

# INTAREMA® T, TE

## Recycling systems for thermoplastics



CHOOSE THE NUMBER ONE.

# INTAREMA® T, TE

## Efficient recycling of production and industrial waste.

High output, flexible, reliable, energy-saving and: fast ROI. EREMA INTAREMA® T and TE type machines are used for multiple applications in the plastics industry for converting production and industrial waste into pellets.

The compact T series featuring a short single screw extruder without extruder degassing - can be configured to process non-printed film edge trim, cutting waste, rolls, loose leftover film and also regrind material without any problems. For processing slightly printed film fractions and technical plastics, the INTAREMA® TE series extruder is equipped with degassing.

Both types of plant are often integrated into film production lines to process cast film or blown film waste in-line.

INTAREMA® T and TE – for high refeeding quotas, top quality recycled pellets and high productivity.

## Counter Current® Technologie

- Highest process stability through improved material intake ensures constantly high output over a considerably broader temperature range
- **Higher flexibility** and operational reliability with a variety of materials
- **Increased throughputs** with the same plant size for more productivity

BOPP roll stock

BOPP fluff



## Smart Start<sup>®</sup>

- Remarkably easy to operate thanks to logical, clearly structured and simplified handling and ultramodern, ergonomic touchscreen display
- Fewer buttons, more user-friendliness thanks to high degree of automation including extensive control packages
- The right recipe for every application saved processing parameters can be loaded easily and conveniently from the recipe management system at the push of a button



Bioplastic film

Hygiene film

BOPET fluff





PE stretch film

PE film (non-printed), roll stock



### ecoSAVE®

- Lower specific energy requirements thanks to a complete package featuring design and process engineering measures including the new direct drive for the extruder screw
- Lower production costs through optimised control technology and high-quality, energy-efficient components such as high-performance motors
- Reduced CO<sub>2</sub> emissions an important contribution to environmental protection

eco SAVE



PLA film

PP non-woven

PE, PP film (printed)

T

EREMAR

2-3

# **HOW IT WORKS**



**Feeding** is automatic according to customer requirements. The material is cut, mixed, heated, dried, compacted and buffered in the patented **preconditioning unit** . Next, the tangentially connected extruder is filled continuously with hot, pre-compacted material. The **innovative Counter Current technology** enables optimised intake action across an extended temperature range.

In the **extruder screw ③** the material is plasticised, homogenised and, if necessary, degassed in the **degassing zone ④** (TE). The melt is then cleaned in the **fully automatic, self-cleaning filter ⑤**. Following this, the melt is conveyed to the respective **tool ⑥** (e.g. pelletiser) under extremely low pressure.

## Counter Current – a groundbreaking innovation.

In the past the material inside the preconditioning unit turned in the same direction as the extruder - forwards. The patented Counter Current technology now changes the direction of rotation inside the preconditioning unit: the plastic material thus moves in the opposite direction to that of the extruder screw. A simple effect with a major impact. Because the relative speed of the material in the intake zone, i.e. when passing from the preconditioning unit to the extruder, increases to such an extent that the extruder acts in the same way as a sharp edge which literally "cuts up" the plastic.

The result: the extruder handles more material in a shorter time. Thanks to the enhanced material intake plastic can additionally be processed even at lower temperatures at a high throughput. **Fully in keeping with higher productivity, flexibility and reliability.** 

#### Centrepiece Preconditioning Unit .

The dynamically controlled preconditioning unit. For an end product in consistently high quality.





# INTAREMA® T, TE

## **TECHNICAL BENEFITS**

Enhanced material intake, greater flexibility and higher throughput rates thanks to Counter Current technology

Patented large EREMA preconditioning unit ensures optimum material preparation for the extruder

HG D (hot die face pelletising system with Direct Drive technology) – state-of-the-art pelletising technology

**Liquid-cooled extruder** enables efficient and exact temperature control for the extruder zones and thus highquality processing of the melt

Large area ultra-fine melt filtration supplied as standard

Innovative, patented additional technologies for the EREMA preconditioning unit – DD system and Air Flush Module (optional) widen the scope of application

### **ECONOMIC BENEFITS**

**High-quality end product** allows a very high recycled pellet content when material is returned to the production cycle

Extremely easy operation and maximum user-friendliness with the Smart Start principle

ecoSAVE<sup>®</sup> reduces energy consumption by up to 12 % as well as production costs and CO<sub>2</sub> emissions as a result

**Very low operating costs** through extremely low specific energy and maintenance costs

**Reliable, high output** thanks to Counter Current technology and very robust design

Compact, space-saving design





INTAREMA® T

### Innovative, patented additional technologies

Optimised large EREMA <b>Preconditioning Unit</b>	Patented Double Disc (DD) Technology	Patented Air Flush Module
Output up to 30 % higher than on conventional extruders thanks to extremely uniform feeding of the tangentially connected extruder Direct admixing of masterbatch and additives possible No pre-shredding is necessary for 95 % of all materials	Enables ground BOPET with a low bulk density to be processed even without extruder degassing, for example. The hygroscopic material is perfectly pre-dried, so the extrusion process delivers consistently high output rates.	Increases drying performance and output while ensuring lower energy consumption and extending plant service life



INTAREMA® TE

## **INTAREMA® T, TE** Technical data.

Average output capacity INTAREMA® T in kg/h\*

Systems available	PE-LD, PE-LLDP		PE-HD		PP		BOPET**	
	min.	max.	min.	max.	min.	max.	min.	max.
INTAREMA 605 T	75	100	75	100	75	100	-	-
INTAREMA 756 T	150	200	130	180	150	200	-	-
INTAREMA 906 T	220	280	185	230	200	300	200	300
INTAREMA 1007 T	350	430	300	360	300	450	270	430
INTAREMA 1108 T	440	550	400	450	400	600	400	550
INTAREMA 1310 T	650	800	600	700	650	900	650	950
INTAREMA 1512 T	950	1200	850	1000	900	1300	900	1200
INTAREMA 1714 T	1250	1550	1100	1300	1200	1650	1000	1550
INTAREMA 1716 T	1500	1900	1400	1700	1600	2100	1300	1850
INTAREMA 2018 T	1900	2400	1700	2100	1900	2300	1700	2000
INTAREMA 2021 T	2500	3000	2200	2800	2500	3000	1800	2300

 Throughputs generally depend on the configuration of the machine (e.g. motor ratings, size and filtration grade of the melt filter), the material properties (such as melt index, moisture content, material geometry and degree of contamination), and the feeding logistics (inline or offline).
\*\* BOPET processing using Double Disc technology. Throughput depends on e.g. film thickness, bulk density and input moisture.

#### Average output capacity INTAREMA® TE in kg/h\*

Systems available	PE-LD, PE-LLDP		PE-HD		РР		BOPET**	
	min.	max.	min.	max.	min.	max.	min.	max.
INTAREMA 605 TE	50	75	50	70	50	75	80	130
INTAREMA 756 TE	100	150	100	125	100	150	130	180
INTAREMA 906 TE	150	220	130	170	175	250	175	260
INTAREMA 1007 TE	250	300	200	250	225	325	250	375
INTAREMA 1108 TE	320	400	280	330	300	400	375	500
INTAREMA 1310 TE	480	600	400	500	450	600	600	750
INTAREMA 1512 TE	650	850	600	700	650	850	850	1000
INTAREMA 1714 TE	900	1100	750	900	850	1100	900	1250
INTAREMA 1716 TE	1100	1400	1000	1150	1100	1400	1200	1550
INTAREMA 2018 TE	1400	1700	1200	1400	1350	1750	1600	1900
INTAREMA 2021 TE	1850	2300	1550	1800	1800	2200	1700	2100

 Throughputs generally depend on the configuration of the machine (e.g. motor ratings, size and filtration grade of the melt filter), the material properties (such as melt index, moisture content, material geometry, level of inking and degree of contamination), and the feeding logistics (inline or offline).
\*\* BOPET processing: Throughput depends on e.g. film thickness, bulk density and input moisture.





#### Headquarters & Production Facilities

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