QT-1300 Technical Data Sheet

For the appropriate sizes, QT-1300 can be routinely ordered as a TRUE-TAPER™ string, straight wall or as a string with an electric wireline or capillary tube installed. QT-1300 is manufactured from high strength low alloy steel (HSLAS) with alloying additions to provide resistance to atmospheric corrosion.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	130,000 (896)
Minimum Tensile Strength, psi (MPa)	135,000 (931)
Minimum Elongation	Calculated from the formula: $E=750{,}000\ \frac{A_w^{0.2}}{L_u^{0.9}}\ \%$ Where: A_w = Pipe Metal Cross Section, (in^2) L_u = Specified Minimum Tensile Strength (psi)
Maximum Hardness	39 HRC

Technical Data

Specified

Outside Diameter, D		**Wall Thickness, t**		**Calculated Inside Diameter, d**		**Plain End Mass, M_{pe}**		**Pipe Metal Cross Sectional Area, A**		**Pipe Body Yield Load, L_y**		**Tensile Load, L_T**		**Internal Yield Pressure, P_r**		**Hydro Test Pressure, P_T**		**Torsional Yield Strength, T_f**	
in	mm	in	mm	in	mm	lb/ft	kg/m	in^2	mm^2	lb	kg	lb	kg	psi	MPa	psi	MPa	ft-lb	N-m
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270.5	54,510	24,730	56,610	25,680	15,600	107.6	12,500	86.0	1,730	2,350
1 ½	38.1	0.102	2.6	1.296	32.9	1.524	2.269	0.448	289.0	58,240	26,420	60,480	27,430	16,810	115.9	13,500	92.7	1,840	2,490
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307.3	61,920	28,090	64,300	29,170	18,030	124.3	14,400	99.4	1,930	2,620
1 ½	38.1	0.118	3.0	1.264	32.1	1.743	2.594	0.512	330.5	66,600	30,210	69,160	31,370	19,590	135.0	15,000	103.4	2,050	2,780
1 ½	38.1	0.125	3.2	1.250	31.8	1.837	2.735	0.540	348.4	70,200	31,840	72,890	33,060	20,800	143.4	15,000	103.4	2,150	2,920
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371.0	74,760	33,910	77,630	35,210	22,360	154.2	15,000	103.4	2,260	3,060
1 ½	38.1	0.145	3.7	1.210	30.7	2.100	3.126	0.617	398.2	80,240	36,400	83,330	37,800	24,270	167.3	15,000	103.4	2,390	3,240
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425.0	85,630	38,840	88,920	40,330	26,170	180.5	15,000	103.4	2,510	3,400
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470.0	94,700	42,950	98,340	44,610	29,470	203.2	15,000	103.4	2,710	3,670
1 ½	38.1	0.188	4.8	1.124	28.5	2.637	3.924	0.775	499.9	100,740	45,690	104,610	47,450	31,720	218.7	15,000	103.4	2,840	3,850
1 ½	38.1	0.203	5.2	1.094	27.8	2.815	4.189	0.827	533.6	107,530	48,780	111,670	50,650	34,320	236.6	15,000	103.4	2,970	4,030
1 ¾	44.5	0.109	2.8	1.532	39.0	1.912	2.849	0.562	363.0	73,050	33,180	75,860	34,450	15,450	106.4	12,400	85.1	2,720	3,690
1 ¾	44.5	0.118	3.0	1.514	38.5	2.059	3.068	0.605	390.8	78,650	35,720	81,670	37,090	16,790	115.6	13,400	92.5	2,890	3,920
1 ¾	44.5	0.125	3.2	1.500	38.2	2.171	3.236	0.638	412.2	82,960	37,670	86,150	39,120	17,830	122.8	14,300	98.2	3,030	4,110
1 ¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.4	88,440	40,160	91,840	41,710	19,170	132.0	15,000	103.4	3,200	4,340
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.3	95,050	43,170	98,700	44,830	20,800	143.2	15,000	103.4	3,390	4,600
1 ¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.6	101,560	46,120	105,460	47,900	22,430	154.5	15,000	103.4	3,580	4,850
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.3	112,570	51,120	116,900	53,090	25,260	173.9	15,000	103.4	3,890	5,270
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.9	119,930	54,470	124,540	56,560	27,190	187.2	15,000	103.4	4,080	5,530
1 ¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.3	128,260	58,250	133,190	60,490	29,420	202.6	15,000	103.4	4,290	5,820
1 ¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.4	139,600	63,380	144,970	65,820	32,540	224.0	15,000	103.4	4,560	6,180
2	50.8	0.109	2.8	1.782	45.3	2.203	3.279	0.648	417.8	84,180	38,180	87,420	39,650	13,520	93.2	10,800	74.6	3,630	4,920
2	50.8	0.118	3.0	1.764	44.8	2.374	3.533	0.698	450.1	90,700	41,140	94,190	42,720	14,690	101.3	11,800	81.0	3,880	5,260
2	50.8	0.125	3.2	1.750	44.5	2.505	3.729	0.736	475.0	95,720	43,420	99,400	45,090	15,600	107.6	12,500	86.0	4,070	5,520
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	102,120	46,320	106,050	48,100	16,770	115.6	13,400	92.5	4,300	5,830
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	109,850	49,830	114,080	51,740	18,200	125.5	14,600	100.4	4,570	6,200
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	117,480	53,290	122,000	55,340	19,630	135.3	15,000	103.4	4,840	6,560
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	130,440	59,170	135,450	61,440	22,100	152.4	15,000	103.4	5,270	7,150
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	139,130	63,110	144,480	65,530	23,790	164.0	15,000	103.4	5,550	7,520
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	148,980	67,580	154,710	70,180	25,740	177.5	15,000	103.4	5,860	7,950
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	162,470	73,670	168,720	76,500	28,470	196.2	15,000	103.4	6,260	8,490
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	170,020	77,120	176,560	80,080	30,030	207.0	15,000	103.4	6,480	8,790
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	178,680	81,050	185,550	84,160	31,850	219.6	15,000	103.4	6,720	9,110
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	122,640	55,610	127,360	57,740	14,120	97.4	11,300	77.9	6,260	8,490
2 ⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	132,060	59,870	137,140	62,180	15,330	105.7	12,300	84.6	6,680	9,060
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	141,380	64,100	146,810	66,560	16,530	114.0	13,200	91.2	7,090	9,610
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	157,240	71,290	163,280	74,030	18,610	128.4	14,900	102.7	7,760	10,520
2 ⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	167,920	76,130	174,380	79,060	20,030	138.2	15,000	103.4	8,190	11,100
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	180,070	81,640	187,000	84,780	21,680	149.5	15,000	103.4	8,680	11,770
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	196,780	89,180	204,350	92,610	23,970	165.3	15,000	103.4	9,320	12,640
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	206,170	93,470	214,100	97,060	25,290	174.4	15,000	103.4	9,670	13,110
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	216,970	98,370	225,310	102,150	26,820	185.0	15,000	103.4	10,060	13,640
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	157,300	71,380	163,350	74,130	14,960	103.1	12,000	82.5	8,820	11,960
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	175,100	79,460	181,840	82,510	16,840	116.1	13,500	92.8	9,680	13,120
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	187,110	84,910	194,310	88,170	18,130	124.9	14,500	99.9	10,240	13,880
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	200,800	91,120	208,520	94,620	19,610	135.2	15,000	103.4	10,870	14,740
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	219,650	99,630	228,100	103,460	21,690	149.4	15,000	103.4	11,700	15,860
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	230,260	104,480	239,120	108,500	22,880	157.7	15,000	103.4	12,160	16,490
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	242,490	110,040	251,820	114,270	24,270	167.3	15,000	103.4	12,670	17,180

QT-1300 Technical Data Sheet

Specified

Outside Diameter, D		Wall Thickness, t		Calculated Inside Diameter, d		Plain End Mass, M_{pe}		Pipe Metal Cross Sectional Area, A		Pipe Body Yield Load, L_y		Tensile Load, L_T		Internal Yield Pressure, P_r		Hydro Test Pressure, P_T		Torsional Yield Strength, T_f	
in	mm	in	mm	in	mm	lb/ft	kg/m	in^2	mm^2	lb	kg	lb	kg	psi	MPa	psi	MPa	ft-lb	N-m
2 7/8	73.0	0.156	4.0	2.563	65.1	4.534	6.746	1.333	859.4	173,230	78,550	179,890	81,570	13,660	94.2	10,900	75.3	10,750	14,580
2 7/8	73.0	0.175	4.4	2.525	64.1	5.051	7.515	1.484	957.3	192,970	87,500	200,390	90,870	15,370	106.0	12,300	84.8	11,820	16,030
2 7/8	73.0	0.188	4.8	2.499	63.4	5.400	8.034	1.587	1,023.5	206,310	93,550	214,240	97,140	16,550	114.1	13,200	91.3	12,520	16,970
2 7/8	73.0	0.203	5.2	2.469	62.7	5.798	8.627	1.704	1,099.0	221,530	100,450	230,050	104,310	17,910	123.5	14,300	98.8	13,310	18,050
2 7/8	73.0	0.224	5.7	2.427	61.6	6.348	9.441	1.866	1,202.6	242,520	109,920	251,850	114,150	19,810	136.5	15,000	103.4	14,360	19,470
2 7/8	73.0	0.236	6.0	2.403	61.0	6.658	9.905	1.957	1,261.8	254,360	115,330	264,140	119,760	20,890	144.1	15,000	103.4	14,940	20,260
2 7/8	73.0	0.250	6.4	2.375	60.3	7.015	10.437	2.062	1,329.6	268,020	121,530	278,330	126,200	22,160	152.8	15,000	103.4	15,590	21,140
3 1/4	82.6	0.188	4.8	2.874	73.0	6.154	9.165	1.808	1,167.5	235,100	106,710	244,140	110,810	14,640	100.9	11,700	80.7	16,380	22,210
3 1/4	82.6	0.203	5.2	2.844	72.3	6.612	9.848	1.943	1,254.5	252,620	114,660	262,330	119,070	15,840	109.1	12,700	87.3	17,440	23,650
3 1/4	82.6	0.224	5.7	2.802	71.2	7.246	10.787	2.129	1,374.1	276,830	125,600	287,480	130,430	17,520	120.7	14,000	96.5	18,860	25,570
3 1/4	82.6	0.236	6.0	2.778	70.6	7.604	11.324	2.235	1,442.5	290,500	131,850	301,680	136,920	18,480	127.3	14,800	101.9	19,650	26,640
3 1/4	82.6	0.250	6.4	2.750	69.9	8.018	11.941	2.356	1,521.1	306,310	139,030	318,090	144,380	19,600	135.1	15,000	103.4	20,550	27,860
3 1/2	88.9	0.188	4.8	3.124	79.3	6.656	9.907	1.956	1,262.0	254,300	115,350	264,080	119,780	13,590	93.7	10,900	75.0	19,230	26,070
3 1/2	88.9	0.203	5.2	3.094	78.6	7.155	10.649	2.103	1,356.5	273,340	123,990	283,860	128,760	14,710	101.4	11,800	81.1	20,500	27,790
3 1/2	88.9	0.224	5.7	3.052	77.5	7.845	11.671	2.305	1,486.7	299,700	135,880	311,230	141,110	16,270	112.1	13,000	89.7	22,210	30,110
3 1/2	88.9	0.236	6.0	3.028	76.9	8.235	12.255	2.420	1,561.2	314,600	142,690	326,700	148,180	17,160	118.3	13,700	94.6	23,160	31,400
3 1/2	88.9	0.250	6.4	3.000	76.2	8.686	12.927	2.553	1,646.8	331,830	150,520	344,590	156,310	18,200	125.5	14,600	100.4	24,230	32,850

A Minimum wall thickness is 0.005" (0.13 mm) less than specified wall thickness.

B Pressures calculated based on t – 0.005" (0.13 mm).

C Maximum hydrostatic test pressure is 15,000 psi (103 MPa).

D Additional diameters and wall thicknesses may be available upon request.