

E:GRAN

CHOPPER-FEEDER-
EXTRUDER COMBINATION

The compact repelletizing
solution for any type of film





Post Industrial Recycling (PIR)

Scrap materials resulting from the industrial production of plastic products are also high-value raw materials. To ensure that they can be fully reused back into production, we build sophisticated recycling machines with maximum technology to handle this task flawlessly. When building these machines, economic and environmental sustainability is our prime focus.

The **E:GRAN** series is the specialized re-processing technology for thermoplastic film edge trims and roll scrap.

The compact repelletizing solution for any type of film

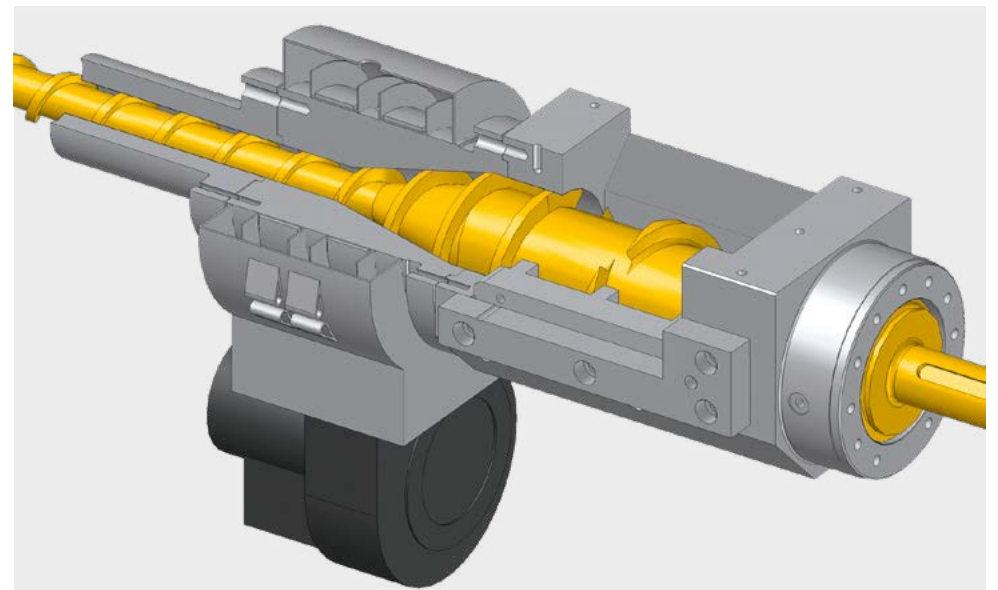
Whether it's being used as a **off-line solution** or **integrated** with a film production process the **E:GRAN** stands out for its ideal in-feed, thanks to the innovative chopper-feeder design.

THE WORKING PRINCIPLE

Plastic film and film edge trims are chopped directly in the extruder feed section. The conical conveying section of the screw compresses the material as it enters the extruder. Oxidation is thus prevented in the best possible way. Once in the extruder, the material is brought to a uniform melt temperature and subsequently pelletized.

The feed section (where the material is chopped), conveying section and the extruder are co-axial on a single shaft. This energy-efficient design requires only one drive.

All models in the **E:GRAN** series feature this patented chopper-feeder-extruder combination.



Automatic, in-line

AUTOMATIC 24/7 INLINE EDGE TRIM RECYCLING

E:GRAN is made for zero-waste production (all production waste is fed back in) – if necessary around the clock.

AUTOMATIC THROUGHPUT CONTROL

The extruder speed automatically adjusts to material input fluctuations.

Innovative **control concepts** ensure consistent output and maximum pellet quality.



**Highly economical and
environmentally friendly** film
preparation.



„What else makes E:GRAN
great? Simply put:
It's process stability, simple
operation and compact size
are outstanding.
Its robustness allows it to
operate 24/7/365 while
ensuring precise and
consistent output“

Bruno Hochhuber / Head of Test Center

Gentle, **high-quality**

HIGH QUALITY PRODUCTS THANKS TO GENTLE TREATMENT

The chopped film material is pre-compressed and fed directly to the extruder.

Extruder screws, developed exactly for film recycling, provide optimum melt homogeneity and process material efficiently with minimal loss of physical properties.



Smooth operation thanks
to patented chopper-feeder-
extruder combination.

Compact, clean

SMALL BUT POWERFUL

The compact footprint allows the **E:GRAN** to be installed in areas of limited space.

DUST-FREE

Since the input material is fed directly into the chopper, the size reduction is the **cleanest process**.

A near **dust-free** operation allows the machine to be installed even in sensitive production halls.



E:GRAN is **space saving**
resulting in **high performance**
with small footprint.

Independent, **self-contained**

EASY AND TROUBLEFREE HANDLING

Simple and intuitive operation, the easy-to-read touchscreen panel, convenient start-up and shutdown by a single push-button provides for nearly **operator-free** production.

The control system ensures a **smooth process**. In case of unplanned shutdowns the **E:GRAN** can restart in less than two minutes with full extruder load.

„E:GRAN's ONE-STEP
technology allows
easy operation without
intermediate steps. A
carefree package all
around!“

Andrea Hannerer
Sales Support



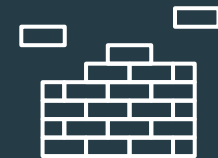
Flexible, customized

TAILOR-MADE RECYCLING SOLUTIONS

As off-line application or inline solution within a film production process, different types of material in-feed are possible (roll feeder & air separator).

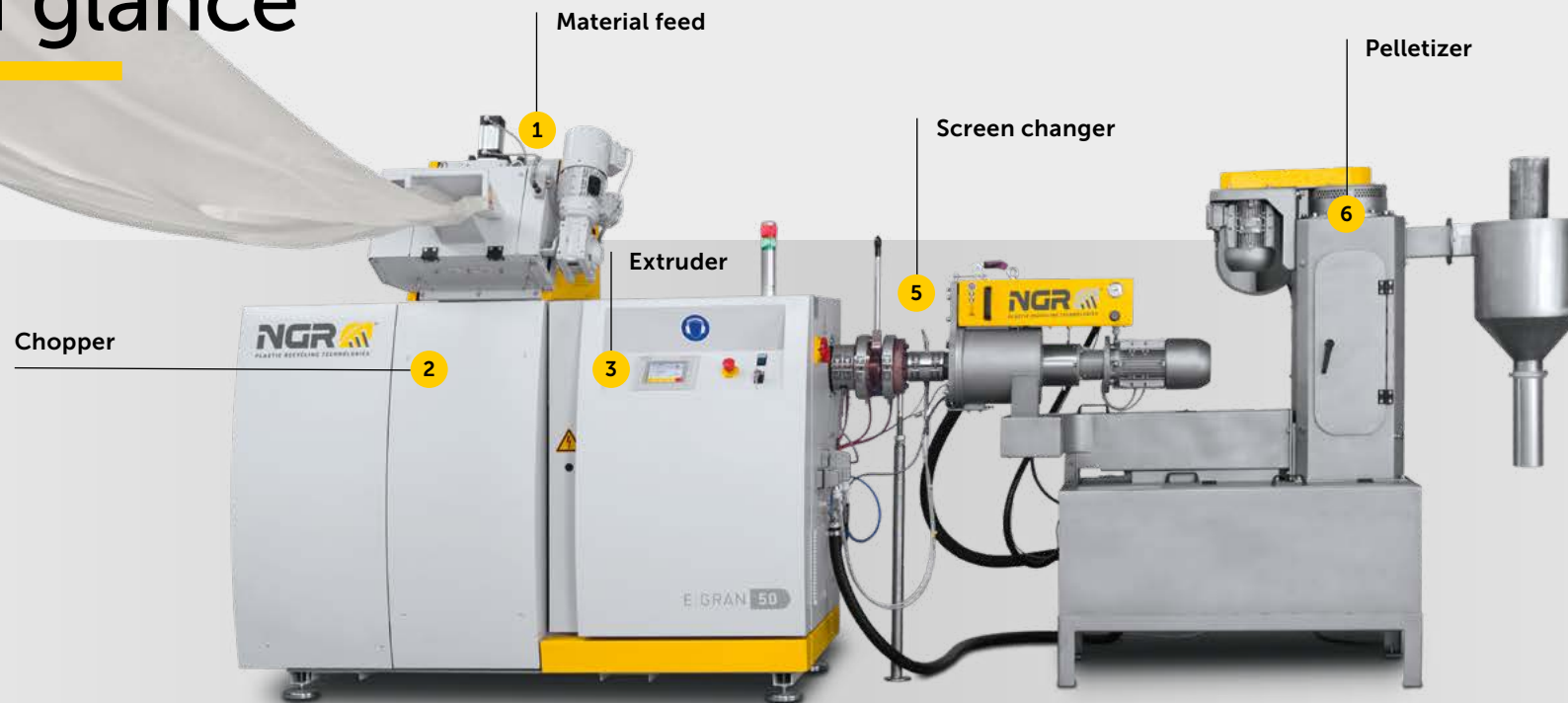
Depending on the material requirement, **E:GRAN** can be flexibly equipped with different machine components, such as degassing, melt filtration units and pelletizers.

E:GRAN's versatility also allows it to be integrated into the main process at a later time.



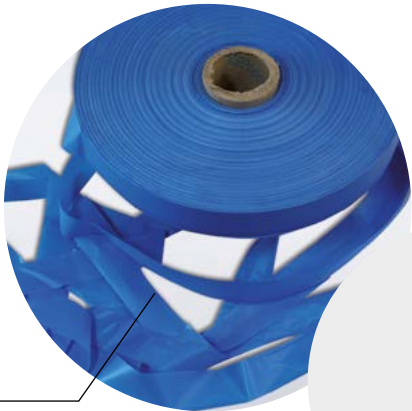
Flexible machine
configuration **on demand.**

E:GRAN At a glance



- 1) **Material feed via roll feeder** for off-line or **air separator** for inline edge trim application (not shown)
- 2) Size reduction of input material in the **chopper**
- 3) In the **extruder** the material is brought to a uniform melt temperature
- 4) **Single venting** for materials slightly printed or multilayer film (not shown)
- 5) Manual **screen changer** to filter the melt stream
- 6) A **pelletizing** unit at the end produces uniform pellets

Application examples materials



PP edge trim



LDPE film



HDPE irrigation
pipes



PP non-woven

Pellets – the end result

HIGH QUALITY PELLETS

In addition to the material quality, **uniform pellet size** ensures optimal recycling and homogeneous mixing. By doing so, **E:GRAN** indirectly helps ensure consistent quality of your end products.

PELLETIZATION UNIT

Depending on the application, the **E:GRAN** is available with an HD pelletizer for low-viscosity thermoplastics (such as PP, PE) or with an air pelletizer, especially designed for inline applications.





"Flexibility distinguishes our company and enables us to act dynamically on an international level. This guarantees the availability of spare parts around the world."

Mara Mathä / After Sales Service

Perfect satisfaction included



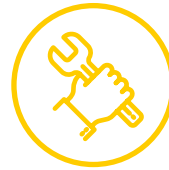
CONTINUOUSLY AVAILABLE SPARE PARTS PACKAGES

For the shortest standstill times and smooth start-up without delay, NGR offers its customers spare part and commissioning packages. These are adapted to the individual requirement and guarantee 100% reliability.



FASTEST SPARE PARTS SUPPLY

Spare components can be requested conveniently by phone, email or the NGR spare parts web shop. Stocked spare parts are delivered within 24 hours in Europe.



HIGHEST LEVEL OF PROFESSIONAL MAINTENANCE & TRAINING

The most professionally trained technicians are standing by around the world, ready to maintain and repair the systems. In addition, each maintenance appointment also includes follow-up training for the operators—to ensure maximum performance.



IMMEDIATE REPAIR SERVICE

In case of a sudden malfunction, a on-call service is available six days a week (Mon–Sat) for rapid-response repairs. These are either carried out by remote access or by local service partners with short turnaround times.



RETROFIT & USED MACHINES

NGR works pro-actively towards improving cost-effectiveness and extending service life: For example, after certain time frames, we recommend that individual components be replaced or software updated for better performance.

Specifi- cations



	Extruder screw Ø [mm]	Feeding screw [mm]	max* [kg/h]	max* [lbs/h]
E:GRAN 50-12	50	120	50	110
E:GRAN 75-16	75	160	120	270

* Maximum output values for LDPE in accordance with NGR company standard for non-vented machines.

Contact us with **your challenge**

YOUR PLASTIC WASTE IS THE RAW MATERIAL OF TOMORROW.

In our recycling test centers, we can prove the NGR reprocessing performance on your own scrap materials. We look forward to the opportunity to prove it to you in person.



Working
for a better
future

**Next Generation
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HQ, Production & Customer
Care Center Europe



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