

Presentation

THANKS TO THE MERGER OF TWO SPECIALISED COMPANIES (FHAR-DREHTEILE AND RITZ) A FULL RANGE OF TURNED PARTS CAN NOW BE OFFERED BY RITZFAHR GMBH

CLASS MEETS MASS

"We are experts when it comes to turned parts". This statement from Bruno Fahr, sales director at the newly founded Ritzfahr GmbH, conveys a strong sense of self-confidence. This confidence is well-founded and based on the decades of experience and expertise gathered by the two companies operating in different market segments. Fahr-Drehteile can look back over 100 years of tradition in the field of precision turned parts manufacturing, while Ritz has specialised in the economic mass production of standard turned parts since 1960. Since November 2009, both companies have operated under the umbrella of the Escha Group, offering a hitherto unparalleled range of products and services in the sector. The new Delta range of Tornos CNC machines, which the company has used to optimise its manufacturing strategy, have contributed greatly to this.



Good reason to smile (from left to right): Bruno Fahr and Klaus Meier from Ritzfahr, and Siegfried Broghammer from Tornos. The new CNC machines in the Delta range have been an instant big hit.

A better understanding of the success being enjoyed by the new company alliance can be gained by taking a glimpse into the past. Fahr Präzisionsschraubendreherei was founded in 1911 in Weil am Rhein, Germany and quickly began specialising in the production of highly complex and high precision products, including products for the watch industry and applications for medical and high frequency technology. The company introduced CNC technology in 1995, a field which it has been consistently extending ever since.

Ritz-Drehteile was founded in 1960 in Efringen-Kirchen as a turning shop and specialised in the economic production of mass turned parts from the outset. The customers for these parts predominantly came from the automotive sector and the electrical/electronics industry. One of Ritz's most important

customers was the connector and housing specialist Escha Bauelemente GmbH. To ensure that a close relationship was maintained with this important supplier, Dietrich Turck, CEO at Escha, joined Ritz in 2006 as a partner and took over the company. In 2009, when Fahr then ran into financial difficulties during the global economic crisis, Dietrich Turck recognised the potential of merging the two companies. As such, he decided to purchase Fahr and bring the two companies together at the Efringen-Kirchen site to create the new company Ritzfahr GmbH. This was an extremely courageous decision, as it was difficult to find anyone willing to invest in one turning shop during the crisis, let alone two. Following some major efforts, this courageous entrepreneurial step already began to bear fruit in 2009. However, this success was not achieved by random chance. Instead, it was



From the simple, standard turned part through to the highly complex workpiece, Ritzfahr GmbH is equipped in the best possible way with Tornos Delta CNC machines.

Siegfried Broghammer from Tornos is regularly on-site to discuss new technical challenges with Klaus Meier

the result of a professional merger of two cultures and an intelligent investment strategy. The expertise in mass turned parts manufacturing and the technological know-how in the production of highly complex turned parts were harmoniously combined and integrated into new structures. A key component of this strategy was to replace the old, cam-controlled machines with modern CNC machines from Tornos' Delta range.

Investing more intelligently as a way of producing more economically

The first step in the transformation was to perform a thorough analysis. The goal here was to gain a clear picture of the existing customer base and the scope of parts covered, as well as to define potential target customers and markets. On the one hand, the major customer ESCHA meant that there was always demand for a certain basic volume of mass production turned parts. However, the trend with these mass produced turned parts was heading towards smaller batch sizes, ever increasing product variance and the need to produce custom solutions at short notice. These were requirements which could not be met using the existing cam-controlled machines. As such, it soon became clear that the company would need to make the switch to CNC technology as quickly as possible.

Klaus Meier, one of the pioneers of CNC technology at Fahr, was given the complex task of achieving the best possible results with the budget that had been put in place. The objectives were to maintain the efficiency of the cam-controlled machines from a cost perspective, but to become significantly more flexible in terms of production and equipment, to be able to split large orders without generating additional costs, to ensure simple programming, minimise tooling costs and so on. Meier held intensive discussions with virtually every well-known machine manufacturer during his research. Given his target specifications and the problems he was facing, he could just as easily have been from any of the major

automotive manufacturers, as one of the key issues he needed to grapple with was whether to invest in two machines with advanced technology or multiple simpler and more affordable machines.

This process went on for several months, as the most diverse parameters had to be examined and assessed. These included both the existing and future target range of parts, the logistics involved, the existing tools and equipment, the qualification and motivation of the workforce, the space available, as well as both the organisation and implementation of the actual switchover phase. After all, it was vital that production remain up and running during the switchover, since customers still needed to be supplied with parts on time. Several machine manufacturers were forced to give up when confronted with such complex tasks and challenges, quickly withdrawing from the group of potential providers. When all was said and done, only three manufacturers remained, and Tornos was ultimately awarded the contract. The Swiss company supported the procurement process from the outset and was also the only provider that was capable of integrating both technologically advanced machines and simpler models into the existing scenario. In contrast with other manufacturers, Tornos set itself the goal of providing the market with machines capable of precisely meeting customer requirements while also offering excellent price-performance. Since this time, Tornos has not only enjoyed an excellent reputation in the top performance segment, but also continues to set standards here with its DECO a-line and e-line. The Swiss manufacturer also went on the offensive in the mid-range price segment a few years ago with its new Sigma range. And its Delta machines, in the lower price segment, offer the greatest possible precision and flexibility for relatively little money. Following intensive discussions and consultations, the decision was therefore taken to purchase seven Tornos Delta machines.

The machine developed by Tornos maintains the high quality, precision and reliability standards the company is renowned for. The machines are built

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in cooperation with Tsugami in Japan, a company which itself enjoys an enviable reputation and has many years of experience in the construction of machine tools. The Delta range is supplied with 3, 4 or 5 axes and bar capacity diameter ranges of 12 mm or 20 mm. These are simple, easy-to-operate machines for standard turned parts. In their design, particular emphasis was placed on allowing easy accessibility and fast tool changes, as well as ensuring clear vision of the machining process.

The machines are delivered with a minimum of options within 2 to 4 weeks and can be commissioned immediately. The programming is performed via simple standard software and requires virtually no training. Given their affordable price, the machines are ideally suited to the extremely economical production of simple parts. From the perspective of Klaus Meier and the experts at Ritzfahr, they therefore met the required criteria better than any other machines. However, since the machines had only just been launched in the market at the time and there were few references available, Klaus Meier was somewhat concerned at first that everything would work as it was supposed to. Although stressful at the time, following the resounding success of the product launch and the fact that production was able to be immediately ramped back up to full capacity, he can now reflect on this time with a sense of accomplishment and a smile.

From investment banker to lathe expert

Bruno Fahr, sales director and one of the managers at Ritzfahr, used to work for a Swiss investment bank over 15 years ago, a time at which investment banks still enjoyed a good reputation. He now devotes this pragmatic and entrepreneurial way of thinking to the new company. Since he is always keen to examine processes holistically, he was a big supporter of the seven Delta machines. Not only do these models offer an extremely low total cost of ownership thanks to their low energy consumption and minimal maintenance costs, the costs of documenting and tracking production processes are also significantly lower than on more technologically advanced standalone machines. Added to this is the fact that the tools and devices are all uniform, allowing them to be used across all machines, and that the simple programming is the same for all machines and can be performed by any member of staff. This helps instil a sense of teamwork and encourages employees to move away from attitudes such as "that's my machine and I'm not interested in anything else". Members of staff work in rotation here, learning

about new tasks and facing new challenges. This also helps motivate the workforce and has made Ritzfahr very popular among young people and those seeking a trainee position. After all, optimising production is only the beginning. The goal now is to optimise the entire production process, thereby ensuring that the company is ready to face the challenges of the future and compete in the international arena. Internal logistics ranging from the receipt of incoming goods to the dispatch of cleanly packaged parts is currently being realigned. Similar changes are also being applied to tool management and the tool store, quality assurance and the materials warehouse. The seven Delta machines from Tornos offer important advantages here as well, impressing not only with their low space requirements, but also their uniform, end-to-end design. Thanks to the extra flexibility they offer, completely new orders can be taken on and profitably produced. Another growing market segment is polished turned parts, which are fully turned, slotted, threaded and leave the machine already polished. Even custom finish options can now be produced in small series for customers at a very attractive price. With its Delta machines and its partner Tornos at its side, the newly founded Ritzfahr GmbH considers itself perfectly equipped to handle future challenges and is confident that it will continue along its present growth course over the next few years. Replacing the old cam-controlled lathes with the new machines from the Tornos Delta range has definitely paid off for Ritzfahr, and the company's positive experiences in ongoing practical applications have also impressed the investor.



Ritzfahr GmbH
Beim Breitenstein 22
D-79588 Efringen-Kirchen
Germany
Tel: +49 (0)7628 / 9118-0
Fax: +49 (0)7628 / 9118-89
www.ritzfahr.de
info@ritzfahr.de