



TIMBER TECHNOLOGIES LLC

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COLFAX, WISCONSIN 54730
715 962 4242

GLUE LAMINATED COLUMN SPECIFICATION SHEET MANUFACTURED FROM #1 SYP LOWERS AND SPF MSR UPPERS

Section Properties

COLUMN	DIMENSIONS	Area (in ²)	X Axis Section Modulus (in ³)	X Axis Moment of Inertia (in ⁴)
3-ply 2x6	4.13" x 5.38"	22.2	19.9	53.4
4-ply 2x6	5.50" x 5.38"	29.6	26.5	71.2
5-ply 2x6	6.88" x 5.38"	37.0	33.1	89.0
3-ply 2x8	4.13" x 7.13"	29.4	34.9	124.3
4-ply 2x8	5.50" x 7.13"	39.2	46.5	165.8
5-ply 2x8	6.88" x 7.13"	49.0	58.2	207.2

Column Design Values

Design Values in psi from NDS Tables 4B and 4C

Members	Species and Commercial Grade	Bending F _b ^{1,2}	Compression Parallel to Grain F _c ²	Modulus of Elasticity E	Shear Parallel to Grain F _v ²
2x6 Treated Base	SYP #1	1650 ^{1,2}	1,750 ²	1,700,000	175 ²
2x6 Upper	SPF 1650f-1.5E	1650 ^{1,2}	1,700 ²	1,500,000	135 ²
2x8 Treated Base	SYP #1	1500 ^{1,2}	1,650 ²	1,700,000	175 ²
2x8 Upper	SPF 1950f-1.7E	1950 ^{1,2}	1,800 ²	1,700,000	135 ²

Higher strength lumber may be substituted to fit design requirements

Notes:

- The Bending Design Value F_b may be multiplied by C_r = 1.15 (repetitive member factor) for all columns having three or more laminations (NDS §4.3.9).
- For Allowable Stress Design, the Load Duration Factor (C_D) increase can be applied to the Design Values for bending (F_b), shear (F_v), and parallel compression (F_c). Load Duration Factor when Wind or Seismic loads are included is 60% (C_D = 1.6) and when Snow is included but not Wind nor Seismic, adjustment is 15% (C_D = 1.15).
- Base members are treated to .60 CCA for ground contact (50 year Warranty against insect damage and decay)
- Notations:
 - NDS – National Design Specification for Wood Construction, 2005 Edition. This is an ANSI standard adopted as part of most building codes, including the International Building Code.
 - SPF-Spruce-Pine-Fir
 - SYP- Southern Yellow Pine
 - 1650f or 1950f – Bending Rating for Machine Stress Rated Lumber
- Other adjustments and design considerations may apply to the column, depending on the application. A competent design professional should verify the accuracy, suitability, and applicability of the column design considerations before using the column design values for any general or specific application.

For technical assistance or member sizing call 715-962-4242 or fax 715-962-4193.