

Pressure-Temperature Ratings

ENGLISH UNITS

The following pressure-temperature charts are derived from ANSI B16.34 – 1996 Version. They will cover the most commonly used body and bonnet materials in the industry. All Crane Valves are designed to operate through the pressure and temperature ranges shown in these charts for a particular ANSI Class Rating and ASTM Material.

ASTM A216 GR. WCB

°F	STANDARD CLASS B16.34 - 1996						SPECIAL CLASS B16.34 - 1996*					
	MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG						MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG					
	150	300	600	900	1500	2500	150	300	600	900	1500	2500
HYDROSTATIC SHELL TEST	450	1125	2225	3350	5575	9275	450	1125	2250	3375	5625	9375
HYDROSTATIC SEAT TEST	325	825	1650	2450	4100	6800	325	825	1650	2475	4125	6875
-20 TO 100	285	740	1480	2220	3705	6170	290	750	1500	2250	3750	6250
200	260	675	1350	2025	3375	5625	290	750	1500	2250	3750	6250
300	230	655	1315	1970	3280	5470	290	750	1500	2250	3750	6250
400	200	635	1270	1900	3170	5280	290	750	1500	2250	3750	6250
500	170	600	1200	1795	2995	4990	290	750	1500	2250	3750	6250
600	140	550	1095	1640	2735	4560	275	715	1425	2140	3565	5940
650	125	535	1075	1610	2685	4475	270	700	1400	2100	3495	5825
700	110	535	1065	1600	2665	4440	265	695	1390	2080	3470	5780
750	95	505	1010	1510	2520	4200	240	630	1260	1890	3150	5250
800	80	410	825	1235	2060	3430	200	515	1030	1545	2570	4285

NOTE: Upon prolonged exposure to temperatures above 800 F, the carbide phase of carbon steel may be converted to graphite. Permissible, but not recommended for prolonged usage above 800 F.

ASTM A352 GR. LCB

°F	STANDARD CLASS B16.34 - 1996						SPECIAL CLASS B16.34 - 1996*					
	MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG						MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG					
	150	300	600	900	1500	2500	150	300	600	900	1500	2500
HYDROSTATIC SHELL TEST	400	1050	2100	3150	5225	8700	400	1050	2100	3150	5225	8700
HYDROSTATIC SEAT TEST	300	775	1550	2300	3825	6375	300	775	1550	2100	3825	6375
-20 TO 100	265	695	1390	2085	3470	5785	265	695	1390	2085	3470	5785
200	250	655	1315	1970	3280	5470	265	695	1390	2085	3470	5785
300	230	640	1275	1915	3190	5315	265	695	1390	2085	3470	5785
400	200	620	1235	1850	3085	5145	265	695	1390	2085	3470	5785
500	170	585	1165	1745	2910	4850	265	695	1390	2085	3470	5785
600	140	535	1065	1600	2665	4440	265	695	1390	2085	3470	5780
650	125	525	1045	1570	2615	4355	260	680	1360	2040	3400	5670

Note: Not to be used over 650 F.

ASTM A352 GR. LCC & LC3

°F	STANDARD CLASS B16.34 - 1996						SPECIAL CLASS B16.34 - 1996*					
	MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG						MAXIMUM NON-SHOCK WORKING PRESSURE, PSIG					
	150	300	600	900	1500	2500	150	300	600	900	1500	2500
HYDROSTATIC SHELL TEST	450	1125	2250	3375	5625	9735	450	1125	2250	3375	5625	9375
HYDROSTATIC SEAT TEST	325	825	1650	2475	4125	6875	325	825	1650	2475	4125	6875
-20 TO 100	290	750	1500	2250	3750	6250	290	750	1500	2250	3750	6250
200	260	750	1500	2250	3750	6250	290	750	1500	2250	3750	6250
300	230	730	1465	2185	3640	6070	290	750	1500	2250	3750	6250
400	200	705	1410	2115	3530	5880	290	750	1500	2250	3750	6250
500	170	665	1330	195	3325	5540	290	750	1500	2250	3750	6250
600	140	605	1210	1815	3025	5040	290	750	1500	2250	3750	6250
650	125	590	1210	1765	2940	4905	290	750	1500	2250	3750	6250

* "Special Class" applies to weld-end valves only and requires NDE testing in accordance with ANSI B16.34.