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## Super Stud Building Products

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**New Jersey** 

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# **SUPERMAXX STUD**

Specification Section: 05.40.00 (Cold-Formed Metal Framing)

## 800SMX250-68 (50ksi) Standard Punch

68mils (14ga) Coating: CP60 (G60) Standard or CP90 (G90) Available

#### **Geometric Properties**

| Web Depth        | 8 in      | Yield Strength, F <sub>y</sub> | 50 ksi    |
|------------------|-----------|--------------------------------|-----------|
| Flange Width     | 2.5 in    | Ultimate, F <sub>u</sub>       | 65 ksi    |
| Design Thickness | 0.0713 in | Min. Steel Thickness           | 0.0677 in |
| First Lip:       | 1.125 in  | Second Lip:                    | 0.5 in    |

#### **Gross Section Properties**

| Cross Sectional Area (A)                       | 1.1019 in <sup>2</sup>  |
|--|-------------------------|
| Product Weight per Linear Foot                 | 3.7465 lb/ft            |
| Moment of Inertia (I <sub>x</sub> )            | 10.4055 in <sup>4</sup> |
| Section Modulus (S <sub>x</sub> )              | 2.6014 in <sup>3</sup>  |
| Radius of Gyration (r <sub>x</sub> )           | 3.0729 in               |
| Weak Axis Moment of Inertia (I <sub>y</sub> )  | 1.0676 in <sup>4</sup>  |
| Weak Axis Radius of Gyration (r <sub>y</sub> ) | 0.9843 in               |
| Depth-to-Thickness Ratio (h/t)                 | 107                     |

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

| Effective Area (A <sub>e</sub> )                             | 0.6990 in <sup>2</sup>  |
|--|-------------------------|
| Moment of Inertia for Deflection (I <sub>xe</sub> )          | 10.3854 in <sup>4</sup> |
| Section Modulus (S <sub>xe</sub> )                           | 2.5964 in <sup>3</sup>  |
| Allowable Bending Moment (M <sub>a</sub> )                   | 83.8642 in-k            |
| Allowable Shear Force in Web (at Punchout) (V <sub>y</sub> ) | 3,367 lb                |

#### **Torsional Properties**

| St. Venant Torsion Constant (J x 1000)                       | 1.8673 in <sup>4</sup>  |
|--|-------------------------|
| Warping Constant (C <sub>w</sub> )                           | 16.9919 in <sup>6</sup> |
| Distance from Shear Center to Neutral Axis (X <sub>o</sub> ) | 2.1287 in               |
| Radius of Gyration (r <sub>o</sub> )                         | 3.8656 in               |
| Torsional Flexural Constant (Beta)                           | 0.6968                  |

#### **Codes and Standards**

 ${\it Super Stud products comply with the applicable provisions of the following:}$ 

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

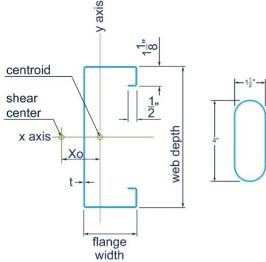
Galvanized coating: ASTM A653/A653M

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

# SuperMAXX Joists have flanges with double returns for superior strength and stiffness that dramatically increase spans and capacities.

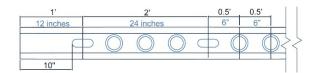


#### Two hole pattern options Standard Structural Punch

First oval 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.

#### **Maxx Punch**

Only available in 6" and 8" studs. First oval punchout is centered at 12" from beginning of member. Three reinforced circular holes 6" o.c. follow and pattern repeats. Oval punchouts are at 24" o.c. Center of last punch out is no less than 12" from end of member.





For LEED letters contact Technical Services at technical@buysuperstud.com or visit <a href="https://www.buysuperstud.com/specs-resources/sustainability-and-green-building">https://www.buysuperstud.com/specs-resources/sustainability-and-green-building</a>

