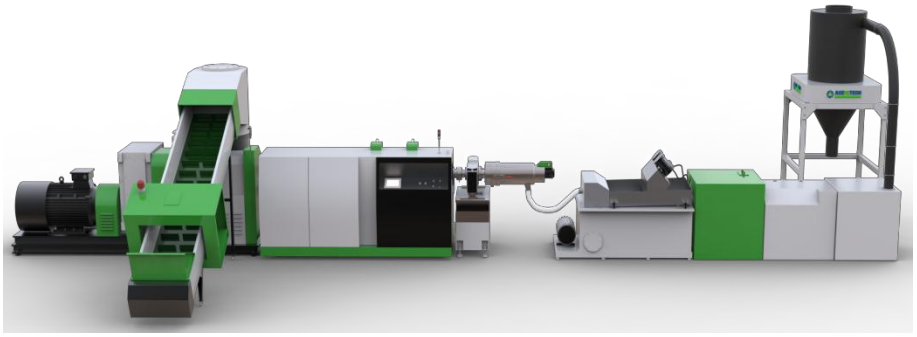


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1. General information

1.1 Floor space

Basic construction, earthwork, wall work should be well finished by Buyer for accepting this pelletizing line.

Buyer should supply crane, forklift or other lifting equipment, mounting materials and tools.

Area: to be designed according to line layout.

1.2 Power supply

Installed power: Approx. 155KW (practical power consumption will be approx. 70%)

Power supply:

Supply voltage: 3*380V+N+PE;

Voltage tolerance: +10%/-5%;

Control voltage:

24VDC+220VAC; Frequency:

50Hz+-2%

Wire/cables:

- Wires/cables from power supply to control cabinet (provided by Buyer)
- Wires/cables from control cabinet to every single machine (provided by Buyer)
- Wires/cables in the control cabinet are provided by Seller.

1.3 Process industrial water

Consumption: 1T/h (water recycles)

Cooling water:

Without dissolved or suspended minerals as phosphor, sulphur, iron,

etc. Inflow temperature T1: max. 15℃

Outflow temperature T2: T2=T1+5℃

Inflow pressure min: 2.5 bars

Hardness: 5-8ºdH;

Reflux: without pressure

Water hose:

From water supply to every single machine (provided by Buyer).

1.4 Compressed air

Consumption: 0.6M^3/min, 0.4~0.7Mpa

1.5 Operation staff

2 Persons

1.6 Lubrication oil

Acquired in the local market on the recommendation of Seller (provide by Buyer).

2. Commercial terms

2.1 Machine list & Unit price

No.	Machine name	Qty.	Unit price (USD)
Item 1	Belt conveyor	1set	
Item 2	300L Compactor	1set	
Item 3	80/36 single screw extruder	1set	
Item 4	Screen changer, plate type 180mm	1set	
Item 5	Water-ring Pelletizing system	1set	
Item 6	Electric control cabinet (with Siemens PLC)	1 set	
2.2	Sliding gate with servo motor *(For compactor, to control/limit inlet amount of rigid flakes into extruder)*	1 set	
2.3	Dust & moisture collector *(For compactor, to help to pre-dry and clean the materials in the compactor)*	1 set	
2.4	Auxiliary heater *(For compactor, to help to pre-dry the materials in the compactor with warm air)*	1 set	

Total amount of above items

Packing cost (0.5% of total machine value)
Inland transportation cost to Shanghai port (40HQ*1)

Total amount on FOB SHANGHAI

We give you 10% off Total amount on FOB SHANGHAI

No.	Optional items	Qty.	Unit price (USD)
1.1	Metal detector *(For belt conveyor)*	1 set	

1.2	**Hauling roller** *(For feeding rolls of film into the compactor)*	1 set	
2.1	**Inverter** *(45kw, For compactor, to adjust rotary speed of compactor)*	1	
2.2	**Sliding gate with servo motor** *(For compactor, to control/limit inlet amount of rigid flakes into extruder)*	1 set	
2.3	**Dust & moisture collector** *(For compactor, to help to pre-dry and clean the materials in the compactor)*	1 set	
2.4	**Auxiliary heater** *(For compactor, to help to pre-dry the materials in the compactor with warm air)*	1 set	
3	**Infrared heaters** *(For extruder, instead of ceramic heaters)*	1 set	
4	**Capacity online monitoring & Quantitative weighing system** *(For storage silo, to monitor capacity of the machine, to release suitable quantity of pellets that you need)*	1 set	
5.1	**Solid state relay (SSR)** *(In the control cabinet)*	1 set	
5.2	**PLC Module for monitoring the machine on terminals** *(In PLC, to check the machine running situation on your cellphone when you're on business trip)*	1 set	
6.1	**2.2 KW Air compressor** *（250L/min, 0.8MPa, 70L air tank, 900rpm）*	1set	
7	**15HP Chiller**	1set	

Remarks:

1. Cost for buying material for testing machine is paid by Buyer.
2. Price increase by 10% for special voltage.

2.3 Payment terms

- 40% as deposit by T/T.
- 60% as balance by T/T before delivery and after inspection.

2.4 Delivery time

In 120 working days from the date of receiving deposit.

2.5 Packing

Plastic film.

2.6 Warranty

13 months for mechanical parts from date of bill of lading.

6 months guarantee for electric elements. 3 months guarantee for electric elements if power supply in client's factory is not stable.

Aceretech will charge the buyer cost price of spare parts after the equipment out of warranty and provide long-term technical guide.

2.7 Installation & Commissioning

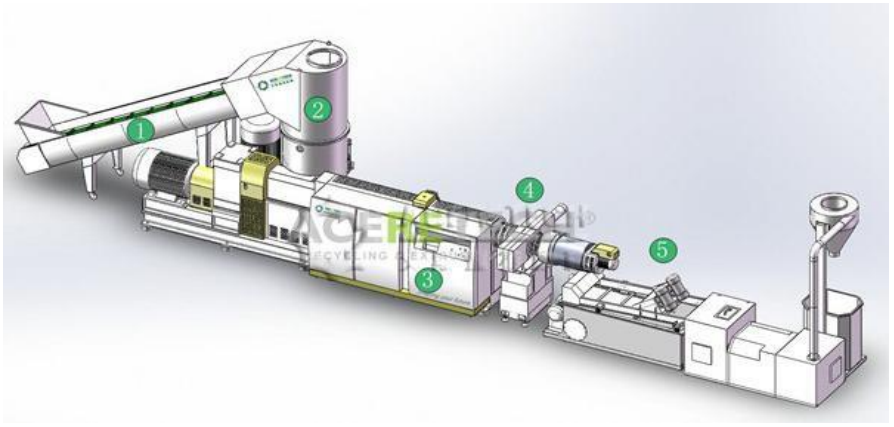
- Buyer should get prepared for installation when the equipment arrived, such as power supply, water supply, labors and cranes, etc.
- Aceretech will prepare for visa application for the engineers, who will go to Buyer's factory for commissioning job.
- Buyer should afford round-trip air tickets for the engineers if visa application is approved, and bear expenses generated such as visa formalities, meals, accommodation and allowance of .
- Engineers will give free training lessons to the labors in Buyer's factory.
- If buyer doesn't request installation and commissioning from Seller's engineer in 4 months from the date of bill of lading, it'll be counted that the equipment has been successfully installed and commissioned by Buyer himself.

2.8 Validity

- 60 days from quotation date.

3. Technical specification

3.1 Flow chart



3.2 ACS300-80 Compacting Pelletizing Machine

FEEDING AND PLASTICIZING SYSTEM

Item 1 Belt conveyor



- Plastic materials such as film, filament, raffia, bags, non-woven are conveyed into the compactor by belt conveyor.
- For rolls of film, hauling roller is a good feeding device as optional item.
- Feeding speed of conveyor belt or hauling roller is adjusted according to fullness in the compactor by inverter.

Width of belt 475mm
Material of belt: PVC
Motor power 1.1KW, with ABB/Schneider inverter.

Metal detector (optional item)

- It applies the latest multiple-frequency detection technology.
- It's interlocked in controlling system to stop the system when it detected metal in feeding section.

Sensitivity to: Fe: 1.0mm
N-Fe (Copper, aluminium) 1.2mm
SUS: 2.0mm
Inner width 500mm
Protection (from dust/water) grade : IP65

Item 2 300L Compactor



- The rotary blades at the bottom of the compactor and fixed blades on the wall cut plastic material into small flakes. Friction heat dries and pre-heats the flakes and makes them shrink.
- Arc-shaped plates guide the material down to be cut. Shrunken flakes are fed into the extruder under the centrifugal force of knife disk.
- This combined process of cutting, drying and compacting enables stable and effective feeding for small bulk density plastics.
- Inverter for compactor (Optional item), to adjust rotary speed of compactor, meanwhile saves energy 10-15%.
- Sliding gate with servo motor (Optional item), for controlling inlet amount of rigid plastic flakes into the extruder.
- Dust & moisture collector (Optional item), to pre-dry/dehumidify and clean the material in the compactor, to remove moisture and dust out from the compactor.
- Auxiliary heater for compactor, to help to pre-dry the materials in the compactor with warm air.

Total volume	300L
Motor power	AC 45KW (**WEG**)
Rotary blades	9pcs (D2)
Fixed blades	5pcs (D2)
Bearing support	Water cooling (soft water)
Bearings	NSK

Electrical elements :

AC Contactor:	**Schneider**

Circuit Breaker: **Schneider**

Air Switch: **LS**

Item 3 **80/36 single screw extruder**



Screw

Diameter of screw 80mm

L/D 36/1

Max. rotary speed 150 rpm

Screw : **Bi-metal**: 38CrMoAlA Nitrided steel + Ni-based alloy.

HRC56-60. More resistant to corrosion, to abrasion and high temperature.

Barrel:

Bi-metal: 38CrMoAlA Nitrided steel + wear-resistant Iron-based alloy.

Feeding zone: HRC>58. Extrusion zone: HRC60±1.

Heating zones 6 zones

Heating power About 28 KW

Heater Ceramic heaters+ stainless steel covers

(Optional)Infrared heaters: Easy assembly and disassembly. Faster heating. Energy saving. More effective heat conduction. Longer service life. Maintenance- free.)

Cooling Air fans: 0.37KW*5

Driving motor:

Motor power: AC 55kw (WEG) with ABB/Schneider inverter.

Gearbox: high torque



- Machining precision: **IT5**.
- Involute tooth gear. NiMo alloy in the teeth.
- Input shaft: 1480 rpm, with "**FAG**" bearing.
- **Integrated structure** of gearbox, made of nodular graphite iron, to avoid errors caused by assembling two half-parts. Oil leakage less than 0.1%.
- **High-torque.** Low noise. Over 50,000 hours stable running.
- Motor and gear box are connected directly by **coupling**, high energy transfer efficiency.

Double Vacuum Degassing system:

Vacuum pump: 3kw

Filtration type: water filtration.

Vacuum room: special design, double zones.

Vacuum tube: temperature and pressure resistant rubber tubes.

Efficient exhaust of volatile such as micro-molecules and moisture from melt to improve quality of granules.

Self protective system:

Over-load protection of motor.

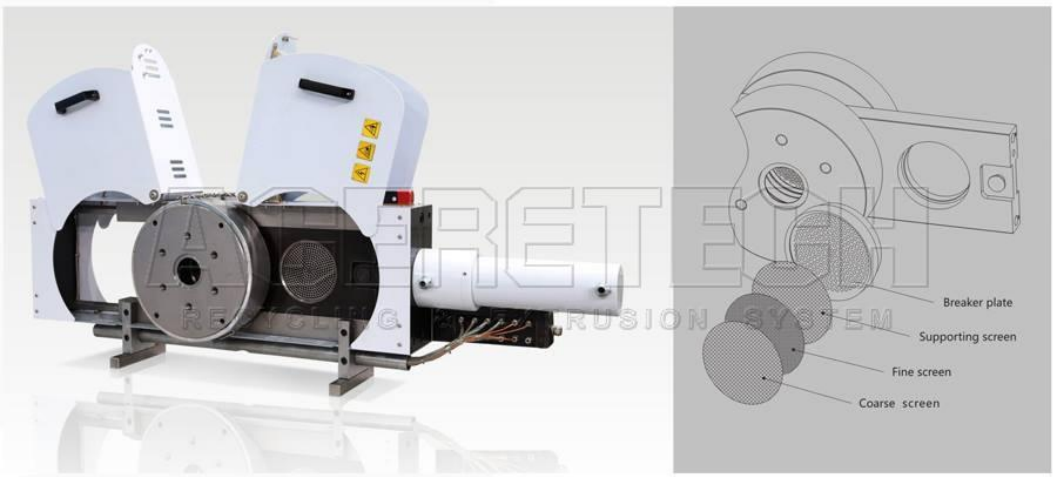
Over-pressure protection of screw.



Filtering system

Screen changer, Non-stop, plate type with filtration diameter 180mm.

Item 4



Single-plate screen changer:

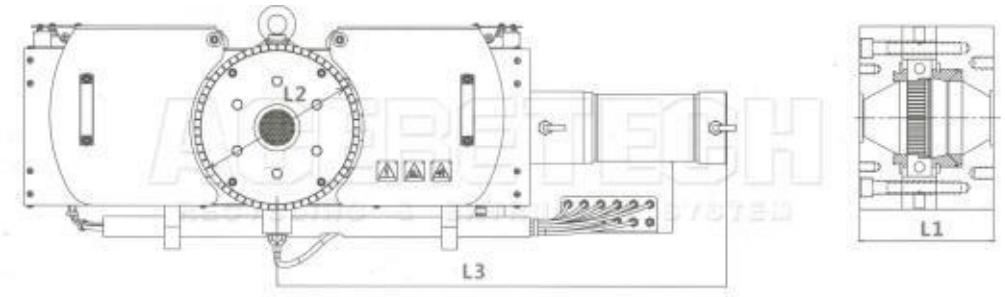
· Ring-shaped heater for consistent and stable heating.

· Leak-free operation and fast screen shift.

· Flexible sealing device.

· Stainless screen: high precision, wear resistant and pressure resistant.

· Below 25Mpa, below 300℃the screen changer work normally.

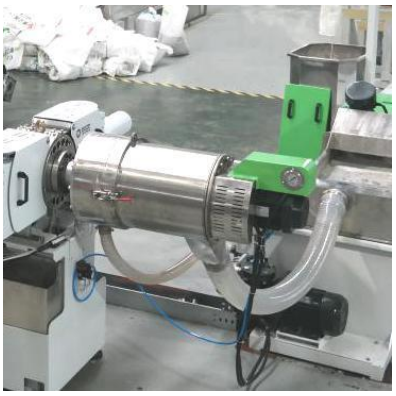


Type		GD-SSP-C-**180**
Size (mm)	L1	265
	L2	390
	L3	1120
Screen size	Diameter (mm)	180
	Area (cm2)	**254**
Weight (kg)		450
Heater	Total power (KW)	10.9

Water-ring pelletizing system

Item 5 Water-ring Pelletizing system





Typical features:

- Cutting blades' speed is automatically adjusted according to melt pressure on the die to ensure even granules.
- Cutting blades are pushed and fit completely to the die Pneumatically.
- Pressure of blades on the die is automatically adjusted to ensure uniform cutting force by high precision pressure sensor.

Water-ring die

Material for die body	40Cr
Material for die plate	38CrMoAlA
Holes:	φ2.8 / φ2.5 (two plates included)
Heating power	4 KW
Cover	Stainless steel

Water-ring pelletizer

Motor power	1.5KW
Inverter	ABB/Schneider

Cutting blades: Material M2, triple machining process, knife with high tenacity, flexible, not easily to get broken.

Qty. Of knives	3 pieces

Drying system



Vibrosieve

- Motor power :0.1kw*2.
- Parts that contact water: SUS304.
- Assemble sieves: not welded. Installed and fixed by screws, for convenient replacing new sieves in the future.
- Springs are surrounded with rubber, to prevent from big amplitude difference caused by spring ageing.
- Special design to prevent small impurities falling into water pump.

Centrifugal dryer (Horizontal)

Motor power: 3kw.
Rotary speed: 1460rpm
Parts that contact water and granules: SUS304.



Packing system (Blower & Silo)

Air blower:

Motor power: 1.5 kw
Parts that contact granules: SUS304.

Storage silo:

Volume: 700L
Silo, pipes: SUS304.
Sound-proof cotton around pipes and silo.

Capacity online monitoring & Quantitative weighing system, (optional item)

Electrical controlling system

Electric control cabinet



Item 6

- PLC: Siemens. Industrial grade touch screen, with controlling and monitoring system on many terminals (You can check machine running situation on cellphone, notebook, laptop...) in LAN.
- Frequency inverter: ABB/Schneider.
- **One button "START":** the machine can be started by pressing button "START" owing to built-in logical sequence and program.
- **One button "STOP":** the machine can be stopped by pressing button "STOP" owing to PLC modular design.
- **Emergency Stop.**
- **Protection switch.** Every operation position and rotary parts are equipped with limit switches for safety protection.
- **Precise temperature control**, optimized plasticization design, ensure reliable quality of granules.
- **Protection from over-heat in the compactor.**
- Design and manufacture are CE certified. 380V, 50Hz. Control voltage: 220V, 50Hz .

3.3 Spare parts

Name	QTY.	Unit price (USD)
For Free		
Oil seal for gearbox	1set	6
Stationary blade of compactor	3pcs	21
Rotary blade of compactor	3pcs	18
Gate screw	1pcs	60
Seal ring of degassing system	3pcs	4
Vacuum meter	2pcs	6
Seal ring of water-ring pelletizer	3pcs	3
Water ring silicone pad	3pcs	2
Oil seal of water-ring pelletizer's motor	1pcs	3
Water ring cover oil seal	1set	6
Blades of pelletizer	5set (15pcs)	15
Copper ball	2 pcs	85
Steel ball	10 pcs	0.7
Blade Carrier press block and fastening screws	each 3pcs	100
Positioning pin	3pcs	2
Trachea connector	2 pcs	2
Thermal couple	5pcs	6
Small AC contactor	2pcs	15
Small circuit breaker	1pcs	7
Heater (Ceramic/combination of Ceramic+Infrared)	Head & barrel & vacuum, 1 piece for each part for free.	1,730/2,170 (1 set for whole extruder)
Fast plug	2pcs	4
Solid relay	1 pcs	16
Fuse core , fuse base	7pcs+3pcs	90
Rubber spring	4pcs	7
Hose clamp	4pcs	8
Solenoid valve for water	1pcs	25
Air duct seal	1pcs	2
Screw unload tools	1pcs	8

Nylon Connector of Coupling	1set (Main extruder & centrifugal dryer)	24
Hydraulic station oil pipe seal	1set	3
heating rod of filter	4pcs	48
Filtration screen	10 pcs	0.5
Extra Paid by Buyer		
Blades of pelletizer	90pcs	5
Toolbox	1set	1490
Power cable(6m)	1set	542