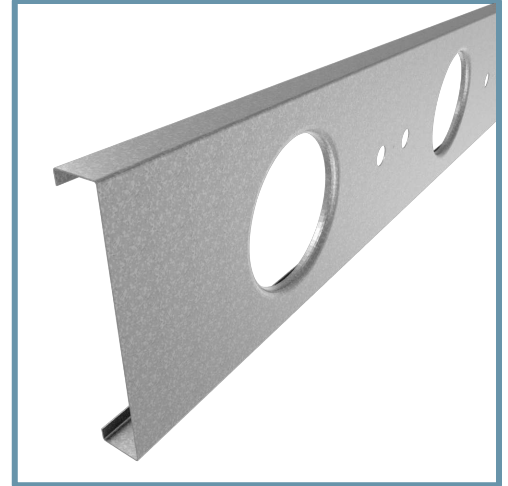


14" TradeReady® Floor Joist (1400TDW24-200-97)

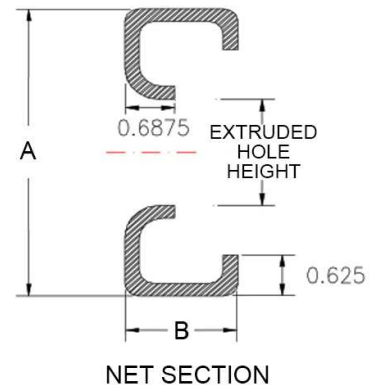
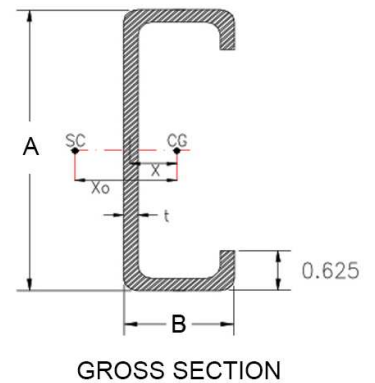
Floor Joist with extruded holes

Geometric Properties

Web depth (A): 14.00 in	Extruded hole shape: Circular	Design thickness: 0.1017 in
Flange width (B): 2.00 in	Extruded hole Height: 10"	Min. steel thickness: 0.0966 in
Extruded hole spacing: 24 in	Extruded hole width: 10"	Yield stress, Fy: 50 ksi
Coating: CP60		



Gross Section Properties of Full Section	
Gross sectional area	1.880 in ²
Member weight per foot of length	6.168 lbs/ft
Moment of inertia (Ix)	44.810 in ⁴
Radius of gyration (Rx)	4.882 in
Gross moment of inertia (Iy)	0.654 in ⁴
Gross radius of gyration (Ry)	0.590 in
Net Section Properties (at Extruded Hole)	
Gross sectional area (A net)	0.974 in ²
Moment of inertia (Ix net)	39.167 in ⁴
Radius of gyration (Rx net)	6.342 in
Net moment of inertia (Iy net)	0.466 in ⁴
Net radius of gyration (Ry net)	0.692 in
Allowable Capacities (Fully Braced)	
Local Moment at Full Section (Mal-full)	160.03 in-kips
Distortional Moment at Full Section (Mad-full)	140.74 in-kips
Local Moment at Knockout (Mal-kno)	167.52 in-kips
Distortional Moment at Knockout (Mad-kno)	110.38 in-kips
Shear at Knockout (Va-kno)	4596 lbs
Shear at Full Section (Va-full)	6938 lbs
Torsional Section Properties	
Distance between centroid and shear-center (Xo)	-0.904 in
Distance between centroid and web-centerline (X)	0.295 in
St. Venant torsional constant (J*1000)	6.484 in ⁴
Torsional warping constant (Cw)	27.156 in ⁶
Radius of gyration (Ro)	5.002 in
Torsional flexural constant (Beta)	0.967
Unbraced Length (Lu)	37.3 in
Effective Section Properties	
Moment of inertia (Ixe)	43.378 in ⁴
Section modulus (Sxe)	5.345 in ³



Code Approvals & Performance Standards

- [AISI S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
 - Direct Strength Method (DSM) utilized for calculating flexural strength
- [AISI S240-15](#) North American Standard for Cold-Formed Steel Structural Framing
 - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
 - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
 - Section A5 Products - Thickness, shapes, tolerances, identification
- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories