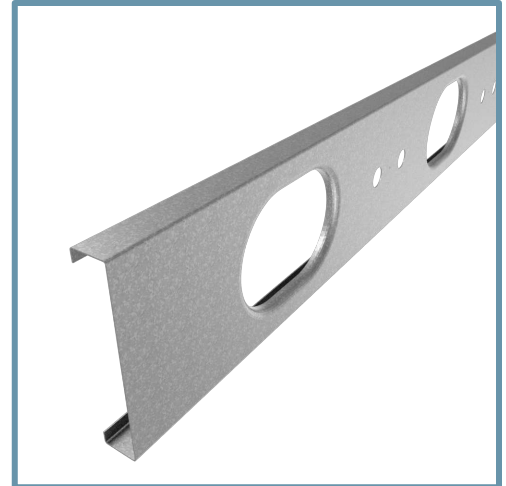


## 8" TradeReady® Floor Joist (800TDJ24-175-68)

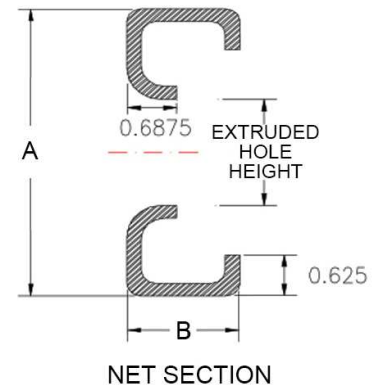
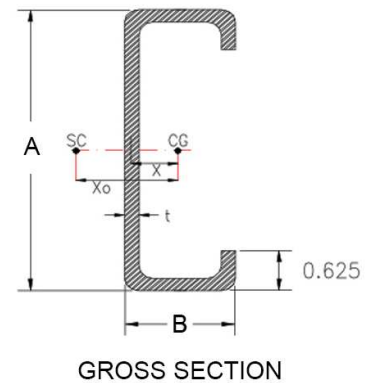
Floor Joist with extruded holes

### Geometric Properties

|                                     |                                     |  |
|-------------------------------------|-------------------------------------|--|
| <b>Web depth (A):</b> 8.00 in       | <b>Extruded hole shape:</b> Ellipse | <b>Design thickness:</b> 0.0713 in     |
| <b>Flange width (B):</b> 1.75 in    | <b>Extruded hole Height:</b> 4.25"  | <b>Min. steel thickness:</b> 0.0677 in |
| <b>Extruded hole spacing:</b> 24 in | <b>Extruded hole width:</b> 7"      | <b>Yield stress, Fy:</b> 50 ksi        |
| <b>Coating:</b> CP60                |                                     |  |



| Gross Section Properties of Full Section         |                       |
|--|-----------------------|
| Cross sectional area                             | 0.871 in <sup>2</sup> |
| Member weight per foot of length                 | 2.850 lbs/ft          |
| Moment of inertia (Ix)                           | 7.573 in <sup>4</sup> |
| Radius of gyration (Rx)                          | 2.949 in              |
| Gross moment of inertia (Iy)                     | 0.313 in <sup>4</sup> |
| Gross radius of gyration (Ry)                    | 0.599 in              |
| Net Section Properties (at Extruded Hole)        |                       |
| Cross sectional area (A net)                     | 0.652 in <sup>2</sup> |
| Moment of inertia (Ix net)                       | 7.508 in <sup>4</sup> |
| Radius of gyration (Rx net)                      | 3.394 in              |
| Net moment of inertia (Iy net)                   | 0.251 in <sup>4</sup> |
| Net radius of gyration (Ry net)                  | 0.621 in              |
| Allowable Capacities (Fully Braced)              |                       |
| Local Moment at Full Section (Mal-full)          | 53.58 in-kips         |
| Distortional Moment at Full Section (Mad-full)   | 50.39 in-kips         |
| Local Moment at Knockout (Mal-kno)               | 56.20 in-kips         |
| Distortional Moment at Knockout (Mad-kno)        | 46.92 in-kips         |
| Shear at Knockout (Va-kno)                       | 2082 lbs              |
| Shear at Full Section (Va-full)                  | 4220 lbs              |
| Torsional Section Properties                     |                       |
| Distance between centroid and shear-center (Xo)  | -1.058 in             |
| Distance between centroid and web-centerline (X) | 0.376 in              |
| St. Venant torsional constant (J*1000)           | 1.476 in <sup>4</sup> |
| Torsional warping constant (Cw)                  | 4.182 in <sup>6</sup> |
| Radii of gyration (Ro)                           | 3.191 in              |
| Torsional flexural constant (Beta)               | 0.890                 |
| Unbraced Length (Lu)                             | 35.7 in               |
| Effective Section Properties                     |                       |
| Moment of inertia (Ixe)                          | 7.544 in <sup>4</sup> |
| Section modulus (Sxe)                            | 1.790 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