

1600S250-68¹ (Standard Punch)

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

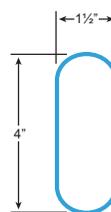
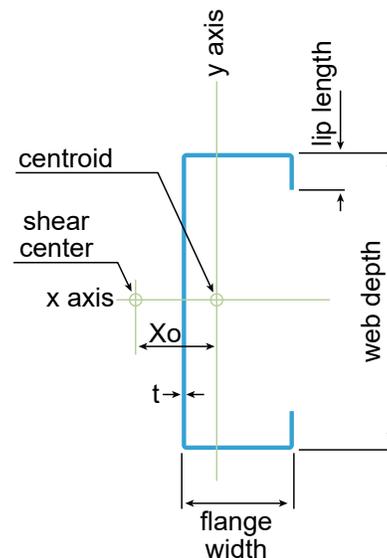
Coating: G60 (standard), G90 (special order)

Specification Section: 05.40.00 (Cold-Formed Metal Framing)

GEOMETRIC PROPERTIES			
Web Depth	16 in.	Yield Strength, F _y	50 ksi
Flange Width	2.5 in.	Design Thickness	0.0713 in.
Lip Length	0.625 in.	Min. Design Thickness	0.0677 in.

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

GROSS PROPERTIES		
Area (in ²)	Total cross-sectional steel area	1.549
Weight (lb/ft)	Linear weight per foot	5.27
I _x (in ⁴)	Moment of inertia about the x-axis	49.832
S _x (in ³)	Section modulus about the x-axis	6.229
R _x (in)	Radius of gyration about the x-axis	5.673
I _y (in ⁴)	Moment of inertia about the y-axis	0.889
R _y (in)	Radius of gyration about the y-axis	0.758
EFFECTIVE PROPERTIES		
I _x (in ³)	Effective moment of inertia (x-axis)	45.619
S _x (in ³)	Effective section modulus (x-axis)	4.020
M _a (in-k)	Allowable bending moment-effective section modulus	100.50
M _{ad} (in-k)	Allowable bending moment-distortional buckling	84.94
V _g (lb)	Allowable shear force in web	2062
V _{net} (lb)	Allowable strong axis shear at punchout	1649
TORSIONAL PROPERTIES		
J x 1000 (in ⁴)	St. Venant torsional constant	2.624
C _w (in ⁶)	Warping constant	46.230
X _o (in)	Distance from shear center to centroid	-1.167
m (in)	Distance from shear center to mid-plane of web	0.778
R _o (in)	Polar radius of gyration	5.841
Beta	Torsional Flexural Constant	0.960



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 products comply with the applicable provisions of the following:

- International Building Code (IBC): 2006–2024
- AISI S100-16 (2020) w/S2-20 (effective properties include cold-work strength increase)
- 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