



Expanding Your Solutions

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400S250-43 C-STUDS 43 MIL. (18 GA. STRUCTURAL)

Geometric Properties

400S250-43 "S" structural load-bearing studs are produced from hot-dipped galvanized steel in standard CP60 coating. CP90 is available upon special request, and may require up-charges and extended lead times.

Physical Properties

| Model No. | Design Thickness (in) | Minimum Thickness (in) | Yield (ksi) | Coating ^{3,4} | Web Depth (in) | Flange Size (in) | Lip (in) |
|------------|-----------------------|------------------------|-------------|------------------------|----------------|------------------|----------|
| 400S250-43 | 0.0451 | 0.0428 | 33 | CP60 | 4 | 2-1/2 | 5/8 |

Notes:

1. Uncoated steel thickness. Thickness is for carbon sheet steel.
2. Minimum thickness represents 95% of the design thickness and is the minimum acceptable thickness.
3. Per ASTM C955 & A1003, Table 1.
4. CP90 available upon request. Will require extended lead time and upcharge.

Color Code (painted on ends): 43-mil: Yellow

ASTM & Code Standards:

- ASTM A653/A653M, A924/A924M, A1003/1003, C955 & C1007
- ICC-ES & SFIA Code Compliance Certification Program
- ICC ESR-3016
- ATI CCRR-0224
- IBC: 2015, 2018, 2021
- CBC: 2019, 2022
- AISI: S100, S200, S240

LEED v4 for Building and Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization – Environmental Product Declarations, Options 1 & 2.
- MR Credit: Building Product Disclosure and Optimization – Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

CEMCO cold-formed steel framing products contain 30% to 37% recycled steel.

- Total Recycled Content: 36.9%
- Post-Consumer: 19.8%
- Pre-Consumer: 14.4%

CSI Division: 05.40.00 – Cold-Formed Metal Framing



Hole Detail

| Standard Hole Centers are 24" | (Z) (in) | (Y) (in) |
|-------------------------------|----------|----------|
| 2-1/2" studs | 2.000 | 0.750 |
| 3-1/2" to 14" studs | 3.250 | 1.500 |

400S250-43 Section Properties

| Design Thickness (in.) | Fy (ksi) | Gross ³ | | | | | Effective Properties ² | | | | | | Torsional Properties | | | | | Lu (in) | |
|------------------------|----------|-----------------------|-----------------------|---------|-----------------------|---------|-----------------------------------|-----------------------|-----------|----------|------------|------------|---------------------------|-----------------------|---------|--------|---------|---------|------|
| | | Ix (in ⁴) | Sx (in ³) | Rx (in) | Iy (in ⁴) | Ry (in) | Ix (in ⁴) | Sx (in ³) | Ma (in-k) | Vag (lb) | Vanet (lb) | Mad (in-k) | Jx1000 (in ⁴) | Cw (in ⁶) | Xo (in) | m (in) | Ro (in) | | β |
| 0.0451 | 33 | 1.224 | 0.612 | 1.655 | 0.399 | 0.945 | 1.224 | 0.503 | 9.93 | 1739 | 810 | 10.42 | 0.303 | 1.486 | -2.139 | 1.252 | 2.864 | 0.443 | 63.7 |

Notes: 1. Web depth for track sections equals nominal depth plus 2 times the design thickness plus bend radius. 2. The values are for members with punch-outs. 3. Gross properties are based on the full, unreduced cross-section, away from web punchouts. 4. Use the effective moment of inertia for deflection calculation. 5. Allowable moment is lesser of Ma and Mad. Distortional buckling is based on an assumed $K\phi = 0$. 6. These members are available un-punched only.

Check the updated list of Certified Production Facilities at Intertek's website at <http://www.intertek.com/building/sfia>



This technical information reflects the most current information available and supersedes any and all previous publications effective May 1, 2024.

05/01/2021 AT