

Extreme conditions for motors!

fter trees have been cut, wood requires seasoning or drying, this is an essential stage before it can be used for any purpose. Depending on the use, the moisture content must be lower than 13-15%. In order to dry the wood, there are two possible options: either it is left to dry naturally, which is a particularly long process, or artificial drying, which is much faster and efficient.

An aggressive environment

There is either a stainless steel or aluminium structure into which the wood is placed and a powerful fan is used to guarantee a homogenous mixture of air. In general, the manufacturers and the users of sawmills and the manufacturers of parquet floors have only found fan units available, powered by standard "de-rated" motors which, under the extreme operating conditions, have a particularly short lifespan, of a few months.

In fact, these fan units operate in ambient temperatures up to 135° and a relative humidity of 100% with an aggressive vapour depending on the level of turpentine in the wood.

Motors « made to measure »

As a result of the study: **LEROY-SOMER** developed **two ranges of high temperature motors for continuous duty** with a power range of 0.55 kW to 55 kW responding to the two principal drying cycles with temperatures from 85° up to 135° in S1 duty and a relative humidity of 100%.

The advantages of the motors defined by **LEROY-SOMER** have been proven for the following reasons:

- Increased life cycle of several years in difficult operating conditions,
- Reduced, simplified maintenance: the choice of stainless components (shaft, screws) makes the motor quick and easy to dismantle,
- Fast connection to the mains: the brass cable gland, already fitted on the motor terminal box, ensures fast connection,
- **Energy saving:** The increased efficiency of motors combined with the **LEROY-SOMER** frequency inverters guarantee a significant cut in energy consumption.