

**Product Category:** 09 22 16 - Non-Structural Framing  
**Product Name:** 400T125-30

### Project Information

Name:  
Address:

### Contractor Information

Name:  
Contact:  
Phone:  
Fax:

### Architect Information

Name:  
Contact:  
Phone:  
Fax:

### Distributor/Rep Information

Name:  
Contact:  
Phone:  
Web/Email:

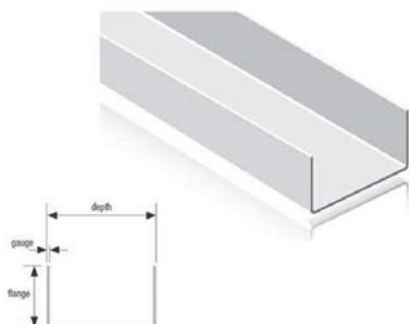
### Important Properties Notes:

- Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members.
- Effective properties are based on steel conforming to ASTM A653, Type B
- Effective section properties incorporate the strength increase from cold working, per specification section A7.2.
- Gross section properties are based on the full-unreduced cross section of the member, away from any punchouts.
- For deflection calculations, use the effective moment of inertia.
- Shear capacities ( $V_a$ ) are taken at locations away from stud punchouts.
- Allowable moments ( $M_a$ ) are based on members being braced against rotation at 48" intervals, and on continuous lateral support of the compression flange.

## Properties

### 400T125-30 Properties

Finish:	G90
Web Depth	4" in
Flange Width	1-1/4" in
Design Thickness	0.0312 in
Yield stress, $F_y$	33 ksi
Weight	0.690 lb/ft



### 400T125-30 Section Properties

#### Gross Section Properties

Cross sectional area ( $A$ )	0.203 in <sup>2</sup>
Moment of inertia ( $I_x$ )	0.495 in <sup>4</sup>
Radius of gyration ( $S_x$ )	0.239 in
Radius of gyration ( $R_x$ )	1.563 in <sup>4</sup>
Gross moment of inertia ( $I_y$ )	0.028 in
Gross Radius of gyration ( $R_y$ )	0.371 In <sup>2</sup>

#### Effective Section Properties

Moment of inertia for deflection ( $I_{xe}$ )	0.427 in <sup>4</sup>
Section modulus ( $S_{xe}$ )	0.176 in <sup>3</sup>
Allowable bending moment ( $M_a$ )	3.49 In-lbs
( $V_{ag}$ )	689 lb
$Y_{cg}$	2.289
$F_{ya}$	33 ksi

#### Torsional Properties

St. Venant torsion constant ( $J \times 1000$ )	0.066 in <sup>4</sup>
Warping constant ( $C_w$ )	0.085 in <sup>6</sup>
Distance from shear center to neutral axis ( $X_o$ )	-0.632 in
$m$	0.397
Radii of gyration ( $R_o$ )	1.726 in
Torsional flexural constant ( $\beta$ )	0.866
Unbraced Length ( $L_u$ )	25.6

## Additional Specification Information

**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.