Coding, Printing and Inspection Systems
Inspecting & Sorting • Coding & Printing • Track & Trace

Sheet Transportation Technology from MABEG. It simply works.

www.mabegsystems.de
High-precision sheet transport forms the quality criterion for Coding, Printing and Inspection Systems – irrespective of the camera or application system used. Any imprecise or even uncontrolled movement of a sheet will cause a distortion of print or image recording. In the context of inspection tasks, the consequences are that the available resolving capacity of the inspection systems cannot be used to full potential or, even worse, that good sheets are wrongly sorted out because of insufficient precision of the sheet transport, causing unnecessary costs.

eing the specialist for sheet transportation technology, MABEG has developed the right solution:

- The MABEG Sheet Processor MSP 106 for print sheets with extraordinarily high sheet transport precision thanks to unique drive technology and MABEG quality.
Our solution: Coding, Printing and Inspection Systems on MABEG MSP

Inspection and sorting of paper and printed sheets
- Misprints
- Dirt
- Colour defects, over- and underinking
- Register errors
- Cutting errors
- Substrate defects
- Watermarks
- Check for completeness
- Quality check of finishing
- Quality check of braille
- Holograms
- Micro lettering
- UV and IR security features
- Sorting out defective sheets
- Sorting by certain features
- 100 % inspection and sorting
  = 100 % quality for your customers

Coding and Printing
- Individualization and personalization:
  » Customer data
  » Product data, e.g. country-specific texts on packages printed by offset
- Barcodes and matrix codes
- Security features, e.g. UV ink prints
- Batch or serial numbers
- Verification and check against a database
- Braille printing

Labeling
- Printed labels
- Security labels
- RFID labels
- Optional: Presence monitoring

Track & Trace Technologies
Why MABEG MSP 106?

Being the globally recognized specialist in sheet transport, with the MSP 106 MABEG provides the ideal platform for Coding-, Printing- and Inspection assignments.

Highest accuracy is combined with the reliability for hard industrial conditions that MABEG machinery is valued for. Our MSP 106 customers all over the world, are often highly specialised companies, can confirm this.

The MSP has a modular design. Each line is individually configured according to the needs of our customers. On the right side a variety of configuration examples with typical applications is shown. In addition to automation and NONSTOP functions more precision tables for applications and sheet stacker can be integrated. High-resolution inspection and coding assignments can be combined in any way: for example, inspection tasks in different wavelength ranges on the upper side of the sheet, the underside of the sheet and in transmitted light, followed by an ink-jet coding.

The precision application table forms the heart of the MABEG MSP 106. It has been developed and optimized for perfect sheet travel. The result is an application table which boasts unique precision which can be used in particular for all inspection tasks as well as for coding, ink-jet printing and labeling.
Thanks to its modular design, the MSP 106 can be realised in a large number of different configurations, ranging from single-sided applications, to transmitted light inspection, and up to multiple applications on either side. Various options from simple wastage boxes to models with 4 sheet stackers are available to meet complex sorting and NONSTOP operation needs.

As an example, a machine configuration for one-sided applications fitted with a transmitted light inspection unit TLI and 2 sheet stackers is shown here.

1. MABEG sheet feeder with ClassicFeed precision suction head for gentle but reliable sheet separation
2. Alignment table (oblique belt conveyor) for precise sheet alignment
3. Transmitted light inspection unit, e.g. for checking inclusions or watermarks
4. Precision application table, the heart of the MSP 106: The basis for all applications
5. Highly dynamic sheet diverter gate
6. Transfer table
7. Integrated sheet stacker, e.g. for sorting
8. Main sheet stacker

*Description MABEG MSP 106*

Technical Data:

Sheet capacity: 12,000 s/h or 206 m/min
Size min (WxL): 300 x 300 mm
Size max (WxL): 1060 x 830 mm
Option FO1: 1060 x 1200 mm
Option FO2: 1060 x 1450 mm
Materials: Paper, cardboard, sheet metal, plastic, foil
Material weight: 40 - 800 g/m²
Pile height: 900 mm
Option: 1,500 mm

1. mechanically, production speed depending on application
   If using waste box: max. 10,000 s/h or 90 m/min
2. 40 – 60 g/m² after test run

We continuously develop our products. Therefore it is in your best interest that we reserve the right to modify any design features and technical specifications.
MABEG MSP 106 - 1B1S - 1100

Line for single-sided printing with waste box.
Typical application: Application of codes with directly following verification by a camera system and ejection of flawed codes in waste box.

MABEG MSP 106 - 4↑ - 1B1S - 1700

Line for coding and printing on top and reverse side in one pass.
Typical application: Coding and Track & Trace of folding cartons and packagings.
**MABEG MSP 106 - TLI - 25 - 1700**

Inspection line for one-sided inspection tasks with two sheet stackers to sort out waste sheets and optional transmitted light unit TLI for watermark control.

M1: Sheet feeder with MABEG ClassicFeed suction head  
M2: Alignment table  
M3: Transmitted light unit TLI  
M4: HMI Touch Screen operator panel  
M5: MABEG precision application table  
M6: Highly dynamic diverter gate  
M7: Transfer table  
M8: Sheet stacker for rejected sheets (Pile height: 1.100 mm incl. pallet)  
M9: Main-Sheet stacker for accepted sheets (Pile height: 1.500 mm incl. pallet)

**MABEG MSP 106 - TLI - 25 - 2500**

Inspection line for two-sided inspection tasks. Optionally expandable with a third precision table for coding tasks, such as numbering.

M1: Sheet feeder with MABEG ClassicFeed suction head  
M2: Alignment table  
M3: Transmitted light unit TLI  
M4: HMI Touch Screen operator panel  
M5: MABEG precision application table  
M6: Second MABEG precision application table for reverse side application  
M7: Additional transfer table  
M8: Highly dynamic diverter gate  
M9: Transfer table  
M10: Sheet stacker for rejected sheets (Pile height: 1.100 mm incl. pallet)  
M11: Main-Sheet stacker for accepted sheets (Pile height: 1.500 mm incl. pallet)
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