Rosboro
Growing Today • Building Tomorrow®

X-Beam Allowable Loads in Short Header Applications

Rosboro XBEAM Next-Generation Glulam

Roof Beams Allowable Loads

Simple Spans
Non-snow
(LDF=1.25)
Fb = 2,400 psi
Fv = 265 psi
E = 1.8 x 10^6
True E = 1.9 x 10^6

Width (in.)	Depth (in)	Span (ft)								
		4	5	6	7	8	9	10	11	12
3 1/2	6	2,620	1,675	1,162	852	651	456	331	247	189
	7 1/2	4,095	2,619	1,817	1,333	1,019	804	650	487	373
	9	5,557	3,772	2,617	1,921	1,469	1,159	937	773	649
	9 1/2	6,069	4,204	2,917	2,141	1,637	1,292	1,045	862	723
	10 1/2	7,205	4,985	3,564	2,616	2,001	1,579	1,277	1,054	884
	11 7/8	9,074	6,067	4,555	3,347	2,560	2,021	1,635	1,350	1,132
	13	10,950	7,082	5,231	4,013	3,070	2,423	1,961	1,618	1,358
	13 1/2	11,914	7,577	5,554	4,328	3,311	2,614	2,115	1,746	1,465
	14	12,973	8,104	5,890	4,626	3,561	2,811	2,275	1,878	1,576
	15	15,446	9,262	6,612	5,140	4,089	3,228	2,612	2,157	1,810
	16	18,536	10,586	7,406	5,694	4,624	3,674	2,973	2,455	2,060
5 1/2	6	4,117	2,632	1,825	1,339	1,023	716	520	389	298
	7 1/2	6,435	4,115	2,855	2,095	1,601	1,263	1,021	765	587
	9	8,733	5,928	4,113	3,019	2,308	1,821	1,473	1,215	1,019
	9 1/2	9,536	6,606	4,583	3,364	2,573	2,030	1,642	1,355	1,136
	10 1/2	11,322	7,834	5,601	4,111	3,144	2,481	2,007	1,656	1,390
	11 7/8	14,259	9,533	7,158	5,260	4,024	3,176	2,569	2,121	1,779
	13	17,208	11,128	8,221	6,306	4,824	3,808	3,081	2,543	2,134
	13 1/2	18,721	11,907	8,727	6,801	5,203	4,107	3,323	2,743	2,302
	14	20,386	12,734	9,256	7,269	5,596	4,417	3,575	2,951	2,477
	15	24,272	14,555	10,391	8,077	6,425	5,073	4,105	3,389	2,845
	16	29,129	16,636	11,639	8,948	7,266	5,773	4,672	3,857	3,238

Rosboro XBEAM Next-Generation Glulam

Roof Beams Allowable Loads

Simple Spans
Snow
(LDF=1.15)
Fb = 2,400 psi
Fv = 265 psi
E = 1.8 x 10^6
True E = 1.9 x 10^6

Width (in.)	Depth (in)	Span (ft)								
		4	5	6	7	8	9	10	11	12
3 1/2	6	2,410	1,540	1,068	783	599	456	331	247	189
	7 1/2	3,767	2,409	1,671	1,226	937	739	597	487	373
	9	5,112	3,470	2,407	1,767	1,351	1,066	862	711	596
	9 1/2	5,583	3,867	2,683	1,969	1,505	1,188	961	792	665
	10 1/2	6,628	4,586	3,278	2,406	1,840	1,452	1,174	969	813
	11 7/8	8,347	5,580	4,190	3,079	2,355	1,859	1,503	1,241	1,041
	13	10,073	6,514	4,812	3,691	2,823	2,228	1,803	1,488	1,249
	13 1/2	10,960	6,970	5,108	3,981	3,045	2,404	1,945	1,605	1,347
	14	11,934	7,454	5,418	4,255	3,275	2,585	2,092	1,727	1,449
	15	14,209	8,520	6,082	4,728	3,761	2,969	2,402	1,983	1,664
	16	17,052	9,738	6,813	5,237	4,253	3,379	2,734	2,257	1,895
5 1/2	6	3,787	2,421	1,679	1,231	941	716	520	389	298
	7 1/2	5,920	3,785	2,625	1,926	1,472	1,161	939	765	587
	9	8,033	5,453	3,783	2,776	2,123	1,675	1,354	1,117	937
	9 1/2	8,773	6,076	4,216	3,094	2,366	1,867	1,510	1,245	1,044
	10 1/2	10,415	7,206	5,151	3,781	2,892	2,282	1,846	1,523	1,277
	11 7/8	13,117	8,769	6,584	4,838	3,700	2,921	2,363	1,950	1,636
	13	15,830	10,237	7,562	5,800	4,436	3,502	2,833	2,338	1,962
	13 1/2	17,222	10,953	8,027	6,255	4,785	3,777	3,056	2,522	2,117
	14	18,754	11,714	8,514	6,686	5,147	4,063	3,287	2,713	2,277
	15	22,328	13,389	9,558	7,429	5,910	4,665	3,775	3,116	2,615
	16	26,797	15,303	10,706	8,230	6,683	5,309	4,296	3,547	2,977

Notes for X-Beam Roof Beams

(1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
(2) Span = simply supported beam.
(3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
(4) Service condition = dry.
(5) Tabulated values represent total loads and include the beam weight (assumed 35 pcf).
(6) Sufficient bearing length shall be provided at supports.
(7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.

Rosboro X-BEAM™ Next-Generation Glulam

Floor Beams Allowable Loads

Simple Spans
(LDF=1.00)
Fb = 2,400 psi
Fv = 265 psi
E = 1.8 x 10^6
True E = 1.9 x 10^6

Width (in.)	Depth (in)	Span (ft)								
		4	5	6	7	8	9	10	11	12
3 1/2	6	2,095	1,339	928	607	405	283	205	153	116
	7 1/2	3,275	2,094	1,452	1,065	795	556	404	302	231
	9	4,444	3,016	2,092	1,535	1,174	926	701	525	403
	9 1/2	4,853	3,361	2,332	1,711	1,308	1,032	825	618	474
	10 1/2	5,762	3,986	2,849	2,091	1,599	1,261	1,020	837	642
	11 7/8	7,257	4,851	3,642	2,676	2,046	1,615	1,306	1,078	904
	13	8,758	5,663	4,183	3,208	2,454	1,936	1,566	1,293	1,084
	13 1/2	9,529	6,059	4,441	3,460	2,646	2,089	1,690	1,394	1,170
	14	10,376	6,481	4,710	3,698	2,846	2,247	1,817	1,500	1,258
	15	12,354	7,407	5,287	4,109	3,268	2,580	2,087	1,723	1,446
	16	14,826	8,466	5,922	4,553	3,696	2,936	2,376	1,961	1,646
5 1/2	6	3,292	2,104	1,459	954	637	445	322	240	183
	7 1/2	5,146	3,290	2,282	1,674	1,249	874	635	474	363
	9	6,984	4,740	3,288	2,412	1,844	1,455	1,102	825	633
	9 1/2	7,627	5,282	3,664	2,689	2,056	1,621	1,297	971	745
	10 1/2	9,055	6,264	4,478	3,286	2,513	1,982	1,603	1,315	1,009
	11 7/8	11,404	7,623	5,724	4,205	3,216	2,537	2,052	1,693	1,420
	13	13,763	8,899	6,573	5,041	3,856	3,043	2,461	2,031	1,704
	13 1/2	14,973	9,522	6,978	5,437	4,159	3,282	2,655	2,191	1,838
	14	16,305	10,184	7,401	5,811	4,473	3,530	2,856	2,357	1,978
	15	19,413	11,640	8,309	6,458	5,136	4,054	3,280	2,707	2,272
	16	23,299	13,304	9,307	7,154	5,809	4,614	3,733	3,082	2,586

Notes for X-Beam Floor Beams

(1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
(2) Span = simply supported beam.
(3) Maximum deflection = L/360 under live load. Where additional stiffness is desired or for other live/total load ratios, design for deflection must be modified per requirements.
(4) Service condition = dry.
(5) Tabulated values represent total loads based on live/total load = 0.8 and are in addition to the beam weight (assumed 35 pcf)
(6) Sufficient bearing length shall be provided at supports.
(7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.