

# HEINOLA

drying kilns



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## drying kilns

**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 need of every individual customer considering their capacity requirements and possible future extensions. The HEINOLA drying kilns are made to suit modern requirements and meet the quality and quantity objectives. There drying kilns has given HEINOLA the opportunity to broaden the service we offer to our sawmill customers.

Over recent years we have received orders for over one hundred different drying kiln solutions from throughout the Nordic and Baltic countries and Russia. In total, these drying kilns can dry over four million cubic metres of lumber a year. Our kilns have become well-known for their uncompromising drying quality and high capacity.



## HIGH-QUALITY

### components and customer based deliveries

**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 attic, 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 attic. The nozzle pipes for hot water spraying can also be lifted up to the attic during operation. The exhaust fan motors in HEINOLA progressive kilns are located outside the exhaust duct, which makes them easy to service. The load press cylinders and cylinder poles are also located in the attic and not in the hot and wet drying environment. The kiln is constructed of wide Stainless Steel, grade EN 1.4307, elements, and is long-lasting, maintenance-free, heat and moisture resistant and well-insulated. Kiln building has been designed to withstand cold and icy outdoor conditions as well the 90 °C heat inside the drying kilns with special motors inside.







# CHAMBER KILNS

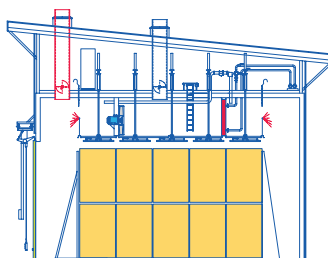
forklift- and vagon-loaded

**FORKLIFT-LOADED** Chamber kilns are designed for drying small or medium sized packages regardless of dimensions, timber species and required moisture content. State-of-the-art Control System ensures a fully-controlled drying process and the required end result. Kiln cart-loaded Chamber kilns offer shorter loading/unloading time which improves the kiln's utilization rate. The shelter on both sides of the kiln can be used as a temporary storage space. There are three types of HEINOLA Chamber kilns available: forklift-loaded Chamber kiln HCH, drive-through Chamber kiln HCHD and E-cart-loaded Chamber kiln HCHE.



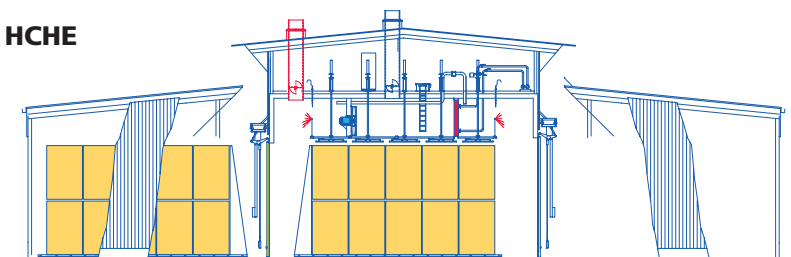
## FORKLIFT-LOADED CHAMBER KILNS HCH

are excellently adapted to the production process of small and medium-sized sawmills with kiln load consist of two to four packages in height.



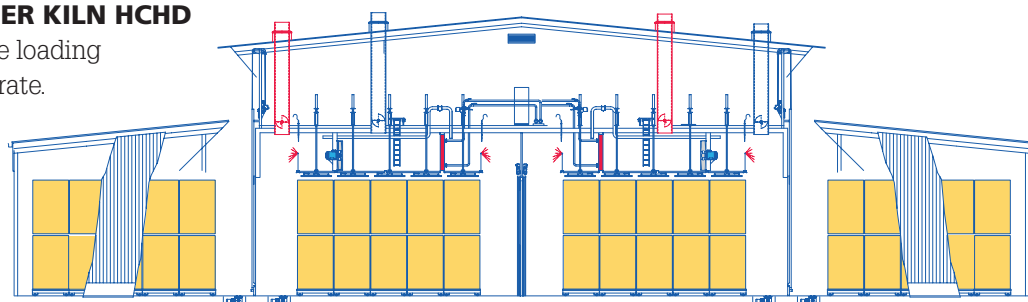
## E-CART-LOADED CHAMBER KILNS HCHE

enable the unloading of the big E-cart while the chamber kiln is in operation. Wet and dry end is alternating by every other batch. High utilization rate.



## DRIVE-THROUGH CHAMBER KILN HCHD

with carts or roller tracks save loading time and increase utilization rate.





# PROGRESSIVE KILNS

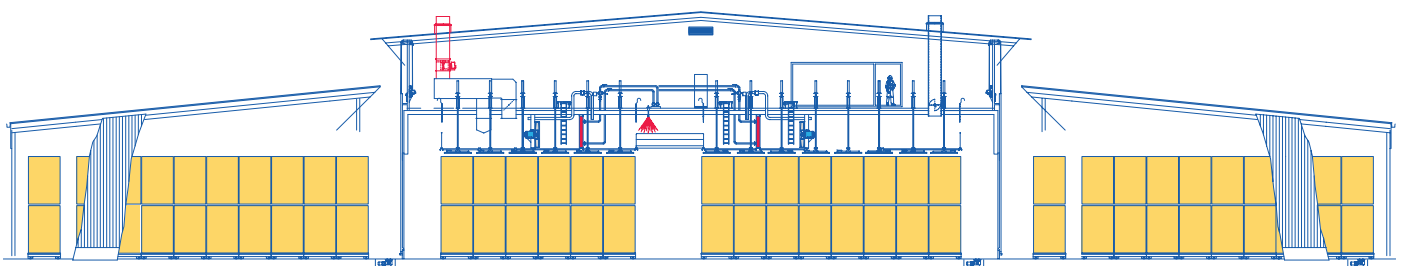
## 2-zone and automatic

**2-ZONE** continuous and automated progressive kiln, best suited for large-scale production. Best results are achieved when drying one dimension and timber species continually to the same final moisture content. Loading and unloading is fully automated. In addition, the Control System includes Kiln Load Map, which enables automatic dimension change when drying different dimensions in same kiln. Normally progressive kiln includes Heat Recovery Unit and continuous measurement of heating and electrical energy. There are two types of HEINOLA 2-zone Progressive kilns available: HTC Progressive kiln (OTC = Optimised Two-stage Continuous) and HFB Progressive kiln (FB = Feed Back).



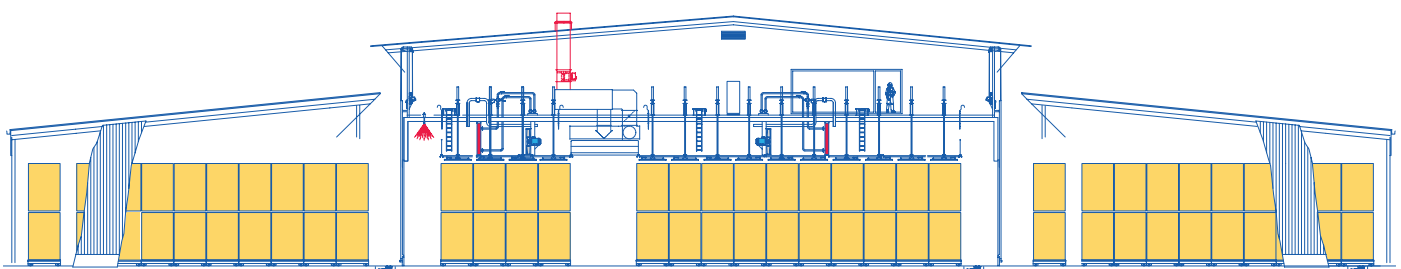
### 2-ZONE HEINOLA HFB PROGRESSIVE KILN

High capacity, suits well for sideboards and centerboards and lower moisture contents, low moisture standard deviation S achieved.



### 2-ZONE HEINOLA HTC PROGRESSIVE KILN

High capacity, suits well for the sideboards.





**Superior  
drying quality**



**Customer-oriented  
technical support**



**Safety  
features**



**Energy-efficient kiln  
control system with  
integrated simulator**

**"WE OFFER** the sawmill industry a competitive alternative for their drying kiln investments. With our products, we are closely involved with different sawmill process stages, and our drying kilns allow for the connection of these processes to stick stacking and dry lumber sorting lines. And all this from one supplier – HEINOLA."

**MARKO KAUKONEN**

Product Manager



## CONTROL SYSTEM for drying kilns

**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 the change of timber dimensions to be dried is automated thanks to integrated Kiln Load Map-system. 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 kiln control system is also equipped with Drying Kiln Simulators for different types of drying kilns.

Electrical and thermal energy are measured in real time, 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 widths are checked using photocells which prevent loads which are too wide or high from moving forward. Safety is of utmost importance to us, so we have integrated safety features in the logics.



### **HEINOLA SAWMILL MACHINERY INC.**

has decades of expertise in sawmill process solutions. Our experience and creative solutions ensure that sawmill customers receive skilled service, from single machines to complete plants. HEINOLA provides sawmills with customer-led, reliable and cost-effective solutions. The HEINOLA drying kiln team has decades of expertise, including hundreds of drying kiln references, and many drying kiln patents over the years, in sawmill drying kiln solutions in the Nordic countries. Our newest 3D drying kiln design systems ensure quick delivery time, easy installation and smooth start-up of the kiln. The delivery programme includes all the main processing requirements, with the necessary auxiliary equipment, delivered as a total turnkey solution if desired.

**SAWLINES • EDGING • LUMBER HANDLING •  
DRYING KILNS • CHIPPERS • AUTOMATION • HEINOLA CARE**



Team HEINOLA since 1965