

## 600S162-33 (Standard Punch)

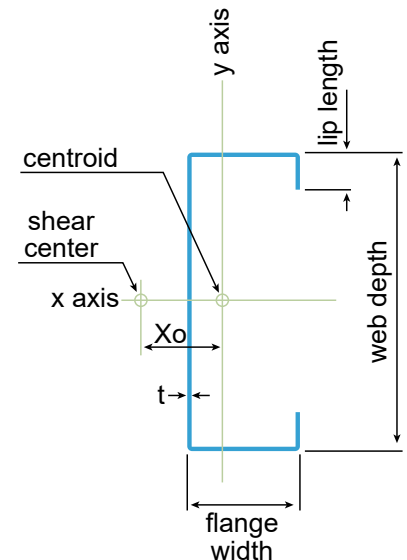
Product Description: 6" Stud STR 20GA (1-5/8" Flange, 33 mil)

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

Specification Section: 05.40.00 (Cold-Formed Metal Framing)

| GEOMETRIC PROPERTIES |           |                       |            |
|----------------------|-----------|-----------------------|------------|
| Web Depth            | 6 in.     | Yield Strength, $F_y$ | 33 ksi     |
| Flange Width         | 1.625 in. | Design Thickness      | 0.0346 in. |
| Lip Length           | 0.500 in. | Min. Steel Thickness  | 0.0329 in. |

| GROSS PROPERTIES                   |                                                    |        |
|------------------------------------|----------------------------------------------------|--------|
| Area (in <sup>2</sup> )            | Total cross-sectional steel area                   | 0.344  |
| Weight (lb/ft)                     | Linear weight per foot                             | 1.17   |
| $I_x$ (in <sup>4</sup> )           | Moment of inertia about the x-axis                 | 1.793  |
| $S_x$ (in <sup>3</sup> )           | Section modulus about the x-axis                   | 0.598  |
| $R_x$ (in)                         | Radius of gyration about the x-axis                | 2.282  |
| $I_y$ (in <sup>4</sup> )           | Moment of inertia about the y-axis                 | 0.116  |
| $R_y$ (in)                         | Radius of gyration about the y-axis                | 0.581  |
| EFFECTIVE PROPERTIES               |                                                    |        |
| $I_x$ (in <sup>3</sup> )           | Effective moment of inertia (x-axis)               | 1.793  |
| $S_x$ (in <sup>3</sup> )           | Effective section modulus (x-axis)                 | 0.573  |
| $M_a$ (in-k)                       | Allowable bending moment-effective section modulus | 11.33  |
| $M_{ad}$ (in-k)                    | Allowable bending moment-distortional buckling     | 9.09   |
| $V_a$ (lb)                         | Allowable shear force in web                       | 638    |
| $V_{a_{net}}$ (lb)                 | Allowable strong axis shear at punchout            | 638    |
| TORSIONAL PROPERTIES               |                                                    |        |
| $J \times 1000$ (in <sup>4</sup> ) | St. Venant torsional constant                      | 0.137  |
| $C_w$ (in <sup>6</sup> )           | Warping constant                                   | 0.861  |
| $X_o$ (in)                         | Distance from shear center to centroid             | -1.072 |
| $m$ (in)                           | Distance from shear center to mid-plane of web     | 0.677  |
| $R_o$ (in)                         | Polar radius of gyration                           | 2.588  |
| Beta                               | Torsional Flexural Constant                        | 0.828  |



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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