

1600S350-97 (Standard Punch)

Product Description: 16" Stud 12GA (3-1/2" Flange, 97 mil)

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

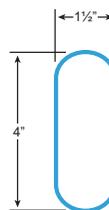
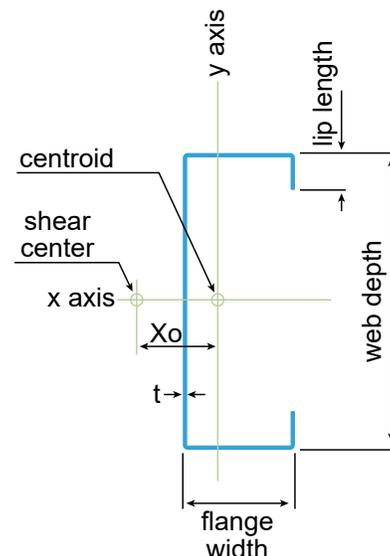
Specification Section: 05.40.00 (Cold-Formed Metal Framing)

GEOMETRIC PROPERTIES			
Web Depth	16 in.	Yield Strength, Fy	50 ksi
Flange Width	3.5 in.	Design Thickness	0.1017 in.
Lip Length	1.000 in.	Min. Design Thickness	0.0966 in.

GROSS PROPERTIES		
Area (in ²)	Total cross-sectional steel area	2.466
Weight (lb/ft)	Linear weight per foot	8.39
I _x (in ⁴)	Moment of inertia about the x-axis	86.296
S _x (in ³)	Section modulus about the x-axis	10.787
R _x (in)	Radius of gyration about the x-axis	5.916
I _y (in ⁴)	Moment of inertia about the y-axis	3.410
R _y (in)	Radius of gyration about the y-axis	1.176

EFFECTIVE PROPERTIES		
I _x (in ³)	Effective moment of inertia (x-axis)	83.748
S _x (in ³)	Effective section modulus (x-axis)	8.285
M _a (in-k)	Allowable bending moment-effective section modulus	248.05
M _{ad} (in-k)	Allowable bending moment-distortional buckling	223.83
V _g (lb)	Allowable shear force in web	6042
V _{net} (lb)	Allowable strong axis shear at punchout	6042

TORSIONAL PROPERTIES		
J x 1000 (in ⁴)	St. Venant torsional constant	8.501
C _w (in ⁶)	Warping constant	175.895
X _o (in)	Distance from shear center to centroid	-2.022
m (in)	Distance from shear center to mid-plane of web	1.304
R _o (in)	Polar radius of gyration	6.362
Beta	Torsional Flexural Constant	0.899



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