



- ▶ Sliding and fixed headstock automatic lathe TRAUUB TNL12
- ▶ Medical technology
- ▶ Elos Medtech, Denmark

In medical technology only the best is good enough

Elos Medtech recently invested in four TRAUUB TNL12 sliding headstock lathes. Machine operator Michael Mørkenborg and the entire machining team are thrilled with their performance.



In medical technology only the best is good enough

The Elos Medtech Group is a development and production partner for medical technology businesses that is recognized across the world. The Danish subsidiary in Gørløse specializes in manufacturing hearing aids, dental implants, and related tools. To ensure top quality and precision when turning the demanding components, the company has been investing almost exclusively in TRAUB TNL machines since 2005.

Tina Friis Poulsen, Managing Director of Elos Medtech Denmark, is proud of the development of her business: “We’ve built up huge expertise in dental implantology over the past 15 years. “We turn, mill, and weld titanium, high-strength stainless steel, brass, and chrome cobalt, but also machine ceramics and plastics such as PEEK (polyether ether ketone) and PPSU (polyphenylsulfone)—in other words, materials that are commonly used in medicine and biotechnology. And because we demand top quality, precision, and cost efficiency, we take great care to ensure that our production facilities are state-of-the-art.”

Medical technology is an exacting discipline, especially when it comes to implants designed to remain in the human body for a very long time. Innovative developments based on many years of experience are therefore in demand. And that is one of the strengths of the Danish company, which decided back in 2001—at that time still trading as Pinol A/S—to concentrate entirely on the development and production of medical technology products.

Success with services and in-house products

The acquisition of Pinol by the Elos Medtech Group in 2005 boosted medical technology expertise. After all, Elos Medtech had already started developing hip and spinal implants in Sweden in the 1960s and, as part of a development project, gained experience in the manufacture of dental implants in 1975.

Tina Friis Poulsen goes on to add that “Here in Gørløse, we are primarily a development and production service provider in the dental business segment. With backing from the Group, we were also able to push the development of our own products. In 2007, for example, we launched a new torque wrench for precise placement of dental implants. Now, we sell 35,000 of them per year.” This implant tool was followed by other innovative niche products for dentistry. Today’s Elos Medtech Accurate® product range also includes abutments, scan bodies, and Titanium bases, all of which have major approvals and are suitable for the digital workflow in dentistry.” ➤



Quality is our top priority—be it our products or our machinery. In this respect, we see ourselves in good hands with INDEX. The sliding headstock lathes from TRAUB also deliver outstanding performance in terms of precision and productivity.

Tina Friis Poulsen is Managing Director of Elos Medtech in Denmark



A living partnership: (from left to right) Tina Poulsen, Managing Director of Elos Medtech, during a plant tour with INDEX representatives Roger Sachse, Sales Manager Europe, Brian Olsen, Sales Manager Denmark, and Marketing Manager Rainer Gondok. Also seen are Henrik Bendtsen, Strategic Purchasing, and Niels Lieberkind, Production Engineer at Elos Medtech.

Long partnership with INDEX

Work with INDEX began with the torque wrench for implant screws. Henrik Bendtsen, who has been responsible for strategic purchasing of technical equipment for almost 20 years, recalls the early days: “We started out with the attachable head of the torque wrench. Originally, we needed three steps to produce it. When the turning specialists at INDEX assured us that this component could be manufactured in one step on a TRAUB TNL26, we wanted to give it a try. And with a sliding headstock machine, leased for six months, we actually succeeded. We were delighted with the result and the reduction in production time—and of course purchased the TRAUB TNL26.”

That was in 2005, and since then there’s been no let-up in enthusiasm at Elos Medtech, the company having now invested in numerous additional TRAUB TNL machines. At present, there are 35 of these sliding headstock lathes of various sizes and equipment levels in the production halls. Since 80 percent of all parts have a size of less than 18 mm and most can even be turned from bar stock with a diameter of 13 mm, the TRAUB TNL12s dominate. “We also have components, however, that require a B axis for complete machining,” says Henrik

Bendtsen. “For those, we purchased six TRAUB TNL18s equipped accordingly. And for larger products, we also have three TRAUB TNL32s.”

Maintaining high production standards

The experienced strategist explains the reasons why he invested exclusively in TRAUB lathes: “Our focus, first and foremost, is on quality. We need to be able to rely on each workpiece adhering to tolerances of a few microns and coming off the machine with the same high precision throughout. This is the case with TRAUB machines.” Bendtsen offers a second argument: “Since we, like everyone else in this industry, are under price pressure, new machines really need to contribute to extremely efficient production. From our very first TRAUB machine, we’ve never been disappointed in this respect. Whether it’s for small or large batches, simpler or complex parts, stainless steel or plastic, we’ve always found manufacturing strategies that keep us competitive.”

Valuable user experience

Over the years, a deep partnership has developed from which both companies benefit. Brian Olsen, INDEX Sales Manager responsible for



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Denmark: "Elos Medtech is always on hand with suggestions on how details of our machines can be further improved. We naturally try to implement this valuable user experience." Something that usually succeeds, as Henrik Bendtsen confirms. "We recently purchased four TRAUB TNL12 machines of the latest generation. We were delighted to discover that INDEX managed to implement numerous of our suggestions for improvement. The result? We can further increase our productivity with the new TRAUB TNL12."

Olsen names a few key aspects of the new-generation TRAUB TNL12: "We've made the changeover as easy as possible for users of the previous TRAUB TNL12. All workpieces produced on the first generation of TNL12s can also be produced on the new TNL12s without any restrictions or major program changes. In addition, existing tool holders for the turret and the front and rear end machining unit can continue to be used and supplemented with new, more powerful models." Regarding increased productivity, he points to a few technical details: "The front end machining unit and counter spindle are now on separate slides, which means that main and counter



spindle machining no longer influence each other. As moving masses have become smaller, the machine is also more dynamic, and users benefit from greater programming freedom. The new TRAUB TNL12 also requires less floor space." X

Successful in-house product: The Elos torque wrench for dental implants sells up to 35,000 units per year. The click-in head is manufactured in a single step—a manufacturing capability that laid the foundation for the long-standing partnership between Elos and INDEX.



Medical technology products for a better quality of life

Elos Medtech Group is a worldwide development and manufacturing service provider for medical technology suppliers. It employs more than 550 people across the globe in its three business units Dental, Orthopedics, and Life Science. About 195 people work at the Danish subsidiary in Gørlose—specialized in hearing aids, dental implants, and related tools.

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Left: Tina Friis Poulsen, Managing Director of Elos Medtech Denmark, and her colleague in charge of strategic purchasing, Henrik Bendtsen, both clearly focus on quality.