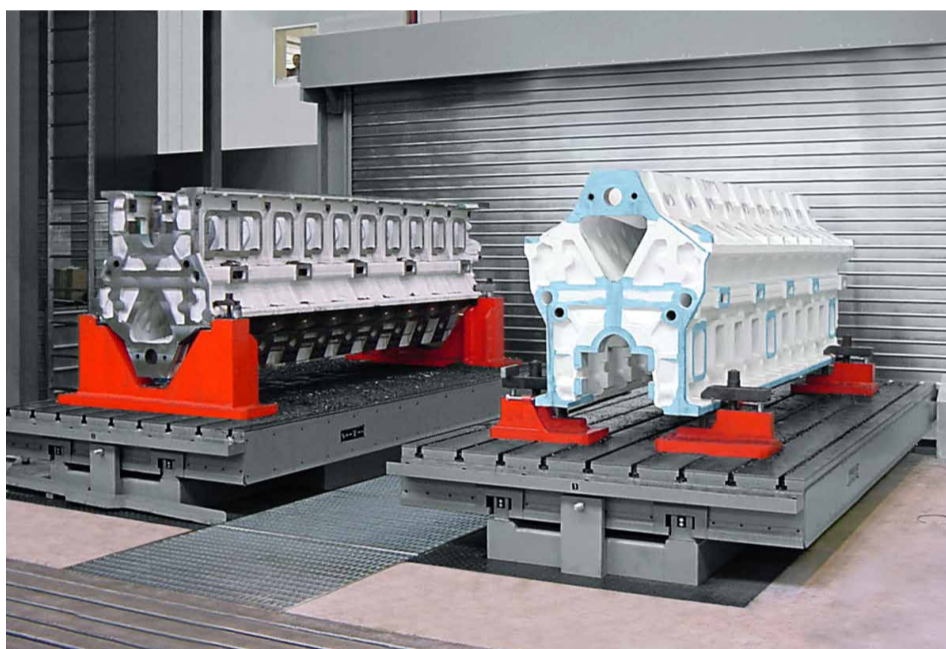


Topics: Vertical lathe ordered by “business next door” ▶ ProfiMill 1 is now called ProfiMill *compact*
 ▶ Members of the new service center in Shanghai start to assemble ProfiMills ▶ Trade magazine “Produktion” reports: ProfiMill is the largest machine tool in the world ▶ Additional sales unit in southern Germany

Interlinked portal milling machines for Weichai Power: cutting non-productive time

Speedy machining of motors with fully automatic pallet system



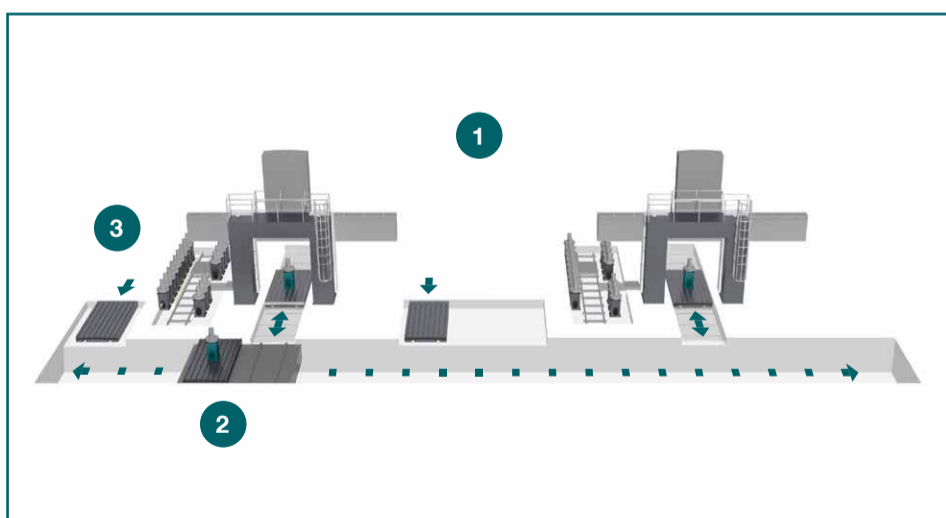
A pallet system links the two ProfiMills for Weichai Power and eliminates downtime during set-up

In order to efficiently produce large numbers of workpieces, modern machine tools are interlinked to form production systems. In these Flexible Manufacturing Systems, the workpieces pass through complex machining stages at the touch of a button. This saves time and – since such systems usually require only a minimum amount of staff – money. Portal milling machines can be equipped with a pallet transport system for that purpose. When machining engines, these significantly raise the efficiency. In Asia, the demand for such systems is currently on the rise. WaldrichSiegen will deliver two portal milling machines with a shared pallet system to Weichai Power in Weifang, China by the end of this year.

Weichai Power Co., Ltd. is an A + H listed company. It is the only enterprise in China that covers the complete value chain of power systems, heavy vehicles, and automobile electronics and parts. The production of small to middle-sized medium-speed heavy diesel engine pre-series for a broad range of applications is currently being expanded with a focus on maximum efficiency. The two portal milling machines of the type ProfiMill by WaldrichSiegen will be responsible for the fast and precise machining of engine blocks in the future.

As one of the largest manufacturers of smaller and large diesel engines in China, Weichai Power produces very large quantities. With the help of the pallet system that links both machines with each other, these are machined in record time: while two engines are being machined, the remaining four pallets can be set up with the workpieces to be machined next. The pallet management system ensures smooth, automatic transport from the set-up area to the two machines. There, it swaps the pallets. The ProfiMills seamlessly begin to machine the next workpieces. Downtime during set-up is therefore eliminated completely.

Machining engine blocks is a demanding application. The machines apply eight milling units each to this task, one among those respectively suitable for five-axis machining. The tool changers automatically provide up to 320 tools per machine. With this solution, WaldrichSiegen combines a technologically sophisticated machine concept with maximum cost-effectiveness.



Follow-up order: Weichai Group orders two more ProfiMills

The successful conclusion of this contract was followed by another order: two more portal milling machines will be built in Burbach for Weichai Heavy Machinery Co., Ltd., another member of the Weichai Group. In March 2019, they will be delivered to Weichai and then also start operation in the series production of diesel engines.

The fully automatic pallet system:

- 1 The two ProfiMills are set up at a distance of approximately 25 m to each other.
- 2 A pallet transport car with a specifically developed FMS control (Flexible Manufacturing System) traverses between the two machines.
- 3 One workpiece can be set up while the machines are processing other workpieces. This concept significantly accelerates serial production in comparison with conventional machine concepts.

Technical data of the interlinked ProfiMills

- Clearance between the columns: 2,750 mm
- Spindle drive: 76 kW
- Torque: 5,500 Nm

Dear readers,

Since late 2017, the German machine tool manufacturing industry has been experiencing a strong increase in order intake. Our order situation has developed very positively and shows that customers around the world continue to be convinced of the leading technology of WaldrichSiegen's lathes and milling machines, as well as our high-end roll machining solutions.

Highly productive manufacturing and automation solutions in particular, such as pallet changing systems for milling machines and robot-based tool changers with short tool changing times, are in high demand regarding both new investments and the modernization of existing ma-

chines. In a growing number of projects, the machining applications milling and vertical turning merge seamlessly. The trend towards process integration and the pressure towards a further increase of efficiency and productivity are still dominating factors in the market worldwide. We meet these developments with innovative technology.

Constant development is also our way to success in the area of sales. For our customers in southern Germany, Austria and Switzerland for turning and milling applications, our sister company RSGetriebe now has a local contact person available since January. Being close to our customers is important to us – one of the reasons why we

are very happy about an order placed by a “business next door”, Horst Jung GmbH & Co. KG in Netphen, comprising a vertical lathe ProfiTurn V with full milling functionality.

We would like to take the opportunity of this year's big trade fairs, the IMTS in Chicago and the AMB in Stuttgart, to create and maintain more of these sustainable business partnerships. We hope to welcome many of you there to introduce you to our new and further developments.

Marco Tannert
President & COO

Vertical lathe ordered by neighboring company

ProfiTurn V 5000 for traditional contract manufacturer



Perfect solution for flexible machining of complex workpieces: the ProfiTurn V

The owner-managed Horst Jung GmbH & Co. KG is a successful contract manufacturer with a long-standing tradition, specialized in the mechanical machining of medium-sized to very large machine and plant components. To allow complete machining of complex workpieces in the medium size range in the future, the company was looking for a vertical lathe with a highly flexible machine concept. The right machine was found at WaldrichSiegen's Turning and Milling Days 2017.

In March 2019, WaldrichSiegen will deliver a ProfiTurn V 5000 to Horst Jung in components and hand over the turnkey machine to the customer after assembly. It will machine workpieces with a diameter of up to 5 m, a height of 3.5 m and a weight of up to 100 t with great precision. Two turning adapters with automatic tool clamping for different turning applications and a horizontal, a vertical and a universal spindle unit for milling and boring operations add further flexibility. The rotary and traversing table with a diameter of 4.5 m and a traverse of 4 m in longitudinal direction allows for the machining of different workpieces. The vicinity of the two companies WaldrichSiegen and Horst Jung allows a special type of cooperation in this project: the contract manufacturer is in charge of machining its own rotary and traversing table.

Olaf Schütz

Technical data

Power, max.:	58 kW
Spindle speed, max.:	3,000 min ⁻¹
Ram cross section:	350 × 350 mm

ProfiMill 1 is now called ProfiMill compact

For many decades, the name WaldrichSiegen has been connected to XXL portal milling machines that machine even the most demanding workpieces with great precision. Two years ago, WaldrichSiegen introduced the ProfiMill 1, the smallest size range of its renowned portal milling machine range ProfiMill. In contrast to the other machines in the series, it has been specially designed for the machining of smaller to medium-sized workpieces and starts with 2.7 m clearance between the columns. “We have already had some sales success with the new machine,” says Marco Tannert, President and COO of WaldrichSiegen. “Nevertheless, it has become obvious that our reputation in the area of larger workpieces is so strong that the name ProfiMill 1 is not sufficient to differentiate the new machine type from other, larger machines.” The name has therefore been changed. The smaller portal milling machine is now called ProfiMill compact. “The new name reflects the fact that all the sophisticated technology highlights of our larger machines, such as the completely hydrostatic guidance system or the Masterhead interface, are united in the new machine type in compact form,” Marco Tannert explains. The tried-and-tested WaldrichSiegen technology is thus available with an exceptionally economical price/performance ratio to customers who machine workpieces with smaller dimensions.



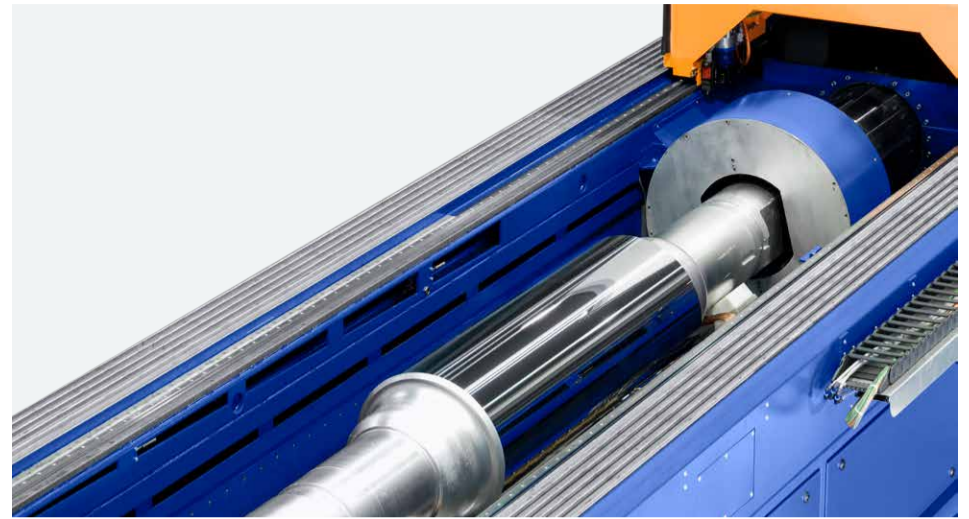
The ProfiMill compact machines the housing of an XXL helicopter test bench gearbox

Service center for roll machining invests in ProfiTex 60

Among service centers in the area of roll machining, ANDRITZ Herr-Voss Stamco Inc., based in Chesterton, Indiana, offers the widest capability and greatest capacity in the Midwestern United States. The rolls in use at its customers' facilities, mainly in the steel industry, meet the highest demands – thanks to its cutting-edge machine tools. The service center's latest investment, signed in February 2018, is going to go into production in February 2019: a texturing machine of the type ProfiTex 60 made by WaldrichSiegen.

High performance of the machine tools is of major importance in a service center. The ProfiTex 60 is therefore equipped with two rows of electrodes with a total of 50 electrodes. It achieves a machining capacity of up to 1,100 rolls per month and machines rolls with a length of up to 5,500 mm, a diameter of 750 mm and weights of up to 8 t. In addition to its high performance, the ProfiTex 60 features a cost-effective and eco-friendly machine concept: it does not require graphite to be added to the dielectric fluid, which can therefore be continuously re-used.

Eckhard Arbes



Performance and efficiency: the ProfiTex 60

ProfiGrind 300 for the Hoa Sen Group



The ProfiGrind 300 is equipped with the latest PGC10 control

The Vietnamese cold strip manufacturer Hoa Sen Group, leading exporter of sheet steel in South East Asia, has ordered a roll grinder of the type ProfiGrind 300 by WaldrichSiegen.

The roll grinder will be installed in a facility in the central Vietnamese province Binh Dinh and will grind intermediate and work rolls with a maximum weight of 3,000 kg and a maximum length of 3,700 mm.

In addition to a two-point measuring system, the machine is equipped with a crack detection device with eddy current and ultrasonic technology, as well as an interface for easy data transfer. These functions are fully integrated in the automatic control PGC10, which also allows for grinding of CVC-shaped intermediate rolls.

In this project, WaldrichSiegen employs the concept of the table-top machine: in contrast to machines with a traversing grinding saddle, the roll traverses along a fixed grinding wheel. The concept is especially suitable for lighter rolls (< 3,000 kg) and has been used with success by WaldrichSiegen since the 1950s. Nearly 100 table-top grinders have been supplied to customers around the world, especially in the aluminum industry. This is the eighth machine that WaldrichSiegen has sold in Vietnam – a growing market in South East Asia that is going from strength to strength.

Mike Nitschke

New service team in Shanghai starts installation of ProfiMills

Hudong Heavy Machinery – the leading manufacturer of diesel engines in China – and WaldrichSiegen have combined their expertise to bring the best machine tool service to Chinese customers. The service team of the new Hudong – Waldrich Siegen Repairing Maintenance Center is based in Shanghai. Five of its engineers, who have spent several weeks training at WaldrichSiegen, have now joined their German colleagues in installing five gantry portal milling machines that will take up operation in Shanghai.

The cooperation between Hudong Heavy Machinery and WaldrichSiegen is a unique combination of machine tool know-how. In late 2015, Hudong Heavy Machinery ordered the five big gantry-type milling machines by WaldrichSiegen for its facilities in Shanghai.

This project was the beginning of a promising business idea that makes state-of-the-art technology and expert service available to WaldrichSiegen's customers all over China. In 2017, a contract was signed to form a new service center. It offers installation, maintenance, after-sales service, training for and operation of WaldrichSiegen milling machines and turning lathes.

Hudong Heavy Machinery operates more than 100 heavy-duty machine tools made by different, well-established suppliers around the world in its various workshops. Its experts have decades of experience in the maintenance and repair of these machine tools. Five of Hudong Heavy Machinery's most experienced engineers have been trained at WaldrichSiegen's headquarters in Germany. They have now joined the installation of the gantry milling machines in Shanghai and are available for customer requests in China. More engineers will have completed their training both in China and in Germany by the

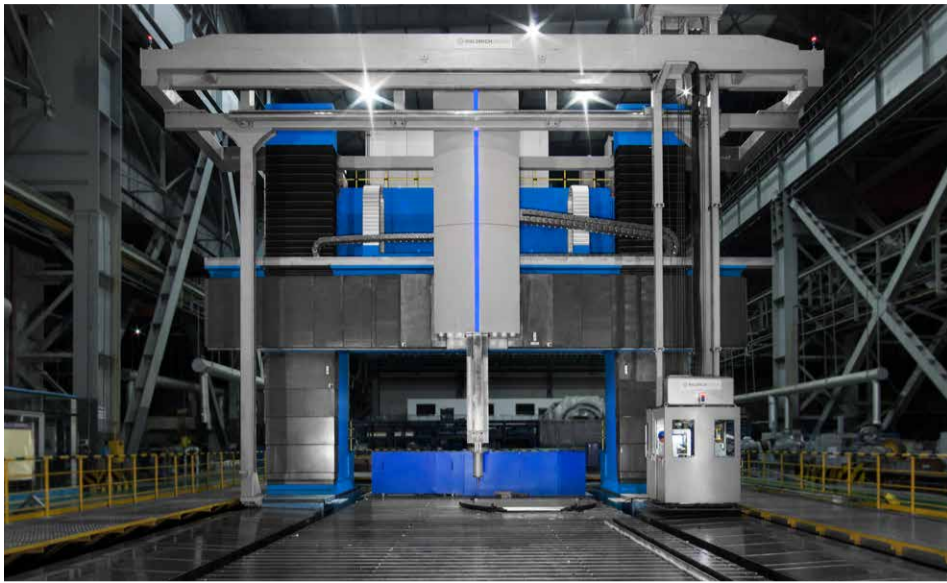


An order of five ProfiMills for Hudong Heavy Machinery led to a joint service center

end of 2018. The Hudong – Waldrich Siegen Repairing Maintenance Center will be a reliable source of fast and excellent-quality service for machine tool users in all of China.

Trade magazine elects biggest “metal cutting giants”

ProfiMill is the world’s largest machine tool



Offers an impressive machining area of 7,776 m³: the ProfiMill

The “Produktion”, one of the most-read trade magazines in the German industry, has compared the maximum range of traverse of XXL machine tools made by all manufacturers in the international metal-cutting industry. The result: Waldrich-Siegen’s ProfiMill is the largest machine tool in the world.

Our sister company UnionChemnitz also made the top 15 with its horizontal boring mill PR III 260. An X-axis of 40,000 mm, a Y-axis of 10,000 mm maximum and W+Z-axes with a maximum traverse of 3,000 mm combined equal a machining area of 1,200 cubic meters – winning eighth place for the boring mill specialist.

In the end, WaldrichSiegen took the first place by a considerable margin. No machine matches the ProfiMill in terms of machining dimensions. 12,000 mm clearance between the columns, 12,000 mm clearance height and 54,000 mm X traverse provide a machining area with a total of 7,776 m³ – the ProfiMill takes the first place among XXL cutting tools.

Read the full article here (in German):
waldrichsiegen.com/link/profimill-produktion

New contacts for customers in southern Germany, Austria and Switzerland

Close to the customer: new sales unit in Bavaria

RSGetriebe is the gearbox specialist in the HerkulesGroup. Based in a strategically favorable location in southern Germany, the well-experienced sales team has been providing consulting services for WaldrichSiegen customers in Germany, Austria and Switzerland since January.

The sister companies have worked together closely for many years – more than 90 special gearbox solutions have been supplied to WaldrichSiegen by RSGetriebe in the past five years alone. Since these are always custom-manufactured for the special requirements of the respective machine, RSGetriebe is very familiar with WaldrichSiegen technologies. The same is true for UnionChemnitz. RSGetriebe even operates an UnionChemnitz precision boring mill of the type KG in its manufacturing plant – with a self-made drive solution, of course.

Thanks to the close cooperation between the HerkulesGroup companies, RSGetriebe has always been involved in the latest innovations and technical developments at WaldrichSiegen and UnionChemnitz. Now the companies also collaborate in the sales area in order to provide regional customers with local services.

Contact: info@rsgetriebe.de | +49 83 21 6 07 71-0



Strategically favorable location: RSGetriebe in southern Germany

Trade fairs & events: IMTS Chicago, 10 – 15 September 2018 | AMB Stuttgart, 18 – 22 September 2018
W&I-Tag Siegen, 14 November 2018

Full house at the theater’s special show for apprentices



Since 2016, the Apollo Theater, supported by regional companies and the Chamber of Commerce and Industry Siegen, has organized special performances for apprentices. Of course WaldrichSiegen, a long-standing sponsor of the theater, was present at this year’s special show “ZugZwang” on 19 April. Pictured above are Andrej Moser, Jakob Löw, Bastian Walther, Artur Miller, Malte Lorenz, Valentin Sieler, Daniel Weiershausen, Christian Roser, Julian Christopher Schmidt, Christian Peschke, Rana Yigit, Linda Kringe, Markus Seelbach and Ralf Pries (FLTR)

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