



LOC Holz ordered three Mühlböck 1306 Pro dry kilns for its new crosslam plant in Arbing.

High quality, economical *and quiet*

Wood drying as a decisive factor in production

Arbing in Upper Austria currently sees the construction of that state's first cross laminated timber plant. While assembly work is still going on in the production hall, the three dry kilns located in front of it are already working at full capacity. In order to achieve the surfaces of maximum quality and good strength properties, LOC Holz only buys fresh sawn timber and dries it in Mühlböck 1306 Pro kilns.

Conventionally, cross-laminated timber lines start with raw material feed. LOC Holz wants to do it differently – at least in thought. “For us, wood drying is a central part of production, which is why we take it into our own hands and dry all the raw material on site,” explains Rudolf Ortner, founder, Managing Director and the “O” in LOC Holz.

Together with his sawmill colleague Josef Lauss (the “L”) and Jan Walter Cappelen of the Cappelen Group (representing the “C”), Ortner will take into operation a “little, but extraordinary” crosslam plant in the Mühlviertel region this year.

Their intention is not to compete with large suppliers, but rather to utilise the strengths of medium-sized sawmill production.

According to Ortner, one of these strengths is the small roundwood procurement radius and the associated consistent quality.

“We are able to deliver our sawn timber to Arbing in a fresh state dry it on site to 8 to 10 % wood moisture, achieving the highest possible raw material quality,” Ortner emphasises.

Great savings potential

Specifically, LOC Holz ordered three Mühlböck 1306 Pro dry kilns. Every one is designed for 40 stack packs of 1.2 by 1.2 by 5.1 m, which corresponds to a net volume of 160 m³ (at a wood thickness of 35 mm and with 23 mm stack battens). “We opted for Mühlböck because of the good experience we made with their

systems in our own sawmills,” reports Ortner, citing good drying results, well-known and proven control technology, and energy savings as key reasons for the decision. Unlike conventional fresh air exhaust kilns, Mühlböck installs a unique active supply and exhaust air system in its 1306 Pro type systems. In contrast to conventional systems, all of the air heated by the heat exchanger is used for drying. This results in energy savings of up to 25 %, depending on outside temperature and batch.

As an important part of the overall production process, LOC Holz also uses the standard interface integrated in the Mühlböck K5 control system to integrate the dry kiln data into its existing operating software.

Necessary noise protection

The crosslam plant is being built at Gewerbepark Arbing. Despite the property being zoned as commercial, LOC Holz has to meet certain noise protection regulations in Production and Drying – a challenge that Mühlböck is very familiar with. “Time and time again, we need to make our kilns quieter due to legal regulations. Depending on the specific requirements, we have come up with detailed packages to meet these requirements over the past years,” says Mühlböck's Gerald Kreuzhuber.

At LOC Holz, all supply and exhaust air openings were equipped with sound absorbers and additional sound absorbing elements were installed in the entire kiln housing. Additionally, Mühlböck mounted frequency-controlled fans whose speed can be adjusted if needed. “That puts us on the safe side in terms of noise emissions,” Ortner confirms.

Turnkey system

Mühlböck delivered its kilns as turnkey systems, taking care of the entire mechanical installation as well as electronics and heating to the kilns' exterior edge. Energy supply at LOC Holz is taken care of by a biomass boiler system and a large solar power installation on the hall's roof.

Apart from the three dry kilns installed, LOC Holz left enough space for six further systems. “In line with our capacities at the crosslam plant, we will further increase our drying capacities to be able to produce our cross-laminated timber with raw material of maximum quality in the future,” Ortner concludes.



The two LOC Holz managing directors Rudolf Ortner (l) and Josef Lauss have been relying on Mühlböck dry kilns for many years in their own sawmills



In order to achieve a maximally homogeneous wood moisture, LOC Holz wants to purchase all of its raw material in a fresh state and dry it on site



At LOC Holz, Mühlböck equipped all supply and exhaust air openings with sound absorbers and installed additional sound absorbing elements in the entire kiln housing to meet all legal noise protection regulations