

## Super Stud Building Products - Product Submittal

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Specification Section: 05.40.00 (Cold-Formed Metal Framing)

# 362S250-43 (33ksi) Standard Punch

43mil (18 ga) Coating: G60 (standard), G90 (special order)

## **Geometric Properties**

Web Depth	3.625 in	Yield Strength, F <sub>y</sub>	33 ksi
Flange Width	2.5 in	Ultimate, F <sub>u</sub>	45 ksi
Lip Length	0.625 in	Punchout Width	1.5 in
Design Thickness	0.0451 in	Punchout Length	4.0 in
Min. Steel Thicknes	s 0.0428 in	-	

## **Gross Section Properties**

Cross Sectional Area (A)	0.4300 in <sup>2</sup>
Product Weight per Linear Foot	1.4620 lb/ft
Moment of Inertia (I <sub>x</sub> )	0.9804 in <sup>4</sup>
Section Modulus (S <sub>x</sub> )	$0.5409  \text{in}^3$
Radius of Gyration (r <sub>x</sub> )	1.5101 in
Weak Axis Moment of Inertia (I <sub>y</sub> )	0.3850 in <sup>4</sup>
Weak Axis Radius of Gyration (r <sub>y</sub> )	0.9463 in
Depth-to-Thickness Ratio (h/t)	75

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

Effective Area (A <sub>e</sub> )	0.2900 in <sup>2</sup>
Moment of Inertia for Deflection (I <sub>xe</sub> )	0.8918 in <sup>4</sup>
Section Modulus (S <sub>xe</sub> )	0.4588 in <sup>3</sup>
Allowable Bending Moment (M <sub>a</sub> )	9.0663 in-k
Allowable Shear Force in Web (at Punchout) (V <sub>v</sub> )	676 lb

## **Torsional Properties**

St. Venant Torsion Constant (J x 1000)	0.2915 in <sup>4</sup>
Warping Constant (C <sub>w</sub> )	1.1921 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (X <sub>o</sub> )	2.1983 in
Radius of Gyration (r <sub>o</sub> )	2.8299 in
Torsional Flexural Constant (Beta)	0.3966

#### **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

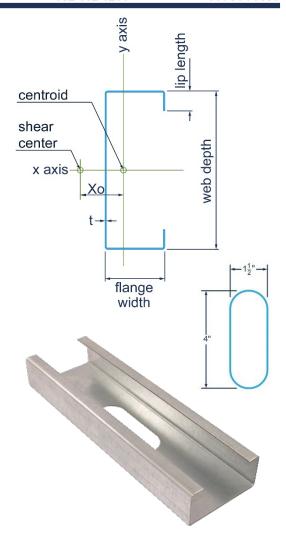
Galvanized coating: ASTM A653/A653M

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.

