Moisture measurement in hardwood flooring

realised with VenScan

Döscher

To monitor the moisture of all layers of hardwood flooring during the manufacturing process, e.g. behind the drying chamber, is an essential procedure. A continuous, fast and reliable measurement of the moisture content of every individual layer is required.

Therefore, in the typical factory, several measurement systems of the type VenScan are used, which are based on the 2-Parameter-Microwave-Resonance-Technology of non-contact, fast and particularly density independent moisture measurement from Döscher & Döscher. The measurement systems support the optimization of the throughput in the automated-manufacturing process, with respect to the assurance of a continuously high quality standard.

The VenScan provides accurate, reproducible and practical results of the moisture measurement of all preliminary products within the manufacturing process, as there is the upper layer, the center section and the veneer layer.
Every layer with moisture values outside the predefined tolerance bandwidth will be marked clearly with a colored spot. So, it can be sorted out manually or automatically at a suitable position.

The VenScan Systems assure a well known, high quality level with less effort with respect to the expenditure of time and expense.

For instance, the parameters of the drying chamber for the top layers get optimised.
The throughput is increased, and the energy consumption is reduced.

VenScan Sensorhead for contactless moisture measurement of upper layers for solid-wood parquet after the Double End Profiler

prior to the measurement

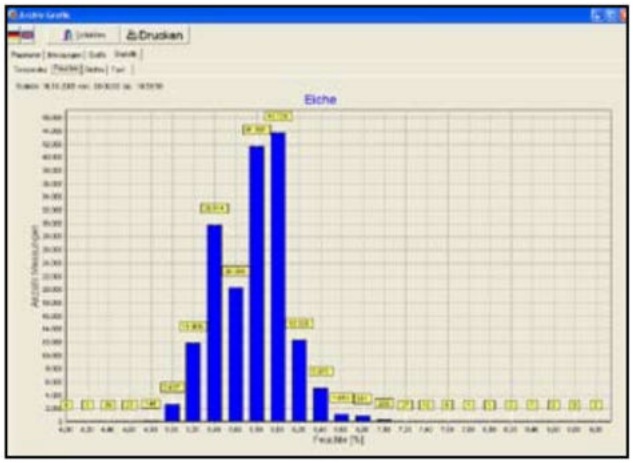
right after measurement (incl. automated colored spot marking)

The previous inspection, with only a few upper layers of a complete batch being measured manually, has been replaced by a fully automated 100% inspection of the three components of the parquets.

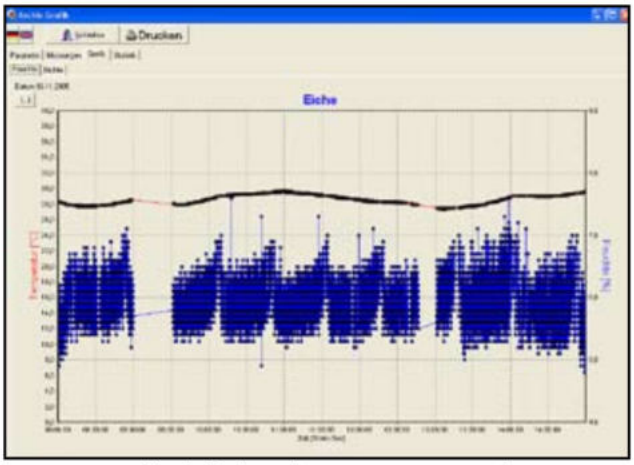
The influence of the cutting tool's condition had virtually been eliminated.
This had been a problem in the past, for the accuracy of the previous measuring method was dependent on the roughness grade of the upper layer's surface.

Today, every single upper layer is being inspected non-contact and reliably. Consequently, no workpiece has a chance to reach the next production step, if it is too moist or too dry.
During the process, the moisture of an upper layer normally varies at the beginning and at the end of each production batch.
With random inspection it had basically been impossible to get enough accurate information.
Today, the information supplied by the VenScan statistics software-package helps to identify the uneven distribution of moisture and to adjust the parameters accordingly.

Altogether, today's process reliability and stability has increased significantly. The investment pays off for the customer within one year.



Vertical-Bar Diagram of Moisture Distribution



graphical display of measurement-results on screen

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