



■ Wincor Nixdorf AG, Germany

## One for All

The secret to the success of Wincor Nixdorf? Innovation and consistently optimized machinery – with Sinumerik 840D sl.

**W**incor Nixdorf AG is of the world's leading and most successful providers of IT solutions for banks and commercial enterprises. Its clear commitment to innovation in all areas means that the company is also extremely well-equipped to cope with difficult economic periods. And as Michael Schönbeck, Head of Technology Lines, points out, the company uses only the best technology available. Over the past few years, he has restructured the tool shop, where 65 employees manufacture around 300 tools per year for in-house use. In addition, the company performs machining work for external customers and in return buys in the services of other mold manufacturers. This leads to a high degree of flexibility and optimum utilization.

### Uniform control architecture

Tool making at Wincor Nixdorf is focused on complex finish-machining. Prefabricated master dies are produced just-in-time and then have to be processed further with the same level of efficiency. More than 15 years ago, Schönbeck clearly saw that milling would become the most strategic production method in his tool shop. High-speed milling machines can be used to produce surfaces that only require a minimum of finishing work. So he asked himself: which control systems were capable of achieving the necessary speeds while also offering the functionality to process the required volumes of data? As Schönbeck explains, "We used to deploy a variety of CNCs, so we were able compare different products objectively based on experience. And of course we also took a close look at the current and future generations of controllers at the time." Twelve years ago, the technology manager took the decision to equip a milling machine with Sinumerik 840D sl. He was extremely

pleased with the results and soon established a uniform control architecture throughout the entire tool shop, resulting in enormous benefits for the machine operators and logistics alike.

### The right machine tool for every task

Standardization is an important goal for Wincor Nixdorf also in selecting machinery for the tool shop. Potential machine tool suppliers need to offer a wide range of products and provide a suitable solution for every machining task. The DMG Group, whose high-quality HSC 75 linear machining center with direct drives is used in electrode production at Wincor Nixdorf, was selected to be the company's partner. "After all, the best control system on the market is useless to us if the machine cannot achieve the required surface or is too slow," explains Schönbeck. He is delighted with both the machining times and the surface quality achieved on the graphite and copper electrodes. "This machine virtually eliminates all finishing work, enabling us to achieve optimum productivity." Based on its positive experience with the HSC 75 linear, Wincor Nixdorf went on to purchase a larger, equally powerful machining center for its machining shop.

The company opted for the HSC 105 linear from DMG, which is ideal for medium-sized five-axis parts. This machine has a very large working area in relation to its overall size, and not only does the fork head provide a high level of machining freedom, but the axes also achieve impressive acceleration and speeds. This is made possible among other things through the use of 1FN3 linear motors, which bring significant benefits in terms of precision, dynamics and acceleration. In order to provide optimum compensation for thermal influences and ensure clean swarf removal, Deckel Maho uses vibration-reducing material and intricately designed machine geometry. When working with short machining times, the interaction of linear motors, machine geometry and Sinumerik CNC ensures extremely high axis acceleration and speeds.

### Powerful and user-friendly

Michael Schönbeck is absolutely certain that the Sinumerik CNC makes a significant contribution to the results obtained; it is the "fastest control system both in terms of batch processing and cycle times." Moreover, the configurable and programmable zero offsets – known as "frames" – are simple and flexible to set and can be transferred to the machine at the touch of a button. And the more elaborate the pro-

gram, the more important these features are. For several years now, Siemens has provided an extremely user-friendly feature in the form of the Shop-Mill graphical user interface, which provides a quick and easy way of creating programs. Although this is only of limited importance at Wincor Nixdorf, where over 90 percent of the complex programs are created on external CAD/CAM workstations, it still provides valuable assistance to the machine operators: the setup and tool management functions it provides prove extremely useful when it comes to setting up workpiece setup. As Siemens consultant Ingo Bartsch says, "Our interface software is intuitive and features graphical animations, making setup so simple that even untrained employees can pick it up within a few days." ■



The five-axis HSC 105 linear milling center with Sinumerik 840D sl is perfect for high-precision tasks and is also very easy to operate

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