

**Product Category:** 05 41 00 - Structural Framing  
**Product Name:** 250T125-43

### Project Information

Name:  
Address:

### Important Properties Notes:

- Calculated properties are based on AISI S100-12 with S2-10 Supplement, North American Specification for Design of Cold-Formed Steel Structural Members.
- The centerline bend radius is based on inside corner radii shown in thickness chart.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties are based on full-unreduced cross section of the studs, away from punchouts.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold-work of forming.
- Web depth for track sections is equal to the nominal height plus 2 times the design thickness plus the bend radius. Hems on non-structural rack sections are ignored.

### Contractor Information

Name:  
Contact:  
Phone:  
Fax:

### Architect Information

Name:  
Contact:  
Phone:  
Fax:

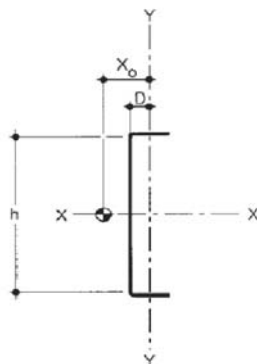
### Distributor/Rep Information

Name:  
Contact:  
Phone:  
Web/Email:

## Properties

### 250T125-43 Properties

|                  |               |
|------------------|---------------|
| Finish:          | G60           |
| Web Depth        | 2-1/2" in     |
| Flange Width     | 1-1/4" in     |
| Design Thickness | 0.04510 in    |
| Thickness        | 43mils or 18G |
| Yield stress, Fy | 33 ksi        |
| Weight           | 0.76528 lb/ft |



### 250T125-43 Section Properties

#### Gross Section Properties

|                               |                         |
|-------------------------------|-------------------------|
| Cross sectional area (A)      | 0.22508 in <sup>2</sup> |
| Moment of inertia (Ix)        | 0.25047 in <sup>4</sup> |
| Section Modulus (Sx)          | 0.18823 in <sup>3</sup> |
| Radius of gyration (Rx)       | 1.0549 in               |
| Gross moment of inertia (Iy)  | 0.03509 in <sup>4</sup> |
| Gross Radius of gyration (Ry) | 0.3948 in               |

#### Effective Section Properties

|                                                           |                         |
|-----------------------------------------------------------|-------------------------|
| Moment of inertia for deflection (Ixe)                    | 0.21454 in <sup>4</sup> |
| Section modulus (Sxe)                                     | 0.14768 in <sup>3</sup> |
| Allowable bending moment (Ma)                             | 2.91820 In-k            |
| Allowable bending moment from distortional buckling (Mad) | - In-k                  |
| Allowable strong axis shear away from punch-out (Vag)     | 1.45274 lb              |
| Allowable strong axis shear at punch out (Vanet)          | - lb                    |

#### Torsional Properties

|                                                 |                         |
|-------------------------------------------------|-------------------------|
| St. Venant torsion constant (J x 1000)          | 0.15261 in <sup>4</sup> |
| Warping constant (Cw)                           | 0.04091 in <sup>6</sup> |
| Distance from shear center to neutral axis (Xo) | -0.76460 in             |
| Distance from shear center to mid-plane (M)     | 1.36140 in              |
| Radii of gyration (Ro)                          | in                      |
| Torsional flexural constant (Beta)              |                         |
| Unbraced Length (Lu)                            | in                      |



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### Additional Specification Information

Studs Unlimited is an SFIA member. Studs Unlimited acts in accordance with the product and quality standards required by the SFIA program.

Studs Unlimited meets or exceeds ASTM C955, A653, and A1003.

### LEED Specification Information

**Materials & Resources Credit 2:** Construction Waste Management – Studs Unlimited Steel Framing Products are formed from steel and are 100% recyclable. **(1 point)**

**Materials & Resources Credit 4:** Recycled Content intends to increase demand for building products that incorporate recycled content materials, therefore reducing impacts resulting from extraction and processing of new virgin materials. As discussed and demonstrated below, North American steel building products contribute positively toward points under Credits 4.1 and 4.2. The following is required by LEED-NC Versions 2.2 and 2009:

**Credit 4.1 (1 point)** Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of pre-consumer content constitutes at least 10%(based on cost) of the total value of the materials in the project.

**Credit 4.2 (1 point)** Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of pre-consumer content constitutes at least 20% of the total value of the materials in the project.

**Materials & Resources Credit 5:** Regional Materials - Contact Studs Unlimited directly for information at [bjpowell@studsunlimited.com](mailto:bjpowell@studsunlimited.com). Studs Unlimited is located in Oklahoma City, Oklahoma. **(1 point)**