

Allowable Floor Joist Span Tables

9984 Highway 20 West
Freeport, FL 32439
(850) 835-0301

1. Web punchouts were not considered for shear or web crippling. Span length reduction required for web punchout < .5D from edge of bearing, per Section C3.4 of the 1996 AISI Specification. (D = overall depth of web)
2. Spans are based on continuous lateral support of the compression flange.
3. For two equal spans, the listed span is the distance from either end support to the center support. Joists must be continuous over the center support.
4. Web crippling capacity is based on a 3.5 inch bearing length at end and interior supports.
5. Joists must be braced against rotation at all supports by track or blocking.
6. Joist spans are based on 50 ksi for the 54, 68, and 97 mil thicknesses, and 33 ksi for thinner members.
7. Total load deflection = L/240. Live load as noted.
8. Live load has been checked for unbalanced load conditions.

10 PSF Dead Load AND 20 psf Live Load												
Product ID	Live Load Deflection L/360						Live Load Deflection L/480					
	Single Span			2 Equal Spans			Single Span			2 Equal Spans		
	Spacing o.c			Spacing o.c			Spacing o.c			Spacing o.c		
	12	16	24	12	16	24	12	16	24	12	16	24
600S162-33	15' 9"	13' 9 e	11' 3 e	15' 11 i	13' 9 i	11' 3 a	14' 3"	13' 0 e	11' 3 e	15' 11 i	13' 9 i	11' 3 a
600S200-33	16' 5 e	14' 3 e	11' 7 e	16' 5 i	14' 3 i	11' 6 a	14' 11"	13' 7 e	11' 7 e	16' 5 i	14' 3 i	11' 6 a
600S162-43	17' 2"	15' 7"	13' 7"	19' 3 i	16' 8 i	13' 7 i	15' 7"	14' 2"	12' 4"	17' 6 i	15' 10 i	13' 7 i
600S200-43	18' 0"	16' 4"	13' 10"	19' 6 i	16' 11 i	13' 10 i	16' 4"	14' 10"	13' 0"	18' 4 i	16' 8 i	13' 10 i
600S162-54	18' 5"	16' 8"	14' 7"	20' 8"	18' 9 i	16' 4 i	16' 8"	15' 2"	13' 3"	18' 9"	17' 0"	14' 10 i
600S200-54	19' 4"	17' 7"	15' 4"	21' 8"	19' 8 i	17' 3 i	17' 7"	15' 11"	13' 11"	19' 8"	17' 11"	15' 8 i
600S162-68	19' 8"	17' 11"	15' 8"	22' 2"	20' 1"	17' 7"	17' 11"	16' 3"	14' 2"	20' 1"	18' 3"	15' 11"
600S200-68	20' 9"	18' 10"	16' 5"	23' 3"	21' 2"	18' 6"	18' 10"	17' 1"	14' 11"	21' 2"	19' 3"	16' 9"
600S162-97	21' 10"	19' 10"	17' 4"	24' 6"	22' 3"	19' 6"	19' 10"	18' 0"	15' 9"	22' 3"	20' 3"	17' 8"
600S200-97	23' 0"	20' 11"	18' 3"	25' 10"	23' 6"	20' 6"	20' 11"	19' 0"	16' 7"	23' 6"	21' 4"	18' 8"
800S162-33	18' 2 e	15' 9 e	12' 10 e	17' 8 a	14' 5 a	10' 8 a	18' 0 e	15' 9 e	12' 10 e	17' 8 a	14' 5 a	10' 8 a
800S200-33	18' 10 e	16' 4 e	13' 4 e	18' 1 a	14' 9 a	10' 10 a	18' 10 e	16' 4 e	13' 4 e	18' 1 a	14' 9 a	10' 10 a
800S162-43	21' 7"	19' 6"	15' 11 e	22' 6 i	19' 6 i	15' 11 i	19' 7"	17' 10"	15' 7 e	22' 0 i	19' 6 i	15' 11 i
800S200-43	22' 7"	20' 6 e	16' 10 e	23' 9 i	20' 7 i	16' 10 i	20' 6"	18' 8"	16' 3 e	23' 0 i	20' 7 i	16' 10 i
800S162-54	23' 2"	21' 1"	18' 5"	26' 0 i	23' 8 i	20' 8 i	21' 1"	19' 2"	16' 9"	23' 8"	21' 6 i	18' 9 i
800S200-54	24' 3"	22' 1"	19' 3"	27' 3 i	24' 9 i	21' 7 i	22' 1"	20' 0"	17' 6"	24' 9"	22' 6 i	19' 8 i
800S162-68	24' 11"	22' 7"	19' 9"	27' 11"	25' 5"	22' 2 i	22' 7"	20' 6"	17' 11"	25' 5"	23' 1"	20' 2"
800S200-68	26' 1"	23' 8"	20' 8"	29' 3"	26' 7"	23' 3 i	23' 8"	21' 6"	18' 9"	26' 7"	24' 2"	21' 1"
800S162-97	27' 8"	25' 1"	21' 11"	31' 1"	28' 2"	24' 8"	25' 1"	22' 10"	19' 11"	28' 2"	25' 7"	22' 5"
800S200-97	29' 0"	26' 4"	23' 0"	32' 7"	29' 7"	25' 10"	26' 4"	23' 11"	20' 11"	29' 7"	26' 10"	23' 6"
1000S162-43	24' 11 e	21' 6 e	17' 7 e	24' 11 a	21' 6 a	16' 6 a	23' 7 e	21' 5 e	17' 7 e	24' 11 a	21' 6 a	16' 6 a
1000S200-43	26' 4 e	22' 9 e	18' 7 e	26' 4 a	22' 8 a	17' 0 a	24' 7 e	22' 4 e	18' 7 e	26' 4 a	22' 8 a	17' 0 a
1000S162-54	27' 10"	25' 4"	22' 1"	31' 4 i	28' 5 i	23' 10 i	25' 4"	23' 0"	20' 1"	28' 5 i	25' 10 i	22' 7 i
1000S200-54	29' 1"	26' 5"	23' 1"	32' 8 i	29' 8 i	24' 6 i	26' 5"	24' 0"	20' 11"	29' 8 i	26' 11 i	23' 6 i
1000S162-68	29' 11"	27' 2"	23' 9"	33' 7"	30' 6 i	26' 8 i	27' 2"	24' 8"	21' 7"	30' 6"	27' 9"	24' 3 i
1000S200-68	31' 3"	28' 4"	24' 9"	35' 1"	31' 10 i	27' 10 i	28' 4"	25' 9"	22' 6"	31' 10"	28' 11"	25' 3 i
1000S162-97	33' 4"	30' 3"	26' 5"	37' 5"	34' 0"	29' 8"	30' 3"	27' 6"	24' 0"	34' 0"	30' 10"	26' 11"
1000S200-97	34' 9"	31' 7"	27' 7"	39' 1"	35' 6"	31' 0"	31' 7"	28' 9"	25' 1"	35' 6"	32' 3"	28' 2"
1200S162-54	32' 6 e	29' 6 e	25' 9 e	36' 6 a	31' 9 a	25' 5 a	29' 6 e	26' 10 e	23' 5 e	33' 2 a	30' 1 a	25' 5 a
1200S200-54	33' 9 e	30' 8 e	26' 8 e	37' 9 a	32' 8 a	25' 10 a	30' 8 e	27' 10 e	24' 4 e	34' 5 a	31' 3 a	25' 10 a
1200S162-68	34' 11"	31' 8"	27' 8"	39' 2 i	35' 7 i	31' 1 i	31' 8"	28' 10"	25' 2"	35' 7"	32' 4 i	28' 3 i
1200S200-68	36' 3"	33' 0"	28' 10"	40' 9 i	37' 0 i	32' 4 i	33' 0"	29' 11"	26' 2"	37' 0"	33' 8 i	29' 4 i

These tables describe the allowable spans for structural stud used as floor joists.
 " e " Requires web stiffeners at end supports " i " Requires web stiffeners at interior supports " a " Requires web stiffeners at all supports

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10 psf Dead Load and 30 psf Live Load												
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	Spacing o.c			Spacing o.c			Spacing o.c			Spacing o.c		
	12	16	24	12	16	24	12	16	24	12	16	24
1200S162-97	38' 10"	35' 4"	30' 10"	43' 8"	39' 8"	34' 8"	35' 4"	32' 1"	28' 0"	39' 8"	36' 0"	31' 6"
1200S200-97	40' 6"	36' 9"	32' 1"	45' 5"	41' 3"	36' 1"	36' 9"	33' 5"	29' 2"	41' 3"	37' 6"	32' 9"
600S162-33	13' 9" e	11' 11" e	9' 9" e	13' 9" i	11' 11" i	9' 3" a	12' 6" e	11' 4" e	9' 9" e	13' 9" i	11' 11" i	9' 3" a
600S200-33	14' 3" e	12' 4" e	10' 0" e	14' 3" i	12' 4" a	9' 5" a	13' 1" e	11' 10" e	10' 0" e	14' 3" i	12' 4" a	9' 5" a
600S162-43	14' 11"	13' 7"	11' 9" e	16' 8" i	14' 5" i	11' 9" i	13' 7"	12' 4"	10' 9"	15' 3" i	13' 10" i	11' 9" i
600S200-43	15' 9"	14' 3"	11' 11" e	16' 11" i	14' 8" i	11' 11" i	14' 3"	13' 0"	11' 4" e	16' 0" i	14' 7" i	11' 11" i
600S162-54	16' 1"	14' 7"	12' 9"	18' 0"	16' 4" i	14' 4" i	14' 7"	13' 3"	11' 7"	16' 4"	14' 10"	13' 0" i
600S200-54	16' 10"	15' 4"	13' 5"	18' 11"	17' 3" i	15' 0" i	15' 4"	13' 11"	12' 2"	17' 3"	15' 8"	13' 8" i
600S162-68	17' 3"	15' 8"	13' 8"	19' 4"	17' 7"	15' 4" i	15' 8"	14' 2"	12' 5"	17' 7"	15' 11"	13' 11"
600S200-68	18' 1"	16' 5"	14' 4"	20' 4"	18' 6"	16' 2" i	16' 5"	14' 11"	13' 1"	18' 6"	16' 9"	14' 8"
600S162-97	19' 1"	17' 4"	15' 2"	21' 5"	19' 6"	17' 0"	17' 4"	15' 9"	13' 9"	19' 6"	17' 8"	15' 5"
600S200-97	20' 1"	18' 3"	15' 11"	22' 7"	20' 6"	17' 11"	18' 3"	16' 7"	14' 6"	20' 6"	18' 8"	16' 3"
800S162-33	15' 9" e	13' 8" e	11' 1" e	14' 5" a	11' 8" a	8' 7" a	15' 9" e	13' 8" e	11' 1" e	14' 5" a	11' 8" a	8' 7" a
800S200-33	16' 4" e	14' 1" e	11' 4" e	14' 9" a	11' 11" a	8' 8" a	16' 4" e	14' 1" e	11' 4" e	14' 9" a	11' 11" a	8' 8" a
800S162-43	18' 10"	16' 10" e	13' 9" e	19' 6" i	16' 10" i	13' 9" a	17' 2"	15' 7" e	13' 7" e	19' 3" i	16' 10" i	13' 9" a
800S200-43	19' 9"	17' 10" e	14' 7" e	20' 7" i	17' 10" i	14' 4" a	17' 11"	16' 3" e	14' 3" e	20' 1" i	17' 10" i	14' 4" a
800S162-54	20' 3"	18' 5"	16' 1"	22' 9" i	20' 8" i	18' 0" i	18' 5"	16' 9"	14' 7"	20' 8"	18' 9" i	16' 5" i
800S200-54	21' 2"	19' 3"	16' 10"	23' 10" i	21' 7" i	18' 11" i	19' 3"	17' 6"	15' 3"	21' 7" i	19' 8" i	17' 2" i
800S162-68	21' 9"	19' 9"	17' 3"	24' 5"	22' 2"	19' 4" i	19' 9"	17' 11"	15' 8"	22' 2"	20' 2"	17' 7" i
800S200-68	22' 9"	20' 8"	18' 1"	25' 7"	23' 3" i	20' 3" i	20' 8"	18' 9"	16' 5"	23' 3"	21' 1"	18' 5" i
800S162-97	24' 2"	21' 11"	19' 2"	27' 1"	24' 8"	21' 6"	21' 11"	19' 11"	17' 5"	24' 8"	22' 5"	19' 7"
800S200-97	25' 4"	23' 0"	20' 1"	28' 5"	25' 10"	22' 7"	23' 0"	20' 11"	18' 3"	25' 10"	23' 6"	20' 6"
1000S162-43	21' 6" e	18' 8" e	15' 3" e	21' 6" a	17' 11" a	13' 4" a	20' 7" e	18' 8" e	15' 3" e	21' 6" a	17' 11" a	13' 4" a
1000S200-43	22' 9" e	19' 9" e	16' 1" e	22' 8" a	18' 6" a	13' 9" a	21' 5" e	19' 6" e	16' 1" e	22' 8" a	18' 6" a	13' 9" a
1000S162-54	24' 4"	22' 1"	19' 4" e	27' 4" i	24' 10" i	20' 8" i	22' 1"	20' 1"	17' 6"	24' 10" i	22' 7" i	19' 8" i
1000S200-54	25' 5"	23' 1"	20' 2" e	28' 6" i	25' 11" i	21' 2" i	23' 1"	20' 11"	18' 3"	25' 11" i	23' 6" i	20' 6" i
1000S162-68	26' 2"	23' 9"	20' 9"	29' 4" i	26' 8" i	23' 4" i	23' 9"	21' 7"	18' 10"	26' 8" i	24' 3" i	21' 2" i
1000S200-68	27' 3"	24' 9"	21' 8"	30' 8" i	27' 10" i	24' 4" i	24' 9"	22' 6"	19' 8"	27' 10" i	25' 3" i	22' 1" i
1000S162-97	29' 1"	26' 5"	23' 1"	32' 8"	29' 8"	25' 11"	26' 5"	24' 0"	21' 0"	29' 8"	26' 11"	23' 7"
1000S200-97	30' 5"	27' 7"	24' 1"	34' 1"	31' 0"	27' 1"	27' 7"	25' 1"	21' 11"	31' 0"	28' 2"	24' 7"
1200S162-54	28' 4" e	25' 9" e	22' 5" e	31' 9" a	27' 6" a	20' 9" a	25' 9" e	23' 5" e	20' 5" e	28' 11" a	26' 3" a	20' 9" a
1200S200-54	29' 6" e	26' 9" e	23' 1" e	32' 8" a	28' 1" a	21' 1" a	26' 9" e	24' 4" e	21' 3" e	30' 1" a	27' 4" a	21' 1" a
1200S162-68	30' 6"	27' 8"	24' 2"	34' 3" i	31' 1" i	27' 1" i	27' 8"	25' 2"	22' 0"	31' 1" i	28' 3" i	24' 8" i
1200S200-68	31' 8"	28' 10"	25' 2"	35' 7" i	32' 4" i	28' 3" i	28' 10"	26' 2"	22' 10"	32' 4" i	29' 4" i	25' 8" i
1200S162-97	33' 11"	30' 10"	26' 11"	38' 2"	34' 8"	30' 3" i	30' 10"	28' 0"	24' 6"	34' 8"	31' 6"	27' 6"
1200S200-97	35' 4"	32' 1"	28' 1"	39' 8"	36' 1"	31' 6" i	32' 1"	29' 2"	25' 6"	36' 1"	32' 9"	28' 7"
600S162-33	12' 3" e	10' 8" e	8' 8" e	12' 3" i	10' 6" a	7' 10" a	11' 4" e	10' 3" e	8' 8" e	12' 3" i	10' 6" a	7' 10" a
600S200-33	12' 9" e	11' 0" e	9' 0" e	12' 9" i	10' 8" a	8' 0" a	11' 10" e	10' 9" e	9' 0" e	12' 9" i	10' 8" a	8' 0" a
600S162-43	13' 7"	12' 4"	10' 6" e	14' 10" i	12' 10" i	10' 6" i	12' 4"	11' 2"	9' 9" e	13' 10" i	12' 7" i	10' 6" i
600S200-43	14' 3"	13' 0"	10' 8" e	15' 1" i	13' 1" i	10' 8" i	13' 0"	11' 9"	10' 3" e	14' 7" i	13' 1" i	10' 8" i
600S162-54	14' 7"	13' 3"	11' 7"	16' 4" i	14' 10" i	13' 0" i	13' 3"	12' 0"	10' 6"	14' 10" i	13' 6" i	11' 10" i
600S200-54	15' 4"	13' 11"	12' 2"	17' 3" i	15' 8" i	13' 8" i	13' 11"	12' 8"	11' 0"	15' 8"	14' 2" i	12' 5" i
600S162-68	15' 8"	14' 2"	12' 5"	17' 7"	15' 11"	13' 11" i	14' 2"	12' 11"	11' 3"	15' 11"	14' 6"	12' 8"
600S200-68	16' 5"	14' 11"	13' 1"	18' 6"	16' 9"	14' 8" i	14' 11"	13' 7"	11' 10"	16' 9"	15' 3"	13' 4"
600S162-97	17' 4"	15' 9"	13' 9"	19' 6"	17' 8"	15' 5"	15' 9"	14' 4"	12' 6"	17' 8"	16' 1"	14' 0"
600S200-97	18' 3"	16' 7"	14' 6"	20' 6"	18' 8"	16' 3"	16' 7"	15' 1"	13' 2"	18' 8"	16' 11"	14' 9"
800S162-33	14' 1" e	12' 2" e	9' 1" e	12' 3" a	9' 10" a	7' 2" a	14' 1" e	12' 2" e	9' 1" e	12' 3" a	9' 10" a	7' 2" a
800S200-33	14' 7" e	12' 7" e	9' 1" e	12' 6" a	10' 0" a	7' 3" a	14' 7" e	12' 7" e	9' 1" e	12' 6" a	10' 0" a	7' 3" a
800S162-43	17' 2" e	15' 1" e	12' 4" e	17' 5" i	15' 1" i	11' 11" a	15' 7"	14' 2" e	12' 4" e	17' 5" i	15' 1" i	11' 11" a

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Product ID	Live Load Deflection L/360						Live Load Deflection L/480					
	Single Span			2 Equal Spans			Single Span			2 Equal Spans		
	Spacing o.c			Spacing o.c			Spacing o.c			Spacing o.c		
	12	16	24	12	16	24	12	16	24	12	16	24
800S200-43	17' 11" e	15' 11" e	13' 0" e	18' 5" i	15' 11" i	12' 3" a	16' 3" e	14' 9" e	12' 11" e	18' 3" i	15' 11" i	12' 3" a
800S162-54	18' 5"	16' 9"	14' 7"	20' 8" i	18' 9" i	16' 5" i	16' 9"	15' 2"	13' 3"	18' 9" i	17' 1" i	14' 11" i
800S200-54	19' 3"	17' 6"	15' 3"	21' 7" i	19' 8" i	17' 1" i	17' 6"	15' 11"	13' 10"	19' 8" i	17' 10" i	15' 7" i
800S162-68	19' 9"	17' 11"	15' 8"	22' 2"	20' 2" i	17' 7" i	17' 11"	16' 3"	14' 3"	20' 2"	18' 4"	16' 0" i
800S200-68	20' 8"	18' 9"	16' 5"	23' 3"	21' 1" i	18' 5" i	18' 9"	17' 1"	14' 11"	21' 1"	19' 2"	16' 9" i
800S162-97	21' 11"	19' 11"	17' 5"	24' 8"	22' 5"	19' 7"	19' 11"	18' 1"	15' 10"	22' 5"	20' 4"	17' 9"
800S200-97	23' 0"	20' 11"	18' 3"	25' 10"	23' 6"	20' 6"	20' 11"	19' 0"	16' 7"	23' 6"	21' 4"	18' 7"
1000S162-43	19' 3" e	16' 8" e	13' 7" e	18' 9" a	15' 3" a	11' 4" a	18' 8" e	16' 8" e	13' 7" e	18' 9" a	15' 3" a	11' 4" a
1000S200-43	20' 4" e	17' 8" e	14' 5" e	19' 5" a	15' 9" a	11' 7" a	19' 6" e	17' 8" e	14' 5" e	19' 5" a	15' 9" a	11' 7" a
1000S162-54	22' 1"	20' 1"	17' 6" e	24' 10" i	22' 7" i	18' 2" i	20' 1"	18' 3"	15' 11" e	22' 7" i	20' 6" i	17' 11" i
1000S200-54	23' 1"	20' 11"	18' 3" e	25' 11" i	23' 2" i	18' 6" i	20' 11"	19' 0"	16' 7" e	23' 6" i	21' 4" i	18' 6" i
1000S162-68	23' 9"	21' 7"	18' 10"	26' 8" i	24' 3" i	21' 2" i	21' 7"	19' 7"	17' 1"	24' 3"	22' 0" i	19' 3" i
1000S200-68	24' 9"	22' 6"	19' 8"	27' 10" i	25' 3" i	22' 1" i	22' 6"	20' 5"	17' 10"	25' 3"	23' 0" i	20' 1" i
1000S162-97	26' 5"	24' 0"	21' 0"	29' 8"	26' 11"	23' 7" i	24' 0"	21' 10"	19' 1"	26' 11"	24' 6"	21' 5"
1000S200-97	27' 7"	25' 1"	21' 11"	31' 0"	28' 2"	24' 7" i	25' 1"	22' 9"	19' 11"	28' 2"	25' 7"	22' 4"

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