

## Industrial machinery and equipment

# Olympus NDT

## Beating strong competition

### Product

Solid Edge

### Business challenges

Compete with worldwide companies on price, functionality and delivery time

Quickly develop new products to order

### Keys to success

Model entire NDT systems in 3D using Solid Edge software

Test virtually instead of building models

Re-use existing Solid Edge models to speed creation of new products

### Results

Entirely new systems are ready for delivery in months; twice as fast, or better, than previously

Initial assemblies are almost entirely error-free

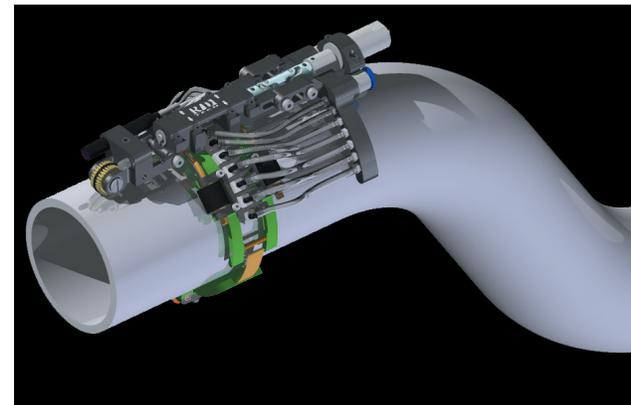
Reliable CAD system permits focus on design

### Olympus NDT uses Solid Edge to win business

To compete with worldwide suppliers of nondestructive testing equipment, Olympus NDT must deliver aggressively priced, custom systems in the time the competition supplies a stock item.

### Faster, better and cheaper

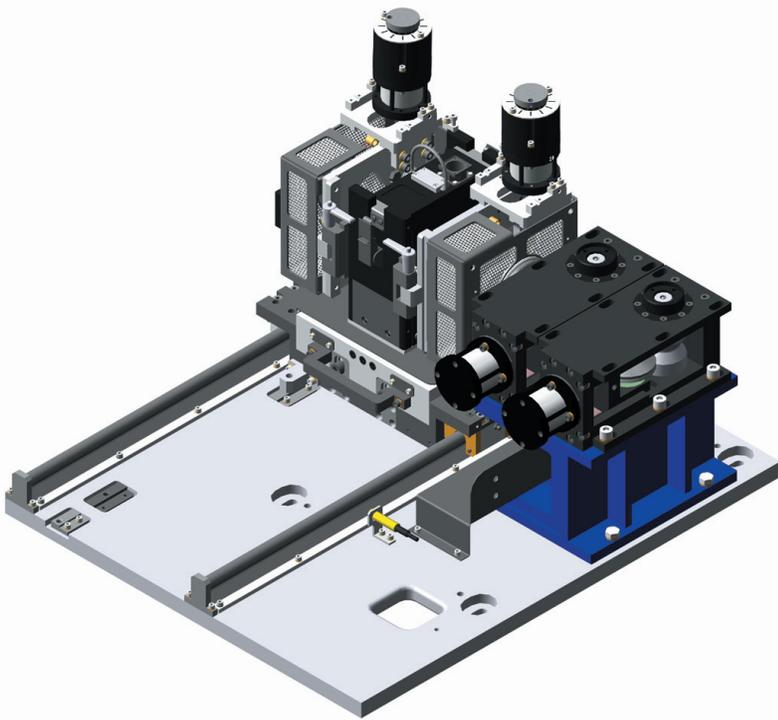
Although Olympus NDT has been in business 15 years, it's still fighting strong competition in the arena of nondestructive testing (NDT). Olympus NDT's systems are used for manual and automated inspections in many fields of application, in particular for the analysis of defects caused by welding, extrusion and casting, as well as defects caused by wear and corrosion. The company's products can be found at hydroelectric and thermonuclear power plants, oil refineries, pipelines, aerospace and automobile companies, as well as those producing homogeneous and composite metal structures.



Even though Olympus NDT has an impressive track record, competition is keen in the NDT industry and Olympus NDT must deliver extra value to win business from rivals around the world. Its strategy has been to provide products that are cost-competitive yet offer more functionality than those of other suppliers. In essence, the mission Olympus NDT has set for itself

**“We chose Solid Edge because it seemed more robust and complete than the others.”**

Stefano Orsi  
Team Leader  
Mechanical Design  
Olympus NDT



is to provide innovative solutions for a similar or better price, in the same time-frame or less, than other companies supply a stock product.

#### Critical technology

Olympus NDT has used CAD for many years, starting with 2D and later moving to 3D. The company's first 3D system had difficulty handling large assembly models, however, so it was impossible to create or

evaluate entire NDT systems virtually. As a result, errors could go undetected until prototypes were built.

To find CAD technology that would facilitate rather than hinder new product development, Olympus NDT evaluated a number of systems, including SolidWorks and Solid Edge® software. The company was offered a very low-cost, new alternative system from its previous vendor but realized that it needed a CAD system with proven reliability and long-term staying power. "We chose Solid Edge because it seemed more robust and complete than the others," says Stefano Orsi, Olympus NDT's team leader for mechanical design. "But just as important was the fact that its parent company, Siemens PLM Software, owns the Parasolid® modeling kernel used by Solid Edge. To us that's a key factor in ensuring long-term support and compatibility between versions."

#### Two new NDT systems in four months

Solid Edge turned out to be as robust as Olympus NDT hoped. With 24 licenses and two years experience with the new software, Orsi is "pleased to report that the software is extremely stable." Solid Edge is also powerful enough to permit modeling

**“Solid Edge assembly modeling is invaluable. It lets us ship prototypes that require fewer touch-ups than those we built in the past.”**

Stefano Orsi  
Team Leader  
Mechanical Design  
Olympus NDT

## Solutions/Services

Solid Edge  
[www.siemens.com/solidedge](http://www.siemens.com/solidedge)

## Customer's primary business

Olympus NDT is a world leader in the NDT industry with its inspection system based on the integration of various technologies including eddy current, remote field, magnetic flux leakage and ultrasound.  
[www.olympus-ims.com](http://www.olympus-ims.com)

## Customer location

Quebec City, Quebec  
Canada

**"A complex project that took four months with Solid Edge would have been impossible in 2D.**

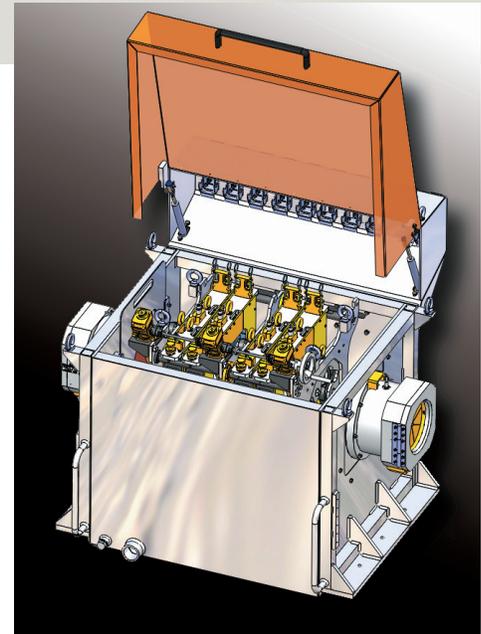
**"When your software is reliable, you can concentrate on doing your job."**

Stefano Orsi  
Team Leader  
Mechanical Design  
Olympus NDT

of entire NDT system assemblies. "Solid Edge assembly modeling is invaluable," Orsi adds. "It lets us ship prototypes that require fewer touch-ups than those we built in the past."

As an example of how efficient product development has become with Solid Edge, Orsi points to a series of new ultrasound-based machines created for the tube and bar industry. Olympus NDT received orders for two similar systems (one for the United States and one for China) late in the fall. Development started from scratch in December. "It was a big challenge to deliver two entirely new machines so close together, but both were done by the first of May. That's only five months from a rough concept to models, drawings, production and shipping." He estimates that the project would have taken at least twice as long with the previous CAD software.

One of the reasons for the fast turnaround on that and other projects is that the actual modeling goes quickly thanks to the intuitive nature of Solid Edge, Orsi says. Also, the ability to assemble systems



on screen makes it possible to work out problems while a design is still digital. Solid Edge drafting functionality contributes to the fast turnaround, making it possible to spin off drawings rapidly. But Orsi goes back to the reliability of Solid Edge – a key reason why he and his colleagues are able to work so fast. "Because we can rely on the software, we don't have to take our eyes off the ball. We can concentrate on doing our jobs, not on the software and whether or not it's going to crash. Solid Edge is like an extension of ourselves."

# "Solid Edge is like an extension of ourselves."

Stefano Orsi  
Team Leader  
Mechanical Design  
Olympus NDT

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