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# Saw carriage alignment with surface decor

When dividing unprocessed laminate panels, HOMAG AG makes use of sophisticated image processing technology for precise alignment of the saw carriage. This improves the quality, reduces scrap costs and enhances productivity.

While up until only recently it was standard practice for coated raw laminated panels to be traversed against a stop fence prior to dividing or aligned using colour sensors, today precise alignment to the surface decor has become more important than ever. The method commonly used to date has been to cyclically feed panels towards the saw and to then stop them for the purpose of alignment. Where detection and monitoring of panel alignment was once carried out by colour sensors, today this function is performed by CCD sensors. Generally speaking, a fluorescent line or a cut-block marking was detected by the sensors in the printed decor finish – which first had to be applied to the workpiece as part of the upstream manufacturing process.

As the conventional method does not afford the requisite degree of precision for synchronous pored and system decor print finishes, HOMAG also offers alignment using a CCD camera. CCD sensor technology has long since been established in modern digital photography and camera technology. This process allows the panels to be aligned and divided in throughfeed using servo technology and without the need to stop the operating flow.

This has meant that, as well as enhancing quality, it has also been possible to speed up feed rates as a result of alignment in throughfeed.

However, this is only made possible by the use of intelligent computeraided camera technology which is capable of recognizing the increasing width in the panel and uses this information to fully automatically calculate how the sawing units need to be positioned. In using this detection

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method, HOMAG can draw on its many years of experience with CDD in other applications in the company, ensuring that the technology used is proven and thoroughly reliable.

Looking towards the future and the increasing demands in terms of decor variety, this technology may be expected to make further inroads. And in terms of plant output and flexibility, there is enormous potential still waiting to be developed.

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**Fig. 1:** Alignment station with camera gantry



Fig. 2:
Camera unit for decor detection

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## For more information, contact

## **HOMAG Holzbearbeitungssysteme AG**

Homagstraße 3 – 5 72296 SCHOPFLOCH **GERMANY** http://www.homag.de

**Gerhard Engelen** Head of Marketing Tel. +49 7443 13-2476 Fax +49 7443 13-8-2476 gerhard.engelen@homag.de

#### Author:

#### **Alexander Sinz**

Flooring Center Tel. +49 7443 13-2255 Fax +49 7443 13-8-2255 alexander.sinz@homag.de