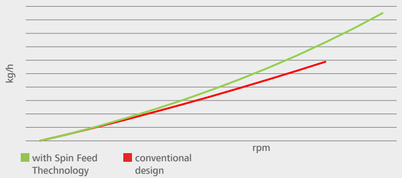
Output comparison



Spin Feed Technology: Due to various new design elements such as the ribs in the SMARTfeeder, the screw design in the infeed zone and the twisted cone bush, the material is fed into the extruder with a spin, boosting the system output.

Feeding via cyclone in-line with production line, nip roll feeder and conveyor belt; simplified start-up through control of filling level.

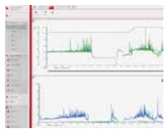
Dynamic Automatic Package plus: In addition to counterbalancing fluctuations in the input material such as bulk density, size and moisture, the new DAPplus reacts to material feeding disruptions by changing into standby and resuming operation automatically.

Large SMART feeder for a wide range of input materials. Enlarged operation window due to water-cooled bottom.

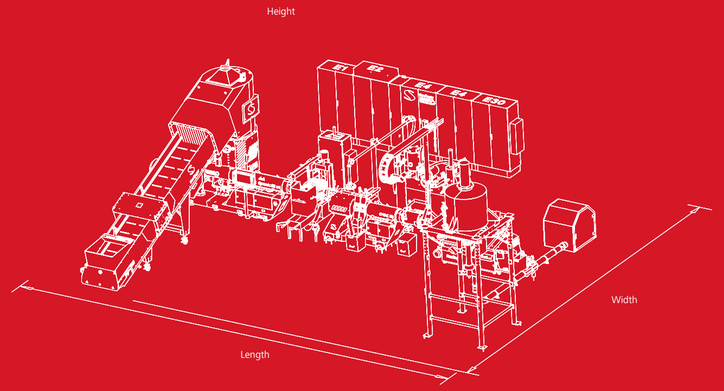
Radiant extruder heat is used for the SMART feeder air-flush, allowing higher moisture content.

Side feeder for accurate dosing of additives directly into the extruder. Dosing rate controlled by pellet output feedback loop.

Optimally prepared material is continuously fed into the extruder by centrifugal force.



The starLOGGER online writer is used to records and displays real-time and historical telemetry data. 50 parameters can be stored in short intervals in an internal memory.



We reserve the right to technical modifications. Published 08/2025, DPR-24821

Dimensions in mm / inch	recoSTAR dynamic art					
Type	**85**	**105**	**125**	**145**	**165**	**215**
Height [mm]	4800	4800	4800	4800	4800	4800
Height [feet]	*15'7"*	*15'7"*	*15'7"*	*15'7"*	*15'7"*	*15'7"*
Width [mm]	13000	13000	13000	13000	13000	14000
Width [feet]	*42'7"*	*42'7"*	*42'7"*	*42'7"*	*42'7"*	*45'9"*
Length (with degassing) [mm]	14500	17100	19700	22300	25000	27600
Length (with degassing) [feet]	*47'6"*	*56'1"*	*64'6"*	*73'1"*	*82'*	*90'5"*

Technical Data						
Type	**85**	**105**	**125**	**145**	**165**	**215**
Output [kg/h]	400 - 700	600 - 800	800 - 1100	1000 - 1400	1600 - 2100	2400 - 3000
Output [lbs/h]	*900 - 1550*	*1300 - 1750*	*1750 - 2400*	*220 - 3100*	*3500 - 4650*	*5300 - 6600*
Energy consumption [kWh/kg]	0.2 - 0.3	0.2 - 0.3	0.2 - 0.3	0.2 - 0.3	0.2 - 0.3	0.2 - 0.3
Energy consumption [kWh/lbs]	*0.09 - 0.14*	*0.09 - 0.14*	*0.09 - 0.14*	*0.09 - 0.14*	*0.09 - 0.14*	*0.09 - 0.14*
SMART feeder						
Diameter [mm]	1270	1430	1580	1650	2050	2050
Diameter [inch]	*50*	*56*	*62*	*65*	*81*	*81*
Drive power [kW]	132/160	160/200	200/250	250/315	315/400	400/500
Screw diameter (L/D) [mm]	85 (28; 44*)	105 (28; 44*)	125 (28; 44*)	145 (28; 44*)	165 (28; 44*)	215 (28; 44*)
Screw diameter (L/D) [inch]	*3.3 (28; 44*)*	*5 (28; 44*)*	*5 (28; 44*)*	*5.7 (28; 44*)*	*6.5 (28; 44*)*	*8.5 (28; 44*)*
AC drive [kW]	90	132	200	250	355	560
*with degassing						
Downstream equipment						
Degassing: vacuum, cascade vacuum, high vacuum	❍	❍	❍	❍	❍	❍
Water ring pelletizer	●	●	●	●	●	
Strand/automatic strand pelletizer	alternative	alternative	alternative	alternative	alternative	alternative
Underwater pelletizer	alternative	alternative	alternative	alternative	alternative	●

● standard ❍ option

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A member of Starlinger Group

All data depending on design!

RECYCLING TECHNOLOGY

RECYCLING LINE recoSTAR dynamic | dynamic art

for post-consumer plastics and production scrap, wide range of applications, **inline recycling,** superior functionality with SMART feeder, **dynamic automation package,** spin feeding for higher output

Starlinger

RECYCLING LINE recoSTAR dynamic art

RECYCLING TECHNOLOGY

Machines pictured may include equipment sold as options.

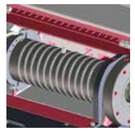
State-of-the-art plastics recycling machine featuring **Spin Feed Technology** and extended functionalities such as **SMART feeder** and **Dynamic Automation Package.** Designed for processing film, fibers, thermoplastic in-house production scrap and washed post-consumer plastics from materials such as PE, PP, PET, PES, PA, PLA, PS, PPS as well as foamed products. The most efficient solution for **hygroscopic and washed materials.**

The SMART feeder optimally prepares the input material and feeds it into the extruder by centrifugal force. **The Dynamic Automation Package** regulates the ideal operation point. Automatic speed adjustment of rotating disc and positioning of load-controlled intake slider counterbalance fluctuations in the input material.

The amor-plated wear-resistant extruders are designed and manufactured in-house. The optional degassing extruder purifies the melt from volatile contamination and monomers. Highly printed, very humid or organically contaminated input material requires the C-VAC module, hygroscopic input material the H-VAC module.

Melt filters for continuous removal of solid contaminants are available. The optional backflushing function reduces costs for filter screens and operator intervention. In case of higher contamination, a power backflushing or continuous melt filter is recommended.

The pelletizing system is chosen depending on polymer type and preferred pellet shape. In case of automatic strand pelletizing, broken strands are automatically inserted into the strand pelletizer without operator interference. Alternatively, manual strand, water ring, or underwater pelletizers are available.



Water cooled extruder barrel with separate water pump and -circuit for energy efficient, powerful and fast processing temperature regulation

Intuitive and user-friendly control panel design with enhanced functions such as display of wiring diagrams and maintenance instructions. LED user elements, automatic start-up and stand-by, one-button start/stop.

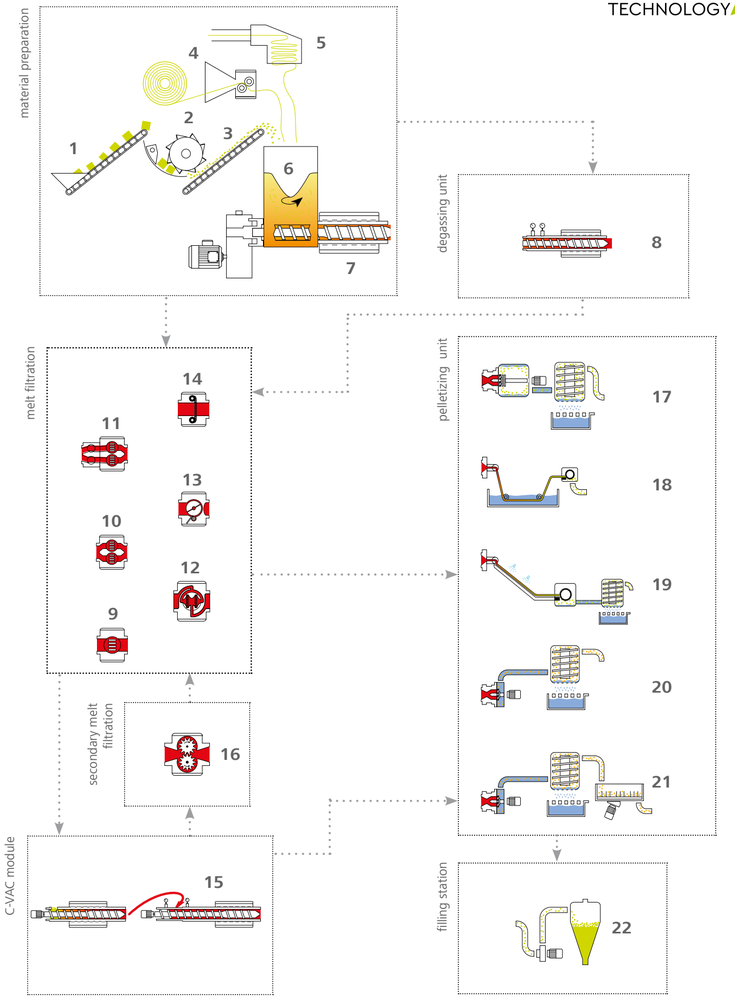
The high pellet quality enables up to 100% recycled content in the end product. Additives can be mixed in to increase the possibilities for reuse by adjusting pellet characteristics.

SMART feeder

for ideal material preparation prior to extrusion through performing the following steps simultaneously:

S shrink & cut
M mix & homogenize
A active feed & control
R rotate & friction
T temperature & dry

RECYCLING TECHNOLOGY



1. Conveyor belt
2. Single-shaft cutter, stand-alone
3. Conveyor belt with metal detector
4. Nip roll feeder
5. Edge trim cyclone
6. SMART feeder
7. Extruder
8. Degassing unit
9. Melt filter, discontinuous
10. Melt filter without backflushing
11. Melt filter with backflushing
12. Melt filter with power backflushing
13. Continuous melt filter
14. Band filter
15. C-VAC degassing extruder
16. Melt pump
17. Water ring pelletizer
18. Strand pelletizer
19. Automatic strand pelletizer
20. Underwater pelletizer (UWP)
21. UWP with inline crystallisation
22. Filling station