

Load adjustment factors for optional nails used with face mount hangers and straight straps

Catalog Nail	Replacement Nail	Allowable Load Adjustment Factor
16d common	10d x 1½"	0.64
16d common	10d common/12d common	0.84
16d common	16d sinker	0.84
16d common	16d x 2½" (N16)	1.00
10d common/12d common	10d x 1½"	0.77
10d common/12d common	16d sinker	1.00
8d common	8d x 1½"	0.86
16d common	spiral 8d x 2½"	0.70
16d common	spiral 10d x 3"	0.83
16d common	spiral 16d x 3½"	0.96
10d common	spiral 8d x 2½"	0.83
10d common	spiral 10d x 3"	1.00

1. 10d x 1½" or 16d x 2½" nails **may not** be substituted for joist nails in double shear hangers (i.e. LUS, HUS, HHUS, HGUS). Contact factory for exceptions.
2. Do not substitute 10d x 1½" nails for face nails on slope and skew combinations or skewed only LSU and LSSU.
3. This table does not apply to specials (see Hanger Options), or steel thicker than 10 gauge.

If Common Rafter Roof Pitch is...

Rise/Run	Slope
1/12	5°
2/12	10°
3/12	14°
4/12	18°
5/12	23°
6/12	27°
7/12	30°
8/12	34°
9/12	37°
10/12	40°
11/12	42°
12/12	45°

Then Hip/Valley Rafter Roof Pitch becomes...

Rise/Run	Slope
1/17	3°
2/17	7°
3/17	10°
4/17	13°
5/17	16°
6/17	19°
7/17	22°
8/17	25°
9/17	28°
10/17	30°
11/17	33°
12/17	35°

Use these conversion tables only for hip/valley rafters that are skewed 45° right or left. All other skews will cause the slope to change from that listed above.

US Standard Steel Gauge Equivalents in Nominal Dimensions

Ga	Approximate Dimensions		Decimals (in)		
	in	mm	Uncoated Steel	Galvanized Steel (G60)	Z-MAX
3	¼	6.0	0.239	—	—
7	⅜	4.5	0.179	0.186	—
10	⅝	3.5	0.134	0.138	0.140
11	⅞	3.1	0.120	0.123	0.125
12	7/8	2.7	0.105	0.108	0.110
14	5/8	2.0	0.075	0.078	0.080
16	⅜	1.6	0.060	0.063	0.065
18	3/8	1.3	0.048	0.052	0.054
20	1/2	1.0	0.036	0.040	0.042
22	5/8	1.0	0.030	0.033	0.035

Steel thickness varies according to mill standards.

Metric Conversion

Imperial	Metric
1 in	25.40 mm
1 ft	0.3048 m
1 lb	4.448N
1 Kip	4.448 kN
1 psi	6895 Pa

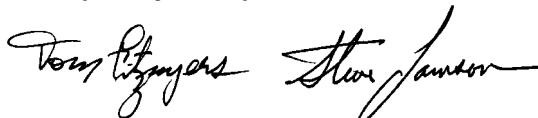
Bolt Diameter

in	mm
⅜	9.5
½	12.7
⅝	15.9
¾	19.1
⅞	22.2
1	25.4

SIMPSON'S QUALITY POLICY

We help people build safer structures economically. We do this by designing, engineering and manufacturing "No Equal" structural connectors and other related products that meet or exceed our customers' needs and expectations.

Everyone is responsible for product quality and is committed to ensuring the effectiveness of the Quality Management System.



Tom Fitzmyers
Chief Executive Officer

Steve Lamson
President

WE ARE ISO 9001 REGISTERED



Simpson Strong-Tie is an ISO 9001 registered company. ISO 9001 is an internationally-recognized quality assurance system which lets our domestic and international customers know that they can count on the consistent quality of Simpson Strong-Tie's products and services.

CORROSION RESISTANCE

Connectors are steel and will corrode and lose load-carrying capacity if exposed to ocean salt air, corrosive fire-retardant chemicals, fertilizers, fertilizer fumes or other substances that adversely affect steel.

Simpson Strong-Tie® offers two additional coating options and stainless steel products to give you special corrosion-resistant NO-EQUAL quality. In corrosive environments, especially for connectors that are not exposed to rain or periodic washing, deterioration will occur at a faster rate. The service life of galvanized connectors in a temperate marine environment can be greatly improved by homeowner maintenance.

Fasteners of comparable material should be used to install the product. Contact your Simpson representative for product availability, ordering information and lead times. **Preservative pressure-treated and fire-retardant treated wood can be caustic to zinc coated (or galvanized) steel and can cause the metal to deteriorate. Galvanized connectors should not be placed in contact with treated wood unless the treated wood is adequately verified to be suitable for such contact. Some wood treatments may not accelerate metal deterioration. See the wood material supplier for specific recommendations.**



Products are hot-dip galvanized after fabrication. The coating weight increases with material thickness. Hot-dip galvanizing is available for many products, which require galvanized fasteners.



(G185) 3 times the zinc of our standard (G60) galvanized products. Z-MAX meets all catalog load specifications listed for the regular products and all published building code reports. These products require galvanized fasteners.



Connectors are manufactured from Type 316L stainless steel, and provide greater durability against corrosion. Stainless steel nails should be used with stainless steel products, and are available from Simpson.