



**SUPERFREEZE**



**SOCKET WELDING SHUT-OFF VALVES**

SOCKET WELDING SHUT-OFF VALVES

**TYPE** : SSW  
**Port Size** : 1/2" thru 1 1/4" (15mm - 32mm) Globe and Angle form.

## REFRIGERANT

Suitable for all common refrigerants including R-717 (ammonia), R-22, R-134a, neutral, gaseous and liquid media.

## INTRODUCTION

The advanced design and materials of the Superfreeze Sockets Welding Steel Body Refrigerant Valves make them stronger and far superior to commonly available products, especially in regard to non leakage of seats, stems, bonnets and piping connections. Socket welding steel bodies permit these valves to be quickly and easily welded direct into piping without the inconvenience of pipe threading for the necessity of using bulkier iron flanged valves with socket welding steel flanges, bolts nuts and gaskets. Compared to butt welding valves, the socket welding bodies permit quicker welding, easier pipe alignment and cleaner pipe and valve interior.

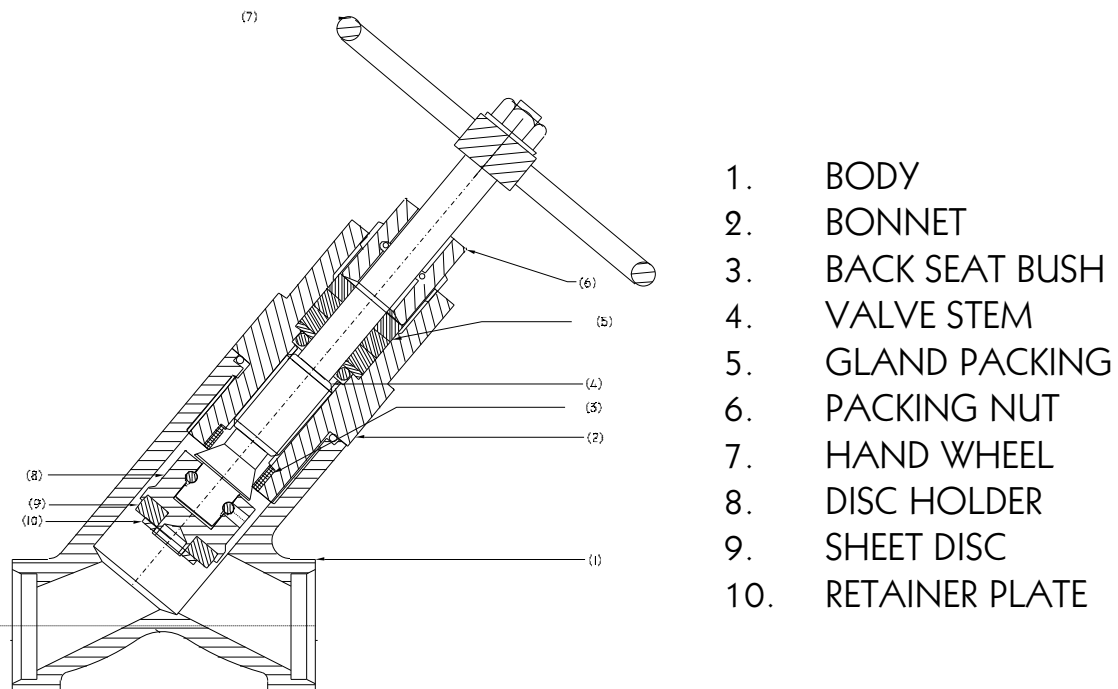


FIGURE. A



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### 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.

### SPECIFICATIONS

Body	: ASTM A-108.
Stem	: Steel (Stainless/ forged steel Zn. Plated).
Disc Holder	: steel (stainless/ Zn. Plated).
Seat Disc	: PTFE Teflon.
Packing Nut	: steel.
Stem Packing	: Neoprene "O" Rings with gland packing.
Handwheel	: Iron Alloy/Steel.
Seal Cap	: Aluminum, vented.
Safe working pressure	: 365 psig (25 bar).
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 stem packing and backseat design.This Patented design is used exclusively on **SUPERFREEZE** valves and virtually eliminates stemleakage.
- Size Range :1/2" thru 1 1/4" (15mm - 32mm)
- 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.



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A valve should preferably have its bonnet/stem/seat disc assembly removed before welding (refer fig D). 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

### FLOW COEFFICIENTS

Size	Angle		Globe	
	Cv	* Equiv. Length Ft.	Cv	*Equiv. LengthFt
1/2"	6	5	4	9
3/4"	9	8	8	8
1"	26	5	18	8
1- 1/4"	30	14	21	21

The CV Factor is in unit of U.S. GPM and PSI

\*Schedule 80 pipe under 2" size

### ORDERING INFORMATION

Size	Descriptions	Cat. No.
1/2"	Globe Handwheel, Angle Handwheel, Globe Seal Cap, Angle Seal Cap	GW15H AW15H GW15C AW15C
3/4"	Globe Handwheel, Angle Handwheel, Globe Seal Cap, Angle Seal Cap	GW20H AW20H GW20C AW20C
1"	Globe Handwheel, Angle Handwheel, Globe Seal Cap, Angle Seal Cap	GW25H AW25H GW25C AW25C
1 - 1/4"	Globe Handwheel, Angle Handwheel, Globe Seal Cap, Angle Seal Cap	GW32H AW32H GW32C AW32C

## WELDING PROCEDURE FOR WELD-IN-LINE SHUT OFF VALVES

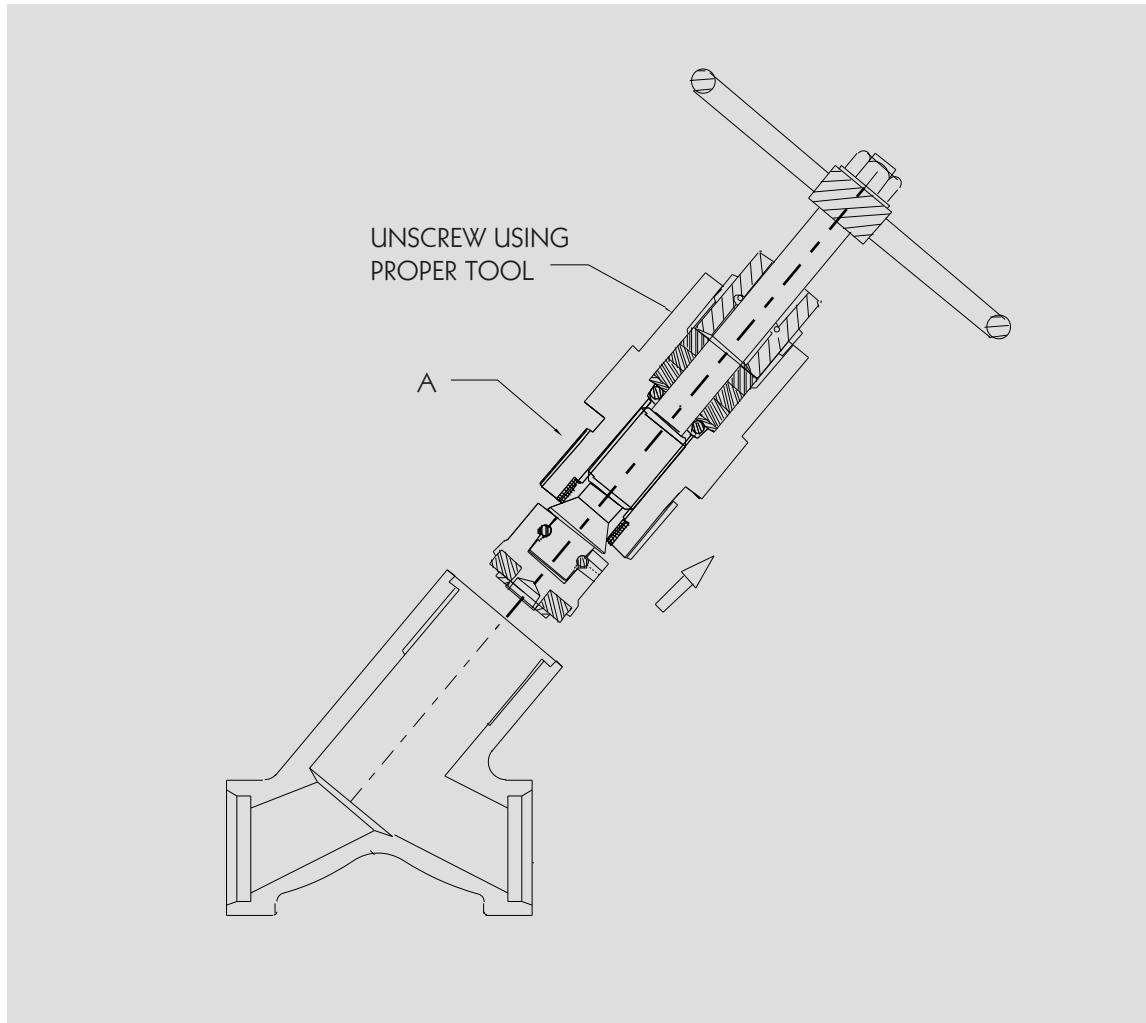


Figure D

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

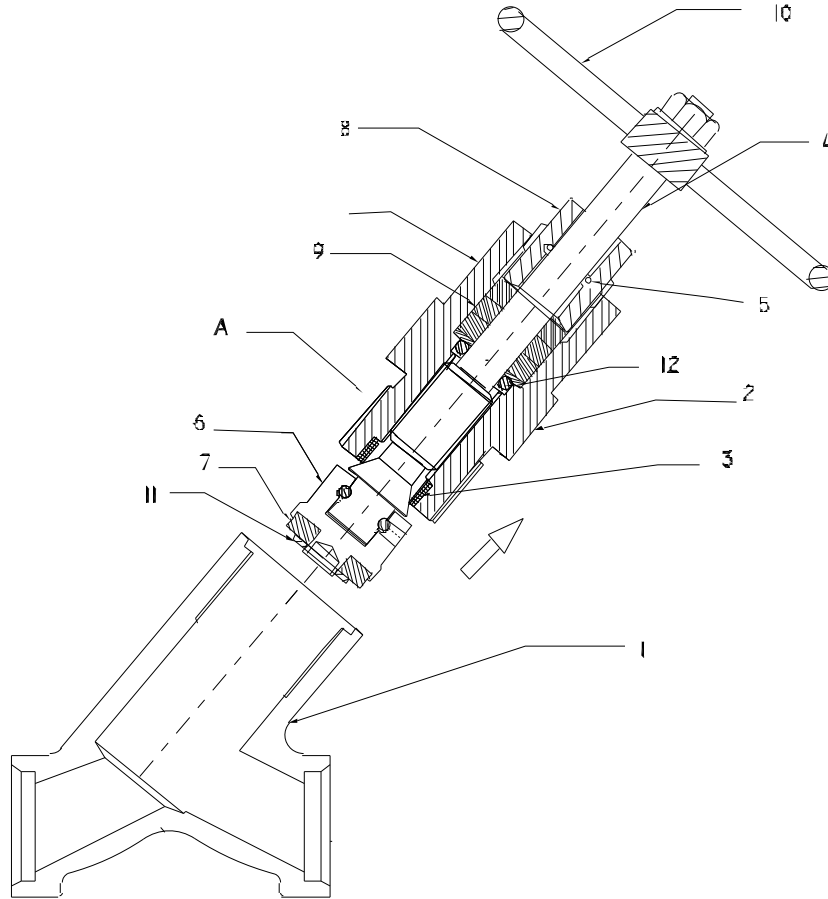
After welding, clean the valve seat area of any welding fluxes and then retighten the gland assembly after putting Teflon tape on thread 'A'.



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### PART LIST



ITEM	DESCRIPTION	QTY	PART NO
1	BODY	1	30030100
2	BONNET	1	30030200
3	BACK SEAT	1	30030501
4	VALVE STEM	1	30030300
5	BONNET 'O' RING	1	30030801
6	VALVE DISC	1	30030400
7	SEAT RING	1	30030500
8	GLAND NUT	1	30032301
9	GLAND RING	6	30031301
10	WHEEL	1	30032800
11	RETAINER PLATE	4	30030600
12	GLAND NUT 'O' RING	1	30030800

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