



Continuous kilns are becoming increasingly common in Central Europe.

Hasslacher is one of several sawmills in Central Europe that has chosen to invest in continuous kiln technology from Valutec. This is in response to the tough competition in the wood products and construction market, where the quality of the end product has become increasingly important.

"Each sawmill is unique, and our aim is always to allow for an optimised drying process based on energy consumption, capacity and quality. This is the best way for us to strengthen their business," says Robert Larsson, CEO of Valutec.

In recent years, Valutec has delivered continuous kilns to clients like the German sawmills Ziegler Holzindustrie and Egger Brilon. All in all, Valutec has provided more than 1,000 continuous kilns, which makes the company a world leader in this segment.

The lift as an effective solution



At Hasslacher, which is based outside of Sachsenburg, the peaks and valleys of the Alps are a natural part of the surroundings. At this plant, the elevation differences have created a number of logistical challenges, as the outlet end of the continuous kiln is a few meters lower than the trimming saw. Hasslacher has solved this by building a lift for the timber packages, which physically lifts them closer to the trimming saw, thus eliminating the need for interim storage. "It saves the forklift operators a lot of time. Working with a continuous feed from a continuous kiln has definitely led to calmer and more efficient work flows," says Michael Fercher, Technical Manager at Hasslacher.



Quality to reach new heights. Capacity for expansion.



2 OTC KILNS
HASSLACHER NORICA TIMBER
KÄRNTEN, AUSTRIA.





Michael Fercher

Reliable drying technology

The Austrian region of Kärnten is home to one of Europe's most modern drying facilities for glue-laminated timber – Hasslacher Norica Timber. When they decided to invest in new drying equipment, their list of requirements included both increased capacity and improved drying quality in order to meet the needs of the continued finishing processes. After a careful selection process, they chose two OTC kilns from Valutec. "The results include less checking, less twisting and a very even final moisture content. Valutec has delivered what they promised," says Bernhard Spitzer, Project Manager and General Manager at Hasslacher Norica Timber, Kärnten, at the time of the investment.

The OTC kilns are used to dry glue-laminated timber with a center timber of 44 millimeters made of spruce wood down to a final moisture content of 12 per cent. The high and consistent quality is proof that Hasslacher made the right choice in choosing continuous kilns, a type of kiln that is still rare in Central Europe.

"When drying larger volumes with high quality requirements, and you have access to an even influx of raw material, the continuous kilns are a great advantage," explains Bernhard Spitzer.

Quick and exact drying

One benefit is the steady operation of the kiln, which gives an even load on the furnace. This means that the spikes in the energy consumption that can be caused by several batch kilns being simultaneously heated can be avoided. In addition, the equipment is both efficient and dependable.

"We now have drying times of just 80 to 85 hours for the large dimensions that we dry. For each package, we save up to one day on the timber drying, compared to our traditional batch kilns," says Bernhard Spitzer.

The continuous kilns, which are made of stainless steel, are equipped with pressure

frames for minimal deformation of the top timber layer, as well as Valutec's heat recovery system. The delivery also includes the Valmatic control system.

Training included in the delivery

In connection to the commissioning of the kilns, Valutec provided on-site training at Hasslacher in the basic operation and control of the continuous kiln.

"This is part of our total undertaking, and it's particularly important for sawmills that have not previously used this type of kiln. We help our clients with everything from commissioning to training and continual optimization, so that they get as much value as possible out of their equipment," says Robert Larsson, CEO of Valutec.

For Hasslacher, the on-site training was valuable.

"A natural part of our strong focus on quality is having small tolerances regarding our target moisture content. Having good support in working to achieve a higher quality is important," says Michael Fercher.

Careful selection process

Valutec was not the obvious choice for Hasslacher, as they had not previously worked with the company or with continuous kilns.

"Before choosing a supplier, we visited several sawmills that use Valutec's continuous kilns," says Michael Fercher, Technical Manager at Hasslacher. "They all had very smooth production processes and users were very positive. This convinced us they were the right choice."

Hasslacher had some concerns, for example about how the project would be implemented, considering that the supplier was based in Sweden, and how the equipment would be commissioned.

"We got started right on schedule and we have maintained a good contact throughout the project. Robert Larsson is very knowledgeable, and their team has done a great job here," says Michael Fercher.

OTC kiln – a patented solution

QUALITY

Efficient drying with few cracks thanks to a careful drying process.

PRESSURE FRAMES

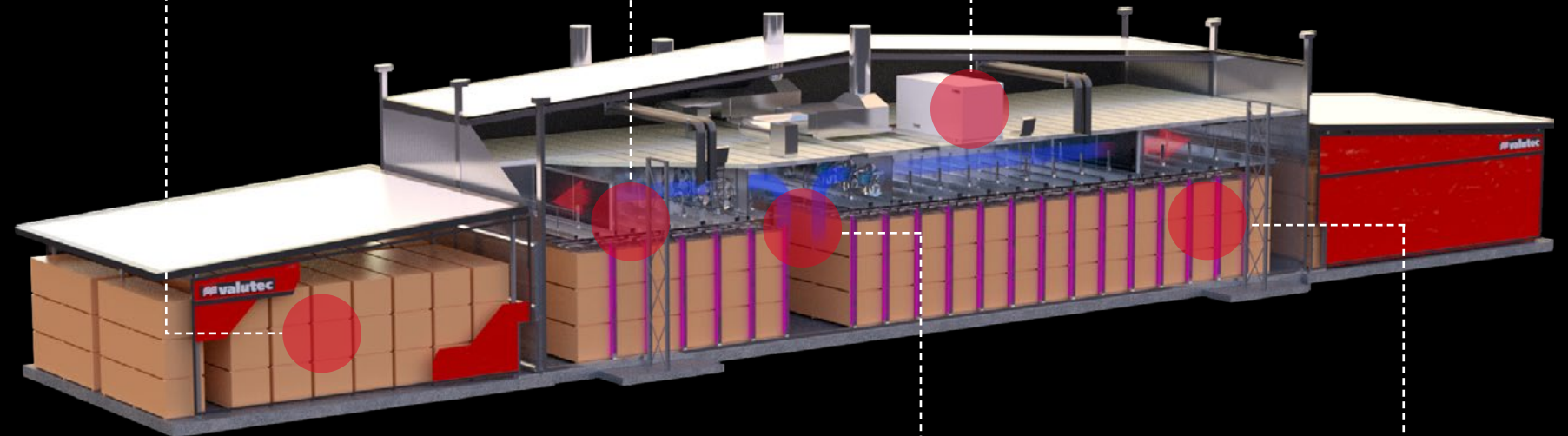
Contribute to stable quality throughout the timber drying process and increase air velocity through the timber packages.

HEAT RECOVERY SYSTEM

Because exhaust air is used to heat inlet air, up to 25 % of the energy is recovered.

GOOD WORKING ENVIRONMENT

Modern safety devices around the kiln makes it a safe workplace.



CLIMATE SEPARATION

Since the air is not mixed before hitting the timber, it is easy to separate it between zone 1 and zone 2.

EASY TO USE

As the dryer power is left over the final package, the OTC kiln is very easy for the operator to handle.

OPTIMIZED TWO-STAGE CONTINUOUS

Valutec's OTC kiln is based on a patented solution that minimizes the risk of checking for larger dimensions as well. OTC stands for Optimized Two-stage Continuous and the kiln has a climate development along the channel's lengthwise direction similar to a batch drying schedule. The combination of the continuous kiln's high capacity and the batch kiln's high quality provides a kiln that also manages rapid drying down to a low final moisture content.

The timber is dried during transport in two separate zones with a fully automatic feed system that transports the timber through the dryer. Axial fans in each zone blow circulation air via heat coils and through the timber. In the first zone, the air blows in the direction of the feed while in the second zone, it blows against the timber's feed direction.

M³ CAPACITY: 80,000 m³/year

**✓ QUALITY: $\sigma < 1.2\%$
(12 % final moisture content)**

**⚡ THERMAL ENERGY: 166 kWh/m³
ELECTRICAL ENERGY: 12 kWh/m³**