

M&A/ DIETERLE

MASCHINEN- & APPARATEBAU GMBH



**Cutting and
melting machine**

Machine programme

Our special machines cover all the production steps of spiral production from joining and filling to thermal fixing, cutting, welding and edge bonding of screens. The linking of individual machines into a self-contained production chain ensures intelligent and efficient production.

Our special machines are divided into the following areas of production:

<i>Machine type</i>	<i>Production area</i>
<i>Spiral machines</i>	Produce individual spirals (left / right) from various monofilaments, with different cross sections.
<i>Joining tables</i>	Join individual spirals (max. 64 at the same time) for the production of spiral screens.
<i>Filling tables</i>	Fill fixed and unfixed spiral screens with cored wire (max. 32 at the same time) with different cross-sections.
<i>Calender</i>	Thermal fixing
<i>Cutting and melting machines</i>	Marking, cutting edges, melting edges. Can be used for felting as well as screens.
<i>Bonding machine</i>	Bonds edges. Can be used for felts as well as screens.

Our special machines produce guaranteed top quality.

Effizient, präzise und zuverlässig!

Cutting and melting machine



Marking, cutting and melting unit for edge processing of felts and screens.

The cutting and melting machine can be mounted as a unit onto guide rails, onto a crane track or used directly on cantilever beams. The **production capabilities** of our special machines cover all production steps, from **marking** and **cutting** to the desired dimensions to **melting edges**. Our cutting and melting system can be used to cut diverse felts and screens and melt edges.

Design

- Clear and functional design
- Easy operation with state-of-the-art control technology
- Workspaces are fully visible
- easy access to all maintenance and work areas
- easily adjustable to diverse felt and screen formats
- CE safety standards
- Our units can be combined with a wide variety of existing machines

Operation and maintenance

- Easy to use and easy access to all areas
- Short training period for operating personnel
- Easy to make corrections at any time during the process
- Quick setup and conversion time for diverse materials
- Low maintenance and service costs

Design

Cutting unit with
transparent protective
cover

Touchscreen control
panel

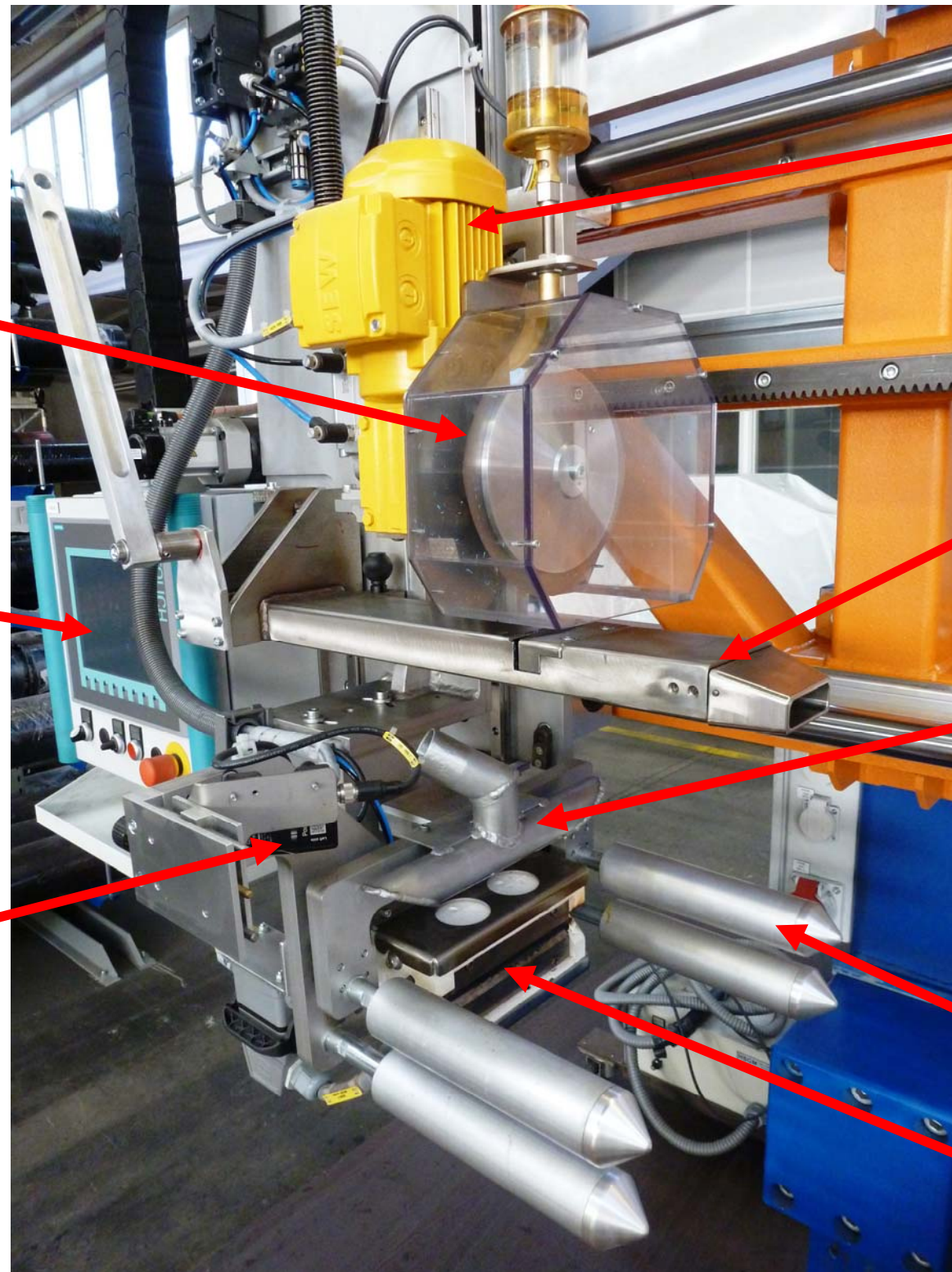
Edge sensor for
automatically
monitoring a uniform
welding process

Gear motor for cutting
unit

Counter support
beams for cutting unit

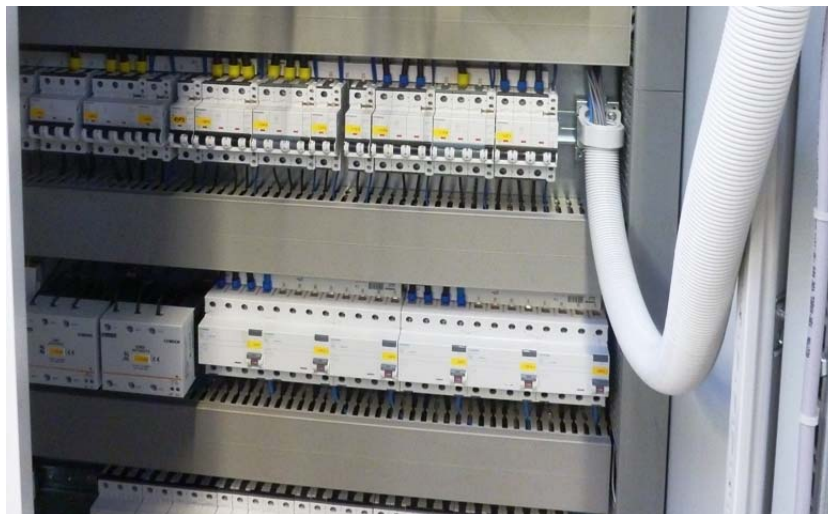
Suction located
directly at melting area

Melting unit with guide
rollers and
swivelling, heated
brass jaws





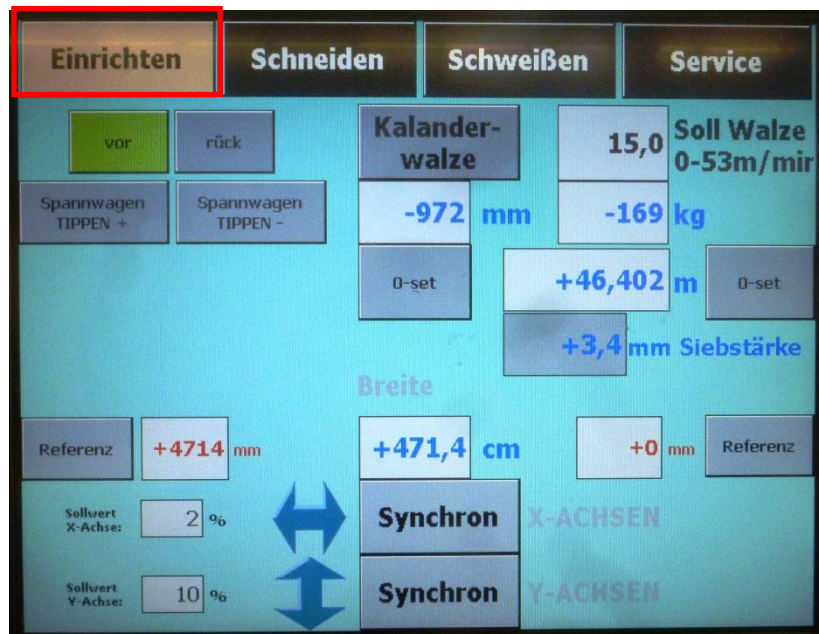
Control elements



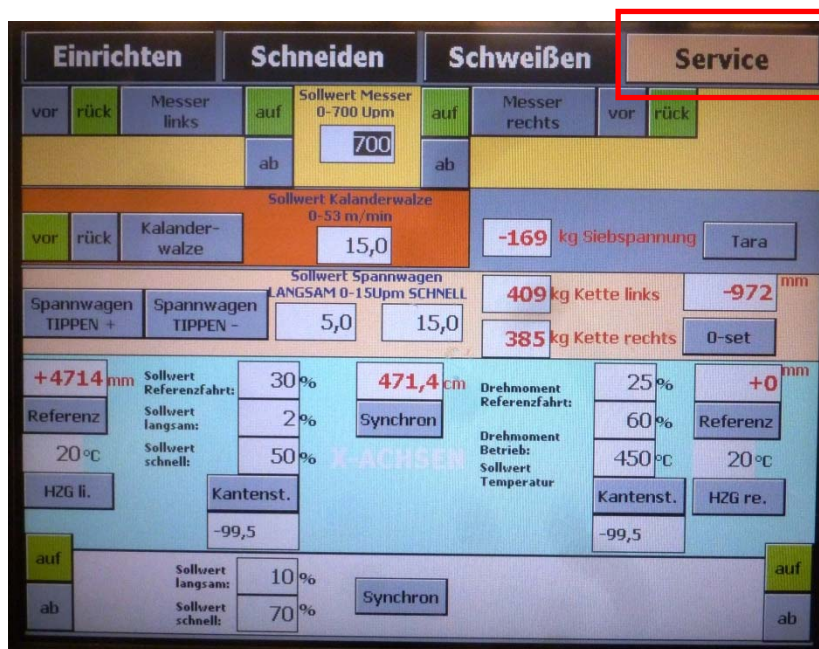
Clear arrangement of control components

Machine control

- Control and regulation of processing sequence with touch panel SPS controls in the immediate vicinity of the work area
- Clear arrangement of controls
- Quick access to all key operating functions via touch panel
- All relevant parameters visible in display
- All important production parameters are clearly displayed
- Display of parameters available in several languages
- One user can operate and monitor the cutting and melting process alone



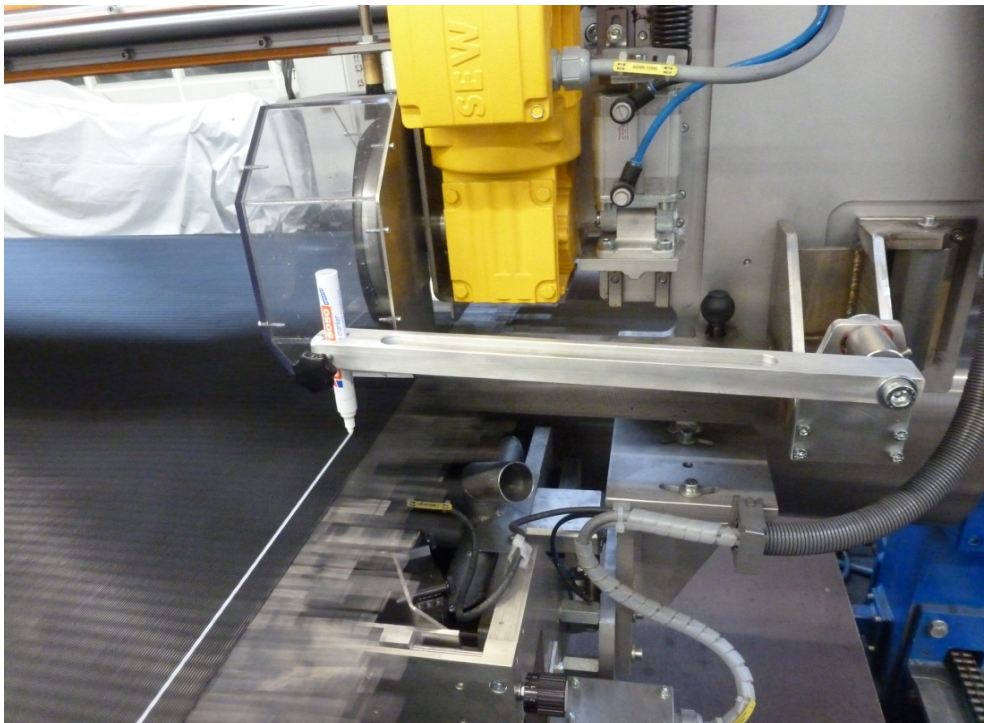
“Settings” menu screen



“Service” menu screen (parameter settings)

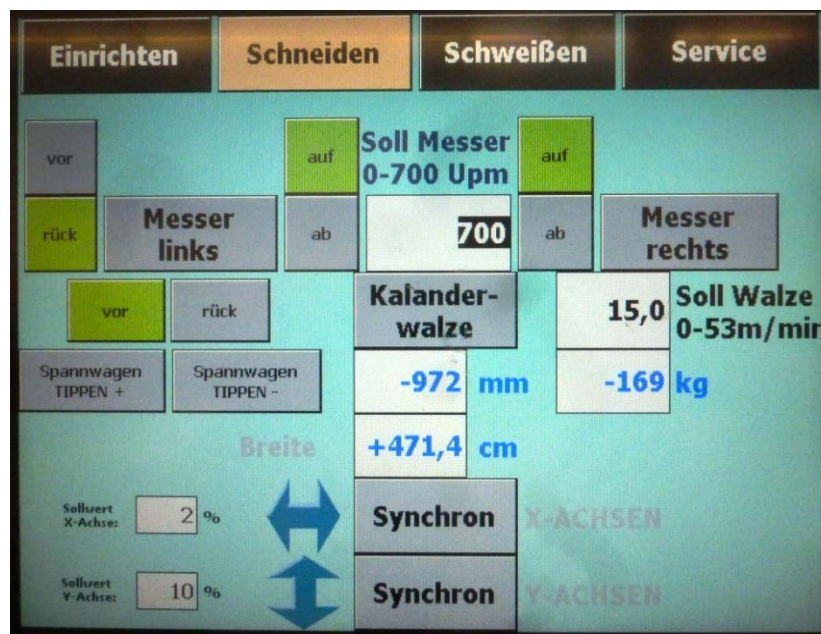
Rotation controls, marking

- A clamped marker ensures even rotation of the screen or felt and serves as a visualisation.
- The marking will immediately make visible any uneven alignment of the felt so the felt can be adjusted.



Cutting

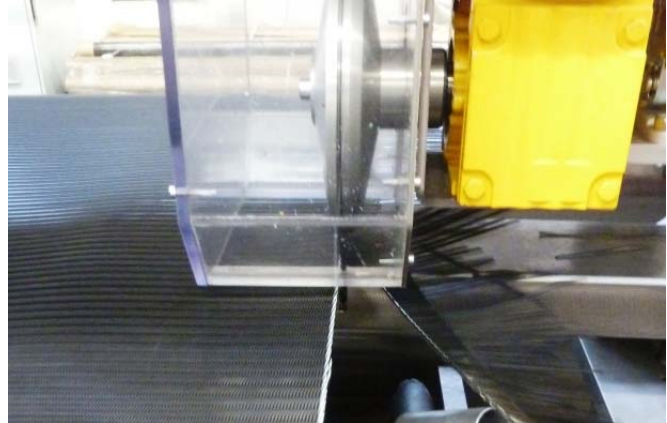
- A rotating blade with a polygonal cut cuts the screen or felt to the desired width. The polygonal cut prevents the edges from fraying for optimal cutting quality.
- In order to avoid accidents, the blade is covered with a transparent plastic guard.
- The blade can be adjusted during the cutting process.
- All movement sequences (measuring, cutting and welding) are monitored and executed by edge sensors and machine controls



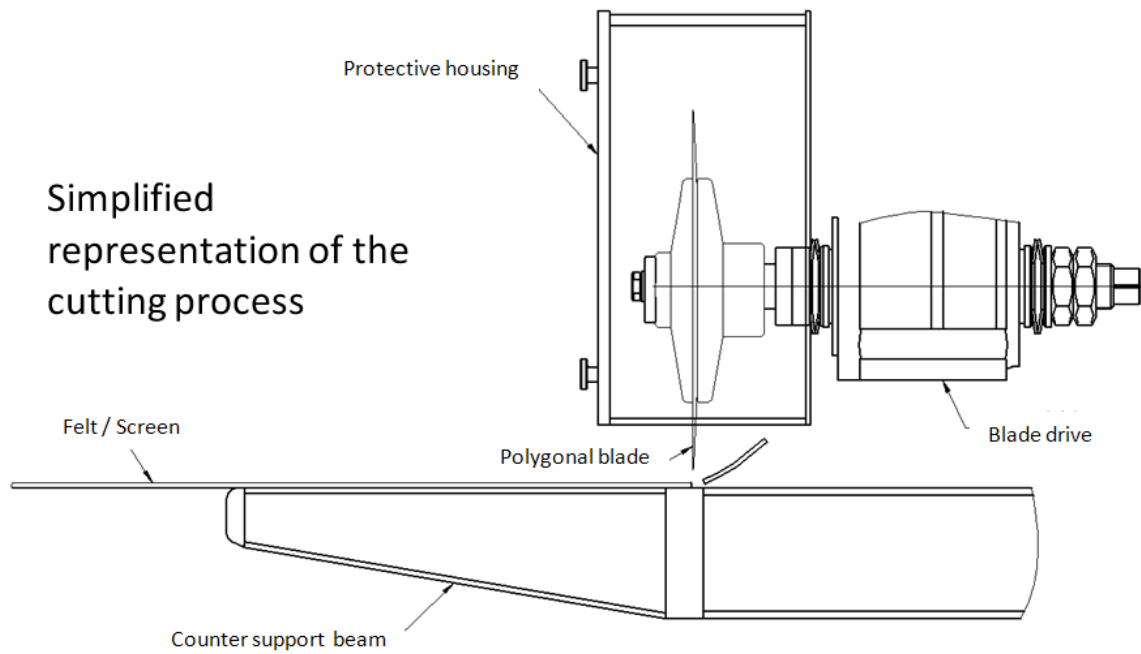
"Cutting" menu screen



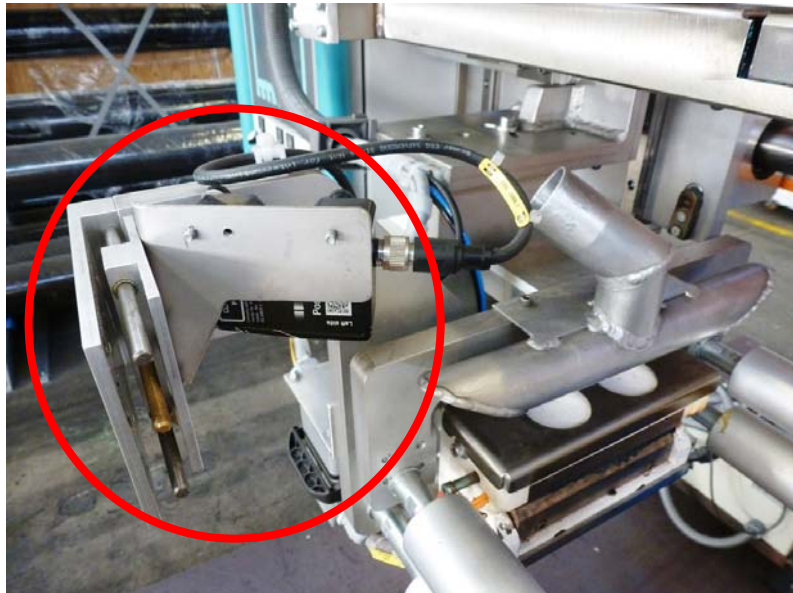
Polygonal blade, protective housing and counter support beams



Blade during cutting



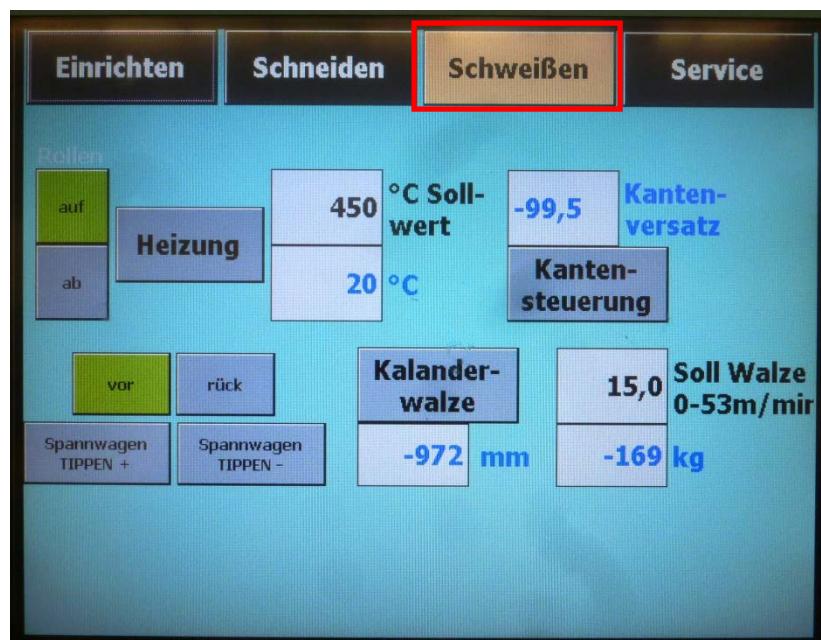
Edge sensor



Edge sensor position sensing and monitoring

Melt screen edge

- User-friendly operation
- Constant monitoring of the melting process by sensors
- The production process is easily visible for the operator
- The position of the sealing jaws is constantly monitored by the edge sensor during the melting process and automatically adjusted if necessary.



"Melting" menu screen



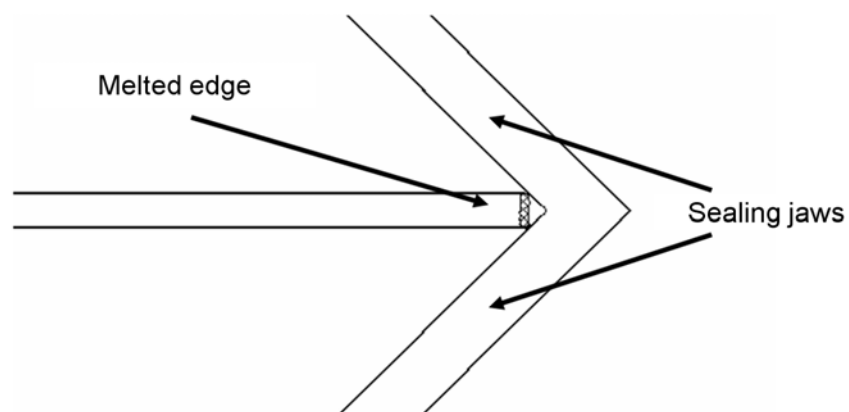
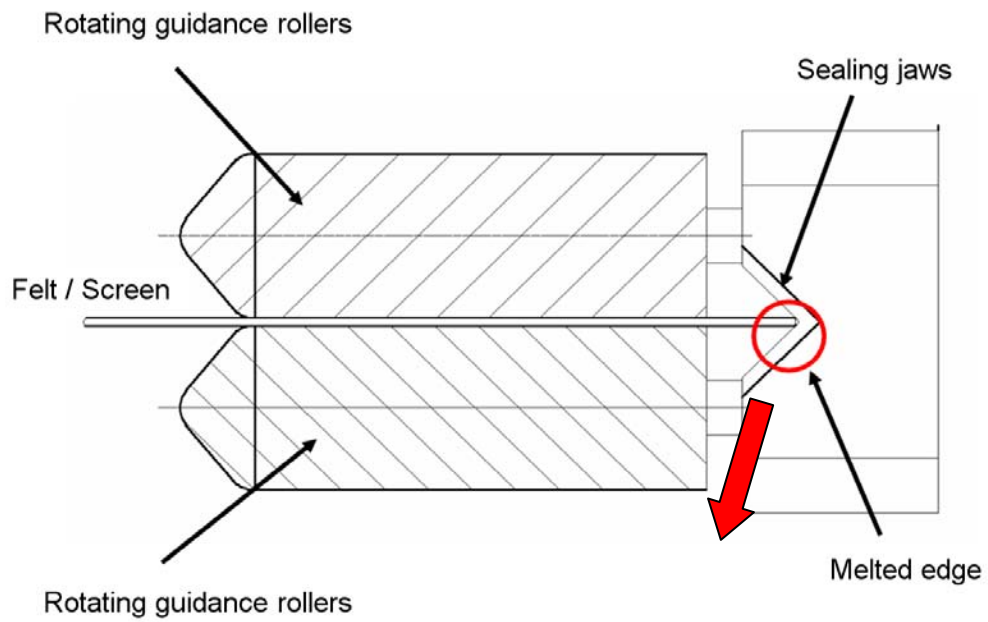
Guide rollers with centrally placed interchangeable sealing jaws

Advantages:

- The outer edges are evenly formed and shaped independent of the operator
- Universal shapes are possible (e.g. round on both sides, round on one side, square etc.)



Diagram oversized

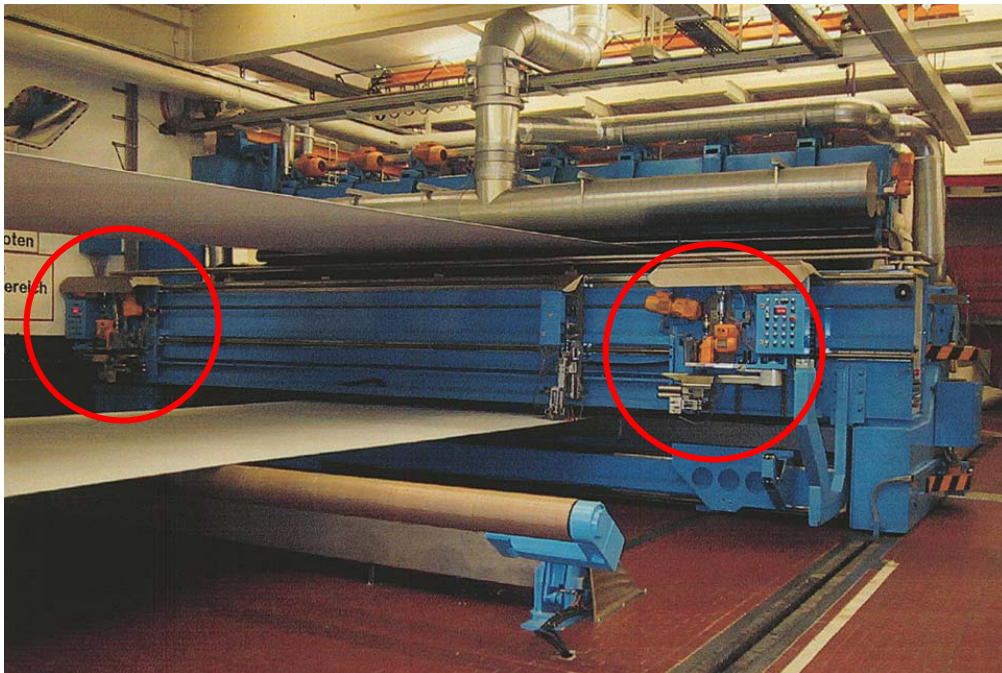


Technical data:	Cutting and melting device
Electrical connection:	400 V / 16 A
Controls:	SPS controls Control voltage: 24V
Hardware connections: (optional)	Network connection USB connection Monitor connection
Air supply:	6 bar (optional device-internal power supply)
Weight	Up to approx. 700kg according to type and design
Heating	Infrared emitters: max. 500 ° C The temperature is controlled by thermostats.
Processible felt and screen thicknesses	8 mm for felt 7 mm for screens
For felt: Max. belt speed	When cutting --> selectable When welding --> selectable
For screens: Max. belt speed	When cutting --> selectable When welding --> selectable
Dimensions:	Can be customised according to circumstances
General	Arrangement and positioning of individual components selectable according to customer requirements

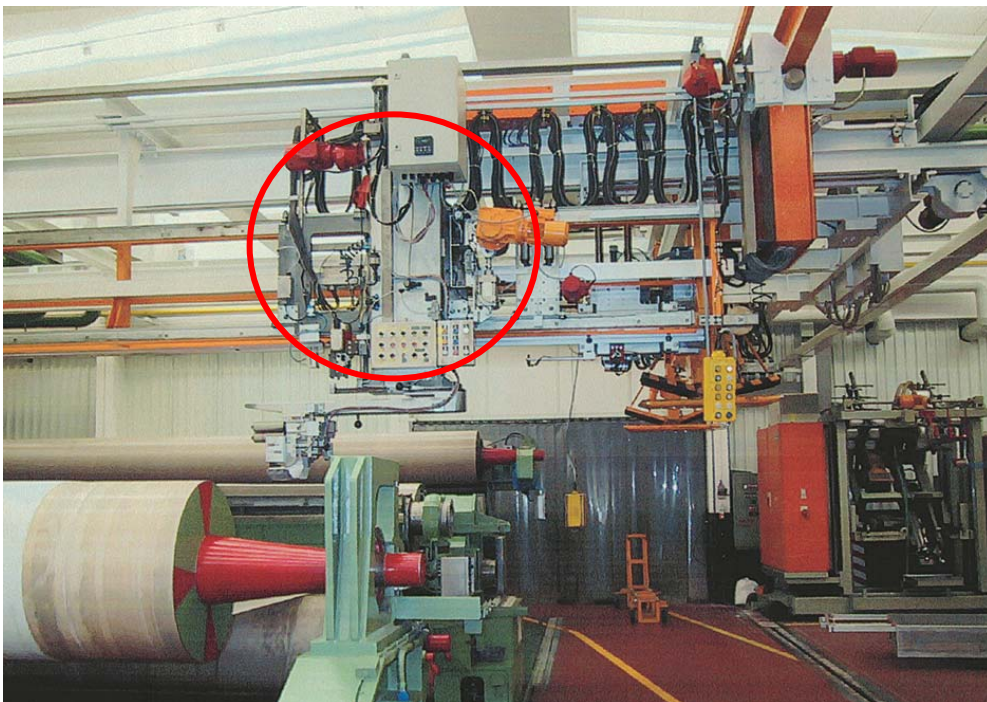
Various design options



Cutting and melting machine directly attached to calender



Cutting and melting machine directly attached to calender



Cutting and melting machine mounted on indoor crane runway





Consultation



Partnership



Quality



Service



Customer satisfaction

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Technology that benefits