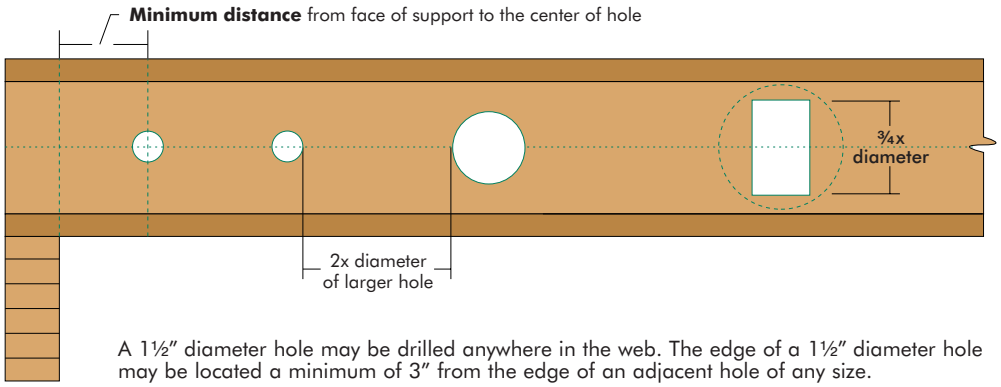
HOLES

LRC I-JOIST TYPICAL HOLES



A 1½" diameter hole may be drilled anywhere in the web. The edge of a 1½" diameter hole may be located a minimum of 3" from the edge of an adjacent hole of any size.

MINIMUM DISTANCE FROM FACE OF ALL LRC I-JOIST SUPPORTS TO CENTER OF HOLE

LRC I-Joist Depth (in.)	LRC I-Joist Series	Span Adjustment Factor	Round Hole Diameter (in.)														
			2	3	4	5	6	6¼	7	8	8⅝	9	10	10¾	11	12	12¾
			Minimum Distance from Inside Face of Any Support to Center of Hole														
9½"	LRC 40	12.8	1′ – 0″	2′ – 0″	3′ – 0″	4′ – 0″	5′ – 0″	5′ – 6″									
	LRC 60	14.2	2′ – 0″	3′ – 0″	4′ – 0″	5′ – 0″	6′ – 6″	7′ – 0″									
11⅞"	LRC 40	14.8	0′ – 6″	0′ – 6″	1′ – 6″	2′ – 6″	3′ – 6″	4′ – 0″	4′ – 6″	6′ – 0″	7′ – 0″						
	LRC 60	16.4	0′ – 6″	1′ – 6″	3′ – 0″	4′ – 0″	5′ – 0″	5′ – 6″	6′ – 6″	8′ – 0″	9′ – 0″						
	LRC 80	18.2	2′ – 0″	3′ – 6″	4′ – 6″	6′ – 0″	7′ – 0″	7′ – 6″	8′ – 6″	10′ – 0″	11′ - 0″						
14"	LRC 40	16.3	0′ – 6″	1′ – 0″	2′ – 0″	3′ – 0″	4′ – 0″	4′ – 0″	4′ – 6″	5′ – 6″	6′ – 0″	6′ – 6″	8′ – 0″	9′ – 6″			
	LRC 60	16.4	0′ – 6″	1′ – 0″	1′ – 0″	1′ – 6″	3′ – 0″	3′ – 6″	4′ – 6″	6′ – 0″	7′ – 0″	7′ – 6″	9′ – 0″	10′ – 6″			
	LRC 80	19.9	0′ – 6″	2′ – 0″	3′ – 0″	4′ – 6″	5′ – 6″	6′ – 0″	7′ – 0″	8′ – 6″	9′ – 6″	10′ – 0″	11′ – 6″	13′ – 0″			
16"	LRC 40	16.4	0′ – 6″	0′ – 6″	1′ – 0″	1′ – 0″	2′ – 0″	2′ – 0″	3′ – 0″	4′ – 0″	4′ – 6″	5′ – 0″	6′ – 0″	7′ – 0″	7′ – 0″	9′ – 0″	10′ – 6″
	LRC 60	16.4	0′ – 6″	0′ – 6″	1′ – 0″	1′ – 0″	1′ – 0″	1′ – 6″	2′ – 0″	3′ – 6″	4′ – 6″	5′ – 0″	6′ – 6″	8′ – 0″	8′ – 6″	10′ – 6″	12′ – 0″
	LRC 80	19.9	0′ – 6″	0′ – 6″	1′ – 0″	2′ – 0″	3′ – 6″	4′ – 0″	5′ – 0″	6′ – 6″	7′ – 6″	8′ – 0″	10′ – 0″	11′ – 0″	11′ – 6″	13′ – 6″	15′ – 0″

Notes:

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

Optional Hole Calculation:

The above table is based on the LRC I-joists being used at their maximum span. If the joists are placed at less than their full allowable span as shown in tables on page 5, the maximum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:

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

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 above.

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

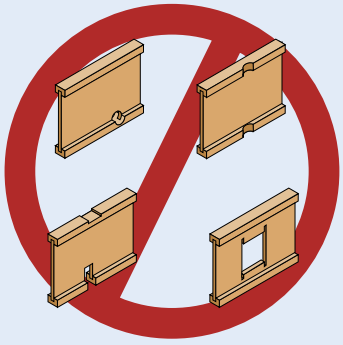
if $\frac{L_{actual}}{SAF}$ is greater than 1.0, use 1.0 in the above calculation.

WEB HOLE SPECIFICATIONS

One of the benefits of using LRC I-joists in residential floor construction is that holes may be cut in the joist webs to accommodate electrical wiring, plumbing lines and other mechanical systems, therefore minimizing the depth of the floor system.

RULES FOR CUTTING HOLES IN LRC I-JOISTS

1. The distance between the inside edge of the support and the centerline of any hole shall not be less than that shown in table on page 21.
2. LRC I-joist top and bottom flanges must NEVER be cut, notched, or otherwise modified.
3. Whenever possible field-cut holes should be centered on the middle of the web.
4. The maximum size hole that can be cut into a LRC I-joist web shall equal the clear distance between the flanges of the joist minus ¼". A minimum of ⅛" should always be maintained between the top or bottom of the hole and the adjacent joist flange.
5. The sides of square holes or longest sides of rectangular holes should not exceed three fourths of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the longest rectangular hole) and each hole must be sized and located in compliance with the requirements of table on page 21.
7. A knockout is not considered a hole, may be utilized anywhere it occurs and may be ignored for purposes of calculating minimum distances between holes.
8. 1½" holes shall be permitted anywhere in a cantilevered section of a LRC I-joist. Holes of greater size may be permitted subject to verification.
9. A 1½" hole can be placed anywhere in the web provided that it meets the requirements of rule 6 on this page.
10. For LRC I-joists with more than one span, use the longest span to determine hole location in either span.
11. All holes shall be cut in a workman-like manner in accordance with the restrictions listed above.



Never drill, cut or notch the flange, or over-cut the web.

Holes in webs should be cut with a sharp saw.

For rectangular holes, avoid over cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1" diameter hole in each of the 4 corners and then making the cuts between the holes is another good method to minimize damage to LRC I-joist.