

MARKET LETTER / PRODUCT RELEASE

NEW - L&W Autoline S

Automated paper testing

This is a market letter to the sales organization of Lorentzen & Wettre products, regarding automated paper testing.

I am now happy to announce that we are officially releasing the NEW L&W Autoline S, that will expand ABB's offering for paper mills without an existing modern testing solution.

ABB is the global market leader in paper testing through the Lorentzen & Wettre products, which includes a full range of manual stand-alone instruments, as well as automated systems.

Experience

- · 40 years of automated paper testing experience
- · 500 units built in the L&W factory
- 40 countries
- · 4 years of extensive market study

Solution

- · Complete new unique base-unit
- · New modules based on proven design

Result

- · Combines the best from earlier L&W Autoline and L&W SA
- · The world's best automated paper testing, now even better!

When the L&W Autoline was introduced in the seventies it revolutionized paper testing and has since then been the prime solution for paper quality control. 500 units built by the factory in Sweden, all meeting the highest quality demands. All experience from the installations in 40 countries worldwide is built-in to this new generation. Known as the best paper testing system, now even better!



2019-03-06

This first limited release includes most modules needed for non-coated papers and boards. The modules available are found in the latest price list (2019 v.2), please however note that delivery times can be longer during this initial face. As normal, check availabilities with L&W Kista (me or Klara Mårtens-Ekblad). The simplified guide below can be used understanding which customers to focus on:

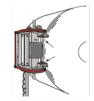


There are several measurements that are still to be developed and released in 2019-2020. Even if R&D projects are difficult to foresee, we estimate that the following L&W Autoline products will be released before the end of 2019:

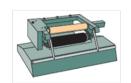
- Remote data viewer (Former L&W Autoline QDE)
- L&W Autoline Elrepho
- L&W Autoline Formation
- L&W Autoline S-test

To achieve a complete and efficient pricing for the customers that we target with the Autoline S, we have included installation and the sample cutters in the base-unit pricing. The mandatory commissioning from technical support Sweden, ensure a trouble-free startup, but also give us the possibly to efficiently improve software and hardware during the first years.

The base-unit also includes the L&W Profile Cutter Basic (code 147), which is a simplified version of the L&W Profile Cutter Advanced (code 148). The main reason is to be even more attractive to the non-automated mills, with a very aggressive total price. For the more demanding mills, L&W Profile Cutter Advanced and the L&W Profile Trimmer (code 149) will continue to be the preferred choice. Please see individual data sheets for detailed descriptions.







L&W Sample Trimmer



L&W Sample Cutter Basic

2019-03-06 2/4

The hardware and the software are now separated, which makes it possible to select between two software license options.

<u>Alternative 1:</u> Purchase lifetime license with initial order. The factory warranty will cover software corrections during warranty period, but not include additional or new functionality of later releases. In case new software functionality is requested, this will be invoiced separately.

<u>Alternative 2:</u> Place a separate order for an annual subscription fee (minimum 4 years required). This annual subscription can be invoiced separately or included in a service contract or as part of an ABB Ability offering. The annual subscription will in addition to factory warranty for software corrections, also cover access to new releases with added and new functionality. Cost of installation and check-out of new software releases are not included.

The two different options have several financial advantages and makes the sales process more flexible. The purpose is to allow customers to distribute the costs between investment budgets (CAPEX) and operations budgets (OPEX). It can also be used by sales units to combine the software licensing with service/support contract offers. This means that alternative two, gives mills the possibly to reduce the investment cost and take some of the cost on the running maintenance budget instead.

Quality information viewed in several different formats, which makes complex data analysis easier:



Together with this market letter you also have a basic sales presentation, designed for an initial sales meeting at a mill without existing paper testing automation. In many cases the presentation will need to be adopted to type of mill, grades produced and persons in the meeting. You will also be invited to sales training webinars coming weeks, when this presentation is covered. The webinars will also include information about coming L&W Autoline modules, important for successful sales strategy.

ABB will have two parallel products for automated paper testing in 2019, and most probably in 2020 as well.

L&W Autoline 400 is still the preferred choice for most paper mills today, and in the
last two years an impressing 45 systems have been installed. The L&W Autoline 400
has the complete range of measurements and functionality that demanding customers are expecting. The L&W Autoline 400 systems are being shipped with new PlatForm4 technology modules (code 600 series), see list of released modules below.

2019-03-06 3/4

L&W Autoline S is now released with limited scope of measurements and functionality, with the target to attract customers where the L&W Autoline 400 is not the optimal solution.

For successful sales, each market needs a sales strategy regarding L&W Autoline 400 and L&W Autoline S. Each customer needs to be evaluated individually, and some guidelines are found below."

- Recognized model
- > 6 modules
- · Critical delivery time
- · Coated grades
- PPS, Gloss, Bending, Elrepho, Formation
- Integrated DAW
- Established technology



- Latest model
- ≤ 6 modules
- · Delivery time less critical
- · Un-coated grades
- · Not including PPS, Gloss, Bending, Elrepho, Formation
- No DAW





L&W Autoline 400

With this market letter a limited price list for L&W Autoline S is included, covering new part numbers, new prices etc. A new revision of the complete Lorentzen & Wettre price list, will be distributed separately. In this new price list there will be separate sheets for L&W Autoline 400 and L&W Autoline S items. The new L&W Autoline S modules available in this new price list are:

L&W Autoline Air Permeance

L&W Autoline Sheffield Roughness

L&W Autoline Bendtsen Roughness

L&W Autoline Emveco Roughness

L&W Autoline Thickness

L&W Autoline Moisture

L&W Autoline TSO

L&W Autoline Burst

L&W Autoline Tear

L&W Autoline Tensile

L&W Autoline SCT

L&W Autoline Grammage

Good selling and best regards,

Jonas Andersson Global Product Manager, Automated Paper Testing

2019-03-06 4/4