

ALLJoist[®]

INTRODUCING

AJS[®] 25 — 18"-24"



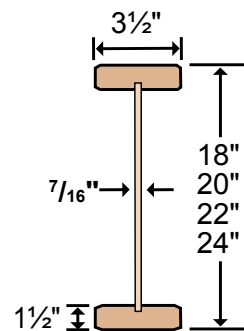
*Deeper AJS[®] 25 joists
for longer spans and
heavier load conditions*

US Version

The information in this document pertains to use in the UNITED STATES ONLY, Allowable Stress Design. Refer to the ALLJOIST Specifier Guide Canada for use in Canada, Limit States Design.



AJS[®] 25 Deep Depths



Boise Cascade
Engineered Wood Products

Apr 2009

Joist Series	Depth [inches]	Weight [plf]	Moment [ft-lbs]	EI x 10 ⁶ [lb-in ²]	K x 10 ⁶ [lbs]	Shear [lbs]	End Reaction [lbs]		Intermediate Reaction [lbs]	
							1½" Bearing	3½" Bearing	3½" Bearing	5¼" Bearing
							Web Stiffeners	Web Stiffeners	Web Stiffeners	Web Stiffeners
AJS® 25	18	4.6	10975	1427	12.3	3010	2240	2620	4720	4720
	20	4.9	12270	1813	13.7	3240	2490	2980	5110	5110
	22	5.1	13455	2249	15.0	3470	2490	3150	5230	5505
	24	5.4	14625	2737	16.5	3690	2490	3320	5345	5900

NOTES:

- Moment, shear and reaction values based upon a load duration of 100% and may be adjusted for other load durations.
- Design values listed are applicable for Allowable Stress Design (ASD).

BUILDING CODE EVALUATION REPORT

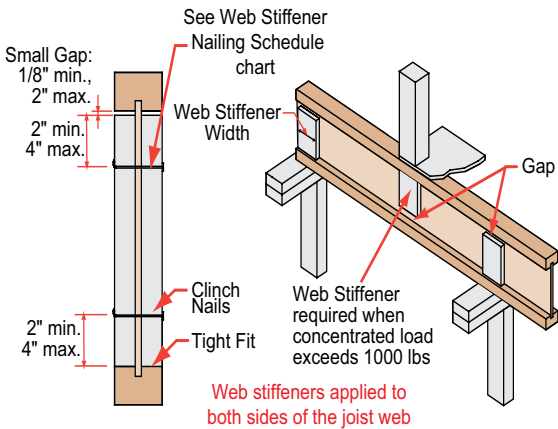
- ICC ESR 1144 (IBC, IRC)

AJS Joists in Commercial Projects: The new deeper depth AJS® 25 joists are intended for commercial projects with heavier design loads and longer spans. All commercial projects utilizing AJS® joists shall have an engineer or architect of record.

$$\Delta = \frac{5wl^4}{384EI} + \frac{wl^2}{K}$$

Δ = deflection [in]
 w = uniform load [lb/in]
 l = clear span [in]
 EI = bending stiffness [lb-in²]
 K = shear deformation coefficient [lb]

Web Stiffener Requirements

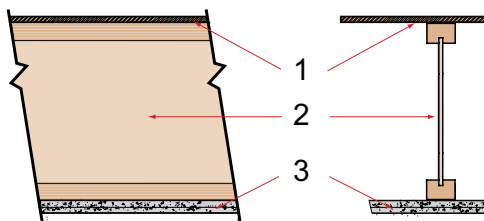


Web Stiffener Nailing Schedule			Structural Panel Web Stiffener	
Series	Joist Depth	Nailing	Series	Minimum Thickness
AJS® 25	18" - 24"	5-10d	AJS® 25	2x4 lumber (vertical)

NOTES

- Web stiffeners are always required for 18" and deeper AJS® joists at all bearing locations.
- Web stiffeners are always required in certain roof applications. See *Roof Framing Details* on page 14 of ASG US version.
- Web stiffeners are always required under concentrated loads that exceed 1000 pounds. Install the web stiffeners snug to the top flange in this situation. Follow the nailing schedule for intermediate bearings.

One-Hour Floor/Ceiling Assembly



FIRE ASSEMBLY COMPONENTS

1. Min. ¾" tongue-and-groove plywood or 2³/₃₂" APA Rated Sheathing (Exposure 1 or exterior glue)
2. AJS® Joists at 24" o.c. or less.
3. Two layers ½" Type C or two layers ⅝" Type X gypsum board
4. When constructed with resilient channels, STC = 50.

Contact your local Boise representative for specific assembly information and other fire-resistive options.

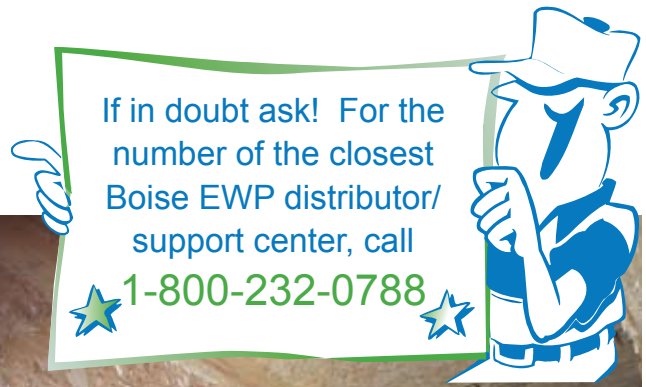
American Wood Council - DCA 3

Allowable Uniform Floor Load (in pounds per lineal foot [PLF])

100% Load Duration

Span Length	AJS® 25 Series 3½" Flange Width							
	18" AJS® 25		20" AJS® 25		22" AJS® 25		24" AJS® 25	
	Live Load	Total Load	Live Load	Total Load	Live Load	Total Load	Live Load	Total Load
6	-	629	-	681	-	697	-	712
7	-	539	-	584	-	597	-	610
8	-	472	-	511	-	523	-	534
9	-	419	-	454	-	464	-	475
10	-	377	-	408	-	418	-	427
11	-	343	-	371	-	380	-	388
12	-	314	-	340	-	348	-	356
13	-	290	-	314	-	321	-	328
14	-	269	-	292	-	298	-	305
15	-	251	-	272	-	278	-	285
16	-	236	-	255	-	261	-	267
17	-	222	-	240	-	246	-	251
18	-	209	-	227	-	232	-	237
19	197	198	-	215	-	220	-	225
20	171	188	-	204	-	209	-	213
21	150	179	187	194	-	199	-	203
22	132	171	165	185	-	190	-	194
23	116	164	146	177	178	181	-	185
24	103	152	129	170	158	174	-	178
25	92	140	115	157	141	167	170	171
26	82	129	103	145	127	159	153	164
27	74	120	93	134	114	147	137	158
28	66	111	84	125	103	137	124	149
29	60	104	76	116	93	127	112	139
30	54	97	69	109	84	119	102	130

- Live load values based on deflection of L/480. To calculate deflection limits of L/360 and L/960, multiply the live load by 1.33 and .5, respectively.
- Total load limits joist deflection to L/240.
- Load capacity assumes the absence of composite action from sheathing.
- Values represent worst case of simple or multiple spans.
- Web stiffeners required at all bearing locations.



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Boise EWP is a participant in the Sustainable Forestry Initiative[®] (SFI[®]), a comprehensive forest management program that is a combination of environmental responsibilities and sound business practices. The procurement systems of Boise's engineered wood product facilities have been audited by PricewaterhouseCoopers to the SFI[®] Standard and its products will carry the SFI[®] Label. These procurement systems provide tracking information on Boise's supply chain sources.

Lifetime Guaranteed Quality and Performance

Boise warrants its BCI[®] Joist, VERSA-LAM[®], and ALLJOIST[®] products to comply with our specifications, to be free from defects in material and workmanship, and to meet or exceed our performance specifications for the normal and expected life of the structure when correctly stored, installed and used according to our Installation Guide.

For information about Boise's engineered wood products, including sales terms and conditions, warranties and disclaimers, visit our website at www.BC.com/ewp

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