

# TECHNOPLAST

FUTURE OF RECYCLING

## Plastic PE/PP film and bags Washing Line

Capacity: 300 kg/hour



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## Project evaluation:

### A1 .Raw material & Final product

Raw material & formulation	Waste plastic PE and PP film and bags
Final product & Output capacity	Clean and dried PE, PP scraps with capacity:300kg/hour
Description of final product	1.Moisture of film flakes: less than 5% 2.Screen Size of the crushed film and bags:80mm

### A2 .Work condition

Warehouse/Workshop	Dimension: 30m(L)×10m(W)×5m(H); Crane: Machine positioning
Power supply	3-phase, 380V, 50Hz or customized
Wire/cables	Wires/cables from power supply to control cabinet of this production line; All electrical cables from control cabinet to each machine
Water supply hose/pipe	Main water pipe line supply and pools

### A3.Energy consumption

Installation power	160kw(Actual power consumption percentage is 70%)
Water supply	Around 5 ton/hour Pressure: 0.4Mpa
Manpower	2-3 Persons

## 1. Belt conveyor

**This machine mainly used to convey the PE/PP film into Plastic crusher all the frame and support are made of carbon steel**

Width of belt conveyor:	600mm
Length of belt conveyor:	5500mm
Basic material of belt:	PVC
Motor power:	1.5kw, AC motor With ABB inverter control



## 2. PC800 Plastic Crusher

**This machine will crush the PE film ,its working with water process**

1. Motor power: 37kw ; AC motor with Siemens brand
2. Mesh screen:  $\phi 80\text{mm}$
3. Rotation diameter of Main shaft:  $\phi 500\text{mm}$
4. Length of main shaft: 800mm
5. Feeding inlet: 800mm $\times$ 650mm
6. Quantity of rotating blade: 6pcs
7. Quantity of fixed blade: 4pcs
8. Blade of material: SKD-11
9. Crushing with water
10. Capacity: 300Kg/hour
11. Plastic crusher will work with water process
12. Hoppe cover open motor: 1.5kw



### 3. Screw feeder

**This machine will be used to send the film scraps into the next step**

1. Effective length: 3500mm
2. Screw diameter:  $\varnothing 250$ mm
3. Capacity: 300kg/hour
4. Motor power: 2.2kw, AC motor
5. Material for contact with water: Stainless steel 304
6. Bottom screw with 1000mm by length screen mesh to discharge the dirty water as more as possible



#### 4. High speed friction washer

**This machine will use high speed centrifugal to friction wash the dirty film scraps into the next step**

1. Effective length:2800mm
2. Rotary diameter:  $\phi$ 580mm
3. Capacity: 300-400 kg/hour
4. Motor power:22kw, AC motor
5. Material for contact with water: Stainless steel304
6. The high speed friction washer with water spring inside.
7. Speed will be 1440rpm



## 5. Screw feeder 2

**This machine will be used to send the film scraps into the next step**

1. Effective length:3500mm
2. Screw diameter:  $\varnothing$ 250mm
3. Capacity: 300kg/hour
4. Motor power:2.2kw,AC motor
5. Material for contact with water: Stainless steel304
6. Bottom screw with 1000mm by length screen mesh to discharge the dirty water as more as possible



## 6. Floating washing tank

**This machine is mainly used to boil the PE PP scrap, wash other oil, chemical and stubborn dirt on the surface of scraps**

1. Effective length:6000mm, Width: 1300mm
2. Washing roller motor: 2.2kw+1.5kw,AC motor
3. Qty of pushing roller: 5sets
4. Roller speed control way: by inverter
5. Material for contact with water: Stainless steel 304





## 7. Screw loader machine

**This machine will used to send the film scraps into the next step**

1. Effective length:3500mm
2. Screw diameter:  $\varphi$ 250mm
3. Capacity: 300-400kg/hour
4. Motor power: 2.2kw, AC motor
5. Material for contact with water: Stainless steel304
6. Bottom screw with 1000mm by length screen mesh to discharge the dirty water as more as possible



## 8. High speed Dewatering machine

**This machine mainly used to dewater for film scraps to get final good quality film scraps**

1. Motor power: 45Kw
2. Capacity:>300kg/h
3. Motor speed: 1440rpm
4. The diameter of the screen hole: 2.5mm
5. The thickness of screen mesh : 2.5mm
6. The dewatering rate: more than 95%
7. Continuously discharge the material from side and drainage from the bottom of this machine
8. Bearing with SKF or NSK brand
9. with Auto-brushing clean system for screen net
10. The material of Main shaft :diameter 220\*16mm(Thickness)
11. The material of blade:thickness:8mm
12. Rotation Diameter of main shaft: 800mm
13. Mesh screen of the dewatering machine: stainless steel 304



## 9. Silo

**This machine is mainly used to store the PE/PP scraps for next step packing**

1. Effective volume: 1.5 m<sup>3</sup>
2. Material of the silo: stainless steel 304



## 10. Electric Control cabinet

### Electric elements: Siemens or Shneider

1. Electric elements: Siemens or Schneider
2. Main motor use the Siemens brand
3. Inverter will use ABB brand.



## 11. Blade sharpener

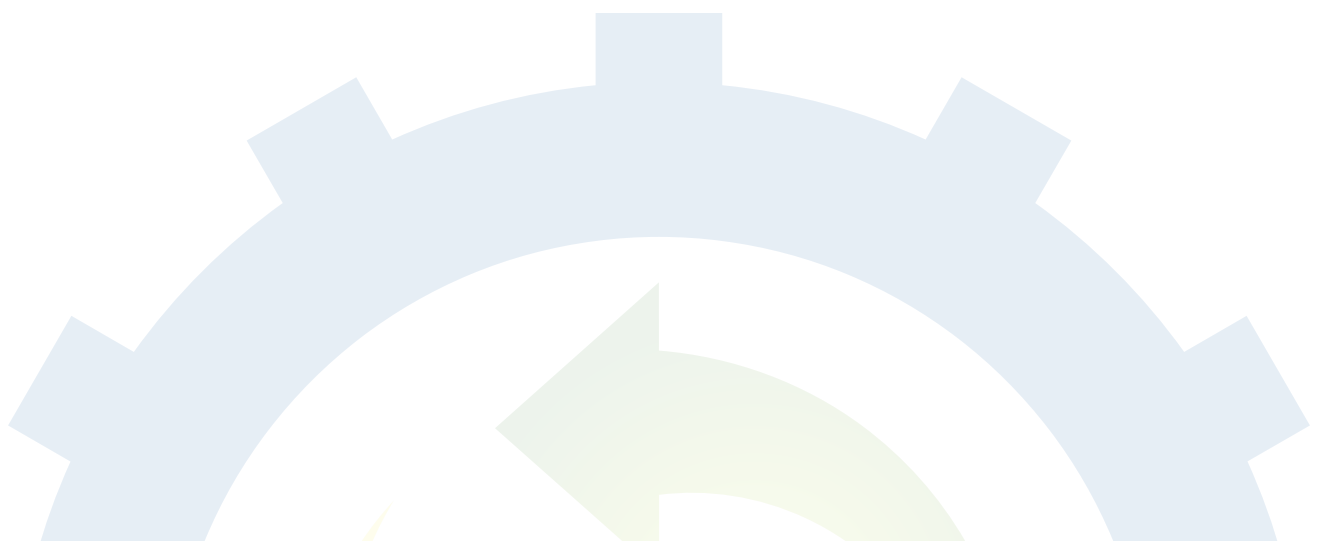
**This machine is easy to operation ,just fix the blade on the machine ,and start the power**

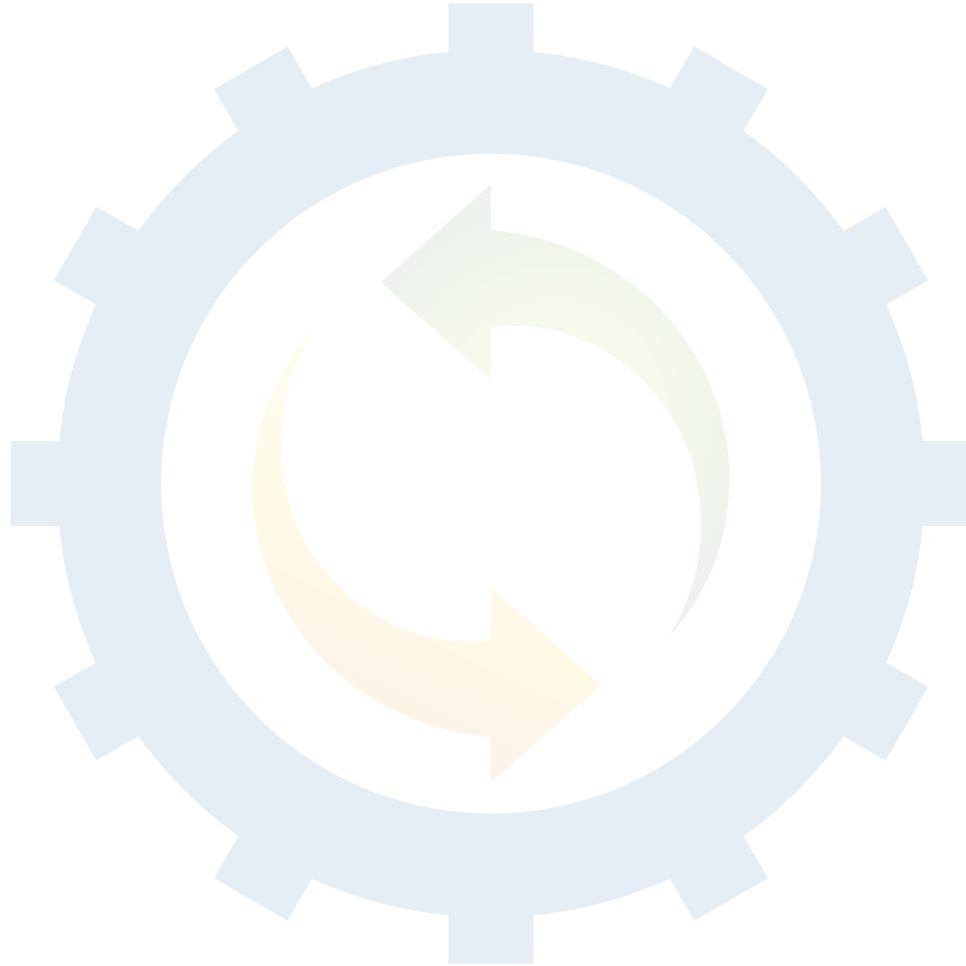
1. Max sharp length : 650mm
2. Motor :1.1kw
3. Dimension: 1150\*590\*1320(mm)
4. Weight : 150kg



## Spare Parts

No.	Name	Qty(set)
1	Gasket and rubber ring (for waterproof use)	A lot
2	Heating tube	4pcs
3	AC contactor	2pcs
4	Contactor relay	2pcs
5	Tools and other spanner	1 set
6	Blue button for control box	5pcs
7	Red button for control box	5pcs
8	Emergency stop button	1 pcs





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