

## Medical devices and pharmaceuticals

# MEDIN

Specialist healthcare manufacturer increases innovation and market presence using CAM Express

### Product

Solid Edge

### Business challenges

Achieve higher production efficiency

Readily share data with suppliers

Meet challenging technical/innovation requirements

### Keys to success

Deploy CAM Express for fundamental process change, CNC compatibility and increased opportunity for product innovation

### Results

Improved documentation

Streamlined development-through-manufacturing process

Enhanced technical excellence across product lines

Faster time-to-market and greater innovation, including award-winning devices

Larger market footprint globally

**The Czech Republic's largest manufacturer of surgical and dental tools, implants for traumatology and orthopedics gets better products to market faster with CAM Express**

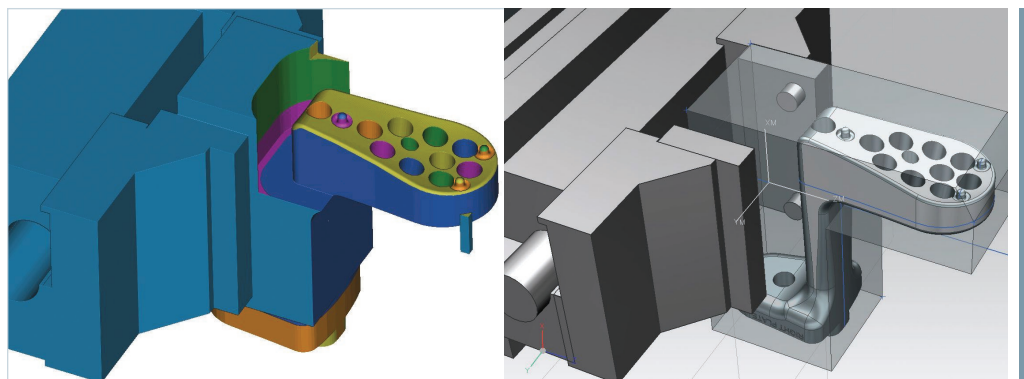
### Fundamental change in CNC process

MEDIN a.s., (MEDIN) originally called Chirana, was founded in 1949. In 1992, the government-owned company was bought by its employees, transformed into a public company and renamed. In 2005, the company purchased the Walter medical technology business. The acquisition added orthopedics to the company's portfolio. Today, the company is the biggest manufacturer of healthcare technology in the Czech Republic. Its product lines include surgical and dental tools, implants for traumatology and orthopedics.

With exports representing over half of its sales, MEDIN is quite successful internationally, distributing its products throughout Europe, Russia (where it operates a subsidiary), Latin America and the Middle East.

In the early 1990s, MEDIN invested in state-of-the-art computer numerical control (CNC) technology that made it possible to manufacture products of complex shapes and, at the same time, to achieve both high-quality and efficient production. As part of its continuous improvement goals, the company continues to gradually introduce new production technologies for CNC processing.

The production requirements are especially demanding, because products designed for medical purposes – often based on rust-resistant steel, titanium alloys and composites – must be



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Chief Technology Officer  
MEDIN

meticulously accurate. In addition, surgical techniques and instruments are constantly changing. For example, recently, the trend is to replace robust implants with smaller ones. Ultimately, smaller, highly contoured implants put greater demands on machine tools.

In 2009, MEDIN completely switched to computer-aided manufacturing (CAM) tools. The company needed a suitable tool for management of software documentation and subsequent manufacturing of products through CNC programs. Siemens PLM Software’s CAM Express software was chosen. Already using Siemens PLM Software’s Solid Edge® software for highly efficient design, the introduction of CAM Express fundamentally changed the way that MEDIN created CNC programs.

#### **Significantly improved innovation, efficiency and turnaround**

The use of CAM Express brought new opportunities for designers and engineers to develop products. Innovation became a mainstay of design. For example, instruments that formerly consisted of several pieces are now designed from a single piece and machined in a single process using 5-axis machining.

MEDIN plans to further modernize its machinery in order to more fully utilize the powerful functionality of CAM Express. Ing. Luboš Žilka, chief technology officer, notes that the highly flexible system plays a key role in the company’s success: “CAM Express is the primary tool of our CNC programmers; 99 percent of all new programs are performed using the software.” Žilk

points out that CAM Express is especially advantageous because it is compatible across a wide range of CNC machines, and use of the software makes it easy to address program changes. Using CAM Express, engineers can focus on the machining process, which increases work efficiency and cuts the time needed to develop and deliver new products. Furthermore, use of the software makes sharing data with suppliers easy, which is essential to timelines and collaboration.

In fact, MEDIN's time-to-market for new products has improved substantially. Productivity is at an all-time high. With CAM Express, engineers are now quickly designing original anatomical shapes of implants and complex shapes of surgical instruments. According to Žilk, use of CAM Express also means higher quality and more accuracy in its technical documentation, which further speeds up the innovation cycle and decreases development costs.

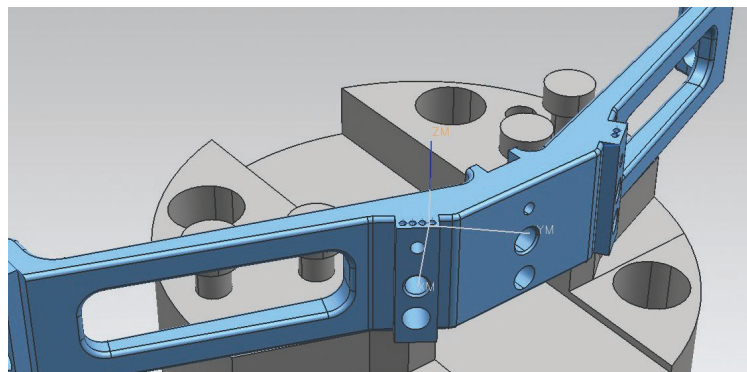
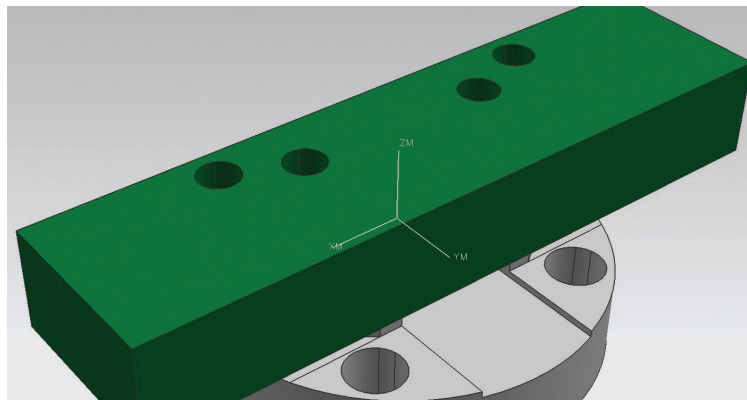
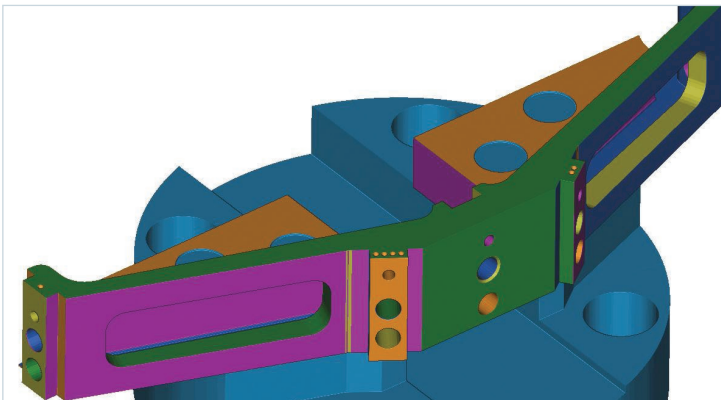
#### Technical excellence, wide recognition

The use of CAM Express makes it possible for designers to notably improve technical excellence across MEDIN's product lines. This increases the company's market opportunities. Recent new product successes include a nail for heel bone fractures, called C-nail. It is now a globally unique, patented product. "This makes a difference in helping us increase our market footprint abroad," adds Žilk.

Other examples of one-of-a-kind achievements using CAM Express include a wrist implant that received "Innovation of the Year" recognition from the Association of Innovative Entrepreneurship Czech Republic. "Our wrist implant has fulfilled the comprehensive and rigorous requirements expected of such creations including originality, technical superiority and cost-effectiveness," says to Žilk. "Without CAM Express, such successes would be hard to imagine."

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## Solutions/Services

CAM Express

[www.siemens.com/plm/camexpress](http://www.siemens.com/plm/camexpress)

Solid Edge

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

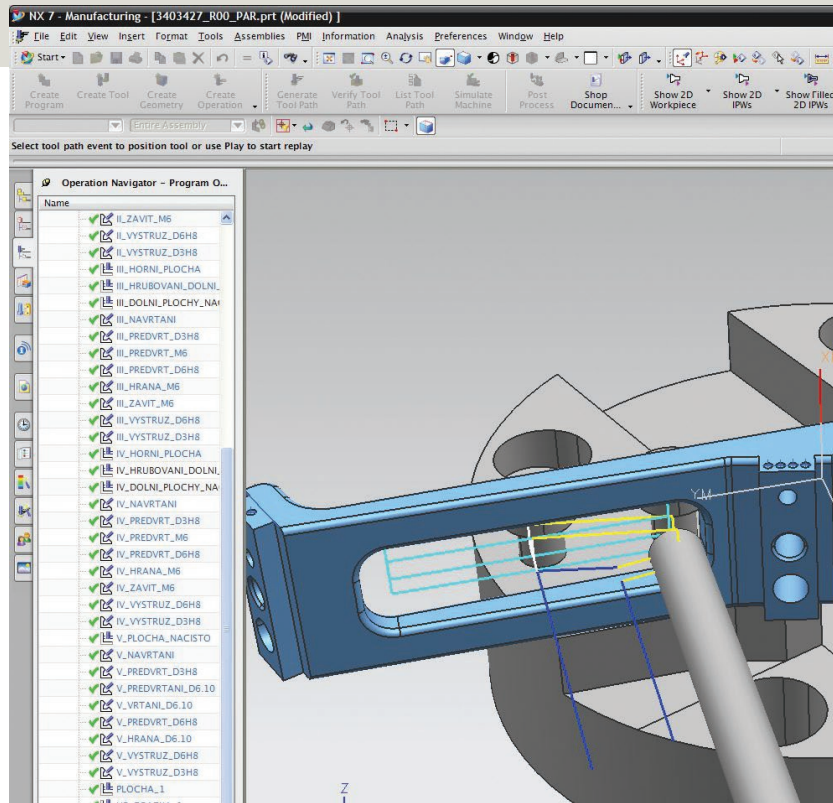
## Customer's primary business

MEDIN is the largest Czech producer of specialized tools for medical applications, including bone surgery, implants for traumatology and dentist tools.

[www.medin.cz](http://www.medin.cz)

## Customer location

Nové Město na Moravě  
Czech Republic



MEDIN has achieved a notably larger market footprint globally with the help of solutions from Siemens PLM Software.

## Siemens PLM Software

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

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