



NORDIC JOIST™

LIGHT-COMMERCIAL I-JOISTS

9-1/2"

NI-40x

NORDIC JOIST
MADE IN QUEBEC, CANADA
BY CHANTIERE CHIROUQUAU

CCMC 13032-R

APAEWS

MILL 1052

Built for life



Distributed by:



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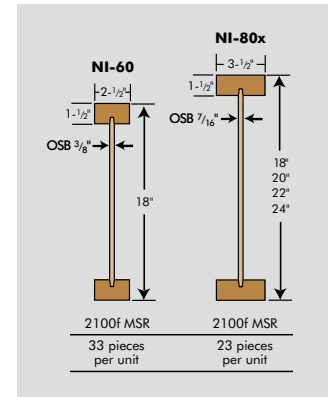
The mark of responsible forestry

NORDIC JOIST™

Chantiers Chibougamau Ltd. harvests its own trees, which enables Nordic products to adhere to strict quality control procedures throughout the manufacturing process. Every phase of the operation, from forest to the finished product, reflects our commitment to quality.

Nordic Engineered Wood I-joists use only finger-jointed black spruce lumber in their flanges, ensuring consistent quality, superior strength, and longer span carrying capacity.

For further technical information, please refer to the *Nordic Joist Construction Guide* or contact your local distributor. Consult the *Installation Guide for Residential Floors* for proper procedures.



DESIGN PROPERTIES FOR NORDIC I-JOISTS (a)(b)

JOIST DEPTH	JOIST SERIES	EI ^(a) (10 ⁶ lbf-in. ²)	M _r ^(d) (lbf-ft)	V _r ^(e) (lbf)	K ^(h) (10 ⁶ lbf)	WEIGHT (lbf)
18"	NI-60	1019	7800	2000	9.36	3.77
	NI-80x	1399	10990	2360	9.36	4.45
20"	NI-80x	1771	12315	2450	10.4	4.75
22"	NI-80x	2191	13645	2530	11.44	5.05
24"	NI-80x	2660	14975	2600	12.48	5.25

END AND INTERMEDIATE REACTION DESIGN VALUES (a)

JOIST DEPTH	JOIST SERIES	I _r (lbf)				E _r (lbf)			
		3-1/2 in.		5-1/2 in.		1-3/4 in.		4 in.	
		wo/BS	w/BS	wo/BS	w/BS	wo/BS	w/BS	wo/BS	w/BS
18"	NI-60	2800	3620	3260	4115	1475	2000	1850	2000
	NI-80x	3115	3820	3280	4420	1300	1900	1850	2360
20"	NI-80x	3190	4120	3410	4575	1320	2045	1900	2450
22"	NI-80x	3265	4425	3535	4730	1340	2195	1950	2530
24"	NI-80x	3340	4725	3665	4885	1360	2340	2000	2600

For SI: 1 inch = 25.4 mm, 1 lbf = 4.448N, 1 lbf-ft = 1.356 N-m, 1 lbf-in² = 0.000287 N-m²

- The tabulated values are design values for normal duration of load. All values, except for EI and K, may be adjusted for other load durations as permitted by the code.
- The vertical (bearing) linear load capacity is 1,850 lbf/ft for 18-inch NI-60, and 1,275 lbf/ft for NI-80x (up to 24 inches) without load or bearing stiffeners.
- Bending stiffness (EI) of the I-joist.
- Moment capacity (M) of the I-joist, which shall not be increased by any code allowed repetitive member use factor.
- Shear capacity (V) of the I-joist with a minimum bearing length of 4 inches.
- Intermediate (I_r) reaction of the I-joist with and without bearing stiffeners (BS). Minimum required bearing lengths as indicated. Interpolation of the intermediate reaction between 3-1/2 and 5-1/2-inch bearing is permitted.
- End (E_r) reaction of the I-joist with and without bearing stiffeners (BS). Minimum required bearing lengths as indicated. Interpolation of the end reaction between 1-3/4 and 4-inch bearing is permitted.
- Coefficient of shear deflection (K). For calculating uniform load and center-point load deflections of the I-joist in a simple-span application, use Eqs. 1 and 2.

$$\text{Uniform Load: } \delta = \frac{5\omega\ell^4}{384EI} + \frac{\omega\ell^2}{K} \quad (1)$$

$$\text{Center-Point Load: } \delta = \frac{P\ell^3}{48EI} + \frac{2P\ell}{K} \quad (2)$$

Where: δ = calculated deflection (in.)
 ω = uniform load (lbf/in.)
 ℓ = design span (in.)
 P = concentrated load (lbf)
 EI = bending stiffness of the I-joist (lbf-in.²)
 K = coefficient of shear deflection (lbf)

ALLOWABLE FLOOR SPANS



ALLOWABLE FLOOR SPANS

Live Load = 40 psf, Dead Load = 15 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	31'-0"	28'-3"	26'-6"	23'-8"	33'-6"	28'-11"	26'-5"	23'-7"
	NI-80x	34'-0"	31'-0"	29'-2"	27'-2"	37'-1"	33'-9"	31'-5"	28'-1"
20"	NI-80x	36'-10"	33'-6"	31'-7"	29'-5"	40'-2"	36'-5"	33'-3"	29'-9"
22"	NI-80x	39'-6"	36'-0"	33'-11"	31'-4"	43'-1"	38'-4"	35'-0"	31'-3"
24"	NI-80x	42'-2"	38'-5"	36'-2"	32'-10"	46'-0"	40'-2"	36'-8"	32'-9"

ALLOWABLE FLOOR SPANS

Live Load = 40 psf, Dead Load = 25 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	30'-10"	26'-8"	24'-4"	21'-9"	30'-9"	26'-7"	24'-3"	21'-8"
	NI-80x	34'-0"	31'-0"	28'-11"	25'-10"	36'-7"	31'-8"	28'-10"	25'-9"
20"	NI-80x	36'-10"	33'-6"	30'-8"	27'-5"	38'-9"	33'-6"	30'-7"	27'-4"
22"	NI-80x	39'-6"	35'-4"	32'-3"	28'-10"	40'-9"	35'-3"	32'-2"	28'-9"
24"	NI-80x	42'-2"	37'-0"	33'-10"	30'-3"	42'-9"	37'-0"	33'-9"	29'-10"

ALLOWABLE FLOOR SPANS

Live Load = 40 psf, Dead Load = 35 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	28'-8"	24'-10"	22'-8"	20'-3"	28'-8"	24'-9"	22'-7"	20'-2"
	NI-80x	34'-0"	29'-6"	26'-11"	24'-1"	34'-0"	29'-5"	26'-10"	23'-4"
20"	NI-80x	36'-1"	31'-3"	28'-6"	25'-6"	36'-0"	31'-2"	28'-5"	24'-2"
22"	NI-80x	38'-0"	32'-11"	30'-0"	26'-10"	37'-11"	32'-10"	29'-11"	25'-0"
24"	NI-80x	39'-10"	34'-6"	31'-5"	28'-1"	39'-9"	34'-5"	31'-5"	25'-10"

NOTES:

1. Allowable clear span applicable to residential floor construction with a design live load of 40 psf and dead load as shown. The live load deflection is limited to L/480, and the total load deflection to L/240. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
2. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32 inch (40/20 or 20 oc) for a joist spacing of 19.2 inches or less, or 23/32 inch (48/24 or 24 oc) for a joist spacing of 24 inches. Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate bearings except for shaded areas which shall be 3-1/2 inches for the end bearings, and 5-1/2 inches for the intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacing given in these tables, except for underlined characters and as required for hangers.
5. These span charts are based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties.
6. The allowable spans have not been verified for concentrated loads, as it may be required for specific occupancies or uses. Refer to 2009 International Building Code, Table 1607.1.

ALLOWABLE FLOOR SPANS

Live Load = 50 psf, Dead Load = 15 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	28'-8"	26'-1"	24'-4"	21'-9"	30'-9"	26'-7"	24'-3"	21'-8"
	NI-80x	31'-5"	28'-7"	26'-11"	25'-1"	34'-3"	31'-2"	28'-10"	25'-9"
20"	NI-80x	34'-0"	31'-0"	29'-2"	27'-1"	37'-1"	33'-6"	30'-7"	27'-4"
22"	NI-80x	36'-7"	33'-3"	31'-4"	28'-10"	39'-10"	35'-3"	32'-2"	28'-9"
24"	NI-80x	39'-0"	35'-6"	33'-5"	30'-3"	42'-6"	37'-0"	33'-9"	29'-10"

ALLOWABLE FLOOR SPANS

Live Load = 50 psf, Dead Load = 25 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	28'-8"	24'-10"	22'-8"	20'-3"	28'-8"	24'-9"	22'-7"	20'-2"
	NI-80x	31'-5"	28'-7"	26'-11"	24'-1"	34'-0"	29'-5"	26'-10"	23'-4"
20"	NI-80x	34'-0"	31'-0"	28'-6"	25'-6"	36'-0"	31'-2"	28'-5"	24'-2"
22"	NI-80x	36'-7"	32'-11"	30'-0"	26'-10"	37'-11"	32'-10"	29'-11"	25'-0"
24"	NI-80x	39'-0"	34'-6"	31'-5"	28'-1"	39'-9"	34'-5"	31'-5"	25'-10"

ALLOWABLE FLOOR SPANS

Live Load = 50 psf, Dead Load = 35 psf

JOIST DEPTH	JOIST SERIES	SIMPLE SPANS				MULTIPLE SPANS			
		ON CENTER SPACING				ON CENTER SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
18"	NI-60	26'-11"	23'-4"	21'-3"	19'-0"	26'-11"	23'-3"	21'-2"	18'-7"
	NI-80x	31'-5"	27'-8"	25'-3"	22'-2"	31'-11"	27'-8"	25'-2"	20'-7"
20"	NI-80x	33'-11"	29'-4"	26'-9"	23'-11"	33'-10"	29'-3"	26'-8"	21'-4"
22"	NI-80x	35'-8"	30'-11"	28'-2"	25'-2"	35'-7"	30'-10"	27'-7"	22'-0"
24"	NI-80x	37'-5"	32'-4"	29'-6"	26'-5"	37'-4"	32'-4"	28'-6"	22'-9"

NOTES:

1. Allowable clear span applicable to residential and light-commercial floor construction with a design live load of 50 psf and dead load as shown. The live load deflection is limited to L/480, and the total load deflection to L/240. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
2. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32 inch (40/20 or 20 oc) for a joist spacing of 19.2 inches or less, or 23/32 inch (48/24 or 24 oc) for a joist spacing of 24 inches. Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate bearings except for shaded areas which shall be 3-1/2 inches for the end bearings, and 5-1/2 inches for the intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacing given in these tables, except for underlined characters and as required for hangers.
5. These span charts are based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties.
6. The allowable spans have not been verified for concentrated loads, as it may be required for specific occupancies or uses. Refer to 2009 International Building Code, Table 1607.1.

ALLOWABLE ROOF SPANS



ALLOWABLE ROOF SPANS

Live Load = 30 psf, Dead Load = 20 psf

JOIST DEPTH	JOIST SERIES	SLOPE OF 1/4:12 TO 4:12			SLOPE OF >4:12 TO 8:12			SLOPE OF >8:12 TO 12:12		
		ON CENTER SPACING			ON CENTER SPACING			ON CENTER SPACING		
		12"	16"	24"	12"	16"	24"	12"	16"	24"
18"	NI-60	34'-0"	30'-10"	26'-3"	32'-0"	29'-0"	25'-2"	29'-7"	26'-10"	23'-4"
	NI-80x	37'-9"	34'-2"	29'-8"	35'-7"	32'-2"	27'-11"	32'-11"	29'-9"	25'-10"
20"	NI-80x	40'-11"	37'-0"	<u>32'-1"</u>	38'-6"	34'-10"	30'-3"	35'-7"	32'-3"	28'-0"
22"	NI-80x	43'-11"	39'-9"	<u>34'-6"</u>	41'-4"	37'-5"	32'-6"	38'-3"	34'-8"	30'-1"
24"	NI-80x	46'-11"	42'-6"	<u>36'-6"</u>	44'-2"	40'-0"	<u>34'-9"</u>	40'-10"	37'-0"	32'-2"

ALLOWABLE ROOF SPANS

Live Load = 40 psf, Dead Load = 20 psf

JOIST DEPTH	JOIST SERIES	SLOPE OF 1/4:12 TO 4:12			SLOPE OF >4:12 TO 8:12			SLOPE OF >8:12 TO 12:12		
		ON CENTER SPACING			ON CENTER SPACING			ON CENTER SPACING		
		12"	16"	24"	12"	16"	24"	12"	16"	24"
18"	NI-60	32'-0"	28'-11"	24'-0"	30'-2"	27'-4"	23'-5"	28'-0"	25'-5"	22'-1"
	NI-80x	35'-6"	32'-1"	<u>27'-10"</u>	33'-6"	30'-4"	26'-4"	31'-2"	28'-2"	24'-6"
20"	NI-80x	38'-5"	34'-9"	<u>30'-2"</u>	36'-4"	32'-10"	<u>28'-6"</u>	33'-9"	30'-6"	26'-6"
22"	NI-80x	41'-4"	37'-4"	<u>31'-10"</u>	39'-0"	35'-4"	<u>30'-8"</u>	36'-3"	32'-10"	28'-6"
24"	NI-80x	44'-1"	39'-11"	<u>33'-4"</u>	41'-8"	37'-8"	<u>32'-7"</u>	38'-8"	35'-0"	30'-5"

ALLOWABLE ROOF SPANS

Live Load = 50 psf, Dead Load = 20 psf

JOIST DEPTH	JOIST SERIES	SLOPE OF 1/4:12 TO 4:12			SLOPE OF >4:12 TO 8:12			SLOPE OF >8:12 TO 12:12		
		ON CENTER SPACING			ON CENTER SPACING			ON CENTER SPACING		
		12"	16"	24"	12"	16"	24"	12"	16"	24"
18"	NI-60	29'-9"	26'-11"	22'-3"	28'-7"	25'-10"	21'-9"	26'-9"	24'-2"	21'-0"
	NI-80x	33'-1"	29'-10"	<u>25'-10"</u>	31'-9"	28'-8"	<u>24'-10"</u>	29'-8"	26'-11"	23'-4"
20"	NI-80x	35'-10"	32'-4"	<u>28'-0"</u>	34'-4"	31'-1"	<u>26'-11"</u>	32'-2"	29'-1"	25'-3"
22"	NI-80x	38'-6"	34'-9"	<u>29'-6"</u>	36'-11"	33'-5"	<u>28'-10"</u>	34'-7"	31'-3"	27'-2"
24"	NI-80x	41'-1"	<u>37'-2"</u>	<u>30'-11"</u>	39'-5"	35'-8"	<u>30'-3"</u>	36'-11"	33'-5"	<u>29'-0"</u>

NOTES:

1. Allowable clear span applicable to simple-span roof construction with a design roof snow load as shown and dead load of 20 psf. The allowable span is based on the horizontal distance between inside face of supports. The snow load deflection is limited to L/360 and the total load deflection to L/240. Spans are based on a duration of load (DOL) factor of 1.15.
2. Spans include a cantilever of up to 2 feet on one end of the I-joist.
3. Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches on end bearing adjacent to cantilever.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacing given in these tables, except for underlined characters and as required for hangers.
5. These span charts are based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties.

BONUS ROOM FLOOR JOIST SELECTION GUIDE

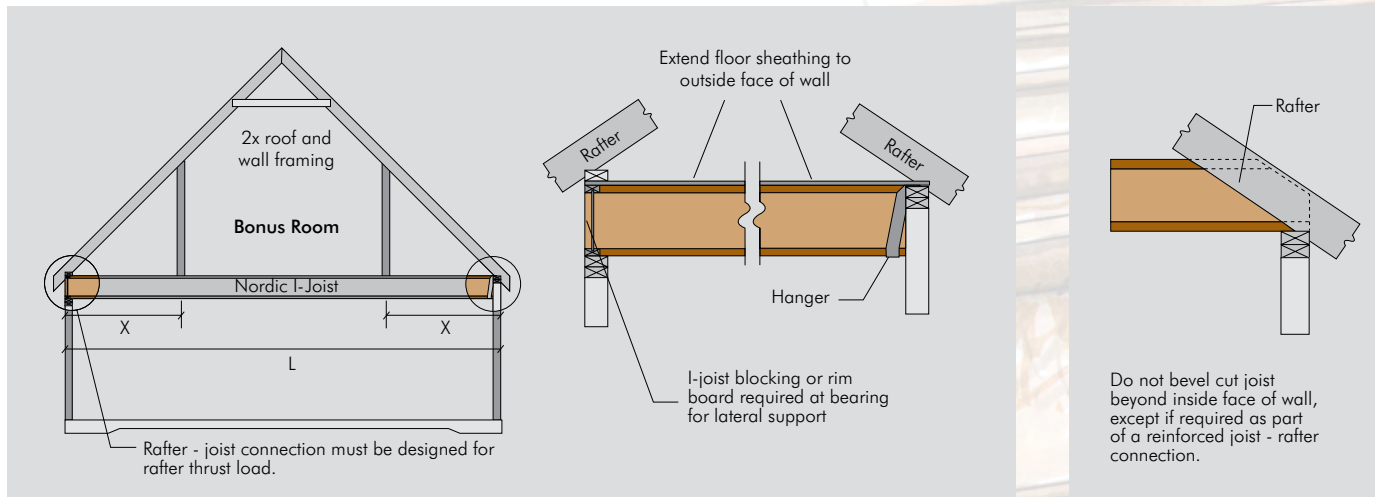


JOIST SELECTION FOR BONUS ROOM

KNEEWALL LOCATION X (ft)	I-JOIST SPAN L (ft)	ROOF LOADING							
		SNOW LOAD = 30 psf, DEAD LOAD = 15 psf				SNOW LOAD = 40 psf, DEAD LOAD = 15 psf			
		ON CENTER SPACING							
		12	16	19.2	24	12	16	19.2	24
4 or less	28	18" NI 60	18" NI 80x	18" NI 80x	22" NI 80x	18" NI 60	18" NI 80x	18" NI 80x	22" NI 80x *
	30	18" NI 60	18" NI 80x	20" NI 80x	24" NI 80x	18" NI 60	18" NI 80x	20" NI 80x	--
	32	18" NI 80x	20" NI 80x	22" NI 80x	--	18" NI 80x	20" NI 80x	22" NI 80x	--
	34	18" NI 80x	22" NI 80x	24" NI 80x	--	20" NI 80x	22" NI 80x	24" NI 80x *	--
	36	20" NI 80x	22" NI 80x	--	--	20" NI 80x	24" NI 80x	--	--
6 or less	28	18" NI 60	18" NI 80x	18" NI 80x	22" NI 80x	18" NI 60	18" NI 80x	20" NI 80x	22" NI 80x *
	30	18" NI 60	18" NI 80x	20" NI 80x	24" NI 80x	18" NI 80x	20" NI 80x	22" NI 80x	24" NI 80x *
	32	18" NI 80x	20" NI 80x	22" NI 80x	--	18" NI 80x	22" NI 80x	22" NI 80x	--
	34	20" NI 80x	22" NI 80x	--	--	20" NI 80x	22" NI 80x	--	--
	36	20" NI 80x	24" NI 80x	--	--	22" NI 80x	24" NI 80x	--	--

NOTES:

1. Roof design loads: Snow load as shown; roof dead load 15 psf. The design is based on a duration of load (DOL) factor of 1.15.
2. Floor design loads: Dead load of floor 10 psf; dead load of kneewall 40 plf; live load between kneewalls 40 psf; attic load behind kneewalls 20 psf.
3. Roof slope assumed to be between 8/12 and 12/12.
4. The live load deflection is limited to L/480, and the total load deflection to L/240 or 3/4 inch, whichever is worst.
5. Minimum bearing length shall be 3-1/2 inches for the end bearings. Bearing stiffeners are required for I-joists noted in **italic bold**.
6. Asterisk *: Load web stiffeners are required underneath kneewalls.
7. Straight gable roof framing. Hip roofs are outside the scope of this table.
8. For sizing with other dimensions and loads contact your local distributor.



WEB STIFFENER REQUIREMENTS

RECOMMENDATIONS:

1. A **bearing stiffener** is required in all engineered applications with reactions greater than shown in the I-joist properties table on page 2. The gap between the stiffener and the flange is at the top.
2. A **bearing stiffener** is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.

3. A **load stiffener** is required at locations where a concentrated load greater than 1,500 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever tip and the support. These values are for normal duration of load, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

WEB STIFFENERS INSTALLATION DETAILS

STIFFENER SIZE REQUIREMENTS

Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

See table beside for web stiffener size requirements

RIM BOARD

DESIGN PROPERTIES FOR RIM BOARDS ^(a)

PRODUCT	H ^(b) (lb/ft)	V ^(c) (lb/ft)	Z ^(d) (lb/ft)	P ^(e) (lb/ft)	WEIGHT (pcf)
1-1/8" Rim Board Plus	200	3,200	350	3,500	35.6

- These design values are applicable only to rim board applications in compliance with the connection requirements given in the *Nordic Joist Design/Construction Guide* and should not be used in the design of a bending member, such as joist, header, rafter, or ledger. The design values are applicable to the normal load duration (10 years) for wood products, except for the horizontal load transfer capacity which is based on the short-term load duration (10 minutes). All values may be adjusted for other load durations in accordance with the applicable code.
- The horizontal (shear) load transfer capacity (H).
- The bearing (vertical) load capacity (V).
- The lateral resistance of a 1/2-inch-diameter lag screw (Z).
- The concentrated load capacity (P). The maximum concentrated load acting along any area of the floor sheathing above the rim board from 3" to 12" in length. The bearing load must be simultaneously satisfied along with the concentrated load capacity.

WEB HOLE SPECIFICATIONS

HOLE SIZES AND LOCATIONS — Simple or Multiple Span

JOIST DEPTH	JOIST SERIES	MINIMUM DISTANCE FROM INSIDE FACE OF ANY SUPPORT TO CENTER OF HOLE (ft.-in.)														
		ROUND HOLE DIAMETER (in.)														
		2	4	6	8	10	12	14	14-3/4	16	16-3/4	18	18-3/4	20	20-3/4	22
18"	NI-60	0'-10"	2'-5"	4'-0"	5'-6"	7'-4"	10'-0"	14'-6"	16'-8"	--	--	--	--	--	--	--
	NI-80x	0'-9"	2'-6"	4'-4"	6'-3"	8'-9"	12'-0"	16'-0"	18'-0"	--	--	--	--	--	--	--
20"	NI-80x	0'-8"	2'-3"	4'-0"	5'-10"	8'-0"	10'-9"	14'-3"	15'-10"	18'-9"	20'-10"	--	--	--	--	--
22"	NI-80x	0'-7"	2'-0"	3'-6"	5'-6"	7'-8"	10'-0"	12'-8"	14'-0"	16'-5"	18'-0"	21'-5"	23'-9"	--	--	--
24"	NI-80x	0'-7"	1'-10"	3'-6"	5'-5"	7'-5"	9'-5"	11'-9"	12'-9"	14'-9"	16'-2"	19'-0"	21'-0"	24'-5"	26'-8"	--

DUCT CHASE OPENING SIZES AND LOCATIONS — Simple Span Only

JOIST DEPTH	JOIST SERIES	MINIMUM DISTANCE FROM INSIDE FACE OF ANY SUPPORT TO CENTER OF OPENING (ft.-in.)									
		DUCT CHASE LENGTH (in.)									
		8	10	12	14	16	18	20	22	24	
18"	NI-60	11'-6"	12'-1"	12'-6"	13'-1"	13'-10"	14'-6"	15'-2"	16'-0"	16'-8"	
	NI-80x	13'-1"	13'-7"	14'-0"	14'-6"	15'-1"	15'-6"	16'-1"	16'-7"	17'-0"	
20"	NI-80x	14'-3"	14'-9"	15'-3"	15'-9"	16'-2"	16'-9"	17'-3"	17'-9"	18'-4"	
22"	NI-80x	15'-4"	16'-0"	16'-4"	17'-0"	17'-5"	18'-0"	18'-6"	19'-3"	20'-0"	
24"	NI-80x	16'-6"	17'-1"	17'-5"	18'-1"	18'-8"	19'-6"	20'-2"	21'-1"	21'-9"	

NOTES:

- Above tables may be used for I-joist spacing of 24 inches on center or less.
- Hole and duct chase opening location distances are measured from inside face of supports to center of hole or opening.
- For continuous joists with more than one span, use the longest span to determine hole location in either span.
- Distances are based on uniformly loaded floor joists that meet the span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. For other applications, contact your local distributor.
- The maximum size hole or the maximum depth of a duct chase opening that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch (maintain a minimum of 1/8 inch between the top or bottom of the hole or opening and the adjacent I-joist flange).
- The duct chase opening table is based on simple-span joists only. For other applications, contact your local distributor.
- The above tables are based on the I-joists being used at their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.

FIELD-CUT HOLE LOCATOR

Knockouts are prescored holes provided for the contractor's convenience to install electrical or small plumbing lines. They are 1-1/2 inches in diameter, and are spaced 15 inches on center along the length of the I-joist. Where possible, it is preferable to use knockouts instead of field-cut holes.

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-inch diameter hole in each of the four corners and then making the cuts between the holes is another good method to minimize damage to the I-joist.



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