



24F-V3/SP

Load Duration Factor = 1.00, Fb = 2,400 psi, Fv = 300 psi, E = 1,800,000 psi

10-1/2-INCH WIDTH		SPAN (ft)																			
Depth (in.)	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
11	3359	2218	1386	919	637	456	336	252	192	148	115	90	70	54	---	---	---	---	---	---	---
12-3/8	4254	2917	1982	1317	915	658	487	367	282	219	172	136	108	86	68	54	---	---	---	---	---
13-3/4	5228	3587	2605	1815	1264	912	676	512	395	309	245	195	157	126	102	82	66	53	---	---	---
15-1/8	6300	4323	3141	2379	1691	1222	908	690	534	420	334	268	217	177	144	118	97	79	64	52	---
16-1/2	7469	5126	3725	2823	2203	1594	1187	904	702	554	442	357	290	238	195	161	134	110	91	75	62
17-7/8	8734	5996	4358	3303	2585	2035	1518	1158	901	712	570	461	377	310	257	213	178	149	124	104	86
19-1/4	10095	6931	5040	3821	2990	2400	1903	1454	1133	897	720	584	479	395	329	275	230	194	163	138	116
20-5/8	11553	7933	5769	4375	3425	2749	2251	1797	1402	1112	894	727	597	494	412	346	291	246	209	177	151
22	13106	9001	6546	4965	3887	3121	2557	2130	1709	1357	1092	890	732	608	508	428	361	307	261	223	191
23-3/8	14754	10134	7372	5592	4379	3516	2881	2401	2028	1636	1318	1075	886	737	618	521	441	376	321	275	237
24-3/4	16497	11332	8244	6254	4899	3935	3225	2687	2271	1942	1573	1284	1060	883	741	626	532	454	389	335	289
26-1/8	18335	12596	9165	6954	5447	4376	3587	2990	2527	2161	1858	1519	1255	1046	879	744	633	542	466	402	347
27-1/2	20268	13925	10132	7689	6024	4840	3968	3308	2796	2392	2067	1779	1471	1228	1033	876	747	640	551	476	413
28-7/8	22294	15318	11147	8460	6629	5326	4367	3642	3079	2634	2277	1985	1711	1429	1204	1021	872	749	646	559	486

Notes:

- (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, based on live/total load = 0.8. 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 have taken the dead weight of the beam (assumed 36 pcf) into account.
- (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.



Load Duration Factor = 1.15, Fb = 2,400 psi, Fv = 300 psi, E = 1,800,000 psi

10-1/2-INCH WIDTH		SPAN (ft)																			
Depth (in.)	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
11	3867	2667	1937	1466	1036	748	554	420	325	254	201	161	129	104	84	68	55	---	---	---	---
12-3/8	4897	3360	2441	1848	1445	1073	798	607	471	370	295	237	193	157	129	106	87	71	58	---	---
13-3/4	6018	4130	3001	2274	1778	1426	1103	841	654	517	413	334	273	224	185	153	128	106	89	74	61
15-1/8	7251	4977	3618	2742	2145	1721	1408	1128	879	696	558	453	371	306	255	213	178	150	126	106	89
16-1/2	8595	5901	4291	3253	2546	2043	1673	1392	1149	912	733	596	490	406	339	284	240	203	172	146	124
17-7/8	10051	6902	5019	3806	2979	2392	1959	1631	1377	1167	940	766	631	524	439	370	313	266	227	194	166
19-1/4	11617	7979	5803	4401	3446	2767	2267	1888	1595	1363	1177	965	796	663	556	470	399	340	291	250	216
20-5/8	13294	9131	6642	5039	3946	3169	2597	2164	1828	1563	1350	1176	988	823	692	586	498	427	367	316	273
22	15080	10360	7537	5718	4479	3598	2949	2458	2077	1776	1534	1337	1174	1007	848	719	613	526	453	392	340
23-3/8	16977	11663	8486	6440	5045	4053	3323	2770	2341	2003	1731	1508	1325	1172	1025	870	743	638	551	478	415
24-3/4	18982	13042	9491	7202	5643	4535	3718	3100	2621	2243	1938	1690	1485	1314	1169	1041	890	766	662	575	501
26-1/8	21096	14496	10550	8007	6275	5042	4135	3448	2916	2496	2157	1882	1654	1463	1302	1166	1048	908	786	684	597
27-1/2	23319	16024	11663	8853	6938	5576	4574	3815	3227	2762	2388	2083	1831	1621	1443	1292	1162	1050	925	805	704
28-7/8	25650	17627	12831	9740	7634	6137	5034	4199	3552	3041	2630	2295	2018	1786	1591	1424	1282	1158	1051	940	823

Notes:

- (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 have taken the dead weight of the beam (assumed 36 pcf) into account.
- (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.



Load Duration Factor = 1.25, Fb = 2,400 psi, Fv = 300 psi, E = 1,800,000 psi

10-1/2-INCH WIDTH Depth (in.)	SPAN (ft)																				
	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
11	4206	2902	2108	1488	1036	748	554	420	325	254	201	161	129	104	84	68	55	---	---	---	---
12-3/8	5326	3655	2656	2012	1484	1073	798	607	471	370	295	237	193	157	129	106	87	71	58	---	---
13-3/4	6544	4492	3265	2475	1936	1480	1103	841	654	517	413	334	273	224	185	153	128	106	89	74	61
15-1/8	7885	5413	3936	2984	2335	1874	1477	1128	879	696	558	453	371	306	255	213	178	150	126	106	89
16-1/2	9347	6418	4667	3539	2771	2224	1822	1473	1149	912	733	596	490	406	339	284	240	203	172	146	124
17-7/8	10929	7506	5460	4141	3243	2604	2133	1777	1470	1167	940	766	631	524	439	370	313	266	227	194	166
19-1/4	12632	8677	6312	4788	3750	3012	2469	2057	1738	1466	1182	965	796	663	556	470	399	340	291	250	216
20-5/8	14455	9930	7225	5482	4294	3450	2828	2357	1992	1704	1462	1195	988	823	692	586	498	427	367	316	273
22	16397	11265	8197	6221	4874	3916	3211	2677	2263	1936	1673	1458	1207	1007	848	719	613	526	453	392	340
23-3/8	18458	12683	9230	7005	5489	4411	3617	3016	2550	2182	1886	1645	1446	1216	1025	870	743	638	551	478	415
24-3/4	20638	14182	10322	7834	6140	4934	4047	3375	2855	2443	2112	1843	1620	1433	1224	1041	890	766	662	575	501
26-1/8	22936	15762	11473	8709	6826	5487	4501	3754	3176	2718	2351	2051	1803	1596	1422	1232	1055	908	786	684	597
27-1/2	25353	17424	12683	9629	7548	6068	4978	4153	3513	3008	2602	2270	1997	1768	1575	1410	1238	1067	925	805	704
28-7/8	27887	19167	13953	10593	8305	6677	5478	4571	3868	3312	2865	2501	2200	1948	1736	1555	1400	1243	1078	940	823

Notes:

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- (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 have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
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