

Product Category: Structural Metal Stud Framing: Specification Section 05 40 00
Available Coatings: G60 (standard); or G90
Product Name: 4DT18
Product Description: 4 inch 18 gauge track member with 2-1/2 inch flanges
Yield Strength: 33 ksi
AISI Nomenclature: 400T250-43

Material and Shape Property Notes:

Thickness: Design: 0.0451" • Minimum: 0.0428" • Designation: 43 mil • Gauge: 18
Flange width: 2-1/2" • Web Depth: 4"

SECTION PROPERTIES

Gross Section Properties:

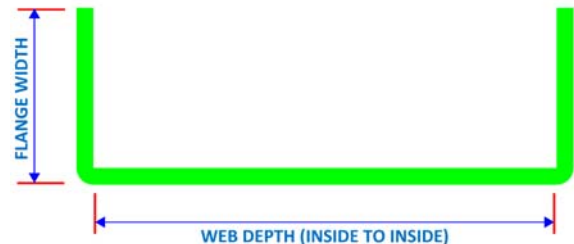
Cross Section Area (**A**): 0.40548 in²
Member Weight: 1.379 pounds per foot
Moment of Inertia, strong axis (**I_x**): 1.1932 in⁴
Radius of Gyration, strong axis (**R_x**): 1.715 in.
Moment of Inertia, weak axis (**I_y**): 0.2682 in⁴
Radius of Gyration, weak axis (**R_y**): 0.8133 in.

Effective Section Properties:^[1]

Effective Section Modulus (**S_{x eff}**): 0.3243 in³
Allowable Bending Moment (**M_a**): 6.409 inch-kips
Gross Allowable Shear (**V_a**): 1.739 kips

Torsional Properties:

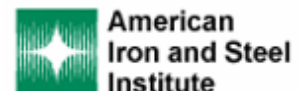
St. Venant Torsional Constant (**J** x 1000): 0.2749 in⁴
Warping Constant (**C_w**): 0.7829 in⁶
Polar Radius of Gyration (**R_o**): 2.5247 in
Distance from shear center (**X_o**): -1.6643 in
Beta (**β**): 0.5654



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).

The Super Stud Building Products Family of Companies