TABLE IBU-MF1

Maximum Floor Spans
1 ¾" end bearing and 3 ½" interior bearing without bearing stiffeners
Live Load = 40 psf; Dead Load = 10 psf
Live Load Deflection = L/480; Dead Load Deflection = L/240
²³⁄₃₂" Single Floor (APA Strud-I-Floor) OSB; Glued & Nailed

Joists Series	Depth (in)	SINGLE SPAN o.c. spacing				MULTIPLE SPANS o.c. spacing			
		12 in	16 in	19.2 in	24 in	12 in	16 in	19.2 in	24 in
TTI 400S	7.875	15-8"	14-4"	13-7"	12-8"	17-1"	15-8"	14-10"	13-4"
	8.625	16-10"	15-5"	14-7"	13-7"	18-4"	16-10"	15-9"	14-1"
	9.25	17-10"	16-4"	15-5"	14-5"	19-6"	17-10"	16-5"	14-8"
	9.5	18-3"	16-8"	15-9"	14-9"	19-11"	18-3"	16-8"	14-11"
	11.25	20-10"	19-0"	18-0"	16-6"	22-9"	20-2"	18-5"	16-6"
	11.875	21-8"	19-10"	18-9"	17-0"	23-9"	20-10"	19-0"	17-0"
	14	24-7"	22-6"	20-10"	18-8"	26-5"	22-10"	20-10"	18-8"
	16	27-3"	24-7"	22-6"	20-1"	28-5"	24-7"	22-6"	20-0"
TTI 600S	7.875	16-5"	15-0"	14-2"	13-3"	17-11"	16-5"	15-6"	14-5"
	8.625	17-8"	16-2"	15-3"	14-2"	19-3"	17-7"	16-7"	15-6"
	9.25	18-9"	17-2"	16-2"	15-1"	20-6"	18-9"	17-8"	16-5"
	9.5	19-2"	17-6"	16-7"	15-5"	20-11"	19-1"	18-1"	16-10"
	11.25	21-11"	20-1"	18-11"	17-8"	24-0"	21-11"	20-8"	19-3"
	11.875	22-10"	20-10"	19-8"	18-4"	24-11"	22-9"	21-5"	20-0"
	14	25-10"	23-7"	22-3"	20-9"	28-3"	25-9"	24-4"	20-0"
	16	28-8"	26-2"	24-8"	23-0"	31-4"	28-7"	25-0"	20-0"
	18	31-4"	28-7"	27-0"	25-1"	34-3"	30-0"	25-0"	20-0"
	20	33-9"	30-9"	29-1"	26-5"	36-10"	30-0"	25-0"	20-0"
TTI 800S	7.875	18-1"	16-6"	15-7"	14-6"	19-9"	18-0"	17-0"	15-9"
	8.625	19-5"	17-9"	16-9"	15-7"	21-3"	19-4"	18-3"	16-11"
	9.25	20-8"	18-10"	17-9"	16-6"	22-7"	20-7"	19-4"	18-0"
	9.5	21-1"	19-3"	18-1"	16-10"	23-0"	21-0"	19-9"	18-4"
	11.25	24-2"	22-0"	20-9"	19-3"	26-4"	24-0"	22-7"	21-0"
	11.875	25-1"	22-10"	21-6"	20-0"	27-5"	24-11"	23-6"	21-10"
	14	28-5"	25-11"	24-5"	22-9"	31-1"	28-3"	26-8"	24-9"
	16	31-5"	28-8"	27-0"	25-1"	34-4"	31-3"	29-6"	24-9"
	18	34-6"	31-5"	29-7"	27-6"	37-8"	34-3"	31-0"	24-9"
	20	37-1"	33-10"	31-10"	29-8"	40-6"	36-11"	31-0"	24-9"
TTI 900S	7.875	18-6"	16-11"	15-11"	14-10"	20-3"	18-5"	17-5"	16-3"
	8.625	19-11"	18-2"	17-2"	16-0"	21-9"	19-10"	18-9"	17-5"
	9.5	21-6"	19-7"	18-6"	17-3"	23-5"	21-5"	20-2"	18-9"
	11.875	25-6"	23-3"	21-11"	20-5"	27-10"	25-5"	23-11"	22-3"
	14	28-11"	26-4"	24-10"	23-2"	31-7"	28-9"	27-1"	25-3"
	16	31-11"	29-1"	27-5"	25-7"	34-11"	31-9"	30-0"	26-10"
	18	34-10"	31-9"	30-0"	27-11"	38-1"	34-8"	32-9"	26-10"
	20	37-8"	34-4"	32-5"	30-2"	41-2"	37-6"	33-6"	26-10"
	22	40-5"	36-10"	34-9"	29-4"	44-2"	40-3"	33-6"	26-10"
	24	43-1"	39-4"	36-9"	29-4"	47-2"	40-3"	33-6"	26-10"

Design notes provided on page 4.

TABLE IBU-MF2

Maximum Floor Spans
1 ¾" end bearing and 3 ½" interior bearing without bearing stiffeners
Live Load = 40 psf; Dead Load = 15 psf
Live Load Deflection = L/480; Dead Load Deflection = L/240
²³⁄₃₂" Single Floor (APA Strud-I-Floor) OSB; Glued & Nailed

Joists Series	Depth (in)	SINGLE SPAN o.c. spacing				MULTIPLE SPANS o.c. spacing			
		12 in	16 in	19.2 in	24 in	12 in	16 in	19.2 in	24 in
TTI 400S	7.875	15-8"	14-4"	13-7"	12-8"	17-1"	15-7"	14-3"	12-8"
	8.625	16-10"	15-5"	14-7"	13-5"	18-4"	16-5"	15-0"	13-5"
	9.25	17-10"	16-4"	15-5"	14-0"	19-6"	17-2"	15-8"	14-0"
	9.5	18-3"	16-8"	15-9"	14-3"	19-11"	17-5"	15-11"	14-3"
	11.25	20-10"	19-0"	17-7"	15-8"	22-3"	19-3"	17-7"	15-8"
	11.875	21-8"	19-10"	18-1"	16-2"	22-11"	19-10"	18-1"	16-2"
	14	24-7"	21-10"	19-11"	17-9"	25-2"	21-10"	19-11"	17-9"
	16	27-1"	23-6"	21-5"	19-2"	27-1"	23-6"	21-5"	18-2"
TTI 600S	7.875	16-5"	15-0"	14-2"	13-3"	17-11"	16-5"	15-6"	14-5"
	8.625	17-8"	16-2"	15-3"	14-2"	19-3"	17-7"	16-7"	15-6"
	9.25	18-9"	17-2"	16-2"	15-1"	20-6"	18-9"	17-8"	15-8"
	9.5	19-2"	17-6"	16-7"	15-5"	20-11"	19-1"	18-1"	15-8"
	11.25	21-11"	20-1"	18-11"	17-8"	24-0"	21-11"	20-8"	18-2"
	11.875	22-10"	20-10"	19-8"	18-4"	24-11"	22-9"	21-3"	18-2"
	14	25-10"	23-7"	22-3"	20-9"	28-3"	25-7"	22-8"	18-2"
	16	28-8"	26-2"	24-8"	22-6"	31-4"	27-3"	22-8"	18-2"
	18	31-4"	28-7"	26-9"	23-11"	33-10"	27-3"	22-8"	18-2"
	20	33-9"	30-9"	28-2"	25-2"	35-7"	27-3"	22-8"	18-2"
TTI 800S	7.875	18-1"	16-6"	15-7"	14-6"	19-9"	18-0"	17-0"	15-9"
	8.625	19-5"	17-9"	16-9"	15-7"	21-3"	19-4"	18-3"	15-9"
	9.25	20-8"	18-10"	17-9"	16-6"	22-7"	20-7"	19-4"	16-9"
	9.5	21-1"	19-3"	18-1"	16-10"	23-0"	21-0"	19-9"	17-11"
	11.25	24-2"	22-0"	20-9"	19-3"	26-4"	24-0"	22-7"	20-5"
	11.875	25-1"	22-10"	21-6"	20-0"	27-5"	24-11"	23-6"	20-5"
	14	28-5"	25-11"	24-5"	22-9"	31-1"	28-3"	26-8"	22-6"
	16	31-5"	28-8"	27-0"	25-1"	34-4"	31-3"	28-2"	22-6"
	18	34-6"	31-5"	29-7"	27-4"	37-8"	33-9"	28-2"	22-6"
	20	37-1"	33-10"	31-10"	28-2"	40-6"	33-9"	28-2"	22-6"
TTI 900S	7.875	18-6"	16-11"	15-11"	14-10"	20-3"	18-5"	17-5"	16-3"
	8.625	19-11"	18-2"	17-2"	16-0"	21-9"	19-10"	18-9"	17-5"
	9.5	21-6"	19-7"	18-6"	17-3"	23-5"	21-5"	20-2"	18-9"
	11.875	25-6"	23-3"	21-11"	20-5"	27-10"	25-5"	23-11"	22-3"
	14	28-11"	26-4"	24-10"	23-2"	31-7"	28-9"	27-1"	24-4"
	16	31-11"	29-1"	27-5"	25-7"	34-11"	31-9"	30-0"	24-4"
	18	34-10"	31-9"	30-0"	27-4"	38-1"	34-8"	30-6"	24-4"
	20	37-8"	34-4"	32-5"	27-7"	41-2"	36-7"	30-6"	24-4"
	22	40-5"	36-10"	33-4"	26-8"	44-2"	36-7"	30-6"	24-4"
	24	43-1"	39-4"	33-4"	26-8"	47-2"	36-7"	30-6"	24-4"

Design notes provided on page 4.

TABLE IBU-MF3

Maximum Floor Spans
1 ¾" end bearing and 3 ½" interior bearing without bearing stiffeners
Live Load = 40 psf; Dead Load = 30 psf
Live Load Deflection = L/480; Dead Load Deflection = L/240
²³⁄₃₂" Single Floor (APA Strud-I-Floor) OSB; Glued & Nailed

Joists Series	Depth (in)	SINGLE SPAN o.c. spacing				MULTIPLE SPANS o.c. spacing			
		12 in	16 in	19.2 in	24 in	12 in	16 in	19.2 in	24 in
TTI 400S	7.875	15-8"	13-10"	12-7"	11-3"	15-11"	13-10"	12-7"	11-3"
	8.625	16-10"	14-7"	13-4"	11-11"	16-10"	14-7"	13-4"	11-11"
	9.25	17-7"	15-3"	13-11"	12-5"	17-7"	15-3"	13-11"	12-4"
	9.5	17-10"	15-5"	14-1"	12-7"	17-10"	15-5"	14-1"	12-4"
	11.25	19-8"	17-1"	15-7"	13-11"	19-8"	17-1"	15-7"	13-11"
	11.875	20-4"	17-7"	16-1"	14-4"	20-4"	17-7"	16-1"	14-3"
	14	22-4"	19-4"	17-8"	15-9"	22-4"	19-4"	17-8"	14-3"
	16	24-0"	20-10"	19-0"	17-0"	24-0"	20-10"	17-10"	14-3"
TTI 600S	7.875	16-5"	15-0"	14-2"	13-3"	17-11"	16-2"	14-9"	12-4"
	8.625	17-8"	16-2"	15-3"	14-0"	19-3"	17-2"	15-5"	12-4"
	9.25	18-9"	17-2"	16-2"	14-7"	20-6"	17-10"	15-5"	12-4"
	9.5	19-2"	17-6"	16-7"	14-10"	20-11"	18-2"	15-5"	12-4"
	11.25	21-11"	20-0"	18-3"	16-4"	23-2"	20-0"	17-10"	14-3"
	11.875	22-10"	20-8"	18-10"	16-10"	23-10"	20-8"	17-10"	14-3"
	14	25-10"	22-8"	20-8"	18-6"	26-2"	21-5"	17-10"	14-3"
	16	28-2"	24-5"	22-3"	19-11"	28-2"	21-5"	17-10"	14-3"
	18	30-0"	26-0"	23-8"	21-2"	28-6"	21-5"	17-10"	14-3"
	20	31-7"	27-4"	24-11"	22-1"	28-6"	21-5"	17-10"	14-3"
TTI 800S	7.875	18-1"	16-6"	15-7"	13-11"	19-9"	18-0"	15-6"	12-4"
	8.625	19-5"	17-9"	16-9"	15-4"	21-3"	18-7"	15-6"	12-5"
	9.25	20-8"	18-10"	17-9"	16-1"	22-7"	19-9"	16-6"	13-2"
	9.5	21-1"	19-3"	18-1"	16-3"	23-0"	21-0"	17-7"	14-1"
	11.25	24-2"	22-0"	20-9"	17-4"	26-4"	23-10"	20-0"	16-0"
	11.875	25-1"	22-10"	21-6"	18-5"	27-5"	24-1"	20-1"	16-1"
	14	28-5"	25-11"	24-4"	19-6"	31-1"	26-6"	22-1"	17-8"
	16	31-5"	28-8"	25-7"	20-6"	33-7"	26-6"	22-1"	17-8"
	18	34-6"	30-10"	26-10"	21-6"	35-5"	26-6"	22-1"	17-8"
	20	37-1"	32-6"	27-8"	22-1"	35-5"	26-6"	22-1"	17-8"
TTI 900S	7.875	18-6"	16-11"	15-11"	14-10"	20-3"	18-5"	17-5"	15-6"
	8.625	19-11"	18-2"	17-2"	16-0"	21-9"	19-10"	18-9"	16-8"
	9.5	21-6"	19-7"	18-6"	17-3"	23-5"	21-5"	20-2"	17-4"
	11.875	25-6"	23-3"	21-11"	20-0"	27-10"	25-5"	23-11"	19-2"
	14	28-11"	26-4"	24-10"	20-0"	31-7"	28-9"	23-11"	19-2"
	16	31-11"	29-1"	25-7"	20-6"	34-11"	28-9"	23-11"	19-2"
	18	34-10"	31-9"	26-10"	21-6"	38-1"	28-9"	23-11"	19-2"
	20	37-8"	32-6"	27-1"	21-8"	38-4"	28-9"	23-11"	19-2"
	22	40-5"	31-6"	26-3"	21-0"	38-4"	28-9"	23-11"	19-2"
	24	42-0"	31-6"	26-3"	21-0"	38-4"	28-9"	23-11"	19-2"

Design notes provided on page 4.

DESIGN NOTES

1. Tabulated spans have been designed to meet the IBC/IRC-2021/2024 and the NDS-2024 requirements.
2. Allowable spans are applicable to floor construction. The live load and dead load deflection limits are indicated at the top of the span table.
3. Spans are based on partial composite action with glued and nailed subfloor meeting requirements for APA Span-Rated STURD-I-FLOOR conforming to PRP-108, and PS 2. Construction adhesive shall meet the requirements given in ASTM D3498 or APA Specification AFG-01.
4. Minimum bearing length shall be 1 ¾ inch for end bearings and 3 ½ inches for interior bearings without bearing stiffeners for tables IBU-MF1 thru IBU-MF3. Allowable design spans in the tables are measured from centerline of supports.
5. Bearing stiffeners are not required for tables IBU-MF1 thru IBU-MF3, except as required by hanger manufacturers.
6. These span tables are based on uniform loads. For applications with other than uniformly distributed loads, or other applications beyond the scope of the indicated design criteria, an engineering analysis may be required. Design properties are as per APA Product Report PR-L330 (Revised August 15, 2024).
7. Multiple spans given in tables IBU-MF1 thru IBU-MF3 are the longest spans measured between centerline of bearings for a joist with three bearings. The ratio of the shorter span to the longer span must be greater than 40%. For two spans with a ratio between 40% and 80%, provide metal hangers or equivalent to withstand an uplift force at the end of the shorter span. Calculate uplift force at the end of the shorter span when the longer span (only) is loaded with live load.
8. Continuous lateral support must be provided for the top and bottom flanges on the compression edge. Continuous lateral support is considered to be a maximum unbraced length of 24". This is normally provided by sheathing and/or framing members, which must be adequately anchored to the member and supporting structure.
9. Web filler is required for I-Joists seated in hangers where the top flange is not laterally supported.
10. Lateral support must be provided at all bearing locations to prevent lateral displacement and rotation.
11. I-Joists shall be used in a dry, well ventilated environment where the average moisture content will not exceed 16%.
12. Point loads from above over bearing supports shall be properly transferred by squash blocks or pass-thru framing.