

## 20.5" Element Truss

Element 20 has good structural properties and can achieve span lengths up to 50ft. With a 20.5" square cross section it provides a very economical truck pack and great versatility and can be used as a base for the Total Structures outdoor stage roof system.

Triangular versions of these trusses are available, but should only be considered when a triangular profile is specifically required, as load capacity is substantially reduced while cost is not!

### Facts





- While somewhat lighter in self-weight than it's Medium Duty counterpart, can provide a little extra loading than Medium Duty truss
- It contains all diagonals in the side ladder and alternating cross members on the top and bottom face

### Specifications Element Truss 12"





	Imperial	Metric
Height:	20.5"	52,07 cm
Width:	20.5"	52,07 cm
Connection Centers: 13.78"w x 13.78"h		
Material:	6061-T6 Aluminium	
Connection:	5/8" Grade 8 Steel nuts & bolts	
Maximum Certified Span:	60ft	

# 20.5 Element Truss" Loading data

## Imperial loading charts

Span (ft)	UDL			CPL		1/3 Point Load		1/4 Point Load	
									
	plf	lbs	in	lbs	in	lbs (2x)	in	lbs (3x)	in
5	1236	6178	0,007	6178	0,011	3089	0,009	2059	0,009
10	615	6149	0,055	5638	0,08	3074	0,075	2050	0,069
15	408	6119	0,185	3734	0,181	2800	0,23	1867	0,214
20	277	5549	0,401	2774	0,322	2081	0,41	1387	0,381
25	175	4386	0,626	2193	0,505	1645	0,64	1096	0,596
30	120	3600	0,902	1800	0,73	1350	0,921	900	0,859
35	87	3031	1,228	1515	0,998	1136	1,253	758	1,17
40	65	2596	1,603	1298	1,31	973	1,636	649	1,53
45	50	2251	2,029	1126	1,667	844	2,07	563	1,939
50	39	1970	2,505	985	2,07	739	2,554	492	2,396
55	28	1734	3,031	867	2,521	650	3,088	433	2,904
60	17	1532	3,608	766	3,022	575	3,673	383	3,461

## Metric loading charts

Span (m)	UDL			CPL		1/3 Point Load		1/4 Point Load	
									
	plf	kg/m	mm	kg/m	mm	kg/m	mm	kg/m (3x)	mm
1,5	561	2802	0	2802	0	1401	0	934	0
3,0	279	2789	1	2557	2	1394	2	930	2
4,6	185	2776	5	1694	5	1270	6	847	5
6,1	126	2517	10	1258	8	944	10	629	10
7,6	79	1989	16	995	13	746	16	497	15
9,1	54	1633	23	816	19	612	23	408	22
10,7	39	1375	31	687	25	515	32	344	30
12,2	29	1178	41	589	33	441	42	294	39
13,7	23	1021	52	511	42	383	53	255	49
15,2	18	894	64	447	53	335	65	223	61
16,8	13	787	77	393	64	295	78	196	74
18,3	8	695	92	347	77	261	93	174	88