



Allowable Load (plf) for 3-1/2-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)										
		6	7 1/2	9	9 1/2	10 1/2	11 7/8	12	13 1/2	14	15	16
6	Simple	1162	1817	2617	2917	3564	4555	4627	5554	5890	6612	7406
	Multiple	894	1399	2016	2246	2745	3315	3363	3964	4177	4625	5104
	Min. Bearing	1.5 / 3.0	2.4 / 4.6	3.5 / 6.6	3.8 / 7.4	4.7 / 9.1	6.0 / 10.9	6.1 / 11.1	7.3 / 13.1	7.8 / 13.8	8.7 / 15.2	9.8 / 16.8
8	Simple	651	1019	1469	1637	2001	2560	2615	3311	3561	4089	4624
	Multiple	501	784	1131	1260	1540	1971	2013	2549	2742	3079	3359
	Min. Bearing	1.5 / 3.0	1.8 / 3.4	2.6 / 5.0	2.9 / 5.5	3.5 / 6.8	4.5 / 8.7	4.6 / 8.8	5.8 / 11.2	6.3 / 12.1	7.2 / 13.5	8.1 / 14.8
10	Simple	331	650	937	1045	1277	1635	1670	2115	2275	2612	2973
	Multiple	319	499	721	804	983	1258	1285	1628	1751	2011	2289
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	2.1 / 4.0	2.3 / 4.4	2.8 / 5.4	3.6 / 6.9	3.7 / 7.1	4.6 / 8.9	5.0 / 9.6	5.7 / 11.0	6.5 / 12.6
12	Simple	189	373	649	723	884	1132	1156	1465	1576	1810	2060
	Multiple	220	345	498	556	680	871	889	1127	1212	1392	1585
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.7 / 3.3	1.9 / 3.7	2.3 / 4.5	3.0 / 5.7	3.1 / 5.9	3.9 / 7.4	4.2 / 8.0	4.8 / 9.2	5.4 / 10.5
14	Simple	117	233	406	478	647	829	847	1073	1155	1327	1510
	Multiple	156	252	364	406	497	637	651	825	887	1020	1161
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	2.0 / 3.8	2.6 / 4.9	2.6 / 5.0	3.3 / 6.3	3.6 / 6.8	4.1 / 7.8	4.6 / 8.9
16	Simple	77	154	269	318	431	626	646	819	881	1013	1153
	Multiple	103	191	277	309	378	485	496	629	677	778	886
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	2.2 / 4.3	2.3 / 4.4	2.9 / 5.5	3.1 / 5.9	3.6 / 6.8	4.1 / 7.8
18	Simple	53	106	187	221	300	437	451	645	694	797	908
	Multiple	71	142	217	242	297	381	389	494	532	612	697
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.7 / 3.8	1.8 / 3.9	2.6 / 4.9	2.7 / 5.3	3.2 / 6.1	3.6 / 6.9
20	Simple	--	76	134	159	216	316	326	467	522	643	733
	Multiple	--	102	174	195	239	307	314	398	429	493	562
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4	1.5 / 3.4	2.1 / 4.4	2.3 / 4.7	2.8 / 5.4	3.2 / 6.2
22	Simple	--	55	99	117	160	235	242	348	389	480	585
	Multiple	--	75	132	157	196	252	257	327	352	405	462
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	1.7 / 4.0	1.9 / 4.3	2.3 / 4.9	2.8 / 5.6
24	Simple	--	--	74	88	121	178	184	265	297	367	447
	Multiple	--	--	100	119	162	210	215	273	294	339	386
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.6	1.6 / 3.9	1.9 / 4.5	2.4 / 5.1
26	Simple	--	--	57	68	94	138	143	206	231	286	349
	Multiple	--	--	77	92	126	177	181	231	249	287	327
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.6	1.6 / 4.1	2.0 / 4.7
28	Simple	--	--	--	53	73	109	112	163	183	226	277
	Multiple	--	--	--	72	99	146	151	198	213	245	280
	Min. Bearing	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.8	1.7 / 4.3
30	Simple	--	--	--	--	58	86	89	130	146	182	222
	Multiple	--	--	--	--	79	117	121	171	184	212	242
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.5	1.5 / 4.0
32	Simple	--	--	--	--	46	69	72	105	118	147	181
	Multiple	--	--	--	--	63	94	98	142	159	185	211
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2	1.5 / 3.7
34	Simple	--	--	--	--	--	56	58	86	97	121	148
	Multiple	--	--	--	--	--	77	80	117	131	162	186
	Min. Bearing	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.5
36	Simple	--	--	--	--	--	46	47	71	80	100	123
	Multiple	--	--	--	--	--	63	66	96	108	135	164
	Min. Bearing	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2
38	Simple	--	--	--	--	--	--	--	58	66	83	103
	Multiple	--	--	--	--	--	--	--	80	90	113	139
	Min. Bearing	--	--	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0
40	Simple	--	--	--	--	--	--	--	48	55	69	86
	Multiple	--	--	--	--	--	--	--	67	76	95	117
	Min. Bearing	--	--	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0

DESIGN ASSUMPTIONS:

- SPAN is the on-center distance between supports and is valid for simple span applications.
- Dry-use conditions.
- Total load deflection limit = Span/180.
- Live load ≤ 0.75 x Total load
- Full lateral support on the compression side.
- The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



Allowable Load (plf) for 3-1/2-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)									
		16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30
6	Simple	7834	9260	10945	12967	15439	18530	21051	23602	26299	29141
	Multiple	5356	6168	7076	8098	9256	10580	12107	13890	15996	18524
	Min. Bearing	10.3 / 17.7	12.2 / 20.3	14.4 / 23.3	17.1 / 26.7	20.4 / 30.5	24.4 / 34.9	27.8 / 39.9	31.1 / 45.8	34.7 / 52.7	38.4 / 61.1
8	Simple	4844	5550	6329	7196	8165	9255	10490	11902	13532	15433
	Multiple	3504	3960	4449	4976	5546	6163	6834	7566	8367	9249
	Min. Bearing	8.5 / 15.4	9.8 / 17.4	11.1 / 19.6	12.7 / 21.9	14.4 / 24.4	16.3 / 27.1	18.4 / 30.0	20.9 / 33.3	23.8 / 36.8	27.1 / 40.7
10	Simple	3162	3765	4420	4976	5546	6163	6834	7566	8367	9249
	Multiple	2434	2898	3242	3589	3956	4344	4756	5194	5660	6158
	Min. Bearing	6.9 / 13.4	8.3 / 15.9	9.7 / 17.8	10.9 / 19.7	12.2 / 21.7	13.5 / 23.9	15.0 / 26.1	16.6 / 28.5	18.4 / 31.1	20.3 / 33.8
12	Simple	2192	2610	3064	3555	4082	4617	5065	5542	6052	6599
	Multiple	1686	2008	2358	2736	3073	3352	3645	3952	4274	4612
	Min. Bearing	5.8 / 11.1	6.9 / 13.2	8.1 / 15.5	9.4 / 18.0	10.8 / 20.3	12.2 / 22.1	13.4 / 24.0	14.6 / 26.1	16.0 / 28.2	17.4 / 30.4
14	Simple	1606	1913	2247	2607	2994	3408	3849	4306	4739	5127
	Multiple	1235	1471	1728	2006	2304	2622	2953	3188	3431	3684
	Min. Bearing	4.9 / 9.5	5.9 / 11.3	6.9 / 13.3	8.0 / 15.4	9.2 / 17.7	10.5 / 20.2	11.8 / 22.7	13.2 / 24.5	14.6 / 26.4	15.8 / 28.3
16	Simple	1227	1461	1716	1992	2288	2594	2912	3247	3600	3970
	Multiple	942	1123	1319	1531	1759	2003	2263	2538	2829	3066
	Min. Bearing	4.3 / 8.3	5.1 / 9.9	6.0 / 11.6	7.0 / 13.5	8.0 / 15.5	9.1 / 17.6	10.2 / 19.9	11.4 / 22.3	12.7 / 24.9	14.0 / 27.0
18	Simple	966	1151	1353	1566	1787	2021	2269	2531	2806	3094
	Multiple	742	884	1039	1206	1386	1578	1783	2000	2230	2473
	Min. Bearing	3.8 / 7.3	4.6 / 8.7	5.4 / 10.3	6.2 / 11.9	7.1 / 13.7	8.0 / 15.6	9.0 / 17.6	10.0 / 19.8	11.1 / 22.1	12.2 / 24.5
20	Simple	780	930	1086	1252	1428	1616	1814	2024	2244	2475
	Multiple	598	713	838	974	1119	1275	1440	1616	1802	1998
	Min. Bearing	3.4 / 6.6	4.1 / 7.8	4.8 / 9.2	5.5 / 10.7	6.3 / 12.3	7.1 / 14.0	8.0 / 15.8	8.9 / 17.8	9.9 / 19.8	10.9 / 22.0
22	Simple	642	760	886	1022	1166	1319	1481	1653	1833	2021
	Multiple	492	587	690	802	922	1050	1187	1332	1485	1647
	Min. Bearing	3.1 / 5.9	3.7 / 7.1	4.3 / 8.3	4.9 / 9.7	5.6 / 11.1	6.4 / 12.7	7.2 / 14.3	8.0 / 16.1	8.9 / 18.0	9.8 / 19.9
24	Simple	491	631	736	848	968	1095	1230	1373	1522	1680
	Multiple	411	491	577	671	771	879	994	1115	1244	1380
	Min. Bearing	2.6 / 5.4	3.3 / 6.5	3.9 / 7.6	4.5 / 8.8	5.1 / 10.2	5.8 / 11.6	6.5 / 13.1	7.2 / 14.7	8.0 / 16.4	8.9 / 18.2
26	Simple	384	501	619	714	815	923	1037	1157	1283	1416
	Multiple	348	416	489	569	654	746	843	947	1056	1165
	Min. Bearing	2.2 / 5.0	2.9 / 5.9	3.5 / 7.0	4.1 / 8.1	4.7 / 9.3	5.3 / 10.7	5.9 / 12.0	6.6 / 13.5	7.3 / 15.1	8.1 / 16.6
28	Simple	304	398	509	609	695	787	884	987	1095	1208
	Multiple	298	356	420	488	562	640	724	811	900	994
	Min. Bearing	1.9 / 4.6	2.4 / 5.5	3.1 / 6.5	3.7 / 7.5	4.3 / 8.6	4.8 / 9.9	5.4 / 11.1	6.1 / 12.5	6.7 / 13.8	7.4 / 15.3
30	Simple	245	321	411	516	599	678	762	851	944	1042
	Multiple	258	308	363	423	487	555	626	699	776	856
	Min. Bearing	1.6 / 4.3	2.1 / 5.1	2.7 / 6.0	3.4 / 7.0	3.9 / 8.0	4.5 / 9.2	5.0 / 10.3	5.6 / 11.5	6.2 / 12.8	6.9 / 14.1
32	Simple	199	262	335	422	520	589	663	740	821	906
	Multiple	225	269	317	369	425	483	544	607	674	744
	Min. Bearing	1.5 / 4.0	1.8 / 4.7	2.4 / 5.6	3.0 / 6.5	3.7 / 7.5	4.1 / 8.5	4.7 / 9.6	5.2 / 10.7	5.8 / 11.9	6.4 / 13.1
34	Simple	164	216	277	349	432	517	581	649	720	795
	Multiple	198	237	279	325	373	423	476	532	591	652
	Min. Bearing	1.5 / 3.7	1.6 / 4.4	2.1 / 5.2	2.6 / 6.1	3.2 / 7.0	3.9 / 7.9	4.3 / 8.9	4.8 / 9.9	5.4 / 11.0	5.9 / 12.2
36	Simple	136	179	231	291	361	440	513	573	636	702
	Multiple	175	210	247	287	329	373	420	469	521	576
	Min. Bearing	1.5 / 3.5	1.5 / 4.1	1.8 / 4.9	2.3 / 5.7	2.9 / 6.5	3.5 / 7.4	4.1 / 8.3	4.5 / 9.3	5.0 / 10.3	5.6 / 11.4
38	Simple	113	150	194	245	304	371	448	509	565	624
	Multiple	153	186	220	255	292	331	372	416	463	511
	Min. Bearing	1.5 / 3.2	1.5 / 3.9	1.6 / 4.6	2.0 / 5.3	2.5 / 6.1	3.1 / 6.9	3.7 / 7.8	4.2 / 8.7	4.7 / 9.7	5.2 / 10.7
40	Simple	95	126	164	207	258	316	381	454	505	558
	Multiple	130	167	196	227	260	295	332	371	413	456
	Min. Bearing	1.5 / 3.0	1.5 / 3.7	1.5 / 4.3	1.8 / 5.0	2.3 / 5.7	2.8 / 6.5	3.4 / 7.3	4.0 / 8.2	4.4 / 9.1	4.9 / 10.0

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
3. Total load deflection limit = Span/180.
4. Live load ≤ 0.75 x Total load
5. Full lateral support on the compression side.
6. The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



Rosboro
TREATED X BEAM
 When You Need It To Last

Allowable Load (plf) for 5-1/2-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)										
		6	7 1/2	9	9 1/2	10 1/2	11 7/8	12	13 1/2	14	15	16
6	Simple	1825	2855	4113	4583	5601	7158	7271	8727	9256	10391	11639
	Multiple	1405	2198	3168	3530	4314	5209	5284	6228	6564	7267	8020
	Min. Bearing	1.5 / 3.0	2.4 / 4.6	3.5 / 6.6	3.8 / 7.4	4.7 / 9.1	6.0 / 10.9	6.1 / 11.1	7.3 / 13.1	7.8 / 13.8	8.7 / 15.2	9.8 / 16.8
8	Simple	1023	1601	2308	2573	3144	4024	4109	5203	5596	6425	7266
	Multiple	787	1232	1777	1980	2420	3098	3164	4006	4309	4838	5279
	Min. Bearing	1.5 / 3.0	1.8 / 3.4	2.6 / 5.0	2.9 / 5.5	3.5 / 6.8	4.5 / 8.7	4.6 / 8.8	5.8 / 11.2	6.3 / 12.1	7.2 / 13.5	8.1 / 14.8
10	Simple	520	1021	1473	1642	2007	2569	2624	3323	3575	4105	4672
	Multiple	501	785	1133	1263	1544	1977	2019	2558	2751	3160	3596
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	2.1 / 4.0	2.3 / 4.4	2.8 / 5.4	3.6 / 6.9	3.7 / 7.1	4.6 / 8.9	5.0 / 9.6	5.7 / 11.0	6.5 / 12.6
12	Simple	298	587	1019	1136	1390	1779	1817	2302	2477	2845	3238
	Multiple	345	542	783	873	1068	1368	1397	1771	1905	2188	2491
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.7 / 3.3	1.9 / 3.7	2.3 / 4.5	3.0 / 5.7	3.1 / 5.9	3.9 / 7.4	4.2 / 8.0	4.8 / 9.2	5.4 / 10.5
14	Simple	184	366	637	751	1017	1303	1331	1687	1815	2085	2373
	Multiple	245	396	572	638	781	1001	1022	1296	1394	1602	1824
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	2.0 / 3.8	2.6 / 4.9	2.6 / 5.0	3.3 / 6.3	3.6 / 6.8	4.1 / 7.8	4.6 / 8.9
16	Simple	121	242	423	499	677	983	1015	1287	1385	1588	1796
	Multiple	162	300	435	486	595	763	779	988	1063	1222	1392
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	2.2 / 4.3	2.3 / 4.4	2.9 / 5.5	3.1 / 5.9	3.6 / 6.8	4.0 / 7.8
18	Simple	83	167	294	347	471	686	708	1010	1083	1235	1398
	Multiple	111	223	341	381	467	599	612	777	836	961	1095
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.7 / 3.8	1.8 / 3.9	2.5 / 4.9	2.7 / 5.3	3.1 / 6.1	3.5 / 6.9
20	Simple	58	119	211	249	340	496	512	734	820	986	1116
	Multiple	79	160	274	306	375	482	493	626	674	775	883
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4	1.5 / 3.4	2.1 / 4.4	2.3 / 4.7	2.8 / 5.4	3.1 / 6.2
22	Simple	--	87	155	184	252	369	381	547	611	755	910
	Multiple	--	117	208	246	308	396	404	514	554	637	726
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	1.7 / 4.0	1.9 / 4.3	2.3 / 4.9	2.8 / 5.6
24	Simple	--	65	117	139	191	280	290	417	466	577	703
	Multiple	--	88	158	187	255	330	337	429	462	532	607
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.6	1.6 / 3.9	1.9 / 4.5	2.4 / 5.1
26	Simple	--	49	89	107	147	217	224	324	363	449	548
	Multiple	--	67	121	144	198	279	285	363	391	450	514
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.6	1.6 / 4.1	2.0 / 4.7
28	Simple	--	--	69	83	115	171	176	256	287	356	435
	Multiple	--	--	95	113	156	229	237	310	335	386	440
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.8	1.7 / 4.3
30	Simple	--	--	54	65	91	136	140	205	230	286	349
	Multiple	--	--	75	89	124	184	190	268	289	333	380
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.5	1.5 / 4.0
32	Simple	--	--	--	51	72	109	113	165	186	232	284
	Multiple	--	--	--	71	100	148	154	223	251	290	329
	Min. Bearing	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2	1.5 / 3.7
34	Simple	--	--	--	--	58	88	91	135	152	190	233
	Multiple	--	--	--	--	81	121	125	183	206	253	287
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4
36	Simple	--	--	--	--	47	72	74	111	125	157	193
	Multiple	--	--	--	--	66	100	103	151	170	213	252
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2
38	Simple	--	--	--	--	--	59	61	92	104	130	161
	Multiple	--	--	--	--	--	82	85	126	142	178	219
	Min. Bearing	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0
40	Simple	--	--	--	--	--	48	50	76	86	109	135
	Multiple	--	--	--	--	--	68	71	106	119	149	184
	Min. Bearing	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0

DESIGN ASSUMPTIONS:

- SPAN is the on-center distance between supports and is valid for simple span applications.
- Dry-use conditions.
- Total load deflection limit = Span/180.
- Live load ≤ 0.75 x Total load
- Full lateral support on the compression side.
- The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



Rosboro
TREATED X BEAM
 When You Need It To Last

Allowable Load (plf) for 5-1/2-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)									
		16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30
6	Simple	12311	14551	17199	20377	24262	29118	33080	37089	41326	45793
	Multiple	8416	9693	11120	12725	14545	16625	19026	21826	25137	29110
	Min. Bearing	10.3 / 17.7	12.2 / 20.3	14.4 / 23.3	17.1 / 26.7	20.4 / 30.5	24.4 / 34.9	27.8 / 39.9	31.1 / 45.8	34.7 / 52.7	38.4 / 61.1
8	Simple	7612	8721	9946	11308	12830	14543	16484	18703	21264	24252
	Multiple	5506	6222	6992	7820	8715	9685	10739	11889	13149	14535
	Min. Bearing	8.5 / 15.4	9.8 / 17.4	11.1 / 19.6	12.7 / 21.9	14.4 / 24.4	16.3 / 27.1	18.4 / 30.0	20.9 / 33.3	23.8 / 36.8	27.1 / 40.7
10	Simple	4969	5916	6945	7820	8715	9685	10739	11889	13149	14535
	Multiple	3825	4555	5095	5640	6216	6827	7474	8162	8895	9677
	Min. Bearing	6.9 / 13.4	8.3 / 15.9	9.7 / 17.8	10.9 / 19.7	12.2 / 21.7	13.5 / 23.9	15.0 / 26.1	16.6 / 28.5	18.4 / 31.1	20.3 / 33.8
12	Simple	3444	4101	4815	5547	6326	7153	7959	8709	9511	10371
	Multiple	2650	3156	3706	4300	4828	5268	5728	6210	6716	7247
	Min. Bearing	5.8 / 11.1	6.9 / 13.2	8.1 / 15.5	9.3 / 18.0	10.6 / 20.3	12.0 / 22.1	13.4 / 24.0	14.6 / 26.1	16.0 / 28.2	17.4 / 30.4
14	Simple	2524	2985	3478	4005	4568	5166	5799	6466	7167	7903
	Multiple	1941	2312	2716	3152	3620	4121	4641	5009	5392	5790
	Min. Bearing	4.9 / 9.5	5.8 / 11.3	6.8 / 13.3	7.8 / 15.4	8.9 / 17.7	10.1 / 20.2	11.4 / 22.7	12.7 / 24.5	14.0 / 26.4	15.5 / 28.3
16	Simple	1905	2249	2621	3019	3444	3895	4372	4876	5405	5960
	Multiple	1481	1765	2073	2406	2765	3148	3555	3988	4446	4818
	Min. Bearing	4.3 / 8.3	5.0 / 9.9	5.9 / 11.6	6.8 / 13.5	7.7 / 15.5	8.7 / 17.6	9.8 / 19.9	10.9 / 22.3	12.1 / 24.9	13.3 / 27.0
18	Simple	1483	1751	2041	2351	2683	3034	3407	3800	4212	4646
	Multiple	1165	1389	1632	1895	2178	2480	2802	3133	3474	3831
	Min. Bearing	3.7 / 7.3	4.4 / 8.7	5.1 / 10.3	5.9 / 11.9	6.8 / 13.7	7.6 / 15.6	8.6 / 17.6	9.6 / 19.7	10.6 / 21.9	11.7 / 24.1
20	Simple	1184	1399	1631	1879	2144	2426	2724	3038	3369	3716
	Multiple	940	1121	1317	1530	1758	1998	2244	2504	2777	3063
	Min. Bearing	3.3 / 6.6	3.9 / 7.8	4.6 / 9.2	5.3 / 10.7	6.0 / 12.3	6.8 / 14.0	7.6 / 15.7	8.5 / 17.5	9.4 / 19.4	10.4 / 21.4
22	Simple	965	1141	1330	1533	1750	1980	2224	2481	2751	3034
	Multiple	773	922	1084	1260	1440	1630	1831	2043	2266	2500
	Min. Bearing	3.0 / 5.9	3.5 / 7.1	4.1 / 8.3	4.7 / 9.7	5.4 / 11.1	6.1 / 12.5	6.8 / 14.1	7.6 / 15.7	8.5 / 17.4	9.3 / 19.2
24	Simple	772	946	1104	1272	1453	1644	1847	2060	2285	2521
	Multiple	646	771	907	1046	1195	1353	1520	1696	1881	2076
	Min. Bearing	2.6 / 5.4	3.2 / 6.5	3.7 / 7.6	4.3 / 8.8	4.9 / 10.0	5.5 / 11.4	6.2 / 12.8	6.9 / 14.2	7.7 / 15.8	8.5 / 17.4
26	Simple	603	787	929	1071	1223	1385	1556	1736	1926	2125
	Multiple	547	653	763	880	1005	1138	1279	1428	1584	1748
	Min. Bearing	2.2 / 5.0	2.9 / 5.9	3.4 / 6.9	3.9 / 8.0	4.4 / 9.1	5.0 / 10.3	5.7 / 11.6	6.3 / 13.0	7.0 / 14.4	7.7 / 15.9
28	Simple	478	625	791	913	1043	1180	1326	1481	1643	1813
	Multiple	469	556	649	749	856	970	1090	1217	1350	1491
	Min. Bearing	1.9 / 4.6	2.4 / 5.4	3.1 / 6.4	3.6 / 7.3	4.1 / 8.4	4.6 / 9.5	5.2 / 10.7	5.8 / 11.9	6.4 / 13.2	7.1 / 14.6
30	Simple	385	504	645	786	898	1017	1143	1276	1416	1563
	Multiple	403	478	558	644	737	835	938	1048	1163	1284
	Min. Bearing	1.6 / 4.2	2.1 / 5.0	2.7 / 5.9	3.3 / 6.8	3.8 / 7.7	4.3 / 8.8	4.8 / 9.8	5.4 / 11.0	5.9 / 12.2	6.6 / 13.5
32	Simple	313	411	527	663	780	884	994	1110	1232	1360
	Multiple	349	414	484	559	639	725	815	910	1011	1116
	Min. Bearing	1.5 / 3.9	1.8 / 4.6	2.4 / 5.4	3.0 / 6.3	3.5 / 7.2	4.0 / 8.1	4.4 / 9.1	5.0 / 10.2	5.5 / 11.3	6.1 / 12.5
34	Simple	257	339	435	548	678	774	871	973	1080	1192
	Multiple	305	362	423	489	559	634	714	797	885	978
	Min. Bearing	1.5 / 3.6	1.6 / 4.3	2.1 / 5.0	2.6 / 5.8	3.2 / 6.6	3.7 / 7.5	4.1 / 8.5	4.6 / 9.5	5.1 / 10.5	5.7 / 11.6
36	Simple	213	281	362	457	567	683	769	859	953	1053
	Multiple	268	318	372	430	493	559	629	703	781	863
	Min. Bearing	1.5 / 3.4	1.5 / 4.0	1.8 / 4.7	2.3 / 5.4	2.9 / 6.2	3.4 / 7.0	3.9 / 7.9	4.3 / 8.8	4.8 / 9.8	5.3 / 10.9
38	Simple	178	236	304	384	477	584	682	763	847	936
	Multiple	237	281	329	381	437	495	558	624	693	766
	Min. Bearing	1.5 / 3.1	1.5 / 3.7	1.6 / 4.4	2.0 / 5.1	2.5 / 5.8	3.1 / 6.6	3.6 / 7.4	4.1 / 8.3	4.5 / 9.2	5.0 / 10.2
40	Simple	150	199	257	326	405	496	599	681	757	836
	Multiple	204	250	293	339	389	442	497	556	618	684
	Min. Bearing	1.5 / 3.0	1.5 / 3.5	1.5 / 4.1	1.8 / 4.7	2.3 / 5.4	2.8 / 6.2	3.4 / 7.0	3.8 / 7.8	4.2 / 8.6	4.7 / 9.6

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
3. Total load deflection limit = Span/180.
4. Live load ≤ 0.75 x Total load
5. Full lateral support on the compression side.
6. The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



Allowable Load (plf) for 6-3/4-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)										
		6	7 1/2	9	9 1/2	10 1/2	11 7/8	12	13 1/2	14	15	16
6	Simple	2240	3503	5048	5625	6873	8785	8924	10710	11360	12752	14284
	Multiple	1725	2698	3888	4332	5294	6393	6485	7644	8055	8919	9843
	Min. Bearing	1.5 / 3.0	2.4 / 4.6	3.5 / 6.6	3.8 / 7.4	4.7 / 9.1	6.0 / 10.9	6.1 / 11.1	7.3 / 13.1	7.8 / 13.8	8.7 / 15.2	9.8 / 16.8
8	Simple	1256	1965	2833	3157	3859	4938	5043	6385	6868	7886	8918
	Multiple	966	1512	2180	2430	2971	3802	3883	4917	5289	5938	6478
	Min. Bearing	1.5 / 3.0	1.8 / 3.4	2.6 / 5.0	2.9 / 5.5	3.5 / 6.8	4.5 / 8.7	4.6 / 8.8	5.8 / 11.2	6.3 / 12.1	7.2 / 13.5	8.1 / 14.8
10	Simple	638	1253	1808	2015	2463	3153	3220	4078	4387	5038	5734
	Multiple	615	963	1390	1550	1895	2426	2478	3139	3376	3878	4414
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	2.1 / 4.0	2.3 / 4.4	2.8 / 5.4	3.6 / 6.9	3.7 / 7.1	4.6 / 8.9	5.0 / 9.6	5.7 / 11.0	6.5 / 12.6
12	Simple	365	720	1251	1395	1705	2184	2230	2826	3040	3491	3972
	Multiple	424	665	961	1071	1311	1679	1715	2173	2338	2685	3057
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.7 / 3.3	1.9 / 3.7	2.3 / 4.5	3.0 / 5.7	3.1 / 5.9	3.9 / 7.4	4.2 / 8.0	4.8 / 9.2	5.4 / 10.5
14	Simple	226	449	782	922	1248	1599	1633	2070	2222	2534	2867
	Multiple	301	485	702	783	958	1228	1255	1591	1711	1966	2239
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	2.0 / 3.8	2.6 / 4.9	2.6 / 5.0	3.3 / 6.3	3.5 / 6.8	4.0 / 7.8	4.6 / 8.9
16	Simple	148	297	519	612	831	1207	1245	1560	1673	1909	2159
	Multiple	198	369	534	596	730	936	956	1213	1305	1500	1708
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	2.2 / 4.3	2.3 / 4.4	2.8 / 5.5	3.1 / 5.9	3.5 / 6.8	3.9 / 7.8
18	Simple	101	205	360	425	578	842	869	1214	1301	1485	1680
	Multiple	136	273	419	468	573	735	751	953	1026	1180	1344
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.7 / 3.8	1.8 / 3.9	2.5 / 4.9	2.7 / 5.3	3.0 / 6.1	3.4 / 6.9
20	Simple	71	146	259	306	417	608	628	900	1006	1185	1342
	Multiple	97	196	336	376	461	592	605	768	827	951	1084
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4	1.5 / 3.4	2.1 / 4.4	2.3 / 4.7	2.7 / 5.4	3.1 / 6.2
22	Simple	51	107	191	226	309	452	467	671	750	926	1093
	Multiple	70	144	255	302	378	486	496	631	679	782	891
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	1.7 / 4.0	1.9 / 4.3	2.3 / 4.9	2.7 / 5.6
24	Simple	--	79	143	170	234	344	355	512	573	708	863
	Multiple	--	108	193	229	313	405	414	527	567	653	744
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.6	1.6 / 3.9	1.9 / 4.5	2.4 / 5.1
26	Simple	--	60	110	131	180	266	275	398	445	551	673
	Multiple	--	82	149	177	243	342	350	445	480	552	625
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.6	1.6 / 4.1	2.0 / 4.6
28	Simple	--	45	85	102	141	209	216	314	352	437	534
	Multiple	--	64	116	139	191	282	291	381	410	469	531
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.7	1.7 / 4.2
30	Simple	--	--	66	80	111	167	172	251	282	350	429
	Multiple	--	--	92	110	152	225	233	327	351	402	456
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4	1.5 / 3.9
32	Simple	--	--	52	63	89	134	139	203	228	284	349
	Multiple	--	--	73	88	122	182	188	274	304	348	395
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2	1.5 / 3.6
34	Simple	--	--	--	50	71	108	112	166	186	233	286
	Multiple	--	--	--	70	99	149	154	225	252	303	345
	Min. Bearing	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3
36	Simple	--	--	--	--	57	88	91	136	153	192	237
	Multiple	--	--	--	--	81	122	126	186	209	261	303
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1
38	Simple	--	--	--	--	46	72	75	112	127	160	198
	Multiple	--	--	--	--	66	101	105	155	174	218	267
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0
40	Simple	--	--	--	--	--	59	61	93	106	134	166
	Multiple	--	--	--	--	--	84	87	130	146	183	226
	Min. Bearing	--	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
3. Total load deflection limit = Span/180.
4. Live load ≤ 0.75 x Total load
5. Full lateral support on the compression side.
6. The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



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Allowable Load (plf) for 6-3/4-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)									
		16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30
6	Simple	15109	17858	21108	25008	29776	35736	40599	45518	50719	56201
	Multiple	10329	11895	13647	15617	17851	20403	23350	26787	30850	35726
	Min. Bearing	10.3 / 17.7	12.2 / 20.3	14.4 / 23.3	17.1 / 26.7	20.4 / 30.5	24.4 / 34.9	27.8 / 39.9	31.1 / 45.8	34.7 / 52.7	38.4 / 61.1
8	Simple	9343	10703	12207	13878	15746	17848	20231	22954	26097	29763
	Multiple	6758	7637	8581	9597	10696	11886	13179	14591	16137	17838
	Min. Bearing	8.5 / 15.4	9.8 / 17.4	11.1 / 19.6	12.7 / 21.9	14.4 / 24.4	16.3 / 27.1	18.4 / 30.0	20.9 / 33.3	23.8 / 36.8	27.1 / 40.7
10	Simple	6099	7260	8507	9597	10696	11886	13179	14591	16137	17838
	Multiple	4695	5590	6253	6922	7629	8378	9173	10017	10917	11876
	Min. Bearing	6.9 / 13.4	8.3 / 15.9	9.7 / 17.8	10.9 / 19.7	12.2 / 21.7	13.5 / 23.9	15.0 / 26.1	16.6 / 28.5	18.4 / 31.1	20.3 / 33.8
12	Simple	4212	4972	5791	6669	7605	8600	9652	10688	11673	12728
	Multiple	3252	3873	4548	5277	5926	6465	7030	7622	8243	8895
	Min. Bearing	5.8 / 11.1	6.8 / 13.2	7.9 / 15.5	9.1 / 18.0	10.4 / 20.3	11.8 / 22.1	13.2 / 24.0	14.6 / 26.1	16.0 / 28.2	17.4 / 30.4
14	Simple	3040	3589	4181	4815	5492	6211	6971	7773	8617	9501
	Multiple	2382	2837	3333	3868	4443	5058	5696	6148	6617	7106
	Min. Bearing	4.9 / 9.5	5.7 / 11.3	6.7 / 13.3	7.7 / 15.4	8.8 / 17.7	9.9 / 20.2	11.1 / 22.7	12.4 / 24.5	13.7 / 26.4	15.2 / 28.3
16	Simple	2290	2704	3151	3629	4140	4682	5256	5862	6498	7166
	Multiple	1817	2166	2544	2953	3393	3862	4335	4835	5361	5912
	Min. Bearing	4.2 / 8.3	4.9 / 9.9	5.7 / 11.6	6.6 / 13.5	7.5 / 15.5	8.5 / 17.6	9.6 / 19.8	10.7 / 22.0	11.8 / 24.4	13.1 / 26.9
18	Simple	1782	2105	2453	2826	3225	3648	4095	4568	5064	5585
	Multiple	1430	1705	2003	2326	2658	3007	3376	3766	4176	4605
	Min. Bearing	3.7 / 7.3	4.3 / 8.7	5.0 / 10.3	5.8 / 11.9	6.6 / 13.6	7.5 / 15.4	8.4 / 17.3	9.4 / 19.3	10.4 / 21.4	11.5 / 23.6
20	Simple	1423	1681	1960	2259	2577	2916	3274	3652	4050	4467
	Multiple	1153	1375	1614	1860	2123	2402	2698	3010	3338	3681
	Min. Bearing	3.2 / 6.6	3.8 / 7.8	4.5 / 9.2	5.1 / 10.6	5.9 / 12.1	6.6 / 13.7	7.5 / 15.4	8.3 / 17.1	9.2 / 19.0	10.2 / 21.0
22	Simple	1160	1371	1599	1843	2103	2380	2673	2982	3307	3647
	Multiple	949	1128	1315	1516	1731	1959	2201	2456	2724	3005
	Min. Bearing	2.9 / 5.9	3.4 / 7.1	4.0 / 8.2	4.6 / 9.5	5.3 / 10.9	6.0 / 12.3	6.7 / 13.8	7.5 / 15.4	8.3 / 17.1	9.1 / 18.8
24	Simple	948	1137	1326	1529	1746	1976	2219	2476	2747	3030
	Multiple	790	934	1090	1257	1436	1626	1826	2038	2261	2495
	Min. Bearing	2.6 / 5.4	3.1 / 6.4	3.6 / 7.5	4.2 / 8.6	4.8 / 9.8	5.4 / 11.1	6.1 / 12.5	6.8 / 13.9	7.5 / 15.5	8.3 / 17.1
26	Simple	740	957	1116	1287	1470	1664	1870	2086	2314	2554
	Multiple	663	785	917	1057	1208	1368	1537	1716	1904	2101
	Min. Bearing	2.2 / 4.9	2.8 / 5.8	3.3 / 6.8	3.8 / 7.8	4.4 / 8.9	4.9 / 10.1	5.5 / 11.4	6.2 / 12.7	6.9 / 14.1	7.6 / 15.6
28	Simple	587	767	951	1097	1253	1419	1594	1779	1974	2178
	Multiple	564	668	780	900	1029	1165	1310	1462	1623	1791
	Min. Bearing	1.9 / 4.5	2.4 / 5.3	3.0 / 6.2	3.5 / 7.2	4.0 / 8.2	4.5 / 9.3	5.1 / 10.4	5.7 / 11.7	6.3 / 12.9	7.0 / 14.3
30	Simple	472	618	792	944	1079	1222	1373	1533	1702	1878
	Multiple	484	574	670	774	885	1003	1127	1259	1398	1543
	Min. Bearing	1.6 / 4.1	2.1 / 4.9	2.7 / 5.7	3.2 / 6.6	3.7 / 7.6	4.2 / 8.6	4.7 / 9.6	5.2 / 10.8	5.8 / 11.9	6.4 / 13.2
32	Simple	384	504	647	813	937	1062	1194	1333	1480	1634
	Multiple	419	497	581	672	768	871	979	1094	1215	1341
	Min. Bearing	1.5 / 3.8	1.8 / 4.5	2.4 / 5.3	3.0 / 6.1	3.4 / 7.0	3.9 / 7.9	4.4 / 8.9	4.9 / 10.0	5.4 / 11.1	6.0 / 12.2
34	Simple	316	416	534	672	821	930	1046	1169	1297	1433
	Multiple	366	434	508	587	672	762	857	958	1064	1175
	Min. Bearing	1.5 / 3.5	1.6 / 4.2	2.1 / 4.9	2.6 / 5.7	3.2 / 6.5	3.6 / 7.4	4.1 / 8.3	4.5 / 9.3	5.0 / 10.3	5.6 / 11.4
36	Simple	262	345	445	561	696	821	923	1031	1145	1265
	Multiple	322	382	447	517	592	671	755	844	938	1037
	Min. Bearing	1.5 / 3.3	1.5 / 3.9	1.8 / 4.6	2.3 / 5.3	2.9 / 6.1	3.4 / 6.9	3.8 / 7.7	4.2 / 8.7	4.7 / 9.6	5.2 / 10.6
38	Simple	219	289	373	472	586	716	820	916	1017	1124
	Multiple	284	338	396	458	524	595	670	749	832	920
	Min. Bearing	1.5 / 3.1	1.5 / 3.7	1.6 / 4.3	2.0 / 5.0	2.5 / 5.7	3.1 / 6.4	3.5 / 7.3	4.0 / 8.1	4.4 / 9.0	4.9 / 10.0
40	Simple	183	244	316	400	497	609	732	818	909	1004
	Multiple	250	300	352	407	467	530	597	668	743	821
	Min. Bearing	1.5 / 3.0	1.5 / 3.4	1.5 / 4.0	1.8 / 4.6	2.3 / 5.3	2.8 / 6.0	3.3 / 6.8	3.7 / 7.6	4.1 / 8.5	4.6 / 9.4

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
3. Total load deflection limit = Span/180.
4. Live load ≤ 0.75 x Total load
5. Full lateral support on the compression side.
6. The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



Rosboro
TREATED X BEAM
 When You Need It To Last

Allowable Load (plf) for 8-3/4-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)										
		6	7 1/2	9	9 1/2	10 1/2	11 7/8	12	13 1/2	14	15	16
6	Simple	2904	4541	6543	7292	8910	11388	11568	13884	14726	16531	18516
	Multiple	2236	3497	5039	5616	6863	8287	8406	9909	10442	11562	12759
	Min. Bearing	1.5 / 3.0	2.4 / 4.6	3.5 / 6.6	3.8 / 7.4	4.7 / 9.1	6.0 / 10.9	6.1 / 11.1	7.3 / 13.1	7.8 / 13.8	8.7 / 15.2	9.8 / 16.8
8	Simple	1628	2548	3672	4093	5002	6401	6537	8277	8903	10222	11560
	Multiple	1252	1960	2826	3150	3851	4929	5033	6374	6856	7697	8398
	Min. Bearing	1.5 / 3.0	1.8 / 3.4	2.6 / 5.0	2.9 / 5.5	3.5 / 6.8	4.5 / 8.7	4.6 / 8.8	5.8 / 11.2	6.3 / 12.1	7.2 / 13.5	8.1 / 14.8
10	Simple	827	1625	2343	2612	3193	4088	4174	5287	5687	6520	7373
	Multiple	797	1249	1802	2009	2456	3145	3212	4069	4377	5027	5722
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	2.1 / 4.0	2.3 / 4.4	2.8 / 5.4	3.6 / 6.9	3.7 / 7.1	4.6 / 8.9	5.0 / 9.6	5.7 / 11.0	6.5 / 12.6
12	Simple	473	933	1621	1808	2211	2831	2891	3628	3889	4436	5017
	Multiple	549	862	1246	1389	1699	2176	2223	2817	3030	3481	3963
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.7 / 3.3	1.9 / 3.7	2.3 / 4.5	3.0 / 5.7	3.1 / 5.9	3.8 / 7.4	4.1 / 8.0	4.7 / 9.2	5.3 / 10.5
14	Simple	293	582	1014	1195	1618	2048	2090	2617	2805	3200	3620
	Multiple	390	629	910	1015	1242	1592	1626	2062	2218	2549	2902
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	2.0 / 3.8	2.5 / 4.9	2.6 / 5.0	3.2 / 6.3	3.5 / 6.8	3.9 / 7.8	4.5 / 8.9
16	Simple	192	385	673	794	1077	1541	1573	1970	2112	2410	2726
	Multiple	257	478	692	772	946	1213	1239	1572	1692	1944	2214
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	2.2 / 4.3	2.2 / 4.4	2.8 / 5.5	3.0 / 5.9	3.4 / 6.8	3.8 / 7.8
18	Simple	131	265	467	552	750	1091	1127	1532	1643	1875	2121
	Multiple	177	354	543	606	743	953	974	1236	1330	1529	1742
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.7 / 3.8	1.8 / 3.9	2.4 / 4.9	2.6 / 5.3	3.0 / 6.1	3.4 / 6.9
20	Simple	92	189	335	397	540	789	814	1167	1304	1496	1694
	Multiple	125	254	436	487	597	767	784	996	1072	1231	1393
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.4	1.5 / 3.4	2.1 / 4.4	2.3 / 4.7	2.6 / 5.4	3.0 / 6.1
22	Simple	66	138	247	293	400	586	606	870	972	1201	1380
	Multiple	91	187	331	392	490	630	643	817	877	1002	1134
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	1.7 / 4.0	1.9 / 4.2	2.3 / 4.8	2.7 / 5.5
24	Simple	48	103	186	221	303	446	461	663	742	918	1118
	Multiple	67	140	251	297	406	525	537	676	725	829	939
	Min. Bearing	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.6	1.6 / 3.8	1.9 / 4.4	2.4 / 5.0
26	Simple	--	77	142	169	234	345	357	516	577	715	872
	Multiple	--	107	193	229	315	442	451	567	609	696	789
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2	1.5 / 3.5	1.6 / 4.0	2.0 / 4.5
28	Simple	--	59	110	132	183	271	281	407	456	566	692
	Multiple	--	82	151	180	247	365	377	481	517	591	670
	Min. Bearing	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2	1.5 / 3.6	1.7 / 4.1
30	Simple	--	--	86	103	144	216	223	326	365	454	556
	Multiple	--	--	119	142	197	292	302	412	443	507	575
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.3	1.5 / 3.8
32	Simple	--	--	67	82	115	173	180	263	296	369	452
	Multiple	--	--	95	114	158	236	244	355	383	439	498
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.1	1.5 / 3.5
34	Simple	--	--	53	65	92	140	145	215	242	302	371
	Multiple	--	--	76	91	128	193	199	291	327	382	434
	Min. Bearing	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.2
36	Simple	--	--	--	51	74	114	119	176	199	249	307
	Multiple	--	--	--	74	105	158	164	241	271	336	381
	Min. Bearing	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0
38	Simple	--	--	--	--	60	93	97	146	165	207	256
	Multiple	--	--	--	--	86	131	136	201	226	283	337
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0
40	Simple	--	--	--	--	48	76	79	121	137	173	215
	Multiple	--	--	--	--	70	109	113	168	190	238	293
	Min. Bearing	--	--	--	--	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0	1.5 / 3.0

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
3. Total load deflection limit = Span/180.
4. Live load ≤ 0.75 x Total load
5. Full lateral support on the compression side.
6. The values are based on the design properties listed in EWS Y117 and are in addition to the beam weight (assumed 35 pcf).



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TREATED X BEAM
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Allowable Load (plf) for 8-3/4-inch Wide 24F-V4/DF Glulam Roof Beams - 125% Construction Load

Span (ft)	Span Type	Glulam Depth (in.)									
		16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30
6	Simple	19585	23149	27362	32418	38598	46324	52439	58458	64785	71420
	Multiple	13389	15420	17690	20244	23140	26449	30268	34724	39991	46311
	Min. Bearing	10.3 / 17.7	12.2 / 20.3	14.4 / 23.3	17.1 / 26.7	20.4 / 30.5	24.4 / 34.9	27.7 / 39.9	30.8 / 45.8	34.2 / 52.7	37.7 / 61.1
8	Simple	12111	13874	15824	17990	20412	23136	26225	29755	33829	38582
	Multiple	8760	9899	11123	12441	13865	15407	17084	18914	20919	23124
	Min. Bearing	8.5 / 15.4	9.8 / 17.4	11.1 / 19.6	12.7 / 21.9	14.4 / 24.4	16.3 / 27.1	18.4 / 30.0	20.9 / 33.3	23.8 / 36.8	27.1 / 40.7
10	Simple	7818	9226	10745	12372	13865	15407	17084	18914	20919	23124
	Multiple	6086	7246	8105	8973	9890	10861	11891	12986	14151	15395
	Min. Bearing	6.9 / 13.4	8.1 / 15.9	9.4 / 17.8	10.9 / 19.7	12.2 / 21.7	13.5 / 23.9	15.0 / 26.1	16.6 / 28.5	18.4 / 31.1	20.3 / 33.8
12	Simple	5320	6279	7313	8422	9605	10861	12190	13592	15065	16499
	Multiple	4216	5020	5895	6841	7681	8381	9113	9880	10685	11530
	Min. Bearing	5.6 / 11.1	6.6 / 13.2	7.7 / 15.5	8.9 / 18.0	10.1 / 20.3	11.5 / 22.1	12.9 / 24.0	14.3 / 26.1	15.9 / 28.2	17.4 / 30.4
14	Simple	3839	4532	5280	6081	6936	7844	8804	9817	10882	11999
	Multiple	3088	3678	4320	5014	5722	6471	7264	7969	8578	9211
	Min. Bearing	4.7 / 9.5	5.6 / 11.3	6.5 / 13.3	7.5 / 15.4	8.5 / 17.6	9.7 / 19.9	10.8 / 22.4	12.1 / 24.5	13.4 / 26.4	14.8 / 28.3
16	Simple	2892	3414	3978	4583	5228	5913	6638	7403	8206	9049
	Multiple	2356	2807	3280	3779	4311	4876	5475	6106	6769	7465
	Min. Bearing	4.1 / 8.3	4.8 / 9.9	5.6 / 11.5	6.4 / 13.3	7.4 / 15.2	8.3 / 17.1	9.3 / 19.3	10.4 / 21.5	11.5 / 23.8	12.7 / 26.3
18	Simple	2250	2658	3098	3569	4072	4606	5172	5768	6395	7052
	Multiple	1853	2189	2552	2941	3356	3797	4263	4755	5273	5815
	Min. Bearing	3.6 / 7.3	4.2 / 8.7	4.9 / 10.1	5.6 / 11.6	6.4 / 13.3	7.3 / 15.0	8.2 / 16.9	9.1 / 18.8	10.1 / 20.9	11.2 / 23.0
20	Simple	1797	2123	2474	2852	3254	3682	4134	4612	5114	5640
	Multiple	1478	1747	2037	2348	2680	3033	3406	3800	4214	4648
	Min. Bearing	3.2 / 6.5	3.7 / 7.7	4.4 / 9.0	5.0 / 10.3	5.7 / 11.8	6.5 / 13.3	7.3 / 15.0	8.1 / 16.7	9.0 / 18.5	9.9 / 20.4
22	Simple	1464	1731	2018	2326	2655	3005	3375	3765	4175	4605
	Multiple	1204	1423	1660	1914	2185	2473	2778	3100	3439	3794
	Min. Bearing	2.8 / 5.8	3.3 / 6.9	3.9 / 8.0	4.5 / 9.3	5.1 / 10.6	5.8 / 12.0	6.5 / 13.4	7.3 / 15.0	8.1 / 16.6	8.9 / 18.3
24	Simple	1214	1435	1674	1930	2204	2494	2802	3126	3468	3826
	Multiple	997	1179	1376	1587	1812	2052	2305	2573	2854	3149
	Min. Bearing	2.6 / 5.3	3.0 / 6.2	3.5 / 7.3	4.1 / 8.4	4.6 / 9.6	5.3 / 10.8	5.9 / 12.2	6.6 / 13.6	7.3 / 15.1	8.1 / 16.6
26	Simple	959	1207	1409	1625	1855	2101	2360	2634	2922	3224
	Multiple	837	991	1157	1335	1525	1726	1940	2166	2403	2652
	Min. Bearing	2.2 / 4.8	2.8 / 5.7	3.2 / 6.6	3.7 / 7.6	4.2 / 8.7	4.8 / 9.9	5.4 / 11.1	6.0 / 12.4	6.7 / 13.7	7.4 / 15.2
28	Simple	761	995	1200	1384	1581	1790	2012	2246	2492	2750
	Multiple	711	842	984	1136	1298	1470	1653	1845	2048	2261
	Min. Bearing	1.9 / 4.4	2.4 / 5.2	3.0 / 6.1	3.4 / 7.0	3.9 / 8.0	4.4 / 9.0	5.0 / 10.2	5.5 / 11.4	6.1 / 12.6	6.8 / 13.9
30	Simple	612	802	1027	1191	1361	1542	1733	1935	2148	2370
	Multiple	611	724	846	977	1116	1265	1423	1589	1764	1947
	Min. Bearing	1.6 / 4.0	2.1 / 4.8	2.7 / 5.6	3.1 / 6.4	3.6 / 7.4	4.1 / 8.3	4.6 / 9.4	5.1 / 10.5	5.7 / 11.6	6.3 / 12.8
32	Simple	498	654	839	1035	1183	1340	1507	1683	1868	2062
	Multiple	529	627	733	847	969	1098	1235	1380	1533	1692
	Min. Bearing	1.5 / 3.7	1.8 / 4.4	2.4 / 5.2	2.9 / 6.0	3.3 / 6.8	3.8 / 7.7	4.2 / 8.7	4.7 / 9.7	5.3 / 10.8	5.8 / 11.9
34	Simple	409	539	692	872	1036	1174	1320	1475	1637	1808
	Multiple	461	548	641	741	847	961	1081	1208	1342	1482
	Min. Bearing	1.5 / 3.4	1.6 / 4.1	2.1 / 4.8	2.6 / 5.5	3.1 / 6.3	3.5 / 7.2	3.9 / 8.1	4.4 / 9.0	4.9 / 10.0	5.4 / 11.1
36	Simple	339	448	577	727	902	1035	1165	1301	1445	1596
	Multiple	405	481	563	652	746	846	953	1065	1183	1308
	Min. Bearing	1.5 / 3.2	1.5 / 3.8	1.8 / 4.5	2.3 / 5.2	2.9 / 5.9	3.3 / 6.7	3.7 / 7.5	4.1 / 8.4	4.6 / 9.4	5.1 / 10.3
38	Simple	283	375	484	612	759	919	1034	1156	1284	1418
	Multiple	358	426	499	577	661	750	845	945	1050	1160
	Min. Bearing	1.5 / 3.0	1.5 / 3.6	1.6 / 4.2	2.0 / 4.8	2.5 / 5.5	3.1 / 6.3	3.5 / 7.1	3.9 / 7.9	4.3 / 8.8	4.7 / 9.7
40	Simple	238	316	409	518	644	789	923	1032	1146	1267
	Multiple	318	378	443	513	588	668	753	842	936	1035
	Min. Bearing	1.5 / 3.0	1.5 / 3.3	1.5 / 3.9	1.8 / 4.5	2.3 / 5.2	2.8 / 5.9	3.2 / 6.6	3.6 / 7.4	4.0 / 8.2	4.5 / 9.1

DESIGN ASSUMPTIONS:

1. SPAN is the on-center distance between supports and is valid for simple span applications.
2. Dry-use conditions.
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