

SMART COMBINATION

HOERBIGER lifting columns ensure secure and versatile patient positioning in the operating room

The health-care market is booming. Aside from medical progress, double-digit growth rates in the health-care industry can be attributed in particular to a steady rise in life expectancy. According to forecasts, the worldwide health-care market is scheduled to triple from 5 trillion euros in 2011 to 15 trillion euros by 2030. This trend will be driven to a great extent by medical technology*.

Text: Marcus Geigle Photography: Ari-Pekka Ahonen



Ville Laine, CEO and owner of LOJER OY, attaches utmost importance to sustainable, organic growth. Founded 95 years ago in Vammala, Finland, LOJER has been consistently owner operated. The company's development was spurred on above all by reliability and flexibility: LOJER evolved from a metal-working operation for agricultural machinery to a foundry and then to a leading medical-equipment manufacturer. Premium operating tables, senior

care equipment and medical wellness tables have been the supporting pillars of the portfolio for some 30 years now.

LOJER has always valued in-house production. Involvement in the entire manufacturing process is one of the company's core competencies. "We are facing tough competition in Russia and Europe," explains Ville Laine, CEO and owner of LOJER. "We can only achieve the necessary

growth with sophisticated design and quality according to European standards." To ensure the high-quality standard, the majority of parts are produced in-house: "Here in Finland we have control over the entire production process. This is our core competency. We seek out partners for performance-defining components and systems very carefully. In addition to an excellent quality standard, they must have high development expertise for innovative products of tomorrow."

**"WE ARE FACING TOUGH COMPETITION
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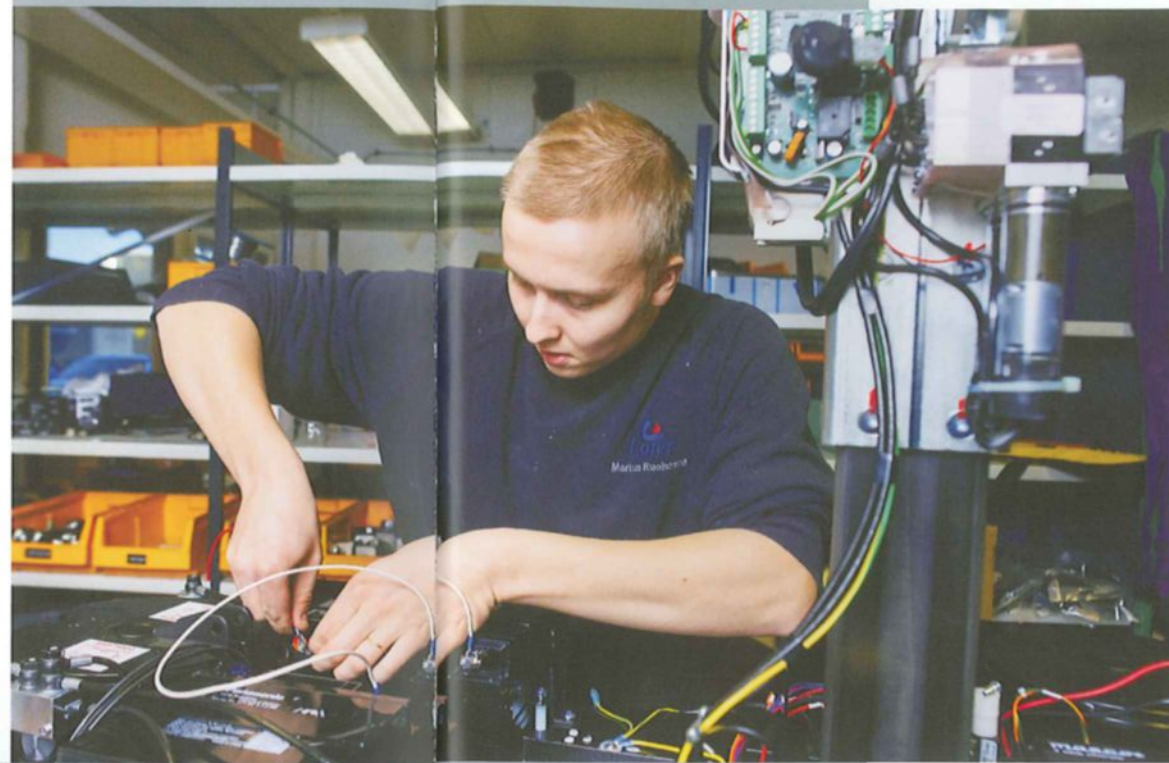
Ville Laine

* Source: Study by Roland Berger Strategy Consultants: "Worldwide healthcare sector – Opportunities for Germany" (August 2011)



"I WAS IMMEDIATELY CONVINCED BY WHAT I SAW DURING MY VISIT TO HOERBIGER IN BARBING."

Ville Laine



The Barbing location of HOERBIGER Automatisierungstechnik GmbH is an important supplier of LOJER. The site, which specializes in powerful micro-hydraulics, supplies the lifting columns for the operating tables made by LOJER. Ville Laine states: "HOERBIGER is our first choice in this market niche."

INVESTMENTS IN THE FUTURE

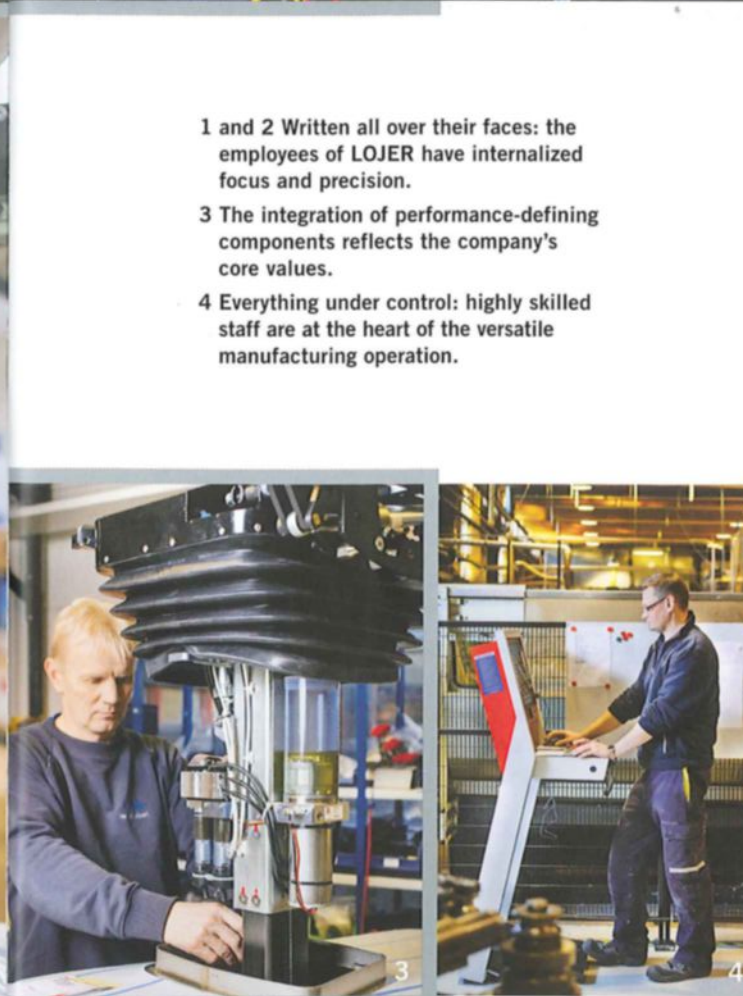
On entering the production plant in Sastamala, located approximately 30 miles southwest of Tampere, LOJER's manufacturing expertise becomes apparent. State-of-the-art laser cutting machines, a new multi-axis machining center and a recently delivered welding robot are the latest investments in even more efficient production.

LOJER, however, not only invests in ultramodern and efficient equipment: training and continuing education for the skilled staff working in production are also important to the company's managers, who put emphasis on sustainability. Since Finland does not have a dual education system such as in Germany, the company takes charge of training all the skilled staff on its own. In this process, the German education system serves as a model. "When you are an employer in a thinly populated area, you have to be creative and offer more than just job security. As a result we continually invest in our personnel and in our machinery," underscores CEO Ville Laine.

Despite high wages and extensive investments in production equipment, the business model of comprehensive in-house manufacturing pays off for LOJER. With its high standards, the company meets customer expectations in regard to quality and reliability. In the competition for innovative solutions for operating tables, the Finns are always leaders in the industry.

THE CORE: LIFTING COLUMN

Important competencies that LOJER is not able to cover with its in-house process are contributed by reliable partners. The core of an operating table is the lifting column; during surgery, it moves the table and patient with precision and reliability – and it does so in six possible axes. This requires specialized knowledge – expertise that LOJER found in HOERBIGER.



1 and 2 Written all over their faces: the employees of LOJER have internalized focus and precision.

3 The integration of performance-defining components reflects the company's core values.

4 Everything under control: highly skilled staff are at the heart of the versatile manufacturing operation.

The first contact between LOJER and HOERBIGER came in 2006 at MEDICA in Düsseldorf, the leading international medical trade show. LOJER CEO Ville Laine visited HOERBIGER's Production and Development in Barbing just a few weeks after learning about the compact design of the lifting column at the HOERBIGER trade-show booth. Ville Laine: "I was immediately convinced by what I saw during my visit to Barbing. It was important to me to find out how HOERBIGER assured the quality that we need. We had to see for ourselves on-site that we can trust HOERBIGER to supply the core of our product."

HOERBIGER has since delivered hundreds of lifting columns for operating tables made by LOJER. In total, the Barbing location of HOERBIGER Automation Technology has shipped more than 70,000 lifting columns used in operating tables worldwide.

A SMART COMBINATION GEARED TOWARD BENEFIT AND RELIABILITY

Operating tables must be designed to last a minimum of 15 years, which necessitates maximum reliability. HOERBIGER ensures this reliability with the core of an operating table, the lifting column. This is made possible by intelligently combining and perfectly tuning standard components, such as hydraulic cylinders and connectors, control blocks and other fluid components. This combination of tried-and-tested components results in a performance-defining operating table system, which is primarily geared toward the needs of the surgical teams and patients.

An operating table must not stand in the way of physicians and nursing staff. During surgery, the patient must be virtually free-floating, which is ensured by the central attachment of the lifting column. The operating table must be easy to use, allowing the medical staff to focus on their responsibilities instead of having to undergo protracted training on the technical use of the table. Finally, the lifting column must be able to securely position and move patient weights of up to 990 pounds.

The patient weight specifications vary depending on the target market. Worldwide, there are vast differences between maximum patient weights that must be considered when it comes to dimensioning operating tables. While operating tables must be designed for weights up to 450 kilograms (770 pounds) in the United States, the required maximum figure in Asia, notably in China, as well as in South America, is 180 kilograms (396 pounds) at most. HOERBIGER therefore now offers specific lifting columns for the respective markets.

SPECIFIC DELIVERY PEAKS

Over the years, a close partnership evolved between LOJER and HOERBIGER that is marked by flexibility and versatility. Flexibility is needed because, in the market for operating ta-



1 Quality that fits: at the assembly line, the perfect interplay of the lifting column, as the core of the operating table, with LOJER's in-house-produced parts becomes apparent.

2 Machine without man: conventional manufacturing techniques such as welding increase efficiency as a result of the latest robotic technology.

3 Man and machine: the sensory capabilities of humans are still indispensable.



bles, many clinic operators act as public contracting authorities. The release orders for the operating tables are issued throughout the year according to a pattern to which manufacturers and their suppliers inevitably must conform.

An extreme peak in demand always occurs during the last quarter of every year. "This sets in toward the end of September and results in a virtual run on shipments just before the end of each year," explains Ville Laine. The reason behind this is simple: the government sector sets annual budgets. Clinic administrators know that a budget that has not been exhausted before the year is up will very likely be cut in the following year. Since nobody wants to start a new year with a diminished budget, orders come pouring in at the end of the year. "And we not only have to produce, but in fact deliver by December 31," Ville Laine adds.

To be able to ship punctually, system suppliers such as HOERBIGER play a very special role. They must be able to meet these extraordinary requirements on time, without compromising quality. LOJER has an elaborate master supply agreement in place with HOERBIGER for this purpose, which allows flexible adjustments to the extreme demand in October, November and December. This flexibility in action is crucial across the entire supply chain.

FAST IMPLEMENTATION OF GOVERNMENT-MANDATED FUNCTIONAL ADJUSTMENTS

Another example of flexible cooperation can be found in regulatory error reporting and error auditing, which is extensive in the health sector. Any malfunctions of technical devices that occur or become apparent during surgery must be promptly reported to the health authority in charge. An advance notice is even mandatory in the case of emerging malfunctions or defects. These notices are collected, for example by the authorities in the EU, evaluated and passed on to clinic and hospital operators as well as manufacturers together with a directive for action.

The message is clear: a corrective measure must be developed and implemented promptly in the case of faulty medical devices. A short response time is very important. If defects are identified in LOJER's product sectors, the manufacturer – even if not affected directly – must take precautions to quickly make adjustments.

This again requires expertise on the part of the suppliers of these performance-defining key components. If the coordination as well as the development, production and supply chains work well, it creates a competitive advantage for the supplier. LOJER therefore attaches great importance to integrating such processes at its suppliers.

DEVELOPMENT PARTNERSHIP AS THE OBJECTIVE

Innovation is not possible without development. LOJER plans to attain even more loyalty from its buyers and users of operating tables by offering added value.

In this process, the suppliers of key components will play an important role. Ville Laine: "In my former companies, I was not so much involved in product development. Sales and production were my priorities. It was not until I took over LOJER that I developed a sense for this."

This is why the visit to HOERBIGER in Barbing was so important to Ville Laine: "I wanted to see where and how these key technological systems were being developed. I now know a great deal more about our own products and the interrelationships with performance-defining components such as the lifting column. This gives me a great number of features and benefits to highlight – I have become a true R&D fan."

A comprehensive development partnership between LOJER and HOERBIGER is intended to cut development cycles almost in half, and thus the time until a new product is ready to launch. "This will help us a lot in the future," adds Ville Laine.

CHALLENGING MARKET ENVIRONMENT – THE FUTURE CALLS FOR ADDED VALUE

In the coming years, LOJER's marketing efforts will aggressively rely on the added value of the products manufactured in-house: "To be able to compensate for the additional costs resulting from the development and high-end manufacture of a quality product from Finland through higher prices in the market, we must always guarantee our customers added value compared to our competition. To accomplish this, we also take advantage of the expertise and standing of our partners, and HOERBIGER has an outstanding reputation when it comes to lifting columns."

LOJER consistently bases the added value offense on the benefit for the customer – ease of use along with maximum reliability and functionality of the operating tables.

The next generation will have a more convenient design, notably in terms of control and maintenance aspects. Both are creating exciting tasks for HOERBIGER in the ongoing development of its lifting columns.

In the future, the surgical team must be able to determine the exact position of as many as six positioning cylinders in the lifting column at one glance. This will allow the patient's position to be fine-tuned quickly and precisely. For the next generation of lifting columns, HOERBIGER is already working on an integrated positioning control unit as well as on an option for continuously visualizing the positions of key axes.



1 LOJER produces all the parts in-house.

2 The young and old work together: training and development of skilled laborers is ongoing. The employees practice this at many workstations.

3 Good form follows function: a sophisticated design in conjunction with reliable and robust lifting column technology creates a competitive advantage.

