

HEINOLA news

HEINOLA SAWMILL MACHINERY INC. Customer magazine



HFB progressive kiln, JPI-Wood Oy Korkeakoski



HTC progressive kilns, UPM Timber's Kaukas sawmill, Lappeenranta

ONE MILLION cubic metres of drying capacity in the pipeline

Six sawmill groups chose HEINOLA drying kilns in the first half of 2016 – adding a total of 27 drying kiln units to the order book, a combined total drying capacity of approximately one million cubic metres of saw goods a year!

AN EVER-GROWING number of sawmills in Russia and the Nordic and Baltic countries have chosen HEINOLA's drying kilns and advanced HEINOLA drying kiln automation technology, into which the Laatu-kamari Opti® Drying Kiln Simulator can be integrated, optimising movement of the internal moisture in the timber to be dried, the shrinkage of the wood and the drying stresses.

According to the customers, HEINOLA's drying kilns provide consistent high quality, HEINOLA's control system is particularly user-friendly, and HEINOLA's drying kiln equipment and structures are of excellent quality. Furthermore, we are seen as a reliable supplier, offering good support services close to customers' facilities.

The orders placed in the first half of 2016 comprise nine (9) fully automated 2-stage HFB progressive kilns and six (6) fully automated 2-stage HTC progressive kilns. Addi-

tionally, on the chamber kilns front, our order book features a total of six (6) drive-through HCHD chamber kilns with carts, and six (6) drive-through HCHD chamber kilns with roller tracks.

All this comes to a total of 27 drying kiln units, with an annual capacity of one million cubic metres, ordered during the first half of the year! Heinola Sawmill Machinery Inc. would like to thank our customers for their confidence in us; we intend to continue our long-term focus on ensuring proper drying quality. ■



HCHD progressive kilns, ER-Saha Oy, Viitasaari

50 YEARS as a trusted supplier to the sawmill industry!



AT HEINOLA we are continuing work on our current theme of 50 Years of Taking Care. We have been a trusted supplier to the sawmill industry for 50 years now.



KARI KIISKINEN,
Managing Director

There have been relatively few investments in the industry on the whole recently. However, there is always demand for a multifaceted operator such as us in at least one product area. Our knowledge and efforts in working closely with clients have paid off this time with a number of drying kiln orders.

The most popular models are the drying kilns shown in the photograph. In Finland sawmills have been making significant new equipment purchases and replacement investments on the drying front. According to our calculations this year we have delivered 27 different drying units, including both progressive and chamber drying kilns. This positions us as the clear market leader in Finland. You can read more about these deliveries and the current situation later in this magazine.

We are proud of the trust placed in us and will continue our efforts with such projects. The commissioners of these projects are not just Finnish sawmills, but also foreign sawmills in countries such as Russia and Sweden.

In Finland we are constantly carrying out changes to plants and minor modernisations in other product areas. I believe that this will continue in the near future, as sawmills are working on making their operations more efficient and new equipment is required for this. Their customers' changing needs provide a steady stream of these kinds of small investments.

One element that has now become clear is the recent boom in investments from Russian sawmills, of which we have received our share. We are in the process of fulfilling a large drying kiln order, and in addition to ongoing orders we are also in the midst of positive conversations about our new products. We will soon see whether these conversations have led to the desired result and more orders.

One example of seeking efficiency through modernisation is the transverse scanning and optimisation equipment developed during the early part of the year for edging units. This work was carried out in collaboration with FinScan Oy, and the first device has already been delivered to Kuhmo Oy. The results seem encouraging and you can read more about this solution later on in the magazine. ■



1965

1965 The start of Plan-Sell. Plan-Sell and Insinööritoimisto Olli Heikinheimo (Olli Heikinheimo Engineering Firm) were entered into the trade register on 3 September 1965.



1967 It all started with these package-lifting clamps.

Workshop photo from the early days



1968 Plan-Sell moves to Heinola

Fate brought Plan-Sell to Heinola in autumn 1967. The industrial building on Tiilitehtaankatu was subject to a compulsory auction, allowing Plan-Sell to buy the property in an auction lasting just minutes. Production began on 1 July 1968 in the 2,000 m² premises in Heinola.

1970



1974 Big deals

Around ten sticker-stacker machines were prepared for delivery at the same time. DDR, or East Germany, received two cutting and sorting plants designed to handle whole trunks. Sweden was also a significant market area.



Source: Tämä on vain liike-elämää, Olli Heikinheimo



AN EXTRA BOOST for old sorting lines

LUMBER SORTING lines need to be able to meet the needs posed by the growing number of pieces produced in cutting operations. With more and more smaller pieces being sawn into shallow cant, the number of pieces to be processed grows significantly and the capabilities of the old sorting lines are put to the test.

HEINOLA has received dozens of orders for sorting lines over the last decades. These lines are still very much capable of provid-

ing a basic sorting service, they merely require increased processing speed. Faced with this issue we have made plans and already delivered a number of solutions, allowing lines that previously processed approximately 120 pieces per minute to now process as many as 180 pieces per minute.

In our experience HEINOLA's basic sorting line solutions can reach these new speeds simply by increasing the pace and reinforcing and adapting the key areas of

the line. These areas can be metering, cutting, sorting and automation, for example. One such element is the board trimmer press, which has pneumatic cylinder-operated damping and operates at a speed of 180 pieces per minute.

Sticker-stacker machines and packaging machines also require a boost when it comes to speed, and one such solution we have provided in this area is servo-controlled transfer arms. ■

"ALL THREE lumber sorting lines at Kuhmo's sawmill – two green sorting lines and sticker stackers and one dry lumber sorting and packing line – were supplied by HEINOLA.

The dry lumber sorting line has been in operation at Kuhmo since 1988. Over the years HEINOLA have upgraded this piece of machinery a number of times. About two years have passed since the last upgrade. That upgrade saw our sorting line become a high-speed line, able to seamlessly process 180 pieces per minute. Originally the plant was built to operate at a scraper speed of 120 pieces per minute. The current 70 sorting bins allow for more flexibility in production. Thanks to this, our dry lumber sorting line meets all current requirements.

Additionally, I would like to highlight the reliability and ease of maintenance of HEINOLA lines in particular. Another factor we value highly is the short period of time it takes to achieve the intended capacity after work has started on the modifications – this usually takes a few weeks, depending on the extent of the equipment. This is an extremely important factor from a business administration perspective.

To us, HEINOLA is a reliable partner whom I can without a doubt recommend to other sawmill operators looking to choose a provider of high-quality equipment. HEINOLA do not just supply advanced and high-quality solutions, they also follow through with professional project deliveries and provide smooth after-sales services and support. Continual development and the ability to listen to the customer's needs and offer the best solution to challenges the customer may be facing are also important factors."

TOMMI RUHA,
Managing Director, Kuhmo Oy

HEINOLA at 2016 trade fairs



Teräpäivät
31 March–1 April Kuhmo



Yhdessä enemmän trade fair
27–28 August Vierumäki



FinnMETKO
1–3 September Jämsä



1976 Workshop for Kitee

As its first piece of billable work, Insinööritoimisto Olli Heikinheimo created an industrialisation design commissioned by the Municipality of Kitee for Kiteen Puhos. On this basis, Plan-Sell decided to construct a second machine shop for Kitee, which Heikinheimo was very familiar with.

1978 Peak turnover

At its peak in 1978, the turnover of Plan-Sell's machine shop operations was around 150 million Finnish markka.

1982 Sale of the sawmill machinery business

With the Kitee sawmill taking up all releasable funds, Plan-Sell decided to sell the Heinola machine shop business. Traditional sawmill machinery manufacturer A. Ahlström Oy wanted to complete its range of sawmill equipment products. With a deal signed on 14 April 1982, all the business operations of Plan-Sell Oy and Insinööritoimisto Olli Heikinheimo Ky were sold to Ahlström.

1980

1975 Huge deal. In Moscow, Plan-Sell sealed Finland's biggest sawmill machinery deal, to the tune of 20 million roubles, or over 120 million Finnish markka. The order covered 12 dry sorting lines with packaging plants. In the autumn a follow-up order was made for 22 dry sorting lines with spare parts, for a purchase price of 40 million roubles. This gave Plan-Sell a delivery contract with a total value exceeding 300 million Finnish markka. Delivery of the contract took place from 1976 to 1979.

1977 Sawmill to Kitee

The construction of the sawmill in Kitee began in summer 1977, and production began in late 1978. This brought with it a great deal of new technology, such as edger optimisers.



1981 Heinola workshop



HEINOLA introduces new, board quality focused **EDGING EQUIPMENT**

HEINOLA has developed a new solution to combine transverse quality scanning and lengthwise profile scanning in the edging of side boards. The first device was delivered in summer 2016 to Kuhmo Oy. The device combines a FinScan BoardMaster grading scanner for transverse scanning, and a HEINOLA edging, scanning and control automation system.

QUALITY DATA MEASURED WITH TRANSVERSE SCANNING

On the front of the edging equipment a new FinScan BoardMaster E1-50 HDL grading scanner has been installed, which scans transversely from above to measure and optimise boards based on their quality. The automation system will then transmit the scanning data to the HEINOLA edging control automation system. The data on the board analysed by the system is combined with the board data from the HEINOLA profile scanning to achieve the best possible result when edging the board. Boards usually arrive at the edging system from the saw line wane upwards. If the board reaches the measuring point wane downwards, the BoardMaster will measure the quality of the board on the basis of the underside of the board, i.e.

the side now on top, and send turning information to the control automation system. If the grading scanner results are not usable for any reason, the boards are optimised and edged using the profile scanner data, as previously.

Turning arms have been added to the cassette conveyor, after the quality grader, so that the data received from the quality grader can be used to ensure the boards are the right way up for edging.

The optimisation result given by the quality grader may also be a decision to reject the piece, whereby it will be automatically dropped through the rejection hatch before edging takes place.

QUALITY DATA COMBINED WITH LENGTHWISE-MEASURED BOARD PROFILES

The new HEINOLA automation system also measures each board's pro-

file lengthwise, as previously, but now the FinScan optimisation data is placed over the scanned profile, both sets of data are combined, and the best possible position for the end result is calculated, taking into account yield value. The quality grader is equipped with three additional thickness scanners to improve wane identification. ■



Our owner, Carl Bennet, stopped by to say hello at our stall at the **Wood Products & Technology** fair held 6–9 September in Gothenburg



ExpoDrev
6–9 September Krasnoyarsk, Russia



Wood Processing Industry of Siberia
13–15 September Irkutsk, Russia



Sahateollisuuspäivät
5–6 October Aulanko



Lesdrevmash
24–27 October Moscow

VALMET

1990 New purchases. The company's position was further strengthened by the purchase of a major competitor, as Valmet's lumber processing business was bought in 1989. Chipper operations were strengthened by the purchase of Perusyhtymä's chipper manufacturing facilities located in Hämeenlinna in the same year. **This is when Heinola took shape as a multifaceted operator serving the sawmill industry.**

1990

1990 Ahlström Sahakoneet Oy

Ahlström centralised Finland's sawmill machinery operations in the mid 1980s in Heinola. Ahlström Sahakoneet Oy became the official name. As an international company, Ahlström focused heavily on export activities. Export deals were made for countries such as Japan, Australia and South Africa. Central European countries were also involved in various projects.

1993 Sawmill construction boom

At the beginning of the 1990s a construction boom for new sawlines began. Heinola delivered around ten sawlines to locations throughout Finland over the course of a few years.

SORB INDUSTRI AB

1997

Troponor became Sorb Industri, and current main owner Carl Bennet, from Sweden, first bought into the company.

1995 Troponor

Ahlström found a buyer in Sweden for the sawmill machinery business. Having already purchased Swedish sawmill machinery manufacturers previously, investment firm Troponor Invest AB purchased Ahlström Sahakoneet at the beginning of 1995. Heinola Sawmill Machinery Inc. gained sister companies in the form of Ari AB, Catech AB and later Renholmen AB.

HEINOLA

modernisations

THE SIEMENS IPC427D automation platform for HEINOLA's sawmill machinery, which was announced at the last Sahateollisuuspäivät fair and introduced into operations for the first time in spring 2015, has received a fantastic reception at sawmills. Deliveries have been made for a total of nine edger and sorting automation

systems in Finland and Sweden. Additionally, further deliveries are scheduled for two different sorting automation systems. The new automation platform is suitable for all HEINOLA automation processes in seven different locations in cutting, edging and sorting. ■



Siemens IPC427D

COMPLETED DELIVERIES OF THE SIEMENS IPC427D PLATFORM:

UPM Korkeakoski sawmill: Modernisation of edging
Control computer 2 pcs
Scanner PC 2 pcs

SET Ala: Modernisation of edging
Control computer 1 pc.
Scanner PC 1 pc.

SE Veitsiluoto: Overhaul of dry sorting line automation
Control computer 1 pc.

Pölkky Oy: Modernisation of edging
Control computer 1 pc.
Scanner PC 1 pc.

SIEMENS IPC427D DELIVERIES SCHEDULED:

Kuhmo Oy: Overhaul of dry sorting line automation
Control computer 1 pc.

Kuhmo Oy: Renewal of packaging automation
Control computer 1 pc.

Total: 9 pcs



SYNCHRONOUS OPERATIONS WITH CONSTANT FREQUENCY CONVERTERS together with HEINOLA automation

TRADITIONALLY in the sawmill industry, conveyors are synchronised with each other mechanically, for example a scraper conveyor and lumber turner. In recent years some frequency converter suppliers have begun providing the necessary equipment and software applications for conveyors to be synchronised using a frequency converter.

However, we wanted to be able to synchronise the conveyors with a higher level of control by adding our automation system's synchronous operation software, which would allow us to synchronise the so-called slave conveyors with the master conveyor. This would bring about a number of benefits, including the following:

- Getting rid of synchronisation chains requiring lengthy maintenance.
- Standard frequency converters can be used in synchronous operation.
- The rotation ratio of the slave and master conveyors can be changed.
- Easy calibration of synchronised conveyors using the user interface display rather than the frequency converter panel.
- Thanks to the absolute encoders used in our system, constant information is provided about the angle variation between the conveyors, even after power cuts. If necessary, remote control support is available from HEINOLA for all measures. ■



New mobile chipper model to join the HEINOLA CHIPPER FAMILY

DUE TO THE growing use of branch chip we are currently developing the new HEINOLA 914 TRUCK mobile chipper model. The chipper is based on the technology of the well-known and efficient 910 TRUCK model, but it will be approximately 400 mm wider than its sister model. The infeed opening and knife drum's 1,400 mm width will therefore allow branch ma-

terial to be fed into the chipper with greater ease.

In all other respects the chipper will be fully equipped with familiar durable and efficient HEINOLA features. Alongside these two chipper models we of course also have the large-diameter HEINOLA 1310 model with its 1,300 mm knife drum. ■



TEAM HEINOLA on tour 2016

ALHOLMA, FIN
BORISOV, BY
CZARNKOW, PL
FALKIRK, GB
HAUHO, FIN
HONKALAHTI, FIN
KAUKAS, FIN
KEITELE, FIN

KEMIJÄRVI, FIN
KORKEAKOSKI, FIN
KUHMO, FIN
KYRÖ, FIN
LESOSIBIRSK, RUS
OKTJABRISKIJ, RUS
PUNKAHARJU, FIN
RAPLAMAA, EST

SORTAVALA, RUS
VARKAUS, FIN
VIDA, SWE
VIERUMÄKI, FIN
VIITASAARI, FIN
VORUMAA, EST

To be continued...

We have been constructing a number of new sawmills around the world.



2005 Japan



2008 Russia



2010 Sweden



2013 Russia

2000

2006 Sorb Industri became Lifco AB. Lifco was listed on the Stockholm stock exchange in autumn 2014. Lifco's turnover is approximately EUR 700 million.

LIFCO

2006

2007

In one of the most recent developments in the sector, Heinola gained the Estonian company Hekotek AS from Tallinn as a sister company.

2010

Drying kilns joined the HEINOLA product family.



2015



2016 Our story continues

