



Super Stud Building Products - Product Submittal

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Specification Section: 05.40.00 (Cold-Formed Metal Framing) 1400S200-54 (50ksi) Standard Punch

54mil (16 ga) Coating: G60 (standard), G90 (special order)

Geometric Properties

Web Depth	14 in	Yield Strength, F_y	50 ksi
Flange Width	2 in	Ultimate, F_u	65 ksi
Lip Length	0.625 in	Punchout Width	1.5 in
Design Thickness	0.0566 in	Punchout Length	4.0 in
Min. Steel Thickness	0.0538 in		

Gross Section Properties

Cross Sectional Area (A)	1.0657 in ²
Product Weight per Linear Foot	3.6234 lb/ft
Moment of Inertia (I_x)	25.9523 in ⁴
Section Modulus (S_x)	3.7075 in ³
Radius of Gyration (r_x)	4.9347 in
Weak Axis Moment of Inertia (I_y)	0.4064 in ⁴
Weak Axis Radius of Gyration (r_y)	0.6175 in
Depth-to-Thickness Ratio (h/t)	242

NOTE: $h/t > 200$. Bearing stiffeners may be required at supports and concentrated loads.

Effective Section Properties, Strong Axis

Effective Area (A_e)	0.3381 in ²
Moment of Inertia for Deflection (I_{xe})	20.3177 in ⁴
Section Modulus (S_{xe})	2.4046 in ³
Allowable Bending Moment (M_a)	60.1154 in-k
Allowable Shear Force in Web (at Punchout) (V_y)	941 lb

Torsional Properties

St. Venant Torsion Constant ($J \times 1000$)	1.1380 in ⁴
Warping Constant (C_w)	15.7521 in ⁶
Distance from Shear Center to Neutral Axis (X_o)	0.9388 in
Radius of Gyration (r_o)	5.0611 in
Torsional Flexural Constant (Beta)	0.9656

Codes and Standards

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

International Building Code (IBC): 2006 – 2024

Complies with AISI S100-16 (2020) w/S2-20. Effective properties incorporate the strength increase from the cold work of forming

Sheet steel: ASTM A1003/A1003M; ASTM A653/A653M

Galvanized coating: ASTM A653/A653M

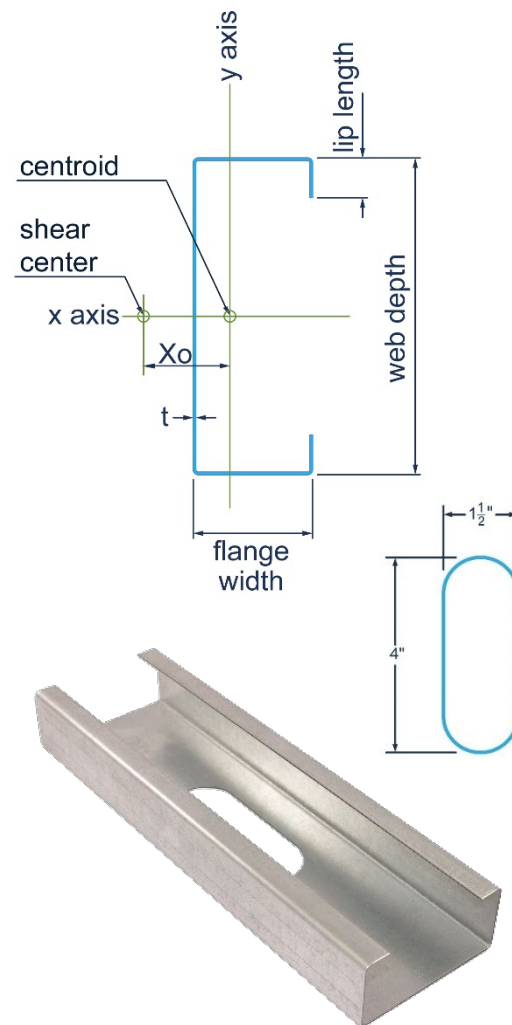
Nonstructural: Members and tolerances: ASTM C645; AISI S220, AISI S201, AISI S202

Meets ASTM C754 when installed properly in structure.

Structural: Members and tolerances: ASTM C955; AISI S240, AISI S201, AISI S202

Meets ASTM C1007 when installed properly in structure.

3rd party Certification



Structural Punchout

First punchout is centered 12" from beginning of member; subsequent punchouts are 24" on center (o.c.). Center of last punchout is no less than 12" from end of member.

Custom stiffened punchouts are available at tighter spacing to reduce thermal transmittance and increase accessibility. Contact Technical Services for additional punchout information.

Sustainability

For LEED letters contact Technical Services at technical@buysuperstud.com or visit



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