



Pakzist Modern Industry Expanding Company (PMIEC)

Local Leader In Process Industry

Maximum Allowable Pressure Table for Carbon Steel Pipes

For Carbon Steel Grade A106



Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						Temperature °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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)
A106	A	1/2	5	0.84	0.065	170.7	170.7	170.7	170.7	170.7	163.3	155.8	133.4	114.2	98.2
		1/2	10	0.84	0.083	218.0	218.0	218.0	218.0	218.0	208.5	198.9	170.3	145.8	125.4
		1/2	30	0.84	0.095	249.5	249.5	249.5	249.5	249.5	238.6	227.7	194.9	166.9	143.5
		1/2	40	0.84	0.109	286.3	286.3	286.3	286.3	286.3	273.8	261.3	223.7	191.5	164.6
		1/2	80	0.84	0.147	386.1	386.1	386.1	386.1	386.1	369.2	352.3	301.7	258.2	222.0
		1/2	160	0.84	0.188	493.8	493.8	493.8	493.8	493.8	472.2	450.6	385.8	330.2	283.9
	B	1/2	5	0.84	0.065	213.4	213.4	213.4	212.3	202.7	191.0	184.6	178.2	148.3	121.6
		1/2	10	0.84	0.083	272.5	272.5	272.5	271.2	258.9	243.9	235.7	227.6	189.4	155.3
		1/2	30	0.84	0.095	311.9	311.9	311.9	310.4	296.3	279.2	269.8	260.5	216.8	177.8
		1/2	40	0.84	0.109	357.9	357.9	357.9	356.1	340.0	320.3	309.6	298.8	248.7	204.0
		1/2	80	0.84	0.147	482.7	482.7	482.7	480.2	458.5	432.0	417.5	403.0	335.4	275.1
		1/2	160	0.84	0.188	617.3	617.3	617.3	614.2	586.4	552.5	533.9	515.4	429.0	351.8
	C	1/2	5	0.84	0.065	248.6	248.6	248.6	243.3	231.6	217.7	211.3	195.3	157.9	128.1
		1/2	10	0.84	0.083	317.5	317.5	317.5	310.7	295.7	278.0	269.8	249.4	201.7	163.5
		1/2	30	0.84	0.095	363.4	363.4	363.4	355.6	338.4	318.2	308.8	285.4	230.8	187.2
		1/2	40	0.84	0.109	416.9	416.9	416.9	408.0	388.3	365.0	354.3	327.5	264.8	214.7
		1/2	80	0.84	0.147	562.3	562.3	562.3	550.2	523.7	492.3	477.8	441.6	357.2	289.6
		1/2	160	0.84	0.188	719.1	719.1	719.1	703.7	669.7	629.6	611.1	564.8	456.8	370.4
A106	A	1	5	1.315	0.065	109.1	109.1	109.1	109.1	109.1	104.3	99.5	85.2	72.9	62.7
		1	10	1.315	0.109	182.9	182.9	182.9	182.9	182.9	174.9	166.9	142.9	122.3	105.2
		1	30	1.315	0.114	191.3	191.3	191.3	191.3	191.3	182.9	174.5	149.4	127.9	110.0
		1	40	1.315	0.133	223.2	223.2	223.2	223.2	223.2	213.4	203.6	174.3	149.2	128.3
		1	80	1.315	0.179	300.3	300.3	300.3	300.3	300.3	287.2	274.1	234.6	200.9	172.7
		1	160	1.315	0.25	419.5	419.5	419.5	419.5	419.5	401.1	382.8	327.7	280.5	241.2
	B	1	5	1.315	0.065	136.3	136.3	136.3	135.6	129.5	122.0	117.9	113.8	94.7	77.7
		1	10	1.315	0.109	228.6	228.6	228.6	227.5	217.2	204.6	197.7	190.9	158.9	130.3
		1	30	1.315	0.114	239.1	239.1	239.1	237.9	227.1	214.0	206.8	199.6	166.2	136.3
		1	40	1.315	0.133	278.9	278.9	278.9	277.6	265.0	249.7	241.3	232.9	193.9	159.0
		1	80	1.315	0.179	375.4	375.4	375.4	373.5	356.7	336.0	324.7	313.5	260.9	214.0
		1	160	1.315	0.25	524.3	524.3	524.3	521.7	498.1	469.3	453.5	437.8	364.4	298.9
	C	1	5	1.315	0.065	158.8	158.8	158.8	155.4	147.9	139.1	135.0	124.7	100.9	81.8
		1	10	1.315	0.109	266.3	266.3	266.3	260.6	248.0	233.2	226.3	209.2	169.2	137.2
		1	30	1.315	0.114	278.5	278.5	278.5	272.6	259.4	243.9	236.7	218.8	176.9	143.5
		1	40	1.315	0.133	325.0	325.0	325.0	318.0	302.7	284.5	276.2	255.2	206.4	167.4
		1	80	1.315	0.179	437.4	437.4	437.4	428.0	407.3	382.9	371.7	343.5	277.8	225.3
		1	160	1.315	0.25	610.8	610.8	610.8	597.7	568.9	534.8	519.1	479.8	388.0	314.6



Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						Temperature °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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)
A106	A	2	5	2.375	0.065	60.4	60.4	60.4	60.4	60.4	57.7	55.1	47.2	40.4	34.7
		2	10	2.375	0.109	101.3	101.3	101.3	101.3	101.3	96.8	92.4	79.1	67.7	58.2
		2	30	2.375	0.125	116.1	116.1	116.1	116.1	116.1	111.0	106.0	90.7	77.7	66.8
		2	40	2.375	0.154	143.1	143.1	143.1	143.1	143.1	136.8	130.5	111.8	95.7	82.3
		2	80	2.375	0.218	202.5	202.5	202.5	202.5	202.5	193.7	184.8	158.2	135.4	116.5
	2	160	2.375	0.344	319.6	319.6	319.6	319.6	319.6	305.6	291.6	249.7	213.7	183.8	
	B	2	5	2.375	0.065	75.5	75.5	75.5	75.1	71.7	67.6	65.3	63.0	52.5	43.0
		2	10	2.375	0.109	126.6	126.6	126.6	125.9	120.2	113.3	109.5	105.7	88.0	72.1
		2	30	2.375	0.125	145.2	145.2	145.2	144.4	137.9	129.9	125.6	121.2	100.9	82.7
		2	40	2.375	0.154	178.8	178.8	178.8	177.9	169.9	160.1	154.7	149.3	124.3	101.9
		2	80	2.375	0.218	253.2	253.2	253.2	251.9	240.5	226.6	219.0	211.4	175.9	144.3
	2	160	2.375	0.344	399.5	399.5	399.5	397.5	379.5	357.5	345.5	333.6	277.6	227.7	
	C	2	5	2.375	0.065	87.9	87.9	87.9	86.0	81.9	77.0	74.7	69.1	55.9	45.3
		2	10	2.375	0.109	147.5	147.5	147.5	144.3	137.3	129.1	125.3	115.8	93.7	75.9
		2	30	2.375	0.125	169.1	169.1	169.1	165.5	157.5	148.1	143.7	132.8	107.4	87.1
2		40	2.375	0.154	208.3	208.3	208.3	203.9	194.0	182.4	177.0	163.6	132.3	107.3	
2		80	2.375	0.218	294.9	294.9	294.9	288.6	274.7	258.2	250.6	231.6	187.3	151.9	
2	160	2.375	0.344	465.4	465.4	465.4	455.4	433.4	407.5	395.5	365.5	295.6	239.7		
A106	A	3	5	3.5	0.083	52.3	52.3	52.3	52.3	52.3	50.0	47.7	40.9	35.0	30.1
		3	10	3.5	0.12	75.6	75.6	75.6	75.6	75.6	72.3	69.0	59.1	50.6	43.5
		3	30	3.5	0.188	118.5	118.5	118.5	118.5	118.5	113.3	108.1	92.6	79.3	68.1
		3	40	3.5	0.216	136.2	136.2	136.2	136.2	136.2	130.2	124.3	106.4	91.1	78.3
		3	80	3.5	0.3	189.1	189.1	189.1	189.1	189.1	180.8	172.6	147.8	126.5	108.7
	3	160	3.5	0.438	276.1	276.1	276.1	276.1	276.1	264.0	252.0	215.7	184.7	158.8	
	B	3	5	3.5	0.083	65.4	65.4	65.4	65.1	62.1	58.5	56.6	54.6	45.5	37.3
		3	10	3.5	0.12	94.6	94.6	94.6	94.1	89.8	84.6	81.8	79.0	65.7	53.9
		3	30	3.5	0.188	148.1	148.1	148.1	147.4	140.7	132.6	128.1	123.7	103.0	84.4
		3	40	3.5	0.216	170.2	170.2	170.2	169.4	161.7	152.3	147.2	142.1	118.3	97.0
		3	80	3.5	0.3	236.4	236.4	236.4	235.2	224.6	211.6	204.5	197.4	164.3	134.7
	3	160	3.5	0.438	345.1	345.1	345.1	343.4	327.9	308.9	298.5	288.2	239.9	196.7	
	C	3	5	3.5	0.083	76.19566	76.2	76.2	74.6	71.0	66.7	64.7	59.8	48.4	39.2
		3	10	3.5	0.12	110.1624	110.2	110.2	107.8	102.6	96.5	93.6	86.5	70.0	56.7
		3	30	3.5	0.188	172.58776	172.6	172.6	168.9	160.7	151.1	146.7	135.6	109.6	88.9
3		40	3.5	0.216	198.29232	198.3	198.3	194.0	184.7	173.6	168.5	155.7	126.0	102.1	
3		80	3.5	0.3	275.406	275.4	275.4	269	256.5	241.1	234.0	216.3	174.9	141.8	
3	160	3.5	0.438	402.09276	402.1	402.1	393.5	374.5	352.0	341.7	315.8	255.4	207.1		

Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						Temperature °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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)	Desgin Presssure (bar)					
A106	A	4	5	4.5	0.083	40.7	40.7	40.7	40.7	40.7	38.9	37.1	31.8	27.2	23.4
		4	10	4.5	0.12	58.8	58.8	58.8	58.8	58.8	56.3	53.7	46.0	39.3	33.8
		4	30	4.5	0.188	92.2	92.2	92.2	92.2	92.2	88.1	84.1	72.0	61.6	53.0
		4	40	4.5	0.237	116.2	116.2	116.2	116.2	116.2	111.1	106.0	90.8	77.7	66.8
		4	80	4.5	0.337	165.2	165.2	165.2	165.2	165.2	158.0	150.8	129.1	110.5	95.0
	4	160	4.5	0.531	260.3	260.3	260.3	260.3	260.3	249.0	237.6	203.4	174.1	149.7	
	B	4	5	4.5	0.083	50.9	50.9	50.9	50.6	48.3	45.5	44.0	42.5	35.4	29.0
		4	10	4.5	0.12	73.5	73.5	73.5	73.2	69.9	65.8	63.6	61.4	51.1	41.9
		4	30	4.5	0.188	115.2	3.8	1.0	29.9	109.5	3.5	0.9	27.8	87.9	2.4
		4	40	4.5	0.237	145.2	145.2	145.2	144.5	138.0	130.0	125.6	121.3	100.9	82.8
		4	80	4.5	0.337	206.5	2.6	1.0	79.6	196.2	2.3	0.9	74.3	157.6	1.6
	4	160	4.5	0.531	325.4	325.4	325.4	323.8	309.2	291.3	281.5	271.7	226.2	185.5	
	C	4	5	4.5	0.083	59.3	59.3	59.3	58.0	55.2	51.9	50.4	46.5	37.6	30.5
		4	10	4.5	0.12	85.7	85.7	85.7	83.8	79.8	75.0	72.8	67.3	54.4	44.1
		4	30	4.5	0.188	134.2	134.2	134.2	131.3	125.0	117.5	114.1	105.4	85.3	69.1
4		40	4.5	0.237	169.2	169.2	169.2	165.6	157.6	148.2	143.8	132.9	107.5	87.1	
4		80	4.5	0.337	240.6	240.6	240.6	235.5	224.1	210.7	204.5	189.0	152.8	123.9	
4	160	4.5	0.531	379.1	379.1	379.1	371.0	353.1	331.9	322.2	297.8	240.8	195.3		
A106	A	5	5	5.563	0.109	43.2	43.2	43.2	43.2	43.2	41.3	39.4	33.8	28.9	24.9
		5	10	5.563	0.134	53.1	53.1	53.1	53.1	53.1	50.8	48.5	41.5	35.5	30.6
		5	30	5.563											
		5	40	5.563	0.258	102.3	102.3	102.3	102.3	102.3	97.8	93.4	79.9	68.4	58.8
		5	80	5.563	0.375	148.7	148.7	148.7	148.7	148.7	142.2	135.7	116.2	99.5	85.5
	5	160	5.563	0.625	247.9	247.9	247.9	247.9	247.9	237.0	226.2	193.7	165.8	142.5	
	B	5	5	5.563	0.109	54.0	54.0	54.0	53.8	51.3	48.4	46.7	45.1	37.6	30.8
		5	10	5.563	0.134	66.4	66.4	66.4	66.1	63.1	59.5	57.5	55.5	46.2	37.9
		5	30	5.563											
		5	40	5.563	0.258	127.9	127.9	127.9	127.3	121.5	114.5	110.6	106.8	88.9	72.9
		5	80	5.563	0.375	185.9	185.9	185.9	185.0	176.6	166.4	160.8	155.2	129.2	106.0
	5	160	5.563	0.625	309.8	309.8	309.8	308.3	294.4	277.3	268.0	258.7	215.3	176.6	
	C	5	5	5.563	0.109	63.0	63.0	63.0	61.6	58.6	55.1	53.5	49.4	40.0	32.4
		5	10	5.563	0.134	77.4	77.4	77.4	75.7	72.1	67.8	65.8	60.8	49.2	39.9
		5	30	5.563											
5		40	5.563	0.258	149.0	149.0	149.0	145.8	138.8	130.5	126.6	117.0	94.7	76.7	
5		80	5.563	0.375	216.6	216.6	216.6	211.9	201.7	189.6	184.1	170.1	137.6	111.5	
5	160	5.563	0.625	361.0	361.0	361.0	353.2	336.2	316.0	306.8	283.5	229.3	185.9		



Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106											
						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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)		
A106	A	6	5	6.625	0.109	36.3	36.3	36.3	36.3	36.3	34.7	33.1	28.4	24.3	20.9		
		6	10	6.625	0.134	44.6	44.6	44.6	44.6	44.6	42.7	40.7	34.9	29.8	25.7		
		6	30	6.625													
		6	40	6.625	0.28	93.2	93.2	93.2	93.2	93.2	89.2	85.1	72.9	62.4	53.6		
		6	80	6.625	0.432	143.9	143.9	143.9	143.9	143.9	137.6	131.3	112.4	96.2	82.7		
		6	160	6.625	0.719	239.4	239.4	239.4	239.4	239.4	229.0	218.5	187.1	160.1	137.7		
	B	6	5	6.625	0.109	45.4	45.4	45.4	45.1	43.1	40.6	39.2	37.9	31.5	25.9		
		6	10	6.625	0.134	55.8	55.8	55.8	55.5	53.0	49.9	48.3	46.6	38.8	31.8		
		6	30	6.625													
		6	40	6.625	0.28	116.6	116.6	116.6	116.0	110.7	104.3	100.8	97.3	81.0	66.4		
		6	80	6.625	0.432	179.8	179.8	179.8	178.9	170.8	161.0	155.6	150.2	125.0	102.5		
		6	160	6.625	0.719	299.3	299.3	299.3	297.8	284.3	267.9	258.9	249.9	208.0	170.6		
	C	6	5	6.625	0.109	52.9	52.9	52.9	51.7	49.2	46.3	44.9	41.5	33.6	27.2		
		6	10	6.625	0.134	65.0	65.0	65.0	63.6	60.5	56.9	55.2	51.0	41.3	33.5		
		6	30	6.625													
		6	40	6.625	0.28	135.8	135.8	135.8	132.9	126.5	118.9	115.4	106.7	86.3	69.9		
		6	80	6.625	0.432	209.5	209.5	209.5	205.0	195.1	183.4	178.0	164.6	133.1	107.9		
		6	160	6.625	0.719	348.7	348.7	348.7	341.2	324.8	305.3	296.3	273.9	221.5	179.6		
A106	A	8	5	8.625	0.109	27.9	27.9	27.9	27.9	27.9	26.7	25.4	21.8	18.6	16.0		
		8	10	8.625	0.148	37.9	37.9	37.9	37.9	37.9	36.2	34.5	29.6	25.3	21.8		
		8	30	8.625	0.277	70.9	70.9	70.9	70.9	70.9	67.8	64.7	55.4	47.4	40.7		
		8	40	8.625	0.322	82.4	82.4	82.4	82.4	82.4	78.8	75.2	64.4	55.1	47.4		
		8	80	8.625	0.5	127.9	127.9	127.9	127.9	127.9	122.3	116.7	99.9	85.5	73.5		
		8	160	8.625	0.906	231.8	231.8	231.8	231.8	231.8	221.6	211.5	181.1	155.0	133.3		
	B	8	5	8.625	0.109	34.9	34.9	34.9	34.7	33.1	31.2	30.1	29.1	24.2	19.9		
		8	10	8.625	0.148	47.3	47.3	47.3	47.1	45.0	42.4	40.9	39.5	32.9	27.0		
		8	30	8.625	0.277	88.6	88.6	88.6	88.1	84.1	79.3	76.6	74.0	61.6	50.5		
		8	40	8.625	0.322	103.0	103.0	103.0	102.4	97.8	92.2	89.1	86.0	71.6	58.7		
		8	80	8.625	0.5	159.9	159.9	159.9	159.1	151.9	143.1	138.3	133.5	111.1	91.1		
		8	160	8.625	0.906	289.7	289.7	289.7	288.3	275.2	259.3	250.6	241.9	201.3	165.1		
	C	8	5	8.625	0.109	40.6	40.6	40.6	39.7	37.8	35.6	34.5	31.9	25.8	20.9		
		8	10	8.625	0.148	55.1	55.1	55.1	53.9	51.3	48.3	46.9	43.3	35.0	28.4		
		8	30	8.625	0.277	103.2	103.2	103.2	101.0	96.1	90.3	87.7	81.0	65.5	53.1		
		8	40	8.625	0.322	120.0	120.0	120.0	117.4	111.7	105.0	101.9	94.2	76.2	61.8		
		8	80	8.625	0.5	186.3	186.3	186.3	182.3	173.5	163.1	158.3	146.3	118.3	95.9		
		8	160	8.625	0.906	337.5	337.5	337.5	330.3	314.3	295.5	286.8	265.1	214.4	173.8		

Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)
A106	A	10	5	10.75	0.134	27.5	27.5	27.5	27.5	27.5	26.3	25.1	21.5	18.4	15.8
		10	10	10.75	0.165	33.9	33.9	33.9	33.9	33.9	32.4	30.9	26.5	22.6	19.5
		10	30	10.75	0.307	63.0	63.0	63.0	63.0	63.0	60.3	57.5	49.2	42.1	36.2
		10	40	10.75	0.365	74.9	74.9	74.9	74.9	74.9	71.6	68.4	58.5	50.1	43.1
		10	80	10.75	0.594	121.9	121.9	121.9	121.9	121.9	116.6	111.2	95.2	81.5	70.1
	10	160	10.75	1.125	230.9	230.9	230.9	230.9	230.9	220.8	210.7	180.4	154.4	132.8	
	B	10	5	10.75	0.134	34.4	34.4	34.4	34.2	32.7	30.8	29.7	28.7	23.9	19.6
		10	10	10.75	0.165	42.3	42.3	42.3	42.1	40.2	37.9	36.6	35.3	29.4	24.1
		10	30	10.75	0.307	78.8	78.8	78.8	78.4	74.8	70.5	68.1	65.8	54.7	44.9
		10	40	10.75	0.365	93.6	93.6	93.6	93.2	89.0	83.8	81.0	78.2	65.1	53.4
		10	80	10.75	0.594	152.4	152.4	152.4	151.6	144.8	136.4	131.8	127.2	105.9	86.9
	10	160	10.75	1.125	288.6	288.6	288.6	287.2	274.2	258.3	249.7	241.0	200.6	164.5	
	C	10	5	10.75	0.134	40.0	40.0	40.0	39.2	37.3	35.1	34.0	31.5	25.4	20.6
		10	10	10.75	0.165	49.3	49.3	49.3	48.3	45.9	43.2	41.9	38.7	31.3	25.4
		10	30	10.75	0.307	91.8	91.8	91.8	89.8	85.5	80.3	78.0	72.1	58.3	47.3
10		40	10.75	0.365	109.1	109.1	109.1	106.8	101.6	95.5	92.7	85.7	69.3	56.2	
10		80	10.75	0.594	177.5	177.5	177.5	173.7	165.3	155.4	150.9	139.4	112.8	91.4	
10	160	10.75	1.125	336.2	336.2	336.2	329.0	313.2	294.4	285.7	264.1	213.6	173.2		
A106	A	12	5	12.75	0.156	27.0	27.0	27.0	27.0	27.0	25.8	24.6	21.1	18.1	15.5
		12	10	12.75	0.18	31.1	31.1	31.1	31.1	31.1	29.8	28.4	24.3	20.8	17.9
		12	30	12.75	0.33	57.1	57.1	57.1	57.1	57.1	54.6	52.1	44.6	38.2	32.8
		12	40	12.75	0.406	70.3	70.3	70.3	70.3	70.3	67.2	64.1	54.9	47.0	40.4
		12	80	12.75	0.688	119.1	119.1	119.1	119.1	119.1	113.8	108.6	93.0	79.6	68.5
	12	160	12.75	1.312	227.0	227.0	227.0	227.0	227.0	217.1	207.2	177.4	151.8	130.5	
	B	12	5	12.75	0.156	33.7	33.7	33.7	33.6	32.1	30.2	29.2	28.2	23.5	19.2
		12	10	12.75	0.18	38.9	38.9	38.9	38.7	37.0	34.8	33.7	32.5	27.1	22.2
		12	30	12.75	0.33	71.4	71.4	71.4	71.0	67.8	63.9	61.7	59.6	49.6	40.7
		12	40	12.75	0.406	87.8	87.8	87.8	87.4	83.4	78.6	76.0	73.3	61.0	50.1
		12	80	12.75	0.688	148.8	148.8	148.8	148.1	141.4	133.2	128.7	124.3	103.4	84.8
	12	160	12.75	1.312	283.8	283.8	283.8	282.4	269.6	254.0	245.5	237.0	197.2	161.8	
	C	12	5	12.75	0.156	39.3	39.3	39.3	38.5	36.6	34.4	33.4	30.9	25.0	20.2
		12	10	12.75	0.18	45.4	45.4	45.4	44.4	42.2	39.7	38.5	35.6	28.8	23.4
		12	30	12.75	0.33	83.2	83.2	83.2	81.4	77.4	72.8	70.7	65.3	52.8	42.8
12		40	12.75	0.406	102.3	102.3	102.3	100.1	95.3	89.6	86.9	80.4	65.0	52.7	
12		80	12.75	0.688	173.4	173.4	173.4	169.7	161.5	151.8	147.3	136.2	110.1	89.3	
12	160	12.75	1.312	330.6	330.6	330.6	323.5	307.9	289.5	281.0	259.7	210.0	170.3		



Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)
A106	A	14	5	14	0.156	24.6	24.6	24.6	24.6	24.6	23.5	22.4	19.2	16.4	14.1
		14	10	14	0.25	39.4	39.4	39.4	39.4	39.4	37.7	36.0	30.8	26.3	22.7
		14	30	14	0.375	59.1	59.1	59.1	59.1	59.1	56.5	53.9	46.2	39.5	34.0
		14	40	14	0.438	69.0	69.0	69.0	69.0	69.0	66.0	63.0	53.9	46.2	39.7
		14	80	14	0.75	118.2	118.2	118.2	118.2	118.2	113.0	107.9	92.3	79.0	68.0
	14	160	14	1.406	221.6	221.6	221.6	221.6	221.6	211.9	202.2	173.1	148.2	127.4	
	B	14	5	14	0.156	30.7	30.7	30.7	30.6	29.2	27.5	26.6	25.7	21.4	17.5
		14	10	14	0.25	49.2	49.2	49.2	49.0	46.8	44.1	42.6	41.1	34.2	28.1
		14	30	14	0.375	73.9	73.9	73.9	73.5	70.2	66.1	63.9	61.7	51.3	42.1
		14	40	14	0.438	86.3	86.3	86.3	85.9	82.0	77.2	74.6	72.0	60.0	49.2
		14	80	14	0.75	147.7	147.7	147.7	147.0	140.4	132.2	127.8	123.4	102.7	84.2
	14	160	14	1.406	277.0	277.0	277.0	275.6	263.1	247.9	239.6	231.3	192.5	157.9	
	C	14	5	14	0.156	35.8	35.8	35.8	35.0	33.3	31.3	30.4	28.1	22.7	18.4
		14	10	14	0.25	57.4	57.4	57.4	56.1	53.4	50.2	48.8	45.1	36.4	29.5
		14	30	14	0.375	86.1	86.1	86.1	84.2	80.2	75.3	73.1	67.6	54.7	44.3
14		40	14	0.438	100.5	100.5	100.5	98.4	93.6	88.0	85.4	78.9	63.8	51.8	
14		80	14	0.75	172.1	172.1	172.1	168.4	160.3	150.7	146.3	135.2	109.3	88.6	
14	160	14	1.406	322.7	322.7	322.7	315.7	300.5	282.5	274.2	253.4	205.0	166.2		
A106	A	16	5	16	0.165	22.8	22.8	22.8	22.8	22.8	21.8	20.8	17.8	15.2	13.1
		16	10	16	0.25	34.5	34.5	34.5	34.5	34.5	33.0	31.5	26.9	23.1	19.8
		16	30	16	0.375	51.7	51.7	51.7	51.7	51.7	49.4	47.2	40.4	34.6	29.7
		16	40	16	0.5	68.9	68.9	68.9	68.9	68.9	65.9	62.9	53.9	46.1	39.6
		16	80	16	0.844	116.4	116.4	116.4	116.4	116.4	111.3	106.2	90.9	77.8	66.9
	16	160	16	1.594	219.8	219.8	219.8	219.8	219.8	210.2	200.6	171.7	147.0	126.4	
	B	16	5	16	0.165	28.4	28.4	28.4	28.3	27.0	25.5	24.6	23.7	19.8	16.2
		16	10	16	0.25	43.1	43.1	43.1	42.9	40.9	38.6	37.3	36.0	29.9	24.6
		16	30	16	0.375	64.6	64.6	64.6	64.3	61.4	57.9	55.9	54.0	44.9	36.8
		16	40	16	0.5	86.2	86.2	86.2	85.8	81.9	77.1	74.5	72.0	59.9	49.1
		16	80	16	0.844	145.5	145.5	145.5	144.8	138.2	130.2	125.8	121.5	101.1	82.9
	16	160	16	1.594	274.8	274.8	274.8	273.4	261.0	245.9	237.7	229.4	191.0	156.6	
	C	16	5	16	0.165	33.1	33.1	33.1	32.4	30.9	29.0	28.2	26.0	21.0	17.1
		16	10	16	0.25	50.2	50.2	50.2	49.1	46.8	44.0	42.7	39.4	31.9	25.9
		16	30	16	0.375	75.3	75.3	75.3	73.7	70.1	65.9	64.0	59.1	47.8	38.8
16		40	16	0.5	100.4	100.4	100.4	98.3	93.5	87.9	85.3	78.9	63.8	51.7	
16		80	16	0.844	169.5	169.5	169.5	165.8	157.8	148.4	144.0	133.1	107.7	87.3	
16	160	16	1.594	320.1	320.1	320.1	313.2	298.1	280.3	272.0	251.4	203.3	164.9		



Spec No.	Material Grade	Pipe Size	Sch	Outside Diameter (in)	Thickness (in)	Maximum Allowable Stress (Ksi) & Design Pressure (bar) for Carbon Steel A106									
						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)	650 (343.3 C)	700 (371.1 C)	750 (398.9 C)	800 (426.7 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)
A106	A	18	5	18	0.165	20.2	20.2	20.2	20.2	20.2	19.3	18.5	15.8	13.5	11.6
		18	10	18	0.25	30.6	30.6	30.6	30.6	30.6	29.3	28.0	23.9	20.5	17.6
		18	30	18	0.438	53.7	53.7	53.7	53.7	53.7	51.3	49.0	41.9	35.9	30.9
		18	40	18	0.562	68.9	68.9	68.9	68.9	68.9	65.9	62.9	53.8	46.1	39.6
		18	80	18	0.938	115.0	115.0	115.0	115.0	115.0	109.9	104.9	89.8	76.9	66.1
	18	160	18	1.781	218.3	218.3	218.3	218.3	218.3	208.8	199.2	170.5	146.0	125.5	
	B	18	5	18	0.165	25.3	25.3	25.3	25.2	24.0	22.6	21.9	21.1	17.6	14.4
		18	10	18	0.25	38.3	38.3	38.3	38.1	36.4	34.3	33.1	32.0	26.6	21.8
		18	30	18	0.438	67.1	67.1	67.1	66.8	63.8	60.1	58.0	56.0	46.6	38.3
		18	40	18	0.562	86.1	86.1	86.1	85.7	81.8	77.1	74.5	71.9	59.8	49.1
		18	80	18	0.938	143.7	143.7	143.7	143.0	136.5	128.6	124.3	120.0	99.9	81.9
	18	160	18	1.781	272.9	272.9	272.9	271.5	259.2	244.2	236.0	227.9	189.7	155.5	
	C	18	5	18	0.165	29.5	29.5	29.5	28.8	27.4	25.8	25.0	23.1	18.7	15.2
		18	10	18	0.25	44.6	44.6	44.6	43.7	41.6	39.1	37.9	35.0	28.3	23.0
		18	30	18	0.438	78.2	78.2	78.2	76.5	72.8	68.5	66.4	61.4	49.7	40.3
18		40	18	0.562	100.3	100.3	100.3	98.2	93.4	87.8	85.2	78.8	63.7	51.7	
18		80	18	0.938	167.4	167.4	167.4	163.8	155.9	146.6	142.3	131.5	106.4	86.2	
18	160	18	1.781	317.9	317.9	317.9	311.1	296.1	278.3	270.2	249.7	201.9	163.7		
A106	A	20	5	20	0.188	20.7	20.7	20.7	20.7	20.7	19.8	18.9	16.2	13.9	11.9
		20	10	20	0.25	27.6	27.6	27.6	27.6	27.6	26.4	25.2	21.5	18.4	15.9
		20	30	20	0.5	55.2	55.2	55.2	55.2	55.2	52.7	50.3	43.1	36.9	31.7
		20	40	20	0.594	65.5	65.5	65.5	65.5	65.5	62.7	59.8	51.2	43.8	37.7
		20	80	20	1.031	113.7	113.7	113.7	113.7	113.7	108.8	103.8	88.9	76.1	65.4
	20	160	20	1.969	217.2	217.2	217.2	217.2	217.2	207.7	198.2	169.7	145.3	124.9	
	B	20	5	20	0.188	25.9	25.9	25.9	25.8	24.6	23.2	22.4	21.6	18.0	14.8
		20	10	20	0.25	34.5	34.5	34.5	34.3	32.8	30.9	29.8	28.8	24.0	19.7
		20	30	20	0.5	68.9	68.9	68.9	68.6	65.5	61.7	59.6	57.6	47.9	39.3
		20	40	20	0.594	81.9	81.9	81.9	81.5	77.8	73.3	70.9	68.4	56.9	46.7
		20	80	20	1.031	142.2	142.2	142.2	141.5	135.1	127.2	123.0	118.7	98.8	81.0
	20	160	20	1.969	271.5	271.5	271.5	270.2	257.9	243.0	234.9	226.7	188.7	154.8	
	C	20	5	20	0.188	30.2	30.2	30.2	29.6	28.1	26.4	25.7	23.7	19.2	15.6
		20	10	20	0.25	40.2	40.2	40.2	39.3	37.4	35.2	34.1	31.5	25.5	20.7
		20	30	20	0.5	80.3	80.3	80.3	78.6	74.8	70.3	68.3	63.1	51.0	41.4
20		40	20	0.594	95.4	95.4	95.4	93.4	88.9	83.5	81.1	74.9	60.6	49.1	
20		80	20	1.031	165.6	165.6	165.6	162.1	154.3	145.0	140.7	130.1	105.2	85.3	
20	160	20	1.969	316.3	316.3	316.3	309.5	294.6	276.9	268.8	248.4	200.9	162.9		

