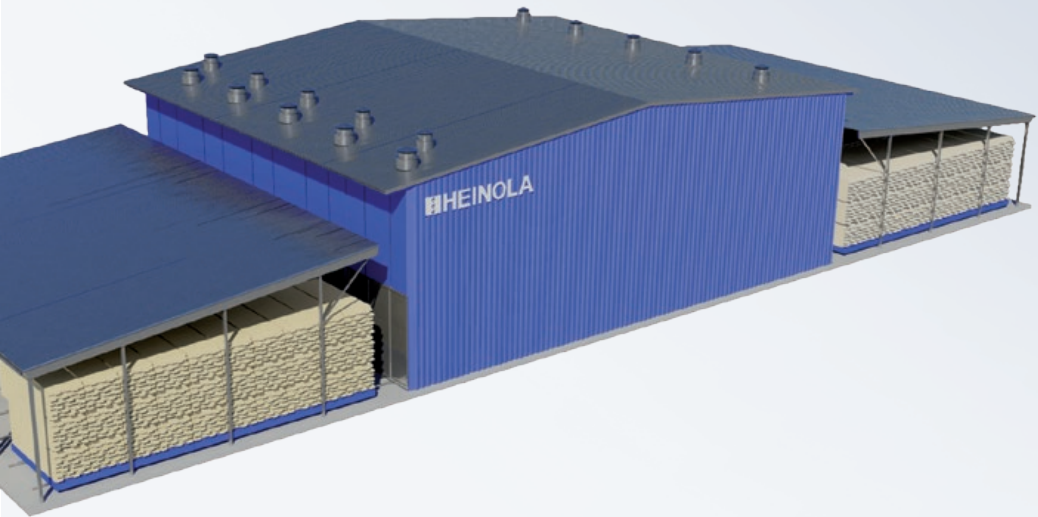


HEINOLA Drying Kilns

NORDIC EXPERTISE IN WOOD DRYING



HEINOLA

Drying Kilns



Kari Kiiskinen

HEINOLA DRYING KILNS are primarily aimed at the Nordic sawmill industry, which is the basis for our design process. The HEINOLA Drying Kilns are always designed and manufactured to meet the needs of every individual customer taking into account their capacity, quality requirements and possible future extensions. The HEINOLA Drying Kilns are made to meet modern requirements as well as qualitative and quantitative objectives. These drying kilns allow HEINOLA to offer a more extensive service to our sawmill customers.

We are offering a new and competitive Finnish alternative for sawmill companies looking to invest in drying kilns. Thanks to our products, we are closely involved in various stages of the sawmill process, and our drying kilns allow these processes to be linked with stick-stacking and dry lumber sorting lines. And all this from one supplier – HEINOLA. HEINOLA has a strong track record and expertise in planning supply projects and plant automation. Both of these are also required for drying kiln solutions.

The success of HEINOLA Drying Kilns is based on the combination of expert project management and customer-oriented planning. With our own manufacturing plant, modern solutions, skilled staff and reliable partners, we can guarantee professional production processes, customer satisfaction and consistent service.

**THE HEINOLA DRYING KILN TEAM
EXPERTS HAVE BEEN IN ON**

500

drying kiln deliveries



**DELIVERY TIME
6 MONTHS**



**FLEXIBLE CUSTOMER-
BASED SOLUTIONS**



**DRYING KILN
CAPACITY UP TO
70 000 M³ YEAR**



**ENERGY EFFICIENT
DRYING KILNS**



**AUTOMATION SYSTEM
WITH REMOTE CONTROL**

SOLID WALL STRUCTURES AND HEAVY-DUTY KILN COMPONENTS



THE KILN IS CONSTRUCTED of stainless steel elements, and is long-lasting, maintenance-free, heat and moisture resistant and well-insulated. This allows the use of high temperatures in kilns. The wide self-supporting wall panels are delivered in modules of up to 2.4 m in size. Our panels have half as many seams as our competitors' panels, which halves the time needed for installation.

The sealing compound is applied first between the seams before sealing the seams on the inside. When expanding an existing drying kiln, walls can be utilised with the help of a specially constructed adapter. This helps to save space in the sawmill as well as costs for the customer.

All stainless steel products manufactured by HEINOLA have been designed to withstand cold and icy outdoor conditions as well the 90 °C heat inside the drying kilns. Fans in the kilns are supported by sturdy welded structures and the radiators are manufactured from lamellas thick enough to allow for pressure washing.

SECURITY SYSTEMS FOR KILN DOORS AND LOAD PRESSES



THE DRYING KILN doors constructed by HEINOLA have double motors which prevent the door from falling in the event of failure. The doors are also equipped with safety catches to keep the door from falling if the supporting cables break, so the doors are two-fold secured. The door motors are equipped with frequency converters which guarantee smooth and accurate door operation.

Load presses are used to prevent lumber from twisting, which is caused by shrinkage during the drying process. Before the load is transferred, the load press position is checked with the help of a photocell inside the kiln. Each cylinder also has a position sensor which ensures that the cylinder pole is raised. Loads are transferred smoothly and without dropping any lumber thanks to the frequency converters.

SERVICE AND MAINTENANCE FROM THE DRYING KILN LOFT



HEINOLA DRYING KILNS have been designed to be serviced and used with the kiln operators in mind. All service procedures can be carried out from the kiln's loft, so there is no need to enter the drying kiln itself. The basin for measuring wet-bulb temperatures and temperature sensors are located in the loft, so they are easy to check. The nozzle pipes for hot water spraying can also be lifted up to the loft if, for example, the nozzles need to be replaced or cleaned. This can be done while the drying kiln is in operation.

The exhaust fan motors in HEINOLA Progressive Kilns are located outside the exhaust duct, which makes them easy to service. This also enables fresh air ventilation of the fan bearings, which in turn prolongs the lifetime of the exhaust fans.

The load press cylinders and cylinder poles are also located in the loft and not in the hostile drying environment. They are therefore easy to service and the cylinders last longer.

USER-FRIENDLY AND FLEXIBLE HEINOLA DRYING KILN CONTROL SYSTEM



HEINOLA DRYING KILN CONTROL SYSTEM can be remote controlled via the factory network. The internet can also be used for accessing the kiln logics in problem situations. HEINOLA Progressive Kilns have an automatic start-up function and can be programmed to change the lumber dimensions to be dried. The drying schemes of the chamber kilns allow fan speeds to be changed, as well as the intervals for changing the air flow direction in accordance with the scheme. The chamber kiln automation system can also be equipped with a Drying Kiln Simulator.

Electrical and thermal energy are measured in real time at both stages in progressive kilns, which makes it easier to monitor the drying process and costs. Conveyors can be remotely controlled, e.g. from forklift trucks. Conveyors and kiln doors can be operated in a controlled way thanks to the frequency converters. The load sizes are checked using photocells which prevent loads which are too wide or high from moving forward. Conveyor and process controls can be adjusted at the client's request. We also have a wide range of connection boards which enable existing kilns to be automated. Safety is of utmost importance to us, so we have integrated safety features in the logics.

SUCCESSFUL REFERENCES

- **VERSOWOOD OY, OTAVA**

Two drive-through Chamber Kilns HCHD, 2011

- **SWEDISH FURNITURE MANUFACTURER, WIELBARK**

Five forklift-loaded Chamber Kilns HCH, 2013

- **KEITELE ENGINEERED WOOD OY, KEITELE**

One automated 2-zone Progressive Kiln HTC, 2013

- **IISVEDEN METSÄ OY, IISVESI**

One automated 2-zone Progressive Kiln HFB, 2014

- **KUHMO OY, KUHMO**

▪ One 2-zone Progressive Kiln HTC, 2014

- **SWEDISH FURNITURE MANUFACTURER, CHOCIWELL**

Three forklift-loaded Chamber Kilns HCH, 2014

- **HAAPAVEDEN HASA OY, HAAPAVESI**

One 2-zone Progressive Kiln HFB, 2014

- **PRT-WOOD OY, PYHÄNTÄ**

Two E-cart-loaded Chamber Kilns HCHE, 2014

- **SWEDISH FURNITURE MANUFACTURER, STALOWA WOLA**

Two automated 2-zone Progressive Kilns HFB, 2014

