

HEINOLA news

HEINOLA SAWMILL MACHINERY INC. Customer Magazine



HEINOLA SAWLINES

HEINOLA DELIVERS A FULL-PROFILING SAWLINE TO JAPAN

AFTER an intense international competition, Matsumoto Lumber (Arao, Japan) commissioned Heinola Sawmill Machinery to manufacture a full-profiling Scala 250 sawline for its new sawmill. Log sorting and debarking equipment will be supplied by a Japanese machinery manufacturer. The supplier of the lumber handling equipment is also Japanese.

Matsumoto Lumber processes the local Sugi tree, and their lumber is sold to the Japanese construction material market. Their sawmill by-products go to the pulp and energy industries. The new sawmill saws two log lengths (3.1 m and 4.1 m) with top diameters between 150 and 350 mm. The smallest and largest logs are processed using the mill's old Japanese sawing machines.

The full-profiling sawline will be equipped with Heinola automation and a Siemens PLC

control system. The sawline will feature two HEINOLA chipper canters and four HEINOLA profiling units, allowing for profiling of the sides of logs and cants whilst skew cutting 1+1 or 2+2 side boards. The actual primary and secondary breakdown will be performed by our own saw units, which both use the new HEINOLA Syncro Cutting System. In this method, both sawing axes are installed on top of one another and the blades allow for more active curve sawing, resulting in an improved yield from the logs that are always slightly curved. The sawline's log and spar scanning equipment with sawing pattern and side board optimisation will be provided by our partner Lisker Oy of Vääksy, Finland.

Heinola Sawmill Machinery Inc. has been supplying sawlines and sawmill equipment to Japan for nearly 30 years. Our latest project continues this tradition as we join with our Japanese partner to build a new type of HEINOLA Scala 250 full-profiling sawline for our Japanese customer. The planning and the manufacture of the machinery has now been finalised and the machinery was delivered from Finland to Japan in early summer, with the installations and commissioning to take place in the autumn. ■



The line's sawing units being assembled at Heinola.



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Efficient and robust sawline solutions



Precise utilisation of raw materials



High levels of accuracy and impeccable surface quality



Controlled curve sawing with a minimum radius

HEINOLA
is in high demand
in the export market

THE NUMBER

of investments in the export market, particularly in Russia, has been encouraging. We have benefited from many of these ourselves, and



KARI KIISKINEN,
CEO

have delivered sawlines to both Japan and Russia. In recent years, we have modernised our sawline range, and our new products have been very well received and have proven competitive in the global market. We are currently working on two different sawlines: a merry-go-round sawline with a two-axis circular saw and optimised sideboard profiling for delivery to Russia, and a straight sawline with the same features for delivery to Japan. Negotiations for a third sawline are in their final stages, with the contract expected to be signed within the next few weeks. The sawline in question is a straight HEINOLA sawline similar to the one going to Japan, and it will be delivered to Russia. All of these sawlines are due for delivery to the customers later this year.

In terms of sorting lines, we are in the process of commissioning a high-capacity dry lumber sorting line and accompanying packaging machine in Russia. The line is equipped with an automation system from our Russian partner. Two identical dry lumber sorting lines are currently awaiting delivery to Russia, alongside one green sorting and stick-stacking line for Finland. These pieces of machinery are due to be commissioned in 2019.

We are currently working on the following (in various stage of production):

SUPPLY process currently under way:

- 3 HEINOLA sawlines
- 4 HEINOLA sorting lines
- 4 HEINOLA packaging machines
- 16 HEINOLA progressive kilns
- 8 HEINOLA chamber kilns
- A number of plant modernisation projects in Finland

These orders have a total value of approx. MEUR 40, and are due for delivery to the customers during 2018 and 2019. This will provide a solid basis for our turnover in the near future. We thank our customers for the trust they have shown us, and we continue our hard work on these deliveries and the many future orders that we are likely to receive.

As the economy is booming, we have recruited five new future experts to join our teams and who will cover almost every area of our operations. You can read more about them on page 4. ■



HEINOLA DRYING KILNS

ONLY THE BEST IS GOOD ENOUGH FOR NORDIC SAWMILL COMPANIES

HEINOLA will supply Kuhmo Oy with a new automatic 2-zone, high-capacity HTC Progressive Kiln.

HEINOLA will deliver a 2-zone, automatic, high-capacity HTC Progressive Kiln with an annual capacity of approximately 65,000 m³ to Kuhmo Oy. The drying kiln can dry green 16–50 mm pine and spruce timber to a final moisture content of 12–18 %.

The new progressive kiln will be equipped with a high-capacity Heat Recovery System, pressure frames, and vertical lift doors with fall protection. The new progressive kiln is currently in the start-up phase. This investment by Kuhmo Oy will eliminate their

production bottleneck and enable an increase in production.

"We compared different suppliers but ended up choosing HEINOLA for technical and financial reasons," says Kuhmo Oy Managing Director **Tommi Ruha**. "HEINOLA offered the highest capacity when combined with our traverse line. Full automation was also a significant factor in the selection process. Based on previous kiln and machinery deliveries, we trust in HEINOLA's project management, technical support and repair service." ■

Special features of HEINOLA DRYING KILNS

- **STAINLESS** steel structure featuring wide self-supporting elements, reducing installation time and with 50% fewer potential leaks.
- The stainless steel is austenitic-ferritic, EN1.4307, and can withstand highly aggressive drying conditions.
- The heat coils' plate thickness is 0.4 mm, and they can be cleaned with a high-pressure washer. The heat coils also come with threefold freezing protection.
- The fan wall is welded construction and has a robust, resistant structure, eliminating vibrations.
- The vertical kiln doors come with dual fall protection.
- Heat and electrical power and consumption measurements can be monitored online.
- The exhaust fan motor is located outside the exhaust duct. The equipment is easy to service and long-lasting.
- All servicing and maintenance measures can be carried out through the kiln's attic: pressure frame cylinders, wet sensor basins, motor greasing, heat coil deaeration, etc.
- The kiln load movement is equipped with a position sensor, making movement easy.
- The load movement motors are located outside the kiln.
- The HEINOLA Eco Drying Kiln Control System is easy to use and has various safety features. Approved for a Swedish furniture manufacturer's production plants in many projects. ■



ILARI NIITTYMÄKI
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Superior drying quality



Customer-oriented technical support



At the forefront of drying innovation



Energy-efficient drying kiln control using an integrated Simulator

HEINOLA DELIVERS EIGHT 2-ZONE PROGRESSIVE KILNS TO ULK IN ARCHANGEL, RUSSIA



HEINOLA has delivered eight two-zone HFB Progressive Kilns to the ULK Sawmill in the Russian Archangel region, four of them for drying sideboards and four for centrum boards. The total annual capacity is approx. 400.000 m³ when drying spruce and pine timber to a final moisture of 11%.

The kiln building is made of stainless steel. The channels are equipped with pressure frames and the latest HEINOLA Eco Kiln Control

System. Timber loads are transferred on rail tracks on carts that are 8.5 metres wide. They can fit two 4.1-metre loads side by side. The wide vertical kiln doors are equipped with dual fall protection. The efficient heat coils are equipped with threefold freezing protection system. The drying kilns were delivered in two stages during 2016 and 2017. The four channels for the first stage are already in production and the other four are now in the start-up phase. ■

HEINOLA SAWMILL MACHINERY visits trade fairs in 2018



29.–31.5.
HELSINKI



28.–31.8.
GOTHENBURG



30.8.–1.9.
JÄMSÄ



3.–4.10.
HÄMEENLINNA



22.–25.10.
MOSCOW

HEINOLA SAWLINES

NLK SODRUZHESTVO, RUSSIA SL100 SAWLINE COMMISSIONED

DURING autumn 2017, HEINOLA manufactured the machinery for this sawline. After some short trial runs, they were ready to be packaged for delivery. The customer received the machinery to be transported across the border in December 2017. The installation was mainly carried out by Russian installation staff led by a Russian supervisor working on HEINOLA's behalf. Communication on site was good, and the installation was performed as planned. At the same time, the customer was taking its own steps to prepare for changes in its feeding and green sorting systems.

This new sawline replaced the old one in the existing sawmill hall. Naturally, this placed some limitations on the positioning of the new line, but the end result was still good considering the restrictions. The electrification was implemented by the Russian company Avtomatika Vektor under HEINOLA's guidance. The close cooperation that started at the planning stage continued when work on the sawline's functions and related software began.

Our Russian partner really demonstrated their expertise, and the sawline functions were implemented by local specialists in line with the local conditions. This way, the customer will have easy access to local maintenance services and it

will be easier to develop the line.

We have integrated some new features in the sawline, and we are using this opportunity to launch them for this line. The most significant feature is the affordable merry-go-round sawline created using a two-axis sawing unit and profiling units. For the sake of space and profitability, optimising four sideboards in both stages directly on the sawline with high yield is a necessity here;

this has now been achieved within a compact space without adversely affecting the technology used or the yield.

Another significant feature in this project is the integration of Russian scanning technology at a key point in the sawline where logs, cants and sideboards are scanned and optimised. These features will be tested in the near future, and we will report on their performance at a later date.

During this project, HEINOLA has learned some important lessons from working so extensively with local operators and resources. Different cultures and languages have met around the same table on several occasions to ensure successful results. The customer showed their professionalism in acquiring all the appropriate resources and making them available on-site to ensure progress during installation.

The customer, NLK Sodruzhestvo, will use the sawline to produce about 100,000 m³ of sawn timber in Nebolchi in the Novgorod region. ■



HEINOLA LUMBER HANDLING

ULK, KOSTYLEVO, RUSSIA LUMBER HANDLING PLANT INAUGURATED

HEINOLA has just commissioned a high-capacity dry lumber sorting and packaging plant at the ULK sawmill in the Archangel region of Russia. This plant is part of ULK's latest investments aimed at increasing the capacity of its sawmill. The plant was set up by local fitters supervised by HEINOLA. All teams worked well together despite a few linguistic challenges. The Russian field team performed excellently.

The HEINOLA plant is equipped with Finscan technology and cutting devices that enable the cutting lengths to be freely selected. Sorting is carried out into 50 vertical bins. The plant will

be able to process pieces at a speed of 160 per minute. This plant was also equipped with an automation system provided by our Russian partner. The Russians demonstrated impressive professionalism in managing the lumber handling plant functions. These important functions of the plant were implemented by local operators, so the client can be served locally in the Russian language in future. This will improve the service provided for the sawmill and will also improve our ability to respond to any issues quickly.

The new plant's formal inauguration was held on 9 March. The event received attention from

high-profile officials and was honoured by the region's governor, ministers from Moscow and various decision-makers involved in the project. The ceremony began in the local ice arena, which was built by the sawmill owner, and was followed by a friendly ice-hockey game between former top Soviet ice-hockey players and the women's national hockey team together with some players from the sawmill. The old 'Red Machine' was still going strong and ran out winners, albeit by a fine margin! The whole event was a huge success. Now the plant will resume its work to ensure the success of the sawmill. ■



Efficient at
all speeds



Efficient with
all cutting lengths



Gentle
processing



Sturdy
packages

HEINOLA CHIPPERS NEW WIDER MOBILE CHIPPER MODEL

THIS YEAR, a new product will be added to our mobile chipper range with the introduction of a wider model. The new HEINOLA 1014 chipper features a lamella chain and has an impressive 1400 mm infeed opening. The increased width makes the feeding of logging residues easier than ever. Moreover, the model has many other features that improve its use and maintenance. For example, the sieve comb plates can be replaced one-by-one, meaning the sieve spacing can be easily adjusted.



The chipper main blades are divided into two parts, which makes handling the blades easier and reduces blade costs. The power transmission from engine to chipper consists of a modern timing belt instead of the traditional v-belt.

BODYWORK AT THE CAR FACTORY

HEINOLA and Oy Sisu Auto Ab are old partners. As early as twenty years ago, Sisu was building HEINOLA 97 chipper bodywork and power transmission on their vehicles at their production line in Karis. Now, this partnership has been extended, with Sisu set to provide most of the chipper and crane hydraulics in addition to the chassis, other steel structures and the power transmission.

The first sold unit of this new model will be on show next autumn at FinnMetko.

They will even contribute to the electrification of the chipper. This way, most of the work can be carried out in one stroke and any unnecessary dismantling can be avoided. This will also improve the quality of the paintwork, for example. The steel structures will be painted at the Sisu paint shop together with the vehicle body.

HEINOLA AT TRADE FAIRS

HEINOLA will be in attendance at the FinnMETKO 2018 trade fair. This event, held over 100 hectares of exhibition space, attracted over 36,000 visitors in 2016. FinnMETKO is Finland's largest trade and sales fair for heavy machinery.

This year, we have a 1000 m² showroom at the demo area where we are demonstrating two different chipper models. One of the chippers is the new wider HEINOLA 1014 TRUCK model based on a Volvo FH16 750hp. The unit is agile because the Volvo wheelbase is only 4.3 metres. The traditional HEINOLA 1310 TRUCK model is proudly flying its blue and white colours with the Sisu Polar CK 16M as its vehicle and a Finnish Mesera crane. Both units transmit power from the vehicle engine to the chipper.

We welcome you to visit us in Jämsänkoski at showroom 890 and see our chippers.

We will demonstrate their operation between 30 August and 1 September 2018. ■



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HEINOLA AUTOMATION BEING PART OF A NETWORK

GLOBAL NETWORKING

Managing the subcontracting process involving Finnish and international operators is a major part of the day-to-day work of our automation department. The greatest challenges that arise during subcontracting processes are often related to defining the concept for an individual project, contract engineering, defining initial data, reporting on work progress, reviewing and successful communication overall. An automation subcontracting process includes electrical and software planning, control panel production and procurement. ■

MODERNISED USER INTERFACES

The development of HEINOLA automation has focused on standardising PC and PLC software, integrating automation platforms and bus-based field equipment, and producing process descriptions. The latest modernisation project at HEINOLA involves its user interfaces. The modernisation project will cover all user interfaces in all plants, with the sawline set to be modernised first followed by lumber handling and edging user interfaces.

We have conducted market research to gather usability data from sawmill operators on the existing interfaces. Based on this data, the user interfaces we are creating are now much clearer, and more graphic and user friendly. We use the latest technology and modern software tools. We will continue to work hard in this area and will report back on this topic and our results at a later date. ■



NEW MEMBERS OF TEAM HEINOLA

TEAM HEINOLA
welcomes all its
new experts!



JUSSI HAKANEN started as a Project Manager in September 2017.



MARLEENA PASANEN started as a Mechanical Design Engineer in February 2018.



PASI SALOKANNEL started as an Installation Technician in March 2018.



IGOR ESTAFEEV started as a Project Manager in March 2018.



SAMI PARVIAINEN started as a Mechanical Design Engineer in April 2018.