



TECHNICAL DATA OF HOT FORMED STRUCTURAL TUBING CONFORMING TO ASTM A501/A501M

SCOPE : Black and Hot-dipped Galvanized Hot Processed Welded Carbon Steel 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

Characteristics / Tolerances

External Dimensions (D) : -0.79mm/+0.40mm for NPS 1-1/2 & smaller, and ±1% for NPS 2 and above

Weight (Kg/Mtr) : 3.5% under Theoretical Weight Maximum

Straightness (e) : 2.0 mm times of total length

Charpy V-Notch Impact Test:

Charpy V-notch impact test applies to Grade B only and wall thickness greater than 0.312 in. (8 mm). Average value of 20 ft-lb (27 J) at 0 °F (-18 °C).

Shaped Tubes - Tolerances on Dimensions

Characteristics / Tolerances

External Dimensions (B/H) : ±0.51mm for 63.5mm or under, ±0.64mm for 63.5 - 88.9mm including, ±0.76mm for 88.9 - 139.7mm including and ±1% for over 139.7mm

Weight (Kg/Mtr) : 3.5% under Theoretical Weight Maximum

Concavity/convexity (x1/x2) : Included in the Flat Dimension Tolerances

Squareness of side (θ) : 90° ± 2°

Radius of corners (R) : Shall not exceed more than 3 times of Nominal Wall Thickness

Twist (v)/Mtr.: 1.39mm for 38.1mm or under, 1.72mm for 38.1 - 63.5mm, 2.09mm for 63.5 - 101.6mm, 2.42mm for 101.6 - 152.4mm and 2.78mm for 152.4 - 203.2mm

Straightness (e) : 2.0 mm times of total length

GRADE	CHEMICAL COMPOSITION (%)					MECHANICAL PROPERTIES			
	C Max.	Mn Max.	P Max.	S Max.	Cu Min.	YS (MPa) Min.	UTS (MPa) Min.	%El Min	IMPACT (J) (at -18 °C) Min
A (Heat)	0.260	1.350	0.035	0.035	0.200	250	400	23	--
A (Product)	0.300	1.400	0.045	0.045	0.180				--
B (Heat)	0.260	1.350	0.035	0.035	0.200	345	483	23	20
B (Product)	0.300	1.400	0.045	0.045	0.180				20

WORKMANSHIP : All Tubings are finished with Bare, Black Lacquer Coated or Galvanizing
MARKING : Each Pipe shall be stencilled as per ASTM A501 / Client Requirement
 "TIGER/MADE IN UAE ASTM A501 GRADE A/B SIZE-----/LENGTH-----"

Value Addition: We are limiting the out-of-roundness for CHS sections 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