



SUPERFREEZE



SOCKET WELDING SHUT-OFF VALVES
SOCKET WELDING SHUT-OFF VALVES



SUPERFREEZE

SOCKET WELDING SHUTT-OFF VALVES

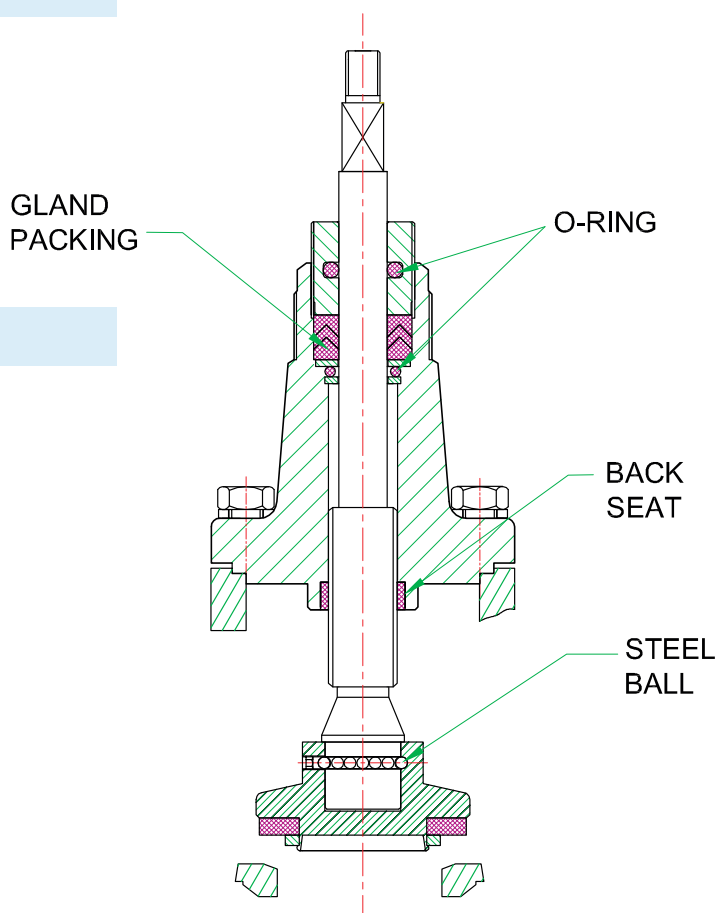
TYPE : SSW
PORT SIZE : 1/2" thru 2" (15mm-50mm) Globe & Angle form.

REFRIGERANTS

Suitable for all common refrigerants including R-717 (Ammonia), R-134 a, R-404, neutral, gaseous and liquid media.

INTRODUCTION

These well-designed and constructed low pressure drop refrigerant shut-off valves are butt-weldable directly to steel piping, thereby eliminating potential leaky flanges or threaded joints, and simplifying installation. The important feature of these valves is non leak packing and back seat design.



APPLICATIONS

Ammonia refrigeration system suction, liquid discharge, recirculating liquid, hot gas and oil lines, using handwheel of seal cap models and also compressor suction, discharge connections, condenser, evaporator inlet and outlet connections in ammonia, R22, R134a and other approved refrigerant.



SUPERFREEZE

SOCKET WELDING SHUTT-OFF VALVES

SPECIFICATIONS

| | |
|----------------------|---|
| Body | : ½" - 1 ¼" - ASTM A-105 / 1 ½" - 2" - ASTM A-216 Grade WCB/ASTM A-352 Grade LCB. |
| Stem | : Stainless/ forged steel Zn. Plated. |
| Disc Holder | : steel (stainless/ Zn. Plated). |
| Seat Disc | : PTFE Teflon. |
| Packing Nut | : steel. |
| Stem Packing | : Neoprene "O" Rings with graphite gland packing. |
| Handwheel | : steel / Iron Alloy. |
| Seal Cap | : Aluminum, vented. |
| Max Working pressure | : 580 psig (40bar) |
| Temperature range | : -46°C to +116°C (-50 F to + 240 F). |
| Temperature below | : -60 F at lower pressure. |

FEATURES

- Back Seating and gland packing : The heart of **SUPERFREEZE** shut-off-valve is the Patented stempacking and backseat design. This Patented design is used exclusively on **SUPERFREEZE** valves and virtually eliminates stem leakage.
- Size Range : 1/2" to 2" (15mm to 50mm)
- Light Weight : Ease of installation
- Flow : Can accept flow in both direction
- Available in both wheel vented cap option
- Available in angle and straight types

INSTALLATION

All of these valves may be installed in horizontal or vertical pipe lines. Stems may be horizontal or vertical or angled upward. Globe valves and angle valves in horizontal suction lines, liquid overfeed return lines, of condenser drain lines should preferably have stems horizontal rather than upward to avoid partial liquid trapping at valve seat orifices.

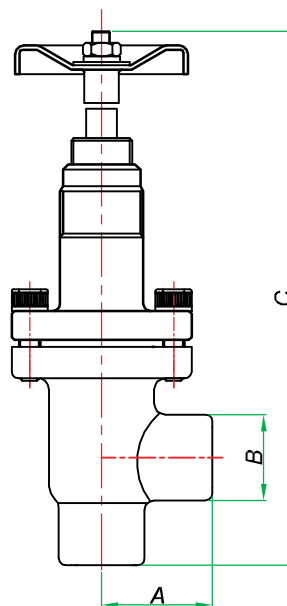
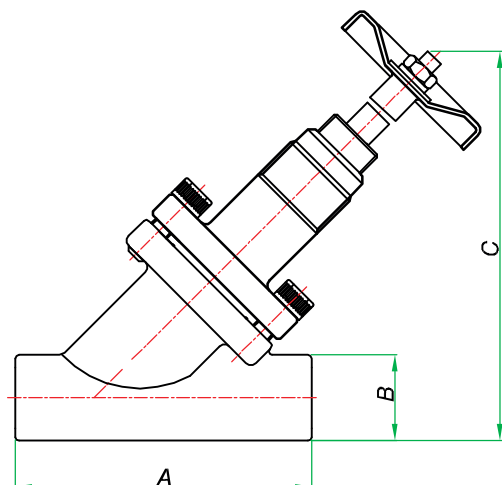
A valve should preferably have its bonnet/stem/seat disc assembly removed before welding (refer fig. B). Which protects Teflon seat disc from welding sparks, and facilitates cleaning of welding debris from body interior prior to valve operation. The valve stem should be several turns open when removing and replacing the bonnet assembly. The Teflon seat disc should be protected when outside of the valve. Where it is necessary or when it is standard practice to weld a valve into the line without bonnet removal, stem should be opened several turns to prevent seat disc heat damage. Because of great compactness, some extra care if welded into pipelines without disassembly in order to avoid welding sparks striking the Teflon seat from the outlet weld connection.



SUPERFREEZE

SOCKET WELDING SHUTT-OFF VALVES

DIMENSION DETAILS



| WELD-IN-LINE GLOBE VALVE | | | | | WELD-IN-LINE ANGLE VALVE | | | | |
|--------------------------|------|-----|-----|-----|--------------------------|------|----|-----|-----|
| SIZE | | A | B | C | SIZE | | A | B | C |
| 1/2" | 15MM | 107 | Ø32 | 150 | 1/2" | 15MM | 40 | Ø32 | 210 |
| 3/4" | 20MM | 113 | Ø37 | 150 | 3/4" | 20MM | 42 | Ø37 | 210 |
| 1" | 25MM | 132 | Ø45 | 186 | 1" | 25MM | 50 | Ø45 | 240 |
| 1 1/4" | 32MM | 132 | Ø52 | 186 | 1 1/4" | 32MM | 52 | Ø52 | 245 |
| 1 1/2" | 40MM | - | Ø62 | - | 1 1/2" | 40MM | 62 | Ø62 | 280 |
| 2" | 50MM | 164 | Ø72 | 215 | 2" | 50MM | 70 | Ø72 | 280 |

FLOW COEFFICIENTS

FLOW COFFICENTS

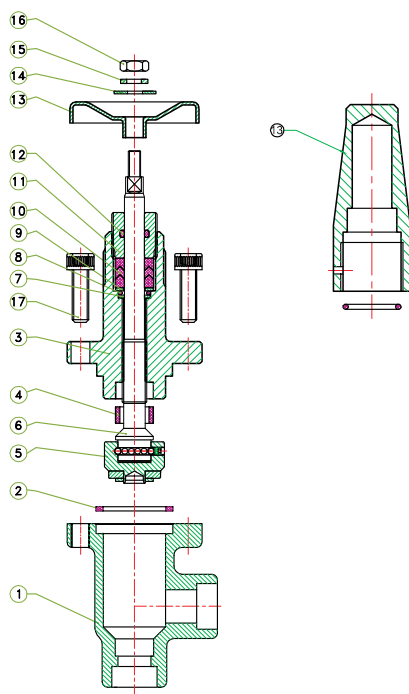
| SIZE | ANGLE | | GLOBE | |
|--------|-------|--------------------|-------|--------------------|
| | Cv | *Equiv. Length Ft. | Cv | *Equiv. Length Ft. |
| 1/2" | 6 | 5 | 4 | 9 |
| 3/4" | 9 | 8 | 8 | 8 |
| 1" | 26 | 5 | 18 | 8 |
| 1 1/4" | 30 | 14 | 21 | 21 |
| 1 1/2" | 48 | 12 | 47 | 13 |
| 2" | 83 | 26 | 80 | 28 |



SUPERFREEZE

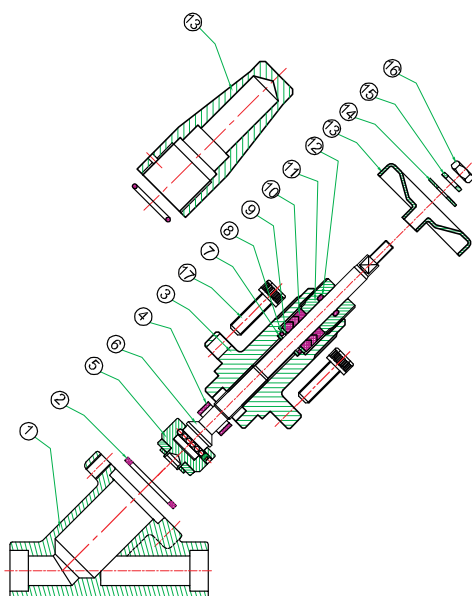
SOCKET WELDING SHUTT-OFF VALVES

PART LIST



SIZE - 15MM TO 32MM ANGLE TYPE

| 17 | HEX. SOCKET HEAD SCREW | 4 |
|-------|------------------------------|-----|
| 16 | HEX. NUT | 1 |
| 15 | SPRING WASHER | 1 |
| 14 | PLANE WASHER | 1 |
| 13 | HAND WHEEL / CAP WITH O-RING | 1 |
| 12 | O-RING | 1 |
| 11 | GLAND NUT | 1 |
| 10 | PACKING RING | 3 |
| 9 | PACKING WASHER | 1 |
| 8 | O-RING | 1 |
| 7 | STEM WASHER | 1 |
| 6 | STEM | 1 |
| 5 | SEAT NUT ASSEMBLY | 1 |
| 4 | SEAT BUSH | 1 |
| 3 | BONNET | 1 |
| 2 | GASKET | 1 |
| 1 | BODY | 1 |
| SI.NO | DESCRIPTION | QTY |



SIZE - 15MM TO 32MM GLOBE TYPE

| 17 | HEX. SOCKET HEAD SCREW | 4 |
|-------|------------------------------|-----|
| 16 | HEX. NUT | 1 |
| 15 | SPRING WASHER | 1 |
| 14 | PLANE WASHER | 1 |
| 13 | HAND WHEEL / CAP WITH O-RING | 1 |
| 12 | O-RING | 1 |
| 11 | GLAND NUT | 1 |
| 10 | PACKING RING | 3 |
| 9 | PACKING WASHER | 1 |
| 8 | O-RING | 1 |
| 7 | STEM WASHER | 1 |
| 6 | STEM | 1 |
| 5 | SEAT NUT ASSEMBLY | 1 |
| 4 | SEAT BUSH | 1 |
| 3 | BONNET | 1 |
| 2 | GASKET | 1 |
| 1 | BODY | 1 |
| SI.NO | DESCRIPTION | QTY |

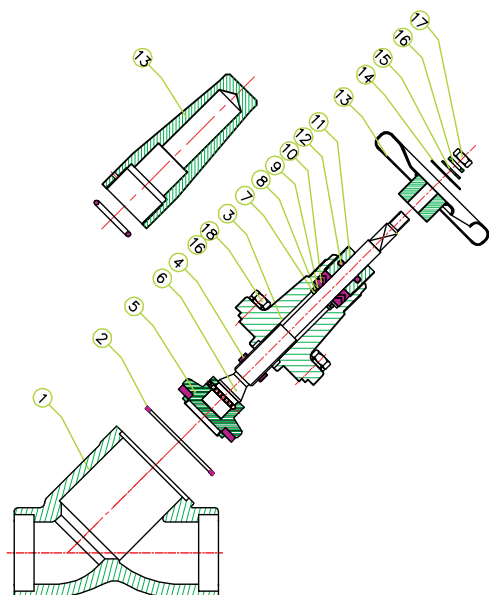


SUPERFREEZE

SOCKET WELDING SHUTT-OFF VALVES

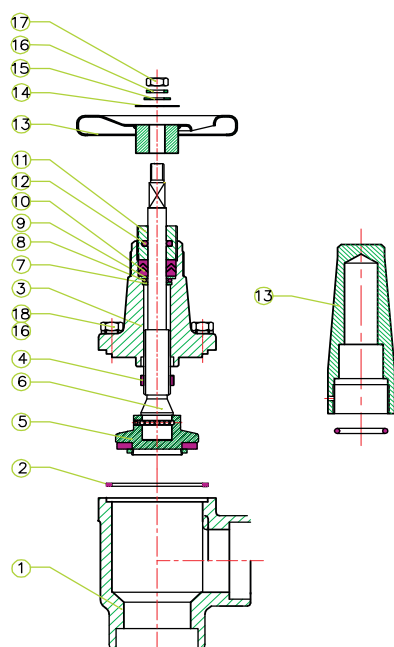
PART LIST

SIZE - 40MM TO 50MM GLOBE TYPE



| 18 | HEX. BOLT M10X35 Gr.8.8 | 4 |
|-------|------------------------------|-----|
| 17 | HEX. NUT M10 Gr.8 | 1 |
| 16 | SPRING WASHER B 10.2 | 5 |
| 15 | PLANE WASHER B 10.2, T-15 | 1 |
| 14 | NAME PLATE | 1 |
| 13 | HAND WHEEL / CAP WITH O-RING | 1 |
| 12 | O-RING | 1 |
| 11 | GLAND NUT | 1 |
| 10 | PACKING RING | 3 |
| 9 | PACKING WASHER | 1 |
| 8 | O-RING | 1 |
| 7 | STEM WASHER | 1 |
| 6 | STEM | 1 |
| 5 | SEAT NUT ASSEMBLY | 1 |
| 4 | SEAT BUSH | 1 |
| 3 | BONNET | 1 |
| 2 | GASKET | 1 |
| 1 | BODY | 1 |
| SI.NO | DESCRIPTION | QTY |

SIZE - 40MM TO 50MM ANGLE TYPE



| 18 | HEX. BOLT M10X35 Gr.8.8 | 4 |
|-------|------------------------------|-----|
| 17 | HEX. NUT M10 Gr.8 | 1 |
| 16 | SPRING WASHER B 10.2 | 5 |
| 15 | PLANE WASHER B 10.2, T-15 | 1 |
| 14 | NAME PLATE | 1 |
| 13 | HAND WHEEL / CAP WITH O-RING | 1 |
| 12 | O-RING | 1 |
| 11 | GLAND NUT | 1 |
| 10 | PACKING RING | 3 |
| 9 | PACKING WASHER | 1 |
| 8 | O-RING | 1 |
| 7 | STEM WASHER | 1 |
| 6 | STEM | 1 |
| 5 | SEAT NUT ASSEMBLY | 1 |
| 4 | SEAT BUSH | 1 |
| 3 | BONNET | 1 |
| 2 | GASKET | 1 |
| 1 | BODY | 1 |
| SI.NO | DESCRIPTION | QTY |



SOCKET WELDING SHUTT-OFF VALVES

WELDING PROCEDURE

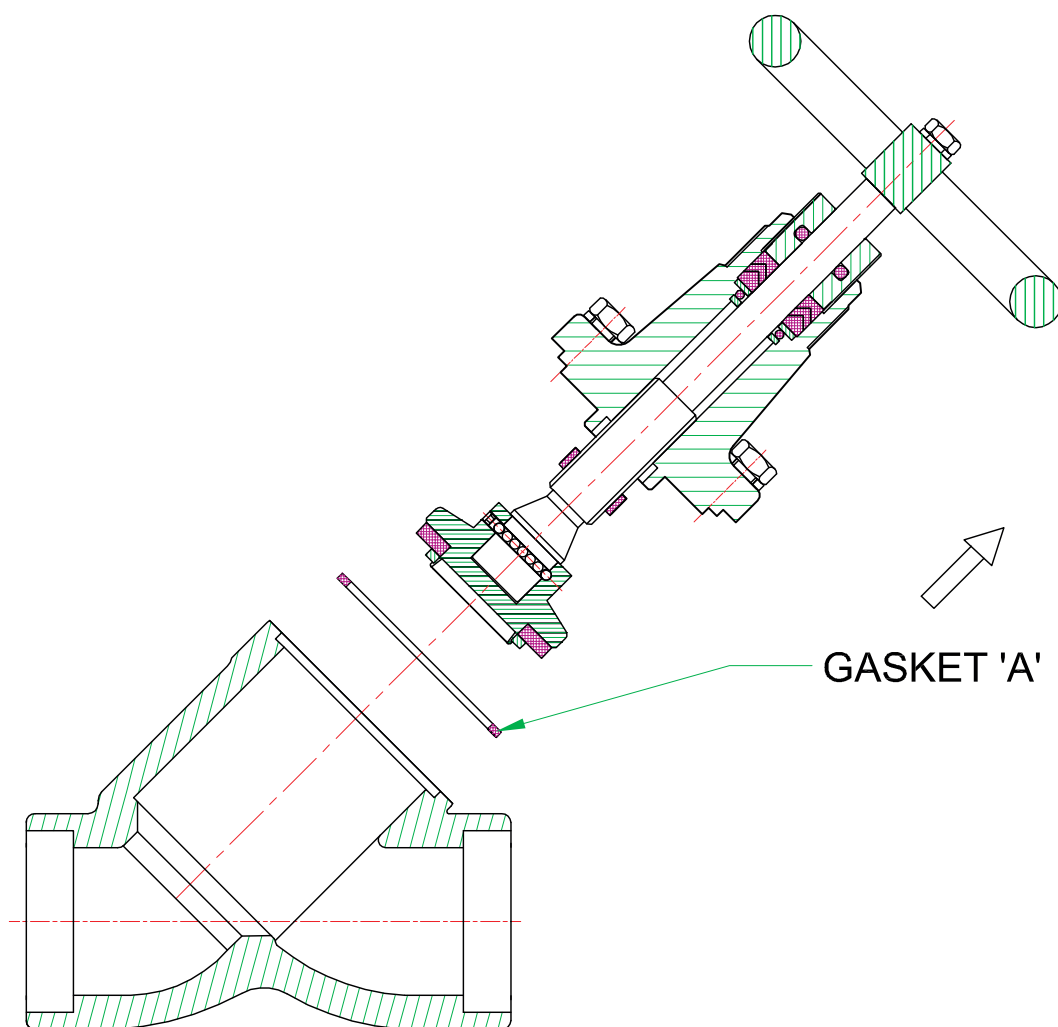


FIG :- B

Before welding the valve in the line, kindly unscrew the bonnet assembly as shown in the figure above.

After welding, clean the valve seat area of any welding fluxes and then retighten the bonnet assembly making sure the gasket 'A' is properly fixed.

SUPERFREEZE INDIA (P) LTD

An ISO 9001 : 2015 Certified Company

122, Qutab Plaza, DLF Phase-I, Gurgaon -122002, Haryana, India
Tel : +91-124-4301636

E mail : sales@superfreeze.com Website : www.superfreeze.com