

PULP AND PAPER

L&W Autoline S

ABB Ability™ Quality Management System



L&W Autoline S is a complete laboratory system that automates and digitalizes your entire paper quality control, helping to increase efficiency and optimize production in your paper or board mill. It provides fast, frequent and reliable quality information on up to seven paper machines in a 24/7 operation.

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01 ABB has extended its L&W Autoline automated paper testing offering with the new L&W Autoline S, a compact, scalable model designed to fit in all laboratories.

02 Choose up to six different modules, allowing numerous combinations to align to testing needs.

L&W Autoline S tests a full width CD strip in less than eight minutes, and production and QC management instantly receive comprehensive quality information. Deviations are easily detected and necessary corrections can be completed without costly delays. When time-consuming manual laboratory operations are automated, focus is shifted to continual and sustainable improvements.

Benefits

- Increases efficiency and productivity
- Reduces costs
- Improves quality control
- Facilitates rapid decision-making and process adjustments
- Requires minimal training

Key features

- Integrated sample queueing with trouble-free feeding system
- Unique dual-test capability allows multiple samples to be run sequentially
- Measurement and storage for high volumes of data to identify quality trends over time
- User-friendly interface provides reports in real time, locally and remotely
- High-resolution CD profiles detects local deviations

Automation solution for any application

L&W Autoline S introduces a compact solution that allows any papermaker to automate laboratory paper testing. Designed to fit in all laboratories, the easy-to-install, mobile unit only requires connections to standard electrical power and compressed air.

L&W Autoline S can be configured to meet most needs, and typically reports more than 100 important quality parameters per CD position.

Wide choice of measuring modules

L&W Autoline S is configured with up to six different modules that align to your desired measurements. Testing modules conform to industry standards for automated paper testing.



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03 Designed for uptime and maintainability.

Reliability based on 40 years of experience

The quality of the paper testing portfolio is a testament to the reliability and innovation of Lorentzen & Wettre, who pioneered automated paper testing in the 1980s. This is validated by the more than 500 papermakers using L&W Autoline systems to optimize their production, as well as the thousand of L&W paper testing instruments in use today.

More data in less time

L&W Autoline S analyzes 10 times more data than manual testing at a fraction of the time; paper-makers typically reduce testing time by 90 percent. The system enables efficient operations, eliminating the need for manual sample preparation, conditioning and testing. Data is automatically gathered and stored for one year. Detailed CD and MD trend data can be presented and adapted to different needs.

Within minutes, you can view and analyze quality data, leading to faster issue resolution. Automated testing and data administration allow you to fully focus on quality optimization.

Complete quality information within minutes



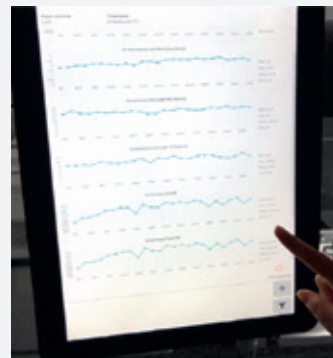
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Cut the sample (different cutter models are available as options depending on grades and environment).



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Scanning the barcode enables a quick start.



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L&W Autoline S help operators' work more efficiently as increased testing volumes and quick process feedback eliminate testing errors.



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Within minutes, the product team has immediate access to a detailed quality control report, including grade limit warnings.

— 04 Integrated intelligence in each L&W Autoline S module minimizes downtime during service.

— 05 Examples of the intuitive user interface, which provides real-time results on variations and deviations. It also shows a quality assurance overview including alarms, MD trends and CD profiles to enable process optimization.

Designed with the user in mind

The intuitive user interface is easy-to-use and makes testing easy and comprehensive, with minimal training required. The touchscreen monitor is on a flexible arm that helps make the work station ergonomic. Maintenance engineers can monitor the system status and review comprehensive event and alarm lists, which are available to both local engineers and for remote support. Operator safety is designed into the system, and several safety guards allow users to realize the full benefits of automation, while also eliminating any errors common in manual testing.

Designed for uptime and maintainability

With L&W's intelligent, standalone technology integrated into each module, testing is able to run accurately and continuously – even during calibration and preventive maintenance.

Plus, the module design ensures efficient and safe operations. If optimization is needed, ABB's unique network has the global coverage and local presence to ensure customers always have efficient access to support services.

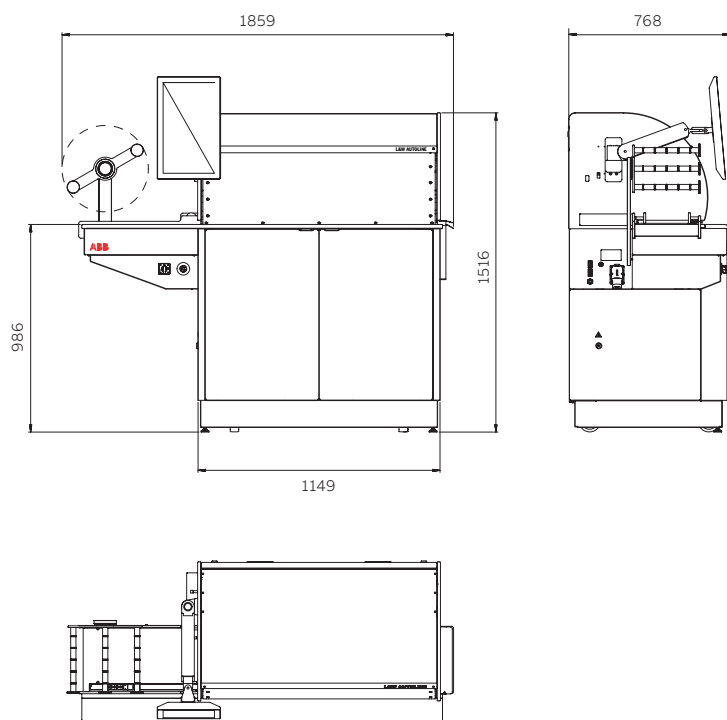
Complete quality control solution for digital integration

L&W Autoline S plays an important part of mill digitalization by enabling information to be shared throughout organizations quickly and easily. Comprehensive laboratory data can be monitored directly in L&W Autoline S or quickly accessed by process engineers, QA management, or operations.

ABB Ability™ Quality Management System

L&W Autoline S falls under the ABB Ability™ Quality Management System (QMS) application suite, our complete offering for optimizing paper quality. Our industry-leading hardware, software and expertise provide a full visualization for better quality control throughout the entire process.





Footprint

Recommended total space needed

Depth: 2220 mm

Width: 3000 mm

Technical specifications

L&W Autoline S

Inclusive	L&W Autoline S is delivered and installed as a complete system, with the following main components:
	- L&W Autoline S
	- L&W Autoline software
	- Sample preparation (see options)

Measurements

Measurements (modules available)	<ul style="list-style-type: none"> - Sheffield Roughness - Bendtsen Roughness - Emveco Roughness - Air permeance (Bendtsen, Sheffield and Gurley) - Thickness (Caliper) - Burst (paper and board model respectively) - Tear - Moisture - Grammage (Basis weight) - TSO - Tensile - SCT
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No. of module slots	Six slots are available, allowing for numerous combinations of modules to align to testing needs (separate data sheets available on each module).
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Grammage range	15 to 800 g/m ² (3 to 160 lb/1000 ft ²) Depending on paper grade (sample thickness and stiffness)
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Measuring time	Less than 8 minutes, depending on what modules are activated, sample length and the number of measured positions
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Sample width	300 mm
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Installation requirements

Power	100 to 230 V/50 to 60 Hz
Instrument air	0.6 to 1 Mpa (90 to 145 PSI)
Air consumption	Approximately 50 l/min NPT, Consumption depends on configuration (modules included)
Options	Barcode reader - L&W Profile Cutter Basic, code 147 - L&W Profile Cutter Advanced, code 148 - L&W Profile Trimmer, code 149

Connections

Data communication	Ethernet, TCP/IP RJ45
Data transfer	OPC, XML, etc
Dimensions	1860 × 770 × 1520 mm (70 × 30 × 60 in)
Box dimensions	2105 × 1058 × 1945 mm (83 × 42 × 77 in)
Net weight (base unit)	280 kg (618 lb)
Transport box	260 kg (573 lb)