



Headline: Zindel increases its manufacturing precision and flexibility

Subline: The use of a modern machining centre has equipped the medium-sized precision tools manufacturer for sustainable competitiveness and profitability

Copy: Zindel Präzisionswerkzeuge GmbH was founded in Zellhausen in 1981 by master toolmaker Jochen Zindel. He was one of the first to recognise that steel tools could be manufactured more precisely, more efficiently and more flexibly by means of electrical discharge machining (EDM). The wire-cut EDM technique quickly became established for the manufacture of steel tools. In 1984 the company moved into its present-day premises in Mainhausen, where 16 employees now work in the family business, which has been run since 2014 by son Timo Zindel and daughter Jasmin Zindel.

At Zindel, special tools are manufactured flexibly according to customer requirements by a team of toolmakers, machining technicians and EDM technicians using CNC wire-cut EDM, milling and die sinking processes. As well as cutting, drawing and combination cutting tools, they also manufacture compression moulding tools for industrial powder metallurgy and pharmaceutical applications. These can be milled with a tolerance of up to 3 µ. The reverse engineering options available also mean that construction can also take place on the basis of individual prototypes, drawings or 3D models.

Subline: Short response times ensure a lead against competition from the Far East

Copy: At Zindel up to 95% of the customers come from the domestic market and the surrounding countries. In order to ensure the company's competitiveness for the future too, a decision was taken to modernise the machining centre. "Our great advantage over our competitors is quite clearly the fact that we are local and can generally respond much faster and more flexibly to special customer requirements. Therefore it is very important for us that we can continue to fully utilise this advantage profitably in the future too", says Timo Zindel.

Now as a result of upgrading to the AXA model VSC 3 4000XTS, many jobs can be manufactured in one shift instead of two. But the advantages of the new travelling column machining centre are not just evident in the machine's speed, or its very high-performance 40 kW and 255 Nm main spindle. Thanks to the integrated internal tool cooling with a seamlessly adjustable high pressure pump of up to 40 bar coolant



pressure, a much wider range of tools can now be used. There is also less wear and tear on materials, and as a result the tools do not have to be replaced so often. This reduces machine downtimes, and operating costs can also be sustainably reduced. The manufacture of larger and wider parts than before is also now possible thanks to the large working area of the spindle, with possible travelling distances in X/Y/Z of 4000/1000/950 mm, which means substantially greater flexibility of manufacture.

Subline: **Special sliding guides for fast precision work**

Copy: “For the manufacture of precision tools, the sliding guides built by AXA with a ball screw assembly in all linear axes are the best”, says Zindel. This guidance system stands out through its extreme rigidity, above-average long-term precision and excellent damping properties. It is also excellent in terms of its adjustability. In combination with the ball screw support that has been patented by AXA, traversing speeds of up to 40 m/min can be achieved effortlessly.

“Our customers have their requests supplied up to 50% faster, we can work more efficiently and more profitably overall, and we were looked after throughout by professional and reliable AXA employees. So choosing AXA was the right decision in every way”, says Timo Zindel summing up the advantages.

Subline: **Solution-oriented right down the line**

Copy: AXA stands for complete service when it comes to machine tools, from the planning, development and construction, during manufacture and right through to the installation and commissioning on the spot. AXA is characterised by an extremely high level of vertical integration, and the high quality of the components as a result of this. The attribute “Made in Germany” thus also counts for the suppliers that AXA works with. In this way, AXA’s customers can be professionally assisted and supplied with original AXA components for many years. Sustainability has many faces!

“It was not only their convincing technical performance, but also the comprehensive and personal advice we received, and the guided tours on the spot of both the AXA workshops and our premises, were further factors that contributed to the good impression AXA made upon us”, says Timo Zindel to explain why he decided in favour of the AXA machine.

Subline: **Successful assembly in limited space**



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The assembly of the machining centre on the spot posed a particular challenge. As the machine would not fit through the factory gate in one piece, it was dismantled into pieces of the right size and then reassembled. The implementation on the spot, the technical briefing given to the Zindel employees by the fitter and the rapid troubleshooting all ran smoothly.

Thus at key stages in particular, with its high customer focus and flexibility AXA proves to be the right partner for companies undertaking modernisation. “Decisions of that kind are not just dependent on the quality and price of the machine. For us the whole package is crucial, in other words whether we also get on well at a personal level.”

Subline:

Serving customers with tradition and innovation

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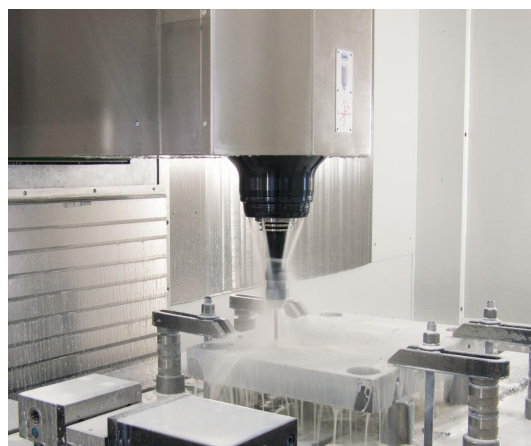
Just like Zindel Präzisionswerkzeuge GmbH, AXA Entwicklungs- und Maschinenbau GmbH is also a family company. Founded in 1965 and with its registered office in Schöppingen, the company employs around 350 people for the production of its gantry and travelling column machining centres. Constancy of both quality and performance and an unambiguous customer focus have been firm foundations of AXA's corporate values for more than 50 years. The high level of vertical integration is supplemented by the ability to integrate other technologies into existing concepts, enabling AXA to fulfil almost all of its customers' wishes in terms of the development, design and manufacture of machining centres and customised manufacturing equipment.

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Picture 1: AXA VSC 3 4000 XTS travelling column machining centre– machine table with fixtures for the milling of long parts



Picture 2: Drilling a guide plate



Picture 3: CEO Timo Zindel, representing AXA Entwicklungs- und Maschinenbau GmbH, with Thomas Benz of Benz LT

