

SMART

Line for Granulation



CHARACTERISTICS

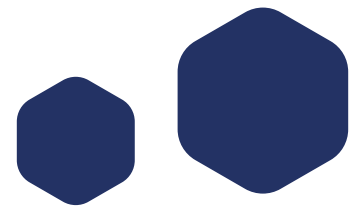
1. Integrated grinding, extrusion, and granulation in one machine.
2. Equipped with a Delta or Siemens PLC controller. The extruder drive is powered by a frequency converter. The intelligent control system adjusts the speeds to ensure a stable extrusion process and reliable granulation. Integrated multi-zone temperature control and user-friendly interface.
3. Specially designed short screw with variable geometry depending on the processed material. Ideal for recycling film bundles and flakes, as well as grinds. Material homogenization is very effective.
4. Manual or hydraulic screen changer allows for easy and quick screen replacement and filtration level adjustment depending on the screen used.
5. Equipped with a die head in an air or water jacket.
6. Granulate transport system to silo with optional dedusting and automatic weighing. Compact line design allows for easy installation in the production hall.



APPLICATION

The SMART line with integrated grinding, extrusion, and granulation in one machine is suitable for recycling film and HDPE, MDPE, LDPE, LLDPE materials, as well as for processing materials with a small amount of print and metallization, and also for PP and PA6. Designed for independent recycling through tape or screw feeder, as well as for edge trim recycling.





Two die head options:

- air-jacketed die head, a cheaper but effective solution for granulating all types of LDPE and HDPE,
- water-jacketed die head with pneumatic pressure adjustment for precise setting of knife pressure depending on production specifics and material type. Wide application, for every type of material, also with high fluidity.

OPTIONS

CONVEYOR BELT

suitable for transporting bundles of cut film, film sheets, or waste to the crusher feeder. Material is supplied automatically through level sensors on the crusher's feed hopper. Automatic start at low level, automatic stop after filling.



METAL DETECTOR

for detecting metal elements that may be present in the transported material. Prevents unwanted metal elements from entering the crusher or extruder and damaging the knives or screw. Detector stops the conveyor and material transport to the crusher feeder after detecting a metal element.

WASTE BASKET

for collecting edge trim waste from the film blowing line. Waste basket with vacuum fan and blowing fan in online mode (during operation) as an additional option.



ROLLER CONVEYOR

stably feeds film from a roll to the crusher. The operator only sets the film on the rolls and sets the transport speed, the rest is automatic. Automatic start and stop of the roller is controlled by a level sensor mounted on the crusher feeder. The customer prepares the roll stand in their own scope depending on the weight and size.

GRANULATE TRANSPORT SYSTEM

With optional automatic weighing of the material and level sensor, as well as dedusting system.



Model	Smart LS-45	Smart LS-60	Smart LS-75
Extruder motor power [kw]	15	22	45
Crusher motor power [kw]	15	15	15
Extruder screw diameter [mm]	45	60	75
Heating power [kw]	10,5	14	18
Number of heating zones [units]	6	6	6
Cylinder cooling type	air	air	air
Hopper cooling type	water	water	water
Granulation system [kw]	1.5	1.5	1.5
Cooling type	air/water	air/water	air/water
Centrifuge [kw]	-/4	-/4	-/4
Vibrating table [kw]	0,5	0,5	0,5
Screen changer	manual/plate	manual/plate	manual/plate
Blower [kw]	2.2	2.2	2.2
Conveyor belt [kw]	1,5	1,5	1,5
Metal detector	o	o	o
Roll feeder	o	o	o
Granulate transport system	o	o	o
Noise level [dB]	85	85	85
Total installed power [kw]	~38	~60	~64
Output [kg/h]	60-70	70-120	100-160
Dimensions [WxDxH]	4,5x2,4x2,8	6,7x2,4x2,8	6,8x2,4x2,8
Weight [kg]	4000	4600	4800

1. Output calculated for PE film
2. Noise level during operation varies depending on material and extrusion speed
3. Cooling water temperature: room temperature
4. Temperature range: 100-250°C
5. Installed power without additional equipment



EKO-CHEM



Ekochem Sp. z o.o.
ul. Akacyjowa 1, Głogowo,
87-123 Dobrzejewice,
tel.: +48 56 674 20 05,
biuro@wwekochem.com

www.wwekochem.com