

Successful CAM includes support for multi-function machine

CAM Express cuts time and costs for machine programming, supporting all of this manufacturer's machines including a 5-axis turn/mill center

EAGLE SEALS AND SYSTEMS INDIA LTD.



Siemens PLM Software

www.siemens.com/plm

▶ Business initiatives

New product development

▶ Business challenges

Speed machine tool programming

Improve machining quality

Reduce waste

▶ Keys to success

Tightly integrated CAD and CAM solutions

Post-processor support for all machines including Mazak turn/mill center

▶ Results

Expected cost reduction of 10 to 15 percent

15 to 25 percent time savings expected

Increased productivity

Fewer rejected parts

Synonymous with seals

Eagle Seals and Systems India Ltd. (ESSIL) is a wholly owned subsidiary of Eagle Industry Co. Ltd., Japan, which is part of the Japanese company, NOK Corporation. The company manufactures mechanical seals and sealing support systems for core sector industries like chemical, petrochemical, fertilizer and pharmaceutical industries. ESSIL began manufacturing mechanical seals in 1975. Over the years it has grown into India's leading manufacturer of mechanical seals, backed by a nationwide sales and service network, two modern manufacturing plants and a full-fledged research and development facility. ESSIL has an extensive customer list that includes Indian and foreign companies in both the government and private sectors.



ESSIL's product line includes bellow seals, engineered seals and pusher seals. Its line of bellow seals features more than 15 options in metallic bellow alone. Material ranges from alloy steel to titanium, neoprene to PTFE. More than 25 years of experience in handling high temperature fluids has made ESSIL metal bellow seals a fixture in refineries and petrochemical applications. The company's engineered seals are designed to meet the ever-growing need for longer-lasting seals in applications where speeds exceed 10,000 rpm, pressures are greater than 100 kg cm², and temperatures are less than 200 degrees C or greater than 600 degrees C. ESSIL has the largest range of pusher seals with more than 20 varieties of multi-spring and eight varieties of single coil spring seals including bi-directional options.

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CAM needed

ESSIL has a variety of 3-axis, 4-axis, 5-axis mill-turn CNC machines. These machines were programmed manually for 15 years. But the need to speed the programming process, combined with the desire for better machining quality and surface finish, convinced the company that it was time to upgrade to a CAM solution. In its search for CAM software, ESSIL originally evaluated six programs but none had a post-processor that could successfully generate code for the company's Mazak Integrex machine, a combination turning center and full-function machining center.

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Solutions/Services

CAM Express
www.siemens.com/plm/camexpress

Solid Edge
www.siemens.com/solidedge

Client's primary business

Eagle Seals and Systems India Ltd.
makes mechanical seals and
sealing systems.
www.ekk.in

Client location

Hadapsar, Maharashtra
India

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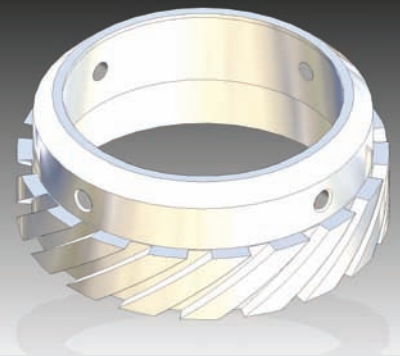
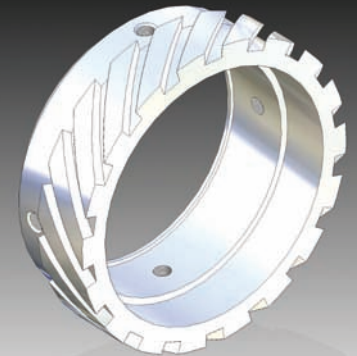
*P. N. Mehta
GM of Manufacturing
Eagle Seals and Systems India Ltd.*

At this point, ESSIL got in touch with Gnosis InfoTech P Ltd., a value-added reseller for Siemens PLM Software products. A Gnosis representative demonstrated the functionality of the CAM Express solution from Siemens and its interoperability with ESSIL's CAD software, Solid Edge®, also from Siemens. The demonstration clearly showed the strength of CAM Express compared to other CAM software. “Between that and the support that Gnosis could provide in terms of training and post-processor development, we decided to implement CAM Express,” says P. N. Mehta, GM of manufacturing at ESSIL.

CAM achieved

Gnosis provided training that started out with the basics and progressed to an advanced level. The VAR also developed a post-processor with the help of Tata Consultancy Services, which allows ESSIL to take full advantage of the Mazak Integrex machine. With this support, successful cutting was achieved on every machine and ESSIL has since been reaping the benefits of the Solid Edge/CAM Express solution.

For example, the company is expecting to reduce machine programming time in the range of 15 to 25 percent due to the increased productivity of the programmers. “And costs are also expected to come down by 10 to 15 percent,” Mehta adds. “This is due to increased productivity as well as to less waste and rework caused by scrapped parts.” The company has also achieved its goal of improving machining quality and surface finish. These results have convinced ESSIL of value of this Siemens solution. “As per our future requirements, we are going to standardize on CAM Express,” says Mehta.

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