

## HERBOLD granulator, type SML 30/50, for waste recycling of tape



The recycling of waste on tape production and extrusion lines for flat film (with center cut) is often carried out centrally at a special plant. As a rule only the recycling of peripheral trimmings is carried out on the production line.

HERBOLD provide an economical solution for the disposal of the other waste products from these plants in their current program.



The principal unit which is particularly suited for this task is a granulator of the **SML series**:

- It is able to cope with irregular feed, e.g. in connection with a tape production unit or endless peripheral implements a double cross cutting action with just one stator cutting blade.
- The noise level of this unit is very low. Noise generation is being avoided by the double cross blade construction. The mounting of the cutter blades on the rotor and stator at different angles avoids noises caused by air movement so that the only noise results from the cutting action itself. In this way it is possible in many cases (e.g. polyolefines) to dispense with noise protection methods completely.
- It is possible to process the waste using a fine screen with a low power consumption. Fine granulation improves the pouring ability and bulk density of the ground material thus simplifying its reintroduction into the processing line. The scissor cutting effect of the double cross cutting results in the foil having clean-cut edges, which also improves the material density.

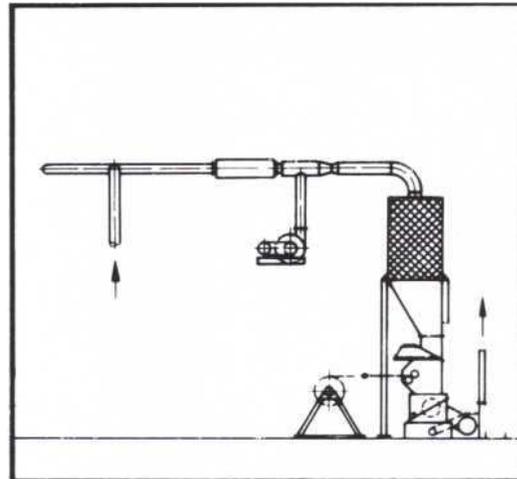
- The machine construction has been designed for continuous operation with a minimum of service (rotor bearing positioned outside of the main housing, split and hinged casing, cutter adjustment unnecessary). The granulators are available in different sizes dependent on the required throughput.

Size **SML 30/30 L3-1** with a **7.5 kW** drive is suitable for extrusion plants for flat film and the **SML 30/50 L3-1** with an **11 kW** drive for tape producing plants. The larger granulators are recommended where waste from various plants is to be treated simultaneously.

The granulators can be equipped with an additional flywheel for applications where the flow of material is irregular, thus causing a load fluctuation.

For the starting-up phase of tape production plants we recommend the use of a variable speed drive motor for the granulator. This enables a particularly economical and quiet operation with a reduced power consumption and a slower motor speed once the unit is operating under normal conditions.

The strips of waste material and thus the feed into the granulator is carried out by means of an injector suction device. The air from this injector is drawn off through a mesh basket positioned above the granulator. The ground material is conveyed from the unit using a second fan system which is also used for cooling the granulator.



Automatic plant for reintroduction of edge trims with supplementary feed roller device and hopper for manual feeding

The described conveyor and size reduction units operate completely automatically and trouble-free. Since the material is directly being fed back into the production process there is no need for any intermediate storage whatsoever. This ensures that the material reaches the processing plant in a perfectly clean condition.

Fine processing resulting in a product of high bulk density makes it possible to directly feed the material into an extruder. To this purpose, a cyclone separator can be fitted between the granulator and the extruder. New granules can then be fed through the cyclone air intake into the extruder and mixed in the required proportions with the freshly ground waste.

In cases where there is no consistent flow of the waste material a storage container can be installed.

A pneumatic conveying device can also be used for transporting the waste to a central recycling plant.



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