



24F-V3/SP

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

8-1/2-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	2719	1795	1122	744	515	369	272	204	155	120	93	73	57	---	---	---	---	---	---	---	---
12-3/8	3445	2384	1604	1066	741	533	394	297	228	178	139	110	88	70	55	---	---	---	---	---	---
13-3/4	4256	2935	2132	1469	1023	738	547	415	320	250	198	158	127	102	83	67	54	---	---	---	---
15-1/8	5153	3537	2570	1947	1369	989	735	559	433	340	270	217	176	143	117	96	78	64	52	---	---
16-1/2	6111	4194	3048	2310	1784	1291	961	732	568	448	358	289	235	192	158	131	108	89	74	61	---
17-7/8	7146	4905	3566	2703	2115	1648	1228	938	729	576	461	374	305	251	208	173	144	120	101	84	70
19-1/4	8260	5671	4123	3126	2447	1964	1541	1177	917	726	583	473	388	320	266	222	186	157	132	111	94
20-5/8	9452	6491	4720	3579	2802	2249	1842	1455	1135	900	723	588	483	400	334	280	236	199	169	143	122
22	10723	7364	5356	4062	3181	2554	2092	1743	1384	1099	884	720	593	492	411	346	293	248	212	181	154
23-3/8	12071	8291	6031	4575	3583	2877	2358	1965	1660	1324	1067	871	718	597	500	422	357	304	260	223	192
24-3/4	13498	9272	6745	5117	4008	3220	2639	2199	1858	1578	1273	1040	858	715	600	507	431	368	315	271	234
26-1/8	15001	10306	7498	5689	4457	3580	2935	2447	2068	1769	1504	1229	1016	847	712	602	513	439	377	325	281
27-1/2	16582	11393	8290	6291	4929	3960	3247	2707	2288	1958	1692	1440	1191	994	836	709	604	518	446	386	334
28-7/8	18240	12533	9120	6922	5424	4358	3574	2980	2520	2156	1863	1625	1385	1157	975	827	706	606	523	453	393

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

8-1/2-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	3131	2167	1585	1200	839	605	449	340	263	206	163	130	105	84	68	55	---	---	---	---	---
12-3/8	3966	2746	1997	1513	1182	869	646	492	381	300	239	192	156	127	104	86	70	58	---	---	---
13-3/4	4899	3379	2456	1861	1455	1167	893	681	530	418	335	270	221	181	150	124	103	86	72	60	---
15-1/8	5931	4072	2960	2244	1755	1408	1153	913	712	563	452	367	300	248	206	172	144	121	102	86	72
16-1/2	7032	4828	3511	2662	2083	1672	1369	1139	930	738	593	483	397	329	274	230	194	164	139	118	101
17-7/8	8223	5647	4107	3114	2438	1957	1603	1335	1127	945	761	620	511	424	355	299	253	215	184	157	135
19-1/4	9505	6528	4748	3601	2820	2264	1855	1545	1305	1116	957	781	645	537	450	380	323	275	236	203	175
20-5/8	10877	7471	5435	4123	3229	2593	2125	1771	1496	1279	1105	962	799	667	560	474	404	345	297	256	221
22	12338	8476	6167	4679	3665	2944	2413	2011	1700	1454	1256	1094	961	815	686	582	496	425	367	317	275
23-3/8	13889	9542	6943	5269	4128	3316	2719	2267	1916	1639	1416	1235	1085	959	830	704	602	517	446	387	336
24-3/4	15530	10670	7765	5893	4618	3710	3043	2537	2145	1835	1586	1383	1215	1075	957	842	720	620	536	465	406
26-1/8	17260	11860	8631	6551	5134	4126	3384	2822	2386	2042	1766	1540	1353	1198	1066	954	854	735	637	554	483
27-1/2	19078	13110	9542	7243	5677	4563	3743	3122	2640	2260	1954	1705	1499	1327	1181	1058	951	859	749	652	570
28-7/8	20985	14422	10498	7969	6246	5021	4119	3436	2907	2488	2152	1878	1651	1462	1302	1166	1049	948	860	761	666

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

8-1/2-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	3405	2357	1725	1204	839	605	449	340	263	206	163	130	105	84	68	55	---	---	---	---	---
12-3/8	4313	2987	2173	1646	1201	869	646	492	381	300	239	192	156	127	104	86	70	58	---	---	---
13-3/4	5328	3675	2672	2025	1584	1198	893	681	530	418	335	270	221	181	150	124	103	86	72	60	---
15-1/8	6450	4429	3220	2442	1911	1533	1195	913	712	563	452	367	300	248	206	172	144	121	102	86	72
16-1/2	7647	5251	3819	2896	2267	1820	1491	1193	930	738	593	483	397	329	274	230	194	164	139	118	101
17-7/8	8942	6141	4467	3388	2653	2130	1746	1454	1190	945	761	620	511	424	355	299	253	215	184	157	135
19-1/4	10335	7099	5165	3918	3069	2465	2020	1683	1422	1187	957	781	645	537	450	380	323	275	236	203	175
20-5/8	11826	8124	5911	4485	3514	2823	2314	1929	1630	1394	1184	968	799	667	560	474	404	345	297	256	221
22	13415	9217	6707	5090	3988	3204	2627	2190	1852	1584	1369	1181	977	815	686	582	496	425	367	317	275
23-3/8	15102	10377	7552	5731	4491	3609	2960	2468	2087	1786	1544	1346	1178	984	830	704	602	517	446	387	336
24-3/4	16885	11603	8445	6410	5024	4038	3312	2762	2336	1999	1729	1508	1326	1173	991	842	720	620	536	465	406
26-1/8	18765	12896	9387	7126	5585	4489	3683	3072	2599	2225	1924	1679	1476	1307	1164	997	854	735	637	554	483
27-1/2	20742	14255	10377	7878	6176	4965	4073	3398	2875	2462	2129	1858	1634	1447	1289	1155	1002	864	749	652	570
28-7/8	22816	15681	11416	8667	6795	5463	4483	3740	3165	2710	2345	2047	1800	1594	1421	1273	1146	1006	873	761	666

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
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.