

Lowest Operating  
Torques at  
High Pressures

# 630 Series Valves

## Introducing Sherwood's NEW Master Valves

High-pressure shut-off valves designed for heavy-duty use on manifold systems, fill plants, tube trailers 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

- **Easy Operation** - Lowest operating torque available, E-Z grip handwheel and slow opening design combine to make the new 630 series a breeze to operate.
- **Flow Control** - 3 turns from the closed position to fully open.
- **Versatility** - Specially designed resilient soft seat has been third party certified at Wendell Hull and approved for Oxygen service so one valve can fulfill all your gas service needs. Optional copper and monel seats for dedicated oxygen service.
- **Installation Options** - Front or back panel mounting capabilities available.
- **Interchangeability** - Sized to be interchangeable with other manufacturers' valves as an easy drop in replacement for your current installation.
- **Vacuum Capable** - Vacuum tested to ensure the highest purity filling operations.
- **Field Rebuildable** - All valves are field rebuildable.
- **TPED** - Approval Pending.



### Design Specifications

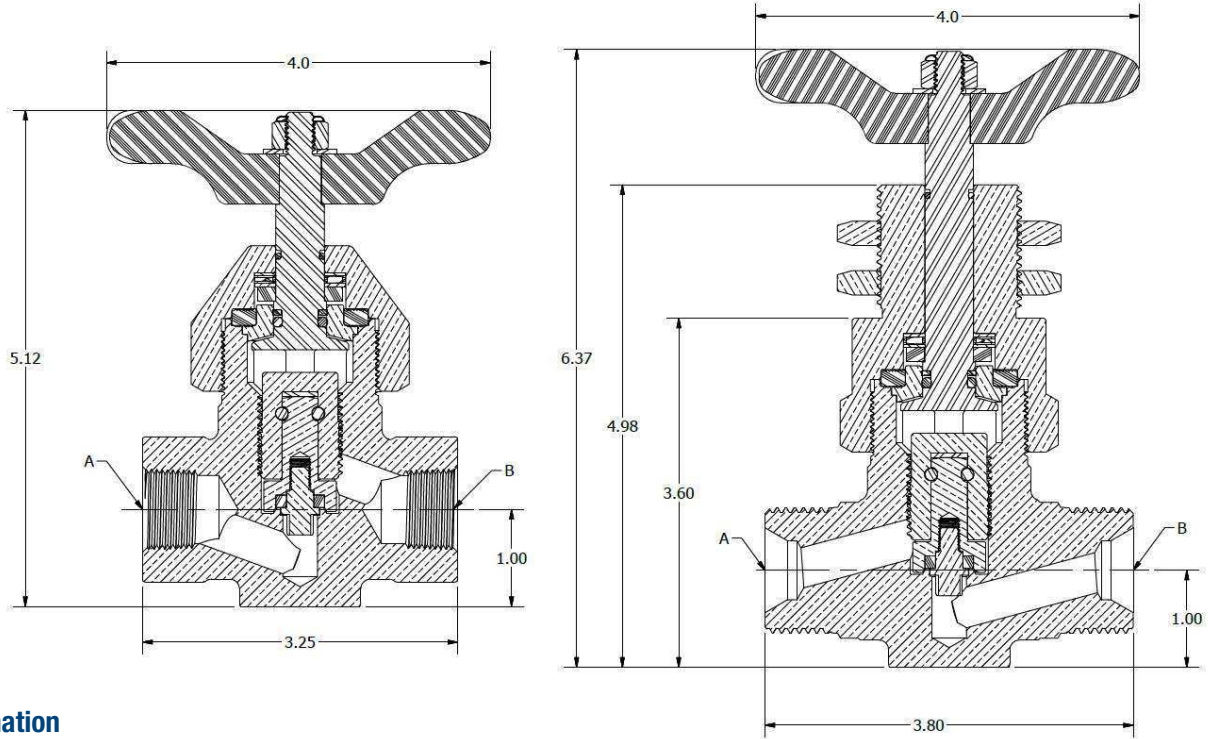
Working Pressure (Maximum)*	6000 PSI (414 Bar)*
Oxygen Surge Pressure Rating	4350 PSI (300 Bar)
Burst Pressure	15,000 PSI (1034 Bar)
Leak Rate Internal/External	1 x 10 <sup>-4</sup> atm cc/sec. (mL/sec.)
Operating Temperature	-50° F to +149° F (-45° C to +65° C)
Operating Torque	7-9 in.-lbs. @ 6000 PSI (0.8 to 1.0 N-m)
Flow Data Cv	2.3
Cycle Life (Minimum)	2000 Cycles (Minimum)
Cleaned for Oxygen Service	Per CGA G-4.1

\*Valves with 1-11<sup>1</sup>/<sub>2</sub>" connections are de-rated to 3000 PSI (207 Bar) due to the connections maximum pressure rating per CGA V-10



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# 630 Series Valves



## Ordering Information

Sherwood Part Number	A Inlet	B Outlet	FEATURES
630GR-4	1/2" NPT	1/2" NPT	
630GR-6	3/4" NPT	3/4" NPT	
630GR-8	1-11 1/2" NPSM	1-11 1/2" NPSM	
630GR-4PM	1/2" NPT	1/2" NPT	PANEL MOUNT
630GR-6PM	3/4" NPT	3/4" NPT	PANEL MOUNT
630GR-8PM	1-11 1/2" NPSM	1-11 1/2" NPSM	PANEL MOUNT

## Materials of Construction

Part Description	Materials of Construction
<b>Body</b>	Forged Brass C37700
<b>Packing</b>	PTFE
<b>Handwheel</b>	Black Phenolic
<b>Bonnet and Inner Bonnet</b>	Brass C36000
<b>Stem</b>	303 Stainless Steel
<b>Stem O-Ring</b>	Buna-N
<b>Bonnet O-Ring</b>	Viton
<b>Plug Assembly</b>	
Plug	Brass C36000
Plug Tip	Brass C36000
Spring Pin	18-8 Stainless Steel
Retaining Staple	302/304 Stainless Steel
<b>Seat</b>	Kel-F
<b>Seat Retainer</b>	Brass C36000
<b>Backup Ring</b>	Buna-N
<b>Needle Bearing and Washer</b>	Steel
<b>Bearing Spacer</b>	303 Stainless Steel
<b>Thrust Bearing</b>	302/304 Stainless Steel
<b>Handwheel Nut</b>	18-8 Stainless steel w/ Nylon Insert
<b>Handwheel Washer</b>	18-8 Stainless Steel
<b>Lubricant</b>	Turmoxygen®

## Key Replacement Part Kits

- 630-4KITPK
  - Plug and seat assembly kit
- 630-8KITPK
  - Handwheel kit
- 630-3KITPK
  - Standard stem and bonnet kit
- 630-3PMKITPK
  - Panel mount stem and bonnet kit

