

## **FLOOR FRAMING OVERVIEW**

Light-gauge C-Studs/Joists are commonly used in floor framing assemblies. C-Joists are a cost-effective alternative to open web trusses, bar joists, engineered lumber, and cast-in-place or hollow-core floor assemblies. Light steel framing (C-Joists) are ideal for low- and mid-rise commercial applications such as hotels, motels, apartment complexes, condominiums, multi-family, and assisted living. Steel joists are also being used more extensively in residential structures.

Steel's high strength-to-weight ratio provides strong loading capacity and maximum spanning capability. Joists are commonly spaced at 12", 16", 19.2" or 24" intervals and are used in conjunction with all traditional flooring materials such as plywood, OSB, concrete filled steel deck, or one of the many varieties of fiber reinforced cement board.

Dietrich offers a variety of floor framing systems including conventional C-Joist and the TradeReady® Steel Joist System. The TradeReady® Steel Joist System features large extruded openings in the joist to accommodate electrical, mechanical, plumbing and technology lines. The system also includes a tabbed rim track to strengthen the joist against web crippling loads, and to provide greater versatility and strength for ledger applications. This system, in conjunction with other floor sheathing products, provides one of the most cost-effective systems for non-combustible low and mid-rise structures.





#### Floor Joist Systems/ **Components**

Floor joist components are available in a variety of web sizes, flanges, gauges and yield strengths. This wide selection of webs, flanges, gauges and vield strengths (ksi) enable the designer to obtain optimal performance at economical prices.

Dietrich's conventional C-Joist system is made up of joists, track, clips, web stiffeners, solid blocking and strapping to complete an entire assembly.

The revolutionary TradeReady® Floor System is comprised of the TradeReady® Joist with large extruded holes, TradeReady® Rim Joist with prepunched layout tabs and embedded stiffening ribs, and pre-cut structural blocking. The system is complemented with EasyClip <sup>™</sup> S- and E-series <sup>™</sup> clips and web stiffeners when necessary.

#### Floor Joist Framing Accessories

Dietrich Metal Framing offers a wide selection of floor framing accessories to ensure maximum floor performance. Choose from our wide assortment of web stiffeners, blocking, bracing and strapping.

#### Floor Joist Hangers and Connectors

Dietrich's wide assortment of hangers and connectors gives you the flexibility to choose from a variety of products that provide connection solutions to complex framing details. Choose from our universal joist, bridle, skewable and ICF hangers.

# The Dietrich TradeReady® Floor System

# Use instead of wood joists.

- Long-term price stability.
- Steel is recycled saves trees.
- Eliminates floor squeak complaints.

#### Prespaced joist tabs.

- No layout required.
- Eliminates joist hangers.

# Greater spanning capabilities.

- Design flexibility.
- Wider O.C. spacing requires fewer joists.
- Wide flange for plywood attachement.
- Structural blocking prevents racking.

#### Prepunched openings.

- No drilling or cutting joist webs.
- Increases ceiling height.
- Eliminates soffit framing.

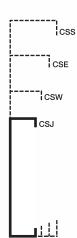


U.S. Patent Nos. 6,301,854; 6,418,694; 6,691,478 and other U.S. and foreign patents pending.

## **Conventional C-Joist components** provide a lightweight, low-cost, rigid floor assembly.

- Precut to exacting sizes and readily available.
- Joist sizes include 8", 10", 12" and 14".
- Available in 18, 16, 14 and 12 gauge.
- Flange widths include 1-5/8", 2", 2-1/2" and 3".





Dietrich C-Joist components provide an economical, lightweight alternative to open web trusses, bar joists, engineered lumber, cast-in-place or hollow core floor assemblies. Depending on loads and spans, C-Joists are typically spaced at 12", 16", 19.2" or 24" on-center spacing. Structural track (TSB), usually in the same gauge as the joist, is used as rim or band enclosures. Joist to girder attachments are normally supported with joist hangers, EasyClip E-Series or S-Series support clips. Web stiffeners may be required at supports and other point loads. Solid blocking and strap bridging is required to properly brace the floor assembly.

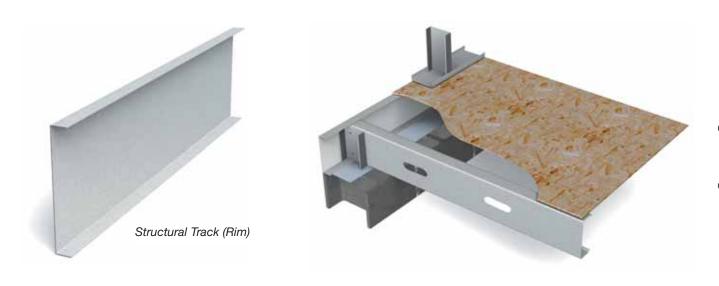
#### **Light-Gauge C-Joist Framing (CS/TS Series™)**

DMF	SSMA	Thickness	Depth		Fla	nge	Ret	urn
Product Code*	Reference	Gauge (mils)	Inches	mm	Inches	mm	Inches	mm
	800S162-x	18 (43)	8	203	1-5/8	41.3	1/2	12.7
CSJ	1000S162-x	16 (54)	10	254	1-5/8	41.3	1/2	12.7
	1200S162-x	14 (68)	12	305	1-5/8	41.3	1/2	12.7
	1400S162-x	12 (97)	14	356	1-5/8	41.3	1/2	12.7
	800S200-x	18 (43)	8	203	2	50.8	5/8	15.9
CSW	1000S200-x	16 (54)	10	254	2	50.8	5/8	15.9
CSVV	1200S200-x	14 (68)	12	305	2	50.8	5/8	15.9
	1400S200-x	12 (97)	14	356	2	50.8	5/8	15.9
	800S250-x	18 (43)	8	203	2-1/2	63.5	5/8	15.9
CSE	1000S250-x	16 (54)	10	254	2-1/2	63.5	5/8	15.9
CSE	1200S250-x	14 (68)	12	305	2-1/2	63.5	5/8	15.9
	1400S250-x	12 (97)	14	356	2-1/2	63.5	5/8	15.9
	800S300-x	18 (43)	8	203	3	76.2	1	25.4
CCC	1000S300-x	16 (54)	10	254	3	76.2	1	25.4
CSS	1200S300-x	14 (68)	12	305	3	76.2	1	25.4
	1400S300-x	12 (97)	14	356	3	76.2	1	25.4

<sup>\*18-</sup>gauge is standard as 33 ksi yield strength. 16, 14, 12-gauge are standard as 50 ksi yield strength. x= SSMA reference of mils at the end of the character string.









#### Structural Track (TS-Series™)

DMF	SSMA	Thickness	De	pth	Flange		
Product Code*	Reference	Gauge (mils)	Inches	mm	Inches	mm	
	800T125-x	18 (43)	8	203	1-1/4	31.8	
TSB	1000T125-x	16 (54)	10	254	1-1/4	31.8	
ISD	1200T125-x	14 (68)	12	305	1-1/4	31.8	
	1400T125-x	12 (97)	14	356	1-1/4	31.8	

<sup>18-</sup>gauge is standard as 33 ksi yield strength. 16, 14 and 12-gauge are standard as 50 ksi yield strength.



 $<sup>{}^\</sup>star \text{The depth of TSB}$  is measured to the inside of the flanges.

x= SSMA reference of mils at the end of the character string.

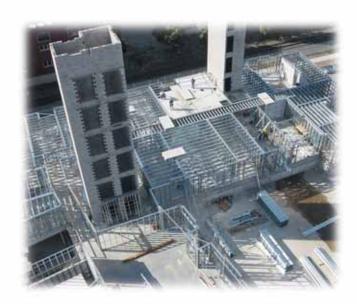
**Next-generation, high-performance TradeReady®** Steel Joists are the premier floor joist system for both commercial and residential framing.

- Clear spans up to 33'.
- Large extruded openings to accommodate electrical, HVAC, plumbing and technology lines.
- Hole sizes range from 4-1/4" oval to 10" round based on member depth.
- Superior strength permits wider O.C. spacing.
- Pre-cut to your exact specifications—no waste.
- Available in 7-1/4", 8", 9-1/4", 10", 11-1/4", 12" and 14" deep members.
- Flange sizes include 1-3/4" and 2".
- Eliminates soffit framing.
- UL\*\* Listed assemblies L564, G535, G536, G551, G553 and G560.

Dietrich TradeReady® steel joists are one of the primary components that make up the TradeReady® floor system. These joists feature large extruded holes that accommodate HVAC, mechanical, plumbing and sprinkler runs. The joist also features a series of smaller holes for electrical and technology lines.

Dietrich TradeReady® steel joists are precision manufactured from corrosion-resistant galvanized steel. Steel joists offer consistent quality, predictable performance and high strength to weight ratio, and they are dimensionally stable. They won't expand, contract or shrink; they won't warp, crack or twist. Steel joists integrate easily with other building materials such as structural steel, concrete, ICF and wood construction.

Joists can be ordered in standard lengths or to your exact specifications to minimize waste. Consult the Dietrich Technical Design Guide or the TradeReady® Steel Joist Design Guide for physical and structural properties, span charts and loading data.



TradeReady® Joists

#### TradeReady® Steel Joist (TD Series™)

DMF	Thickness	De	pth	Flai	nge	Ret	urn
Product Code*	Gauge (mils)	Inches	mm	Inches	mm	Inches	mm
		7-1/4	184	1 3/4	44.5	5/8	15.9
TDJ3 (18 gauge)	18(43)	8	203	1 3/4	44.5	5/8	15.9
TDJ5 (16, 14 & 12 gauge)	16(54), 14(68), 12(97)	9-1/4	235	1 3/4	44.5	5/8	15.9
		11-1/4	286	1 3/4	44.5	5/8	15.9
TDW3 (18 gauge)	18(43)	10	254	2	50.8	5/8	15.9
TDW5 (16, 14 & 12 gauge)	16(54), 14(68), 12(97)	12	305	2	50.8	5/8	15.9
1DW3 (10, 14 & 12 gauge)	10(34), 14(00), 12(97)	14	356	2	50.8	5/8	15.9

<sup>\*18-</sup>gauge is standard as 33 ksi yield strength. 16,14 and 12 gauge are standard as 50 ksi yield strength.

<sup>\*\*</sup>UL and UL Classified are trademarks of Underwriter's Laboratories. Inc.









#### TradeReady™ Joist (TD-Series™)

Hole Size Inches	Hole Size mm	Hole Shape	Web Width Inches	Web Width mm
4-1/4" x 7"	108 x 178		7-1/4" TDJ	184 TDJ
			8" TDJ	203 TDJ
6-1/4" x 9"	159 x 229		9-1/4" TDJ	235 TDJ
0-1/4 X 3	139 x 229		10" TDW	254 TDW
			11-1/4" TDJ	286 TDJ
8" Diam.	203		12" TDW	305 TDW
10" Diam.	254		14" TDW	356 TDW

# TradeReady® Grommet protects and isolates electrical wiring.

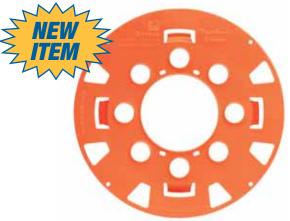
- Snaps quickly into TradeReady® 12" TDW joist (all gauges)
- Provides 360° cable protection
- Simplifies cable pull through
- Delivers compliance with NEC Article 300.4(B)(1) and CEC Rule 12-516
- Aids in the separation of cables to prevent bundling
- Ideal for ROMEX\*/ NM type cables: 6/2, 6/3, 8/2, 8/3, 10/2, 10/3, 12/2, 12/3, 14/2, 14/3, etc...

TradeReady® Grommets are used in construction anytime it is required by building code to protect electrical wiring. The grommet is specially designed for the 12" TradeReady® Floor Joist System.

#### **TradeReady® Grommets (TDGR)**

DMF	Pcs/	Weigh	nt/Box
Product Code	Box	lbs	kg
TDGR	36	12	5.44





TradeReady® Grommet







Next-generation TradeReady® Rim has preformed tabs at standard spacings for rapid and easy installation of TradeReady® Steel Joists.

- Rims have preformed tabs at 12", 16", 19.2" or 24" intervals that eliminate layout.
- Eliminates or drastically reduces support clips, joist hangers and web stiffeners.
- Standard 16' lengths.
- Sizes include 7-1/4", 8", 9-1/4", 10", 11-1/4", 12" and 14".

TradeReady® Rim Dietrich TradeReady® rim is another major component of the TradeReady® steel floor system. The rim is an integral part of the system and drastically reduces framing time and effort. Rims have preformed attachment tabs at 12", 16", 19.2" or 24" O.C. spacing to eliminate layout time. The tabs are also prepunched to ensure fast, accurate and proper fastener placement. Embossed stiffening ribs on each side of the preformed tabs provide additional reinforcement, resulting in a significant reduction of web stiffeners (squash blocks) and support clips in a majority of applications. Once rims are installed, simply tilt up the floor joist, abut to the tab and screw attach.

U.S. Patent Nos. 6,301,854; 6,691,478; 6,418,694 and other patents pending.

#### TradeReady® Rim (TD-Series™)

DMF Thickness Depth Flange Length Tab Spacing										
Product	Thickness Gauge		ptn	To		ength Bott	tom		acing	
Code	(Mils)	Inches	mm	Inches	mm	Inches	mm	Inches	mm	
	, ,	7-1/4	184	1-1/4	31.8	2-1/2	63.5	12	305	
	10(47)	8	203	1-1/4	31.8	2-1/2	63.5	12	305	
	18(43)	9-1/4	235	1-1/4	31.8	2-1/2	63.5	12	305	
TD12	16(54)	10	254	1-1/4	31.8	2-1/2	63.5	12	305	
	14(68)	11-1/4	286	1-1/4	31.8	2-1/2	63.5	12	305	
	12(97)	12	305	1-1/4	31.8	2-1/2	63.5	12	305	
		14	356	1-1/4	31.8	2-1/2	63.5	12	305	
		7-1/4	184	1-1/4	31.8	2-1/2	63.5	16	406	
	10(47)	8	203	1-1/4	31.8	2-1/2	63.5	16	406	
	18(43) 16(54)	9-1/4	235	1-1/4	31.8	2-1/2	63.5	16	406	
TD16	14(68) 12(97)	10	254	1-1/4	31.8	2-1/2	63.5	16	406	
		11-1/4	286	1-1/4	31.8	2-1/2	63.5	16	406	
		12	305	1-1/4	31.8	2-1/2	63.5	16	406	
		14	356	1-1/4	31.8	2-1/2	63.5	16	406	
		7-1/4	184	1-1/4	31.8	2-1/2	63.5	19.2	488	
	18(43)	8	203	1-1/4	31.8	2-1/2	63.5	19.2	488	
	16(54)	9-1/4	235	1-1/4	31.8	2-1/2	63.5	19.2	488	
TD19	14(68)	10	254	1-1/4	31.8	2-1/2	63.5	19.2	488	
	12(97)	11-1/4	286	1-1/4	31.8	2-1/2	63.5	19.2	488	
	12(37)	12	305	1-1/4	31.8	2-1/2	63.5	19.2	488	
		14	356	1-1/4	31.8	2-1/2	63.5	19.2	488	
		7-1/4	184	1-1/4	31.8	2-1/2	63.5	24	610	
	18(43)	8	203	1-1/4	31.8	2-1/2	63.5	24	610	
	16(54)	9-1/4	235	1-1/4	31.8	2-1/2	63.5	24	610	
TD24	14(68)	10	254	1-1/4	31.8	2-1/2	63.5	24	610	
	12(97)	11-1/4	286	1-1/4	31.8	2-1/2	63.5	24	610	
	12(31)	12	305	1-1/4	31.8	2-1/2	63.5	24	610	
		14	356	1-1/4	31.8	2-1/2	63.5	24	610	

TradeReady® Rim is only available in 16' stock lengths.

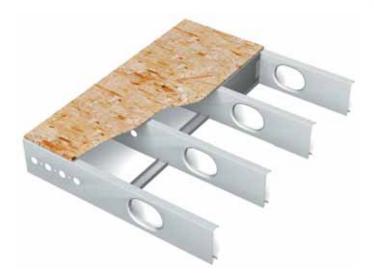




Precut structural blocking that installs easily to the underside of the joists to prevent

joist rotation.

- Pre-cut to fit 12", 16", 19.2" or 24" spacing.
- Pre-punched holes for quick attachment.
- Available in 18 gauge only.



Structural Blocking

Dietrich TradeReady®, structural blocking is the third component of the TradeReady® steel floor system. Structural blocking is pre-cut to fit securely between the underside of the floor joists to prevent joist rotation. Structural blocking is an economical alternative to cross bracing, X-bracing or strapping. A continuous row of blocking should be installed every 8' O.C. maximum and staggered for easy attachment.

*Caution:* In order to prevent joist rolling, the TDSB blocking must be tied into the structure or otherwise braced against lateral movement.

*Note:* TDSB blocking is not required if sheathing is applied to the joists top and bottom.



#### TradeReady® Structural Blocking (TDSB)

DMF	Thickness	Depth	1	Effective L	ength
Product Code	Gauge (Mils)	Inches	mm	Inches	mm
TDSB	18(43)	2-1/2	63.5	12	305
TDSB	18(43)	2-1/2	63.5	16	406
TDSB	18(43)	2-1/2	63.5	19.2	488
TDSB	18(43)	2-1/2	63.5	24	610



Block and strap bridging is used to prevent joist rotation and lateral movement.

- Install immediately after joists are erected and before construction loads are applied.
- Solid blocking is field cut from track or joist sections.
- EasyClip™ E-Series™ clips are used to attach blocks to open side of C-Joist.
- EasyClip™ S-Series™ clips are used to attach blocking to solid side of C-Joist.



S-Series E-Series"

Dietrich block and strap bridging is installed to prevent ioist rotation and lateral movement. Solid blocking, a field-cut track or joist section, is welded or screwattached between the first and last two outer joist bays and at a maximum of 8' O.C. along

the strap, over all interior supports and adjacent to floor openings. Two-inch wide corrosion resistant strapping is also screw-attached or welded to the bottom of every joist flange. Lateral support on the top flanges is usually provided by sub floor or deck material.

Spacing of bridging must be calculated based on the required strength. In general, bridging is installed at a maximum of 8' O.C. spacing perpendicular to the joists. For example, an 18' joist span would require two bridging runs at 6' O.C. spacing.

Where the sub-floor or decking does not provide lateral support, strap must also be installed on the top flange of the joist.





#### Diagonal Tension Strapping (DTN-Series™/Strap)

•			•		- /						
DMF		Thic	kness			Size Av	ailable	Length		Packaging	
Produc	Product Gauge M		Mils Design Thickness		Min.	Min. Width		Max. Width		Lengui	
Code		IVIIIS	Inches	mm	Inches	mm	Inches	mm	ft	m	Skid
DTN3	20	33	0.0346	0.879	2	50.8	12	305	10	3.05	200
DIN3	18	43	0.0451	1.146	2	50.8	12	305	10	3.05	200
	16	54	0.0566	1.438	2	50.8	12	305	10	3.05	200
DTN5	14	68	0.0713	1.811	2	50.8	12	305	10	3.05	200
	12	97	0.1017	2.583	2	50.8	12	305	10	3.05	200

DTN3 has a yield strength of 33,000 psi. DTN5 has a yield strength of 50,000 psi. Packaging may vary by region.

#### **EasyClip™ Support Clips (E-Series™)**

DMF		Thickne			Siz	e	Weigh	t/Piece	Packaging
Product Code	Gauge	Mils	Design 1 Inches	Thickness mm	Inches	mm	lbs	kg	Pcs/ Bucket
E543	16	54	0.0566	1.438	4 x 1-1/2 x 3	102 x 38.1 x 76.2	0.270	0.122	100
E545	16	54	0.0566	1.438	4 x 1-1/2 x 5	102 x 38.1 x 127	0.440	0.199	100
E547	16	54	0.0566	1.438	4 x 1-1/2 x 7	102 x 38.1 x 178	0.620	0.281	100
E549	16	54	0.0566	1.438	4 x 1-1/2 x 9	102 x 38.1 x 229	0.800	0.362	50
E541	16	54	0.0566	1.438	4 x 1-1/2 x 11	102 x 38.1 x 279	0.970	0.439	50
E683	14	68	0.0713	1.811	4 x 1-1/2 x 3	102 x 38.1 x 76.2	0.330	0.149	100
E685	14	68	0.0713	1.811	4 x 1-1/2 x 5	102 x 38.1 x 127	0.550	0.249	100
E687	14	68	0.0713	1.811	4 x 1-1/2 x 7	102 x 38.1 x 178	0.770	0.384	80
E689	14	68	0.0713	1.811	4 x 1-1/2 x 9	102 x 38.1 x 229	0.990	0.448	50
E681	14	68	0.0713	1.811	4 x 1-1/2 x 11	102 x 38.1 x 279	1.220	0.552	50
E973	12	97	0.1017	2.583	4 x 1-1/2 x 3	102 x 38.1 x 76.2	0.470	0.213	50
E975	12	97	0.1017	2.583	4 x 1-1/2 x 5	102 x 38.1 x 127	0.780	0.353	50
E977	12	97	0.1017	2.583	4 x 1-1/2 x 7	102 x 38.1 x 178	1.090	0.493	50
E979	12	97	0.1017	2.583	4 x 1-1/2 x 9	102 x 38.1 x 229	1.410	0.638	50
E971	12	97	0.1017	2.583	4 x 1-1/2 x 11	102 x 38.1 x 279	1.720	0.778	40

#### EasyClip™ Support Clips (S-Series™)

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DMF		Thickne	ess		Siz	e	Weigh	t/Piece	Packaging
Product	Gauge	Mils		Thickness	Inches	mm	lbs	kg	Pcs/
Code			Inches	mm				6	Bucket
S543	16	54	0.0566	1.438	1-1/2 x 1-1/2 x 3	38.1 x 38.1 x 76.2	0.140	0.064	400
S545	16	54	0.0566	1.438	1-1/2 x 1-1/2 x 5	38.1 x 38.1 x 127	0.240	0.109	200
S547	16	54	0.0566	1.438	1-1/2 x 1-1/2 x 7	38.1 x 38.1 x 178	0.340	0.154	100
S549	16	54	0.0566	1.438	1-1/2 x 1-1/2 x 9	38.1 x 38.1 x 229	0.430	0.195	100
S541	16	54	0.0566	1.438	1-1/2 x 1-1/2 x 11	38.1 x 38.1 x 279	0.530	0.240	100
S683	14	68	0.0713	1.811	1-1/2 x 1-1/2 x 3	38.1 x 38.1 x 76.2	0.180	0.082	200
S685	14	68	0.0713	1.811	1-1/2 x 1-1/2 x 5	38.1 x 38.1 x 127	0.300	0.136	200
S687	14	68	0.0713	1.811	1-1/2 x 1-1/2 x 7	38.1 x 38.1 x 178	0.420	0.191	100
S689	14	68	0.0713	1.811	1-1/2 x 1-1/2 x 9	38.1 x 38.1 x 229	0.540	0.245	100
S681	14	68	0.0713	1.811	1-1/2 x 1-1/2 x 11	38.1 x 38.1 x 279	0.660	0.299	100
S973	12	97	0.1017	2.583	1-1/2 x 1-1/2 x 3	38.1 x 38.1 x 76.2	0.260	0.118	200
S975	12	97	0.1017	2.583	1-1/2 x 1-1/2 x 5	38.1 x 38.1 x 127	0.430	0.195	150
S977	12	97	0.1017	2.583	1-1/2 x 1-1/2 x 7	38.1 x 38.1 x 178	0.600	0.272	100
S979	12	97	0.1017	2.583	1-1/2 x 1-1/2 x 9	38.1 x 38.1 x 229	0.770	0.349	80
S971	12	97	0.1017	2.583	1-1/2 x 1-1/2 x 11	38.1 x 38.1 x 279	0.940	0.426	70

#### Diagonal Tension Strapping (DTN-Series™/Coil)

•		• `		,					
DMF		Thick	kness			Si	ze		Packaging
Product	Gauge	Mils	Design Thickness		Min. Width		Max. Width		Pcs/
Code			Inches	mm	Inches	mm	Inches	mm	Skid
	20	33	0.0346	0.879	2	50.8	12.0	304.8	1 coil
	18	43	0.0451	1.146	2	50.8	12.0	304.8	1 coil
DTNC	16	54	0.0566	1.438	2	50.8	12.0	304.8	1 coil
	14	68	0.0713	1.811	2	50.8	12.0	304.8	1 coil
	12	97	0.1017	2.583	2	50.8	12.0	304.8	1 coil



<sup>20</sup> and 18 gauge are 33,000 psi yield strength. 16, 14 and 12 gauge are 50,000 psi yield strength.

# **EasyClip™ Quick Twist Web Stiffeners** provide excellent reinforcement at critical load points to prevent web crippling.

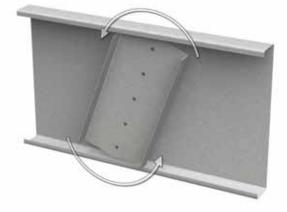
- Simple, post installation assembly.
- Easily rotated in-place for a tight fit.
- Pre-punched for easy installation of fasteners.
- Solid 12 gauge construction.
- One-piece assembly.

EasyClip™ Quick Twist Web Stiffeners (QTWS) are used to provide reinforcement of joist webs to prevent crippling. Web reinforcement is often required by design to enhance the load capacity of joists. The unique design of QTWS allows the installer to insert the stiffener on the inside of the joist after the joist is installed. This stiffener eliminates the need to pre-insert traditional web stiffeners prior to joist installation.











#### EasyClip™ Quick Twist Web Stiffener (QTWS)

DME	· ·		#L1.1			C:	*	10/-:-	l. t. /	
DMF	Size		Inick	kness	1 . 1	Siz	:e*	vveig	ht/pc	D 1 '
Product	(inches)	Gauge	Mils		hickness	Inches	mm	lbs	kg	Packaging
Code	(interies)			Inches	mm					
						7.25	184.2	1.190	0.539	
						8.00	203.2	1.320	0.599	Packaged
						9.25	235.0	1.530	0.694	Dependent
QTWS	3-1/2	12	97	0.1017	2.583	10.00	254.0	1.660	0.753	On
						11.25	285.8	1.880	0.853	Order
						12.00	304.8	2.000	0.907	Quantity
						14.00	355.6	2.340	1.061	
						7.25	184.2	1.690	0.767	
						8.00	203.2	1.870	0.848	Packaged
						9.25	235.0	2.170	0.984	Dependent
QTWS	6	12	97	0.1017	2.583	10.00	254.0	2.350	1.066	On
QTVVS						11.25	285.8	2.660	1.207	Order
						12.00	304.8	2.840	1.288	Quantity
						14.00	355.6	3.320	1.506	

\*Dimension is nominal size. Actual product is shorter to fit inside joist.





Provides excellent reinforcement at critical load points to prevent web crippling.

- Prevents web crippling.
- Significantly enhances joist carrying capacity.
- Available in 14 gauge only.

Dietrich web stiffeners are used to provide reinforcement of joist webs to prevent crippling. Web reinforcement is often required by design to enhance the load capacity of joists.

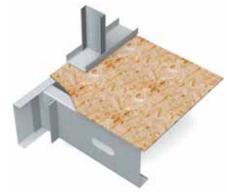
When installing between the joist flanges, WS web stiffeners must be installed by sliding it in from the end of the joist. Web stiffeners must be ordered to fit specific joist web dimensions.











#### Web Stiffener (WS)

	, ,								
DMF		Thic	kness		Siz	ze	Length		
Product	Gauge	Mils	Design Tl	Design Thickness		mm	Inches	mm	
Code	dauge	IVIIIS	Inches	mm	Inches		ilicites		
WS	14	68	0.0713	1.811	4	102	5-3/4 to 13-3/4	146 to 349	

# Used in lieu of block and strap to prevent flange rotation and support flanges in compression.

- Eliminates multiple components.
- Fits 1-5/8"-3" flanges.
- Available for 12", 16", 19.2" or 24" O.C. spacing.





Tension Bracing

Simpson\* tension bracing is used to prevent joist compression, flange lateral movement, and rotation. These tension ties are used as an alternative to traditional block and strapping. Tension ties are traditionally used with wood framing, but can also be

Spacing of tension bracing must be calculated based on needed strength. In general, bracing is installed at 8' O.C. maximum.

\* Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.

# Pre-cut structural blocking provides a quick and efficient method to prevent joist rotation.

- Economical alternative to strapping, x-bracing or tension bridging.
- Pre-cut to fit 12", 16", 19.2" or 24" spacing.
- Pre-punched holes for quick attachment.
- Available in 18 gauge.

used with conventional C-joists.

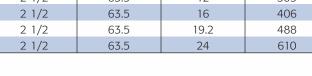
Structural **Blocking** 

Dietrich TradeReady® structural blocking is pre-cut to fit securely between the underside of floor joists to prevent joist rotation. The structural blocking is an economical alternative to cross bracing, x-bracing or strapping. A continuous row of blocking should be installed every 8' O.C. maximum and staggered for easy attachment.

**CAUTION:** In order to prevent joist rolling, the TDSB blocking must be tied into the structure or otherwise braced against lateral movement.

#### TradeReady® Structural Blocking (TDSB)

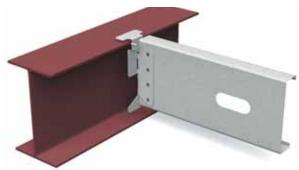
DMF	Thickness	Г	epth	Effective	Length	
Product Code	Gauge (mils)	Inches	mm Inches		mm	
TDSB	18 (43)	2 1/2	63.5	12	305	
TDSB	18 (43)	2 1/2	63.5	16	406	
TDSB	18 (43)	2 1/2	63.5	19.2	488	
TDSB	18 (43)	2 1/2	63.5	24	610	





# This premier joist hanger features "one size fits all" flexibility and accommodates 8"-14" deep floor joists.

- One size fits all. Eliminates numerous SKUs.
- Field skewable up to 45°.
- Joists can be attached from either side or doubled up.





Each hanger is pre-punched with various shaped holes for fast, easy and accurate fastener placement. Round holes are used for minimum loads, and both round and triangle holes are used for maximum loads.

The SJCT joist hanger is typically used to hang joists from wood, glue-lams, light-gauge steel or structural steel I-beams.



or easily doubled up.

# BEST

SJCT



#### Simpson® (SJCT) 8-14 Hanger

DMF	Simpson™		Thick	kness		Weight	Packaging		
Product	t Reference	Gauge	Mils	Design Thickness		lbs	ka	Pcs/Box	
Code		dauge	IVIIIS	Inches	mm	103	kg	1 C3/ DOX	
SJCT	S/JCT8-14	14	68	0.0713	1.811	0.600	0.271	50	

<sup>\*</sup> Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.



## **Traditional hanger used to attach floor** joists to structural steel beams.



- Single-and double-wide hangers.
- Stock sizes for 8", 10", 12" and 14" deep joists.
- Other widths and depths available.

Simpson\* bridle hangers are commonly used to attach light-gauge C-joists to structural steel beams. Bridle hangers are easily attached with welds.





Bridle Hanger



Photo illustrates SJCT Hanger. Bridle Hanger is an acceptable alternative.

#### Simpson\* Bridle Hanger (SLBV/SMB)

opoo	211410 11411go: (0-21701112)											
DMF		Thick	ness		De	pth	Wi	dth	Weigh	t/Piece	Packaging	
Product Code	Gauge	Mils	Design T Inches	hickness mm	Inches	mm	Inches	mm	lbs	kg	Pcs/ Box	
		68	0.0713	1.811	8	203	2	50.8	1.00	0.452	25	
SLBV	14				10	254	2	50.8	1.25	0.566	25	
SLDV	17				12	305	2	50.8	1.50	0.679	25	
					14	356	2	50.8	2.00	0.905	25	
		97	7 0.1017	2.583	8	203	2	50.8	2.00	0.905	25	
SMB	12				10	254	2	50.8	2.25	1.018	25	
SIVID	12				12	305	2	50.8	2.50	1.131	25	
					14	356	2	50.8	4.00	1.810	25	

Double-wide hangers available on request.



 $<sup>\</sup>emptyset$ 0ther style hangers are available.

<sup>\*</sup>Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.

# This specialty hanger provides a quick, easy and versatile method for attaching steel rim joists to insulated concrete forms.

- Cost-effective connector used in ICF construction.
- Anchors securely within the concrete.
- Available in 14 gauge only.



The Simpson\* ledger connector system is engineered to solve the challenges of mounting steel or wood ledgers to insulated concrete form (ICF) walls. Simpson's Ledger Connector System is easy, quick and versatile to use. The perforations in the embedded leg of the ICFL permit the concrete to flow around it, anchoring the ICFL securely within the concrete. The exposed flange provides a structural surface for mounting either a wood or steel ledger.











DMF		Thick	ness	Weight	Packaging		
Product	Product Gauge Mils		Design T	hickness	lbs	kg	Pcs/
Code	duage	Wills	Inches	mm	103	<b>^6</b>	Box
ICFL	14	68	0.0713	1.811	1.81	0.82	20

<sup>\*</sup> Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.



# Skewable utility angle used for rigid and off-angle attachments of joists to joists or other structural steel members.





- Adjustable from 0° to 135°.
- Bend one time only.
- Available in 18 gauge.
- ICBO ER 5275 recognized.

Simpson\* SLS5/SLS7 skewable utility angles are used to make rigid attachments of joist-to-joist or joist-to-other-miscellaneous framing. This clip is ideal for making offangle attachments. It is easily field bent from  $0^{\circ}$  to  $135^{\circ}$ .

CAUTION: This clip can only be bent one time.



SLS7



SLS5



#### Simpson® Skewable Angle Hangers (SLS5/SLS7)

DMF		Thick	iness		Siz	ze	Weight	Packaging	
Product	Gauge	Mils	Design Thickness		Inches	mm	lbs	kg	Pcs/
Code	Guage	Willis	Inches	mm	inches		103	**8	Box
SLS5	18	43	0.0451	1.146	4-7/8	124	0.300	0.136	100
SLS7	18	43	0.0451	1.146	6-3/8	162	0.400	0.181	50

<sup>\*</sup>Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.



# The LTP4 Lateral Tie Plate transfers shear forces from the joist rim or blocking to the sill plate.

- Prepunched holes for connection accuracy.
- ICBO ER 5670 recognized.



The Simpson\* LTP4 Lateral Tie Plate transfers shear forces from the joist rim or blocking to the sill plate. Nail holes are spaced to prevent wood splitting for single and double top plate applications. May be installed over plywood sheathing.







#### **Lateral Tie Plate (LTP4)**

	DMF		Thick	ness		Hei	ght	Wie	dth	Weight	Packaging	
	Product	Gauge Mils Design Thickness		Inches	mm	Width	mm	lbs	ka	Pcs/		
Code	dauge	IVIII3	Inches	mm	iliciies		vvidtii	111111	103	kg	Box	
	LTP4	20	33	0.0346	0.879	3	76.2	4-1/4	108	0.110	0.050	200

<sup>\*</sup>Simpson is a registered trademark of Simpson Strong-Tie Company, Inc.



# **Used to secure TradeReady® Rim,** structural track, end caps or parallel joists to the building foundation.

- Pre-punched for easy and accurate fastener placement.
- Elongated slot provides for adjustable attachment to the foundation anchor bolts.
- 16 gauge, G 90, 50 ksi steel.



Dietrich Foundation Clips are used to provide a strong, rigid attachment of TradeReady® Rim or conventional structural track to the building foundation. Foundation clips are secured to the foundation using the elongated slots, and anchor bolts. The pre-punched leg is screw attached to the face or web of the joist. Clip spacing is based on loading requirements.



Foundation Clip





#### **Foundation Clips (FDCL)**

DMF	Thickness				Wie	dth	Hei	ght	Len	gth	Weight/	Piece	Packaging
Product	t Gauge Mils Design Thickness		Inches mm	mm	Inches	mm	Inches	mm	lbs	kg	Pcs/		
Code	dauge	141113	Inches	mm	inches		inches		menes		103	۰٬۰۵	Box
FDCL	16	54	0.0566	1.438	5	127	5-1/2	140	5	127	0.900	0.407	80