GV58025E1-32	3360 PSI
SHW-GSV58025E1-35	SHW-GV58025E1-35	3775 PSI
SHW-GSV58025E1-38	SHW-GV58025E1-38	4000 PSI

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

**Replacement Safety Reliefs**

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI



Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

⚠ **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov

GSV SERIES: CGA 590, 660 & GSHV SERIES: CGA 677

## GSV Series: CGA 590 Sulfur Hexafluoride 3,000 PSI

formerly Industrial Air



**New #**  
SHW-GSV59061-32  
Old Pt #  
SHW-GV59061-32



**New #**  
SHW-GSV59061-32-7  
Old Pt #  
SHW-GV59061-32-7



**New #**  
SHW-GSV59041-32  
Old Pt #  
SHW-GV59041-32

3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV59061-28	SHW-GV59061-28	3000 PSI
SHW-GSV59061-32	SHW-GV59061-32	3360 PSI
SHW-GSV59061-35	SHW-GV59061-35	3775 PSI
SHW-GSV59061-38	SHW-GV59061-38	4000 PSI

3/4" NGT Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSVA59061-28	SHW-GVA59061-28	3000 PSI
SHW-GSVA59061-32	SHW-GVA59061-32	3360 PSI
SHW-GSVA59061-35	SHW-GVA59061-35	3775 PSI
SHW-GSVA59061-38	SHW-GVA59061-38	4000 PSI

3/4" NGT +4 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV59061-28-4	SHW-GV59061-28-4	3000 PSI
SHW-GSV59061-32-4	SHW-GV59061-32-4	3360 PSI
SHW-GSV59061-35-4	SHW-GV59061-35-4	3775 PSI
SHW-GSV59061-38-4	SHW-GV59061-38-4	4000 PSI

3/4" NGT +7 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV59061-28-7	SHW-GV59061-28-7	3000 PSI
SHW-GSV59061-32-7	SHW-GV59061-32-7	3360 PSI
SHW-GSV59061-35-7	SHW-GV59061-35-7	3775 PSI
SHW-GSV59061-38-7	SHW-GV59061-38-7	4000 PSI

1/2" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV59041-32	SHW-GV59041-32	3360 PSI

1" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV59081-32	SHW-GV59081-32	3360 PSI

European Inlet 25E, Brass		
New Part #	Old Part #	Safety
SHW-GSV59025E0	SHW-GV59025E0	NO SAFETY
SHW-GSV59025E1-28	SHW-GV59025E1-28	3000 PSI
SHW-GSV59025E1-32	SHW-GV59025E1-32	3360 PSI
SHW-GSV59025E1-35	SHW-GV59025E1-35	3775 PSI
SHW-GSV59025E1-38	SHW-GV59025E1-38	4000 PSI

### Gas Tight Brass Plug & Chain Assemblies for CGA 590

- Gas tight one piece plug and chain assembly



Part No.	CGA No.	Description	Gas Tight Seal
FIT-OPC-590	590	Industrial Air-LH-External	3000 P.S.I.G.

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Safety Reliefs

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## GSV Series: CGA 660 Refrigerant Gases 3,000 PSI



**New #**  
SHW-GSV66061-28  
Old Pt #  
SHW-GV66061-28

3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV66061-28	SHW-GV66061-28	3000 PSI
SHW-GSV66061-32	SHW-GV66061-32	3360 PSI
SHW-GSV66061-35	SHW-GV66061-35	3775 PSI
SHW-GSV66061-38	SHW-GV66061-38	4000 PSI

3/4" NGT +7 Over Size Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSV66061-28-7	SHW-GV66061-28-7	3000 PSI
SHW-GSV66061-32-7	SHW-GV66061-32-7	3360 PSI
SHW-GSV66061-35-7	SHW-GV66061-35-7	3775 PSI
SHW-GSV66061-38-7	SHW-GV66061-38-7	4000 PSI

## GSHV Series: CGA 677 Inert 4,701-6,400 PSI



**New #**  
SHW-GSHV67761-85  
Old Pt #  
SHW-GVHM67761-85

3/4" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSHV67761-85	SHW-GVHM67761-85	9000 PSI
SHW-GSHV67761-95	SHW-GVHM67761-95	10,000 PSI

3/4" NGT Tapered Thread, Chrome		
New Part #	Old Part #	Safety
SHW-GSHVA67761-85	SHW-GVHMA67761-85	9000 PSI
SHW-GSHVA67761-95	SHW-GVHMA67761-95	10,000 PSI

1/2" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSHV67741-95	SHW-GVHM67741-95	10,000 PSI

1" NGT Tapered Thread, Brass		
New Part #	Old Part #	Safety
SHW-GSHV67781-95	SHW-GVHM67781-95	10,000 PSI

European Inlet 25E, Brass		
New Part #	Old Part #	Safety
SHW-GSHV67725E1-85	SHW-GVHM67725E1-85	9000 PSI
SHW-GSHV67725E1-95	SHW-GVHM67725E1-95	10,000 PSI

European Inlet 25E, Chrome		
New Part #	Old Part #	Safety
SHW-GSHVA67725E1-85	SHW-GVHMA67725E1-85	9000 PSI
SHW-GSHVA67725E1-95	SHW-GVHMA67725E1-95	10,000 PSI

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Cylinder Siphon Tubes



Part # CST-C

Stainless steel siphon tubes are available for higher purity gases. Custom sizes are available upon request. Call Customer Service for details.

Part #	Description
CST-S	Standard Siphon Tube, 53" OAL
CST-C	Standard Siphon Tube, 48" OAL
CST-C26	Standard Siphon Tube, 26" OAL

### Replacement Safety Reliefs

Part Number	Description
SHW-P625-19N9H-48	Sherwood GV Series Plug Style Safety 5000 PSI
SHW-P625-19N9H-55	Sherwood GV Series Plug Style Safety 5833 PSI
SHW-P625-19N9H-65	Sherwood GV Series Plug Style Safety 6750 PSI
SHW-P625-19N9H-71	Sherwood GV Series Plug Style Safety 7500 PSI
SHW-P625-19N9H-78	Sherwood GV Series Plug Style Safety 8333 PSI
SHW-P625-19N9H-85	Sherwood GV Series Plug Style Safety 9000 PSI
SHW-P625-19N9H-95	Sherwood GV Series Plug Style Safety 10K PSI

Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.





New # **SHW-GSHV68060**  
Old Pt # SHW-GVHM68060



New # **SHW-GSHV68061-48**  
Old Pt # SHW-GVHM68061-48



New # **SHW-GSHV68061-65-24**  
Old Pt # SHW-GVHM68061-65-24



New # **SHW-GSHV69565-55**  
Old Pt # SHW-GVHM69565-55

**GSHV Series: CGA 680 Inert 3,001-4,700 PSI**

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV68060	SHW-GVHM68060	NO SAFETY
SHW-GSHV68061-48	SHW-GVHM68061-48	5000 PSI
SHW-GSHV68061-55	SHW-GVHM68061-55	5833 PSI
SHW-GSHV68065-55	SHW-GVHM68065-55	5833 PSI 212° fuse
SHW-GSHV68061-65	SHW-GVHM68061-65	6750 PSI
SHW-GSHV68061-78	SHW-GVHM68061-78	8333 PSI

**3/4" NGT +24 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV68061-48-24	SHW-GVHM68061-48-24	5000 PSI
SHW-GSHV68061-55-24	SHW-GVHM68061-55-24	5833 PSI
SHW-GSHV68061-65-24	SHW-GVHM68061-65-24	6750 PSI

**1/2" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV68040	SHW-GVHM68040	NO SAFETY

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSHV68025E1-55	SHW-GVHM68025E1-55	5833 PSI
SHW-GSHV68025E1-65	SHW-GVHM68025E1-65	6750 PSI
SHW-GSHV68025E1-78	SHW-GVHM68025E1-78	8333 PSI

**GSHV Series: CGA 695 Hydrogen / Methane 3,001-4,700 PSI**

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV69565-48	SHW-GVHM69565-48	5000 PSI 212° fuse
SHW-GSHV69565-55	SHW-GVHM69565-55	5833 PSI 212° fuse

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSHV69525E5-48	SHW-GVHM69525E5-48	5000 PSI 212° fuse
SHW-GSHV69525E5-55	SHW-GVHM69525E5-55	5833 PSI 212° fuse

**GSHV Series: CGA 701 Oxygen 3,500-4,700 PSI**



New # **SHW-GSHV70161-95**  
Old Pt # SHW-GVHM70161-95

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70161-65	SHW-GVHM70161-65	6750 PSI
SHW-GSHV70161-95	SHW-GVHM70161-95	10,000 PSI

**3/4" NGT +24 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70161-65-24	SHW-GVHM70161-65-24	6750 PSI
SHW-GSHV70161-95-24	SHW-GVHM70161-95-24	10,000 PSI

**3/4" NGT +24 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA70161-65-24	SHW-GVHMA70161-65-24	6750 PSI

**3/4" NGT Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA70161-65	SHW-GVHMA70161-65	6750 PSI

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70125E1-65	SHW-GVHM70125E1-65	6750 PSI

**European Inlet 25E, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA70125E1-65	SHW-GVHMA70125E1-65	6750 PSI

**GSHV Series: CGA 702 Air 4,701-6,400 PSI**



New # **SHW-GSHV70261-85**  
Old Pt # SHW-GVHM70261-85

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70261-85	SHW-GVHM70261-85	9000 PSI
SHW-GSHV70261-95	SHW-GVHM70261-95	10,000 PSI

**3/4" NGT +24 Over Size Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70261-85-24	SHW-GVHM70261-85-24	9000 PSI
SHW-GSHV70261-95-24	SHW-GVHM70261-95-24	10,000 PSI

**3/4" NGT +24 Over Size Tapered Thread, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA70261-85-24	SHW-GVHMA70261-85-24	9000 PSI
SHW-GSHVA70261-95-24	SHW-GVHMA70261-95-24	10,000 PSI

**European Inlet 25E, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70225E1-85	SHW-GVHM70225E1-85	9000 PSI
SHW-GSHV70225E1-95	SHW-GVHM70225E1-95	10,000 PSI

**European Inlet 25E, Chrome**

New Part #	Old Part #	Safety
SHW-GSHVA70225E0	SHW-GVHMA70225E0	NO SAFETY
SHW-GSHVA70225E1-85	SHW-GVHMA70225E1-85	9000 PSI
SHW-GSHVA70225E1-95	SHW-GVHMA70225E1-95	10,000 PSI



New # **SHW-GSHV70261-95**  
Old Pt # SHW-GVHM70261-95

**GSHV Series: CGA 703 Hydrogen / Methane 4,701-6,400 PSI**



New # **SHW-GSHV70361-95**  
Old Pt # SHW-GVHM70361-95

**3/4" NGT Tapered Thread, Brass**

New Part #	Old Part #	Safety
SHW-GSHV70361-95	SHW-GVHM70361-95	10,000 PSI
SHW-GSHV70365-95	SHW-GVHM70365-95	10,000 PSI 212° fuse

**Replacement Safety Reliefs**

Part Number	Sherwood GV Series
SHW-P625-19N9H-48	Plug Style Safety 5000 PSI
SHW-P625-19N9H-55	Plug Style Safety 5833 PSI
SHW-P625-19N9H-65	Plug Style Safety 6750 PSI
SHW-P625-19N9H-71	Plug Style Safety 7500 PSI
SHW-P625-19N9H-78	Plug Style Safety 8333 PSI
SHW-P625-19N9H-85	Plug Style Safety 9000 PSI
SHW-P625-19N9H-95	Plug Style Safety 10K PSI



Part Number	Sherwood GV Series Plug Style Safety
SHW-P625-19C9H-48W	212° Fuse 5000 PSI
SHW-P625-19C9H-55W	212° Fuse 5833 PSI
SHW-P625-19C9H-65W	212° Fuse 6750 PSI
SHW-P625-19C9H-95W	212° Fuse 10,000 PSI



Replacement fusible plugs also available. Old cap style available upon request.

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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## GV Series: Repair Instructions

### REPAIR INSTRUCTIONS FOR GV SERIES INDUSTRIAL AND CHROME PLATED VALVES

#### DISASSEMBLY OF VALVE

1. Place the valve assembly into a vise or similar holding fixture, taking care not to damage the inlet or outlet threads. The holding fixture must securely grip the valve body on the wrench flats so that no damage is done to the internal bores, external threads, outlet, or pressure relief device.
2. Chamber
  - a. Using a 13 mm socket, remove the handwheel nut from the handwheel by turning it counter clockwise.
  - b. Remove the handwheel from the stem square.
  - c. Using an 11/16" socket wrench or hex box wrench, remove the bonnet by turning it counter clockwise. The stem subassembly with o-ring and back-up o-ring may remove with the bonnet. If not, remove the stem subassembly from the valve after the bonnet.
  - d. Being careful not to scratch the bonnet sealing surface in the valve body, use a square drive to remove the lower plug from the valve chamber, by turning it counter clockwise.
3. Pressure Relief Device
  - a. Being careful not to scratch the sealing surface of the valve body, remove the pressure relief device by turning it counter clockwise using a 5/8" hex box wrench or socket.

#### INSPECTION OF VALVE AND COMPONENTS

1. Valve Body
  - a. Inspect the valve body chamber for dirt, debris or damage. Where possible, blow out the valve body chamber using clean, dry, Compressed Air or Nitrogen to remove any foreign particles.
  - b. If the valve body is damaged, do not attempt to repair. Order a new valve assembly.
2. Components
  - a. Always discard the bonnet and stem subassembly and the lower plug. Order replacement parts. **NOTE:** The lower plug replacement must correspond with the valve body and its relative application. For example, standard valves have a .125" or .156" through hole in the body which uses a nylon seat diameter that is relative to that size, part number 1400-40. Carbon dioxide and manifold valves – except for oxygen – have a .272" through hole in the body and use a nylon seat that is relative to that size, part number 1400-40A.
  - b. Handwheels should only be reused if in good condition. Discard handwheels if damaged.
  - c. Inspect the pressure relief device threads for damage. Inspect the rupture disc and the webbed washer for scratches. Discard this component if damaged and order replacement parts.

#### ASSEMBLY OF VALVE

1. Chamber
  - a. Apply 3 dabs of lubricant around the perimeter of the lower plug threads, approximating the size of a pencil eraser for each. Locate lubricant toward the lower most threads closest to the crimped seat but using care not to get lubricant on the nylon seat. **NOTE:** Use Turmoxygen LC027 lubricant for oxygen service. Use Christo-Lube MCG-111 lubricant for all other gas applications.
  - b. Being careful not to damage the bonnet sealing surface in the valve body, install the new lower plug into the chamber, seat first and tighten using a square drive until it is fully seated.
  - c. Engage the new bonnet and stem subassembly into the valve body and hand tighten by turning clockwise. Rotate stem square until it becomes engaged in the lower plug.
  - d. Using an 11/16" hex torque wrench, tighten the bonnet to 50-60 ft. lbs. **NOTE:** A properly calibrated torque wrench must be used. Over torquing will damage the bonnet.
  - e. Place the handwheel over the stem square. Thread the handwheel nut onto the stem thread and tighten to 15-35 in. lbs.
  - f. To ensure free and smooth operation, open and close the valve several times by turning the handwheel.
2. Pressure Relief Device (PRD)
  - a. **NOTE:** Refer to CGA S-1.1 latest edition to select the correct pressure relief device type according to the cylinder pressure and application.
  - b. Thread the proper pressure relief device on the PRD port until hand tight.
  - c. Using a 5/8" socket and a calibrated torque wrench, tighten the PRD to 25-35 ft. lbs. Over torquing will damage the PRD.

#### TESTING OF ASSEMBLED VALVE

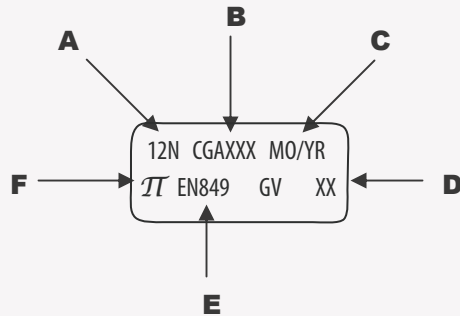
1. Thoroughly test each repaired valve assembly by inserting and tightening the valve assembly into a cylinder or suitable test fixture.
2. Pressurize the valve assembly with an inert gas to the working pressure of the cylinder of intended use.
3. With outlet suitably plugged, open the valve assembly by turning the handwheel counter clockwise. Using leak detection solution or equipment, check the bonnet, stem, and PRD for leaks.
4. Close the valve assembly by turning the handwheel clockwise. Remove the outlet plug and check for seat leakage through the outlet using proper leak detection solution or equipment.
5. If any leakage is detected, in the open or the closed position, the necessary repairs must be made before using the valve assembly.

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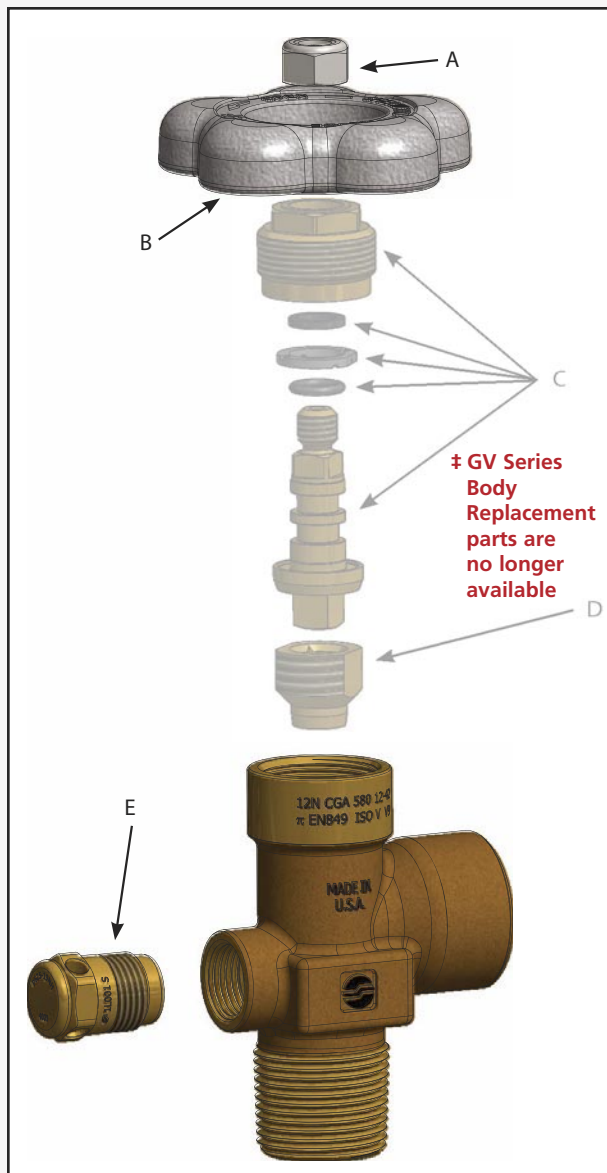
## GV Series: Stamping Cross Reference / Parts Breakdown

### STAMPING CROSS REFERENCE FOR GV SERIES INDUSTRIAL AND CHROME-PLATED VALVES



- A. Inlet Thread Designation
- B. Outlet Specification
- C. Month/Year of Manufacture
- D. Week of Calendar Year
- E. International Standard for Cylinder Valve Design Specifications
- F. Regulatory Approval (PI Mark)

### PARTS BREAKDOWN FOR GV OR GVHM SERIES INDUSTRIAL AND CHROME-PLATED VALVES



Description	Part Number
A. Handwheel Nut	SHW-1251-6
B. Handwheel	SHW-1919A
‡C. Bonnet and Stem Assembly Includes: Bonnet, Back-Up O-Ring*, O-Ring*, Thrust Washer, Stem	SHW-1400-30-XXX (GV) SHW-1400-32GVH-XXX (GVHM)**
‡D. Lower Plug and Seat Assembly Includes: Lower Plug and Seat	SHW-1400-40 (Standard) SHW-1400-40A (CO2/Manifold)
E. Pressure Relief Device Unitized Assembly Includes: Plug, Rupture Disc and Webbed Seal Washer	P625-19X9-XX (GV) P625-19X9H-XX (GVHM)

\* GVHM has two O-rings.

\*\* For XXX options, see kits below.

‡ GV – body replacements no longer available for GV Series. Only the handwheel, handwheel nut and safeties are available.

#### ‡ GV KEY REPLACEMENT PARTS

Part Number	Description
‡SHW-1400-30-101KIT	GV Kits, Brass – Each kit includes 25 Bonnet and Stem Assemblies, Turmoxygen
‡SHW-1-1400-30-101KIT	GV Kits, Plated – Each kit includes 25 Bonnet and Stem Assemblies, Turmoxygen

#### GVHM KEY REPLACEMENT PARTS

Part Number	Description
SHW-1400-32GVH-100KIT	GVHM Kits, Brass – Each kit includes 25 Bonnet and Stem Assemblies, Turmoxygen
SHW-1400-32-GVH-101KIT	GVHM Kits, Brass – Each kit includes 25 Bonnet and Stem Assemblies, Christo-Lube
SHW-1-1400-32GVH-100KIT	GVHM Kits, Plated – Each kit includes 25 Bonnet and Stem Assemblies, Turmoxygen
SHW-1-1400-32-GVH-101KIT	GVHM Kits, Plated – Each kit includes 25 Bonnet and Stem Assemblies, Christo-Lube

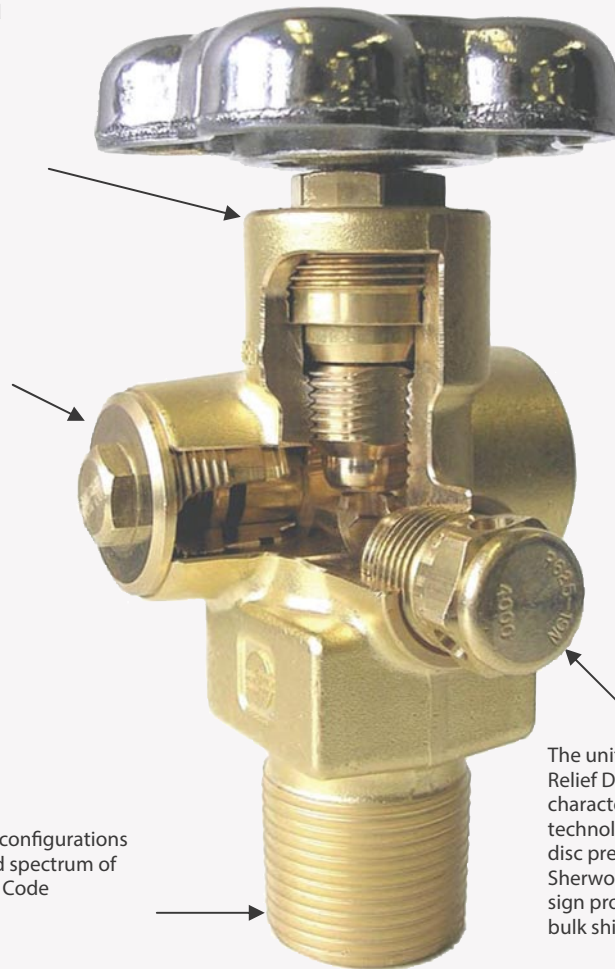
⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## GRP Series: Global Residual Pressure Features

Durable forged brass body, precisely machined internal components and design elements meet the most stringent International valve performance standards. Automated assembly and testing processes ensure exceptional quality. All Sherwood GRPV valves are 100% leak tested.

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.



## PROTECTION OF CYLINDER CONTENTS

Sherwood GRPV valves are designed to retain approximately 30 to 50 psig pressure, maintaining the integrity of the cylinder contents against contaminants, even if the valve is left open.

The unique combination of innovative design and quality construction offers protection of cylinder contents without the expense of a time-consuming purge and clean cycle.

The unitized plug design of the Pressure Relief Device (PRD) provides excellent flow characteristics. Optical Character Recognition technology utilized to verify appropriate burst disc pressure rating. Sherwood's exclusive "webbed washer" design protects burst disc during handling and bulk shipment.

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 15996	International Standard for Residual Pressure Valves Design Specifications
EN 849	International Standard for Cylinder Valves Design Specifications
AS2473	Australian Standard for Compressed Gas Cylinder Valves
TPED	Transportable Pressure Equipment Directive Modules B & D

DESIGN SPECIFICATIONS		
Maximum Working Pressure	6,000 PSIG	413 BAR
Burst Pressure	15,000 PSIG	1,035 BAR
Operating Temperature	Min: -50°F Max: 130°F	-45°C 55°C
Storage Temperature	Min: -65°F Max: 155°F	-54°C 68°C
Leak Rate Internal/External	1X10 <sup>-3</sup> atm cc/s	
Minimum Cycle Life	2,000 Cycles	
Cv Flow Factor	Standard:	.28
	CO2 / Manifold:	.50

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## GSRPV Series: Residual Pressure Cylinder Valves



New # SHW-GSRPV32061-28  
Old Pt # SHW-GRPV32061-28



New # SHW-GSRPV34661-32  
Old Pt # SHW-GRPV34661-32



New # SHW-GSRPV54061-32  
Old Pt # SHW-GRPV54061-32



New # SHW-GSRPV54061-38  
Old Pt # SHW-GRPV54061-38



New # SHW-GSRPV58061-32  
Old Pt # SHW-GRPV58061-32



New # SHW-GSRPV58061-38  
Old Pt # SHW-GRPV58061-38



New # SHW-GSRPV59061-32  
Old Pt # SHW-GRPV59061-32



### Replacement Safety Reliefs

Part Number	Sherwood GV Series Plug Style Safety
SHW-P625-19C9-28W	Sherwood GV Series Plug Style Safety 212° Fuse 3000 PSI
SHW-P625-19C9-32W	Sherwood GV Series Plug Style Safety 212° Fuse 3360 PSI
SHW-P625-19C9-35W	Sherwood GV Series Plug Style Safety 212° Fuse 3775 PSI
SHW-P625-19C9-38W	Sherwood GV Series Plug Style Safety 212° Fuse 4000 PSI

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### CGA 320 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV32061-28	SHW-GRPV32061-28	3/4" NGT, Tapered Thread, Brass	3000 PSI
SHW-GSRPV32061-32	SHW-GRPV32061-32	3/4" NGT, Tapered Thread, Brass	3360 PSI
SHW-GSRPV32061-35	SHW-GRPV32061-35	3/4" NGT, Tapered Thread, Brass	3775 PSI
SHW-GSRPV32061-38	SHW-GRPV32061-38	3/4" NGT, Tapered Thread, Brass	4000 PSI

### CGA 320 Flanged Residual Pressure Valve for Beverage Cylinders

New Part #	Old Part #	Part Description	Description
SHW-GSRPV32051-28LX	SHW-GRPV32051-28LX	CGA320 1 1/8UNF 3000 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-28LX-G54	SHW-GRPV32051-28LX-G54	CGA320 1 1/8UNF 3000 PSI CG1 *	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-28LX-75	SHW-GRPV32051-28LX-75	CGA320 3/4UNF 3000 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-32LX	SHW-GRPV32051-32LX	CGA320 1 1/8UNF 3360 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-32LX-G54	SHW-GRPV32051-32LX-G54	CGA320 1 1/8UNF 3360 PSI CG1 *	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-32LX-75	SHW-GRPV32051-32LX-75	CGA320 3/4UNF 3360 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-35LX	SHW-GRPV32051-35LX	CGA320 1 1/8UNF 3775 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-35LX-75	SHW-GRPV32051-35LX-75	CGA320 3/4UNF 3775 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-38LX	SHW-GRPV32051-38LX	CGA320 1 1/8UNF 4000 PSI CG1	Lexan Hndwhl Residual Pressure
SHW-GSRPV32051-38LX-75	SHW-GRPV32051-38LX-75	CGA320 3/4UNF 4000 PSI CG1	Lexan Hndwhl Residual Pressure

\*Rotorex RPV fill adaptor compatible version

### CGA 346 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV34661-28	SHW-GRPV34661-28	3/4" NGT, Tapered Thread, Brass	3000 PSI
SHW-GSRPV34661-32	SHW-GRPV34661-32	3/4" NGT, Tapered Thread, Brass	3360 PSI
SHW-GSRPV34661-35	SHW-GRPV34661-35	3/4" NGT, Tapered Thread, Brass	3775 PSI
SHW-GSRPV34661-38	SHW-GRPV34661-38	3/4" NGT, Tapered Thread, Brass	4000 PSI

### CGA 350 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV35065-28	SHW-GRPV35065-28	3/4" NGT, Tapered Thread, Brass	3000 PSI 212° fuse
SHW-GSRPV35065-32	SHW-GRPV35065-32	3/4" NGT, Tapered Thread, Brass	3360 PSI 212° fuse
SHW-GSRPV35065-35	SHW-GRPV35065-35	3/4" NGT, Tapered Thread, Brass	3775 PSI 212° fuse
SHW-GSRPV35065-38	SHW-GRPV35065-38	3/4" NGT, Tapered Thread, Brass	4000 PSI 212° fuse

### CGA 540 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV54061-28	SHW-GRPV54061-28	3/4" NGT, Tapered Thread, Brass	3000 PSI
SHW-GSRPV54061-32	SHW-GRPV54061-32	3/4" NGT, Tapered Thread, Brass	3360 PSI
SHW-GSRPV54061-35	SHW-GRPV54061-35	3/4" NGT, Tapered Thread, Brass	3775 PSI
SHW-GSRPV54061-38	SHW-GRPV54061-38	3/4" NGT, Tapered Thread, Brass	4000 PSI

### CGA 580 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV58061-32	SHW-GRPV58061-32	3/4" NGT, Tapered Thread, Brass	3360 PSI
SHW-GSRPV58061-35	SHW-GRPV58061-35	3/4" NGT, Tapered Thread, Brass	3775 PSI
SHW-GSRPV58061-38	SHW-GRPV58061-38	3/4" NGT, Tapered Thread, Brass	4000 PSI
SHW-GSRPVA58061-32	SHW-GRPVA58061-32	3/4" NGT, Tapered Thread, Chrome	3360 PSI
SHW-GSRPV58061-32-7	SHW-GRPV58061-32-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	3360 PSI
SHW-GSRPV58061-35-7	SHW-GRPV58061-35-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	3775 PSI
SHW-GSRPV58061-38-7	SHW-GRPV58061-38-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	4000 PSI

### CGA 590 Residual Pressure Cylinder Valve

New Part #	Old Part #	Description	Safety
SHW-GSRPV59061-28	SHW-GRPV59061-28	3/4" NGT, Tapered Thread, Brass	3000 PSI
SHW-GSRPV59061-32	SHW-GRPV59061-32	3/4" NGT, Tapered Thread, Brass	3360 PSI
SHW-GSRPV59061-35	SHW-GRPV59061-35	3/4" NGT, Tapered Thread, Brass	3775 PSI
SHW-GSRPV59061-38	SHW-GRPV59061-38	3/4" NGT, Tapered Thread, Brass	4000 PSI
SHW-GSRPV59061-28-7	SHW-GRPV59061-28-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	3000 PSI
SHW-GSRPV59061-32-7	SHW-GRPV59061-32-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	3360 PSI
SHW-GSRPV59061-35-7	SHW-GRPV59061-35-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	3775 PSI
SHW-GSRPV59061-38-7	SHW-GRPV59061-38-7	3/4" NGT +7 Over Size, Tapered Thread, Brass	4000 PSI

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### Replacement Safety Reliefs

Part Number	Description
SHW-P625-19N9-28	Sherwood GV Series Plug Style Safety 3000 PSI
SHW-P625-19N9-32	Sherwood GV Series Plug Style Safety 3360 PSI
SHW-P625-19N9-35	Sherwood GV Series Plug Style Safety 3775 PSI
SHW-P625-19N9-38	Sherwood GV Series Plug Style Safety 4000 PSI



Replacement fusible plugs also available. Old cap style available upon request. Call Customer Service for details.

GSRPV SERIES: RESIDUAL PRESSURE CYLINDER VALVES

Rev: 3/6/20

## GRPV Series: Specifications / Materials

### SELECTION OF PRESSURE RELIEF DEVICES

GRPV SERIES: RESIDUAL PRESSURE CYLINDER VALVES

-XX	CYLINDER SERVICE PRESSURE			DISC RUPTURE RANGE PSIG @ 160°F		PRESSURE RELIEF DEVICE		
	D.O.T. Spec 3A, 3AA, 3AL Cylinders PSIG	D.O.T. Exemption Cylinders PSIG	International Cylinders BAR	Min	Max	CG-1	CG-4 **	CG-5 **
						Frangible Disc No Fuse Metal	Frangible Disc 165°F Fuse Metal	Frangible Disc 212°F Fuse Metal
-26	1665			2500	2775	P625-19N9-26	P625-19X9-26M	P625-19X9-26W
-28	1800			2700	3000	P625-19N9-28	P625-19X9-28M	P625-19X9-28W
-32	2015			3025	3360	P625-19N9-32	P625-19X9-32M	P625-19X9-32W
-35	2265			3400	3775	P625-19N9-35	P625-19X9-35M	P625-19X9-35W
-38	2400			3600	4000	P625-19N9-38	P625-19X9-38M	P625-19X9-38W
-39			200	3915	4350	P625-19N9-39	P625-19X9-39M	P625-19X9-39W
-43	2670			4005	4450	P625-19N9-43	P625-19X9-43M	P625-19X9-43W
-46	2900			4350	4833	P625-19N9-46	P625-19X9-46M	P625-19X9-46W
-47	2950			4425	4917	P625-19N9-47	P625-19X9-47M	P625-19X9-47W
-48	3000		230	4500	5000	P625-19N9-48	P625-19X9-48M	P625-19X9-48W
-50		3600		4860	5600	P625-19N9-50	P625-19X9-50M	P625-19X9-50W
-55	3500/3600			5250	5833	P625-19N9-55	P625-19X9-55M	P625-19X9-55W
-63	4000			6000	6665	P625-19N9-63	P625-19X9-63M	P625-19X9-63W
-65		4500		6075	6750	P625-19N9-65	P625-19X9-65M	P625-19X9-65W
-71		5000		6750	7500	P625-19N9-71	P625-19X9-71M	P625-19X9-71W
-78	5000			7500	8333	P625-19N9-78	P625-19X9-78M	P625-19X9-78W
-85		6000		8100	9000	P625-19N9-85	P625-19X9-85M	P625-19X9-85W
-95	6000			9000	10000	P625-19N9-95	P625-19X9-95M	P625-19X9-95W

\*\*Copper Disc must be used for Hydrogen Service

X = N for Nickel Disc or C for Copper Disc

### MATERIALS OF CONSTRUCTION FOR GRPV SERIES RESIDUAL PRESSURE VALVES

Description	Part Number	Materials of Construction
Body	N/A	Forged Brass UNS Alloy #37700/Chrome Plating when applicable.
Bonnet	1400-2	Free Machining Brass UNS Alloy #36000/Chrome Plating when applicable.
Handwheel	1919A	Aluminum A380
Handwheel Nut	1251-6	Steel Class 8, Zinc Plating
Lower Plug	1400-4/1400-4A	Leaded Naval Brass C48500
Lower Plug Seat	1400-13/1400-13A	Nylon Zytel 101
PRD	See Chart Above	Plug: Free Machining Brass UNS Alloy #36000/ Chrome Plating when applicable. Rupture Disc: Nickel Alloy 201; Copper UNS 22000 Webbed Seal Gasket: Copper Dead Soft C11000
Stem	1400-3	Free Machining Brass UNS Alloy #36000
O-Ring	G011EP	Ethylene Propylene
Back up O-Ring	1400-9A	Ethylene Propylene
Thrust Washer	1251-5	Delrin 500 AF
RPV Piston	1400RP-10	Forged Brass UNS Alloy #37700
RPV Plug	1400RPB-8	Free Machining Brass UNS Alloy #36000/Chrome Plating when applicable.
RPV Spring	1400RP-7	Beryllium Copper
Piston O-Ring	G008EP9	Ethylene Propylene
Piston Quad Ring	G4011EP9	Ethylene Propylene
RPV Plug O-Ring	G017EP9	Ethylene Propylene

### INLET O-RING FOR STRAIGHT THREADED GRPV SERIES RESIDUAL PRESSURE VALVES

Size	Part Number
1.125 UNF	G216A (Buna 70 Durometer)

### LUBRICANTS

Christo-Lube MCG-111	Used in valves for all Industrial Gas Applications
Turmoxygen LC027	Used in valves for Oxygen Service

### TORQUE VALUES FOR GRPV SERIES RESIDUAL PRESSURE VALVES

Closing Torque @ 5400 PSIG Inlet Pressure	20-30 in. lbs. (2.2-3.3 Nm)
Operating Torque @ 5400 PSIG Inlet Pressure	10-20 in. lbs. (1.1-2.2 Nm)
Bonnet Installation Torque	50-60 ft. lbs. (68-81 Nm)
Handwheel Nut Installation Torque	15-35 in. lbs. (1.7-3.9 Nm)
PRD Installation Torque	25-35 ft. lbs. (34-47 Nm)

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## GRPV Series: Repair Instructions

### REPAIR INSTRUCTIONS FOR GRPV SERIES RESIDUAL PRESSURE VALVES

#### DISASSEMBLY OF VALVE

1. Place the valve assembly into a vise or similar holding fixture, taking care not to damage the inlet or outlet threads. The holding fixture must securely grip the valve body on the wrench flats so that no damage is done to the internal bores, external threads, outlet, or pressure relief device.
2. Chamber
  - a. Using a 13 mm socket, remove the handwheel nut from the handwheel by turning it counter clockwise.
  - b. Remove the handwheel from the stem square.
  - c. Using an 11/16" socket wrench or hex box wrench, remove the bonnet by turning it counter clockwise. The stem subassembly with o-ring and back-up o-ring may remove with the bonnet. If not, remove the stem subassembly from the valve after the bonnet.
  - d. Being careful not to scratch the bonnet sealing surface in the valve body, use a square drive to remove the lower plug from the valve chamber, by turning it counter clockwise.
3. Pressure Relief Device
  - a. Being careful not to scratch the sealing surface of the valve body, remove the pressure relief device by turning it counter clockwise using a 5/8" hex box wrench or socket.

#### INSPECTION OF VALVE AND COMPONENTS

1. Valve Body
  - a. Inspect the valve body chamber for dirt, debris or damage. Where possible, blow out the valve body chamber using clean, dry, Compressed Air or Nitrogen to remove any foreign particles.
  - b. If the valve body is damaged, do not attempt to repair. Order a new valve assembly.
2. Components
  - a. Always discard the bonnet and stem subassembly and the lower plug. Order replacement parts. **NOTE:** The lower plug replacement must correspond with the valve body and its relative application. For example, standard valves have a .125" or .156" through hole in the body which uses a nylon seat diameter that is relative to that size, part number 1400-40. Carbon dioxide and manifold valves – except for oxygen – have a .272" through hole in the body and use a nylon seat that is relative to that size, part number 1400-40A.
  - b. Handwheels should only be reused if in good condition. Discard handwheels if damaged.
  - c. Inspect the pressure relief device threads for damage. Inspect the rupture disc and the webbed washer for scratches. Discard this component if damaged and order replacement parts.

#### ASSEMBLY OF VALVE

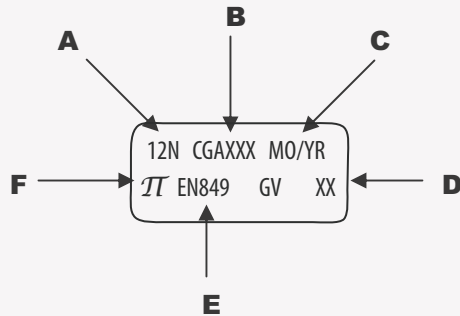
1. Chamber
  - a. Apply 3 dabs of lubricant around the perimeter of the lower plug threads, approximating the size of a pencil eraser for each. Locate lubricant toward the lower most threads closest to the crimped seat but using care not to get lubricant on the nylon seat. **NOTE:** Use Turmoxygen LC027 lubricant for oxygen service. Use Christo-Lube MCG-111 lubricant for all other gas applications.
  - b. Being careful not to damage the bonnet sealing surface in the valve body, install the new lower plug into the chamber, seat first and tighten using a square drive until it is fully seated.
  - c. Engage the new bonnet and stem subassembly into the valve body and hand tighten by turning clockwise. Rotate stem square until it becomes engaged in the lower plug.
  - d. Using an 11/16" hex torque wrench, tighten the bonnet to 50-60 ft. lbs. **NOTE:** A properly calibrated torque wrench must be used. Over torquing will damage the bonnet.
  - e. Place the handwheel over the stem square. Thread the handwheel nut onto the stem thread and tighten to 15-35 in. lbs.
  - f. To ensure free and smooth operation, open and close the valve several times by turning the handwheel.
2. Pressure Relief Device (PRD)
  - a. **NOTE:** Refer to CGA S-1.1 latest edition to select the correct pressure relief device type according to the cylinder pressure and application.
  - b. Thread the proper pressure relief device on the PRD port until hand tight.
  - c. Using a 5/8" socket and a calibrated torque wrench, tighten the PRD to 25-35 ft. lbs. Over torquing will damage the PRD.

#### TESTING OF ASSEMBLED VALVE

1. Thoroughly test each repaired valve assembly by inserting and tightening the valve assembly into a cylinder or suitable test fixture.
2. Pressurize the valve assembly with an inert gas to the working pressure of the cylinder of intended use.
3. With outlet suitably plugged, open the valve assembly by turning the handwheel counter clockwise. Using leak detection solution or equipment, check the bonnet, stem, and PRD for leaks.
4. Close the valve assembly by turning the handwheel clockwise. Remove the outlet plug and check for seat leakage through the outlet using proper leak detection solution or equipment.
5. If any leakage is detected, in the open or the closed position, the necessary repairs must be made before using the valve assembly.

## GRPV Series: Stamping Cross Reference / Parts Breakdown

### STAMPING CROSS REFERENCE FOR GRPV SERIES RESIDUAL PRESSURE VALVES



- A. Inlet Thread Designation
- B. Outlet Specification
- C. Month/Year of Manufacture
- D. Week of Calendar Year
- E. International Standard for Cylinder Valve Design Specifications
- F. Regulatory Approval (PI Mark)

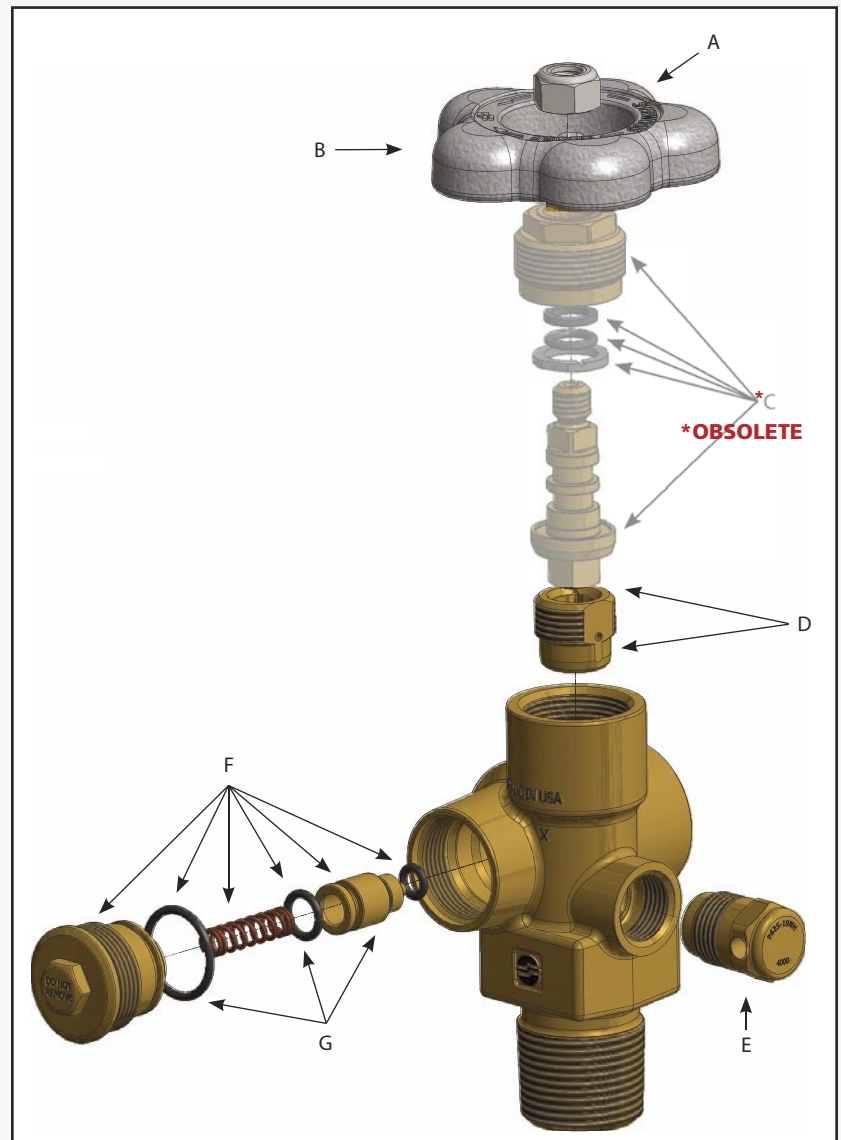
### PARTS BREAKDOWN FOR GRPV SERIES RESIDUAL PRESSURE VALVES

Description	Part Number
A. Handwheel Nut	SHW-1251-6
B. Handwheel	SHW-1919A
*C. Bonnet and Stem Assembly Includes: Bonnet, Stem, O-Ring, O-Ring, Thrust Washer and Stem	*SHW-1400-30-100 (Oxygen) *SHW-1400-30-101 (All Others)
D. Lower Plug and Seat Assembly Includes: Lower Plug and Seat	SHW-1400-40 (Standard) SHW-1400-40A (CO2/Manifold)
E. Pressure Relief Device Includes: Plug, Rupture Disc and Webbed Seal Washer	SHW-P625-19X-XX
F. Includes RPV Assembly, Plug, O-Rings, Spring and Piston	SHW-GRPV-KIT
G. Includes O-Rings and Piston Assembly	SHW-GRPV-NVA-KIT

#### GRPV KEY REPLACEMENT PARTS

Part Number	Description
SHW-GRPV-KIT	Total RPV Assembly Kit, 50 Each
SHW-GRPV-NVA-KIT	Piston Assembly Kit Only, 25 Each

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**Note:** Residual check components are not available. For service or repair, contact Ratermann.



## Fill Adapters for the GRPV Series

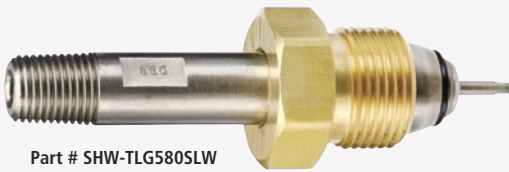


Pin is Monel  
Part # SHW-TLG540S

### 2 Piece Retractable Pin Adapters

Retractable Pin adapters provides maximum operating flexibility to fill or evacuate a cylinder with either a conventional valve or a GRPV. Engage the Pin Locking Tool (see below), rotate the tool clockwise to depress the pin for use with a conventional valve. Or, rotate the tool counter-clockwise to release the pin for use with a GRPV valve. The adapter incorporates an o-ring seal for a hand tight connection.

\*Adapters can be used with TV RPV also.



Part # SHW-TLG580SLW

#### Adapter with Retractable Pin

Part Number	Description
* SHW-TLG580SLW	Fill Adapter with Retractable Pin CGA 580
* SHW-TLG590SLW	Fill Adapter with Retractable Pin CGA 590

### Checking Rod

Gas cylinders can be checked for content-integrity by simply inserting the checking rod and pushing against the resistance of the check valve. The sound of escaping gas indicates residual cylinder pressure.



#### Checking Rod

Part Number	Description
SHW-TL580C	Checking Rod

### Pin Locking Tool

Used with retractable pin adapter.



#### Pin Locking Tool

Part Number	Description
SHW-TL580B	Pin Locking Tool

### Sherwood Replacement O-Ring

Sherwood Replacement O-Ring for CGA 580 and CGA 590 Adapter.



Part # SHW-G013L

#### Sherwood Replacement O-Ring

Part Number	Description
SHW-G013L	Sherwood Replacement O-Ring for CGA 580 and CGA 590 Adapter

### Replacement Pins for CGA580 Adapters

#### Replacement Pins for CGA580 Adapters

Part Number	Description
SHW-TL580A-30-R	Sherwood RPV Replacement Plunger and Pin Kit of 25 of each



Part # SHW-TL590D



Part # SHW-TL580D

### One Piece Adapter With Fixed Pin

Adapter features a rigid-mounted pin for use on manifolds dedicated to filling cylinders with Sherwood GRPV valves.

\*Adapters can be used with TV RPV also.

#### Adapter with Fixed Pin

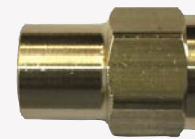
Part Number	Description
SHW-TLG680S	Fill Adapter with Fixed Pin CGA 680
SHW-TLG320W	Fill Adapter with Fixed Pin CGA 320
SHW-TLG346S	Fill Adapter with Fixed Pin CGA 346
SHW-TLG350S	Fill Adapter with Fixed Pin CGA 350
SHW-TLG540S	Fill Adapter with Fixed Pin CGA 540
* SHW-TL580D	Fill Adapter with Fixed Pin CGA 580
* SHW-TL590D	Fill Adapter with Fixed Pin CGA 590



Part # SHW-TLG350S



Part # CGA-320F14



Part # CGA-580F14



Part # CGA-590F14

### Female NPT Outlet Adapters

Female NPT Outlet Adapters to be used to adapt Male NPT Ends to Adapt fill lines with standard non RPV nuts and Nipples.

#### Female NPT Outlet Adapters

Part Number	Description
CGA-320F14	CGA-320 Carbon Dioxide - Outlet Adapter -14 NGO-RH-EXT to 1/4" NPT Female
CGA-346F14	CGA-346 Breathing Air Outlet Adapter -14 NGO-RH-EXT to 1/4" NPT Female
CGA-350F14	CGA-350 Hydrogen/Methane Outlet Adapter -14 NGO-LH-EXT to 1/4" NPT Female
CGA-540F14	CGA-540 Oxygen N <sub>2</sub> ,O <sub>2</sub> ,.903-14NGO RH-EXT x 1/4" NPT Female
CGA-580F14	CGA-580 Nitrogen/Argon/Helium Outlet Adapter .965"-14NGO-RH-INT to 1/4" FNPT
CGA-590F14	CGA-590 Industrial Air Outlet Adapter .965"-14NGO-LH INT to 1/4" NPT Female

### Understanding Fill Adapter Part Numbers

Part Number	Description
TLG	Tool for Global Valve
L	Retractable Pin
S	Stainless Steel
W	Washer or O-Ring Seal
D	Matching CGA Outlet and Inlet

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NEW  
PRODUCTS  
coming  
soon**



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## NGV, NGVHM & NGRPVP Series:

### Global Industrial Gas Valves for Hydrocarbon-Based Flammable Gases

Global valve for hydrocarbon-based flammable gases, including compressed natural gas (CNG), methane, ethane and other similar gases.

#### KEY FEATURES & BENEFITS

- Automated assembly and testing processes ensure exceptional quality
- 100% helium leak tested
- Heavy-duty forged brass body for durability and high pressure
- Precisely machined internal components meet the most stringent international valve performance standards
- Reduced internal stress zones
- Innovative valve core design
- Durable Buna-N O-ring and PTFE backup O-ring compatible with flammable gases
- Pressure Relief Device (PRD) unitized plug design provides excellent flow characteristics
- Metal-to-metal seal below bonnet threads prevents pressure in the threads at top of valve body
- Direct-drive stem design with optimized O-ring (NGV) or double O-ring (NGVHM) seal reduces friction and operates at exceptionally low torque levels
- Available inlets include NGT, UNF, DIN477, BS, ABNT and others
- Tapped for dip tube as required

#### Standards Conformance

CGA V-9	Standard for Gas Cylinder Valves
CGA 51.1	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
AS2473	Australian Standard for Compressed Gas Cylinder Valves
TPED/ADR	Transportable Pressure Equipment Directive
A-A-59860	US General Services Administration Standards for Gas Cylinder Valves

#### Ordering Info Key Replacement Parts

Part Number	Description
SHW-1400-31NGV-101KIT (NGV)	Bonnet & Seat Assembly Kit
SHW-1400-33NGV-101KIT (NGVHM)	(includes 25 sub-assemblies)
SHW-NGRPV-KIT	NGRPV Piston Assembly Kit (includes 50 sub-assemblies)

#### Lubricants

Part Number	Description
SHW-Christo-Lube	Used in Valves for All Industrial Gas Applications



NGV Series

Up to 3000 PSI Working Pressure

#### Ordering Info NGV & NGVHM Global Valves

##### Methyl Fluoride

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGV35064-38	CGA 350	0-3,000 PSI	165° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT

##### Ethane

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGV35061-38	CGA 350	0-3,000 PSI	Rupture Disc 4,000 PSI	3/4"-14 NGT

##### Ethylene

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGV35061-38	CGA 350	0-3,000 PSI	Rupture Disc 4,000 PSI	3/4"-14 NGT

##### Methane

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGV35045-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1/2"-14 NGT
SHW-NGV35065-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT
SHW-NGV35055-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1 1/8"-12 UNF
SHW-NGV35025E5-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	25E ISO
SHW-NGV35085-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1"-11 1/2" NGT
SHW-NGVHM69565-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	3/4"-14 NGT
SHW-NGVHM69565-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	3/4"-14 NGT
SHW-NGVHM69555-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	1 1/8"-12 UNF
SHW-NGVHM69555-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	1 1/8"-12 UNF
SHW-NGVHM69525E5-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	25E ISO
SHW-NGVHM69525E5-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	25E ISO
SHW-NGVHM70365-85	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 9,000 PSI	3/4"-14 NGT
SHW-NGVHM70365-95	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 10,000 PSI	3/4"-14 NGT
SHW-NGVHM70325E5-85	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 9,000 PSI	25E ISO
SHW-NGVHM70325E5-95	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 10,000 PSI	25E ISO

##### Natural Gas

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGV35045-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1/2"-14 NGT
SHW-NGV35065-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT
SHW-NGV35055-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1 1/8"-12 UNF
SHW-NGV35025E5-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	25E ISO
SHW-NGV35085-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	1"-11 1/2" NGT
SHW-NGVHM69565-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	3/4"-14 NGT
SHW-NGVHM69565-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	3/4"-14 NGT
SHW-NGVHM69555-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	1 1/8"-12 UNF
SHW-NGVHM69555-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	1 1/8"-12 UNF
SHW-NGVHM69525E5-48	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 5,000 PSI	25E ISO
SHW-NGVHM69525E5-65	CGA 695	3,001-4,700 PSI	212° Fuse Rupture Disc 6,750 PSI	25E ISO
SHW-NGVHM70365-85	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 9,000 PSI	3/4"-14 NGT
SHW-NGVHM70365-95	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 10,000 PSI	3/4"-14 NGT
SHW-NGVHM70325E5-85	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 9,000 PSI	25E ISO
SHW-NGVHM70325E5-95	CGA 703	4,701-6,400 PSI	212° Fuse Rupture Disc 10,000 PSI	25E ISO

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## NGV, NGVHM & NGRPV Series: Global Industrial Gas Valves for Hydrocarbon-Based Flammable Gases

### Ordering Info Residual NGV Global Valves

#### Methyl Fluoride

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGRPV35064-38	CGA 350	0-3,000 PSI	165° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT

#### Ethane

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGRPV35061-38	CGA 350	0-3,000 PSI	Rupture Disc 4,000 PSI	3/4"-14 NGT

#### Ethylene

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGRPV35061-38	CGA 350	0-3,000 PSI	Rupture Disc 4,000 PSI	3/4"-14 NGT

#### Methane

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGRPV35065-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT
SHW-NGRPV35025E5-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	25E ISO

#### Natural Gas

Part Number	CGA Outlet	PSI Range	Safety Type	Inlet Thread
SHW-NGRPV35065-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	3/4"-14 NGT
SHW-NGRPV35025E5-38	CGA 350	0-3,000 PSI	212° Fuse Rupture Disc 4,000 PSI	25E ISO



NGVHM Series

3001 PSI  
and Above  
Working  
Pressure

### Design Specifications

	English	Metric
NGV Max. Working Pressure:	3000 PSI	200 Bar
NGVHM Max. Working Pressure:	6000 PSI	413 Bar
Burst Pressure:	15,000 PSI	1034 Bar
Operating Temperature Range:	-50° F → +130° F	-45° C → +54° C
Leak Rate Internal/External:	1x10 <sup>-3</sup> atm cc/sec.	1x10 <sup>-3</sup> Bar mL/sec.
Minimum Cycle Life:	2000 Cycles	2000 Cycles
Cv Flow Factor:	Standard .690	Standard .690
Operating Torque:	NGV: 10-20 in.-lbs. NGVHM: 10-20 in.-lbs.	NGV: 1.1-2.2 N-m NGVHM: 1.1-2.2 N-m
Bonnet Assembly Torques:	NGV: 50-60 ft.-lbs. NGVHM: 10-20 ft.-lbs.	NGV: 67.8-81.3 N-m NGVHM: 81.3-94.9 N-m
PRD Torques:	NGV: 25-35 ft.-lbs. NGVHM: 40-50 ft.-lbs.	NGV: 33.9-47.4 N-m NGVHM: 54.2-67.8 N-m
NGRPV Cap Assembly Torques:	15-25 ft.-lbs.	20.3-33.9 N-m

### Materials of Construction

Part Number	Description	Materials of Construction
<b>NGV, NGVHM &amp; NGRPV Series Industrial &amp; Chrome-Plated Valves</b>		
SHW-1400-2 (NGV & NGRPV) SHW-1400-2A (NGVHM)	Bonnet	Brass C36000; Chrome Plating When Applicable
SHW-1919A	Handwheel	Aluminum A380
SHW-1251-6	Handwheel Nut	Steel Class 8, Zinc Plating
SHW-1400-4/1400-4A	Lower Plug	Brass C48500
SHW-1400-13/1400-13A	Lower Plug Seat	Nylon, Zytel 101
SHW-1400-3	Stem	Brass C36000
SHW-G011B-65	O-Ring	Buna-N
SHW-MS28774-011T	Back-up O-Ring	PTFE
SHW-1251-5	Thrust Washer	Delrin® 500 AF

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## KVAB Series: Post Medical Valves

Post-type medical valves for "F" and "D" type cylinders and used for all CCA-860 yokes.

### KEY FEATURES & BENEFITS

- Inert PTFE packing provides leak-free stem seal, long cycle life and resistance to corrosion
- Secondary O-ring helps to provide a secure seal under vacuum purging and low-pressure operation
- Strong, durable body is made from extruded brass rod and coated with a protective chrome finish
- Chamber design protects threads and stem from damage
- Exceptional machining finishes for low-torque sealing and long packing life
- Durable lower plug is made of tough naval brass and coated with PTFE for lubricity
- Copper sealing gasket provides permanent, leak-resistant bonnet seal
- Pressure Relief Device is an integrated assembly to ensure proper assembly and to resist tampering
- Designed for use with all yokes made to CGA 860 drawing specifications
- Available in wrench or toggle type
- Nominal stroke is 1.5 turns, full flow at 1/3 turn
- Cleaned for oxygen service and oil free per CGA G-4.1



Part Number	Description
SHW-9-4000-60-28	Safety 3000 PSI Standard rupture Disc
SHW-9-4000-60-32	Safety 3360 PSI Standard rupture Disc
SHW-9-4000-60-38	Safety 4000 PSI Standard rupture Disc
SHW-9-4000-60-48	Safety 5000 PSI Standard rupture Disc
SHW-6513MFB-28KIT	165 Fuse Safety Kit (25 pcs.) 3000 PSI
SHW-6513MFB-32KIT	165 Fuse Safety Kit (25 pcs.) 3360 PSI
SHW-6513MFA-48KIT	165 Fuse Safety Kit (25 pcs.) 5000 PSI
SHW-1-KTS-1C	Toggle – New Rivet Design
SHW-J33-093085S	Toggle Pin – New style
SHW-1-6502A	Bonnet
SHW-19-6526	Stem Washer
SHW-6502A-3	Backup Ring
SHW-6503SH	Bonnet & Stem Assembly
SHW-6507A-17N	Lower Plug Assembly
SHW-6514T	PTFE Packing
SHW-6519	Packing Washer
SHW-6521-X	Knob HW
SHW-6527SH	Spring
SHW-G1100-11H	Stem O-Ring
SHW-G210J	Inlet O-Ring, Viton
SHW-G908H	Flange O-Ring, Viton
SHW-G210T	Inlet O-ring PTFE
SHW-9-K655B-2	Pressure Relief Device
SHW-TL-KTS-C	Sherwood Crimping Tool for New Rivet Toggle and Pins



165 Fuse Safety Kit for 3360 PSI Part # SHW-6513MFB-32KIT



Toggle Pin Part # SHW-1KTS-1C

Toggle Pin Part # SHW-J33-093085S

Crimping Tool Part # SHW-TL-KTS-C



**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### STANDARDS CONFORMANCE

CGA V-9	Standard for Compressed Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications
A-A-59860	US General Services Administration Standards or Gas Cylinder Valves

### DESIGN SPECIFICATIONS

	English	Metric
Maximum Working Pressure	3,000 PSIG	
Burst Pressure	12,000 PSIG	
Operating Temperature	Min: -50°F Max: 149°F	-45°C 65°C
Storage Temperature	Min: -65°F Max: 155°F	-54°C 68°C
Leak Rate Internal/External	1X10 <sup>-5</sup> cc/sec	
Cv Flow Factor	Standard: .102	Standard: .102
Minimum Cycle Life	5,000 Cycles	5,000 Cycles
Opening Torque	8–10 in.-lbs	1–1.1 N-m
Closing Torque	8–10 in.-lbs	1–1.1 N-m
Bonnet Torque	25–30 ft.-lbs.	33.9–40.6 N-m
PRD Torque	50–65 in.-lbs.	5.6–7.3 N-m

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Replacement Inlet O-ring for Straight Threaded GV Series Industrial and Chrome Plated Valves

Size	Part Number	Material
0.625 UNF	SHW-G907A	BUNA
0.625 UNF	SHW-G016T	PTFE
0.750 UNF	SHW-G210A-9	BUNA
0.750 UNF	SHW-G210T	PTFE
1.125 UN	SHW-G216B	BUNA
1.125 UN	CVO-2T	PTFE

## Medical Post Valve Socket Removal and Installation

This valve socket has been developed to easily remove or reinstall the Medical Post Valve without damaging the valve. Specifically a valve with an "O" Ring in an aluminum cylinder that requires a given ft/lb torque. This socket will adapt for use with the valving machine jaws, or for manual removal / installation using a wrench. Additionally a 1/2" square socket is attached to the top of unit for use with a 1/2" drive torque wrench.



Part Number	Description
VT-PV-SVM	Medical Post Valve Socket

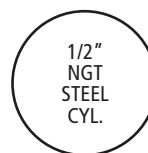
**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## VALVE SIZING\* CHART

Place Valve Thread End of Valve to Match Up to Diameter on the Chart



STEEL CYLINDER



Typical Steel Cylinder Sizes

D & E Steel & Others  
Medical Tank .....1/2"



ALUMINUM CYLINDER



Typical Valve Aluminum Cylinder

Medical Aluminum Cylinder  
Mw-M4, M6, M7, M9, E, D .....750"

This guide is for a typical valve.

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Not all valve and thread sizes are included. Please use this as a general guide.

\* These sizes are accurate in printed catalog.





Part # SHW-KVAB87054-32R

### CGA-870 Medical Oxygen Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB87054-32R	3360 PSI 165° fuse
SHW-KVAB87054-32RTG	3360 PSI 165° fuse with Toggle
SHW-KVAB87054-32RGTG	3360 PSI 165° fuse with Toggle and Gauge Port

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB87044F-28	3000 PSI 165° fuse
SHW-KVAB87044F-28TG	3000 PSI 165° fuse with Toggle
SHW-KVAB87044F-32	3360 PSI 165° fuse
SHW-KVAB87044F-32TG	3360 PSI 165° fuse with Toggle

### CGA-880 Oxygen/CO2 Mixtures USP Post Valves

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB88044F-28	3000 PSI 165° fuse
SHW-KVAB88044F-32	3360 PSI 165° fuse

### CGA-890 Oxygen/Helium Mixtures USP Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB89054-28	3000 PSI 165° fuse
SHW-KVAB89054-32	3360 PSI 165° fuse

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB89044F-32	3360 PSI 165° fuse

### CGA-910 Nitrous Oxide USP Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB91051-28	3000 PSI
SHW-KVAB91051-28TG	3000 PSI with Toggle
SHW-KVAB91051-32	3360 PSI
SHW-KVAB91051-32TG	3360 PSI with Toggle

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB91041-28	3000 PSI
SHW-KVAB91041-32	3360 PSI

### CGA-930 Helium USP Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB93054-28	3000 PSI 165° fuse
SHW-KVAB93054-32	3360 PSI 165° fuse

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB93044F-28	3000 PSI 165° fuse
SHW-KVAB93044F-32	3360 PSI 165° fuse



Part # SHW-KVAB87044-32



Part # SHW-KVAB87054-32RGTG



Part # SHW-KVAB91051-28



Part # SHW-KVAB91041-32



Part # SHW-KVAB93044F-32

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



Part # SHW-KVAB94051-32

### CGA-940 Carbon Dioxide USP Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB94051-28	3000 PSI
SHW-KVAB94051-28TG	3000 PSI with Toggle
SHW-KVAB94051-32	3360 PSI
SHW-KVAB94051-32TG	3360 PSI with Toggle

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB94041-28	3000 PSI
SHW-KVAB94041-32	3360 PSI

### CGA-950 Medical Air USP Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB95054-28	3000 PSI 165° fuse
SHW-KVAB95054-28TG	3000 PSI 165° fuse with Toggle
SHW-KVAB95054-32	3360 PSI 165° fuse
SHW-KVAB95054-32TG	3360 PSI 165° fuse with Toggle

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB95044F-32	3360 PSI 165° fuse

### CGA-960 Nitrogen NF Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB96054-28	3000 PSI 165° fuse
SHW-KVAB96054-32	3360 PSI 165° fuse

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB96044F-28	3000 PSI 165° fuse
SHW-KVAB96044F-32	3360 PSI 165° fuse

### CGA-965 Nitrogen/Oxygen Mixtures Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB96554-28	3000 PSI 165° fuse
SHW-KVAB96554-32	3360 PSI 165° fuse

### CGA-973 Medical Mixtures Post Valves

#### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVAB97354-28	3000 PSI 165° fuse
SHW-KVAB97354-32	3360 PSI 165° fuse

#### 1/2" NGT Tapered Thread

Part Number	Safety
SHW-KVAB97344F-28	3000 PSI 165° fuse
SHW-KVAB97344F-32	3360 PSI 165° fuse



Part # SHW-KVAB94041-32



Part # SHW-KVAB96054-32



Part # SHW-KVAB96044F-32



Part # SHW-KVAB96054F-32



Part # SHW-KVAB97344F-32

### Medical Post Valve Socket

- Removal and Installation
- This valve socket has been developed to easily remove or reinstall the Medical Post Valve without damaging the valve.

Part # VT-PV-SVM

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



### KVAB Washer & Inlet O-Ring

#### Washer for KVAB Series

Part Number	Description
SHW-6519	Copper Washer



### Inlet O-Ring for Straight Threaded KVAB Series Medical Valves

Part Number	Description
SHW-G210J	.750-16 UNF, Viton®
SHW-G210T	.750-16 UNF PTFE

## KVAB Series: Repair Instructions

### REPAIR INSTRUCTIONS FOR KVAB SERIES MEDICAL VALVES

POST MEDICAL VALVES KVAB SERIES

#### DISASSEMBLY OF VALVE

1. Place the valve assembly into a vise or similar holding fixture, taking care not to damage the inlet or outlet threads. The holding fixture must securely grip the valve body on the wrench flats so that no damage is done to the internal bores, external threads, outlet, or pressure relief device.
2. Remove any handwheels, toggles or other opening devices that are affixed to the valve stem per the instructions below.
  - a. To remove a toggle lever, press the pin out using a press. Remove the toggle lever from the stem.
  - b. To remove a handwheel, use a straight blade screw driver to lift both retaining ears on the hand wheel and pry the handwheel off.
3. Chamber
  - a. Using a  $\frac{13}{16}$  socket or hex box wrench, remove the bonnet by turning it counter clockwise.
  - b. Remove the copper gasket, being careful not to scratch the gasket sealing surface on the valve body.
  - c. With the upper stem still in place, turn the upper stem counter clockwise to loosen the lower plug. As the lower plug is loosened, it will rise in the chamber and will push out the spring. Remove the spring as well as the lower plug.
  - d. Remove the o-ring, back-up rings and packing from the stem.
4. Pressure Relief Device (PRD)
  - a. Remove the PRD by turning it counter clockwise using the tool indicated below.
  - b. If the plug is slotted, use the proper size straight bladed screw driver.
  - c. If the plug is internal hex broached, use a  $\frac{3}{16}$  allen wrench.
  - d. If the plug is an external hex, use a  $\frac{3}{8}$  hex box wrench or socket wrench.
  - e. If the plug is Torx broached, use a Torx #30 driver.
  - f. If the rupture disc and the gasket remain the valve body after the plug is removed, use a sharp pointed instrument inserted through the CENTER of the rupture disc and carefully pry up to remove them from the valve body. Do not damage the sealing surface on the valve body.

#### INSPECTION OF VALVE AND COMPONENTS

1. Valve Body
  - a. Inspect the valve body chamber bore for dirt, debris or damage. Where possible, blow out the valve body chamber using clean, dry, Compressed Air or Nitrogen to remove any foreign particles.
  - b. If the valve body is damaged, do not attempt to repair. Order a new valve assembly.
2. Components
  - a. Inspect the bonnet for damage to the threads, sealing surfaces, and plating. If damaged, replace the bonnet.
  - b. Inspect the copper gasket for damage and replace if necessary.
  - c. Inspect the spring for damaged or cracked coils and replace if necessary.
  - d. Inspect the stem shaft and square for straightness. If the stem is damaged, twisted or bent, replace the stem. Inspect the top side of the stem shoulder where the packing seals. If there are any signs of damage to this shoulder area, replace the stem. Look for cracks or separation in the area where the shoulder meets the stem. If a crack or separation is found, replace the stem.
  - e. Always discard and replace the lower plug, o-ring, back-up rings and packing.
  - f. Always discard and replace the PRD.

#### ASSEMBLY OF VALVE

**NOTE:** The KVAB Medical Valves are used in the medical industry and in oxygen saturated environments. All part must be clean, free of oil, chips and other contaminant particles before beginning assembly. Contaminant particles can ignite in the presence of oxygen. Check all plated parts before and after assembly to make sure they are completely plated and that they are not chipped or scratched.

**NOTE:** KVAB Medical Valves require no lubrication on any internal components except the stem o-ring and the copper gasket. The lubrication used on these parts MUST be oxygen compatible. Sherwood recommends the use of Christo-lube® MCG111, Fluorolube® GR362, Krytox® 240AB or an equivalent lubricant.

1. Chamber
  - a. Install the new lower plug into the valve chamber with the square hole facing up and the seat down. Using the stem as a driver, screw the lower plug into the valve chamber by turning it clockwise, until fully seated. Do not use a wrench to install, as over-tightening will damage the seat in the lower plug. Remove the stem from the valve chamber.
  - b. Place the spring into the square hole of the lower plug inside the valve assembly.
  - c. Place the bonnet and stem assembly, with the round side of the stem down, into the valve chamber through the top of the spring that is inside the square hole of the lower plug. Once the round portion of the lower stem is inserted into the spring, make sure that the square drive portion of the lower stem is inserted into the square hole of the lower plug.
  - d. Install a new, lightly lubricated copper gasket on top of the valve, making sure it is properly seated into the gasket recess.
  - e. Using a  $\frac{3}{16}$  socket and a calibrated torque wrench, tighten the bonnet to 25-30 ft. lbs.
  - f. To ensure free and smooth operation, open and close the valve several times, by turning the stem.

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## KVAB Series: Repair Instructions continued

### REPAIR INSTRUCTIONS FOR KVAB SERIES MEDICAL VALVES

#### ASSEMBLY OF VALVE

2. Pressure Relief device (PRD)
 

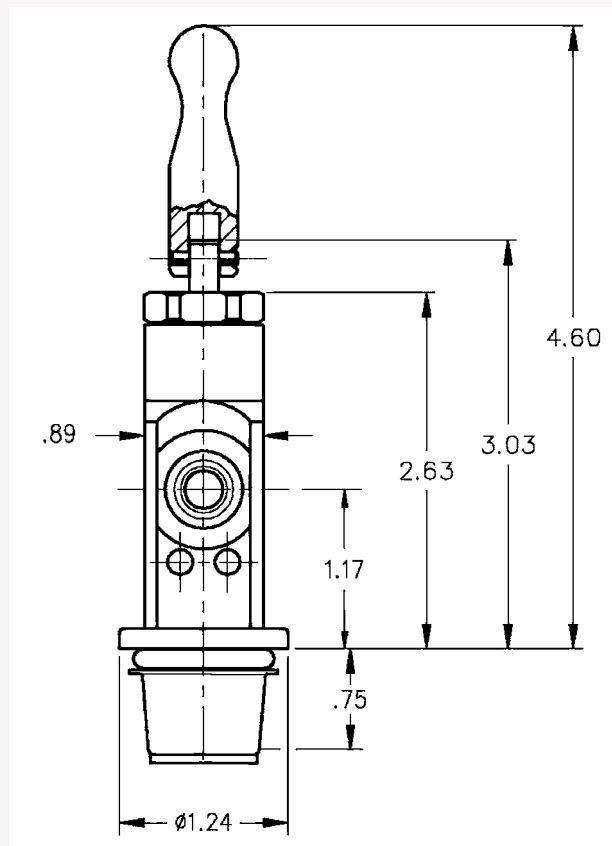
**Note:** A valve assembly used for liquid gases, such as carbon dioxide and nitrous oxide, must NOT contain fusible metal in the PRD plug in accordance with the Compressed Gas Association (Publication S-1.1).

  - a. Replacement pressure relief devices are supplied as a complete assembly, including the plug, rupture disc and gasket.
  - b. Screw the PRD into the safety port until hand tight. Tighten the PRD per the instructions below.
  - c. Internal hex type: Using a calibrated torque wrench with a T30 Torx Driver attachment, tighten to 50-65 in. lbs. Over torquing will damage the PRD.
  - d. External hex type: Using a calibrated torque wrench with a hex socket attachment, tighten to 80-100 in. lbs. Over torquing will damage the PRD.
3. Opening Devices
  - a. Attach any handwheels or toggles to the valve stem per the instructions below.
  - b. If the valve assembly has a toggle, install the toggle lever and pin to the top of the stem.
  - c. If the valve assembly has a handwheel, place the handwheel onto the stem with the retaining ears down. Push the handwheel down until the retaining ears snap on to the undercut area of the stem.

#### TESTING

1. Thoroughly test each repaired valve assembly by inserting and tightening the valve assembly into a cylinder or suitable test fixture. Pressurize the valve assembly with an inert gas to the working pressure of the cylinder of intended use.
2. With outlet suitably plugged, open the valve assembly slowly by turning the stem counter clockwise. Using leak detection solution or equipment, check the bonnet thread, stem and pressure relief device for leaks.
3. Close the valve assembly by turning the stem clockwise. Remove the outlet plug and check for seat leakage through the outlet using proper leak detection solution or equipment.
4. If any leakage is detected, in the open or the closed position, the necessary repairs must be made before using the valve assembly.

### DIMENSIONS FOR KVAB SERIES MEDICAL VALVES



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## KVMB Series:

### Post Medical Valves for Use in Magnetic Resonance Imaging (MRI) Environments

Special construction process significantly reduces magnetic attraction. Tested by University of Pittsburgh Medical Center (UPMC) - meets all known tests for MRI compatible components used in conjunction with a magnetic resonance imager for Level 3 Tesla requirements.

#### KEY FEATURES & BENEFITS

- Clearly identified for hospital settings.
- ASTM standard F 2503-05 marking.
- Nominal stroke is 1.5 turns. Full flow at 1/3 turn.
- Strong, durable body is made from extruded brass rod and coated with a protective chrome finish.
- Exceptional machining finishes for low torque sealing and long packing life.
- Chamber design protects threads and stem from damage.
- Durable lower plug is made of tough naval brass and coated with PTFE for lubricity.
- Pressure Relief Device (PRD) is a single unit to ensure proper assembly and to resist tampering.
- Inert PTFE packing provides leak-free stem seal, long cycle life and resistance to corrosion.
- Secondary O-ring helps to provide a secure seal under vacuum purging and low pressure operation.
- Copper sealing gasket provides permanent, leak-resistant bonnet seal.
- All parts cleaned and oil free.
- Designed for use with all yokes made to CGA 860 drawing specifications.
- Available in wrench, toggle, or handwheel type.
- Cleaned for oxygen service and oil free per CGA G-4.1



Part # SHW-KVMB87054-28R

#### STANDARDS CONFORMANCE

CGA V-9	Standard for Compressed Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications

#### DESIGN SPECIFICATIONS

	English	Metric
Maximum Working Pressure	3,000 PSIG	
Burst Pressure	12,000 PSIG	
Operating Temperature	Min: -50°F Max: 120°F	-45°C 55°C
Storage Temperature	Min: -65°F Max: 155°F	-54°C 68°C
Leak Rate Internal/External	1X10 <sup>-5</sup> cc/sec	
Minimum Cycle Life	5,000 Cycles	5,000 Cycles
Cv Flow Factor	Standard: .120	Standard: .120

#### MRI Stamped Medical Post Valves

##### CGA 870 Medical Post Valves

###### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVMB87054-32R	3360 PSI 165° fuse

##### CGA 910 Medical Post Valves

###### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVMB91051-28	3000 PSI
SHW-KVMB91051-32	3360 PSI

##### CGA 940 Medical Post Valves

###### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVMB94054-28	3000 PSI 165° fuse
SHW-KVMB94054-32	3360 PSI 165° fuse

##### CGA 950 Medical Post Valves

###### 3/4" UNF Straight Thread

Part Number	Safety
SHW-KVMB95054-32	3360 PSI 165° fuse

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## GV MRI Series: Global Valves for Use in MRI Environments

High Capacity Oxygen Valve designed for use in Magnetic Resonance Environments (MRI), specifically when installed on high-capacity aluminum cylinders.

### KEY FEATURES & BENEFITS

- Supports aluminum cylinder capacity to 265 cu. ft. with various straight-threaded inlet sizes to fit your needs
- Special construction process significantly reduces magnetic attraction
- Tested and meets all known tests for MRI-compatible components used in conjunction with a magnetic resonance imager for Level 3 Tesla requirements
- Clearly identified for hospital settings with ASTM standard F 2503-05 markings
- Cleaned for oxygen service and oil free per CGA G-4.1
- Automated assembly and testing processes ensure exceptional quality
- 100% helium leak tested
- Heavy-duty forged brass body for durability and high pressure
- Precisely machined internal components meet the most stringent international valve performance standards
- Pressure Relief Device (PRD) is a unitized plug design which provides excellent flow characteristics, ensures proper assembly and tamper resistance
- Metal-to-metal seal below bonnet threads prevents pressure in the threads at the top of the valve body
- Direct-drive stem design with optimized O-ring (GV) or double O-ring (GVHM) seal reduces friction and operates at exceptionally low torque levels
- Inlet and outlet thread configurations are available for a broad spectrum of customer, country and code specifications
- Tapped for dip tube as required



MEDICAL GV MRI SERIES GLOBAL VALVES

### Ordering Info GV MRI Series: Global Valves

Part Number	Gas Service @ 70° F	CGA	Outlet Thread Size	Inlet Thread Size
SHW-GV32051-XXMRI	0–3000 PSI	320	.825–14 NGO RH Ext.	1-1/8–12 UNF
SHW-GV32051-XX-75MRI	0–3000 PSI	320	.825–14 NGO RH Ext.	3/4–16 UNF
SHW-GV32651-XXMRI	0–3000 PSI	326	.825–14 NGO RH Ext.	1-1/8–12 UNF
SHW-GV32651-XX-75MRI	0–3000 PSI	326	.825–14 NGO RH Ext.	3/4–16 UNF
SHW-GV34651-XXMRI	0–3000 PSI	346	.825–14 NGO RH Ext.	1-1/8–12 UNF
SHW-GV34651-XX-75MRI	0–3000 PSI	346	.825–14 NGO RH Ext.	3/4–16 UNF
SHW-GV54051-XXMRI	0–3000 PSI	540	.903–14 NGO RH Ext.	1-1/8–12 UNF
SHW-GV54051-XX-75MRI	0–3000 PSI	540	.903–14 NGO RH Ext.	3/4–16 UNF
SHW-GV58051-XXMRI	0–3000 PSI	540	.165–14 NGO RH Int.	1-1/8–12 UNF
SHW-GV58051-XX-75MRI	0–3000 PSI	540	.165–14 NGO RH Int.	3/4–16 UNF

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## YVBA Series: Vertical Outlet Oxygen Valves

Compact and designed for home healthcare use on small medical aluminum and composite cylinders.

### KEY FEATURES & BENEFITS

- Compact design
- Chamber designed for easy operation
- Aluminum Silicon Bronze stem design for dependable service and long life
- Durable lower plug made of tough naval brass resists wear
- Lower plug is PTFE coated to add lubricity, which minimizes seizing and galling especially under high-pressure operation
- Internal bonnet gasket seal resists damage to chamber sealing area
- Compact molded Lexan® polycarbonate handwheel is easy to operate
- Single unit, compact Pressure Relief Device incorporates 165° F fusible metal backing to resist premature rupture and provide maximum cylinder protection
- Chrome plated for corrosion resistance and cosmetic appeal
- Cleaned for oxygen service and oil free per CGA G-4.1

### Design Specifications

	English	Metric
Max. Working Pressure:	3000 PSI	207 Bar
Storage Temperature Range:	-65° F → +155° F	-54° C → +68° C
Operating Temperature Range:	-50° F → +120° F	-45° C → +49° C
Minimum Cycle Life:	5000 Cycles	5000 Cycles
Operating Torque:	3–5 in.-lbs.	.3–.6 N-m
Closing Torque:	5–7 in.-lbs.	.6–.8 N-m
Bonnet Installation Torque:	25–30 ft.-lbs.	33.9–7.3 N-m
Pressure Relief Device Installation Torque:	50–65 in.-lbs.	5.6–7.3 N-m
Stem Nut Installation Torque:	Nut Flush with Top of Stem	

### Standards Conformance

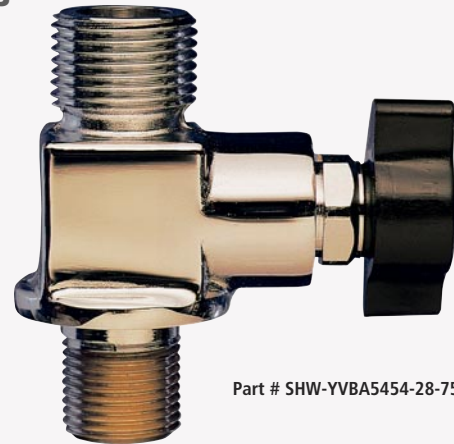
CGA V-9	Standard for Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications
A-A-59860	US General Services Administration Standards for Gas Cylinder Valves

### Special features available:

- CG-1 Pressure Relief Devices without fusible metal
- Hex-style, exhaust-equalizing Pressure Relief Device plugs
- .750–16 UNF inlets with O-ring glands in conformance with military specifications
- Round, barrel-style Lexan® handwheel

### Ordering Info Key Replacement Parts

Part Number	Description
SHW-19-3506-11	Spring
SHW-3506-9	Lower Plug
SHW-6521S	Handwheel



Part # SHW-YVBA5454-28-75G

### Materials of Construction

Part Number	Description	Materials of Construction
SHW-1-3606-14	Bonnet	Brass, UNS ASTMB-16-53 Chrome Plated
SHW-3506-10	Gasket	Copper
SHW-1389-2D	Handwheel	Lexan®
<b>Plug and Seat Assembly</b>		
SHW-3506-9	Plug	Aluminum Silicon Bronze C34200
	Seat	Nylon, Zytel 101 or Celanese 1000-11
SHW-3506-18	Packing	Viton
SHW-3506-7	Packing	PTFE
SHW-9-3011A-2	Panel Mount Nut (as required)	Brass C36000, Chrome Plated
SHW-19-3506-11	Spring	Type 302 Stainless Steel, Passivated
SHW-9-3506-12	Stem	Aluminum Silicon Bronze Alloy #708-8 Nickel Plated
SHW-1-3506-8	Stem Nut	Brass C36000

### Ordering Info YVBA Series: Vertical Outlet Oxygen Valves

#### 3/4" UNF Straight Thread, Chrome

Part Number	Description
SHW-YVBA5454-28-75G	3000 PSI 165° fuse Plug with Gauge Port
SHW-YVBA5454-32-75G	3360 PSI 165° fuse Plug with Gauge Port
SHW-YVBA5454-48-75GH	5000 PSI 165° fuse Plug with Gauge Port & Handwheel Knob
SHW-YVBA5454-48-75G	5000 PSI 165° fuse Plug with Gauge Port

#### 5/8" UNF Straight Thread, Chrome

Part Number	Description
SHW-YVBA5454-28-62	3000 PSI 165° fuse Plug
SHW-YVBA5454-32-62	3360 PSI 165° fuse Plug
SHW-YVBA5454-35-62	3775 PSI 165° fuse Plug
SHW-YVBA5454-38-62	4000 PSI 165° fuse Plug

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Ordering Info Inlet O-Ring for Straight Threaded YVB Valves

Part Number	Size	Material
SHW-G016B	.625 UNF	Buna-N
SHW-G016T	.625 UNF	Buna-N
SHW-G210A9	.750 UNF	Buna-N
SHW-G210T	.750 UNF	PTFE
SHW-G210J	.750 UNF	Viton®



## YVA Series: High Pressure Line Valves

Designed for Compressed Gas Storage & Cascade Fill Systems meeting the demands of SCUBA & SCBA professionals internationally. The most state-of-the-art and efficient valve in the industry.

### KEY FEATURES & BENEFITS

- Strong, durable forged brass body manufactured by Sherwood to specifications stricter than most commercial forging specifications
- Compact design especially suited for use on compressor or cascade panels
- Chamber specially designed for low-torque operation
- Aluminum Silicon Bronze stem design for dependable service and long life
- Proprietary dual packing chamber design provides dependable seal characteristics, long service life and easy operation
- Durable lower plug made of tough naval brass to resist wear
- Lower plug is PTFE coated to add lubricity, which minimizes seizing and galling especially under high-pressure operation
- Internal protected bonnet gasket seal provides positive, damage-resistant chamber seal
- Compact molded Lexan® polycarbonate handwheel is easy to use
- Safe, dependable and easily rebuilt and maintained



YVA SERIES HIGH PRESSURE LINE VALVES

### Design Specifications

	English	Metric
Max. Working Pressure:	6000 PSI	414 Bar
Storage Temperature Range:	-65° F → +155° F	-54° C → +68° C
Operating Temperature Range:	-50° F → +120° F	-45° C → +49° C
Minimum Cycle Life:	5000 Cycles	5000 Cycles
Operating Torque:	10–15 in.-lbs.	1.1–2.2 N-m
Closing Torque:	10–15 in.-lbs.	1.1–2.2 N-m
Bonnet Installation Torque:	25–30 ft.-lbs.	2.8–3.4 N-m
Stem Nut Installation Torque:	Nut Flush with Top of Stem	

### Standards Conformance

CGA V-9	Standard for Gas Cylinder Valves
A-A-59860	US General Services Administration Standards for Gas Cylinder Valves

### Materials of Construction

Description	Materials of Construction
Body	Brass C37700 Chrome Plated
Bonnet	Brass, UNS ASTMB-16-53 Chrome Plated
Gasket	Copper
Handwheel	Lexan®
Handwheel Cap	Lexan
Lower Plug	Aluminum Silicon Bronze C64200
Lower Plug Seat	Nylon: Zytel 101 or Celanese 1000-11
Packing (3506-18)	Viton®
Packing (3506-7)	PTFE
Panel Mount Nut (as required)	Brass C36000, Chrome Plated
Spring	Type 302 Stainless Steel, Passivated
Stem	Aluminum Silicon Bronze Alloy #708-8 Nickel Plated
Stem Nut	Brass C36000

### Ordering Info YVA Series: Line Valves, Chrome

#### Line Valves, Chrome

Part Number	Description
SHW-YVA3010	1/4" NPT x 1/4" NPT
SHW-YVA3010A	1/4" NPT x 1/4" NPT, Panel Mount

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## OxyGen 1 Series: Oxygen Valves with Integrated Pressure Regulators



VC Model

### KEY FEATURES & BENEFITS

#### Compact, Easy-to-Use Design

- Designed for ambulatory service applications, combines on/off with reduced pressure for direct patient care
- 35% lower profile than comparable models provides more efficient racking and storage capabilities.
- 15%-25% lighter weight than comparable models combined with ergonomically designed shroud with integral carrying handle improves mobility and reduces user fatigue.
- Ergonomically designed shroud with carrying handles improves mobility and reduces user fatigue
- Shroud circumference is sized to fit within the footprint diameter of standard Medical-E cylinders.

#### Reliable, Quality Product

- Tested and meets all known tests for MRI-compatible components used in conjunction with a magnetic resonance imager for Level 3 Tesla requirements
- Flow rate accuracy within +/- 10% of dial setting.
- Regulator adjustment knob with positive flow detents guards against inadvertent flow setting changes
- Inspection windows in the shroud permit convenient leak inspection
- All units are 100% helium leak-tested.
- Each Oxy-Gen I unit is assigned a unique serial number for positive identification.
- Cleaned for oxygen service and oil free per ASTM G-93

#### Convenient

- Pressure gauge located at the top of the unit is protected by the shroud-handle and provides excellent visibility through a full range of cylinder positions.
- Pressure gauge directly reads cylinder pressure. (no shut-off valves interrupt flow to the gauge)

#### Capable

- Protective shroud does not require removal during the filling process.
- Fill and evacuation rates are equivalent to standard medical post valves and deliver substantial time and money savings on the fill line.

#### Durable

- Shroud material is made of a durable high performance Nylon/ABS polymer blend and exhibits excellent toughness and chemical and UV resistance.
- Non-rotating valve seat extends seat life and reduces the potential of particulates generated by rotating seats.

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## OxyGen 1 Series: Oxygen Valves with Integrated Pressure Regulators – Model V Fill Shut-Off Valves



V Model

### KEY FEATURES & BENEFITS

- Flow control knob also acts as the principal shut-off device
- Single-control operational design is easy to use and therapist friendly
- Standard CGA 540 fill connection

## OXY-GEN 1 SYSTEMS ARE AVAILABLE IN TWO DISTINCT FLOW RANGES

From the gentlest pediatric treatment to the most demanding life preserving EMS requirements, Sherwood offers an Oxy-Gen 1 system for every portable oxygen therapy application.

### OXY-GEN 1 Model STANDARD FLOW

**Flow Range**  
• 0 - 15 L/Min

**Flow Adjustments**  
0, 1/4, 1/2, 1, 2, 3, 4, 6, 8,  
10, 12, 15 Liter/Minute

**Applications**  
• Hospital – Pediatrics

### OXY-GEN 1 Model HIGH FLOW

**Flow Range**  
• 0 25 L/Min

**Flow Adjustments**  
0, 1/4, 1/2, 1, 2, 3, 4, 6, 8,  
10, 15, 25 Liter/Minute

**Applications**  
• EMS/EMR

### OPTIONS AND DESIGN FEATURES

#### Fill Connection

- CGA-540 Outlet (TL2051 VC fill adapter required for model Oxy-Gen-1VC)

#### Cylinder Service Pressure Options

- 0 - 2015 psig
- 0 - 2216 psig
- 0 - 3000 psig

#### Outlet Connection

- Barbed fitting for 1/4" I.D. hose

#### Optional 50 PSI DISS Connection

#### Inlet Thread Options

- 3/4-16 UNF-2A O-Ring Seal
- 5/8-18 UNF-2A O-Ring Seal
- 1/2-14 NGT Tapered Thread

#### Optional Eductor Tube

**MRI TESTED TO 3 TESLA**  
(in conjunction with a standard aluminum Medical-E cylinder)

**CLASSIFIED AS MR  
CONDITIONAL PER  
ASTM F 2503-05**

# OxyGen 1 Series: Valve / Regulator Combination

## The Oxy-Gen 1 Valve / Regulator is Available in Two Select Models



**Oxy-Gen-1V**

**DESIGN FEATURES AND BENEFITS**

- Filling process with standard CGA-540 fill connection.
- Flow control knob also acts as the principal shut-off device.
- Standard post valve stem configuration is compatible with existing fill plant drive tools.
- Fill and evacuation rates are similar to standard post medical valve statistics.
- Unique single-control operational design is therapist friendly.
- Sherwood quality, craftsmanship, premium materials and service are standard features of every Oxy-Gen-1V produced.



**Oxy-Gen-1VC**

**DESIGN FEATURES AND BENEFITS**

- Check valve design prevents pressure to the fill connection during therapy applications.
- Filling process requires a special 540 connection tool to override the back check mechanism.
- Master shut-off valve isolates pressure from both the regulator and connection outlet.
- Protective shroud shields the master shut-off valve from unintended operation of the hand-wheel.
- Sherwood quality, craftsmanship, premium materials and service are standard features of every Oxy-Gen-1VC produced.

**OXY-GEN 1 Fill Shut Off Valves  
1/2" NGT Tapered Thread**

Part Number	Safety	Description
SHW-VRAM4TV-32-25D	3360 PSI	0-25 LPM CGA 540 with DISS Connection

**3/4" - 16 UNF Straight Thread**

Part Number	Safety	Description
SHW-VRAM5TV-32-75-15	3360 PSI	0-15 LPM CGA 540, "V" Valve Regulating
SHW-VRM5V-32-75-15	3360 PSI	0-15 LPM CGA 540
SHW-VRAM5TV-32-75-25	3360 PSI	0-25 LPM CGA 540
SHW-VRAM5TV-32-75-15D	3360 PSI	0-15 LPM CGA 540 with DISS Connection, "V" Valve Regulating
SHW-VRM5V-32-75-15D	3360 PSI	0-15 LPM CGA 540 with DISS Connection
SHW-VRM5V-32-75-25D	3360 PSI	0-25 LPM CGA 540 with DISS Connection

**Fill Tool for OXY-GEN1 Master Valve**

Part Number	Description
SHW-TL2051VC	Sherwood Fill Tool for OXY-GEN1 Master Valve

**OXY-GEN 1 "VC" Master Shut Off Valves  
3/4" - 16 UNF Straight Thread**

Part Number	Safety	Description
SHW-VRAM5TVC-32-75-15	3360 PSI	0-15 LPM, CGA 540
SHW-VRAM5TVC-32-75-15D	3360 PSI	0-15 LPM, CGA 540 with DISS Connection

OXYGEN 1 SERIES VALVE / REGULATOR COMBINATION

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## BV Series: Hi/Lo Valves with Built-In Regulators

Designed for use in larger capacity lightweight 4500 PSI cylinders, the BV Series features an integral regulator that reduces gas pressure on the 3000 PSI max outlet to 700–1000 PSI, enabling field use of a common UL® Rated 3000 PSI regulator.

### KEY FEATURES & BENEFITS

- Unique dual outlet design enables use of lower or higher cylinder Working Pressure from the same valve/cylinder package
- Provides quick fill capability — no special filling or withdrawal adapters needed
- Strong, durable forged brass body manufactured by Sherwood to specifications stricter than most commercial forging specifications
- High-temperature aluminum alloy handwheel with large drainage holes
- Integral stainless steel tang helps prevent internal stem breakage
- Durable lower plug made of tough naval brass resists wear
- Lower plug is PTFE coated to add lubricity, which minimizes seizing and galling especially under high-pressure operation
- Internally threaded chamber design promotes longer life and helps protect valve body chamber threads from damage
- Nickel 201 rupture disc resists premature rupture that may be caused by corrosive ambient environments
- Inert PTFE packing provides leak-free stem seal, long cycle life and resistance to corrosion
- Regulator designed for long service life and tested to in excess of 16,000 cycles
- Pressure Relief Device strategically located in regulated pressure outlet prevents cylinder pressure from reaching downstream equipment
- Pressure Relief Device supplied standard for 4500 PSI cylinder with a test pressure of 1.5 times Working Pressure
- Regulated Outlet Pressure Relief Device rupture pressure is 2800–3000 PSI
- High-pressure outlet plug removal tool (Part Number SHW-680PW-2) supplied separately to cylinder filling plants only

**Hi/Lo Pressure Regulating Dual Outlet Valve**  
Regulated Outlet Pressure: 700 - 1100 PSIG @ 4500 PSIG Inlet

**High Pressure Outlet Pressure Rating: 5,500 PSI Max**

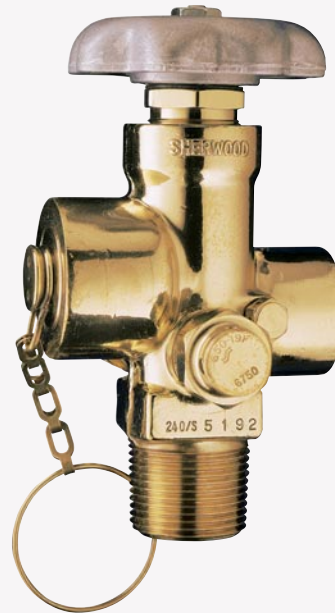
Part Number	Regulated Outlet	High Pressure Outlet Fill Port	Inlet Threads
SHW-BV6861-65-580T	CGA 580	CGA 680	3/4-14 NGT +24 Oversize
SHW-BV70161-65-540	CGA 540	CGA 701	3/4-14 NGT +24 Oversize

### Accessory

Part Number	Description
SHW-680PW-2	Spanner Wrench Tool

### Hi/Lo Valves with Built-in Regulators

Part Number	Gas Service	High Pressure Fill Port Connection	Regulated Outlet Connection	Regulated Outlet Pressure	Inlet	Cap & Plug
SHW-BV6861-65-580T	Inert Gases	CGA 680 (high) .965–14 NGO RH Int.	CGA 580 (low)	700–1100 PSI @ 4500 PSI Inlet	3/4"–14 NGT 24 Threads Oversize	Yes
SHW-BV6861-65-580TL	Inert Gases	CGA 680 (high) .965–14 NGO RH Int.	CGA 580 (low)	700–1100 PSI @ 4500 PSI Inlet	3/4"–14 NGT	No



Valves with other size inlets and outlets are special production.

Please call Ratermann for availability.

### Materials of Construction

Part Number	Description	Materials of Construction
N/A	Body	Brass C37700
N/A	Filter	Sintered Bronze 65–100 Micron
SHW-1250B-40 or SHW-1250B-40A	Plug and Seat Assembly Plug Seat	Nylon Zytel 101 Naval Brass C48500 PTFE Coated
SHW-11250-2	Bonnet	Brass C37700
SHW-1401	Handwheel	Aluminum A380
SHW-47-1003	Nut	AISI 1010 Steel Corrosion Protective Coating
SHW-45-1012	Spring	Hard Drawn Spring Steel Cadmium or Zinc Plate
SHW-1413	Washer, Handwheel	High Density Gray Fiber Parrafin Coated
SHW-1250-6	Packing	Virgin PTFE
SHW-680P-20	Plug Assembly Ring Chain Plug O-Ring	Brass Wire Brass Brass C36000 Buna-N
N/A	Pin	Carbon Steel C1215 Zinc Plated
N/A	Piston & Spring Assembly Piston Seat O-Ring Back-up Ring Spring Shim	Brass C36000 1/2 Hard PTFE Viton 75+ or -5 Durometer PTFE Stainless Steel 301 Passivated Brass C26000
N/A	Gasket	Copper Annealed Soft
SHW-4000-60-29	Safety Plug Assembly Body Retainer Burst Disc	Brass C36000 Copper C11000 Nickel 201
SHW-650-19F9-65	Safety Cap Assembly Gasket Burst Disc Safety Cap	Copper CDA 110 Nickel 201 Brass C36000

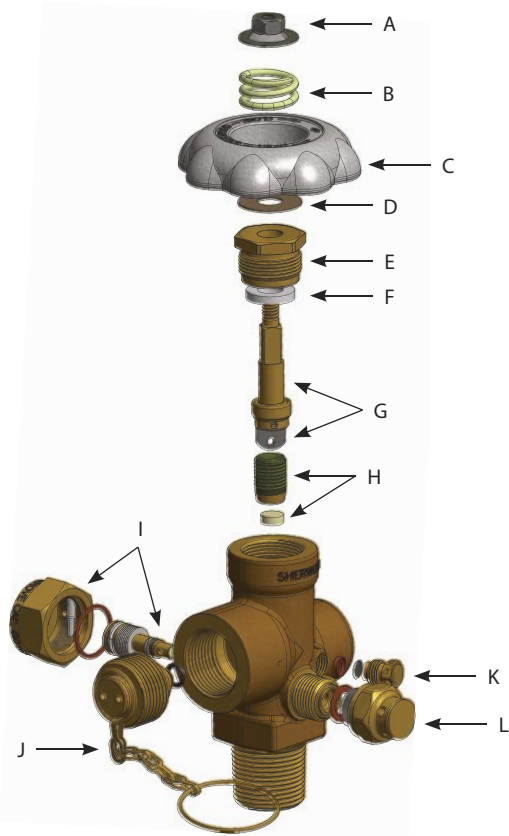
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## BV Series: Hi/Lo Valves with Built-In Regulators

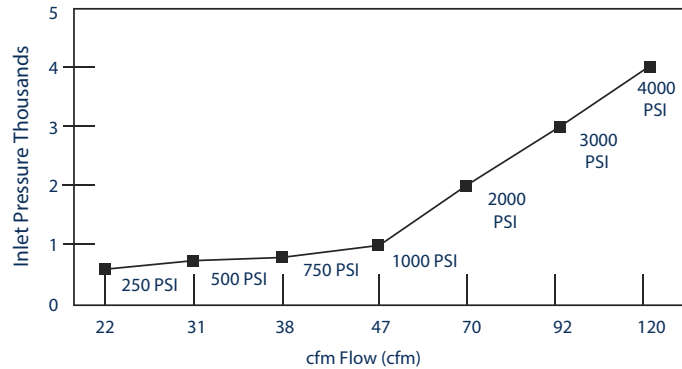
HI/LO VALVES WITH BUILT-IN REGULATORS

### Parts Breakdown for BV Series

Description	Part Number
A. Handwheel Nut	SHW-47-1003
B. Handwheel Spring	SHW-45-1012
C. Handwheel	SHW-1401
D. Handwheel Washer	SHW-1413
E. Bonnet	SHW-1250-2
F. Packing	SHW-1250-6
G. Stem & Tang Assembly	SHW-1250-30
H. Plug & Seat Assembly	SHW-1250B-40A
I. Piston & Spring Assembly	Not sold separately
J. Plug Assembly	SHW-680P-20
K. Safety Plug Assembly	SHW-4000-60-29
L. Safety Cap Assembly	SHW-650-19F9-65



### BV Series Regulated Outlet Flow



Design Specifications	English	Metric
Test Pressure	4500 PSI	310 Bar
Proof Pressure	20,000 PSI	1379 Bar
Regulated Outlet Pressure @ 4500 PSI inlet Pressure	700–1100 PSI	48–76 Bar
Operating Temperature Range	-50° F → +120° F	-45° C → +49° C
Storage Temperature Range	-65° F → +155° F	-54° C → +68° C
Minimum Cycle Life	5000 Cycles	5000 Cycles
Operating Torque	20–30 in.-lbs.	2.2–3.4 N-m
Closing Torque	10–20 in.-lbs.	1.1–2.2 N-m
Bonnet Installation Torque	70–80 ft.-lbs.	95–108.4 N-m
Safety Cap Installation Torque	30–40 ft.-lbs.	40.6–54.2 N-m
Stem Nut Installation Torque	Nut flush with top of stem	Nut flush with top of stem
650-19 Series PRD		
Installation Torque	30–40 ft.-lbs.	40.3–53.7 N-m
4000-60-29 PRD		
Installation Torque	70–80 in.-lbs.	94.3–107.7 N-m

### Standards Conformance

CGA V-9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Basic & Robust Valves Technical Information

Specifications	English	Metric
Maximum Working Pressure	500 PSI	34 BAR
Burst Pressure	7200 PSI	496 BAR
Operating Temperature Range	-50° F → +149° F	-45° C → +65° C
Storage Temperature Range	-60° F → +149° F	-51° C → +65° C
Leak Rate Internal/External	1 × 10 <sup>-6</sup> atm cc/s	1 × 10 <sup>-6</sup> mL/sec
Operating Torque	5–6 ft.-lbs.	6.8–8.1 N-m
Closing Torque	25 ft.-lbs.	33.9 N-m
Packing Nut Installation Torque	25–35 ft.-lbs.	33.9–47.4 N-m
Stem Installation Torque	10–12 ft.-lbs.	13.5 – 16.3 N-m
Fusible Plug Installation Torque	12–15 ft.-lbs.	16.3–20.3 N-m
Yoke Torque	Not to exceed 35 ft.-lbs.	Not to exceed 47.4 N-m
Minimum Cycle Life	2000 Cycles	2000 Cycles
Cv Flow Factor	1210A .733 1214A 1.88	1210A .733 1214A 1.88

### Materials of Construction

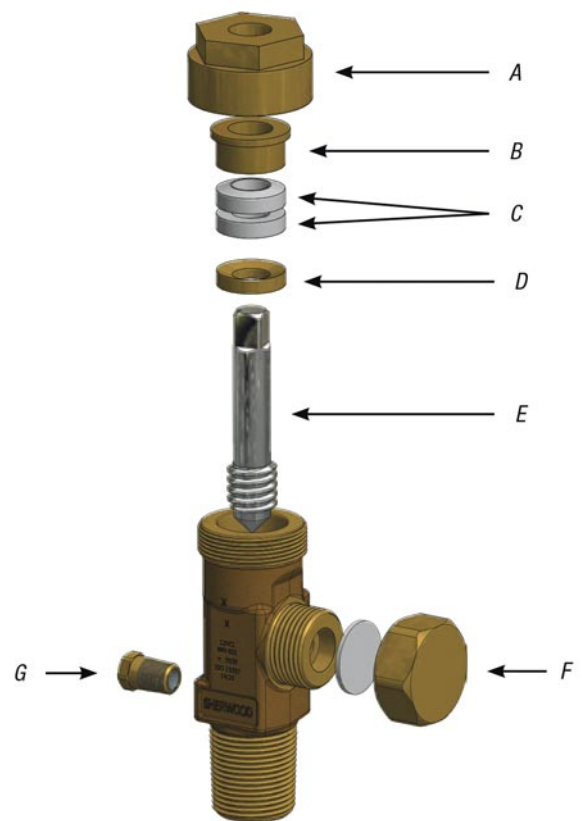
Description	Materials of Construction
Body	Aluminum Silicon Bronze C64210
Stem	Monel® ASTM B164-84 Type UNS NO4400 or NO4405
Packing Nut	Brass C36000
Packing Collar	Naval Brass C48500
Packing Gland	Brass C36000
Packing	PTFE or Garlock® 6130
Outlet Cap	Brass C36000
Outlet Cap Gasket	PTFE
Fusible Plug PRD	Naval Brass C48500 (with 165° F fusible metal)

### Standards Conformance

CGA V-9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections Standards
Chlorine Institute Pamphlet 17	Cylinder and Ton Container Procedure for Chlorine Packaging and Valve Design Criteria
ISO 11363-1	25E Inlet Thread Specifications
ISO 10297	International Standard for Cylinder Valves Design Specifications
TPED/ADR	Transportable Pressure Equipment Directive

### Parts Breakdown for Chlorine Gas Valves

Description	Part Number
A. Packing Nut	SHW-P1210-3 (Basic) or SHW-P1210A-3 (Robust)
B. Packing Gland	SHW-P1210-4
C. Packing (2 required)	SHW-P1210-6 (Garlock 6130) or SHW-P1210-6T (PTFE)
D. Packing Washer	SHW-P1210-5N
E. Stem	SHW-P1210-2M
F. Outlet Cap Assembly Outlet Cap Only Outlet Cap Gasket	SHW-P1210-11 SHW-P1210-11 SHW-P10-G-T
G. Fusible Plug	SHW-5853T Series (Cylinder Valve) SHW-1333 or SHW-1303 Series (Ton Container Valves)



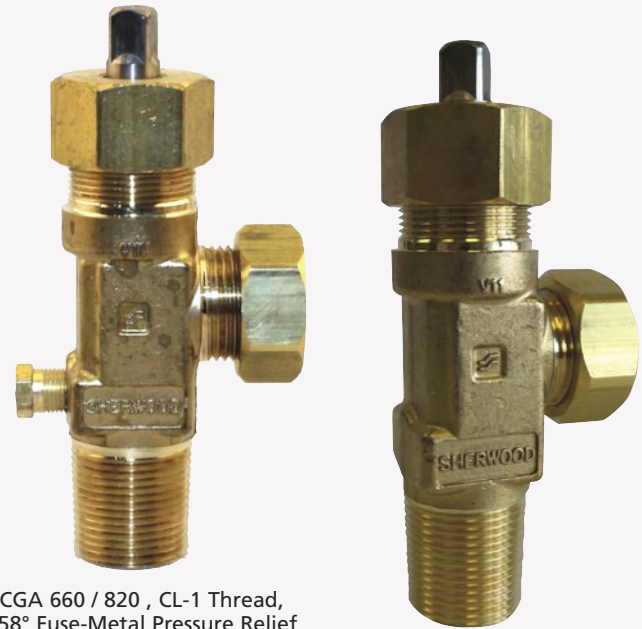
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## BASIC

### KEY FEATURES & BENEFITS

- Manufactured in conformance to Chlorine Institute Pamphlet 17
- One-piece Monel® stem offers exceptional durability and positive shut-off in chlorine and other corrosive gas service
- Choice of PTFE (shown here) or Garlock® 6130 packing for easy operation and durable leak-resistant stem seal
- Large wrench flats on valve body for easy installation
- Robust Aluminum Silicon Bronze (C64210) valve body offers corrosion resistance



CGA 660 / 820 , CL-1 Thread,  
158° Fuse-Metal Pressure Relief

Part # SHW-1210-B1

Part # SHW-1214X1-B1

### Standard Chlorine Institute Valve Design Cylinder Wrench Operated Packed Valves

#### 3/4-14 NGT, PTFE Packing

Part Number	Description
SHW-1210X1-B1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210X1-B2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210X1-B3	CGA 660 / 820 , CL-3 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210X1-B4	CGA 660 / 820 , CL-4 Thread, 158° Fuse-Metal Pressure Relief

#### 3/4-14 NGT, Garlock Packing

Part Number	Description
SHW-1210-B1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210-B2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210-B3	CGA 660 / 820 , CL-3 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210-B4	CGA 660 / 820 , CL-4 Thread, 158° Fuse-Metal Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Chlorine Institute Cylinder Valves

Part Number	Description
SHW-P1210-30-B1T	3/4-14 NGT with Safety Plug, Tested, CL-1
SHW-P1210-30-B2T	3/4-14 NGT with Safety Plug, Tested, CL-2
SHW-P1210-30-B3T	3/4-14 NGT with Safety Plug, Tested, CL-3
SHW-P1210-30-B4T	3/4-14 NGT with Safety Plug, Tested, CL-4

### Standard Chlorine Institute Valve Design Ton Container Wrench Operated Packed Valves

#### 3/4-14 NGT, PTFE Packing

Part Number	order	Description
SHW-1214X1-B1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief	
SHW-1214X1-B2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief	
SHW-1214X1-B3	CGA 660 / 820 , CL-3 Thread, No Pressure Relief	
SHW-1214X1-B4	CGA 660 / 820 , CL-4 Thread, No Pressure Relief	

#### 3/4-14 NGT, Garlock Packing

Part Number	Description
SHW-1214-B1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief
SHW-1214-B2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief
SHW-1214-B3	CGA 660 / 820 , CL-3 Thread, No Pressure Relief
SHW-1214-B4	CGA 660 / 820 , CL-4 Thread, No Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Chlorine Institute Cylinder Valves

Part Number	Description
SHW-P1214-1-B1T	3/4-14 NGT Tested, CL-1
SHW-P1214-1-B2T	3/4-14 NGT Tested, CL-2
SHW-P1214-1-B3T	3/4-14 NGT Tested, CL-3
SHW-P1214-1-B4T	3/4-14 NGT Tested, CL-4

### Standard Chlorine Institute Valve Design Cylinder Wrench Operated Packed Valves

#### 1-11 1/2 NGT, PTFE Packing

Part Number	Description
SHW-1211X1-B1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1211X1-B2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief

#### 1-11 1/2 NGT, Garlock Packing

Part Number	Description
SHW-1211-B1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1211-B2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Chlorine Institute Cylinder Valves

Part Number	Description
SHW-P1211-30-B1T	1-11 1/2 NGT with Safety Plug, Tested, CL-1
SHW-P1211-30-B2T	1-11 1/2 NGT with Safety Plug, Tested, CL-2

### Standard Chlorine Institute Valve Design Ton Container Wrench Operated Packed Valves

#### 1-11 1/2 NGT, PTFE Packing

Part Number	Description
SHW-1209X1-B1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief
SHW-1209X1-B2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief

#### 1-11 1/2 NGT, Garlock Packing

Part Number	Description
SHW-1209-B1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief
SHW-1209-B2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Chlorine Institute Cylinder Valves

Part Number	Description
SHW-P1209-1-B1T	1-11 1/2 NGT Tested, CL-1
SHW-P1209-1-B2T	1-11 1/2 NGT Tested, CL-2

The Sherwood Exclusive Robust Valve features a heavy-duty body and packing nut for increased load carrying capacity and resistance against stress corrosion and cracking.

## ROBUST

### Key Features & Benefits

- Approved per the Chlorine Institute Pamphlet 17 Alternate Design Criteria
- Design retains same outlet, inlets, pressure relief device, packing ring, packings, follower, outlet cap, wrenches, yoke and materials as the basic valve
- One-piece Monel® stem offers exceptional durability and positive shut-off in chlorine and other corrosive gas service
- Choice of PTFE (shown here) or Garlock® 6130 packing for easy operation and durable leak-resistant stem seal
- Large wrench flats on valve body for easy installation
- Robust Aluminum Silicon Bronze (C64210) valve body offers corrosion resistance



CGA 660 / 820 , CL-1 Thread,  
158° Fuse-Metal Pressure Relief  
Part # SHW-1210AX1-CL1

### Alternate Valve Design Cylinder Wrench Operated Packed Valves

#### 3/4-14 NGT, PTFE Packing

Part Number	Description
SHW-1210AX1-CL1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210AX1-CL2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210AX1-CL3	CGA 660 / 820 , CL-3 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210AX1-CL4	CGA 660 / 820 , CL-4 Thread, 158° Fuse-Metal Pressure Relief

#### 3/8-18 NPT, PTFE Packing

Part Number	Description
SHW-1210AX2-CL1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210AX2-CL1-CC	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief with Cap and Chain

#### 3/4-14 NGT, Garlock Packing

Part Number	Description
SHW-1210A-CL1	CGA 660 / 820 , CL-1 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210A-CL2	CGA 660 / 820 , CL-2 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210A-CL3	CGA 660 / 820 , CL-3 Thread, 158° Fuse-Metal Pressure Relief
SHW-1210A-CL4	CGA 660 / 820 , CL-4 Thread, 158° Fuse-Metal Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Chlorine Cylinder Valves

Part Number	Description
SHW-P1210A-1-CL1	3/4-14 NGT Robust Body with Safety Plug, Tested, CL-1
SHW-P1210A-1-CL2	3/4-14 NGT Robust Body with Safety Plug, Tested, CL-2
SHW-P1210A-1-CL3	3/4-14 NGT Robust Body with Safety Plug, Tested, CL-3
SHW-P1210A-1-CL4	3/4-14 NGT Robust Body with Safety Plug, Tested, CL-4

### Alternate Valve Design Ton Container Wrench Operated Packed Valves

#### 3/4-14 NGT, PTFE Packing

Part Number	Description
SHW-1214AX1-CL1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief
SHW-1214AX1-CL2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief
SHW-1214AX1-CL3	CGA 660 / 820 , CL-3 Thread, No Pressure Relief
SHW-1214AX1-CL4	CGA 660 / 820 , CL-4 Thread, No Pressure Relief

#### 3/8-18 NPT, PTFE Packing

Part Number	Description
SHW-1214AX2-CL1-CC	CGA 660 / 820 , CL-1 Thread, No Pressure Relief with Cap and Chain

#### 1/4-18 NPT, PTFE Packing

Part Number	Description
SHW-1214AX3-CL1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief

#### 3/4-14 NGT, Garlock Packing

Part Number	Description
SHW-1214A-CL1	CGA 660 / 820 , CL-1 Thread, No Pressure Relief
SHW-1214A-CL2	CGA 660 / 820 , CL-2 Thread, No Pressure Relief
SHW-1214A-CL3	CGA 660 / 820 , CL-3 Thread, No Pressure Relief
SHW-1214A-CL4	CGA 660 / 820 , CL-4 Thread, No Pressure Relief

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Replacement Bodies for Ton Container Valves

Part Number	Description
SHW-P1214A-1-CL1	3/4-14 NGT Robust Body Tested, CL-1
SHW-P1214A-1-CL2	3/4-14 NGT Robust Body Tested, CL-2
SHW-P1214A-1-CL3	3/4-14 NGT Robust Body Tested, CL-3
SHW-P1214A-1-CL4	3/4-14 NGT Robust Body Tested, CL-4

## Repair Instructions

### REPAIR INSTRUCTIONS FOR CHLORINE CYLINDER AND TON CONTAINER VALVES

#### DISASSEMBLY OF VALVE

**A. Place the valve assembly into a vise or similar holding fixture.** The holding fixture must securely grip the valve body on the wrench flats so no damage is done to the internal bores, external or internal threads, outlet, or fusible plug PRD.

#### B. Chamber

1. Using a  $1\frac{1}{4}$  socket or hex box wrench, remove the packing nut by turning it counter clockwise.
2. Using a  $\frac{3}{8}$  square socket or open end wrench, remove the stem from the valve chamber by turning it counter clockwise. The packing gland, the two packings, and the packing collar will be removed with the stem.
3. Remove the packing gland, the two packings, and the packing collar from the stem.

#### C. Outlet

1. Remove the outlet cap from the valve assembly by turning it counter clockwise.

#### D. Fusible Plug Pressure Relief Device (Cylinder Valves)

1. Using a  $\frac{7}{16}$  socket or hex box wrench, remove the fusible plug PRD by turning it counter clockwise.


#### INSPECTION OF VALVE AND COMPONENTS

#### A. Valve Body

1. Inspect the valve body for cracks. If cracks are suspected, scrap the valve body. Inspect the valve body chamber bore for dirt, debris and damage. Blow out the valve body chamber using clean, dry compressed air or nitrogen to remove these contaminants.
2. Examine all internal and external threads for damage or deterioration due to wear or corrosion. Special attention should be given to the threads closest to the outlet since they are the most vulnerable to corrosive attack.
3. Examine the valve body seat for excessive wear or corrosion build up. Wear creating a  $\frac{1}{8}$  x 90° or greater bevel should be eliminated with the 1534 reseating tool (1210/1214) or 1534A reseating tool(1210A/1214A). The valve has reached its end of life and should be replaced when the tool can no longer remove this bevel.
4. Clean the internal threads for the fusible plug to remove all thread luting compound.
5. If the valve body is damaged or corroded, do not attempt to repair. Order a new valve assembly.

#### B. Components

1. Scrap any component that is suspected of being cracked. Also, replace components damaged, worn or corroded to the point where safe operation, valve performance or leak integrity may be compromised. Special attention should be given to wear grooves in the nose of the stem. Stems with grooves  $\frac{1}{64}$  or greater in depth should be replaced.
2. Special attention should be given to the fuse plug for signs of leakage an extrusion of the fusible metal greater than  $\frac{1}{64}$  which may adversely affect use of the emergency kit tool used to temporarily seal fusible metal leaks.
3. It is recommended that both of the packings be replaced before the valve is reassembled.

 **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## Repair Instructions *continued from previous page*

### REPAIR INSTRUCTIONS FOR CHLORINE CYLINDER AND TON CONTAINER VALVES

#### ASSEMBLY OF VALVE

**NOTE:** All parts must be clean, free of oil, chips and other contaminants before beginning assembly. A properly calibrated torque wrench must be used. Over tightening will damage components and the valve body. Under tightening may result in leaks. Reassembly of a used valve should not begin until all the components of that valve have been examined to determine their combined effects on valve performance and operation.

#### A. Chamber

1. Insert the stem into the valve chamber and turning it clockwise, engage it one full thread. Engaging the stem more than one full thread may make installation of parts difficult.
2. Place the packing collar, flat side down, onto the stem.
3. Install two packings with the flat sides facing each other, and place them onto the stem.
4. Place the packing gland with the beveled end down onto the stem.
5. Tighten the stem using a  $\frac{3}{8}$  square socket and a torque wrench to 10-12 ft. lbs. to coin the seat in the body.
6. Press down on the packing gland until the two packings are completely below the top of the body.
7. Install the packing nut over the stem. Making sure the threads are properly engaged, tighten the packing nut to 25-30 ft. lbs. using a  $1\frac{1}{4}$  socket and torque wrench.

#### B. Outlet

1. Install the outlet cap onto the valve assembly outlet, turning clockwise until hand tight.

#### C. Fusible Plug PRD (Cylinder Valve)

1. Apply a chlorine compatible thread luting compound onto the bottom threads of the fusible plug PRD.
2. Thread the fusible plug PRD, finger tight, making sure at least one thread is engaged in the body.
3. Using a  $\frac{7}{16}$  socket and a proper torque wrench, tighten the fusible plug to 12-15 ft. lbs. or  $1\frac{1}{2}$  - 2 turns.

#### TESTING OF ASSEMBLED VALVE

**NOTE:** Only leak detection solutions compatible with chlorine should be used. Thus, only commercial or household detergents should be used that DO NOT contain ammonia, phosphates or other chemicals which are harmful to copper alloys and can initiate stress corrosion cracking of these alloys.

- A. Test each reassembled valve by installing the valve securely in a suitable test fixture and pressurizing the valve with air, nitrogen or carbon dioxide to 500 psig.
- B. With the outlet plugged or capped, open the valve assembly slowly and check for leaks through the valve body, past the stem and all threaded connections using a leak detection solution.
- C. Close the valve assembly and remove the outlet cap assembly or plug. Pressurize the valve to 500 psig and check for seat leakage through the outlet.
- C. If any leakage is detected, in the open or closed position, make necessary repairs and retest the valve before returning to service.

**NOTE:** Periodic retightening of the packing nut to 25-30 ft lbs. may be required to maintain a leak tight packing nut and stem seal. However, tightening more than is necessary or applying excessive torques will prematurely wear the packings and may damage the packing nut and the valve body threads.

 **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## Fusible Metal Plugs

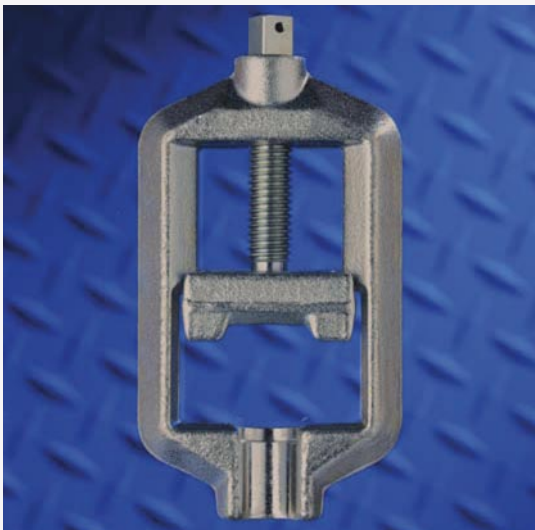
- Manufactured in accordance with Chlorine Institute specifications and CGA S-1.1.
- Materials: Brass C48500 and 165°F fusible alloy

### Fusible Plugs for Ton Container Valves

Part Number	Description	Hex Size
SHW-1303-N1	1"-11 1/2 NGT (CL)-1	1 1/4"
SHW-1303-N2	1"-11 1/2 NGT (CL)-2	1 1/4"
SHW-1303-N3	1"-11 1/2 NGT (CL)-3	1 1/4"
SHW-1303-N4	1"-11 1/2 NGT (CL)-4	1 1/4"
SHW-1333-N1	3/4"-14 NGT (CL)-1	1 1/4"
SHW-1333-N2	3/4"-14 NGT (CL)-2	1 1/4"
SHW-1333-N3	3/4"-14 NGT (CL)-3	1 1/4"
SHW-1333-N4	3/4"-14 NGT (CL)-4	1 1/4"

### Fusible Metal Plugs for Cylinder Valves

Part Number	Description	Hex Size
SHW-5853T	1/8"-27 NGT	7/16"



## Yoke

- Complies with Chlorine Institute specifications and CGA V-1.
- Material: Forged steel with zinc plating.
- CGA 820 connection

### Yoke

Part Number	Description	Minimum Clearance
SHW-628B	Yoke Assembly	1 1/4"
SHW-P628A-2	Replacement Stem	1 1/4"
SHW-P628A-3	Replacement Slotted Follower	1 1/4"



## Flex Connectors

- 3/8" OD, Zinc plated copper.
- Working pressure 500 psig.
- Provided with CGA 660 connector nuts for non-yoke applications.

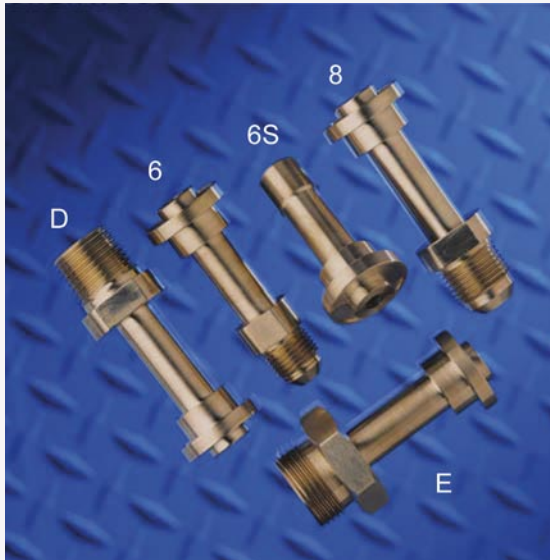
### Flex Connectors

Part Number	Description	Length / Connectors
SHW-6414X11C	Flex Connectors	30 in. CGA 820 both ends
SHW-6414X2C	Flex Connectors	4 ft. CGA 820 both ends
SHW-6414C	Flex Connectors	6 ft. CGA 820 both ends
SHW-6414X1C	Flex Connectors	10 ft. CGA 820 both ends

## Parts and Accessories

Part Number	Description
SHW-P10-G-T	Outlet Cap Gasket
SHW-P1210-11	Outlet Cap & Gasket
SHW-P1210-14	Outlet Cap Only
SHW-P1210-23	Outlet Cap & Chain
SHW-P1210-2M	Monel Stem
SHW-P1210-3	Pkng Nut, standard valve
SHW-P1210-4	Pkng Gland
SHW-P1210-5N	Pkng Washer
SHW-P1210-6	Garlock Pkng (2 required)
SHW-P1210-6T	PTFE Pkng 2 required
SHW-P1210A-3	Pkng Nut, new robust valve

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## High Flow Yoke Adapters

- Material: Aluminum Silicon Bronze C64210

### High Flow Yoke Adapters

Part Number	Description
SHW-5888-6	CGS 820 x 3/8" SAE Flare
SHW-5888-8	CGS 820 x 3/8" SAE Flare
SHW-5888-D	CGS 820 x 1/2"-14 NPT (male)
SHW-5888-E	CGS 820 x 660

### Gaskets for Yoke Adapters

Part Number	Description
SHW-P10-CLAL	Lead Outlet Gasket (.937" OD)
SHW-P10-G-T	PTFE Outlet Gasket (.937" OD)



## Wrenches

- Designed for use with 1210/1214 and 1210A/1214A chlorine valves and yokes.
- Material: Forged steel construction.
- Size: 1 1/4" open end; 3/8" stem square

### Wrenches

Part Number	Description
SHW-635	Stem & Cap Wrench (Straight Shaft)
SHW-635X3	Stem & Cap Wrench (Twisted Shaft)



## Reseating Tool

Increase the life of the valve with easy to use, manually operated, reseating tool.

1534 – For use with 1210 and 1214

1534A – For use with 1210A and 1214A

### Reseating Tools

Part Number	Description
SHW-1534	Reseating Tool
SHW-1534A	Reseating Tool Robust Model



## 1206A Series

### Packed Wrench-Operated Valves for Anhydrous Ammonia Applications

Designed for anhydrous ammonia applications, including commercial refrigeration, metal treating and chemical manufacturing.

#### Key Features & Benefits

- One-piece lead carbon steel, case-hardened, nickel-plated stem provides positive shut-off in corrosive gas service with exceptional durability
- One-piece PTFE packing promotes easy operation while providing a durable leak-resistant stem seal
- Designed to ensure a safe, long, trouble-free life under all service conditions
- Meets CGA standards
- SHW-1206AX5 compatible with both CGA 705 and 240 outlets
- SHW-1206AX9 compatible with CGA 240 outlet only
- Inlet Tap 1/4" -18 NPT

Specifications	English	Metric
Maximum Working Pressure	3000 PSI	207 BAR
Burst Pressure	15,000 PSI	1034 BAR
Leak Rate	1 × 10 <sup>-5</sup> atm cc/s	1 × 10 <sup>-5</sup> mL/sec
Operating Temperature	-50° F → +130° F	-45° C → +54° C
Operating Torque	5–6.5 ft.-lbs.	6.8–8.8 N-m
Closing Torque	15 ft.-lbs.	20.3 N-m
Cv Flow Factor	0.733	0.733
Cycle Life	1000 Minimum	1000 Minimum

Materials of Construction		
Part Number	Description	Materials of Construction
SHW-P1206A-2C	Stem	12L14 Carbon Steel with Nickel Plating
SHW-P1206-4C	Packing Nut	12L14 Carbon Steel with Zinc Plating
SHW-P1206-3C	Packing Gland	12L14 Carbon Steel with Zinc Plating
SHW-P5325-6T	Packing	PTFE
SHW-P1206-5C	Packing Washer	12L14 Carbon Steel with Zinc Plating
N/A	Seat	Tin (SN)
N/A	Body	303 Stainless Steel

#### Anhydrous Ammonia

Part Number	Description	CGA Outlet
SHW-1206AX5	Packed Ammonia Cylinder Valve	705, 240
SHW-1206AX9	Packed Ammonia Cylinder Valve with Lead Washer Recess	240
SHW-628X1	Ammonia Yoke	845
SHW-5877	Adapter	845



Part # SHW-1206AX5

#### Standards Conformance

CGA V-9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves



Part # SHW-628X1



Part # SHW-5877

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Refrigerant Recovery Valves

Designed to assure the cleanest, driest refrigerant gas for the most efficient operation of any HVACR system. Meets the Clean Air Act of 1990 with the highest materials demands by the EPA.

### Key Features & Benefits

- Replaceable bonnet and stem assembly
- PTFE coated anti-galling stem for ease of operation
- Replaceable color-coded handwheels
- Valves engineered and manufactured for durability and longevity, employing time-proven concepts, processes and methods
- Major component forged and machined from brass alloys controlled to exacting specifications of the Copper Development Association, Inc.



Vapor Service  
Part #  
SHW-RVE6660V



Liquid Service  
Part #  
SHW-RVE6660L

### Materials of Construction

Description	PART # SHW-RVE6660L	PART # SHW-RVE6660V
Body	Brass C37700	Brass C37700
Bonnet & Stem Sub		
Bonnet	Brass C36000	Brass C36000
Upper Stem	Brass C36000	Brass C36000
Gasket	Nylon 101	Nylon 101
Lower Stem Sub	O-Ring: Buna N/Nitrile Lower Stem: Brass C36000 Seat: Nylon 101	O-Ring: Buna N/Nitrile Lower Stem: Brass C36000 Seat: Nylon 101
Handwheel	ASTM SC848 Aluminum Die Cast	ASTM SC848 Aluminum Die Cast
Decal Plate	Polyethylene Low Density	Polyethylene Low Density
Washer	Steel w/Zinc Plate	Steel w/Zinc Plate
Screw	Steel w/Zinc Plate	Steel w/Zinc Plate
Tube	Brass C36000	—
Thread Sealant	Everseal 183	Everseal 183

### Key Replacement Parts for Vapor Service (PT # SHW-RVE6660V)

Part Number	Description
SHW-3250-9LH-KIT	Bonnet & Stem Assembly
SHW-1901B	Vapor Handwheel (blue)
SHW-3250-9V	Decal Plate (vapor)
SHW-J23B19RA	Washer
SHW-J12-F10-85AP	Screw

### Key Replacement Parts for Liquid Service (PT # SHW-RVE6660L)

Part Number	Description
SHW-3250-9LH-KIT	Bonnet & Stem Assembly
SHW-1901R	Liquid Handwheel (red)
SHW-3250-9L	Decal Plate (liquid)
SHW-J23B19RA	Washer
SHW-J12-F10-85AP	Screw

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



See 32A-3 for Nitrile Latex-Free Gloves

## PTFE Paste Oxygen Safe, Chemically Inert, and Odor Free

FORMULA-8® is used by thousands of welding and general supply companies and equipment manufacturers worldwide.

### IDEAL APPLICATIONS FOR PTFE PASTE

- Oxygen cylinders to eliminate leaks
- Fine instrument threads
- Oxygen systems below 125° C
- Valves on bottled gases

Part #	Description
OXY-PTFE-8	PTFE Paste



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1-800-264-7793

## Refrigerant Recovery Valves

### SHW-YVE445FR Relief Valve

#### Key Features & Benefits

- For 1" NPT tank connection
- Up to 1000 lb. water capacity
- 260 PSI Working Pressure
- Start to discharge pressure: 390–520 PSI

### SHW-YVE3865FR Relief Valve

#### Key Features & Benefits

- Relief valve for half-ton, portable refrigerant tanks
- Up to 1000 lb. water capacity containers
- Cylinder Working Pressure up to 260 PSI
- Used in conjunction with vapor and liquid recovery valve sets
- Safety set pressure: 500 PSI
- Start to discharge pressure: 490–520 PSI



Relief Valve  
Part #  
SHW-YVE445FR



Relief Valve  
Part # SHW-YVE3865FR

#### Refrigerant Recovery Valves

Part Number	Description	Tank Connection	CGA Outlet	Handwheel
SHW-RVE6660V	Vapor Service Valve	3/4"–14 NGT	660	Blue to Indicate Vapor Service
SHW-RVE6660L	Liquid Service Valve	3/4"–14 NGT	660	Red to Indicate Liquid Service
SHW-YVE445FR	Relief Valve	1" NPT	None	None
SHW-YVE3865FR	Relief Valve	1/4"–18 NPT	None	None

**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

#### Materials of Construction

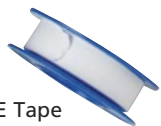
Description	Pt # SHW-YVE445FR Valves
Body	Brass C36000
Stem & Poppet Sub	
Bonnet	Brass C36000
Seat	Neoprene W
Nut	Steel w/Zinc Plating
Stem	Steel w/Zinc Plating
Thread Sealant	Titan 7271
Guide	Brass C36000
Washer	Brass C36000
Spring	302 Stainless Steel
Retainer	Brass C36000
Protective Closure	Polyethylene Low Density
Thread Sealant	Everseal 183

#### Materials of Construction

Description	Pt # SHW-YVE3865FR Valves
Body	Brass C36000
Poppet Assembly	
Poppet	Brass C36000
Seat	Neoprene W
Spring	302 Stainless Steel
Retainer	Brass C36000
Protective Closure	Polyethylene
Thread Sealant	Everseal 183

### PTFE Paste & Tape

Oxygen Safe,  
Chemically Inert,  
and Odor Free



PTFE Tape  
Pt # TAPE-1



PTFE Paste  
Pt # OXY-PTFE-8

For Paste & Tape  
See page 33A-3



Pt # LC-80Z

Pt # LC-1GAL

## Bubbles aren't always a good thing.

### Find leaks fast with Ratermann Leak Check!



To find leaks, apply a small amount of leak check to area being inspected. The compound works quickly to provide long lasting bubbles at the leak point.

Use extending tube to get in the hard to reach areas.

Designed to detect compressed gas leaks. Ratermann Leak Check is designed to quickly identify leaks on contact. It works well with small molecule gases such as Helium and Hydrogen. Reduce product loss, find those leaks **fast** and eliminate them.

For more Information on Ratermann Leak Check, please see page 10A-21

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## Refrigerant Cylinder Valves

### SHW-1014 Valve Series

#### Key Features & Benefits

- Diaphragm refrigerant cylinder valve for use in refrigerant recovery applications
- Integral Pressure Relief Device (CG-7)
- Diaphragm construction with sulfur-free neoprene seat



Refrigerant Cylinder Valve  
Part # SHW-1014-B

#### Refrigerant Recovery Valves

Part Number	CGA	Outlet	Inlet	Safety	Extra Features
SHW-1014-B	165	1/4" SAE Flare	1/4"-18 NGT	400 PSI	—
SHW-11014-C	165	1/4" SAE Flare	3/8"-18 NGT	400 PSI	—
SHW-11014-CB	165	1/4" SAE Flare	3/8"-18 NGT	400 PSI	Cleaned For Oxygen Service and Oil Free Per CGA G-4.1
SHW-11014X2-B	165	1/4" SAE Flare	1/4"-18 NGT	600 PSI	Cleaned For Oxygen Service and Oil Free Per CGA G-4.1
SHW-11014X2-C	165	1/4" SAE Flare	3/8"-18 NGT	600 PSI	Cleaned For Oxygen Service and Oil Free Per CGA G-4.1

### SHW-1031X19-CL1

Diaphragm Packless Refrigerant Valve with 1/4 NPT Tapped Inlet and PCTFE Seat

#### Key Features & Benefits

- Cylinder valve for use with refrigerant gases
- Diaphragm construction with unique PCTFE seat
- Cylinder Working Pressure up to 250 PSI
- Pressure Relief Device (CG-7) start to discharge pressure: 450 PSI

#### Materials of Construction

Description	Pt # SHW-YVE445FR Valves
Body	Brass C37700
Stem	Brass C36000
Screw	Steel w/Zinc Plating
Handwheel	Zamak #3 Zinc Die Cast
Bonnet	Brass C36000
Diaphragms	Brass C36000
Protective Closure	316 Stainless Steel
Seat Holder	Brass C36000
Seat	PCTFE
Spring	302 Stainless Steel
Safety Cap	Brass C36000
Safety Spring	Music Wire w/Zinc Plating
Safety Seat Holder	Brass C36000
Safety Seat	Neoprene W



Diaphragm Packless Refrigerant Valve  
Part # SHW-1031X19-CL1

#### Refrigerant Recovery Valves

Part Number	CGA	Outlet	Inlet	Safety	Features
SHW-1031X19-CL1	660	1"-14 NGO RH Ext.	3/4"-14 NGT	450 PSI	1/4" Tapped Inlet, PCTFE Seat

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Full Imprint**  
Pt # SW-1F

**Valve Wrap – Non Imprint Clear Material**  
Pt # SW-0C

## Heat Gun & Valve Shrink Wrap

Our Heat Gun is recommended for fast shrinking of shrink wrap film around the valve.

**Valve Wrap – Non Imprint**  
Pt # SW-0

**Our Recommendation for Fast Shrinking**  
Pt # H-HDGUN

**Shrink Wrap**

Fits most valve sizes and CGA's. (CGA 510, 540, 580, 320, 350 and more)

**For More Shrink Wrap Styles Available – See page 10A 3-5**