

ANDRITZ APM

Boost asset reliability and minimize production disruptions

Maximize reliability, minimize risk and enable more autonomous operations

Modern pulp and paper operations face increasing pressure to improve asset performance while operating with limited maintenance resources, tighter production targets, and growing demands for efficiency and sustainability. At the same time, unplanned downtime remains one of the largest sources of operational losses.

Many mills still rely on reactive maintenance practices or calendar-based maintenance programs. These approaches often result in unnecessary interventions, poor visibility of asset conditions, inefficient resource allocation, and unexpected failures that directly impact production. ANDRITZ Asset Performance Management (APM) provides a unified digital framework that combines operational data, asset intelligence, process information, condition monitoring, and maintenance workflows into a single environment. This creates complete visibility of equipment health and enables maintenance and operations teams to make faster and more informed decisions.

More than a collection of applications, ANDRITZ APM is a portfolio designed to improve reliability, optimize maintenance strategies, reduce operational risks, and support the transition toward more autonomous mill operations.



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What drives us forward?

ANDRITZ's aim is to make the fully autonomous mill a reality because of the measurable outcomes it brings to our customers' industrial plants. These outcomes impact three strategic pillars that directly influence operational performance.

PROCESS OPTIMIZATION

ASSET OPTIMIZATION

OPERATIONAL EFFICIENCY

These pillars make our value tangible, connecting solutions to what truly matters to our clients: real, measurable results.

How can we make a difference in your mill?

This is the question that guides the development of every ANDRITZ automation and digitalization solution for the pulp and paper industries. More than delivering technology, our commitment is to generate real and measurable impact on our customers' operations. We believe that true value lies in results you can measure. That's why we focus on outcomes that are tangible, trackable, and aligned with our customers' goals. In practice, this means connecting solutions that can act on:



These are real gains, connected to each pillar, transforming technology into tangible results. By connecting solutions designed to solve specific industry challenges, we deliver new ways to make a difference and contribute to results. This is how we transform technology into real value.

ANDRITZ Asset Performance Management (APM)

Boost asset reliability and minimize production disruptions

In today's fast-moving, data-driven mill environment, reliable asset management is critical to maintaining stability and performance. ANDRITZ APM provides a comprehensive framework that streamlines daily operations, supports informed decision-making, and optimizes the use of critical resources. As a key digital capability, it enables pulp and paper producers to move beyond traditional maintenance practices.

Instead of reacting to failures, it helps teams anticipate issues, better understand asset behavior, and make proactive decisions that enhance overall plant performance. Because mill performance is closely linked to equipment reliability, ANDRITZ APM empowers operations to act early identifying potential issues, preventing unplanned downtime, and sustaining peak performance with confidence.

COMMON CHALLENGES	HOW ANDRITZ APM ADRESSES THEM
Breakdowns and downtime: Unexpected failures can disrupt production schedules, increase maintenance costs, and reduce mill availability.	**Real-time monitoring:** ANDRITZ APM continuously monitors critical assets, detects abnormal operating conditions early, and provides visibility into potential failures before production is affected.
Inefficient maintenance prioritization: Maintenance teams frequently face competing priorities and limited resources.	**Increased risk visibility:** Risk-based asset evaluation helps prioritize actions according to business impact, enabling teams to focus on the assets that matter most.
Knowledge and information accessibility: Engineering documents, inspections, maintenance records, and operational information are often difficult to find and use.	**Digital workflows:** Digital workflows improve information accessibility while supporting field and support teams with real-time access to asset-related data.

KEY BENEFITS

- Apps design based on customer needs
- Flexible infrastructure to fit different process industries and budgets
- Functionalities can be enhanced towards autonomous operation step-by-step

THIS APPLICATION ALSO INCORPORATES

- Used for the creation of Soft sensors, even with implementing Python codes
- Enhanced Human Interface (HMI) to create every type of visualization needed
- KPI-based dashboard for objective, consistent, and systematic process analysis

Measurable value to customers

Digitalization is not just about technology, it's about measurable results. ANDRITZ APM delivers tangible improvements across key performance areas, helping mills operate more efficiently, reliably, and profitably.

What can you achieve:



UP TO 0.5%
PRODUCTION INCREASE

Stabilize processes by monitoring control loops and valves, reducing variability in key parameters like flow and consistency. Faster, smoother startups after shutdowns mean less downtime and more output



UP TO 1%
COST REDUCTION

Define KPIs, predict cost deviations, and identify key contributors to keep expenses under control and within budget



UP TO 1%
MILL AVAILABILITY INCREASE

Detect potential failures early, manage shutdowns efficiently, and allocate resources to the highest-risk areas to maximize uptime



UP TO 2%
MAINTENANCE COST REDUCTION

Optimize shutdown planning, schedule repairs proactively, and reduce overtime through better lifecycle management of assets



UP TO 20%
OPERATOR ACTION REDUCTION

Improved control loop performance and tuning support more stable operation, enabling a higher degree of automation and reducing the need for manual interventions.



UP TO 5%
PRODUCTIVITY INCREASE

Support faster and more efficient troubleshooting, and accelerate diagnostics with integrated tools

Predict failures before they impact production

Turn asset data into confidence with the Reliability Twin

Every production interruption has a cost. Whether caused by unexpected equipment failures, hidden degradation, or limited visibility into asset conditions, reliability challenges directly impact production, maintenance budgets, and operational performance. ANDRITZ Reliability Twin helps mills move from reacting to failures to preventing them. As part of the ANDRITZ APM portfolio, the Reliability Twin continuously evaluates the condition of critical assets and transforms operational data into actionable recommendations.

Maintenance teams gain early visibility of developing issues, operations teams gain greater confidence in equipment performance, and management gains a clearer understanding of operational risk. More than identifying potential problems, Reliability Twin helps customers focus on the actions that matter most, ensuring maintenance resources are directed where they create the greatest business impact.

Key benefits

Increase mill availability: Reduce unexpected equipment failures and keep critical production assets operating more reliably. Earlier detection means fewer disruptions and improved operational continuity.

Optimize maintenance investments: Move maintenance activities from fixed schedules toward real asset conditions, ensuring resources are used where they deliver the greatest value.

Reduce operational risk: Gain a better understanding of asset health and prioritize actions before issues escalate into production losses or major maintenance events.

Improve decision-making: Provide maintenance and operations teams with a common view of asset condition, enabling faster and more informed decisions across the organization.

Extend asset lifetime: By identifying abnormal operating conditions and reducing unnecessary stress on equipment, Reliability Twin supports longer asset life and more sustainable operation.

Support autonomous operations: Enable a more proactive maintenance strategy with intelligent recommendations that help teams prevent problems instead of simply responding to them.

From data to action

Reliability Twin transforms complex operational information into simple and actionable asset insights. Instead of analyzing thousands of data points, engineers and maintenance teams receive a clear understanding of:

- Which assets require attention
- Where operational risks are increasing
- Which equipment should be prioritized
- When maintenance actions should be scheduled
- How reliability impacts business performance

This allows organizations to focus less on collecting information and more on driving results.

One portfolio. Multiple paths to reliability improvement

ANDRITZ Asset Performance Management (APM)

ANDRITZ APM combines condition monitoring, risk-based management, reliability intelligence, inspection management, planning, valve monitoring, motor health assessment, calibration management, and Reliability Twins within a common platform. This integrated approach allows mills to scale their digital transformation journey according to business priorities while building the foundation for more autonomous, efficient, and reliable operations.

Rather than managing individual applications, customers gain access to an evolving reliability ecosystem designed to continuously improve asset performance and maximize operational value throughout the complete asset lifecycle.

Maximize return with digital solutions

Explore our complete portfolio of sensors, apps, digital twins and dedicated services to increase the reliability and performance of your cost assets.



Turning asset intelligence into reliability assurance

ANDRITZ APM transforms asset data into actionable insights that support better maintenance and operational decisions. Combined with the expertise of ANDRITZ Maintenance Performance in reliability engineering and asset performance optimization, these insights help organizations reduce risk, improve availability, and drive continuous improvement throughout the asset lifecycle.

CONTACT US FOR MORE INFORMATION

Advancing autonomous operations is our vision and is becoming an integral part of industrial processes. ANDRITZ is at the forefront of this transformation, leveraging digital innovations along with deep operational and technical expertise to improve process efficiency, quality management, and production reliability and availability.

We focus on developing autonomous pulp mills and process optimization, to support efficient and sustainable operations by combining automation, electrification, intelligent instrumentation, and digitalization to create measurable value throughout the full life cycle and the entire value stream.

AMERICAS

LATIN AMERICA
ANDRITZ Chile
p: +56 2 462 4600
ANDRITZ Brasil
p: +55 (41) 2103 7601

NORTH AMERICA
ANDRITZ Inc.
p: +1 770 640 2500
ANDRITZ Canada
p: +1 514 428 6700

EUROPE

CENTRAL EUROPE, EAST EUROPE AND MIDDLE EAST
ANDRITZ AG
p: +43 316 6902 0

NORTHERN EUROPE AND BALTICS
ANDRITZ Oy
p: +358 20 450 5555

SCANDINAVIA
ANDRITZ AB
p: +46 54 771 45 00

ASIA

CHINA
ANDRITZ (China) Ltd.
p: +86 757 8258 6708
m: +86 186 8003 6919

INDIA/SOUTHEAST ASIA
ANDRITZ Technologies Pvt. Ltd
Bangalore
p: +91 80 4666 9600

JAPAN
ANDRITZ K.K.
p: +81 3 3536 9700

ANDRITZ.COM

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