

Progressive Kiln DYNAMIC | FLOW

Continuous drying for continuous timber production.

MÜHLBOCK
DRYING-TECHNOLOGY

Continuous drying

In contrast to classical drying kilns, the timber is moved through the progressive kiln on transport wagons and thereby exposed to different climatic conditions. Depending on the timber type, dimensions and the desired end moisture rate, the progressive kiln is designed with different climate zones. Filling and transportation through the drier are performed by means of a fully automatic loading system.



Safety takes pride of place

To avoid injuries of persons and material damages, MÜHLBÖCK progressive kilns contain a variety of safety devices. To avoid malfunctions and damage to the line as a result of packs which are too big or wrongly loaded transport vehicles, the pack sizes are monitored. In addition light barriers and various emergency stop switches ensure the safe operation of the line.

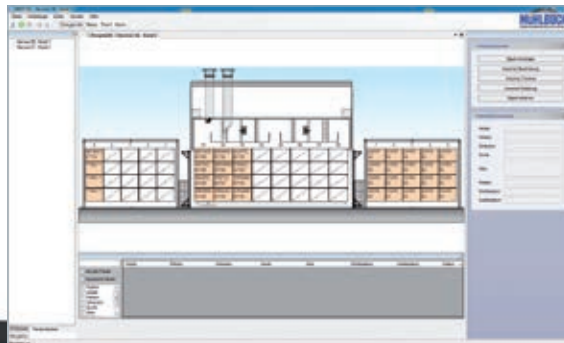
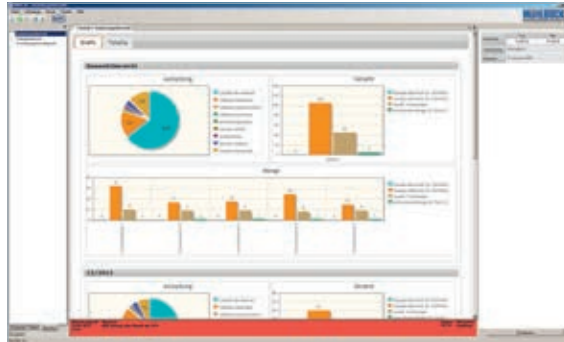


User-friendly visualisation

The intuitive assembly, the clear and neatly arranged presentation and issuing of all of the information in clear texts are the most important characteristics of the MÜHLBÖCK control system.

Interfaces to the mobile data

Various connection possibilities on the company network ensure the perfect handling of data. Extensive documentation and evaluation possibilities also offer you to effectively control drying.



Pack and batch management

A customised pack management system ensures consistent recording and tracking of your drying data.

Optimum sealing-off of air for energy savings and an enhanced drying result

With the lowerable stack seal, MÜHLBÖCK offers you a lasting solution free from leakage air with the lowest possible manipulation times for sealing off the stack from the intermediate ceiling.



Proven, reliable technology clearly laid out and readily accessible

All of the technical equipment, plant technology, sensors, control cabinets and heating distribution are accommodated and readily accessible in the roof void and/or in a separate operating room next to the dryer.

The perfect integration of all components

All of the conveyor drives, together with the door opening mechanism, ventilation and stack seal, are integrated to ensure minimum door opening periods and optimum cycle times.

A positive effect of this is to reduce ventilation losses and therefore the total energy consumption when the door is open.



Progressive kiln CLASSIC

The CLASSIC version of the progressive kiln can be used for drying for all types of timber processing.

This version of the plant is suitable for customers for whom thermal energy consumption plays a minor role. Due to excellent drying conditions with this progressive kiln, the best possible timber quality with reduced shrinkage is guaranteed.



Progressive kiln 1306 PRO

The 1306 PRO version is suitable for use for drying for all types of timber processing.

A key feature of this design is the optimised throughput, which uses **heat recovery** and a **special air supply and exhaust system**, allowing thermal energy consumption to be reduced by up to 25%.

The 1306 PRO version therefore represents an optimum solution in the balancing of thermal and electrical energy consumption with drying capacity and investment costs.

Progressive kiln 1003 PREMIUM

Three drying zones are implemented in the 1003 PREMIUM version; a pre drying zone, a main drying zone and a final drying zone.

The total amount of energy input to the heater battery is transferred using heat exchangers from the **main and final drying zones** to the **pre drying zone**. No additional energy is required from the heating system for drying in this zone.

This enables energy-efficient operation of the plant.

Compared to conventional drying systems (dependent on the application), energy savings of up to 50% can be achieved. Due to the low value of the thermal connection and energy requirement, an increase in the drying capacity is possible, without any further investment in a heat generator, even in the case of energy bottlenecks.



Progressive kiln DYNAMIC

2- or 3-zone progressive kilns in individual configurations

Layout of Dynamic 1003 PREMIUM progressive kiln

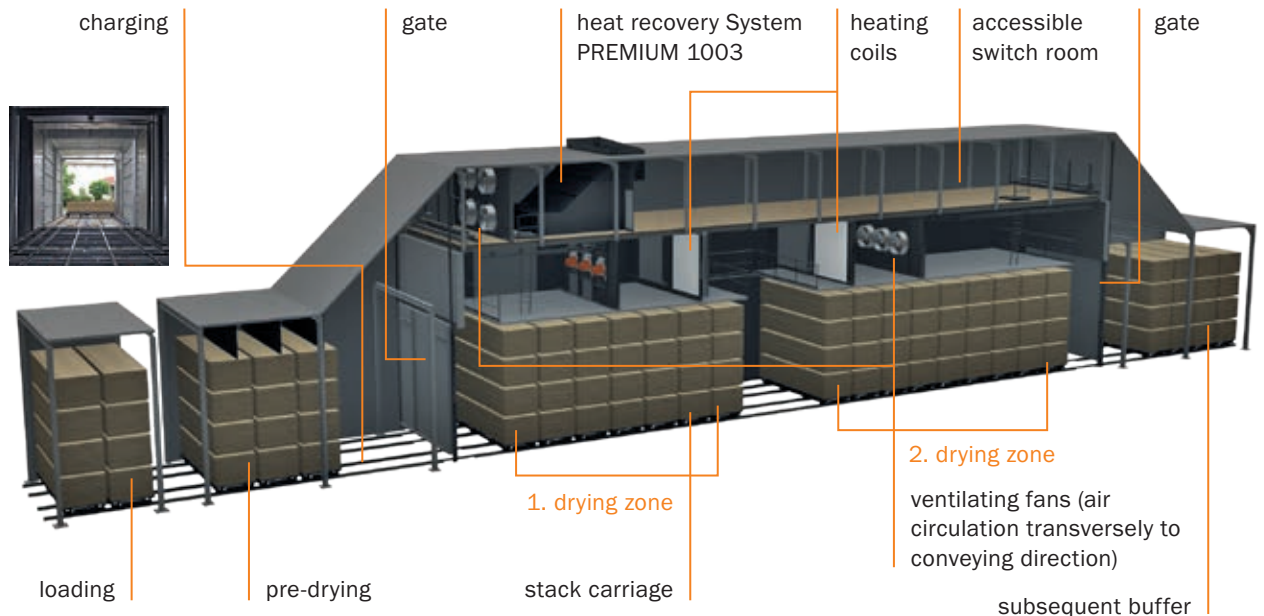


Image: Progressive kiln DYNAMIC 1003 PREMIUM

- **Feed:** the sawn timber is stored in the loading zone on stacking trolleys. The buffer zone is dimensioned individually according to the drying and cycle times, while also taking into account bridging of night, holiday and weekend operating times.
- **Fully automatic feeding system:** each stack is conveyed fully automatically by chain conveyor and pusher bars through the drying zones to the dryer outlet. All drives are positioned outside the drying area. Exact position measuring systems make sure that transport procedures are trouble-free.
- **Ventilation:** energy efficient, frequency controlled fans provide air circulation in the longitudinal direction. The fan equipment is individually matched to the drying requirements for each drying zone.
- **Walk-in services room:** all of the plant equipment, such as heating distribution, control cabinets and drive technology, as well as maintenance and service openings, are accommodated and readily accessible in the roof void of the dryer.
- **Measuring equipment and sensors:** extensive sensor technology ensures all the relevant data is recorded and forwarded to the K5 control.

Progressive kiln FLOW

The flexibility of drying kilns with the advantages of a continuous, automated feed

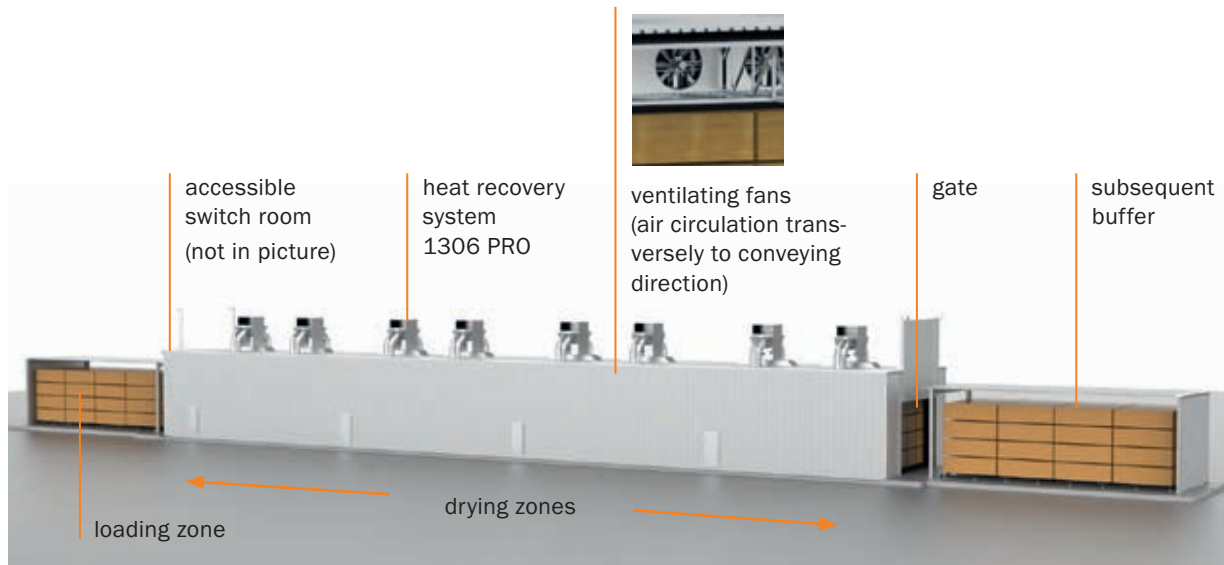


Image: Progressive kiln FLOW 1306 PRO

- **Different timber dimensions:** the progressive kiln Flow consists of several drying zones that each operate as a stand-alone drying kiln. This makes loading of different timber dimensions possible.
- **Combining different lengths of timber:** by stacking transversely to the conveying direction in the progressive kiln FLOW, different lengths of timber can be combined in each drying zone – similar to a drying kiln.
- **Loading system with plug-in system for stacking trolleys:** the entire timber pack is automatically transported through the climatic zones. Preparation of the trolley is ensured by means of an easy plug-in system, which can be operated from the lift truck.
- **Ventilation:** air circulation occurs transversely to the conveying direction. This allows for grading of output and individual climate control depending on the drying requirement.
- **K5 drying management:** the advanced K5 drying platform ensures that the optimum drying schedule is run in each drying zone for the respective range of timber and customer requirements. In addition, the entire drying process is monitored, recorded and, where necessary, passed on to higher-level ERP systems.

MÜHLBÖCK customer service. Always available to you.

Even after commissioning, a MÜHLBÖCK drying specialist supports you during drying operation. Jointly with your drying foreman, we optimise the system according to your requirements.

A service team is available 24 hours a day and, in addition, guarantees that you have reliable and fast customer service.



Everything from one and the same supplier

MÜHLBÖCK offers an extensive service package in connection with the erection of a progressive kiln. This comprises:

- the conception and planning;
- the planning of the foundations and the heating pipework and distribution;
- the production of the kiln components at our own factory;
- the programming of the control system via our own technician;
- the assembly and start-up;
- and the after-sales service.

Your advantage: interfaces are reduced and the responsibility for project management and the function of the line lie with one and the same supplier.



MÜHLBÖCK
DRYING - TECHNOLOGY

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