

LARGE FRACTION- AND LABEL SEPARATOR MODEL GTLA 1000 / GTLA 1600

The large fraction and label separator of the type GTLA from BOREMA Umwelttechnik AG is a combined mechanical / air-technical separator for separating 2-dimensional impurities such as foil remnants or removed labels from 3-dimensional parts such as PET-bottles or hollow plastic components.

The separator has a compact design to minimise the space requirement. Usually, the label separator is positioned prior to an electrical sorting system. RESULT is a higher sorting accuracy and -quality and also reduced maintenance costs.



Function

Electronic sorting systems for PET-bottles and hollow plastic components are very efficient, distinguished with a high sorting performance and sorting quality. Even though, applying the BOREMA large fraction and label separator can even approve the sorting process. These for the following reasons:

- 2-dimensional impurities such as foil remnants or removed labels can disturb the sorting process, resulting in a reduction of the sorting capacity and sorting quality.
- Removed wet and dry labels can contaminate the sorting system, resulting in malfunctions, low sorting quality and high cleaning efforts.
- High disposal costs will occur if the labels enter the water circuit of the recycling plant and are not being removed before.

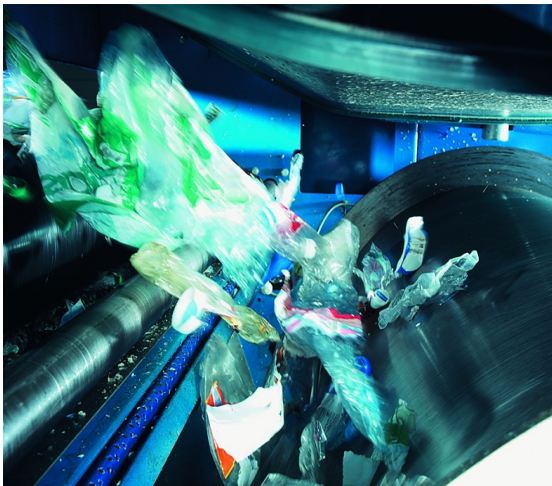
System description

BOREMA has identified this practical problem and developed the large fraction and label separator type GTLA. The GTLA is a combination of acceleration belt, vacuum drum, pressure nozzles and discharge conveying system. It removes wet and dry 2-dimensional impurities from the mass flow of PET-bottles and hollow plastic components.

Advantages

- Increased sorting capacity and availability of sorting plants.
- Higher sorting accuracy and material yield in electronic sorting systems, due to the remove of not processable material.
- Reduction of maintenance and operating costs (reduced compressed air and cleaning requirements).

Technical data		
Model	GTLA 1000	GTLA 1600
Design	Label separator as continuous system	
Function	Separation of 2-dimensional impurities such as loose labels and foils	
Processing of	Mixed flow of PET-bottles or hollow plastic material	
Bottle size	0.3 to 2.5 l	
Impurities	The GTLA separates: - Foils up to 500 x 500 mm - wet and dry labels	
Effective width	1'200 mm	1'800 mm
Capacity	Approx. 2'000 - 2'500 kg/h	Approx.. 5'000 - 5'500 kg/h
Grade of separation	Labels \geq 90% mm Foils \geq 95% mm	
Local control panel	- incl. SPS-control unit with potential-free contacts sending signals - incl. frequency converter for variable drive speed (feeding conveyor)	
Connection values	20.5 kW / 3 x 400 V / 63 A / 50 Hz.	26.0 kW / 3 x 400 V / 63 A / 50 Hz.
Drum rotation RPM	Frequency converter controlled	
Separating elements	- Adjustable feeding conveyor as accelerating belt - Blast nozzle with regulated air flow for the separating of dry labels and foils - Vacuum drum with backwash-air - Separator for wet labels with wiper	
Wet label discharge	Screw conveyor for the discharge of the wet labels, left or right discharge	
Dimensions l x b x h	6'100 x 2'540 x 2'870 mm	6'100 x 3'290 x 2'870 mm
Weight	Approx. 1'800 kg	Approx. 2'300 kg
Coat of paint	RAL 5015 Sky blue	



Positioned prior to the electrical sorting system the GTLA 1600 label separator in combination....



... with the BOREMA disk and acceleration screen 100-160 for top sorting quality and capacity.