

INTAREMA® ReGrindPro®

Highly efficient regrind recycling



CHOOSE THE NUMBER ONE.

Input: regrind



- Thick-walled particles, high bulk density
- HDPE, PP, ABS, PS, etc.
- Regrind source: packaging, automotive applications, WEEE*, household, building/construction, etc.
- High moisture (up to 8%)
- Heavy, varying contamination with a multitude of impurities: rubber, silicone, soft contaminants (wood and paper) and foreign polymers (PET, PA), etc.
- Mixed fractions with a variety of compositions

* Waste Electrical and Electronic Equipment

Output: recycled pellets



- High recycled pellet quality: perfectly filtered and degassed, extremely low thermal stress on the polymer structure
- As a result: high portion of recyclate possible in the new end product (e.g. non-food bottles, piping, automotive applications, film/sheet, etc.)
- End products with optimum surface roughness

Gentle and successful.

Moist and contaminated regrind on one side. High-quality, perfectly filtered and degassed recycled pellets on the other. In between: **the newly developed INTAREMA® RegrindPro®** for the particularly gentle processing of regrind.

The innovative system offers all the benefits of the INTAREMA® plant generation, such as the top technologies Counter Current, Smart Start and ecoSAVE®, for example, which set the standard in **production efficiency in plastics recycling**.

Key factors: Gentle processing and highly efficient filtration

The secret here lies primarily in the extremely gentle processing of the regrind. This begins early on in the preconditioning unit where the thick-walled material is perfectly heated through so it can be melted inside the extruder without severe shearing forces. And, **because the shearing forces are so low, the impurities in the melt are also large enough** to be filtered out particularly efficiently by the high-performance filter. This means that you achieve maximum pellet quality for a maximum amount of recycle in the new end product.

The universal machine

The new INTAREMA® RegrindPro® goes one step further, however. **With a remarkably high degree of flexibility in the choice of material.** The combination of the optimised preconditioning unit with the new, particularly gentle universal screw enables multipurpose regrind processing. This allows you to process regrind despite varying viscosity, as in the case of HDPE and PP, for example, in a highly efficient and gentle way.

The high-performance machine is thus the **absolute material all-rounder** in plastics recycling. Highly flexible, strong performance and energy-saving. Plus it is extremely easy to operate.



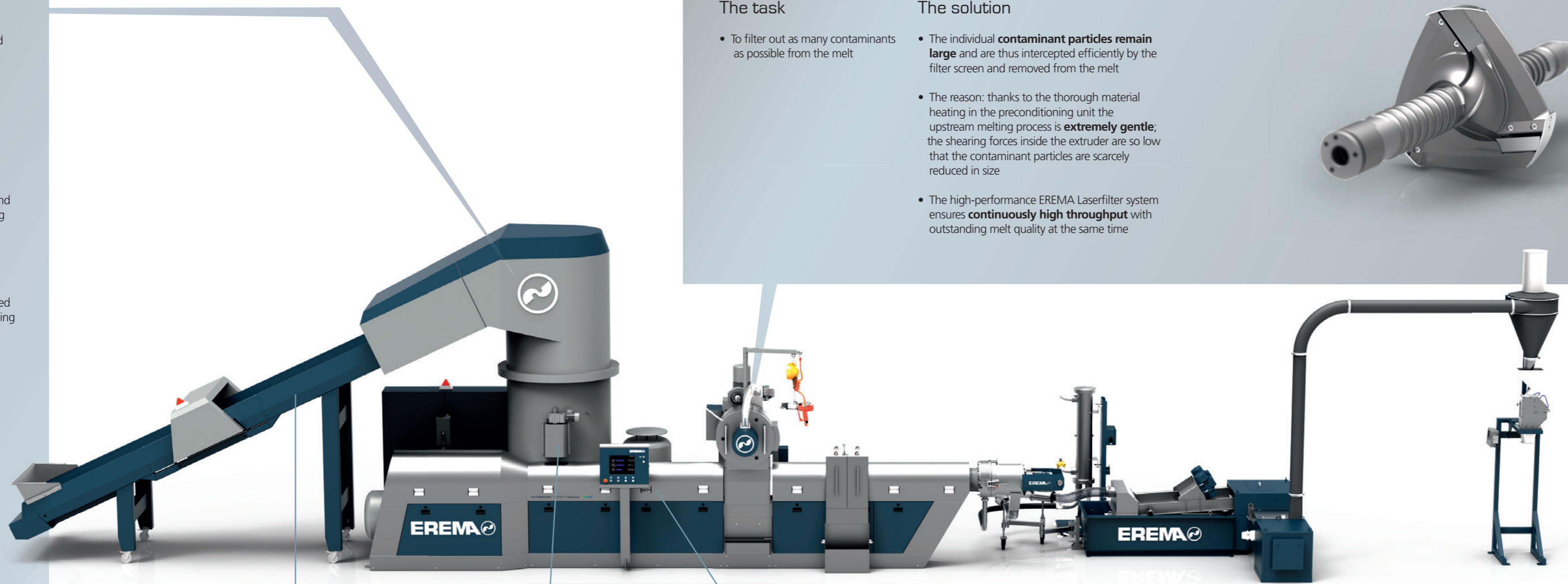
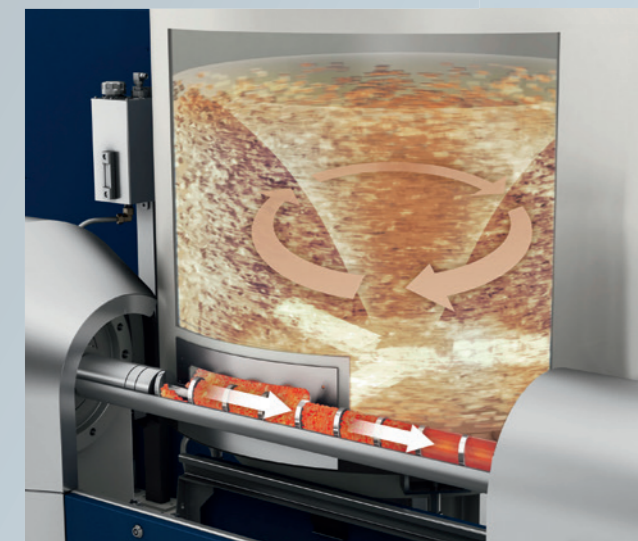
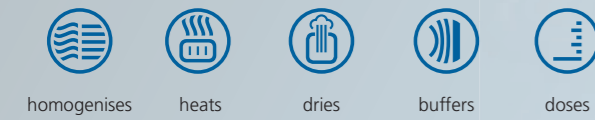
Preconditioning unit

The task

- To prepare the material as far as possible for the extruder and thus secure the basis for premium pellet quality; particularly important with regard to regrind:
 - Removal of high moisture
 - Thorough heating of the regrind** to initiate gentle melt preparation

The solution

- Homogeneous warming** through of the thick-walled regrind particles through a **longer dwell time** in the preconditioning unit
- Slower turning action with a patented rotor disc**
- Additional bonus:** increased mixing effect in the preconditioning unit – fillers such as e.g. CaCO_3 are distributed homogeneously thanks to the longer dwell time and high filling level



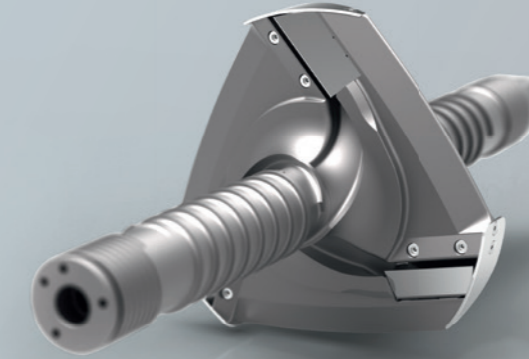
Top filtration efficiency

The task

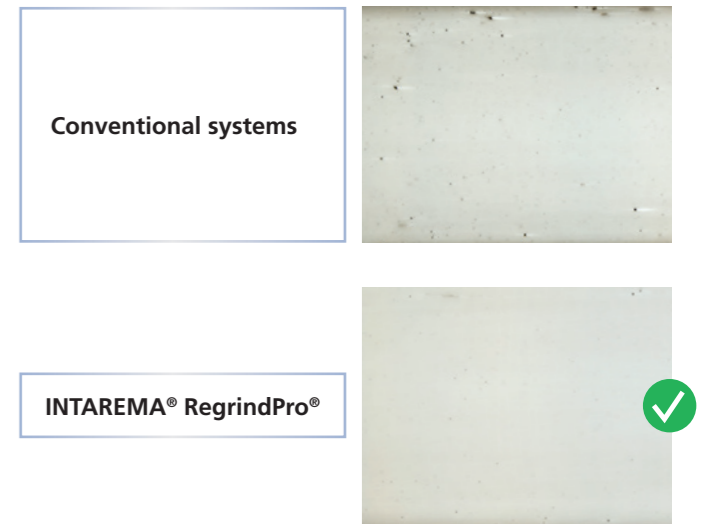
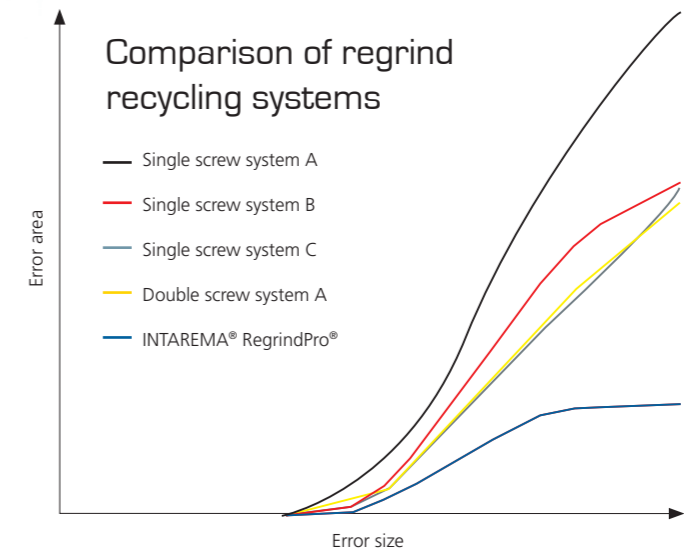
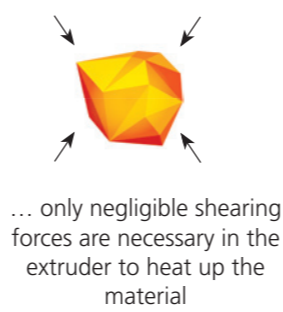
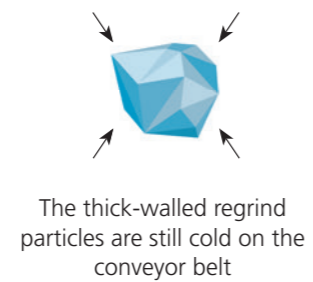
- To filter out as many contaminants as possible from the melt

The solution

- The individual **contaminant particles remain large** and are thus intercepted efficiently by the filter screen and removed from the melt
- The reason: thanks to the thorough material heating in the preconditioning unit the upstream melting process is **extremely gentle**; the shearing forces inside the extruder are so low that the contaminant particles are scarcely reduced in size
- The high-performance EREMA Laserfilter system ensures **continuously high throughput** with outstanding melt quality at the same time



New: Enhanced efficiency of the EREMA Laserfilter through redesign of scraper geometry and discharge system – for even faster removal of contaminants



Recycled pellet quality test: film test with error analysis on an OCS measuring extruder ME25/25D-V3
 Test material: recycled pellets made from PP regrind on various regrind recycling systems (Filtration: 140–180 µm)

The new INTAREMA® RegrindPro® is available for the following system types:



INTAREMA® T, TE



INTAREMA® TVEplus®



COREMA®

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More questions?

We would be pleased to answer them!

Your EREMA advisor will be pleased to attend to your request personally and quickly. If you are interested in a demonstration or a test run with your specific material it would be a pleasure for us to make an appointment and welcome you to our EREMA Customer Centre at the headquarters in Ansfelden, near Linz in Austria.

We look forward to seeing you at EREMA!

For worldwide representatives please visit www.erema.at

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English