



TECHNICAL DATA OF STRUCTURAL TUBING IN ROUND & SHAPES CONFORMING TO ASTM A500/A500M

SCOPE : ERW Carbon Steel Tubes in Round, Square and Rectangular shapes.

SIZE RANGE : CHS: Size 21.3-219.1 mm & Thickness 2.00-8.20 mm, SHS: Size 16X16-200X200 mm; RHS: Size 30X15-200X100 mm & Thickness 1.00-8.50 mm

TOLERANCES :

Round Tubes - Tolerances on dimensions	Shaped Tubes - Tolerances on dimensions
<p><u>Characteristics / Tolerances</u></p> <p>External Dimensions (D) : ±0.50% for 48.3mm & smaller, and ±0.75% for 50.0mm and above</p> <p>Wall Thickness (T) : ±10% of the specified wall thickness</p> <p>Straightness (e) : 2.0 mm times of total length</p>	<p><u>Characteristics / Tolerances</u></p> <p>External Dimensions (B/H) : ±0.50mm for 65mm or under, ±0.60mm for 65 - 90mm including, ±0.80mm for 90 - 140mm including and ±1% for over 140mm</p> <p>Wall Thickness (T) : ±10% of the specified wall thickness</p> <p>Concavity/convexity (x1/x2) : Included in the Flat Dimension Tolerances</p> <p>Squareness of side (θ) : 90° ± 2°</p>
<p>Flattening Test :</p> <p>a) Flatten upto 2/3 of O.D. for weld ductility;</p> <p>b) Flatten upto 1/2 of O.D. for Parent Metal and</p> <p>c) Full flattening for lamination</p>	<p>Radius of corners (R) : Shall not exceed more than 3 times of Specified Wall Thickness</p> <p>Twist (v)/Mtr. : 1.3mm for 40mm or under, 1.6mm for 40 - 65 mm, 1.8mm for 65 - 100mm, 2.2mm for 100 - 150mm and 2.5mm for 150 - 200mm</p> <p>Straightness (e) : 2.0 mm times of total length</p>

Grade	CHEMICAL COMPOSITION (%)					MECHANICAL PROPERTIES-ROUND			MECHANICAL PROPERTIES-SHAPE			
	C Max.	Mn Max.	P Max.	S Max.	Cu Min.	YS (MPa) Min.	UTS (MPa) Min.	%El Min	YS (MPa) Min.	UTS (MPa) Min.	%El	Min
A (Heat)	0.260	1.350	0.035	0.035	0.200	230	310	25	270	310	25	
A (Product)	0.300	1.400	0.045	0.045	0.180							
B (Heat)	0.260	1.350	0.035	0.035	0.200	290	400	23	315	400	23	
B (Product)	0.300	1.400	0.045	0.045	0.180							
C (Heat)	0.230	1.350	0.035	0.035	0.200	315	425	21	345	425	21	
C (Product)	0.270	1.400	0.045	0.045	0.180							

WORKMANSHIP : All Tubings are finished with Bare, Black Lacquer Coated or Galvanizing

MARKING : Each Pipe shall be stancilled as per ASTM A500 / Client Requirement
 "TIGER/MADE IN UAE ASTM A500 GRADE A/B/C / SIZE-----/LENGTH-----"

Value Addition: We are limiting the out-of-roundness for CHS section upto 0.50%D. For SHS/RHS section, side tolerances ±0.5%, Concavity/convexity 0.50mm max, External Corner Profile 2.5T average, Twist 2mm/6mtr max and Straightness 1 mm per meter