



# Granulating Plastics

**PALLMANN**

---



## Granulating plastics

Knife mills play an important role in the production and processing of plastics of any kind. The preparation of production waste, reintroduced into new production, guarantees considerable cost savings. Resources are protected due to the preparation of already used plastics such as film-, bottle- and profile waste etc.

Besides the many standardized applications, PALLMANN Ultra-Granulators are used for size reduction of heat-sensitive rubbers and elastomers, as well as for highly rigid fiber waste products. Furthermore, PALLMANN Ultra-Granulators are widely spread throughout the chemical- and recycling industry.

Due to the variety of materials, their form and constitutions, PALLMANN supplies machine technology suited for the corresponding application.

## Some advantages of PALLMANN systems

- Quick and easy screen change
- Quick and easy knife change
- Fast and thorough cleaning due to easy access of the grinding chamber
- Homogenous material preparation
- Adaptable for different infeed materials
- Easy adjustment of required fineness
- High performance guillotine rotor
- High throughput capacity
- High machine availability
- Low maintenance cost



## 100 % utilization of plastics

For the economical size reduction, PALLMANN offers specially developed Ultra-Granulators, series H.

The knife mills stand out due to the robust welded construction, electro dynamically balanced rotors and simple maintenance. High throughput rates at high availability are achieved in rough, everyday production. PS-H is also available for voluminous products.



TYPE PS-H		500 x 700	600 x 900	800 x 1100	1000 x 1400
Rotor diameter	mm	500	600	800	1000
Rotor length	mm	700	900	1100	1400
Drive, main motor	kW	55	75	160	200
Throughput rate	kg/h	300 - 1000	500 - 1800	800 - 2900	1100 - 4000

## Size reduction of rubber

For the economical size reduction of natural and synthetic rubber of any kind in form of bales, sheets or chips, vulcanized or unvulcanized, with or without textile reinforcement, PALLMANN offers Ultra-Granulators, series PS-C.

Standard one-, two- or three-step size reduction systems can be offered. We specialize in custom-designed complete production lines.

PALLMANN has specifically designed guillotine rotors, incompletely open design without central rotors haft and with high rotor inertia. Thanks to the patented feeding system, also extremely difficult temperature-sensitive material can be reduced in size. Well proven metering and recovery systems are available for any type of application.

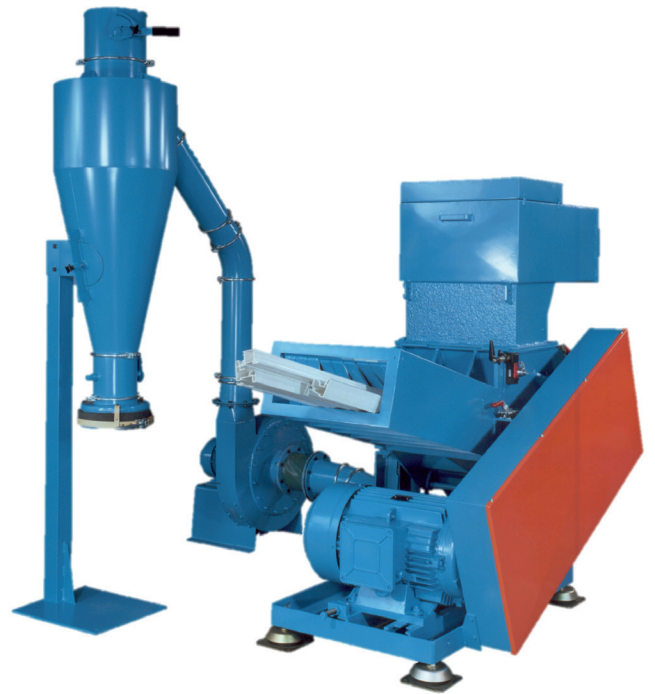


TYPE PS-C		4 x 5	6 x 9	8 x 12
Scale up factor	f	1,0	2,2	3,7
Rotor diameter	mm	400	600	800
Rotor type		G 3	G 3	WG 6
Drive, main motor	kW	55	75 - 110	132 - 250
Throughput rate	kg/h	200 - 2000	450 - 4000	700 - 7000

# Size reduction of profiles

Production waste and cut-offs from the manufacture and preparation of items such as windows, shutters, siding profiles etc., are reduced in size using the PALLMANN Ultra-Granulator, type PSP.

The horizontally fed profiles are automatically drawn in by means of the specially designed rotor. Short waste pieces can be fed either by conveyor or from the top. Size of the granulated material is determined by the screen hole size.



TYPE PSP		400 x 500	500 x 700
Rotor diameter	mm	400	500
Rotor length	mm	500	700
Drive, main motor	kW	37 - 45	45 - 55
Throughput rate	kg/h	800 - 1000	1200 - 1500

# Size reduction of sheets and boards

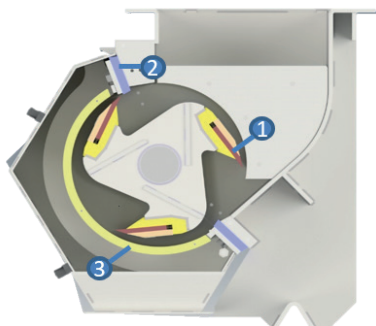
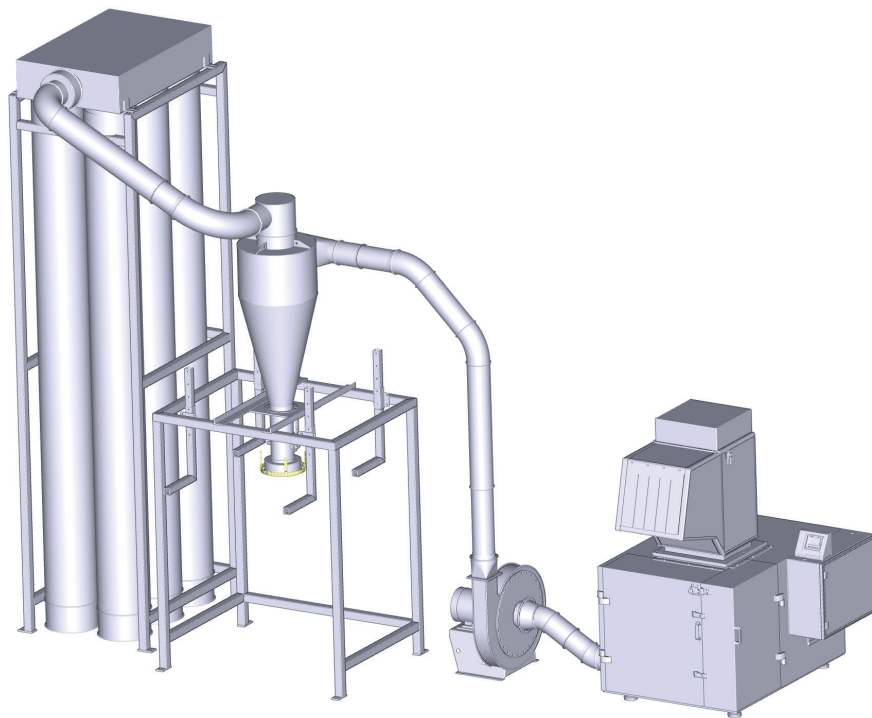
Waste and rejets, occurring during the manufacturing and processing of sheets, whether massive or foamed can be size reduced by means of a PALLMANN Ultra-Granulator, type PS-P into granules of defined size.

A controlled material feeding is possible due to the integrated upstream and horizontal conveyer belts.

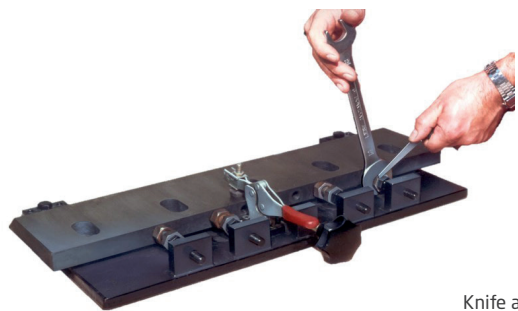


TYPE PS-P		600 x 900	600 x 1500	800 x 1500
Rotor diameter	mm	600	600	800
Rotor length	mm	500	700	700
Drive, main motor	kW	75	110	160
Sheets max. width	mm	850	1450	1450
Sheets max. thickness	mm	200	300	400
Throughput rate	kg/h	500	1000	1000





- 1. Knives
- 2. Counter knives
- 3. Screen



Knife adjustment tool

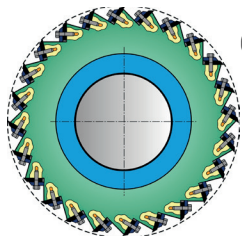
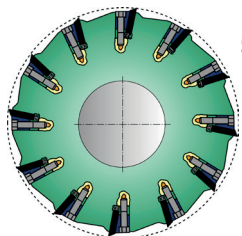
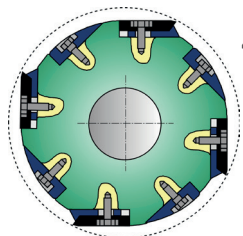
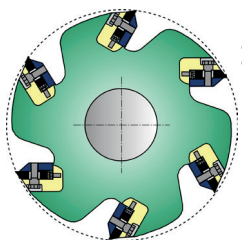
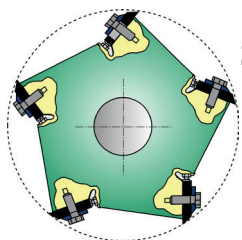
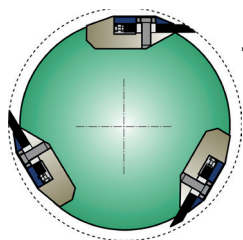
PALLMANN, designs and manufactures complete systems that are coordinated, together with the customer, to his individual requirements and local conditions.

PALLMANN Ultra-Granulators produce high quality granules at low cost by choosing the correct cutting technology. For easy handling, PALLMANN Ultra-Granulators have a split housing and can be manually or hydraulically raised or lowered, depending on the design.

By means of several screen geometries, different quality levels of granulates can be produced in a targeted manner.

The screen inserts are easily accessible and are available with either square or round holes.

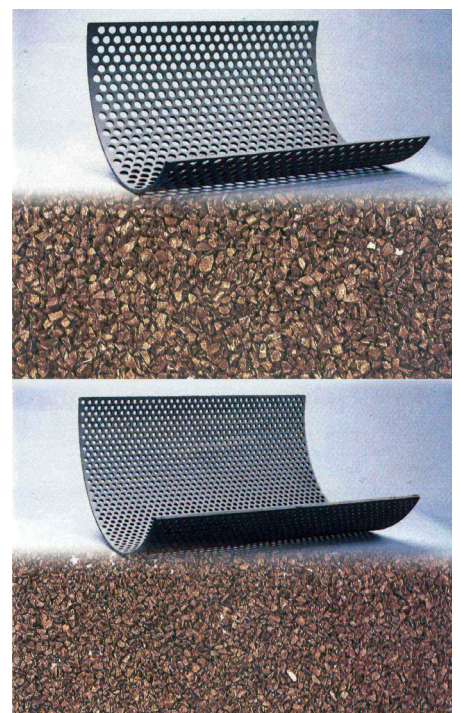
PALLMANN supplies Ultra Granulators that offer optimum prerequisites in the broadest spectrum of application fields. Depending on the requirement, different varieties of machine housings with various numbers of knives and cutting geometries are available and can handle lumps, sheets and fibers.



1. Guillotine rotor  
4. Cassette rotor

2. Slant-cut rotor  
5. Clamping wedge rotor

3. Claw-type rotor  
6. Multiple knife rotor





PALLMANN is the leading manufacturer of size reduction machines and systems for the plastic and in-house recycling industry. PALLMANN Maschinenfabrik designs, manufactures and supplies tailor-made, individual or complete solutions for the processing of almost any plastic as well as in-house recycling products. At its headquarters in Zweibrücken, PALLMANN company operates the world's largest research and development center for size reduction technology as well as a training and service center. More than 100 test machines are available for the preparation of various raw materials including subsequent laboratory analysis on individual scale. In cooperation with the Siempelkamp group, PALLMANN has worldwide production facilities. Our global presence is ensured by a coordinated sales network for machinery as well as spare parts and after-sales service.

## ENGINEERING AND SERVICE

- Design and manufacturing
- Research and development
- Control systems
- Process monitoring
- Spare and wear parts for size reduction machines in PALLMANN quality
- Installation, commissioning, start-up
- Maintenance and repair service
- Operator training
- Technological training
- Retrofit and modernisation
- Warehouse stocking programs and logistic concepts

## SYSTEM SOLUTIONS FOR

- Pulverizing
- Granulating
- Agglomerating
- In-house recycling



Pallmann Maschinenfabrik GmbH & Co. KG  
Wolfslochstraße 51, 66482 Zweibrücken

T.: +49 6332/802 0  
E: [plastics@pallmann.eu](mailto:plastics@pallmann.eu)