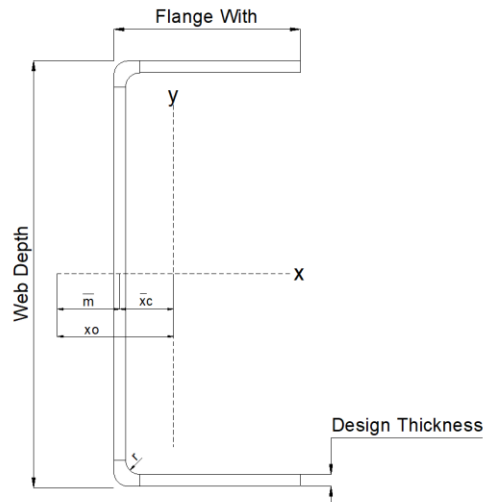


**Product Type:** Structural Track

**Product Definition:** 400T125-43 (33ksi)

**CSI Code:** 05 41 00



## **Profile Properties:**

|                  |               |                        |            |
|------------------|---------------|------------------------|------------|
| Web Depth        | 4.000 in      | Yield Strength $F_y$ : | 33 ksi     |
| Flange Width     | 1.250 in      | Unit Weight            | 1.00 lb/ft |
| Design Thickness | 0.0451 in     | Coating                | G60        |
| Thickness        | 43mils (18Ga) |                        |            |

## **Gross Section Properties:**

|                                  |             |                        |
|----------------------------------|-------------|------------------------|
| Cross Sectional Area             | $A_{gross}$ | 0.2927 in <sup>2</sup> |
| Member weight per foot of length |             | 1.00 lb/ft             |
| Moment of Inertia. x-axis        | $I_x$       | 0.7157 in <sup>4</sup> |
| Radius of Gyration. x-axis       | $r_x$       | 1.5636 in              |
| Moment of Inertia. y-axis        | $I_y$       | 0.0398 in <sup>4</sup> |
| Radius of Gyration. y-axis       | $r_y$       | 0.3688 in              |

## **Torsional Properties:**

|                                              |                 |                        |
|----------------------------------------------|-----------------|------------------------|
| St. Venant Torsion Constant                  | $J \times 1000$ | 0.1985 in <sup>4</sup> |
| Warping Constant                             | $C_w$           | 0.1222 in <sup>6</sup> |
| Distance Between Shear Axis and Neutral Axis | $x_0$           | -0.6260 in             |
| Polar Radius of Gyration                     | $r_0$           | 1.7242 in              |
| Torsional Flexural Constant                  | $\beta$         | 0.8682                 |
| Limit of Unbraced Length                     | $L_u$           | 20.29 in               |



## Effective Section Properties:

|                                            |      |                        |
|--------------------------------------------|------|------------------------|
| Effective Area                             | Aeff | 0.1758 in <sup>2</sup> |
| Effective Moment of Inertia for Deflection | Ixe  | 0.6274 in <sup>4</sup> |
| Effective Section Modulus                  | Sxe  | 0.2818 in <sup>3</sup> |
| Allowable Bending Moment                   | Ma   | 5.5681 in.k            |
| Allowable Shear Force (Solid Section)      | Vag  | 1740 lbs               |

## Codes & Standards:

- Calculations are based on AISI S240-20 and AISI S100-16 (2020) w/S2-20.
- Complies with IBC 2024. ASTM C955. ASTM C754. ASTM A653. ASTM A1003. ASTM E72
- LEED / Sustainability Credits: Environmental Product Declaration S-P Code: S-P-00869