

Supplemental Bearing Capacity of Hurricane Ties



MiTek's hurricane ties are designed and typically used to resist uplift and lateral forces applied to roof framing members from wind and seismic events. As a secondary benefit, many MiTek hurricane ties provide supplemental bearing capacity of roofing members resting on the top of a supporting wall. See table below for single ply trusses and multi-ply trusses for additional bearing capacity of select hurricane ties installed on 2x4 or 2x6 walls.



Typical RT15 installation



Typical RT16A installation (RT16-2 similar)



Typical LUGT1 installation



Typical LUGT3 installation (LUGT4 similar)

MiTek	Steel	Fastener Schedule ^{5,6}							Part Alone ¹	Factored Bearing Resistance ^{2,3} 100%	
		Truss/Rafter		Plate		Stud ⁴			Download	Part + 2x4	Part + 2x6
Stock No.	Gauge	Qty	Туре	Qty	Туре	Qty	Туре	Unit	100%	Wall Plate	Wall Plate
1-PLY TRUSS											
RT15	18	5	8d x 1-1/2	5	8d			Lbs	725	3955	5800
								kN	3.23	17.6	25.81
RT16A	18	9	10d x 1-1/2	8	10d			Lbs	1535	4765	6610
								kN	6.84	21.21	29.42
LUGT1	18	8	8d x 1-1/2	8	8d x 1-1/2	7	8d x 1-1/2	Lbs	1290	4515	6360
								kN	5.75	20.1	28.31
2-PLY TRUSS											
RT16-2	18	8	8d	8	8d			Lbs	1330	7785	11475
								kN	5.92	34.65	51.07
LUGT2	14	16	10d	2	10d	14	10d	Lbs	3045	9505	13195
								kN	13.56	42.3	58.72
3-PLY TRUSS											
LUGT3	12	12	WS25	4	16d Sinker	24	16d Sinker	Lbs	5140	14825	20360
								kN	22.88	65.98	90.61
4-PLY TRUSS											
LUGT4	12	16	WS3	5	16d Sinker	32	16d Sinker	Lbs	6390	19305	26685
								kN	28.44	85.91	118.75

- 1) Factored bearing resistance for "Part Alone" is the minimum of the calculated fastener shear resistance (per CSA 086:19) and the 1/8" deflection limit.
- 2) Truss/Rafter plies are based on dimensional lumber dimensions and assumed to be perpendicular to grian loading. Bearing calculations assume full bearing of the truss on the wall plate.
- 3) Table values are for standard term load duration $K_D = 1.00$; adjust for other load durations where applicable in accordance with code.
- 4) The number of wall studs must be minimum of the number of truss plies.
- 5) **NAILS:** 8d x 1-1/2 are 0.131" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long, 10d x 1-1/2 are 0.148" dia. x 1-1/2" long, 16d Sinker are 0.148" dia. x 3-1/4" long.
- 6) SCREWS: MiTek WS25 structural wood screws are 1/4" dia x 2-1/2" long (supplied with LUGT3) and MiTek WS3 structural wood screws are 1/4" dia x 3" long (supplied with LUGT4).

Customer Service & Technical Assistance

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