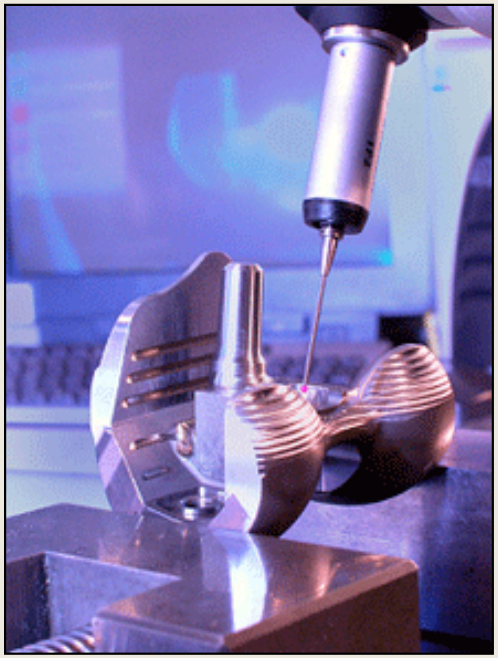
Technology, Speed and Quality Differentiates Orthopedics Job Shop



A knee component gets a quality check at Viasys Orthopedics.

(WILMINGTON, MASSACHUSETTS) – By emphasizing technology, responsiveness, speed, and quality, Viasys Orthopedics (Wilmington, Massachusetts) is carving out a name for itself in some of the highest specialty areas of medical manufacturing. The company is a contract manufacturer for OEMs supplying orthopedics (implants), medical imaging, and cardiovascular products. “To succeed,” says Giulio Perillo, Group President,“ we have to be innovative in terms of technology, environment, and response.”

Viasys is registered with the U.S. Food and Drug Administration and certified to ISO 9001: 2000 and ISO 134485: 2003 (quality management and related systems for medical devices). Viasys Orthopedics and its divisions Tecomet and Intermed Precision design and manufacture trauma products, etched products, and joint replacements including components for knees, hips, shoulders, and spinal implants out of such materials as cobalt chrome, titanium alloys, zirconium, and stainless steels.

Viasys Orthopedics also has developed selected technologies on its own. One is a patented 3D surface texture technology called Tecotex ® that the company can apply to machined implants. Texture patterns are developed in CAD software and can be applied to various joint reconstruction implants, spinal cages, and even dental implants by a photochemical etching process. Surface texture directly influences the implant’s fit, stability, and bone-fixation qualities, and the Tecotex® process can replicate particular surface textures down to microscopic dimensions. The result is superior uniformity with fewer part rejects.

But part design and development come first. “Our customers want superior results in first-article development and clinical market assessment,” Perillo says. “They want a cost-effective manufacturing partner that emphasizes process improvement knowledge, design for manufacturability, speed, and on-time delivery.”

It wasn’t always that way. “When I got here in 2004, the business was cash-starved, and the production side represented a portfolio of different manufacturing technologies,” he describes. To supplement what he considers a premier net forging operation, Perillo and his team set out to standardize on one machine tool company. “The main issue was cost,” he says. “A variety of equipment manufacturers affects costs in a number of areas: setups, programming, changeover, training, spare parts, and service. To accelerate top-line growth in absolute units, we needed to increase throughput, lower labor costs, and continue improving on lean manufacturing principles. We also needed available capacity to sell. Our Mazak Nexus 410A vertical machining centers were reliable, provided superior accuracy, and we had excellent response when we needed it. We decided to standardize on Mazak.”

LaunchQuick™

The decision to standardize has paid big dividends to Viasys. From orthopedics representing about 49% of the Viasys business when Perillo arrived, the amount is now 66% and growing. The company’s Mazak machine tools include 15 Nexus VCN-410A vertical machining centers, and a Super Mold Maker 2500 high-speed vertical machining center. In addition, an Integrex multi-tasking machines with bar feeder, together with a Variaxis 500-5X five-axis vertical machining center and a Nexus VCN-410A vertical machining center form the LaunchQuick™ Process Development Center at

Standardizing on Mazak machines pays speed-to-market dividends for Viasys customers.

Conversational programming with Mazak's Mazatrol CNC eases training and allows operators with no previous experience to program and cut parts quickly.

Viasys.

"We developed LaunchQuick last year as a process development lab for our customers," says Robert Lynch, senior director, R&D and product development. "For example, one customer wanted a high-speed process for machining spinal implants out of titanium. We were able to show how our Integrex with bar feeder could feed the bar stock, do all the milling and grooves, tap holes on the back, cut off the part, hand it off to the sub-spindle, and finish profiling the part. What used to take the customer hours we had down to 45 minutes all on one machine and we were just getting started."

And having one machine-tool supplier means process development at Viasys can go straight from the lab to the shop floor with no headaches. "Fixturing, tooling, programming, it's all the same," Lynch says. "And if the product launch is a success and we get a panic call for 300 pieces, it's no problem."

The LaunchQuick™ Process Development Center is a design-to-manufacturing lab for Viasys customers to explore production options.