

# Design On Demand Case Study:

Alcoil - High Performance Heat  
Exchangers



# ALCOIL - High Performance Aluminum Heat Exchangers

## The Challenge:

Alcoil manufactures highly customizable, single and multi-core aluminum heat exchangers for industrial use. For every heat exchanger Alcoil sells, accurate 2D drawings and 3D models are provided to their customers. With a near infinite number of heat exchanger configurations due to their flexible manufacturing system, Alcoil needed help generating this engineering information with the “same day” turnaround their customers expect.

## The Solution:

Alcoil has partnered with DesignPoint to generate all of Alcoil's SOLIDWORKS outputs and to manage their entire library of CAD files. This allows Alcoil to focus on the value-added aspect of their engineering and design, while DesignPoint's expert SOLIDWORKS users crank out 3D models and 2D drawings.

Using SOLIDWORKS, a flexible design template was developed by DesignPoint to automate the heat exchanger design using layout unique inputs. All available fittings and mounting brackets were standardized into simple assembly files to ease customization of the heat exchanger assemblies. Mate references were also added to brackets and fittings so any manual modeling is simplified to dragging and dropping standard components that snap only to the available locations for those respective components.

## The Results:

- Design automation developed by DesignPoint reduces design labor for custom heat exchanger drawings by 50%, saving Alcoil money and improving turnaround on every product drawing.
- Alcoil customers receive accurate 3D models of their custom heat exchangers to use in their system design sooner and with less effort compared to Alcoil's competitors.

