BUILD TALL WITH POWER COLUMN®

BETTER, FASTER, TALLER

• Fast, easy one piece installation

DISTRIBUTED BY:

TRI-STATE

FOREST

PRODUCTS

- Complement to Mass Timber wood framing systems
- Sustainable Forestry Initiative (SFI®) Certified
- Excellent fire resistance
- Manufactured with superior strength southern yellow pine MSR Lumber
- Available in range of appearance grades for structural and architectural applications
- Superior alternative for Tall Wall applications
- Load path solution for Engineered Beam and Header Products
- Framing members such as Power Beam[®] can easily be attached to Power Column[®] with simple connection detailing



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POWER COLUMN®

COMBINATION #50 LAYUP

	NET WIDTH = 3-1/2"													
EFFECTIVE	Net Depth = 3-1/2" Load Duration Factor			4-1/8" Load Duration Factor			5-1/2" Load Duration Factor			7" Load Duration Factor				
LENGTH														
	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25		
4	11,750	13,130	13,990	14,410	16,190	17,320	22,740	25,110	26,560	29,700	32,950	34,950		
6	9,130	9,810	10,200	11,330	12,150	12,610	16,260	17,220	17,770	21,900	23,300	24,110		
8	6,600	6,910	7,090	8,100	8,460	8,670	11,220	11,660	11,920	15,350	16,000	16,370		
10	4,830	5,000	5,090	5,880	6,070	6,190	8,040	8,290	8,430	11,090	11,450	11,650		
12	3,650	3,750	3,810	4,420	4,540	4,610	6,010	6,160	6,250	8,330	8,540	8,670		
14	2,840	2,910	2,950	3,430	3,510	3,550	4,650	4,750	4,800	6,460	6,600	6,680		

	NET WIDTH = 5-1/2"													
EFFECTIVE LENGTH	Net Depth = 5-1/2" Load Duration Factor			7" Load Duration Factor			8-1/4" Load Duration Factor			9-5/8" Load Duration Factor				
													1.00	1.15
	6	32,920	36,550	38,810	45,610	51,260	54,840	54,950	61,180	65,070	64,110	71,370	75,910	
8	27,420	29,640	30,950	39,290	42,590	44,520	46,310	50,190	52,470	54,030	58,560	61,220		
10	21,970	23,280	24,030	31,680	33,560	34,650	37,330	39,560	40,840	43,560	46,150	47,640		
12	17,550	18,380	18,850	25,300	26,470	27,140	29,820	31,190	31,990	34,790	36,390	37,320		
14	14,200	14,760	15,080	20,430	21,210	21,660	24,080	25,000	25,520	28,090	29,160	29,780		
16	11,670	12,060	12,290	16,760	17,300	17,610	19,750	20,390	20,760	23,040	23,790	24,220		
18	9,730	10,020	10,180	13,950	14,350	14,580	16,440	16,910	17,180	19,190	19,730	20,040		
20	8,230	8,440	8,570	11,780	12,080	12,250	13,880	14,230	14,430	16,200	16,600	16,840		
22	7,040	7,210	7,300	10,070	10,290	10,420	11,860	12,130	12,290	13,840	14,150	14,330		

			NET WIDTH = 7"									
EFFECTIVE	Net Depth = 6-7/8" Load Duration Factor			8-1/4" Load Duration Factor			9-5/8" Load Duration Factor			7" Load Duration Factor		
LENGTH												
	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
8	48,730	53,790	56,880	63,540	70,930	75,120	74,790	82,750	87,640	53,460	59,380	63,060
10	41,790	45,120	47,080	55,390	59,940	62,600	64,620	69,930	73,040	46,900	51,070	53,550
12	34,950	37,100	38,350	46,520	49,420	51,090	54,280	57,650	59,600	40,070	42,840	44,450
14	29,100	30,560	31,410	38,750	40,690	41,810	45,210	47,470	48,770	33,840	35,730	36,830
16	24,390	25,430	26,030	32,450	33,810	34,600	37,860	39,450	40,370	28,630	29,990	30,770
18	20,640	21,410	21,850	27,430	28,430	29,010	32,000	33,170	33,840	24,400	25,400	25,980
20	17,650	18,230	18,570	23,430	24,180	24,610	27,330	28,210	28,720	20,980	21,740	22,180
22	15,240	15,690	15,950	20,200	20,790	21,120	23,570	24,250	24,640	18,190	18,780	19,120
24	13,280	13,630	13,830	17,580	18,040	18,310	20,510	21,050	21,360	15,900	16,370	16,640

			NET WIDTH = 10-3/4"							
EFFECTIVE	Net	Depth = 8-	1/4"		9-5/8"		10-1/2" Load Duration Factor			
LENGTH	Load	Duration F	actor	Loac	I Duration Fa	actor				
	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	
8	83,960	94,210	100,730	101,730	114,800	123,200	139,700	159,150	171,370	
10	76,510	84,610	89,580	94,700	105,610	112,430	132,100	149,660	160,240	
12	68,180	74,100	77,610	86,440	94,910	100,010	123,070	138,470	147,230	
14	59,620	63,800	66,240	77,320	83,160	86,480	112,820	125,890	132,780	
16	51,680	54,690	56,440	67,520	71,590	73,940	102,130	112,980	118,200	
18	44,790	47,030	48,330	58,690	61,690	63,420	91,580	100,550	104,500	
20	38,930	40,650	41,640	51,160	53,440	54,760	81,760	89,250	92,290	
22	34,060	35,400	36,180	44,840	46,610	47,640	72,990	79,320	81,730	
24	29,980	31,060	31,680	39,520	40,940	41,750	65,310	70,730	72,670	



1. The tabulated allowable loads apply only to **one-piece** glulam members made with all N1D14 laminations (Combination 50) without any special tension laminations.

- 2. Dry Service conditions
- The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is greater.
- Column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
- 5. Design properties for normal load duration and dry-use service conditions: Allowable Compression parallel to grain $(F_c) = 2,300$ psi for 4 or more
- laminations, or 1,700 psi for 2 or 3 laminations.
- Modulus or elasticity (E) = 1,900,000 psi. Flexural stress when loaded parallel to wide face of lamination $F_{\rm by}$ = 2,300 psi for
- 4 or more lams, or 2,100 psi for 3 lams.
- Flexural stress when loaded perpendicular to wide face of lamination F_{tx} = 2,100 psi.
- 6. Bearing material supporting column must be considered to avoid crushing.



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