

Lowest Operating
Torques at
High Pressures

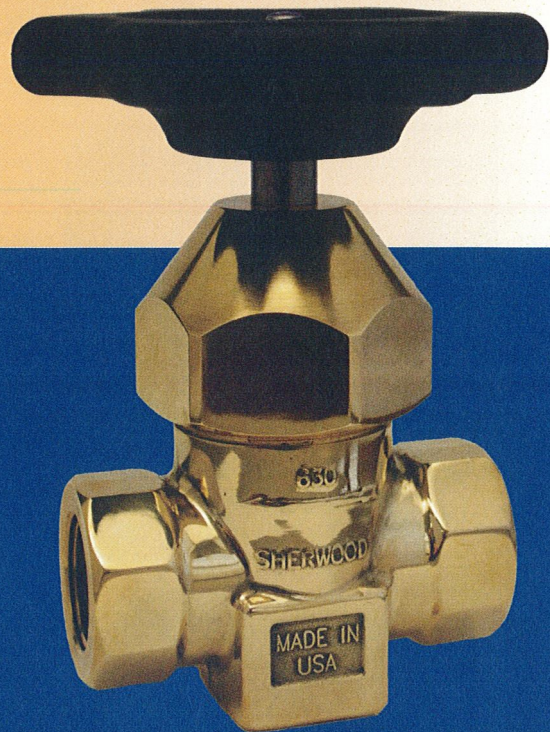
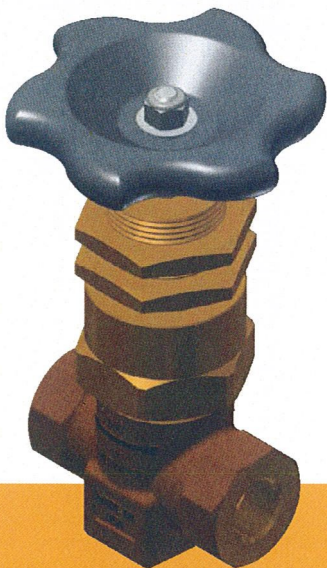
630 Series Valves

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 Hall 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.



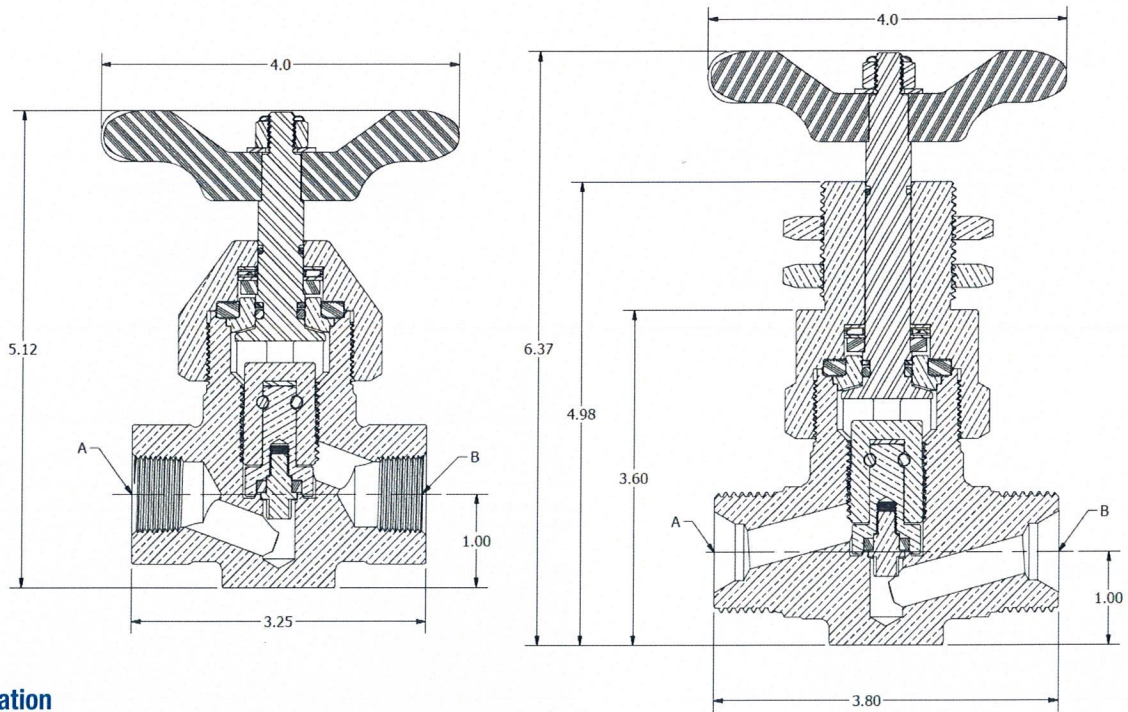
Design Specifications

| | |
|------------------------------|---|
| 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 ⁻⁴ 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 1-11¹/₂" connections are de-rated to 3000 PSI (207 Bar) due to the connections maximum pressure rating per CGA V-10



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

Key Replacement Part Kits

- 630-KIT
 - Contains one of each component listed below
 - Plug Assembly
 - Stem Assembly
 - PTFE Seal
 - Bearing Assembly

