

COILED TUBING for Oil and Gas



Indiana Tube Corporation (ITC) tubing is manufactured to meet industry standards and demanding customer applications. We have strategically positioned our company to support short lead-time requirements for products ranging from 0.625" (15.88 mm) to 1.5" (38.1 mm) with wall thicknesses of .065" (1.65mm) to 0.109" (2.77 mm). Standard products ship in 3 to 4 weeks.

APPLICATIONS

- Clean-out
- Work/Intervention
- Completion
- Velocity Strings
- Water Lift – Pumping
- Injection
- Cementing

Our proprietary process capability provides unique advantages over our competition. We maintain weld flash control to a fraction of existing available product. The feature minimizes mineral and debris buildup and maximizes internal clearance.

Coiled Tubing Requirements Product Specifications – ASTM A-606 Type 4

CHEMICAL PROPERTIES

Material Grade	MAX -OR- RANGE								MIN			MAX
	C Carbon	Mn Manganese	S Sulfur	P Phosphorus	Si Silicon	Cr Chromium	Cu Copper	Ni Nickel	Yield ksi (MPa)	Tensile ksi (MPa)	Elongation	Rockwell Hardness
ITC-70	0.10-0.15	0.60-1.20	0.005	0.03	0.30-0.50	0.5-1.0	0.4	0.25	70 (483)	80 (552)	20%	HRC22
ITC-80	0.10-0.15	0.60-1.20	0.005	0.03	0.30-0.50	0.5-1.0	0.4	0.25	80 (552)	90 (620)	20%	HRC22

MECHANICAL PROPERTIES

OUTSIDE DIAMETER		WALL THICKNESS		INSIDE DIAMETER		NOMINAL WEIGHT (lbs / ft)		INTERNAL PRESSURE (psi)	
Inches	mm	Inches	mm	Inches	mm	lbs / ft	kg / m	Yield Pressure	Test Pressure (80%)
0.625	15.88	0.065	1.65	0.495	12.57	0.3915	0.5827	13,400	10,700
		0.087	2.21	0.451	11.46	0.5036	0.7495	18,200	14,500
		0.095	2.41	0.435	11.05	0.5418	0.8063	20,000	16,000
0.750	19.05	0.065	1.65	0.620	15.75	0.4783	0.7118	11,200	9,000
		0.087	2.21	0.576	14.63	0.6198	0.9223	15,200	12,100
		0.095	2.41	0.560	14.22	0.6686	0.995	16,600	13,300
		0.109	2.77	0.532	13.51	0.7509	1.117	19,200	15,300
1.000	25.40	0.087	2.21	0.826	20.98	0.8521	1.268	11,400	9,100
		0.095	2.41	0.810	20.57	0.9223	1.373	12,500	10,000
		0.109	2.77	0.782	19.86	1.042	1.551	14,400	11,500
1.250	31.75	0.095	2.41	1.060	26.92	1.176	1.750	10,000	8,000
		0.109	2.77	1.032	26.21	1.333	1.984	11,500	9,200
1.500	38.10	0.095	2.41	1.310	33.27	1.425	2.121	8,400	6,700
		0.109	2.77	1.282	32.56	1.619	2.409	9,700	7,800

Coiled Tubing Requirements

GENERAL TOLERANCES

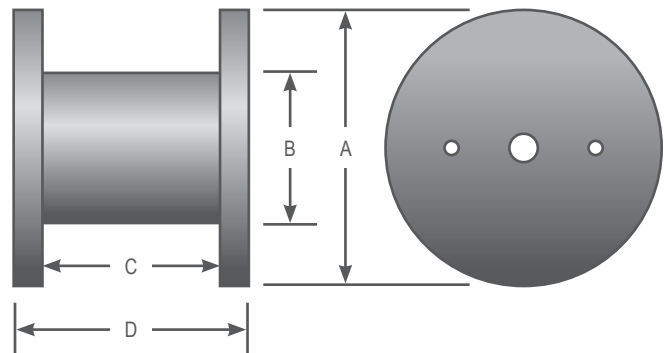
TOLERANCES	SPECIFICATION
Wall Tolerance	+/- 0.005" (0.13 mm)
OD Tolerance	+/- 0.005" (0.13 mm)
Weld Flash Height	0.030" (0.76 mm) target
Coil Weight	20,000 lb max target

ADDITIONAL INFORMATION

GENERAL	ASSEMBLY / TEST / INSPECTION
Bias Weld of Strip	Bias welding is used to join strip for continuous strings to support the application length requirements.
Digital Radiography	Digital Radiography is used to inspect bias welding to ensure a reliable joining of individual raw material strips.
Eddy Current Inspection	Eddy current inspection is utilized to identify possible material or manufacturing flaws.
Weld Flash Control	We emphasize weld flash control to reduce internal friction, maximize clearance and minimize or eliminate mineral and debris buildup during normal field use.
Heat Treatment	Full body anneal (stress relief) is performed to achieve the desired product performance characteristics.
Internal Test Pressure	All tube, unless documented otherwise, will be pressure tested at 80% of rated yield pressure.
Tube-to-Tube Welding	ITC has the ability to perform orbital, tube-to-tube butt welds to meet specific customer requirements.
Shipping Spool	The minimum recommended spooling radius ratio for shipping reel core diameter to coiled tubing diameter is 40:1.

LENGTH & WEIGHT

OD	WALL	MAX LENGTH (ft)	MAX LENGTH (m)	ft / lb	TOTAL TUBE WEIGHT (lbs)
0.625	0.065	51,086	15,571	2.554	20,000
	0.087	39,714	12,104	1.986	20,000
	0.095	36,914	11,251	1.846	20,000
0.75	0.065	41,815	12,745	2.091	20,000
	0.087	32,268	9,835	1.613	20,000
	0.095	29,913	9,117	1.496	20,000
	0.109	26,635	8,118	1.332	20,000
1.00	0.087	23,471	7,153	1.174	20,000
	0.095	21,685	6,609	1.084	20,000
	0.109	19,194	5,850	0.960	20,000
1.25	0.095	17,000	5,181	0.850	20,000
	0.109	15,000	4,572	0.750	20,000
1.50	0.095	14,029	4,276	0.701	20,000
	0.109	12,350	3,764	0.617	20,000



STANDARD WOOD SPOOLS

DIMENSIONS *				
Diameter (A)	66"	84"	96"	108"
Hub	4"	4"	4"	4"
Core (B)	40"	60"	60"	60"
Inside Width (C)	50"	50"	60"	60"
Outside Width (D)	56"	56"	69"	69"
Spool Weight lbs.	1,200	1,400	2,200	2,600

* Additional spool sizes available upon special request.