

RÉGIMEN DE PRESIÓN - TEMPERATURA

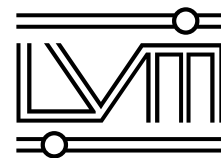
PRESSURE - TEMPERATURE RATING

Temp.	Serie 150					Serie 300					Serie 600				
	A-105 A-350LF2	A-182				A-105 A-350LF2	A-182				A-105 A-350LF2	A-182			
		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L
°C	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa
-29 a 38	1.96	1.98	2.00	1.98	1.59	5.11	5.17	5.17	5.17	4.14	10.21	10.34	10.34	10.34	8.27
50	1.92	1.95	1.95	1.95	1.53	5.01	5.15	5.17	5.17	4.00	10.02	10.30	10.34	10.34	8.00
100	1.77	1.77	1.77	1.77	1.33	4.66	5.04	5.15	5.15	3.48	9.32	10.09	10.30	10.30	6.96
150	1.58	1.58	1.58	1.58	1.20	4.51	4.82	5.03	4.97	3.14	9.02	9.64	10.03	9.95	6.28
200	1.38	1.38	1.38	1.38	1.12	4.38	4.63	4.86	4.80	2.92	8.76	9.25	9.72	9.59	5.83
250	1.21	1.21	1.21	1.21	1.05	4.19	4.48	4.63	4.63	2.75	8.39	8.96	9.27	9.27	5.49
300	1.02	1.02	1.02	1.02	1.00	3.98	4.29	4.29	4.29	2.61	7.96	8.57	8.57	8.57	5.21
325	0.93	0.93	0.93	0.93	0.93	3.87	4.14	4.14	4.14	2.55	7.74	8.26	8.26	8.26	5.10
350	0.84	0.84	0.84	0.84	0.84	3.76	4.03	4.03	4.03	2.51	7.51	8.04	8.04	8.04	5.01
375	0.74	0.74	0.74	0.74	0.74	3.64	3.89	3.89	3.89	2.48	7.27	7.76	7.76	7.76	4.95
400	0.65	0.65	0.65	0.65	0.65	3.47	3.65	3.65	3.65	2.43	6.94	7.33	7.33	7.33	4.86
425	0.55	0.55	0.55	0.55	0.55	2.88	3.52	3.52	3.52	2.39	5.75	7.00	7.00	7.00	4.77
450	0.46	0.46	0.46	0.46	0.46	2.30	3.37	3.37	3.37	2.34	4.60	6.77	6.77	6.77	4.68
475	0.37	0.37	0.37	0.37	—	1.74	2.79	3.17	3.17	—	3.49	5.57	6.34	6.34	—
500	0.28	0.28	0.28	0.28	—	1.18	2.14	2.82	2.57	—	2.35	4.28	5.65	5.15	—
538	0.14	0.14	0.14	0.14	—	0.59	1.37	1.75	1.49	—	1.18	2.74	3.50	2.98	—
550	—	—	—	—	—	—	1.20	1.50	1.27	—	—	2.41	3.00	2.54	—
575	—	—	—	—	—	—	0.88	1.05	0.88	—	—	1.76	2.09	1.76	—
600	—	—	—	—	—	—	0.61	0.72	0.61	—	—	1.21	1.44	1.22	—
625	—	—	—	—	—	—	0.40	0.50	0.43	—	—	0.80	0.99	0.85	—
650	—	—	—	—	—	—	0.24	0.35	0.28	—	—	0.47	0.71	0.57	—

1 MPa = 10 bar = 10.2 Kg/cm²

Temp.	Class 150					Class 300					Class 600				
	A-105 A-350LF2	A-182				A-105 A-350LF2	A-182				A-105 A-350LF2	A-182			
		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L
°F	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI
-20 to 100	285	290	290	290	230	740	750	750	750	600	1480	1500	1500	1500	1200
200	260	260	260	260	195	680	735	750	750	510	1360	1470	1500	1500	1020
300	230	230	230	230	175	655	700	730	720	455	1310	1400	1455	1445	910
400	200	200	200	200	160	635	670	705	695	420	1265	1335	1410	1385	840
500	170	170	170	170	150	605	645	665	665	395	1205	1290	1330	1330	785
600	140	140	140	140	140	570	605	605	605	370	1135	1210	1210	1210	745
650	125	125	125	125	125	550	590	590	590	365	1100	1175	1175	1175	730
700	110	110	110	110	110	530	570	570	570	360	1060	1135	1135	1135	720
750	95	95	95	95	110	505	530	530	530	355	1015	1065	1065	1065	705
800	80	80	80	80	80	410	510	510	510	345	825	1015	1015	1015	690
850	65	65	65	65	65	320	485	485	485	340	640	975	975	975	675
900	50	50	50	50	—	230	375	450	450	—	460	745	900	900	—
950	35	35	35	35	—	135	275	375	320	—	275	550	755	640	—
1000	20	20	20	20	—	85	200	255	215	—	170	400	505	430	—
1050	—	20	20	20	—	—	145	170	145	—	—	290	345	290	—
1100	—	20	20	20	—	—	95	115	95	—	—	190	225	190	—
1150	—	20	20	20	—	—	60	75	65	—	—	125	150	130	—
1200	—	15	20	15	—	—	35	50	40	—	—	70	105	80	—

- Régimen de presión y temperatura conforme a ANSI B 16.34, API 602.
- Limitaciones de temperatura:
- A-105: Permitido pero no recomendado para uso prolongado sobre los 425 °C. Sobre los 455 °C utilizar solamente aceros calmados.
- A-350 LF2: Permitido pero no recomendado para uso prolongado sobre los 425 °C.
- A-182 F11 cl.2: Permitido pero no recomendado para uso prolongado sobre los 595 °C.
- Los materiales de los bulones, juntas y empaquetaduras, también influyen en las limitaciones de temperatura.
- Las válvulas con empaquetadura y junta de teflon quedan limitadas a una temperatura máxima de 260 °C



Válvulas de acero forjado al carbono, inoxidable y aleados
Forged steel valves, carbon, stainless and alloy steel

Temp.	Serie 800					Serie 1500					Serie 2500				
	A-105 A-350LF2	A-182				A-105 A-350LF2	A-182				A-105 A-350LF2	A-182			
		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L
°C	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa
-29 a 38	13.62	13.79	13.79	13.79	11.03	25.53	25.86	25.86	25.86	20.68	42.55	43.09	43.09	43.09	34.47
50	13.37	13.73	13.79	13.79	10.67	25.06	25.75	25.86	25.86	20.01	41.77	42.92	43.09	43.09	33.35
100	12.43	13.45	13.74	13.73	9.28	23.30	25.22	25.76	25.74	17.39	38.83	42.04	42.94	42.90	28.99
150	12.02	12.85	13.38	13.26	8.37	22.54	24.09	25.08	24.87	15.70	37.56	40.15	41.82	41.45	26.16
200	11.68	12.34	12.96	12.79	7.78	21.90	23.13	24.34	23.98	14.58	36.50	38.56	40.54	39.96	24.30
250	11.18	11.95	12.36	12.36	7.32	20.97	22.41	23.18	23.18	13.73	34.95	37.35	38.62	38.62	22.89
300	10.62	11.43	11.43	11.43	6.95	19.91	21.44	21.44	21.44	13.03	33.18	35.71	35.71	35.71	21.72
325	10.32	11.02	11.02	11.02	6.79	19.36	20.66	20.66	20.66	12.74	32.26	34.43	34.43	34.43	21.23
350	10.02	10.73	10.73	10.73	6.68	18.78	20.11	20.11	20.11	12.54	31.30	33.53	33.53	33.53	20.89
375	9.70	10.35	10.35	10.35	6.60	18.18	19.41	19.41	19.41	12.38	30.31	32.32	32.32	32.32	20.63
400	9.26	9.76	9.76	9.76	6.48	17.36	18.31	18.31	18.31	12.15	28.93	30.49	30.49	30.49	20.25
425	7.67	9.34	9.34	9.34	6.36	14.38	17.51	17.51	17.51	11.93	23.97	29.16	29.16	29.16	19.88
450	6.13	9.02	9.02	9.02	6.24	11.50	16.90	16.90	16.90	11.71	19.17	28.18	28.18	28.18	19.51
475	4.65	7.43	8.45	8.45	—	8.72	13.93	15.82	15.82	—	14.53	23.21	26.39	26.39	—
500	3.14	5.70	7.53	6.86	—	5.88	10.69	14.09	12.86	—	9.79	17.82	23.50	21.44	—
538	1.57	3.65	4.67	3.97	—	2.95	6.86	8.75	7.45	—	4.92	11.43	14.58	12.41	—
550	—	3.21	4.00	3.39	—	—	6.02	7.50	6.35	—	—	10.04	12.50	10.59	—
575	—	2.35	2.79	2.35	—	—	4.40	5.23	4.40	—	—	7.34	8.71	7.34	—
600	—	1.62	1.91	1.63	—	—	3.03	3.59	3.05	—	—	5.04	5.98	5.09	—
625	—	1.07	1.32	1.14	—	—	2.00	2.48	2.13	—	—	3.33	4.14	3.55	—
650	—	0.63	0.94	0.76	—	—	1.18	1.77	1.42	—	—	1.97	2.95	2.36	—

1 MPa = 10 bar = 10.2 Kg/cm²

Temp.	Class 800					Class 1500					Class 2500				
	A-105 A-350LF2	A-182				A-105 A-350LF2	A-182				A-105 A-350LF2	A-182			
		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L		F-5	F-9	F-11 d.2	F-316L
°F	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI	PSI
-20 to 100	1975	2000	2000	2000	1600	3705	3750	3750	3750	3000	6170	6250	6250	6250	5000
200	1810	1965	2000	2000	1365	3395	3680	3750	3750	2555	5655	6135	6250	6250	4260
300	1745	1865	1940	1925	1215	3270	3495	3640	3610	2280	5450	5830	6070	6015	3800
400	1690	1780	1880	1850	1120	3170	3345	3530	3465	2100	5280	5570	5880	5775	3500
500	1610	1725	1775	1775	1050	3015	3230	3325	3325	1970	5025	5385	5540	5540	3280
600	1515	1615	1615	1615	990	2840	3025	3025	3025	1860	4730	5040	5040	5040	3100
650	1465	1570	1570	1570	975	2745	2940	2940	2940	1825	4575	4905	4905	4905	3040
700	1415	1515	1515	1515	960	2665	2840	2840	2840	1800	4425	4730	4730	4730	3000
750	1350	1420	1420	1420	940	2535	2660	2660	2660	1765	4230	4430	4430	4430	2940
800	1100	1355	1355	1355	920	2055	2540	2540	2540	1730	3430	4230	4230	4230	2880
850	850	1300	1300	1300	900	1595	2435	2435	2435	1690	2655	4060	4060	4060	2820
900	615	995	1200	1200	—	1150	1870	2245	2245	—	1915	3115	3745	3745	—
950	365	735	1005	850	—	685	1370	1885	1595	—	1145	2285	3145	2655	—
1000	225	530	675	575	—	430	995	1270	1080	—	715	1655	2115	1800	—
1050	—	385	460	385	—	—	720	855	720	—	—	1200	1430	1200	—
1100	—	255	300	255	—	—	480	565	480	—	—	800	945	800	—
1150	—	165	200	175	—	—	310	375	325	—	—	515	630	545	—
1200	—	95	140	110	—	—	170	255	205	—	—	285	430	345	—

- Pressure temperature rating conform to ANSI B 16.34, API 602.
- Temperature limitations:
- A-105: Permissible but not recommended for prolonged use above about 800 °F. Only killed steel shall be used above 850 °F.
- A-350 LF2: Permissible but not recommended for prolonged use above about 800 °F.
- A-182 F11 cl.2: Permissible but not recommended for prolonged use above about 1100 °F.
- Bolting, gasket and packing materials, also influence temperature limitations.
- Valves with teflon gasket and packing are limited to 500 °F max.