

Complete solutions for enhancing plant productivity

Applying the most advanced technology, innovations and best practices, ANDRITZ helps companies to automate and modernize operations in order to increase production and operate with greater safety and efficiency.

The ANDRITZ vision is to streamline project execution and optimize operations at your plant, enhancing your plant's value generation and establishing a win-win relationship between you and ANDRITZ.

Customers engage ANDRITZ for a variety of project services including front-end planning, project scoping, site E&I/P&ID audits, cost estimation, and ROI payback justification. ANDRITZ' value-focused and cost-effective approach combines lime industry process knowledge with leading technologies, quality engineering, and hardware to create a complete and tailored solution for your plant.

Why are the lime companies that utilize ANDRITZ so successful? ANDRITZ makes a commitment to technical performance, schedule, and price, and then delivers on that commitment.

Plants have the freedom to combine systems and technologies from different vendors and platforms through the OEM-discounted pricing that ANDRITZ offers on all controls, electrical, power, and instrumentation systems. You can take advantage of the best available

technologies and the most appropriate innovations, as ANDRITZ engineers skillfully integrate them to create a single, comprehensive system.

Plants that work with ANDRITZ enjoy continuous improvement projects and 24/7 on-call service and support for all PLC/DCS/HMI/SCADA, instruments, electrical, and power systems. Working with ANDRITZ will enhance the productive value of your plant.

PROVEN EXPERIENCE

ANDRITZ has served the lime industry for over forty years, providing electrical, control and instrumentation solutions. Because we work closely with major lime kiln manufacturers, including Polysius/Maerz and FLSmidth Minerals, we are able to identify and implement the best solutions for our customers.

"ANDRITZ's people are professional and knowledgeable. They take pride in their work and do an excellent job from design through start-ups."

BRYAN NIELSON

VP Production, US Graymont





"Their leadership was valued and appreciated. These are the times when we truly value our relationship with ANDRITZ."

BRETT ROBINSON

Canfor Pulp

ANDRITZ'S GLOBAL PRESENCE AND EXPERTISE



- 109 locations with automation competence
- Over 2,000 employees in automation
- Process control
- · Electrical engineering
- Instrumentation
- · Power engineering
- Process simulation modeling
- Autonomous process management
- Remote control
- · Project development
- Project management
- Support and continuous improvements

Life cycle phases: Creating value for any and all projects

Automation is like the central nervous system of your plant; it touches every part of your operation from process performance to quality, reliability, and safety, and is critical to your success. Automation differs from mechanical, civil, or process engineering skills. To ensure success, engage a specialty automation company that will design an integrated system, develop it with you, and support you long term.

DESIGN & BUILD

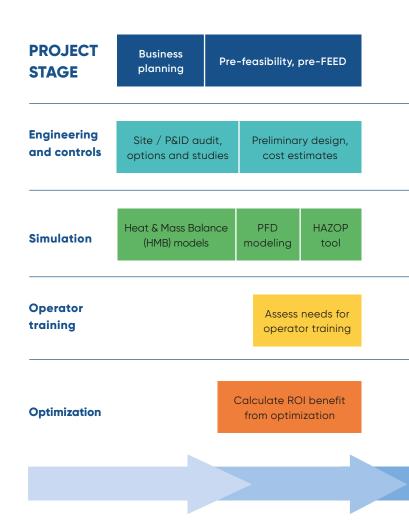
Get it done with ANDRITZ — on budget, on time, and on quality. ANDRITZ can take complete responsibility for designing, building, commissioning, training, and supporting your electrical, power and process control systems.

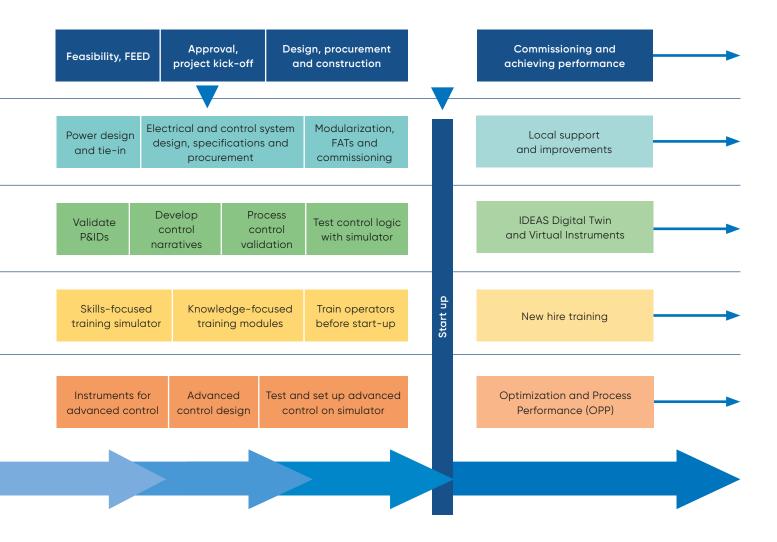
CUSTOMIZE

Your plant is unique, and likely combines some old hardware and some new, as well as multiple system platforms from multiple vendors. ANDRITZ has the skill to work with that, and can develop a customized solution for further enhancement.

INNOVATE

All appropriate technical innovations will be yours with ANDRITZ. Through global engagement with technology vendors, ANDRITZ has access to the latest equipment and newest methods for system communications, analysis, and response.





Key products and capabilities

IDEAS SIMULATION FOR DESIGN

Process modeling simulation is valuable for everything from preliminary design through to high-fidelity simulation of your entire process.

Used for: Process design, optimal sizing, integrating key unit processes, developing control narratives, validating process control logic, and operator training.



PRIMECONTROL

An integrated process control solution featuring the critical elements (PLC configuration, instrumentation and services) to elevate your process management, operations, and control systems to a higher level.

Includes: ANDRITZ process equipment expertise, multiplatform DCS/PLC/HMI/SCADA integration, instrumentation, system architecture, E&I engineering, commissioning and support.



VIRTUAL PLANT (VPLANT) MODULAR TRAINING

A package of simulation and software tools for training operators in industrial processes that couples built-in plant control logic with an industrial quality user interface.

Features: Realistic process response, pause/resume/ fast-forward execution, predefined training scenarios, financial performance monitoring, performance evaluation and testing.



ADVANCED CONTROLS AND AUTONOMOUS OPERATION

The BrainWave model predictive controller and Advanced Control Expert (ACE) systems that autonomously optimize the process area based on cost and value.

Process areas: Handles tough control loops including the long time delays of crusher circuits and the difficult-to-control calcining process.



to release your plant's potential



OPERATOR TRAINING SYSTEM (OTS)

Systems that train operators in how to improve plant operations, safety and profitability. Offerings include Web/Computer-Based Training (WBT/CBT) and Simulator-Based-Training (SBT) using the OTS.

Typical training scenarios: Cold-start, hot restart, planned shutdown, emergency shutdown, equipment failure, alarm conditions, and custom scenarios.



BURNER MANAGEMENT AND SAFETY SYSTEMS (BMS)

Expert knowledge of kiln BMS and safety systems. Supply of design, logic, hazop, hardware and start-up of these systems.

Applicable safety standards: FM Global, National Fire Protection Agency (NFPA), ISO requirements, vendors hardware and interfacing standards.



ELECTRICAL POWER SYSTEMS (EPS)

The design and engineering of power systems, from utility tie-ins, substations, and switchgear to site distribution and power management.

Expertise: Power system analysis, brownfield integration of power generation, energy efficiency audits, on-line monitoring, arc flash and coordination studies, benchmarking, optimization, alerts.



SUPPORT AND IMPROVEMENT PROGRAMS

A support network that includes on-call technicians, comprehensive long-term support, and continuous improvement programs.

Services: Dedicated DCS/PLC expertise; power, electrical, and instrumentation engineering; on-line reliability and performance monitoring, expert advice, and data analytics.



WHY WORK WITH ANDRITZ

For over 40 years we have been providing electrical and automation services and products to the lime industry. We can connect our clients with any third-party DCS.PLC vendor, as well as develop software, offer flexible commercial models, and provide technical support 24/7 thanks to our global presence.

ANDRITZ INC.

Atlanta, GA, USA p: +1 404 370-1350 automation-sales@andritz.com

AUSTRIA: Vienna

BRAZIL: Belo Horizonte, Curitiba **CANADA:** Nanaimo, Prince George,

Richmond, Terrace

CHILE: Santiago
FINLAND: Tampere
INDIA: Bangalore

USA: Eugene, Montoursville,

Pensacola

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