

Tracks (T)

MATERIAL	
Web (in)	10
Flange (in)	1½
Yield Strength F _y (KSI)	33, 50
Tensile Strength F _u (KSI)	45, 65
Design Thickness (in)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.99
Cross Sectional Area: A (in ²)	0.586
Moment of Inertia: I _x (in ⁴)	7.207
Section Modulus: S _x (in ³)	1.419
Radius of Gyration: R _x (in)	3.507
Moment of Inertia: I _y (in ⁴)	0.080
Radius of Gyration: R _y (in)	0.370

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: I _{xe} (in ⁴)	6.793	4.488
Section Modulus: S _{xe} (in ³)	0.901	0.703
Allowable Bending Moment: M _a (in-k)	17.80	17.57
Allowable Shear Force: V _a (lb)	669	669
(check web crippling)		

TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: J _{x1000} (in ⁴)	0.397
Torsional Warping Constant: C _w (in ⁶)	1.610
Shear Center to Centroid on Principal X-axis: X _o (in)	-0.518
Radius of Gyration on the Centroid Principal axis: R _o (in)	3.565

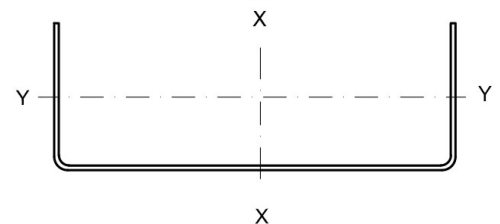


PRODUCTID

1000T150-43 (10x1½x18ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data