



Pakzist Modern Industry Expanding Company (PMIEC)

Local Leader In Process Industry

Maximum Allowable Pressure Charts for duplex and super duplex stainless-steel Pipes

Grade 31803 & 32750



Spec No.	Material Grade	Pipe Size	Outside Diameter (In)	Thickness (In)	Sch	Design Pressure (bar) for Stainless Steel Pipe 2205 (S31803) & 2507 (S32750)					
						Temperature °F(°C)					
						Up to 100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A790	S31803	1/2	0.84	0.065	5S	320.1	320.1	308.4	296.6	290.2	287.0
		1/2	0.841	0.083	10S	408.3	408.3	393.3	378.3	370.2	366.1
		1/2	0.842	0.109	40S	535.5	535.5	515.9	496.3	485.5	480.2
		1/2	0.843	0.147	80S	721.4	721.4	694.9	668.5	654.0	646.8
	S32750	1/2	0.84	0.065	5S	412.9	410.8	388.4	374.5	368.1	363.9
		1/2	0.841	0.083	10S	526.7	524.0	495.4	477.7	469.5	464.1
		1/2	0.842	0.109	40S	690.8	687.3	649.8	626.6	615.9	608.7
		1/2	0.843	0.147	80S	930.6	925.8	875.3	844.0	829.6	820.0
A790	S31803	1	1.315	0.065	5S	204.5	204.5	197.0	189.5	185.4	183.4
		1	1.315	0.083	10S	261.1	261.1	251.5	242.0	236.7	234.1
		1	1.315	0.113	40S	355.5	355.5	342.5	329.4	322.3	318.8
		1	1.315	0.179	80S	563.1	563.1	542.5	521.8	510.6	504.9
	S32750	1	1.315	0.065	5S	263.8	262.4	248.1	239.2	235.2	232.4
		1	1.315	0.083	10S	336.8	335.1	316.8	305.5	300.3	296.8
		1	1.315	0.113	40S	458.6	456.2	431.3	415.9	408.8	404.1
		1	1.315	0.179	80S	726.4	722.7	683.2	658.8	647.6	640.1
A790	S31803	2	2.375	0.065	5S	113.2	113.2	109.1	104.9	102.7	101.5
		2	2.375	0.109	10S	189.9	189.9	182.9	175.9	172.1	170.2
		2	2.375	0.154	40S	268.2	268.2	258.4	248.6	243.2	240.5
		2	2.375	0.218	80S	379.7	379.7	365.8	351.9	344.3	340.5
	S32750	2	2.375	0.065	5S	146.1	145.3	137.4	132.5	130.2	128.7
		2	2.375	0.109	10S	244.9	243.7	230.4	222.1	218.3	215.8
		2	2.375	0.154	40S	346.0	344.2	325.5	313.8	308.5	304.9
		2	2.375	0.218	80S	489.8	487.3	460.7	444.3	436.7	431.6



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						Up to 100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A790	S31803	3	3.5	0.083	5S	98.1	98.1	94.5	90.9	88.9	88.0
		3	3.5	0.120	10S	141.8	141.8	136.6	131.4	128.6	127.2
		3	3.5	0.216	40S	255.3	255.3	245.9	236.6	231.5	228.9
		3	3.5	0.300	80S	354.6	354.6	341.6	328.6	321.5	317.9
	S32750	3	3.5	0.083	5S	126.6	125.9	119.0	114.8	112.8	111.5
		3	3.5	0.120	10S	183.0	182.0	172.1	165.9	163.1	161.2
		3	3.5	0.216	40S	329.3	327.6	309.8	298.7	293.6	290.2
		3	3.5	0.300	80S	457.4	455.1	430.2	414.9	407.8	403.0
A790	S31803	4	4.5	0.083	5S	76.3	76.3	73.5	70.7	69.2	68.4
		4	4.5	0.120	10S	110.3	110.3	106.3	102.2	100.0	98.9
		4	4.5	0.237	40S	217.9	217.9	209.9	201.9	197.5	195.4
		4	4.5	0.337	80S	309.8	309.8	298.4	287.1	280.9	277.8
	S32750	4	4.5	0.083	5S	98.4	97.9	92.6	89.3	87.7	86.7
		4	4.5	0.120	10S	142.3	141.6	133.9	129.1	126.9	125.4
		4	4.5	0.237	40S	281.1	279.6	264.4	254.9	250.6	247.7
		4	4.5	0.337	80S	399.6	397.6	375.9	362.5	356.3	352.1
A790	S31803	5	5.563	0.109	5S	81.1	81.1	78.1	75.1	73.5	72.7
		5	5.563	0.134	10S	99.6	99.6	96.0	92.3	90.3	89.4
		5	5.563	0.258	40S	191.9	191.9	184.8	177.8	174.0	172.0
		5	5.563	0.375	80S	278.9	278.9	268.6	258.4	252.8	250.0
	S32750	5	5.563	0.109	5S	104.6	104.0	98.3	94.8	93.2	92.1
		5	5.563	0.134	10S	128.5	127.9	120.9	116.6	114.6	113.3
		5	5.563	0.258	40S	247.5	246.2	232.8	224.5	220.6	218.1
		5	5.563	0.375	80S	359.7	357.9	338.4	326.3	320.7	317.0



Spec No.	Material Grade	Pipe Size	Outside Diameter (In)	Thickness (In)	Sch	Design Pressure (bar) for Stainless Steel Pipe 2205 (S31803) & 2507 (S32750)					
						Temperature °F(°C)					
						Up to 100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A790	S31803	6	6.625	0.109	5S	68.1	68.1	65.6	63.1	61.7	61.0
		6	6.625	0.134	10S	83.7	83.7	80.6	77.5	75.9	75.0
		6	6.625	0.280	40S	174.8	174.8	168.4	162.0	158.5	156.8
		6	6.625	0.432	80S	269.8	269.8	259.9	250.0	244.6	241.9
	S32750	6	6.625	0.109	5S	87.8	87.3	82.6	79.6	78.3	77.4
		6	6.625	0.134	10S	107.9	107.4	101.5	97.9	96.2	95.1
		6	6.625	0.280	40S	225.5	224.4	212.1	204.6	201.1	198.7
		6	6.625	0.432	80S	348.0	346.2	327.3	315.6	310.2	306.6
A790	S31803	8	8.625	0.109	5S	52.3	52.3	50.4	48.4	47.4	46.9
		8	8.625	0.148	10S	71.0	71.0	68.4	65.8	64.4	63.7
		8	8.625	0.322	40S	154.4	154.4	148.8	143.1	140.0	138.5
		8	8.625	0.500	80S	239.8	239.8	231.0	222.2	217.4	215.0
	S32750	8	8.625	0.109	5S	67.4	67.1	63.4	61.2	60.1	59.4
		8	8.625	0.148	10S	91.6	91.1	86.1	83.1	81.6	80.7
		8	8.625	0.322	40S	199.2	198.2	187.4	180.7	177.6	175.5
		8	8.625	0.500	80S	309.4	307.8	291.0	280.6	275.8	272.6
A790	S31803	10	10.75	0.134	5S	51.6	51.6	49.7	47.8	46.8	46.2
		10	10.75	0.165	10S	63.5	63.5	61.2	58.8	57.6	56.9
		10	10.75	0.365	40S	140.5	140.5	135.3	130.2	127.4	125.9
		10	10.75	0.500	80S	192.4	192.4	185.4	178.3	174.5	172.5
	S32750	10	10.75	0.134	5S	66.5	66.2	62.6	60.3	59.3	58.6
		10	10.75	0.165	10S	81.9	81.5	77.0	74.3	73.0	72.2
		10	10.75	0.365	40S	181.2	180.3	170.4	164.3	161.5	159.7
		10	10.75	0.500	80S	248.2	246.9	233.5	225.1	221.3	218.7



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						Temperature °F(°C)					
						Up to 100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A790	S31803	12	12.75	0.156	5S	50.6	50.6	48.8	46.9	45.9	45.4
		12	12.75	0.180	10S	58.4	58.4	56.3	54.1	53.0	52.4
		12	12.75	0.375	40S	121.7	121.7	117.2	112.7	110.3	109.1
		12	12.75	0.500	80S	162.2	162.2	156.3	150.3	147.1	145.5
	S32750	12	12.75	0.156	5S	65.3	65.0	61.4	59.2	58.2	57.5
		12	12.75	0.180	10S	75.3	75.0	70.9	68.3	67.2	66.4
		12	12.75	0.375	40S	157.0	156.1	147.6	142.4	139.9	138.3
		12	12.75	0.500	80S	209.3	208.2	196.8	189.8	186.6	184.4
A790	S31803	14	14	0.156	5S	46.1	46.1	44.4	42.7	41.8	41.3
		14	14	0.188	10S	55.6	55.6	53.5	51.5	50.4	49.8
		14	14	0.375	40S	110.8	110.8	106.7	102.7	100.5	99.4
		14	14	0.500	80S	147.7	147.7	142.3	136.9	134.0	132.5
	S32750	14	14	0.156	5S	59.5	59.2	55.9	53.9	53.0	52.4
		14	14	0.188	10S	71.7	71.3	67.4	65.0	63.9	63.1
		14	14	0.375	40S	142.9	142.2	134.4	129.6	127.4	126.0
		14	14	0.500	80S	190.6	189.6	179.3	172.9	169.9	167.9
A790	S31803	16	16	0.165	5S	42.7	42.7	41.1	39.5	38.7	38.3
		16	16	0.188	10S	48.6	48.6	46.8	45.0	44.1	43.6
		16	16	0.375	40S	97.0	97.0	93.4	89.8	87.9	86.9
		16	16	0.500	80S	129.3	129.3	124.5	119.8	117.2	115.9
	S32750	16	16	0.165	5S	55.0	54.7	51.8	49.9	49.1	48.5
		16	16	0.188	10S	62.7	62.4	59.0	56.9	55.9	55.3
		16	16	0.375	40S	125.1	124.4	117.6	113.4	111.5	110.2
		16	16	0.500	80S	166.8	165.9	156.9	151.3	148.7	146.9

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						Up to 100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A 790	S31803	18	18	0.165	5S	37.9	37.9	36.5	35.1	34.4	34.0
		18	18	0.188	10S	43.2	43.2	41.6	40.0	39.2	38.7
		18	18	0.375	40S	86.2	86.2	83.0	79.9	78.1	77.3
		18	18	0.500	80S	114.9	114.9	110.7	106.5	104.2	103.0
	S32750	18	18	0.165	5S	48.9	48.7	46.0	44.4	43.6	43.1
		18	18	0.188	10S	55.7	55.4	52.4	50.6	49.7	49.1
		18	18	0.375	40S	111.2	110.6	104.6	100.8	99.1	98.0
		18	18	0.500	80S	148.2	147.5	139.4	134.4	132.1	130.6
A 790	S31803	20	20	0.188	5S	38.9	38.9	37.5	36.0	35.3	34.9
		20	20	0.218	10S	45.1	45.1	43.4	41.8	40.9	40.4
		20	20	0.375	40S	77.6	77.6	74.7	71.9	70.3	69.6
		20	20	0.500	80S	103.4	103.4	99.6	95.8	93.8	92.7
	S32750	20	20	0.188	5S	50.2	49.9	47.2	45.5	44.7	44.2
		20	20	0.218	10S	58.2	57.9	54.7	52.8	51.9	51.3
		20	20	0.375	40S	100.1	99.5	94.1	90.8	89.2	88.2
		20	20	0.500	80S	133.4	132.7	125.5	121.0	118.9	117.6
A 790	S31803	22	22	0.188	5S	35.4	35.4	34.1	32.8	32.1	31.7
		22	22	0.218	10S	41.0	41.0	39.5	38.0	37.2	36.8
		22	22		40S						
		22	22		80S						
	S32750	22	22	0.188	5S	45.6	45.4	42.9	41.4	40.7	40.2
		22	22	0.218	10S	52.9	52.6	49.7	48.0	47.1	46.6
		22	22		40S						
		22	22		80S						
A 790	S31803	24	24	0.218	5S	37.6	37.6	36.2	34.8	34.1	33.7
		24	24	0.25	10S	43.1	43.1	41.5	39.9	39.1	38.6
		24	24	0.375	40S	64.6	64.6	62.3	59.9	58.6	58.0
		24	24	0.5	80S	86.2	86.2	83.0	79.9	78.1	77.3
	S32750	24	24	0.218	5S	48.5	48.2	45.6	44.0	43.2	42.7
		24	24	0.25	10S	55.6	55.3	52.3	50.4	49.6	49.0
		24	24	0.375	40S	83.4	83.0	78.4	75.6	74.3	73.5
		24	24	0.5	80S	111.2	110.6	104.6	100.8	99.1	98.0
A 790	S31803	30	30	0.25	5S	34.5	34.5	33.2	31.9	31.3	30.9
		30	30	0.314	10S	43.3	43.3	41.7	40.1	39.3	38.8
		30	30		40S						
		30	30		80S						
	S32750	30	30	0.25	5S	44.5	44.2	41.8	40.3	39.6	39.2
		30	30	0.314	10S	55.9	55.6	52.5	50.7	49.8	49.2
		30	30		40S						
		30	30		80S						