



LIFECYCLE SERVICES

IMPROVE PERFORMANCE WHILE
REDUCING COSTS

YOUR CHALLENGE

SATISFY YOUR CUSTOMERS WHILE OUTPERFORMING YOUR COMPETITORS

FULFILL GROWING MARKET REQUIREMENTS

Pressure on metals producers is steadily growing and steel companies need to react to changing customer requirements. To increase your product variety and reduce manufacturing costs, you need the highest-possible flexibility in your production, which is feasible, for example, by utilizing state-of-the-art process equipment.

The integration of new equipment in existing plants is challenging and requires detailed knowledge about your facility. A lifecycle partner with years of experience in both plant construction and maintenance can support you in achieving your goals.

IMPROVE PLANT PERFORMANCE AND AVAILABILITY

To ensure a steady output of high-quality products, optimization on a continuous basis is essential. Periodic maintenance is mandatory to avoid breakdowns, which usually result in expensive production losses. With fast and continuous availability of spare and wear parts, you ensure that production downtimes are minimized.

CUT YOUR COSTS EFFECTIVELY

Increasing competition together with fluctuating demand seriously impacts the price of all kinds of steel products. The right equipment and the optimum combination of external and internal maintenance activities help you adjust your cost structure more flexibly, and by doing so strengthen your position in the market.

EXTEND YOUR PLANTS LIFETIME

To save on major capital investments and to ensure that quality remains high, it is essential for steel producers to extend the lifetime of existing plants. Keeping your plants equipped with the best-available technology will help you satisfy the ever-rising quality standards of your markets.

TAKE THE LEAD WITH HIGHLY SKILLED PERSONNEL

Advanced technology calls for skilled personnel. To improve plant output and reduce costs, operation and maintenance personnel must receive continuous training to improve their knowledge.

Strong competitive pressure forces plant operators to keep production and maintenance costs at the lowest-possible level. To improve both efficiency and performance, plant operators increasingly rely on operational support, maintenance and repair services from their lifecycle partner.



Scan the QR code with your mobile device and watch our video on YouTube !

<http://primetals.com/PMF0036>
Improve performance while reducing costs

YOU EXPECT ...

- Customized solutions for decreasing operating and maintenance costs to offset growing cost pressure
- State-of-the-art plant performance and maximum plant availability and reliability through professional maintenance over a plant's entire lifecycle
- Maximum plant service life achieved by regular technical updates
- Consulting services to extend the product portfolio and increase product quality
- Excellently trained employees with outstanding problem-solving skills to respond to challenging market requirements





ADVANTAGES OF SERVICE SOLUTIONS BY PRIMETALS TECHNOLOGIES:

- High-quality service from about 1,800 service specialists worldwide
- Cost reductions – in both operation and maintenance
- Increase in plant availability and productivity
- Fast delivery of high-quality spares and components – tailor-made solutions manufactured in-house

OUR SOLUTION

SERVICE AND SUPPORT FROM A SINGLE SOURCE – FAST, EXPERIENCED, RELIABLE

COMPREHENSIVE AND EXPERIENCED OPERATIONAL SUPPORT

As your lifecycle partner, we provide you with comprehensive operational support, which helps you operate your ironmaking, steelmaking, rolling and processing facilities at the lowest cost possible. Our portfolio includes maintenance and repair services as well as the fast delivery of original manufacturer components, produced in-house according to the highest standards of quality.

We fully integrate maintenance organizations into our customers' organizations, thereby proving what it means to be a true lifecycle partner. The result of this win-win relationship between steel plant operators and Primetals Technologies is continuous improvement in equipment performance, product quality and total cost of ownership.

Our customers can rely on fast and uncomplicated support in case of an unexpected component breakdown, wherever their facility may be located. Backed by global resources and a worldwide supplier chain, we can promptly provide you with top-quality original spare and wear parts at competitive prices. We keep a range of key parts on stock to ensure their fast availability.

CONSULTING AND TRAINING

We can support you with professional consulting and training, provided by our team of experts who are familiar with every step of the processing chain. By instructing and advising your operators on-site, we help you strengthen the capabilities of your plant personnel as well as detect and leverage potential for performance improvement and cost reductions.

EFFICIENT PLANT MODERNIZATIONS

Decades of experience paired with ongoing research and development ensure that our clients receive the most innovative technological upgrade for their manufacturing plants and processes. Modernizations and mechatronic solutions for plant components raise plant performance, improve quality, simplify handling and increase personnel safety. Relatively small investments in the latest technology can bring large advantages in plant functionality.

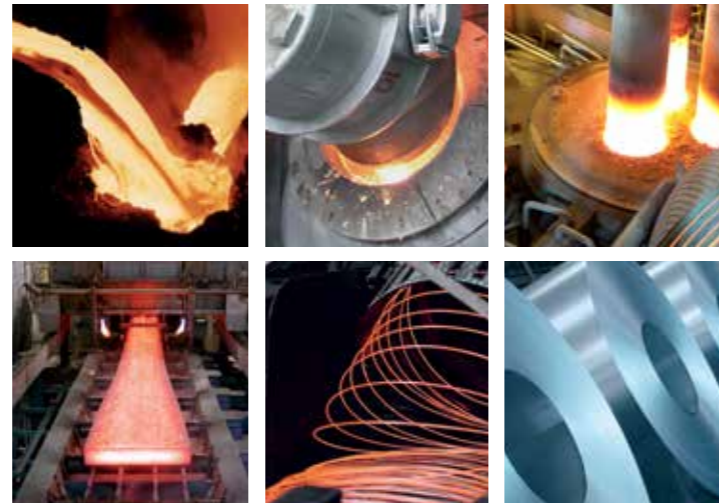
COMPLETE RANGE OF MAINTENANCE AND REPAIR SERVICES

Outsourcing crucial service activities is a very effective way for plant operators to improve their cost structures. As your lifecycle partner, Primetals Technologies supplies the full range of maintenance and repair services along the process chain – tailor made and from a single source. Our global experience in the iron, steel and aluminum industries enables us to identify and implement preventive measures at every stage of production. This helps avoid downtimes and cut unnecessary costs. To offer our customers fast and uncomplicated repair service, we operate service workshops around the world and have our own manufacturing facilities. With Primetals Technologies, you can rely on getting top-quality repair service at an attractive price.

EXPERIENCE AND EXPERTISE IN ALL ASPECTS OF THE PROCESSING- CHAIN

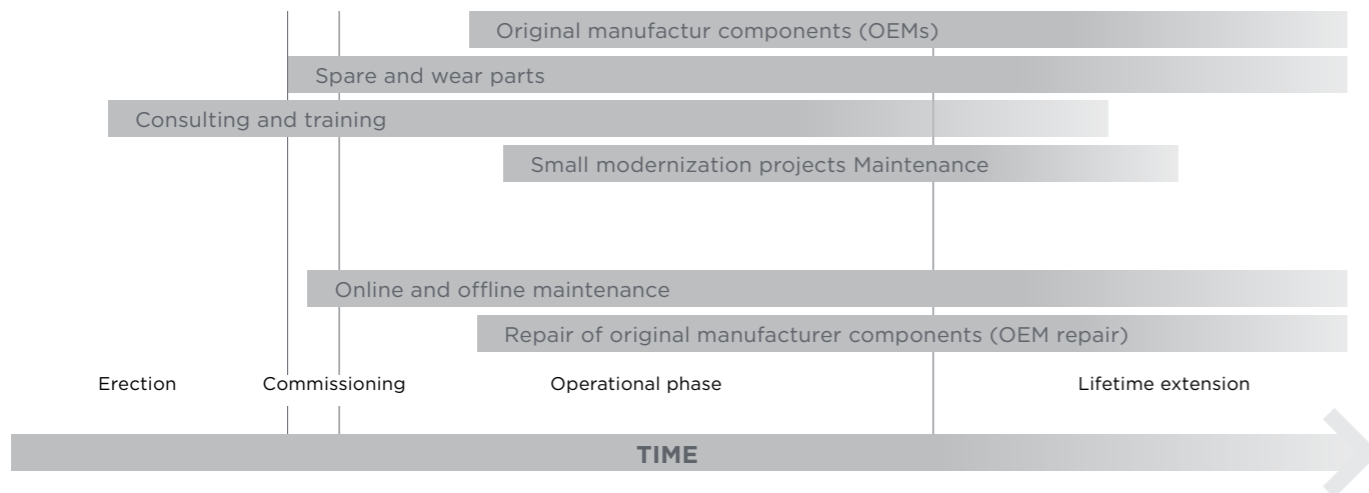
YOUR LIFECYCLE PARTNER

As one of the world's leading lifecycle partners and plant service providers for the metals industry, Primetals Technologies has sound knowledge of the complete process chain for both iron and steel production and treatment. This expertise, combined with decades of experience in maintaining iron- and steelworks, enables us to provide you with the full range of services, from delivery of spare and wear parts to online and offline maintenance. This results in effective cost reductions, improved plant performance and trouble-free operation across the processing chain.



FROM RAW MATERIALS TO FINISHED PRODUCTS, FROM ERECTION TO LIFETIME EXTENSION

Primetals Technologies is an expert in providing single-source solutions - including original manufacturer components, third-party spare parts, modernization and mechatronic solutions, consulting and training, and maintenance and repair services.



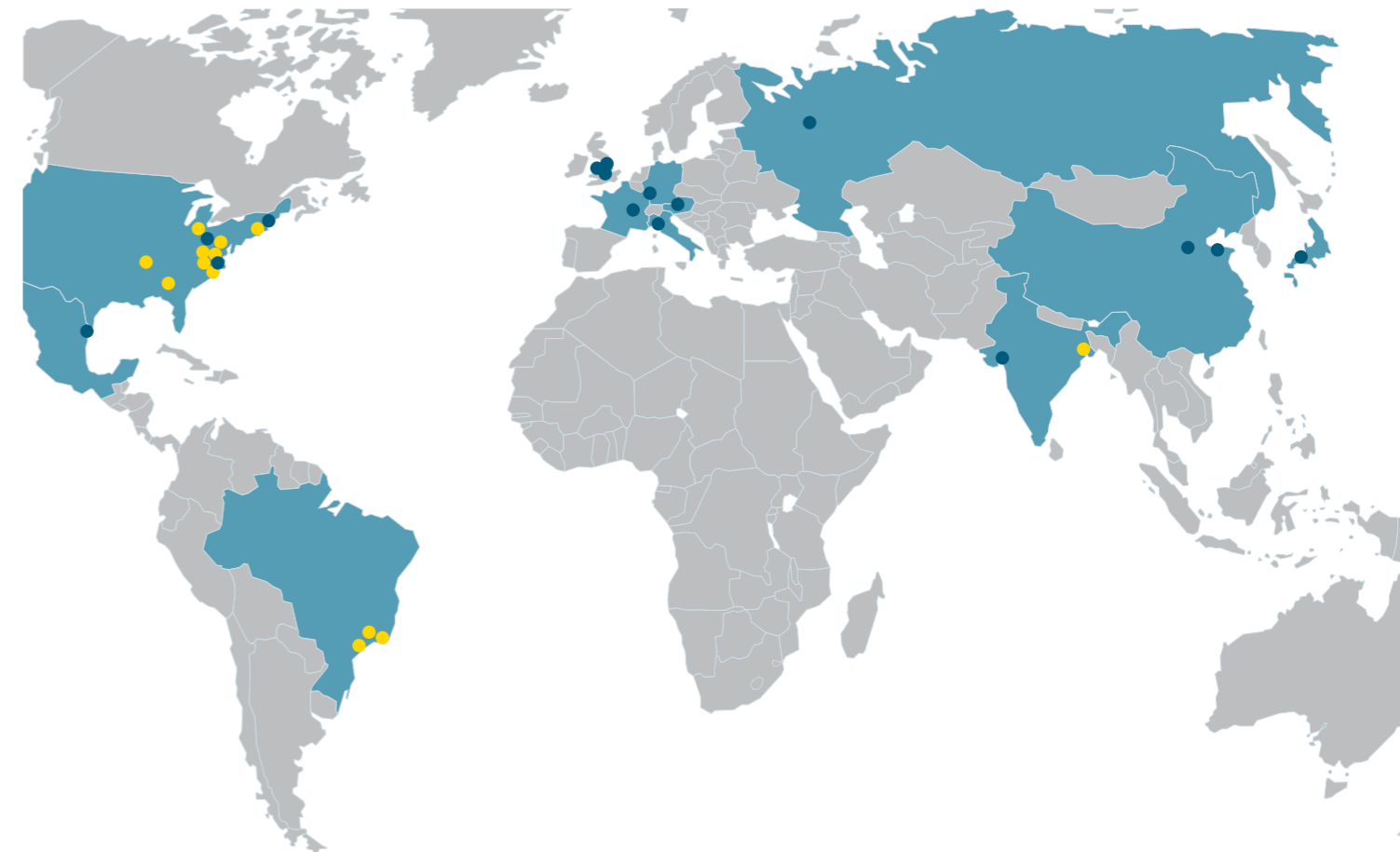




ABOUT 1,800 SERVICE SPECIALISTS AROUND THE WORLD ARE- ALWAYS CLOSE TO OUR CUSTOMERS

GLOBAL PRESENCE FOR LOCAL SUPPORT

Primetals Technologies customers can rely on a unique service network throughout the world. Our service and expertise are at your disposal from more than 25 service locations worldwide. Benefit from comprehensive support, close to your facilities.

United States: Benton Harbor, Blytheville, Columbus, Decatur, Huger, Milan, New London, North East, Warren, Cortland, Canonsburg, Worcester; **Mexico:** Monterrey; **Brazil:** Santa Cruz, São Paulo, Volta Redonda; **United Kingdom:** Sheffield; Scunthorpe, Stockton; **Germany:** Legelshurst; **Austria:** Linz; **Italy:** Marnate; **France:** Montbrison; **China:** Beijing, Minhang; **India:** Kolkata, Mumbai; **Japan:** Hiroshima; **Russia:** Moscow



-  SERVICE CENTER - WITH ENGINEERING CAPACITIES
-  SERVICE CENTER - REPAIR AND MAINTENANCE SERVICES

THE BASIS FOR FAST AND RELIABLE SUPPORT: OUR MANUFACTURING, REPAIR AND MAINTENANCE FACILITIES



UK, SCUNTHORPE

- Manufacturing of electric steelmaking core components
- Maintenance and repair of electric steelmaking components



CHINA, SMTS MINHANG, SHANGHAI

- Caster maintenance
- Long rolling assembly
- MORGOIL® Bearings



USA, WORCESTER

- Manufacturing of original equipment as well as service
- Long rolling high-speed equipment
- Engineering
- Long rolling core parts
- Flat rolling
- MORGOIL® Bearings
- Offline maintenance



FRANCE, MONTBRISON, LOIRE

- Manufacturing of original equipment as well as service
- Machining, assembly and logistics for special equipment and core parts
- Offline maintenance on core-parts
- Modernization, services and spare parts for special equipment
- Nickel coating facility for continuous casting copper mold plates



MEXICO, MONTERREY

- Manufacturing of electric steelmaking core components
- Maintenance and repair of electric steelmaking components



BRAZIL, SANTA CRUZ

- Online maintenance
- Central workshop maintenance
- Caster teardown workshop (mold and segment repair)
- Roller overlay welding
- Mold-copper refurbishment



INDIA, MIL MUMBAI

- Manufacturing of original equipment as well as service
- Welding and assembly center
- Long rolling assembly
- MORGOIL® bushing



USA, NORTH EAST

- Reconditioning of rolls for continuous casters as well as hot-strip, cold and finishing mills

FOR CONTINUOUSLY HIGH PERFORMANCE ORIGINAL MANUFACTURER COMPONENTS, SPARE & WEAR PARTS, MODERNIZATIONS



Electric arc furnace panel



Eco Slide Disc

Our aim is no wear during the target lifetime of a component in order to secure consistent product quality. With Primetals Technologies as your partner, you gain access to the know-how of experienced service specialists. We help you improve your plant and system efficiency, extend component and plant lifecycles, minimize plant downtime and lower your spare part inventory. Overall, this adds up to a sustainable reduction in costs.

SPARE AND WEAR PARTS

Having spare and wear parts available is extremely important for plant operators. Thanks to our global production sites and our global procurement network, we can ensure that the right spare parts are delivered fast - especially in case of emergencies. We provide either original equipment manufacturer components or, if these are no longer available, appropriate replacement parts. If necessary, we develop a migration strategy in collaboration with the plant operator.



Scan the QR code with your mobile device and watch our video on YouTube!

<http://primetals.com/PMF0083>
Eco Slide Disc movie

ORIGINAL EQUIPMENT MANUFACTURER COMPONENTS

Our originally supplied equipment is the end product of many years of coordinated efforts and experience in engineering, design, manufacturing, operations and maintenance. Our well-defined test procedures - in-house and before installation - enable us to offer plug-and-play applications. The components are manufactured at Primetals Technologies own facilities.

Examples of OEM components:

- Eco-Star Roller
- MORGOIL® bearings
- Eco Slide Disc
- Pinch-roll quick-exchange unit
- Primetals Shear Knife

MAIN BENEFITS

- Cost reduction in operation and maintenance
- Increase in plant availability and productivity
- Proven quality and logistics



Pinch-roll quick exchange unit

MODERNIZATIONS

Modernizations are an economic alternative to entirely new plants. This type of investment keeps your plant technologically advanced while preserving its value and extending its life-cycle. Small, cost-effective upgrades or replacements bring your components in line with the latest technology. These types of modifications typically require minimal plant downtime - or none at all - and your plant stays competitive.

MAIN BENEFITS

- Increase in plant availability and productivity
- Cost reduction for operation and maintenance
- Extended product portfolio
- Extended plant service life
- Adherence to increasing demands in regard to environmental, health and safety regulations

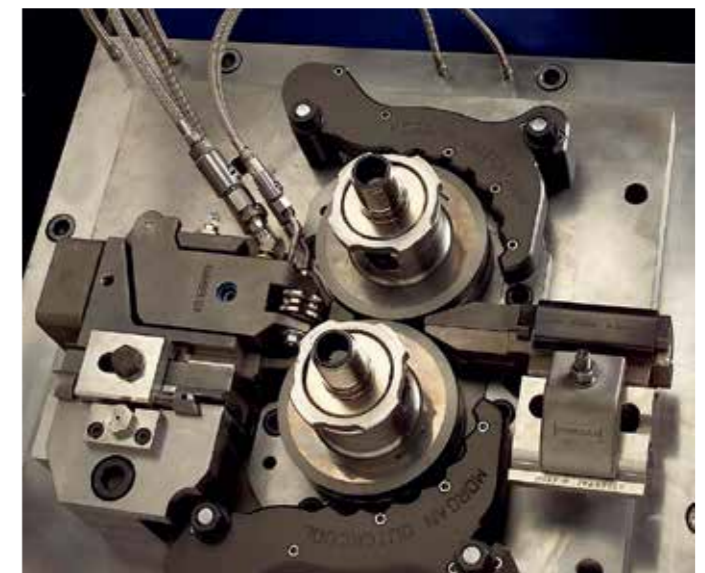


Scan the QR code with your mobile device and watch our video on YouTube!

<http://primetals.com/PMF0025>
Pinch-roll quick-exchange unit movie



MORGOIL® KLX® bearing



High-speed roller entry guide



Shear knife

IMPROVE SKILLS AND KNOWLEDGE

CONSULTING, TECHNICAL ASSISTANCE TRAINING AND LABORATORY SYSTEMS



On-site training and consulting services



Laboratory systems



On-site training



Condition monitoring

CONSULTING

Changing market requirements and competition force all producers of steel products to continuously evaluate, maintain and improve their sales position. In order to boost profitability, steelmakers have to permanently increase the level of their product quality and plant performance as well as the scope of their product portfolio. Beside adjusting operating practices, this also requires enhancing maintenance practices. Primetals Technologies offers the full range of consulting services for the entire steel manufacturing and rolling process along the plant lifecycle. Our consulting services include evaluations of technological and economic performance in regard to the chosen operations and maintenance approaches followed by recommendations for improvements.

MAIN BENEFITS

- Provision of facts and figures for informed management decisions
- Identification of equipment deficiencies and inefficient operation and maintenance practices
- Definition of performance improvement potential
- Improvement of overall equipment effectiveness

TECHNICAL ASSISTANCE

Whether your goal is improved product quality or higher production yields, experts at Primetals Technologies can provide technical assistance and comprehensive support to improve overall equipment effectiveness. Activities cover the enhancement of maintenance practices for the optimized use of your installed capacities and even include start-up support for new facilities.

LABORATORY SYSTEMS

We deliver the right laboratory and data management systems for your application. We take care of integration into your facility and support you in generating the information you need to improve production and product quality. In addition, we offer services and support that enhance the value of your laboratory investment.

PORTFOLIO

- Mechanical and physical laboratory
- Metallographic laboratory
- Chemical laboratory

TRAINING

The capability of your staff to maintain and extend their expertise determines the success of your steel plant. Primetals Technologies can support your efforts by providing customized training. Our tailor-made services range from design of concepts for initial, basic and continued training, effective programs for classroom training, on-the-job training, all the way to execution of the training itself.

MAIN BENEFITS

- A more efficient and profitable use of facilities, materials and energy
- A maximized return of investment and consequently higher availability of funds for additional investments and growth strategies
- Employees kept abreast of developments perform top-level maintenance

PREDICTIVE MAINTENANCE

Condition monitoring is the cornerstone discipline of most predictive maintenance programs – and it is the determining factor in many proactive maintenance decisions. Primetals Technologies works closely with its customers to develop risk-based, hybrid, cost-justified vibration monitoring and analysis solutions. As a full vibration analysis provider, Primetals Technologies ensures the right predictive maintenance solution is applied to each asset type based on our customer's industry, operation and application.

Primetals Technologies is a full-service provider for all condition monitoring needs including:

- Vibration analysis services
- Balancing and alignment
- Machinery diagnostics
- Root-cause analysis
- Motor testing
- Oil analysis
- Infrared thermography
- Bearing failure analysis
- Mechanical lubrication process audits

BENEFIT FROM GLOBAL MAINTENANCE CONCEPTS

ONLINE AND OFFLINE MAINTENANCE AND REPAIR SERVICE



Primetals Technologies takes care of maintenance at the customer's site

For plant operators, it is important that maintenance is closely coordinated with operations and that repairs are executed quickly and reliably. Key elements for this strategy include a maintenance partner who is embedded in the plant organization, direct contact between maintenance and operations, service performed on-site, local repairs, payment in the local currency, and customer proximity. Our maintenance services meet all of these requirements.

A strong drive for continuous improvement in product quality, plant availability and total cost of ownership can be found in Primetals Technologies win-win contract models:

- Identification of equipment deficiencies and inefficient operation and maintenance practices
- Definition of performance improvement potential
- Improvement of overall equipment effectiveness

ONLINE AND OFFLINE MAINTENANCE

As the only metallurgical plant builder with long-term experience in online and offline maintenance, we offer a wide range of services, from specialized component repair and field services to integral plant maintenance for entire steelmaking plants and rolling mills. Our activities cover a broad spectrum: routine unit change-outs, turnaround and repair programs, breakdown maintenance and repair, development and implementation of CMMS (computerized maintenance management systems), and condition monitoring and maintenance planning. Furthermore, we guarantee and improve components subject to maintenance, for example through function enhancements and increased serviceability. All of our activities are based on a global supply chain and logistics management for material, spare parts and repair processes.

MAIN BENEFITS

- Transfer from fixed to variable maintenance costs
- Improved service intervals
- Reduced inventory and assets
- Access to global spares and components



Refurbishment of copper-mold plates

REPAIR SERVICE OF ORIGINAL MANUFACTURER COMPONENTS

Primetals Technologies service for OEMs is focused on engineered core components for steel plants and rolling mills. Our scope of services includes condition monitoring, residual lifetime assessment, repair scheduling, spare parts, assembly and testing. In addition, we offer field services as well as equipment inspection and repair planning. We cover a wide variety of engineered components crucial to your equipment performance. Our repair service is not limited to components engineered by Primetals Technologies; we also have extensive experience in repairing and upgrading components designed by other plant builders.

Depending upon the customer's requirements, we offer tailor-made repair services and comprehensive repair programs. Service agreements can be made for a specific period of time.



Roll cladding center developed by Primetals Technologies

MAIN BENEFITS

- Improved reliability of critical components through in-house testing
- Enhanced product quality with fewer product downgrades
- Higher product yield due to tighter tolerances of production equipment
- More uptime, higher productivity
- Reduced overall maintenance costs due to longer component lifetime and longer intervals between repair
- Increased equipment lifetime, which results in lower expenditures to replace equipment



Spindle before refurbishment



Spindle after refurbishment

USE THE ADVANTAGES OF INTELLIGENT CONTROL CUSTOMIZED ELECTRICS AND AUTOMATION CONCEPTS



Continuous casting CC5 and CC6 control room, voestalpine Stahl GmbH, Linz, Austria

Primetals Technologies also provides a complete range of automation solutions ranging from process automation to sophisticated optimization packages and expert systems. With our long history of successful control and automation projects in the iron and steel industry, we offer both integrated and stand alone solutions for all automation levels and types of power supply. We provide our customers with modularly designed, expandable and upgradeable packages with integrated diagnostic tools to help them achieve continuously higher plant performance.

CONSULTING AND ON-SITE SURVEYS

Our expertise is built on more than 1,000 automation projects for the metals industry. For all investments, the respective technological and economical aspects are evaluated in close cooperation with the customer. An assessment of the project scope followed by a proposal of benefit-oriented solutions and a tight completion schedule ensure a successful project outcome.

TRAINING PACKAGES

Qualified automation personnel is a key factor for high plant availability, performance and product quality. We offer tailored training packages to ensure that your staff is fully capable of operating the installed automation systems. The relatively minor investment brings major benefits in overall plant performance.

TECHNICAL ASSISTANCE AND ON-SITE SERVICES

Dedicated automation engineers are available to assist company staff in detecting, analyzing and solving all electric and automation-related problems. Our range of services can be greatly enhanced with the installation of online data links. These links provide a direct line to the local Primetals Technologies automation specialists.

REMOTE SERVICE CAPABILITY

Remote access, based on reliable and secure encrypted connection through the internet allows our service specialists to provide expert support from anywhere in the world.

SYSTEM UPGRADING

Economical upgrade and optimization packages keep a plant at the maximum performance level and ensure that the latest technology is installed.



Part replacement in an electrical cabinet

MODERNIZATION PACKAGES

We have a long tradition of providing the metallurgical industry with both integrated systems as well as individual technological and automation packages. Thanks to a modular design, it is possible to install standalone packages as well as those embedded into existing environments. In-house experience in software and hardware engineering is the key to achieving fast project implementation and start-ups.

ADVANCED AUTOMATION SOLUTIONS

Technological packages and solutions shorten tap-to-tap times, ensure that quality targets are met, assist operational personnel and substantially reduce overall costs.

They must be executed quickly with minimum interference to ongoing operations, and they need to be compatible with the existing automation environment. The combination of technological packages with other portfolio packages creates additional benefits.

State-of-the-art automation solutions are an essential factor for maximum performance and product quality in the converter steel plant. Safety for personnel and the plant during the entire production process is an important aspect that requires special solutions.

Fluid Guard is a safety-certified leakage-detection system for all water-cooled equipment exposed to high temperatures in steel plants.

Alternative measurement methods enable additional data capture for optimized process control beyond wired networks.

Wiplant provides wireless data capture of weight, temperature and acceleration in inaccessible areas, e.g., at the scrap yard or directly on transfer cars.

For exact localization and tracking of equipment within the steelplant and its surroundings, the Advanced Tracking System opens a large field of applications.

Acoustic Expert gives the automation system ears: an industrial microphone continuously monitors plant conditions and simplifies advanced planning of maintenance works.

ANNUAL SERVICE CONTRACTS

Annual service contracts provide affordable, fast and non-bureaucratic support carried out by our experts. Our customers benefit from our experts' comprehensive knowledge of automation systems. Local experts of Primetals Technologies are often involved in the project phase of big investments, and they are therefore highly qualified to provide technical support on short notice.

MAIN BENEFITS

- Trouble-free and reliable operation, increased availability and consistently high performance
- Fast automation and process support
- Ensured investment value
- Access to expert knowledge for complex automation systems

SELECTED LIFECYCLE PARTNERSHIPS AROUND THE WORLD



GENERAL MAINTENANCE ACROSS THE STEEL MILL

Customer
ThyssenKrupp CSA Siderúrgica
do Atlantico, Brazil

Scope
Primetals Technologies is delivering on a 15-year service contract for mechanical and E&A maintenance. Aside from setting up maintenance facilities, Primetals Technologies also trained 600 maintenance employees. Today offline maintenance is done for all machinery and equipment for all steel production facilities in all areas of the metallurgical processing chain.



INNOVATIVE OEM SUPPLY: MORGOIL BEARINGS, PINCH- ROLL QUICK-EXCHANGE UNIT INCLUDING MODULAR PINCH ROLLS

Customer
Allegheny Ludlum Ltd., USA

Scope
In spring 2014, a world premiere took place, in Brackenridge, Pennsylvania, when the brand new 2,250 mm hot-strip mill started up. Besides proven MORGOIL® Bearings, supplied for all eight mill stands, two pinch-roll quick-exchange units were also implemented. Their innovative design featuring a cassette to lift the pinch-rolls allows for pinch-roll change down to ten minutes instead of several hours. Furthermore, newly designed modular pinch-rolls ensure that high-grade products are perfectly coiled.



TEN PERCENT INCREASE IN PRODUCTION CAPACITY THROUGH AN EAF MODERNIZATION

Customer
ArcelorMittal Esch-Belval,
Luxemburg

Scope
In autumn 2012, Primetals Technologies supplied a new bottom shell with a fin-type anode system, a lifting table for fast anode changes, and a new electric arc furnace (EAF) tilting platform for the Esch-sur-Alzette steel works in Luxemburg. The optimized geometry of the furnace allowed the tapping weight to be increased from 157 tons to 162 tons. Finally, the modernization shortened tap-to-tap times, extended service life of the anode, increased availability and lowered maintenance costs. Overall production capacity has increased by more than 10 percent while conversion costs have been cut. Primetals Technologies also dismantled the old equipment and installed and commissioned the new components. The upgraded EAF successfully resumed operation in 2013.



NEW SIDE GUIDE SYSTEM FOR ENTRY SECTION OF DOWN COILER

Customer
voestalpine, Linz, Austria

Scope
With the newly developed Eco Slide Disc Solution, Primetals Technologies offers voestalpine a side guide system that can be adapted to nearly all existing entry guides and prolongs the lifetime of wear parts by up to a factor of ten compared to conventional wear plates. The core of the solution consists of wearing discs that are integrated into the entry side guides. After the wear limit has been reached, the discs can be simultaneously round up to eight times, every time offering a new sliding surface. Furthermore, the discs can be turned over to their back face to be used on both sides. This approach optimizes strip guidance, eliminates personnel-intensive replacement processes in the safety zone and reduces the costs of operational wear parts by up to 75 percent.



ACHIEVING THE IMPOSSIBLE

Customer

Saarstahl Burbach, Germany

Scope

To meet its quality and production targets, Saarstahl Burbach follows a strict maintenance policy. Its four-strand rolling mill produces one million tons of rod every year. Working annually, on a four-year cycle, Primetals Technologies has rebuilt all four strands. In 2012, strand 2 was up. Within less than five days the rebuilt was completed with a five-member team. The equipment exchange and repair strategy was developed together with the Saarstahl. Primetals Technologies provided complete technical supervision and the refurbishment was completed within the allotted schedule.



AUTOMATIC GAS COUPLING SYSTEM (REVAMPING)

Customer

TATA Steel Ltd., India

Scope

In response to the request for a quick, safe and maintenance-friendly connection device for the stirring gas supply to the steel ladle, Primetals Technologies supplied a system for TATA's LD1 in 2012/2013. Since then, operators at TATA feel much more comfortable about not having plant personnel connecting hoses to the supply source.



TRAINING FOR SLAB CASTER MAINTENANCE

Customer

Hyundai Steel Company, Korea

Scope

Hyundai Steel Company awarded a contract for a continuous slab caster to Primetals Technologies in 2006 and for a continuous bloom caster in 2015. As part of the deal, Primetals Technologies provided both theoretical and hands-on training for Hyundai's maintenance personnel. The training was organized in a Primetals Technologies-owned workshop at CSN and at production sites in Brazil belonging to CSN and Usiminas.



FULL CASTER MAINTENANCE SINCE 1990

Customer

Nucor Steel Ltd., USA

Scope

A contractual partnership for the maintenance of Nucor Steel's continuous slab casting machine lasting more than 20 years is proof of the sustainable manufacturing skills of the maintenance facility operated by Primetals Technologies in Blytheville, Arkansas. Since 1990, around 140 employees have taken care of Nucor's caster segments, rolls and molds.



TWO SPARES PACKAGES EACH FOR A PERIOD OF TWO YEARS

Customer

ОАО Новоліпєтський металургійний комбінат (NLMK), Russia

Scope

Primary and secondary dedusting systems have been implemented in two LD converter plants in Lipetz, not least of all to protect the environment. To ensure smooth operations, in 2010 NLMK closed a contract with Primetals Technologies on a 1,250-pieces initial spares package for LD1 plant, followed one year later with a 2,000-pieces initial spares package for LD2 plant. Both contracts covered a two-year operational period.



3,500 SPARE PARTS WITHIN SIX MONTHS

Customer

ThyssenKrupp CSA Siderúrgica do Atlântico, Brazil

Scope

ThyssenKrupp closed an initial two-year spares contract with Primetals Technologies in 2010 covering a converter plant, secondary metallurgy, dedusting and a slab caster. The call to deliver 3,500 spare parts within a six-month period on short notice posed a logistics challenge, as those 3,500 parts had to be transported intercontinentally and shipping had to be completed in as little time as possible and with no errors. After the challenge was mastered with a high degree of competence and reliability, ThyssenKrupp extended the contract.



SPECIAL SUPPORT SERVICES

Customer

ArcelorMittal Temirtau, Kazakhstan

Scope

The rolling mill for small sections was successfully commissioned in 2009. Since 2013, Primetals Technologies supported this customer by sending rolling mill specialists to improve operation and maintenance, which in turn led to an increase in overall productivity. In addition, several improvements have been introduced to further boost production.



MAINTENANCE QUALITY ASSURANCE

Customer

Tangshan Iron and Steel Group Company Limited

Scope

For Tangshan a maintenance optimization project was performed in the course of a know-how package for Caster Nr. 3. The main focus was on the segments and roller lifetime extension. During the investigation, failure detection and repair recommendations together with future failure prevention were addressed. In this project key performance indicators, maintenance quality management and maintenance engineering were introduced. Safety topics and methods were covered in training.

Primetals Technologies Austria GmbH

A joint venture of Mitsubishi Heavy Industries and partners

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