Precision Cuts for Mega yachts

Laurenat Isoliertechnik cuts polished stainless steel using the ACE Laser 3015 1.5 by KNUTH.

What convinced them to turn to KNUTH?
- Test cuts: Live demo with 1:1 customer orders
- Consultation: cost-effective solution featuring high precision and long service life
- Service: quick support and response to user inquiries
- Customer-oriented: When machine deliveries were delayed due to the pandemic, KNUTH handled their customers’ cutting jobs in-house

In 2001, the brothers, André and Ralf Laurenat, started their business in Schönkirchen, Germany, offering a wide variety of insulation technology services. Today, the business has seven employees and is one of the leading insulation specialists for ship exhaust systems. “Since we specialize on the repair and customization of mega yachts, we mainly process polished stainless steel in thicknesses of 0.6 mm to 1.5 mm,” explained André Laurenat. The resulting exhaust gases reach temperatures up to 600 degrees Celsius. Laurenat uses special insulation materials in order to keep the pipe surface temperature at just 60 degrees C. The high temperatures present a real challenge in regards to materials and processing. Therefore, maximum accuracy and precision are of utmost importance when cutting stainless steel. With these strict requirements and difficult materials, the existing machine had reached its limits. André Laurenat started researching laser cutting systems and turned to KNUTH Machine Tools for advice. “Within a few days after their inquiry, one of our Application Engineers and I drove to Schönkirchen to look at their current process,” said Christoph Ziebarth, Sales Manager for KNUTH Northern Germany.

A high-precision and cost-effective solution

Ziebarth invited the brothers Laurenat to visit the KNUTH Cutting Center, where they could watch a demo of suitable machines and also try them out by cutting sample workpieces. “For the sample cuts, André Laurenat had sent us a 1:1 drawing of a customer order and he brought the respective stainless steel plate with him. This way, they could see and experience a direct comparison to their previous work and quality,” said Ziebarth. He recommended the ACE Laser 3015 1.5. This machine could easily fulfill the strict requirements in regards to precision, while still being a cost-effective solution. “We don’t use the cutter every day, but now we save a lot of time by handling any laser cutting in-house, and we have
Electrician and the KNUTH Set-Up Team, the actual set-up of the machine went smoothly as expected.” Immediately after the set-up, the operator training started. After a two-day introductory training, the operators could become more familiar and experienced with the machine, before another two-day training session was conducted to answer more in-depth questions. André Laurenat expressed his satisfaction in his pragmatic way: “The machine does what it is supposed to do, and if we are unsure about anything, we just call KNUTH and we will get a quick and clear answer. Much more flexibility in regards to the cut parts. Mega yachts always need unique custom parts, and any repairs must be completed quickly,” explained Laurenat. The ACE Laser 3015 1.5 with its bilateral drives and a work area of 3000 × 1500 mm can handle all common plate formats and is available with 1 kW to 6 kW Laser power. The automatic laser cutter head features auto focus (motorized focus positioning), automatic level control and collision guard to ensure a consistently high cutting quality.

Perfect teamwork: Sales, Technology and Customer

When the Corona pandemic delayed the promised May 2020 delivery date to August, Laurenat and KNUTH found a practical and flexible solution. “We were able to have our most urgent orders cut directly at KNUTH’s Wasbek facilities. That was perfect teamwork between KNUTH Sales and Technology and us, the customer,” said André Laurenat. At Schönkirchen, the company had their workshop enlarged and the necessary high voltage connections installed for the new system. Ziebarth recounts: “After our on-site visit with the electrician and the KNUTH Set-Up Team, the actual set-up of the machine went smoothly as expected.” Immediately after the set-up, the operator training started. After a two-day introductory training, the operators could become more familiar and experienced with the machine, before another two-day training session was conducted to answer more in-depth questions. André Laurenat expressed his satisfaction in his pragmatic way: “The machine does what it is supposed to do, and if we are unsure about anything, we just call KNUTH and we will get a quick and clear answer.