

Pressure & Temperature Ratings

| WCB (1) (PSIG) | | | | | | |
|----------------|-------|-----|------|------|------|------|
| TEMP. °F | CLASS | | | | | |
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -20 | 285 | 740 | 1480 | 2220 | 3705 | 6170 |
| 100 | 285 | 740 | 1480 | 2220 | 3705 | 6170 |
| 200 | 260 | 680 | 1360 | 2035 | 3395 | 5655 |
| 250 (2) | 245 | 665 | 1335 | 2000 | 3330 | 5550 |
| 300 | 230 | 655 | 1310 | 1965 | 3270 | 5450 |
| 400 (3) | 200 | 635 | 1265 | 1900 | 3170 | 5280 |
| 450 (4) | 185 | 620 | 1235 | 1855 | 3090 | 5150 |
| 470 (5) | 175 | 610 | 1220 | 1835 | 3060 | 5100 |
| 500 | 170 | 605 | 1205 | 1810 | 3015 | 5025 |
| 600 | 140 | 570 | 1135 | 1705 | 2840 | 4730 |
| 650 | 125 | 550 | 1100 | 1650 | 2745 | 4575 |
| 700 (6) | 110 | 530 | 1060 | 1590 | 2665 | 4425 |
| 750 | 95 | 505 | 1015 | 1520 | 2535 | 4230 |
| 800 | 80 | 410 | 825 | 1235 | 2055 | 3430 |

| CF8M (1) (PSIG) | | | | | | |
|-----------------|-------|-----|------|------|------|------|
| TEMP. °F | CLASS | | | | | |
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -462 | 275 | 720 | 1440 | 2160 | 3600 | 6000 |
| 100 | 275 | 720 | 1440 | 2160 | 3600 | 6000 |
| 200 | 235 | 620 | 1240 | 1860 | 3095 | 5160 |
| 250 (2) | 225 | 590 | 1180 | 1770 | 2945 | 4910 |
| 300 | 215 | 560 | 1120 | 1680 | 2795 | 4660 |
| 400 (3) | 195 | 515 | 1025 | 1540 | 2570 | 4280 |
| 450 (4) | 180 | 495 | 990 | 1485 | 2480 | 4130 |
| 470 (5) | 175 | 490 | 975 | 1465 | 2440 | 4070 |
| 500 | 170 | 480 | 955 | 1435 | 2390 | 3980 |
| 600 | 140 | 450 | 900 | 1355 | 2255 | 3760 |
| 650 | 125 | 440 | 885 | 1325 | 2210 | 3680 |
| 700 (6) | 110 | 435 | 870 | 1305 | 2170 | 3620 |
| 750 | 95 | 425 | 855 | 1280 | 2135 | 3560 |
| 800 | 80 | 420 | 845 | 1265 | 2110 | 3520 |
| 850 | 65 | 420 | 835 | 1255 | 2090 | 3480 |
| 900 | 50 | 415 | 830 | 1245 | 2075 | 3460 |
| 950 | 35 | 385 | 775 | 1160 | 1930 | 3220 |
| 1000 | 20 | 365 | 725 | 1090 | 1820 | 3030 |
| 1050 (7) | 20 | 360 | 720 | 1080 | 1800 | 3000 |
| 1100 (7) | 20 | 305 | 610 | 915 | 1525 | 2545 |

PRESSURE TEMPERATURE RATING FOR CAST IRON (PSIG) (8, 9)

| TEMP. °F | CLASS 125 | | CLASS 250 | |
|--------------|--------------|----------|--------------|----------|
| | 2 1/2 to 12" | 14" + | 2 1/2 to 12" | 14" + |
| 0-150° | 200 psig | 150 psig | 400 psig | 300 psig |
| 200° Max (1) | 190 psig | 135 psig | 370 psig | 280 psig |

MAXIMUM OPERATING TEMPERATURES OF MATERIALS (10)

| MATERIALS | SOFT SEAT | | | SPRING | | | |
|-----------|------------|------------|----------------------------------|-------------|-------------|----------------|--------------|
| | BUNA-N | EPDM | VITON® & TFE-ENCAPSULATED VITON® | ZELON® (11) | 316 SS | INCONEL® X-750 | HASTELLOY® C |
| TEMP. °F | -70 to 250 | -75 to 300 | -40 to 400 | 37 to 470 | -460 to 450 | -460 to 700 | -460 to 1000 |

- Notes:**
1. Pressure/temperature ratings in accordance with ASME/ANSI B16.34-2004.
 2. Maximum temperature for Buna-N.
 3. Maximum temperature for Viton® & Zelon with 3600 CWP SCV.
 4. Maximum temperature for 316 SS spring.
 5. Maximum temperature for Zelon with 750 CWP SCV.
 6. Maximum temperature for Inconel® X-750 spring.
 7. Butt weld end valves only. Flanged ratings terminate at 1000° F.
 8. 316 stainless steel trim recommended for temperatures from 180°F to 200° F.
 9. Not recommended for gas or steam service
 10. Maximum valve temperature rating is limited by seal and spring materials shown above.
 11. Zelon is recommended for steam service.

Pressure & Temperature Ratings

CK3MCUN DUPLEX SS

| TEMP. °F | CLASS | | | | | |
|----------|-------|-----|------|------|------|------|
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -20 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 100 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 200 | 260 | 745 | 1490 | 2230 | 3720 | 6200 |
| 250 [2] | 245 | 705 | 1410 | 2115 | 3525 | 5880 |
| 300 | 230 | 665 | 1335 | 2000 | 3335 | 5560 |
| 400 [3] | 200 | 615 | 1230 | 1845 | 3070 | 5120 |
| 450 [4] | 185 | 595 | 1195 | 1790 | 2985 | 4980 |
| 500 | 170 | 580 | 1160 | 1740 | 2905 | 4840 |
| 600 | 140 | 555 | 1115 | 1670 | 2785 | 4640 |
| 650 | 125 | 545 | 1095 | 1640 | 2735 | 4560 |
| 700 [5] | 110 | 540 | 1085 | 1625 | 2710 | 4520 |
| 750 | 95 | 530 | 1065 | 1595 | 2660 | 4430 |

CW-12 MW CAST HASTELLOY® "C"

| TEMP. °F | CLASS | | | | | |
|----------|-------|-----|------|------|------|------|
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -325 | 230 | 600 | 1200 | 1800 | 3000 | 5000 |
| 100 | 230 | 600 | 1200 | 1800 | 3000 | 5000 |
| 200 | 210 | 550 | 1105 | 1655 | 2760 | 4600 |
| 250 [2] | 205 | 535 | 1070 | 1605 | 2680 | 4470 |
| 300 | 200 | 520 | 1040 | 1560 | 2605 | 4340 |
| 400 [3] | 190 | 490 | 980 | 1470 | 2450 | 4080 |
| 450 [4] | 180 | 475 | 950 | 1430 | 2380 | 3970 |
| 500 | 170 | 465 | 925 | 1390 | 2315 | 3860 |
| 600 | 140 | 440 | 880 | 1320 | 2195 | 3660 |
| 650 | 125 | 430 | 860 | 1290 | 2150 | 3580 |
| 700 [5] | 110 | 420 | 835 | 1255 | 2090 | 3480 |
| 750 | 95 | 410 | 820 | 1230 | 2050 | 3420 |
| 800 | 80 | 400 | 800 | 1200 | 2005 | 3340 |
| 850 | 65 | 395 | 785 | 1180 | 1970 | 3280 |
| 900 | 50 | 385 | 775 | 1160 | 1930 | 3220 |
| 950 | 35 | 380 | 760 | 1140 | 1895 | 3160 |
| 1000 | 20 | 365 | 725 | 1090 | 1820 | 3030 |

CN7M (CAST ALLOY 20)

| TEMP. °F | CLASS | | | | | |
|----------|-------|-----|------|------|------|------|
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -325 | 230 | 600 | 1200 | 1800 | 3000 | 5000 |
| 100 | 230 | 600 | 1200 | 1800 | 3000 | 5000 |
| 200 | 200 | 520 | 1035 | 1555 | 2590 | 4320 |
| 250 [2] | 190 | 490 | 980 | 1475 | 2460 | 4100 |
| 300 | 180 | 465 | 930 | 1395 | 2330 | 3880 |
| 400 [3] | 160 | 420 | 845 | 1265 | 2110 | 3520 |
| 450 [4] | 155 | 405 | 810 | 1215 | 2025 | 3380 |
| 500 | 150 | 390 | 780 | 1165 | 1945 | 3240 |
| 600 | 140 | 360 | 720 | 1080 | 1800 | 3000 |

HASTELLOY C-276 AND INCONEL® 625

| TEMP. °F | CLASS | | | | | |
|----------|-------|-----|------|------|------|------|
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -325 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 100 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 200 | 260 | 750 | 1500 | 2250 | 3750 | 6250 |
| 250 [2] | 245 | 740 | 1475 | 2215 | 3695 | 6160 |
| 300 | 230 | 730 | 1455 | 2185 | 3640 | 6070 |
| 400 [3] | 200 | 700 | 1395 | 2095 | 3490 | 5820 |
| 450 [4] | 185 | 680 | 1360 | 2045 | 3405 | 5680 |
| 500 | 170 | 665 | 1330 | 1995 | 3325 | 5540 |
| 600 | 140 | 605 | 1210 | 1815 | 3025 | 5040 |
| 650 | 125 | 590 | 1175 | 1765 | 2940 | 4905 |
| 700 [5] | 110 | 570 | 1135 | 1705 | 2840 | 4730 |
| 750 | 95 | 530 | 1065 | 1595 | 2660 | 4430 |
| 800 | 80 | 510 | 1015 | 1525 | 2540 | 4230 |
| 850 | 65 | 485 | 975 | 1460 | 2435 | 4060 |
| 900 | 50 | 450 | 900 | 1350 | 2245 | 3745 |
| 950 | 35 | 385 | 775 | 1160 | 1930 | 3220 |
| 1000 | 20 | 365 | 725 | 1090 | 1820 | 3030 |
| 1050 [6] | 20 | 360 | 720 | 1080 | 1800 | 3000 |
| 1100 [6] | 20 | 325 | 645 | 965 | 1610 | 2685 |
| 1150 [6] | 20 | 275 | 550 | 825 | 1370 | 2285 |
| 1200 [7] | 20 | 205 | 410 | 615 | 1030 | 1715 |
| 1250 [6] | 20 | 165 | 330 | 495 | 825 | 1370 |

LCC (LOW CARBON CARBON STEEL)

| TEMP. °F | CLASS | | | | | |
|----------|-------|-----|------|------|------|------|
| | 150 | 300 | 600 | 900 | 1500 | 2500 |
| -50 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 100 | 290 | 750 | 1500 | 2250 | 3750 | 6250 |
| 200 | 260 | 750 | 1500 | 2250 | 3750 | 6250 |
| 250 [2] | 245 | 740 | 1475 | 2215 | 3695 | 6160 |
| 300 | 230 | 770 | 1455 | 2185 | 3640 | 6070 |
| 400 [3] | 200 | 705 | 1405 | 2110 | 3520 | 5865 |
| 450 [4] | 185 | 685 | 1365 | 2050 | 3420 | 5700 |
| 500 | 170 | 665 | 1330 | 1995 | 3325 | 5540 |
| 600 | 140 | 605 | 1210 | 1815 | 3025 | 5040 |
| 650 | 125 | 590 | 1175 | 1765 | 2940 | 4905 |

Notes:

1. Pressure/temperature ratings in accordance with ASME/ANSI B16.34-2004.
2. Maximum temperature for Buna-N.
3. Maximum temperature for Viton® & Zelon with 3600 CWP SCV.
4. Maximum temperature for 316 SS spring.
5. Maximum temperature for Inconel® X-750 spring.
6. Butt weld end valves only. Flanged ratings terminate at 1000° F.
7. Maximum temperature for Inconel® 625.