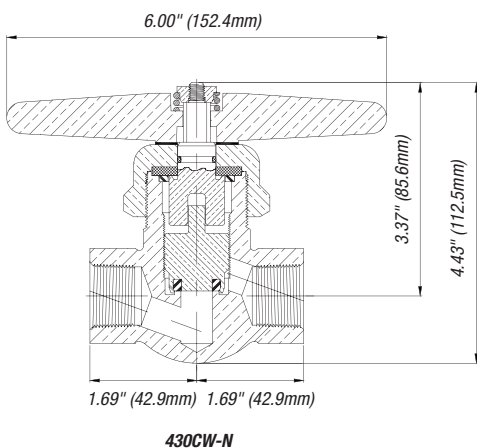


430 Series Master Shut-Off Valves



High-pressure shut-off valves designed for heavy-duty use on tube trailers, manifold systems and other piping systems. Valves are suitable for use with oxygen, acetylene, nitrogen, argon, helium, hydrogen, carbon dioxide, nitrous oxide and other inert gases.

Key Features & Benefits

- Safer — There is less chance of ignition from oxygen compression due to a toroidal seat insert that minimizes the area of fluoroplastic material subject to oxygen impact forces
- Heat-absorbing metal surfaces encapsulate all but the shut-off surface of the seat insert and serve as a heat sink to reduce the chance of ignition
- Longer life of downstream equipment reduces the forces against regulators and other auxiliary equipment due to the sudden surge of high-pressure gas when the valve is opened quickly
- Controlled flow — When the valve is opened quickly, dynamic forces directed against downstream equipment are reduced by a skirt on the lower stem shrouding the raised body seat, and this feature protects auxiliary equipment from sudden surges of high-pressure gas when valve is opened
- Full flow is achieved when handle is turned two full turns
- Forged brass body with copper alloy parts — 430C lower stem, C64200 aluminum-silicon-bronze not for acetylene; 430CX lower stem, C36000 free cutting brass for acetylene
- Pressure seal design with handwheel spring applies upward force against upper stem and packing to ensure stem seal even at low gas pressures, and this pressure seal bonnet design assures positive seal
- O-ring moisture seal on upper stem protects against environmental contamination and includes brass washer second seal restricting moisture intrusion, which is useful in cold (freezing) environments
- PCTFE seat insert and PTFE packing has been used successfully for over 30 years in master shut-off valve applications
- Large bar handle for ease of operation
- Pressure ratings — 6000 PSI, non-corrosive gases except oxygen; 4840 PSI, oxygen; 3000 PSI, UL[®] rating at 120° F
- Aluminum silicon bronze lower stem provides extra-long life and durability during operation
- Inert PTFE packing provides leak-free stem seal, long cycle life and resistance to corrosion

Design Specifications

	English	Metric
Maximum Working Pressure	6000 PSI	413 Bar
UL Maximum Working Pressure	3000 PSI	207 Bar
Maximum Working Pressure, Oxygen	5500 PSI @ 120° F	379 Bar @ 49° C
Burst Pressure	18,000 PSI	1241 Bar
Leak Rate	1x10 ⁻³ atm cc/sec	1x10 ⁻³ Bar mL/sec
Operating Temperature	-50° F → +130° F	-45° C → +54° C
Cv Flow Factor	3.16	3.16

SHERWOOD VALVE COMPRESSED GAS PRODUCTS

Specialty Applications

430 Series Master Shut-Off Valves

Materials of Construction		Ordering Information				
Part Description	Materials of Construction	Sherwood Part Number	Outlet Thread Size	Inlet Thread Size	Seat Holder*	Pressure Ratings (see Notes A, B, C below)
Body	Forged Brass C37700	430CW-F	1"-11½ NPSM (Male)	1"-11½ NPSM (Male)	P430CX12-10	B
Packing	PTFE	430CW-M	½"-14 NPT (Female)	½"-14 NPT (Female)	P430CX12-10	B
Handwheel Washer	High Density Fiber	430CW-MS	½" Pipe Socket Weld	½" Pipe Socket Weld	P430CX12-10	B
Packing Nut	Brass C36000	430CW-N	¾"-14 NPT (Female)	¾"-14 NPT (Female)	P430CX12-10	B
Stem	Brass C36000	430CW-NS	¾" Pipe Socket Weld	¾" Pipe Socket Weld	P430CX12-10	B
Handle	Forged Brass C37000	430CWX1-F	1"-11½ NPSM (Male)	1"-11½ NPSM (Male)	P430CX1-10A	A
O-Ring	Neoprene	430CWX1-M	½"-14 NPT (Female)	½"-14 NPT (Female)	P430CX1-10A	A
Seat Assembly	Aluminum Silicon Bronze C64200	430CWX1-MS	½" Pipe Socket Weld	½" Pipe Socket Weld	P430CX1-10A	A
		430CWX1-N	¾"-14 NPT (Female)	¾"-14 NPT (Female)	P430CX1-10A	A
	Brass C36000	430CWX1-NS	¾" Pipe Socket Weld	¾" Pipe Socket Weld	P430CX1-10A	A
Seat Holder	PTFE	430CWX9-FM	½"-14 NPT (Female)	1"-11½ NPSM (Male)	P430CX12-10	B
Seat Holder (430CX1 Series)		430CWX10-F	1"-11½ NPSM, LH (Male)	1"-11½ NPSM, LH (Male)	P430CX12-10	C
Seat						
Spring Nut Plated	Brass C36000					
Spring	302 Stainless Steel					
Lubricant	Fluorolube					
Washer	Brass C36000					

* P430CX12-10 (Aluminum Silicon Bronze) is not for use with acetylene or MAPP gases; P430CX1-10A (Brass) is for use with all non-corrosive, non-liquefied gases. To order brass washer replacement part, use part number P430CX13-20.

NOTES:

- A. 6000 PSI @ 70° F except 5500 PSI @ 120° F for oxygen and 3000 PSI @ 120° F for UL® applications.
- B. 6000 PSI valve is cleaned for oxygen service with oxygen pressure not exceeding 5500 PSI @ 120° F.
- C. 3000 PSI @ 120° F; UL® Recognized component.

Replacement Parts Kits	
P430C-32W	P430CX1-32W
Contains one of each component listed below.	Contains one of each component listed below.
P430-13	Handwheel Gasket
P1200-7	Handwheel Nut
P1200-11	Handwheel Spring
P430CX13-20	Washer
P430CX12-21K (ASB)	Lower Stem and Seal Insert Assembly
P430B-27-13	Stem O-Ring
P430-6T	PTFE Packing

Kits	
Sherwood Part Number	Description
P430CX1-32W	Includes the P430CX13-20
P430C-32W	Includes the P430CX13-20