

# Pol-Eko-Aparatura

Reduces development time by 50% with CATIA PLM Express



## Overview

### ■ Challenge

*Pol-Eko-Aparatura needed to meet the demands of its growing customer base without increasing cost or compromising quality*

### ■ Solution

*The company chose CATIA PLM Express for its sheet metal design and production needs*

### ■ Benefits

*CATIA PLM Express helped Pol-Eko-Aparatura avoid costly redesign work and cut development cycle times in half*

### 17 years of experience in laboratory equipment

Pol-Eko-Aparatura is a leading Polish producer of laboratory equipment including thermostatic cabinets, laboratory refrigerators and freezers, incubators, heating and drying ovens, and laboratory homogenizers. Founded in 1991, the 90-employee strong company today exports to more than 25 countries in Europe, Africa, Asia, and the Middle East.

In the highly specialized laboratory equipment market, Pol-Eko-Aparatura faces stiff competition from neighboring Germany. Lower product costs due in part to lower Polish wages gives Pol-Eko-Aparatura a competitive advantage over its German rivals. But this is not enough to guarantee success. Consequently, Pol-Eko-Aparatura has focused on reducing time-to-market while maintaining high standards of design quality.

### The move to CATIA PLM Express

Pol-Eko-Aparatura is a recent adopter of

CATIA, switching from a third-party CAD system to CATIA PLM Express in early 2008. The ability to design in-context and work on entire assemblies was the principle reason why the company made the move to CATIA. "Our engineers design in context of the overall assembly," said Dawid Drapacz, Deputy Head of Production Department at Pol-Eko-Aparatura. "It helps them to gain visibility and avoid downstream production problems." CATIA PLM Express also enables the engineers to work from a single version or master model of a product. Previously, engineers sometimes found themselves working with several beta versions of the same product which increased chances of error. Finally, CATIA's generative and associative drawing features enable Pol-Eko-Aparatura to automatically generate drawings from the 3D master model.

Pol-Eko-Aparatura leverages the 3D nature of CATIA designs to gain valuable input from customers early on in the development



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Deputy Head, Production Department  
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process. Pol-Eko-Aparatura shows customers the virtual representation of the future product before producing the first physical piece.

Customers are able to give their feedback, ask for changes and get more involved in the overall design of their equipment. Once the customer approves the design, Pol-Eko-Aparatura then proceeds with the series production.

### Rapid design of sheet metal parts

Working with sheet metal is a prerequisite for Pol-Eko-Aparatura engineers. All cabinets, refrigerators and freezers are manufactured on the company's premises using NC milling and bending machines. In CATIA PLM Express engineers benefit from specialized sheet metal capabilities such as in-context part and assembly design. "With our previous system, when we had to make corrections, the system did not propagate these corrections to other parts of the design," said Drapacz. "Our engineers would have to make all the changes by hand and this took a lot of time."

In addition, engineers can add constraints to their designs so that when the bending machine bends the sheet metal to form the box, detail positions and dimensions are automatically taken into account so that the machine correctly bends the sheet metal.

"With CATIA, we can factor in manufacturing constraints early in our designs. CATIA tells us where we should bend the sheet so that the actual bending process proceeds smoothly," adds Drapacz.

### 50% gain in productivity

Pol-Eko-Aparatura engineers quickly mastered CATIA PLM Express after only one week of training. The benefits did not take long to follow. "We can now handle a project from A to Z in half the time it would have taken before," said Drapacz. "And our designs are precise, which avoids late redesign work that can slow down production. With CATIA, our engineers can pay more attention to being creative and implementing new ideas. We can handle more orders, which not only makes our customers happy, but our management as well."

### Next step: ENOVIA SmarTeam

As its business grows, Pol-Eko-Aparatura plans, in the near future, to hire more engineers and to purchase additional CATIA PLM Express seats. It also plans to use ENOVIA SmarTeam to manage product data and documentation and to take advantage of the collaboration capabilities included in the solution.

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