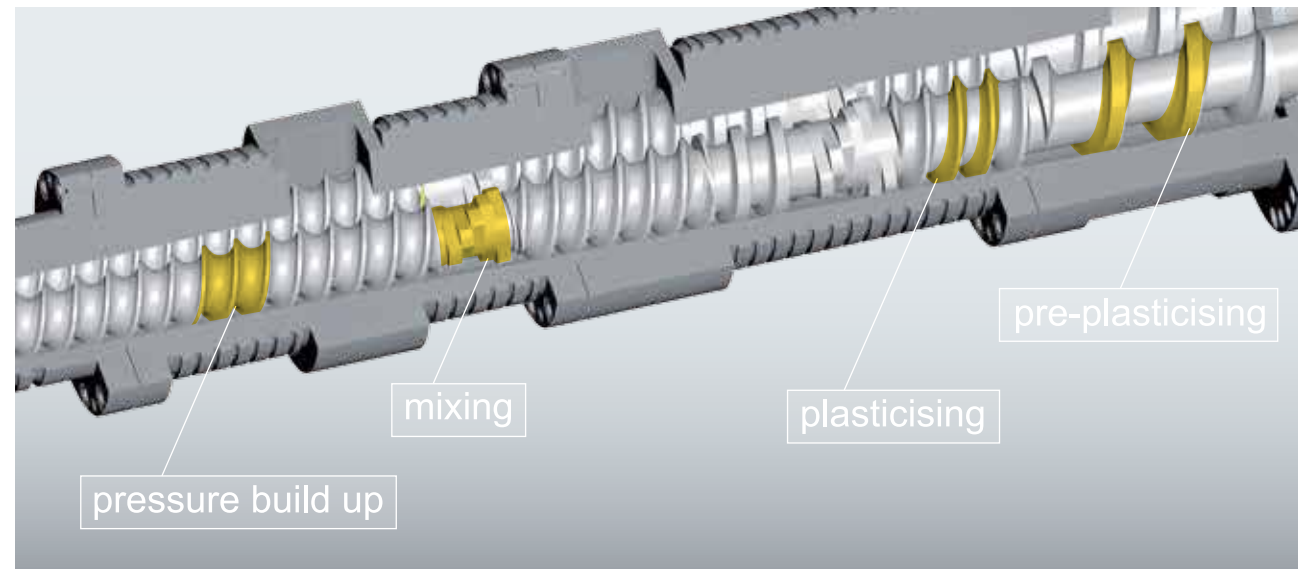


Overview



The ultimate solution to come true PET bottle recycling endless circulation is recycle waste PET bottles to bottle grade chips instead of manufacture PSF (polyester staple fiber). High quality regeneration can reach sustainable development of PET bottle recycling.

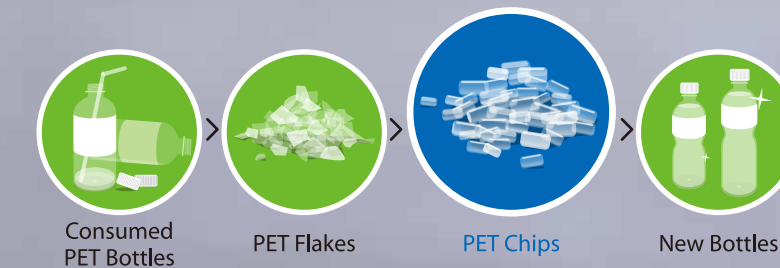
Bottle grade chips can be divided into food contact and non-food contact. As bottle to bottle process of PET bottle recycling industry is long supplied by European and US enterprises exclusively and it is in blank of this technology in Asian market. High investment and large-scale production capacity form an entering threshold for small and medium enterprises to be involved.

BoReTech develops a whole set of food contact bottle to bottle recycling process which introduce European technology and combine with professor. BoReTech supply the whole set equipment and engineering service. The end of products can be used to manufacture new bottles as raw material.

So far, bottle-to-bottle processing technology opens a new chapter in Asia. BoReTech as the resources and technology integrator of recycled polyester industrial chain is aimed at to promote resource recycling over the world and create the best commercial value.



Smart PET Bottle to Bottle Plant



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Bottle to Bottle Engineering Pioneer from Asia

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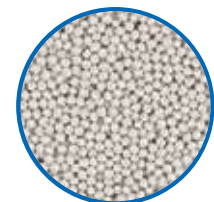
SOLUTION for 100% FOOD CONTACT rPET PELLETS

FDA Approval



Capacity
500~4000 KG/H

Food Grade Bottle to Bottle Process Flow Chart



1 Washing

De-baling(with auto-weighing) → Dry Trommel → Metal Separation → Label Separation → Bottle Pre-washing → Automatic Sorting → Metal Separation → Manual Sorting → Wet Grinding → Flotation → Hot Washing → Friction → Rinsing → Flush Washing → Drying → Dust Removal → Metal Separation → Automatic Flakes Sorting → Packing(with auto-weighing) → **RPET Flakes**

2 Pelletizing

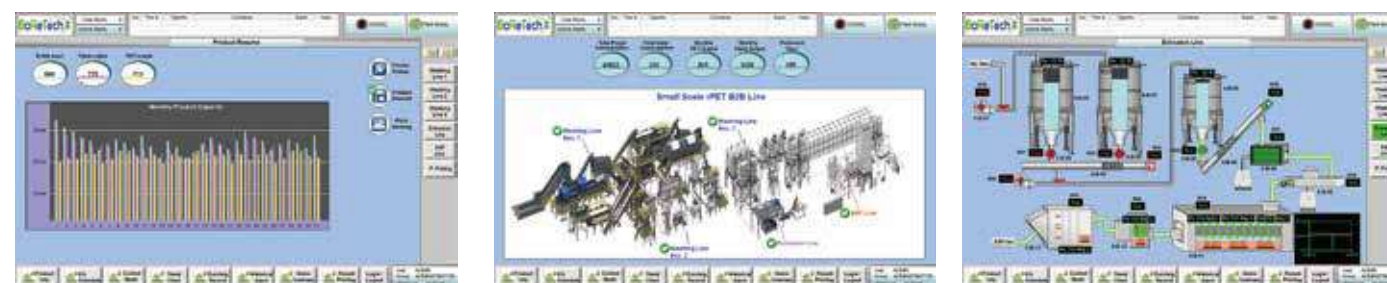
Pre-drying → Extrusion (Screw) → Filtration → Die → Pelletizing → Drying → Packing → **RPET Chips**

3 IV increased by additive + Decontamination / SSP

Features



- FDA [EFSA] Approved
- IV increased by SSP or patent chemical additive
- Smaller space occupation and economical construction cost & investment
- Less operation cost
- Professional commissioning guide and technical supporting
- IAS(Integrated Automation Solution) System supporting



Estimated Plant Parameters

Item	Model	Washing+Pelletizing+Patent Chemical Additive			Washing+Pelletizing+SSP
		WPA-1000	WPA-1500	WPA-2000	WPS
Capacity	kg/h	900~1100	1200~1800	1900~2500	800~2000
Required Area	m ²	1800	2300	2300	2350~2550
Installation Power	kW	1300	1550	1700	1520~1820
Required Water	m ³ /hr	22.5	29.5	29.5	22.25~29.5
Chilling Water *	m ³ /hr	20	25	25	50~75
Steam Consumption	kg/h	700	1300	1300	700~1300
Compressed Air	m ³ /min	4	7	7	4~8
Nitrogen Consumption	Nm ³ /hr	/	/	/	40
Manpower	Nos.	7	9	9	7~10

* All the final parameters shall be based on configuration as per design
* Chilling water data is based on circulation flow value

Average Consumption

Item	Electricity _{KWH}	Water _{m³}	Steam _{kg}	Detergent _{kg}	Nitrogen _{Nm³}
Washing	120~180	1.5	500	3~4.5	/
Pelletizing	260~350	0.1	/	/	/
SSP	60~90	/	/	/	25

* All data above can be modified per energy-saving measures

Quality of Final RPET Pellets

Item		
Intrinsic Viscosity	dI/g	0.75~0.84
AA Value	(ppm)	<1
Value L		≥80
Pellets Weight	(g/100 grain)	2±10%
PET Fines	(ppm)	<100
Moisture Content	%	<0.04



PROJECTS

