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STOP WASTING ENERGY by shutting down the granulator via an electrical interface of the robot or the IMM.

Most of the time press-side granulators run with partial load, in these circumstances the motor power of the granulator is higher compared to that is required for normal operation.

Let keep running the granulator with partial load is wasting energy.

The energy efficiency of an automated fed beside-the-press granulator can be increased, if it is only operated when necessary.

For optimum performance of the granulator, analyze the grinding time and the stop time possible for a regular grinding avoiding jamming into the feeding hopper.

In the examples below, we have fed the hopper of the granulator at a standstill with a quantity of sprues corresponding to several injection cycles.

- The inlet volume of the feeding hopper is used as a buffer zone.
- We cchecked the loading of the cutting chamber by successive trials in order to calculate the maximum quantity of sprues.
- We manage the feed of material to the granulator to eliminate over-feeding, which can jam the machine.
- No jamming of bulk parts and we checked that it was possible to start the granulator under load.

Quantity fed per batch					
					
105	85	70	55	45	25

By grouping several injection cycles together, we can start the motor of the granulator less often, thereby reducing electricity consumption.

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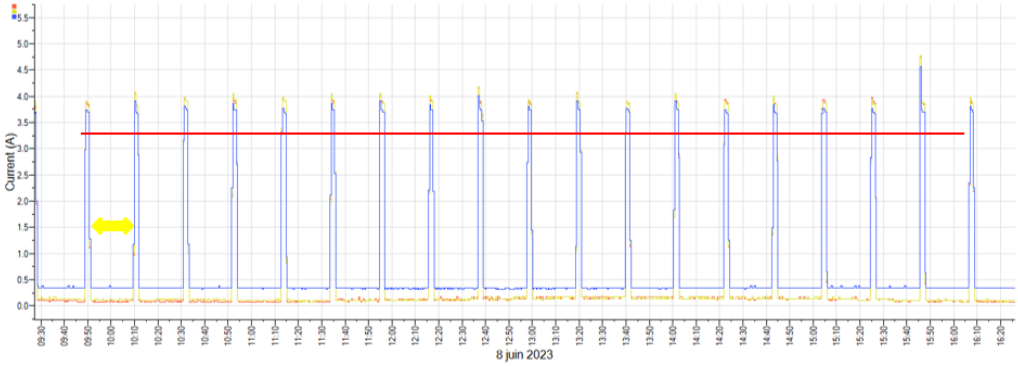
Case studies

- Blade Granulator G-Max 13 – 3 kW
- Grinding of PP sprues
- No-load consumption: 2.0 kW/h
- On-load consumption: 2.8 kW/h
- Start & Stop cycles:
  - » Grinding time: 3 x 2 minutes
  - » Stop time: 3 x 18 minutes
  - » Energy consumption: 0.3 kW/h
  - » Energy saved: 90%



No-load consumption

Stop time (Yellow)

When it is possible to switch the granulator On/Off according to the loading process that offers significant savings in machine electricity consumption.

The Start & Stop Function consists of a 6 meter cable with plug/socket to link the granulator to the installation with a dry contact.

To be interesting the number of cycles per hour must be less than 15.

- Grinding time: up to 1 minute
- Stop time: up to 3 minutes

The Start & Stop functionality may achieved significant energy savings, and usually pays for itself within the first year, since granulators processing small sprues at long cycle times.

The most effective method to substantially reduce granulator electricity usage consist of turning off the granulator when it is possible.

With the Start & Stop function, make your press-side granulator smarter to save energy to boost profitability long-term.

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