



# EcoGentle®

## Plasticising technology

**Lower temperature, less energy.**

The gentle way to recycle PET.

CHOOSE THE NUMBER ONE.

**EREMA®**   
PLASTIC RECYCLING SYSTEMS

# EcoGentle® plasticising technology

Gentle on the material. Strong in terms of effect.  
For high throughputs in PET recycling.

Whether VACUREMA® Basic, Advanced or Prime, or VACUNITE® - EcoGentle® is the ultimate plasticising technology for PET recycling. It combines gentle melt treatment with significantly reduced energy consumption

in a unique way. This saves you money on production costs. For high cost effectiveness, productivity and top-quality rPET end products.

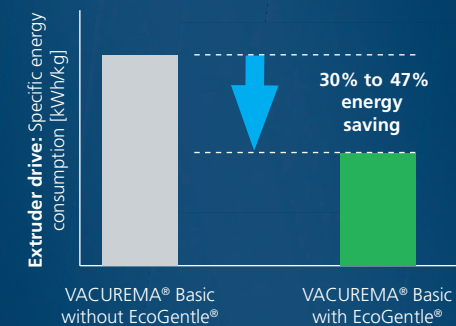


# High throughput in a gentle and energy saving package.

All the advantages at a glance:

**Extruder drive:**  
Previous **top energy efficiency** further dramatically **improved**

Compared to a VACUREMA® Basic with conventional plasticising unit (without EcoGentle®), which previously already achieved the best energy efficiency values, a VACUREMA® Basic with the new EcoGentle® plasticising unit consumes **between 30% and 47% less energy for the extruder drive\*** - depending on the material properties (specific energy consumption kWh/kg).



**Saving energy, saving costs**



**Up to 12 % total energy saving\*<sup>1)</sup>** and up to **47% energy saving for the extruder drive\*\*<sup>2)</sup>**

**Quality advantage:** Especially gentle treatment of the PET melt thanks to reduced melt temperature and gentle, extremely efficient melting and mixing

**Extended process window** for even more input flexibility with consistent stability of the output

**Reduced AA values** (acetaldehyde)

**High productivity** - A new dimension in throughput of up to 6,000 kg/h depending on the PET plant selected

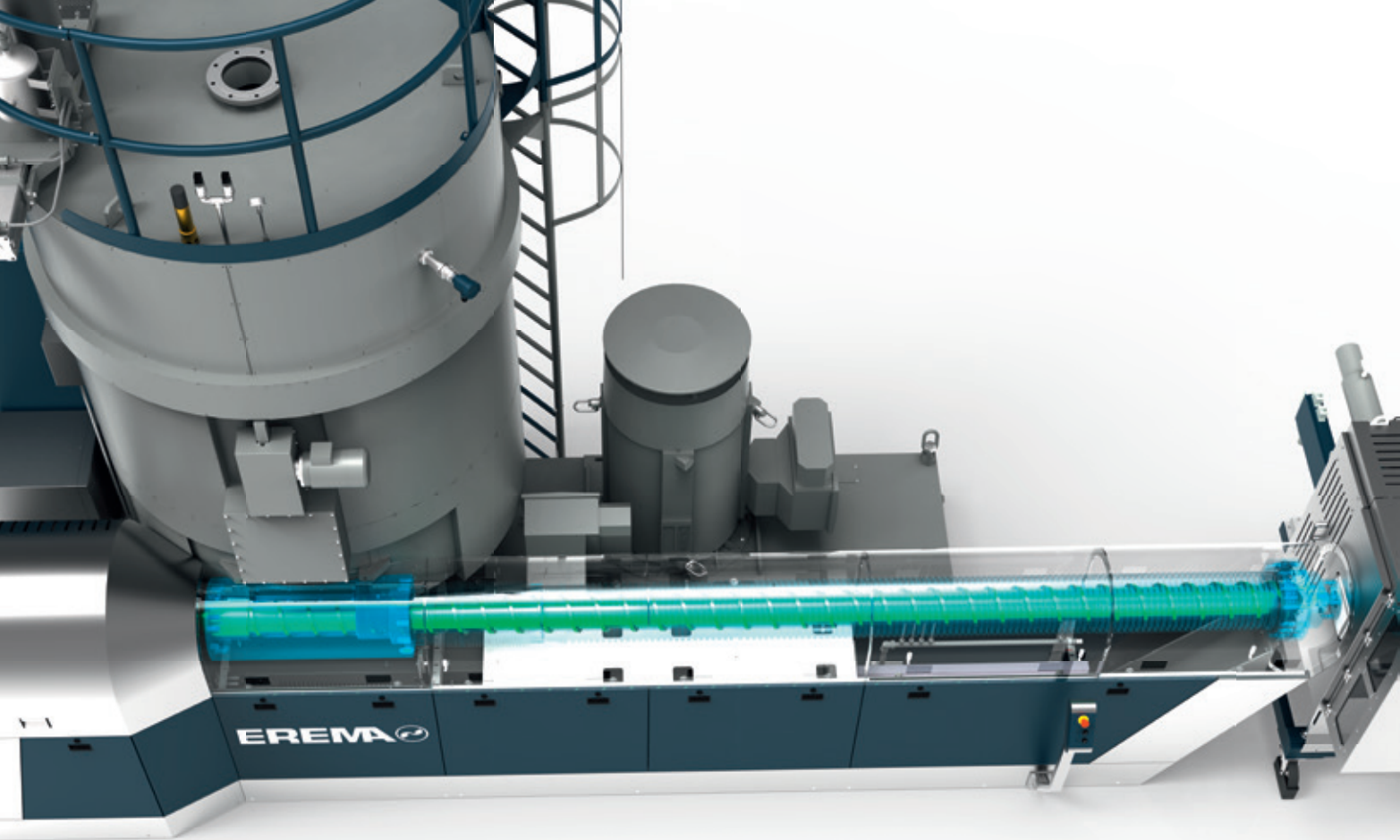
**Top quality components from 3 S inclusive**

Key core components of the **EcoGentle® plasticising unit** are manufactured in Austria by the EREMA Group subsidiary 3 S, a specialist in the production of particularly demanding extruder parts.

<sup>1)</sup> Up to 12 % total energy saving (specific total energy consumption, kWh/kg) with EcoGentle® plasticising unit measured on a VACUREMA® Basic 2628 T

<sup>2)</sup> 30% to 47% energy saving for the extruder drive applies to VACUREMA® Basic plants from size 2021 upwards





## Extrusion the gentle way

Newly developed EcoGentle® plasticising technology, in combination with EREMA's proven Counter Current® technology, ensures perfect interaction between the feed section and the extruder screw. Temperature and energy requirements are greatly reduced, while at the same time improving melting and mixing performance in the plasticising unit.

The core elements of the innovative EcoGentle® technology are the adjustment of compression ratios for better solids handling behaviour, the targeted utilisation of shear flows in combination with elongation flows, and a number of other process and rheological optimisations. The perfectly-matched interaction between the shear and elongation flows increases both the melting performance and the dispersive and distributive mixing capacity in the plasticising unit.

### **Wider process window, more stable operation**

The result is particularly gentle plasticising combined with high melt homogeneity and a wide process window for more stable operation. Variations in parameters such as the bulk density of the input material, viscosity or temperature of the PET flakes can be compensated as part of the stable process.

EcoGentle® stands for a particularly gentle method of plasticising at lower temperature that saves energy. The much lower melt temperature has a positive effect on the quality of the melt and the quality of the final rPET pellets.

# PET recycling goes X-Large Up to 6,000 kg/h

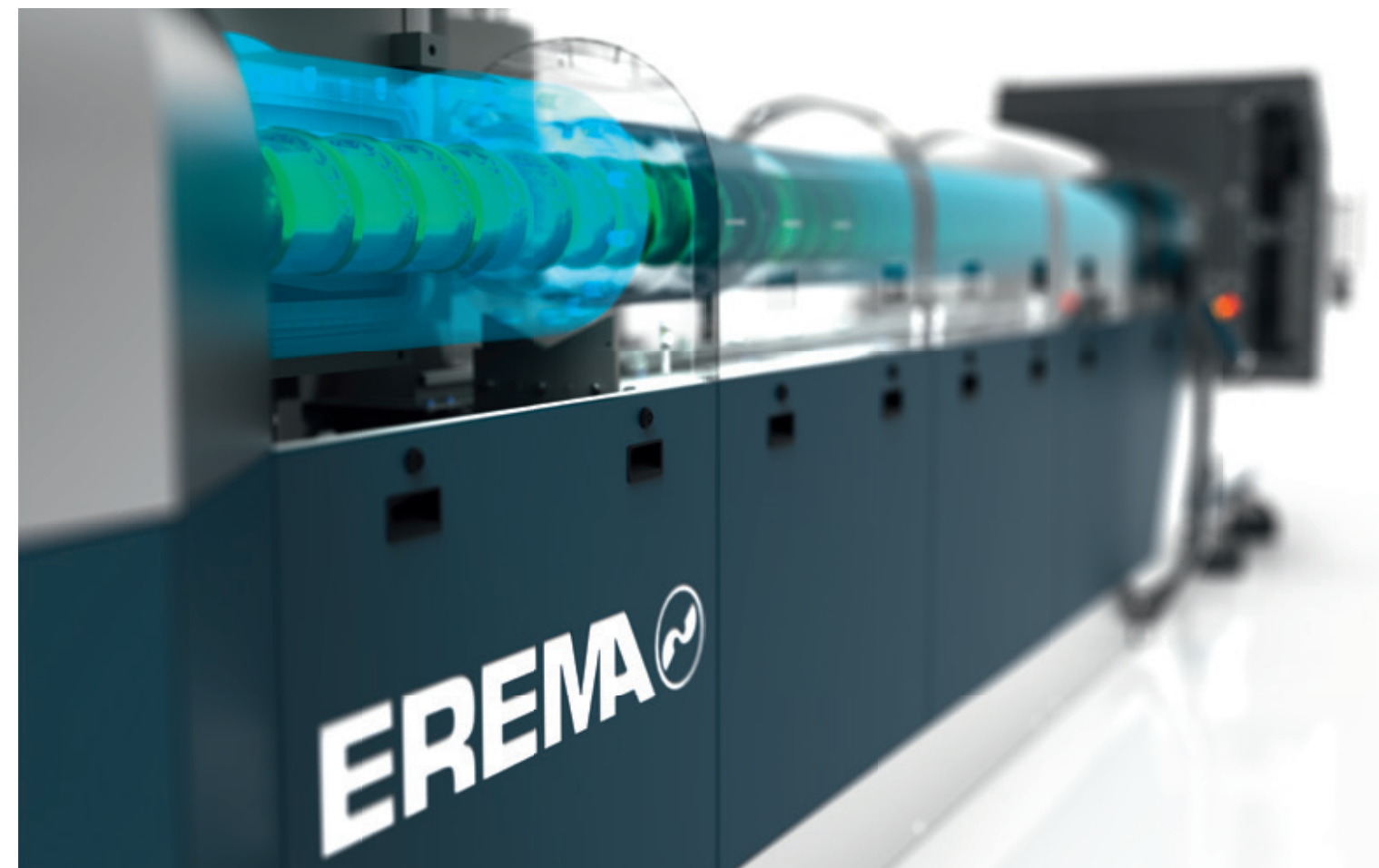
With the new EcoGentle® plasticising unit.

Get the maximum out of your PET recycling plant. With new EcoGentle® plasticising technology, you reach a new dimension. Up to 6,000 kilograms of the finest rPET pellets per hour. Maximum energy efficiency, process stability and gentle processing.

**EcoGentle®: The new dimension in PET recycling**



**Big, bigger, energy saver.** This is the superlative of the new EcoGentle® plasticising unit from EREMA. For highest throughputs the smart way.



**Headquarters & Production Facilities**

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