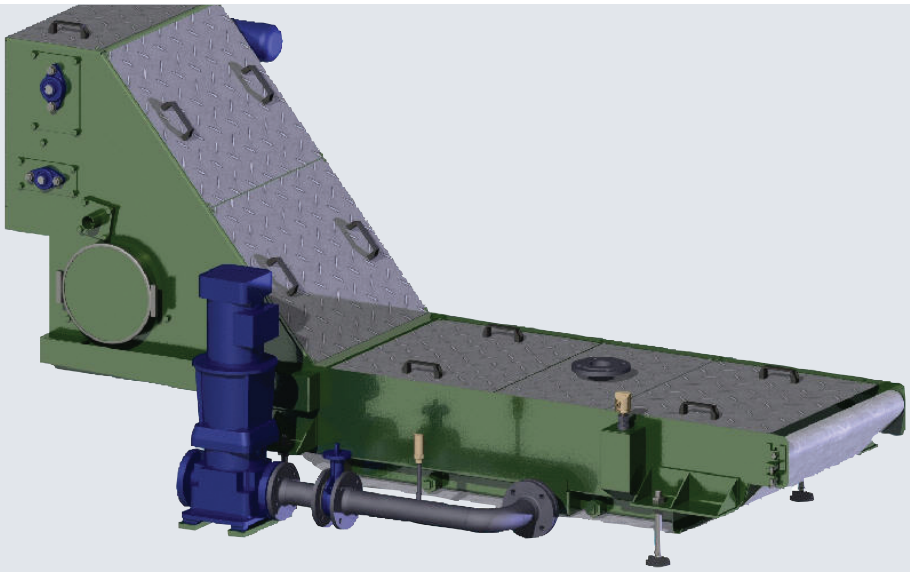
Mann + Hummel Hydromation N.V.

SOLIDWORKS ACCELERATES COOLANT FILTRATION SYSTEM DESIGN



With SolidWorks configuration capabilities, Mann + Hummel Hydromation can account for variations in assembly and system design in an automated fashion.

- Reduced design cycles by more than 30 percent
- Shortened time required to make design changes by 90 percent
- Improved quality and minimized design errors
- Enhanced design communications with existing and prospective customers

Mann + Hummel Hydromation is the leading producer of automated coolant filtration and swarf (metal chips) handling systems for use with industrial processes involving high-speed metal cutting. The company designs, constructs, and installs its systems in large manufacturing plants for a range of customers, including major automobile manufacturers. Mann + Hummel Hydromation used Autodesk Inventor® 3D design software to develop its systems until 2003.

While attending a trade show, company representatives saw a quick demonstration of the SolidWorks® 3D CAD system in 2003 and began evaluating the software for implementation, according to Dirk Novak, CAD coordinator. “We were particularly interested in how SolidWorks handled large assemblies, which are used heavily in the development of our coolant filtration and swarf handling systems,” he says.

Novak asked his local SolidWorks reseller, Cadmes Belgium, for a complete demonstration. “When I saw SolidWorks configuration capabilities, I was impressed by the power and flexibility of the software, and realized we needed those capabilities to energize our product development effort,” notes Novak. “We also saw the potential for using SolidWorks sheet-metal capabilities and the SolidWorks Routing package for further automating systems development.”

“After we saw the capabilities of SolidWorks software, we believed we could realize a range of productivity improvements by implementing SolidWorks across the board for all new product development,” Novak adds.

Mann + Hummel Hydromation chose to migrate to SolidWorks software, installing 15 seats, because of its large-assembly, configuration, and sheet-metal design capabilities. The company wanted to tap the software’s performance power, robust application program interface (API), and versatility. The company also uses SolidWorks Routing software for routing cables, wiring, and piping throughout its custom-designed cooling and filtration systems.

SolidWorks

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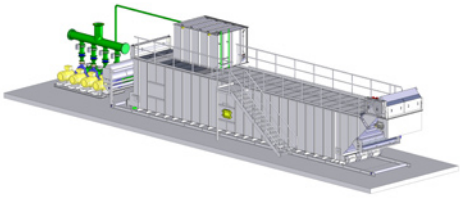
Dirk Novak, CAD Coordinator



Using SolidWorks software, Mann & Hummel Hydromation can quickly design and easily make modifications to large assemblies and system designs, resulting in fewer errors and improved quality.

Automated configurations save time and money

As part of the SolidWorks implementation, Novak used the Visual Basic® programming language in conjunction with the SolidWorks API to develop automated routines for creating system models consisting of a variety of design configurations. Although Mann + Hummel Hydromation customizes each of its systems for specific customer plants, many components and subsystems are common to all systems. By automating model creation to produce multiple configurations, the company can quickly reach the exact configuration required to meet a specific customer facility. Using SolidWorks configurations, the company has reduced its design cycles by at least 30 percent.

"Working with SolidWorks configuration capabilities, we have been able to automate variations in system design and achieve the productivity improvements that we anticipated," Novak explains. "Since there are so many possible variations to our systems, SolidWorks configuration capabilities are extremely important to us because we can account for all of these variations in an automated fashion. With this approach, we have trimmed our design cycles by almost one third while reducing the number of design errors and improving system quality at the same time."

Faster design changes for larger assemblies

Mann + Hummel Hydromation realized its greatest productivity boost in the design and modification of large assemblies. The company's systems average between 5,000 and 7,000 individual components, and can range up to 10,000 total parts. Using SolidWorks software, company engineers not only can design systems more quickly, but also can make design modifications in a fraction of the time previously required.

"Making design changes to a large assembly used to take us anywhere from 10 to 12 hours," Novak stresses. "In SolidWorks, the same design modifications can be done in less than an hour. Since we can make changes to our large assemblies quickly and easily, we have seen our quality improve. We have fewer design errors because rectifying them is so much easier with SolidWorks."

Improved sales, marketing, and customer communication support

In addition to realizing benefits in system design, Mann + Hummel Hydromation is utilizing SolidWorks graphics and design communication applications to improve the use of system design data for sales, marketing, and customer communications. The company uses PhotoWorks™ software to produce photorealistic renderings of system designs for use in its brochures, and SolidWorks eDrawings® software for its sales and customer communications.

"We have given eDrawings capabilities to our CEO and all our salespeople, so they can communicate more effectively with our existing and prospective customers," Novak says. "We are also starting to use eDrawings to interact with some of our subcontractors. It's a great tool for communicating design information quickly and easily."

SolidWorks

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