

## 1600S350-68<sup>1</sup> (Standard Punch)

Product Description: 16" Stud 14GA (3-1/2" Flange, 68 mil)

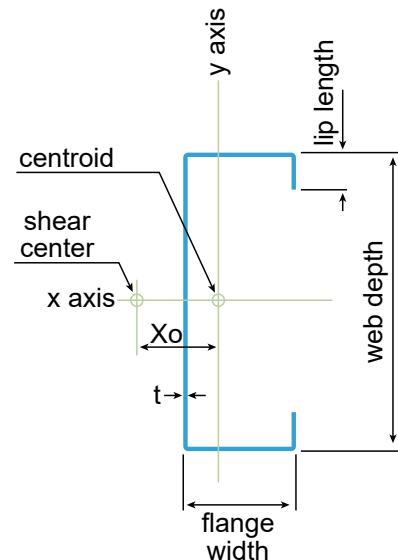
Coating: G60 (standard), G90 (special order)

Specification Section: 05.40.00 (Cold-Formed Metal Framing)

GEOMETRIC PROPERTIES			
Web Depth	16 in.	Yield Strength, Fy	50 ksi
Flange Width	3.5 in.	Design Thickness	0.0713 in.
Lip Length	1.000 in.	Min. Steel Thickness	0.0677 in.

<sup>1</sup>\*1 Web-height to thickness ration exceeds 200. Web Stiffeners are required at all support and concentrated loads.

GROSS PROPERTIES		
Area (in <sup>2</sup> )	Total cross-sectional steel area	1.745
Weight (lb/ft)	Linear weight per foot	5.94
I <sub>x</sub> (in <sup>4</sup> )	Moment of inertia about the x-axis	61.641
S <sub>x</sub> (in <sup>3</sup> )	Section modulus about the x-axis	7.705
R <sub>x</sub> (in)	Radius of gyration about the x-axis	5.944
I <sub>y</sub> (in <sup>4</sup> )	Moment of inertia about the y-axis	2.490
R <sub>y</sub> (in)	Radius of gyration about the y-axis	1.195
EFFECTIVE PROPERTIES		
I <sub>x</sub> (in <sup>3</sup> )	Effective moment of inertia (x-axis)	57.601
S <sub>x</sub> (in <sup>3</sup> )	Effective section modulus (x-axis)	5.104
M <sub>a</sub> (in-k)	Allowable bending moment-effective section modulus	127.59
M <sub>ad</sub> (in-k)	Allowable bending moment-distortional buckling	112.58
V <sub>a<sub>g</sub></sub> (lb)	Allowable shear force in web	2062
V <sub>a<sub>net</sub></sub> (lb)	Allowable strong axis shear at punchout	1649
TORSIONAL PROPERTIES		
J x 1000 (in <sup>4</sup> )	St. Venant torsional constant	2.957
C <sub>w</sub> (in <sup>6</sup> )	Warping constant	127.370
X <sub>o</sub> (in)	Distance from shear center to centroid	-2.055
m (in)	Distance from shear center to mid-plane of web	1.322
R <sub>o</sub> (in)	Polar radius of gyration	6.402
Beta	Torsional Flexural Constant	0.897



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.

### CODES AND STANDARDS:

Super Stud/EB Metal US products comply with the applicable provisions of the following:

- International Building Code (IBC): 2006–2024
- AISI S100-16 (2020) w/S2-20
- Sheet Steel: ASTM A1003/A1003M; ASTM A653/A653M
- Galvanized Coating: ASTM A653/A653M

#### Structural Members:

- ASTM C955; AISI S240
- Installed per ASTM C1007

#### Additional Standards:

- AISI S201; AISI S202
- 3rd Party Certification

For LEED Letter requests please submit through:  
[www.buysuperstud.com](http://www.buysuperstud.com) or [www.ebmetal.us](http://www.ebmetal.us)

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