

# FS-1 Forged Steel Gate Valve Standard Bore

# **Description**

- NETA Forged Steel Class-800 Gate Valve (Standard Bore) to BS:5352/API 602
- Bolted Bonnet
- Outside Screw and Yoke Type
- Rising Stem 13% Cr. S.S. (AISI-410) Trim
- Screwed Female (BSPT, NPT, API) or Socket Welded Ends conforming to ASME B 16.11

#### **Test Pressure**

Body: 3000 PSIG Hydrostatic

Seat: 2000 PSIG Hydrostatic, 100 PSIG Air Backseat: 2000 PSIG Hydrostatic

## **Design Features**

- Streamlined shaped flow way area for smooth flow of the working fluid for minimum pressure drop.
- Bolted Body Bonnet Joint.
- Renewable 13% Cr. S.S. (AISI-410) Body Seat Rings and wedge having difference in hardness of at least 50 HB.
- S.S (AISI-304) Spiral Wound Asbestos filled Gasket for Body Bonnet Joint.
- Ample depth of stuffing box in Gate Valves.
- Bolted self aligning two piece Gland in Gate Valves.
- The provision of back seating arrangement in Gate Valves permit replacement of Gland packing in fully open position while the valve is under in line pressure.
- Designed for tight shut off and efficient fluid control.
- Sturdy spoked hand wheel is provided for operation in Gate Valves.
- Gate Valves have a Tee-head stem connection for maximum dependability.
  Stems are provided with outside acme threading which do not come in contact with the process fluid & can be lubricated easily.

### Certification

IBR Test Certificate in Form III-C duly signed by the Director of Boilers, Punjab is provided for Valves to be used for steam service. For service other than steam our Works Test Certificate shall be provided.

Application: Steam, Water, Oil

HSN: 84818010

#### **Materials**

| PNo. | Part                      | Nos. | Material   | Standard   |  |  |
|------|---------------------------|------|--|--|--|--|
| 1    | Stem                      | 1    | S.S. 13% Cr.   | ASTM A182 Gr.F6a / AISI - 410                        |  |  |
| 2    | Yoke Sleeve Retaining Nut | 1    | M.S.   | IS:1367  |  |  |
| 3    | Washer                    | 1    | M.S.   | IS:226   |  |  |
| 4    | Handwheel                 | 1    | C.I.   | IS:210 Gr.FG - 200                                   |  |  |
| 5    | Yoke Sleeve               | 1    | S.S. 13% Cr.   | ASTM A182 Gr.F6a / AISI - 410 / ASTM A217 Gr.CA - 15 |  |  |
| 6    | Gland Flange              | 1    | Forged Carbon Steel  | ASTM A105  |  |  |
| 7    | Gland                     | 1    | S.S. 13% Cr.   | ASTM A182 Gr.F6a / AISI - 410                        |  |  |
| 8    | Gland Packing             | -    | Graphited Asbestos   | -  |  |  |
| 9    | Bonnet                    | 1    | Forged Steel   | ASTM A105  |  |  |
| 10   | Gasket                    | 1    | S.S. 18/8% Cr./Ni (AISI 304) Spiral Wound<br>Asbestos Filled | -  |  |  |



| PNo. | Part           | Nos. | Material     | Standard  |  |  |
|------|----------------|------|--------------|---|--|--|
| 11   | Body Seat Ring | 2    | S.S. 13% Cr. | ASTM A182 Gr.F6a / AISI - 410                   |  |  |
| 12   | Wedge          | 1    | S.S. 13% Cr. | ASTM A182 Gr.F6a / AISI - 410                   |  |  |
| 13   | Body           | 1    | Forged Steel | ASTM A105                                       |  |  |
| 14   | Studs          | 4    | Alloy Steel  | ASTM A193 Gr.B7                                 |  |  |
| 15   | Nuts           | 4    | H.T.Steel    | ASTM A194 Gr.2H                                 |  |  |
| 16   | Gland Nuts     | 2    | H.T.Steel    | ASTM A194 Gr.2H                                 |  |  |
| 17   | Gland Bolts    | 2    | S.S. 13% Cr. | ASTM A182 Gr.F6a / AISI - 410 Min. UTS 392 N/mm |  |  |
| 18   | Set Screw      | 2    | M.S.         | IS:1367   |  |  |
| 19   | Washer         | 2    | M.S.         | IS:226  |  |  |

# **Dimensions**

| Nominal<br>Size<br>(Inches) | Nominal<br>Size<br>(mm) | L   | н   | w   | Т     | ØB                  | D<br>(Min.) |
|-----------------------------|-------------------------|-----|-----|-----|-------|---------------------|-------------|
| 1/2                         | 15                      | 90  | 149 | 86  | 1/2   | 21.8<br>/<br>22.2   | 9.5         |
| 3/4                         | 20                      | 102 | 160 | 86  | 3/4   | 27.2<br>/<br>27.6   | 12.7        |
| 1                           | 25                      | 120 | 189 | 98  | 1     | 33.9<br>/<br>34.3   | 12.7        |
| 1.1/4                       | 32                      | 143 | 232 | 150 | 1.1/4 | 41.73<br>/<br>42.09 | 15          |
| 1.1/2                       | 40                      | 165 | 240 | 150 | 1.1/2 | 47.62<br>/<br>47.98 | 15          |

