Proper fasteners are a critical component in a sound wood frame structure. To ensure successful installations of its connectors, MiTek offers a full range of structurally-rated nails. All galvanized nails supplied by MiTek are Hot-dipped for greater corrosion resistance. Any MiTek connector requiring a NA16D-RS or NA20D nail is shipped with the nails attached to the connector in convenient poly bags.

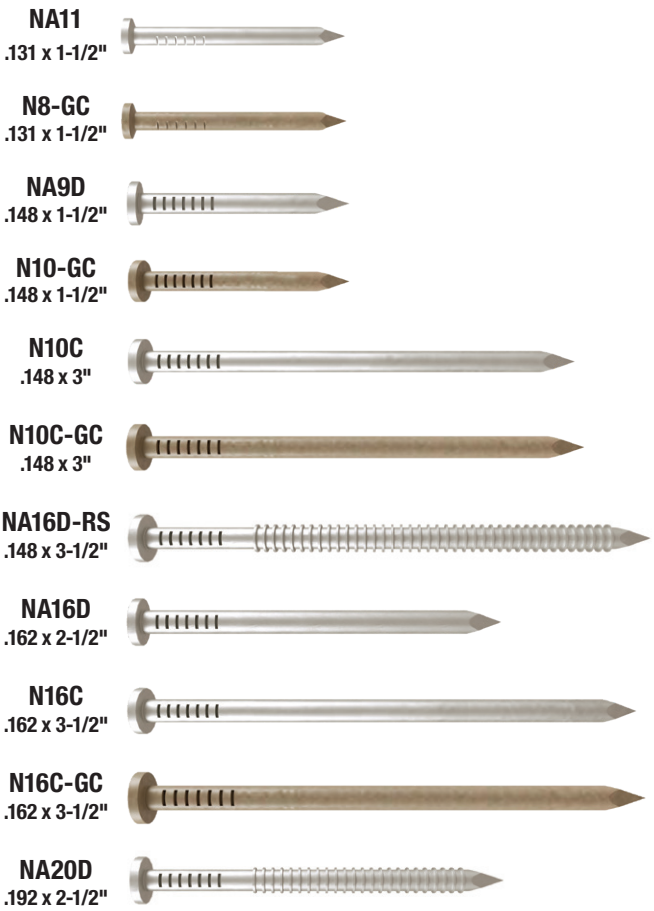
Finish: See Nail Specification Table on page 23.
Materials: ASTM A 123; ASTM A 153 (HDG)

Installation:

- Allowable shear values assume nail embedment into the wood of the entire nail or 10 nail diameters (whichever is less). Otherwise, the nail must be embedded at least 6 nail diameters, with the load reduced using the equation below:

$$\text{Reduced Load} = \frac{\text{Published Load x Actual Penetration}}{\text{Nail Diameter x 10}}$$

- Load reductions may occur if nails are used other than those specified. See the chart Optional Nails for Face Mount Hangers below for load reduction factors regarding nail substitutions.
- For pneumatic nail use, see Installation Notes on page 19 and reference MiTek's technical bulletins.



Optional Nails for Face Mount Hangers and Straight Straps

Reductions are taken from appropriate DF value found in the load chart.
(excludes slant nail hangers)

Catalog Nail	Replacement Fastener[1]	Allowable Load Adjustment Factor		
		DF	SP	S-P-F
8d x 1-1/2 (0.131" x 1-1/2")	8d x 1-1/2 (0.131" x 1-1/2")	1.00	1.00	0.87
	No. 8 (0.164") x 1-1/2 Wood Screw	0.96	1.00	0.83
8d common (0.131" x 2-1/2")	8d Box (0.113" x 2-1/2")	0.77	0.83	0.67
	8d x 1-1/2 (0.131" x 1-1/2")	1.00	1.00	0.87
	No. 8 (0.164") x 1-1/2 Wood Screw	0.96	1.00	0.83
10d x 1-1/2 (0.148" x 1-1/2")	8d x 1-1/2 (0.131" x 1-1/2")	0.83	0.90	0.72
	No. 8 (0.164") x 1-1/2 Wood Screw	0.80	0.87	0.69
10d common (0.148" x 3")	8d Box (0.113" x 2-1/2")	0.64	0.69	0.55
	10d Sinker (0.120" x 2-7/8")	0.71	0.76	0.61
	8d common (0.131" x 2-1/2")	0.83	0.90	0.72
	10d Box (0.128" x 3")	0.80	0.87	0.69
	8d x 1-1/2 (0.131" x 1-1/2")	0.83	0.90	0.72
	10d x 1-1/2 (0.148" x 1-1/2")	1.00	1.00	0.87
	16d Sinker (0.148" x 3-1/4")	1.00	1.00	0.87
	No. 8 (0.164") x 1-1/2 Wood Screw	0.80	0.87	0.69
12d common (0.148" x 3-1/4")	10d x 1-1/2 (0.148" x 1-1/2")	1.00	1.00	0.87
	16d Sinker (0.148" x 3-1/4")	1.00	1.00	0.87
	No. 8 (0.164") x 1-1/2 Wood Screw	0.80	0.87	0.69
16d common (0.162" x 3-1/2")	8d common (0.131" x 2-1/2")	0.70	0.76	0.61
	10d Box (0.128" x 3")	0.67	0.73	0.58
	10d common (0.148" x 3")	0.84	0.91	0.73
	12d common (0.148" x 3-1/4")	0.84	0.91	0.73
	10d x 1-1/2 (0.148" x 1-1/2")	0.84	0.91	0.73
	10d Sinker (0.148" x 2-7/8")	0.60	0.65	0.52
	16d Box (0.135" x 3-1/2")	0.74	0.80	0.65
	16d Sinker (0.148" x 3-1/4")	0.84	0.91	0.73
	16d x 2-1/2 (0.162" x 2-1/2")	1.00	1.00	0.86
	No. 8 (0.164") x 1-1/2 Wood Screw	0.67	0.73	0.58

1) No. 8 x 1-1/2 Wood Screw shall conform to ANSI/ASME Standard B18.6.1-1981.
2) This chart does not apply to HUS, JDS, JH, JPF, JUS, MSH, MUS or THDH slant nail hangers.

How to Use:
The base value is the catalog listed nail in Douglas Fir-Larch and the adjustment factor is the multiplier for the applicable replacement nail and wood combination.

- Adjustment factors may vary with some custom hangers or steel thicker than 10 gauge. Contact MiTek for exceptions.
- Roofing nails shall not be substituted for any nail size or type.

⚠ Optional Nails Example:

JL210 – listed load is 1650 lbs. @ 100% for 10d common nails.

If substituting:
8d common nails with DF-L or LVL:
1650 lbs. x .83 = 1369 lbs.

8d common nails with SP:
1650 lbs. x .90 = 1485 lbs.

8d common nails with S-P-F:
1650 lbs. x .72 = 1188 lbs.

No further reductions are required.

Continued on next page

Nail Specification Table

Finish[3,7]	Size	MiTek USP Stock No.[7]	Ref. No.	Dimensions (in)		Nails Per Lb.	DF/SP Allowable Shear per Nail (Lbs.)[1,2,4,5]									Withdrawal Load (Lbs/in)[6]	Corrosion Finish
				Nail Diameter	Length		Steel Gauge										
							3	7	10	12	14	16	18	20	22		
HDG	8d x 1-1/2	NA11	N8	0.131	1-1/2	152	--	--	--	--	--	96	95	94	94	32	
	10d x 1-1/2	NA9D	N10	0.148	1-1/2	100	--	--	139	127	119	116	114	114	113	36	
	10d Common	N10C	10DHDG	0.148	3	70	--	158	139	127	119	116	114	114	113	36	
	16d x 2-1/2	NA16D	N16, N16EG	0.162	2-1/2	66	194	181	161	149	141	138	137	136	--	40	
	16d Common	N16C	16DHDG	0.162	3-1/2	48	194	181	161	149	141	138	137	136	--	40	
	20d x 2-1/2	NA20D	--	0.192	2-1/2	41	234	207	187	175	168	--	--	--	--	47	
GC	8d x 1-1/2	N8-GC	--	0.131	1-1/2	152	--	--	--	--	--	96	95	94	94	32	
	10d x 1-1/2	N10-GC	--	0.148	1-1/2	118	--	--	139	127	119	116	114	114	113	36	
	10d Common	N10C-GC	--	0.148	3	70	--	158	139	127	119	116	114	114	113	36	
	16d Common	N16C-GC	--	0.162	3-1/2	48	194	181	161	149	141	138	137	136	--	40	
SS[8]	8d x 1-1/2	SSNA8D	SSN8	0.131	1-1/2	147	--	--	--	--	--	96	95	94	94	32	
	10d x 1-1/2	SSNA10D	SSN10	0.148	1-1/2	126	--	--	139	127	119	116	114	114	113	24	
	8d Common	SSN8C	SS8D	0.131	2-1/2	94	--	--	--	--	99	96	95	94	94	22	
	10d Common	SSN10C	SS10D	0.148	3	67	--	158	139	127	119	116	114	114	113	24	
	16d Common	SSN16C	SS16D	0.162	3-1/2	44	194	181	161	149	141	138	137	136	136	27	
Bright	8d Common	8d Common	--	0.131	2-1/2	126	--	--	--	--	99	96	95	94	94	32	
	10d Common	10d Common	--	0.148	3	70	--	158	139	127	119	116	114	114	113	36	
	16d Sinker	16d Sinker	--	0.148	3-1/4	60	162	158	139	127	119	116	114	114	--	36	
	16d Ring Shank	NA16D-RS	--	0.148	3-1/2	57	183	168	150	--	--	--	--	--	--	36	
	16d Common	16d Common	--	0.162	3-1/2	48	194	181	161	149	141	138	137	136	--	40	
	20d Common	20d Common	--	0.192	4	29	234	207	187	175	168	--	--	--	--	47	

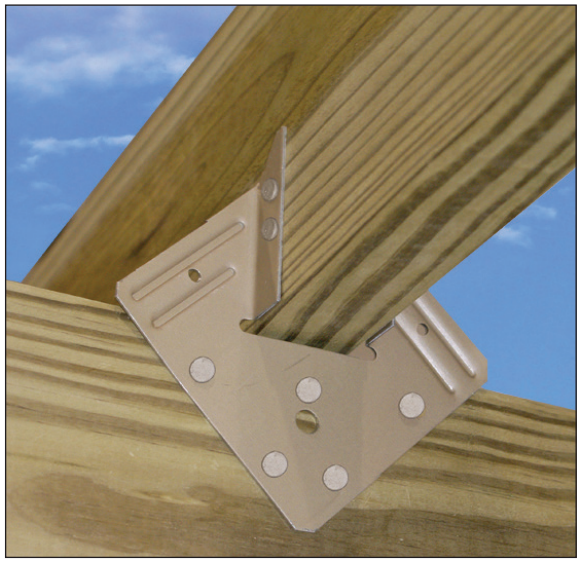
1) Loads are calculated to specifications of Part 12 of the National Design Specifications for Wood Construction (NDS®), 2018 Edition.
2) Loads apply to Douglas Fir (G=0.50) and Southern Pine (G=0.55). For Spruce-Pine-Fir (G=0.42) multiply above values by 0.86. For other wood types refer to NDS or consult MiTek.
3) HDG = Hot-Dip Galvanized; SS = Stainless Steel; GC = Gold Coat; Bright = No Finish.
4) For 3 gauge steel with Fu=58,000 psi and 7 gauge thru 22 gauge steel with Fu=45,000 psi. Shear values assumes full penetration of at least 10 nail diameters.
5) Fastener values may be increased for duration of load.
6) Withdrawal loads are in pounds (lbs) per linear inch of embedment into main member.
7) Bright finish common and sinker nails are listed in table for reference only. MiTek does not stock these type nails.
8) Stainless steel 8d x 1-1/2 nails are ring shank. Other stainless steel nail sizes in table are smooth shank, and withdrawal values are in accordance with Table 12.2D of the 2018 NDS.

Corrosion Finish
Stainless Steel · Gold Coat · HDG · Triple Zinc

Minimum Fastener Penetration Table

Nail Penny	Wire Gauge	Shank Diameter (in)	Minimum Penetration for Full Shear Load (in)	Minimum Penetration for Reduced Shear Load[1] (in)
6d	11-1/2	.113	1.13	0.68
8d	10-1/4	.131	1.31	0.79
10d	9	.148	1.48	0.89
12d	9	.148	1.48	0.89
16d Sinker	9	.148	1.48	0.89
16d	8	.162	1.62	0.97
20d	6	.192	1.92	1.15

1) For penetration less than this distance, the nail has no value.
2) Penetrations are derived according to the 2018 NDS.



Reduced Fastener Penetration Example (See chart above):

HD210 (Min) – listed load is 1540 lbs. @ 100% for 16d common nails.

Reduced HD210 capacity if using a 2x DF-L or SP header:

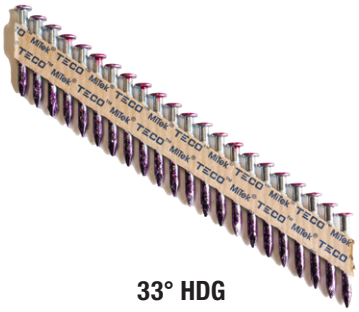
$$\frac{1540 \text{ lbs.} \times 1.5}{1.62} = 1425 \text{ lbs. @ } 100\%$$

MiTek® TECO™ 33° Collated Nails

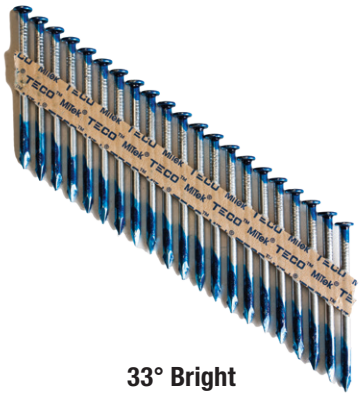
MiTek® TECO™ 33° collated pneumatically driven nails feature a color coded head-ID stamp system that makes it easy to verify the proper nail has been used. The 33° collated nails can serve as an alternate to hand-driven installation of the following nails and may be used with many MiTek products.

Materials: ASTM A580 (Bright) and ASTM A153 (HDG)
Finish: Bright, Hot-dip galvanized
Codes: IBC, FL

Installation:
- Can be used in a wide variety of pneumatic nail guns with nail locating ability.
- Follow manufacturer's instructions for proper use of gun and proper safety equipment.
- Install all specified fasteners per catalog.
- Do not overdrive nails.



33° HDG Collated Nails

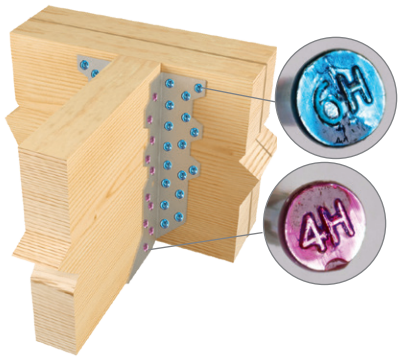


33° Bright Collated Nails

Finish[1]	Size	MiTek USP Stock No.	Ref. No.	Head ID	Dimensions (in)		Code Ref.
					Nail Diameter	Length	
HDG	8d x 1-1/2	NA8DHDGPT	N8HDGPT	A3	0.131	1-1/2	IBC, FL
	8d Common	N8CHDGPT	--	E3	0.131	2-1/2	
	10d x 1-1/2	NA10DHDGPT	--	A4	0.148	1-1/2	
	10d Common	N10CHDGPT	N10DHDGPT	E4	0.148	2-1/2	
	16d x 2-1/2	NA16DHDGPT	N16HDGPT	E6	0.162	2-1/2	
Bright	8d x 1-1/2	NA8DRPT	--	3H	0.131	1-1/2	
	8d Common	N8CRPT	--	3H	0.131	2-1/2	
	10d x 1-1/2	NA10DRPT	--	4H	0.148	1-1/2	
	10d Common	N10CRPT	--	4H	0.148	2-1/2	
	16d x 2-1/2	NA16DRPT	--	6H	0.162	2-1/2	

1) HDG = Hot-Dip Galvanized; Bright = No Finish.

Available in packs of 250, 800 & Bulk Packs



Typical MiTek hanger installation using TECO 33° Collated Nails

Packaging Table

Finish	Size	250-count Pack		800-count Pack		Bulk Offering	
		MiTek USP Stock No.	Box/Ctn Qty	MiTek USP Stock No.	Box/Ctn Qty	MiTek USP Stock No.	Box Qty
HDG	8d x 1-1/2	NA8DHDGPT250	4-pack/250-ea	NA8DHDGPT800	2-pack/800-ea	NA8DHDGPT4000	4000-ea
	8d Common	N8CHDGPT250	4-pack/250-ea	N8CHDGPT800	2-pack/800-ea	N8CHDGPT2500	2500-ea
	10d x 1-1/2	NA10DHDGPT250	4-pack/250-ea	NA10DHDGPT800	2-pack/800-ea	NA10DHDGPT3000	3000-ea
	10d Common	N10CHDGPT250	4-pack/250-ea	N10CHDGPT800	2-pack/800-ea	N10CHDGPT2500	2500-ea
	16d x 2-1/2	NA16DHDGPT250	4-pack/250-ea	NA16DHDGPT800	2-pack/800-ea	NA16DHDGPT2000	2000-ea
Bright	8d x 1-1/2	NA8DRPT250	4-pack/250-ea	NA8DRPT800	2-pack/800-ea	NA8DRPT4000	4000-ea
	8d Common	N8CRPT250	4-pack/250-ea	N8CRPT800	2-pack/800-ea	N8CRPT2500	2500-ea
	10d x 1-1/2	NA10DRPT250	4-pack/250-ea	NA10DRPT800	2-pack/800-ea	NA10DRPT3000	3000-ea
	10d Common	N10CRPT250	4-pack/250-ea	N10CRPT800	2-pack/800-ea	N10CRPT2500	2500-ea
	16d x 2-1/2	NA16DRPT250	4-pack/250-ea	NA16DRPT800	2-pack/800-ea	NA16DRPT2000	2000-ea