

# Super Stud Building Products - Product Submittal

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Specification Section: 05.40.00 (Cold-Formed Metal Framing)

## 600S162-33 (33ksi) Standard Punch

33mil (STR 20 ga) Coating: G60 (standard), G90 (special order)

#### **Geometric Properties**

Web Depth	6 in	Yield Strength, F <sub>y</sub>	33 ksi
Flange Width	1.625 in	Ultimate, F <sub>u</sub>	45 ksi
Lip Length	0.500 in	<b>Punchout Width</b>	1.5 in
Design Thickness	0.0346 in	Punchout Length	4.0 in
Min. Steel Thicknes	s 0.0329 in	_	

#### **Gross Section Properties**

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Cross Sectional Area (A)	0.3443 in <sup>2</sup>
Product Weight per Linear Foot	1.1706 lb/ft
Moment of Inertia (I <sub>x</sub> )	1.7929 in⁴
Section Modulus (S <sub>x</sub> )	$0.5976  \text{in}^3$
Radius of Gyration (r <sub>x</sub> )	2.2820 in
Weak Axis Moment of Inertia (I <sub>y</sub> )	0.1163 in <sup>4</sup>
Weak Axis Radius of Gyration (r <sub>y</sub> )	0.5811 in
Depth-to-Thickness Ratio (h/t)	167

## **Effective Section Properties, Strong Axis**

Effective Area (A <sub>e</sub> )	0.1770 in <sup>2</sup>
Moment of Inertia for Deflection (I <sub>xe</sub> )	1.7455 in⁴
Section Modulus (S <sub>xe</sub> )	$0.5734  \text{in}^3$
Allowable Bending Moment (M <sub>a</sub> )	11.3300 in-k
Allowable Shear Force in Web (at Punchout) (V <sub>y</sub> )	638 lb

## **Torsional Properties**

St. Venant Torsion Constant (J x 1000)	0.1374 in <sup>4</sup>
Warping Constant (C <sub>w</sub> )	0.8267 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (X <sub>o</sub> )	1.0682 in
Radius of Gyration (r <sub>o</sub> )	2.5858 in
Torsional Flexural Constant (Beta)	0.8293

## **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

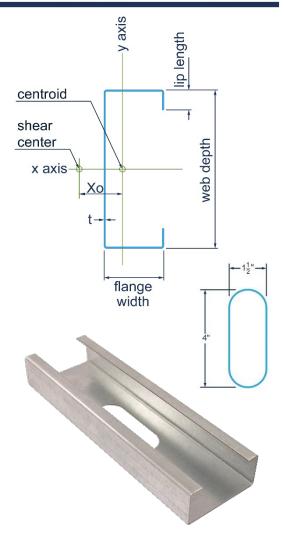
Galvanized coating: ASTM A653/A653M

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.

3<sup>rd</sup> 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.

