

COILED TUBING/JET CUTTER APPLICATIONS DATA

Dimensions (Inches)

TUBING CUTTER O.D.	COILED TUBING DATA*					CUTTER DATA		
	O.D. Specified	Nominal Weight Lbs./Ft.	Wall Specified	I.D. Calculated	I.D. To Spline**	Centralizer O.D.	Clearance Centralized	Clearance To Spline
1.375	2.000	2.207	0.109	1.782	1.692	1.80	0.204	
	2.000	2.340	0.116	1.768	1.678		0.097	
	2.000	2.509	0.125	1.750	1.660		0.188	
	2.000	2.677	0.134	1.732	1.642		0.179	
	2.000	2.880	0.145	1.710	1.620		0.168	
	2.000	3.080	0.156	1.688	1.598		0.157	
	2.000	3.419	0.175	1.650	1.560		0.138	
	2.000	3.682	0.190	1.620	1.530		0.123	
	2.000	3.923	0.204	1.592	1.502		0.109	
1.188	1.750	1.915	0.109	1.532	1.442	1.53	0.172	0.067
	1.750	2.029	0.116	1.518	1.428		0.165	0.053
	1.750	2.175	0.125	1.500	1.410		0.156	
	1.750	2.318	0.134	1.482	1.392		0.149	
	1.750	2.492	0.145	1.460	1.370		0.136	
	1.750	2.662	0.156	1.438	1.348		0.125	
	1.750	2.951	0.175	1.400	1.310		0.106	
	1.750	3.173	0.190	1.370	1.280		0.091	
	1.750	3.377	0.204	1.342	1.252			0.064
1.000	1.500	1.429	0.095	1.310	1.220	1.30	0.155	
	1.500	1.527	0.102	1.296	1.206		0.148	
	1.500	1.623	0.109	1.282	1.192		0.141	
	1.500	1.719	0.116	1.268	1.178		0.134	
	1.500	1.840	0.125	1.250	1.160		0.125	
	1.500	1.960	0.134	1.232	1.142		0.116	
	1.500	2.104	0.145	1.210	1.120		0.105	
	1.500	2.245	0.156	1.188	1.098		0.044	
	1.500	2.483	0.175	1.150	1.060			0.060
	1.500	2.665	0.190	1.120	1.030			0.030
0.875	1.250	1.002	0.080	1.090	1.000	1.10	0.108	
	1.250	1.083	0.087	1.076	0.986		0.101	
	1.250	1.175	0.095	1.060	0.970		0.093	
	1.250	1.254	0.102	1.046	0.956			0.081
	1.250	1.332	0.109	1.032	0.942			0.067
	1.250	1.408	0.116	1.018	0.928			0.053
	1.250	1.506	0.125	1.000	0.910			0.035
0.780	1.250	1.601	0.134	0.982	0.892	1.00	0.101	
	1.250	1.715	0.145	0.960	0.870		0.090	
	1.250	1.827	0.156	0.938	0.848			0.068
	1.250	2.014	0.175	0.900	0.810			0.030
0.687	1.000	0.788	0.080	0.840	0.750	0.84		0.063
	1.000	0.850	0.087	0.826	0.736			0.049
	1.000	0.920	0.095	0.810	0.720			0.033
	1.000	0.981	0.102	0.796	0.706			0.019
	1.000	1.040	0.109	0.782	0.692			0.005

* Data extracted from *Precision Tube Technology Coiled Tubing Technical Handbook (For New Tubing)*.

** Based on Spline (Flash) of 0.090".

DETERMINATION OF JET CUTTER SIZE FOR COILED TUBING APPLICATIONS (See COILED TUBING/JET CUTTER APPLICATIONS Chart)

A) NON-TAPERED COILED TUBING STRINGS

- STEP 1.0 Identify Coiled Tubing O. D. (e.g. 1.5" OD).
 2.0 Locate "Wall Specified", or "I.D. Calculated" or "Nominal Weight" on CHART opposite (e.g. 0.116/1.268/1.719 lbs/ft).
 3.0 Read Coiled Tubing Cutter O.D. to be deployed in Column 1 (e.g. 1.000").

B) TAPERED COILED TUBING STRINGS

- STEP 1.0 Determine "O.D. Specified" for the string (e.g. 1.5" O.D.).
 2.0 For the greater wall thickness **upper string**, determine "Wall Specified" or "I.D. Calculated" or "Nominal Weight" from CHART opposite (e.g. 0.190"/1.120"/2.662 lbs/ft).
 3.0 Read Coiled Tubing Cutter O.D. size (to deploy) in Column 1 (e.g. 1.000").
 4.0 For associated dimensional data refer to respective columns on the Chart.

Note:

- A Jet Cutter should not be operated in a string where the Clearance to Spline (Flash) is less than 0.030".
- When drift bars are run to verify Cutter descent, the drift bar should be:
 - a) Diameter = (I.D. to Spline – 0.032")
 - b) Length = 3.0"
- Titan Coiled Tubing Cutters are rated for 18,000 PSI (124.11 mPa) service at 400° F (204° C) for one hour of downhole exposure.

