

Pound for Pound: TrusSteel Can Easily Replace Bar Joist

Why Replace Bar Joist?

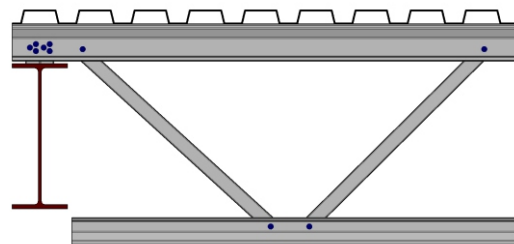
TrusSteel has been supplying cold-formed steel trusses for pitched roof applications for over 25 years yet design professionals may not be aware that TrusSteel is also an economical alternative to bar joist in most floor and flat roof applications.

Extreme volatility in supply, pricing and most importantly lead times for bar joist can derail any project's critical path to completion.

TrusSteel's expansive family of Authorized Fabricators, located across the country, are able to supply and service projects locally. All trusses are fabricated in-plant with high quality assurance standards.

Cold-formed steel trusses provide enormous design flexibility that does not exist with hot-rolled heavy steel joists. Unlimited depth and spacing combinations allow a customized and engineered solution that is built around project loading and deflection criteria. In addition, end bearing conditions (top-chord, mid-chord, ledger supported, etc.) can be tailored around project-specific requirements.

All TrusSteel cold-formed steel trusses are backed by Alpine's 60 years of commitment to engineering excellence and leadership within the structural building component industry. TrusSteel's proprietary SteelVIEW engineering software suite ensures quick turnaround for quotations, shop drawings and submittal packages when required on time sensitive projects. Components used in the manufacture of TrusSteel cold-formed trusses are high tensile strength steel with G90 galvanization protection from steel that has been melted and manufactured in the United States. TrusSteel's patented double shear screw technology delivers engineering redundancy and ease of job site inspection.

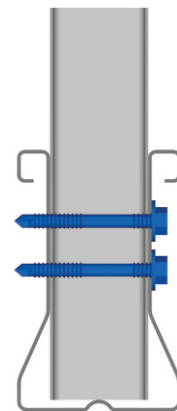


Conversion LOAD TABLES

Tables are to be used for basic load carrying comparison for replacement of K-Series and LH-Series joists. All TrusSteel cold-formed steel trusses will be designed for actual span, depth & loads specified by building designer and/or project Engineer-Of-Record. Individual truss designs, signed & sealed by a registered Professional Engineer, will be provided.

The **BLACK** figures in the Load Tables represent the TOTAL uniform load carrying capacity (PLF). The **RED** figures represent the TOTAL uniform load to meet L/360 deflection criteria (PLF).

Floor applications require 600S162-33 strongbacks at approximately 10'0" on-center. Roof applications will require a bottom chord lateral and diagonal restraint system.



All top chords are assumed to be continuously sheathed. No allowance for mechanical units, snow drift, etc. has been included in the load tables. Floor applications with stack loads from above may require additional reinforcement at bearing supports.

For additional span/depth/spacing/loading combinations and quotations, including increased capacity, contact your experienced local Authorized Fabricator by visiting <https://trussteel.com/find-fabricator/>.

**ASD****K-Series to TrusSteel - Conversion LOAD TABLE**

Loads are shown in Pounds Per Linear Foot (PLF)

Truss Designation →	10TSK275	10TSK300	12TSK275	12TSK300	14TSK275	14TSK300	16TSK300	16TSK400	18TSK300	18TSK400
Depth (in.) →	10	10	12	12	14	14	16	16	18	18
Approx. Weight (lb/ft) →	3.2	5.0	3.2	5.0	3.2	5.0	5.0	7.2	5.0	7.2
↓ Span (ft.) ↓										
10	415 415	650 650								
11	355 323	560 516								
12	295 251	460 399	375 375	585 585						
13	266 202	410 310	340 304	512 470						
14	216 162	339 250	275 242	440 386	328 328	492 492				
15	194 134	300 206	247 201	385 306	296 281	458 440				
16	175 111	264 170	222 168	336 256	260 231	410 369	455 455	550 550		
17	148 93	230 143	190 140	296 216	231 195	368 308	415 401	517 514		
18	134 79	209 121	172 120	268 183	210 168	329 264	380 349	476 444	425 425	525 525
19	122 67	183 103	157 102	240 158	185 143	295 220	346 297	427 379	392 381	477 475
20	107 58	168 89	138 88	214 136	170 125	264 191	317 258	388 328	356 332	450 427
21			126 77	195 118	155 108	240 166	281 227	350 287	321 287	408 374
22			116 67	180 103	141 94	217 145	260 193	313 250	293 249	365 322
23			107 59	163 91	129 83	200 128	235 171	290 222	274 224	341 285
24			96 52	147 80	114 73	180 113	217 151	268 196	294 194	300 253
25					108 66	168 101	200 134	245 174	228 176	279 224
26					100 58	155 90	180 121	225 156	210 155	266 203
27					94 52	146 81	168 108	208 140	198 139	250 182
28					85 47	134 72	159 98	196 126	183 125	230 164
29							149 88	185 114	174 114	216 150
30							137 80	169 103	158 103	200 135
31							132 72	162 94	149 94	184 123
32							120 66	150 85	141 86	176 111
33									133 78	167 102
34									125 72	158 94
35									120 67	149 86
36									110 61	137 79

Truss ID	Weight (lb/ft)	Depth in Inches	SPAN IN FEET							
			30	32	34	36	38	40	42	44
18TSLH16	5.9	18	164 112	148 93	132 78	115 66				
18TSLH14	7.2	18	200 135	176 111	158 94	137 79				
18TSLH12	9.6	18	285 179	258 151	232 127	201 108				
20TSLH16	5.9	20	193 141	171 117	150 99	134 84	122 72	107 62		
20TSLH14	7.2	20	229 166	203 139	179 117	160 100	145 86	128 74		
20TSLH12	9.7	20	333 227	300 191	263 158	234 135	214 116	188 101		
24TSLH16	5.9	24	245 207	211 174	184 144	168 125	153 106	132 91	123 80	113 70
24TSLH14	7.2	24	290 248	240 207	221 172	199 149	183 129	157 109	146 97	135 85
24TSLH12	9.7	24	427 343	355 284	324 235	291 199	269 173	225 149	214 133	200 116
Truss ID	Weight (lb/ft)	Depth in Inches	SPAN IN FEET							
			46	48	50	52	54	56	58	60
28TSLH14	7.2	28	141 103	134 93	124 81	117 73	109 66	102 58		
28TSLH12	9.7	28	209 141	195 125	184 112	172 100	162 90	151 81		
32TSLH14	7.2	32	165 134	155 120	146 107	137 96	128 87	115 78	109 71	102 64
32TSLH12	9.7	32	245 190	227 167	219 149	202 134	188 121	169 107	161 97	151 88
36TSLH14	7.2	36	192 172	181 154	160 136	150 122	141 110	134 99	126 90	112 81
36TSLH12	9.7	36	282 237	263 211	242 188	231 169	210 151	196 137	185 125	167 118
40TSLH14	7.2	40	209 209	197 189	186 153	170 142	154 135	143 122	134 111	127 101
40TSLH12	9.7	40	310 289	296 263	280 234	262 211	231 188	212 170	200 155	185 140
44TSLH14	7.2	44	240 240	227 224	210 201	190 181	182 166	169 148	159 135	149 125
44TSLH12	9.7	44	336 333	300 300	290 276	282 247	269 226	252 205	236 186	222 168
48TSLH14	7.2	48	234 234	238 238	230 230	210 210	200 193	186 175	175 159	165 145
48TSLH12	9.7	48	312 312	321 321	300 300	292 287	270 264	261 239	247 218	240 199



Cold-Formed Roof & Floor Joists

