

SomaTec

The world of winding



Turret unwinders



The SOMATEC range

- In-line and off-line winders and unwinders
- Re-reelers and web processing machines
- Accumulators
- Finished reel and winding shaft handling
- Single winding components

What SOMATEC offers

- Support
- Technical development
- Project planning
- Design and manufacture
- Assembly and commissioning at SOMATEC and on site, worldwide
- Full automation and integration into new or existing machinery
- Modification and retrofitting of existing machinery and equipment
- After-sales service



Automatic turret unwinders

UW-E | UW-C | UW-S

UW-E

The compact turret unwinder with winding shaft support | [Page 4](#)

UW-C

The competitively priced turret unwinder with shaftless reel support | [Page 6](#)

UW-S

The high-performance turret unwinder with shaftless reel support | [Page 8](#)

Options

Optional features | [Page 10](#)

SOMATEC turret unwinders supply material reliably and consistently to your processing machinery that handles nonwovens, paper, film and composite materials. Their robust design, sophisticated reel change systems and perfect control make Somatec turret unwinders machines you can rely on.

With automatic splicing at full production speed, they play a key role in terms of efficient use of materials and machinery during converting or finishing.

The three basic designs offer a range of optional features and are adapted to meet the requirements of your machinery.

Please contact us if you would like a demo, or some advice.



UW-E turret unwinders

On the automatic UW-E turret unwinder, the reel take-up spindles are fixed onto the chucks. The reels requiring unwinding and the winding shafts are picked up. An overlap splice joins the sheets of material on successive reels at top production speed.

- Compact design
- Winding shaft support
- Automatic reel change and splicing
- Reel support on winding shaft from 76 mm (3") inner core diameter

Advantages

- Non-stop unwinding due to an automatic overlap splice up to the maximum production speed
- Low-loss splicing thanks to few remaining lengths, short overlap splices and splicing synchronisation by using several unwinders (combined with Somatec winders)
- Suitable for lower tension in the sheets of material
- Optional: Lifting arms, consistent ventilation of the winding shaft for more reliable processes, ultra light CFRP winding shafts for ergonomic setting-up processes
- Competitively priced basic machine with further optional functions possible (lifting arms, lift table and lift truck to feed the reels, both unwinding directions see page 10).

Technical data

Reel diameter:	1,200 mm max.
Reel weight:	1,500 kg max.
Material width:	2,000 mm max.
Speed:	500 m/min max.
Inner core diameter:	from 76.2 mm (3")

Other designs with different data are possible.

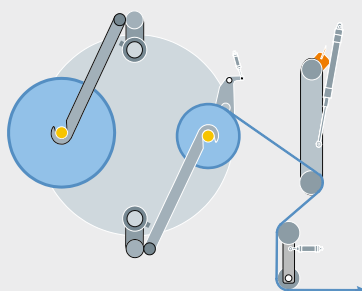
Winding process



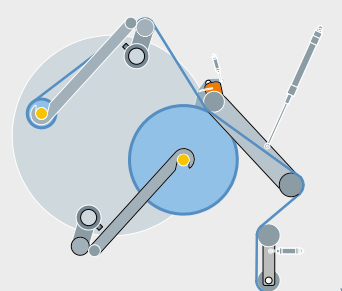
Splicing



Optional lifting arms



Unwinding position



Splicing



UW-C turret unwinder

The automatic UW-C turret unwinder picks up the reels to be unwound without a shaft. The spindles are affixed to the chucks. Adjustments to different core lengths can be carried out by turning a knob or electrically by adjusting the spindles. An overlap splice joins the sheets of material on successive reels at top production speed.

- Compact design
- Automatic reel change and splicing
- Shaftless reel support from 76 mm (3") inner core diameter; the core widths may vary in a range of ± 100 mm (if core widths are greater, use the UW-S turret unwinder)
- Spindles can be adjusted manually by turning a knob or via a servomotor

Spindle with manual adjustment by turning a knob



6" adaptor



Advantages

- Both cardboard or steel cores can be added
- Non-stop unwinding due to an automatic overlap splice up to the maximum production speed
- Low-loss splicing due to small remaining lengths and short overlap splice
- Tough, thick materials can also be cut with an actively guided knife
- Optionally also with sheet splicing system without the need to prepare the new reel
- Basic machine can be upgraded. Further optional features can be added to the UW-C turret unwinder (lifting arms, lift table and lift truck to feed the reel, both unwinding directions – see page 10).

Reel change system with an active knife guidance



Technical data

Reel diameter:	1,200 mm max.
Reel weight:	1,500 kg max.
Material width:	2,000 mm max.
Speed:	500 m/min max.
Inner core diameter:	from 76.2 mm (3")

Other designs with different data are possible.



UW-S turret unwinder

The automatic UW-S turret unwinder stands apart for its exceptional versatility. In addition to the heavy reel weights and fast speeds, it takes up reels of different widths without the need to change adapters etc. This is achieved by motorised, movable pick-up arms that clamp the reel in the middle and consistently compensate for the differences in width.

- Compact design
- Automatic reel change and splicing
- Shaftless reel support from 104 mm (4") inner core diameter; core widths can vary in a range greater than ± 100 mm
- Motorised, movable spindle slides

Advantages

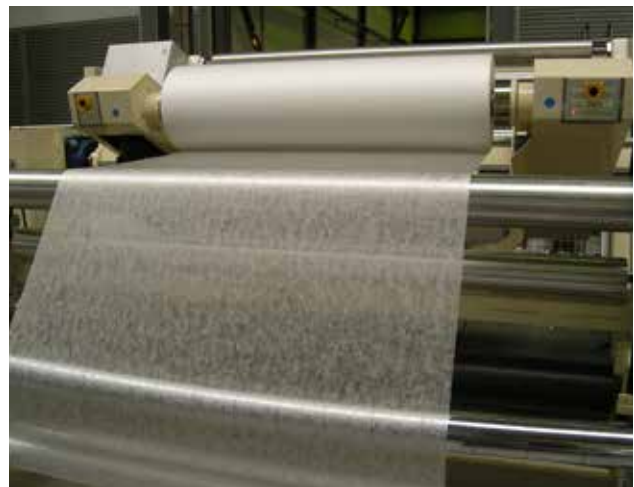
- Minimal reel handling thanks to large reels up to 1,500 mm in diameter and reel weights of up to 3,500 kg max.
- Non-stop unwinding due to an automatic overlap splice up to maximum production speed
- Low-loss splicing due to small remaining lengths and short overlap splice
- Basic machine can be upgraded. Further optional features can be added to the UW-5 turret unwinder (lifting arms, lift table and lift truck to feed the reels, both unwinding directions – see page 10).

Technical data

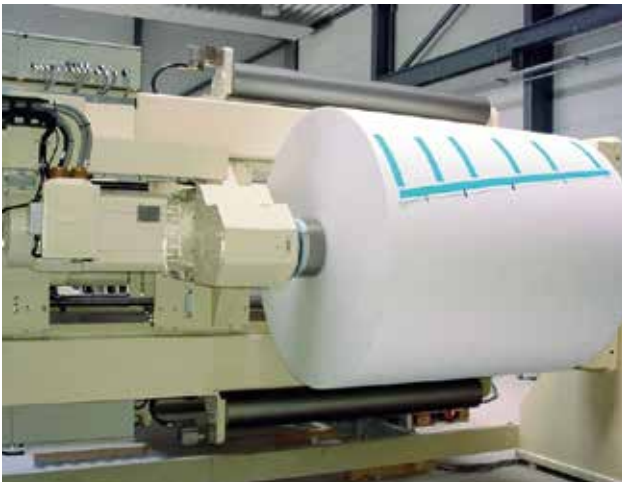
Reel diameter:	1,500 mm max.
Reel weight:	3,500 kg max.
Material width:	2,500 mm max.
Speed:	600 m/min max.
Inner core diameter:	from 152.4 mm (6")

Other designs with different data are possible.

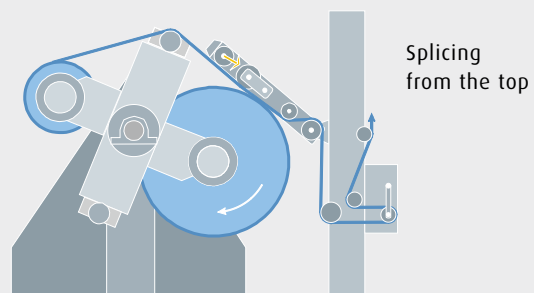
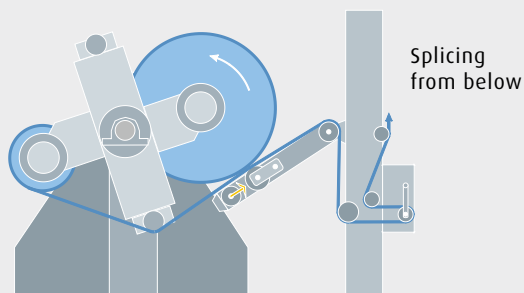
Reel in unwinding position



Prepared reel



Spindle operation



Options

Our basic machines are designed to handle the production environment concerned.

What's more, our optional features mean further potential for new machines and retrofits:

- Higher productivity
- Automation saves costs
- More flexible machinery

Automatic sheet splicing system



Two unwinding directions

Exceptional flexibility in terms of the unwinding direction and diameters thanks to motorised, adjustable splicing system.

- Only one cutting device for both unwinding directions is required due to active knife guidance
- A neat cut even with elastic materials

(In pneumatic cutting devices, a separate splicing system is required for each winding direction).

Scissor lift pallet truck



Unloading cart / Unloading table

Ideal set-up and cycle times due to fully automatic feed via a lift truck or lift table.

- No separate crane required
- No personnel in hazardous areas, no heavy loads for people to carry, exceptionally reliable processes

Swivel arm with precision-adjustable disk laser



Laser positioning aid

Makes aligning the new reel easier.

The laser is aligned based on the reel that has already been unwound. The new reel can be precisely positioned on its beam.

- Perfect alignment of the new reel
- Better use of material due to less edge trimming

Swivel-mounted frame for guiding the sheet of material



Web guiding systems

Perfect sheet tracking due to web-edge control.

The control function is carried out by a swivel-mounted frame or by moving the unwinder itself.

- Sheet precisely positioned for the downstream processes
- Alignment otherwise carried out based on the middle of the sheet or an edge



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