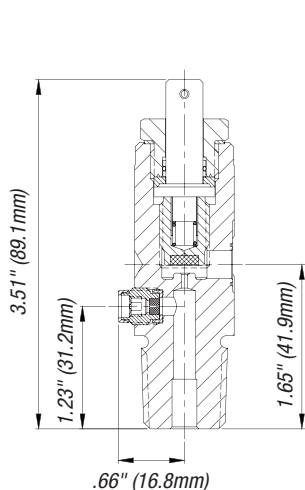
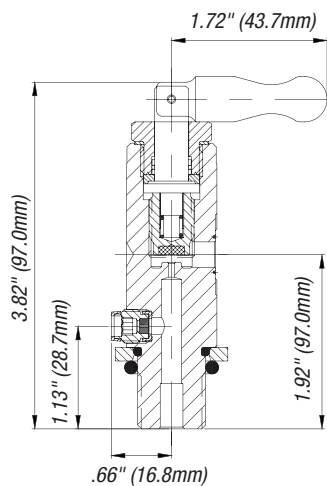


# KVAB Series

## Post Medical Valves



**KVAB87044F-XXR**



**KVAB87054-XXRTG**

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 1/2 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>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

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

Inlet O-Ring for Straight Threaded KVAB Series Medical Valves		
Sherwood Part Number	Inlet Size	Material
G210J	.750-16 UNF	Viton
G210T	.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