

Automotive and transportation

## Cosmos Industrial

Siemens PLM Software solution drives innovation for leading Vietnamese automotive component manufacturer

### Product

NX

### Business challenges

Provide high-quality products at competitive prices

Meet customer requirements for machining highly complex products

Become leading automotive supplier in Vietnam

### Keys to success

Use NX CAM to improve machining of complex products

Automate NC programming by reusing company's knowledge

Generate precise toolpaths using advanced cutting strategies

Validate machining processes using digital twins of the machine tools

Excellent services and support from Vietbay, the local Siemens PLM Software partner

### Results

Realized 50 percent productivity gain by reducing manufacturing time and costs

Standardized development and production processes using one system

### Cosmos Industrial increases productivity by 50 percent and reduces manufacturing time and costs through use of NX CAM

Founded in 2005, Cosmos Industrial Co., Ltd (Cosmos) is one of Vietnam's leading automotive component manufacturers. Recognizing the needs of foreign direct investment (FDI) enterprises for parts localization, as well as governmental support for industry development, Cosmos is committed to providing high-quality products at competitive prices for domestic companies and foreign partners. Cosmos supplies to industry leaders in automobile and motorcycle part manufacturing.

Cosmos' primary goal is to exceed customers' expectations, and they do this by building partner trust through constant innovation. The company strives to meet demanding engineering requirements while improving product quality. Cosmos' reputation as a leader in automobile and motorcycle part manufacturing is buoyed by their highly skilled, passionate staff as well as advanced machinery technology imported from Japan and Taiwan.

### Advanced technology investment

To increase competitiveness and productivity as well as product quality, Cosmos has invested heavily in equipment, machinery and software solutions, including DMG Mori 4-axis and 3-axis milling machines to create



#### Results *(continued)*

Improved product quality to meet customer requirements

Increased purchase orders and customer satisfaction

Expanded market share



an integrated solution for computer-aided design/computer-aided manufacturing/ computer numerical control (CAD/CAM/ CNC). Cosmos's technology investment and experienced engineers ensure all machine tools are running at maximum capacity and any problems are immediately resolved.

The partnership between Cosmos and Vietbay, a Siemens PLM Software partner, led to the implementation of NX™ software solutions. Through the use of NX, Cosmos digitalized their part manufacturing process – from CAD models to finished parts. The integrated CAD/CAM solution helped improve production efficiency by 50 percent, while increasing quality and reducing costs.

#### Problem solving and increasing competitiveness

Before implementing NX software, the company encountered difficulties with their previous CAD/CAM system. As a result, they were unable to manufacture many complex components, losing significant orders from their customers. Using NX CAM software to program the 4-axis machining center, Cosmos mastered the advanced machining processes. The combination of the latest technology and Vietbay's expertise enables the company to manufacture highly complex products with high surface quality.

"With synchronous technology, I can easily edit part models while programming in a CAM environment, allowing me to program much faster," says Nguyen Truong Giang, CAM engineer, Cosmos. "NX CAD/

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Nguyen Truong Giang  
CAM Engineer  
Cosmos Industrial

## Solutions/Services

NX CAM

[www.siemens.com/nx](http://www.siemens.com/nx)

## Customer's primary business

Cosmos specializes in manufacturing and machining precision components. Cosmos' products include machines such as welding, stamping, molding and measuring tools. Cosmos has two factories in Vietnam and applies ISO 9001 and ISO 14001 for integrated quality management. [www.cosmos.com.vn/en/introduction.html](http://www.cosmos.com.vn/en/introduction.html)

## Customer location

Vinh Yen and Vinh Phuc  
Vietnam

## Solution Provider Partner

Vietbay

**"NX CAM enables many pathways to automate NC programming and optimize toolpaths. It is also safer for our machining centers with G-code simulation that validates the programs using machines' digital twins."**

Ngo Van Thang  
Deputy General Director  
Cosmos Industrial

CAM multi-axis includes a postprocessor library and post tool to help customize postprocessors for our CNC machines. Integrated G-code simulation enables us to verify NC programs without risking damage to the machine tools."

Cosmos is very optimistic about the collaboration with Vietbay. Ngo Van Thang, deputy general director, Cosmos, says, "Thanks to the implementation of NX CAM multi-axis solutions and advanced services from

Vietbay, we have been able to rapidly process complex mold components and significantly increased our purchase orders. Customer satisfaction has noticeably improved, which will further enhance Cosmos' competitiveness and market share. NX CAM enables many pathways to automate NC programming and optimize toolpaths. It is also safer for our machining centers with G-code simulation that validates the programs using machines' digital twins."

***"NX CAD/CAM multi-axis includes a postprocessor library and post builder environment to help customize postprocessors for our CNC machines."***

Nguyen Truong Giang  
CAM Engineer  
Cosmos Industrial

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