ATP-100 Technical Data Sheet

ATP-100 is a thermally processed grade of coiled tubing with a uniform microstructure throughout the tubing that yields improved bias weld performance with respect to low-cycle fatigue accumulation and localized corrosion. ATP-100 can be ordered as either TRUE-TAPER™ or TRUE-TAPER XR, straight wall, or as a string with an electric wireline or capillary tube installed.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	110,000 (758)
Minimum Tensile Strength, psi (MPa)	117,000 (806)
Maximum Hardness	28 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
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	78,550	35,630	86,410	39,190	12,900	88.9	10,300	71.2	3,310	4,490
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	84,500	38,330	92,950	42,160	14,000	96.5	11,200	77.2	3,520	4,770
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	90,370	40,990	99,410	45,090	15,100	104.1	12,100	83.3	3,720	5,040
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	100,330	45,510	110,370	50,060	17,000	117.2	13,600	93.8	4,060	5,500
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	107,020	48,540	117,720	53,400	18,300	126.2	14,600	100.9	4,270	5,790
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	114,600	51,980	126,060	57,180	19,800	136.5	15,000	103.4	4,510	6,110
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	124,980	56,670	137,480	62,330	21,900	150.9	15,000	103.4	4,820	6,540
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	130,790	59,320	143,860	65,250	23,100	159.3	15,000	103.4	4,980	6,750
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	137,450	62,340	151,190	68,580	24,500	168.9	15,000	103.4	5,170	7,010
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	94,340	42,770	103,770	47,050	10,860	74.9	8,700	59.9	4,820	6,540
2 ⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	101,580	46,060	111,740	50,660	11,790	81.3	9,400	65.1	5,140	6,970
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	108,750	49,310	119,630	54,240	12,720	87.7	10,200	70.2	5,450	7,390
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	120,950	54,840	133,050	60,320	14,320	98.7	11,500	79.0	5,970	8,090
2 ⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	129,170	58,560	142,090	64,420	15,410	106.3	12,300	85.0	6,300	8,540
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	138,520	62,800	152,370	69,080	16,670	115.0	13,300	92.0	6,680	9,060
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	151,370	68,600	166,510	75,460	18,440	127.1	14,800	101.7	7,170	9,720
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	158,590	71,900	174,450	79,090	19,450	134.2	15,000	103.4	7,440	10,090
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	166,900	75,670	183,590	83,240	20,630	142.3	15,000	103.4	7,740	10,490
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	121,000	54,910	133,100	60,400	11,500	79.3	9,200	63.4	6,790	9,210
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	134,700	61,120	148,170	67,230	12,950	89.3	10,400	71.4	7,450	10,100
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	143,930	65,310	158,330	71,850	13,940	96.1	11,200	76.9	7,880	10,680
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	154,460	70,090	169,910	77,100	15,090	104.0	12,100	83.2	8,360	11,330
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	168,960	76,640	185,860	84,300	16,690	114.9	13,300	92.0	9,000	12,200
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	177,120	80,370	194,840	88,410	17,600	121.3	14,100	97.0	9,350	12,680
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	186,530	84,640	205,190	93,110	18,670	128.7	14,900	102.9	9,750	13,220

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

B Pressures calculated based on t – 0.005 in. (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.

ATP-110 Technical Data Sheet

ATP-110 is a thermally processed grade of coiled tubing with a uniform microstructure throughout the tubing that yields improved bias weld performance with respect to low-cycle fatigue accumulation and localized corrosion. ATP-110 can be ordered as either TRUE-TAPER™ or TRUE-TAPER XR, straight wall, or as a string with an electric wireline or capillary tube installed.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	110,000 (758)
Minimum Tensile Strength, psi (MPa)	117,000 (806)
Maximum Hardness	30 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
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	86,410	39,190	91,120	41,330	14,190	97.8	11,400	78.3	3,640	4,940
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	92,950	42,160	98,020	44,460	15,400	106.2	12,300	84.9	3,870	5,250
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	99,410	45,090	104,830	47,550	16,610	114.5	13,300	91.6	4,090	5,550
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	110,370	50,060	116,390	52,790	18,700	128.9	15,000	103.1	4,460	6,050
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	117,720	53,400	124,140	56,310	20,130	138.8	15,000	103.4	4,700	6,370
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	126,060	57,180	132,940	60,300	21,780	150.2	15,000	103.4	4,960	6,720
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	137,480	62,330	144,980	65,730	24,090	166.0	15,000	103.4	5,300	7,190
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	143,860	65,250	151,710	68,810	25,410	175.2	15,000	103.4	5,480	7,430
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	151,190	68,580	159,440	72,320	26,950	185.8	15,000	103.4	5,680	7,700
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	103,770	47,050	109,430	49,620	11,950	82.4	9,600	65.9	5,300	7,190
2 ⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	111,740	50,660	117,840	53,430	12,970	89.5	10,400	71.6	5,650	7,660
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	119,630	54,240	126,150	57,200	13,990	96.5	11,200	77.2	6,000	8,130
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	133,050	60,320	140,300	63,610	15,750	108.6	12,600	86.9	6,560	8,890
2 ⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	142,090	64,420	149,840	67,930	16,950	116.9	13,600	93.5	6,930	9,400
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	152,370	69,080	160,680	72,850	18,340	126.5	14,700	101.2	7,340	9,950
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	166,510	75,460	175,590	79,580	20,290	139.9	15,000	103.4	7,890	10,700
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	174,450	79,090	183,960	83,400	21,400	147.6	15,000	103.4	8,180	11,090
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	183,590	83,240	193,600	87,780	22,690	156.5	15,000	103.4	8,510	11,540
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	133,100	60,400	140,360	63,690	12,660	87.2	10,100	69.8	7,470	10,130
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	148,170	67,230	156,250	70,900	14,250	98.2	11,400	78.6	8,190	11,100
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	158,330	71,850	166,960	75,760	15,340	105.7	12,300	84.6	8,670	11,750
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	169,910	77,100	179,180	81,310	16,590	114.4	13,300	91.5	9,200	12,470
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	185,860	84,300	196,000	88,900	18,350	126.4	14,700	101.2	9,900	13,420
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	194,840	88,410	205,460	93,230	19,360	133.4	15,000	103.4	10,290	13,950
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	205,190	93,110	216,380	98,190	20,530	141.5	15,000	103.4	10,720	14,530

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

B Pressures calculated based on t – 0.005 in. (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.

ATP-120 Technical Data Sheet

ATP-120 is a thermally processed grade of coiled tubing with a uniform microstructure throughout the tubing that yields improved bias weld performance with respect to low-cycle fatigue accumulation and localized corrosion. ATP-120 can be ordered as either TRUE-TAPER™ or TRUE-TAPER XR, straight wall, or as a string with an electric wireline or capillary tube installed.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	120,000 (827)
Minimum Tensile Strength, psi (MPa)	125,000 (862)
Maximum Hardness	33 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
1¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.40	81,600	37,000	85,000	38,540	17,690	121.9	14,100	97.2	2,950	3,990
1¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.30	87,720	39,780	91,370	41,430	19,200	132.3	15,000	103.4	3,130	4,240
1¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.60	93,720	42,500	97,620	44,270	20,700	142.7	15,000	103.4	3,300	4,470
1¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.30	103,920	47,120	108,250	49,090	23,310	160.7	15,000	103.4	3,580	4,850
1¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.90	110,760	50,230	115,370	52,320	25,090	172.9	15,000	103.4	3,760	5,090
1¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.30	118,440	53,710	123,370	55,950	27,150	187.1	15,000	103.4	3,960	5,360
1¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.40	128,880	58,440	134,250	60,880	30,030	207.0	15,000	103.4	4,210	5,700
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.80	94,320	42,770	98,250	44,550	15,480	106.7	12,300	84.8	3,960	5,360
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.20	101,400	45,980	105,620	47,900	16,800	115.8	13,400	92.3	4,220	5,710
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.00	108,480	49,190	113,000	51,240	18,120	124.9	14,400	99.2	4,460	6,040
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.30	120,360	54,580	125,370	56,850	20,400	140.6	15,000	103.4	4,860	6,580
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.50	128,400	58,230	133,750	60,650	21,960	151.4	15,000	103.4	5,120	6,930
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.40	137,520	62,360	143,250	64,960	23,760	163.8	15,000	103.4	5,400	7,310
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.00	150,000	68,020	156,250	70,860	26,280	181.1	15,000	103.4	5,780	7,830
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.70	156,960	71,180	163,500	74,140	27,720	191.1	15,000	103.4	5,970	8,080
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.70	164,880	74,770	171,750	77,890	29,400	202.7	15,000	103.4	6,190	8,380
2⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.40	113,160	51,320	117,870	53,450	13,030	89.8	10,400	71.7	5,770	7,810
2⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.10	121,920	55,290	127,000	57,590	14,140	97.4	11,300	77.9	6,160	8,340
2⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.30	130,560	59,210	136,000	61,670	15,250	105.1	12,200	84.1	6,540	8,860
2⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.00	145,200	65,850	151,250	68,590	17,170	118.3	13,700	94.4	7,160	9,700
2⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.00	155,040	70,310	161,500	73,240	18,490	127.4	14,700	101.3	7,560	10,240
2⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.30	166,200	75,370	173,120	78,510	20,000	137.8	15,000	103.4	8,010	10,850
2⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.70	181,680	82,390	189,250	85,820	22,130	152.5	15,000	103.4	8,600	11,650
2⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1022.60	190,320	86,310	198,250	89,900	23,340	160.9	15,000	103.4	8,920	12,080
2⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1076.30	200,280	90,830	208,620	94,610	24,750	170.6	15,000	103.4	9,280	12,570
2⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.00	145,200	65,850	151,250	68,590	13,800	95.1	11,000	75.8	8,140	11,020
2⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.40	161,640	73,300	168,370	76,350	15,540	107.1	12,400	85.4	8,930	12,100
2⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.00	172,680	78,310	179,870	81,570	16,730	115.3	13,300	91.7	9,450	12,800
2⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.90	185,400	84,080	193,120	87,580	18,100	124.7	14,400	99.2	10,030	13,590
2⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1090.10	202,800	91,970	211,250	95,800	20,020	138.0	15,000	103.4	10,800	14,630
2⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1143.10	212,520	96,380	221,370	100,390	21,120	145.6	15,000	103.4	11,220	15,200
2⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1203.90	223,800	101,490	233,120	105,720	22,400	154.4	15,000	103.4	11,690	15,830

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

B Pressures calculated based on t – 0.005 in. (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.

ATP-130 Technical Data Sheet

ATP-130 is a thermally processed grade of coiled tubing with a uniform microstructure throughout the tubing that yields improved bias weld performance with respect to low-cycle fatigue accumulation and localized corrosion. ATP-130 can be ordered as either TRUE-TAPER™ or TRUE-TAPER XR, straight wall, or as a string with an electric wireline or capillary tube installed.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	130,000 (896)
Minimum Tensile Strength, psi (MPa)	135,000 (931)
Maximum Hardness	37 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
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

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

B Pressures calculated based on t – 0.005 in. (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.

QT-800 Technical Data Sheet

For the appropriate sizes, QT-800 can be routinely ordered as a TRUE-TAPER™ string, straight wall, straight wall Flash-Free string or as a string with an electric wireline or capillary tube installed. QT-800 is manufactured from high strength low alloy steel (HSLAS) with alloying additions to provide resistance to atmospheric corrosion. The chemical composition of QT-800 meets the specification requirements of API 5ST CT80.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	80,000 (552)
Minimum Tensile Strength, psi (MPa)	90,000 (621)
Minimum Elongation	26%
Maximum Hardness	22 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	25.4	0.087	2.2	0.826	21.0	0.849	1.264	0.250	161.0	19,960	9,060	22,460	10,190	13,120	90.5	10,500	72.4	400	540
1	25.4	0.095	2.4	0.810	20.6	0.919	1.368	0.270	174.3	21,610	9,800	24,310	11,030	14,400	99.3	11,500	79.4	430	580
1	25.4	0.102	2.6	0.796	20.2	0.979	1.457	0.288	185.6	23,020	10,440	25,900	11,750	15,520	107.0	12,400	85.6	450	610
1	25.4	0.109	2.8	0.782	19.9	1.038	1.545	0.305	196.8	24,410	11,070	27,460	12,460	16,640	114.7	13,300	91.8	470	640
1	25.4	0.118	3.0	0.764	19.4	1.113	1.656	0.327	210.9	26,160	11,860	29,430	13,350	18,080	124.6	14,500	99.7	500	680
1	25.4	0.125	3.2	0.750	19.1	1.169	1.740	0.344	221.7	27,490	12,470	30,930	14,030	19,200	132.4	15,000	103.4	520	710
1 ¼	31.8	0.087	2.2	1.076	27.4	1.082	1.613	0.318	205.4	25,430	11,560	28,610	13,000	10,500	72.3	8,400	57.8	670	910
1 ¼	31.8	0.095	2.4	1.060	27.0	1.173	1.749	0.345	222.8	27,580	12,530	31,020	14,100	11,520	79.3	9,200	63.4	710	960
1 ¼	31.8	0.102	2.6	1.046	26.6	1.252	1.866	0.368	237.7	29,430	13,370	33,110	15,040	12,420	85.5	9,900	68.4	750	1,020
1 ¼	31.8	0.109	2.8	1.032	26.3	1.330	1.982	0.391	252.5	31,260	14,200	35,160	15,980	13,310	91.6	10,600	73.3	790	1,070
1 ¼	31.8	0.118	3.0	1.014	25.8	1.428	2.129	0.420	271.2	33,570	15,250	37,770	17,160	14,460	99.6	11,600	79.6	840	1,140
1 ¼	31.8	0.125	3.2	1.000	25.5	1.503	2.241	0.442	285.5	35,340	16,060	39,760	18,070	15,360	105.7	12,300	84.6	870	1,180
1 ¼	31.8	0.134	3.4	0.982	25.0	1.599	2.384	0.470	303.6	37,580	17,080	42,280	19,210	16,510	113.7	13,200	90.9	910	1,230
1 ¼	31.8	0.145	3.7	0.960	24.4	1.713	2.554	0.503	325.3	40,270	18,300	45,300	20,590	17,920	123.4	14,300	98.7	960	1,300
1 ¼	31.8	0.156	4.0	0.938	23.9	1.824	2.720	0.536	346.5	42,890	19,490	48,250	21,930	19,330	133.1	15,000	103.4	1,010	1,370
1 ¼	31.8	0.175	4.4	0.900	22.9	2.011	2.999	0.591	382.0	47,280	21,490	53,190	24,170	21,760	149.8	15,000	103.4	1,080	1,460
1 ¼	31.8	0.188	4.8	0.874	22.2	2.134	3.183	0.627	405.4	50,180	22,800	56,450	25,650	23,420	161.2	15,000	103.4	1,120	1,520
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270.5	33,550	15,220	37,740	17,120	9,600	66.2	7,700	53.0	1,070	1,450
1 ½	38.1	0.102	2.6	1.296	32.9	1.524	2.269	0.448	289.0	35,840	16,260	40,320	18,290	10,350	71.3	8,300	57.1	1,130	1,530
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307.3	38,110	17,280	42,870	19,450	11,090	76.5	8,900	61.2	1,190	1,610
1 ½	38.1	0.118	3.0	1.264	32.1	1.743	2.594	0.512	330.5	40,990	18,590	46,110	20,910	12,050	83.1	9,600	66.5	1,260	1,710
1 ½	38.1	0.125	3.2	1.250	31.8	1.837	2.735	0.540	348.4	43,200	19,590	48,600	22,040	12,800	88.3	10,200	70.6	1,320	1,790
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371.0	46,000	20,870	51,750	23,480	13,760	94.9	11,000	75.9	1,390	1,880
1 ½	38.1	0.145	3.7	1.210	30.7	2.100	3.126	0.617	398.2	49,380	22,400	55,550	25,200	14,930	103.0	11,900	82.4	1,470	1,990
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425.0	52,690	23,900	59,280	26,890	16,110	111.1	12,900	88.8	1,550	2,100
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470.0	58,280	26,430	65,560	29,740	18,130	125.0	14,500	100.0	1,670	2,260
1 ½	38.1	0.188	4.8	1.124	28.5	2.637	3.924	0.775	499.9	61,990	28,120	69,740	31,630	19,520	134.6	15,000	103.4	1,750	2,370
1 ½	38.1	0.203	5.2	1.094	27.8	2.815	4.189	0.827	533.6	66,170	30,020	74,440	33,770	21,120	145.6	15,000	103.4	1,830	2,480
1 ¾	44.5	0.109	2.8	1.532	39.0	1.912	2.849	0.562	363.0	44,950	20,420	50,570	22,970	9,510	65.5	7,600	52.4	1,670	2,260
1 ¾	44.5	0.118	3.0	1.514	38.5	2.059	3.068	0.605	390.8	48,400	21,980	54,450	24,730	10,330	71.1	8,300	56.9	1,780	2,410
1 ¾	44.5	0.125	3.2	1.500	38.2	2.171	3.236	0.638	412.2	51,050	23,180	57,430	26,080	10,970	75.6	8,800	60.4	1,860	2,520
1 ¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.4	54,420	24,720	61,230	27,810	11,790	81.2	9,400	65.0	1,970	2,670
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.3	58,490	26,560	65,800	29,880	12,800	88.2	10,200	70.5	2,090	2,830
1 ¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.6	62,500	28,380	70,310	31,930	13,810	95.1	11,000	76.1	2,200	2,980
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.3	69,270	31,460	77,930	35,390	15,540	107.0	12,400	85.6	2,390	3,240
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.9	73,800	33,520	83,030	37,710	16,730	115.2	13,400	92.2	2,510	3,400
1 ¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.3	78,930	35,850	88,790	40,330	18,100	124.7	14,500	99.7	2,640	3,580
1 ¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.4	85,910	39,000	96,650	43,880	20,020	137.8	15,000	103.4	2,810	3,810
2	50.8	0.109	2.8	1.782	45.3	2.203	3.279	0.648	417.8	51,800	23,500	58,280	26,440	8,320	57.4	6,700	45.9	2,240	3,040
2	50.8	0.118	3.0	1.764	44.8	2.374	3.533	0.698	450.1	55,810	25,320	62,790	28,480	9,040	62.3	7,200	49.9	2,390	3,240
2	50.8	0.125	3.2	1.750	44.5	2.505	3.729	0.736	475.0	58,910	26,720	66,270	30,060	9,600	66.2	7,700	53.0	2,500	3,390
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	62,840	28,510	70,700	32,070	10,320	71.2	8,300	56.9	2,650	3,590
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	67,600	30,660	76,050	34,500	11,200	77.2	9,000	61.8	2,810	3,810
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	72,300	32,790	81,340	36,890	12,080	83.3	9,700	66.6	2,980	4,040
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	80,270	36,410	90,300	40,960	13,600	93.8	10,900	75.0	3,250	4,410
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	85,620	38,840	96,320	43,690	14,640	100.9	11,700	80.8	3,420	4,640
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	91,680	41,590	103,140	46,780	15,840	109.2	12,700	87.4	3,610	4,890
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	99,980	45,330	112,480	51,000	17,520	120.7	14,000	96.6	3,850	5,220
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	104,630	47,460	117,710	53,390	18,480	127.4	14,800	101.9	3,990	5,410
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	109,960	49,880	123,700	56,110	19,600	135.1	15,000	103.4	4,130	5,600

QT-800 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	in²	mm²	lb	kg	lb	kg	psi	MPa	psi	MPa	ft-lb	N-m
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	75,470	34,220	84,910	38,500	8,690	59.9	7,000	48.0	3,850	5,220
2 ⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	81,270	36,850	91,430	41,450	9,430	65.1	7,500	52.0	4,110	5,570
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	87,000	39,450	97,880	44,380	10,170	70.2	8,100	56.1	4,360	5,910
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	96,760	43,870	108,860	49,350	11,450	79.0	9,200	63.2	4,770	6,470
2 ⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	103,340	46,850	116,250	52,710	12,330	85.0	9,900	68.0	5,040	6,830
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	110,810	50,240	124,670	56,520	13,340	92.0	10,700	73.6	5,340	7,240
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	121,100	54,880	136,230	61,740	14,750	101.7	11,800	81.4	5,740	7,780
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	126,870	57,520	142,730	64,710	15,560	107.3	12,400	85.9	5,950	8,070
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	133,520	60,530	150,210	68,100	16,510	113.8	13,200	91.1	6,190	8,390
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	96,800	43,930	108,900	49,420	9,200	63.4	7,400	50.7	5,430	7,360
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	107,760	48,900	121,230	55,010	10,360	71.4	8,300	57.1	5,960	8,080
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	115,150	52,250	129,540	58,780	11,150	76.9	8,900	61.5	6,300	8,540
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	123,570	56,070	139,020	63,080	12,070	83.2	9,700	66.5	6,690	9,070
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	135,170	61,310	152,070	68,980	13,350	92.0	10,700	73.6	7,200	9,760
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	141,700	64,300	159,410	72,330	14,080	97.0	11,300	77.6	7,480	10,140
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	149,230	67,720	167,880	76,180	14,930	102.9	11,900	82.3	7,800	10,580
2 ⅞	73.0	0.156	4.0	2.563	65.1	4.534	6.746	1.333	859.4	106,600	48,340	119,930	54,380	8,400	58.0	6,700	46.4	6,620	8,980
2 ⅞	73.0	0.175	4.4	2.525	64.1	5.051	7.515	1.484	957.3	118,750	53,850	133,600	60,580	9,460	65.3	7,600	52.2	7,270	9,860
2 ⅞	73.0	0.188	4.8	2.499	63.4	5.400	8.034	1.587	1,023.5	126,960	57,570	142,830	64,760	10,180	70.2	8,100	56.2	7,710	10,450
2 ⅞	73.0	0.203	5.2	2.469	62.7	5.798	8.627	1.704	1,099.0	136,320	61,810	153,360	69,540	11,020	76.0	8,800	60.8	8,190	11,100
2 ⅞	73.0	0.224	5.7	2.427	61.6	6.348	9.441	1.866	1,202.6	149,240	67,640	167,900	76,100	12,190	84.0	9,800	67.2	8,840	11,990
2 ⅞	73.0	0.236	6.0	2.403	61.0	6.658	9.905	1.957	1,261.8	156,530	70,970	176,090	79,840	12,860	88.7	10,300	70.9	9,190	12,460
2 ⅞	73.0	0.250	6.4	2.375	60.3	7.015	10.437	2.062	1,329.6	164,930	74,790	185,550	84,130	13,630	94.0	10,900	75.2	9,600	13,020
3 ¼	82.6	0.188	4.8	2.874	73.0	6.154	9.165	1.808	1,167.5	144,680	65,670	162,760	73,880	9,010	62.1	7,200	49.7	10,080	13,670
3 ¼	82.6	0.203	5.2	2.844	72.3	6.612	9.848	1.943	1,254.5	155,460	70,560	174,890	79,380	9,750	67.2	7,800	53.7	10,730	14,550
3 ¼	82.6	0.224	5.7	2.802	71.2	7.246	10.787	2.129	1,374.1	170,360	77,290	191,650	86,950	10,780	74.3	8,600	59.4	11,610	15,740
3 ¼	82.6	0.236	6.0	2.778	70.6	7.604	11.324	2.235	1,442.5	178,770	81,140	201,120	91,280	11,370	78.4	9,100	62.7	12,090	16,390
3 ¼	82.6	0.250	6.4	2.750	69.9	8.018	11.941	2.356	1,521.1	188,500	85,560	212,060	96,250	12,060	83.1	9,600	66.5	12,640	17,140
3 ½	88.9	0.188	4.8	3.124	79.3	6.656	9.907	1.956	1,262.0	156,490	70,980	176,050	79,860	8,370	57.7	6,700	46.1	11,840	16,050
3 ½	88.9	0.203	5.2	3.094	78.6	7.155	10.649	2.103	1,356.5	168,210	76,300	189,240	85,840	9,050	62.4	7,200	49.9	12,610	17,100
3 ½	88.9	0.224	5.7	3.052	77.5	7.845	11.671	2.305	1,486.7	184,430	83,620	207,480	94,070	10,010	69.0	8,000	55.2	13,670	18,530
3 ½	88.9	0.236	6.0	3.028	76.9	8.235	12.255	2.420	1,561.2	193,600	87,810	217,800	98,790	10,560	72.8	8,400	58.2	14,250	19,320
3 ½	88.9	0.250	6.4	3.000	76.2	8.686	12.927	2.553	1,646.8	204,200	92,630	229,730	104,200	11,200	77.2	9,000	61.8	14,910	20,220

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.

QT-900 Technical Data Sheet

For the appropriate sizes, QT-900 can be routinely ordered as a TRUE-TAPER™ string, straight wall, straight wall Flash-Free string or as a string with an electric wireline or capillary tube installed. QT-900 is manufactured from high strength low alloy steel (HSLAS) with alloying additions to provide resistance to atmospheric corrosion. The chemical composition of QT-900 meets the specification requirements of API 5ST CT90.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	90,000 (621)
Minimum Tensile Strength, psi (MPa)	98,000 (676)
Minimum Elongation	Calculated from the formula: $E=850{,}000\ \frac{A_w^{0.2}}{L_u^{0.9}}\ \%$ Where: A_w = Pipe Metal Cross Section, (in^2) L_u = Specified Minimum Tensile Strength (psi).
Maximum Hardness	22 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	25.4	0.087	2.2	0.826	21.0	0.849	1.264	0.250	161.0	22,460	10,190	24,450	11,090	14,760	101.8	11,800	81.4	450	610
1	25.4	0.095	2.4	0.810	20.6	0.919	1.368	0.270	174.3	24,310	11,030	26,470	12,010	16,200	111.7	13,000	89.4	480	650
1	25.4	0.102	2.6	0.796	20.2	0.979	1.457	0.288	185.6	25,900	11,750	28,200	12,790	17,460	120.4	14,000	96.3	510	690
1	25.4	0.109	2.8	0.782	19.9	1.038	1.545	0.305	196.8	27,460	12,460	29,900	13,560	18,720	129.1	15,000	103.3	530	720
1	25.4	0.118	3.0	0.764	19.4	1.113	1.656	0.327	210.9	29,430	13,350	32,040	14,530	20,340	140.2	15,000	103.4	560	760
1	25.4	0.125	3.2	0.750	19.1	1.169	1.740	0.344	221.7	30,930	14,030	33,670	15,270	21,600	148.9	15,000	103.4	580	790
1 ¼	31.8	0.087	2.2	1.076	27.4	1.082	1.613	0.318	205.4	28,610	13,000	31,150	14,150	11,810	81.3	9,400	65.0	750	1,020
1 ¼	31.8	0.095	2.4	1.060	27.0	1.173	1.749	0.345	222.8	31,020	14,100	33,780	15,350	12,960	89.2	10,400	71.4	800	1,080
1 ¼	31.8	0.102	2.6	1.046	26.6	1.252	1.866	0.368	237.7	33,110	15,040	36,050	16,380	13,970	96.2	11,200	76.9	850	1,150
1 ¼	31.8	0.109	2.8	1.032	26.3	1.330	1.982	0.391	252.5	35,160	15,980	38,290	17,400	14,980	103.1	12,000	82.5	890	1,210
1 ¼	31.8	0.118	3.0	1.014	25.8	1.428	2.129	0.420	271.2	37,770	17,160	41,120	18,690	16,270	112.0	13,000	89.6	940	1,270
1 ¼	31.8	0.125	3.2	1.000	25.5	1.503	2.241	0.442	285.5	39,760	18,070	43,300	19,670	17,280	119.0	13,800	95.2	980	1,330
1 ¼	31.8	0.134	3.4	0.982	25.0	1.599	2.384	0.470	303.6	42,280	19,210	46,040	20,920	18,580	127.9	14,900	102.3	1,030	1,400
1 ¼	31.8	0.145	3.7	0.960	24.4	1.713	2.554	0.503	325.3	45,300	20,590	49,330	22,420	20,160	138.8	15,000	103.4	1,080	1,460
1 ¼	31.8	0.156	4.0	0.938	23.9	1.824	2.720	0.536	346.5	48,250	21,930	52,540	23,880	21,740	149.7	15,000	103.4	1,130	1,530
1 ¼	31.8	0.175	4.4	0.900	22.9	2.011	2.999	0.591	382.0	53,190	24,170	57,920	26,320	24,480	168.5	15,000	103.4	1,210	1,640
1 ¼	31.8	0.188	4.8	0.874	22.2	2.134	3.183	0.627	405.4	56,450	25,650	61,470	27,930	26,350	181.4	15,000	103.4	1,260	1,710
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270.5	37,740	17,120	41,090	18,640	10,800	74.5	8,600	59.6	1,200	1,630
1 ½	38.1	0.102	2.6	1.296	32.9	1.524	2.269	0.448	289.0	40,320	18,290	43,900	19,910	11,640	80.3	9,300	64.2	1,270	1,720
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307.3	42,870	19,450	46,680	21,170	12,480	86.0	10,000	68.8	1,340	1,820
1 ½	38.1	0.118	3.0	1.264	32.1	1.743	2.594	0.512	330.5	46,110	20,910	50,210	22,770	13,560	93.5	10,800	74.8	1,420	1,930
1 ½	38.1	0.125	3.2	1.250	31.8	1.837	2.735	0.540	348.4	48,600	22,040	52,920	24,000	14,400	99.3	11,500	79.4	1,490	2,020
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371.0	51,750	23,480	56,360	25,560	15,480	106.7	12,400	85.4	1,560	2,120
1 ½	38.1	0.145	3.7	1.210	30.7	2.100	3.126	0.617	398.2	55,550	25,200	60,490	27,440	16,800	115.8	13,400	92.7	1,650	2,240
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425.0	59,280	26,890	64,550	29,280	18,120	124.9	14,500	99.9	1,740	2,360
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470.0	65,560	29,740	71,390	32,380	20,400	140.7	15,000	103.4	1,880	2,550
1 ½	38.1	0.188	4.8	1.124	28.5	2.637	3.924	0.775	499.9	69,740	31,630	75,940	34,450	21,960	151.4	15,000	103.4	1,960	2,660
1 ½	38.1	0.203	5.2	1.094	27.8	2.815	4.189	0.827	533.6	74,440	33,770	81,060	36,770	23,760	163.8	15,000	103.4	2,060	2,790
1 ¾	44.5	0.109	2.8	1.532	39.0	1.912	2.849	0.562	363.0	50,570	22,970	55,070	25,010	10,700	73.7	8,600	58.9	1,880	2,550
1 ¾	44.5	0.118	3.0	1.514	38.5	2.059	3.068	0.605	390.8	54,450	24,730	59,290	26,920	11,620	80.0	9,300	64.0	2,000	2,710
1 ¾	44.5	0.125	3.2	1.500	38.2	2.171	3.236	0.638	412.2	57,430	26,080	62,540	28,400	12,340	85.0	9,900	68.0	2,100	2,850
1 ¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.4	61,230	27,810	66,670	30,280	13,270	91.4	10,600	73.1	2,210	3,000
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.3	65,800	29,880	71,650	32,540	14,400	99.2	11,500	79.3	2,350	3,190
1 ¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.6	70,310	31,930	76,560	34,770	15,530	107.0	12,400	85.6	2,480	3,360
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.3	77,930	35,390	84,860	38,540	17,490	120.4	14,000	96.3	2,690	3,650
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.9	83,030	37,710	90,410	41,060	18,820	129.6	15,000	103.4	2,820	3,820
1 ¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.3	88,790	40,330	96,690	43,910	20,370	140.3	15,000	103.4	2,970	4,030
1 ¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.4	96,650	43,880	105,240	47,780	22,530	155.1	15,000	103.4	3,160	4,280
2	50.8	0.109	2.8	1.782	45.3	2.203	3.279	0.648	417.8	58,280	26,440	63,460	28,780	9,360	64.5	7,500	51.6	2,510	3,400
2	50.8	0.118	3.0	1.764	44.8	2.374	3.533	0.698	450.1	62,790	28,480	68,370	31,010	10,170	70.1	8,100	56.1	2,690	3,650
2	50.8	0.125	3.2	1.750	44.5	2.505	3.729	0.736	475.0	66,270	30,060	72,160	32,730	10,800	74.5	8,600	59.6	2,810	3,810
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	70,700	32,070	76,980	34,920	11,610	80.0	9,300	64.0	2,980	4,040
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	76,050	34,500	82,810	37,560	12,600	86.9	10,100	69.5	3,170	4,300
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	81,340	36,890	88,570	40,170	13,590	93.7	10,900	75.0	3,350	4,540
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	90,300	40,960	98,330	44,600	15,300	105.5	12,200	84.4	3,650	4,950
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	96,320	43,690	104,880	47,570	16,470	113.6	13,200	90.8	3,840	5,210
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	103,140	46,780	112,310	50,940	17,820	122.9	14,300	98.3	4,060	5,500
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	112,480	51,000	122,480	55,530	19,710	135.8	15,000	103.4	4,340	5,880
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	117,710	53,390	128,170	58,130	20,790	143.3	15,000	103.4	4,480	6,070
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	123,700	56,110	134,700	61,100	22,050	152.0	15,000	103.4	4,650	6,300

QT-900 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	lb/ft	kg/m
2 3/8	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	84,910	38,500	92,450	41,920	9,780	67.4	7,800	53.9	4,330	5,870
2 3/8	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	91,430	41,450	99,550	45,140	10,610	73.2	8,500	58.5	4,620	6,260
2 3/8	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	97,880	44,380	106,580	48,320	11,440	78.9	9,200	63.2	4,910	6,660
2 3/8	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	108,860	49,350	118,530	53,740	12,880	88.9	10,300	71.1	5,370	7,280
2 3/8	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	116,250	52,710	126,590	57,390	13,870	95.7	11,100	76.5	5,670	7,690
2 3/8	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	124,670	56,520	135,750	61,550	15,010	103.5	12,000	82.8	6,010	8,150
2 3/8	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	136,230	61,740	148,340	67,230	16,600	114.4	13,300	91.5	6,450	8,750
2 3/8	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	142,730	64,710	155,420	70,460	17,510	120.8	14,000	96.6	6,690	9,070
2 3/8	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	150,210	68,100	163,560	74,160	18,570	128.1	14,900	102.5	6,970	9,450
2 5/8	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	108,900	49,420	118,580	53,810	10,350	71.4	8,300	57.1	6,110	8,280
2 5/8	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	121,230	55,010	132,000	59,900	11,660	80.3	9,300	64.3	6,700	9,080
2 5/8	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	129,540	58,780	141,060	64,010	12,550	86.5	10,000	69.2	7,090	9,610
2 5/8	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	139,020	63,080	151,370	68,690	13,580	93.6	10,900	74.9	7,530	10,210
2 5/8	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	152,070	68,980	165,580	75,110	15,020	103.5	12,000	82.8	8,100	10,980
2 5/8	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	159,410	72,330	173,580	78,760	15,840	109.2	12,700	87.3	8,420	11,420
2 5/8	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	167,880	76,180	182,800	82,950	16,800	115.8	13,400	92.6	8,770	11,890
2 7/8	73.0	0.156	4.0	2.563	65.1	4.534	6.746	1.333	859.4	119,930	54,380	130,590	59,210	9,450	65.2	7,600	52.2	7,440	10,090
2 7/8	73.0	0.175	4.4	2.525	64.1	5.051	7.515	1.484	957.3	133,600	60,580	145,470	65,960	10,640	73.4	8,500	58.7	8,180	11,090
2 7/8	73.0	0.188	4.8	2.499	63.4	5.400	8.034	1.587	1,023.5	142,830	64,760	155,530	70,520	11,460	79.0	9,200	63.2	8,670	11,750
2 7/8	73.0	0.203	5.2	2.469	62.7	5.798	8.627	1.704	1,099.0	153,360	69,540	167,000	75,720	12,400	85.5	9,900	68.4	9,210	12,490
2 7/8	73.0	0.224	5.7	2.427	61.6	6.348	9.441	1.866	1,202.6	167,900	76,100	182,820	82,860	13,710	94.5	11,000	75.6	9,940	13,480
2 7/8	73.0	0.236	6.0	2.403	61.0	6.658	9.905	1.957	1,261.8	176,090	79,840	191,750	86,940	14,460	99.7	11,600	79.8	10,340	14,020
2 7/8	73.0	0.250	6.4	2.375	60.3	7.015	10.437	2.062	1,329.6	185,550	84,130	202,040	91,610	15,340	105.8	12,300	84.6	10,790	14,630

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.

QT-1000 Technical Data Sheet

For the appropriate sizes, QT-1000 can be routinely ordered as a TRUE-TAPER™ string, straight wall, straight wall Flash-Free string or as a string with an electric wireline or capillary tube installed. QT-1000 is manufactured from high strength low alloy steel (HSLAS) with alloying additions to provide resistance to atmospheric corrosion. The chemical composition of QT-1000 meets the specification requirements of API 5ST CT100.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	100,000 (689)
Minimum Tensile Strength, psi (MPa)	110,000 (758)
Minimum Elongation	Calculated from the formula: $E=800{,}000\ \frac{A_w^{0.2}}{L_u^{0.9}}\ \%$ Where: A_w = Pipe Metal Cross Section, (in^2) L_u = Specified Minimum Tensile Strength (psi).
Maximum Hardness	28 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	25.4	0.087	2.2	0.826	21.0	0.849	1.264	0.250	161.0	24,950	11,320	27,450	12,450	16,400	113.1	13,100	90.5	500	680
1	25.4	0.095	2.4	0.810	20.6	0.919	1.368	0.270	174.3	27,010	12,250	29,710	13,480	18,000	124.1	14,400	99.3	540	730
1	25.4	0.102	2.6	0.796	20.2	0.979	1.457	0.288	185.6	28,780	13,050	31,650	14,360	19,400	133.8	15,000	103.4	570	770
1	25.4	0.109	2.8	0.782	19.9	1.038	1.545	0.305	196.8	30,510	13,840	33,560	15,220	20,800	143.4	15,000	103.4	590	800
1	25.4	0.118	3.0	0.764	19.4	1.113	1.656	0.327	210.9	32,700	14,830	35,970	16,310	22,600	155.8	15,000	103.4	620	840
1	25.4	0.125	3.2	0.750	19.1	1.169	1.740	0.344	221.7	34,360	15,590	37,800	17,140	24,000	165.5	15,000	103.4	650	880
1 ¼	31.8	0.087	2.2	1.076	27.4	1.082	1.613	0.318	205.4	31,790	14,440	34,970	15,890	13,120	90.3	10,500	72.3	830	1,130
1 ¼	31.8	0.095	2.4	1.060	27.0	1.173	1.749	0.345	222.8	34,470	15,660	37,920	17,230	14,400	99.1	11,500	79.3	890	1,210
1 ¼	31.8	0.102	2.6	1.046	26.6	1.252	1.866	0.368	237.7	36,790	16,720	40,470	18,390	15,520	106.8	12,400	85.5	940	1,270
1 ¼	31.8	0.109	2.8	1.032	26.3	1.330	1.982	0.391	252.5	39,070	17,750	42,980	19,530	16,640	114.5	13,300	91.6	990	1,340
1 ¼	31.8	0.118	3.0	1.014	25.8	1.428	2.129	0.420	271.2	41,960	19,070	46,160	20,970	18,080	124.5	14,500	99.6	1,050	1,420
1 ¼	31.8	0.125	3.2	1.000	25.5	1.503	2.241	0.442	285.5	44,180	20,070	48,600	22,080	19,200	132.2	15,000	103.4	1,090	1,480
1 ¼	31.8	0.134	3.4	0.982	25.0	1.599	2.384	0.470	303.6	46,980	21,350	51,680	23,480	20,640	142.1	15,000	103.4	1,140	1,550
1 ¼	31.8	0.145	3.7	0.960	24.4	1.713	2.554	0.503	325.3	50,340	22,870	55,370	25,160	22,400	154.2	15,000	103.4	1,200	1,630
1 ¼	31.8	0.156	4.0	0.938	23.9	1.824	2.720	0.536	346.5	53,620	24,360	58,980	26,800	24,160	166.3	15,000	103.4	1,260	1,710
1 ¼	31.8	0.175	4.4	0.900	22.9	2.011	2.999	0.591	382.0	59,100	26,860	65,010	29,540	27,200	187.2	15,000	103.4	1,350	1,830
1 ¼	31.8	0.188	4.8	0.874	22.2	2.134	3.183	0.627	405.4	62,720	28,500	69,000	31,350	29,280	201.6	15,000	103.4	1,400	1,900
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270.5	41,930	19,020	46,130	20,920	12,000	82.7	9,600	66.2	1,330	1,800
1 ½	38.1	0.102	2.6	1.296	32.9	1.524	2.269	0.448	289.0	44,800	20,320	49,280	22,350	12,930	89.2	10,300	71.3	1,410	1,910
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307.3	47,630	21,610	52,400	23,770	13,870	95.6	11,100	76.5	1,490	2,020
1 ½	38.1	0.118	3.0	1.264	32.1	1.743	2.594	0.512	330.5	51,230	23,240	56,360	25,560	15,070	103.9	12,100	83.1	1,580	2,140
1 ½	38.1	0.125	3.2	1.250	31.8	1.837	2.735	0.540	348.4	54,000	24,490	59,400	26,940	16,000	110.3	12,800	88.3	1,650	2,240
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371.0	57,510	26,080	63,260	28,690	17,200	118.6	13,800	94.9	1,740	2,360
1 ½	38.1	0.145	3.7	1.210	30.7	2.100	3.126	0.617	398.2	61,720	28,000	67,900	30,800	18,670	128.7	14,900	103.0	1,840	2,490
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425.0	65,870	29,880	72,450	32,870	20,130	138.8	15,000	103.4	1,930	2,620
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470.0	72,850	33,040	80,130	36,350	22,670	156.3	15,000	103.4	2,090	2,830
1 ½	38.1	0.188	4.8	1.124	28.5	2.637	3.924	0.775	499.9	77,490	35,150	85,240	38,660	24,400	168.2	15,000	103.4	2,180	2,960
1 ½	38.1	0.203	5.2	1.094	27.8	2.815	4.189	0.827	533.6	82,720	37,520	90,990	41,270	26,400	182.0	15,000	103.4	2,290	3,100
1 ¾	44.5	0.109	2.8	1.532	39.0	1.912	2.849	0.562	363.0	56,190	25,520	61,810	28,070	11,890	81.9	9,500	65.5	2,090	2,830
1 ¾	44.5	0.118	3.0	1.514	38.5	2.059	3.068	0.605	390.8	60,500	27,470	66,550	30,220	12,910	88.9	10,300	71.1	2,230	3,020
1 ¾	44.5	0.125	3.2	1.500	38.2	2.171	3.236	0.638	412.2	63,810	28,980	70,200	31,880	13,710	94.5	11,000	75.6	2,330	3,160
1 ¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.4	68,030	30,900	74,830	33,990	14,740	101.5	11,800	81.2	2,460	3,340
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.3	73,110	33,200	80,420	36,520	16,000	110.2	12,800	88.2	2,610	3,540
1 ¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.6	78,120	35,480	85,930	39,030	17,260	118.9	13,800	95.1	2,750	3,730
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.3	86,590	39,330	95,250	43,260	19,430	133.8	15,000	103.4	2,990	4,050
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.9	92,250	41,900	101,480	46,090	20,910	144.0	15,000	103.4	3,140	4,260
1 ¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.3	98,660	44,810	108,530	49,290	22,630	155.8	15,000	103.4	3,300	4,470
1 ¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.4	107,390	48,750	118,130	53,630	25,030	172.3	15,000	103.4	3,510	4,760
2	50.8	0.109	2.8	1.782	45.3	2.203	3.279	0.648	417.8	64,750	29,370	71,230	32,310	10,400	71.7	8,300	57.4	2,790	3,780
2	50.8	0.118	3.0	1.764	44.8	2.374	3.533	0.698	450.1	69,770	31,640	76,740	34,810	11,300	77.9	9,000	62.3	2,980	4,040
2	50.8	0.125	3.2	1.750	44.5	2.505	3.729	0.736	475.0	73,630	33,400	80,990	36,740	12,000	82.7	9,600	66.2	3,130	4,240
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	78,550	35,630	86,410	39,190	12,900	88.9	10,300	71.2	3,310	4,490
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	84,500	38,330	92,950	42,160	14,000	96.5	11,200	77.2	3,520	4,770
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	90,370	40,990	99,410	45,090	15,100	104.1	12,100	83.3	3,720	5,040
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	100,330	45,510	110,370	50,060	17,000	117.2	13,600	93.8	4,060	5,500
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	107,020	48,540	117,720	53,400	18,300	126.2	14,600	100.9	4,270	5,790
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	114,600	51,980	126,060	57,180	19,800	136.5	15,000	103.4	4,510	6,110
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	124,980	56,670	137,480	62,330	21,900	150.9	15,000	103.4	4,820	6,540
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	130,790	59,320	143,860	65,250	23,100	159.3	15,000	103.4	4,980	6,750
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	137,450	62,340	151,190	68,580	24,500	168.9	15,000	103.4	5,170	7,010

QT-1000 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	lb/ft	kg/m
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	94,340	42,770	103,770	47,050	10,860	74.9	8,700	59.9	4,820	6,540
2 ⅜	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	101,580	46,060	111,740	50,660	11,790	81.3	9,400	65.1	5,140	6,970
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	108,750	49,310	119,630	54,240	12,720	87.7	10,200	70.2	5,450	7,390
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	120,950	54,840	133,050	60,320	14,320	98.7	11,500	79.0	5,970	8,090
2 ⅜	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	129,170	58,560	142,090	64,420	15,410	106.3	12,300	85.0	6,300	8,540
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	138,520	62,800	152,370	69,080	16,670	115.0	13,300	92.0	6,680	9,060
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	151,370	68,600	166,510	75,460	18,440	127.1	14,800	101.7	7,170	9,720
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	158,590	71,900	174,450	79,090	19,450	134.2	15,000	103.4	7,440	10,090
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	166,900	75,670	183,590	83,240	20,630	142.3	15,000	103.4	7,740	10,490
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	121,000	54,910	133,100	60,400	11,500	79.3	9,200	63.4	6,790	9,210
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	134,700	61,120	148,170	67,230	12,950	89.3	10,400	71.4	7,450	10,100
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	143,930	65,310	158,330	71,850	13,940	96.1	11,200	76.9	7,880	10,680
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	154,460	70,090	169,910	77,100	15,090	104.0	12,100	83.2	8,360	11,330
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	168,960	76,640	185,860	84,300	16,690	114.9	13,300	92.0	9,000	12,200
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	177,120	80,370	194,840	88,410	17,600	121.3	14,100	97.0	9,350	12,680
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	186,530	84,640	205,190	93,110	18,670	128.7	14,900	102.9	9,750	13,220
2 ⅞	73.0	0.156	4.0	2.563	65.1	4.534	6.746	1.333	859.4	133,260	60,420	146,580	66,460	10,500	72.4	8,400	58.0	8,270	11,210
2 ⅞	73.0	0.175	4.4	2.525	64.1	5.051	7.515	1.484	957.3	148,440	67,310	163,280	74,040	11,830	81.6	9,500	65.3	9,090	12,320
2 ⅞	73.0	0.188	4.8	2.499	63.4	5.400	8.034	1.587	1,023.5	158,700	71,960	174,570	79,150	12,730	87.8	10,200	70.2	9,630	13,060
2 ⅞	73.0	0.203	5.2	2.469	62.7	5.798	8.627	1.704	1,099.0	170,410	77,270	187,450	84,990	13,770	95.0	11,000	76.0	10,240	13,880
2 ⅞	73.0	0.224	5.7	2.427	61.6	6.348	9.441	1.866	1,202.6	186,560	84,550	205,210	93,010	15,230	105.0	12,200	84.0	11,050	14,980
2 ⅞	73.0	0.236	6.0	2.403	61.0	6.658	9.905	1.957	1,261.8	195,660	88,710	215,230	97,580	16,070	110.8	12,900	88.7	11,490	15,580
2 ⅞	73.0	0.250	6.4	2.375	60.3	7.015	10.437	2.062	1,329.6	206,170	93,480	226,780	102,830	17,040	117.6	13,600	94.0	11,990	16,260
3 ¼	82.6	0.188	4.8	2.874	73.0	6.154	9.165	1.808	1,167.5	180,850	82,080	198,930	90,290	11,260	77.6	9,000	62.1	12,600	17,080
3 ¼	82.6	0.203	5.2	2.844	72.3	6.612	9.848	1.943	1,254.5	194,320	88,200	213,750	97,020	12,180	84.0	9,700	67.2	13,410	18,180
3 ¼	82.6	0.224	5.7	2.802	71.2	7.246	10.787	2.129	1,374.1	212,950	96,610	234,240	106,270	13,480	92.8	10,800	74.3	14,510	19,670
3 ¼	82.6	0.236	6.0	2.778	70.6	7.604	11.324	2.235	1,442.5	223,460	101,420	245,810	111,560	14,220	97.9	11,400	78.4	15,120	20,500
3 ¼	82.6	0.250	6.4	2.750	69.9	8.018	11.941	2.356	1,521.1	235,620	106,950	259,180	117,640	15,080	103.9	12,100	83.1	15,800	21,420
3 ½	88.9	0.188	4.8	3.124	79.3	6.656	9.907	1.956	1,262.0	195,610	88,730	215,170	97,600	10,460	72.1	8,400	57.7	14,800	20,070
3 ½	88.9	0.203	5.2	3.094	78.6	7.155	10.649	2.103	1,356.5	210,260	95,370	231,290	104,910	11,310	78.0	9,100	62.4	15,770	21,380
3 ½	88.9	0.224	5.7	3.052	77.5	7.845	11.671	2.305	1,486.7	230,540	104,530	253,590	114,980	12,510	86.2	10,000	69.0	17,080	23,160
3 ½	88.9	0.236	6.0	3.028	76.9	8.235	12.255	2.420	1,561.2	242,000	109,760	266,200	120,740	13,200	91.0	10,600	72.8	17,810	24,150
3 ½	88.9	0.250	6.4	3.000	76.2	8.686	12.927	2.553	1,646.8	255,260	104,200	280,780	127,360	14,000	96.5	11,200	77.2	18,640	25,270

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.

QT-1100 Technical Data Sheet

For the appropriate sizes, QT-1100 can be routinely ordered as a TRUE-TAPER™ string, straight wall, straight wall Flash-Free string or as a string with an electric wireline or capillary tube installed. QT-1100 is manufactured from high strength low alloy steel (HSLAS) with alloying additions to provide resistance to atmospheric corrosion. The chemical composition of QT-1100 meets the specification requirements of API 5ST CT110.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	110,000 (758)
Minimum Tensile Strength, psi (MPa)	116,000 (800)
Minimum Elongation	Calculated from the formula: $E=800{,}000 \frac{A_w^{0.2}}{L_u^{0.9}}\ \%$ Where: A_w = Pipe Metal Cross Section, (in^2) L_u = Specified Minimum Tensile Strength (psi)
Maximum Hardness	30 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	lb/ft	kg/m
1	25.4	0.087	2.2	0.826	21.0	0.849	1.264	0.250	161.0	27,450	12,450	28,950	13,130	18,040	124.4	14,400	99.5	560	760
1	25.4	0.095	2.4	0.810	20.6	0.919	1.368	0.270	174.3	29,710	13,480	31,330	14,210	19,800	136.5	15,000	103.4	590	800
1	25.4	0.102	2.6	0.796	20.2	0.979	1.457	0.288	185.6	31,650	14,360	33,380	15,140	21,340	147.1	15,000	103.4	620	840
1	25.4	0.109	2.8	0.782	19.9	1.038	1.545	0.305	196.8	33,560	15,220	35,390	16,050	22,880	157.8	15,000	103.4	650	880
1	25.4	0.118	3.0	0.764	19.4	1.113	1.656	0.327	210.9	35,970	16,310	37,930	17,200	24,860	171.4	15,000	103.4	690	940
1	25.4	0.125	3.2	0.750	19.1	1.169	1.740	0.344	221.7	37,800	17,140	39,860	18,080	26,400	182.0	15,000	103.4	710	960
1 ¼	31.8	0.087	2.2	1.076	27.4	1.082	1.613	0.318	205.4	34,970	15,890	36,870	16,760	14,430	99.4	11,500	79.5	920	1,250
1 ¼	31.8	0.095	2.4	1.060	27.0	1.173	1.749	0.345	222.8	37,920	17,230	39,990	18,170	15,840	109.0	12,700	87.2	980	1,330
1 ¼	31.8	0.102	2.6	1.046	26.6	1.252	1.866	0.368	237.7	40,470	18,390	42,670	19,390	17,070	117.5	13,700	94.0	1,030	1,400
1 ¼	31.8	0.109	2.8	1.032	26.3	1.330	1.982	0.391	252.5	42,980	19,530	45,320	20,590	18,300	126.0	14,600	100.8	1,090	1,480
1 ¼	31.8	0.118	3.0	1.014	25.8	1.428	2.129	0.420	271.2	46,160	20,970	48,680	22,120	19,890	136.9	15,000	103.4	1,150	1,560
1 ¼	31.8	0.125	3.2	1.000	25.5	1.503	2.241	0.442	285.5	48,600	22,080	51,250	23,290	21,120	145.4	15,000	103.4	1,200	1,630
1 ¼	31.8	0.134	3.4	0.982	25.0	1.599	2.384	0.470	303.6	51,680	23,480	54,500	24,760	22,700	156.3	15,000	103.4	1,260	1,710
1 ¼	31.8	0.145	3.7	0.960	24.4	1.713	2.554	0.503	325.3	55,370	25,160	58,390	26,530	24,640	169.6	15,000	103.4	1,320	1,790
1 ¼	31.8	0.156	4.0	0.938	23.9	1.824	2.720	0.536	346.5	58,980	26,800	62,190	28,260	26,580	182.9	15,000	103.4	1,390	1,880
1 ¼	31.8	0.175	4.4	0.900	22.9	2.011	2.999	0.591	382.0	65,010	29,540	68,560	31,150	29,920	206.0	15,000	103.4	1,480	2,010
1 ¼	31.8	0.188	4.8	0.874	22.2	2.134	3.183	0.627	405.4	69,000	31,350	72,760	33,060	32,210	221.7	15,000	103.4	1,540	2,090
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270.5	46,130	20,920	48,640	22,060	13,200	91.0	10,600	72.8	1,470	1,990
1 ½	38.1	0.102	2.6	1.296	32.9	1.524	2.269	0.448	289.0	49,280	22,350	51,970	23,570	14,230	98.1	11,400	78.5	1,550	2,100
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307.3	52,400	23,770	55,250	25,060	15,250	105.2	12,200	84.1	1,640	2,220
1 ½	38.1	0.118	3.0	1.264	32.1	1.743	2.594	0.512	330.5	56,360	25,560	59,430	26,960	16,570	114.3	13,300	91.4	1,740	2,360
1 ½	38.1	0.125	3.2	1.250	31.8	1.837	2.735	0.540	348.4	59,400	26,940	62,640	28,410	17,600	121.3	14,100	97.1	1,820	2,470
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371.0	63,260	28,690	66,710	30,260	18,920	130.4	15,000	103.4	1,910	2,590
1 ½	38.1	0.145	3.7	1.210	30.7	2.100	3.126	0.617	398.2	67,900	30,800	71,600	32,480	20,530	141.6	15,000	103.4	2,020	2,740
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425.0	72,450	32,870	76,410	34,660	22,150	152.7	15,000	103.4	2,130	2,890
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470.0	80,130	36,350	84,500	38,330	24,930	171.9	15,000	103.4	2,300	3,120
1 ½	38.1	0.188	4.8	1.124	28.5	2.637	3.924	0.775	499.9	85,240	38,660	89,890	40,770	26,840	185.1	15,000	103.4	2,400	3,250
1 ½	38.1	0.203	5.2	1.094	27.8	2.815	4.189	0.827	533.6	90,990	41,270	95,950	43,520	29,040	200.2	15,000	103.4	2,510	3,400
1 ¾	44.5	0.109	2.8	1.532	39.0	1.912	2.849	0.562	363.0	61,810	28,070	65,180	29,600	13,070	90.0	10,500	72.0	2,300	3,120
1 ¾	44.5	0.118	3.0	1.514	38.5	2.059	3.068	0.605	390.8	66,550	30,220	70,180	31,870	14,210	97.8	11,400	78.3	2,450	3,320
1 ¾	44.5	0.125	3.2	1.500	38.2	2.171	3.236	0.638	412.2	70,200	31,880	74,020	33,620	15,090	103.9	12,100	83.1	2,560	3,470
1 ¾	44.5	0.134	3.4	1.482	37.7	2.315	3.450	0.680	439.4	74,830	33,990	78,910	35,840	16,220	111.7	13,000	89.4	2,700	3,660
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.707	0.731	472.3	80,420	36,520	84,810	38,520	17,600	121.2	14,100	97.0	2,870	3,890
1 ¾	44.5	0.156	4.0	1.438	36.6	2.658	3.961	0.781	504.6	85,930	39,030	90,620	41,150	18,980	130.7	15,000	103.4	3,030	4,110
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.391	0.866	559.3	95,250	43,260	100,440	45,620	21,370	147.2	15,000	103.4	3,290	4,460
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.678	0.923	595.9	101,480	46,090	107,020	48,600	23,010	158.4	15,000	103.4	3,450	4,680
1 ¾	44.5	0.203	5.2	1.344	34.2	3.357	5.003	0.987	637.3	108,530	49,290	114,440	51,980	24,890	171.4	15,000	103.4	3,630	4,920
1 ¾	44.5	0.224	5.7	1.302	33.1	3.654	5.444	1.074	693.4	118,130	53,630	124,570	56,550	27,530	189.5	15,000	103.4	3,860	5,230
2	50.8	0.109	2.8	1.782	45.3	2.203	3.279	0.648	417.8	71,230	32,310	75,120	34,070	11,440	78.9	9,200	63.1	3,070	4,160
2	50.8	0.118	3.0	1.764	44.8	2.374	3.533	0.698	450.1	76,740	34,810	80,930	36,710	12,430	85.7	9,900	68.6	3,280	4,450
2	50.8	0.125	3.2	1.750	44.5	2.505	3.729	0.736	475.0	80,990	36,740	85,410	38,740	13,200	91.0	10,600	72.8	3,440	4,660
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506.8	86,410	39,190	91,120	41,330	14,190	97.8	11,400	78.3	3,640	4,940
2	50.8	0.145	3.7	1.710	43.4	2.875	4.280	0.845	545.2	92,950	42,160	98,020	44,460	15,400	106.2	12,300	84.9	3,870	5,250
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583.0	99,410	45,090	104,830	47,550	16,610	114.5	13,300	91.6	4,090	5,550
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647.3	110,370	50,060	116,390	52,790	18,700	128.9	15,000	103.1	4,460	6,050
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690.5	117,720	53,400	124,140	56,310	20,130	138.8	15,000	103.4	4,700	6,370
2	50.8	0.203	5.2	1.594	40.5	3.900	5.804	1.146	739.4	126,060	57,180	132,940	60,300	21,780	150.2	15,000	103.4	4,960	6,720
2	50.8	0.224	5.7	1.552	39.4	4.253	6.327	1.250	806.0	137,480	62,330	144,980	65,730	24,090	166.0	15,000	103.4	5,300	7,190
2	50.8	0.236	6.0	1.528	38.8	4.450	6.623	1.308	843.7	143,860	65,250	151,710	68,810	25,410	175.2	15,000	103.4	5,480	7,430
2	50.8	0.250	6.4	1.500	38.1	4.677	6.961	1.374	886.7	151,190	68,580	159,440	72,320	26,950	185.8	15,000	103.4	5,680	7,700

QT-1100 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	lb/ft	kg/m
2 3/8	60.3	0.134	3.4	2.107	53.5	3.210	4.776	0.943	608.4	103,770	47,050	109,430	49,620	11,950	82.4	9,600	65.9	5,300	7,190
2 3/8	60.3	0.145	3.7	2.085	52.9	3.457	5.142	1.016	655.1	111,740	50,660	117,840	53,430	12,970	89.5	10,400	71.6	5,650	7,660
2 3/8	60.3	0.156	4.0	2.063	52.4	3.700	5.505	1.088	701.3	119,630	54,240	126,150	57,200	13,990	96.5	11,200	77.2	6,000	8,130
2 3/8	60.3	0.175	4.4	2.025	51.4	4.116	6.123	1.210	780.0	133,050	60,320	140,300	63,610	15,750	108.6	12,600	86.9	6,560	8,890
2 3/8	60.3	0.188	4.8	1.999	50.7	4.395	6.539	1.292	833.0	142,090	64,420	149,840	67,930	16,950	116.9	13,600	93.5	6,930	9,400
2 3/8	60.3	0.203	5.2	1.969	50.0	4.713	7.012	1.385	893.3	152,370	69,080	160,680	72,850	18,340	126.5	14,700	101.2	7,340	9,950
2 3/8	60.3	0.224	5.7	1.927	48.9	5.151	7.659	1.514	975.7	166,510	75,460	175,590	79,580	20,290	139.9	15,000	103.4	7,890	10,700
2 3/8	60.3	0.236	6.0	1.903	48.3	5.396	8.028	1.586	1,022.6	174,450	79,090	183,960	83,400	21,400	147.6	15,000	103.4	8,180	11,090
2 3/8	60.3	0.250	6.4	1.875	47.6	5.679	8.449	1.669	1,076.3	183,590	83,240	193,600	87,780	22,690	156.5	15,000	103.4	8,510	11,540
2 5/8	66.7	0.156	4.0	2.313	58.8	4.117	6.131	1.210	781.0	133,100	60,400	140,360	63,690	12,660	87.2	10,100	69.8	7,470	10,130
2 5/8	66.7	0.175	4.4	2.275	57.8	4.583	6.824	1.347	869.4	148,170	67,230	156,250	70,900	14,250	98.2	11,400	78.6	8,190	11,100
2 5/8	66.7	0.188	4.8	2.249	57.1	4.898	7.292	1.439	929.0	158,330	71,850	166,960	75,760	15,340	105.7	12,300	84.6	8,670	11,750
2 5/8	66.7	0.203	5.2	2.219	56.4	5.256	7.826	1.545	996.9	169,910	77,100	179,180	81,310	16,590	114.4	13,300	91.5	9,200	12,470
2 5/8	66.7	0.224	5.7	2.177	55.3	5.749	8.557	1.690	1,090.1	185,860	84,300	196,000	88,900	18,350	126.4	14,700	101.2	9,900	13,420
2 5/8	66.7	0.236	6.0	2.153	54.7	6.027	8.974	1.771	1,143.1	194,840	88,410	205,460	93,230	19,360	133.4	15,000	103.4	10,290	13,950
2 5/8	66.7	0.250	6.4	2.125	54.0	6.347	9.451	1.865	1,203.9	205,190	93,110	216,380	98,190	20,530	141.5	15,000	103.4	10,720	14,530
2 7/8	73.0	0.156	4.0	2.563	65.1	4.534	6.746	1.333	859.4	146,580	66,460	154,580	70,090	11,550	79.7	9,200	63.8	9,100	12,340
2 7/8	73.0	0.175	4.4	2.525	64.1	5.051	7.515	1.484	957.3	163,280	74,040	172,190	78,080	13,010	89.7	10,400	71.8	10,000	13,560
2 7/8	73.0	0.188	4.8	2.499	63.4	5.400	8.034	1.587	1,023.5	174,570	79,150	184,090	83,470	14,000	96.6	11,200	77.3	10,600	14,370
2 7/8	73.0	0.203	5.2	2.469	62.7	5.798	8.627	1.704	1,099.0	187,450	84,990	197,670	89,630	15,150	104.5	12,100	83.6	11,260	15,270
2 7/8	73.0	0.224	5.7	2.427	61.6	6.348	9.441	1.866	1,202.6	205,210	93,010	216,400	98,080	16,760	115.5	13,400	92.4	12,150	16,470
2 7/8	73.0	0.236	6.0	2.403	61.0	6.658	9.905	1.957	1,261.8	215,230	97,580	226,970	102,910	17,680	121.9	14,100	97.5	12,640	17,140
2 7/8	73.0	0.250	6.4	2.375	60.3	7.015	10.437	2.062	1,329.6	226,780	102,830	239,150	108,440	18,750	129.3	15,000	103.4	13,190	17,880

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.

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.

QT-1400 Technical Data Sheet

For the appropriate sizes, QT-1400 can be routinely ordered as a TRUE-TAPER™ string, straight wall or as a string with an electric wireline or capillary tube installed. QT-1400 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)	140,000 (965)
Minimum Tensile Strength, psi (MPa)	145,000 (1,000)
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 ¾	44.5	0.134	3.4	1.482	37.6	2.315	3.45	0.680	439	95,200	43,200	98,600	44,700	20,600	142	15,000	103	3,400	4,600
1 ¾	44.5	0.145	3.7	1.460	37.1	2.488	3.70	0.731	472	102,400	46,400	106,000	48,100	22,400	154	15,000	103	3,700	5,000
1 ¾	44.5	0.156	4.0	1.438	36.5	2.658	3.96	0.781	504	109,400	49,600	113,300	51,400	24,200	167	15,000	103	3,900	5,300
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.39	0.866	559	121,200	55,000	125,600	57,000	27,200	188	15,000	103	4,200	5,700
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.67	0.923	595	129,200	58,600	133,800	60,700	29,300	202	15,000	103	4,400	6,000
1 ¾	44.5	0.203	5.2	1.344	34.1	3.357	5.00	0.987	637	138,100	62,600	143,100	64,900	31,700	219	15,000	103	4,600	6,200
2	50.8	0.134	3.4	1.732	44.0	2.673	3.98	0.786	507	110,000	49,900	113,900	51,700	18,100	125	14,500	100	4,600	6,200
2	50.8	0.145	3.7	1.710	43.4	2.875	4.28	0.845	545	118,300	53,700	122,500	55,600	19,600	135	15,000	103	4,900	6,600
2	50.8	0.156	4.0	1.688	42.9	3.075	4.58	0.904	583	126,500	57,400	131,000	59,400	21,100	145	15,000	103	5,200	7,100
2	50.8	0.175	4.4	1.650	41.9	3.414	5.08	1.003	647	140,500	63,700	145,500	66,000	23,800	164	15,000	103	5,700	7,700
2	50.8	0.188	4.8	1.624	41.2	3.642	5.42	1.070	690	149,800	67,900	155,200	70,400	25,600	177	15,000	103	6,000	8,100
2	50.8	0.203	5.2	1.594	40.5	3.900	5.80	1.146	739	160,400	72,800	166,200	75,400	27,700	191	15,000	103	6,300	8,500
2	50.8	0.224	5.7	1.552	39.4	4.253	6.33	1.250	806	175,000	79,400	181,200	82,200	30,700	212	15,000	103	6,700	9,100
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.78	0.943	609	132,100	59,900	136,800	62,100	15,200	105	12,200	84	6,700	9,100
2 ⅜	60.3	0.145	3.7	2.085	53.0	3.457	5.14	1.016	655	142,200	64,500	147,300	66,800	16,500	114	13,200	91	7,200	9,800
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.51	1.088	702	152,300	69,100	157,700	71,500	17,800	123	14,200	98	7,600	10,300
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.13	1.210	780	169,300	76,800	175,400	79,600	20,000	138	15,000	103	8,400	11,400
2 ⅜	60.3	0.188	4.8	1.999	50.8	4.395	6.54	1.292	833	180,800	82,000	187,300	85,000	21,600	149	15,000	103	8,800	11,900
2 ⅜	60.3	0.203	5.2	1.969	50.0	4.713	7.02	1.385	894	193,900	88,000	200,900	91,100	23,300	161	15,000	103	9,300	12,600
2 ⅜	60.3	0.224	5.7	1.927	48.9	5.151	7.67	1.514	977	211,900	96,100	219,500	99,600	25,800	178	15,000	103	10,000	13,600
2 ⅜	60.3	0.236	6.0	1.903	48.3	5.396	8.03	1.586	1,023	222,000	100,700	230,000	104,300	27,200	188	15,000	103	10,400	14,100
2 ⅜	60.3	0.250	6.4	1.875	47.6	5.679	8.45	1.669	1,077	233,700	106,000	242,000	109,800	28,900	199	15,000	103	10,800	14,600
2 ⅝	66.7	0.156	4.0	2.313	58.8	4.117	6.13	1.210	781	169,400	76,800	175,500	79,600	16,100	111	12,900	89	9,500	12,900
2 ⅝	66.7	0.175	4.4	2.275	57.8	4.583	6.82	1.347	869	188,600	85,500	195,300	88,600	18,100	125	14,500	100	10,400	14,100
2 ⅝	66.7	0.188	4.8	2.249	57.1	4.898	7.29	1.439	929	201,500	91,400	208,700	94,700	19,500	134	15,000	103	11,000	14,900
2 ⅝	66.7	0.203	5.2	2.219	56.4	5.256	7.82	1.545	997	216,200	98,100	224,000	101,600	21,100	145	15,000	103	11,700	15,900
2 ⅝	66.7	0.224	5.7	2.177	55.3	5.749	8.56	1.690	1,090	236,500	107,300	245,000	111,100	23,400	161	15,000	103	12,600	17,100
2 ⅝	66.7	0.236	6.0	2.153	54.7	6.027	8.97	1.771	1,143	248,000	112,500	256,800	116,500	24,600	170	15,000	103	13,100	17,800
2 ⅝	66.7	0.250	6.4	2.125	54.0	6.347	9.45	1.865	1,203	261,100	118,400	270,500	122,700	26,100	180	15,000	103	13,600	18,400
2 ⅞	73.0	0.156	4.0	2.563	65.1	4.534	6.75	1.333	860	186,600	84,600	193,200	87,600	14,700	101	11,800	81	11,600	15,700
2 ⅞	73.0	0.175	4.4	2.525	64.1	5.051	7.52	1.484	958	207,800	94,300	215,200	97,600	16,600	114	13,300	92	12,700	17,200
2 ⅞	73.0	0.188	4.8	2.499	63.5	5.400	8.04	1.587	1,024	222,200	100,800	230,100	104,400	17,800	123	14,200	98	13,500	18,300
2 ⅞	73.0	0.203	5.2	2.469	62.7	5.798	8.63	1.704	1,099	238,600	108,200	247,100	112,100	19,300	133	15,000	103	14,300	19,400

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.

QT-16Cr Technical Data Sheet

As supplied, QT-16Cr may contain tube-to-tube welds and is not manufactured as Flash-Free or TRUE-TAPER™. QT-16Cr is manufactured from a nitrogen-strengthened austenitic stainless steel. The chemical requirements of QT-16Cr parent tubing will meet the chemical requirements of UNS S20400.

Mechanical Properties

Minimum Yield Strength, psi (MPa)	90,000 (621)
Minimum Tensile Strength, psi (MPa)	110,000 (758)
Minimum Elongation	35%
Maximum Hardness	38 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	25.4	0.095	2.4	0.810	20.6	0.919	1.368	0.270	174	24,310	11,030	29,710	13,480	16,200	111	10,400	71.5	480	650
1	25.4	0.109	2.8	0.782	19.9	1.038	1.545	0.305	196	27,460	12,460	33,560	15,220	18,720	129	12,000	82.6	530	720
1 ¼	31.8	0.095	2.4	1.060	26.9	1.173	1.746	0.345	222	31,020	14,070	37,920	17,200	12,960	89	8,300	57.2	800	1,080
1 ¼	31.8	0.109	2.8	1.032	26.2	1.330	1.979	0.391	252	35,160	15,950	42,980	19,500	14,980	103	9,600	66.1	890	1,210
1 ¼	31.8	0.134	3.4	0.982	24.9	1.599	2.379	0.470	303	42,280	19,180	51,680	23,440	18,580	128	11,900	82.0	1,030	1,400
1 ¼	31.8	0.156	4.0	0.938	23.8	1.824	2.715	0.536	345	48,250	21,890	58,980	26,750	21,740	149	13,900	95.9	1,130	1,530
1 ½	38.1	0.095	2.4	1.310	33.3	1.427	2.124	0.419	270	37,740	17,120	46,130	20,920	10,800	74	6,900	47.7	1,200	1,630
1 ½	38.1	0.109	2.8	1.282	32.6	1.621	2.412	0.476	307	42,870	19,450	52,400	23,770	12,480	86	8,000	55.1	1,340	1,820
1 ½	38.1	0.134	3.4	1.232	31.3	1.957	2.912	0.575	371	51,750	23,470	63,260	28,690	15,480	106	9,900	68.3	1,560	2,120
1 ½	38.1	0.156	4.0	1.188	30.2	2.241	3.336	0.659	425	59,280	26,890	72,450	32,860	18,120	124	11,600	80.0	1,740	2,360
1 ½	38.1	0.175	4.4	1.150	29.2	2.479	3.689	0.728	470	65,560	29,740	80,130	36,350	20,400	140	13,100	90.0	1,880	2,550
1 ¾	44.5	0.109	2.8	1.532	38.9	1.912	2.846	0.562	362	50,570	22,940	61,810	28,040	10,700	73	6,800	47.2	1,880	2,550
1 ¾	44.5	0.134	3.4	1.482	37.6	2.315	3.445	0.680	438	61,230	27,770	74,830	33,940	13,270	91	8,500	58.5	2,210	3,000
1 ¾	44.5	0.156	4.0	1.438	36.5	2.658	3.956	0.781	504	70,310	31,890	85,930	38,980	15,530	107	9,900	68.5	2,480	3,360
1 ¾	44.5	0.175	4.4	1.400	35.6	2.946	4.385	0.866	558	77,930	35,350	95,250	43,200	17,490	120	11,200	77.2	2,690	3,650
1 ¾	44.5	0.188	4.8	1.374	34.9	3.139	4.672	0.923	595	83,030	37,660	101,480	46,030	18,820	129	12,000	83.1	2,820	3,820
2	50.8	0.134	3.4	1.732	44.0	2.673	3.978	0.786	506	70,700	32,070	86,410	39,190	11,610	80	7,400	51.2	2,980	4,040
2	50.8	0.156	4.0	1.688	42.9	3.075	4.577	0.904	583	81,340	36,900	99,410	45,090	13,590	93	8,700	60.0	3,350	4,540
2	50.8	0.175	4.4	1.650	41.9	3.414	5.081	1.003	647	90,300	40,960	110,370	50,060	15,300	105	9,800	67.5	3,650	4,950
2	50.8	0.188	4.8	1.624	41.2	3.642	5.420	1.070	690	96,320	43,690	117,720	53,400	16,470	113	10,500	72.7	3,840	5,210
2 ⅜	60.3	0.134	3.4	2.107	53.5	3.210	4.778	0.943	608	84,910	38,510	103,770	47,070	9,780	67	6,300	43.1	4,330	5,870
2 ⅜	60.3	0.156	4.0	2.063	52.4	3.700	5.508	1.088	701	97,880	44,400	119,630	54,260	11,440	78	7,300	50.5	4,910	6,660
2 ⅜	60.3	0.175	4.4	2.025	51.4	4.116	6.126	1.210	780	108,860	49,380	133,050	60,350	12,880	88	8,200	56.9	5,370	7,280
2 ⅜	60.3	0.188	4.8	1.999	50.8	4.395	6.542	1.292	833	116,250	52,730	142,090	64,450	13,870	95	8,900	61.2	5,670	7,690
2 ⅞	73.0	0.156	4.0	2.563	65.1	4.534	6.749	1.333	859	119,930	54,400	146,580	66,490	9,450	65	6,200	42.5	7,440	10,090
2 ⅞	73.0	0.175	4.4	2.525	64.1	5.051	7.518	1.484	957	133,600	60,600	163,280	74,060	10,640	73	6,900	47.8	8,180	11,090
2 ⅞	73.0	0.188	4.8	2.499	63.5	5.400	8.037	1.587	1,023	142,830	64,790	174,570	79,180	11,460	79	7,500	51.5	8,670	11,750

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.

* Assumes 64% specified minimum yield strength