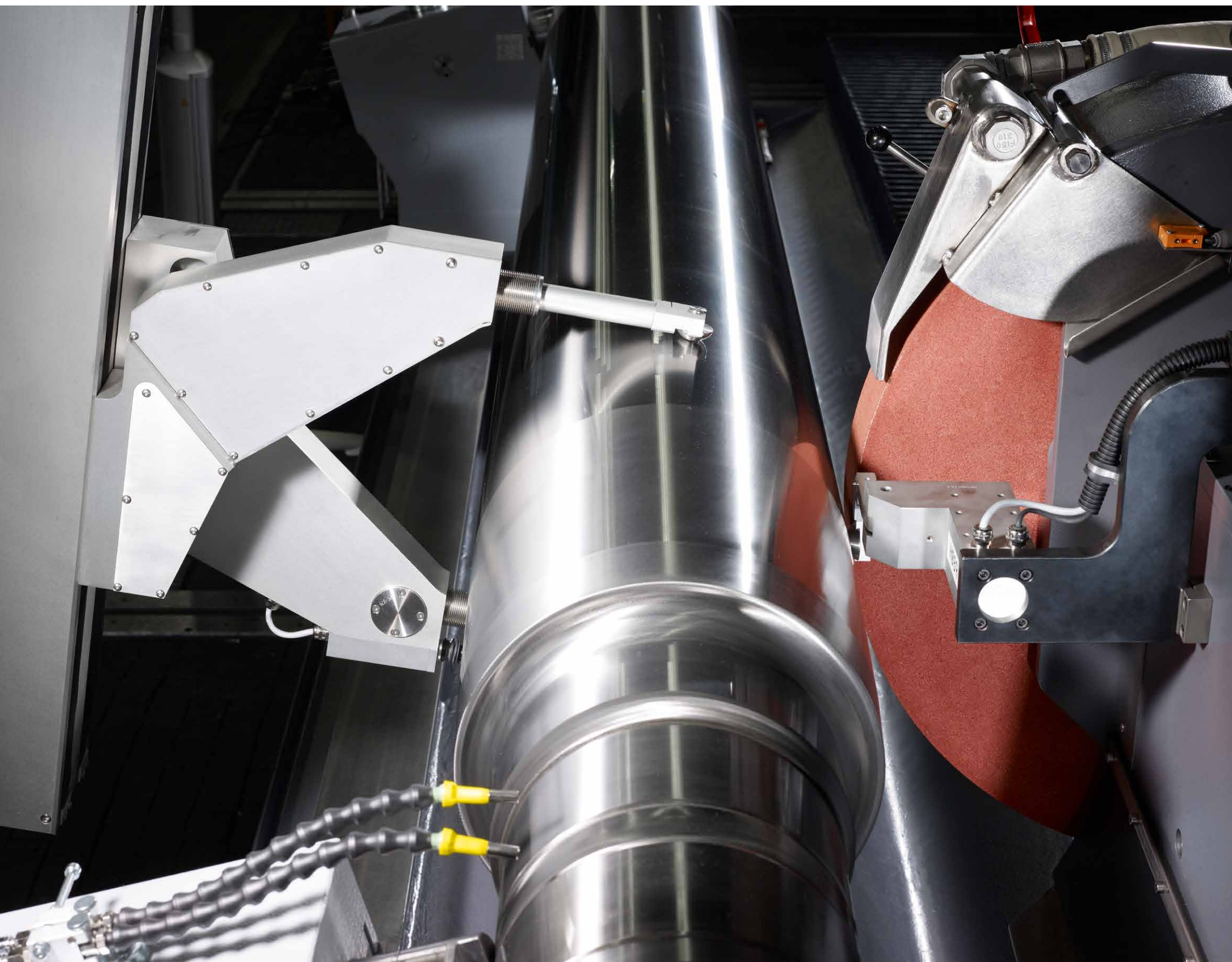


Herkules consolidates its leading position in key markets

Herkules USA
Increasing demand for Herkules
machines in the USA

Follow-up order from Salzgitter
Herkules prevails in comparison
with the competition

20 years of cooperation
Herkules Latin America
and ArcelorMittal



Increasing demand for Herkules machines in North America



In Ford City, Pennsylvania, approximately 120 employees work for Herkules USA

Over the past year, the market situation in the USA has increased significantly for Herkules. Profits, from which the steel and aluminum producers also have benefited thanks to imposed import duties on foreign products, are now being invested either in new constructions or in the expansion and modernization of their plants. Herkules also profits from these investments with its high-precision roll grinding machines.

The high quality of Herkules roll grinding machines is in high demand in the American market. The advancement of 3rd generation Advanced High Strength Steels (AHSS) means that roll grinders must advance to perform better than ever. With Herkules control, measurement and NDT technologies, the company has positioned itself to become an important partner for leading steelmakers such as the Nucor Corporation and U. S. Steel Corporation.

“Aluminum and steel companies are the most important customers for us. This applies equally to new machines as well as modernizations”, says Robert Curler, Senior Vice President Sales of Herkules North America. High demand for new products and machinery and steel-based pricing have helped steel-makers to invest in new equipment and machinery.

“Currently, the markets for our machine tools are still strong despite the pricing pressures.”

Robert Curler (Senior Vice President Sales for Herkules North America)



The grinding process can be improved by using powerful HCC/KPM tools

Roll machining in America continues to benefit from this situation. The new trends in Industry 4.0 are additionally influencing the market. Faster, better, more connected – only the most modern technologies and machines manage to prevail in the American market. HCC/KPM technologies, such as the HDVS (History Data Viewer System), collect all the data from the grinding processes of the machines in the roll shop and enable a centralized analysis.

From a maintenance and also from an operating perspective, there is a growing demand for machines which approach autonomy – the more modern the machine, the greater the appeal it has. Herkules positions itself in the upper ranks.

After a successful year in 2018 Herkules North America also set a new record in 2019. “We are confident that we will be able to serve our customers well in 2020 and beyond with our machines and technologies in view of upcoming major projects,” says Robert Curler.

American companies rely on Herkules quality

Roll grinder with high-precision measuring controls for Neo Industries

The American contract grinder Neo Industries LCC, Inc. has purchased a WS 450 × 5500 CNC Monolith™ for its service center, which was recently installed at the customer's plant.

Thanks to the future-oriented Monolith™ machine beds, vibrations that occur are effectively dampened and the technology guarantees homogeneous roll surfaces. The inherently rigid construction, the thermostable properties and the foundation-free placement directly on the shop floor offer the customer clear advantages. Equipped with high-quality measuring systems such as C-Frame Caliper, Creeping Wave and the Eddy Current measurement system, machines from Herkules offer Neo Industries excellent quality and reliable precision in grinding results.

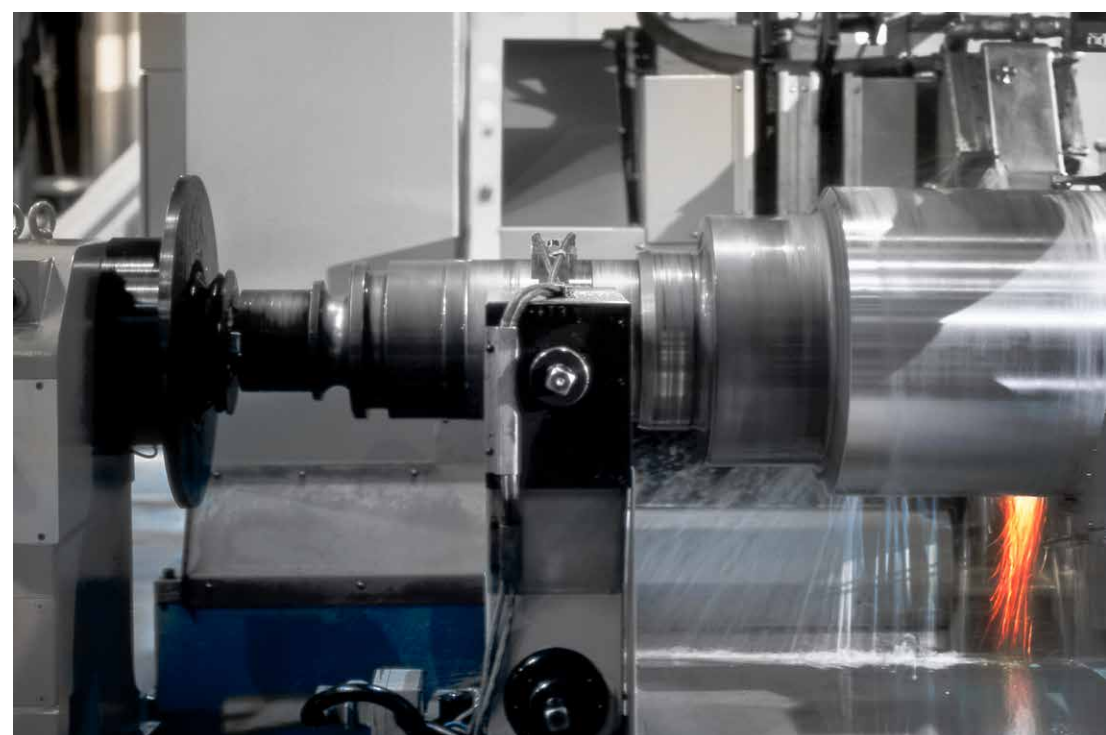


The WS 450 is equipped with precise measuring systems such as the C-Frame Caliper

U.S. Steel Corporation for Granite City Works acquires Herkules machine for its hot strip mill

How do you completely convince a customer? When quality and performance are satisfying. KPM, the revamping specialist of the HerkulesGroup, is already known to the U.S. Steel Corporation. The HerkulesGroup Company was commissioned in April 2019 to modernize a Farrel machine, which was successfully completed in November 2019. This is where Herkules comes into play: Apparently, KPM left a lasting impression, so that in the future the U.S. Steel Corporation will also place its trust in a roll grinding machine from Herkules.

After the installation in the summer 2020, the WS 600 × 600 CNC Monolith™ will be used to process the hot strip mill rolls at the company's plant in Granite City. The roll grinding machine is equipped with fully integrated measuring systems. The measuring systems offer real-time processing and analysis: During the grinding process, data is collected and directly evaluated. The control values are adjusted "on the fly" during the process in the control. The U.S. Steel Corporation can be sure that a Herkules machine and services from the HerkulesGroup can fully meet their requirements.



Real-time processing "on the fly" offers the user high-precision results

Logan Aluminum uses a roll grinder with Monolith™ machine bed for its demanding rolls

The advantages of the Monolith™ technology are unbeatable. As a longstanding customer of the HerkulesGroup, Logan Aluminum Inc. intentionally chose a Herkules roll grinding machine with a patented Monolith™ design.

The U.S. based aluminum hot and cold strip producer acquired a WS 600 × 6000 Monolith™ in mid-2019, which will be delivered to the customer's plant in September 2020. But not only that: in addition to the advantages of the foundation-free Monolith™ bed, the customer benefits from fully integrated HCC/KPM measuring systems like Eddy Current or Roughness Scattered Light Detection. Highly precise results, the latest technologies – with a machine from Herkules, Logan Aluminum has all the advantages on its side.



Herkules machines are the first choice for the demanding aluminum industry

Open House USA – Golf, machines and exciting talks



Content guests at the golf tournament during this year's Open House



The golf tournament provided space for interesting conversations

Modern technologies, exceptional product highlights and a high-class golf tournament – the 21st Herkules USA Open House in 2019 was an outstanding event that has exhilarated all its guests. Since the first Open House in 1999, our North American customers have the opportunity to get to know the HerkulesGroup products and services during this annual event.

A highlight of the Open House is the tour through the production site in Ford City, where new and modernized machines are presented. Guests can experience the products and machines with all their services and qualities, and learn more about the facility. In addition to the tour, the informative presentations were another highlight for the approximately 80 guests from more than 30 different companies and locations who have found their way to Ford City.

Stefan Tschersche, Member of the Executive Management of UnionChemnitz, presented the PCR 180, a horizontal boring and milling machine with plate field, which functions with maximum efficiency and precision. Marco Tannert, CEO of WaldrichSiegen, introduced the ProfiMill *compact*, the portal milling machine for small to medium-sized workpieces. Guido Matarazzo, sales manager at Herkules, reported on all the new developments in the field of HCC/KPM roll shop and control systems that are successfully used in Herkules machines. The interested guests were enthusiastic of what they were hearing regarding all the new developments within the HerkulesGroup. The exciting dialogues also continued in the evening talks.

In addition to lectures from the group of companies, there was a guest presentation given by the CEO of the SMS group North America. Prof. Dr. Pino Tesè analyzed the transformation in the world of metalworking in times of digitalization and Industry 4.0 in his discussions.

The successful Open House was rounded off by the traditional golf tournament, which also provided an opportunity for technical discussions in a casual atmosphere. In the evening, all guests enjoyed a BBQ buffet and the 21st annual Open House 2019 concluded with an evening of pleasant conversation.

Events and exhibitions



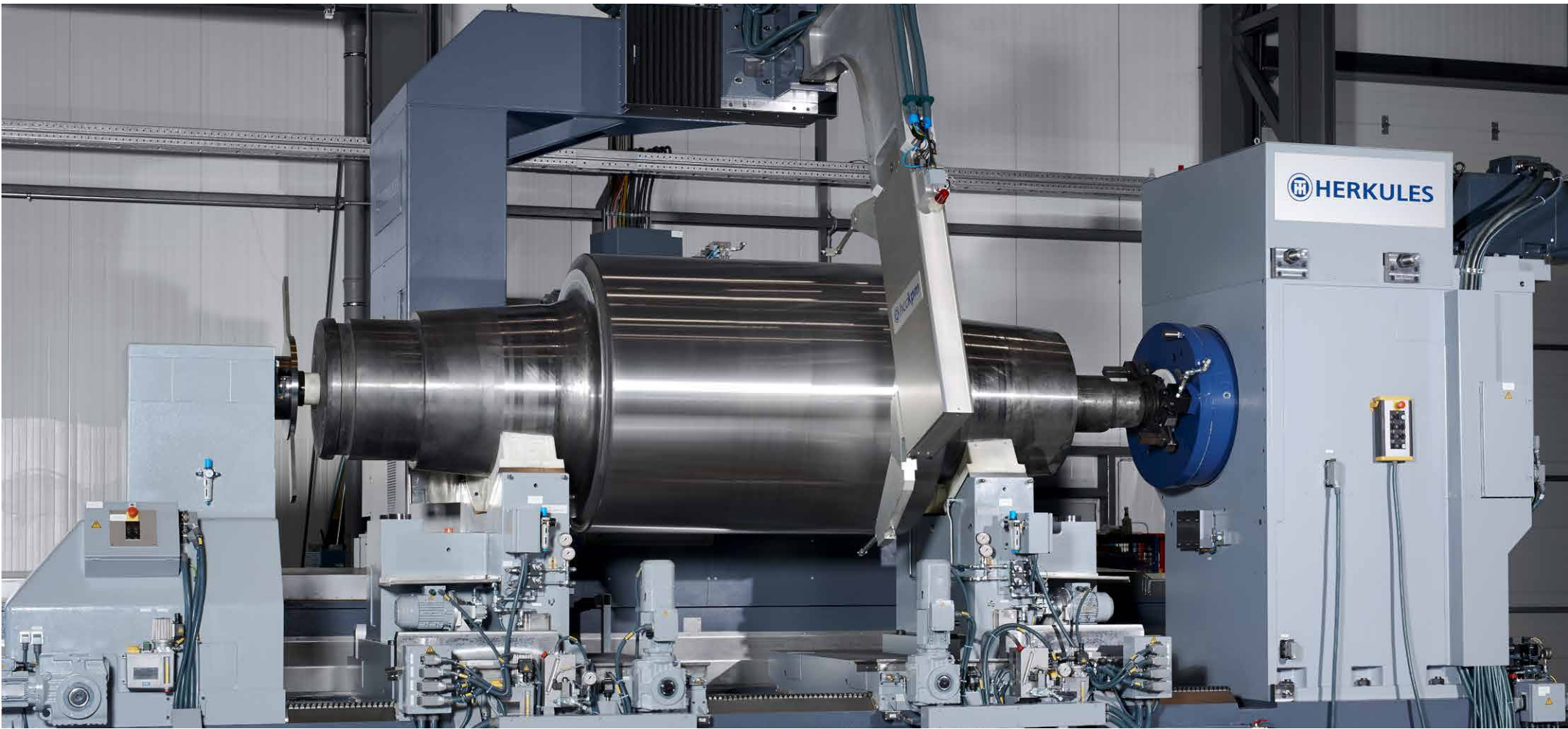
AISTech
May 4th to 7th, 2020
Cleveland, USA



Rolls 6
June 3rd to 5th, 2020
London, Great Britain



ALUMINIUM 2020
October 6th to 8th, 2020
Dusseldorf, Germany



Machining of 90 t rolls with a foundation-free roll grinding machine

Coming out on top in direct comparison with a competitor

Herkules and the Salzgitter Flachstahl GmbH can look back on a long and successful relationship. The customer was impressed with the quality and precision of Herkules roll grinding machines during the modernization of their roll shop in the hot rolling mill in the early 1990s. A trusting partnership began that is being continued today.

The desire for innovation and the latest technology drove Salzgitter Flachstahl GmbH in 2016 to invest once more in its own roll shop. Herkules can meet the requirement for the roll grinding machines, to be able to use CBN technology, like no other supplier. Already in 2012, Herkules was able to successfully machine rolls for the steel industry using CBN technology at Voestalpine. At a very early stage, such a significant innovation leap over the competition was achieved. The know-how and precision of the machines ultimately convinced the customer this time as well.

Nevertheless, the Salzgitter Flachstahl GmbH initially decided on a work roll grinding machine from the competition. Even before this machine was assembled, the customer additionally ordered a "brother machine" from Herkules for reasons of comparability. After installing and comparing both machines, Herkules kept the customer's trust. Salzgitter commissioned Herkules for two more machines, a combined support and work roll machine and another work roll machine for their cold rolling mill. After the direct comparison, the total cost of ownership seems to have been decisive.

Equipped with **Herkules** MACHtechnology as well as the superior HCC/KPM control and measuring systems, such as the Eddy Current and Ultrasonic roll testing systems and automatic roughness measuring methods, the Herkules roll grinding machines not only offer state-of-the-art technology, but also maximum precision and performance.

Thanks to the various technologies from Herkules, the Salzgitter hot rolling mill is perfectly equipped for roll processing. Thanks to the Monolith™ design, the machine bed absorbs vibrations that occur, guaranteeing homogeneous roll surfaces. In addition, the inherently rigid construction is thermostable and requires no foundation. A clear advantage for the customer.

CBN grinding with **Herkules** MACHtechnology

The package, consisting of Herkules machines, control and inspection technology and grinding wheels by our partner Mach Rotec, guarantees reliable and reproducible grinding results. **Herkules** MACHtechnology saves a considerable amount of time due to greater stock removal rates and shorter machining times. The service life of the rolls is significantly improved thanks to the optimization of the stock removal. Absolutely homogeneous, flawless surfaces covering the entire roll and high energy efficiency are additional advantages.

Rolling mills need constantly better rolls with comma and cloud free surfaces. With the **Herkules** MACHtechnology we offer you a perfect solution concept.

Herkules – A strong partner for the paper industry



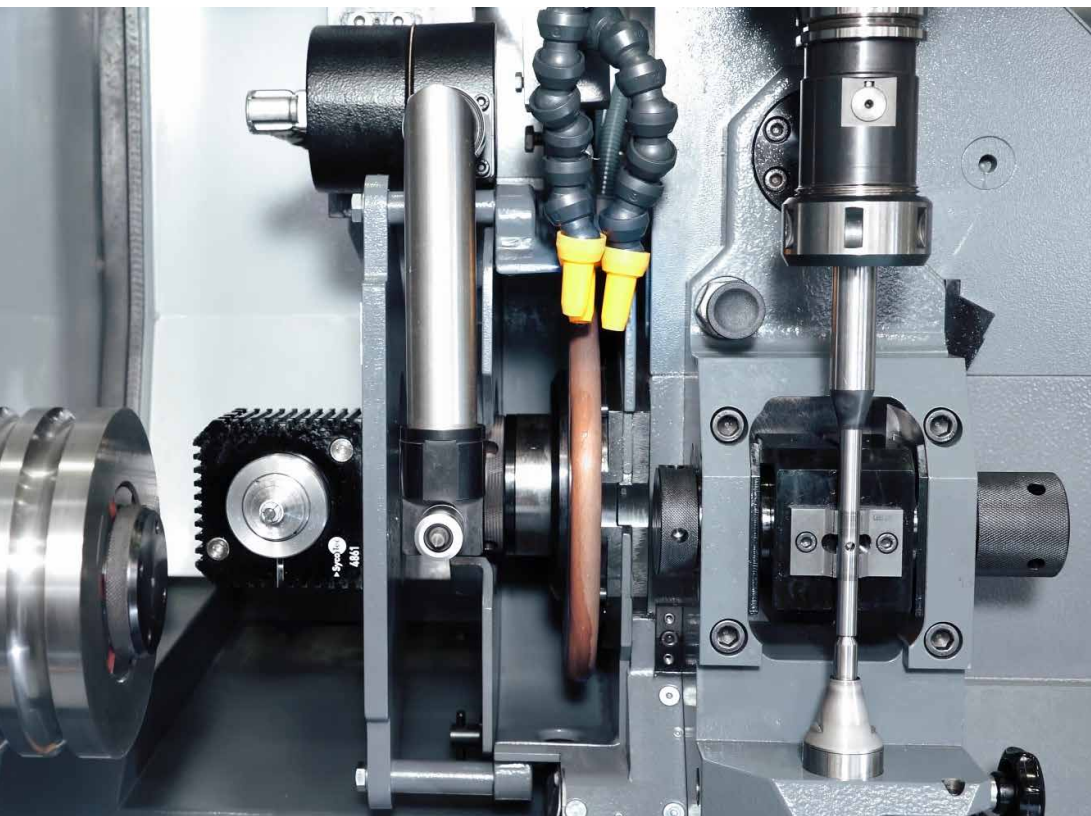
Herkules roll grinders machine paper rolls up to 17.5 m in length and 2.5 m in diameter

When it comes to machines for the paper industry, Herkules is the world's number one. For decades, Herkules has been producing for international companies such as Valmet, Beloit, Voith, Scapa Kern, Stowe Woodward, International Paper, APP, and many more. Herkules now supplies the first roll grinding machine to LLC KAMA Karton.

KAMA Karton is a company of CBK KAMA, one of the largest paper manufacturers in the Urals region of Russia, and has now commissioned Herkules for a P100 WSB 450 × 7000 CNC Monolith™.

The first Herkules machine for the carton board manufacturer KAMA impresses with its monolithic design without the need for extensive foundation work, which would affect ongoing operations. The paper industry demands a complex design of the roll drives. KAMA Karton benefits from the services of the local and experienced Herkules branch in Russia and the foundation-free and flexible Monolith™ machine bed. The roll grinding machine will be delivered to Russia in September 2020.

Quality is the key – Herkules sells first machines to Abinsk Electric Steel Works



Efficient grinding of calibers in carbide metal

Herkules has successfully sold two machines to steel producer Abinsk Electric Steel Works LTD to increase the efficiency of processing rolling and roll rings which are used in the production of concrete ribbed steel.

Despite the highly competitive market, the quality of the Herkules machines prevailed. The precision and efficiency of the machines have completely convinced Abinsk.

In the future, the processing times will be considerably reduced with the Herkules machines, so that the customer can increase his production effectively. The groove grinder type HSF 3 CNC and the rolling ring lathe type P 300 CNC × 2500 F are both equipped with an additional grooving unit and will be delivered to the customer in September 2020.

Successful cooperation – 20 years of partnership between ArcelorMittal and Herkules

In the year 2000, Herkules was commissioned by Brazil's largest steel producer ArcelorMittal Tubarão (AMT) to produce three roll grinders – the beginning of a twenty-year success story.

With the delivery of the precise and robust Herkules machines, AMT achieved a state-of-the-art level with its Roll Shop in Latin America. The cooperation progressed quickly and professionally: equipment and quality controls by Herkules and AMT ensured the success of the machines. At the same time, Herkules began operations in its location in Vitória (Herkules Latin America), which is – conveniently located – in the immediate vicinity of AMT. Short ways and even faster solutions were given and the partnership of both companies quickly reached a new level.

Based on this mutual trust, a fourth Monolith™ roll grinding machine was ordered in 2008 – the first of its kind in Brazil. After numerous successful service assignments, AMT and Herkules signed another service contract, which was renewed in 2018 for three years. In the same year, AMT awarded Herkules with a diploma honoring the quality and safety of its services. Regular updates. Professional leadership. Almost two decades of a non-stop working machine. We look forward to the next twenty years of cooperation with AMT!



The team of Herkules Latin America (from left to right): Jefferson Babilon, Regina Couto, Christoph Druffner, Sidney Silva and Leonardo Barros

Herkules

Ten Herkules roll grinding machines for Rizhao Steel

The Chinese Rizhao Steel Holding Group has acquired the tenth WS 450 × 6000 CNC Monolith™ roll grinding machine from Herkules. Every plant in the company already uses Herkules machines, which are used to implement Endless Strip Production (ESP) technology. In a combined casting and rolling plant, paper thin hot strip made of liquid steel is produced – a high-precision job that requires perfect rolls and correspondingly precise grinding machines.

The Herkules roll grinding machines impress with their short processing times and reduce the stock removal to a necessary minimum thanks to the measuring and control systems from HCC/KPM. The roll consumption is significantly reduced. In addition to efficient grinding, the Monolith™ technology ensures homogeneous roll surfaces and strict adherence to required machining tolerances.



Herkules offers perfect alignment of the rolls and minimal stock removal

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