

## Much more than precision and performance



Operator convenience par excellence – the WaldrichSiegen ProfiMill

**Precision and performance are the main features that characterize all WaldrichSiegen machines. Ideally adjusted to their application they set standards in the market. The WaldrichSiegen machines also offer various other advantages – advantages that make WaldrichSiegen stand out from its competitors in Germany and abroad.**

One important criterion is the fact that the machines are energy efficient and easy to service and to maintain. Looking at the costs of the whole life cycle of small machine tools like machining centers, are a matter of interest for customers. They are important criteria for a decision. By consequently considering life

cycle costing during the process of design and development the large machine tools from WaldrichSiegen set new standards. "All components in our machines relevant for maintenance are easy to access", says WaldrichSiegen President Dr. Stephan Witt. All pumps and motors including the main drive of the saddle and the turning tables are exchangeable without complex disassembles of attachment parts. This greatly reduces downtimes and costs in case of service works. "Thus, the higher costs of acquisition pay off in the form of significantly lower follow-up costs", adds Dr. Stephan Witt.

All main components of WaldrichSiegen machines are made from

high-quality cast and machined with the highest precision within the group of companies. This guarantees the highest quality of all components.

A further unique characteristic of WaldrichSiegen machine tools are the drives and the gear box units of the saddles and the turning tables that are developed and produced by RSGetriebe, a company that is also part of the HerkulesGroup. "The high vertical range of production allows us to react flexibly to the customers' wishes and we can provide spare parts at all times," explains Dr. Stephan Witt.

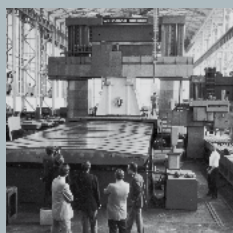
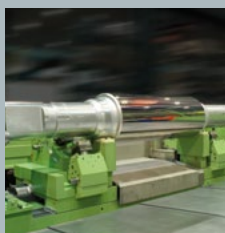
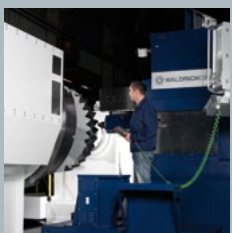
Furthermore, operator convenience is an important topic at WaldrichSiegen. In addition

to the features of the common machine controls, the functions and cycles are adapted to the needs of the user – a distinct advantage. By using systems for tool management and work piece measurement, the productivity of the machine is increased and an additional advantage is achieved.

Maintainability, operator convenience, high-quality machine components – all these characteristics also apply to the portal milling machines of the ProfiMill series. The series has recently been expanded and complemented by two smaller machine sizes. "We completed the Profi-Mill series and now offer tailor-made solutions for customers with smaller work pieces. Now, they can also machine their work

pieces with the proven ProfiMill technology", says President Dr. Stephan Witt.

WaldrichSiegen presented a Profi-Mill size with 70/80 kW performance and a clearance width of 2.5 to 5 m in 2013. Now the WaldrichSiegen product portfolio includes a new, smaller machine size with a clearance width of 2 to 4 m and a milling performance of 50/65 kW. It is the ideal machine for the efficient 5-side machining of medium sized work pieces. It can be used both for roughing and finishing.



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## Editorial

WaldrichSiegen will celebrate its 175th anniversary in 2015. When Heinrich Adolf Waldrich founded the company in 1840 it started with producing pumps, exhausters for blast furnaces and belt pulleys. In the course of the years the product portfolio changed and Waldrich-Siegen became the global leader in manufacturing large machine tools.

Today, WaldrichSiegen offers a complete range of machine tools for grinding and texturing rolls, for horizontal and vertical turning, milling and boring.

The ProfiGrind and ProfiTex machines for roll machining have been setting standards worldwide for many years. The horizontal lathes of the ProfiTurn H series with optional milling aggregate are used all over the world for precisely machining crankshafts and other complex work pieces. In 2013, Waldrich-Siegen presented the vertical lathe ProfiTurn V at the EMO in Hannover. The machine can also be equipped with aggregates for milling, boring or grinding. The consequent technical and optical redesign of the portal milling machine series Profi-Mill in 2009 led to deliveries in all important markets.

With this broad product portfolio, WaldrichSiegen offers diverse machining technologies from one source. Our customers profit from one contact persons who consults them. By taking over the boring mill manufacturer UnionChemnitz in 2011, WaldrichSiegen also extended its product program. Together, WaldrichSiegen and Union-Chemnitz offer boring mills and portal milling machines from one source.

Grinding, texturing, turning, milling and boring – WaldrichSiegen produces machine tools for every application.

Dr. Stephan Witt

# Special application ProfiMill: slab milling with Koch H&K

**Whenever products with high surface qualities are to be made from steel slabs, the slab is usually flamed or ground with a grinding machine. In 2013, WaldrichSiegen and Koch H&K Industrieanlagen GmbH in Dillingen/Germany started co-operating for a special application of the ProfiMill portal milling machine for milling aluminium and steel slabs.**

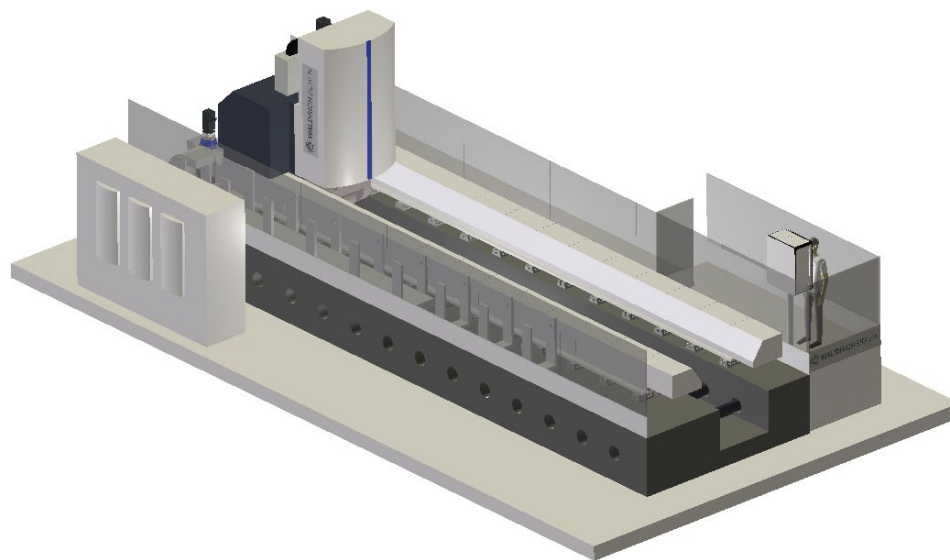
Milling slabs with a ProfiMill has distinctive advantages compared to flaming or grinding. Flaming causes high costs with its immense gas consumption. Grinding causes costs as the grinding sludge has to be disposed. In addition to the efficient and precise machining of the surface of the slab with a ProfiMill portal milling machine, this application has the advantage that the chips can be melted again. On the one hand the overall costs for the slab can be reduced and on the other hand natural resources are saved.

The WaldrichSiegen slab milling machines – like all other ProfiMill machines – feature hydrostatic guide ways in all axes of the machine. The configuration of the machine regarding size, perfor-

mance, control and equipment takes place in close cooperation with the customer. Equipment like feeding and swivel units are delivered by Koch H&K. Both WaldrichSiegen and Koch H&K

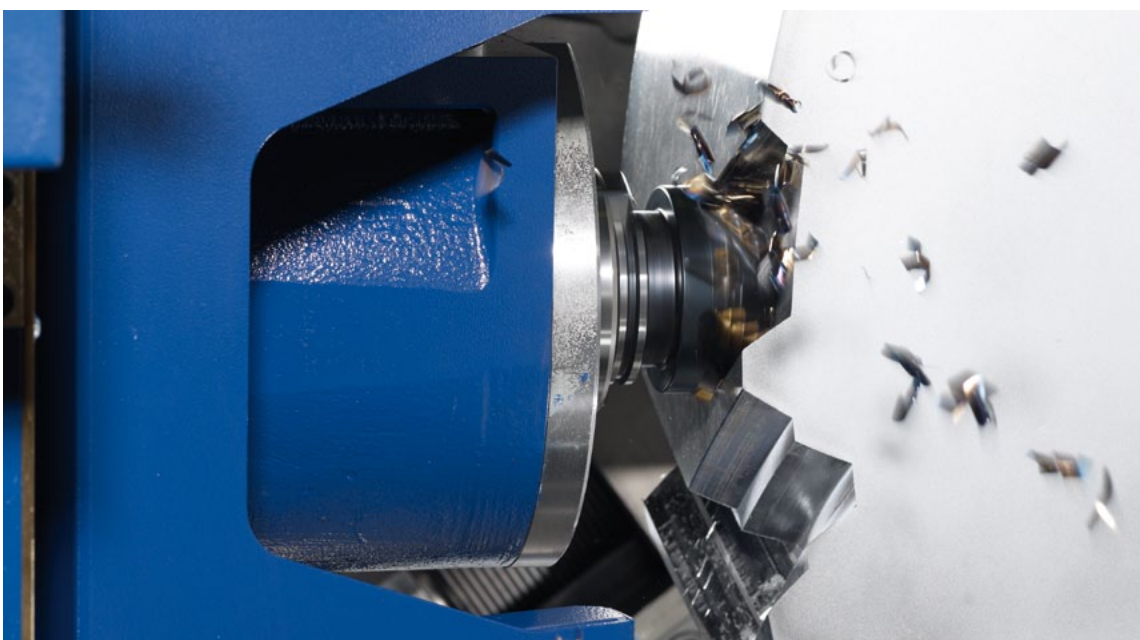
present the jointly developed machine concept in the market.

Stefan Tschersche | Ralf Tschersche



Efficient slab milling with the ProfiMill

## Turn-milling complex work pieces



Precise milling of a herring bone gearing of a pinion stand gear with the ProfiTurn H

**Turning and milling demanding work pieces with one machine – WaldrichSiegen fulfills this customers' demand with the horizontal lathe ProfiTurn H. The lathe is optionally available with a high-performance milling aggregate. Thus it allows complex and precise turning and milling operations on large work pieces like turbine rotors without additional time-consuming set-ups.**

This solution is adaptable for every application. That convinced the Ukrainian roll stand manufacturer NKMZ to invest in a ProfiTurn H. They will machine pinion stand gears with the lathe. The machine successfully passed the preliminary acceptance tests at the end of 2013. Equipped with a milling unit with 50 kW, the ProfiTurn H will be used for turn-milling pinion stand gears with up to 8,000 mm length and 10 t of weight.



# ProfiTex M 200: Expanding the EDT portfolio

In the beginning of the 1980s WaldrichSiegen developed and sold the first texturing machine. WaldrichSiegen has delivered roughly 100 EDT machines since then. They produce roll surfaces with outstanding characteristics for high-quality flat products. The focus of any further development in recent years was on optimizing machines with a production output of up to 1100 rolls per month. The WaldrichSiegen ProfiTex 30/60 is a machine that is market-leading in this segment. For a lower production output WaldrichSiegen has enhanced its product portfolio by a further machine type.

Customers can efficiently texture up to 400 rolls each month with the new ProfiTex M 200. A successful mechanical concept combined with the latest generator electronics and an excellent control guarantee the success of the ProfiTex M 200. Up to two rows with a maximum of 32 electrodes oscillate along the roll barrel. The machine can be individually adapted to meet the requirements of the customer. Without compromise, using proven components the ProfiTex M 200 guarantees all qualities characteristic for the whole ProfiTex series – high quality, availability and efficiency. The ProfiTex M

200 rounds off the WaldrichSiegen texturing portfolio. It answers all requirements in the market.

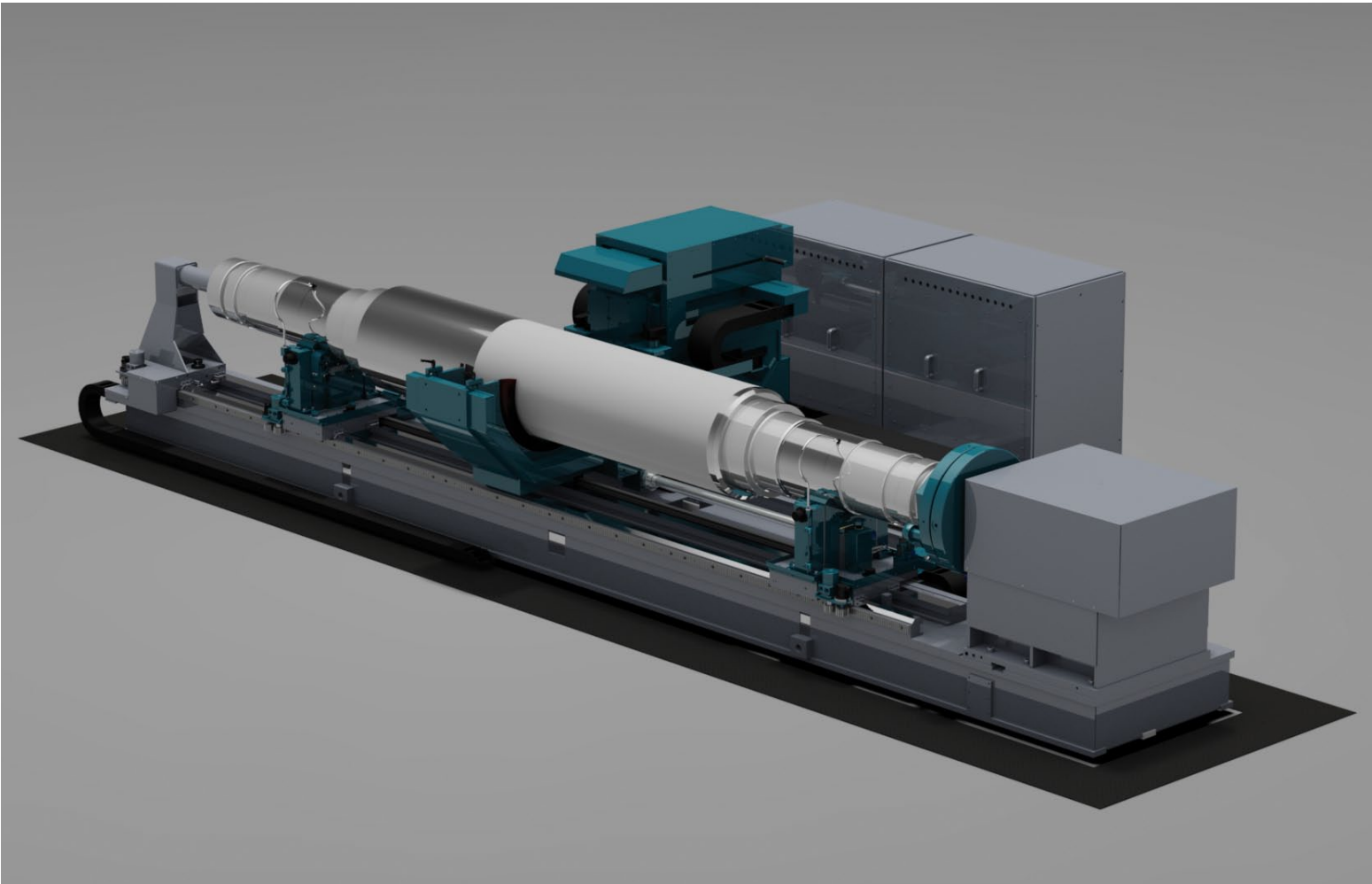
Many industries place highest demands on the surface roughness of work rolls. For example the

aluminum industry has just started using textured rolls. However, the tendency to use textured rolls to produce aluminum sheets for the automobile industry is clearly visible. By texturing rolls for renowned European aluminum

producers, the companies in the HerkulesGroup have built up extensive know-how in this market segment for many years.

In addition to the ProfiTex 30/60 and ProfiTex M 200, the ProfiTex

S completes the EDT portfolio of WaldrichSiegen. ProfiTex S is the ideal machine for texturing up to 500 rolls per month. Thus, WaldrichSiegen offers the perfect EDT solution for every requirement.



The ProfiTex M 200 by WaldrichSiegen

## Roll grinders for Bangladesh

**Abul Khair Strip Processing Ltd. (AKSPL), a company of the Abul Khair Group, is the most important supplier of galvanized sheet metal in Bangladesh. Until now, their sheet metal was produced with a “Flat Strip Cold Rolling and Galvanizing” plant made in Japan. This is the largest plant in Bangladesh. The galvanized sheets and profiled sheets are exported to 19 countries.**

In order to meet the needs of the home market and in order to ensure the product qualities required on the international markets AKSL ordered a “Compact Cold Mill” (CCM) at SMS-Siemag. It is a two stand 6 Hi reversing mill. The new CCM was designed to process pickled hot strip with 1,250 mm width and an entry thickness of up to 4 mm. The annual production capacity is 185,000 t. The minimal final thickness comes to less than 0.1 mm. AKSPL set new standards with the CCM in Bangladesh.

The logical consequence of this investment for AKSPL is to expand their roll grinding capacities. They opted for quality and efficiency and ordered a ProfiGrind 2000 as a universal machine for grinding work and back-up rolls and a ProfiGrind 600C as a grinding machine for work rolls. Both machines are equipped with a CP-type roll measuring system and a B-axis in order to grind rolls with the highest precision in minimum time.

With the high-performance WaldrichSiegen roll grinders, AKSPL is well equipped to meet all challenges of the national and international markets. They will be perfectly able to expand their leading position in Bangladesh.

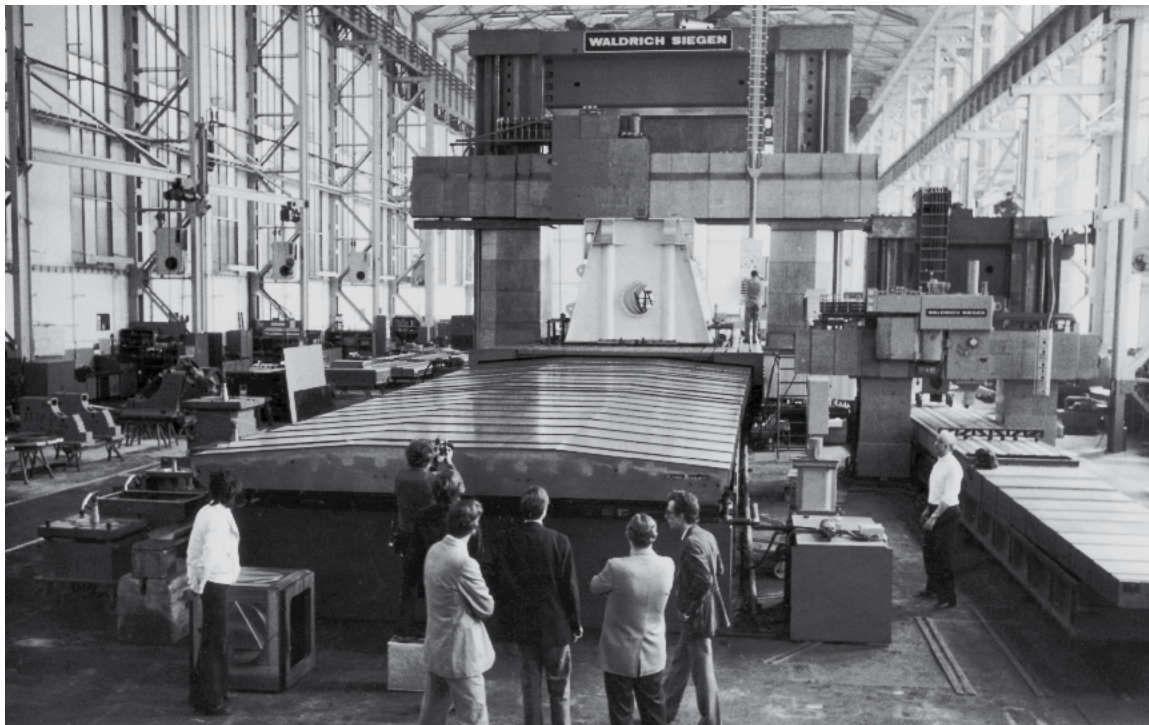
Eckhard Arbes



ProfiGrind 600C



# 1974: The largest portal milling machine worldwide



WaldrichSiegen delivered the largest portal milling machine worldwide in 1974

**“The largest machine in the world by WaldrichSiegen” was a headline in the local press in Siegen/Germany in 1974. They wrote about a NC-controlled portal milling machine that WaldrichSiegen developed and built for the Danish customer Burmeister & Wain in Copenhagen exactly 40 years ago.**

800 t weight, 48 m length, 11.5 m height and 12.5 m width – it was the first time ever that a machine with these impressive dimensions had been built. “The dimensions allow machining work pieces with the size of six heavy trucks, parked in rows of two”, the press wrote. The machine was used for machining long-stroke engines with 48,000 PS for supertankers and container ships.

Ever since that time WaldrichSiegen has been setting standards with the high-precision machining of work pieces with the largest machines. The order for a portal milling machine showed that once again recently. The ProfiMill 8500/120-G gantry-type portal milling machine for Dongfang Heavy Machinery has unique selling propositions: 135 kW performance at the main spindle, a torque of 10,000 Nm and 8,500 mm inner widths.

## 2 x 50 years of commitment for WaldrichSiegen

**They started their apprenticeship at WaldrichSiegen in 1964. Later, one of them was appointed head of assembly. The other became project manager for modernizations. They celebrate their 50th anniversary at WaldrichSiegen this year: Horst Reichmann und Udo Benner.**

“When you heard the name WaldrichSiegen it didn’t matter what job you learned. The main thing was that you started your apprenticeship there”, says Horst Reichmann, head of assembly, when asked why he started working for WaldrichSiegen in 1964. His father, assembly foreman at WaldrichSiegen, took him to work for two hours one Saturday in order to show him the company. The son was convinced and gained an apprenticeship to become a machine fitter.

Udo Benner started his career at WaldrichSiegen as a high voltage

electrician apprentice. “I was very proud to work at WaldrichSiegen. It was a dream for many people”, says Udo Benner.

Both say that they had been nervous on their first day. They were 14 years old and did not know exactly what to expect. But Horst Reichmann and Udo Benner soon settled in and made their way in the company. Only one year after successfully completing his apprenticeship Udo Benner assembled his first machine at the customer’s site. In the years to come, he assembled WaldrichSiegen grinding and portal milling machines all over the world. A trip to Venezuela 40 years ago was one of his highlights. In 1987, he assembled the first roll shop worldwide at BHP in Australia.

Horst Reichmann did not travel the world in his job. He completed his training as industrial foreman and instructor for apprentices and

became assembly foreman in 1977. In 2005 he was appointed head of assembly.

Both men saw in the last 50 years how WaldrichSiegen machines turned from machines with hand wheels to fully automatic, NC-controlled, high-tech machines that achieve the highest precision. “I’m very proud that I contributed to this development”, says Horst Reichmann. Udo Benner adds: “Whenever I assembled a machine that successfully passed its acceptance test I felt proud”.

“I traveled to all parts of the world and made many experiences I wouldn’t want to do without”, Udo Benner sums up the last five centuries at WaldrichSiegen. He and Horst Reichmann retire this year. That means that two loyal and reliable employees leave the company. The management thanks them for their long-term, exemplary commitment.



50th anniversary at WaldrichSiegen: Udo Benner und Horst Reichmann

### Successful participation: EMO 2013

After the EMO in Hannover/Germany the management of WaldrichSiegen looked back contentedly on the trade fair. The product portfolio was presented successfully and many promising projects were discussed with customers and interested persons.

The new WaldrichSiegen products attracted much interest: the extension of the portal milling machine series ProfiMill by smaller machines sizes and the newly developed vertical milling machine ProfiTurn V.



### Dates 2014

WaldrichSiegen and UnionChemnitz will host a milling machine seminar in Guilin/China from September 11 – 13, 2014.

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