

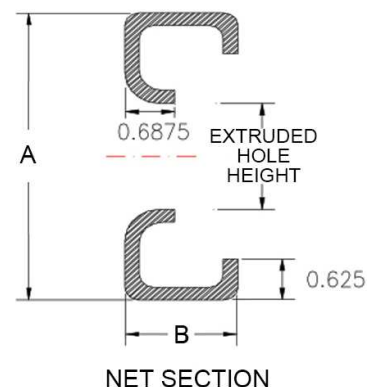
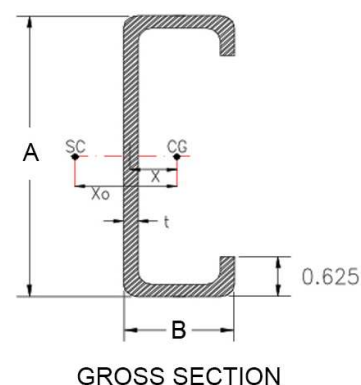
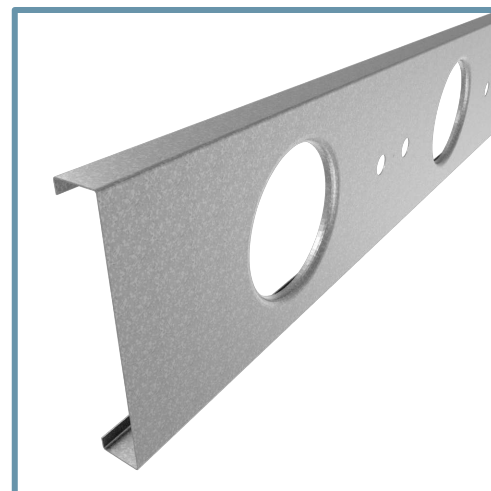
## 14" TradeReady® Floor Joist (1400TDW24-200-68)

Floor Joist with extruded holes

### Geometric Properties

<b>Web depth (A):</b> 14.00 in	<b>Extruded hole shape:</b> Circular	<b>Design thickness:</b> 0.0713 in
<b>Flange width (B):</b> 2.00 in	<b>Extruded hole Height:</b> 10"	<b>Min. steel thickness:</b> 0.0677 in
<b>Extruded hole spacing:</b> 24 in	<b>Extruded hole width:</b> 10"	<b>Yield stress, Fy:</b> 50 ksi
<b>Coating:</b> CP60		

Gross Section Properties of Full Section	
Cross sectional area	1.334 in <sup>2</sup>
Member weight per foot of length	4.365 lbs/ft
Moment of inertia (Ix)	32.264 in <sup>4</sup>
Radius of gyration (Rx)	4.917 in
Gross moment of inertia (Iy)	0.494 in <sup>4</sup>
Gross radius of gyration (Ry)	0.608 in
Net Section Properties (at Extruded Hole)	
Cross sectional area (A net)	0.705 in <sup>2</sup>
Moment of inertia (Ix net)	28.447 in <sup>4</sup>
Radius of gyration (Rx net)	6.352 in
Net moment of inertia (Iy net)	0.355 in <sup>4</sup>
Net radius of gyration (Ry net)	0.710 in
Allowable Capacities (Fully Braced)	
Local Moment at Full Section (Mal-full)	90.00 in-kips
Distortional Moment at Full Section (Mad-full)	83.53 in-kips
Local Moment at Knockout (Mal-kno)	121.67 in-kips
Distortional Moment at Knockout (Mad-kno)	70.71 in-kips
Shear at Knockout (Va-kno)	2135 lbs
Shear at Full Section (Va-full)	2364 lbs
Torsional Section Properties	
Distance between centroid and shear-center (Xo)	-0.932 in
Distance between centroid and web-centerline (X)	0.308 in
St. Venant torsional constant (J*1000)	2.262 in <sup>4</sup>
Torsional warping constant (Cw)	20.083 in <sup>6</sup>
Radii of gyration (Ro)	5.043 in
Torsional flexural constant (Beta)	0.966
Unbraced Length (Lu)	37.9 in
Effective Section Properties	
Moment of inertia (Ixe)	29.518 in <sup>4</sup>
Section modulus (Sxe)	3.006 in <sup>3</sup>



### 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