



Shared vision

Pölkky is the largest family-owned wood processing group in the northern Finland. It has an annual production of 263 MMBF, a large part of which is processed into glue-laminated timber in Kuusamo. One of the major projects Pölkky delivered material to recently was the Nordic region's biggest apartment block in Vantaa outside Helsinki, where a seven-story building with a total of 186 apartments and a combined floors pace of over 10,000 m² was built from glue-laminated timber.

In all, 13 MMBF of timber was used in the project.

"Like Pölkky, we aim to contribute to a greater use of wood, and putting up multi-storey buildings made from glue-laminated wood is an excellent way of demonstrating just what's possible with the material. Our role in developments is to enable every sawmill to deliver products with precisely the right quality for their intended purpose," says Mikko Pitkänen, Valutec's general manager in Finland.

Careful drying minimizes cracks



Jouko Virranniemi

The continuous kiln in Kuusamo is dimensioned to accept pine in sizes ranging from 45 mm up to no less than 75 mm. The kiln can dry timber without the formation of cracks, and because it is divided into separate zones, the kiln achieves accurate target moisture content. In principal, the first zone acts like a short 1-zone continuous kiln where the air is humidified quicker thus reducing surface drying and the risk for dry cracks at the input end. The second zone acts as a balancing zone to reduce moisture content variation.



Exceeding tomorrow's demands for the right quality

FB CONTINUOUS KILN
Pölkky, Kuusamo, Finland





Quality first

When Pölkky wanted to increase drying capacity at its plant in Kuusamo, the list of requirements was extensive.

“It’s especially important for us to maintain really high, uniform quality in our Kuusamo timber kiln. We take in raw materials from the northern Finland of the highest quality and we like to set this aside for processing in our glue-laminated wood plant,” says Jouko Virranniemi, MD at Pölkky and together with brother Antti, principal owner.

For Pölkky, the starting point was the replacement of ten old concrete batch kilns with a capacity of 6,4 MMBF used to dry large-dimension heartwood. They chose an FB continuous kiln from Valutec, which is now used to dry large pine down to a moisture content of 18 per cent.

“We already have good experience of working with continuous kilns with a total of nine purchased through WSAB at our three other installations. It also means we rely on the quality and the way Valutec builds its kilns. We knew we were making a sound choice,” Jouko tells us.

The kiln is designed to dry pine in the 44–75 mm range. Pölkky has chosen to use the kiln mainly for drying larger plank dimensions, with good results.

Efficient handling

The new FB continuous kiln is built in stainless steel and fitted with a heat recovery system and pressure frames. The package feeding system is fully automated and compared to the old kilns, handling is naturally much more efficient.

“In the oldest batch kilns, we had to pull open the doors by hand using jacks. It also required a lot of resources in the form of forklift drivers, but we avoid this now thanks to the automated handling,” says technical manager Antti Virranniemi.

A safe working environment:

The actual workplace environment around the kiln provides another benefit. A lot of the older kilns demanded more manual handling and in some cases it meant forklift drivers and operators had to work inside the kiln.

“Our new continuous kiln is much safer for our employees. It’s equipped with safety devices that prevent people from entering the kiln and package shifting is also fully automated,” Antti tells us.

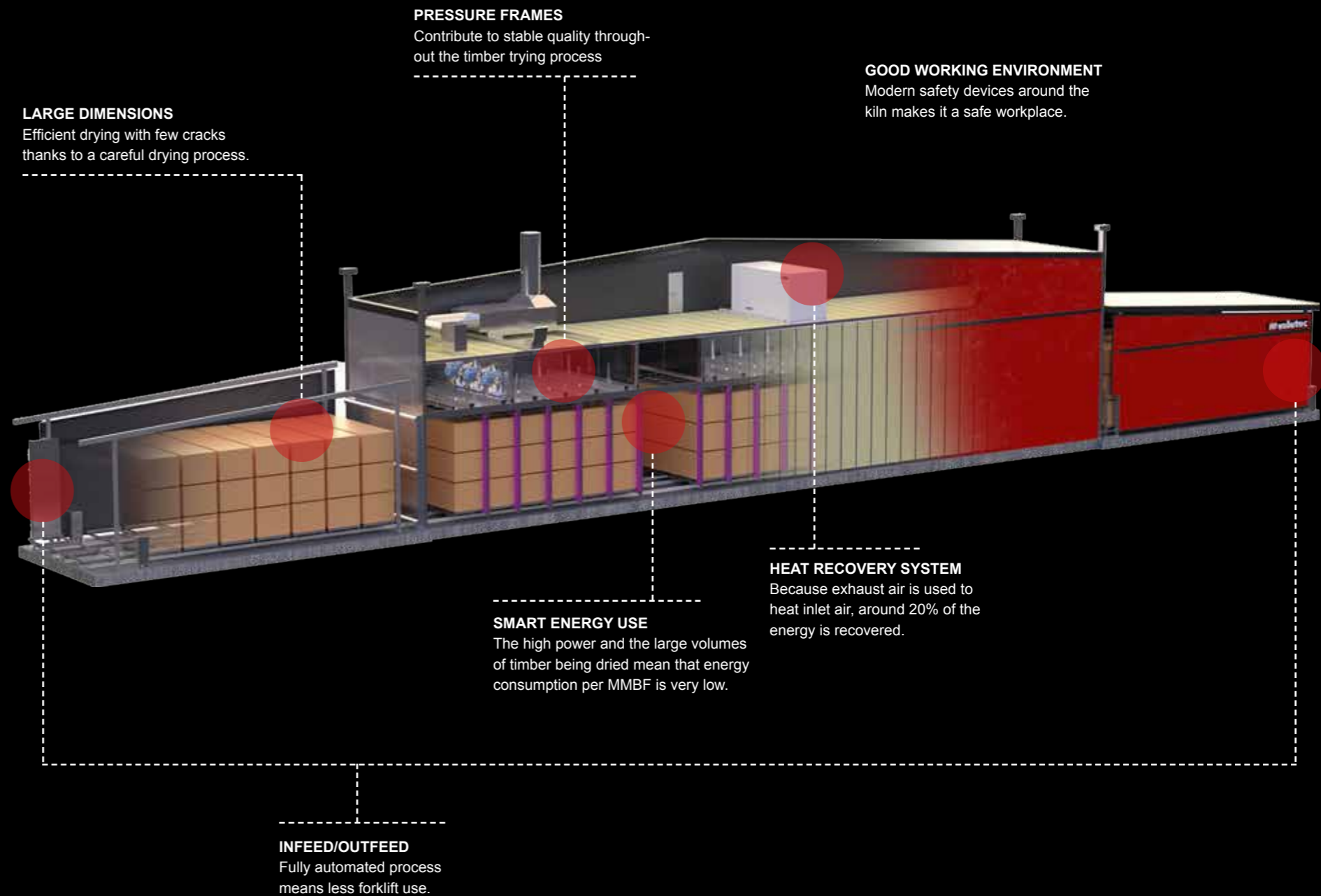
This is something that is at least as important as the higher capacity and quality that Pölkky can now count on from its new kiln.

Great support

The new kiln in Kuusamo was built during the autumn of 2014 and commissioned in November the same year.

“Valutec’s support throughout this process was excellent. Whenever we had questions it was a simple matter of turning to them for assistance. We feel that their customer service and attitude toward helping us as customers were excellent.”

When they invested in the new continuous kiln, Pölkky also chose to purchase Valmatics for their existing kilns. “The new control system is extremely easy to use,” says Antti.



- M³ CAPACITY: 40,000 M³, (17 MMBF)**
- σ VARIATION: SIGMA < 2.0% (18% FINAL MOISTURE CONTENT)**
- ⚡ HEAT ENERGY 210 KWH/MMBF**