

## Super Stud Building Products - Product Submittal

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Specification Section: 05.40.00 (Cold-Formed Metal Framing)

# 362S300-54 (50ksi) Standard Punch

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

#### **Geometric Properties**

Web Depth	3.625 in	Yield Strength, F <sub>y</sub>	50 ksi
Flange Width	3 in	Ultimate, F <sub>u</sub>	65 ksi
Lip Length	0.625 in	<b>Punchout Width</b>	1.5 in
Design Thickness	0.0566 in	Punchout Length	4.0 in
Min. Steel Thicknes	s 0.0538 in		

#### **Gross Section Properties**

Cross Sectional Area (A)	0.5917 in <sup>2</sup>
Product Weight per Linear Foot	2.0118 lb/ft
Moment of Inertia (I <sub>x</sub> )	1.3907 in⁴
Section Modulus (S <sub>x</sub> )	0.7673 in <sup>3</sup>
Radius of Gyration (r <sub>x</sub> )	1.5331 in
Weak Axis Moment of Inertia (I <sub>y</sub> )	0.7340 in <sup>4</sup>
Weak Axis Radius of Gyration (r <sub>y</sub> )	1.1138 in
Depth-to-Thickness Ratio (h/t)	59

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

Effective Area (A <sub>e</sub> )	0.3361 in <sup>2</sup>
Moment of Inertia for Deflection (I <sub>xe</sub> )	1.1346 in⁴
Section Modulus (S <sub>xe</sub> )	0.5402 in <sup>3</sup>
Allowable Bending Moment (M <sub>a</sub> )	16.1746 in-k
Allowable Shear Force in Web (at Punchout) (V <sub>y</sub> )	1,016 lb

#### **Torsional Properties**

St. Venant Torsion Constant (J x 1000)	0.6319 in <sup>4</sup>
Warping Constant (C <sub>w</sub> )	2.2340 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (X <sub>o</sub> )	2.6582 in
Radius of Gyration (r <sub>o</sub> )	3.2644 in
Torsional Flexural Constant (Beta)	0.3369

### **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

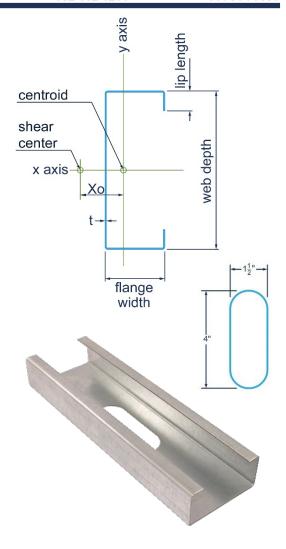
Galvanized coating: ASTM A653/A653M

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.

