



Data Sheet
Steels & Alloys Pressure-Temperature Parameters

PERFORMING IN DEMANDING APPLICATIONS

Maximal Working Pressure Per Class / Temperature

Temperature vs Pressure (bar) - Standard class rating

ASME B16.34	Material	Temperature (°C)										
		-29 to 38	50	100	200	300	400	450	500	538	600	650
Class 150	316/316L	19.0	18.3	16.1	13.6	10.2	6.6	4.6	2.8	1.4		
	CF8M/CF3M	19.0	18.4	16.2	13.7	10.2	6.5	4.6	2.8	1.4		
	WCB/A105/LF2	19.6	19.2	17.7	13.8	10.2	6.5	4.6	2.8	1.4		
	F22	19.8	19.5	17.7	13.8	10.2	6.5	4.6	2.8	1.4	1.4	1.4
	321/321H	19.0	18.6	17.0	13.8	10.2	6.5	4.6	2.8	1.4	1.4	1.4
Class 300	316/316L	49.7	48.1	42.3	35.8	31.6	29.3	29.0	28.2	25.2		
	CF8M/CF3M	49.6	48.1	42.2	35.7	31.6	29.4	28.8	28.2	25.2		
	WCB/A105/LF2	51.1	50.1	46.6	43.8	39.8	34.7	23.0	11.8	5.9		
	F22	51.7	51.7	51.5	48.6	42.9	36.5	33.7	28.2	18.4	6.9	2.8
	321/321H	49.6	48.6	44.2	38.3	34.1	31.6	30.8	28.2	25.2	20.3	12.6
Class 600	316/316L	99.3	96.3	84.5	71.2	63.1	59.0	57.7	56.5	50.0		
	CF8M/CF3M	99.3	96.2	84.4	71.3	63.2	58.9	57.7	56.5	50.0		
	WCB/A105/LF2	102.1	100.2	93.2	87.6	79.6	69.4	46.0	23.5	11.8		
	F22	103.4	103.4	103.0	97.2	85.7	73.3	67.7	56.5	36.9	13.8	5.7
	321/321H	99.3	97.1	88.5	76.6	68.3	63.2	61.7	56.5	50.0	40.5	25.3
Class 900	316/316L	149.0	144.4	126.8	106.9	95.0	88.3	86.7	84.7	75.2		
	A105/LF2	153.2	150.4	139.8	131.4	119.5	104.2	69.0	35.3	17.7		
	F22	155.1	155.1	154.6	145.8	128.6	109.8	101.4	84.7	55.3	20.7	8.5
	321/321H	148.9	145.7	132.7	114.9	102.4	94.8	92.5	84.7	75.2	60.8	37.9
	316/316L	248.3	240.7	211.0	178.5	158.1	147.2	144.3	140.9	125.5		
Class 1500	A105/LF2	255.3	250.6	223.0	219.0	199.1	173.6	115.0	58.8	29.5		
	F22	258.6	258.6	257.6	243.4	214.4	183.1	169.0	140.9	92.2	34.4	14.2
	321/321H	248.2	242.8	221.2	191.5	170.7	157.9	154.2	140.9	125.5	101.3	63.2
	316/316L	413.8	401.0	351.7	297.2	263.6	245.5	240.4	235.0	208.9		
	A105/LF2	425.5	417.7	388.3	365.0	331.8	289.3	191.7	97.9	49.2		
Class 2500	F22	430.9	430.9	429.4	405.4	357.1	304.9	281.8	235.0	153.7	57.4	23.6
	321/321H	413.7	404.6	368.7	319.1	284.6	263.2	256.9	235.0	208.9	168.9	105.4

Temperature vs Pressure (Psi) - Standard class rating

ASME B16.34	Material	Temperature (°F)										
		-20 to 100	122	212	392	572	752	842	932	1000	1112	1200
Class 150	316/316L	275	266	233	197	148	95	67	41	20		
	CF8M/CF3M	276	267	235	199	148	94	67	41	20		
	WCB/A105/LF2	284	278	257	200	148	94	67	41	20		
	F22	287	283	257	200	148	94	67	41	20	20	20
	321/321H	276	270	247	200	148	94	67	41	20	20	20
Class 300	316/316L	720	698	613	519	458	425	420	409	365		
	CF8M/CF3M	719	697	612	518	458	426	418	409	365		
	WCB/A105/LF2	741	726	676	635	577	503	334	171	86		
	F22	750	750	747	705	622	529	489	409	267	100	41
	321/321H	719	705	641	555	494	458	447	409	365	294	183
Class 600	316/316L	1440	1396	1225	1032	915	855	837	819	725		
	CF8M/CF3M	1440	1395	1224	1034	916	854	837	819	725		
	WCB/A105/LF2	1480	1453	1351	1270	1154	1006	667	341	171		
	F22	1499	1499	1494	1409	1243	1063	982	819	535	200	83
	321/321H	1440	1408	1283	1111	990	916	895	819	725	587	367
Class 900	316/316L	2160	2094	1838	1550	1377	1280	1257	1228	1090		
	A105/LF2	2221	2181	2027	1905	1733	1511	1001	512	257		
	F22	2249	2249	2242	2114	1865	1592	1470	1228	802	300	123
	321/321H	2159	2113	1924	1666	1485	1375	1341	1228	1090	882	550
	316/316L	3600	3490	3059	2588	2293	2135	2093	2043	1820		
Class 1500	A105/LF2	3702	3634	3234	3176	2887	2517	1668	853	428		
	F22	3750	3750	3735	3529	3109	2655	2451	2043	1337	499	206
	321/321H	3599	3521	3207	2777	2475	2290	2236	2043	1820	1469	916
	316/316L	6000	5815	5100	4310	3822	3560	3486	3408	3029		
	A105/LF2	6170	6057	5630	5293	4811	4195	2780	1420	713		
Class 2500	F22	6248	6248	6226	5878	5178	4421	4086	3408	2229	832	342
	321/321H	5999	5867	5346	4627	4127	3816	3725	3408	3029	2449	1528

* It is totally forbidden to use a material when pressure rating is missing

* F22 316L material is not recommended for prolonged use above 595 °C/1100 °F

* A105, WCB and LF2 materials are not recommended for prolonged use above 425 °C/800 °F

* 316L and CF3M materials are not to be used above 455 °C/850 °F



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