

AFT Fathom Brings New Business to Dry Coolers, Inc.

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Dry Coolers, Inc. is a supplier and manufacturer of industrial cooling systems. They have fourteen employees who work out of their office in Lake Orion, Michigan.

Dry Coolers is a hands-on engineering firm with a track record of successfully designing and building a wide range of industrial systems. For ten years they have designed fluid systems using traditional engineering methods such as hand calculations and spreadsheets. With the projects growing in number and complexity, it became clear to Dry Coolers they could improve responsiveness to customers if they could find a software product that would

allow them to quickly assemble models of both simple and complex (parallel) flow systems.

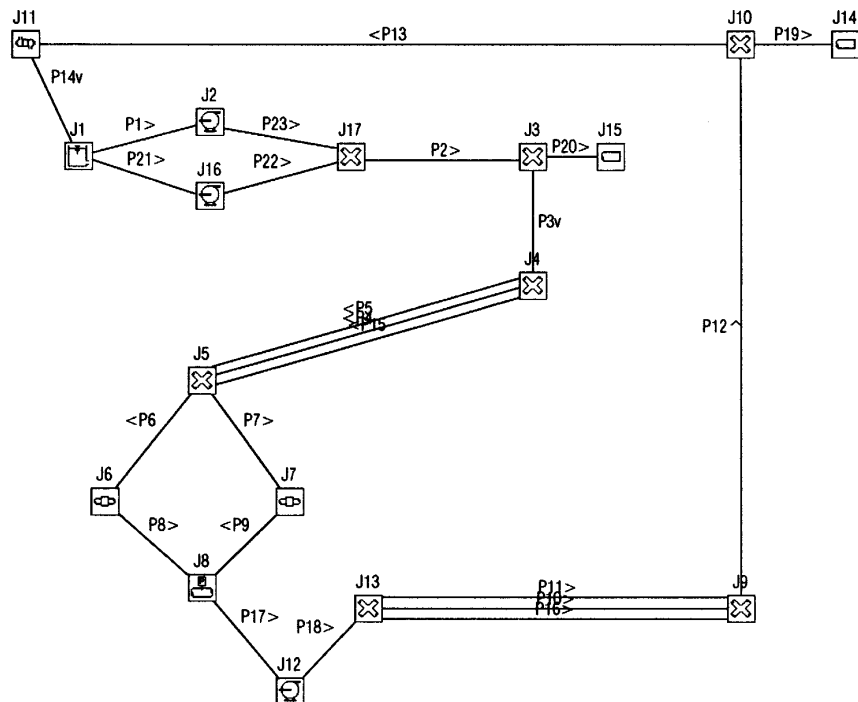
Matt Reed, a Senior Process Engineer at Dry Coolers, selected AFT Fathom to fill this requirement because of its straightforward graphical interface. AFT Fathom quickly proved itself on a number of projects and Matt reported that AFT Fathom paid for itself in short order. "We have owned AFT Fathom for only two months and it has already more than paid for itself. People say that nothing can replace good engineering judgment. . . While this is true, having a printout of an AFT Fathom model in front of a customer allows us to more effectively communicate our design ideas and to make sales."

Matt told us that Dry Coolers has applied AFT Fathom on a variety of projects. "In the two months that we have had AFT Fathom we have modeled industrial cooling sys-

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Plant Cooling Water System

Two pumps in parallel (J2 & J16) circulate water through main supply line P2 and return line P13. Two vacuum furnaces (J6 & J7) were branched off of the main circuit. A booster pump (J12) was considered to improve flow through the branch loop and to reduce pressures within the furnace shell. **Solution time: 4 sec. on 486 40MHz.** Image printed by AFT Fathom 2.0. Modeled by Dry Coolers, Inc.



For more information on AFT Fathom, contact Applied Flow Technology at (800) 589-4943 or (719) 686-1000 or fax us at (719) 686-1001.

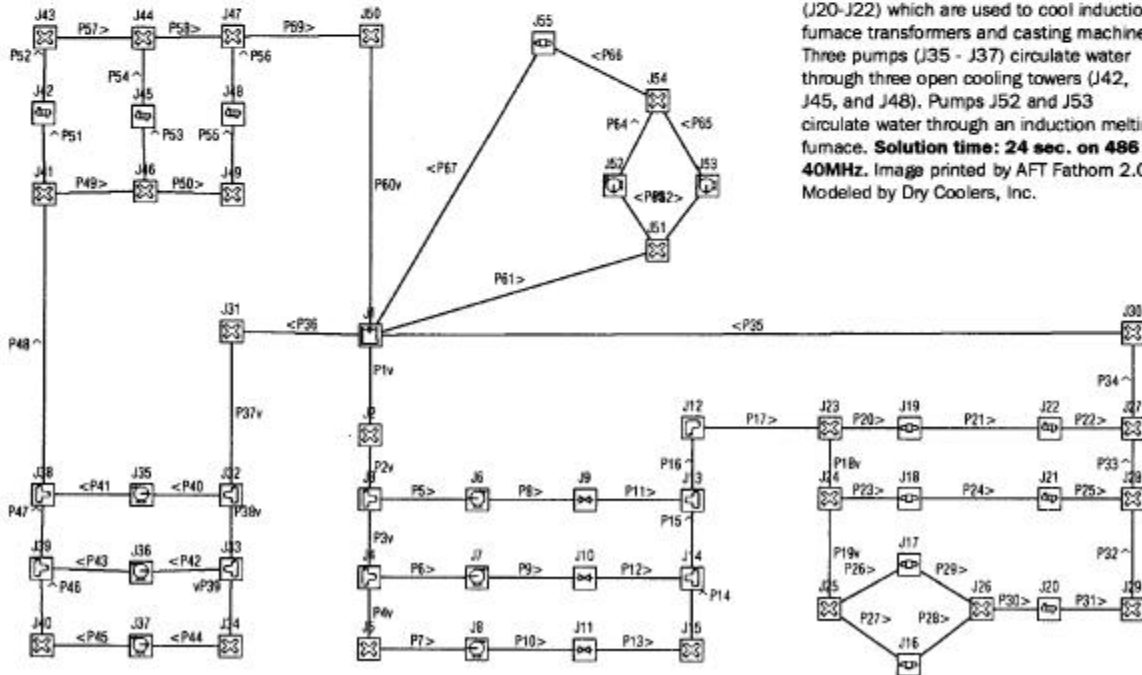
tems for vacuum furnaces, induction heaters, plant water systems, systems requiring combination pressure regulation and pressure relief, and numerous water systems with pumps in parallel." Two of the models Dry Coolers have built are shown in the included figures.

Matt described to us an example of how quickly Dry Coolers can now respond to customers. "One of our customers called us on a Wednesday wanting us to examine two vacuum furnace cooling systems they were adding to their plant cooling system. We were experienced with vacuum furnaces and were concerned about the pressure that would be exerted on the vessel casing. Using Fathom, we modeled the plant cooling system in about four hours and were able to show that the pressures in the furnace casing would exceed design limits if they had continued with their proposed modifications."

AFT Fathom has given Dry Coolers the ability to better serve current customers and also to win new ones. The

progress from exploratory analysis tool to company standard has been equally fast. "Previously, we used in-house spreadsheets that were limited to single-pipe estimations, and we would never consider doing parallel piping flow analysis. Now, with Fathom's intuitive modeling interface we are able to quickly and accurately predict complex system performance. AFT Fathom has become one of our standard design tools here at Dry Coolers."

AFT is excited to see the positive impact AFT Fathom has had at Dry Coolers and numerous other similar companies. Their industrial experience coupled with a powerful modeling tool are a winning combination.



Copper Mill Water System

Three pumps in parallel (J6-J8) pass through 4 bag filters (J16-J19) and through three plate and frame heat exchangers (J20-J22) which are used to cool induction furnace transformers and casting machines. Three pumps (J35 - J37) circulate water through three open cooling towers (J42, J45, and J48). Pumps J52 and J53 circulate water through an induction melting furnace. **Solution time: 24 sec. on 486 40MHz.** Image printed by AFT Fathom 2.0. Modeled by Dry Coolers, Inc.



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