VENT HOLES FOR PKI® ROOF JOIST

Vents shall comply with CAN3-A93-M "Natural Airflow Ventilator for Buildings".
Adequate ventilation can reduce the risk of severe condensation, ice dams' formation, and extreme heat build-up during the summer months.
This document outlines the special design and hole installation procedures that are required when vent holes are drilled into the webs of PKI® Roof Joists to address ventilation requirements.
The professional of record shall verify if the information outlined in this document meets the applicable building code requirement for roof space ventilation.

Design Procedure:

The 1-1/2" diameter vent holes drilled into the webs of PKI® Roof Joists will reduce the shear capacity of the member. To design the vented roof joists, run the iStruct® CSD's software and design the roof joist member without the vent holes based on the span and loading conditions of the specific application. The factored shear resistance shown in the Analysis Results should be adjusted as follows:

I-Joist Property	I-Joist Depth (in)	Adjustment Factor
Factored Shear Resistance for PKI® Roof Joists	9.5"	0.84
	11.875"	0.87
	14"	0.89
	16"	0.91

Vent Holes Notes:

- Vent holes shall be located along the top of the member as shown in the following figure.
- Vent holes are only valid for partial uniform or uniform loading conditions.
- A minimum distance of 6" from the inside edge of supports is required.