

WEB HOLES

- Except for cutting to length, never cut, drill, or notch I-joist flanges.
- Holes may be located vertically anywhere in the web. Wherever possible, center holes in the web and always leave at least 1/8" of web at the top and bottom of the hole.
- The sides of square holes shall not exceed three-fourths of the maximum round hole diameter permitted at that location. Do not over-cut the sides of square holes.
- Where more than one hole is necessary, the distance between hole edges must be more than twice the diameter of the largest round hole or twice the size of the largest square hole. In addition, each hole must comply with the requirements of Table 3.
- Do not cut any holes in the web within a distance of d/2 from the support centerline where d is the depth of the I-joist, otherwise, a 1-1/2 inch hole can be cut in the web anywhere.
- Exceptions will require that additional data be provided to the local building official.

How to Use Table 3:

- Read across the top of Table 3 to the desired hole size.
- Follow this column down to the row that represents the I-joist depth and designation. This number indicates the minimum distance from the face of the support to the centerline of the hole.

Example: Need a 5-1/2-inch hole in a 11-7/8" PRI-30 joist:

From Table 3,

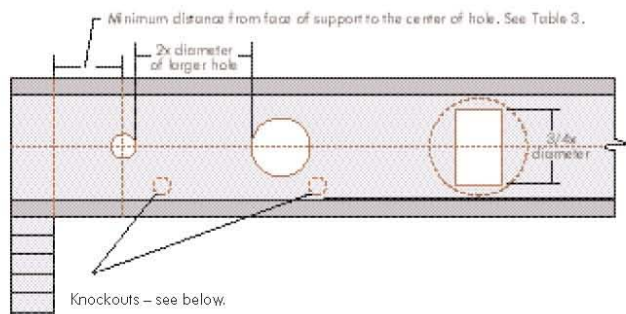
For a 5-inch round hole, the minimum distance is 2'-0".

For a 6-inch round hole, the minimum distance is 3'-0".

Therefore the minimum distance for the 5-1/2-inch round hole is 2'-6".

FIGURE 3

APA PRI JOIST FIELD-CUT HOLE LOCATOR



A knockout is **NOT** considered a hole, may be utilized whenever it occurs and may be ignored for purposes of calculating minimum distances between holes.

TABLE 3

MINIMUM DISTANCE FROM FACE OF ALL JOIST SUPPORTS TO CENTER OF HOLE – Single or Multi-Span

Joist Depth	Joist Designation	Span Adjustment Factor	Minimum Distance from Inside Face of Any Support to Center of Hole (ft - in.)															
			Round Hole Diameter (in.)															
			2	3	4	5	6	6-1/4	7	8	8-5/8	9	10	10-3/4	11	12	12-3/4	
9-1/2"	PRI-40	13.0	1.0	2.0	3.0	4.0	5.0	5.5										
	PRI-60	14.4	2.0	3.0	4.0	5.0	6.5	7.0										
11-7/8"	PRI-40	15.0	0.5	0.5	1.5	2.5	3.5	4.0	4.5	6.0	7.0							
	PRI-60	16.7	0.5	1.5	3.0	4.0	5.0	5.5	6.5	8.0	9.0							
	PRI-80	18.4	2.0	3.5	4.5	6.0	7.0	7.5	8.5	10.0	11.0							
14"	PRI-60	16.7	0.5	1.0	1.0	1.5	3.0	3.5	4.5	6.0	7.0	7.5	9.0	10.5				
	PRI-80	20.2	0.5	2.0	3.0	4.5	5.5	6.0	7.0	8.5	9.5	10.0	11.5	13.0				
16"	PRI-60	16.7	0.5	0.5	1.0	1.0	1.0	2.0	2.0	3.5	4.5	5.0	6.5	8.0	8.5	10.5	12.0	
	PRI-80	20.2	0.5	0.5	1.0	2.0	3.5	4.0	5.0	6.5	7.5	8.0	10.0	11.0	11.5	13.5	15.0	

Notes:

- Above tables may be used for I-joist spacing of 24 inches on center or less.
- Hole location distance is measured from inside face of supports to center of hole.
- Distances in this chart are based on uniformly loaded joists that meet the span requirements in Tables 1 and 2 in this installation guide.
- For continuous joists with more than one span, use the **longest** span to determine hole location in either span.

OPTIONAL:

Table 3 is based on the I-joists being used at their maximum span. If the I-joists are placed at less than their full allowable span as shown in Tables 1 or 2, the maximum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:

$$D_{\text{reduced}} = \frac{L_{\text{actual}}}{\text{SAF}} \times D$$

Where:

D_{reduced} = Distance from the inside face of any support to center of hole, reduced for less-than-maximum span applications (ft).

L_{actual} = The actual measured span distance between the inside faces of supports (ft).

SAF = Span Adjustment Factor given in Table 3.

D = The maximum distance from the inside face of any support to center of hole from Table 3 above.

If $\frac{L_{\text{actual}}}{\text{SAF}}$ is greater than 1.0, use 1.0 in the above calculation.