

## Product Datasheet

QT-1000

Coiled Tubing Manufactured Product

REFERENCE QT-1000	REFERENCE DESCRIPTION Coiled Tubing
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## **REVISION HISTORY**

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## **CHANGE DESCRIPTION**

Revision	Change Description
01	First issue
02	Updated Logo

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## 1 MATERIAL SPECIFICATIONS

<b>Chemistry</b>	
Carbon (C)	0.15 max
Manganese (Mn)	1.80 max
Phosphorus (P)	0.025 max
Sulfur (S)	0.005 max
Silicon (Si)	0.50 max
Chromium (Cr)	0.50 – 0.70
Copper (Cu)	0.25 max
Nickel (Ni)	0.20 max
Vanadium (V)	0.010 min
Niobium (Nb)	0.005 min
<b>Physical Properties</b>	
Minimum Yield Strength, psi (N/mm <sup>2</sup> )	100,000 (689)
Minimum Tensile Strength, psi (N/mm <sup>2</sup> )	110,000 (758)
Minimum Elongation	<p>Calculated from the formula:</p> $E = 800,000 (Aw)^{0.2} / (Lu)^{0.9} \text{ percent}$ <p>where: Aw = Pipe Metal Cross Section, (in<sup>2</sup>)  and: Lu = Specified Minimum Tensile Strength (psi).</p>
Maximum Hardness	HRC 28

## 2 DATA TABLES

The following tables provide physical data for non-True-Tapered work-strings in US and SI (Metric) units.

### 2.1 US Units

Specified Outside Diameter, D (in)	Specified Wall Thickness, t(in)	Calculated Inside Diameter, d (in)	Plain End Mass, Mpe (lb/ft)	Pipe Metal Cross Sectional Area, A (in <sup>2</sup> )	Pipe Body Yield Load, Ly (lb)	Tensile Load, Lt (lb)	Internal Yield Pressure, Pr (psi)	Hydro Test Pressure, Pt (psi)	Torsional Yield Strength, Tf (lb/ft)
1.000	0.102	0.796	0.979	0.288	28780	31650	19400	15000	570
1.000	0.109	0.782	1.038	0.305	30510	33560	20800	15000	590
1.000	0.118	0.764	1.113	0.327	32700	35970	22600	15000	620
1.000	0.125	0.750	1.169	0.344	34360	37800	24000	15000	650
1.250	0.087	1.076	1.082	0.318	31790	34970	13120	10500	830
1.250	0.095	1.060	1.173	0.345	34470	37920	14400	11500	890
1.250	0.102	1.046	1.252	0.368	36790	40470	15520	12400	940
1.250	0.109	1.032	1.330	0.391	39070	42980	16640	13300	990
1.250	0.118	1.014	1.428	0.420	41960	46160	18080	14500	1050
1.250	0.125	1.000	1.503	0.442	44180	48600	19200	15000	1090
1.250	0.134	0.982	1.599	0.470	46980	51680	20640	15000	1140
1.250	0.145	0.960	1.713	0.503	50340	55370	22400	15000	1200
1.250	0.156	0.938	1.824	0.536	53620	58980	24160	15000	1260
1.250	0.175	0.900	2.011	0.591	59100	65010	27200	15000	1350
1.500	0.095	1.310	1.427	0.419	41930	46130	12000	9600	1330
1.500	0.102	1.296	1.524	0.448	44800	49280	12930	10300	1410
1.500	0.109	1.282	1.621	0.476	47630	52400	13870	11100	1490
1.500	0.118	1.264	1.743	0.512	51230	56360	15070	12100	1580
1.500	0.125	1.250	1.837	0.540	54000	59400	16000	12800	1650
1.500	0.134	1.232	1.957	0.575	57500	63260	17200	13800	1740
1.500	0.145	1.210	2.100	0.617	61720	67900	18670	14900	1840
1.500	0.156	1.188	2.241	0.659	65870	72450	20130	15000	1930
1.500	0.175	1.150	2.479	0.728	72850	80130	22670	15000	2090
1.500	0.188	1.124	2.637	0.775	77490	85240	24400	15000	2180
1.500	0.203	1.094	2.815	0.827	82720	90990	26400	15000	2290
1.750	0.109	1.532	1.912	0.562	56190	61810	11890	9500	2090
1.750	0.118	1.514	2.059	0.605	60500	66550	12910	10300	2230
1.750	0.125	1.500	2.171	0.638	63810	70190	13710	11000	2330
1.750	0.134	1.482	2.315	0.680	68030	74830	14740	11800	2460
1.750	0.145	1.460	2.488	0.731	73110	80420	16000	12800	2610
1.750	0.156	1.438	2.658	0.781	78120	85930	17260	13800	2750
1.750	0.175	1.400	2.946	0.866	86590	95250	19430	15000	2990
1.750	0.188	1.374	3.139	0.923	92250	101480	20910	15000	3140
1.750	0.203	1.344	3.357	0.987	98660	108520	22630	15000	3300

Specified Outside Diameter, D (in)	Specified Wall Thickness, t(in)	Calculated Inside Diameter, d (in)	Plain End Mass, Mpe (lb/ft)	Pipe Metal Cross Sectional Area, A (in <sup>2</sup> )	Pipe Body Yield Load, Ly (lb)	Tensile Load, Lt (lb)	Internal Yield Pressure, Pr (psi)	Hydro Test Pressure, Pt (psi)	Torsional Yield Strength, Tf (lb/ft)
2.000	0.125	1.750	2.505	0.736	73630	80990	12000	9600	3130
2.000	0.134	1.732	2.673	0.786	78550	86410	12900	10300	3310
2.000	0.145	1.710	2.875	0.845	84500	92950	14000	11200	3520
2.000	0.156	1.688	3.075	0.904	90370	99410	15100	12100	3720
2.000	0.175	1.650	3.414	1.003	100330	110370	17000	13600	4060
2.000	0.188	1.624	3.642	1.070	107020	117720	18300	14600	4270
2.000	0.203	1.594	3.900	1.146	114600	126060	19800	15000	4510
2.375	0.134	2.107	3.210	0.943	94340	103770	10860	8700	4820
2.375	0.145	2.085	3.457	1.016	101580	111740	11790	9400	5140
2.375	0.156	2.063	3.700	1.088	108750	119630	12720	10200	5450
2.375	0.175	2.025	4.116	1.210	120950	133050	14320	11500	5970
2.375	0.188	1.999	4.395	1.292	129170	142090	15410	12300	6300
2.375	0.203	1.969	4.713	1.385	138520	152370	16670	13300	6680
2.625	0.156	2.313	4.117	1.210	121000	133100	11500	9200	6790
2.625	0.175	2.275	4.583	1.347	134700	148170	12950	10400	7450
2.625	0.188	2.249	4.898	1.439	143930	158330	13940	11200	7880
2.625	0.203	2.219	5.256	1.545	154460	169910	15090	12100	8360
2.875	0.145	2.585	4.232	1.244	124360	136800	9740	7800	7780
2.875	0.156	2.563	4.534	1.333	133260	146580	10500	8400	8270
2.875	0.175	2.525	5.051	1.484	148440	163280	11830	9500	9090
2.875	0.188	2.499	5.400	1.587	158700	174570	12730	10200	9630
2.875	0.203	2.469	5.798	1.704	170410	187450	13770	11000	10240
3.250	0.156	2.938	5.160	1.516	151630	166800	9290	7400	10770
3.250	0.175	2.900	5.753	1.691	169060	185960	10460	8400	11870
3.250	0.188	2.874	6.154	1.808	180850	198930	11260	9000	12600
3.250	0.203	2.844	6.612	1.943	194320	213750	12180	9700	13410
3.500	0.156	3.188	5.577	1.639	163890	180270	8630	6900	12620
3.500	0.175	3.150	6.220	1.828	182800	201080	9710	7800	13930
3.500	0.188	3.124	6.656	1.956	195610	215170	10460	8400	14800
3.500	0.203	3.094	7.155	2.103	210260	231290	11310	9000	15770

Note:

1. Minimum wall thickness is 0.005" less than specified wall thickness
2. Pressures calculated based on (t – 0.005) in.
3. Maximum hydrostatic test pressure is 15000 psi
4. True-Tapered® Designs Available

## 2.2 SI Units

Specified Outside Diameter, D (mm)	Specified Wall Thickness, t(mm)	Calculated Inside Diameter, d (mm)	Plain End Mass, Mpe (kg/m)	Pipe Metal Cross Sectional Area, A (mm <sup>2</sup> )	Pipe Body Yield Load, Ly (kg)	Tensile Load, Lt (kg)	Internal Yield Pressure, Pr (MPa)	Hydro Test Pressure, Pt (MPa)	Torsional Yield Strength, Tf (N-m)
25.4	2.6	20.2	1.457	185.6	13050	14360	133.8	103.4	770
25.4	2.8	19.9	1.545	196.8	13840	15220	143.4	103.4	800
25.4	3.0	19.4	1.656	210.9	14830	16320	155.8	103.4	840
25.4	3.2	19.1	1.740	221.7	15590	17150	165.5	103.4	880
31.8	2.2	27.3	1.610	205.1	14420	15860	90.5	72.4	1130
31.8	2.4	26.9	1.746	222.4	15640	17200	99.3	79.3	1210
31.8	2.6	26.6	1.863	237.3	16690	18360	107.0	85.5	1270
31.8	2.8	26.2	1.979	252.1	17720	19500	114.7	91.7	1340
31.8	3.0	25.8	2.125	270.7	19030	20940	124.7	100.0	1420
31.8	3.2	25.4	2.237	285.0	20040	22040	132.4	103.4	1480
31.8	3.4	24.9	2.379	303.1	21310	23440	142.3	103.4	1550
31.8	3.7	24.4	2.549	324.7	22830	25120	154.4	103.4	1630
31.8	4.0	23.8	2.715	345.9	24320	26750	166.6	103.4	1710
31.8	4.4	22.9	2.993	381.3	26810	29490	187.5	103.4	1830
38.1	2.4	33.3	2.124	270.5	19020	20920	82.7	66.2	1800
38.1	2.6	32.9	2.269	289.0	20320	22350	89.1	71.0	1910
38.1	2.8	32.6	2.412	307.3	21600	23770	95.6	76.5	2020
38.1	3.0	32.1	2.595	330.5	23240	25560	103.9	83.4	2140
38.1	3.2	31.8	2.735	348.4	24490	26940	110.3	88.3	2240
38.1	3.4	31.3	2.912	371.0	26080	28690	118.6	95.1	2360
38.1	3.7	30.7	3.126	398.2	28000	30800	128.7	102.7	2490
38.1	4.0	30.2	3.336	425.0	29880	32860	138.8	103.4	2620
38.1	4.4	29.2	3.689	470.0	33040	36350	156.3	103.4	2830
38.1	4.8	28.5	3.924	499.9	35150	38660	168.2	103.4	2960
38.1	5.2	27.8	4.189	533.6	37520	41270	182.0	103.4	3100
44.5	2.8	38.9	2.846	362.5	25490	28040	82.0	65.5	2830
44.5	3.0	38.5	3.064	390.3	27440	30190	89.0	71.0	3020
44.5	3.2	38.1	3.232	411.7	28940	31840	94.5	75.8	3160
44.5	3.4	37.6	3.445	438.9	30860	33940	101.6	81.4	3340
44.5	3.7	37.1	3.703	471.7	33160	36480	110.3	88.3	3540
44.5	4.0	36.5	3.956	504.0	35430	38980	119.0	95.1	3730
44.5	4.4	35.6	4.385	558.6	39280	43200	134.0	103.4	4050
44.5	4.8	34.9	4.672	595.2	41840	46030	144.2	103.4	4260
44.5	5.2	34.1	4.997	636.5	44750	49220	156.0	103.4	4470
50.8	3.2	44.5	3.729	475.0	33400	36740	82.7	66.2	4240
50.8	3.4	44.0	3.978	506.8	35630	39190	88.9	71.0	4490
50.8	3.7	43.4	4.280	545.2	38330	42160	96.5	77.2	4770
50.8	4.0	42.9	4.577	583.0	40990	45090	104.1	83.4	5040
50.8	4.4	41.9	5.081	647.3	45510	50060	117.2	93.8	5500
50.8	4.8	41.2	5.420	690.5	48540	53400	126.2	100.7	5790
50.8	5.2	40.5	5.804	739.4	51980	57180	136.5	103.4	6110

Specified Outside Diameter, D (mm)	Specified Wall Thickness, t(mm)	Calculated Inside Diameter, d (mm)	Plain End Mass, Mpe (kg/m)	Pipe Metal Cross Sectional Area, A (mm <sup>2</sup> )	Pipe Body Yield Load, Ly (kg)	Tensile Load, Lt (kg)	Internal Yield Pressure, Pr (MPa)	Hydro Test Pressure, Pt (MPa)	Torsional Yield Strength, Tf (N-m)
60.3	3.4	53.5	4.778	608.6	42790	47070	74.9	60.0	6540
60.3	3.7	53.0	5.145	655.4	46080	50680	81.3	64.8	6970
60.3	4.0	52.4	5.508	701.6	49330	54260	87.7	70.3	7390
60.3	4.4	51.4	6.126	780.3	54860	60350	98.7	79.3	8090
60.3	4.8	50.8	6.542	833.3	58590	64450	106.2	84.8	8540
60.3	5.2	50.0	7.015	893.7	62830	69110	114.9	91.7	9060
66.7	4.0	58.8	6.128	780.7	54880	60370	79.3	63.4	9210
66.7	4.4	57.8	6.822	869.0	61100	67210	89.3	71.7	10100
66.7	4.8	57.1	7.290	928.6	65290	71820	96.1	77.2	10680
66.7	5.2	56.4	7.823	996.5	70060	77070	104.0	83.4	11330
73.0	3.7	65.7	6.298	802.3	56410	62050	67.2	53.8	10550
73.0	4.0	65.1	6.749	859.7	60450	66490	72.4	57.9	11210
73.0	4.4	64.1	7.518	957.7	67330	74060	81.6	65.5	12320
73.0	4.8	63.5	8.037	1023.9	71990	79180	87.8	70.3	13060
73.0	5.2	62.7	8.630	1099.4	77300	85030	94.9	75.8	13880
82.6	4.0	74.6	7.679	978.3	68780	75660	64.1	51.0	14600
82.6	4.4	73.7	8.562	1090.7	76680	84350	72.1	57.9	16090
82.6	4.8	73.0	9.159	1166.8	82030	90230	77.6	62.1	17080
82.6	5.2	72.2	9.841	1253.7	88140	96960	84.0	66.9	18180
88.9	4.0	81.0	8.300	1057.3	74340	81770	59.5	47.6	17110
88.9	4.4	80.0	9.258	1179.4	82920	91210	66.9	53.8	18890
88.9	4.8	79.3	9.907	1262.0	88730	97600	72.1	57.9	20070
88.9	5.2	78.6	10.649	1356.5	95370	104910	78.0	62.1	21380

**Note:**

1. Minimum wall thickness is 0.13 mm less than specified wall thickness
2. Pressures calculated based on (t – 0.13) mm
3. Maximum hydrostatic test pressure is 103.4 MPa
4. True-Tapered® Designs Available

For data table footnotes and other engineering information, please consult the [Engineering Data](#) document.