

TradeReady® Floor Joist

05.40.00 (Cold-Formed Metal Framing)

Product category 8" x 1-3/4" Flange 18ga TradeReady Joist
 Product name 800TDJ175-43 (33ksi) - Punched Finish: CP60

Geometric Properties

Web depth:	8.000 in	Knock Out Shape:	Ellipse	Design thickness:	0.0451 in
Flange width:	1.750 in	Knock Out Height:	4-1/4"	Min. steel thickness:	0.0428 in
Stiffening lip:	0.625 in	Knock Out Width:	7"	Yield stress, Fy:	33ksi
		Small Hole Dia.:	1-11/32"	Ultimate, Fu:	45 ksi

Gross Section Properties of Full Section

Cross sectional area (A)	0.559 in ⁽²⁾
Member weight per foot of length	1.829 lbs/ft
Moment of inertia (Ix)	4.946 in ⁽⁴⁾
Radius of gyration (Rx)	2.974 in
Gross moment of inertia (Iy)	0.212 in ⁽⁴⁾
Gross radius of gyration (Ry)	0.615 in

Net Section Properties (at knockout)

Cross sectional area (A)	0.406 in ⁽²⁾
Moment of inertia (Ix)	4.838 in ⁽⁴⁾
Radius of gyration (Rx)	3.454 in
Gross moment of inertia (Iy)	0.164 in ⁽⁴⁾
Gross radius of gyration (Ry)	0.637 in

Allowable Capacities

Fully Braced Allowable Moment at Knockout (Ma-kno)	19,907 in-lbs
Fully Braced Allowable Moment at Full Section (Ma-full)	21,652 in-lbs
Allowable Shear at Knockout (Va-kno)	944 lbs
Allowable Shear at Full Section (Va-full)	1,050 lbs

Torsional Section Properties

Distance between centroid and shear-center (Xo)	-1.086 in
Distance between centroid and web-centerline (X)	0.389 in
St. Venant torsional constant (J*1000)	0.378 (in ⁴)
Torsional warping constant (Cw)	2.791 (in ⁶)
Radii of gyration (Ro)	3.225 in
Torsional flexural constant (Beta)	0.887

Effective Section Properties

Moment of inertia (Ix)	4.810 (in ⁴)
Section modulus (Sx)	1.096 (in ³)

ASTM & Code Standards:

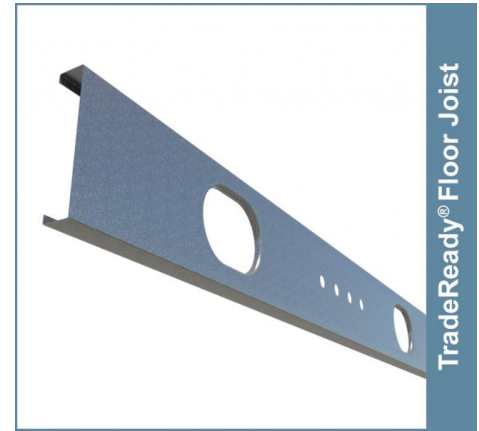
- AISI North American Specification [NASPEC] 2004
- Structural framing is produced to meet or exceed ASTM C955
- Sheet steel meets or exceeds mechanical and chemical requirements of ASTM A1003
- SDS & Product Certification Information is available at www.clarkdietrich.com/SupportDocs
- U.S. Patent Nos. 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:

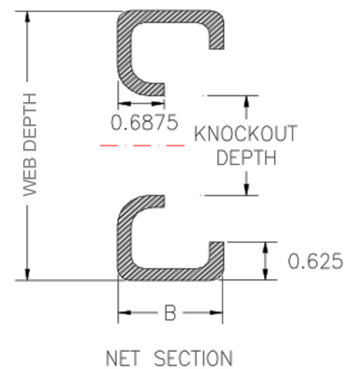
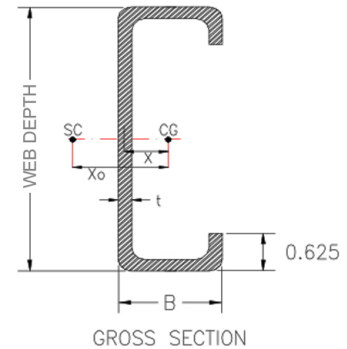
For more details and LEED letters contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED

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 / 888-437-3244)



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Project Information

Name:
Address:

Contractor Information

Name:
Contact:
Phone:
Fax:

Architect Information

Name:
Contact:
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