

www.millsteelframing.com | 2905 Lucerne Dr. SE Grand Rapids, MI 49546 | (812) 670-4195

# **Structural Stud**

| 600S250-43 |
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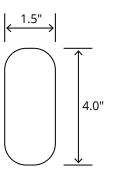
| Product Description    | 18 GA GALV 6.00" WEB x 2.50"<br>FLANGE C-STUD    .043 MIN<br>GAUGE |
|------------------------|--|
| Coating                | G60  |
| Physical Properties    |  |
| Design Thickness (in)  | 0.0451   |
| Minimum Thickness (in) | 0.0428   |
| Web Width (in)         | 6.0000   |
| Flange Width (in)      | 2.5000   |
| Stiffening Lip (in)    | 0.6250   |
| Yield Strength (ksi)   | 33.0000  |

| Gross Section Properties      |       |
|-------------------------------|-------|
| Cross Sectional Area (A)      | 0.537 |
| Weight of Member (lb/ft)      | 1.83  |
| Section Modulus (Sx)          | 1.028 |
| Moment of Inertia (lx)        | 3.083 |
| Radius of Gyration (Rx)       | 2.396 |
| Gross Moment of Inertia (ly)  | 0.458 |
| Gross Radium of Gyration (Ry) | 0.923 |

| Effective Section Properties           |       |
|--|-------|
| Moment of Inertia for deflection (lxe) | 3.083 |
| Section Modulus (Sxe)                  | 0.918 |
| Allowable Bending moment (Ma)          | 18.14 |
| Allowable shear force in web (U)(Vag)  | 1416  |
| Allowable shear at punch (Vanet)       | 1240  |

| Torsional Properties                            |        |
|---|--------|
| St. Venant torsion constant (J x 1000)          | 0.364  |
| Warping constant (Cw)                           | 3.411  |
| Distance from shear center to neutral axis (Xo) | -1.874 |
| Radii of gyration (Ro)                          | 3.179  |
| Torsional flexural constant (Beta)              | 0.652  |

## Punch Out



#### ASTM & Code Standards

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A1003, A653 & C955

#### Notes

- 1. Calculated properties are based on AISI S100-16, North American Specification for Design of Cold-Formed Steel Structural Members.
- 2. The centerline bend radius is based on inside corner radii shown in thickness chart.
- 3. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A3.3.2.
- 4. Tabulated gross properties are based on fullunreduced cross section of the studs, away from punch outs.
- 5. For deflection calculations, use the effective moment of inertia.
- 6. Allowable moment includes cold-work of forming.

### **Mill Steel Framing LEED Green Credits**

| MR Credit 2   | <ul> <li>ConstructionWaste Management – Mill Steel Framing steel framing is 100% recyclable</li> </ul> |
|---------------|--|
| MR Credit 4   | Recycled Content – Mill Steel Framing products contain no less than 25.5% post-consumer                |
|               | and 6.8% pre-consumer recycled content   |
| MR Credit 5   | • Regional Materials – Mill Steel Framing has manufacturing facilities in Indiana, Alabama & Texas     |
| V4 MR Credits | Building Product Disclosure and Optimization EPD (1 point)   |
|               | • Materials Ingredients (1 point) – Construction and Demolition Waste Management (1 point)             |

