Baumer
Passion for Sensors

*ColourBrain® DigitalPrint 4.0
– Innovative Digital Printing
Inspection in Real Time.*

Highest Resolution, precise Results.

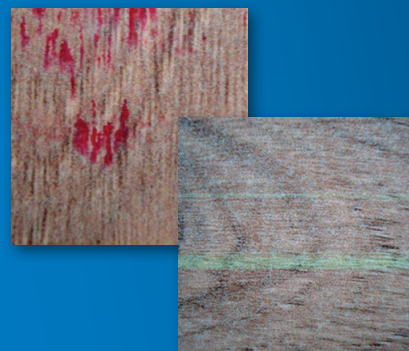## Quality control of your single-pass digital printing production.

The *ColourBrain® DigitalPrint 4.0* inspection system is used in a wide variety of industries - applications include single-pass printing on flooring planks, packaging, textiles and films with variable motifs and batch sizes. Defects such as head failures, nozzle defects, colour inhomogeneity, stains, and substrate defects are reliably detected, classified, and assigned to the cause in the process. The results of the evaluation are determined in real time. And build the basis for production decisions and serve as decision support for cleaning or compensation measures at the printing system. During the evaluation, it is additionally assessed whether a detected defect is disturbing or lies below the human perception level. The aim is to avoid unnecessary production stops and the associated loss of productivity. With new algorithmic approaches characteristic print features are compared with the original data and deviations in the colour and in the printed image are detected.

Our defect detection, optimizes your production.

Your benefits at a glance:

- Dual Teach-in: Comparison with good part or with the original data.
- Evaluation of the colour deviation of the motif.
- Colour control at product re-prints for batch equality.
- Unique evaluation of defect visibility.
- *Q-Brain®* defect classification and assignment in the production process.
- Assured production results through quality inspection.

Product data *ColourBrain® DigitalPrint 4.0*

Inspection objects	Rigid or flexible materials as web or board
Inspection widths	Typically 400-2500 mm, scalable
Substrate thickness	0-60 mm, variable by automatic height adjustment
Production speed	0-120 m/min higher speeds on request
Production process	Industrial production in inkjet single-pass digital printing
Supported Transport Systems	Belt strap, surface belt, roller transport (calibrated rollers), endless

Defect Classification.
- Distinction in aesthetic, process and printing system defects. Assignment of defects to the cause and process colour.

Digital or learned reference.
- The check is carried out optionally by comparison with good objects or by the comparison with characteristic image features on the basis of the print data.

Automatic colour match.
- Automatic check of the colour deviation during the reprinting and adjustment to the approved "Digital Master".

Evaluation of visibility.
- Each defect is automatically evaluated for its visibility to the human eye.

Direct Response.
- Direct status feedback for process optimization (e.g., nozzle failure, colour deviations, print inhomogeneities).

Complete overview.
- We provide a complete and objective overview of your printing process through reports, statistics and comparisons.
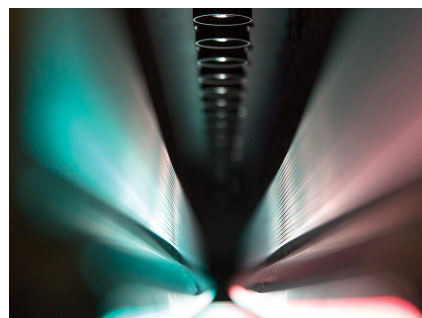
Automatic calibration.
- The system provides automatic analysis of test charts for periodic verification and calibration of print quality.

The modular and scalable system structure enables optimum adaptation to your production and system environment.

Universally applicable.

ColourBrain® DigitalPrint 4.0 is the scalable system for quality monitoring in single-pass digital printing production. With an optical inspection technique that can be flexibly matched to the substrate, this system is used in a wide variety of production lines in which industrial digital printing is used, for example in packaging printing, textile printing, the wood-based industry or the material coating.

Baumer
Passion for Sensors

More information on:
www.baumerinspection.com