



N°37

TIMBER DRYING TODAY IN PRIMARY PROCESSING

How to take a global approach for a drying project

The installation of a timber drying unit always occurs in a context where many general, or more company-specific, issues need to be addressed. What are the most efficient solutions today?



Advantages and disadvantages of the various current drying practices

the different practices	advantages	disadvantages
air drying only	- no investment in equipment	- requires a very high amount of space and is very time consuming - inadequate for most end uses - many defects
kiln drying only	- fast high quality drying - the moisture contents achieved meet all needs	- requires a lot of space - stocks upstream and downstream - any wide distribution of initial moisture content values will be difficult to manage
air drying followed by kiln drying	- increased flexibility of stock management - the moisture contents achieved meet all needs	- requires a very high amount of space - stocks upstream and downstream - the defects encountered with air drying do often still occur
drying in a pre-dryer and then in a kiln	- very high flexibility of stock management - the moisture contents achieved meet all needs and they will be contained within a narrow range - optimum quality	- requires a lot of space - the level of capital investment required is high

Specific constraints which should not be overlooked: CATHILD can help you to consider your drying project globally

constraints	original solutions offered by CATHILD	
	Hardwoods	Softwoods
mixture of species or thicknesses	pre-drying zones each with their individual control system	"high capacity – low temperature drying"
thick timbers	gentle pre-drying followed by optimized kiln drying	
a wide range of initial moisture content values	pre-drying	
low temperature thermal fluid	pre-drying and drying possible for hardwoods	
not enough space available	the amount of space used is three times less in a pre-dryer	
a high level of noise may be a problem	variable speed fans and noise traps on extraction vents	

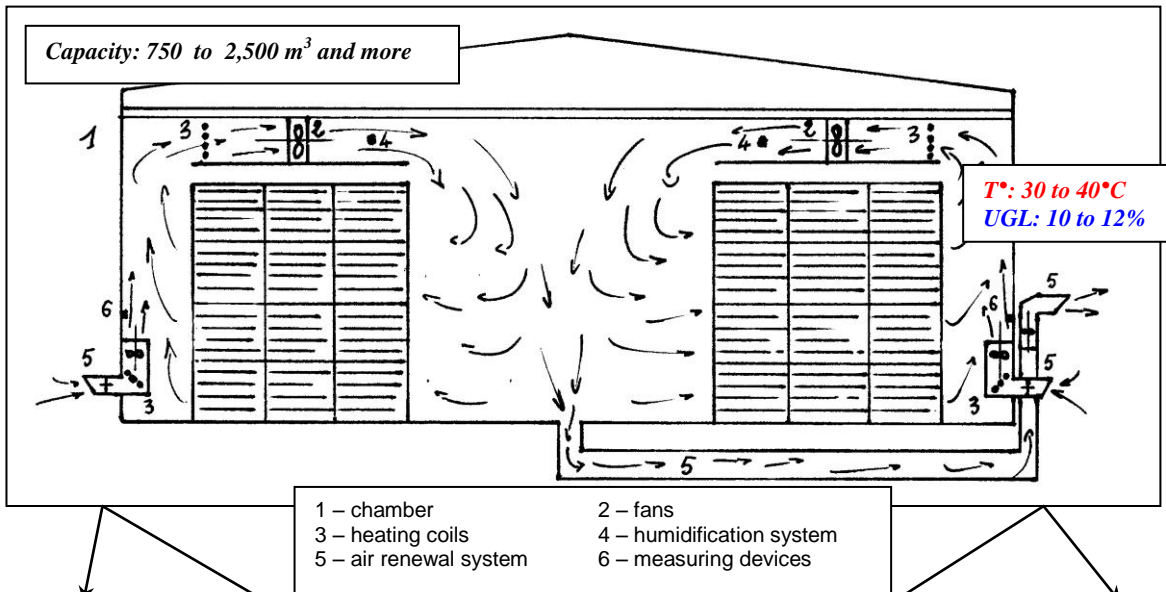


N°37 THE HIGH CAPACITY LOW TEMPERATURE KILN

A new piece of equipment set to completely change the scene in softwood sawmills



A new invention derived from applied research: when it was thought that nothing really new could revolutionize "conventional" drying, the CATHILD Company proves that it is still possible to achieve significant advances with the development of its "high capacity – low temperature" kilns especially designed for the drying of softwood species.



A new way of looking at aeraulics

Optimized fan speed, flow rate and pressure create a system of air circulation « in opposite directions » which provides **homogeneous drying** never achieved before.

Specific climatic conditions

The constant « low temperature » drying conditions offer the best possible compromise between drying **quality**, energy management and speed.

The CH 12W control system

The high precision provides optimum individual control, different in each kiln **zone**.

Optimum management of stocks and handling operations

No more stocks of green timber outside and there is no need for dry timber storage halls either. Large volumes can be available at the same time: 125 m³ from half a zone or 250 m³ from a whole zone.

