

Welcome to the new world of re-pelletizing



Single shaft shredder
Double feed ram
Triple flexibility

The EREMA Group based in Austria

Headquarters

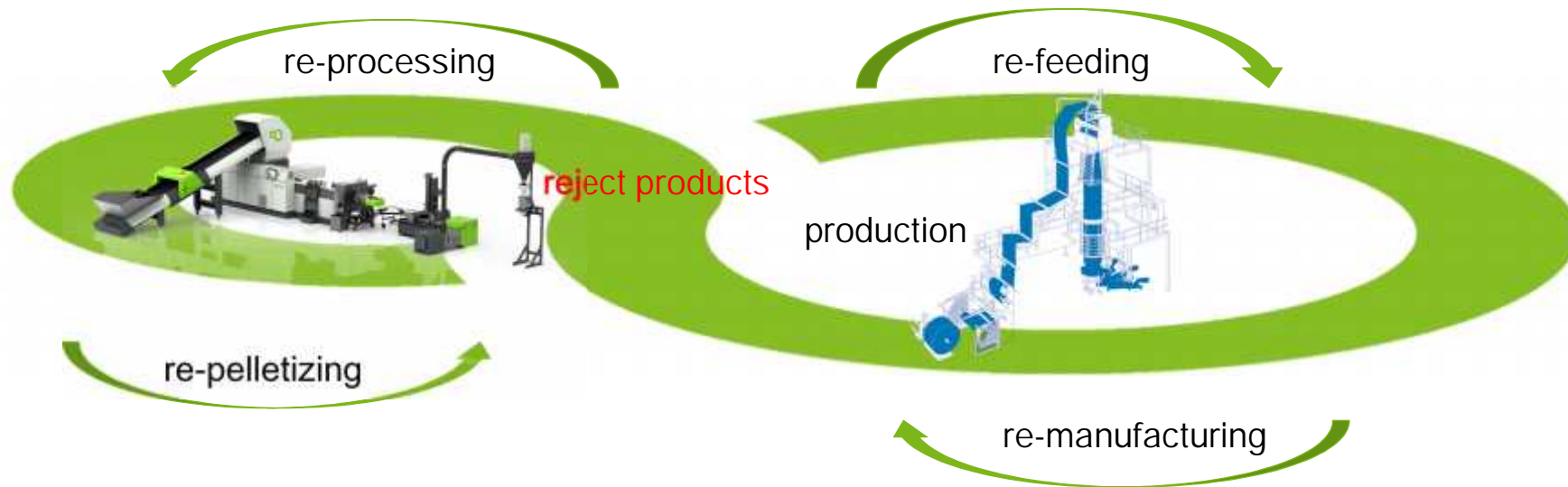
Investment of 4.3 million euros
2 new floors, 100 new workplaces



EREMA Group some facts and figures

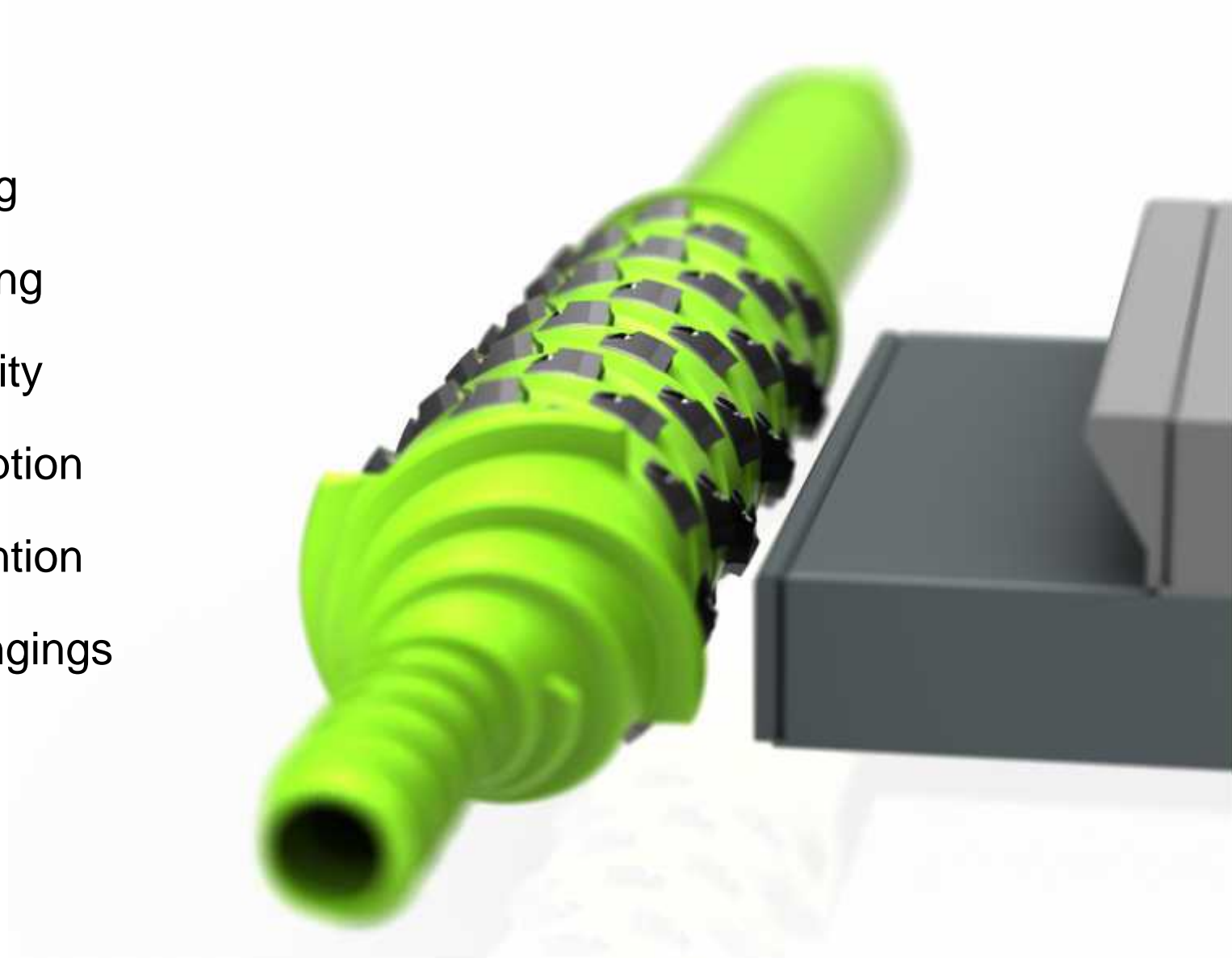
- Turnover EREMA Group: 130 mio. Euro (fiscal year 2013/14)
- More than 470 employees worldwide
- Approx. 280 systems a year
- More than 4,400 systems in use around the globe produce approx. 14 million tons of top quality plastic pellets every year

We close the LOOP

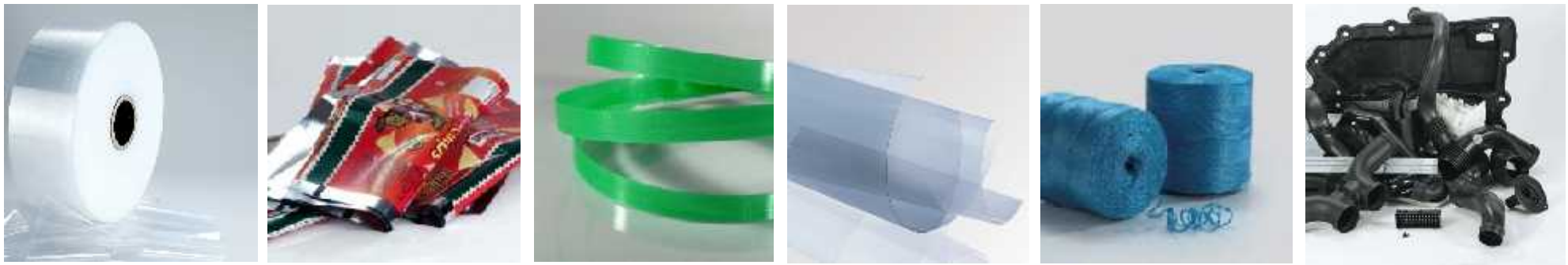


Our Idea

- Discontinuous feeding
- No separate pre cutting
- Highest material quality
- Best energy consumption
- Lowest operator attention
- Fastest material changings
- Easiest operation



Application



The system transform a vast
variety of different plastic parts and materials ...

Application



The output materials are used to create new end products. That is how **we close the loop.**



The Product



... into a variety of high **quality pellets**,
with nearly no modifications on the properties of the polymer like optical,
mechanical and avoiding the creation of defects to achieve **the best loop for**
****the re-feeding of the pellets the production line****

Your Benefit

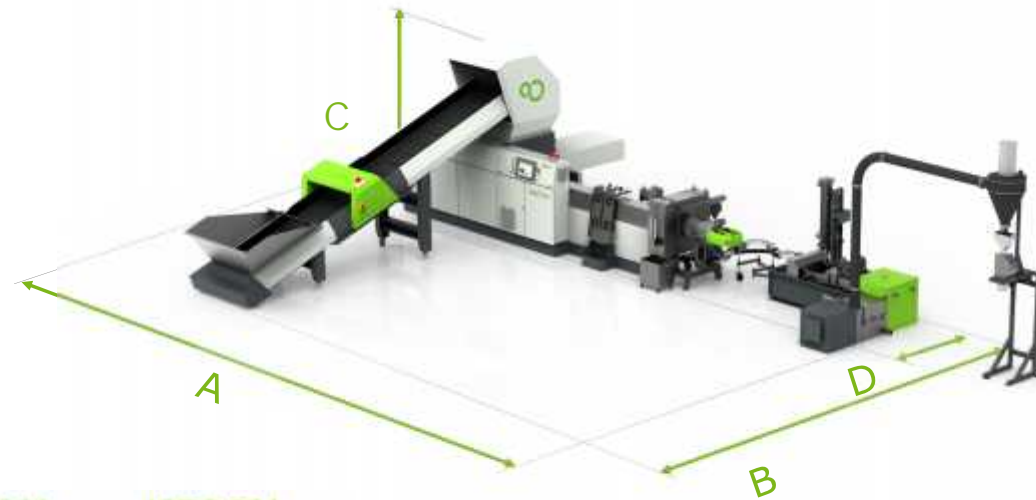
- Extremely good price performance ratio
- Simple operation by single start stop button
- Minimal modification on Polymer
- High ratio of re-feeding of re-pelletized material
- High customization to existing waste logistics
- Specific energy consumption
- Very high up time
- High security
- Best return of your investment within the shortest period of time

Technical Data

	ISEC 101	ISEC 201	ISEC 301	ISEC 501
Capacity	160 - 220 kg	200 - 300 kg	280 - 420 kg	450 - 650 kg
Extruder diameter	63 mm	80 mm	80 mm	120 mm
Cutting width	650 mm	750 mm	750 mm	1050 mm
Rotor knives	42 pieces	72 pieces	72 pieces	90 pieces
Rotor diameter	220 mm	250 mm	250 mm	310 mm
Length of cutting room	785 mm	890 mm	890 mm	1020 mm
Drive	45/55/75 kW	75/90/104 kW	90/104 kW	132/160/180 kW

capacity is based on LDPE film non vented execution

Plant size and layout

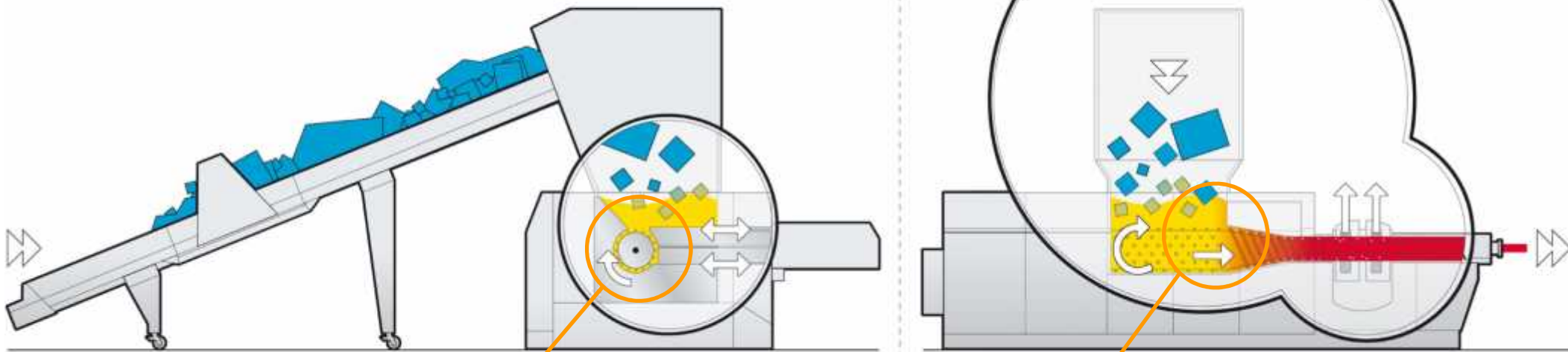


	ISEC 101	ISEC 201	ISEC 301	ISEC 501
A	6,500 mm	7.600 mm	9.300 mm	9.900 mm
vented	7.400 mm	8.700 mm	10.500 mm	11.800 mm
B	7.300 mm	8.400 mm	8.800 mm	9.100 mm
C	2.900 mm	3.000 mm	3.000 mm	3.300 mm
D	2.900 mm	3.100 mm	3.100 mm	3.600 mm

ISEC – Important facts for stable processes

- force feeding of cut material into extruder screw
 - to reach perfect filling of extruder screw by manifold feeding cycles per revolution
- this target will be reached by using
 - optimized material feeding to cutting rotor -> **twin pusher system**
 - special constructional design between cutting rotor and extruder -> **dual conical intersection**

ISEC – working principle



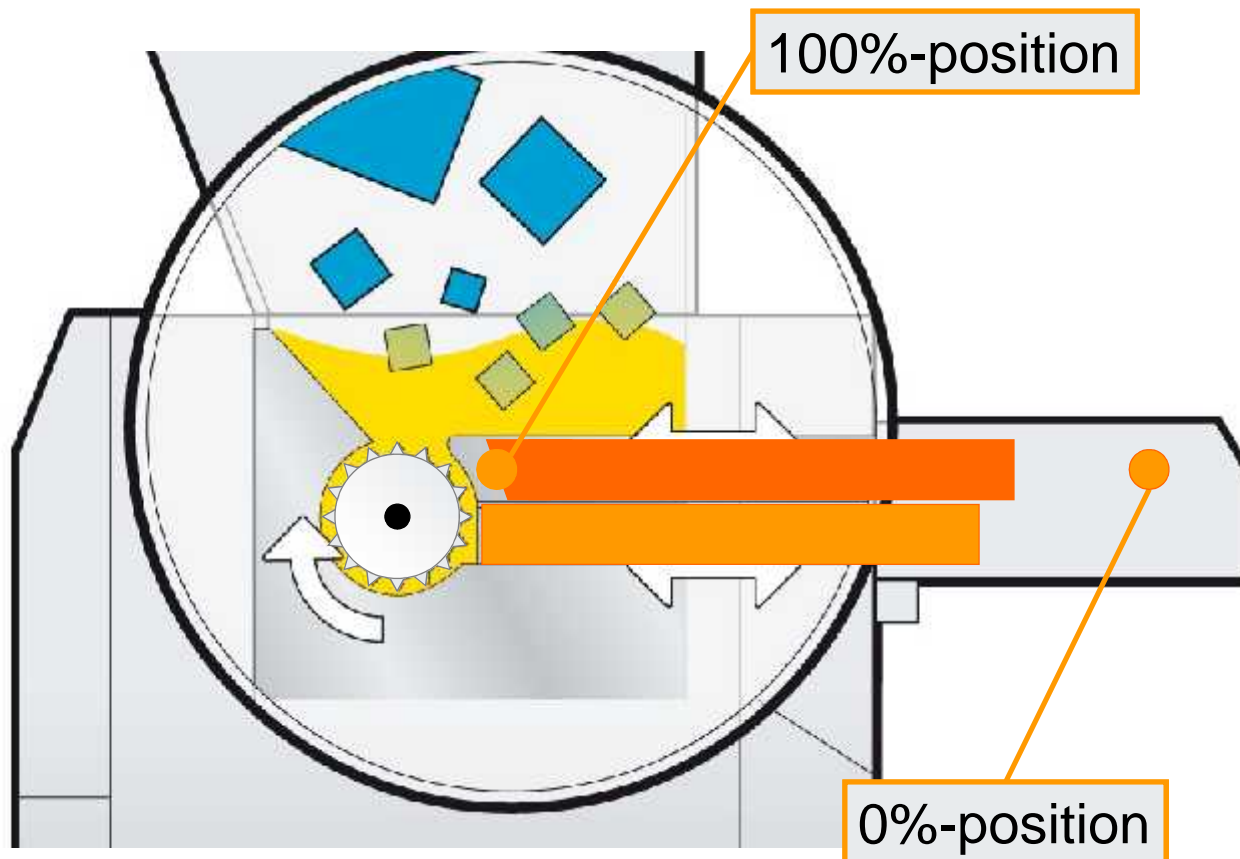
pusher system

conical intersection

ifeed

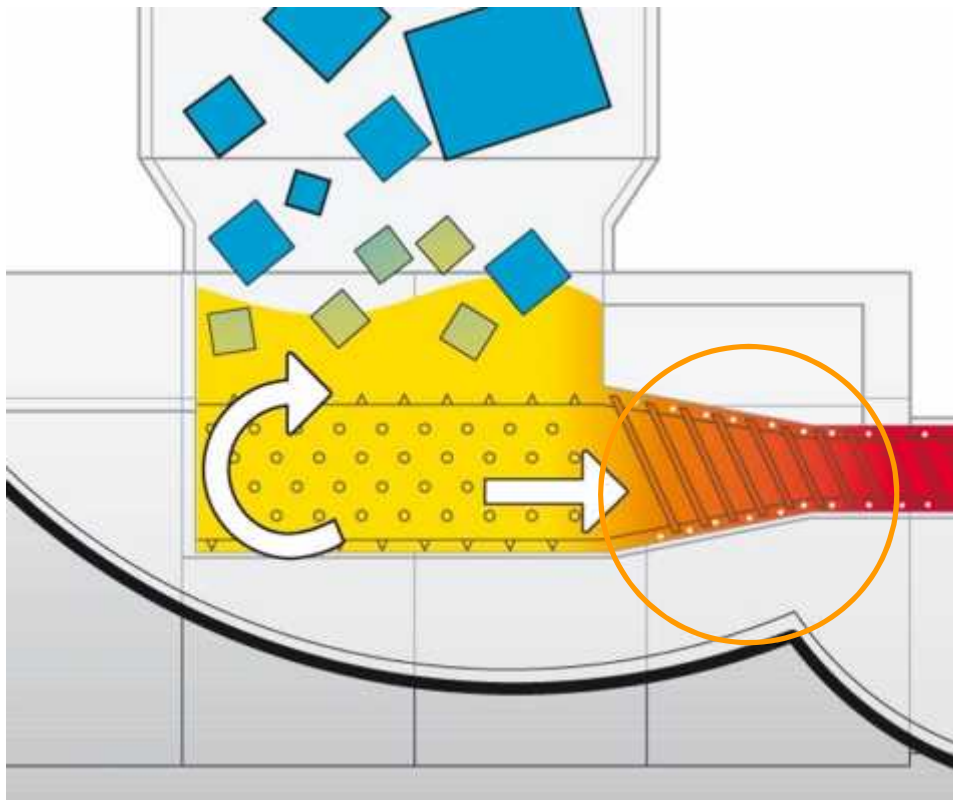


Load balancing with pusher system



- different pusher positions
 - 100% = high intake at rotor and high cutting
 - 0% = no intake at rotor and low cutting
- intake angle changeable
- settings dependent on processed material

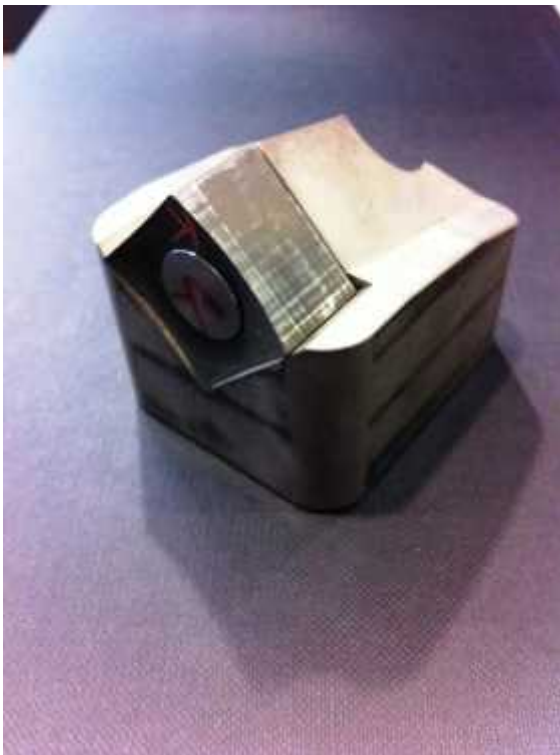
Conical intersection



- perfect filling of extruder screw due to conical shape
- less oxygen
- less thermal degradation
- intake slider
 - preset according to material to bulk density

conical intersection secures optimal feeding into the screw

High Performance HM Knives



- Very high lifetime up to about 4000 hours per side
- Scissor cut design
- Two fold usage
- No risk for de-positioning of knife during tightening
- Knife holder in wear resistant execution

High Performance HM Knives



- Opening of cutting space in the shaft design
- Shaft in wear resistant execution even up to GF material
- High torque cutting

Cutting Room



- Shredder housing in milled execution with high precision
- No risk of ram lock down

Double Piston Ram



- High wear resistant slide plate
- Exact position control of each individual ram
- Hydraulically driven ram
- No risk of material pinching

istart



single start button operation

PURE LOOP
MEMBER OF EREMA GROUP



ISEC is a superior product

- two pushers guarantee continuous feeding of the extruder screw resulting in stable output
- precut material passes big conical section at beginning of the screw
 - force feeding into extruder screw
 - compacting before entering the extruder screw
 - intake slider for optimal feeding according bulk density
- one maindrive is enough and saves maintenance costs
- no compressed air or screw for material transport into extruder screw necessary

Solutions for filtration



Dis-continuous pivot disc safety filter

For clean polymer melts



Continuous series

Single or double piston system

Back-flushing or non back-flushing



Continuous self cleaning filter

Ideal for soft contaminants -high filtering capacity

Pelletising systems

1. The new HG D direct drive (Patented)

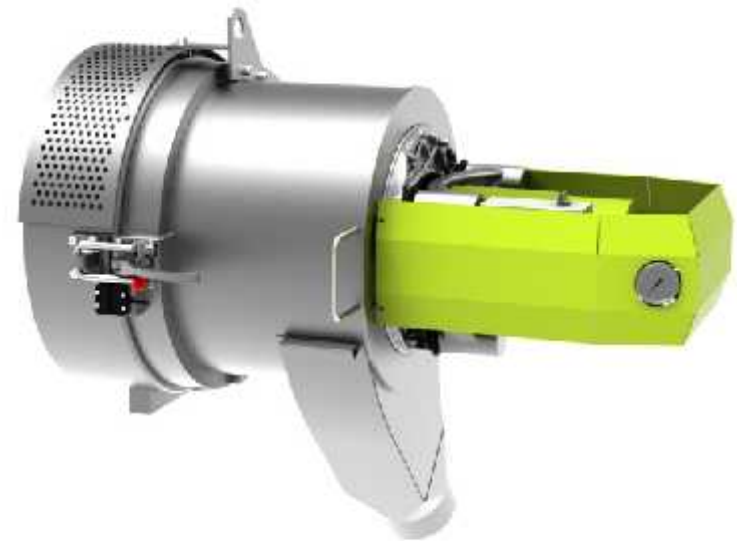
2. The new GS-10 water basin series

3. The new horizontal GZ pellet drying centrifuge



Pelletising systems HG D HG D direct drive

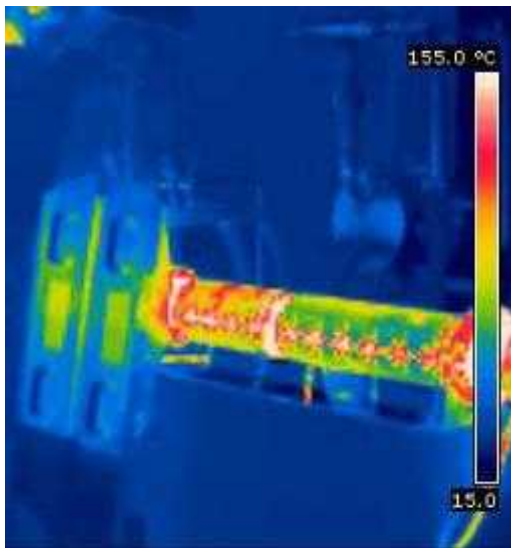
- Elimination of 14 parts in pelletising drivetrain (vs. previous HG series)
- Direct-drive unit floating on sturdy linear bearings
- Smooth pneumatic knife-pressure alignment



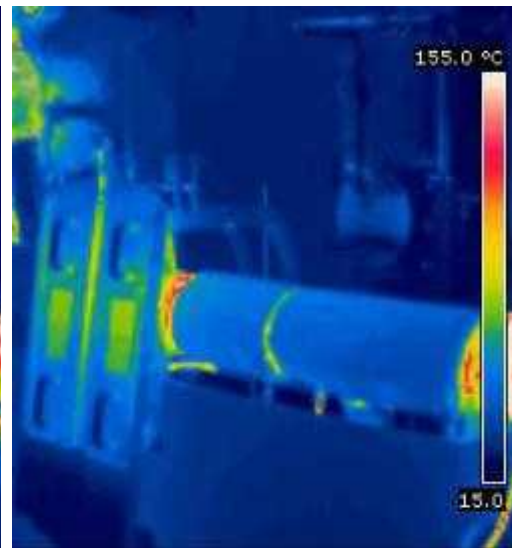
ISEC is our most flexible system

- humid materials – with less than 4 %
- heavily printed thermoplastics – superb degassing is needed and can be offered with VE System
- high dosing of additives up to about 20 % in powder or pellet form
- if higher output – than with ISEC achievable – is necessary

Thermography

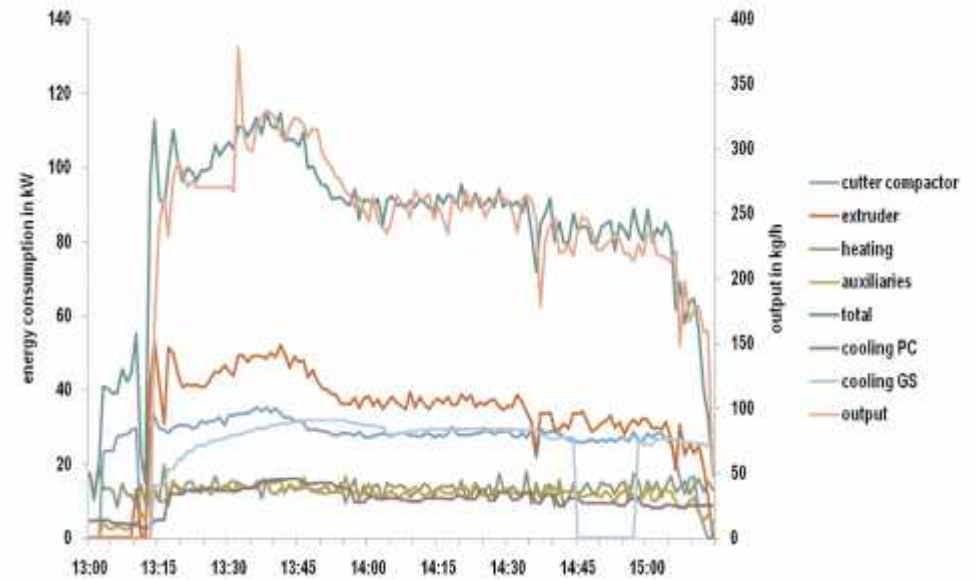


Extruder without




Extruder with

Analysis



isave Highlights

- With you **isave**  get a **“green” state-of-the-art** plastic recycling machine
- Reduction of
 - Energy consumption
 - CO₂ emissions
 - Production costs
- **No extra investment**
- **Practical energy display**

**SAVE up to 15 %
energy consumption**