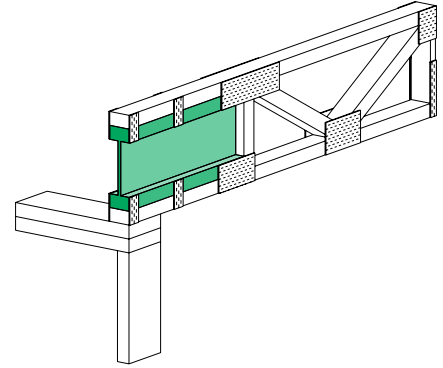


Nordic Joist Inserts

This technical note provides the design properties for I-joist inserts for use in floor or roof trusses.

This technical note is based on the following assumptions:

1. Inserts used on exterior bearings.
2. Inserts with a maximum length of 16 inches.
3. Connection detail with common nails or truss plates by others.



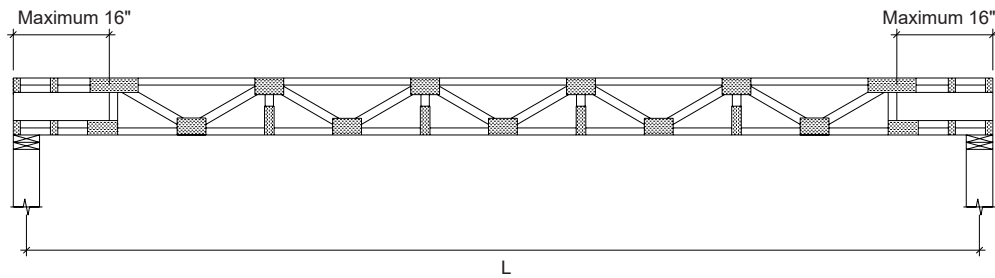
Design Properties for Nordic Joist Inserts

Depth (in.)	Series	$V_r^{(a)}$ (lbf)	$VLC_r^{(b)}$ (lbf/ft)	1 3/4" Bearing		Weight (plf)
				$ER_r^{(c)}$ (lbf)	$ER_r^{(c)}$ (lbf) w/ BS	
8-7/8	NI-40x	1 660	3 300	1 640	1 640	2.51
	NI-80	1 660	3 300	1 660	1 660	3.15
11	NI-40x	2 180	3 300	1 955	2 180	2.79
	NI-80	2 180	3 300	2 070	2 180	3.37
13	NI-40x	2 545	3 300	2 050	2 515	2.93
	NI-80	2 545	3 300	2 220	2 515	3.61

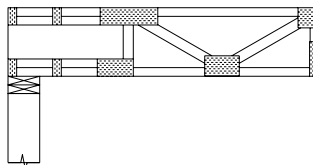
- a) Factored shear resistance, V_r , of the I-joist.
- b) Factored vertical (bearing) linear load resistance, VLC_r , of the I-joist.
- c) Factored end reaction resistance, ER_r , of the I-joist with and without bearing stiffeners (BS).

Notes:

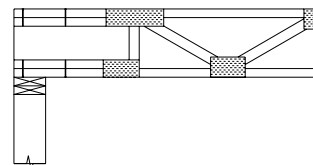
1. The tabulated values are design values for the standard-term duration of load ($K_D = 1.0$). All values may be adjusted for other load durations as permitted by the code.
2. The factored vertical (bearing) linear load resistance is 3 300 lbf/ft without load or bearing stiffeners.



Elevation view of a simple span joist with inserts



Connection with truss plates (by others)



Connection with common nails (by others)