ColourBrain® DecoInspector

Automatic optical inspection of flexible web materials such as decor paper, film and foils
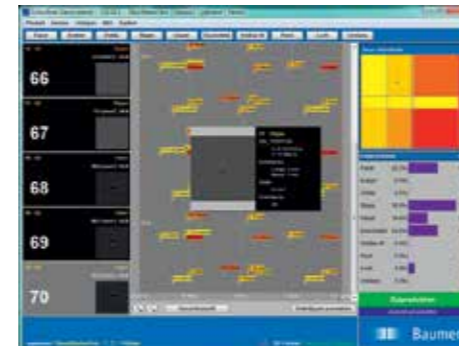
Optical inspection

- Modular camera systems with highest resolution for accurate detection and classification of smallest defects.
- Inline inspection for flexible web materials such as decor paper, film and foils, transparent or opaque, matt or high-gloss.
- Combination of defect detection and measurement of colour appearance by precalibrated colour camera systems.
- Modular system architectur allows to adopt to various printing width.

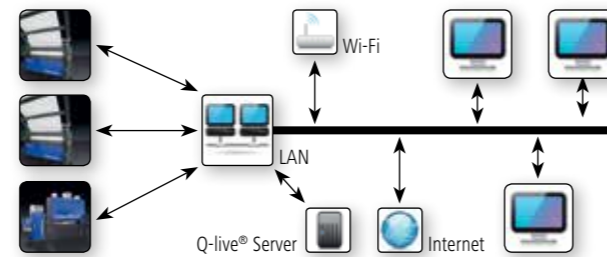Matt spots

Fault in lacquering

Streak

Process control and process optimization

- Accurate grading of defects by Q-brain® classification.
- Classification according to kind and cause to optimize production quality.
- Precise documentation of position of defects on the web, crosswise and in machine direction.
- Alarms in case of high amount of defects or in case of repeating defects linked to calendar rolls.

Quality management with Q-life® and Q-brain®

- Classification of every defect by Q-brain® and direct link to data base Q-life®.
- A lot of tools to statistically analyze cause and reasons of all kind of printing problems.
- Online analysis of reasons and variation of defects in order to optimize productivity.

ColourBrain® DecoInspector

ColourBrain® DecoInspector is a modular inline system for the detection of defects on flexible web material in the production line. By high resolution and high speed line scan camera systems smallest defects and deviations on foil, décor paper and film material are detected with very high precision.
Modules with optimized combination of camera and illumination monitor all different production processes like calendaring, extrusion, coating, lacquering, printing or embossing.
All defects and the position on the web are documented for quality grading and to optimize later cutting.

Defects are classified according to cause and calendar roll. ColourBrain® DecoInspector alarms in case of many defects of a kind, to avoid production of scrap.
For statistical analysis, all defects and images of defects could be stored by Q-life® data base system which is giving a lot of tools for analysing and optimizing the production process.
Q-brain® is classifying all defects according to their cause in order to optimize production quality.

Baumer

Baumer Inspection GmbH

Lohnerhofstrasse 6 · DE-78467 Konstanz
Phone +49 (0)7531 99 43 0 · Fax +49 (0)7531 99 43 44
info@baumerinspection.com · www.baumerinspection.com

More information on
www.baumerinspection.com

ColourBrain® DecoInspector
Automatic inspection of web material

ColourBrain® DecoInspector
Automatic optical inspection and process control of web material

Automation at the service of quality improvement and process control

Highlights

- High resolution inspection, single side or double side.
- Detection of smallest defects in colour or surface defects.
- Inline colour control
- Precise classification of defects to optimize production quality.
- Control of stability of production process.

Your benefit

ColourBrain® DecoInspector is an inline automatic optical inspection system for the inspection of web material. By its strictly modular design, ColourBrain® DecoInspector can be adapted to various width and for high resolution inspection, even at high production speed.

ColourBrain® DecoInspector detects defects with high precission. According to customer specific quality rules, without excessive sorting and without missing any defect.

By its online classification Q-brain®, ColourBrain® DecoInspector is classifying every detected defect into classes according to custom-ized definitions. All those individual groups of defect grading rules can trigger an alarm if the number of defect exeeds a preset value.

ColourBrain® DecoInspector help optimizing production by permanently analysing the inspection data. Colour-Brain® systems protocol the quality of each shift, each product and each production volume 24 hours a day and 7 days a week.

Application

ColourBrain® DecoInspector is installed into production lines of d écor paper, film or foil material. Baumer inspection supply camera system, calanders,marking systems, installation and training and on-line after sales support if requested.

Different modules of line scan cameras and illumination and algorithms are adapted to each product and each production line to give the best inspection solution for every application.

Baumer Inspection is using its own high speed line scan cameras and, by this, guarantees high resolution even at wide web produc-tion and at high production speed.

Baumer Inspection's Q-brain® classification is trained on the defects of different productions and products and classifies every defect according to its cause and according to the different cylinders of the production line installed.
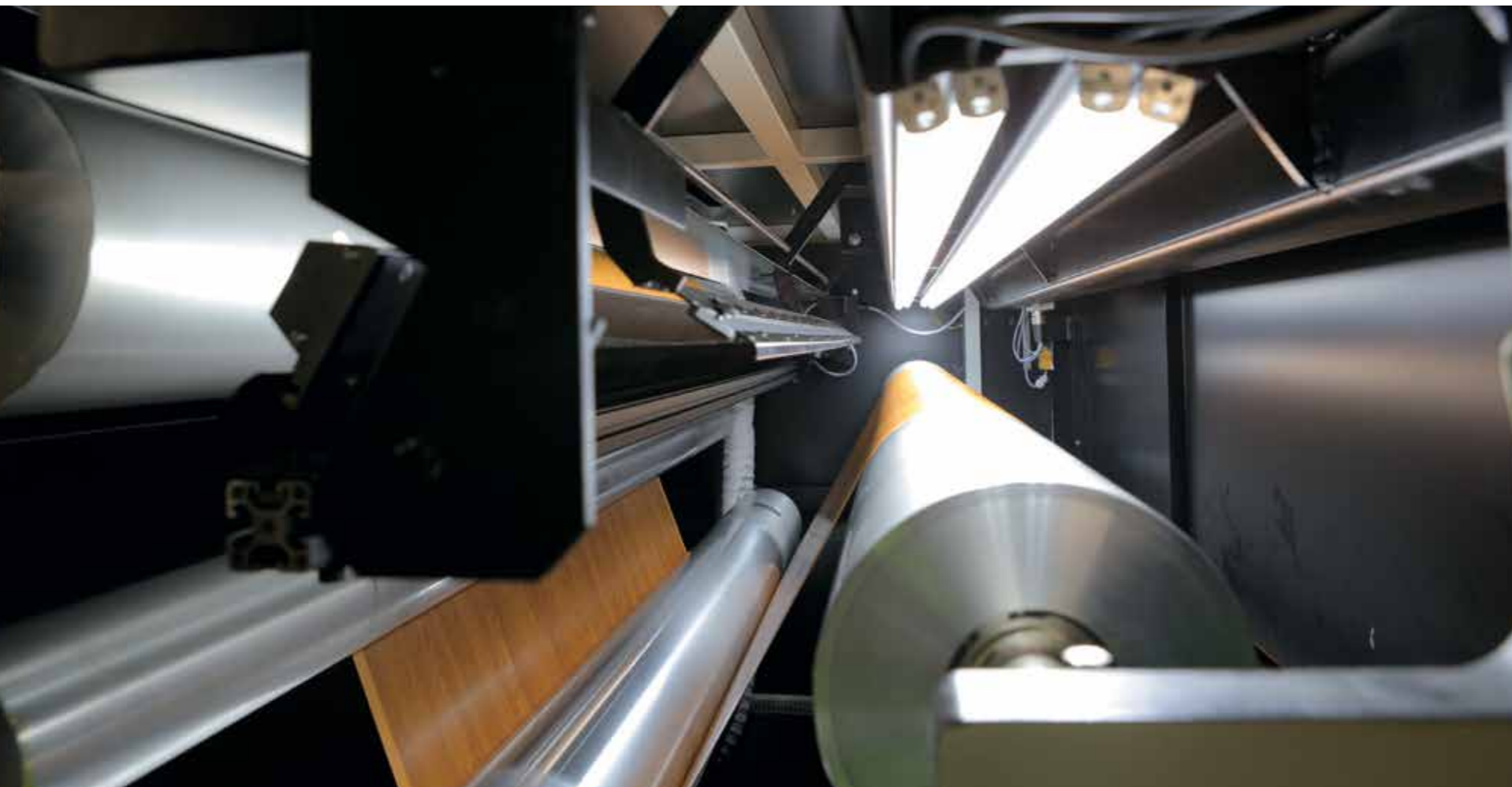
ColourBrain® DecoInspector

ColourBrain® DecoInspector is adapted to every production line by special illumination modules, spectral specified LEDline illumina-tions and a lot of different algorithms.

ColourBrain® DecoInspector´s fast colour line scan cameras check the printed image by using very high resolution cameras. This guaranties highest accuracy to detect defects caused by the print-ing line or detection of smallest surface defects on high gloss foil.

ColourBrain® DecoInspector is equipped with calibrated colour cameras, installed in protected cabinets to guarantee accurate and reliable colour control.
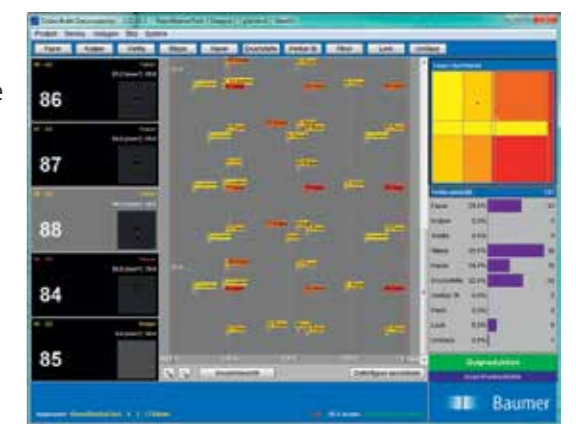
ColourBrain® DecoInspector can start with a simple back light application and is open for integration of colour cameras or inspection in reflection later if needed.

ColourBrain® Technology

The patented ColourBrain® technology imitates human perception for checking decorated surfaces. It learns to differentiate between GOOD and BAD based on few meters of production.

All defects are classified according to its cause by Q-brain® inline classification. Q-brain® is assisting optimization of production by triggering alarms in case a defect comes up more often or in case a defect is repeating with the frequency of any cylinder used in the specific production.

The user deploys an intuitive user interface that is easy to understand with clearly structured graphical menus. ColourBrain® gives precise documentation of position of defects on the web, crosswise and in machine direction.

ColourBrain®'s data base system Q-live® guarantees online process control and is helping to statistically analyze defects and their cause in order to optimize production and reduce production of second quality.