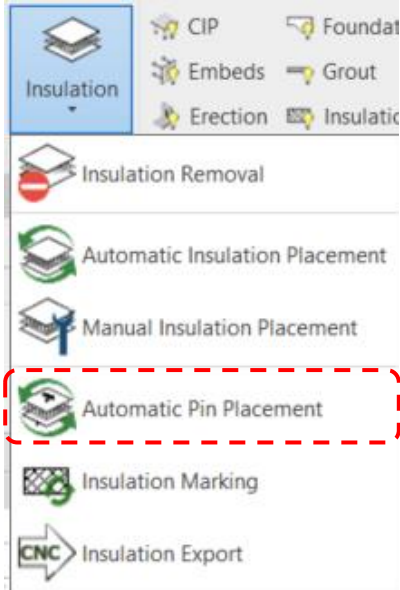


Insulation Tools: Automatic Pin Placement



Programmed Result of Tool:

The Automatic Pin Placement tool will automatically place pins within the selected sheets of insulation. The placement of each pin is based on user defined spacing.

Steps to Perform Tool Operation:

1. Select the Automatic Pin Placement tool under the Insulation drop-down.
2. Select the scope of insulation to be processed: whole model, active view, or selected elements.
3. If prompted, choose the pin family type to be placed for each insulation family type being processed.
4. For composite pins, choose whether they should be placed vertically or horizontally in relation to the wall panel.

Building your Pin Families to be Compatible with this Tool:

- The family must belong to either the Specialty Equipment or Generic Models category.
- The MANUFACTURE_COMPONENT parameter value must contain "PIN".
- The following shared parameters should be added and assigned a value:
PIN_START_X, PIN_START_Y, PIN_HORIZ_SPACING, PIN_VERT_SPACING, PIN_END_BUFFER_X, PIN_END_BUFFER_Y
 - If these parameters do not exist or are not assigned a value then the following default values will be used for each: PIN_START_X = PIN_START_Y = PIN_END_BUFFER_X
PIN_END_BUFFER_Y = 4", PIN_HORIZ_SPACING = PIN_VERT_SPACING = 16"
 - The following defines how each of these parameters are utilized by the Automatic Pin Placement tool:
 - PIN_START_X – starting from the lower-left corner of the insulation sheet, this is the distance from the left edge that the first pin will be placed
 - PIN_START_Y – starting from the lower-left corner of the insulation sheet, this is the distance from the bottom edge that the first pin will be placed
 - PIN_HORIZ_SPACING – this is the spacing between pins in the horizontal direction
 - PIN_VERT_SPACING – this is the spacing between pins in the vertical direction
 - PIN_END_BUFFER_X – once the pins have been placed in the horizontal direction using the PIN_START_X and PIN_HORIZ_SPACING values, this is the minimum distance that must exist between the right edge of the insulation sheet and the last pin placed
 - PIN_END_BUFFER_Y – once the pins have been placed in the vertical direction using the PIN_START_Y and PIN_VERT_SPACING values, this is the minimum distance that must exist between the top edge of the insulation sheet and the last pin placed
- Pins will only be cut from the insulation when placed by the tool if the pin family has a void family nested into it.
- If the MANUFACTURE_COMPONENT value contains "COMPOSITE", then the user will be prompted during the Automatic Pin Placement command on whether the pins should be placed vertically or horizontally.
 - This should be built into pin families that are slot-shaped as opposed to cylindrical.

Insulation Tools: Automatic Pin Placement

Building your Insulation Families to be Compatible with this Tool:

- The insulation family must belong to either the Specialty Equipment or Generic Models category.
- In order for Automatic Pin Placement to consider an insulation family eligible for processing, its MANUFACTURE_COMPONENT parameter value must contain both “EDGE” and “INSULATION”.
- If you want to assign a specific pin family type to always be placed for a specific type of insulation, then build the following shared parameters into your insulation family:
PIN_FAMILY, PIN_TYPE.
 - PIN_FAMILY – for the parameter value, you will need to assign the name of the pin family that you want to be placed for this insulation type
 - PIN_TYPE – for the parameter value, you will need to assign the family type name of the pin type that you want to be placed for this insulation type
- If the PIN_FAMILY and/or PIN_TYPE parameters do not exist or do not have a value assigned to them, then you will have to choose what pin family type should be placed for each insulation family type every time you run the Automatic Pin Placement tool.

Known Limitations:

- Insulation must be hosted to the correct wall panel for pins to be placed correctly.
 - If insulation is not hosted, run the BOM Product Hosting tool to host it to the appropriate wall panel.
- Insulation that is placed at a skew within a wall panel may not get pins placed in the expected layout.