TRUS JOIST CORPORATION
NEW GENERATION
TJI® JOISTS

Stronger and Stiffer Than Ever.

Trus Joist products have always been ahead of their time, so it should come as no surprise that a whole new generation of higher performance TJI® joists are now available.

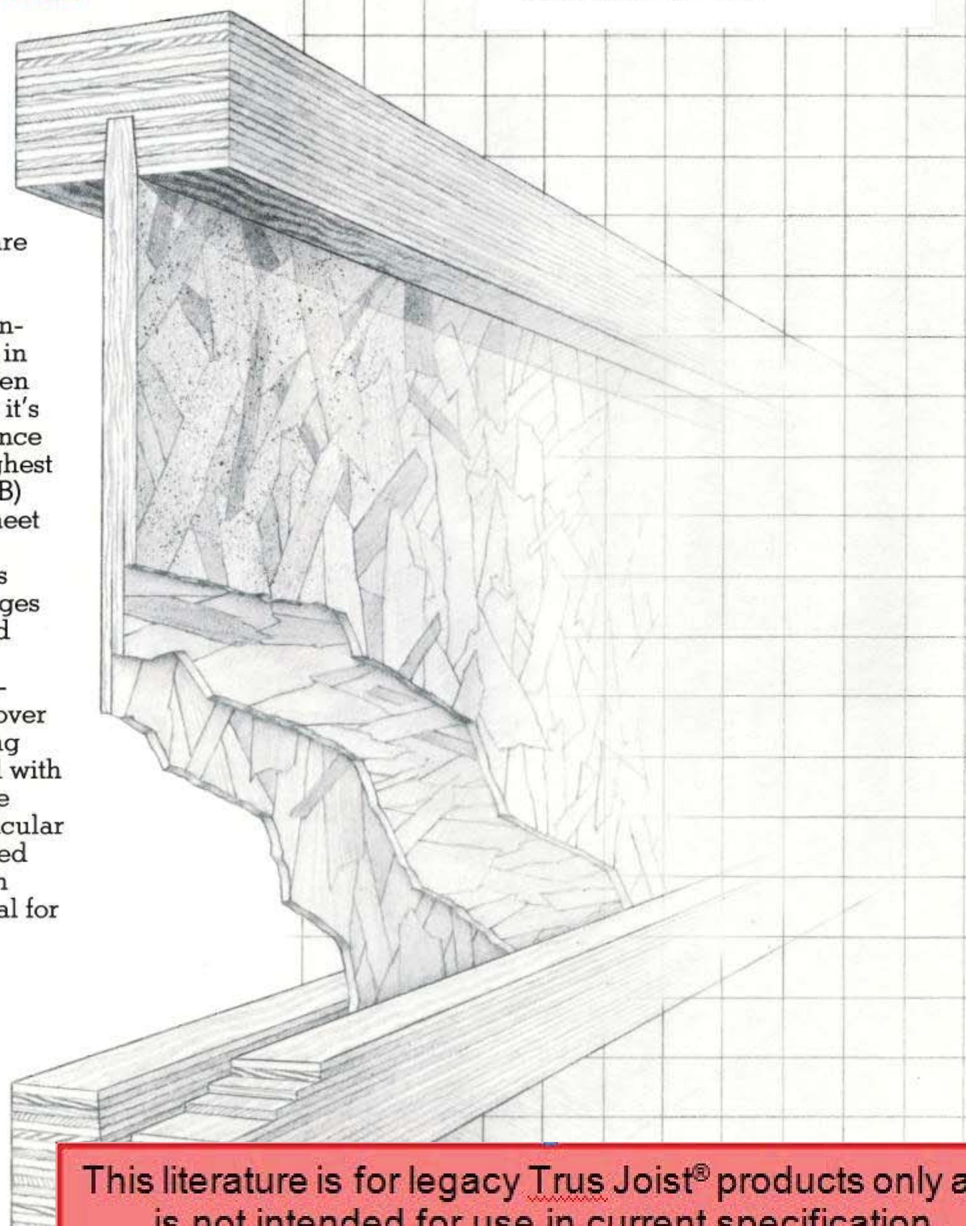
As in earlier product introductions, these new Trus Joist products are superior alternatives to any other competitive product made today.

The key improvement is a new generation structural web material used in TJI joists. Until now, plywood has been used with exceptional results. Today it's possible to achieve higher performance standards with webs made of the highest grades of oriented strand board (OSB) and of oriented wafer wood which meet Trus Joist performance standards.

Like all TJI joists, the new versions feature MICRO=LAM® lumber flanges for uniform strength, consistency and stiffness characteristics.

The new web material offers additional stiffness and shear resistance over plywood. This comes with eliminating the core voids found in plywood and with the "oriented" process that aligns the wood fibers in three layers perpendicular to each other. These layers are bonded together with heat and pressure to an engineered, homogeneous mass ideal for TJI joist webs.

See load tables inside for specific sizing and application information.



TRUS JOIST CORPORATION

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Legacy Literature
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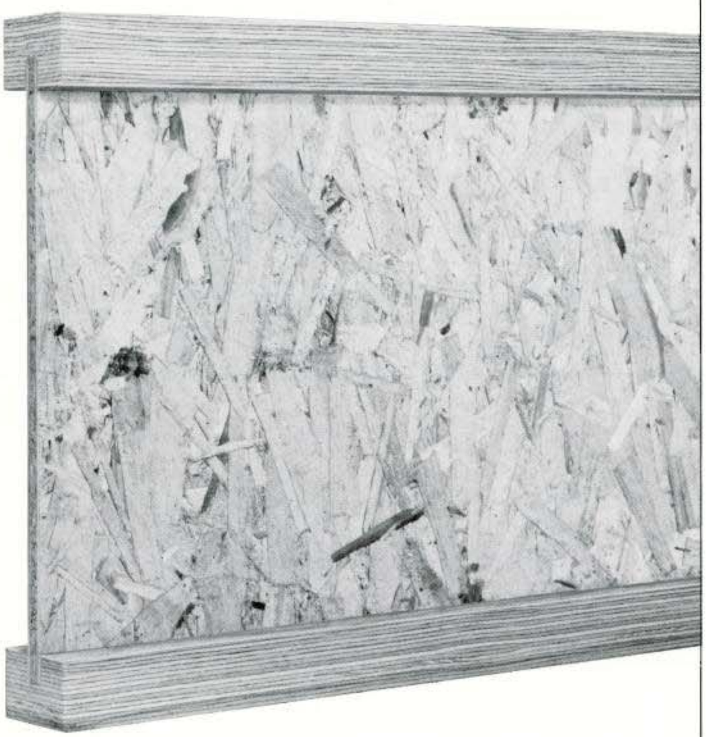
NOTICE

Although this brochure contains the entire range of depths for the TJI / 35X joist to be manufactured with OSB webs, only those joists over 20 inches deep are available presently. TJI / 35X joists in depths from 10 to 20 inches will not be available until Summer, 1985.

All depths of both the TJI / 55E and the TJI / 55 joists listed in this brochure are available now.

PLEASE DO NOT USE TJI/35X JOIST TABLES FOR JOISTS FROM 10 TO 20 INCHES IN DEPTH

TJI/35X, TJI/55E and TJI/55 Joist Series



TJI/35X Joist

Depths: 10″ through 30″ in 2″ increments
Flange Material: MICRO=LAM lumber (2.3″ wide x 1½″ thick)
Web Material: 7/16″ Oriented Strand Board (OSB) or other approved material
Weight: 2.8 to 4.0 lbs./ft.
Availability: Western half of U.S.
Profiles: Parallel

Legacy Literature
See Note on Front Cover

TJI/55E and TJI/55 Joists

Depths: 12″ through 30″ in 2″ increments
Flange Material: TJI/55E Joist – 2.0E grade MICRO=LAM lumber (1½″ thick x 3½″ wide)
TJI/55 Joist – 2.4E grade MICRO=LAM lumber (1½″ thick x 3½″ wide)
Web Material: For depths 12″-24″ inclusive, 7/16″ Oriented Strand Board (OSB) or other approved material
For depths 26″-30″ inclusive, ½″ Structural I Plywood or other approved material
Weight: 4.5 to 6.3 lbs./ft.
Availability: Western half of U.S.
Profiles: Parallel

*Some depths may require longer delivery time. Check with representative.

Web	Joist Series	Depth (in.)	Maximum Resistive Moment (1) 100% (Ft.-lbs.)	Maximum Resistive Moment (1) 115% (Ft.-lbs.)	Maximum Resistive Moment (1) 125% (Ft.-lbs.)	Maximum Resistive Shear (2) 100% (lbs.)	Maximum Resistive Shear (2) 115% (lbs.)	Maximum Resistive Shear (2) 125% (lbs.)	EI TJI Joist Only 10^6 lbs. in.^{2}	EI (3) TJI Joist with Nailed Plywood Floor Sheathing 10^6 lbs. in.^{2}	EI (3) TJI Joist with Glue-Nailed Plywood Floor Sheathing 10^6 lbs. in.^{2}
OSB Web	TJI/35X	10	4165	4790	5205	1565	1795	1955	250	284	312
OSB Web	TJI/35X	12	5270	6065	6585	1750	2010	2185	385	434	472
OSB Web	TJI/35X	14	6380	7340	7975	1935	2225	2415	550	615	667
OSB Web	TJI/35X	16	7490	8615	9360	2120	2435	2650	745	828	895
OSB Web	TJI/35X	18	8605	9900	10755	2305	2650	2880	970	1075	1158
OSB Web	TJI/35X	20	9725	11185	12155	2490	2860	3110	1230	1358	1460
OSB Web	TJI/35X	22	10845	12475	13555	2670	3070	3335	1524	1678	1801
OSB Web	TJI/35X	24	11965	13760	14955	2785	3200	3480	1850	2031	2177
OSB Web	TJI/35X	26	13085	15050	16355	2900	3335	3625	2115	2318	2481
OSB Web	TJI/35X	28	14205	16340	17755	2900	3335	3625	2615	2861	3057
OSB Web	TJI/35X	30	15330	17630	19160	2900	3335	3625	3055	3336	3562
OSB Web	TJI/55E	12	8180	9410	10225	1750	2010	2185	597	652	696
OSB Web	TJI/55E	14	9905	11395	12380	1935	2225	2415	854	927	986
OSB Web	TJI/55E	16	11640	13390	14550	2120	2435	2650	1161	1255	1332
OSB Web	TJI/55E	18	13375	15385	16715	2305	2650	2880	1519	1637	1732
OSB Web	TJI/55E	20	15120	17390	18900	2490	2860	3110	1931	2076	2192
OSB Web	TJI/55E	22	16860	19390	21075	2670	3070	3335	2397	2572	2711
OSB Web	TJI/55E	24	18610	21405	23260	2785	3200	3480	2919	3126	3290
Plywood Web	TJI/55E	26	20360	23415	25450	2950	3390	3685	3499	3740	3929
Plywood Web	TJI/55E	28	22110	25430	27635	3030	3480	3785	4140	4417	4633
Plywood Web	TJI/55E	30	23855	27435	29815	3115	3580	3890	4840	5155	5397
OSB Web	TJI/55	12	10130	11650	12660	1750	2010	2185	716	773	819
OSB Web	TJI/55	14	12265	14105	15330	1935	2225	2415	1025	1102	1162
OSB Web	TJI/55	16	14410	16575	18010	2120	2435	2650	1393	1492	1571
OSB Web	TJI/55	18	16560	19045	20700	2305	2650	2880	1823	1947	2045
OSB Web	TJI/55	20	18720	21530	23400	2490	2860	3110	2317	2468	2590
OSB Web	TJI/55	22	20875	24010	26090	2670	3070	3335	2876	3057	3204
OSB Web	TJI/55	24	23040	26500	28800	2785	3200	3480	3503	3720	3892
Plywood Web	TJI/55	26	25210	28995	31510	2950	3390	3685	4200	4452	4654
Plywood Web	TJI/55	28	27375	31485	34215	3030	3480	3785	4968	5261	5490
Plywood Web	TJI/55	30	29540	33975	36925	3115	3580	3890	5810	6141	6408

(1) Maximum Resistive Moment values may be increased 4% for repetitive member usage.
(2) For possible increases in shear capability refer to NER 200.
(3) For deflection calculation only.

Repetitive Member Design

Structural wood products used repetitively can be shown to share loads between adjacent members, increasing the total load carrying capacity of the system.

The criteria for increases in flexural stresses for repetitive member usage is as follows:

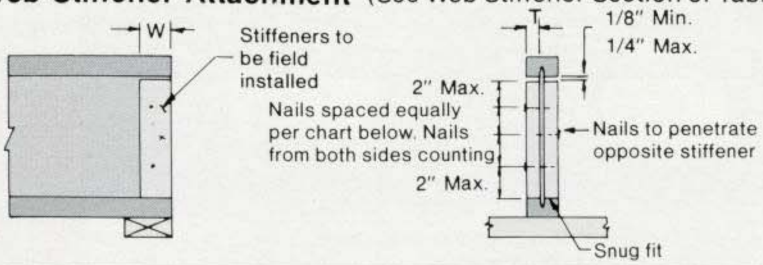
1) 3 or more members are adjacent.
2) Member spacing is 24″ on center or less.
3) The members are joined by tranverse load-distributing elements (decking) adequate to support the design load.

Products with greater consistency, such as MICRO=LAM lumber, logically are given less credit for repetitive member increases; therefore, it has been determined that the increase in flexure shall be 7% for products utilizing machine stress rated grades of solid sawn lumber and 4% for products utilizing MICRO=LAM lumber.

Increases, where appropriate, are so indicated in the load tables.

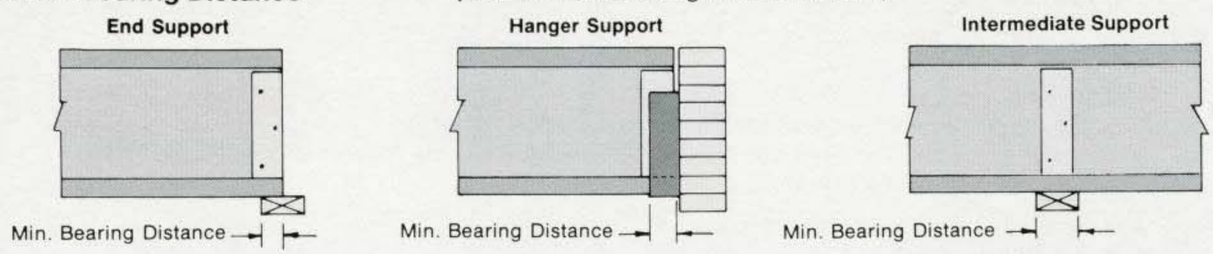
Web Stiffeners / Bearing Distances

Web Stiffener Attachment (See Web Stiffener Section of Table)



NOTE:
- Web stiffeners must be field installed at bearing points and concentrated loads as shown in the chart below.
- Gap must be at top at all bearing conditions. In the case of concentrated loads, the gap must be at the bottom.
- Web stiffeners are available from Trus Joist Corporation.

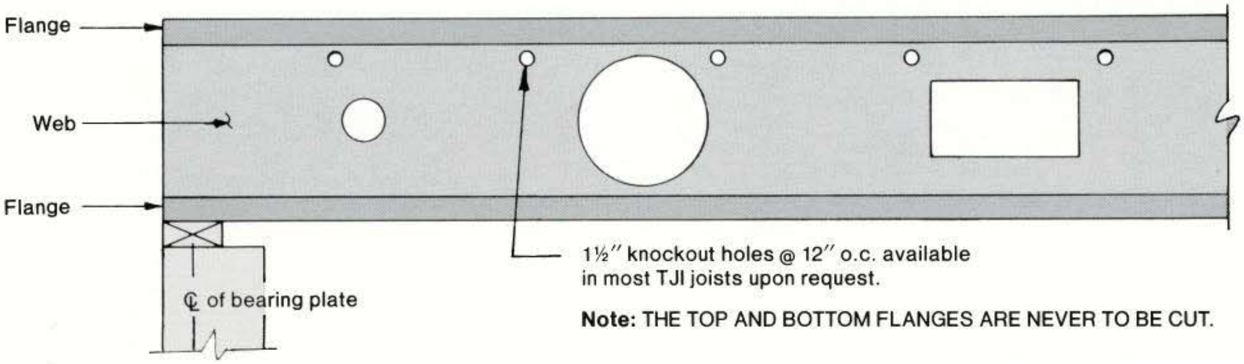
Minimum Bearing Distance (See Minimum Bearing Section of Table)



		Web Stiffener Requirements								Min. Bearing Distance	
		End Support or Hanger Support		Intermediate TJI Joist Support							
	TJI Joist Depth/Series	Web Stiffeners Required?	Number of Nails Required	Web Stiffeners Required?	Number of Nails(1) Required	Web Stiffeners Required at Concentrated Loads Greater Than (LBS.)	Number of Nails Required at Concentrated Load	Min. Web Stiffener Width "W" (Inches)	Min. Web Stiffener Thickness "T" (Inches)	End Support or Hanger Support(2) (Inches)	Intermediate TJI Joist(1) Support (Inches)
OSB Web	10" TJI/35X	Yes	3-8d	Yes	3-8d	605	2-8d	2-5/16"	⅞"	2"	3½"
OSB Web	12" TJI/35X	Yes	3-8d	Yes	3-8d	710	2-8d	2-5/16"	⅞"	2¼"	3½"
OSB Web	14" TJI/35X	Yes	4-8d	Yes	6-8d	810	3-8d	2-5/16"	⅞"	2¼"	3½"
OSB Web	16" TJI/35X	Yes	5-8d	Yes	7-8d	915	3-8d	2-5/16"	⅞"	2¼"	3½"
OSB Web	18" TJI/35X	Yes	6-8d	Yes	8-8d	1015	3-8d	2-5/16"	⅞"	2½"	5½"
OSB Web	20" TJI/35X	Yes	6-8d	Yes	9-8d	1115	4-8d	2-5/16"	⅞"	2¾"	5½"
OSB Web	22" TJI/35X	Yes	7-8d	Yes	11-8d	1220	4-8d	2-5/16"	⅞"	3"	5½"
OSB Web	24" TJI/35X	Yes	8-8d	Yes	12-8d	1320	4-8d	2-5/16"	⅞"	3"	5½"
OSB Web	26" TJI/35X	Yes	8-8d	Yes	12-8d	1385	5-8d	3½"	¾"*	3½"	7"
OSB Web	28" TJI/35X	Yes	8-8d	Yes	12-8d	1450	5-8d	3½"	¾"*	3½"	7"
OSB Web	30" TJI/35X	Yes	8-8d	Yes	12-8d	1450	6-8d	3½"	¾"*	3½"	7"
OSB Web	10" TJI/55E/55	Yes	3-10d	Yes	3-10d	610	2-10d	3½"	1½"	2"	3½"
OSB Web	12" TJI/55E/55	Yes	3-10d	Yes	3-10d	710	2-10d	3½"	1½"	2"	3½"
OSB Web	14" TJI/55E/55	Yes	4-10d	Yes	6-10d	810	2-10d	3½"	1½"	2"	3½"
OSB Web	16" TJI/55E/55	Yes	5-10d	Yes	7-10d	985	2-10d	3½"	1½"	2"	3½"
OSB Web	18" TJI/55E/55	Yes	6-10d	Yes	8-10d	1080	2-10d	3½"	1½"	2¼"	3½"
OSB Web	20" TJI/55E/55	Yes	6-10d	Yes	9-10d	1180	2-10d	3½"	1½"	2½"	5½"
OSB Web	22" TJI/55E/55	Yes	7-10d	Yes	11-10d	1280	2-10d	3½"	1½"	2½"	5½"
OSB Web	24" TJI/55E/55	Yes	8-10d	Yes	12-10d	1375	2-10d	3½"	1½"	3"	5½"
Plywood Web	26" TJI/55E/55	Yes	5-10d	Yes	11-10d	1475	2-10d	3½"	1½"	3¼"	7"
Plywood Web	28" TJI/55E/55	Yes	6-10d	Yes	11-10d	1515	2-10d	3½"	1½"	3¼"	7"
Plywood Web	30" TJI/55E/55	Yes	6-10d	Yes	12-10d	1560	2-10d	3½"	1½"	3½"	7"

(1) Dimensions shown are for maximum load. Specific application may permit reduction in this criteria. (2) The minimum bearing length may be reduced for joists supported by hangers if supplemental nail attachment to the end web stiffener is provided.

*Web stiffener should be ¾" MICRO=LAM lumber or equivalent stiffness.



Note: THE TOP AND BOTTOM FLANGES ARE NEVER TO BE CUT.

Instructions:

1. Knowing joist depth and desired hole size, find "factor" on Table 1.
2. Refer to Table 2. The dimension shown where the span and the "factor" intersect is the minimum distance from ℄ of support to ℄ of hole.

Example: 18″ TJI Joist, 8″ hole, 21′ span.

1. From Table 1, factor is C.
2. From Table 2, the ℄ of hole must be at least 4′-0″ from ℄ of support.

Table 1
Hole Factor

ROUND HOLE			2″	3″	4″	5″	6″	7″	8″	9″	10″	11″	12″	13″	14″	15″	16″	17″	18″	19″	20″
SQUARE HOLE			1½″	2¼″	3¼″	4″	4¾″	5½″	6¼″	7¼″	8″	8¾″	9½″	10¼″	11¼″	12″	12¾″	13½″	14¼″	15¼″	16″
ORIENTED STRAND-BOARD WEBS	JOIST DEPTH	10″	A	B	C	E															
		12″	*	A	B	C	E														
		14″	*	A	B	C	C	D	E												
		16″	**	A	A	B	C	C	D	E	E										
		18″	**	*	A	A	B	C	C	D	E	E									
		20″	**	*	A	A	B	B	C	C	D	D	E	E							
		22″	**	*	*	A	A	B	B	C	C	D	D	E	E						
		24″	**	**	*	A	A	A	B	B	C	C	D	D	E	E	E				
		26″	**	**	*	A	A	A	B	B	B	C	C	D	D	D	E	E			
		28″	**	**	*	*	A	A	A	B	B	B	C	C	D	D	D	E	E	E	
		30″	**	**	**	*	*	A	A	A	B	B	B	C	C	C	D	D	E	E	E
PLYWOOD WEBS		ALL	**	A	A	B	B	C	C	D	D	D	E	E	F	F	F				

*Minimum 1′-3″ from ℄ of support.

**Minimum of 4″ from ℄ of support.

Table 2
Distance from ℄ of Support to ℄ of Hole

SPAN	HOLE FACTOR					
	A	B	C	D	E	F
14	1′-3″	2′-0″	2′-9″	3′-6″	4′-0″	5′-3″
15	1′-6″	2′-3″	3′-0″	3′-9″	4′-6″	5′-6″
16	1′-6″	2′-3″	3′-0″	4′-0″	4′-9″	6′-0″
17	1′-6″	2′-6″	3′-3″	4′-3″	5′-0″	6′-3″
18	1′-9″	2′-6″	3′-6″	4′-6″	5′-3″	6′-9″
19	1′-9″	2′-9″	3′-9″	4′-9″	5′-6″	7′-0″
20	2′-0″	3′-0″	4′-0″	5′-0″	6′-0″	7′-6″
21	2′-0″	3′-0″	4′-0″	5′-3″	6′-3″	7′-9″
22	2′-0″	3′-3″	4′-3″	5′-6″	6′-6″	8′-3″
23	2′-3″	3′-3″	4′-6″	5′-9″	6′-9″	8′-6″
24	2′-3″	3′-6″	4′-9″	6′-0″	7′-0″	9′-0″
25	2′-6″	3′-9″	5′-0″	6′-3″	7′-6″	9′-3″
26	2′-6″	3′-9″	5′-0″	6′-6″	7′-9″	9′-9″
27	2′-6″	4′-0″	5′-3″	6′-9″	8′-0″	10′-0″
28	2′-9″	4′-0″	5′-6″	7′-0″	8′-3″	10′-6″
29	2′-9″	4′-3″	5′-9″	7′-3″	8′-6″	10′-9″
30	3′-0″	4′-6″	6′-0″	7′-6″	9′-0″	11′-3″
31	3′-0″	4′-6″	6′-0″	7′-9″	9′-3″	11′-6″
32	3′-0″	4′-9″	6′-3″	8′-0″	9′-3″	12′-0″
33	3′-3″	4′-9″	6′-6″	8′-3″	9′-9″	12′-3″
34	3′-3″	5′-0″	6′-9″	8′-6″	10′-0″	12′-9″
35	3′-6″	5′-3″	7′-0″	8′-9″	10′-6″	13′-0″
36	3′-6″	5′-3″	7′-0″	9′-0″	10′-9″	13′-6″

Notes:

Hole Sizes: The sizes given in the table are hole sizes, not duct sizes.

Round Holes: For simple spans and uniform loads use the table to determine hole sizes.

Square Holes: Square hole sizes are determined by multiplying the maximum round hole diameter by a factor of 0.8.

Rectangular Holes: Multiply the maximum round hole diameter by a factor of 0.8. This represents the longest side of the rectangle.

Multiple Holes: Where more than one hole is desired the amount of wood between holes must equal or exceed twice the diameter of the largest hole or twice the size of the largest square hole.

Cantilevers and Continuous Spans: For uniformly loaded cantilevers and continuous TJI joist series, the holes must be located one inch further from the support for each foot of clear span in addition to the values indicated in the table.

Note: Exceptions to these rules may be possible through special inquiry.

Simple Span
Parallel TJI Joist
Sloped Roof Only

Load Tables / Non-Snow (125%)

Allowable Uniform Load (PLF)

Legacy Literature
See Note on Front Cover

TJI/35X Joist
OSB Web Material

DEPTH / SPAN	10	12	14	16	18	20	22	24	26	28	30
12	289	364	403	441	480	518	556	580	604	604	604
13	246	311	372	407	443	478	513	535	557	557	557
14	212	268	325	378	411	444	476	497	517	517	517
15	185	234	283	332	382	415	445	464	483	483	483
16	162	205	249	292	336	379	417	435	453	453	453
17	144	182	220	259	297	336	375	409	426	426	426
18	128	162	196	231	265	300	334	369	402	402	402
19	115	145	176	207	238	269	300	331	362	381	381
20	99	131	159	187	215	243	271	299	327	355	362
21	86	119	144	169	195	220	245	271	296	322	345
22	75	108	131	154	177	200	224	247	270	293	316
23	66	99	120	141	162	183	205	226	247	268	289
24	58	88	110	130	149	168	188	207	227	246	266
25	52	78	102	119	137	155	173	191	209	227	245
26	46	70	94	110	127	143	160	176	193	210	226
27	41	62	87	102	118	133	148	164	179	194	210
28	37	56	79	95	109	124	138	152	166	181	195
29		50	71	89	102	115	128	142	155	168	182
30		46	64	83	95	108	120	132	145	157	170
31		41	58	77	89	101	112	124	136	147	159
32		38	53	71	84	94	105	116	127	138	149
33		34	49	65	79	89	99	109	120	130	140
34			44	60	74	84	93	103	113	122	132
35			41	55	70	79	88	97	106	115	125
36			37	50	65	75	83	92	100	109	118
37			35	47	60	71	79	87	95	103	111
38			32	43	56	67	75	82	90	98	106
39			30	40	52	63	71	78	86	93	100
40			27	37	48	60	67	74	81	88	95

Multiple Span
Parallel TJI Joist
Sloped Roof Only

Note: Tables below can be used for two or more span conditions. Use longest span for sizing. Where ratio of short span to long span is less than .4, contact Technical Representative for assistance.

TJI/35X Joist
OSB Web Material

DEPTH / SPAN	10	12	14	16	18	20	22	24	26	28	30
12	289	342	379	415	451	488	523	546	283	483	483
13	246	311	347	383	417	450	483	504	446	446	446
14	212	268	318	356	387	418	448	468	414	414	414
15	185	234	283	329	361	390	418	436	386	386	386
16	162	205	249	292	336	366	392	409	362	362	362
17	144	182	220	259	297	336	369	385	341	341	341
18	128	162	196	231	265	300	334	364	322	322	322
19	115	145	176	207	238	269	300	331	305	305	305
20	104	131	159	187	215	243	271	299	290	290	290
21	94	119	144	169	195	220	245	271	276	276	276
22	86	108	131	154	177	200	224	247	263	263	263
23	78	99	120	141	162	183	205	226	247	252	252
24	72	91	110	130	149	168	188	207	227	241	241
25	66	84	102	119	137	155	173	191	209	227	231
26	61	77	94	110	127	143	160	176	193	210	223
27	57	72	87	102	118	133	148	164	179	194	210
28	53	67	81	95	109	124	138	152	166	181	195
29	49	62	75	89	102	115	128	142	155	168	182
30	46	58	70	83	95	108	120	132	145	157	170
31	43	54	66	77	89	101	112	124	136	147	159
32	40	51	62	73	84	94	105	116	127	138	149
33	38	48	58	68	79	89	99	109	120	130	140
34	36	45	55	64	74	84	93	103	113	122	132
35	33	43	52	61	70	79	88	97	106	115	125
36	31	40	49	57	66	75	83	92	100	109	118
37	29	38	46	54	62	71	79	87	95	103	111
38	27	36	44	51	59	67	75	82	90	98	106
39	25	34	41	49	56	63	71	78	86	93	100
40	23	32	39	46	53	60	67	74	81	88	95

Notes:

1. TJI joists, when used in ***simple span*** applications, can be cambered to 2250′ radius upon request.
2. TJI joists are not available with camber in multiple span applications.
3. Provisions must be made for positive drainage. Minimum slope = ¼″ per foot.
4. Values in gray shaded area may be increased 4% for repetitive member usage if the criteria is met. Refer to page 2.

Simple Span
Parallel TJI Joist
Sloped Roof Only

Load Tables / Snow (115%)

Allowable Uniform Load (PLF)

Legacy Literature
See Note on Front Cover

TJI/35X Joist

OSB Web Material

DEPTH / SPAN	10	12	14	16	18	20	22	24	26	28	30
12	266	335	370	406	441	477	511	533	555	555	555
13	226	286	342	375	407	440	472	492	513	513	513
14	195	247	299	348	378	409	438	457	476	476	476
15	170	215	260	306	351	381	409	427	444	444	444
16	149	189	229	269	309	349	383	400	416	416	416
17	132	167	203	238	273	309	345	376	392	392	392
18	118	149	181	212	244	276	307	339	370	370	370
19	106	134	162	190	219	247	276	304	333	351	351
20	95	121	146	172	197	223	249	275	300	326	333
21	86	109	133	156	179	202	226	249	272	296	317
22	75	100	121	142	163	184	206	227	248	270	291
23	66	91	110	130	149	169	188	208	227	247	266
24	58	84	101	119	137	155	173	191	208	226	244
25	52	77	93	110	126	143	159	176	192	209	225
26	46	70	86	101	117	132	147	162	178	193	208
27	41	62	80	94	108	122	136	150	165	179	193
28	37	56	74	87	100	114	127	140	153	166	179
29	33	50	69	81	94	106	118	130	143	155	167
30	30	46	64	76	87	99	110	122	133	145	156
31	27	41	58	71	82	93	103	114	125	135	146
32		38	53	67	77	87	97	107	117	127	137
33		34	49	63	72	82	91	101	110	120	129
34		31	44	59	68	77	86	95	104	113	122
35		29	41	55	64	73	81	89	98	106	115
36		26	37	50	61	69	76	84	92	100	108
37		24	35	47	57	65	72	80	87	95	103
38		22	32	43	54	61	69	76	83	90	97
39		21	30	40	52	58	65	72	79	85	92
40		19	27	37	48	55	62	68	75	81	88

Multiple Span
Parallel TJI Joist
Sloped Roof Only

Note: Tables below can be used for two or more span conditions. Use longest span for sizing. Where ratio of short span to long span is less than .4, contact Technical Representative for assistance.

TJI/35X Joist

OSB Web Material

DEPTH / SPAN	10	12	14	16	18	20	22	24	26	28	30
12	266	314	349	382	415	449	481	502	444	444	444
13	226	286	319	353	383	414	444	463	410	410	410
14	195	247	293	327	356	385	412	430	381	381	381
15	170	215	260	303	332	359	385	401	355	355	355
16	149	189	229	269	309	336	361	376	333	333	333
17	132	167	203	238	273	309	339	354	313	313	313
18	118	149	181	212	244	276	307	334	296	296	296
19	106	134	162	190	219	247	276	304	280	280	280
20	95	121	146	172	197	223	249	275	266	266	266
21	86	109	133	156	179	202	226	249	254	254	254
22	79	100	121	142	163	184	206	227	242	242	242
23	72	91	110	130	149	169	188	208	227	231	231
24	66	84	101	119	137	155	173	191	208	222	222
25	61	77	93	110	126	143	159	176	192	209	213
26	56	71	86	101	117	132	147	162	178	193	205
27	52	66	80	94	108	122	136	150	165	179	193
28	48	61	74	87	100	114	127	140	153	166	179
29	45	57	69	81	94	106	118	130	143	155	167
30	42	53	65	76	87	99	110	122	133	145	156
31	39	50	61	71	82	93	103	114	125	135	146
32	37	47	57	67	77	87	97	107	117	127	137
33	35	44	53	63	72	82	91	101	110	120	129
34	33	41	50	59	68	77	86	95	104	113	122
35	31	39	47	56	64	73	81	89	98	106	115
36	29	37	45	53	61	69	76	84	92	100	108
37	27	35	42	50	57	65	72	80	87	95	103
38	26	33	40	47	54	61	69	76	83	90	97
39	25	31	38	45	52	58	65	72	79	85	92
40	23	30	36	43	49	55	62	68	75	81	88

Notes:
1. TJI joists, when used in ***simple span*** applications, can be cambered to 2250′ radius upon request.
2. TJI joists are not available with camber in multiple span applications.
3. Provisions must be made for positive drainage. Minimum slope = ¼″ per foot.
4. Values in gray shaded area may be increased 4% for repetitive member usage if the criteria is met. Refer to page 2.

TJI/35X Joist with Nailed Floor

OSB Web Material

DEPTH	10			12			14			16			18			20			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10		256	313			350			387			424			461			498	10
11	265	199	275		291	318			351			385			419			452	11
12	210	157	231		231	291		316	322			353			384			415	12
13	168	126	197		186	249		256	297			326			354			383	13
14	137	103	170	203	152	215		210	260		276	302			329			355	14
15	113	84	148	168	126	187		174	226		229	266		291	305			332	15
16	88	70	130	131	105	164	183	146	199		193	234		245	268			303	16
17	70	56	115	104	83	145	145	116	176	192	153	207		195	238		242	269	17
18	56	44	102	84	67	130	117	93	157	155	124	184	197	158	212		196	240	18
19	45	36	92	68	54	116	95	76	141	126	101	165	161	129	190	200	160	215	19
20	37	29	83	56	44	105	78	62	127	104	83	149	133	106	172	165	132	194	20
21	32	25	75	48	39	95	68	54	115	90	72	135	116	92	156	144	115	176	21
22	28	22	68	42	34	87	59	47	105	79	63	123	101	81	142	127	101	160	22
23	24	19	62	37	29	79	52	42	96	70	56	113	89	71	130	112	89	147	23
24	21	17	57	33	26	73	46	37	88	62	49	104	79	63	119	99	79	135	24
25	19	15	53	29	23	67	41	33	81	55	44	95	70	56	110	88	71	124	25
26	17	13	49	26	21	62	36	29	75	49	39	88	63	50	101	79	63	115	26
27	15	12	45	23	18	57	33	26	70	44	35	82	56	45	94	71	57	106	27
28				21	16	53	29	23	65	39	31	76	51	40	87	64	51	99	28
29				19	15	50	26	21	60	35	28	71	46	37	81	58	46	92	29
30				17	13	46	24	19	56	32	26	66	41	33	76	52	42	86	30
31							22	17	53	29	23	62	38	30	71	47	38	80	31
32							20	16	49	26	21	58	34	27	67	43	34	75	32
33							18	14	46	24	19	55	31	25	63	39	31	71	33
34							16	13	44	22	18	51	29	23	59	36	29	67	34
35							15	12	41	20	16	48	26	21	56	33	26	63	35
36							14	11	39	19	15	46	24	19	53	31	24	60	36

DEPTH	22			24			26			28			30			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10			534			557			580			580			580	10
11			485			506			527			527			527	11
12			445			464			483			483			483	12
13			410			428			446			446			446	13
14			381			397			414			414			414	14
15			356			371			386			386			386	15
16			333			348			362			362			362	16
17		294	300			327			341			341			341	17
18		238	267		284	295			322			322			322	18
19		195	240		232	265		273	289			305			305	19
20	201	161	216		192	239		226	261		263	284			290	20
21	176	141	196	210	168	217		198	237		231	257		265	276	21
22	155	124	179	185	148	197		175	216		203	234		234	253	22
23	137	109	164	164	131	180	193	155	197		180	214		208	231	23
24	121	97	150	145	116	166	172	137	181		160	197		185	212	24
25	108	86	138	130	104	153	154	123	167	179	143	181		165	196	25
26	97	77	128	116	93	141	138	110	154	161	128	168		148	181	26
27	87	69	119	104	83	131	124	99	143	145	116	155	167	134	168	27
28	78	62	110	94	75	122	112	89	133	130	104	144	151	121	156	28
29	71	56	103	85	68	113	101	81	124	118	94	135	137	109	145	29
30	64	51	96	77	62	106	92	73	116	107	86	126	124	99	136	30
31	58	47	90	70	56	99	83	67	108	98	78	118	113	91	127	31
32	53	42	84	64	51	93	76	61	102	89	71	110	103	83	119	32
33	49	39	79	59	47	87	70	56	96	82	65	104	95	76	112	33
34	45	36	75	54	43	82	64	51	90	75	60	98	87	69	103	34
35	41	33	70	49	39	78	59	47	85	69	55	92	80	64	100	35
36	38	30	66	45	36	73	54	43	80	64	51	87	74	59	94	36

Notes:

1. TJI joists, when used in ***simple span*** applications, can be cambered to 2250′ radius upon request.
2. TJI joists are not available with camber in multiple span applications.
3. Values in gray shaded area may be increased 4% for repetitive member usage if the criteria is met. Refer to page 2.

Load Tables/Floor (100%)

Allowable Uniform Load (PLF)

TJI/35X Joist with Glue-Nailed Floor

OSB Web Material

DEPTH	10			12			14			16			18			20			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10		276	313			350			387			424			461			498	10
11		215	275		311	318			351			385			419			452	11
12	227	170	231		248	291			322			353			384			415	12
13	182	137	197		200	249		274	297			326			354			383	13
14	149	111	170		164	215		225	260		294	302			329			355	14
15	123	92	148	181	136	187		187	226		245	266			305			332	15
16	96	77	130	142	113	164	196	157	199		206	234		261	268			303	16
17	76	61	115	113	90	145	156	125	176	205	164	207		208	238		258	269	17
18	61	48	102	90	72	130	126	100	157	166	132	184	211	168	212		209	240	18
19	49	39	92	73	59	116	102	82	141	135	108	165	172	138	190	213	171	215	19
20	40	32	83	60	48	105	84	67	127	111	89	149	142	113	172	176	141	194	20
21	35	28	75	52	42	95	73	58	115	97	77	135	124	99	156	154	123	176	21
22	30	24	68	46	36	87	64	51	105	85	68	123	109	87	142	135	108	160	22
23	27	21	62	40	32	79	56	45	96	75	60	113	96	77	130	119	95	147	23
24	24	19	57	35	28	73	50	40	88	66	53	104	85	68	119	106	85	135	24
25	21	17	53	31	25	67	44	35	81	59	47	95	76	60	110	94	75	124	25
26	19	15	49	28	22	62	39	31	75	53	42	88	67	54	101	84	67	115	26
27	17	13	45	25	20	57	35	28	70	47	38	82	61	48	94	76	61	106	27
28	15	12	42	22	18	53	32	25	65	42	34	76	54	43	87	68	54	99	28
29	13	11	39	20	16	50	29	23	60	38	30	71	49	39	81	62	49	92	29
30				18	15	46	26	21	56	35	28	66	45	36	76	56	45	86	30
31				17	13	43	23	19	53	31	25	62	40	32	71	51	41	80	31
32				15	12	41	21	17	49	29	23	58	37	29	67	46	37	75	32
33							19	15	46	26	21	55	34	27	63	42	34	71	33
34										24	19	51	31	25	59	39	31	67	34
35										22	17	48	28	23	56	36	28	63	35
36										20	16	46	26	21	53	33	26	60	36

DEPTH	22			24			26			28			30			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10			534			557			580			580			580	10
11			485			506			527			527			527	11
12			445			464			483			483			483	12
13			410			428			446			446			446	13
14			381			397			414			414			414	14
15			356			371			386			386			386	15
16			333			348			362			362			362	16
17			300			327			341			341			341	17
18		253	267			295			322			322			322	18
19		207	240		246	265			289			305			305	19
20	214	171	216		204	239		240	261		278	284			290	20
21	187	150	196		179	217		210	237		244	257			276	21
22	165	132	179		157	197		185	216		215	234		248	253	22
23	146	116	164	174	139	180		164	197		191	214		220	231	23
24	129	103	150	155	124	166		146	181		170	197		196	212	24
25	115	92	138	138	110	153	163	130	167		152	181		175	196	25
26	103	82	128	124	99	141	146	117	154		136	168		157	181	26
27	93	74	119	111	89	131	131	105	143	153	123	155		142	168	27
28	84	67	110	100	80	122	119	95	133	139	111	144		128	156	28
29	76	60	103	91	72	113	107	86	124	126	100	135		116	145	29
30	69	55	96	82	66	106	98	78	116	114	91	126	132	105	136	30
31	62	50	90	75	60	99	89	71	108	104	83	118	120	96	127	31
32	57	45	84	68	55	93	81	65	102	95	76	110	110	88	119	32
33	52	41	79	63	50	87	74	59	96	87	69	104	101	80	112	33
34	48	38	75	57	46	82	68	54	90	80	64	98	92	74	106	34
35	44	35	70	53	42	78	63	50	85	73	59	92	85	68	100	35
36	40	32	66	49	39	73	58	46	80	68	54	87	78	63	94	36

Notes:

1. TJI joists, when used in ***simple span*** applications, can be cambered to 2250′ radius upon request.
2. TJI joists are not available with camber in multiple span applications.
3. Values in gray shaded area may be increased 4% for repetitive member usage if the criteria is met. Refer to page 2.

TJI/35X Joist with Nailed Floor

OSB Web Material

DEPTH	10			12			14			16			18			20			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10			288			335			364			399			433			468	10
11			259			302			331			362			394			426	11
12		210	231			273			303			332			361			390	12
13		168	197			249			278			306			333			360	13
14		137	170		203	215			255			285			309			334	14
15		113	148		168	187			226			263			289			312	15
16	117	94	130		140	164		195	199			234			268			292	16
17	93	74	115	139	111	145		155	176		205	207			238			269	17
18	74	59	102	112	89	130	156	125	157		165	184		211	212			240	18
19	60	48	92	91	72	116	127	101	141		134	165		172	190		214	215	19
20	49	39	83	74	59	105	104	83	127	138	111	149		141	172		176	194	20
21	43	34	75	64	51	95	90	72	115	120	96	135	154	123	156		154	176	21
22	37	30	68	56	45	87	79	63	105	106	84	123	135	108	142		135	160	22
23	33	26	62	49	39	79	70	56	96	93	74	113	119	95	130		119	147	23
24	29	23	57	44	35	73	62	49	88	82	66	104	106	84	119	132	106	135	24
25	25	20	53	39	31	67	55	44	81	73	58	95	94	75	110	118	94	124	25
26	23	18	49	35	28	62	49	39	75	65	52	88	84	67	101	105	84	115	26
27	20	16	45	31	25	57	44	35	70	58	47	82	75	60	94	95	76	106	27
28				28	22	53	39	31	65	53	42	76	68	54	87	85	68	99	28
29				25	20	50	35	28	60	47	38	71	61	49	81	77	61	92	29
30				23	18	46	32	25	56	43	34	66	55	44	76	70	56	86	30
31							29	23	53	39	31	62	50	40	71	63	51	80	31
32										35	28	58	46	37	67	58	46	75	32
33										32	26	55	42	33	63	53	42	71	33
34										30	24	51	38	31	59	48	39	67	34
35										27	22	48	35	28	56	44	35	63	35
36										25	20	46	32	26	53	41	33	60	36

DEPTH	22			24			26			28			30			
SPAN	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	LLD RES	LLD NON-RES	TLD	SPAN
10			502			524			464			464			464	10
11			456			476			421			421			421	11
12			418			436			386			386			386	12
13			386			403			356			356			356	13
14			358			374			331			331			331	14
15			335			349			309			309			309	15
16			314			327			290			290			290	16
17			295			308			272			272			272	17
18			267			291			257			257			257	18
19			240			265			244			244			244	19
20		215	216			239			232			232			232	20
21		188	196			217			220			220			220	21
22		165	179			197			210			210			210	22
23		146	164		175	180			197			201			201	23
24		129	150		155	166			181			193			193	24
25		115	138		138	153		164	167			181			185	25
26		103	128		124	141		147	154			168			178	26
27	116	93	119		111	131		132	143		154	155			168	27
28	104	83	110		100	122		119	133		139	144			156	28
29	94	75	103		91	113		108	124		126	135			145	29
30	86	68	96	103	82	106		98	116		114	126		133	136	30
31	78	62	90	94	75	99		89	108		104	118		121	127	31
32	71	57	84	86	68	93		81	102		95	110		110	119	32
33	65	52	79	78	63	87	93	74	96		87	104		101	112	33
34	60	48	75	72	57	82	85	68	90		80	98		93	106	34
35	55	44	70	66	53	78	78	63	85		74	92		85	100	35
36	50	40	66	61	49	73	72	58	80	85	68	87		79	94	36

Notes:

1. TJI joists, when used in ***simple span*** applications, can be cambered to 2250′ radius upon request.
2. TJI joists are not available with camber in multiple span applications.
3. Values in gray shaded area may be increased 4% for repetitive member usage if the criteria is met. Refer to page 2.

Legacy Literature
See Note on Front Cover

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