

550S162-43 (Standard Punch)

Product Description: 5-1/2" Stud 18GA (1-5/8" Flange, 43 mil)

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

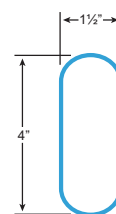
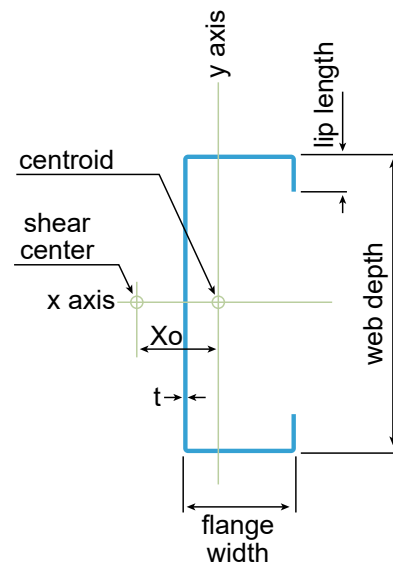
Specification Section: 05.40.00 (Cold-Formed Metal Framing)

| GEOMETRIC PROPERTIES | | | |
|----------------------|-----------|-----------------------|------------|
| Web Depth | 5.5 in. | Yield Strength, F_y | 33 ksi |
| Flange Width | 1.625 in. | Design Thickness | 0.0451 in. |
| Lip Length | 0.500 in. | Min. Steel Thickness | 0.0428 in. |

| GROSS PROPERTIES | | |
|--------------------------|-------------------------------------|-------|
| Area (in ²) | Total cross-sectional steel area | 0.424 |
| Weight (lb/ft) | Linear weight per foot | 1.44 |
| I_x (in ⁴) | Moment of inertia about the x-axis | 1.884 |
| S_x (in ³) | Section modulus about the x-axis | 0.685 |
| R_x (in) | Radius of gyration about the x-axis | 2.107 |
| I_y (in ⁴) | Moment of inertia about the y-axis | 0.145 |
| R_y (in) | Radius of gyration about the y-axis | 0.584 |

| EFFECTIVE PROPERTIES | | |
|--------------------------|--|-------|
| I_x (in ³) | Effective moment of inertia (x-axis) | 1.883 |
| S_x (in ³) | Effective section modulus (x-axis) | 0.680 |
| M_a (in-k) | Allowable bending moment-effective section modulus | 14.44 |
| M_{ad} (in-k) | Allowable bending moment-distortional buckling | 12.37 |
| V_a (lb) | Allowable shear force in web | 1550 |
| $V_{a_{net}}$ (lb) | Allowable strong axis shear at punchout | 1199 |

| TORSIONAL PROPERTIES | | |
|------------------------------------|--|--------|
| $J \times 1000$ (in ⁴) | St. Venant torsional constant | 0.288 |
| C_w (in ⁶) | Warping constant | 0.905 |
| X_o (in) | Distance from shear center to centroid | -1.103 |
| m (in) | Distance from shear center to mid-plane of web | 0.691 |
| R_o (in) | Polar radius of gyration | 2.449 |
| Beta | Torsional Flexural Constant | 0.797 |



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