

Tracks (T)

MATERIAL	
Web (in)	14
Flange (in)	2½
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	6.44
Cross Sectional Area: A (in ²)	1.894
Moment of Inertia: Ix (in ⁴)	45.946
Section Modulus: Sx (in ³)	6.564
Radius of Gyration: Rx (in)	4.925
Moment of Inertia: Iy (in ⁴)	0.801
Radius of Gyration: Ry (in)	0.650

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	39.992	36.803
Section Modulus: Sxe (in ³)	5.232	4.579
Allowable Bending Moment: Ma (in-k)	103.39	137.08
Allowable Shear Force: Va (lb)	7822	9394
(check web crippling)		

TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	6.529
Torsional Warping Constant: Cw (in ⁶)	29.104
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.963
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.051

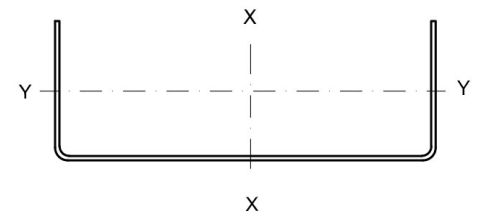


PRODUCT ID

1400T250-97 (14x2½x12ga)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16



See Hermes/Hephaistos Technical Manual
for complete design data