

Wind and ASCE Seismic Design A & B

MiTek Stock No.	Ref. No.	L (in)	Min Embed Depth (in)		Ledger / Plate Size	Nails							Bolts						
			Concrete	Masonry		Fastener Schedule ^{5,6,8}		Allowable Tension 160% ^{1,3,4}					Fastener Schedule ^{5,6,8}		Allowable Tension 160% ^{1,2,3,4}				
						Min Qty ⁷	Type	Uncracked Concrete	Cracked Concrete	Min Qty ^{4,5,7,8}	Type	Masonry	Min Qty ⁷	Bolt Dia. (in)	Uncracked Concrete	Cracked Concrete	Masonry		
PA18	PA18	18-1/2	4	6	None	12	16d	2975	2770	12	16d	2680	2	1/2	2240	2240	2240		
					2x & 3x					11							2000		
					4x					10							2480		
PA23	PA23	23-3/4	4	6	None	15	16d	3720	2770	12	16d	2680	3	1/2	3360	2770	2680		
					2x & 3x		(15) 16d	3720	2770		(15) 16d						(3) 1/2	2240	
					4x		(15) 16d	3720	2770		(15) 16d						(3) 1/2		
PA28	PA28	29	4	6	None, 2x, 3x, 4x	15	16d	3720	2770	12	16d	2680	4	1/2	3960	2770	2680		
PA35	PA35	35	4	6	None, 2x, 3x, 4x	15	16d	3720	2770	12	16d	2680	4	1/2	3960	2770	2680		
HPA28	HPA28	29	6	8	None, 2x, 3x, 4x	21	16d	4715	3300	12	16d	2680	4	1/2	4545	3300	2680		
HPA35	HPA35	35	6	8	None, 2x, 3x, 4x	23	16d	4715	3300	12	16d	2680	4	1/2	4545	3300	2680		
PAI18	PAI18	18-1/2	4	6	None	12	10d x 1-1/2	2555	2555	12	10d x 1-1/2	2555	--	--	--	--	--		
					2x & 3x			10	2130	2130		9						1915	
					4x				18	3830		2770						18	3830
PAI23	PAI23	23-1/2	4	6	None	18	10d x 1-1/2	3405	2770	18	10d x 1-1/2	3190	--	--	--	--	--		
					2x & 3x			16		3405		2770						15	3190
					4x			15		3190		2770						13	2680
PAI28	PAI28	28-1/2	4	6	None	21	10d x 1-1/2	3960	2770	22	10d x 1-1/2	4680	--	--	--	--	--		
					2x & 3x					21		4470							
					4x					18		2680							
PAI35	PAI35	35-1/2	4	6	None	26	10d x 1-1/2	3960	2770	26	10d x 1-1/2	5535	--	--	--	--	--		
					2x & 3x					25		5320							
					4x					23		2680							

ASCE Seismic Design C-F

MiTek Stock No.	Ref. No.	L (in)	Min Embed Depth (in)		Ledger / Plate Size	Nails							Bolts										
			Concrete	Masonry		Fastener Schedule ^{5,6,8}		Allowable Tension 160% ^{1,3,4}					Fastener Schedule ^{5,6,8}		Allowable Tension 160% ^{1,2,3,4}								
						Min Qty ⁷	Type	Uncracked Concrete	Cracked Concrete	Min Qty ^{4,5,7,8}	Type	Masonry	Min Qty ⁷	Bolt Dia. (in)	Uncracked Concrete	Cracked Concrete	Masonry						
PA18	PA18	18-1/2	4	6	None	12	16d	2975	2425	12	16d	2680	2	1/2	2240	2240	2240						
					2x & 3x					11		2000											
					4x					10		2480											
PA23	PA23	23-3/4	4	6	None	15	16d	3365	2425	12	16d	2680	3	1/2	3360	2425	2680						
					2x & 3x												15	3365	2425	12	16d	2680	2240
					4x																		
PA28	PA28	29	4	6	None, 2x, 3x, 4x	15	16d	3365	2425	12	16d	2680	4	1/2	3365	2425	2680						
PA35	PA35	35	4	6	None, 2x, 3x, 4x	15	16d	3365	2425	12	16d	2680	4	1/2	3365	2425	2680						
HPA28	HPA28	29	6	8	None, 2x, 3x, 4x	21	16d	4125	2890	12	16d	2680	4	1/2	4125	2890	2680						
HPA35	HPA35	35	6	8	None, 2x, 3x, 4x	23	16d	4125	2890	12	16d	2680	4	1/2	4125	2890	2680						
PAI18	PAI18	18-1/2	4	6	None	12	10d x 1-1/2	2555	2425	12	10d x 1-1/2	2555	--	--	--	--	--						
					2x & 3x			10		2130		2130						9	1915				
					4x					18		3830											
PAI23	PAI23	23-1/2	4	6	None	18	10d x 1-1/2	3365	2425	18	10d x 1-1/2	3190	--	--	--	--	--						
					2x & 3x			16		3365		2425						15	3190				
					4x			15		2680													
PAI28	PAI28	28-1/2	4	6	None	21	10d x 1-1/2	3365	2425	22	10d x 1-1/2	4680	--	--	--	--	--						
					2x & 3x					21		4470											
					4x					18		2680											
PAI35	PAI35	35-1/2	4	6	None	26	10d x 1-1/2	3365	2425	26	10d x 1-1/2	5535	--	--	--	--	--						
					2x & 3x					25		5320											
					4x					23		2680											

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Allowable loads for bolts are based on parallel-to-grain loading with 3" minimum member thickness, except HPA which requires a 3-1/2" thick wood member.
 3) Allowable loads are based on the use of either nails or bolts; nail and bolt values cannot be combined.
 4) Allowable tension loads are for Doug-Fir, Southern Pine, Spruce-Pine-Fir, Hem Fir and I-Joist installations.
 5) 16d sinkers or 10d common nails may be substituted for the specified 16d common nails at 0.85 of the table loads.
 6) For alternate nail schedule and load values consult MiTek.
 7) Minimum quantity of fasteners to be installed. Product may have additional fastener holes not needed to meet published allowable load of product.
 8) **NAILS:** 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 16d nails are 0.162" dia. x 3-1/2" long, 16d sinkers are 0.148" dia. x 3-1/4" long.