

WJ24 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	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL		100% TL L/600 Δ	115% TL	100% TL L/600 Δ	115% TL	
14	285	328	331	380	376	388	388	388	388	388	388	377	377	363	363	348	348	334	334	320	320	307	307	295	295	283	283	272	272	14
16	258	356	347	388	449	388	565	388	693	388	835	377	990	363	1158	348	1339	334	1534	320	1741	307	1962	295	2196	283	2443	272	16	
18	219	251	254	292	289	332	324	342	342	342	342	342	342	342	338	338	325	325	313	313	301	301	289	289	278	278	268	268	18	
20	173	199	201	231	228	263	256	294	284	306	306	306	306	306	306	306	306	306	306	294	294	284	284	273	273	263	263	20		
22	122	216	164	251	213	285	267	306	328	306	395	306	469	306	548	306	634	306	726	306	825	294	929	284	1040	273	1157	263	22	
24	89	175	120	203	155	231	195	260	240	277	289	277	342	277	401	277	463	277	531	277	603	277	679	277	760	269	846	258	24	
26	67	145	90	168	117	191	147	215	180	238	217	253	258	253	301	253	349	253	399	253	454	253	511	253	572	249	636	233	26	
28	52	122	69	141	90	161	113	180	139	200	168	220	199	230	232	262	232	292	232	322	232	352	232	382	232	412	227	491	212	28
30	40	104	55	120	71	137	89	154	109	170	132	187	156	204	183	215	212	215	243	215	275	215	310	215	347	209	387	195	30	
32	31	82	83	95	94	109	106	122	117	135	129	148	140	162	152	175	164	188	175	200	187	200	198	200	193	193	181	181	32	
34	24	89	44	104	57	118	71	133	88	147	106	161	125	176	147	190	170	200	194	200	221	200	249	200	278	193	310	181	34	
36	19	78	72	83	82	95	92	106	102	118	112	129	122	141	132	152	142	164	152	175	163	187	173	187	180	180	168	168	36	
38	15	63	63	70	46	103	58	115	71	128	86	141	102	153	119	166	138	178	158	187	180	187	202	187	227	180	252	168	38	
40	11	55	56	65	64	74	72	83	80	92	87	101	95	110	103	119	111	128	119	137	127	146	134	155	142	158	147	147	40	
42	8	61	58	66	64	74	71	82	78	90	85	98	92	106	99	114	106	122	113	130	120	138	127	146	134	139	139	42		
44	6	51	52	59	57	66	64	73	70	81	76	88	82	95	89	102	95	109	101	117	108	124	114	131	120	131	131	44		
46	4	43	43	56	64	72	72	80	80	88	80	95	88	103	95	110	103	119	111	128	119	137	127	146	134	155	142	147	46	
48	3	37	47	53	60	68	63	73	69	79	74	86	80	92	86	99	91	105	97	112	103	118	108	124	114	131	120	124	48	
50	2	30	42	48	54	62	57	66	62	72	67	78	73	84	78	89	83	95	88	101	93	107	98	113	103	117	106	113	50	
52	1	24	33	39	45	51	46	55	50	59	55	65	60	70	65	76	71	81	75	87	80	92	85	98	89	103	93	103	52	
54	1	19	26	32	38	44	40	49	45	54	50	60	56	65	60	70	65	75	69	79	73	84	78	89	82	94	82	94	54	
56	1	14	19	24	29	34	30	39	35	44	40	50	46	55	50	60	56	65	60	70	65	75	69	79	73	84	78	89	56	
58	1	10	14	18	22	26	22	31	27	36	32	42	38	47	42	52	48	58	53	63	58	68	62	72	66	76	69	80	58	
60	1	7	9	12	15	18	15	20	17	23	20	28	25	33	29	38	34	44	40	50	46	56	50	60	54	64	58	69	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.
	Depth (D) (In.)														
	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	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	7,106.0	T
EI	8.2425E+08	1.1078E+09	1.4333E+09	1.8008E+09	2.2103E+09	2.6618E+09	3.1553E+09	3.6908E+09	4.2683E+09	4.8878E+09	5.5493E+09	6.2528E+09	6.9983E+09	7.7858E+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	3.5	3.6	3.6	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	4.0	4.0	4.0	W

E (psi) = 2.00E+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 WJ24