

# APA

## 24F-V3/SP

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

8-3/4-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	2799	1848	1155	766	531	380	280	210	160	123	96	75	58	---	---	---	---	---	---	---	---
12-3/8	3546	2454	1652	1097	763	549	406	306	235	183	144	113	90	72	57	---	---	---	---	---	---
13-3/4	4381	3016	2191	1513	1053	760	563	427	329	258	204	163	131	105	85	69	55	---	---	---	---
15-1/8	5298	3636	2642	2001	1409	1018	757	575	445	350	278	224	181	147	120	98	80	66	53	---	---
16-1/2	6281	4311	3133	2374	1836	1329	989	754	585	461	368	297	242	198	163	135	111	92	76	63	51
17-7/8	7345	5042	3666	2778	2174	1696	1265	965	751	593	475	385	314	258	214	178	148	124	104	86	72
19-1/4	8490	5829	4239	3213	2515	2018	1586	1212	944	748	600	487	399	330	274	229	192	161	136	115	97
20-5/8	9716	6672	4852	3679	2880	2312	1894	1497	1168	926	745	606	497	412	344	288	243	205	174	148	125
22	11022	7570	5506	4176	3270	2625	2151	1791	1424	1131	910	742	610	507	424	356	301	256	218	186	159
23-3/8	12408	8523	6200	4703	3683	2958	2424	2019	1706	1363	1099	896	739	614	515	434	368	313	268	230	197
24-3/4	13874	9531	6934	5260	4120	3309	2712	2260	1910	1624	1311	1070	883	736	617	522	443	378	324	279	241
26-1/8	15420	10593	7708	5848	4581	3680	3017	2515	2126	1818	1548	1265	1046	872	733	620	528	452	388	335	290
27-1/2	17045	11711	8521	6466	5066	4070	3337	2782	2352	2012	1739	1482	1226	1023	861	730	622	533	459	397	344
28-7/8	18749	12883	9375	7115	5575	4480	3673	3063	2590	2216	1915	1670	1426	1191	1003	851	727	624	538	466	405

### 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

8-3/4-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	3223	2231	1629	1233	863	623	462	350	270	212	168	134	108	87	70	57	---	---	---	---	---
12-3/8	4082	2826	2053	1555	1215	894	665	506	392	309	246	198	160	131	107	88	72	59	---	---	---
13-3/4	5043	3473	2524	1912	1496	1199	919	701	545	430	344	278	227	187	154	128	106	89	74	61	51
15-1/8	6098	4186	3043	2306	1804	1447	1185	940	732	580	465	378	309	255	212	177	149	125	105	89	75
16-1/2	7229	4963	3609	2736	2141	1718	1407	1171	958	760	611	497	408	338	282	237	200	169	143	122	104
17-7/8	8453	5805	4221	3201	2506	2012	1648	1372	1159	973	784	639	526	437	366	308	261	222	189	162	139
19-1/4	9770	6710	4881	3702	2899	2327	1907	1588	1342	1147	985	804	664	552	463	391	332	284	243	209	180
20-5/8	11180	7679	5587	4238	3319	2666	2185	1820	1538	1315	1135	989	823	686	577	488	415	355	305	263	228
22	12683	8712	6339	4809	3767	3026	2481	2067	1747	1494	1291	1125	988	839	707	599	511	438	377	326	283
23-3/8	14277	9809	7137	5416	4243	3409	2795	2330	1970	1685	1456	1269	1115	986	854	725	619	532	459	398	346
24-3/4	15964	10968	7982	6057	4746	3814	3127	2608	2205	1886	1630	1422	1249	1105	983	867	742	638	552	479	418
26-1/8	17742	12191	8872	6734	5277	4241	3478	2901	2453	2099	1815	1583	1391	1231	1096	981	879	757	655	570	498
27-1/2	19611	13476	9809	7445	5835	4690	3847	3209	2714	2323	2009	1752	1540	1364	1214	1087	978	883	771	671	587
28-7/8	21571	14824	10791	8192	6421	5161	4234	3532	2988	2558	2212	1930	1697	1503	1338	1198	1078	975	884	783	686

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.

# APA

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

8-3/4-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	3505	2427	1773	1240	863	623	462	350	270	212	168	134	108	87	70	57	---	---	---	---	---
12-3/8	4440	3074	2234	1692	1237	894	665	506	392	309	246	198	160	131	107	88	72	59	---	---	---
13-3/4	5484	3778	2746	2081	1628	1234	919	701	545	430	344	278	227	187	154	128	106	89	74	61	51
15-1/8	6631	4553	3310	2510	1964	1576	1231	940	732	580	465	378	309	255	212	177	149	125	105	89	75
16-1/2	7860	5398	3926	2977	2331	1871	1532	1228	958	760	611	497	408	338	282	237	200	169	143	122	104
17-7/8	9191	6313	4592	3483	2727	2190	1794	1495	1225	973	784	639	526	437	366	308	261	222	189	162	139
19-1/4	10623	7297	5309	4027	3154	2533	2076	1730	1462	1222	985	804	664	552	463	391	332	284	243	209	180
20-5/8	12156	8351	6076	4610	3612	2901	2378	1982	1676	1433	1219	996	823	686	577	488	415	355	305	263	228
22	13790	9474	6894	5232	4099	3293	2700	2251	1903	1628	1407	1216	1005	839	707	599	511	438	377	326	283
23-3/8	15523	10666	7762	5891	4617	3710	3042	2537	2145	1836	1587	1384	1213	1013	854	725	619	532	459	398	346
24-3/4	17356	11927	8681	6589	5164	4150	3404	2839	2401	2055	1777	1550	1363	1206	1020	867	742	638	552	479	418
26-1/8	19289	13256	9649	7325	5741	4615	3786	3158	2671	2287	1978	1725	1517	1343	1196	1026	879	757	655	570	498
27-1/2	21321	14653	10667	8098	6348	5103	4187	3493	2955	2530	2189	1910	1680	1487	1325	1187	1031	889	771	671	587
28-7/8	23453	16119	11735	8909	6985	5616	4608	3845	3253	2786	2410	2104	1850	1639	1460	1308	1178	1036	899	783	686

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- (6) Sufficient bearing length shall be provided at supports
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