

# PATCONTROL PCS-12 AIRBAG

Checks airbag dimensions



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Innovative concepts for the airbag industry

## Applications

Modern production engineering demands high standards, extreme precision and reliability from suppliers to the car industry, particularly those from the safety-related sector.

Constant supervision of components is an indispensable prerequisite for perfect products. This applies in a particular way to the most diverse types of airbag used for safeguarding the driver and passengers seated in motor vehicles.

The PCS Airbag-concept has satisfied these requirements most successfully, and has helped promote a greater degree of assurance for both the airbag manufacturers and, above all, the beneficiaries of an emergency release.



## Product-highlights

- ✓ Stationary single measurement and on-line control possible
- ✓ Single measurement in up to 5 seconds per airbag
- ✓ The very latest high-tech line cameras
- ✓ User friendly
- ✓ Comprehensive operating software with corresponding visualization

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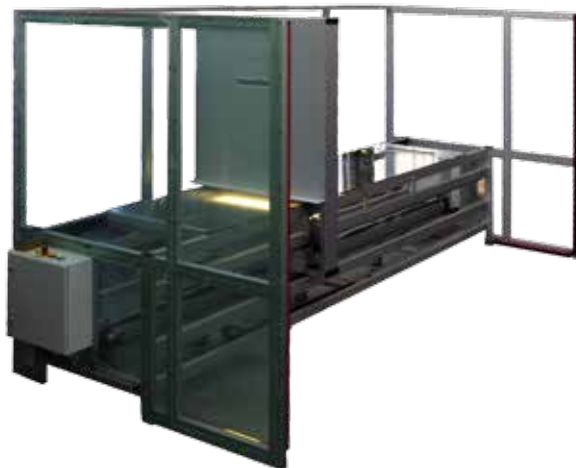
**mahlo**  
trendsetting technology, worldwide.

### Principle of operation

The assembly's hardware comprises the very latest in components already well-proven over the years on other applications associated with Mahlo camera-technology:

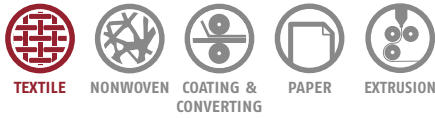
- Measuring table with mobile camera / lighting unit,
- One or two line cameras,
- Back and, or reflex lighting facility,
- Control panel with evaluator, and
- Control and display terminal

Visualization and control conform to the well-known standards of the latest generation systems. Software is subject to a continuous process of development.



### Customer benefits

- ✓ Uninterrupted monitoring and logging of actual product quality
- ✓ Precise pass / fail-evaluation
- ✓ Significant increased productivity
- ✓ Optimized quality assurance
- ✓ Optimized process repeatability
- ✓ Short payback times



## PATCONTROL AIRBAG

# VISUALIZATION

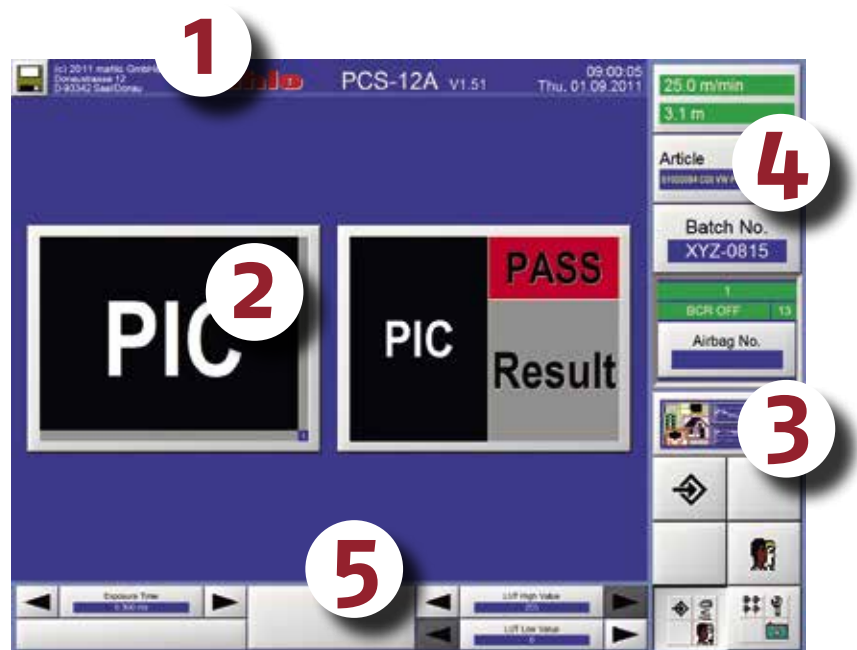
EVERYTHING AT A GLANCE

### Product-highlights

- ✓ Precise and descriptive display of defects
- ✓ Clear pass / fail-alarm
- ✓ Menu-controlled service settings
- ✓ Password protection – unauthorized users are denied access to the program
- ✓ Integrated audio response

### Customer benefits

- ✓ Continuous inspection, classification and logging
- ✓ Storable recipes for various types of airbags
- ✓ Menu prompt in all the usual languages
- ✓ Ergonomic user prompt
- ✓ Easy to operate



Main display

The user interface is divided into five sections:

**1. Title line:**

General information (including alarm bar)

**2. Display area:**

Selectable screen pages (display forms)

**3. Selection block:**

Navigation within the program

**4. Vertical block:**

Touch buttons for main options

**5. Horizontal block:**

Touch buttons for basic functions and sub-options

The two distinct PCS Airbag applications:

1. On-line monitoring of airbags prior to separation from a continuous web. Measurement of the width of the web, pattern repeat, and the length and depth of the visible airbag contours.
2. Stationary check on a measuring table of the accuracy to size of the cut-out airbags with the aid of customer-specified, fixed test points, and thus an assessment of the soundness of the individual airbags, are supplemented by measurement of thickness.



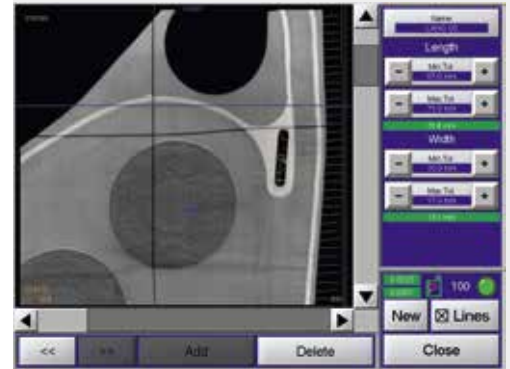
PCS Airbag camera system



Airbag check with back lighting



Airbag check with reflex lighting



Configuration of measuring tolerances



Adjusting the edge locator



The scanner has registered a fault on the patch

## PATCONTROL AIRBAG



TEXTILE



NONWOVEN



COATING &  
CONVERTING



PAPER



EXTRUSION

# FUNCTION

ON-LINE AND STATIONARY



The airbag has passed the test.

### Online OPW check

In the course of a finishing and coating process, an on-line check of pattern repeat is required for multilaterally woven OPW airbags (OPW = one piece woven). In doing so, the repeat dimension in length and width is allotted separately to each individual airbag. Consequently, it is possible to monitor continuously positive and negative linear variations during the process. The data on each individual airbag are filed and logged.

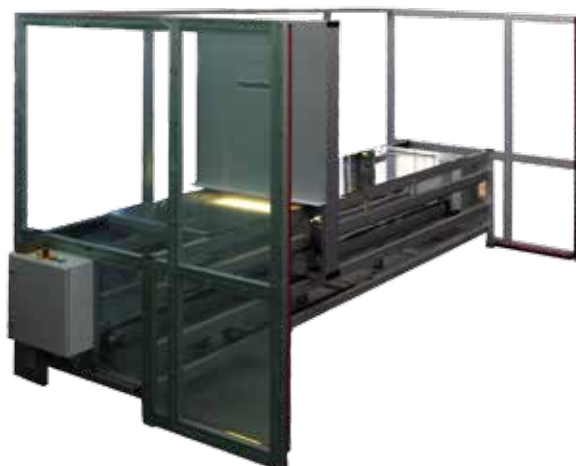
### Pass / Fail- Assessment

With jacquard-woven, double-walled airbags with woven-interlocked contours, a set of criteria determines whether or not they comply unreservedly with specified standards.

The PCS Airbag establishes adherence to these criteria in terms of given standards such as

- Accuracy to size
- Soundness
- Completeness

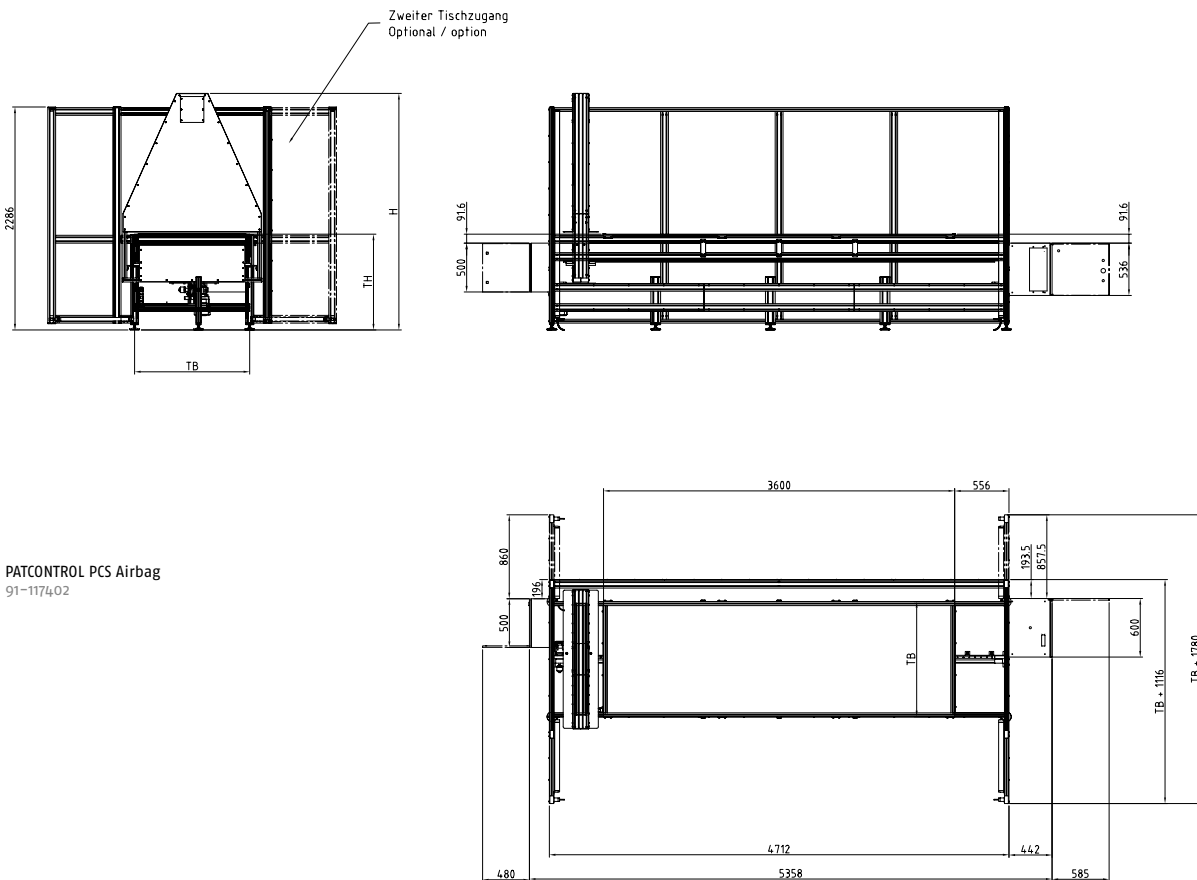
If the given standards are not or only partially adhered to, an assessment is triggered which, in effect, can be narrowed down to a Pass / Fail criterion. This constitutes an objective appraisal of an airbag's suitability for installation in motor vehicles, or rejection. Comprehensive documentation is available in various forms to cover eventual accountability.



**TECHNISCHE DATEN | PATCONTROL PCS AIRBAG**

| Unit                | Patcontrol PCS Airbag                       |
|---------------------|---|
| Power supply        | 230 V, 50/60 Hz                             |
| Camera              | 2048 pixel, lens with fixed length of 35 mm |
| Lighting            | Reflex / back lighting                      |
| Scann time          | 5 - 10 s                                    |
| Max. product length | 3600 mm                                     |
| Max. product width  | 800 mm                                      |

**Dimensions**





Monitoring and control systems, automation:

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