MABEG Systems GmbH


Sheet feeder


Sheet stacker


Inspection- and individualization-Systems

Reel Sheeter RS

Top solution - saves money and time

Sheet Transportation Technology from MABEG. It simply works.

Possible savings detected...

… cost-efficient web paper on sheet-fed printing presses

- Saving paper costs by using less expensive roll paper on sheet-fed printing presses
- From roll to print sheet in a single process step – the 'money maker' for each perfecting printing press
- Processing of materials that are only available on rolls
- Use of remaining rolls from web presses

… saving paper when processing special formats

- Cut-off length exactly as needed: sheet length can be set in 0.1-mm steps directly on the touch screen
- No paper waste when doing print jobs on special formats
- No need to order non-standard sheet sizes: you can start right away
- Omitted second gripper edge in Super-Perfecting printing presses can directly be turned into paper saving

paper savings of about 16 %

The picture shows a brochure in special size 25 cm x 83.5 cm. Printed as double blank for edge trimming, the required sheet size is 53 cm x 85 cm = 4,505 cm².
The nearest standard size is 63 cm x 88 cm = 5,544 cm².

When working with the reel sheeter, the cut-off length of 53 cm can simply be edited on the touch screen, resulting in **paper savings of about 16 %** for this job.
Moreover, you can benefit from the price advantage of roll paper compared with sheets. If this cost advantage amounts to 14 % – an average value – then you can **save about 28 % altogether** on paper costs.

… improved process reliability and enhanced performance because there is no sheet separation step

For thin paper printing

Field of application:

- E.g. med. package inserts up to 35 gsm

Substrates (selection):

- OP Medical Print 35 gsm
  at up to 12,000 sheets/hour
- OP Polar Bright 40 gsm
  at up to 14,000 sheets/hour

The suction head is not used during roll-fed operation. The sheet separation stage, which is often problematic with very thin material, thus becomes superfluous and the number of stops and sheets transported at an angle is reduced.

During roll-fed operation, each sheet is cut in-line and provided directly to the feed roller of the printing press. This helps to achieve troublefree uninterrupted printing and higher process speeds.

Paper reels with light or medium grammage contain much more sheets than sheet piles. Therefore, fewer stops are necessary and the operation effort is minimised.

What's more, set-up when changing the substrate material becomes much easier: the MABEG RS permits for example to switch from 35 gsm to 180 gsm paper with only minimum set-up changes and almost without run-up optimisation being necessary.

For packaging printing

- **Plastic web**
- **Aluminium-coated paper**

Field of application:

- In-mould labels, plastics
- Sticker labels

Substrates (selection):

- ETH, Treophan GmbH
- EUH, Treophan GmbH
- ETR, Treophan GmbH

Caused by electrostatic charging, web-fed substrate adheres very strongly to the next layer or sheet. This makes sheet separation extremely difficult if not impossible, causing inadequate process reliability and speed.

MABEG reel sheeters fitted with the optional plastic web package allow production speeds of much more than 10,000 sheets per hour in practice today, depending on the actual substrate quality.

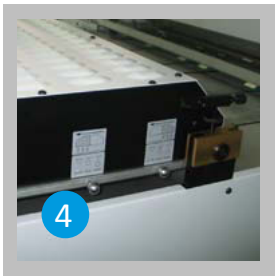
The in-line reel sheeters also allow substrate qualities which are only available on rolls to be fed directly to sheet printing machines.

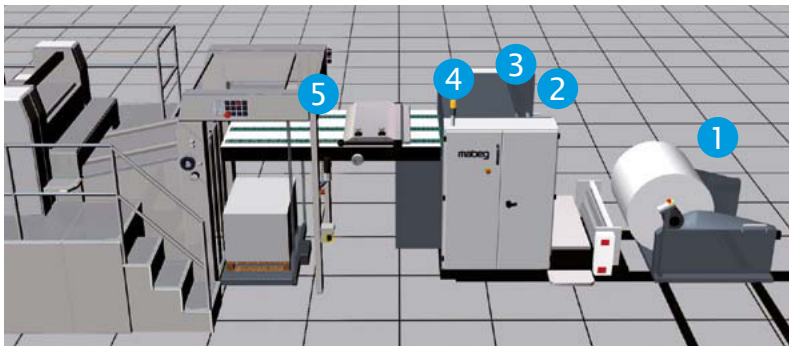
The optional Corona treatment system serves to ensure optimal ink receptivity in the printing press.

Working principle

The paper web coming from an unwinder (1) runs through a system of jockey rollers and the infeed point into the cutting unit (2). The web tension is controlled automatically. The shearing system ensures a clean cut and precise angles. The menu-based touch screen panel is used to edit the desired cut-off length by the millimetre and to set all other process-related parameters. Sheet arrival timing and lateral web position (for an optimisation of the displacement) can be adjusted without tools and during running production. The standard decurler (3) can be activated to achieve the necessary sheet planeness if necessary.

The sheets which run out of the cross cutter are overlapped in the stream feeding device (4) and provided to the transport table (5). In the stream feeding device, the sheet is first decelerated, then its trailing edge is lifted by sheet flaps and held by a vacuum system such that the following sheet can move underneath. The thus formed stream of shingled sheets is conveyed on the transport table to the sheet feeder of the printing machine. The suction head is not used. This minimises the risk of bad sheet separation, double sheets etc.





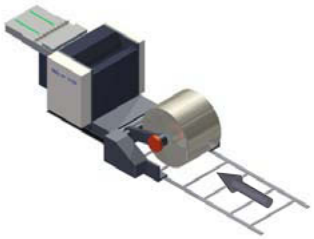
RS

Installation

MABEG reel sheeters are installed on tracks which are laid flush in the floor. Unwinder and cutting unit can be moved on these tracks.

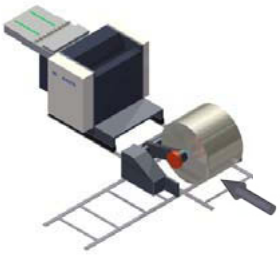
When you change from roll-fed to sheet-fed operation, the reel sheeter is moved to its parking position, so that the sheet feeder of the printing press is freely accessible and can be loaded as usual. The operator can walk around the printing press directly between sheet feeder and parked reel sheeter.
If the reel sheeter is brought to its working position for web-fed operation, left-over sheet piles can remain in the sheet feeder.

The diagrams show standard installation options. A number of adaptation options are available. The arrow marks the loading position of the unwinder. If a new web roll is mounted in the printing direction, then the unwinder is loaded in its working position. If a new web roll is mounted against the printing direction, then the unwinder is brought to its lateral parking position for loading.

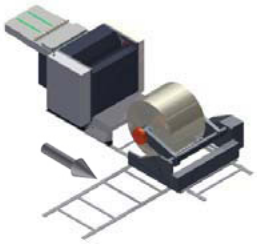


Installation option in-line:
Reel loading in printing direction

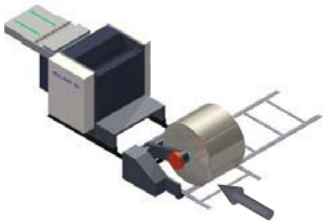
Perfectly adaptable to transport paths and local conditions



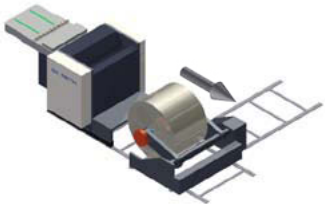
Installation option OS-I:
Unwinder parking position on the operator side,
Reel loading in printing direction



Installation option OS-G:
Unwinder parking position on the operator side,
Reel loading against printing direction



Installation option DS-I:
Unwinder parking position on the drive side,
Reel loading in printing direction



Installation option DS-G:
Unwinder parking position on the drive side,
Reel loading against printing direction

Technical features and options

Technical features MABEG ReelSheeter RS

- Quick changeover from web to sheet processing and vice versa
- Flush mounted tracks for convenient and fast loading of sheet feeder and payout winder
- Installation option can be chosen according to available space and logistics in the print shop
- The sheet pile can remain in the sheet feeder during web-fed production
- Good access, short routes, user-friendly operation
- Automatic web tension
- Menu-based touch screen
- Continuously variable size setting on the touch screen
- Sheet arrival timing correction on the touch screen during production
- Lateral web edge correction on the touch screen during production
- Accurate cut angle thanks to shearing principle
- The desired top face of the paper (felt side) can be chosen by selecting the web running direction accordingly
- No separate switch cabinet
- No vacuum pump, low energy consumption
- Remote maintenance

Options

- Web humidifying system
- Antistatic device
- Thin paper option
- Plastic option
- Corona treater to improve ink receptivity when processing plastic materials
- Height increase for printing presses with raised base
- Cut-to-register device

Omission of sheet separation step leads to improved process reliability
Thin paper processing down to 35 gsm Package printing

- plastics and in-mold labels
- sticker labels

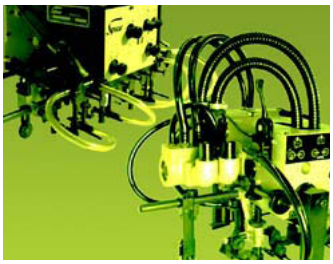
		RS 106	RS 112	RS 130	RS 142 [1.)]
Cut-off length (stepless, range ± 0.1 mm)	mm	450 to 740 [2.)]	500 to 830	600 to 970	600 to 1.020
Min. sheet size (W x L)	mm	520 x 450	520 x 500	600 x 600	700 x 600
Max. sheet size (W x L)	mm	1.060 x 740 [2.)]	1.120 x 830	1.300 x 970	1.420 x 1.020
Grammage	gsm	35 to 300 [3.)]	35 to 300 [3.)]	35 to 300 [3.)]	35 to 300 [3.)]
Max. speed [4.)]	sh./h.	18.000	17.000	16.000	15.000

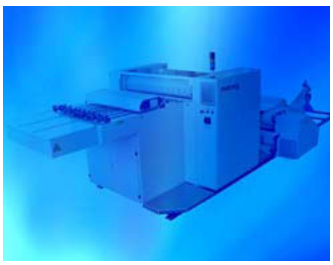
1) Size extension option to 1,450 x 1,050 mm² on request.
2) Optional max. sheet length: 780 mm
3) 35–70 gsm subject to previous testing.
4) Actual production speed depending on kind of processed material.

We continuosly develop our products. Therefore it is in your best interest that we reserve the right to modify any design features and technical specifications.

RS

MABEG Systems GmbH





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Top solution - saves money and time

Worldwide service for all mabeg and Spiess products.

Sheet Transportation Technology from MABEG. It simply works.

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