PRESSURE-TEMPERATURE RATINGS

Pressure Class		150	300	600
Hydrostatic Shell Test Pressure (PSIG) Seat Test Pressure (PSIG)		450 325	1125 825	2250 1650
Working Temp (Deg F)	Material ASTM Specification Alloy Grade Designation	Maximum Non-Shock[11] Working Pressure (PSIG) Standard Class Valves		
– 20 to 100	WCB	285	740	1480
	WC6	290	750	1500
	WC9	290	750	1500
	C5	290	750	1500
	LCB	265	695	1390
	CF8M	275	720	1440
200	WCB	260	665	1350
	WC6	260	710	1425
	WC9	260	715	1430
	C5	260	750	1500
	LCB	250	655	1315
	CF8M	240	620	1240
300	WCB	230	655	1315
	WC6	230	675	1345
	WC9	230	675	1355
	C5	230	730	1455
	LCB	230	640	1275
	CF8M	215	560	1120
400	WCB	200	635	1270
	WC6	200	660	1315
	WC9	200	650	1295
	C5	200	705	1410
	LCB	200	620	1235
	CF8M	195	515	1030
500	WCB	170	600	1200
	WC6	170	640	1285
	WC9	170	640	1280
	C5	170	665	1330
	LCB	170	585	1165
	CF8M	170	480	955
600	WCB	140	550	1095
	WC6	140	605	1210
	WC9	140	605	1210
	C5	140	805	1210
	LCB	140	535	1065
	CF8M	140	450	905
650	WCB	125	535	1075
	WC6	125	590	1175
	WC9	125	590	1175
	C5	125	590	1175
	LCB	125	525	1045
	CF8M	125	445	890
700	WCB	110	535	1065
	WC6	110	570	1135
	WC9	110	570	1135
	C5	110	570	1135
	CF8M	110	430	865
750	WCB	95	505	1010
	WC6	95	530	1065
	WC9	95	530	1065
	C5	95	530	1065
	CF8M	95	425	845
800	WCB	80	410	825
	WC6	80	510	1015
	WC9	80	510	1015
	C5	80	500	995
	CF8M	80	415	830
850	WCB[9,6]	65	270	535
	WC6	65	485	975
	WC9	65	485	975
	C5	65	440	880
900	WCB[9,6]	50	170	345
	WC6	50	450	900
	WC9	50	450	900
	C5	50	355	705
950	WCB[9,6]	35	105	205
	WC6	35	380	755
	WC9	35	380	755
	C5	35	260	520
1000	WCB[9,6]	20	50	105
	WC6	20	225	445
	WC9	20	270	535
	C5	20	190	385

1 Pressures and temperatures listed are the maximum temperatures and pressures of the contained fluid. The pressures and temperatures listed are based on the shell material only; consideration must also be given to the bolting, trim, gasket, and packaging material. For the pressure-temperature ratings for materials not given in the rating table, and for ratings for special class valves (available on special order), see ANSI B16.34-1981.

2 A valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, the ANSI Code for Pressure Piping, or Governmental Regulations, is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material, or rule governing the use of a material at a low temperature.

3 Materials shall not be used beyond the maximum temperature shown in the rating table.

4 Extracted from ANSI B16.34-1981 "Steel Valves" with permission of the publisher, The American Society of Mechanical Engineers, United Engineering Center, 345 East 4th Street, N.Y., N.Y. 10017.

5 Consideration should be given to the possibility of graphitization in carbon steel above approximately 800°F. Permissible, but not recommended by ANSI B16.34 for prolonged use above 800°F.

6 Lunkenheimer recommends WCB for use to 775°F only.

7 Lunkenheimer recommends WC6 for use to 1000°F only.

8 Consideration should be given to the possibility of excessive oxidation (scaling) above approximately 1050°F.

9 Lunkenheimer recommends WC9 for use to 1050°F only.

10 Consideration should be given to the possibility of excessive oxidation (scaling) above 1100°F.

11 See page 23 for information on over pressurization caused by shock loading.

* For welded end valves only, ANSI B16.34 flanged end ratings terminate at 1000° F.