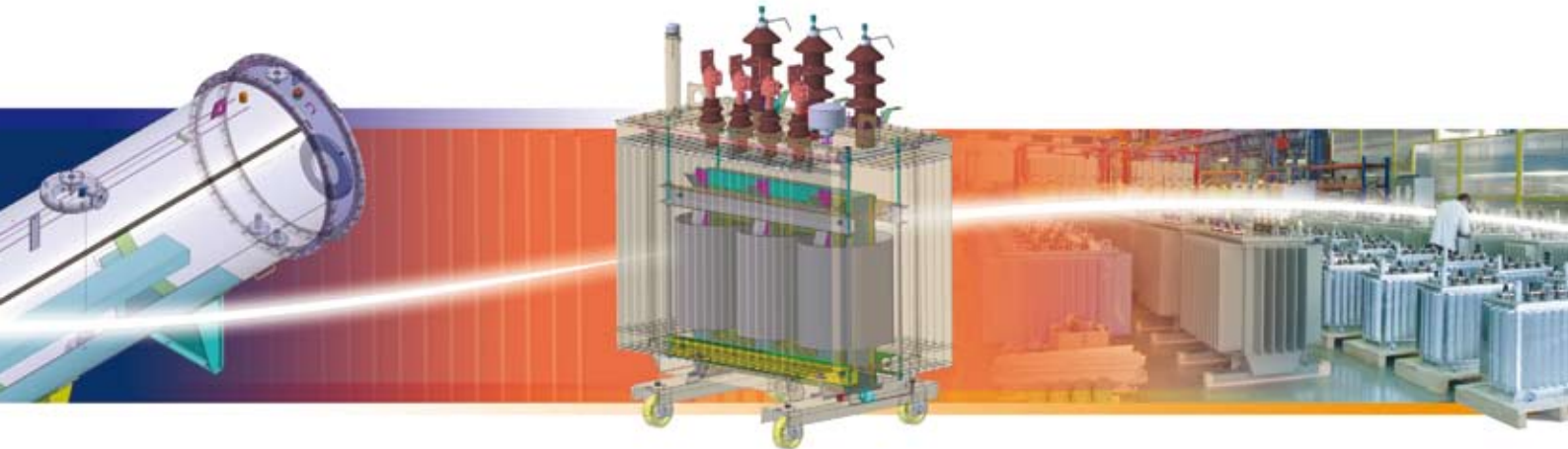


Končar-D&ST

Reducing time to market with CATIA PLM Express



Overview

■ Challenge

Končar-D&ST needed to accelerate design time and better manage its product data and manufacturing documentation

■ Solution

The company chose CATIA PLM Express to design and manage its new generation of transformers

■ Benefits

Generating manufacturing documentation takes one-third less time and raw materials usage has been reduced by 10%



"We use 10% less raw materials when we build new designs thanks to simulation and interference checking during the design process."

Hrvoje Koprek
Head of the Mechanical Design department
Končar-D&ST

More than 80 years experience in the production of electro technical products

Končar-Distribution & Special Transformers Inc. (Končar-D&ST), located in Zagreb, Croatia, is the regional leader for the design and production of distribution, power and special transformers. Seventy-five % of Končar-D&ST's production is currently exported to countries in Europe, North America, Asia and the Middle East and this year the company will achieve export levels of up to 80%.

Increase production to meet customer demands

Končar-D&ST's main objective is to grow its production capacity in accordance with the needs of its customers. "We try to design and manufacture transformers based on customer specifications as fast as possible," said Hrvoje Koprek, head of the Mechanical Design department. Končar-D&ST believes that a satisfied customer is the best reference for future business. "We have to be flexible and fast in our design process and our products must be reliable and of the highest quality," he added.

In the coming year, Končar-D&ST is planning to produce up to 150 power transformers and 4000 to 5000 distribution transformers. The designs are similar but every customer asks for modifications such as changing the electronic configuration. In addition to design and production, Končar-D&ST also performs all maintenance work on its transformers, which may have life spans of up to 20 years. One of the reasons Končar-D&ST chose CATIA PLM Express was its need for a solution that would be around for a very long time and that would go the distance so that maintenance and servicing would be possible.

Designs are customized to order

For each new order, Končar-D&ST receives specifications from a customer with the desired configuration and equipment. Electrical engineers begin the design process after making the necessary calculations and measurements. The resulting 3D model is then sent to the customer for approval, and upon acceptance the manufacturing documentation is created.



Reduced design time and more efficient use of materials

Last year, Končar-D&ST developed a new generation of distribution transformers using CATIA. Designers took advantage of CATIA knowledgeware capabilities to embed knowledge such as design parameters, corporate standards, and practices, and to create templates that can be reused when creating new transformers. The templates increase productivity since errors are reduced and the design process is automated. "By taking design parameters and standards into account earlier in the design process with CATIA, our designers can automate repetitive or time-consuming design tasks and reduce downstream manufacturing errors that would require costly redesign work," said Koprek. "With CATIA, it takes about one-third of the time it previously took to generate manufacturing documentation. Another advantage is that we use 10% less raw materials when we build new designs thanks to simulation and interference checking during the design process."

Data management and collaboration

Končar-D&ST is currently implementing the collaborative and data management capabilities of CATIA PLM Express to manage drawings and documentation. "We have a large number of drawings and bills of material and are having a difficult time managing all this information manually," said Koprek. "We lose a lot of time since our current database does not communicate with CATIA." Collaboration is also a concern especially when dealing with suppliers. "With most of them we exchange information on paper thereby losing time when transferring data back and forth. But we are working on changing this by using the ENOVIA collaborative capabilities included in CATIA PLM Express so that we can cooperate more effectively," he concluded.

"With CATIA Knowledge-based design, our designers can take design parameters and standards into account earlier in the design process, thereby reducing downstream manufacturing errors that would require costly redesign work."

Hrvoje Koprek
Head of the Mechanical Design department
Končar-D&ST



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