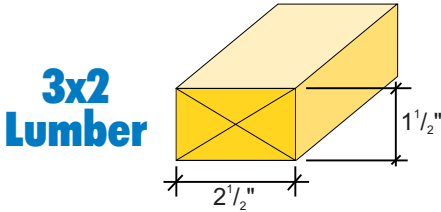
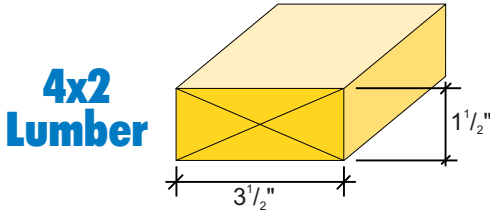


Floor Truss Span Tables

These allowable spans are based on NDS 91. Maximum deflection is limited by L/360 or L/480¹ under live load. Basic Lumber Design Values are $F_{(b)}=2000$ psi $F_{(c)}=1100$ psi $F_{(t)}=2000$ psi $E=1,800,000$ psi Duration Of Load = 1.00. Spacing of trusses are center to center (in inches). Top Chord

Dead Load = 10 psf. Bottom Chord Dead Load = 5 psf. Center Line Chase = 24" max. Trusses must be designed for any special loading, such as concentrated loads. Other floor and roof loading conditions, a variety of species and other lumber grades are available.



Center Spacing	Deflection Limit	40 PSF Live Load 55 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	22'2"	24'11"	26'10"	28'8"	30'4"	31'11"
	L/480	20'2"	22'7"	24'11"	27'2"	29'4"	31'5"
19.2" o.c.	L/360	20'9"	22'8"	24'4"	26'0"	27'6"	29'0"
	L/480	18'11"	21'3"	23'6"	25'7"	27'6"	29'0"
24" o.c.	L/360	18'5"	20'1"	21'7"	23'1"	24'5"	25'9"
	L/480	17'7"	19'9"	21'7"	23'1"	24'5"	25'9"

Center Spacing	Deflection Limit	40 PSF Live Load 55 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	19'0"	20'9"	22'4"	23'10"	25'3"	26'7"
	L/480	18'0"	20'2"	22'4"	23'10"	25'3"	26'7"
19.2" o.c.	L/360	17'3"	18'9"	20'3"	21'7"	22'10"	24'1"
	L/480	16'11"	18'9"	20'3"	21'7"	22'10"	24'1"
24" o.c.	L/360	15'2"	16'7"	17'10"	19'1"	20'2"	21'3"
	L/480	15'2"	16'7"	17'10"	19'1"	20'2"	21'3"

Center Spacing	Deflection Limit	60 PSF Live Load 75 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	19'4"	21'4"	23'0"	24'6"	26'0"	27'4"
	L/480	17'7"	19'9"	21'10"	23'9"	25'8"	27'4"
19.2" o.c.	L/360	17'9"	19'4"	20'10"	22'3"	23'7"	24'10"
	L/480	16'7"	18'7"	20'6"	22'3"	23'7"	24'10"
24" o.c.	L/360	15'9"	17'2"	18'6"	19'9"	20'11"	22'0"
	L/480	15'4"	17'2"	18'6"	19'9"	20'11"	22'0"

Center Spacing	Deflection Limit	60 PSF Live Load 75 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	16'3"	17'9"	19'2"	20'5"	21'8"	22'9"
	L/480	15'9"	17'8"	19'2"	20'5"	21'8"	22'9"
19.2" o.c.	L/360	14'9"	16'1"	17'4"	18'6"	19'7"	20'7"
	L/480	14'9"	16'1"	17'4"	18'6"	19'7"	20'7"
24" o.c.	L/360	13'0"	14'2"	15'3"	16'4"	17'3"	18'2"
	L/480	13'0"	14'2"	15'3"	16'4"	17'3"	18'2"

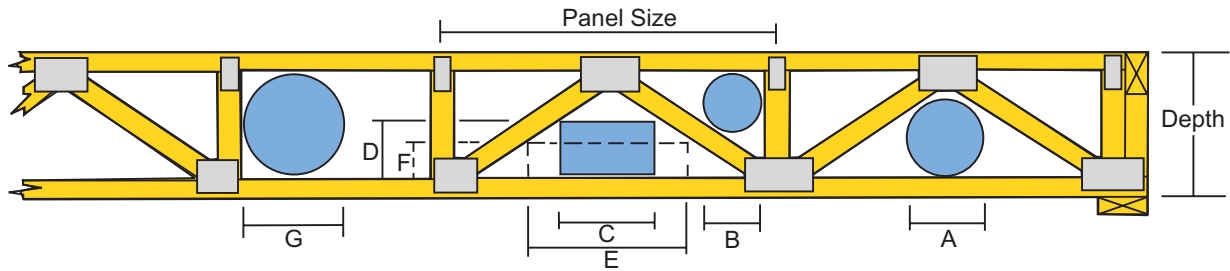
Center Spacing	Deflection Limit	85 PSF Live Load 100 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	16'11"	18'6"	19'11"	21'3"	22'6"	23'8"
	L/480	15'8"	17'7"	19'5"	21'2"	22'6"	23'8"
19.2" o.c.	L/360	15'4"	16'9"	18'1"	19'3"	20'5"	21'6"
	L/480	14'9"	16'6"	18'1"	19'3"	20'5"	21'6"
24" o.c.	L/360	13'8"	14'10"	16'0"	17'1"	18'1"	19'1"
	L/480	13'8"	14'10"	16'0"	17'1"	18'1"	19'1"

Center Spacing	Deflection Limit	85 PSF Live Load 100 PSF Total Load					
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	14'1"	15'5"	16'7"	17'8"	18'9"	19'9"
	L/480	14'0"	15'5"	16'7"	17'8"	18'9"	19'9"
19.2" o.c.	L/360	12'9"	13'11"	15'0"	16'0"	16'11"	17'10"
	L/480	12'9"	13'11"	15'0"	16'0"	16'11"	17'10"
24" o.c.	L/360	11'3"	12'3"	13'3"	14'1"	14'11"	15'9"
	L/480	11'3"	12'3"	13'3"	14'1"	14'11"	15'9"

(1) Vibration Control -- Research by Virginia Tech indicates that L/480 live load deflection criteria provides a high degree of resistance to floor vibration (bounce). The building designer

desiring this benefit may choose to specify an L/480 live load deflection criteria to be used for the floor trusses.

Duct Openings For Fan Style Floor Trusses With 4x2 or 3x2 Chords & Webs



Typical Duct Opening Sizes For 4x2 Fan Style Floor Trusses

Depth	Panel Size	A	B	C	D	E	F	G
10	60	4 ¹ / ₂	4 ¹ / ₄	11	4 ¹ / ₂	16	4	7
11	60	5 ¹ / ₄	5 ¹ / ₄	12	5 ¹ / ₂	15	5	8
11 ⁷ / ₈	60	7 ³ / ₄	6 ³ / ₄	10	6 ¹ / ₄	14	5 ¹ / ₂	8 ³ / ₄
12	60	6 ¹ / ₄	6 ¹ / ₄	14	6	20	5	9
13	60	7 ¹ / ₄	7 ¹ / ₄	12	7	18 ¹ / ₂	6	10
14	60	8 ¹ / ₄	8 ¹ / ₄	17	7	22	6	11
15	60	9 ¹ / ₄	8 ¹ / ₂	15	8	25	6	12
16	60	10 ¹ / ₄	9 ¹ / ₂	14	9	27	6	13
18	60	12 ¹ / ₄	10 ¹ / ₂	14 ¹ / ₂	10 ¹ / ₂	26	7	15
20	60	14	11 ¹ / ₂	14 ¹ / ₂	12	26	8	17
22	60	16	12 ¹ / ₂	15	13	30	8	19
24	60	18	13 ¹ / ₂	16	14	32	8	21
26	60	19	14 ¹ / ₂	18	15	34	8	23
30	60	22	16	20	17	32	10	24
36	60	25	17 ¹ / ₂	22	19 ¹ / ₂	36	10	24

All Dimensions In Inches

Typical Duct Opening Sizes For 3x2 Fan Style Floor Trusses

Depth	Panel Size	A	B	C	D	E	F	G
9 ¹ / ₂	36	5 ¹ / ₂	4 ¹ / ₂	8	3 ¹ / ₂	10	3	6 ¹ / ₂
11 ⁷ / ₈	60	7 ³ / ₄	6 ³ / ₄	10	6 ¹ / ₄	14	5 ¹ / ₂	8 ³ / ₄
11 ⁷ / ₈	54	7 ³ / ₄	6 ¹ / ₂	10	6 ¹ / ₄	14	5 ¹ / ₂	8 ³ / ₄
12	54	7 ³ / ₄	6 ³ / ₄	10	6 ¹ / ₂	14	5 ³ / ₄	9
13	54	8 ³ / ₄	7 ¹ / ₂	12	7	16	6	10
14	54	9 ³ / ₄	8	13	7 ¹ / ₄	16	6 ³ / ₄	11
15	54	10 ¹ / ₂	8 ¹ / ₂	14	7 ³ / ₄	17	7 ¹ / ₄	12
16	54	11 ¹ / ₂	9 ¹ / ₄	15	8 ¹ / ₄	18	7 ³ / ₄	13
18	54	13	10 ¹ / ₄	16	9 ¹ / ₂	20	8 ¹ / ₄	15
20	54	14 ¹ / ₂	11 ¹ / ₄	17	10 ¹ / ₂	22	8 ¹ / ₂	17
22	54	16	12	18	11	24	9	19
24	54	17 ¹ / ₂	13	20	12	26	9 ¹ / ₂	21

All Dimensions In Inches

Maximum duct dimensions are based on a truss plate width of 4 inches. Larger plate widths may cause a reduction in duct sizes. Chase sizes are maximum possible for centered openings.