



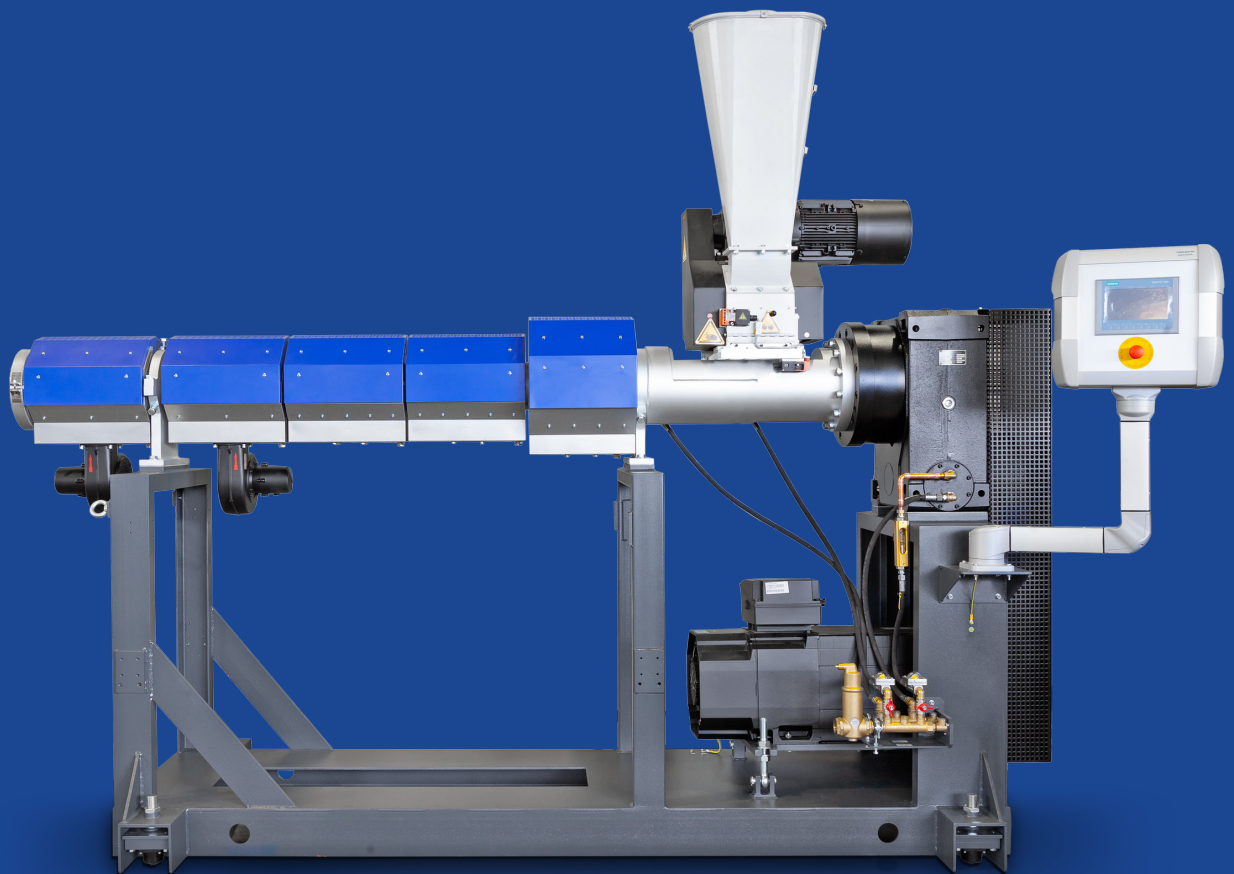
**Recycling redefined**  
efficient, sustainable, economical.

# The SIKOREX system the original for almost 35 years

Inline recycling for maximum process stability.

## Inline SIKOREX System

Machines of the SIKOREX series by SIKOPLAST are increasingly used in nonwoven production. These are recycling extruders with a conical screw design, equipped with one or two independently operated material feeders. Edge trims are drawn directly from the fleece winder, melted, and fed back into the production extruder as melt. Off-spec or start-up rolls, often in full width, can also be processed simultaneously.



### FUNCTIONALITY OF THE SIKOREX SYSTEM

- › Material is fed directly from the winder (edge trims) or unwind stand (rolls) via one or two feeders
- › Taken up, compressed and melted in the extruder
- › Melt pressure is monitored by an integrated pressure sensor
- › Melt is filtered by a screen changer
- › The recirculation rate can be adjusted via the melt pump
- › Automatic flushing valve/flush bore allows for easy system start-up
- › Connection via melt pipe to the production extruder
- › A non-return valve prevents melt backflow into the SIKOREX

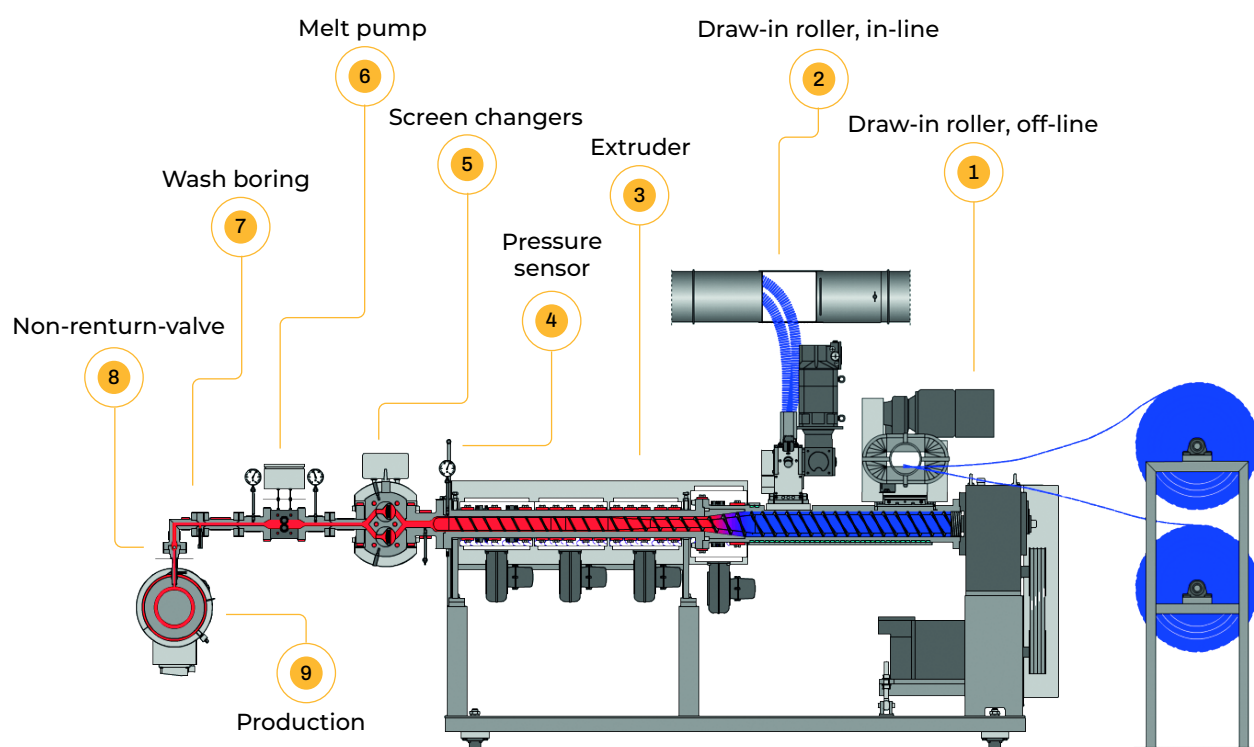
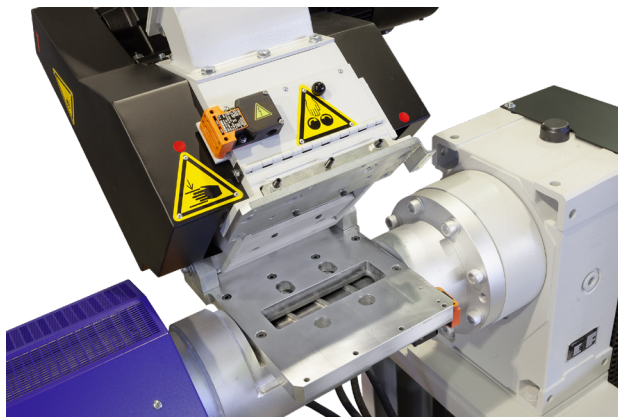
## INNOVATIONS IN THE NONWOVENS SECTOR

SIKOPLAST is responding to the trend toward hydrophilic and hydroentangled nonwovens with a modified system. In this setup, edge trims and start-up rolls are fed directly into the production process as melt.

The adapted recycling extruder is equipped with an extended screw (6 x L/D) for necessary degassing, along with a vacuum suction pump and a metering pump.

## AREAS OF APPLICATION

- Developed for the nonwoven and PE/PP film industry
- Also processes SMS nonwovens with high MFI and 100% meltblown content with excellent process stability
- Enables direct recycling of production waste (e.g. start-up rolls) into the process or into a raw material reactor (e.g. PA/PET)
- Infeed speeds up to 375 m/min – higher rates available on request



## ADVANTAGES



Standard systems with throughputs from 30 kg/h up to approx. 250 kg/h



No pre-crushing required – reduces material stress and avoids mill dust



Fast material and colour changes thanks to small L/D ratio and integrated flush bore



Controlled roller infeed compensates fluctuations and ensures a consistent recirculation rate



Parallel feeding of edge trims and rolled material via two separately controlled feeders



Up to 50 % lower energy consumption compared to off-line systems – granulation is not required



Short amortization period due to low investment costs, compact design, and direct in-line recycling



Minimal footprint thanks to the compact system layout



The special screw geometry enables gentle melting with short dwell times



The plastic melt is fed, with minimal residence time, directly into the production extruder – granulation is not required



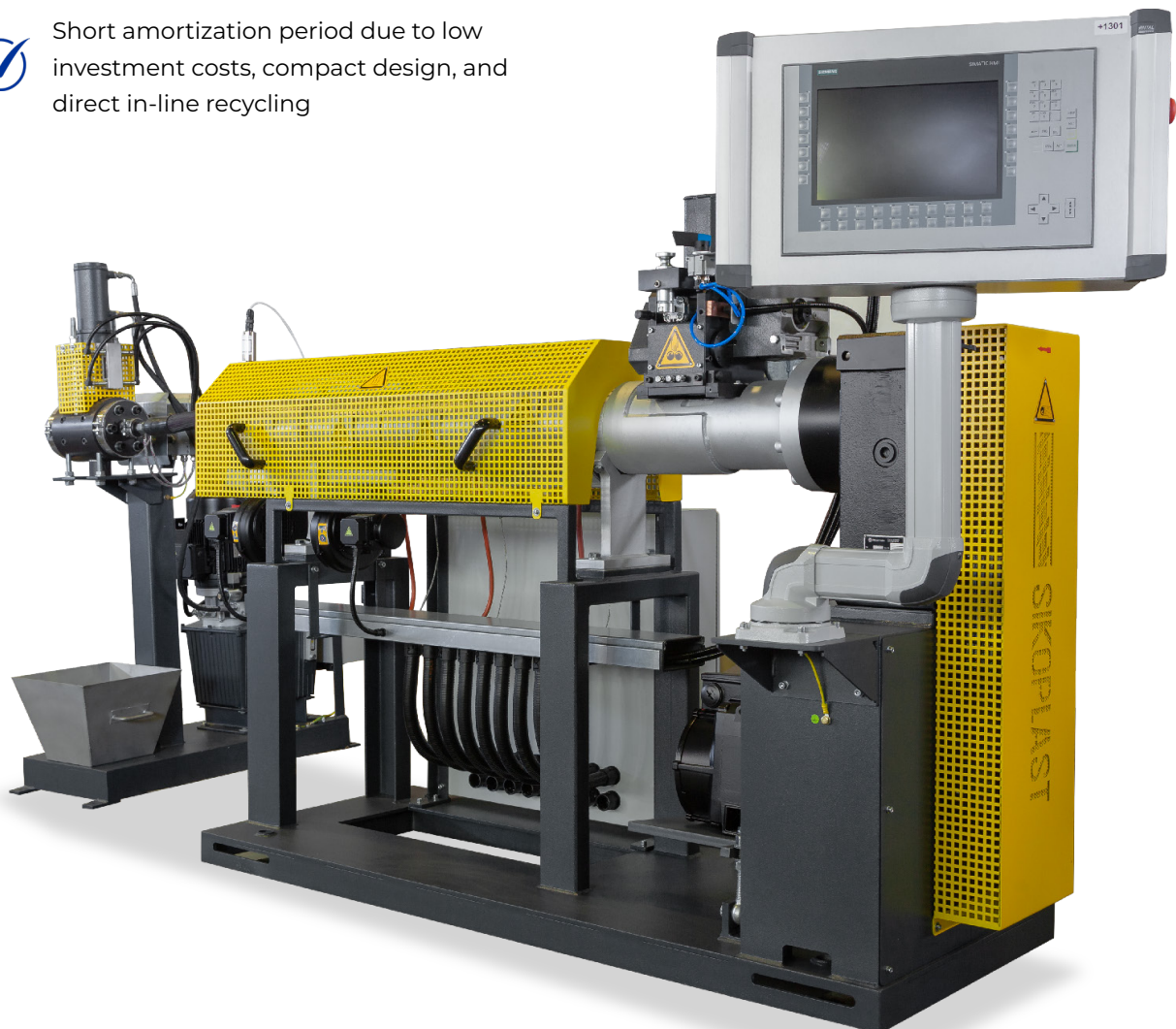
The system can be equipped with a melt metering pump for precisely defined recirculation rates



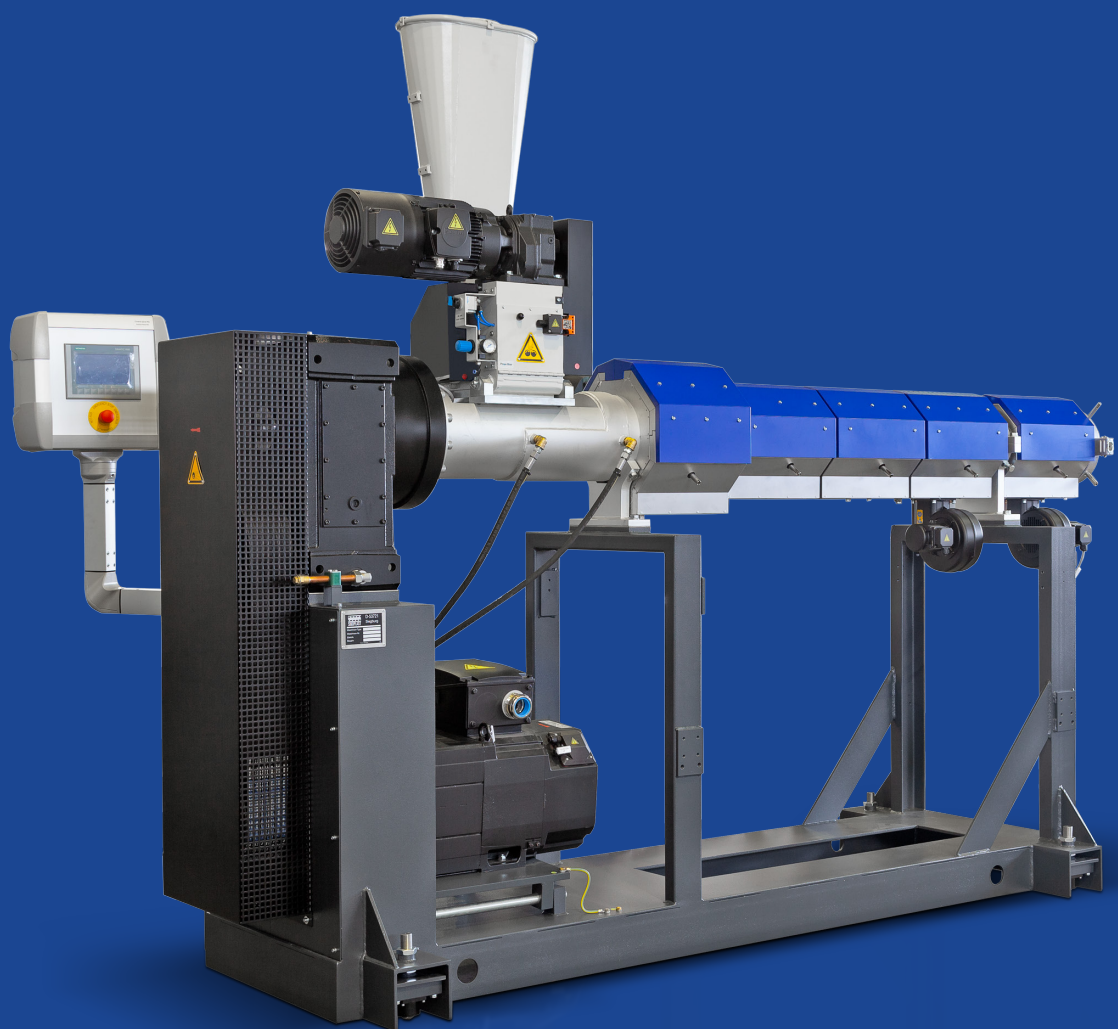
A screen changer can be integrated if needed



The fully automatic return system requires no additional operating personnel









**Our machines improve the world**  
SIKOPLAST Recycling Technology GmbH



## **SIKOPLAST**

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