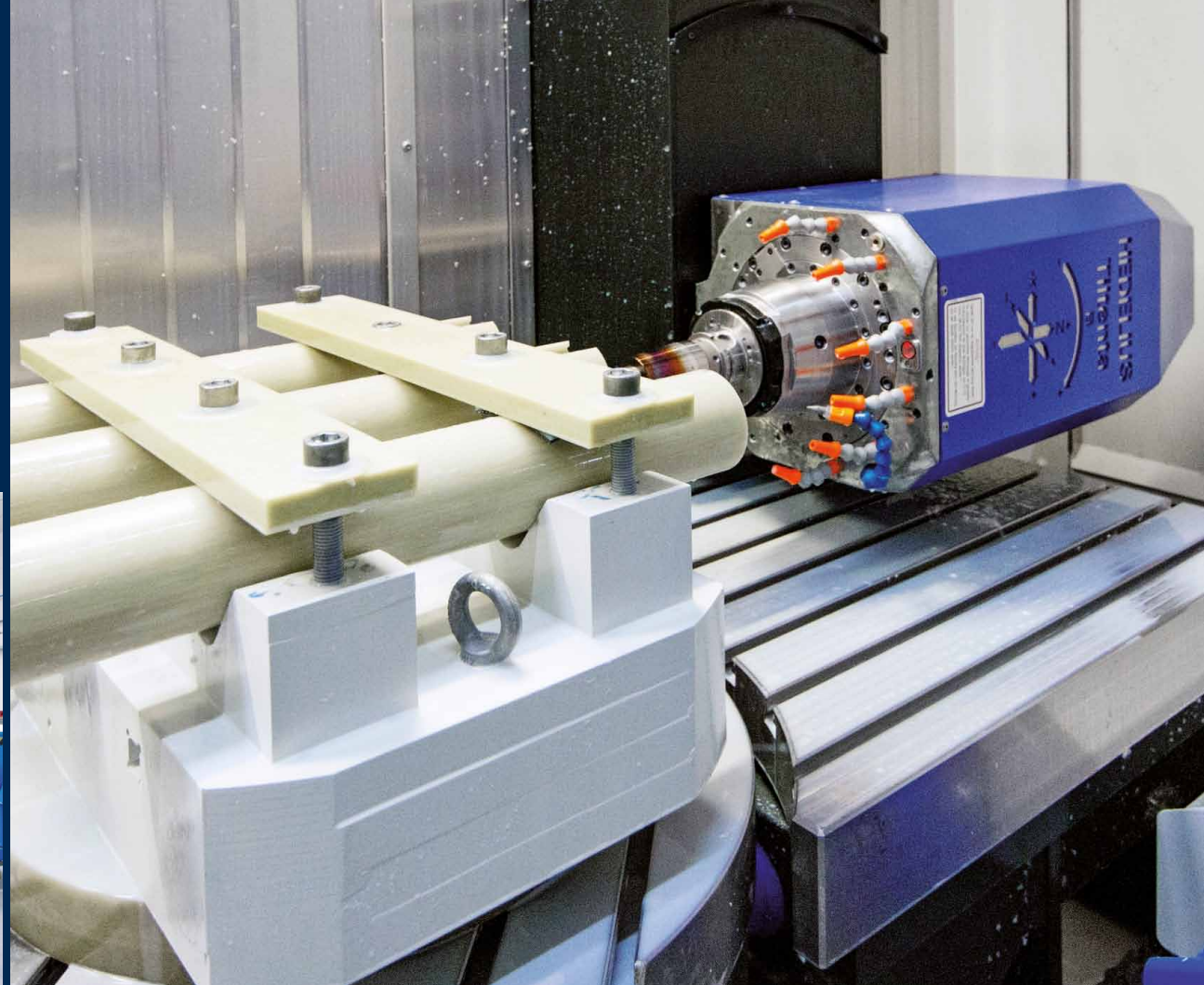




The material GRP is sometimes used in heavy-duty machining operations and processed here on the swing-spindle machining centre Tiltenta 6 2300.



By means of a special device for efficient multiple clamping these GRP parts are processed on Tiltenta 6 2300 in one cycle.

“We needed something reasonable.”

WKT-Wernemann Kunststofftechnik GmbH is a family business in the second generation, which continued to grow at the founding site in Geeste-Dalum. The company has been manufacturing GRP parts in all forms since 1994. This is the non-conductive material for instance for high-voltage systems, generators or switching systems, but also for the machine engineering industry. Since 2015, WKT also manufactures GRP strips itself on one of the world’s largest press lines.

The base material GRP consists of various reinforcement fibres, mostly glass fibres and a resin matrix, which is co-pressed and baked. This results in strips in different strengths with different properties. “Our customers are often surprised by how hard the components from GRP are,” said Thomas Wernemann, Managing Partner of WKT. “And for the processing we need at least tools from hard metal, if not diamond cutters. The glass fibres can make the tools dull very quickly.” Further processing of the highly stable material is thus a great challenge.

Individual processing is necessary

For the different products, the 100 employees of WKT work with a wide-ranging machine park. The machines in use range from wood processing to metal processing machines. “Our parts are processed both wet and dry, both have advantages and disadvantages,” explained Production Manager Andreas Jestrabek. “Some customers require their parts to be processed dry. Wet processing requires a subsequent cleaning, which preserves the tool.” For wet processing, four machining centres from HEDELIUS are in operation.

Challenge glass dust

“The HEDELIUS machines are not as delicate as portal milling machines, used by many of our employees. The endure more chipping”, said Production Manager Andreas Jestrabek. However, the glass dust puts a strain on bearings and guides, which therefore have to be lubricated continuously. However, in the maintenance of the first HEDELIUS machining centre RotaSwing 605, we found out “that the storage of the round table is sealed well enough,”

emphasized Jestrabek. The bearings and guides therefore remain almost free of dust. For the three-axis machining, WKT also has two machining centres of the C50 and C60 series as well as the swivel-spindle machining centre Tiltenta 6. The Tiltenta 6 is designed for high-precision simultaneous machining, such as in the case of parts for superyachts. In addition, the HEDELIUS machining centres with special devices for multiple clampings in efficient oscillation mode are used.

Good solutions for production

“We deliberately have a diversified machine park”, said CEO Thomas Wernemann, “because each of the machines has its strengths and features.” Also, WKT itself has already developed machines and devices for many applications. However, for high-performance and precise volume machining of GRP, WKT relies on HEDELIUS: “We said: We need something reasonable for small parts. And then, a half hour later, we were in the car going to Meppen”. The other machining centres were acquired due to good service, in addition to demand. “We are very satisfied with HEDELIUS,” concludes Thomas Wernemann, “all you have to do is pick up the phone to get an answer.”

WKT-Wernemann Kunststofftechnik GmbH

Established: 1994

Company headquarters: Geeste-Dalum

Employees: 100

HEDELIUS C 50

HEDELIUS C 60

HEDELIUS RS 605

HEDELIUS T6 2300