

Product Category: Structural Metal Stud Framing: Specification Section 05 40 00

Available Coatings: G60 (standard); or G90

Yield Strength: 33 ksi

Product Name: 3-1/2TR20

AISI Nomenclature: 350T125-33

Product Description: 3-1/2 inch 20 gauge track member with 1-1/4 inch flanges

Material and Shape Property Notes:

Thickness: Design: 0.0346" • Minimum: 0.0329" • Designation: 33 mil • Equivalent Gauge: 20
Flange width: 1-1/4" • Web Depth: 3-1/2"

SECTION PROPERTIES

Gross Section Properties:

Cross Section Area (**A**): 0.209 in²

Member Weight: 0.712 pounds per foot

Moment of Inertia, strong axis (**I_x**): 0.417 in⁴

Radius of Gyration, strong axis (**R_x**): 1.412 in.

Moment of Inertia, weak axis (**I_y**): 0.030 in⁴

Radius of Gyration, weak axis (**R_y**): 0.378 in.

Effective Section Properties:^[1]

Effective Section Modulus (**S_{x eff}**): 0.184 in³

Allowable Bending Moment (**M_a**): 3.312 inch-kips

Gross Allowable Shear (**V_a**): 0.990 kips

Torsional Properties:

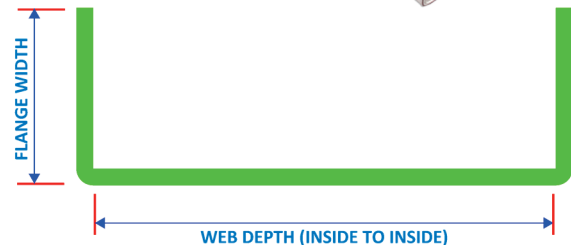
St. Venant Torsional Constant (**J** x 1000): 0.084 in⁴

Warping Constant (**C_w**): 0.072 in⁶

Polar Radius of Gyration (**R_o**): 1.609 in

Distance from shear center (**X_o**): -0.672 in

Beta (**β**): 0.826 Flat web to thickness ratio (**h/t**): 100.962



CODES & STANDARDS

Super Stud products comply with the applicable provisions of the following:

International Building Code (IBC) 2006 - 2015

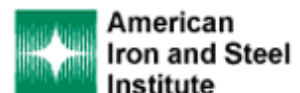
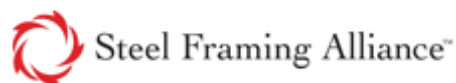
Sheet Steel: ASTM A1003 & ASTM A653

Galvanized Coating: ASTM A653

Members & Tolerances: ASTM C955

Meets ASTM C1007 when installed properly in structure

3rd Party Certification: Manufacturing verified & inspected
by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100).

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