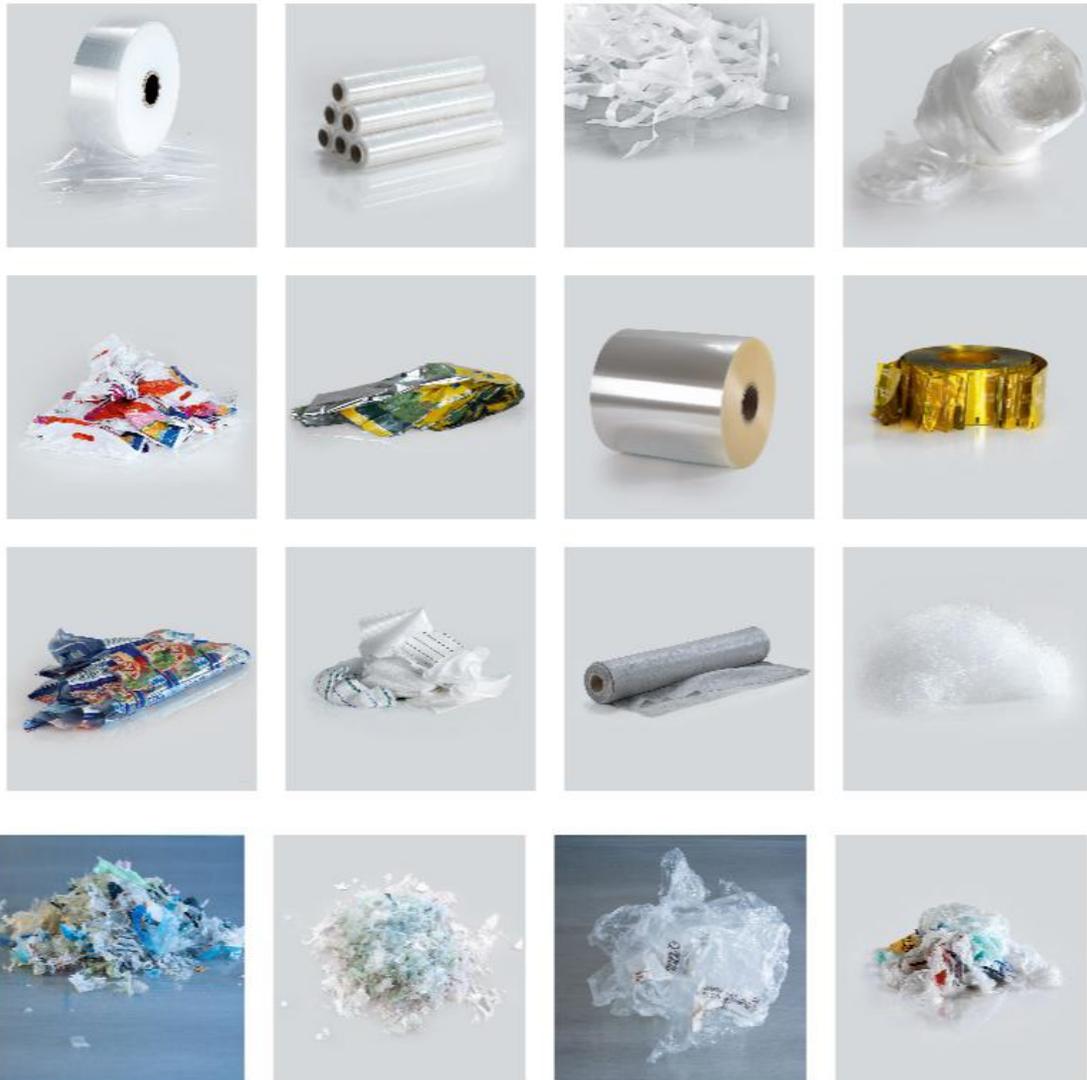


## Compacting/Agglomerating and pelletizing line

Waste pp pe film recycling granulating machine

Possible material:



The PTC-F™ series compacting and pelletizing system combines function of crushing, compacting, plasticization and pelletizing to One step. Applied in the plastics recycling and pelletizing process. PTC-F™ system is a reliable and efficiency solution for plastics films, raffias, filaments, bags, woven bags and foaming materials re-pelletizing.

Final productions produced by PTC system are in the form of pellets/ granules, can directly put into the production line for film blowing, pipe extrusion and plastics injection, etc.



Specifications:

Model Name: PTC-F™

B. Applications of Waste PP PE film recycling recycling granulating machine:

Applicable plastic materials: all kinds of film, such as PE, HDPE, LDPE, PP, BOPP etc

Material shapes: film, woven bag, crushed material

Material types: rolls, loose, bundled

Material comes from offcut, defective film and washed film.

Note: depending on different material properties, various downstream equipments are needed.

Final Product Shape: Pellets\Granules

System Composition: Belt conveyor、Cutting compactor、single screw extruder、pelletizing

device、water cooling unit、dewatering section、conveying blower and production silo

Output Range: 150kg/h-1200kg/h

Feeding Device: Belt conveyor(standard), Rolls hauling off device(Optional)

Compactor Volume: 300Liters-1500Liters

Screw Diameter: 80mm-160mm(standard)

Screw material: 38CrMoAlA nitride steel(SACM-645), bimetallic(Optional)

Screw L/D: 31/1、32/2、34/1、36/1(depending on features of recycles)

Barrel's Heating: Ceramic heater or Casting Aluminum heater

Barrel's Cooling: Air cooling through fan blowers

Vacuum Degassing: Double vented degassing(Standard)

Pelletizing Type: Water ring die-face hot pelletizing

Voltage Standard: Depending on project's location

Optional Devices: Metal detector、rolls hauling off device、micro feeder for masterbatch、

additives、chiller、etc.

Delivery Time: 60days after order takes effect.

Warranty: 13months since date of bill of lading

Technical Service: Project design 、 suggestion on factory construction 、 installation and commissioning

Model	SJ70-TLJL200	SJ100-TLJL500	SJ120-TLJL800	SJ150-TLJL800	SJ160-TLJL1000	SJ180-TLJL1200
Main motor Power(kw)	37+30	90+55	132+75	160+90	200+110	280+160
Output(kg/h)	70-110	200-300	300-450	500-600	750-900	900-1300

### Feeding

As standard design, plastic scraps such as film, filament, raffias conveyed into the compacting room through belt conveyor; to handle rolls' scraps, roll hauling off device is an optional feeding method.

Motor drives of conveyor belt and hauling device cooperate with ABB inverter. Feeding speed of conveyor belt or roll hauling off is fully automatic based on how full the compactor's room is. Metal detector can be combined with belt conveyor, and can interlock with control system, to warn and stop the system, in case that metal is found in feeding section.

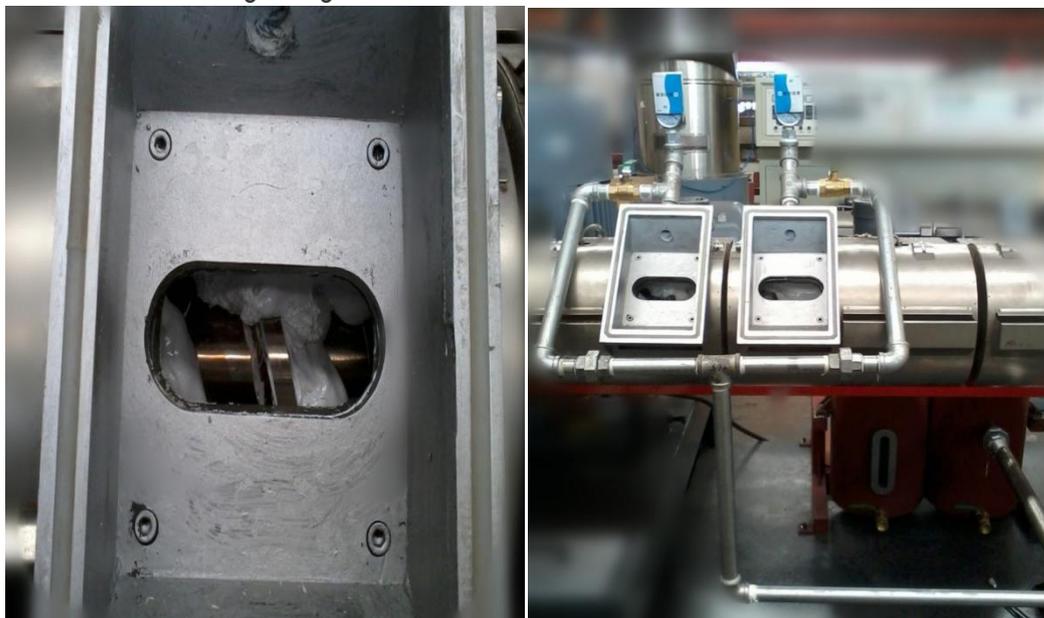
### Crushing and compacting





The rotatory blades of compactor will cut up incoming scraps. Frictional heating which caused by high speed rotatory blades will heat and let scraps shrinking just below their agglomerating point. Optimal designed guide structure compacts the material and directs it into extruder screw. Crushes, dries and compacts the material which enables a fast and stable feeding from the compactor directly into the extruder.

#### Plasticization and degassing



A specialized single screw extruder applied to gently melt the pre-compacted material. The plastic scraps will be well melted, plasticized in a 34D to 36D processing section. With double-zone vacuum degassing system, volatiles such as low molecular and moisture will be removed efficiency, especially suitable to heavy printed film and material with water content.

### Melt filtration



A regular single-plate/ piston double-station screen changer or non-stop double-plate/ piston four-station can be installed on head of extruder to present significant filtration performance. The requirements on the filter technology depend heavily on the quality of the input material as well as the planned use of granules.

### Pelletizing



Die-face water ring pelletizing system set as the standard granulating method in PTC-F TM system. Self-adjusting pelletizing head for the best granulate quality and long uptime thanks to consistently correct blades pressure. RPM of rotatory blades is automatic based on melt extruding pressure.

Vibration dry and packing system



Advanced dewatering vibration sieve combining with horizontal- type centrifugal dewatering present high performance dried pellets and lower energy consumption.



Advantages of PTC- H™ compacting and pelletizing system

1.High efficiency

Compared with the primary design, the output of POLYTEC second generation film granulator machine has been increased 20%.

2.Low power consumption

The power consumption reduced 15% compared with the primary design,.

3.Highly automatically,

Only 2 people for one production line.

Other benefits

Lower investment cost for a high quality and durable machine;

Low energy consumption with high production output;

Fast machine delivery and installation: Polytec produces on an average of 10 sets of plastic machines per month and can deliver the machine faster than most manufacturers.

The regular delivery time of an Polytec recycling machine is 30 working days.

Service and support

Overseas installation and training are available;

Machine warranty with spares in stocking and in-time delivery.

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