

Tracks (T)

MATERIAL	
Web (in)	12
Flange (in)	3
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.42
Cross Sectional Area: A (in ²)	1.007
Moment of Inertia: Ix (in ⁴)	19.835
Section Modulus: Sx (in ³)	3.306
Radius of Gyration: Rx (in)	4.438
Moment of Inertia: Iy (in ⁴)	0.742
Radius of Gyration: Ry (in)	0.859

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	12.834	11.260
Section Modulus: Sxe (in ³)	1.702	1.406
Allowable Bending Moment: Ma (in-k)	33.64	42.09
Allowable Shear Force: Va (lb)	1896	2237
(check web crippling)		

TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.075
Torsional Warping Constant: Cw (in ⁶)	19.275
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.345
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.731

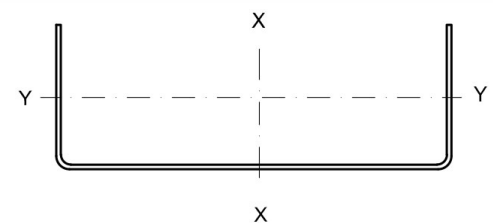


PRODUCT ID

1200T300-54 (12x3x16ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data