A Clean and Energy-Efficient Solution

A D.Laser MT 3015 laser cutting system from KNUTH is used to cut large-format metal plates for Kitzinger container washing systems.

Many years of experience and a wide range of products set Kitzinger apart from other manufacturers of washing systems and washing machines for bottles, boxes, and reusable packaging. Kitzinger was founded in 1986 in Handewitt, Germany, and is a major supplier of the German food industry, but also serves customers all over Europe via a network of dealers. Grocers, bakeries, butcher shops, and wholesale operations demand reliable, fast cleaning of their reusable packaging in order to keep bacterial counts within the required limits.
1,000 ways of “really clean.”

“Depending on the material the packaging was in contact with, this can be quite a “sticky” matter,” explained Manfred Kitzinger, CEO of Kitzinger. Therefore, the solutions must be just as unique as the applications. “We all have cleaned dishes at home, but the food industry is a totally different subject: Everything must be perfectly clean in the shortest time possible. And that comes at a price,” he added. Therefore, direct communication with the person in charge is of utmost importance for Kitzinger. To date, his 30 employees have already produced 1,600 machines for small businesses and large corporations.

Powerful with a Small Footprint

“After considering these requirements, we suggested the D.Laser MT 3015 with 3000 watt fiber laser and automatic shuttle table system,” said Christian Busch, Sales Manager at KNUTH Machine Tools. “This system features very high efficiency, low energy consumption, and has inherently a small footprint.” The system’s performance and KNUTH’s commitment to its customer were deciding factors for Kitzinger’s purchasing decision. “I knew that KNUTH provides excellent solutions for metal plate cutting from conversations with other businesses. Plus, their people worked very hard and dedicated to meet our requirements,” Kitzinger commented. Specialists from KNUTH visited the plant in Handewitt, Germany, several times to determine the most suitable machine configuration and to adapt components for a perfect fit in the available space. KNUTH also helped sell the old laser system and rearrange the existing plasma cutting system to provide adequate space.

Laser Cutting System
D.Laser MT 3015 / Fiber Laser

- Cuts large metal plates with superior cutting quality and maximum productivity using fiber lasers with various beam power.
- Lower operating costs due to high efficiency
- Advanced Siemens SL 840 D control
- Lantek CAD/CAM software with automatic nesting, plate management, and automatic plate identification

Energy Cost Factor

An increasingly important factor: The machines should be as energy-efficient as possible, so companies can offer their products at competitive prices. This is a major focus for Kitzinger in his own production process. “At a service visit for a plasma cutting system from KNUTH, I got in a conversation with KNUTH’s technician, Mr. Saglam, talking about modern laser systems,” said Kitzinger. “After this conversation, I started researching various laser types.” His wish was: a powerful, but energy-efficient laser cutting system that could deliver precision cuts of large metal plates and was suitable as replacement for an Amada system and also could handle the tasks of guillotine shear. His goal was: to make their own production processes more efficient and streamlined, and to reduce energy costs. A special challenge: Only very limited space was available for the new machine.
Side door for easy access

Precitec ProCutter
Autofocus Cutter Head:
• Automatic height sensing calibration after nozzle replacement
• Automatic nozzle cleaning

Hardware and slag conveyor

Table shuttle

Hardware and slag conveyor
Advanced Laser Technology Saves Time and Money

Today, the system runs at least 8.5 hours per day, yet the advanced fiber laser uses only one third of the energy used before. Three employees received special training in the operation of the new laser cutting system and cut about 98 percent of all washing system components with the new laser cutting system. Occasionally, Kitzinger even accepts orders for outsourced machining steps from other businesses. The machine cuts stainless steel plates in thicknesses from 1 to 8 mm. “The D.Laser MT 3015 can cut plates in sizes up to 3,000 × 1,500 mm,” Busch added. “The automatic shuttle table system features electric height adaptation and minimizes production downtimes. And other components also add to a more streamlined and faster production at our facilities in Handwitt.” Speed is a major competitive advantage, and there

KNUTH’s quick response and competent service plays another important role. “Thanks to the new machine and the precise laser cut, time-consuming rework by external providers has been eliminated. We were able to save a full day in our production process,” Kitzinger concluded. “Now we can complete all machining steps in-house, which has made us more flexible and faster.”