Precision Work under Pressure

Metrol is a family-owned Polish business that uses KNUTH machine tools for its pressure component production.

The company is well known for its high-quality pressure components that play a major role in the efficiency and safety of industrial heat exchangers. Their products are used in applications, where strict process temperatures control is required. Metrol employs about 40 people, who manufacture about 30,000 components of various types per year, which are shipped directly to large manufacturers in Poland and Germany. “Our main customers are renowned international corporations, who produce heat exchangers for the railroad or shipyard industry,” explained Waldemar Klimczuk, the owner of Metrol.
Metrol produces AD 2000 or PED compliant pressure parts and adheres to the respective German standards. In their region, they are the only business capable of producing according to these standards. In addition to its track record of high quality and on-time deliveries, the company also is very flexible. “Since our customers often request small batches or customized production runs, we depend on the use of production equipment that is universal,” said Klimczuk.

**BO 90 CNC**

**CNC Drill Unit**

Modern, compact and powerful with rotating setup table

- Table dimensions 630 x 800 mm
- Table load capacity 1,000 kg
- Drilling capacity 30 mm

For detailed information on this series, please visit [www.knuth-machinetools.com](http://www.knuth-machinetools.com)

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**Compact CNC Drill Unit Hits the Mark**

In 2016, Klimczuk was looking for a horizontal milling/drill press combination for their steel machining requirements. It had to have a small footprint, yet be able to cover a wide spectrum of machining applications. After considering several large CNC Drill Presses, he quickly realized that these were not suitable for his production needs. The he came across an image of KNUTH’s compact BO 90 CNC, which immediately caught his attention. KNUTH arranged a visit at the facilities of their reference customer, Bydgoszcz, where Klimczuk personally could check out the machine’s many advantages.

He never regretted his subsequent purchase decision: “We have used the BO 90 CNC now for three years five to six days per week, and not once did we have any malfunction.” The Siemens 828 D control fulfills all programming and handling requirements of a state-of-the-art CNC.
Equipped for maximum precision, the drill unit features powerful servo-drives and preloaded ball screws with large diameters. The simple concept of the table rotation mechanisms ensures plenty flexibility. It allows users to set up a new batch after 30 to 40 parts have passed, allowing very quick change-overs between components.

High Precision, Superior Service

In 2017, Metrol bought a second, considerably larger machine than the BO 110 CNC to fulfill their needs in machining heavier and larger steel parts. “What I really like about these KNUTH drill presses, is their functional design and the user-friendly interface of the CNC control,” said Klimczuk. “The programming of cycles is very easy, which is another big advantage.” Even new employees with very little CNC experience require only minimal training until they can run the machine efficiently and without problems. The BO 110 CNC is the perfect machine for working with tight tolerances - an important factor for Metrol, who works with micrometer precision. “The quality of this machine was just as convincing as the excellent service,” added Klimczuk. “When needed, a service technician will be on site within 24 hours and quickly will find a good solution for the problem at hand.”
KNUTH is the First Choice

Their next two machine tools, Klimczuk also purchased from KNUTH. In 2018, an old conventional drill press was replaced with a KNUTH's conventional BO 110 drill press. One year later, an old milling machine suddenly failed, and Klimczuk again found a replacement in the KNUTH catalog. He selected the VFM 5, which features large travels and a heavy vertical cutter head with angular adjustment. Since the machine was in stock, it was quickly delivered to Kamieniec Ząbkowicki, where it was set up and put into operation by a KNUTH technician. Klimczuk was very pleased about the quick delivery, and also about the great price. Other, more expensive machines could have never been fully utilized in their business. Waldemar Klimczuk is convinced: “Any time, I need a new machine tool, KNUTH will always be my first choice.”