Power Column®

FEATURES

- Combination #50 (#1 Dense SYP)
- MOE = 1.9×10^6 psi
- F_b = 2100-2300 psi
- $F_c\perp$= 1700-2300 psi
- Architectural & Industrial Appearance
- Individually Wrapped
- 3 $1/8''$, 3 $1/2''$, 5 $1/8''$, 5 $1/2''$, 6 $3/4''$, 7" & 8 $3/4''$ Widths
- Treated Columns Available

SERVICE AND SUPPORT

- National distribution through stocking dealers
- Comprehensive technical support literature and sizing software

ANTHONY®
ANTHONY FOREST PRODUCTS CO.

Tomorrow's Engineered Wood - Today SM

Anthony Power Columns – Combination #50

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Columns
Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length (ft)	Lamination Net Width = 3-1/8 in.											
	Net Depth = 4-1/8 in. (3 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 6-7/8 in. (5 lams)			Net Depth = 8-1/4 in. (6 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
	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	12,450	13,780	14,600	18,950	20,700	21,740	23,690	25,870	27,170	29,390	32,280	34,010
6	8,990	9,520	9,820	12,660	13,300	13,660	15,830	16,620	17,080	20,260	21,350	21,970
8	6,180	6,410	6,550	8,490	8,780	8,950	10,610	10,980	11,190	13,750	14,260	14,550
10	4,410	4,530	4,610	6,000	6,160	6,260	7,510	7,710	7,820	9,780	10,060	10,220
12	3,280	3,360	3,400	4,450	4,550	4,600	5,560	5,680	5,750	7,280	7,440	7,540

Effective Column Length (ft)	Lamination Net Width = 3-1/2 in.											
	Net Depth = 3-1/2 in. (3 lams)			Net Depth = 4-1/8 in. (3 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
	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

Effective Column Length (ft)	Lamination Net Width = 5-1/8 in.											
	Net Depth = 5-1/2 in. (4 lams)			Net Depth = 6-7/8 in. (5 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 9-5/8 in. (7 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
6	30,390	33,660	35,670	40,180	44,290	46,800	49,550	54,880	58,150	57,810	64,020	67,840
8	24,960	26,850	27,960	32,250	34,500	35,790	40,640	43,710	45,490	47,420	51,000	53,070
10	19,740	20,830	21,470	25,020	26,270	27,000	32,020	33,740	34,740	37,360	39,370	40,520
12	15,640	16,270	16,630	19,570	20,340	20,790	25,250	26,310	26,930	29,460	30,700	31,420
14	12,480	12,890	13,120	15,600	16,110	16,400	20,230	20,940	21,350	23,600	24,430	24,900
16	10,140	10,430	10,590	12,680	13,030	13,240	16,500	17,000	17,280	19,250	19,830	20,160
18	8,390	8,590	8,710	10,480	10,740	10,890	13,690	14,050	14,250	15,970	16,390	16,630
20	7,040	7,200	7,290	8,800	9,000	9,110	11,520	11,790	11,940	13,440	13,750	13,930

Effective Column Length (ft)	Lamination Net Width = 5-1/2 in.											
	Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 9-5/8 in. (7 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
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

Effective Column Length (ft)	Lamination Net Width = 6-3/4 in.									Lamination Net Width = 7 in.		
	Net Depth = 6-7/8 in. (5 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 9-5/8 in. (7 lams)			Net Depth = 7 in. (6 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
	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

NOTES and Allowable Design Properties

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = dry
3. 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 worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2005 NDS
4. The 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:
Compression parallel to grain (F_c) = 2,300 psi for 4 or more lams, or 1,700 psi for 2 or 3 lams.
Modulus of elasticity (E) = 1.9 x 10^6 psi
Flexural stress when loaded parallel to wide faces of lamination (F_{by})
    = 2,300 psi for 4 or more lams, or 2,100 psi for 3 lams.
Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx})
    = 2,100 psi for 2 lams to 15 in. deep without special tension laminations.
Volume factor for F_{bx} is in accordance with 2005 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Effective Column Length (ft)	Lamination Net Width = 8-3/4 in.					
	Net Depth = 8-1/4 in. (6 lams)			Net Depth = 9-5/8 in. (7 lams)		
	Load Duration Factor			Load Duration Factor		
	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
10	76,510	84,610	89,580	94,700	105,610	112,430
12	68,180	74,100	77,610	86,440	94,910	100,010
14	59,620	63,800	66,240	77,320	83,160	86,480
16	51,680	54,690	56,440	67,520	71,590	73,940
18	44,790	47,030	48,330	58,690	61,690	63,420
20	38,930	40,650	41,640	51,160	53,440	54,760
22	34,060	35,400	36,180	44,840	46,610	47,640
24	29,980	31,060	31,680	39,520	40,940	41,750