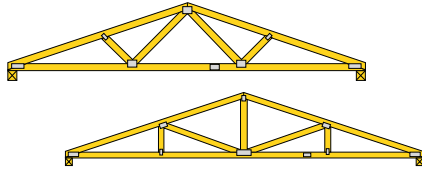
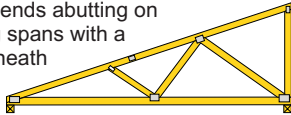


Alpine truss designs are engineered to meet specific span, configuration and load conditions. The shapes and spans shown here represent only a fraction of the millions of designs processed by Alpine engineers.

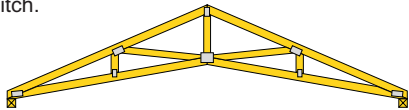
**Common** -- Truss configurations for the most widely designed roof shapes.



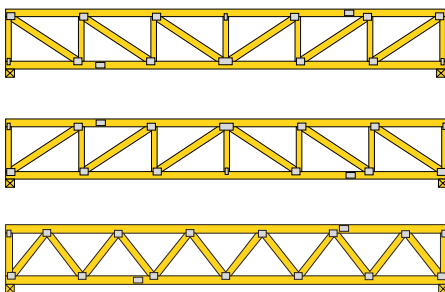
**Mono** -- Used where the roof is required to slope only in one direction. Also in pairs with their high ends abutting on extremely long spans with a support underneath the high end.



**Scissors** -- Provides a cathedral or vaulted ceiling. Most economical when the difference in slope between the top and bottom chords is at least 3/12 or the bottom chord pitch is no more than half the top chord pitch.



**Flat** -- The most economical flat truss for a roof is provided when the depth of the truss in inches is approximately equal to 7% of the span in inches.



<b>Total load(PSF)</b> <b>Duration factor</b> Live load(PSF) Roof type	<b>55</b> <b>1.15</b> 40 snow shingle	<b>47</b> <b>1.15</b> 30 snow shingle	<b>40</b> <b>1.15</b> 20 snow shingle	<b>40</b> <b>1.25</b> 20 ** shingle
Top Chord	2x4 2x6 2x6	2x4 2x6 2x6	2x4 2x6 2x6	2x4 2x6 2x6
Bottom Chord	2x4 2x4 2x6	2x4 2x4 2x6	2x4 2x4 2x6	2x4 2x4 2x6

<b>Pitch</b>	<b>Spans in feet to out of bearing</b>											
2/12	24	24	33	27	27	37	31	31	43	33	33	46
2.5/12	29	29	39	33	33	45	37	38	52	39	40	55
3/12	34	34	46	37	39	53	40	44	60	43	46	64
3.5/12	39	39	53	41	44	61	44	50	65	47	52	70
4/12	41	43	59	43	49	64	46	56	69	49	57	74
5/12	44	52	67*	46	58	69*	49	66	74*	53	66	80*
6/12	46	60*	69*	47	67*	71*	51	74*	76*	55	74*	82*
7/12	47	67*	70*	48*	72*	72*	52*	77*	77*	56*	80*	83*

2/12	24	24	33	25	27	38	27	31	41	29	32	44
2.5/12	28	29	40	29	32	43	31	37	46	33	37	49
3/12	30	33	45	31	37	47	34	42	50	36	42	54
3.5/12	33	37	49*	34	41	51*	36	46	54*	39	46	58*
4/12	35	41	52*	36	45*	54*	39	50*	58*	42*	49*	62*
5/12	38*	47*	57*	39*	51*	59*	42*	56*	63*	45*	54*	68*

6/12 - 2/12 ‡	40	43	59*	42	49	62*	45	56*	66	48	57*	71*
6/12 - 2.5/12 ‡	37	38	52	38	44	57*	41	50	61*	44	52	66*
6/12 - 3/12 ‡	33	33	45	35	38	52	38	43	56*	40	46	60*
6/12 - 3.5/12 ‡	28	28	38	32	32	44	34	37	50	36	39	54
6/12 - 4/12 ‡	22	22	31	26	26	36	30	30	41	32	32	44

‡ Other pitch combinations available with these spans  
For Example, a 5/12 - 2/12 combination has approx. the same allowable span as a 6/12 - 3/12

<b>Total load(PSF)</b> <b>Duration factor</b> Live load(PSF)	<b>55</b> <b>1.15</b> 40 snow	<b>47</b> <b>1.15</b> 30 snow	<b>40</b> <b>1.15</b> 20 snow	<b>40</b> <b>1.25</b> 20 rain or constn.
Top Chord	2x4 2x6 2x6	2x4 2x6 2x6	2x4 2x6 2x6	2x4 2x6 2x6
Bottom Chord	2x4 2x4 2x6	2x4 2x4 2x6	2x4 2x4 2x6	2x4 2x4 2x6

<b>Depth</b>	<b>Spans in feet to out of bearing</b>											
16"	23	24	25 §	25 §	25 §	25 §	25 §	25 §	25 §	25 §	25 §	25 §
18"	25	27	28	27	27	29 §	29 §	29 §	29 §	29 §	29 §	29 §
20"	27	28	30	28	28	32	31	30	33 §	32	31	33 §
24"	29	30	33	31	31	35	34	33	38	35	34	40
28"	32	32	36	34	33	39	37	36	42	38	37	44
30"	33	33	38	35	35	40	38	37	44	40	39	45
32"	34	34	39	36	36	42	39	39	45	41	40	47
36"	36	36	42	39	38	45	42	41	48	43	43	50
42"	39	39	45	41	41	48	44	44	52	45	46	54
48"	40	42	49	43	44	52	46	47	56	46	49	58
60"	44	47	55	46	49	58	48	53	63	49	55	65
72"	45	51	60	48	54	64	51	57	68	51	59	69

§ = Span Limited by length to depth ratio of 24

**NOTES:** These overall spans are based on NDS 91 with 4" nominal bearing each end, 24" o.c. spacing, a live load deflection limited to L/240 maximum and use lumber properties as follows: 2x4  $f_c=2000$  psi  $f_t=1100$  psi  $E=1.8 \times 10^6$  2x6  $f_c=1750$  psi  $f_t=950$  psi  $f_c=1900$  psi  $E=1.8 \times 10^6$ . Allowable

spans for 2x4 top chord trusses using sheathing other than plywood (e.g. spaced sheathing or 1x boards) may be reduced slightly. Trusses must be designed for any special loading such as concentrated loads from hanging partitions or air conditioning units, and snow loads caused by

drifting near parapet or slide-off from higher roofs. To achieve maximum indicated spans, trusses may require six or more panels. Trusses with an asterisk (\*) that exceed 14' in height may be shipped in two pieces. Contact your local Alpine truss manufacturer or office for more information.