

Recycling Lines for HDPE Bottles - LDPE Film

RECYCLING TECHNOLOGY FOR THERMOPLASTIC SCRAPS

In the field of the recycling plants for thermoplastic materials coming from urban and industrial collection sites, POLYTEC has developed recycling plants consisting of a series of modular components which can be combined matching the features of the product to be recycled and are tailored according to the Customers' specific requirements.

POLYTEC washing and granulation technology can process the following materials:

- plastic films for packaging
- agriculture films
- HDPE bottles and containers
- battery boxes

Turn-key supply.

POLYTEC supplies turn-key plants starting from the elaboration of the project up to the erection and start-up at the Customer's factory. Such plants are fully automated and controlled by PLC and supervision PC with electronic synoptic complete of all the working parameters.

AVAILABLE CAPACITY OF THE PLANTS

LDPE : 500, 1000, 2000 Kg/h

HDPE : 500, 1000, 2000, 3000 Kg/h





Project evaluation

Finished product: clean film flake: about 50-60mm (made by customer requirement)

Power supply : 380V, 3 phases, 50HZ (made by customer requirement)

Workers needed: 3-4 workers per shift

Electricity consumption: whole line power 360KW, heating power: 96KW, actually needs 70%

Water needed: about 4-5t/h

Equipment list and price

No.	Name	Qty.
1	Belt conveyor	1
2	Crusher	1
3	High speed friction washer	1
4	Floating washer	1
5	Friction washer	1
6	Floating washer	1
7	Friction washer	1
8	De-watering machine	1
9	Blower dryer system	1
10	Cyclone silo	1
11	Electrical system	1

Technical data

No	Name	Description	Picture
1	Belt conveyor	<p>Usage:for conveying material into next step.</p> <p>Height of conveyor can be adjusted.</p> <p>Equipped with wheels.</p> <p>Equipped with anti-slide device on the belt surface</p>	
2	Crusher	<p>Usage: Usage:for crushing the material into smaller size</p>	

<p>4</p>	<p>High speed friction washer</p>	<p>Usage:to get rid of glue, dirties, oil, detergent and etc by high pressure water. The parts which contacts with the wet flakes is made of SUS304</p>	
<p>5</p>	<p>Floating washer</p>	<p>Usage:to remove sand and dirties . The parts which contact with the wet flakes is in made of SUS304.</p>	

6	Friction washer	<p>Usage: to transport material and get rid of dirties.</p> <p>The thickness of screen mesh : 2mm</p> <p>The parts which contacts with the wet flakes is made of SUS304</p>	
7	Floating washer	<p>Usage: to remove sand and dirties .</p> <p>The parts which contact with the wet flakes is in made of SUS304.</p>	

9	De-watering washer	<p>Usage: for reducing water content</p> <p>The diameter of the screen hole: 2mm The thickness of screen mesh :2mm</p> <p>The thickness of friction blade :8mm</p> <p>Continuously discharge the material from side and drainage from the bottom of this machine</p> <p>The parts which contact with water is made of SUS304.</p>	
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10	Dry-system m	<p>Usage:for drying flakes Total length of stainless steel pipe : 20meter The diameter of stainless steel pipe : 219mm Heating power of heating box : 60KW The temperature is adjustable by temperature controller The Moisture of PP/PE will be less than 5-8% Power of air blower motor: 7.5KW</p>	
11	Silo	<p>Usage :for temporary storage for flakes. volume: 1 m³ made of SUS304.</p>	

12	Electric cabinet	<p>Usage:for controlling the whole line .</p> <p>Contactor :Schneider or Siemens</p> <p>Relay: Schneider or Siemens</p> <p>General switch:CHNT</p> <p>Circuit-breaker:CHNT</p> <p>Note: Customer need to provide the wire from control cabinet to each machine.</p>	
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Peformance presented:

Final output dimension: 40-60mm

Moisture content: 5-8%

Capacity: 300-1000kg/h (Solution may vary depending on customer's specialized requirement)

Film recycling line subdivides as followings to deal with different raw materials:

1. LDPE waste film recycling and washing line
2. PE agriculture using films crushing and washing line

3. Waste PE film recycling line
4. Ethylene ground film washing, drying and regranulating line
5. Waste film recycling and washing line

Features of film washing recycling line:

1. The moisture of final products will be less than 8% so that the washed materials can be stored easily.
2. The electric components are from the famous brands in China(or customer designated).
3. The complete line is with high level of automation, CE certification, steady performance and high working efficiency.
4. The reasonable design, harmonious colors.

Rigid scraps recycling washing

In the conception of energy-saving and environmental, a variety of specialized solutions are available for different kinds of rigid plastic waste recycling; also related auxiliary machines set as the optional items for the solution making, for instance, contamination separation system, high speed washer, labels removing device, metal separation system, water-recycling treatment system, etc.

About our service:**PE/PP film/rigid scraps washing line Before-sale**

- 1、 Introduce products and applications detail
- 2、 Recommend suitable solution
- 3、 Provide with reference information
- 4、 Offer lab for test

During Manufacturing

- 1、 Provide with layout and engineering conditions
- 2、 Inform the project processing status
- 3、 Offer other documents

After-sale

1. Provide with installation, commissioning and training
2. Register and record customer information
3. Offer spare parts
4. Provide with necessary technical support for new application
5. Visit customer regularly and correct information

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