

# 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.