

## SuperMAXX Joist [SMX]

**Product Name:** 1600SMX250-118

### Material and Shape Property Notes:

**Design Thickness:** 0.1242"  
**Minimum Thickness:** 0.1180"  
**Mil Thickness:** ..... 118 mils  
**Gauge** ..... 10  
**Flange Width** ..... 2.5"  
**Web Depth** ..... 16.0"  
**Stiffening Lip Lengths:** ..... 1-1/8" (first lip) 1/2" (2nd lip)  
**Corrosion Protection:** ..... G60 (standard) G90 (available)  
**Yield Strength:** ..... 50 kips per square inch (KSI) minimum

### Product Application & Attributes:

Large stiffened punchouts in joist members provide industry-best accessibility along the length of the web, accommodating all trade installations. In addition to the large reinforced punchouts, SuperMAXX Joists have flanges with double returns for superior strength and stiffness that dramatically increase spans and capacities.

### Section Properties:

#### Gross Section Properties:

Cross Section Area (**A**): ..... 2.862 in<sup>2</sup>  
Member Weight ..... 9.74 pounds per foot  
Moment of Inertia, strong axis (**I<sub>x</sub>**) ..... 93.590 in<sup>4</sup>  
Radius of Gyration, strong axis (**r<sub>x</sub>**) ..... 5.719 in.  
Moment of Inertia, weak axis (**I<sub>y</sub>**) ..... 2.0350 in<sup>4</sup>  
Radius of Gyration, weak axis (**r<sub>y</sub>**) ..... 0.8433 in.

#### Effective Section Properties:

Effective Moment of Inertia (**I<sub>x eff</sub>**) ..... 77.230 in<sup>4</sup>  
Effective Section Modulus (**S<sub>x eff</sub>**) ..... 9.654 in<sup>3</sup>  
Allowable Moment (**M<sub>a</sub>**) ..... 289.04 inch-kips

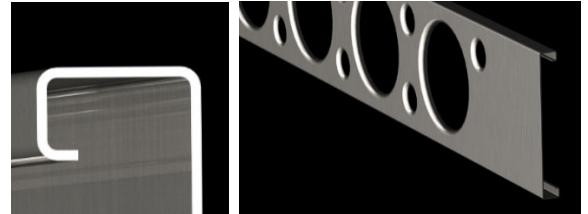
#### Torsional Properties:

St. Venant Torsional Constant (**J x 1000**) ..... 25.55 in<sup>4</sup>  
Warping Constant (**C<sub>w</sub>**) ..... 106.70 in<sup>6</sup>  
Polar Radius of Gyration (**r<sub>o</sub>**) ..... 5.96 in  
Distance of centroid from shear center (**X<sub>o</sub>**) ..... 1.43 in  
Beta ..... 0.9420

#### Codes & Standards:

Super Stud products comply with the applicable provisions of the following:  
International Building Code (IBC) 2006 - 2018  
Sheet Steel: ASTM A1003 and ASTM A653  
Galvanized Coating: ASTM A653  
Members & Tolerances: ASTM C955 and AISI S240  
Meets ASTM C1007 when installed properly in structure  
3rd Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.

## SUPERMAXX JOIST



*SuperMAXX Joists feature a double flange return*

*Super Joist & SuperMAXX Hole Pattern: 8" – 18" Web Depth*

**Joist Member Hole Sizing & Spacing**

| A                       | B                         | C                             | D                         | E                                                          |
|-------------------------|---------------------------|-------------------------------|---------------------------|------------------------------------------------------------|
| Section Web Depth (in.) | Large Hole Diameter (in.) | Large Hole Spacing (in. O.C.) | Small Hole Diameter (in.) | Min. Distance from end to center of First Large Hole (in.) |
| 16                      | 12.25                     | 18                            | 3.25                      | 44                                                         |
| 18                      | 12.25                     | 18                            | 3.25                      | 44                                                         |

