



Applications

- Refineries, Power stations, Process & General Industry
- For water, steam, gas, oil and other non-aggressive media
- Further applications on request

Operating data

- Pressure range up to 104 bar (1480 PSI)
- Temperature range up to +593°C/1100°F
- Minimum temperature is 0°C (less than 0°C on request)
- Pressure-temperature ratings as per ASME B 16.34 Standard class

Design

- As per BS 1873
- Pressure, Temperature rating as per ASME B 16.34
- Stellite hard-faced Seat
- Graphite gaskets and graphite packings with Braided wiping rings

Materials

ANSI Standard Class (as per ASME B 16.34)

- #150/300/600 - A 216 WCB from 0°C to 425°C
- #600 - A 217 WC6 from 0°C to 593°C
- #150/300 - A 351 CF8 from 0°C to 537°C
- ASME Special class on request.

Variants on Request

- Bypass execution
- Actuator execution
- Trim 8, Trim 5 for #150/ 300 valves
- Trim 5 for #600 WCB valves
- Trim 8 for #600 WC6 valves
- Other material of construction on request
- Position Indicator
- Locking arrangement

Remarks

Forged Valves leaflet no. : 0500.10/01 - 18 G3
Pressure Seal Gate Valve leaflet no. : 0501.10/01 - 18 G3
Pressure Seal Globe Valve leaflet no. : 0502.10/01 - 18 G3
Pressure Seal Check Valve leaflet no. : 0503.10/01 - 18 G3
Cast Steel Gate Valve leaflet no. : 0501.11/01 - 18 G3
Cast Steel Check Valve leaflet no. : 0503.11/01 - 18 G3

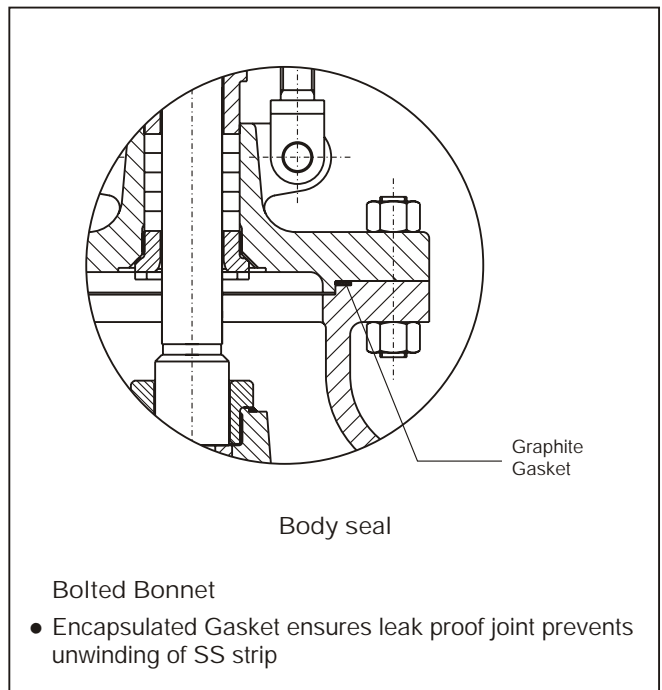
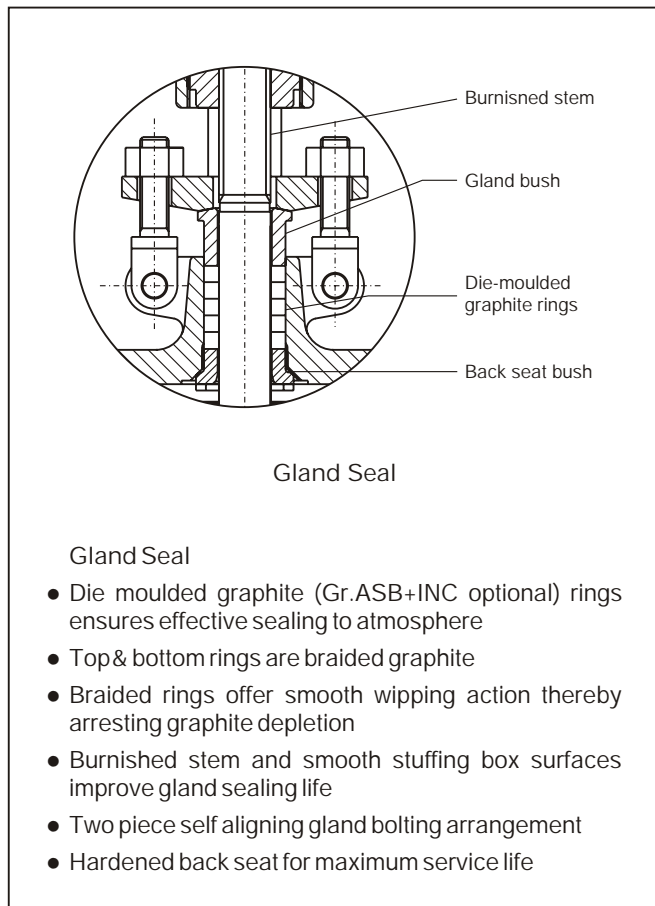
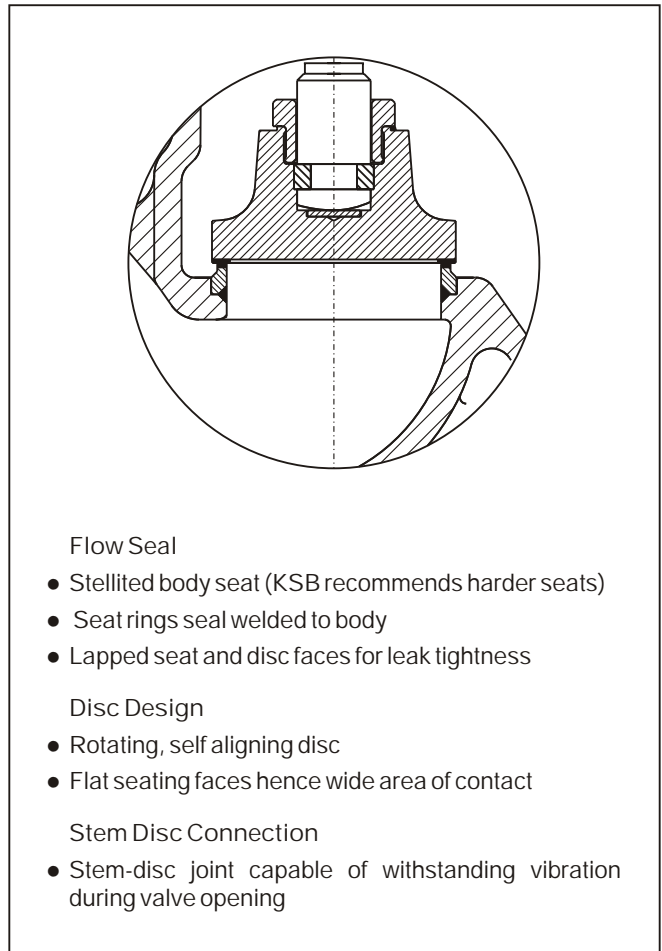
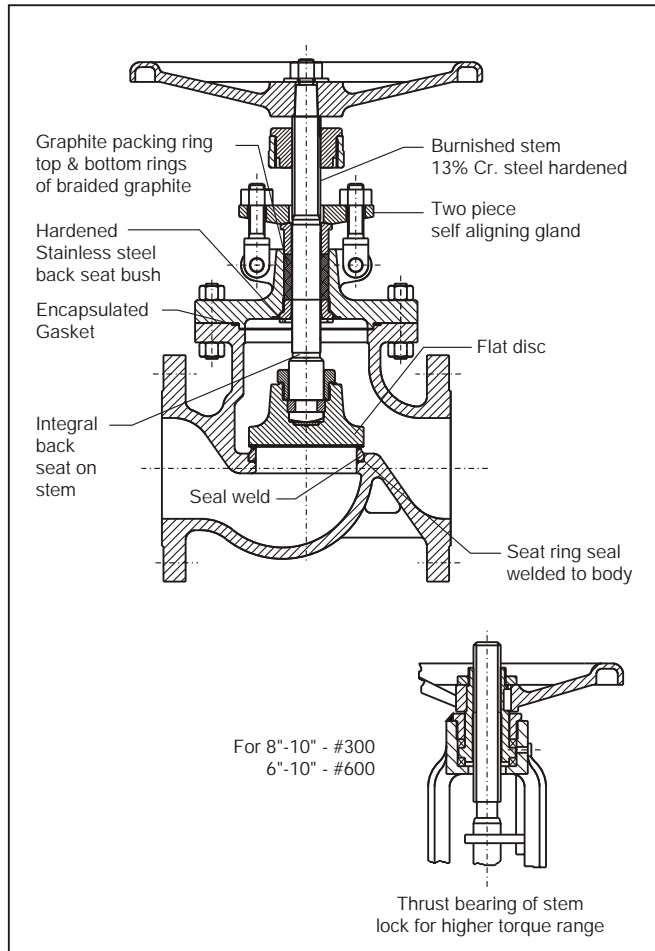
Operating instructions no. : 0500.80/01 - 18 G3

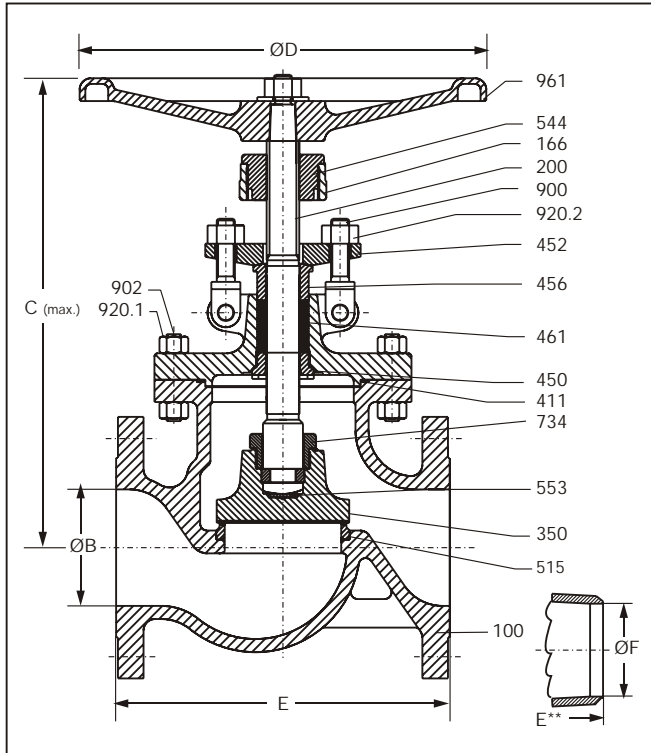
When ordering spares indicate valve serial no.

On all enquiries/orders please specify

1. Type
2. ANSI Pressure class
3. Size
4. Design pressure
5. Operating pressure
6. Differential pressure
8. Flow Medium
9. Type of end connection
10. Pipe schedule
11. Variants
12. Leaflet no.
13. Valve data sheet if

Product Features to our Customers Benefit





Design Specifications

- General valve design : BS 1873
- Pressure, temperature rating : ASME B 16.34
Standard class
- Flanged end design : ASME B 16.5
- End to end dimension : ASME B 16.10
- Testing standard : API 598

Dimensions

| Class 150 | | 2" | 3" | 4" | 6" | 8" | 10" |
|-----------|------|-------|-------|-------|-------|-------|-------|
| E | Inch | 8.0 | 9.5 | 11.5 | 16.0 | 19.5 | 24.5 |
| | mm | 203.0 | 241.0 | 292.0 | 406.0 | 495.0 | 622.0 |
| ØB | Inch | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 10.0 |
| | mm | 51.0 | 76.0 | 102.0 | 152.0 | 203.0 | 254.0 |
| C (max.) | Inch | 12.8 | 15.6 | 18.2 | 22.0 | 28.0 | 32.9 |
| | mm | 324.0 | 396.0 | 462.0 | 560.0 | 710.0 | 836.0 |
| ØD | Inch | 8.0 | 10.0 | 14.0 | 14.0 | 18.0 | 20.0 |
| | mm | 203.0 | 254.0 | 356.0 | 356.0 | 457.0 | 508.0 |
| E** | Inch | 8.0 | 9.5 | 11.5 | 16.0 | 19.5 | 24.5 |
| | mm | 203.0 | 241.0 | 292.0 | 406.0 | 495.0 | 622.0 |
| ØF | Inch | 2.1 | 3.1 | 4.0 | 6.1 | 8.0 | 10.0 |
| | mm | 52.5 | 78.0 | 102.0 | 154.0 | 203.0 | 254.5 |

* Schedule 40 for class 150. Alternate schedule on request.
E** - End to End of BW end valve.

| Class 300 | | 2" | 3" | 4" | 6" | 8" | 10" |
|-----------|------|-------|-------|-------|-------|-------|-------|
| E | Inch | 10.5 | 12.5 | 14.0 | 17.5 | 22.0 | 24.5 |
| | mm | 267.0 | 318.0 | 356.0 | 445.0 | 559.0 | 622.0 |
| ØB | Inch | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 10.0 |
| | mm | 51.0 | 76.0 | 102.0 | 152.0 | 203.0 | 254.0 |
| C (max.) | Inch | 13.6 | 16.1 | 19.9 | 23.2 | 30.5 | 34.8 |
| | mm | 345.0 | 410.0 | 505.0 | 590.0 | 775.0 | 885.0 |
| ØD | Inch | 8.0 | 10.0 | 14.0 | 18.0 | 18.0 | 20.0 |
| | mm | 203.0 | 254.0 | 356.0 | 457.0 | 457.0 | 508.0 |
| E** | Inch | 10.5 | 12.5 | 14.0 | 17.5 | 22.0 | 24.5 |
| | mm | 267.0 | 318.0 | 356.0 | 445.0 | 559.0 | 622.0 |
| ØF | Inch | 2.0 | 3.1 | 4.0 | 6.1 | 8.0 | 10.0 |
| | mm | 52.5 | 78.0 | 102.0 | 154.0 | 203.0 | 254.5 |

* Schedule 40 for class 300. Alternate schedule on request.
E** - End to End of BW end valve.

| Class 600 | | 2" | 3" | 4" | 6" | 8" | 10" |
|-----------|------|-------|-------|-------|-------|-------|--------|
| E | Inch | 11.5 | 14.0 | 17.0 | 22.0 | 26.0 | 31.0 |
| | mm | 292.0 | 356.0 | 432.0 | 559.0 | 660.0 | 787.0 |
| ØB | Inch | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 | 9.8 |
| | mm | 51.0 | 76.0 | 102.0 | 152.0 | 200.0 | 248.0 |
| C (max.) | Inch | 15.6 | 18.5 | 20.7 | 28.1 | 33.2 | 43.7 |
| | mm | 395.0 | 470.0 | 525.0 | 715.0 | 844.0 | 1110.0 |
| ØD | Inch | 10.0 | 14.0 | 14.0 | 20.0 | 24.0 | 24.0 |
| | mm | 254.0 | 356.0 | 356.0 | 508.0 | 610.0 | 610.0 |
| E** | Inch | 11.5 | 14.0 | 17.0 | 22.0 | 26.0 | 31.0 |
| | mm | 292.0 | 356.0 | 432.0 | 559.0 | 660.0 | 787.0 |
| ØF | Inch | 1.9 | 2.9 | 3.8 | 5.8 | 7.6 | 9.6 |
| | mm | 49.0 | 73.5 | 97.0 | 146.5 | 193.5 | 243.0 |

* Schedule 80 for class 600. Alternate schedule on request.
E** - End to End of BW end valve.

Materials

| Part No. | Description | Material | | | |
|----------|---------------|-----------------|---------------|---------------|---------------|
| 100 | Body | A 216-WCB | A 217-WC6 | A 351-CF8 | A 351-CF8M |
| 166 | Bonnet | A 216-WCB | A 217-WC6 | A 351-CF8 | A 351-CF8M |
| 200 | Stem | A 479-410-2 | A 479-410-2 | A 276-304 | A 276-316 |
| 350 | Wedge | A 217-CA15 | A 217-WC6+ST6 | A 351-CF8 | A 351-CF8M |
| | | A 216-WCB+13%Cr | | | |
| 411 | Gasket | SS 316 + GRPH | SS 316 + GRPH | SS 316 + GRPH | SS 316 + GRPH |
| 450 | Back Seat | A 276-410 (H) | A 276-410 (H) | A 276-304 | A 276-316 |
| 452 | Gland Flange | A 105 | A 105 | A 351-CF8 | A 351-CF8M |
| 456 | Gland Bush | A 276-410 | A 276-410 | A 276-304 | A 276-316 |
| 461 | Gland Packing | Graphite | Graphite | Graphite | Graphite |
| 515 | Seat Ring | A 216-WCB+ST6 | A 217-WC6+ST6 | A 351-CF8 | A 351-CF8M |
| 544 | Stem Nut | A 439-D2 | A 439-D2 | A 439-D2 | A 439-D2 |
| 900 | Gland Bolt | A 307-B | A 307-B | A 182-F304 | A 182-F304 |
| 902 | Stud | A 193-B7 | A 193-B16 | A 193-B8 | A 193-B8M |
| 920.1 | Hex. Nut | A 194-2H | A 194-2H | A 194-8 | A 194-8M |
| 920.2 | Hex. Nut | | A 194-4 | A 194-8 | A 194-8M |
| 961 | Handwheel | SG 400/12 | SG 400/12 | SG 400/12 | SG 400/12 |

Note : Subject to change without notice on account of continuous improvement.

Test Specifications

| Test / Test pressure | #150 | | #300 | | #600 | | Testing medium |
|----------------------|--------------------|-----|--------------------|------|--------------------|------|------------------|
| | kg/cm ² | PSI | kg/cm ² | PSI | kg/cm ² | PSI | |
| Shell | 30 | 455 | 77 | 1138 | 157 | 2233 | Kerosene / Water |
| Back seat | 22 | 327 | 57 | 825 | 115 | 1636 | |
| Seat leak | 23 | 327 | 58 | 825 | 115 | 1636 | |

Material : A 216 WCB Table A : Standard Class

| Temperature | | #150 | | #300 | | #600 | |
|-------------|-----------|------|--------------------|------|--------------------|------|--------------------|
| °F | °C | PSI | kg/cm ² | PSI | kg/cm ² | PSI | kg/cm ² |
| -20 to100 | -17 to 38 | 285 | 20.0 | 740 | 52.0 | 1480 | 104.1 |
| 200 | 93.3 | 260 | 18.3 | 675 | 47.5 | 1350 | 94.9 |
| 300 | 148.9 | 230 | 16.2 | 655 | 46.1 | 1315 | 92.5 |
| 400 | 204.4 | 200 | 14.1 | 635 | 44.6 | 1270 | 89.3 |
| 500 | 260.0 | 170 | 12.0 | 600 | 42.2 | 1200 | 84.4 |
| 600 | 315.6 | 140 | 9.8 | 550 | 38.7 | 1095 | 77.0 |
| 650 | 343.3 | 125 | 8.8 | 535 | 37.6 | 1075 | 75.6 |
| 700 | 371.1 | 110 | 7.7 | 535 | 37.6 | 1065 | 74.9 |
| 750 | 398.9 | 95 | 6.7 | 505 | 35.5 | 1010 | 71.0 |
| 800 | 426.7 | 80 | 5.6 | 410 | 28.8 | 825 | 58.0 |
| 850 | 454.4 | 65 | 4.6 | 270 | 19.0 | 535 | 37.6 |
| 900 | 482.2 | 50 | 3.5 | 170 | 12.0 | 345 | 24.3 |
| 950 | 510.0 | 35 | 2.5 | 105 | 7.4 | 205 | 14.4 |
| 1000 | 537.8 | 20 | 1.4 | 50 | 3.5 | 105 | 7.4 |

Material : A 217 WC6 Table B : Standard Class

| Temperature | | #150 | | #300 | | #600 | |
|-------------|-----------|------|--------------------|------|--------------------|------|--------------------|
| °F | °C | PSI | kg/cm ² | PSI | kg/cm ² | PSI | kg/cm ² |
| -20 to100 | -17 to 38 | 290 | 20.4 | 750 | 52.7 | 1500 | 105.5 |
| 200 | 93.3 | 260 | 18.3 | 750 | 52.7 | 1500 | 105.5 |
| 300 | 148.9 | 230 | 16.2 | 720 | 50.6 | 1445 | 101.6 |
| 400 | 204.4 | 200 | 14.1 | 695 | 48.9 | 1385 | 97.4 |
| 500 | 260.0 | 170 | 12.0 | 665 | 46.8 | 1330 | 93.5 |
| 600 | 315.6 | 140 | 9.8 | 605 | 42.5 | 1210 | 85.1 |
| 650 | 343.3 | 125 | 8.8 | 590 | 41.5 | 1175 | 82.6 |
| 700 | 371.1 | 110 | 7.7 | 570 | 40.1 | 1135 | 79.8 |
| 750 | 398.9 | 95 | 6.7 | 530 | 37.3 | 1065 | 74.9 |
| 800 | 426.7 | 80 | 5.6 | 510 | 35.9 | 1015 | 71.4 |
| 850 | 454.4 | 65 | 4.6 | 485 | 34.1 | 975 | 68.6 |
| 900 | 482.2 | 50 | 3.5 | 450 | 31.6 | 900 | 63.3 |
| 950 | 510.0 | 35 | 2.5 | 320 | 22.5 | 640 | 45.0 |
| 1000 | 537.8 | 20 | 1.4 | 215 | 15.1 | 430 | 30.2 |
| 1050 | 565.6 | 20 | 1.4 | 145 | 10.2 | 290 | 20.4 |
| 1100 | 593.3 | 20 | 1.4 | 95 | 6.7 | 190 | 13.4 |
| 1150 | 621.1 | 20 | 1.4 | 60 | 4.2 | 125 | 8.8 |
| 1200 | 648.9 | 15 | 1.1 | 40 | 2.8 | 75 | 5.3 |

Material : A 351 CF8 Table C : Standard Class

| Temperature | | #150 | | #300 | | #600 | |
|-------------|-----------|------|--------------------|------|--------------------|------|--------------------|
| °F | °C | PSI | kg/cm ² | PSI | kg/cm ² | PSI | kg/cm ² |
| -20 to100 | -17 to 38 | 275 | 19.3 | 720 | 50.6 | 1440 | 101.2 |
| 200 | 93.3 | 235 | 16.5 | 600 | 42.2 | 1200 | 84.4 |
| 300 | 148.9 | 205 | 14.4 | 540 | 38.0 | 1080 | 75.9 |
| 400 | 204.4 | 190 | 13.4 | 495 | 34.8 | 995 | 70.0 |
| 500 | 260.0 | 170 | 12.0 | 465 | 32.7 | 930 | 65.4 |
| 600 | 315.6 | 140 | 9.8 | 435 | 30.6 | 875 | 61.5 |
| 650 | 343.3 | 125 | 8.8 | 430 | 30.2 | 860 | 60.5 |
| 700 | 371.1 | 110 | 7.7 | 425 | 29.9 | 850 | 59.8 |
| 750 | 398.9 | 95 | 6.7 | 415 | 29.2 | 830 | 58.4 |
| 800 | 426.7 | 80 | 5.6 | 405 | 28.5 | 805 | 56.6 |
| 850 | 454.4 | 65 | 4.6 | 395 | 27.8 | 790 | 55.5 |
| 900 | 482.2 | 50 | 3.5 | 390 | 27.4 | 780 | 54.8 |
| 950 | 510.0 | 35 | 2.5 | 380 | 26.7 | 765 | 53.8 |
| 1000 | 537.8 | 20 | 1.4 | 320 | 22.5 | 640 | 45.0 |
| 1050 | 565.6 | 20 | 1.4 | | | 615 | 43.2 |
| 1100 | 593.3 | 20 | 1.4 | 255 | 17.9 | 515 | 36.2 |
| 1150 | 621.1 | 20 | 1.4 | 200 | 14.1 | 400 | 28.1 |
| 1200 | 648.9 | 20 | 1.4 | 155 | 10.9 | 310 | 21.8 |
| 1250 | 676.7 | 20 | 1.4 | 115 | 8.1 | 225 | 15.8 |
| 1300 | 704.4 | 20 | 1.4 | 85 | 6.0 | 170 | 12.0 |
| 1350 | 732.2 | 20 | 1.4 | 60 | 4.2 | 125 | 8.8 |
| 1400 | 760.0 | 20 | 1.4 | 50 | 3.5 | 95 | 6.7 |
| 1450 | 787.8 | 15 | 1.1 | 35 | 2.5 | 70 | 4.9 |
| 1500 | 815.6 | 10 | 0.7 | 25 | 1.8 | 55 | 3.9 |

Material : A 351 CF8M Table D : Standard Class

| Temperature | | #150 | | #300 | | #600 | |
|-------------|-----------|------|--------------------|------|--------------------|------|--------------------|
| °F | °C | PSI | kg/cm ² | PSI | kg/cm ² | PSI | kg/cm ² |
| -20 to100 | -17 to 38 | 275 | 19.3 | 720 | 50.6 | 1440 | 101.2 |
| 200 | 93.3 | 235 | 16.5 | 620 | 43.6 | 1240 | 87.2 |
| 300 | 148.9 | 215 | 15.1 | 560 | 39.4 | 1120 | 78.7 |
| 400 | 204.4 | 190 | 13.4 | 515 | 36.2 | 1025 | 72.1 |
| 500 | 260.0 | 170 | 12.0 | 480 | 33.7 | 955 | 67.1 |
| 600 | 315.6 | 140 | 9.8 | 450 | 31.6 | 900 | 63.3 |
| 650 | 343.3 | 125 | 8.8 | 445 | 31.3 | 890 | 62.6 |
| 700 | 371.1 | 110 | 7.7 | 430 | 30.2 | 870 | 61.2 |
| 750 | 398.9 | 95 | 6.7 | 425 | 29.9 | 855 | 60.1 |
| 800 | 426.7 | 80 | 5.6 | 420 | 29.5 | 845 | 59.4 |
| 850 | 454.4 | 65 | 4.6 | 420 | 29.5 | 835 | 58.7 |
| 900 | 482.2 | 50 | 3.5 | 415 | 29.2 | 830 | 58.4 |
| 950 | 510.0 | 35 | 2.5 | 385 | 27.1 | 775 | 54.5 |
| 1000 | 537.8 | 20 | 1.4 | 350 | 24.6 | 700 | 49.2 |
| 1050 | 565.6 | 20 | 1.4 | 345 | 24.3 | 685 | 48.2 |
| 1100 | 593.3 | 20 | 1.4 | 305 | 21.4 | 610 | 42.9 |
| 1150 | 621.1 | 20 | 1.4 | 235 | 16.5 | 475 | 33.4 |
| 1200 | 648.9 | 20 | 1.4 | 185 | 13.0 | 370 | 26.0 |
| 1250 | 676.7 | 20 | 1.4 | 145 | 10.2 | 295 | 20.7 |
| 1300 | 704.4 | 20 | 1.4 | 115 | 8.1 | 235 | 16.5 |
| 1350 | 732.2 | 20 | 1.4 | 95 | 6.7 | 190 | 13.4 |
| 1400 | 760.0 | 20 | 1.4 | 75 | 5.3 | 150 | 10.5 |
| 1450 | 787.8 | 20 | 1.4 | 60 | 4.2 | 115 | 8.1 |
| 1500 | 815.6 | 20 | 1.4 | 40 | 2.8 | 85 | 6.0 |

