



**SUPERFREEZE**



FLANGED SHUT OFF VALVE



## FLANGED SHUT OFF VALVE

TYPE : FSV  
PORT : 15 - 200 mm (1/2" - 8")

### REFRIGERANTS

R-717 (Ammonia), R12, R-22 and other common refrigerants

### FEATURES

- Perfected for Ammonia refrigeration
- Safe working pressure 25 bar (365 psig)
- Temp. Range -46° C to +116° C (-50 F to 240 F)
- Available in Globe and Angle type
- Reliable long life valve seating

### INTRODUCTION

The advance design and material of these valves make them far superior product especially in regard to non leakage of seat stems and bonnets and back seating.

### APPLICATIONS

These refrigeration valves are ideal for shut off of liquid, suction, discharge, recalculation liquid and hot gas in ammonia refrigeration system. When used with seal cap, these valves are also suitable for R-22, R-134a and other approved refrigerants. Valves can be ordered with seal cap and later can be converted to hand wheel by removing the seal cap.

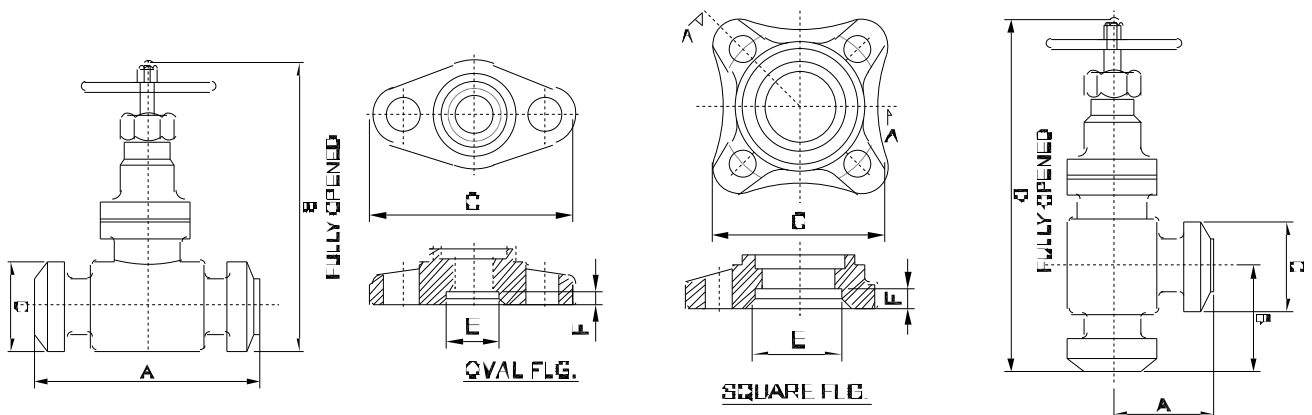
### MATERIAL SPECIFICATIONS

- Body : Nodular iron ASTM A 536
- Bonnet : Steel ASTM A-105
- Stem : Stainless steel AISI 304 / ASTM A-106 Zn Plated
- Packing Nut : Steel
- Stem packing : Non asbestos

## INSTALLATION

These valves may be installed in horizontal or vertical pipe lines. Stems are normally installed horizontally but depending on the application stems may be install vertically. Inlet pressure or direction of flow for all valves sizes should normally be under valve seat disc. However, it is better to install and angle valve with normal flow opposite the direction of the arrow to avoid installing the valve with the stem down. Shut off valves leading to the atmosphere, even if it is temporarily must be plugged or capped to prevent corrosion inside of the valve.

## INSTALLATION DIMENSION WITH FIGURE



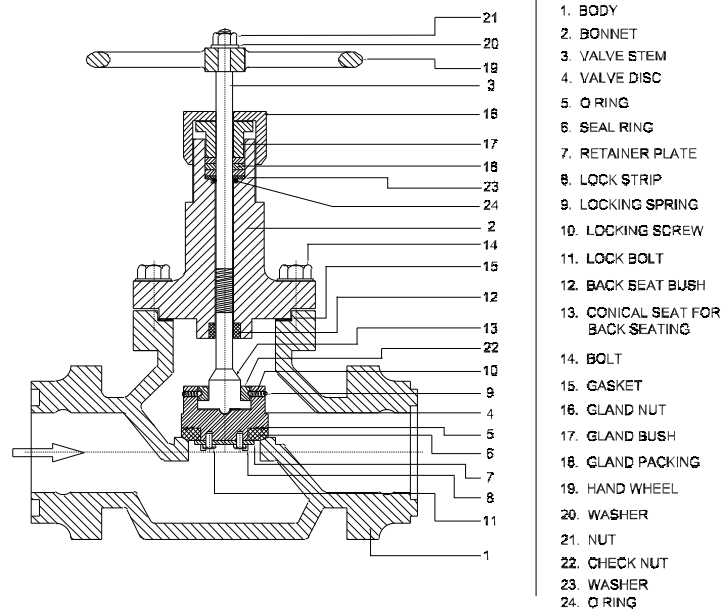
| GLOBE VALVE FLANGED |     |     |     |      |    | ANGLE VALVE FLANGED |     |     |     |     |      |    |             |
|---------------------|-----|-----|-----|------|----|---------------------|-----|-----|-----|-----|------|----|-------------|
| SIZE                | A   | B   | C   | E    | F  | SIZE                | A   | B   | C   | D   | E    | F  | FLANGE TYPE |
| 15mm                | 160 | 180 | 58  | 22.5 | 8  | 15mm                | 80  | 72  | 60  | 230 | 22.5 | 8  | OVAL        |
| 20mm                | 180 | 190 | 64  | 28   | 6  | 20mm                | 60  | 83  | 65  | 220 | 28   | 6  | OVAL        |
| 25mm                | 170 | 240 | 63  | 35   | 9  | 25mm                | 80  | 79  | 66  | 280 | 35   | 9  | OVAL        |
| 32mm                | 240 | 340 | 100 | 44   | 11 | 32mm                | 110 | 105 | 100 | 390 | 44   | 11 | SQUARE      |
| 40mm                | 240 | 380 | 110 | 50   | 14 | 40mm                | 110 | 107 | 109 | 440 | 50   | 14 | SQUARE      |
| 50mm                | 260 | 380 | 122 | 61.5 | 16 | 50mm                | 120 | 115 | 120 | 420 | 61.5 | 16 | SQUARE      |
| 65mm                | 310 | 430 | 154 | 77.5 | 18 | 65mm                | 140 | 143 | 153 | 480 | 77.5 | 18 | SQUARE      |
| 80mm                | 350 | 500 | 163 | 90   | 14 | 80mm                | 160 | 163 | 158 | 450 | 90   | 14 | SQUARE      |
| 100mm               | 390 | 540 | 175 | 116  | 12 | 100mm               | 180 | 164 | 178 | 620 | 116  | 12 | SQUARE      |



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# FLANGED SHUT OFF VALVE

## PART LIST



- 1. BODY
- 2. BONNET
- 3. VALVE STEM
- 4. VALVE DISC
- 5. O RING
- 6. SEAL RING
- 7. RETAINER PLATE
- 8. LOCK STRIP
- 9. LOCKING SPRING
- 10. LOCKING SCREW
- 11. LOCK BOLT
- 12. BACK SEAT BUSH
- 13. CONICAL SEAT FOR BACK SEATING
- 14. BOLT
- 15. GASKET
- 16. GLAND NUT
- 17. GLAND BUSH
- 18. GLAND PACKING
- 19. HAND WHEEL
- 20. WASHER
- 21. NUT
- 22. CHECK NUT
- 23. WASHER
- 24. O RING

| S. NO. | ITEM                              | QTY.   | PART NO.             |
|--------|-----------------------------------|--------|----------------------|
| 1      | BODY (GLOBE TYPE)<br>(ANGLE TYPE) | 1<br>1 | 10060100<br>20060100 |
| 2      | BONNET                            | 1      | 10060200             |
| 3      | VALVE STEM                        | 1      | 10060300             |
| 4      | VALVE DISC                        | 1      | 10060400             |
| 5      | 'O' RING                          | 1      | 10060800             |
| 6      | SEAT RING                         | 1      | 10060500             |
| 7      | RETAINER PLATE                    | 1      | 10060600             |
| 8      | LOCK STRIP                        | 1      | 10060700             |
| 9      | LOCKING SPRING                    | 1      | 10061900             |
| 10     | LOCKING SCREW                     | 2      | 10061001             |
| 11     | LOCK BOLT                         | 2      | 10061002             |
| 12     | BACK SEAT BUSH                    | 1      | 10061201             |
| 13     | BOLT                              | 4      | 10061000             |
| 14     | GASKET                            | 1      | 10061100             |
| 15     | GLAND NUT                         | 1      | 10062301             |
| 16     | GLAND BUSH                        | 1      | 10061200             |
| 17     | GLAND PACKING                     | 4      | 10061300             |
| 18     | HAND WHEEL                        | 1      | 10061400             |
| 19     | WASHER                            | 1      | 10061500             |
| 20     | NUT                               | 1      | 10062300             |
| 21     | CHECK NUT                         | 1      | 10062302             |
| 22     | WASHER                            | 1      | 10061501             |
| 23     | 'O' RING                          | 1      | 10060801             |



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### ORDERING INFORMATION

| SIZE   | DESCRIPTION              | FLANGE STYLE | CAT NO              |
|--------|--------------------------|--------------|---------------------|
| 1/2"   | Globe type<br>Angle type | Oval         | FSVG 15<br>FSVA15   |
| 3/4"   | Globe type<br>Angle type | Oval         | FSVG 20<br>FSVA20   |
| 1"     | Globe type<br>Angle type | Oval         | FSVG 25<br>FSVA25   |
| 1-1/4" | Globe type<br>Angle type | Square       | FSVG 32<br>FSVA32   |
| 1-1/2" | Globe type<br>Angle type | Square       | FSVG 40<br>FSVA40   |
| 2"     | Globe type<br>Angle type | Square       | FSVG 50<br>FSVA50   |
| 2-1/2" | Globe type<br>Angle type | Square       | FSVG 65<br>FSVA65   |
| 3"     | Globe type<br>Angle type | Square       | FSVG 80<br>FSVA80   |
| 4"     | Globe type<br>Angle type | Square       | FSVG 100<br>FSVA100 |
| 6"     | Globe type<br>Angle type | Round        | FSVG 150<br>FSVA150 |
| 8"     | Globe type<br>Angle type | Round        | FSVG 200<br>FSVA200 |

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