thyssenkrupp

In action for you:
The Field Service Team

Meet them at: the-field-service-team.com

Polysius

Contents

Field & Workshop Services

Our service experts can detect and eliminate problems on-site at an early stage before worse damage occurs to your rotary kiln, crusher, or mill. Our specialists accomplish this through visual inspection of your machine (if required with additional vibration and temperature analyses) or by utilizing state-of-the-art scanning technology for measurements.

In addition, we provide a comprehensive overview of your plant's condition and provide customized recommendation on preventive maintenance and modernization, which significantly increases the availability of your machines and components and reduces unplanned downtime.

After all, time is money – it's crucial to have dependable shutdown procedures and support readily available in case of any operational breakdowns. In a shutdown, every minute counts - our experts will carry out precisely planned repairs within your schedule. We are by your side in any emergency; helping you with failure identification and ad-hoc repairs – to keep your loss of production as low as possible.

Our experts are globally available, with the right tools wherever needed; flexible and efficient in every situation.

We also offer most field services for third-party equipment.

Drone inspections: Plant inspection from the air

Drones are increasingly used in the cement industry and beyond for plant inspections. Their technology allows them to work very economically and efficiently. Thanks to their versatility and expansive range, they are capable of covering vast areas in minimal time, reaching locations that are challenging or inaccessible to humans.

Our drones are equipped with RGB, thermal imaging camera and a powerful zoom providing high-resolution image material. You will receive captured data as raw images for further processing. Upon request, acquired data can be immediately evaluated by our plant experts.

Our drones provide aerial inspections and thermal analysis, efficiently covering all your needs from above.

Your added value

- Cost-effective & safe
- Inspect huge areas or long distances swiftly
- No industrial climbers or scaffolding necessary
- Inspection of hard-to-access places or terrain
- Expert analysis of the flight results

PlantScan3D: A modern tool for plant designing and wear analysis

PlantScan3D opens up completely new possibilities: Existing buildings and process systems are recorded three-dimensionally utilizing a laser scanner.

It optimizes maintenance planning and extends the service life of crushers and high-pressure grinding rolls through wear analysis. It produces a realistic representation of the required areas and does not affect ongoing production. The scanner records inaccessible areas and precise space coordinates to the millimeter.

Our laser scanner delivers millimeter-precise wear detection, heat leakage identification, and 3D modeling for plant design or documentation. A comprehensive insight into your plant's condition.

Your added value

- Contactless measurement & precise documentation of the current situation in the shortest time
- Designing plants with 3D models using the recorded data
- Tailor-made planning based on data for a reduction in stoppage times and costs
- Wear measurement through laser scanning helps to optimize service lives

polscan: A high-precision optoelectronic measuring method to increase kiln availability

polscan is a highly accurate optoelectronic measuring method that can measure rotary kilns quickly and precisely while operating. It leads to a significant increase of the availability of the rotary kiln by early damage detection.

Services include checking the kiln axis, recording shell deformation and eccentricity with comprehensive diagnostics like tyre axial runout, measuring shell ovality, and reassessing the kiln axis post-adjustments to roller bearings for optimal performance.

The polscan measurement tools offer fast and accurate opto-electronic assessments, enabling early damage detection without interrupting kiln operation.

Your added value

- No downtime: All measurements are made during plant operation
- Measurement of rotary kilns of all manufacturers
- Assignment time and financial expenditure can be calculated in advance
- Optimization of preventive maintenance by precise analysis of measurement results

poldrive: Preventive drive check-up

With poldrive, our experts perform precise analyses to extend the active life of drives. The service includes a thorough evaluation of drive systems, preventive and periodic inspections, and customized maintenance advice.

It also comprises recommendations and implementation of modernization strategies to increase the efficiency of your plant. Additional expert training for on-site teams ensures a comprehensive approach to drive system management.

Designed to thoroughly assess the condition of the drive, measuring vibration on spur gear units, conducting visual inspections, and evaluating both dynamic and static tooth contact patterns for comprehensive drive system analysis.

Your added value

- Regular service assignments ensure early damage detection
- Longer service life of open gear drive systems
- Minimize the risk of plant stoppages
- Increased efficiency through implementation of product innovations
- Optimization of spare parts inventory

polgrind: Service for rotary kilns & ball mills

With our mobile polgrind machining service, we ensure the surfaces of rotary tyres, supporting rollers, lateral tyre side faces and the stroller are as perfect as on the first day of operation.

In a systematic grinding process, surfaces are carefully machined through grinding belts with different granulation. Correction of faults on surface, contour and concentricity is also carried out.

As a result, the surfaces are once again in first-class condition. The service ensures optimum quality with high precision measuring devices in the grinding equipment. It also includes an accurate documentation and evaluation of the conditions before and after grinding.

The grinding machine is engineered to remove surface damages on slide rings, smooth out unevenness, damage, and roughness, and true up tyres and supporting rollers for optimal performance.

Your added value

- Significantly increased service life and production time
- Effective elimination of faults and surface damage of tyres and supporting rollers
- Process documentation through electronic diameter and concentricity monitoring
- Available worldwide

NDT: Our check-up for preventive maintenance and quality control

Our experts employ non-destructive material testing (NDT) methods to evaluate the current material properties of plant components, especially those under stress, minimizing the risk of unplanned machine downtime and associated costs through proactive maintenance.

Non-destructive testing allows us to inspect the structural material properties of mill end walls, supporting rollers, tyres, pinions, and similar plant components, reliably detecting cracks and irregularities. This prevents costly and lengthy production downtime.

The NDT tools assess the current material properties of plant components, including mill end walls, supporting rollers, tyres, pinions, and other similar components. They are adept at detecting cracks and inhomogeneities with reliability, ensuring the structural integrity of your plant's components.

Your added value

- Preventive checking of weld joints, end walls and maintenance holes
- Preventive crack testing on crushers and hammer mill shafts, on stressed plates, tooth gearing, tyres and on cast components
- Prior cleaning of the tooth gearing is not necessary
- No contamination of the lubricants by testing media
- Assessment of the measurement results by our design experts

A-C Equipment Services: Rotary kiln repairs and construction

With our dedicated staff, equipped tooling trucks, trailers, and 24/7 coverage, A-C Equipment Services provides safe, professional, and efficient kiln, dryer, and grinding mill repairs. Our services include shell replacements, tyre, base frame, girth gear, and drive component upgrades.

Our experts offer kiln alignment, tyre and roller grinding services, girth gear and trunnion bearing inspections for equipment longevity. While serving the continental US, we leverage the entire Polysius worldwide network ensuring expert support.

Our fully-equipped tool trucks and trailers are deployed to job sites, providing comprehensive construction support. Each truck's tractor features a small crane, with specialized welding equipment for submerged arc welding of kiln shell sections on-site, enhancing efficiency and precision in our operations.

Your added value

- Industry leader in on-site repairs to rotary kilns, dryers & mills for all major OEM's
- Kiln shell replacement using specialized lifting, fitting, and welding equipment to minimize the duration of downtime
- Documentation of the repair process and results provided upon project completion
- Scheduled project time and financial expenditure can be calculated in advance of execution

Process-technological inspection

Our process-technological examinations form the basis of determining the efficiency of overall processes or subprocesses. For this purpose, we inspect the entire process sequence with all the key machines and units of your cement plant.

Here, the focal point is evaluating current process data and operation logs. Depending on the inspection scope, we determine the following characteristic process data: temperature, emissions, volume flow, material and gas composition, pressure, and mass flow.

Upon request, we carry out local industrial measurements and material tests in our Research and Development Centre.

Our tools are capable of measuring temperature; emissions, volume flow, material and gas composition, and pressure, as well as mass flow, for a comprehensive monitoring and analysis capabilities.

Your added value

- Checking of the operating parameters and mode of plant operation
- Detailed knowledge of the process-technological condition of the plant
- Process-technological training of personnel
- Assistance in the implementation of immediate action

polycom® expert wear protection service

Our specially-developed equipment for profile care and refurbishment of the rolls – be it for build-up welding or the elimination of concavity – allows high-quality execution of the work.
The service life, the feed material pull-in capability, the formation of autogenous wear protection and the smooth running of the entire polycom® are all positively influenced by expert maintenance of the roll bodies.
After all, only in this way can high availability and economical continuous operation be ensured.
We assist you not only during inspection and maintenance, but also when determining suitable measures for the care of your rolls.

With our further-developed oscillating system for profile care (so-called semiautomatic intermediate profiling), we achieve even higher-quality profile welding than was the case in the past for our compound-cast rolls. This procedure considerably increases the service life of the rolls.

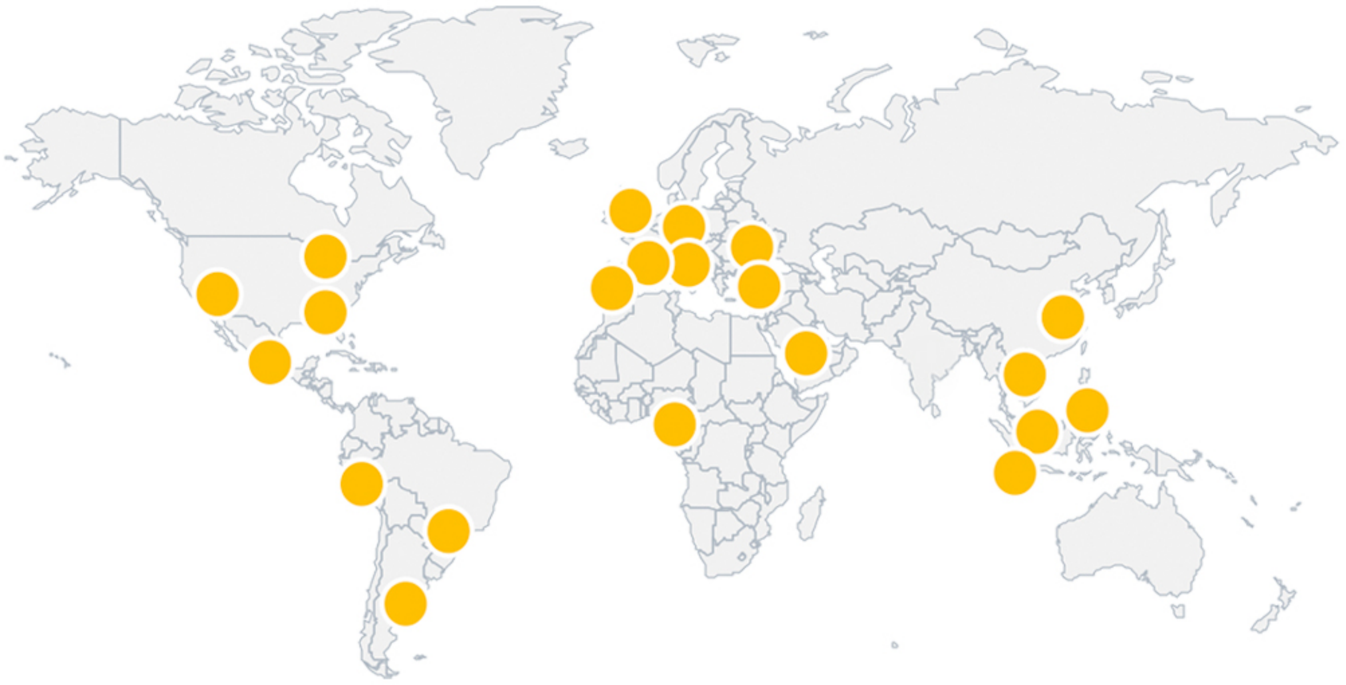
We perform detailed inspection and analysis, precise wear measurement, and evaluation of the wear profile of roll bodies. It generates a condition report with optimization recommendations for wear protection, alongside thorough documentation and tracking of the findings.

Your added value

- Extended service life
- Early detection of damage
- Available worldwide
- Detailed condition recording, with analysis and recommendations
- Optimization of material throughput

Any questions?

Get in touch with our experts.



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