



Pakzist Modern Industry Expanding Company (PMIEC)

Local Leader In Process Industry

Maximum Allowable Pressure Table for Stainless Steel Pipes

For Stainless Steel Pipes Grade 304 & 304L



Spec No.	Material Grade	Pipe Size	Outside Diameter (In)	Thickness (In)	Sch	Design Pressure (bar) for Electric-Fusion-Welded Austenitic Chromium-Nickel Stainless Steel Pipe for High-Temperature Service and General Applications - A358									
						Tempreture °F(°C)									
						100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)	700 (371.1 C)	800 (426.7 C)	850 (454.4 C)	900 (482.2 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A358	304	1/2	0.840	0.065	5S	213.4	213.4	213.4	198.5	186.7	177.1	168.6	162.2	159.0	155.8
		1/2	0.841	0.083	10S	272.2	272.2	272.2	253.1	238.2	225.9	215.0	206.9	202.8	198.7
		1/2	0.842	0.109	40S	357.0	357.0	357.0	332.0	312.4	296.3	282.0	271.3	266.0	260.6
		1/2	0.843	0.147	80S	480.9	480.9	480.9	447.3	420.8	399.2	379.9	365.5	358.3	351.1
	304L	1/2	0.84	0.065	5S	178.2	178.2	178.2	167.5	157.9	149.4	144.1	137.6	135.5	132.3
		1/2	0.841	0.083	10S	227.3	227.3	227.3	213.7	201.4	190.5	183.7	175.6	172.8	168.8
		1/2	0.842	0.109	40S	298.1	298.1	298.1	280.3	264.2	249.9	241.0	230.3	226.7	221.4
		1/2	0.843	0.147	80S	401.6	401.6	401.6	377.5	355.9	336.6	324.6	310.2	305.4	298.2
A358	304	1	1.315	0.065	5S	136.3	136.3	136.3	126.8	119.3	113.1	107.7	103.6	101.6	99.5
		1	1.315	0.083	10S	174.1	174.1	174.1	161.9	152.3	144.5	137.5	132.3	129.7	127.1
		1	1.315	0.113	40S	237.0	237.0	237.0	220.4	207.4	196.7	187.2	180.1	176.6	173.0
		1	1.315	0.179	80S	375.4	375.4	375.4	349.1	328.5	311.6	296.6	285.3	279.7	274.0
	304L	1	1.315	0.065	5S	113.8	113.8	113.8	107.0	100.9	95.4	92.0	87.9	86.6	84.5
		1	1.315	0.083	10S	145.4	145.4	145.4	136.6	128.8	121.9	117.5	112.3	110.5	107.9
		1	1.315	0.113	40S	197.9	197.9	197.9	186.0	175.4	165.9	160.0	152.9	150.5	146.9
		1	1.315	0.179	80S	313.5	313.5	313.5	294.7	277.8	262.8	253.4	242.1	238.4	232.8
A358	304	2	2.375	0.065	5S	75.5	75.5	75.5	70.2	66.0	62.6	59.6	57.4	56.2	55.1
		2	2.375	0.109	10S	126.6	126.6	126.6	117.7	110.8	105.1	100.0	96.2	94.3	92.4
		2	2.375	0.154	40S	178.8	178.8	178.8	166.3	156.5	148.4	141.3	135.9	133.2	130.5
		2	2.375	0.218	80S	253.1	253.1	253.1	235.4	221.5	210.1	200.0	192.4	188.6	184.8
	304L	2	2.375	0.065	5S	63.0	63.0	63.0	59.3	55.9	52.8	50.9	48.7	47.9	46.8
		2	2.375	0.109	10S	105.7	105.7	105.7	99.4	93.7	88.6	85.4	81.6	80.4	78.5
		2	2.375	0.154	40S	149.3	149.3	149.3	140.4	132.3	125.2	120.7	115.3	113.6	110.9
		2	2.375	0.218	80S	211.4	211.4	211.4	198.7	187.3	177.2	170.9	163.3	160.7	157.0



Spec No.	Material Grade	Pipe Size	Outside Diameter (In)	Thickness (In)	Sch	Design Pressure (bar) for Electric-Fusion-Welded Austenitic Chromium-Nickel Stainless Steel Pipe for High-Temperature Service and General Applications -A358									
						Tempreture °F(°C)									
						100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)	700 (371.1 C)	800 (426.7 C)	850 (454.4 C)	900 (482.2 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A358	304	3	3.5	0.083	5S	65.4	65.4	65.4	60.8	57.2	54.3	51.7	49.7	48.7	47.7
		3	3.5	0.120	10S	94.6	94.6	94.6	87.9	82.7	78.5	74.7	71.9	70.4	69.0
		3	3.5	0.216	40S	170.2	170.2	170.2	158.3	148.9	141.3	134.5	129.4	126.8	124.2
		3	3.5	0.300	80S	236.4	236.4	236.4	219.8	206.8	196.2	186.7	179.7	176.1	172.6
	304L	3	3.5	0.083	5S	54.6	54.6	54.6	51.3	48.4	45.8	44.1	42.2	41.5	40.5
		3	3.5	0.120	10S	79.0	79.0	79.0	74.2	70.0	66.2	63.8	61.0	60.0	58.6
		3	3.5	0.216	40S	142.1	142.1	142.1	133.6	125.9	119.1	114.9	109.8	108.1	105.5
A358	304	4	4.5	0.083	5S	50.9	50.9	50.9	47.3	44.5	42.2	40.2	38.7	37.9	37.1
		4	4.5	0.120	10S	73.5	73.5	73.5	68.4	64.4	61.0	58.1	55.9	54.8	53.7
		4	4.5	0.237	40S	145.2	145.2	145.2	135.1	127.1	120.6	114.7	110.4	108.2	106.0
		4	4.5	0.337	80S	206.5	206.5	206.5	192.1	180.7	171.4	163.2	157.0	153.9	150.8
	304L	4	4.5	0.083	5S	42.5	42.5	42.5	39.9	37.6	35.6	34.3	32.8	32.3	31.5
		4	4.5	0.120	10S	61.4	61.4	61.4	57.7	54.4	51.5	49.6	47.4	46.7	45.6
		4	4.5	0.237	40S	121.3	121.3	121.3	114.0	107.5	101.7	98.0	93.7	92.2	90.1
A358	304	5	5.563	0.109	5S	54.0	54.0	54.0	50.3	47.3	44.9	42.7	41.1	40.3	39.4
		5	5.563	0.134	10S	66.4	66.4	66.4	61.8	58.1	55.1	52.5	50.5	49.5	48.5
		5	5.563	0.258	40S	127.9	127.9	127.9	119.0	111.9	106.2	101.0	97.2	95.3	93.4
		5	5.563	0.375	80S	185.9	185.9	185.9	172.9	162.7	154.3	146.9	141.3	138.5	135.7
	304L	5	5.563	0.109	5S	45.1	45.1	45.1	42.4	40.0	37.8	36.5	34.9	34.3	33.5
		5	5.563	0.134	10S	55.5	55.5	55.5	52.1	49.2	46.5	44.8	42.8	42.2	41.2
		5	5.563	0.258	40S	106.8	106.8	106.8	100.4	94.7	89.5	86.3	82.5	81.2	79.3
A358	304	6	6.625	0.109	5S	45.4	45.4	45.4	42.2	39.7	37.7	35.8	34.5	33.8	33.1
		6	6.625	0.134	10S	55.8	55.8	55.8	51.9	48.8	46.3	44.1	42.4	41.6	40.7
		6	6.625	0.280	40S	116.6	116.6	116.6	108.4	102.0	96.7	92.1	88.6	86.8	85.1
		6	6.625	0.432	80S	179.8	179.8	179.8	167.2	157.4	149.3	142.1	136.7	134.0	131.3
	304L	6	6.625	0.109	5S	37.9	37.9	37.9	35.6	33.6	31.8	30.6	29.3	28.8	28.1
		6	6.625	0.134	10S	46.6	46.6	46.6	43.8	41.3	39.0	37.7	36.0	35.4	34.6
		6	6.625	0.280	40S	97.3	97.3	97.3	91.5	86.3	81.6	78.7	75.2	74.0	72.3
6	6.625	0.432	80S	150.2	150.2	150.2	141.2	133.1	125.9	121.4	116.0	114.2	111.5		



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						100 (37.7 C)	200 (93.3 C)	300 (148.9 C)	400 (204.4 C)	500 (260 C)	600 (315.5 C)	700 (371.1 C)	800 (426.7 C)	850 (454.4 C)	900 (482.2 C)
						Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)	Desgin Presssure (bar)
A358	304	8	8.625	0.109	5S	34.9	34.9	34.9	32.4	30.5	28.9	27.5	26.5	26.0	25.4
		8	8.625	0.148	10S	47.3	47.3	47.3	44.0	41.4	39.3	37.4	36.0	35.3	34.5
		8	8.625	0.322	40S	103.0	103.0	103.0	95.8	90.1	85.5	81.3	78.3	76.7	75.2
		8	8.625	0.500	80S	159.9	159.9	159.9	148.7	139.9	132.7	126.3	121.5	119.1	116.7
	304L	8	8.625	0.109	5S	29.1	29.1	29.1	27.4	25.8	24.4	23.5	22.5	22.1	21.6
		8	8.625	0.148	10S	39.5	39.5	39.5	37.1	35.0	33.1	31.9	30.5	30.1	29.3
		8	8.625	0.322	40S	86.0	86.0	86.0	80.8	76.2	72.1	69.5	66.4	65.4	63.8
		8	8.625	0.500	80S	133.5	133.5	133.5	125.5	118.3	111.9	107.9	103.1	101.5	99.1
A358	304	10	10.75	0.134	5S	34.4	34.4	34.4	32.0	30.1	28.5	27.2	26.1	25.6	25.1
		10	10.75	0.165	10S	42.3	42.3	42.3	39.4	37.0	35.1	33.4	32.2	31.5	30.9
		10	10.75	0.365	40S	93.6	93.6	93.6	87.1	81.9	77.7	74.0	71.2	69.8	68.4
		10	10.75	0.500	80S	128.3	128.3	128.3	119.3	112.2	106.5	101.3	97.5	95.6	93.6
	304L	10	10.75	0.134	5S	28.7	28.7	28.7	27.0	25.4	24.1	23.2	22.2	21.8	21.3
		10	10.75	0.165	10S	35.3	35.3	35.3	33.2	31.3	29.6	28.6	27.3	26.9	26.2
		10	10.75	0.365	40S	78.2	78.2	78.2	73.5	69.3	65.5	63.2	60.4	59.5	58.1
		10	10.75	0.500	80S	107.1	107.1	107.1	100.7	94.9	89.8	86.6	82.7	81.5	79.5
A358	304	12	12.75	0.156	5S	33.7	33.7	33.7	31.4	29.5	28.0	26.7	25.6	25.1	24.6
		12	12.75	0.180	10S	38.9	38.9	38.9	36.2	34.1	32.3	30.8	29.6	29.0	28.4
		12	12.75	0.375	40S	81.1	81.1	81.1	75.4	71.0	67.3	64.1	61.6	60.4	59.2
		12	12.75	0.500	80S	108.2	108.2	108.2	100.6	94.6	89.8	85.4	82.2	80.6	79.0
	304L	12	12.75	0.156	5S	28.2	28.2	28.2	26.5	25.0	23.6	22.8	21.8	21.4	20.9
		12	12.75	0.180	10S	32.5	32.5	32.5	30.6	28.8	27.3	26.3	25.1	24.7	24.1
		12	12.75	0.375	40S	67.7	67.7	67.7	63.7	60.0	56.8	54.8	52.3	51.5	50.3
		12	12.75	0.500	80S	90.3	90.3	90.3	84.9	80.0	75.7	73.0	69.8	68.7	67.1
A358	304	14	14	0.156	5S	30.7	30.7	30.7	28.6	26.9	25.5	24.3	23.4	22.9	22.4
		14	14	0.188	10S	37.0	37.0	37.0	34.4	32.4	30.7	29.3	28.1	27.6	27.0
		14	14	0.375	40S	73.9	73.9	73.9	68.7	64.6	61.3	58.4	56.1	55.0	53.9
		14	14	0.500	80S	98.5	98.5	98.5	91.6	86.2	81.8	77.8	74.9	73.4	71.9
	304L	14	14	0.156	5S	25.7	25.7	25.7	24.1	22.7	21.5	20.7	19.8	19.5	19.1
		14	14	0.188	10S	30.9	30.9	30.9	29.1	27.4	25.9	25.0	23.9	23.5	23.0
		14	14	0.375	40S	61.7	61.7	61.7	58.0	54.7	51.7	49.9	47.6	46.9	45.8
		14	14	0.500	80S	82.2	82.2	82.2	77.3	72.9	68.9	66.5	63.5	62.5	61.1

