Standing Seam Roof "**pinning**" Floating Roof System

As most of you know, the new Energy Codes are requiring more comprehensive insulation systems in new metal buildings. A new issue that has risen is at the eave struts of metal buildings when using Standing Seam Roof Panels. Many entities are requiring a Thermal Break over the top of the eave strut and under the roof sheet.

The SNS Thermal Block is designed to solve that problem. Included with this mailing are details showing how it can be used. Detail 1 shows the typical methods used to date which in many areas will no longer be allowed. Detail 2 is typical when using the SNS Thermal Block over the eave strut with a low eave plate. A high panel clip and a low eave plate would be required to compensate for the 1" Thermal Block thickness. Detail 3 is typical when using the complete SNS Thermal Block and Continuous Insulation System. Low Profile Clips along with a low eave plate are to be used in that condition.

The following values can be used to resist accumulated forces when "pinning" the floating roof system at the eave.

Shear Testing performed per ASTM C273 results in an average Shear Force Resistance of 174.93 per lineal inch of the SNS Thermal Block.
Allowable fastener shear to the SNS Thermal Block per AISI Table E3.3.1-1 Bearing Factor is to be used when calculating the Fastener Shear. Typical Calcs for #12 Fasteners would be:
$Pn = Cm_f dtF_u$
$\Omega = 2.5$
Actual #12 Fastener Dia. at Shank = .16
Formula:

$$\frac{3 \times .75 \times 67 \times .024 \times .16}{2.5} = 0.2316 \text{ k} = 231 \text{ lbs. shear per fastener}$$

Note: #14 fasteners would increase allowable shear loads. Simply adjust the fastener diameter in the formula for correct values.