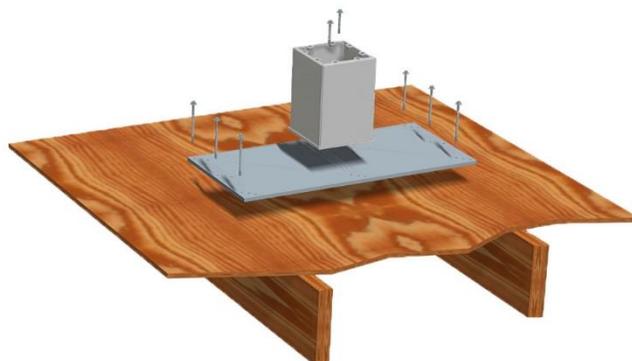


Spanner Plate

Description:

RoofScreen™ Base Supports typically induce high loads into a roof structure and require 3/8" thick lag screws for attachment to wood members. 3/8" lags are too large for 2X wood joists, trusses or TJI's because they will cause the wood to split.

Spanner Plates allow attachment of RoofScreen Base Supports to most 2X wood framed roof structures by spreading out the load over 2 or more joists, and using small diameter wood screws for the attachment.



Materials:

- Plate: Steel, ASTM A36 or A572
- Size: 18" to fit 16" O.C. joist spacing, and 26" to fit 24" O.C. spacing.
- Thickness and Width: Varies based on engineering calculations (typically 6" to 8" wide and 3/8" to 1/2" thick)
- Finish: Shop primer
- Fasteners (plate to deck): Determined by engineering calculations (typically #14 x 5" wood screws).
- Fasteners (Base Support to plate): #14 x 1 1/4 self-drilling Tek5 screws, up to (4) per Base Support.

Application:

Spanner plates are useful on wood framed commercial roofs when RoofScreen Base Supports need to be attached to 2X wood members.

Capacity:

Since Spanner Plates are simply flat steel plates, they are not inherently strong and are vulnerable to bending when put under significant uplift or downward loads. Also, the farther they span, the weaker they become. The capacity needs to be analyzed on a project basis by engineering calculations. If there is no rooftop insulation, the plate must remain relatively flat to allow the roof to drain properly, so the only way to strengthen the plate is by making it thicker. If there is rooftop insulation, the plate can be formed into a hat shape to gain considerable strength. The hat shape should be no higher than the thickness of the insulation for proper waterproofing.

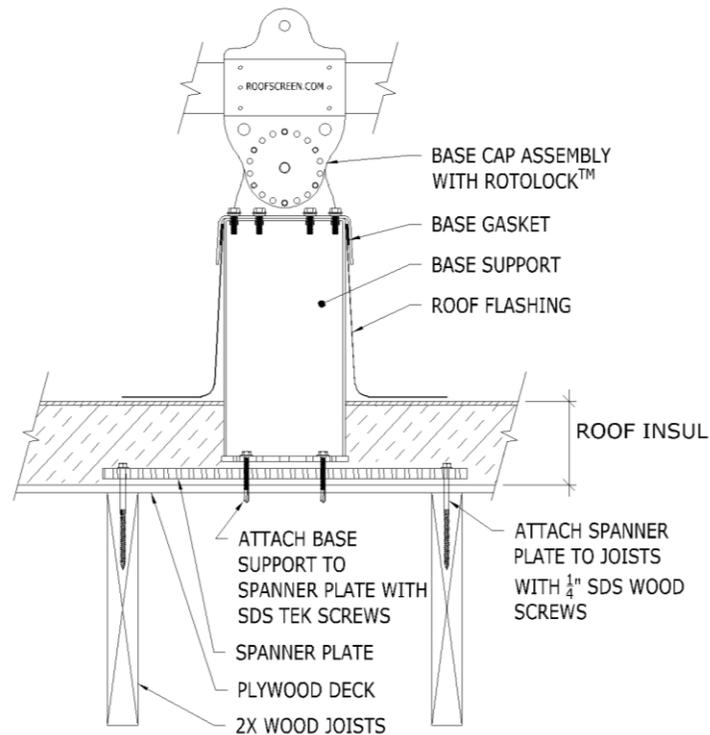
Spanner Plate
Updated 12.15.16

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Installation:

The Spanner Plate is positioned perpendicular to the wood joists and fastened with wood screws. The screws must be centered on the wood joist to prevent splitting. If there is any rooftop insulation, it must be removed to allow the Spanner Plate to mount directly to the roof decking. The Base Support may be mounted anywhere on the spanner plate, and attaches with up to (4) self-drilling Tek Screws.



Warranty:

When RoofScreen provides project design and engineering calculations, a 20-year limited warranty is included.