

AN IMMEDIATE RETURN ON INVESTMENT

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As a contract manufacturer, Knebel Metalltechnik GmbH primarily relies on HURCO systems. The company's purchase of the new DCX 32-5Sci portal milling machine paid off from the very first day onward. Its efficiency and ease of operation simply cannot be beat, and it can even mill highly complex workpieces.

Knebel Metalltechnik GmbH has decades of experience in systems and equipment engineering, toolmaking and is a specialist in metalworking and woodworking. The Frankfurt-based contract manufacturer combines traditional craftsmanship with state-of-the-art technology, wowing even the most demanding customers with its passion for innovative solutions.

Owner Edgar Knebel and his team of experts are already in-demand creative thinkers in the development phase for new parts because they provide advice on the overall design and aspects of feasibility. Thanks to its highly flexible production process, this Frankfurt-based company meets even the most complex customer requests quickly and reliably, with quality guaranteed. Knebel's corporate structure, which is designed for efficiency, features a wide array of machines. As a result, this quality promise can be kept for individual parts, special designs and small and large series batches. Part of the flexible production concept of Knebel is the combined processing of metals, plastics, various types of wood and glass and the surface treatment for these materials.

Keeping pace in the supplier market

Companies from the design engineering, automotive engineering, aircraft maintenance and aircraft construction industries value this comprehensive service package from Edgar Knebel. Knebel also produces steel, aluminum and stainless steel parts for machining companies, including a measuring device manufacturer. When he was 25, Knebel – a triple master in model construction, cabinetmaking and welding –

took over the company from his father after his passing. He has now led the company into the high-tech era with a total of 80 employees. Even during difficult times, he never compromised in the areas of expertise or concept, the specialist knowledge of employees or the equipment used. He is open to new developments, which makes him a leader in the industry. "This is the only way to keep pace with the fast, highly specialized supplier market over the long term," states Knebel. In a nutshell, this is his motto: Focus on people and machines. His machinery includes a dozen milling machines, all from HURCO. Most of them are 5-axle machines, but there are also some normal CNC machines as well. In addition, there are eight lathes, EDMs and all the equipment needed for sheet metal working.

The 77-year old CEO says it best: "Even today, I still get excited about computers in the machines because HURCO's philosophy is to make complex technology simple. I'm able to work with the HURCO control system and have no difficulty in understanding how it functions thanks to the provided instructions." Nevertheless, Knebel leaves the CNC programming tasks to his expert design engineering team, which sends completed plans directly to the machines from their office. But Knebel sometimes likes to operate the HURCO WinMax control system himself because this allows him to define and start jobs right at the machine. He especially appreciates the compact control of the panel in the form of a space-saving keyboard. "This simplifies daily work and employee training. This simplifies both daily tasks and employee training. With WinMax, training takes significantly less time." Edgar Knebel also appreciates the comprehensiveness of the programs: "It's easy to transfer a component from one HURCO machine to another in the middle of the milling process, at which point it's milled to completion." He also states that the life cycle of a HURCO machine is fully utilized thanks to full-scale customer service, which makes these machines worth the purchase price.

Intelligent motion Control

His latest purchase, the HURCO DCX 32-5SCi portal milling machine, has already paid for itself. At Knebel, it has fulfilled the company's request to combine metal and wood milling on one system and to use this system at its full capacity. This system operates at just under 4000 rotations less than its predecessor, meaning that it saves energy while still being actually significantly faster. The software tool "Ultimotion" makes this all possible. This is an option that greatly reduces processing times using optimized workpiece entry points and improved travel paths that are 3200 mm long, 2000 mm wide and 900 mm high. Says Knebel: "My employees were fascinated by how quickly and precisely the tools use intelligent motion control to process the workpieces." The CEO also stated that this has a positive effect on customer satisfaction and efficiency. He was also impressed by the energy savings of the DCX 32-5SCi. The machine operates at a drive output of just 54 kW with a torque of 85 newton meters, which enables quiet operation and precise milling. The automatic replacement part box now offers 40 tools, twice as many as Knebel's predecessor machine. The

control system is also precise and easy to maintain, which is representative of all HURCO products.

Knebel uses the new portal milling machine to process high-quality metal replacement parts for constructing aircraft. Knebel can use the DCX 32-5SCi to implement the exact stipulated specifications for the supplied, certified materials in almost no time. These materials have no problem passing the extremely thorough acceptance tests used in the aviation industry. This allows Knebel Metalltechnik to appreciably consolidate its market position in a lucrative field that can offer Knebel considerable profit margins thanks to its quality promise and high number of repeat parts. For Edgar Knebel, always having the option of producing parts on multiple machines simultaneously and having alternatives in case of damage is of utmost importance. "Orders are commissioned and carried out on demand in the aviation industry. Production has to start the moment we receive the material. It's only logical that my employees and machines have to be set up for this industry and system partners such as HURCO have to demonstrate top quality."

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