

SPECIFICATIONS

COLD-FORMED ERW ROUND, SQUARES AND RECTANGULAR STRUCTURAL STEEL TUBING IN GRADES B AND C.

All Searing Industries structural tubing is produced in accordance with the mechanical and chemical property requirements of ASTM A500, Grades B & C.

CHEMICAL COMPOSITION	GRADE B	GRADE C
Carbon, max %	0.26	0.23
Manganese, max %	—	1.35
Phosphorus, max %	0.04	0.04
Sulphur, max %	0.05	0.05
Copper, when copper steel is specified, min %	0.20	0.20

MECHANICAL PROPERTIES - SHAPES	GRADE B	GRADE C
Tensile Strength, min %	58,000	62,000
Yield Strength, min %	46,000	50,000
Elongation in 2" min	23%	21%

MECHANICAL PROPERTIES - ROUNDS	GRADE B	GRADE C
Tensile Strength, min %	58,000	62,000
Yield Strength, min %	42,000	46,000
Elongation in 2" min	23%	21% *

OUTSIDE DIMENSION TOLERANCES FOR SQUARE & RECTANGLE STRUCTURAL TUBING	
LARGEST OUTSIDE DIMENSION (IN)	PLUS/MINUS*
2-1/2" and under	0.02
2-1/2" to 3-1/2"	0.025
3-1/2" to 5-1/2"	0.03
5-1/2" and over	1%

NOTES:

Straightness - The permissible variation for straightness of structural tubing shall be 1/8 in. times the number of feet of total length divided by 5.

Radius of Corners - The radius of any outside corner shall not exceed 3.0 times the specified wall thickness.

Wall Thickness - ±10% of nominal wall thickness, as measured at the center of the flat.

PERMISSIBLE VARIATIONS IN TWIST FOR SQUARE & RECTANGULAR STRUCTURAL TUBING	
SPECIFIED OUTSIDE LARGE FLAT DIMENSION	MAXIMUM TWIST IN 3 FEET
Over 1-1/2" to 2-1/2"	0.062"
Over 2-1/2" to 4"	0.075"
Over 4" to 6"	0.087"
Over 6" to 8"	0.100"
Over 8"	0.112"

