

WJ21 Truss - Allowable Uniform Load Table (PLF) / Parallel Chord

Clear Span (Ft.)	Depth																												Clear Span (Ft.)
	14"		16"		18"		20"		22"		24"		26"		28"		30"		32"		34"		36"		38"		40"		
	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	100% TL L/600 Δ	115% TL L/600 Δ	
14	233	268	270	311	308	354	345	388	383	388	377	377	363	363	348	348	334	334	320	320	307	307	295	295	283	283	272	272	14
16	232	291	312	338	404	385	508	388	624	388	751	377	891	363	1042	348	1205	334	1380	320	1567	307	1766	295	1976	283	2199	272	16
18	179	206	207	239	236	272	265	304	293	337	322	342	338	338	325	325	313	313	301	301	289	289	278	278	268	268	268	268	18
20	141	163	164	189	187	215	209	241	232	267	255	293	277	306	300	306	306	306	306	294	294	284	284	273	273	263	263	20	
22	110	127	128	151	148	177	171	203	195	229	217	251	242	276	269	299	292	326	319	307	307	295	295	284	284	273	273	22	
24	80	92	92	106	105	121	118	136	131	150	144	165	156	180	169	195	192	209	195	224	208	232	220	232	227	227	212	212	24
26	58	67	68	78	77	89	87	100	96	111	105	121	115	132	124	143	134	154	143	165	153	175	162	186	171	193	181	26	
28	46	53	54	61	60	68	66	76	73	85	81	93	88	101	95	109	102	118	110	126	117	134	124	143	131	151	138	28	
30	35	41	42	48	47	54	52	59	56	65	61	70	65	75	69	78	73	83	78	89	83	95	88	101	93	107	98	30	
32	28	33	34	39	38	43	41	47	45	51	48	55	51	58	54	61	57	65	60	68	63	71	66	75	68	79	71	32	
34	22	26	27	31	30	34	32	37	35	40	37	43	39	45	41	47	43	50	46	52	48	54	50	57	51	60	53	34	
36	18	21	22	25	24	27	25	29	27	31	28	33	29	34	30	35	31	37	33	39	35	41	37	43	38	45	38	36	36
38	14	17	18	20	19	21	19	22	20	23	20	24	21	25	21	25	21	26	22	27	23	28	24	29	25	30	25	38	38
40	11	13	14	15	14	16	14	17	15	18	15	18	16	19	16	19	16	20	17	21	18	22	18	23	19	24	19	40	40
42	9	10	11	12	11	12	11	13	11	13	11	13	11	14	12	14	11	14	12	15	13	16	13	16	13	17	14	42	42
44	7	8	9	10	8	10	8	10	8	10	8	10	8	11	9	11	8	11	9	12	10	12	10	12	10	13	10	44	44
46	6	7	8	9	7	9	7	9	7	9	7	9	7	10	8	10	7	10	8	11	9	11	9	11	9	12	9	46	46
48	5	6	7	8	6	8	6	8	6	8	6	8	6	9	7	9	6	9	7	10	8	10	8	10	8	11	8	48	48
50	4	5	6	7	5	7	5	7	5	7	5	7	5	8	6	8	5	8	6	9	7	9	7	9	7	10	7	50	50
52	3	4	5	6	4	6	4	6	4	6	4	6	4	7	5	7	4	7	5	8	6	8	6	8	6	9	6	52	52
54	3	4	5	6	4	6	4	6	4	6	4	6	4	7	5	7	4	7	5	8	6	8	6	8	6	9	6	54	54
56	3	4	5	6	4	6	4	6	4	6	4	6	4	7	5	7	4	7	5	8	6	8	6	8	6	9	6	56	56
58	3	4	5	6	4	6	4	6	4	6	4	6	4	7	5	7	4	7	5	8	6	8	6	8	6	9	6	58	58
60	3	4	5	6	4	6	4	6	4	6	4	6	4	7	5	7	4	7	5	8	6	8	6	8	6	9	6	60	60

TERMS:
Clear Span is horizontal distance from inside face of bearing surface to inside face of bearing surface.
Depth is out to out depth.

L/600 Δ column is Load that will cause L/600 Deflection.
For other deflection limits.
 L/180 Δ Load = L/600 Δ value x 3.3333
 L/240 Δ Load = L/600 Δ value x 2.5000
 L/360 Δ Load = L/600 Δ value x 1.6667
 L/480 Δ Load = L/600 Δ value x 1.2500

NOTES:
 1. Total loads shown in table are maximum possible. Trusses will be custom designed to loads specified for project (not maximum shown in this table).
 TL = Live (LL) + Dead (DL) + Part. (PL)

2. Deflection limits may control maximum load. Web Joist recommends the following deflection limits:
Residential:
 L/240 @ TL and/or L/360 @ LL (min.) or L/360 @ TL and/or L/480 @ LL (preferred)
Non-Residential:
 L/360 @ TL and/or L/480 @ LL (min.) or L/480 @ TL and/or L/600 @ LL (preferred)
 With plaster or gyp ceiling use L/360 @ LL.
 TL = Live (LL) + Dead (DL) (exclude Part. (PL))

3. Allowable Total Load (TL) may be reduced at top chord bearings if bearing pin to end of chord is less than 3.50". See Table 6 of ESR-2504 for allowable reaction with reduced pin to end length.

4. The load table is limited to simple-span and uniform load. The table may also be used for bottom chord bearing and/or for cantilevers at both or either ends which do not exceed 1/3 of the main span length. For other conditions, inquire through your Web Joist representative.

5. Straight line interpretation may be made between depths and spans indicated.

Prop.	Allowable Properties @ 100%														Prop.
	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
R	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	R
T	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	5,814.0	T
EI	7.4183E+08	9.9698E+08	1.2899E+09	1.6207E+09	1.9892E+09	2.3956E+09	2.8397E+09	3.3217E+09	3.8414E+09	4.3990E+09	4.9943E+09	5.6275E+09	6.2984E+09	7.0072E+09	EI
d	12.5000	14.5000	16.5000	18.5000	20.5000	22.5000	24.5000	26.5000	28.5000	30.5000	32.5000	34.5000	36.5000	38.5000	d
W	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.8	3.8	3.8	3.9	3.9	W

E (psi) = 1.80E+06 I (In.⁴) = I₁d²+I₂ I₁ = 2.625 I₂ = 1.969 d = Pin to Pin Depth (In.) = D - 1.500

R = Reaction (Lbs.) T = Tension (Lbs.) EI = MOE x I (Lbs.-In.²) W = Approx. Truss Weight (plf) xx 7% Repetive use increase allowed for Trusses at 24" or less o/c

Load Tables for Web Joist Truss.xls

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