RECYCLING TECHNOLOGY

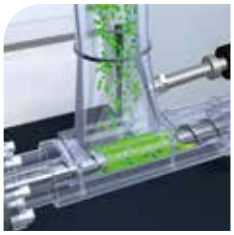
RECYCLING LINE recoSTAR direct

for production and post-industrial scrap, regrind with high bulk density, **wide range of thermoplastics,** space and energy saving, **one-button start/stop,** cost-effective solution

Starlinger

RECYCLING LINE recoSTAR direct

State-of-the-art recycling technology for the **cost-effective processing** of regrind with high bulk density (> 300 g/l): **Production and post-industrial scrap** from materials such as PE, PP, PS, PA and PLA.



The direct feeding of regrind with high bulk density is done by a feeding screw mounted on top of the extrusion line. Additional dosing of master-batches or additives is possible.

The user-friendly touch-screen allows simple operation with RFID-chip controlled user levels, alarm history, recipe management, maintenance control, etc. Screenshots can be down-loaded via the USB-port.

A variety of different melt filters for removing dirt particles are available. The optional backflushing reduces costs for filter screens and operator intervention. For higher contamination, a power backflushing or continuous rotation filter is recommeded.

The patented water ring pelletiser ensures exact cutting for increased pellet quality and reduced wear of knives. Alternatively, strand, automatic strand, or under-water pelletising can be used.

The result: Regranulate with consistent high quality. The uniform pellets have flow characteristics like virgin resin and can be re-used up to 100 % in the same application, or up-cycled for other purposes.

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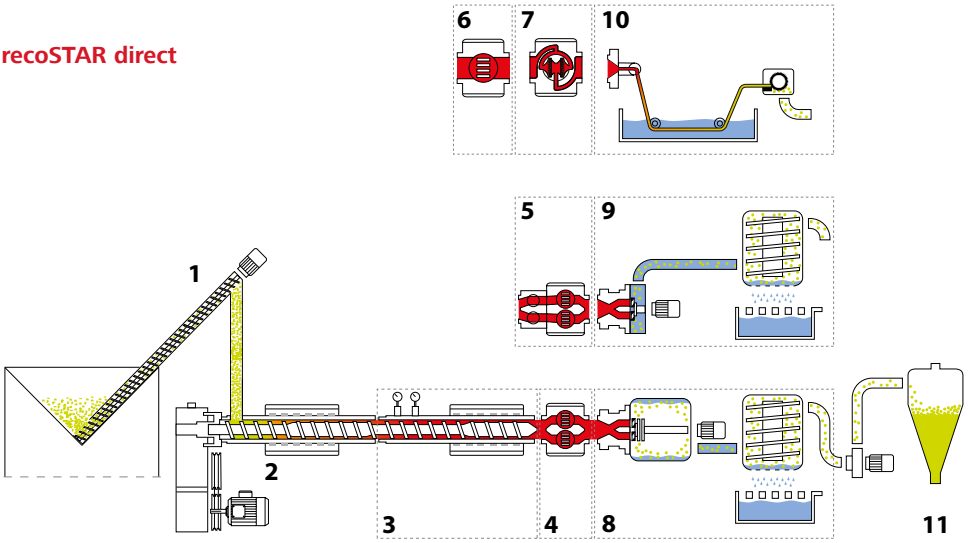
Machines pictured may include equipment sold as options.

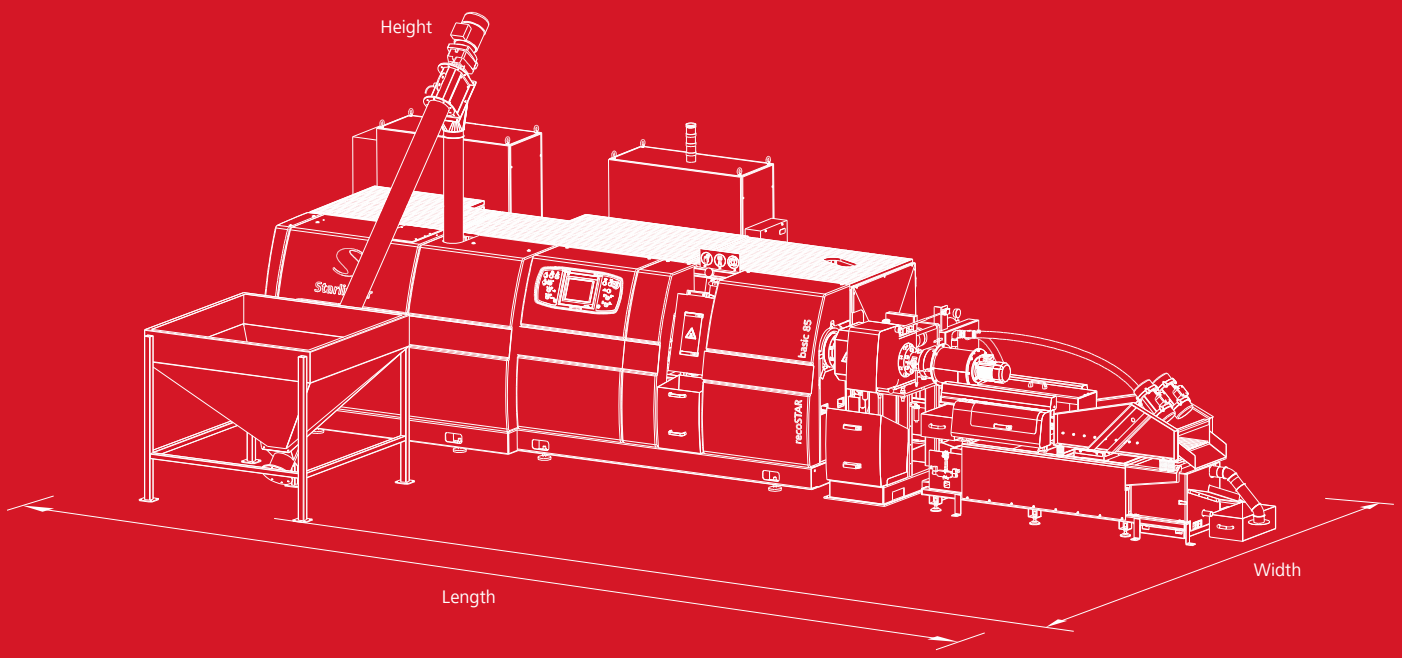
recoSTAR direct



1. Hopper with feeding screw
2. Extruder
3. Degassing extruder
4. Melt filter without backflush
5. Melt filter with backflush
6. Discontinuous melt filter
7. Power backflushing filter
8. Water ring pelletiser
9. Underwater pelletiser
10. (Automatic) Strand pelletiser
11. Storage silo

Advantages

- Dusty regrind transformed into dust-free regranulate
- Economical investment
- Low energy consumption/kg
- Easy-to-work-with recycling solution
- Operator and maintenance friendly
- For a wide range of thermoplastics
- Advantageous processing costs



We reserve the right to technical modifications. Published 06/2025. DPR-24871

Dimensions in mm							recoSTAR direct
Type	**65**	**85**	**105**	**125**	**145**	**165**	**215**
Height in mm	4300	4300	4300	4300	4800	4800	5100
Height in feet	*14'1"*	*14'1"*	*14'1"*	*14'1"*	*15'9"*	*15'9"*	*16'9"*
Width in mm	5800	5800	7500	8900	10300	10300	10300
Width in feet	*19'2"*	*19'2"*	*24'7"*	*29'2"*	*33'9"*	*33'9"*	*33'9"*
Length (with degassing) in mm	7850	9150	14000	17800	19500	22500	24300
Length (with degassing) in feet	*25'9"*	*30'*	*45'11"*	*58'5"*	*64'*	*73'1"*	*79'9"*

Technical data							recoSTAR direct
Type	**65**	**85**	**105**	**125**	**145**	**165**	**215**
Output [kg/h]*	130 – 180	250 – 350	400 – 600	650 – 800	800 – 1000	1000 – 1200	1600 – 2000
*Output [lbs/h]**	*290 - 400*	*550 - 770*	*880 - 1320*	*1430 - 1760*	*1760 - 2200*	*2200 - 2640*	*3530 - 4410*
Energy consumption [kWh/kg]	0.20 – 0.35	0.20 – 0.35	0.20 – 0.35	0.20 – 0.35	0.20 – 0.35	0.20 – 0.35	0.20 – 0.35
Energy consumption [kWh/lb.]	*0.09 - 0.16*	*0.09 - 0.16*	*0.09 - 0.16*	*0.09 - 0.16*	*0.09 - 0.16*	*0.09 - 0.16*	*0.09 - 0.16*
* without degassing							
Extruder							
Screw diameter (L/D) [mm]	65 (24; 40*)	85 (24; 40*)	105 (24; 40*)	125 (24; 40*)	145 (24;40*)	165 (24; 40*)	215 (24; 40*)
Screw diameter (L/D) [inch]	*2.5 (24; 40*)*	*3.3 (24; 40*)*	*4.1 (24; 40*)*	*4.9 (24; 40*)*	*5.7 (24; 40*)*	*6.5 (24; 40*)*	*8.5 (24; 40*)*
AC drive [kW]	45/55	75/90	110/132	160/200	200/250	250/315	405/500
* with degassing							
Downstream equipment							
Degassing	❍	❍	❍	❍	❍	❍	❍
High-vacuum execution	❍	❍	❍	❍	❍	❍	❍
Water ring pelletiser	●	●	●	●	●	●	●
Strand/automatic strand pelletiser	alternative	alternative	alternative	alternative	alternative	alternative	alternative
Underwater pelletiser	alternative	alternative	alternative	alternative	alternative	alternative	alternative

● standard ❍ option

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All data depending on design!

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