

Machine Tool  
Manufacturing

**ePLAN**<sup>®</sup>  
*electric* **P8**

# ERNST GROB AG

Establishing a direct link between CAE and ERP

## Going beyond electrical design

Behind every new automobile is a chain of suppliers: companies that make sub-assemblies, companies that make parts for those subassemblies, and at the beginning of the chain, companies that make machines that make the parts. That's Ernst Grob AG, a Swiss firm familiar to manufacturers of transmissions. This developer of specialized machine tools is located in Männedorf near Zurich. For five decades, it has focused on the technology of cold-forming. Today, it offers a leading-edge process for manufacturing external and internal gear teeth for transmission shafts, toothed shafts, disk carriers and propeller shaft housing. Ernst Grob markets a range of customer-specific solutions ranging from individual, manually operated machines to fully automated production lines for complete machining.

“Ernst Grob AG plays a significant role in building many of the cars on the road in Europe and elsewhere. At this Swiss machine tool manufacturer, EPLAN Electric P8 is helping to manage projects in a way that extends beyond the electrical design phase. The connection between the EPLAN Platform and the company's ERP system is driving purchasing and production systems, which is cutting project turnaround time and making manufacturing more cost-effective.”

**ePLAN** your *engineering*

FRIEDHELM LOH GROUP

# EPLAN Electric P8

sets a new

# STANDARD

Electrical engineer Urs Marti is full of praise for the latest ECAE generation, EPLAN Electric P8. // It sets new technological standards and is very easy to use. //



## Innovative process

Ernst Grob's cold-rolling machines employ the impact roll crushing concept. The machine's work-piece, which rotates on its own axis during machining, is formed by a large number of individual steps uniformly distributed over the complete cylindrical section of the forming area. Only a modest application of force is required, which allows for production of a large number of high precision components that don't need further finishing.

## Electrical replaces mechanical

There are always new electrical design features contributing to improvements in the technology. Ernst Grob has been using electronic transmissions since the 1980s to synchronize the movements between the work-piece and the tool. Last year, it began using backlash-free torque motors to drive work-piece rotation. "With torque motors," says Walter Wymann, head of electrical engineering, "movement can be increased by 25% and machine productivity increases accordingly."

## Good connection: CAE & ERP

Ernst Grob has used EPLAN software since 1986, making it a virtual charter member of the EPLAN client base. Urs Marti, an electrical engineer who started with Ernst Grob around that time and has been an EPLAN user all along, has become accustomed to the process of upgrading to new versions as they come along.

Traditionally at Ernst Grob, the EPLAN software has been linked to the company's Navision ERP system. That pays large dividends. "It saves a lot of engineering time by avoiding duplication of work for engineers as well as for purchasing and production planning," says Wymann. When migrating from the older EPLAN 5 to EPLAN Electric P8, Ernst Grob staff not only wanted to maintain this interface but enhance its functionality. "Our objective was to create a database of components that we can use as design building blocks," adds Wymann. "EPLAN 5 did not have such database capability."



# DOCUMENTATION

has gone  
multilingual

## Database built in EPLAN Electric P8

A bi-directional connection using ASCII code was created between the new EPLAN system and the Navision database. With previous EPLAN versions, an add-on module (PMS) was needed to establish the link, but that's no longer the case. Ernst Grob designers have built a component database in EPLAN Electric P8. "We formed assemblies that are listed as individual parts during design, but are viewed as a whole unit when returned to the ERP system," says Marti. This duality creates an intelligent connection between design and materials management. The EPLAN user places whole units in the E-CAD drawing, while purchasing sees what inventory is required and manufacturing can schedule production accordingly. EPLAN users keep the database up to date for the whole company.

## Automated documentation in six languages

With respect to multilingual documentation, Ernst Grob AG is also well prepared. Walter Wymann: "Initially, we translated the technical terms into three languages at the master data level. For other languages, the translations will be confirmed with the companies and representatives in those countries." The result: After design is completed, automated documentation can be created in the respective language practically at the push of a button, and the new translations are automatically available for further projects.

## Structuring design allows for more customization

Designers at Ernst Grob foresee a greater need looming to align fluid engineering and electrical design very closely. "The machines are becoming increasingly customized due to customer demands," says Walter Wymann.

**“**To engineer effectively, we have to standardize more of the design process — this is where EPLAN Electric P8 plays a significant role. On the other hand, the added customization requires more engineering effort, which, as a specialized company with a lot of technical know-how, we are happy to provide.**”**



# EPLAN Electric P8 integrated for success SUMMARY

Ernst Grob AG has used the migration of its electrical design to EPLAN Electric P8 to develop a component database and integrate it with the company's ERP system. The development of project design in EPLAN drives purchasing and manufacturing planning, and therefore, streamlines inventory management and reduces project turnaround times. It also allows engineers to be more productive by relieving them of redundant tasks and helps them devote their time to making customized versions of its machine systems that are high in demand by a lot of customers today.

Find out more about Grob on [www.grobgroup.com](http://www.grobgroup.com)

ePLAN your engineering



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