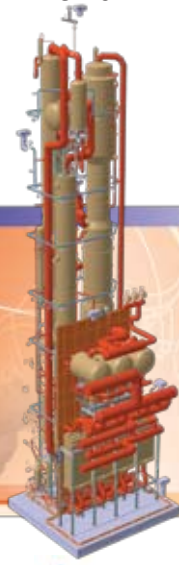


Cryogenmash

Increasing productivity with CATIA and ENOVIA SmarTeam



Overview



■ Challenge

In order to maintain its market lead, Cryogenmash had to reduce design and engineering time

■ Solution

Cryogenmash chose CATIA and ENOVIA SmarTeam due to their simplicity and ability to support large-scale installations

■ Benefits

With DS PLM, Cryogenmash is now able to simultaneously design several installations and ensure tailor-made products

“Until recently, Cryogenmash was manufacturing up to 25 major products annually, but it was series production of standard designs. This year we re simultaneously designing seven brand new installations. This has become possible mainly due to CATIA.”

Oleg Kaminsky,
Head of Management Systems and
Project Information Support Department,
Cryogenmash

Industry leader in cryogenic engineering

Open Joint Stock Company Cryogenmash (Cryogenmash) is Russia's leading developer and manufacturer of equipment for cryogenic commercial-grade gases and cryosupply systems for process facilities. Cryogenics is the production of low temperatures or the study of low-temperature phenomena. In Russia, most of the work in cryogenic engineering during the past 50 years was performed by Cryogenmash, from founding the industry to developing cryogenic technology based on comprehensive scientific research as well as manufacturing the latest in cryogenic machinery.

The company's main products, air separation plants, are manufactured according to its customers' designs, and take into account the specificities of a customer's production facilities and existing infrastructure. Due to the comprehensive research required for building such installations, tailor-made production includes a special design and manufacturing phase.

Increase competitiveness by reducing costs

Cryogenmash is continuously looking for ways to reduce its costs, a key factor in rendering the price of its equipment attractive to customers and one of the ways to secure its competitive advantage. It has manufactured and delivered more than 600 large air separation plants, the majority of which are still functioning today.

Due to current market conditions and a pressing need to significantly reduce the time spent on design, engineering and manufacturing, while at the same time preserving its products' competitive advantages, Cryogenmash had to urgently address the need to modernize, introduce the latest design tools, and foster collaboration.

Since the company needed to provide automated modelling of extremely large installations, its choice was limited to CAD systems that support large assemblies and multiple configurations. In addition, Cryogenmash focused on

error and defect detection and the amount of time spent on troubleshooting. With these criteria in mind, Cryogenmash experts determined that Dassault Systèmes PLM solutions cover the widest scope of engineering tasks for experts across different fields. They also found that DS PLM is easiest to adapt to the company's needs. As a result, Cryogenmash purchased CATIA and ENOVIA SmarTeam.

Assessment of results

To ensure that Cryogenmash employees embraced the new PLM tools, the company established a special engineering center to ensure in-depth understanding of the system's functionalities and provide for a phased implementation of the technology throughout the company. "Our company faces a long and challenging journey in the creation of a modern and highly efficient information infrastructure," says K.К. Yemelyanov, IT Director, Cryogenmash. "But we're encouraged by the fact that we're placing our stakes on the best global players like Dassault Systèmes. We believe that playing on this team will ensure us major victories in the future."

The introduction of DS PLM in the design and engineering departments acted as an incentive for designers to switch from the drafting table to a PC within two years.

As a result, the company now saves a substantial amount of time when developing new structures and technological processes. "This year the company is simultaneously designing many unique air separation plants," says O.N. Kaminsky, head of the Management Systems and Project Information Support Department. "It's a task we never thought possible within such a short timeframe."

The company has high hopes for winning new business in the near future thanks to DS PLM. The powerful features of CATIA combined with ENOVIA SmarTeam enable Cryogenmash to accumulate corporate knowledge and implement the required modular approach to manufacturing air separation plants. Although the company's products are unique, general engineering tasks can be standardized using automated processes to produce certain components, units and mountings. According to company experts, Cryogenmash's previous experience and skills will significantly speed up its design and pre-production processes.

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K.K. Yemelyanov
IT Director
Cryogenmash



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Ref: RF_Y_H1MU5_EN_200804

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