GATE, GLOBE & CHECK VALVES - FORGED STEEL

APV
AUSTRALIAN PIPELINE VALVE®

ISO 15848-1 Class CO2
Fugitive Emission Certified

www.australianpipelinevalve.com.au
QUALITY COMMITMENT

Quality is Our First Priority, and is achieved by embracing a philosophy of Total Quality Commitment.
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### Abbreviations

- **ANSI:** American National Standards Institute Inc.
- **API:** American Petroleum Institute
- **ASTM:** American Society for Testing and Materials
- **BB:** Bolted Bonnet
- **BC:** Bolted Cover
- **BW:** Butt Welding
- **CWP:** Cold Working Pressure
- **EB:** Extended Bonnet
- **FP:** Flat Face
- **FLGD:** Flanged
- **HF:** Hard Faced
- **INTSS:** Integral Seat Stellite Face
- **ISS:** Inside Screw and Stem
- **JIS:** Japanese Industrial Standard
- **JPI:** Japan Petroleum Institute
- **LB:** Long Bonnet
- **NPT:** National Pipe Taper Thread (Pipe Thread):ANSI
- **OS & Y:** Outside Screw and Yoke
- **PS:** Pressure Seal
- **PT:** Pipe Taper Thread (Pipe Thread):JIS
- **RF:** Raised Face
- **RS:** Rising Stem
- **RTJ:** Ring Type Joint
- **SB:** Screwed Bonnet
- **SCH:** Schedule
- **SCRD:** Screwed
- **SDNR:** Stem Down Non Return
- **SH:** Surface Hardening
- **STD:** Standard
- **STL:** Stellite
- **SW:** Socket Welding
- **WB:** Welded Bonnet
- **WC:** Welded Cover

### B - BONNET/STYLE

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### E - MATERIAL

- **A:** ASTM A105
- **B:** ASTM A105N
- **C:** ASTM A182-F5
- **D:** ASTM A182-F9
- **E:** ASTM A182-F11
- **F:** ASTM A182-F22
- **G:** ASTM A182-F304
- **H:** ASTM A182-F316
- **I:** ASTM A182-F304L
- **J:** ASTM A182-F316L
- **K:** ASTM A182-F321
- **L:** ASTM A350-LF2

### F - API TRIM#

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### G - BORE

- **R** = Regular Bore
- **F** = Full Bore
- **S** = Standard Bore

### H - SPECIAL

- **S** = C/W Spring
- **D** = Stop Check (SDNR)
- **N** = NACE
# Forged Steel Standard Material Specification

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* + Stellite hard faced optional
Forged Steel Screwed & Weld End Gate Valves

FEATURES
- Construction - API602 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11
- Thread : ANSI/ASME B1.20.1
- Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598

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ISO15848-1 Class C02
Fugitive Emission Certified
Forged Steel
Screwed & Weld End Gate Valves

DIMENSIONS BOLTED & WELDED BONNET CLASS 800

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DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 1500

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For “Standard Port” refer to drawing.

DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 2500

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For “Standard Port” refer to drawing.

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
Forged Steel
Screwed & Weld End Globe Valves

**BOLTED BONNET**

- **FEATURES**
  - Construction - API602, BS5352 & ANSI/ASME B16.34
  - End Connections -
    - Socket Weld : ANSI/ASME B16.11
    - Thread : ANSI/ASME B16.20.1
    - Butt Weld : ANSI/ASME B16.25
  - Inspection and Test - API 598 / BS5146

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**WELDED BONNET**

- **FEATURES**
  - Construction - API602, BS5352 & ANSI/ASME B16.34
  - End Connections -
    - Socket Weld : ANSI/ASME B16.11
    - Thread : ANSI/ASME B16.20.1
    - Butt Weld : ANSI/ASME B16.25
  - Inspection and Test - API 598 / BS5146

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Forged Steel Type Screwed & Weld End Globe Valves

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<th>½&quot;</th>
<th>¾&quot;</th>
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<th>½&quot;</th>
<th>¾&quot;</th>
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<td>76</td>
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<td>84</td>
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<td>84</td>
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**Dimensions Bolted & Welded Bonnet Full Port Class 1500**

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<th>½&quot;</th>
<th>¾&quot;</th>
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<td>19.6</td>
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**Dimensions Bolted & Welded Bonnet Full Port Class 2500**

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<th>½&quot;</th>
<th>¾&quot;</th>
<th>1&quot;</th>
<th>1½&quot;</th>
<th>1½&quot;</th>
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<tbody>
<tr>
<td>L (mm/in)</td>
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<td>23.3</td>
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For "Standard Port" refer to drawing.

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
Forged Steel Screwed & Weld End
Y-Type Globe Valves

**BOLTED BONNET**

- **Features**
  - Construction: API602, BS5352 & ANSI/ASME B16.34
  - End Connections:
    - Socket Weld: ANSI/ASME B16.11
    - Thread: ANSI/ASME B1.20.1
    - Butt Weld: ANSI/ASME B16.25
  - Inspection and Test: API 598 / BS5146

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**WELDED BONNET**

- **Features**
  - Construction: API602, BS5352 & ANSI/ASME B16.34
  - End Connections:
    - Socket Weld: ANSI/ASME B16.11
    - Thread: ANSI/ASME B1.20.1
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<td>5.</td>
<td>STEM</td>
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<td>16.</td>
<td>NAME PLATE</td>
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<td>17.</td>
<td>TOOTH WASHER</td>
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<tr>
<td>18.</td>
<td>HANDWHEEL NUT</td>
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# Forged Steel Screwed & Weld End Y-Type Globe Valves

## Outside Screw & Yoke / SW, NPT, BW, Class 800

### Dimensions Bolted Bonnet Class 800

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<th>1/2&quot;</th>
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<td><strong>L (mm/in)</strong></td>
<td>76.0</td>
<td>76.0</td>
<td>76.0</td>
<td>92.0</td>
<td>104.0</td>
<td>124.0</td>
<td>124.0</td>
<td>152.0</td>
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<td><strong>W (mm/in)</strong></td>
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<td>84.0</td>
<td>97.0</td>
<td>97.0</td>
<td>137.0</td>
<td>137.0</td>
<td>157.0</td>
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<tr>
<td><strong>H (mm/in)</strong></td>
<td>167.0</td>
<td>167.0</td>
<td>167.0</td>
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<td>207.0</td>
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<td>300.0</td>
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<tr>
<td><strong>P (mm/in)</strong></td>
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### Dimensions Welded Bonnet Class 800

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<td>97.0</td>
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<td>167.0</td>
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Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
Forged Steel Screwed & Weld End
Y-Type Globe Valves

OUTSIDE SCREW & YOKE / SW, NPT, BW, CLASS 1500

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<td>3/4&quot;</td>
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<td>97</td>
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DIMENSIONS BOLTED BONNET CLASS 1500

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DIMENSIONS WELDED BONNET CLASS 1500

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<td>W (mm/in)</td>
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<td>97</td>
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Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
**Forged Steel Screwed & Weld End**

**Y-Type Globe Valves**

**OUTSIDE SCREW & YOKE / SW, NPT, BW, CLASS 2500**

### Dimensions Bolted & Welded Bonnet Standard Bore Class 2500

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<tr>
<td>W (mm/in)</td>
<td>97</td>
<td>3.82</td>
<td>97</td>
<td>3.82</td>
<td>137</td>
<td>5.39</td>
<td>157</td>
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<td>H (mm/in)</td>
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<td>320</td>
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Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
BOLTED & WELDED BONNET

FEATURES
- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections -
  - Socket Weld : ANSI/ASME B16.11
  - Thread : ANSI/ASME B1.20.1
  - Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

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Forged Steel Screwed & Weld End Check Valves

DIMENSIONAL DRAWINGS

Piston check bolted bonnet

Ball check bolted bonnet

Swing check bolted bonnet

Y-type piston check bolted bonnet

Piston check welded bonnet

Y-type welded bonnet
# Forged Steel Screwed & Weld End Check Valves

## SW, NPT, BW, CLASS 800 REGULAR PORT / FULL PORT

### DIMENSIONS PISTON CHECK / BALL CHECK

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<td>76</td>
<td>79</td>
<td>92</td>
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<td>4.37</td>
<td>140</td>
<td>5.5</td>
<td>152</td>
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<td>46</td>
<td>46</td>
<td>61</td>
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<td>75</td>
<td>2.95</td>
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<td>9.5</td>
<td>12.5</td>
<td>17.5</td>
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<td>0.93</td>
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<td>2.2</td>
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<td>12.9</td>
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### DIMENSIONS SWING CHECK

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<td>111</td>
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<td>140</td>
<td>5.5</td>
<td>152</td>
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<td>78</td>
<td>3.07</td>
<td>75</td>
<td>2.95</td>
<td>84</td>
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<td>9.5</td>
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<td>17.5</td>
<td>0.69</td>
<td>23.5</td>
<td>0.93</td>
<td>30</td>
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<td><strong>Wt (kgs/lbs)</strong></td>
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<td>1</td>
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### DIMENSIONS Y-PISTON

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<td>5.5</td>
<td>152</td>
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Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
## Forged Steel Screwed & Weld End Check Valves

### SW, NPT, BW, CLASS 1500 STANDARD PORT

#### DIMENSIONS PISTON CHECK / BALL CHECK

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<th>¾&quot;</th>
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<td>92</td>
<td>92</td>
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<td>146</td>
<td>172</td>
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<td>56</td>
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<td>1.5</td>
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#### DIMENSIONS SWING CHECK

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#### DIMENSIONS Y-PISTON

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Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
Forged Steel
Screwed & Weld End Check Valves

**SW, NPT, BW, CLASS 2500 STANDARD PORT**

### DIMENSIONS PISTON CHECK / BALL CHECK

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<td>229</td>
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### DIMENSIONS Y-PISTON CHECK

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<td>H (mm/in)</td>
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<td>12.9</td>
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<td>29.9</td>
<td>39.0</td>
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</tbody>
</table>

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
**BONNETLESS GLOBE VALVES**

One-piece, forged, bonnetless globe valves have been proven in critical service applications around the world. This includes high pressure drop, steam blow down, steam injection etc. These fast acting isolation valves are rated up to 6000 psi - 2500 Class (414 bar) and can be utilised in gas and super heated steam at up to 1100°F (593°C)

**DESIGN FEATURE**

**ONE PIECE FORGED BODY**
- Eliminates pressure retaining threads or bolts
- No welds to cut for servicing
- Eliminates deposits

**Y PATTERN FORGED BODY**
- Excellent flow characteristics
- Allows streamlined flow
- Eliminates corrosion and deposits
- 60° incline pressure drop

**HEAVY INTEGRAL SEATING**
- Integral Stellite #6 seat & disc for long life
- Tight shutoff
- Long valve life
- Good flow characteristics.
- Ease of re-facing
- Positive seating function as standard
- Seat is guided at bottom and top

**NON-ROTATING SPLINED STEM**
- Non-rotating solid cone eliminates galling and eliminates scoring or bending of the stem
- No torsion applied to gland packing
- Easy on site maintenance and low maintenance cost
- Low operational torque
- Can not be detached from the stem
- Close roundness and straightness tolerances
- Burnished for superior finish

**COMBINATION GLAND RING PACKING**
- Graphoil as standard maximum temperature 650 degree °C.
- Long operating life

**HEAVY TWO-PIECE GLAND BUSHINGS**
- Will withstand high stresses caused by liveloading
- Bolt torques control total spring load
- Two sets of GLAND BUSHINGS maintain a minimum permanent stress of 4000 psi on the graphite packing keeping it tight for long periods of time without maintenance.

**DOUBLE PACKING AND LEAK-OFF**
- A lantern ring and leak-off pipe option allows detection or draining of leakage, if any, from the lower packing set.

**SHORT AND NARROW PACKING CHAMBER**
- Sealing effectiveness improves as overall packing length shortens. Chamber wall is burnished to a superior finish

**HANDLE WHEEL**
- Impact Hand-wheel is not necessary thanks to the two roller bearings.

**UNIQUE, FULLY-ENCLOSED STEM NUTDRIVE**
- Well lubricated stem nut rotates on two thrust bearings
- 10,000 test cycles show no visible damage to parts
- Dust cover and sleeve protect stem threads from dirt, dust and sand.
### BILL OF MATERIALS TABLE

<table>
<thead>
<tr>
<th>Component</th>
<th>Body Material</th>
<th>Seat Material</th>
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<tbody>
<tr>
<td>Body</td>
<td>A182 Gr. F91</td>
<td>A182 Gr. F316</td>
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<tr>
<td>Seat</td>
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<td>Stellite 6</td>
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<tr>
<td>Disc Trim</td>
<td>Stellite 6</td>
<td>Stellite 6</td>
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<td>Gr.H316</td>
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<td>Packing Ring</td>
<td>Graphite</td>
<td>Graphite</td>
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<td>Split Gland Bushing</td>
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<tr>
<td>Yoke Bushing</td>
<td>Gr. Steel</td>
<td>Gr. Steel</td>
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<tr>
<td>Handwheel</td>
<td>Malleable iron</td>
<td>Malleable iron</td>
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<tr>
<td>Snap Ring</td>
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<td>Steel</td>
</tr>
<tr>
<td>Tab Washer</td>
<td>Steel</td>
<td>Steel</td>
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</tbody>
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**Notes:**
- **BODY** and **SEAT** are materials for the valve body and seat, respectively.
- **DISC TRIM** and **STEM** materials are used for the disc and stem.
- **BACK SEAT** and **PACKING WASHER** materials are for the back seat and packing washer.
- **PACKING FLANGE** and **GLAND STUD** materials are for the packing flange and gland stud.
- **SPLIT GLAND BUSHING** and **PACKING RING** materials are for the split gland bushing and packing ring.
- **GLAND NUT** and **WASHER** materials are for the gland nut and washer.
- **THRUST BEARING** and **STEM NUT** materials are for the thrust bearing and stem nut.
- **YOKE BUSHING** and **HANDWHEEL** materials are for the yoke bushing and handwheel.
- **SNAP RING** and **TAB WASHER** materials are for the snap ring and tab washer.

---

**Diagram:**
- The diagram shows the components of a Bonnetless Y Pattern Globe Valves, including the body, seat, disc trim, stem, handwheel, etc.
- The parts are labeled with corresponding materials listed in the table.

---

**Measurements:**
- The diagram includes measurements such as 215, 160, 126, etc., indicating the dimensions of the valve components.

---

**Other Materials:**
- **Bonnetless Y Pattern Globe Valves** by JEE Series
- **Page 20**
OVERVIEW
Design - API 602, BS 5352, MSS SP11, ANSI/ASME B16.34
End Connections - Socket Weld: ANSI/ASME B16.11
Thread: ANSI/ASME B1.20.1
Butt Weld: ANSI/ASME B16.25
Flange: ANSI/ASME B16.5
Test and Inspection - API 598 / BS 5146

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<thead>
<tr>
<th>No.</th>
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<td>Gasket</td>
</tr>
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<td>6</td>
<td>Bellows Holder Lower</td>
</tr>
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<td>7</td>
<td>Bonnet Bolt</td>
</tr>
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<td>Bellows</td>
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<tr>
<td>10</td>
<td>Bonnet</td>
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<td>11</td>
<td>Bonnet Upper</td>
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<td>12</td>
<td>Guide Pin</td>
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<td>13</td>
<td>Gland Packing</td>
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<td>14</td>
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<td>Gland Flange</td>
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<td>Handwheel</td>
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<td>22</td>
<td>Handwheel Washer</td>
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<tr>
<td>23</td>
<td>Name Plate</td>
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<td>24</td>
<td>Handwheel Nut</td>
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</tbody>
</table>

• Inconel or 321SS Bellows
  - For Longer Life
  - Maximum corrosion resistance
• Flanged, screwed or welded end connections
• Welded or Bolted Bonnet Design
• Zero Stem Leakage
  - Eliminates media loss
  - Satisfies environmental regulations
• Zero Maintenance
  - Lower operating costs/no downtime
• Reduce Monitoring Costs
• Three Stem Seals For Safety
  - Metallic bellows
  - Graphite packing
  - Backseat in open position
• Hardfaced Seating Surface
  - Stellite 6 for long life
• Valve Designed, Manufactured And Tested
  - To ANSI B16.34/API 602 & 598
• Additional Alloy And Trims Available
• For Applications Where Leakage Into Or Out Of The Valve Is Unacceptable
  - Heat Transfer Oil
  - Toxic Fluids
  - Steam
  - Regulated Media
OVERVIEW
Design - API 602, BS 5352, MSS SP11, ANSI/ASME B16.34
End Connections -
  Socket Weld : ANSI/ASME B16.11
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  Flange : ANSI/ASME B16.5
Test and Inspection - API 598 / BS 5146

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<th>No.</th>
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<tr>
<td>1</td>
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</tr>
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<td>2</td>
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<tr>
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<td>Gasket</td>
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<td>Bellows Holder Lower</td>
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<td>Name Plate</td>
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- Additional Alloy And Trims Available
- For Applications Where Leakage Into Or Out Of The Valve Is Unacceptable
  - Heat Transfer Oil
  - Toxic Fluids
  - Steam
  - Regulated Media
Forged Steel Integral Flanged Gate Valves

BOLTED, WELDED & PRESSURE SEAL BONNET CLASS 150 TO 2500

DESIGN FEATURES
Integral Flanged
Outside screw
Bolted bonnet & welded bonnet
Regular bore & full bore
Flanging to ANSI B16.5.
Other flanges available.
Alternative trim materials available.

STANDARDS
Construction - API602 & ANSI/ASME B16.34
End Connections - Socket Weld : ANSI/ASME B16.11
Thread : ANSI/ASME B1.20.1
Butt Weld : ANSI/ASME B16.25
Flanged : ANSI/ASME B16.5
Inspection and Test - API 598

Bolted Bonnet
# FLANGED DIMENSIONS RF/RTJ - REGULAR BORE*

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<thead>
<tr>
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<th>DIMENSIONS</th>
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<td>mm</td>
<td>in</td>
<td>mm</td>
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<td>97.0</td>
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<td>3.82</td>
<td>97.0</td>
<td>3.82</td>
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<tr>
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<td>B - Centre to Top</td>
<td>138.0</td>
<td>5.43</td>
<td>147.0</td>
<td>5.79</td>
<td>174.0</td>
<td>6.85</td>
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<td>0.5</td>
<td>18.5</td>
<td>0.73</td>
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<td>3.82</td>
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<td>B - Centre to Top</td>
<td>138.0</td>
<td>5.43</td>
<td>147.0</td>
<td>5.79</td>
<td>174.0</td>
<td>6.85</td>
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*Regular bore shown, full port refer to drawing.

## CV FACTORS

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<th>1 1/2&quot;</th>
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<tbody>
<tr>
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<td>Typical Cv Factor</td>
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<td>26.3</td>
<td>52.4</td>
<td>78.0</td>
<td>115.0</td>
</tr>
</tbody>
</table>

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

---

1. **Forged Steel Integral Flanged Gate Valves**
2. **Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.**
3. *Regular bore shown, full port refer to drawing.*
Forged Steel Integral Flanged Globe & SDNR Valves

BOLTED, WELDED & PRESSURE SEAL BONNET
CLASS 150 TO 2500

DESIGN FEATURES
- Integral flanged.
- Outside screw
- Bolted bonnet & welded bonnet
- Regular bore & full bore
- Flanging to ANSI B16.5
- Other flanges available.
- Alternative trim materials available.

STANDARDS
- Construction: API602 & ANSI/ASME B16.34
- End Connections:
  - Socket Weld: ANSI/ASME B16.11
  - Thread: ANSI/ASME B1.20.1
  - Butt Weld: ANSI/ASME B16.25
  - Flanged: ANSI/ASME B16.5
- Inspection and Test: API 598
# Forged Steel Integral Flanged Globe Valves

## FLANGED DIMENSIONS RF/RTJ - REGULAR BORE*

<table>
<thead>
<tr>
<th>ANSI CLASS</th>
<th>DIMENSION</th>
<th>1/2&quot;</th>
<th>3/4&quot;</th>
<th>1&quot;</th>
<th>1 1/4&quot;</th>
<th>1 1/2&quot;</th>
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<tbody>
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<td>mm</td>
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<td>108.08</td>
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<tr>
<td></td>
<td>C - Wheel Dia.</td>
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<td>3.31</td>
<td>97.0</td>
<td>3.82</td>
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<td>0.38</td>
<td>12.5</td>
<td>0.5</td>
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<td>0.73</td>
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<tr>
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<td>97.0</td>
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<td>6.06</td>
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<td>0.38</td>
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<td>0.5</td>
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<td>C - Wheel Dia.</td>
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<td>3.31</td>
<td>97.0</td>
<td>3.82</td>
<td>97.0</td>
<td>3.82</td>
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<tr>
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<td>B - Centre to Top</td>
<td>144.0</td>
<td>5.67</td>
<td>154.0</td>
<td>6.06</td>
<td>177.0</td>
<td>6.97</td>
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<td>0.38</td>
<td>12.5</td>
<td>0.5</td>
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<td>97.0</td>
<td>3.82</td>
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<td>5.0</td>
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<td>15.4</td>
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<td>273.0</td>
<td>10.74</td>
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*Regular bore shown, full port refer to drawing.

## CV FACTORS

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<th>1 1/4&quot;</th>
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<td>11.5</td>
<td>17.0</td>
<td>21.0</td>
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</table>

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.
BOLTED, WELDED & PRESSURE SEAL COVER
CLASS 150 TO 2500

DESIGN FEATURES
Bolted, welded and pressure seal bonnet.
Integral flanged.
Regular port and full port.
Flanged to ANSI B16.5.
Other flanging available.
Alternative trim materials available.
Spring can be fitted for vertical service to ball and piston type.

STANDARDS
Construction - API602, BS5352 & ANSI/ASME B16.34
End Connections - Socket Weld : ANSI/ASME B16.11
Thread : ANSI/ASME B1.20.1
Butt Weld : ANSI/ASME B16.25
Flanged : ANSI/ASME B16.5
Inspection and Test - API 598

No. | Part Name
--- | ---
1. | BODY
2. | DISC
3. | GASKET
4. | COVER
5. | COVER BOLT
6. | NAME PLATE
7. | BALL
8. | SEAT RING
9. | DISC
10. | RETAINING RING
11. | HINGE
12. | HINGE PIN
13. | SUPPORT

A = Face to Face
B = Centre to top
D = Port Diameter

Bolted Bonnet
# Forged Steel Integral Flanged Check Valves

## FLANGED DIMENSIONS - REGULAR BORE

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<th>SIZE</th>
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<th>¼&quot;</th>
<th>⅛&quot;</th>
<th>⅜&quot;</th>
<th>½&quot;</th>
<th>⅜&quot;</th>
<th>1&quot;</th>
<th>1½&quot;</th>
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<tr>
<td></td>
<td></td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
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<tr>
<td>150</td>
<td>A-F</td>
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<td>7.9</td>
<td>140.0</td>
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<td>5.0</td>
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<td>2500 (Pressure Seal Bonnet)</td>
<td>A-F</td>
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<td>273.0</td>
<td>10.74</td>
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<td>5.7</td>
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* Port diametre shown is for piston and ball check regular port. For swing and for full bore piston and ball check refer to drawing.

## CV FACTORS - LIFT CHECK

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<th>¼&quot;</th>
<th>⅛&quot;</th>
<th>⅜&quot;</th>
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* Reduced Port

## CV FACTORS - SWING CHECK

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<th>¼&quot;</th>
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<th>⅜&quot;</th>
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<td>11.3</td>
<td>26.3</td>
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</table>

* Reduced Port

## CV FACTORS - Y-PISTON CHECK

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<th>¼&quot;</th>
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<th>⅜&quot;</th>
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</thead>
<tbody>
<tr>
<td>150~800LB</td>
<td>Typical Cv Factor</td>
<td>5.5</td>
<td>11.5</td>
<td>16.5</td>
<td>21.0</td>
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</table>

* Reduced Port
Australian Pipeline Valve don't consider in our design the following factors of risk:

1. Australian Pipeline Valve “Standard” valves can be used in a temperature range between -29°C to +490°C. (Note, pressure limitations apply above 38°C refer to Pressure/Temperature charts.) For service temperatures below -29°C valves construction materials shall be submitted to an impact test at the minimum service temperature. For temperatures above and below the standard range, special seals need to be specified by the client.

2. The onus is on the customer to specify all materials of construction and service conditions. Australian Pipeline Valve shall assume standard materials and conditions if not otherwise specified.

3. Australian Pipeline Valve “Standard” valves are not equipped with devices suitable to avoid internal over-pressures caused by incorrect operations of process or by-fluids & liquids subjected to an increase of volume and/or pressure (these devices, such as the over-pressure hole in the gate or safety seats are available upon request).

4. Australian Pipeline Valve “Standard” valves are not designed with special devices to withstand a sudden thermal jump (thermal shock).

5. In general Australian Pipeline Valve “Standard” valves are not mechanically designed to bear overloads due to exceptional atmospheric or natural phenomenon's (such as earthquakes).

6. In general Australian Pipeline Valve “Standard” valves are not designed to bear loads on flanges, on pipe connections or pipe-line.

7. In general Australian Pipeline Valve “Standard” valves can't withstand ice inside their bodies (in this case the user has to consider the optional stem extension for insulating, avoiding the presence of residual product inside the valve).

8. Australian Pipeline Valve “Standard” valves are not suitable for low temperature service below -29°C (-20°F) unless supplied (in a suitable body material) with cryogenic stem extension and other modifications, (available on request).

9. Australian Pipeline Valve “Standard” valves are suitable for “industrial” oxygen (not medical) service when supplied degreased and packed in polyethylene bags only.

10. The compatibility between the valves construction materials and medium is selected by the user. The user is ultimately responsible for verifying the compatibility between medium and materials.

11. Abrasive or dirty service applications need to be considered and stated at time of order.

**VALVE START-UP**

Before installing the valve onto the pipe-line it is mandatory, for the user, to verify the compatibility of the valve with service conditions (medium, temperature and pressure). With reference to standard valves held in stock, the reseller and end user will have to assure themselves of the compatibility between the valve and the conditions required by the customer. Australian Pipeline Valve gate valves must be only used for on-off (fully open/fully closed) service.

Before using the valve in a potential explosive atmosphere it's necessary for the customer to:

- To verify the correct type of valve and operator is specified.
- To verify the compatibility between the valve and the zone in which the valve should be installed.
- To foresee the pipe-line ground condition on which the valve should be installed.
- To check that the temperature if the valve surface is not higher than the flammable point of the atmosphere in which the valve is installed (in this case specify an insulating cover device for the valve and an extension for the operator).
- To avoid mechanical knocks during the installation that may cause sparks.

Australian Pipeline Valve cannot be held responsible for damage caused by use of the product for any reason, especially if it is improper use or modified.
“Australian Pipeline Valve produces isolation, control and flow reversal protection products for severe and critical service media in utility, steam, pipelines, oil & gas and process industries. APV valves and pipeline products form the most competitive portfolio in the market.”

Contact us for your local stockist/distributor

View our catalogues at www.australianpipelinevalve.com.au
QUALITY ASSURANCE AND CERTIFICATION

We are continually improving all facets of quality assurance. Full metallurgical and test certificates are always supplied for all pressure retaining parts, we also provide it on all major trim components.

We have endeavoured to provide a broad outline of our range and capabilities. Because we are continually developing new products for our customers this catalogue will, to some extent be incomplete. This catalogue is a general overview only, individual drawings and data sheets can be furnished on request.

If you have any requirement in the field of valves, please contact us for a prompt response. Continuous development of Australian Pipeline Valve products may necessitate changes in the design or manufacturing processes. Australian Pipeline Valve reserves the right to effect any such changes without prior notice.