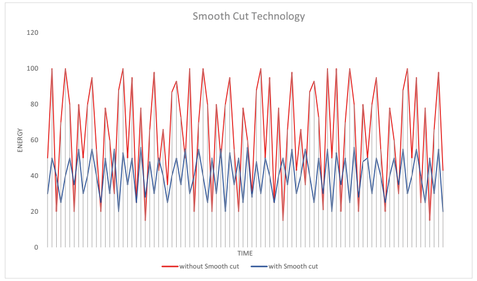
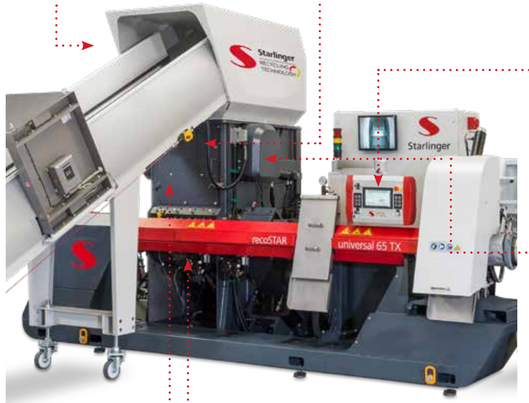


ACTIVE shredder featuring Smooth Cut Technology:

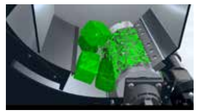
The number of rotor knives and their new arrangement and design ensure a smooth operation of the shredder with reduced and consistent power consumption and low noise generation.

Feeding via cyclone in-line with production line, nip roll feeder and conveyor belt.Material can be fed into the hopper in all shapes without pre-cutting.

Shredder design with curved pusher and increased buffer volume. The shredder bottom and dosing screw are opened hydraulically for easy access, allowing faster material and color change-over.

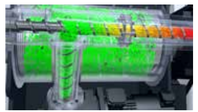


User-friendly control panel design, RFID chip operator identification, LED elements for intuitive operation, automatic start-up and stand-by, one-button start/stop, etc.



Exact cutting geometry with tight knife clearance and ideal stator/rotor knife arrangement ensures perfect material preparation. The slow-running rotor improves knife lifetime and overall reliability. Shredder rotor reverses automatically if required.

Easy maintenance is ensured by the large service opening; rotor and stator knife change is possible without moving the conveyor belt.



The innovative process adaption allows wide material variations. The load-controlled dosing screw ensures stable extruder feeding and perfect process stability.
Three-drive design ensures exact material dosing and output control.

Extruder screw and barrel are wear-resistant, optionally ultra-wear-resistant.

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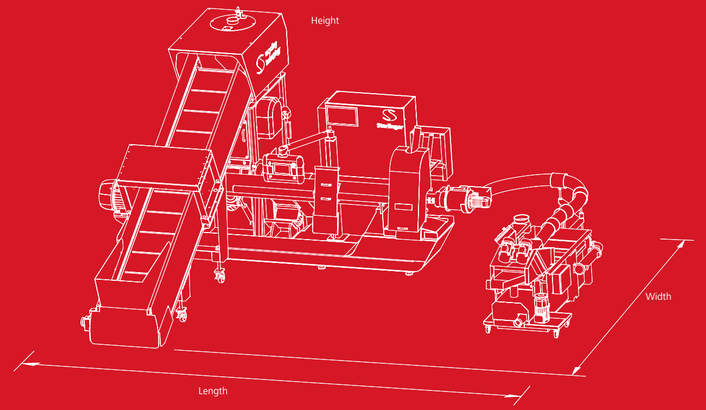

We reserve the right to technical modifications. Published 07/2025. DIR-24831

Dimensions	recoSTAR universal			
Type	**65**	**85**	**105**	**125**
Height [mm]	3800	3800	4400	4400
Height [foot]	*12'6"*	*12'6"*	*14'5"*	*14'5"*
Width [mm]	8000	8000	11000	11000
Width [foot]	*26'3"*	*26'3"*	*36'1"*	*36'1"*
Length (with degassing) [mm]	11000	12000	16000	17000
Length (with degassing) [foot]	*36'1"*	*39'4"*	*52'6"*	*55'9"*

Technical Data	recoSTAR universal			
Type	**65**	**85**	**105**	**125**
Output [kg/h]*	120-170	200-420	300-600	350-850
*Output [lbs/h]**	*265-375*	*440-930*	*660-1320*	*770-1870*
Energy Consumption [kWh/kg]	0,2-0,35	0,2-0,35	0,2-0,35	0,2-0,35
Energy consumption [kWh/lbs]	*0.13-0.16*	*0.13 - 0.16*	*0.13 - 0.16*	*0.13 - 0.16*
* without degassing				
ACTIVE shredder				
Shaft width [mm]	800	800/1200	1200	1200
Shaft width [inch]	*31.5*	*31.5 / 47.2*	*47.2*	*47.2*
Drive Power [kW]	55	55/90	90/110	90/110
Extruder				
Screw Diameter [mm]	65	85	105	125
Screw diameter (L/D) [inch]	*2.5*	*3.3*	*5*	*5*
L/D	40*	40*	24(40*)	24(40*)
AC Drive [kW]	45/55	90	132/160	160/200
* with degassing				
Downstream equipment				
°Degassing: vacuum, high vacuum	vacuum	vacuum	❍	❍
Waterring pelletizer	●	●	●	●
Strand/automatic strand pelletizer			❍	❍
Underwater pelletizer			❍	❍

● standard ❍ option

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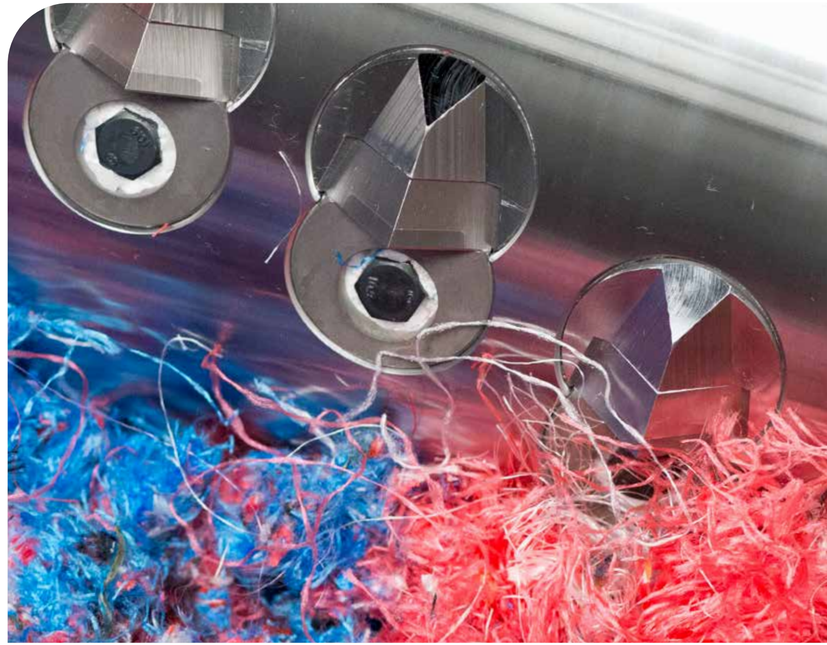
RECYCLING TECHNOLOGY



RECYCLING LINE recoSTAR universal

for in-house production scrap, integrated ACTIVE shredder, **Smooth Cut Technology for efficient cutting,** robust and high-performance design, **easy accessibility and fast maintenance**

Starlinger

RECYCLING LINE recoSTAR universal

Machine pictured may include equipment and accessories.

State-of-the-art recycling technology with extended functionality and **innovative process adaption through the ACTIVE shredder.** Designed for processing films, fibers and filaments, nonwovens, tapes, fabrics, as well as solid lumps, start-up scrap, injection moulding parts, and any type of regrind; from materials such as PE, PP, PS, PA, PES, PET, PPS, PLA, and others.

The ACTIVE shredder ensures perfect material preparation for high output through exact cutting geometry and double-coil rotor design. Easy access and maintenance leads to high up-time and availability.

The load-controlled dosing screw ensures stable extruder feeding and perfect process stability even when the bulk density varies.

The optional degassing extruder purifies the melt from volatile contamination and monomers. High-vacuum degassing for hygroscopic polymers is optionally available. Wear-resistant extruder design.

A variety of melt filters for removing solid contaminants is available. The optional backflushing reduces costs for filter screens and operator intervention. In case of higher contamination a power backflushing or continuous filter is recommended.

The water ring pelletizer ensures exact cutting for high pellet quality and low operating costs. The remote control panel next to the pelletizer allows starting/stopping of the line also from this position. Alternatively, a strand, automatic strand, or underwater pelletizer can be used.

Consistent high pellet quality – up to 100 % reuse in a variety of applications.

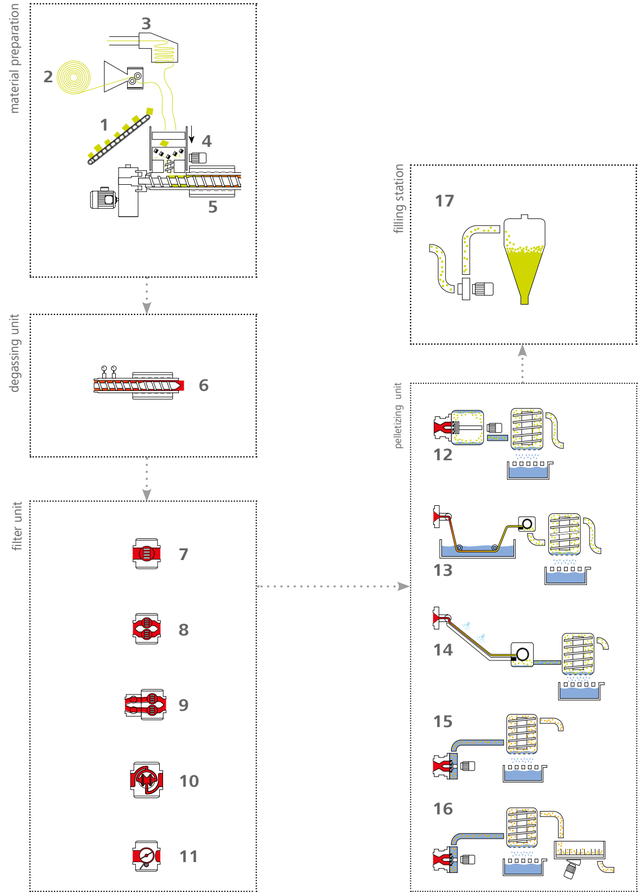
Compounding with powder, liquid or masterbatch allows upcycling of the plastic scrap. The Starlinger recoBATCH technology enables the production of masterbatch in-house.

ACTIVE shredder

High performance ACTIVE shredder for rigids, flexibles and hard-to-grind materials without pre-cutting:

- **A** accessibility & quick material change
- **C** controlled cutting & dosing
- **T** tight knife clearance & high performance
- **I** intelligent & innovative
- **V** versatile & wide material range
- **E** easy start & stop operation

RECYCLING TECHNOLOGY



1. Conveyor belt
2. Nip roll feeder
3. Edge trim cyclone
4. ACTIVE shredder
5. Extruder
6. Degassing extruder
7. Melt filter, discontinuous
8. Melt filter without backflushing
9. Melt filter with backflushing
10. Melt filter with power backflushing
11. Continuous melt filter
12. Water ring pelletizer
13. Strand pelletizer
14. Automatic strand pelletizer
15. Underwater pelletizer (UWP)
16. UWP with inline crystallisation
17. Filling station