

# Focus *on* economic efficiency

## The economy model amongst drying kilns

Eschelmüller Holz expands its drying capacities for the production of finger-jointed solid wood by 1000 m<sup>3</sup> with the addition of two drying kilns. Due to the long-term excellent business partnership, it was clear that it could only be a fresh air/exhaust air drying kiln from Mühlböck. The decision was made in favour of type 602.

According to Eschelmüller Holz, it is one of the largest manufacturers of finger-jointed solid wood in Austria. The company is in the hands of the fifth generation. In the future it will be possible to produce not only finger-jointed solid wood but also beam timber, for which the installation is currently in trial operation. 75,000 m<sup>3</sup>/y finger-jointed solid wood is produced in Jagenbach. Eschelmüller currently has 20 employees.

The spruce wood used for production comes from the surrounding area. 15 Mühlböck drying kilns are used to dry the sawn timber. Two new ones were added in August. Eschelmüller now has a net drying volume of 2900 m<sup>3</sup> at their disposal.

The first drying kiln has been in operation since 2000. In previous years, twelve more fresh air/exhaust air drying kilns from Mühlböck have been added. According to Mühlböck employee Manfred Vavra, the service life of the installations is over 25 years. Many factors therefore pointed again in favour of a Mühlböck drying kiln.

"We have a long-standing business partnership with Mühlböck. The innovative technology has always positively surprised us. The drying quality is perfect and the cooperation is flawless," says Ernst Eschelmüller senior.

Management assistant Manuel Fida was in charge of the entire project for the new drying kiln – from the start of construction to the take-over of the installation.

### Savings in every respect

The two new type 602 drying kilns have an entrance width of 17.5 m, the net capacity is 270 m<sup>3</sup> (gross 500 m<sup>3</sup> per drying kiln).

"The special feature of the new fresh air/exhaust air drying kilns is the combination of an active supply and exhaust air system with efficient heat recovery. The 602 heat recovery

system can save between 15 and 20% of thermal energy in the process, depending on the type, thickness and moisture content of the wood," reports Vavra. "In addition, up to 200 t CO<sub>2</sub>/y can be saved," emphasises Fida.

### Lack of space – no problem

Due to the space available, Eschelmüller opted for a lifting door. The door is made out of one piece, so it seals perfectly and is durable as well as easy to operate. The drying kiln can be loaded with a side or front loader.

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*"Tailor-made drying solutions for individual customer requirements are our top priority in plant construction."*

Manfred Vavra,  
Mühlböck Trocknungstechnik

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The two fresh air/exhaust air drying kilns are equipped with the new K5 control system with electronic humidity sensors which measure the humidity and temperature inside the drying kiln. This kind of climate measurement is maintenance-free, easier to handle and much more accurate than previous measuring systems. The measurement can be carried out by the IntelliPilot system either with or without measuring points. The 100 bar high-pressure injection ensures a uniform climate during the drying process.

### Central monitoring

The controls are connected to the PC and Smartphone app via an online system. All necessary data and settings can be clearly visualised there. The online control allows several locations to be monitored centrally.



Mühlböck has its own service department, which is available online for questions and assistance. "It was the right decision to buy two new Mühlböck fresh air/exhaust air drying kilns. The new installations are extremely economical in operation and the drying quality is flawless," Eschelmüller concludes.



## Energy-saving

- 1 100 bar high-pressure injection is located in the small installation room
- 2 The two type 602 drying kilns with the lift gate
- 3 Ernst Eschelmüller senior, Manfred Vavra, Ewald Eschelmüller and Manuel Fida (from right) in front of the new plant
- 4 One of the older drying kilns is being side-loaded
- 5 The twelve older drying kilns are in continuous operation
- 6 Eschelmüller Wood located in Jagenbach in the middle of the Waldviertel

