



PROCESS
TECHNOLOGIES

ALUMINIUM

REPAIR CATALOG

Built on expertise
backed by performance.



Tailored Repairs for What Matters Most

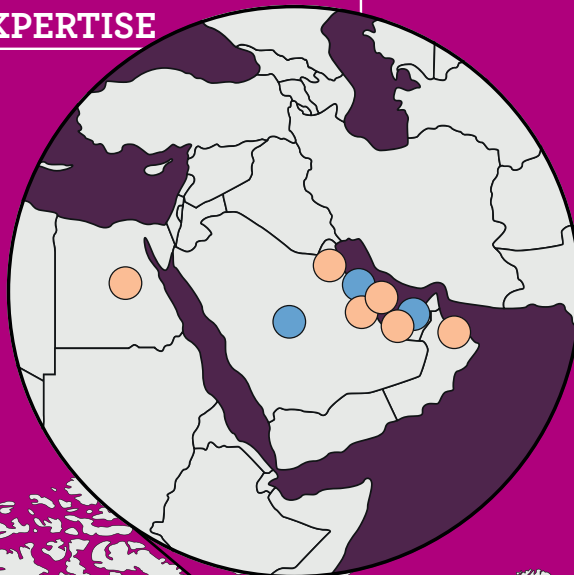
More than
204 repairs

completed since 2020

An average of
15,000 hours
spent on repairs

322 years
of lifetime extended

**WORDWIDE TECHNOLOGIES,
LOCAL EXPERTISE**



FIVES SERVICES GULF



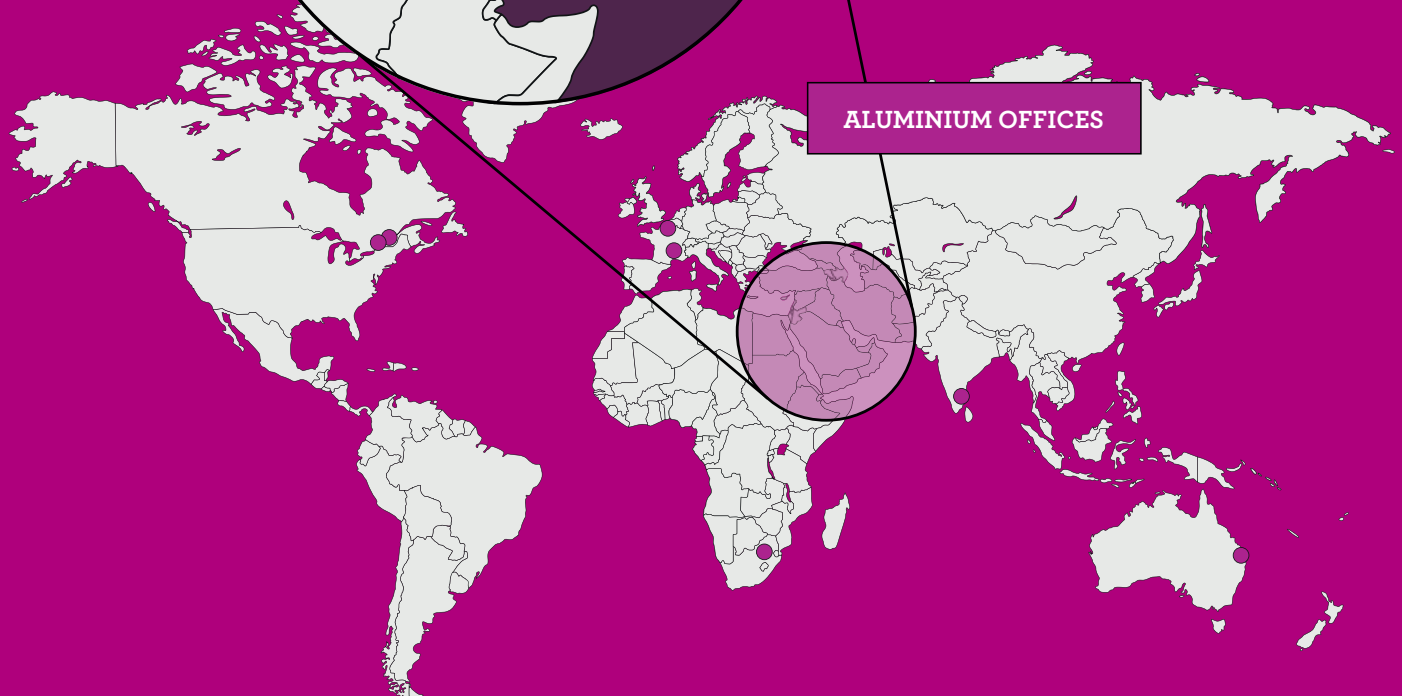
FIVES INDUSTRIAL TECHNOLOGIES



FIVES ARABIA

ALUMINIUM PRODUCERS

ALUMINIUM OFFICES



PTM OVERHAULING



Principle

Pot Tending Machines (PTMs), are part of our ECL Product Line of overhead crane specifically designed for anode changing and covering, metal tapping, and various handling tasks. As a crucial component, PTMs play a key role in supporting the core operations of the potline.



SCOPE OF WORK:

- Cleaning and painting of the tools.
- Overhauling & repair of the tools.
- Replacement of consumable parts.

YOUR BENEFITS:

- Higher crane availability through complete replacement of electrical, mechanical accessories, and actuators.
- ISO-certified CEM quality control applied to critical articulation and suspension points.
- Updated CEM parts list for obsolete or outdated components.
- Pre-tested assemblies to prevent prolonged downtime.
- In-depth overhauling covering hard-to-reach critical points within the assemblies.



Before Repair



After Repair



Granting **7 years** of CEM guarantee on repaired tools.



27 PTMs overhauled and **9** cross travel repair & reinforcement



1,300 PTMs installed world-wide

For more information:
fsg.services@fivesgroup.com

PTM COMPRESSOR



Principle

The Compressor is considered the heart of the PTM, providing pressurised air to the main hoist, the tools and other components, and contributing to all of the fundamental processes of the PTM such as metal tapping, anode change, long travel movement, and other auxilliary operations.



SCOPE OF WORK:

- Complete disassembly of the unit
- Thorough cleaning of all components
- Replacement of systematic and non-systematic parts as required
- Functional testing to ensure optimal performance

YOUR BENEFITS:

- Systematic repair kits designed based on CEM best practices. Pre-tested units to minimize downtime.
- Detailed inspection reports identifying potential systematic failures.
- Consignment stock available for critical spares.
- Certified technicians and controlled facilities ensuring precise CEM-standard repairs.



Practical, real-world exposure to ensure optimal performance and reliability



Tailored solutions with customized kits to meet your specific needs

For more information:
fsg.services@fivesgroup.com

PREHEATING SCREWS



Principle

The Preheating Screw is a specialized indirect heat exchanger and conveyor, engineered to efficiently convey and preheat materials such as petroleum coke, baked butts, and green scraps prior to paste mixer feeding. This advanced system features four hollow-core screws, allowing the circulation of heat transfer medium (H.T.M.) to ensure consistent and efficient thermal performance during material preparation.

Over time, the continuous handling of abrasive materials can cause wear to the screws, compromising their flight profile, length, and thickness. Such deterioration may lead to H.T.M. leakage, adversely affecting heat transfer efficiency and ultimately impacting the quality of the end product.

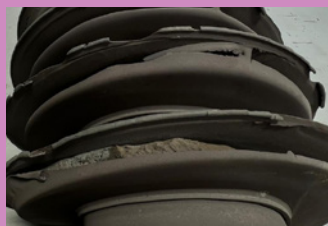


SCOPE OF WORK:

1. Advanced CEM inspection - (2 days)
2. Preventive Repair - (6-8 days)
3. Systematic Repair - (4 weeks)
4. Non-systematic Repair (Major) (To be identified after CEM inspection)

YOUR BENEFITS:

- Extend the life of your equipment – restore components to their original shape and performance in full compliance with CEM drawings and specifications
- Prevent breakdowns and eliminate leaks through timely maintenance and expert repair



Before Repair



After Repair



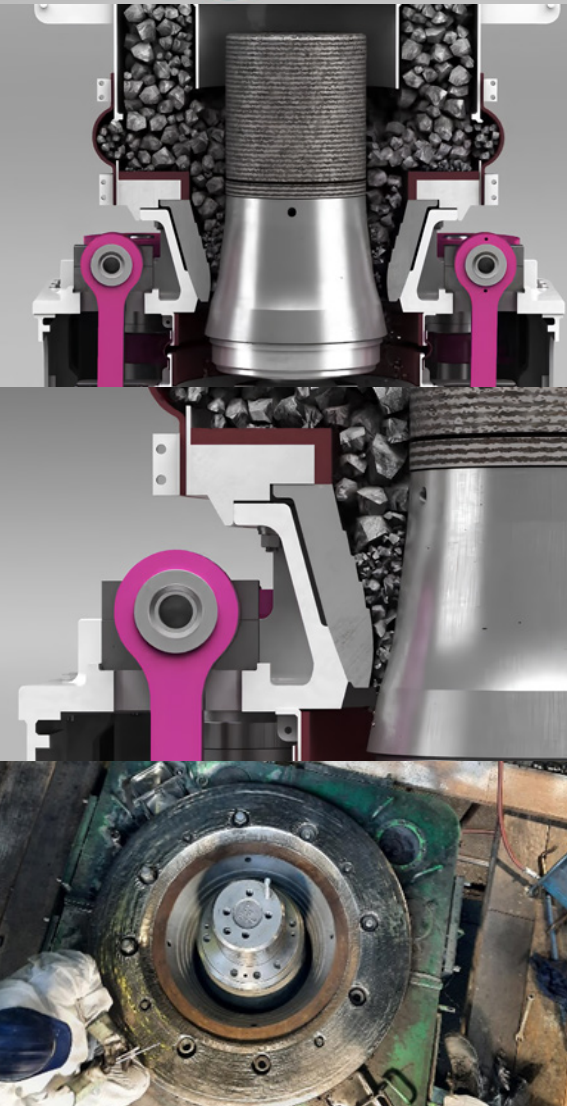
Includes a 1-year warranty preventing undesired breakdown, maintained every 6 months.



Save over 50% compared to the cost of new spares through our efficient repair solutions.

For more information:
fsg.services@fivesgroup.com

RHODAX® CRUSHER - CONE ASSEMBLY



Principle

The RHODAX® Cone Assembly is a precision-built component that ensures consistent gap control in the RHODAX® crusher, driving stable and efficient crushing performance. Its internal design features oil passages for smooth operation, bearings for controlled rotation, and bronze bushings that guide movement while shielding the adjacent central shaft.

The central shaft, while not part of the Cone Assembly, plays a critical structural role in supporting its vertical motion. Any damage to this shaft can result in costly shutdowns and complex site repairs. To safeguard performance and equipment integrity, OEMs recommend inspecting and overhauling the Cone Assembly at intervals not exceeding two years.



SCOPE OF WORK:

5-Year Cone Assembly Service Contract

	Year 1	Year 2	Year 3	Year 4	Year 5
— Annual Preventive Overhauls:	●	●	●	●	●
— Biannual Systematic Repairs:		●	●		
— Wearing Parts Supply & Installation:		●	●		
— Site Removal & Installation:	●	●	●	●	●
— Fives Workshop Overhauling:	●	●	●	●	●

YOUR BENEFITS:

- OEM-Driven Precision: benefit from timely, systemized maintenance.
- 360° Service Coverage: from on-site removal to workshop overhauling and spare parts management—everything handled under one contract.
- Minimized Downtime: reduce unexpected failures and shutdowns through planned interventions and expert support.
- Optimized Inventory: ensure critical wear parts are always available with smart stock planning and installation.
- Double the Lifecycle: extend Cone Assembly lifespan to 7.5 years with structured, proactive servicing.

For more information:
fsg.services@fivesgroup.com

MARKING UNIT



Principle

The Marking Unit allows to stamp and identify anodes with a unique serial number. Anode identification is essential for process follow-up.



SCOPE OF WORK:

1. Full Unit Overhaul: comprehensive disassembly and deep cleaning of the entire system.
2. Restoration & Reliability: replacement of all wear parts to ensure long-lasting performance.
3. Quality Assurance: complete FAT/SAT testing to validate functionality and operational excellence.
4. Upgrade Opportunities: optional modernization or feature upgrades based on the existing version.

YOUR BENEFITS:

- Keep anode tracking accurate and consistent
- Allow precise anode identification and monitoring throughout the process
- Enable upgrade to a more reliable and advanced version for improved performance.



Before Repair



After Repair



Guaranteed original parts from Fives



Includes on-site support by a service engineer to ensure smooth setup and optimal configuration.

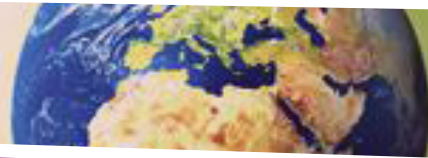
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CERTIFIED OEM REPAIR PARK: Excellence You Can Trust.



OUR VISION

Together with our clients, we strive to redefine each machine's lifespan through precision-engineered OEM repair, empowering the industry to perform better, greener, and smarter.



OUR MISSION

Fives Service Gulf leads the Middle East in OEM-standard repair, overhaul, and manufacturing solutions, serving clients across the region through two state-of-the-art workshops and dedicated service offices.

Our in-house manufacturing capacity and consignment stock of critical spare parts ensure rapid response and operational continuity for our clients.

Combining advanced engineering, skilled technicians, and world-class facilities, we deliver reliable, efficient, and sustainable services.


fives
Industry can do it

www.fivesgroup.com