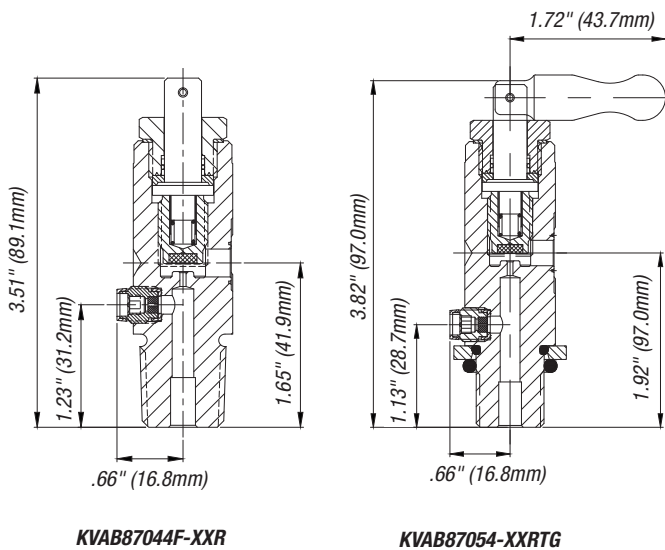


# KVAB Series

## Post Medical Valves



Post-type medical valves for "F" and "D" type cylinders and used for all CGA-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
- For Date Code Tables, see **pages 67–68**

Design Specifications		
	English	Metric
<b>Maximum Working Pressure</b>	3000 PSI	207 Bar
<b>Burst Pressure</b>	12,000 PSI	827 Bar
<b>Operating Temperature Range</b>	-50° F → +149° F	-45° C → +65° C
<b>Storage Temperature Range</b>	-65° F → +155° F	-54° C → +68° C
<b>Leak Rate Internal/External</b>	1x10 <sup>-3</sup> cc/sec.	1x10 <sup>-3</sup> Bar mL/sec.
<b>Cv Flow Factor</b>	Standard: .102	
<b>Minimum Cycle Life</b>	5000 Cycles	
<b>Opening Torque</b>	8–10 in.-lbs	1–1.1 N-m
<b>Closing Torque</b>	8–10 in.-lbs	1–1.1 N-m
<b>Operating Torque</b>	10–30 in.-lbs	1.1–3.4 N-m
<b>Bonnet Torque</b>	25–30 ft.-lbs.	33.9–40.6 N-m
<b>PRD Torque</b>	50–65 in.-lbs.	5.6–7.3 N-m

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



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## Medical Valves

## KVAB Series

## Post Medical Valves

Materials of Construction		
Sherwood Part Number	Part Description	Materials of Construction
N/A	Body	Brass C36000, Chrome Plated
6519	Packing Washer	Copper
<b>6503SH</b>	Bonnet & Stem Assembly	Bonnet Brass C36000, Nickel Plated
Stem		Brass C36000, Nickel Plated
Packing		PTFE
O-Ring		Viton®
Backup Ring		PTFE
<b>6527SH</b>	Spring	316 Stainless Steel
<b>6507A-17N</b>	Seat Assembly	Plug Leaded Naval Brass C48500, PTFE Coated
Seat Insert		Nylon, Zytel 101
<b>1-K655B-2</b>	Flange Ring	Brass C36000, Nickel Plated
<b>G908H</b>	Flange O-Ring	Viton®
<b>6513MFA-XXKIT (25 pieces)</b> <b>6513MFB-XXKIT (25 pieces)</b>	Safety Assembly	165° Eutectic Alloy
<b>9-K655B-2</b>	Pressure Relief Device	Plug Brass C36000, Nickel Plated
Disc		Nickel
Gasket		Nylon, Zytel 101
<b>9-4000-60-XX KIT</b>	Pressure Relief Device	Plug Brass C36000, Nickel Plated
Disc		Nickel
Gasket		Nylon, Zytel 101
<b>1-KTS-1C</b>	Toggle	Diecast Aluminum, Chrome Plated
<b>J250608B (old style)</b>	Toggle Pin	303 Stainless Steel
<b>J33-09308SS (new style)</b>	Toggle Pin	303 Stainless Steel

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

Sherwood Part Number	Inlet Size	Material
<b>G210J</b>	.750-16 UNF	Viton®
<b>G210T</b>	.750-16 UNF	PTFE

## Lubricants

KVAB valves require no lubrication on any internal component except for 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, Fluorolube® GR362, Krytox® 240AB or an equivalent lubricant.

## KVAB Series

### Post Medical Valves

For further information, see Data Code Tables on **page 67–68**.

Ordering Information					
Sherwood Part Number	Gas Service	Safety	CGA Outlet	Pin Indexing Hole Numbers	Inlet Thread Size
KVAB87044F-XX KVAB87054-XX	Oxygen	CG-4	870	Pins #2 and #5	½"–14 NGT .750–16 UNF-2A
KVAB88044F-XX KVAB88054-XX	Oxygen and Carbon Dioxide Mixtures	CG-4	880	Pins #2 and #6	½"–14 NGT .750–16 UNF-2A
KVAB89044F-XX KVAB89054-XX	Oxygen and Helium Mixtures	CG-4	890	Pins #2 and #4	½"–14 NGT .750–16 UNF-2A
KVAB91041-XX KVAB91051-XX	Nitrous Oxide	CG-1	910	Pins #3 and #5	½"–14 NGT .750–16 UNF-2A
KVAB93044F-XX KVAB93054-XX	Helium	CG-4	930	Pins #4 and #6	½"–14 NGT .750–16 UNF-2A
KVAB94041-XX KVAB94051-XX	Carbon Dioxide	CG-1	940	Pins #1 and #6	½"–14 NGT .750–16 UNF-2A
KVAB95044F-XX KVAB95054-XX	Air	CG-4	950	Pins #1 and #5	½"–14 NGT .750–16 UNF-2A
KVAB96044F-XX KVAB96054-XX	Nitrogen	CG-4	960	Pins #1 and #4	½"–14 NGT .750–16 UNF-2A
KVAB96541-XX KVAB96554-XX	Nitrous Oxide and Oxygen Mixtures	CG-1 CG-4	965	Pin #7	½"–14 NGT .750–16 UNF-2A
KVAB97344-XX KVAB97354-XX	Medical Gas Mixtures	CG-4	973	Pins #11 and #24	½"–14 NGT .750–16 UNF-2A

#### OPTIONS

- All valves are supplied with rupture discs rated for 2015 PSI Working Pressure cylinders. Rupture discs rated for other Working Pressures available on request.
  - To order ⅛"–27 NPT modified gauge port, add "G" to end of Part Number (e.g. KVAB87054-32G).
  - To order rugged diecast aluminum toggle lever, add "TG" to end of Part Number (e.g. KVAB87054-32 becomes KVAB87054-32TG).
  - To order PTFE inlet O-ring, add "R" to end of Part Number (e.g. KVAB87054-32 becomes KVAB87054-32R).
- THIS OPTION ONLY AVAILABLE ON .750–16 UNF-2A INLET VALVES. XX = PRD Safety

Key Replacement Parts						
Pressure Relief Device Sherwood Part Number		-XX	Cylinder Working Pressure	Color-Coded Ring to Designate Pressure (6513 MFX only)	Disc Rupture Range PSI @ 160° F	
CG-1 No Fuse Metal	CG-4 165° F Fuse Metal				Min.	Max.
<i>Pressure Relief Devices*</i>						
9-4000-60-28	6513MFA-28	-28	1800 PSI	Orange	2700	3000
9-4000-60-32	6513MFB-32	-32	2015 PSI	None	3025	3360
9-4000-60-48	6513MFA-48	-48	3000 PSI	Black	4500	5000

\* Available in Pressure Relief Device Kits (see below).

Pressure Relief Device Kits	
Sherwood Part Number	Description
6513MFA-28KIT	25 PRD Assemblies
6513MFB-32KIT	25 PRD Assemblies
6513MFA-48KIT	25 PRD Assemblies



**TL-KTS-C**  
Tool for Insertion/Crimping to replace  
KVAB toggle 1-KTS-1C and toggle pin J33-09308SS