WALDRICH SIEGEN Journal

2025



ProfiMill *evo*
The success story in large machine tool manufacturing enters its next chapter

Technical Lifetime Partnership
WaldrichSiegen service concepts: An interview with Matthias Roth

Industry Reports
Success stories from around the world

PROFIMILL *evo*

High-Gantry Portal Milling Machine in a Compact Design

With the ProfiMill ***evo***, WaldrichSiegen has created a portal milling machine that connects exceptional flexibility with outstanding productivity. It is a high-gantry portal milling machine that combines the proven technology of the ProfiMill series with the Monolith™ design from Herkules.

The result is a rigid machine base that allows foundation-free installation and short commissioning times. With its compact design, the ProfiMill ***evo*** meets the development focus on fast setup and flexible installation.



ProfiMill ***evo*** product page

Performance without Compromise

The ProfiMill ***evo*** is characterized by its compact dimensions and versatile installation options without compromising on performance.
Thanks to the hydrostatic guidance of the machine axes, the ProfiMill ***evo*** delivers maximum precision even at the highest cutting rates and is engineered for both finishing operations and heavy-duty cutting.

- Small footprint required: The machine achieves its quality without expensive and time-consuming foundation work
- Flexible installation: machine can be relocated if required
- Short delivery time due to modular design
- Short assembly times
- Long service life thanks to wear-free hydrostatic guideways



Product Launch of the ProfiMill ***evo*** High-Gantry Portal Milling Machine Impresses Customers From all Over the World

The Success Story in Large Machine Tool Manufacturing Enters its Next Chapter

Two exciting days filled with inspiring discussions and impressive technical achievements are behind us. The Open House ***evo*** on May 14 and 15, 2025 was a great success – for WaldrichSiegen, the HerkulesGroup and for our customers.

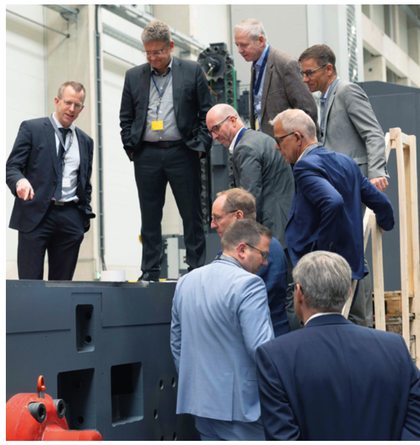
More than 100 visitors joined us as the WaldrichSiegen product portfolio was officially expanded and the ProfiMill ***evo*** was ceremoniously unveiled to the public. Over the course of the two-day open house, customers, business partners, and industry peers experienced firsthand the performance and precision of our new high-gantry portal milling machine.
"The ProfiMill ***evo*** was presented here in Siegen for the first time to a broad professional audience from around the world," explains WaldrichSiegen's President & COO Dr. Markus Brumm in an interview. "It is an important new product for us, because as a company we always strive to offer customer solutions that are as individual as possible when developing our machines."

"With the *evo*, we are breaking new ground by offering, for the first time, a largely standardized product that combines all the advantages of the ProfiMill series while introducing innovative features such as maximum travel speeds and foundation-free installation. This enables short delivery and commissioning times as well as exceptional flexibility – without any compromise in productivity or efficiency," says Dr. Markus Brumm.

The benefits for our customers arise above all from the machine's versatility. "By expanding the ProfiMill series with the ProfiMill ***evo***, many customers now have the opportunity not only to operate in the field of heavy-duty machining, but also to work in areas and with components that demand high dynamics and high speeds," explains Stefan Tschersche, Head of Application Technology.
The technological features are equally impressive across the board. "The ProfiMill ***evo*** is equipped with the latest Siemens control system. In addition, we can map and validate the entire process – from programming to the finished component – using Siemens NX," concludes Stefan Tschersche.



Both days were enriched with compelling presentations and in-depth tours through the impressive production halls of WaldrichSiegen and Maschinenfabrik Herkules. Our guests not only had the chance to learn more about the extensive, high-quality product portfolio of the HerkulesGroup, but also to engage in relaxed conversations with our colleagues from Sales, After Sales Service, and the Technical Offices during an informal get-together.
"With this event and the unique insights it offered, we have already been able to convince several customers of our ProfiMill ***evo***," explains Sales and Project Manager Jan-Erich Born. "Compared with other products available on the market in this segment, we offer a clear unique selling point by combining the machine's performance with foundation-free installation."









Aerospace

Highest Product Standards for Aubert & Duval

Powerful Machining for the Highest Quality Standards

CNC machining of critical components for the aerospace industry is among the most demanding processes in the entire sector, requiring full compliance with the highest industry and safety standards. In addition to precision, one of the most decisive factors in producing these workpieces is achieving the greatest possible performance. Correspondingly, machining high-strength materials presents a significant challenge.

Aubert & Duval is a well-known and leading reference in the aerospace sector, serving as the sole supplier and manufacturer of wheel carriers for Airbus as well as balance arms and wheel carriers for Boeing. As a French producer of critical components made from high-performance steel and titanium – the most widely used metals in aerospace manufacturing – the company holds a key position within the industry.
In the field of aerospace technology, the force and performance demands placed on machines for processing large workpieces are immense. Optimal vibration damping when machining large and heavy components on boring mills is crucial for process stability, surface quality, and tool life. To machine these high-strength alloy components made of steel and titanium – as well as parts made from Inconel – with absolute precision, the customer chose to invest in a TYPE PCR 162 II boring machine.
“In particular, workpieces made from the demanding nickel-chromium superalloy Inconel – which is known for its high strength and exceptional resistance to corrosion and heat, and is therefore widely used in the aerospace industry – are extremely difficult to machine with a standard machine,” explains Michel Gras, Project and Sales Manager for the Benelux countries and France. “This is why the customer was immediately convinced by our boring mill, which stands out for its impressive machine stability and spindle performance, as well as its enormous spindle torque – enabling significantly shorter machining times.”

The PCR 162 II is equipped with a Siemens machine control system, state-of-the-art workpiece and tool measuring systems, and a pick-up station for accommodating the units, including a holder for the special tools.

“The machine enables precise and flexible machining of complex contours and free-form surfaces. It is also suitable for various milling processes, which makes it even more flexible,” explains Michel Gras.

In addition, the boring mill is equipped with enhanced operator and workspace protection, allowing the machine operator to access the tool magazine and change tools on-the-fly. “Screens have also been installed both in the operator’s cabin and at other strategic locations to monitor the machining process in real time and provide an effective solution for improving process and work safety as well as quality assurance,” says Michel Gras.
A compact coolant system, the hydraulic rotary and sliding table with a zero-point clamping system for faster workpiece changes, and the resulting significantly reduced machine downtimes complete the machine’s functionality and scope of delivery perfectly.
“Our boring machine will play a key role at Aubert & Duval in machining the main components at the Les Ancizes site,” concludes Michel Gras.



Roll Manufacturer

Decisive Accuracy in Roll Machining

Roll manufacturers around the world rely on WaldrichSiegen’s machining expertise, knowing from experience that our grinding machines offer the ideal solution for the high-quality processing of rolls across all sectors, including the steel, aluminum, and paper industries. Thanks to their robust design, rolls can be machined with precision and reliability, ensuring they meet the extremely high requirements for dimensional and shape accuracy as well as flawless surface quality.

Quality and Durability that Truly Pay Off

High-Precision Roll Surfaces for a Wide Range of Industrial Requirements

Thai Industrial Rollers (TIR) is a leading Thailand-based manufacturer, supplier, and exporter of coated industrial rolls, as well as a specialist in reconditioning both its own rolls and damaged or worn units from customers. To meet the high quality requirements and demanding surface finishes of their rolls, the company chose to invest in WaldrichSiegen’s proven technology and reliability for their new facility, acquiring a ProfiGrind 5000 – 50 × 12000 PGC10/CP-U roll grinding machine.
“The machine will play a key role in the new plant,” says Emiljano Bibleka, the responsible Sales and Project Manager. “The customer is impressed not only by the machine’s performance, but also by the state-of-the-art technology on which it is built. This includes the hydrostatic grinding spindle and hydrostatic lubrication in all axes. These features ensure maximum precision while drastically reducing maintenance requirements.
The grinding support, designed as a monobloc from a single casting, provides an exceptionally stable machine base, resulting in consistently high quality results with shorter processing times. Our measuring and inspection systems also impress across the board – such as the high-precision two-point measuring system for roll measurement, which delivers 360 values per revolution, from material removal and diameter to shape, roundness, and eccentricity, as well as the Eddy Current inspection system for reliably detecting open cracks and structural changes in the roll.”

The machine will grind rolls with diameters of up to 1,600 mm, lengths of up to 12,000 mm, and total weights of up to 50 tons for both the steel and paper industries.
“The rolls used in the steel and paper industries differ fundamentally in terms of material, surface finish, and application,” explains Emiljano Bibleka. “Steel rolls must withstand extremely high forces and temperatures, while paper rolls require a special surface finish to smooth and compact the paper webs.”

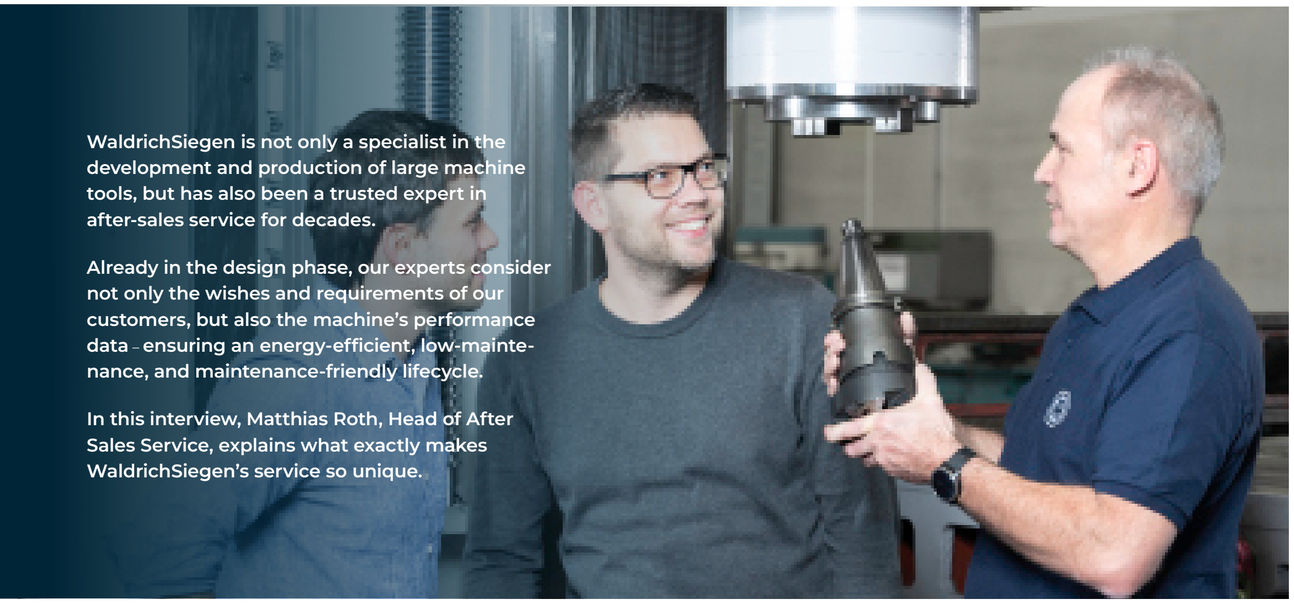
Thanks to its outstanding technology and precision, our machine can reliably and accurately process both types of rolls – even though their surface and geometry requirements differ significantly.”

The customer has already had very positive experiences with our machines. Two WaldrichSiegen roll grinding machines are already in operation at the existing production facility, impressing with their exceptional performance, low-maintenance operation, and robust design. “Thanks to our close collaboration with WaldrichSiegen, we are able to further strengthen our market leadership,” says TIR Managing Director Chakorn Assavavasin. “The new roll grinding machine will significantly increase our capacity.”

Service Concepts From WaldrichSiegen

Technical Lifetime Partnership

Optimal Support Over the Entire Life Cycle of All Machines



WaldrichSiegen is not only a specialist in the development and production of large machine tools, but has also been a trusted expert in after-sales service for decades.

Already in the design phase, our experts consider not only the wishes and requirements of our customers, but also the machine's performance data – ensuring an energy-efficient, low-maintenance, and maintenance-friendly lifecycle.

In this interview, Matthias Roth, Head of After Sales Service, explains what exactly makes WaldrichSiegen's service so unique.

Mr. Roth, what makes our After Sales Service so special, and how does it set itself apart from others?

The high level of in-house production, combined with the support of more than 280 assembly and commissioning specialists and 13 international service branches, gives our customers the confidence that we can provide competent assistance at any time and at short notice.

How do you define "After Sales Service" at WaldrichSiegen?

In simplified terms, this area covers spare parts, services, and machine overhauls. Overhauls – or "revamps" – play an important role for our customers. Depending on the scope of the overhaul, the performance of the original machine can be restored or even enhanced. At the same time, issues such as limited spare parts availability or missing remote support become issues of the past. In addition to the OEM machines from our own group of companies, we also service machines from other manufacturers – including some that no longer exist.

How do you ensure that customers receive the best possible after-sales support?

Ideally, we address these topics with the customer already during the acquisition phase. Depending on the structure of the individual contracts, spare- and wear-part packages can be provided together with the delivery of the machines, and various long-term service packages or contracts can be established. This allows many customers to secure extended availability as well as advantageous warranty conditions.

What typical challenges arise in After Sales Service, and how do you address them?

The typical challenges include emergency repairs and a lack of resources at the customer's plant. In the short term, our strong global workforce and the ability to provide support through in-house production and extensive warehousing offer decisive advantages. More recently, we have expanded our portfolio with service level agreements (tiered service contracts) and enhanced training programs that now extend all the way to application and process consulting.

What does the term "Technical Lifetime Partnership" stand for?

The concept of the HerkulesGroup, which also includes WaldrichSiegen, is built on four pillars. First is our long-standing commitment to providing customers with competent, sustainable support in all matters related to their production – an understanding that is deeply rooted in our company's DNA.
The second pillar is the Group's financial and technological independence. We develop, design, and manufacture all key components and technologies in-house. This leads directly to the third pillar: technical sustainability in every respect.
The fourth pillar of this partnership concept is credibility – our hallmark as a reliable, fair, and long-term manufacturer.

How do you ensure that our products and services meet our customers' requirements in the long term?

On the one hand, we develop our machines and technologies not only for our customers, but also for use in our own production. This enables us to test the feasibility of customer requirements on our own machines before moving into active product implementation. On the other hand, our in-house production often serves as a key driver of innovation – particularly when it comes to machine efficiency and operation.

What advantages do you see in a long-term technical partnership from both the customer's and the company's perspective?

The greatest advantages stem from a shared, collaborative approach. By working closely with the customer throughout the various implementation phases, production-specific expertise is continuously refined. This leads to new ideas that we translate into products and software solutions. Our customers benefit directly from these insights, as they help reduce production costs and enhance product quality.

What service concepts do we currently offer?

Together with our customers, we continuously refine our After Sales portfolio and adapt it to current market needs. This naturally includes customized service packages tailored to each customer. One widely discussed solution at the moment is a localized, cross-site spare parts supply, which reduces the customer's own spare parts inventory while minimizing downtime.
Another concept is the leasing of state-of-the-art milling heads, providing the flexibility required for new projects, peak workloads, or desired technological upgrades – while avoiding high initial investment costs. Maintenance, repairs, and technical support can be arranged individually.

What is our approach to preventive and predictive maintenance?

There are various levels of service available. These range from support during regularly scheduled maintenance and machine inspections to status monitoring and teleservice. With regard to predictive maintenance, teleservice is a key factor in ensuring consistently high availability.

We also offer our customers targeted maintenance and practical user training directly on the machine. This reduces downtime and increases operational reliability, ensuring that the machine can be utilized to its full potential.

How do you record and analyze customer feedback in After Sales?

Direct and personal customer contact is our top priority. As a result, we often receive customer feedback through direct communication. In addition, all customer inquiries are logged, thoroughly documented, and evaluated using a specially developed ticket system.

How do you maintain contact with your customers after the sale?

Primarily through regular personal contact and dedicated technical support. We also offer training and maintenance services to ensure the systems are used to their full potential. Our service team is always available to provide technical assistance – whether by phone or via remote support.

Thank you for the interview.



"For WaldrichSiegen, the maintenance and innovative modernization of all machines delivered over the decades is a matter of course. This includes comprehensive and prompt spare parts supply, tailored service packages, and partial or complete overhauls of our machines."

Matthias Roth, Head of After Sales Service



"Modernization is a highly attractive alternative to a new investment for machines that have often been in operation for well over 30 years. To support this, we offer our customers complete or partial overhauls and provide guidance on future market requirements, technical developments, and the latest technologies."

Steffen Geisweid, Global Head of Business Area Spare Parts/Revamp





Quality Without Compromise

Striving for Market Leadership With Machines From WaldrichSiegen

WaldrichSiegen's ProfiTurn H series lathes are used time and again in the steel industry for machining high-quality rolls. Other sectors – such as the energy industry – have also relied on the world market leader for decades. Our Chinese customer, Zhejiang Juyuan Power Equipment Co. Ltd. – a well-known manufacturer of turbine and generator shafts for the energy sector – has therefore decided to invest in two ProfiTurn H 4500/350 high-performance horizontal turning machines.

"The customer initially approached us with an inquiry for a high-performance horizontal turning machine and ultimately decided on two identical machines during the contract negotiations," explains Frank Pyrdok, the responsible Sales and Project Manager. "Zhejiang Juyuan Power supplies several of our long-standing customers, including Harbin Turbine, Shanghai Electric, and Dongfang Turbine in Deyang. To meet the stringent quality requirements of its end customers, Zhejiang Juyuan Power was not willing to take any risks when investing in new lathes. They therefore deliberately chose a product from the same manufacturer that has already successfully supplied Harbin, Shanghai, and Dongfang," Pyrdok continues. This is because the manufacture of large and heavy turbine and generator shafts demands exceptionally high machining accuracy. "The ProfiTurn H achieves this through the use of hydrostatic steady rests and large, high-precision main bearings in the headstock, which are reworked in-house to meet the exact requirements," explains Frank Pyrdok.

"Our machines will be an essential part of the plant currently under construction," explains Stefan Elze, General Manager of the WaldrichSiegen Beijing Office and the Maschinenfabrik Herkules Shanghai Office. "This positions our customer well ahead of the competition in its ambition to become the leading Chinese manufacturer in this sector."

Even highly specialized machining tasks can be handled reliably with the ProfiTurn H, setting our technology clearly apart from other market competitors. "This includes, for example, the turning of so-called undercut grooves on turbine shafts using an automatic tool-swivel device on the tool carrier," explains Frank Pyrdok. "Thanks to this automatic swivel feature, internal recesses in the workpiece can be machined with great efficiency. Our competitors require significantly more tools and additional machining steps to accomplish the same task – resulting in far longer machining times."

As a result, our machines occupy an absolutely crucial position in the customer's production line. Both machining accuracy and scope, as well as overall productivity, are significantly increased. With the hydrostatically guided support and the hydrostatic worm serving as the feed drive for the support (Z-axis), the machine can effortlessly handle both roughing and finishing operations. This means a wide range of machining tasks can now be performed on a single machine – tasks for which the customer previously needed several units. "A tremendous cost saving for our customer," says Frank Pyrdok.

In addition to the outstanding machine technology, the order also includes comprehensive service and training. "Thanks to our excellent reputation as a supplier in the Chinese market and the exceptional service and quality features that make us unique, we clearly outperformed a local Chinese competitor with our comprehensive offering," concludes Frank Pyrdok. "The purchase of additional machines is already being planned."

PROFI**TURN H**

High-Performance Lathe

Machine Performance

Swivel diameter	up to 4,500 mm
Center height	2,300 mm
Max. turning diameter	4,500 mm
Center width	16,000 mm
Max. workpiece weight	350 t between centers

Equipment

- Accuracy of 0.0007 mm concentricity
- Latest control generation (Siemens Sinumerik ONE)
- Automatic tool swivel device
- Hydrostatic worm drive of the turning support (Z-axis)



Safety Begins in the Detail

Highest Demands on Material and Process Safety

The safe storage and transportation of nuclear waste place the highest demands on both the materials used and the way they are processed. Nuclear fuel transport and storage casks are typically made from high-alloy steels, which offer exceptional corrosion and heat resistance as well as outstanding strength.

Machining these materials – whether turning, milling, or grinding – requires specialized processes, tools, and decades of experience to ensure that the finished storage casks meet the highest standards of material integrity and process reliability. At the same time, these materials are notoriously difficult to machine and demand precisely tailored manufacturing methods.

In particular, the turning, milling, and drilling of such large components call for powerful machines, specially coated tools, and precisely defined machining parameters – none of which pose a challenge for WaldrichSiegen.



Precise Machining Perfectly Matched to the Manufacturing Processes

High stability and rigidity of the machining equipment are essential to meet the demanding requirements involved in processing those casks and containers made from high-alloy steels for nuclear power generation. ŠKODA JS therefore decided to invest in a ProfiTurn H 3500/160 horizontal turning machine from WaldrichSiegen.

When machining workpieces with lengths of up to 11,600 mm, diameters of up to 3,200 mm, and maximum weights of up to 160 tons, maximum stability is crucial – especially when working with high feed rates and high-performance tools.

"The high-quality cast components of the horizontal turning machine impress with their exceptional resilience, rigidity, and stability – ensuring absolute precision even at the highest feed rates," explains Martin Pilz, Area Sales Manager responsible for Austria and the SEE countries.

"The robust design and hydrostatic guides effectively prevent vibrations from occurring – ensuring maximum rigidity and the best possible results under our customer's demanding machining conditions."

The ProfiTurn H is also equipped with a movable boring bar and a multiple tool holder, ensuring that the large casks can be machined optimally both on the outside and the inside. "The movable, damped boring bar is designed for internal machining up to 5 meters in length. The bar will have a diameter of 500 mm and a total length of approximately 7 meters," explains Martin Pilz.

A standout feature of the machine is the multiple tool holder, developed in-house by the Application Technology Department under the direction of Mr. Stefan Tschersche in collaboration with the Mechanics Technical Office – specifically for this customer.

"In contrast to the outdated competitor lathe previously used for machining these components, the ProfiTurn H is equipped with a multiple tool holder and can machine several cooling fins for the storage containers simultaneously," says Stefan Tschersche, Head of Application Technology at WaldrichSiegen.

"Both the narrow and wide contours, which have different radii and penetration depths, can be optimally machined. This drastically reduces the machining time."

But it is not only the machine's technical performance that impresses. As a specialist in customized special solutions, WaldrichSiegen is able to reconcile challenging spatial conditions with highly demanding technical requirements. "Despite the limited space in the production hall, we succeeded in installing the machine with absolute precision – without compromising on performance. This clearly underscores our position as the global market leader for large machine tools and bespoke solutions across all industries," concludes Martin Pilz.

PROFITURN V

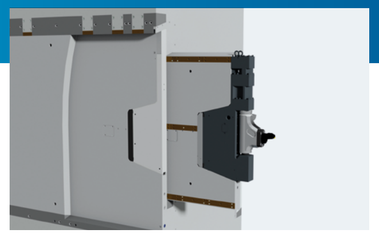
Optimum Machining for Complex and Individual Requirements



Vertical Turning Lathe from WaldrichSiegen – Powerful, Precise, Stable

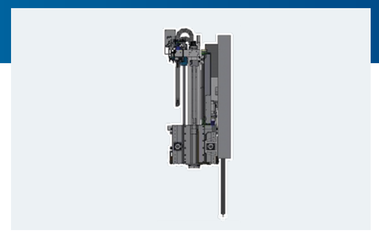
The production of cast and forged steel parts is one of the core issues of the steel industry and contributes significantly to value creation in numerous branches of the industry. In the steel industry in particular, casting and forging processes are at the heart of the manufacturing chain: from raw steel and shaping to ready-to-install components for mechanical engineering, the energy sector or the mobility industry.

Machining high-strength steels places exceptional demands on machine design and equipment. These materials exhibit high strength, hardness, and toughness – meaning lathes must deliver outstanding power, precision, and stability to minimize tool wear and ensure cutting-optimized processes as well as excellent surface quality, particularly in mechanical engineering and for safety-critical components.



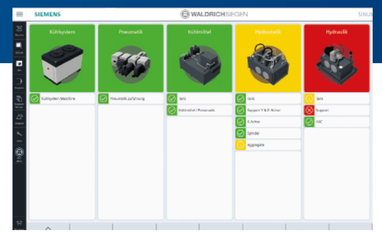
Optional Enhancements for Higher Output, Shorter Processing Times and Increased Safety

Alongside the introduction of new machinery, substantial investments are being made in additional options designed to make the machining of cast and forged steel components even more efficient and secure. “These enhancements clearly illustrate the high level of complexity involved in the requirements and performance parameters of our machines,” explains Jan-Erich Born, Sales and Project Manager at WaldrichSiegen. “The modernization measures are creating highly efficient machining lines that significantly reduce processing times for demanding, exceptionally large workpieces and elevate overall performance and production management to an entirely new level.”
A particular focus is placed on operator safety: many machines are being equipped with full protective enclosures and additional operator cabins.



New Highlight: The Parallel Probe on the Milling Support

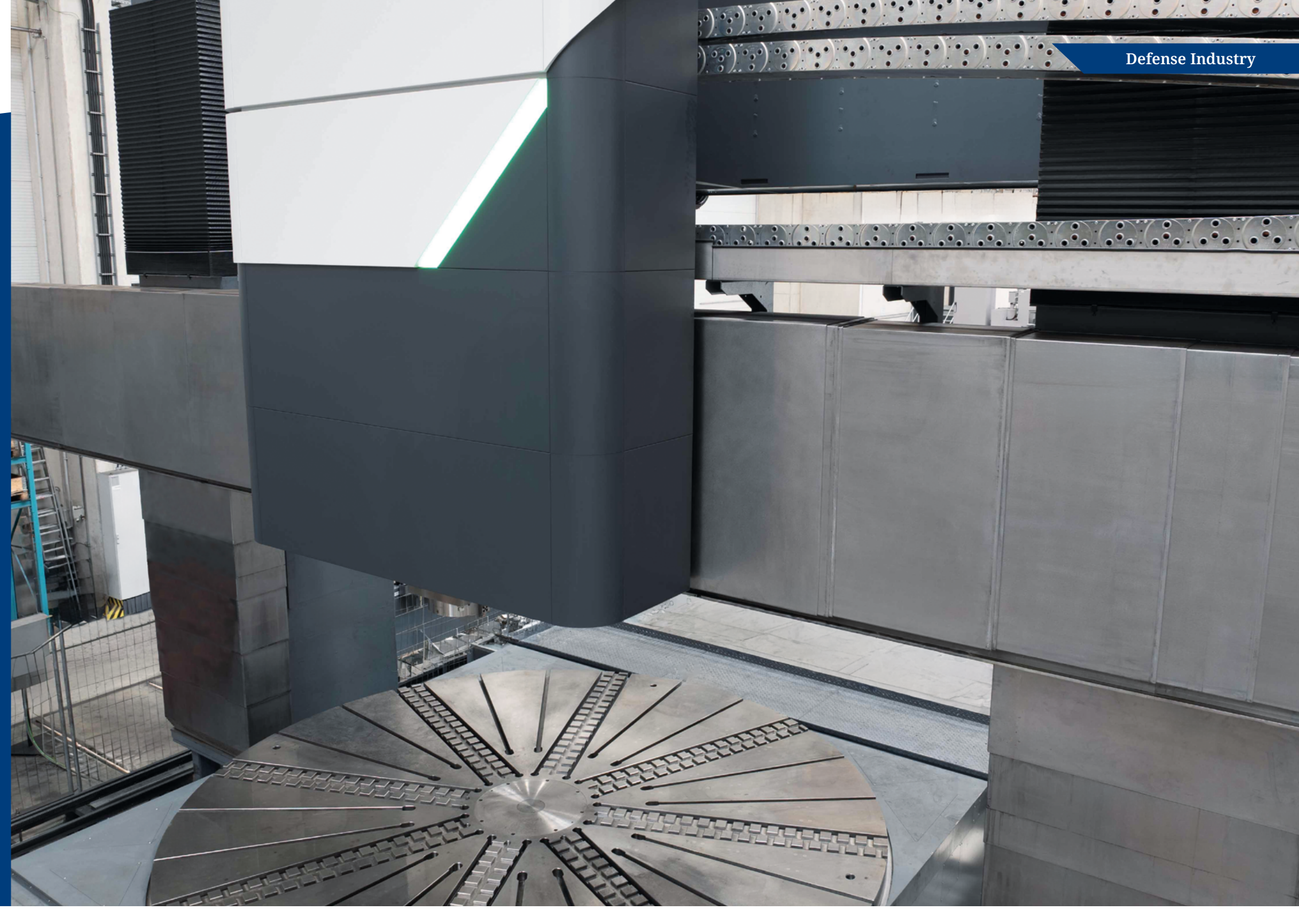
A notable technological highlight is the introduction of the Parallel Probe, which will be used in the future on machines featuring a single support. The additional measuring unit is mounted laterally on the milling support.
“By performing intermediate measurements during the machining process, both contour deviations and tool wear can be identified early and corrected immediately,” explains Jan-Erich Born. “This results in significant time savings compared with conventional measuring methods while also greatly enhancing process reliability during particularly critical machining operations.”



Monitoring and Diagnostic System – Intuitive Troubleshooting on a New Level

To further minimize downtime, overheating, and production losses, the machines are equipped with an intuitive monitoring and diagnostic system. “This innovative system enables seamless, transparent, real-time monitoring, control, and visualization of all machine settings and process values,” says Jan-Erich Born. “All error and warning messages generated by the machine’s extensive sensor network, along with individual process sequences, can be centrally captured, analyzed, and managed. This allows potential issues to be detected at an early stage and preventative measures to be taken without delay.”

ProfiTurn V product page



Perfect Machining of Complex Components – Maximum Flexibility, Accuracy and Performance in Large Format

Precision, Power and Versatility for the Most Demanding Manufacturing Tasks

One of America’s largest manufacturers of a wide range of products for the energy, process, and defense industries has acquired a ProfiTurn V 4000/45 Y vertical turning lathe with full enclosure and extraction system to expand its machine park. “The machine will process workpieces with diameters of up to 4,000 mm, heights of up to 3,805 mm, and weights of up to 45,000 kg,” explains Stefan Tschersche, Head of Application Technology at WaldrichSiegen. The machine features a rotary table with a diameter of 3,000 mm and additional hydraulic clamps on the Y- and C-axes. The crossbeam travels up to 2,500 mm, and the RAM offers an additional plunge depth of 2,000 mm.
The automatic tool and unit changer accommodates 100 tools – held in HSK-T tool holders – and ten machining units. “The customer has ordered nine attachment units, four for turning and five for milling operations, all of which are manufactured in-house. In addition, the operators will receive training in mechanics, electrics, and programming at our headquarter in Siegen.”

The machine is primarily used for finishing highly complex components that demand maximum precision. Thanks to its exceptional thermal stability, wear-free guides, and the enormous rigidity of all components, the machine meets these requirements with ease – ensuring consistent machining accuracy and uniformly precise surface quality.

“It not only complements the existing machinery but also expands production capacity enormously,” explains Stefan Tschersche. The exceptional flexibility of the machine also meets the customer’s requirements in every respect. “The unique masterhead concept allows the customer to integrate additional units at any time should the machining spectrum change,” Tschersche adds.
With its maintenance-friendly design, excellent accessibility to individual components, state-of-the-art diagnostic system, and dedicated maintenance terminal, the machine impresses with outstanding efficiency and technological excellence.

“The project will be implemented as a turnkey installation, that is – the machine will be delivered dully installed, tested, and ready for operation – allowing it to be integrated directly into production,” concludes Stefan Tschersche. “In addition, together with our colleagues in Ford City, USA, we will provide training on the mechanical and electrical systems as well as operator instruction after acceptance.”

Our U.S. location in Ford City, Pennsylvania, remains an indispensable catalyst for our success, where a dedicated team of highly trained engineers and technicians – educated at our German production sites and supported by state-of-the-art, fully in-house manufacturing and service capabilities – delivers unparalleled precision, responsiveness, and outstanding machine service, creating a unique competitive advantage and driving lasting success in our collaborations with U.S. customers.

WALDRICHSIEGEN

Elevating Engineering Excellence

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