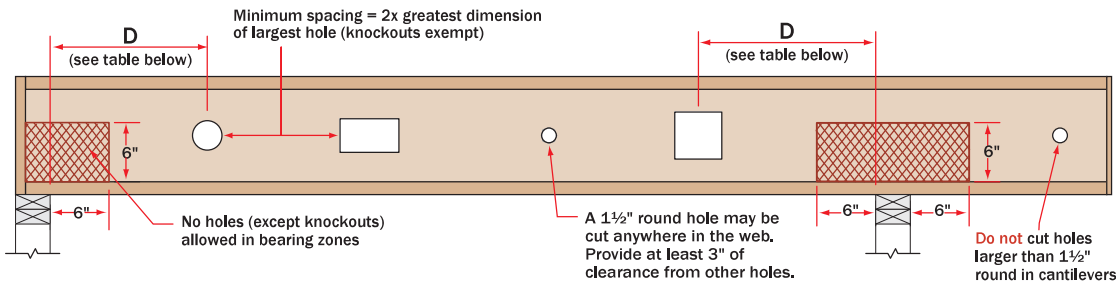
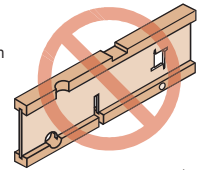


BCI® Joist Hole Location & Sizing

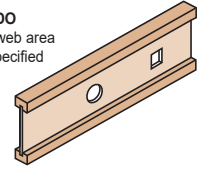
BCI® Joists are manufactured with 1½" round perforated knockouts in the web at approximately 12" on center



DO NOT
cut or notch
flange



DO
cut in web area
as specified



Minimum distance from support, listed in table below, is required for all holes greater than 1½"

MINIMUM DISTANCE (D) FROM ANY SUPPORT TO THE CENTERLINE OF THE HOLE																
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	3	5	7	-	-	-	-	-	-	-	-	
Any 9½" Joist	Span [ft]	8	1'-0"	1'-1"	1'-8"	2'-4"	2'-11"	3'-7"								
		12	1'-0"	1'-7"	2'-7"	3'-6"	4'-5"	5'-4"								
		16	1'-0"	2'-2"	3'-5"	4'-8"	5'-11"	7'-2"								
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	2	3	5	7	8	-	-	-	-	-	-	
Any 11 7/8" Joist	Span [ft]	8	1'-0"	1'-1"	1'-6"	2'-0"	2'-5"	2'-11"	3'-5"	3'-10"						
		12	1'-0"	1'-7"	2'-3"	3'-0"	3'-8"	4'-5"	5'-1"	5'-9"						
		16	1'-2"	2'-1"	3'-0"	4'-0"	4'-11"	5'-10"	6'-10"	7'-8"						
		20	1'-5"	2'-7"	3'-10"	5'-0"	6'-2"	7'-4"	8'-6"	9'-7"						
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	-	2	3	5	6	8	9	-	-	-	-	
Any 14" Joist	Span [ft]	8	1'-0"	1'-1"	1'-2"	1'-2"	1'-6"	1'-11"	2'-4"	2'-9"	3'-3"	3'-8"				
		12	1'-0"	1'-1"	1'-2"	1'-7"	2'-3"	2'-11"	3'-6"	4'-1"	4'-10"	5'-6"				
		16	1'-0"	1'-1"	1'-3"	2'-2"	3'-0"	3'-10"	4'-9"	5'-6"	6'-6"	7'-4"				
		20	1'-0"	1'-1"	1'-7"	2'-8"	3'-9"	4'-10"	5'-11"	6'-10"	8'-1"	9'-2"				
		24	1'-0"	1'-1"	1'-11"	3'-3"	4'-6"	5'-10"	7'-1"	8'-3"	9'-9"	11'-0"				
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	-	-	2	3	5	6	8	9	10	-	-	
Any 16" Joist	Span [ft]	8	1'-0"	1'-1"	1'-2"	1'-2"	1'-3"	1'-3"	1'-7"	1'-11"	2'-4"	2'-9"	3'-2"	3'-7"		
		12	1'-0"	1'-1"	1'-2"	1'-2"	1'-3"	1'-9"	2'-4"	2'-11"	3'-7"	4'-2"	4'-9"	5'-4"		
		16	1'-0"	1'-1"	1'-2"	1'-2"	1'-7"	2'-5"	3'-2"	3'-10"	4'-9"	5'-7"	6'-4"	7'-2"		
		20	1'-0"	1'-1"	1'-2"	1'-2"	2'-0"	3'-0"	4'-0"	4'-10"	5'-11"	6'-11"	7'-11"	8'-11"		
		24	1'-0"	1'-1"	1'-2"	1'-3"	2'-5"	3'-7"	4'-9"	5'-10"	7'-2"	8'-4"	9'-6"	10'-9"		
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	-	-	-	2	3	5	6	7	9	10	11	
18" BCI® 90 2.0 Joist	Span [ft]	12	1'-0"	1'-1"	1'-2"	1'-2"	1'-5"	1'-11"	2'-4"	2'-9"	3'-3"	3'-9"	4'-2"	4'-8"	5'-1"	5'-7"
		16	1'-0"	1'-1"	1'-2"	1'-4"	1'-11"	2'-7"	3'-2"	3'-8"	4'-5"	5'-0"	5'-7"	6'-3"	6'-10"	7'-5"
		20	1'-0"	1'-1"	1'-2"	1'-8"	2'-5"	3'-3"	4'-0"	4'-8"	5'-6"	6'-3"	7'-0"	7'-9"	8'-7"	9'-4"
		24	1'-0"	1'-1"	1'-2"	2'-0"	2'-11"	3'-10"	4'-9"	5'-7"	6'-7"	7'-6"	8'-5"	9'-4"	10'-3"	11'-2"
		28	1'-0"	1'-1"	1'-4"	2'-5"	3'-5"	4'-6"	5'-7"	6'-6"	7'-9"	8'-9"	9'-10"	10'-11"	12'-0"	13'-1"
Round Hole Diameter [in]		2	3	4	5	6	7	8	8 7/8	10	11	12	13	14	15	
Rectangular Hole Side [in]		-	-	-	-	-	-	-	2	3	5	6	7	8	10	
20" BCI® 90 2.0 Joist	Span [ft]	12	1'-0"	1'-1"	1'-2"	1'-2"	1'-3"	1'-6"	1'-11"	2'-3"	2'-9"	3'-2"	3'-7"	3'-11"	4'-4"	4'-9"
		16	1'-0"	1'-1"	1'-2"	1'-2"	1'-6"	2'-1"	2'-7"	3'-1"	3'-8"	4'-3"	4'-9"	5'-3"	5'-10"	6'-4"
		20	1'-0"	1'-1"	1'-2"	1'-3"	1'-11"	2'-7"	3'-3"	3'-10"	4'-7"	5'-3"	5'-11"	6'-7"	7'-4"	8'-0"
		24	1'-0"	1'-1"	1'-2"	1'-6"	2'-4"	3'-1"	3'-11"	4'-7"	5'-6"	6'-4"	7'-2"	7'-11"	8'-9"	9'-7"
		28	1'-0"	1'-1"	1'-2"	1'-9"	2'-8"	3'-8"	4'-7"	5'-5"	6'-6"	7'-5"	8'-4"	9'-3"	10'-3"	11'-2"

- Select a table row based on joist depth and the actual joist span rounded up to the nearest table span. Scan across the row to the column headed by the appropriate round hole diameter or rectangular hole side. Use the longest side of a rectangular hole. The table value is the closest that the centerline of the hole may be to the centerline of the nearest support.
- The entire web may be cut out. **DO NOT** cut the flanges. Holes apply to either single or multiple joists in repetitive member conditions.
- For multiple holes, the amount of uncut web between holes must equal at least twice the diameter (or longest side) of the largest hole.
- 1½" round knockouts in the web may be removed by using a short piece of metal pipe and hammer.
- Holes may be positioned vertically anywhere in the web. The joist may be set with the 1½" knockout holes turned either up or down.
- This table was designed to apply to the design conditions covered by tables elsewhere in this publication. Use the BC CALC® software to check other hole sizes or holes under other design conditions. It may be possible to exceed the limitations of this table by analyzing a specific application with the BC CALC® software.