Plastic Recycling System with integrated single-shaft shredder

COAX®

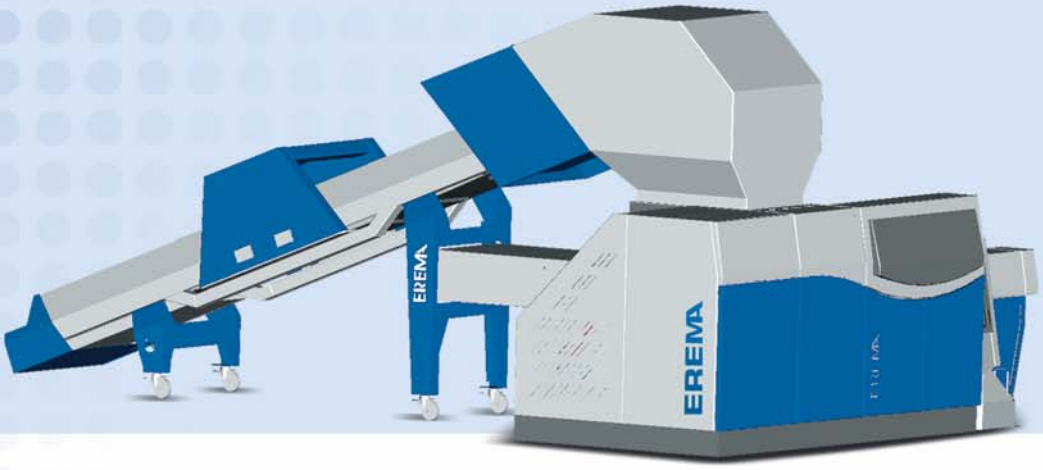
DIN ISO 9001

www.erema.at

EREMA®
HIGH TECH RECYCLING

The COAX® plant design from Erema.
The perfect addition to the “classic“ Erema system.

The COAX plant is ideal as an alternative for the reclaiming of thermoplastic materials which would require separate size prereduction before feeding to smaller classic Erema plants.
The machine consists of a single-shaft shredder arranged coaxially with an extruder. Both single-shaft shredder and extruder are driven together via only one drive in a straightforward design. This enables direct, discontinuous plant feeding with large-volume material portions which have not been reduced in size such as tangled PP tapes, polyamide fibre bales, PP fibre bales as well as lumps, crates, rolls of film (without paper core) etc.



COAX®: Design features

- The coaxial configuration of a single-shaft shredder with a single screw extruder enables a low-maintenance system design with only one main drive (patented) without (partially critical) 90° deflection of material stream between single-shaft shredder and extruder.
- The single shaft-shredder housing features spiral conveyor grooves (patented) to enable efficient, coaxial feeding of the extruder without the need of large amounts of costly compressed air, as is the case with other systems.
- The pusher feed system with segment design enables a very flexible use of the system with consistently high capacities (patented).
- Minimum personnel requirements through discontinuous feeding with large-volume material portions which have not been reduced in size. No need for external pre-shredding in almost all cases.
  Multiple-use (turnable) series tungsten carbide knives at the cutting rotor for top wear resistance and maximum service life.

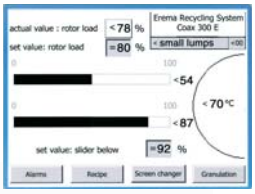
Innovation: Patented segment pusher system increases flexibility and throughput

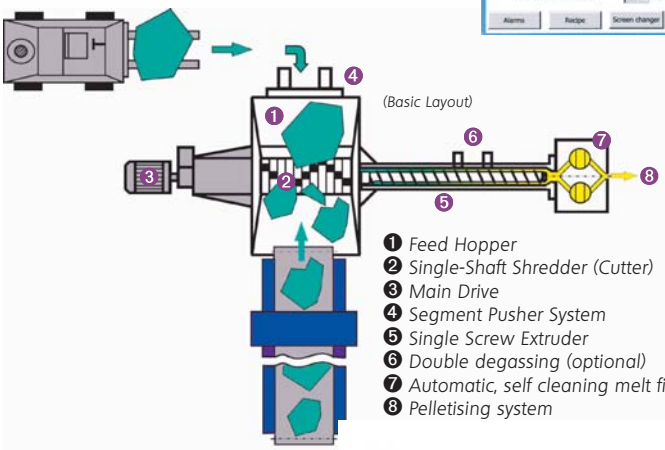
This innovative concept makes it possible to change the intake angle at the single-shaft shredder using menu selection. This in turn means that the process engineering of the system can be adapted automatically to a wide field of application. Using a feeder/pusher system comprising several segments in the area of the single-shaft shredder enables customers to use the plant for varying material shapes, densities and properties.

For this reason, both heavy, well flowing and self-feeding materials and also lightweight, bulky materials and highly tear-resistant materials (such as fibres and tapes) can be processed equally well with one and the same plant.

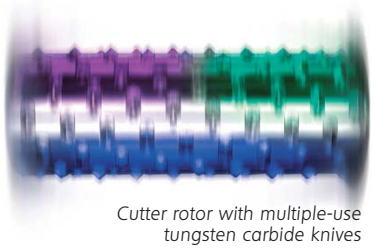
How the system works:

Standard feature: touch screen with recipe administration. Change of plant processing parameters (according to input material change) by single pushbutton.





❶ *Feed Hopper*
❷ *Single-Shaft Shredder (Cutter)*
❸ *Main Drive*
❹ *Segment Pusher System*
❺ *Single Screw Extruder*
❻ *Double degassing (optional)*
❼ *Automatic, self cleaning melt filter*
❽ *Pelletising system*



Cutter rotor with multiple-use tungsten carbide knives

The system can be fed with unshredded, large-volume feed portions (limited merely by the size of the feed hopper ❶) either via conveyor belt, lifting and tipping device or stacker truck. It is possible to integrate a reel feeder for the additional direct feeding of film from rolls.
The single-shaft shredder ❷, load-controlled via the segment type feed ram ❹ (patented), reduces the size of the material and conveys it directly, without deflections, into the downstream extruder ❺. Here, the pre-heated and precut material is carefully turned into melt. After having passed a highly efficient double degassing section the melt is supplied to the fully automatic, self-cleaning filter ❻.
In the filter ❼, the melt is effectively freed from solid, non-melting impurities and then directed on to an appropriate downstream pelletising system ❽.

See separate brochure for Erema filters and pelletising systems!

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Plant Sizes

Type	Average output capacity (kg/h) (depending on material properties)					
	PP-Tapes, Film, Fibres		**PA-Tapes, Film, Fibres**		**PE**	
	min	max	min	max	min	max
COAX® 63 E	100	110	90	110	100	110
COAX® 100 E	120	150	100	150	120	170
COAX® 100	130	170	-	-	130	180
COAX® 200 E	250	300	230	300	260	300
COAX® 200	260	310	-	-	270	320
COAX® 300 E	350	500	350	470	400	500
COAX® 300	370	500	-	-	400	500

Owing to the reduced possibility of inspecting the feedstock as it enters the system (particularly in the case of e.g. large-volume bales, occasionaly contaminated with metal, stones etc.) the system is particularly suited to the preparation of clean production waste!

Please ask for a demonstration/test run in our lab for your plastic waste.

Why Erema?

- High-tech from the world market leader
- Top-notch state-of-the-art recycling technology
- Superior end product quality (pellet)
- Best customer service and care and therefore safety for the user
- Tailor-made, individual solutions possible through large engineering capacity with more than 30 years' experience in plastic recycling
- Superb reliability, flexibility and productivity
- Your best partner

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