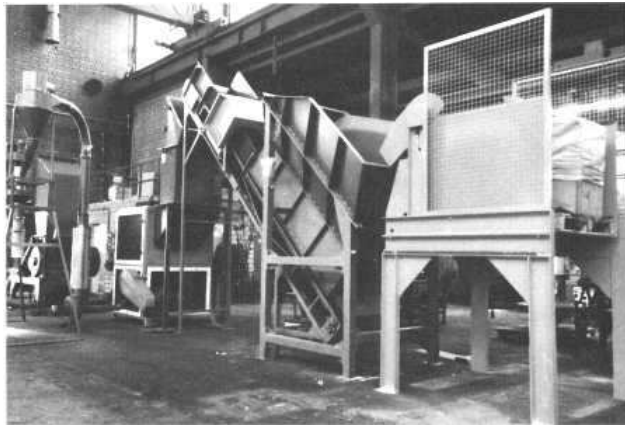


## PET bottle production: The economical size reduction and recycling of production waste



The HERBOLD size reduction units of the SML series, designed for a variety of applications, are suited for the reduction of waste created during the production of PET bottles. These units are recommended for the size reduction of thick-walled preforms as well as for large and bulky reject bottles. The granulator model SML with a specially modified cutting rotor (type S3 or S4) is particularly suited for this task. Machines in 6 different sizes are available, the smallest being the SML 30/50 which has been designed for the direct integration into the production line. The larger units with a throughput of up to 1500 kg/h have been designed for an independent, centrally located reduction and recycling plant.



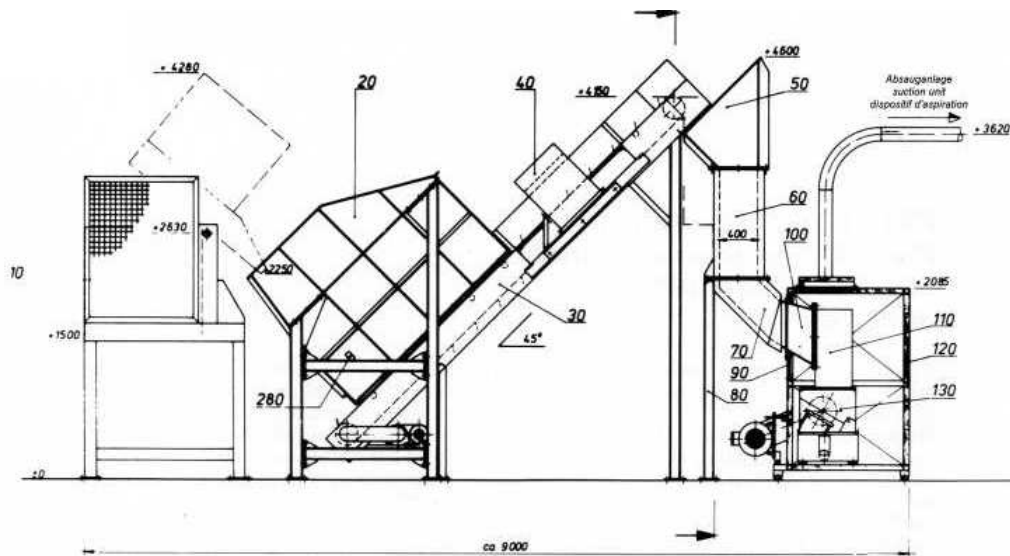
As an accessory for a central plant, we suggest the use of an automatic feed system consisting of a tipping device for containers and a dosing conveyor equipped with a metal detector. In addition, we recommend a follow-up plant such as an air separator for the separation of fines, an exhaust filter and a metal separator.

The photo shows a medium-sized central recycling system of the type described above housed in a sound proofed casing.

The following details demonstrate the suitability of this series of granulators for the size reduction of PET waste:

- Double cross cutting action, i.e. the rotor **and** stator cutters are fitted diagonally opposed to each other. This ensures a constant cutting gap along the full length of the cutter. The resulting scissor cutting action ensures low temperature increases during granulation and guarantees clean cutting with a minimum of fines and a low power consumption. The noise level is noticeably lower than that of comparable units using a simple scissor cut.
- The rotor bearings are positioned outside of the main housing of the granulator. This prevents bearing grease from entering the grinding chamber and dust and fines from entering the bearings. The seals between the bearings and the grinding chamber are not subject to any mechanical stress.
- The cutter adjustment is carried out outside of the granulator using an adjustment gauge supplied with the unit. Experience has shown that this does not only reduce down-times but also allows for a more precise adjustment of the cutters resulting in an optimum size reduction and a high throughput.





#### Our product range

- Granulators
- Pulverizing Systems
- Shredders
- Hammer Mills
- HOG Shredders
- Guillotines
- Washing Systems
- Plastcompactors

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