

**RAMECKERS GROUP**

**How a traditional company aligns itself for the future with integrated, digital processes**



**When a company has been in business for half a century, it needs a clear strategy to remain competent and competitive in the future.**

**Customer**

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**Products**

Solid Edge  
FLOEFD  
CAMWorks  
PDM Studio

**For this, the RAMECKERS GROUP in Nettetal (Germany) relies on the renowned system house Solid System Team GmbH as a strong partner when it comes to digitalization.**

Josef L. Rameckers Maschinenfabrik GmbH has been active in special machine construction since 1962. Already in the third generation, the specialists are holding their own on the international market: orders come from the automotive industry as well as the food and printing industries. The key to success: traditional craftsmanship meets

modern technology. From development to production, the family-owned company takes care of all work steps; in addition to turning, milling and sheet metal production, the portfolio also includes control cabinet construction, final assembly and service.

Since 2011, GERLACH Maschinenbau GmbH, an expert in machines for vulcanization technology, has been part of the RAMECKERS GROUP. The innovative equipment is used in many rubber-processing industrial sectors, such as automotive engineering, building construction and civil engineering.

The focus is on heating tunnels, infrared and microwave radiation. In July 2021, the RAMECKERS GROUP took over TSM GmbH & Co. KG, also a specialist for vulcanization plants. Complete plants for the production of profiles and seals made of rubber and silicone are produced here.

#### **Wide range: complex processes**

With the increasing diversity regarding portfolio and machines, it has become more and more important to invest in completely integrated processes -

in design as well as in production and administration. And this is exactly where Solid System Team GmbH (SST) comes into play. The collaboration began in January 2019: at that time, RAMECKERS was already using Solid Edge CAD software in its design department.

#### **CFD analyses to optimize the design process**

But prototypes still had to be created at great expense. Therefore, SST first added the Solid Edge add-on FLOEFD. This allowed design decisions to be



validated virtually without having to make physical prototypes first. This meant an enormous relief for RAMECKERS in their daily work, because resources and costs could be saved. With FLOEFD, the designers and calculation engineers also received a very user-friendly CFD software (Computational Fluid Dynamics) for the precise simulation of flows and thermal processes - directly in Solid Edge. Instead of complex meshing, the software works with Cartesian meshes and is at the same time uncomplicated to use. The extensive evaluation options also output intuitive and comprehensible results, and documentation is created automatically in Excel and Word format.

After this initial consultation on the part of SST, the focus was then placed on a holistic approach with uniform, structured data along the entire product creation process. The next logical step was therefore to link the design department to the production, as well as product data management.

#### **CAM: The smart manufacturing link**

In order to easily link the existing CAD software, SST recommended the CAM solution CAMWorks at the end of 2019. It not only offers seamless integration with Solid Edge, but also a user-friendly and intuitive interface. CAMWorks captures and stores users' manufacturing

methods and experience values, thus creating the basis for automated and standardized NC programming as well as knowledge-based manufacturing. Another plus of CAMWorks: with 4/5-axis simultaneous machining, users can create toolpaths on complex shapes that would overwhelm 3-axis machines.

#### **PDM: The final step to a consistent solution**

Last but not least, after one year of operation, the missing piece of the puzzle on the way to an integrated solution was still on the list: a professional, software-supported product data management.

RAMECKERS was already using software in this area, but decided to change systems due to the intensive and trustworthy cooperation with SST. Thus, the solution of SST's corporate sister CAD Partner was introduced: PDM Studio.

The advantages are obvious: having a single, central point of contact for all software along the engineering process in the company makes everyday work much easier. The product itself also brought convincing arguments: PDM Studio is fully compatible with Solid Edge, making it easy to integrate into the existing process. The core of the

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Josef L. Rameckers Maschinenfabrik GmbH & Co. KG



software is its centralized, structured data management, which allows users to store all design and manufacturing data, as well as other related files, on a product- and project-specific basis and manage them along the lifecycle. This reduces the error rate and prevents duplication and redundant data. Thanks to the automation function via the Automation Client, PDM Studio takes over manual standard processes and relieves employees of tedious routine tasks.

At the same time, quality and efficiency increase. Tasks include, for example, the creation of bills of materials (BOMs), the provision of neutral formats such as PDF, STEP or DXF, convenient copy assistants, the provision of print and plot jobs or a time-controlled provision of data. The processing of sheet metal parts and production lists are further action blocks.

With the interface connection to the ERP system Microsoft Dynamics NAV, a homogeneous overall system was created, that works system-integrated without manual data transfers and optimizes processes, eliminates sources of error and completes the holistic support approach of SST.

#### **Digital into the future**

More than 60 years after his grandfather Josef L. Rameckers founded the company, Managing Director Jens Möckel is confident that he is ideally positioned when it comes to software: „Thanks to the holistic consulting expertise of Solid System Team GmbH, we were able to ideally coordinate our CAD, CAM and PDM solutions. In addition, we now have a single point of contact for the support of all systems.“ And SST is also proud of the successful and, above all, trusting cooperation, as Tim Dornbusch, Head of Key Account

Management, confirms: „We have once again proven that, as integration experts, we can optimize our customers' product development process enormously. With the combination of consultancy, software selection, integration, training and support, we also remain a reliable contact partner in day-to-day operations and can continuously provide impetus for further improvements,“ continues Dornbusch.

„Thus, with our package of Solid Edge, FLOEFD, CAMWorks and PDM Studio software solutions, including an interface to the ERP system, we were able to ensure at RAMECKERS GROUP that the processes really are completely consistent throughout the entire company. This means that the company is ideally positioned for the future - here's to the next 60 years!“

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