

400S125-30 DW30 (Standard Punch)

Product Description: 4" Track 20GA (1 1/4" Leg, 30mil)

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

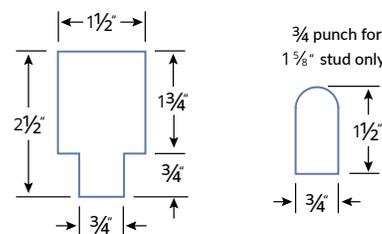
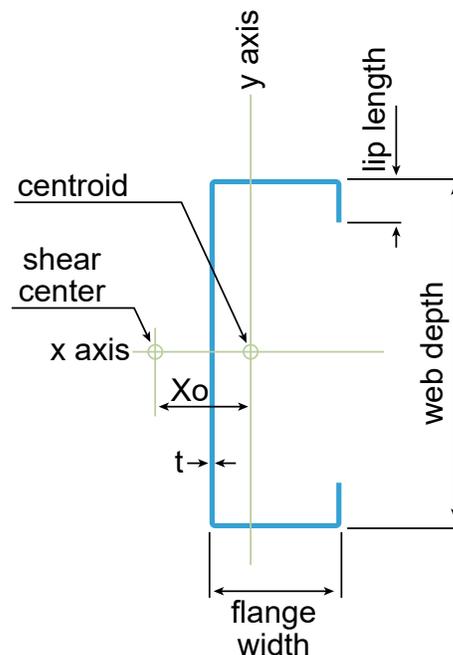
Specification Section: 09.22.16 (Non-Structural Metal Framing)

GEOMETRIC PROPERTIES			
Web Depth	4 in.	Yield Strength, F_y	33 ksi
Flange Width	1.25 in.	Design Thickness	0.0312 in.
Lip Length	0.188 in.	Min. Design Thickness	0.0296 in.

GROSS PROPERTIES		
Area (in ²)	Total cross-sectional steel area	0.206
Weight (lb/ft)	Linear weight per foot	0.70
I_x (in ⁴)	Moment of inertia about the x-axis	0.481
S_x (in ³)	Section modulus about the x-axis	0.240
R_x (in)	Radius of gyration about the x-axis	1.529
I_y (in ⁴)	Moment of inertia about the y-axis	0.034
R_y (in)	Radius of gyration about the y-axis	0.409

EFFECTIVE PROPERTIES		
I_x (in ³)	Effective moment of inertia (x-axis)	0.474
S_x (in ³)	Effective section modulus (x-axis)	0.182
M_a (in-k)	Allowable bending moment-effective section modulus	3.60
M_{ad} (in-k)	Allowable bending moment-distortional buckling	3.16
V_{a_g} (lb)	Allowable shear force in web	715
$V_{a_{net}}$ (lb)	Allowable strong axis shear at punchout	484

TORSIONAL PROPERTIES		
$J \times 1000$ (in ⁴)	St. Venant torsional constant	0.067
C_w (in ⁶)	Warping constant	0.108
X_o (in)	Distance from shear center to centroid	-0.742
m (in)	Distance from shear center to mid-plane of web	0.467
R_o (in)	Polar radius of gyration	1.748
Beta	Torsional Flexural Constant	0.820



Non-structural punchout 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
- 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 or equivalent
- UL Designs: U419, V438, V489, V498, W433, W440
- Tested in accordance with ASTM E119; ANSI/UL 263
- Members and tolerances: ASTM C645; AISI S220, AISI S201, AISI S202
- Meets ASTM C754 when installed properly in structure

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