



## Custom zone lengths

The TC continuous kiln is Egger's first drying installation from Valutec. Their choice preceded detailed discussions concerning their specific requirements and challenges.

"When we design a lumber kiln, we seek to build zones that fit well with the mix of board lengths the sawmill produces," says Thomas Wamming, head of R&D at Valutec.

The outcome of the evaluation at Egger Brilon was a kiln constructed with four 10.5 m (35 ft) long zones instead of eight zones with a length of 5 m (16 ft) as originally planned.

"Egger saws many different lengths and we chose this solution to enable us to use each zone in the best way. It's all about achieving good capacity utilization and building to ensure quality in the process," says Thomas, who continues:

"An all too random mix of lengths can affect airflow speeds and air-blow depth negatively, thus leading to lower quality. But we found a solution where Egger enjoys the necessary freedom to mix lumber in its batches while we also maintain high quality," explains Thomas.

"This type of holistic approach

has been invaluable for Egger Brilon," says Paul Lingemann.

"The experts from Valutec are a great asset. They can discuss issues that are important for us without putting their product first and foremost," says Paul.

For Valutec, it's a matter of being a partner who helps optimize production at the sawmill. The company has several departments and also includes major investments in the development of lumber drying technologies and methods.

"In many R&D projects, we feel we play an important role as a bridge between academia and reality out in the sawmills. We're happy to help with formulating questions and planning trials in order to get results that are as relevant as possible," says Thomas Wamming.



Imagine a kiln with unique flexibility and innovative capacity  
**We built it.**

TC continuous kiln. Egger Brilon.

# „We optimize value and wood flow“

The biggest change is about innovative technology. That's the message from Paul Lingemann, sawmill manager at Egger Brilon, which put Germany's first TC continuous kiln into operation in 2016 – a facility that is currently drying 100,000 cubic meters (42 MMBF) per year, but has the capacity to increase to more than 120,000 cubic meters (51 MMBF).

„The investment puts us in an excellent competitive position. It was also a starting point to increase the value of our sawn goods“, says Paul Lingemann.

„To maximize capacity utilization, we like to feed the kiln with lumber continuously. A big advantage in this regard is never having to interrupt the drying process. We looked for opportunities to streamline both capacity and the consumption of electricity and thermal energy.“

The drying process at Egger Brilon is run by Valmatics, a control system developed by Valutec based on academic research and experience from millions of hours of operation in sawmills around the world.

„Having relied on personal experience for so many years, working with fact-based schedules from the simulator is a new experience for many operators. It was a learning process, but a good one, and we've enjoyed constant support from Valutec. It's developed our strategy for handling lumber,“ explains Paul Lingemann, who continues:

„It's a system that operators find easy to use and which allows us to



Paul Lingemann

manage maintenance very easily. We've taken steps that increased both the levels of automation and capacity. In a wider perspective, the

TC continuous kiln and the control system has development our work process.“

Another major advantage concerns feeding and logistics.

„We optimize flows and capacity in a much better way with intelligent production planning. No

lumber has to wait, and we have a continual process that dries lumber to the highest quality.

The combination of flexibility and quality in particular has made the TC continuous kiln an installation perfect for sawmill markets worldwide. The breakthrough came with the development of individual climate control in each drying zone where air and heat are controlled separately. „We have constant flows and relatively small lumber packages, which makes this an extremely good solution for us, says Paul Lingemann.

## POWERFULLY DIMENSIONED VENTILATION

Water vapour is transported effectively out of the kiln, which means that the lumber's moisture release limits the drying time, not the machine.

## RELIABLE AUTOMATISATION

The use of shackles and the direction of transport ensure that the few boards that drop down fall out towards the sides instead of on to the rail, ensuring reliable automation.

## MIXED DIMENSIONS

The Valmatics control system keeps track of each position of the package in the kiln, which allows different dimensions to be freely mixed between the zones. This means minimal planning is required.

## FED LENGTHWAYS

Lumber packages are fed lengthways in a TC model, instead of crosswise. The feed system is fully automatic.

## SMART ENERGY USE

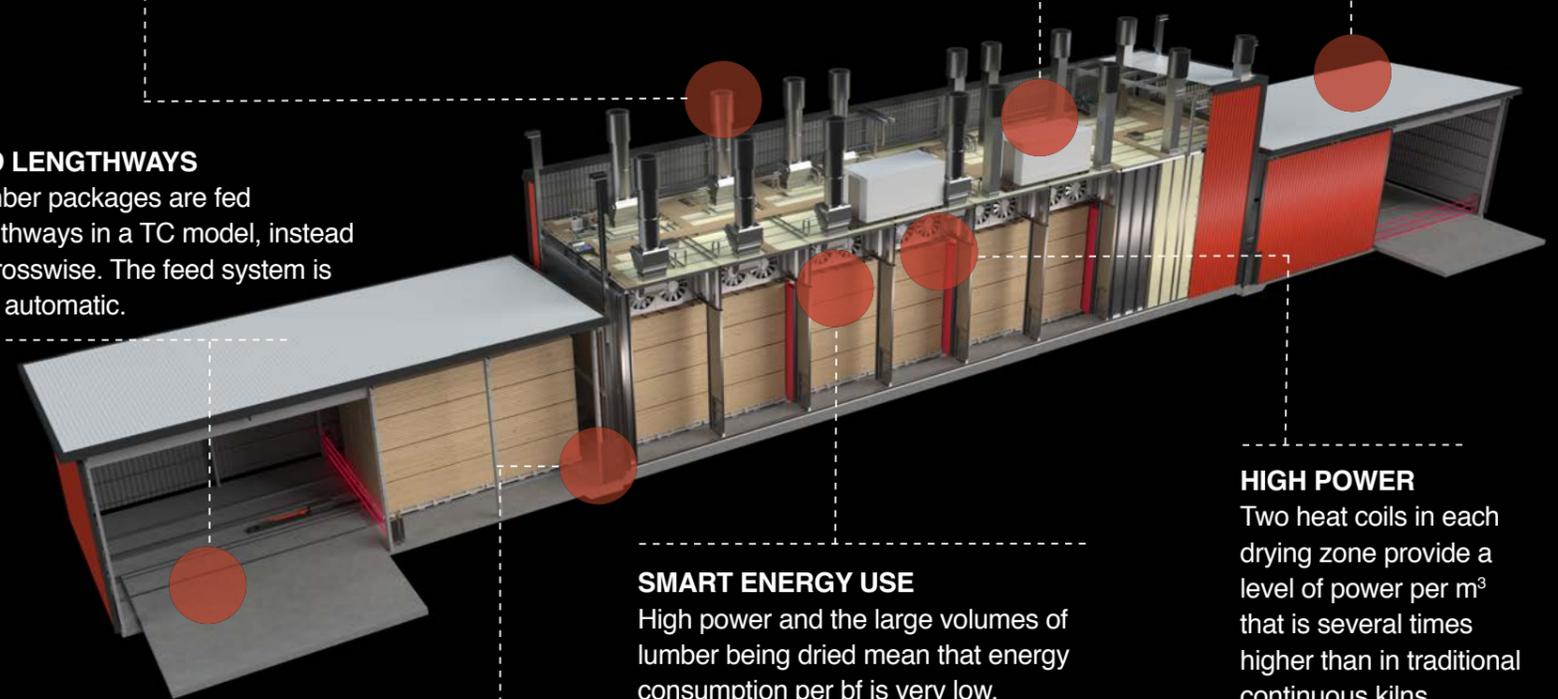
High power and the large volumes of lumber being dried mean that energy consumption per bf is very low.

## HIGH POWER

Two heat coils in each drying zone provide a level of power per m<sup>3</sup> that is several times higher than in traditional continuous kilns.

## SAFETY

Thorough safety solutions protects both man and machine.



CAPACITY: 100 000 m<sup>3</sup> (42 MMBF)