

## Capillary Tubes Incoloy 825 UNS N08825

Designation		Wall Thickness		Mass per Unit Length	Calculated Inside Diameter	Tubing Area (Sq.in)		Tube Load Body		Internal Pressure (psi)		Collapse Strength	Internal Capacity per 1000ft		Torsional Yield	
		Specified	Min			W/min.	Internal min.	Yield min	Tensile min	Hydro Test 90%	Internal Yield min.					
		OD	WT	inch	inch	lb/ft	inch	inch <sup>2</sup>	inch <sup>2</sup>	lb	lb	psig	psig	psig	gal	bar
1/8	0.125	0.028	0.028	0.025	0.04	0.069	0.008	0.009	0.004	40,000	70,000	300	600	13,100	14,500	12,800
	0.125	0.035	0.035	0.032	0.04	0.055	0.009	0.010	0.003	40,000	70,000	400	700	15,600	17,300	15,100
1/4	0.250	0.035	0.035	0.032	0.09	0.180	0.022	0.024	0.027	40,000	70,000	900	1,700	8,700	9,700	8,800
	0.250	0.049	0.049	0.044	0.11	0.152	0.029	0.031	0.021	40,000	70,000	1,200	2,200	11,800	13,100	11,700
	0.250	0.065	0.065	0.059	0.14	0.120	0.035	0.038	0.014	40,000	70,000	1,500	2,600	14,700	16,300	14,300
3/8	0.375	0.035	0.035	0.032	0.14	0.305	0.034	0.037	0.076	40,000	70,000	1,500	2,600	5,900	6,600	6,200
	0.375	0.049	0.049	0.044	0.18	0.277	0.046	0.050	0.065	40,000	70,000	2,000	3,500	8,200	9,100	8,300
	0.375	0.065	0.065	0.059	0.23	0.245	0.058	0.063	0.052	40,000	70,000	2,500	4,400	10,500	11,700	10,500
	0.375	0.080	0.080	0.072	0.27	0.215	0.069	0.074	0.042	40,000	70,000	3,000	5,200	12,600	14,000	12,400
1/2	0.500	0.049	0.049	0.044	0.25	0.402	0.063	0.069	0.133	40,000	70,000	2,800	4,900	6,300	7,000	6,500
	0.500	0.065	0.065	0.059	0.32	0.370	0.081	0.089	0.115	40,000	70,000	3,600	6,200	8,100	9,000	8,300
	0.500	0.080	0.080	0.072	0.38	0.340	0.097	0.106	0.100	40,000	70,000	4,200	7,400	9,800	10,900	9,900
5/8	0.625	0.049	0.049	0.044	0.32	0.527	0.080	0.089	0.226	40,000	70,000	3,500	6,200	5,000	5,600	5,300
	0.625	0.065	0.065	0.059	0.41	0.495	0.104	0.114	0.203	40,000	70,000	4,600	8,000	6,600	7,300	6,800

### Chemistry Composition

C,% 0.05 max Mn,% 1.00 max S,% 0.030 max Si,% 0.50 max Cu,% 1.50-3.00  
 Cr,% 19.5-23.5 Ni,% 38.0-46.0 Mo,% 2.50-3.50 Fe,% 22.0 min Al,% 0.20 max  
 Ti,% 0.60-1.20

### Mechanical Properties

Tensile Strength: 70,000psi (483MPa) min  
 Yield Strength: 40,000psi (276MPa) min

Tensile strength & yield strength minimum are calculated on specified wall.  
 Other dimensions are available on request.