

# Super Stud Building Products - Product Submittal

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Specification Section: 09.22.16 (Non-Structural Metal Framing)

# 600S125-30 (33ksi) Standard Punch

30mil (DW 20 ga) Coating: G60 (standard), G90 (special order)

## **Geometric Properties**

Web Depth	6 in	Yield Strength, F <sub>y</sub>	33 ksi
Flange Width	1.25 in	Ultimate, F <sub>u</sub>	45 ksi
Lip Length	0.188 in	Punchout Width	1.5 in
Design Thickness	0.0312 in	Punchout Length	4.0 in
Min. Steel Thickness	0.0296 in		

#### **Gross Section Properties**

Cross Sectional Area (A)	0.2680 in <sup>2</sup>
Product Weight per Linear Foot	0.9112 lb/ft
Moment of Inertia (I <sub>x</sub> )	1.2753 in⁴
Section Modulus (S <sub>x</sub> )	0.4251 in <sup>3</sup>
Radius of Gyration (r <sub>x</sub> )	2.1815 in
Weak Axis Moment of Inertia (I <sub>y</sub> )	0.0379 in <sup>4</sup>
Weak Axis Radius of Gyration (r <sub>y</sub> )	0.3763 in
Depth-to-Thickness Ratio (h/t)	185

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

Effective Area (A <sub>e</sub> )	0.1021 in <sup>2</sup>
Moment of Inertia for Deflection (Ixe)	1.0592 in <sup>4</sup>
Section Modulus (S <sub>xe</sub> ) 0.3037 in <sup>3</sup>	
Allowable Bending Moment (Ma)	6.0012 in-k
Allowable Shear Force in Web (at Punchout) (V <sub>y</sub> )	468 lb

#### **Torsional Properties**

St. Venant Torsion Constant (J x 1000)	0.0870 in <sup>4</sup>
Warping Constant (C <sub>w</sub> )	0.2537 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (X <sub>o</sub> )	0.6030 in
Radius of Gyration (r <sub>o</sub> )	2.2943 in
Torsional Flexural Constant (Beta)	0.9309

#### **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

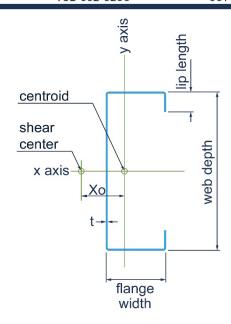
Nonstructural:

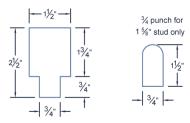
Members and tolerances: ASTM C645; AISI S220, AISI S201, AISI S202

Meets ASTM C754 when installed properly in structure.

Tested for fire resistance in accordance with ASTM E119 and UL 263.

3<sup>rd</sup> party Certification





## **Non-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.

