Consultant Profile & Curriculum Vitae

Dipl.-Ing. Waldemar Kasdorf

Senior Mechanical Engineer | Commissioning & Reliability Consultant | Director

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Professional Profile

Since 2007, I have combined engineering design, commissioning and operational optimisation of equipment for the cement and minerals industries. My core expertise covers rotary kilns, firing and burner systems, ball mills, and open and closed drive trains - from technical condition assessment through to stable production.

During international field assignments, I analyse mechanical and process-related problems directly at the plant. This includes alignment and runout checks of girth gears and pinions, vibration and temperature diagnostics, lubrication and hydraulic systems, signal and functional testing, root-cause analysis, and the structured definition of prioritised actions.

As Director of Kaffon Company Limited, I combine technical depth with practical delivery: clear responsibilities, robust reports, realistic work packages, and hands-on training for operations and maintenance teams. Recent assignments include main-burner commissioning and airflow measurement, RDF and satellite-burner optimisation, pyroprocess stabilisation, and comprehensive mill and gearbox inspections.

Core expertise: Commissioning & recommissioning · Process optimisation · Rotary-kiln and burner systems · Ball mills & girth-gear drives · Vibration diagnostics · Alignment & runout · Lubrication and hydraulic systems · Root-cause analysis · Technical audits · Operator training

Qualifications

Education & Qualifications

Diploma Engineer (Dipl.-Ing.), Mechanical Engineering	Fachhochschule Südwestfalen · 2003-2007
Industrial Mechanic - Plant Engineering	Phoenix Zementwerke · 2000-2003
University of Applied Sciences Entrance Qualification	Kopernikus Gymnasium · 1996-2000

Plant & Systems Expertise

Rotary kilns, preheaters and coolers · Main, ignition and satellite burners; calciner firing systems and hot gas generators · RDF, coal, petcoke, oil and gas firing · Ball mills and drying drums · Girth gear/pinion, SYMETRO and central drives · Primary-air, blower, lubrication, hydraulic and gas-pressure control systems

Diagnostics & Engineering

Vibration and spectrum analysis · Thermography and temperature trending · Laser and dial-gauge alignment · Backlash, root clearance, axial/radial runout · Contact-pattern inspection · Borescopy · Condition monitoring · Safety and functional testing · Technical reports and action plans

Professional Experience

2022-present | **Kaffon Company Limited** · Dar es Salaam, Tanzania

Director / Senior Mechanical Consultant

Role: Director / Senior Mechanical Consultant **Core expertise:** Engineering · Project Management · Field Service

Established and currently lead the technical consulting and service business. International assignments for commissioning, plant optimisation, inspection and troubleshooting; preparation of technical reports, investment and action roadmaps, and training of operations and maintenance teams.

2012-2022 | **thyssenkrupp Industrial Solutions AG** · Germany / worldwide

Senior Engineer Firing Systems

Role: Senior Engineer Firing Systems **Core expertise:** Engineering · Project Management · Field Service

Design of firing systems for cement plants, strength calculations, project management and plant engineering, together with worldwide installation and commissioning support. Supervision of technical projects and degree theses.

2007-2012 | **Polysius AG** · Germany

Junior Engineer Firing Systems

Role: Junior Engineer Firing Systems **Core expertise:** Engineering · Project Management · Field Service

Mechanical design and sizing of firing equipment, engineering calculations and project execution, with increasing responsibility in international commissioning and service assignments.

Approach & Tools

Project & Delivery Capability

Commissioning planning · Work and punch-point lists · Technical coordination with OEMs, suppliers and clients · Root-cause analysis · Risk and priority assessment · Operator and maintenance training · Management-ready presentation of results

Software & Methods

AutoCAD · Autodesk Inventor · Siemens Solid Edge · SAFEXPERT · Working knowledge of SAP · Microsoft Office · Structured measurement records, trend and data analysis

Languages

German (native) · English (professional working proficiency) · Russian (advanced) · Swahili (basic)

Project Portfolio 2026

Selected recent projects · reverse chronological order

11/2026 | Holcim Cement Egypt / Unitherm Cemcon · Soukhna, Egypt

MAS DT Main Burner Commissioning and Airflow Measurements, Line 5

Role: Commissioning Engineer on behalf of Unitherm Cemcon Core expertise: MAS DT burner · Airflow measurement · Gas/petcoke firing · Operating guidance

Supported the restart of Kiln Line 5, reviewed burner installation and alignment, adjusted firing settings, and measured MAS, central and coal-conveying air. Documented stable gas firing and initial petcoke operation at 0.5 t/h, and prepared operating guidance and prioritised punch points. Repeated kiln-drive trips prevented sustained optimisation; normal-load performance and the intended 100% petcoke operation remained unverified.

08/2026 | Nesher Cement · Ramla, Israel

SAT Burner Commissioning and RDF Conveying Optimisation, Line 1

Role: Commissioning Engineer / Technical Consultant **Core expertise:** RDF conveying · Burner position · Combustion · Process data

Demonstrated the performance of the Unitherm SBS 175 SAT burner at 4.5 t/h RDF and assessed conveying air, burner position and SOx behaviour. Identified operating constraints caused by false air, limited ID-fan reserve and fluctuating fuel dosing, and defined controlled optimisation trials and requirements for Line 2.

08/2026 | Lake Cement / Nyati Cement · Tanzania

Technical Assessment and Prioritised Cooperation Roadmap

Role: Lead Technical Assessor **Core expertise:** Raw-material flow · VRM · Chemistry · Baghouse · Decision logic

Consolidated field observations, process and chemistry data, and OEM documentation into a realistic action programme. Prioritised the interconnected causes associated with wet raw material, unstable material flow, reduced mill output and raw-meal variability; defined safety measures, a 30-day work package, measurement gaps, KPIs and decision gates.

02-07/2026 | Cimpor / OYAK - Temaclay · Tema, Ghana

Commissioning, Mechanical Stabilisation and Process Optimisation

Role: Senior Commissioning & Process Support Engineer **Core expertise:** FIS/PLC · HGG/Calciner · Gas control · Dosing · Product quality

Integrated and function-tested firing-system interlocks, completed signal checks, and prepared burner and gas systems for hot operation. Supported restarts, stabilised material dosing and cooling, analysed combustion and gas-pressure control, and issued ongoing technical progress reports covering risks, punch points and actions.

01/2026 | PPC Zimbabwe · Colleen Bawn, Zimbabwe

Kiln Line 2 - Heat-up, Start-up and Production Optimisation

Role: Kiln & Combustion Consultant / Trainer **Core expertise:** Pyroprocess · Main burner · Primary air · Cooler · Coal dosing

Reviewed process and quality data in advance and performed a baseline assessment of the preheater, kiln, burner, cooler and Poldos system. Conducted operational optimisation during heat-up and load increase, delivered practical on-the-job training, and documented progress through daily logs, KPI trends and a prioritised action plan.

Project Portfolio 2025

10/2025 | **Amsons Industries - Mbeya Cement** · Mbeya, Tanzania

Coal Mill - Diagnosis of Severe Drive Vibrations

Role: Mechanical Diagnostic Consultant **Core expertise:** TIRAX mill · Girth gear/pinion · Vibration · Contact pattern

Inspected the side drive of an FLS TIRAX coal mill after very high vibration levels were measured at the pinion and bearing area. Stroboscopic contact-pattern inspection and mechanical assessment revealed excessive backlash; defined an urgent alignment and bearing-inspection programme to prevent tooth-flank damage and drive failure.

08/2025 | **Messebo Cement Factory PLC** · Mekelle, Ethiopia

Comprehensive Inspection of Mill, Kiln and Gearbox Systems

Role: Supervising Mechanical Engineer **Core expertise:** Girth gear · SYMETRO · Vibration · Thermography · Lubrication

Performed an overall assessment of several raw and cement mills and both kiln drives. Combined visual inspection, backlash/root-clearance and runout measurements, borescopy, laser alignment, vibration and temperature measurement, and lubricant assessment. Prioritised critical findings by risk and consolidated them into a detailed maintenance plan.

06-07/2025 | **Webuild S.p.A. / Christian Pfeiffer** · Koysha Hydropower, Ethiopia

REMAS Ball Mill - Troubleshooting and Recommissioning

Role: Field Service Engineer **Core expertise:** Slide bearing · HP/LP lubrication · Pinion · Coupling · Interlocks

Stabilised the trunnion-bearing lubrication system following overheating, overhauled the high-pressure pump, restored measurement and trip functions, and commissioned the oil-heating and cooler-control systems. Identified foreign material in the geared coupling as a major source of vibration; renewed the pinion assembly and spray-lubrication system and returned the mill to stable operation.

2025 | **Amsons Industries - Camel Cement** · Dar es Salaam, Tanzania

Diagnosis and Alignment Plan for Cement Mill 2

Role: Mechanical Assessment Consultant **Core expertise:** 3.8 x 13.5 m ball mill · Runout · Backlash · Vibration

Assessed persistent girth-gear vibration using independent comparative measurements and available supplier data. Confirmed axial and radial deviations outside the specified tolerances and developed a structured corrective plan covering dial-gauge alignment, flange and bolt inspection, contact pattern, lubrication and follow-up measurements.

Project Portfolio 2024-2021

07-08/2024 | **PPC de Hoek / Polysius** · De Hoek, South Africa

Recommissioning of a Polflame VN Main Burner, Kiln 6

Role: Commissioning Engineer **Core expertise:** Signal checks · Leak testing · Diesel heat-up · Training

Inspected the burner installation and auxiliaries, resolved connection and valve issues, completed signal and leak tests, and heated the kiln using the ignition burner and oil lance. The burner was commissioned successfully; at departure, the kiln was operating steadily at 105 t/h raw meal. Operators received step-by-step training in adjustment and commissioning.

2023 | **OYAK Çimento** · Cameroon

Commissioning of a Firing System

Role: Commissioning Engineer **Core expertise:** Burner system · Plant start-up · Functional testing

Provided technical commissioning support for a cement-plant firing system, including field inspection, functional checks and operational support during plant start-up.

2021 | **Recycling Kombinatie REKO B.V.** · Netherlands

Commissioning of Industrial Firing Equipment

Role: Commissioning Engineer **Core expertise:** Firing system · Interfaces · Operational stabilisation

International commissioning and technical support for an industrial plant, focusing on system functionality, interfaces and stable operation.

Additional International Project Experience

2017: McInnis Cement (Canada) · Conch Cement (China) · Schwenk Zement (Germany)

2016: Vissai (Vietnam) - several commissioning assignments

2015: POLSHAN (China) · Wonda Cement (India) · Holcim (Indonesia) · Sotacib Rouifa (Tunisia) - service and commissioning assignments

2014: Fancesa Nacional de Cemento (Bolivia) · Sotacib Rouifa (Tunisia) · TXI Hunter and TXI Oro Grande (USA) · Holcim (Indonesia)

2013: Les Ciments du Sahel (Senegal) · Phoenix Zementwerke (Germany) · Pyramax (USA)

2010-2012: Gujarat Ambuja / Ambuja Cement (India) · Fujairah Cement Industries (UAE) · Schwenk Zement (Germany) · Sotacib (Tunisia) · PPC de Hoek (South Africa) · Les Ciments du Sahel (Senegal)

Service Profile

Commissioning & Plant Start-up

Pre-check of design, installation and interfaces; I/O and signal checks; leak and functional testing; interlock and safety logic; cold and hot commissioning; start-up curves; stabilisation through to reliable operation; structured handover to the client.

Mechanical Diagnostics & Reliability

Condition assessment of rotating equipment, root-cause analysis of vibration and temperature problems, evaluation of bearings and lubrication, tooth-flank and contact-pattern inspection, alignment and runout, and prioritisation of immediate actions and sustainable repair packages.

Process & Combustion Optimisation

Assessment of fuel, primary and secondary air, kiln draft, oxygen/CO/NOx/SOx, material dosing, raw-meal and clinker quality, and plant constraints. Planned single-variable trials instead of unsystematic set-point changes; correlation of process data with the mechanical condition of the plant.

Technical Audits, Reports & Roadmaps

Traceable condition assessment, clear separation of findings and assumptions, transparent risk evaluation, data gaps, priorities and decision gates. Results are prepared as a management summary, detailed technical report, measurement record, punch list, KPI plan or multi-stage cooperation roadmap.

Training & Knowledge Transfer

Hands-on training directly at the plant: commissioning steps, safe adjustment parameters, measurement and inspection routines, shift checklists, fault patterns and escalation criteria. The goal is an operations and maintenance team capable of acting independently.

Industries & Applications

Cement and lime industry · Mineral processing · Industrial firing and drying systems · Mining and grinding plants · Large rotating machinery · International OEM and owner-operator projects

Availability: International on-site assignments, project-based consulting and remote support by arrangement.

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