

## TradeReady® Floor Joist

Product category 8" 1-3/4" Flange 16ga TradeReady Joist  
 Product name 800TDJ175-54 (50ksi) - Punched Finish: CP60

### Geometric Properties

Web depth	8.000 in	Design thickness	0.0566 in
Flange width	1.750 in	Min. steel thickness	0.0538 in
Stiffening lip	0.625 in	Yield stress	Fy 50ksi
		Ultimate, Fu	65 ksi

### Gross Section Properties of Full Section

Cross sectional area (A)	0.698 in <sup>2</sup>
Member weight per foot of length	2.284 lbs/ft
Moment of inertia (Ix)	6.131 in <sup>4</sup>
Radius of gyration (Rx)	2.963 in
Gross moment of inertia (Iy)	0.258 in <sup>4</sup>
Gross radius of gyration (Ry)	0.608 in

### Net Section Properties (at knockout)

Cross sectional area (A)	0.503 in <sup>2</sup>
Moment of inertia (Ix)	5.990 in <sup>4</sup>
Radius of gyration (Rx)	3.450 in
Gross moment of inertia (Iy)	0.200 in <sup>4</sup>
Gross radius of gyration (Ry)	0.631 in

### Allowable Capacities

Fully Braced Allowable Moment at Knockout (Ma-kno)	37,689 in-lbs
Fully Braced Allowable Moment at Full Section (Ma-full)	40,991 in-lbs
Allowable Shear at Knockout (Va-kno)	1,440 lbs
Allowable Shear at Full Section (Va-full)	2,091 lbs

### Torsional Section Properties

Distance between centroid and shear-center (Xo)	-1.074 in
Distance between centroid and web-centerline (X)	0.383 in
St. Venant torsional constant (J*1000)	0.746 (in <sup>4</sup> )
Torsional warping constant (Cw)	3.425 (in <sup>6</sup> )
Radii of gyration (Ro)	3.210 in
Torsional flexural constant (Beta)	0.888

### Effective Section Properties

Moment of inertia (Ix)	5.982 (in <sup>4</sup> )
Section modulus (Sx)	1.369 (in <sup>3</sup> )

### ASTM & Code Standards:

- AISI North American Specification [NASPEC] 2004
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- SDS & Product Certification Information is available at [www.clarkdietrich.com/SupportDocs](http://www.clarkdietrich.com/SupportDocs)
- U.S. Patent Nos. 6,301,854; 6,691,478; 6,418,694; 6,691,487; 6,761,005; 7,240,459
- Canadian Patent No. 2319346, Mexican Patent No. 243294

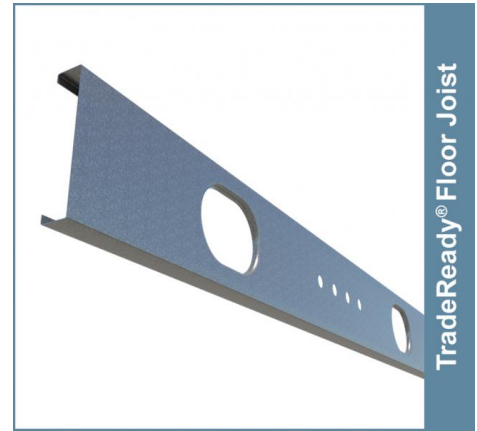
### Sustainability Credits:

For more details and LEED letters contact Technical Services at 888-437-3244 or visit [www.clarkdietrich.com/LEED](http://www.clarkdietrich.com/LEED)

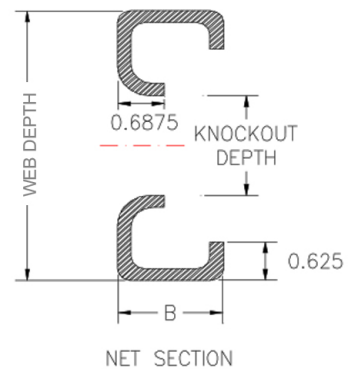
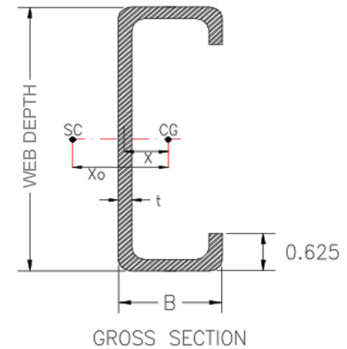
**LEED v4 MR Credit** -- Building Product Disclosure and Optimization: EPD (1 point) - Sourcing of Raw Materials (1 point) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points) - Innovation Credit (up to 2 points).

**LEED 2009 Credit MR 2 & MR 4** -- ClarkDietrich's steel products are 100% recyclable and have a national average recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at ([info@clarkdietrich.com](mailto:info@clarkdietrich.com) / 888-437-3244)

## 05.40.00 (Cold-Formed Metal Framing)



TradeReady® Floor Joist



### Project Information

Name:  
Address:

### Contractor Information

Name:  
Contact:  
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Fax:

### Architect Information

Name:  
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