Pulverizing for Quality Powder

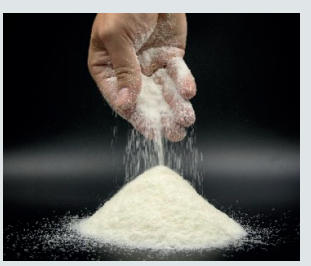
PALLMANN

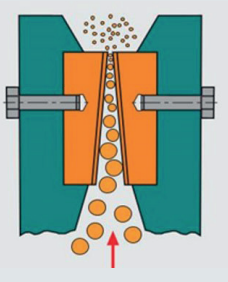
Experience the difference between fine grinding and grinding fine

Profitable pulverizing of thermoplastic material at ambient temperature is a job for experts. Different applications require special powder qualities with determined particle size distribution. The quality of powder flowability for rotomoulding for example, is specified in the German standard DIN 53492 and in the US-standard ASTM D 1895.

Some advantages of PALLMANN systems

- Quality powders with excellent flowability, high bulk density and uniform particle size distribution
- Optimum material distribution even in complicated moulds
- Material- and weight savings due to uniform wall thickness during the production of rotational moulded parts
- Short mould filling times with a low dust level
- Homogeneous material mixing of coloured powder
- Easy and economical in-house pulverizing
- Internal control of powder quality and quantity
- Smooth product surface due to optimum particle size distribution
- Energy efficient powder production





Rotomoulding with PALLMANN machines

PolyGrinder type PKM

The PALLMANN PolyGrinder is suitable for continuous operation (24/7).
Vertical material discharge prevents clogging of the material in the housing. High precision bearing allows the precise setting of the grinding gap. Easy access to the mill housing and the simple key segment exchange without disassembly of the rotor guarantee a minimum of downtime. Due to a selection of various key segments, the PolyGrinder allows the processing of many different materials

Characteristics

- Grinding path made of wear-resistant, technically optimized key segments
- Precise central grinding gap setting
- Housing developed for optimum air cooling and easy access for cleaning and key segment exchange
- Broad field of application due to easily exchangeable key segments

Advantages

- Fully automatic, temperature- and load controlled system
- High throughput capacity at uniform high product quality
- Versatility in pulverizing various polyolefins and other plastics
- Energy efficient powder production

TYPE PKM			300	600	800
Grinding chamber diameter		mm	300	600	800
Motor, main drive		kW	37	75 - 110	90 - 132
Throughput capacity*		kg/h	150 - 200	450 - 650	750 - 1000
Total system capacity		kW	42	92 - 125	107 - 155
Dimensions	Width	mm	2270	3100	4000
	Depth	mm	2600	2800	4100
	Height	mm	5150	5100	7300

Proven grinding systems for masterbatch operations

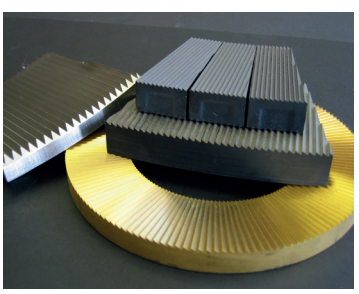
PolyGrinder type PM

With the PolyGrinder, type PM, high quality powders are produced for masterbatch and compounding. The optimum particle size of the end powder guarantees good mixture and adhesion of the additives.

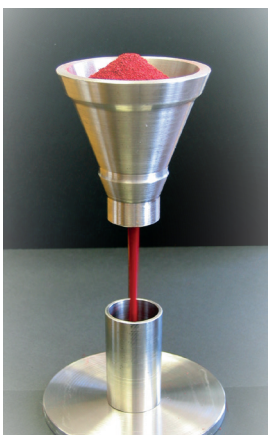
A wide spectrum of materials such as PE, PP, PA, PC etc. can be pulverized at ambient temperature.

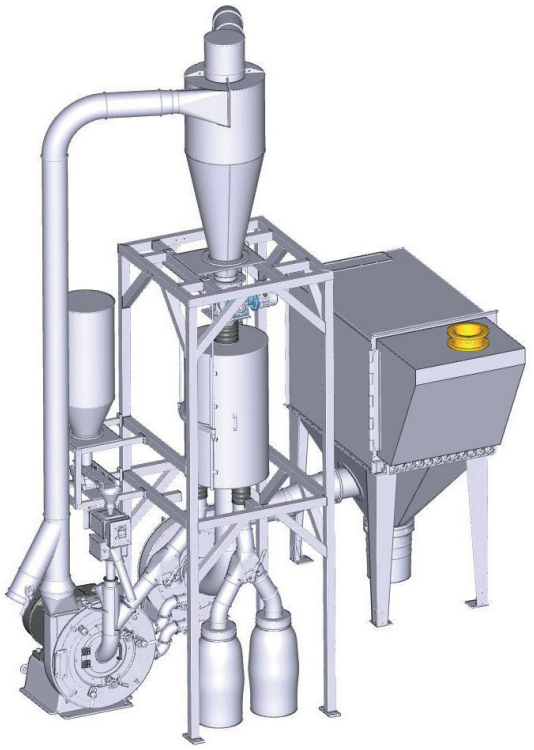
The PALLMANN PolyGrinder, type PM is robust and suitable for continuous operation. The patented design with eccentrically positioned grinding discs avoids material adhesion in the housing. High precision bearings allow the precise setting of the grinding gap. The entire system is controlled fully automatically.

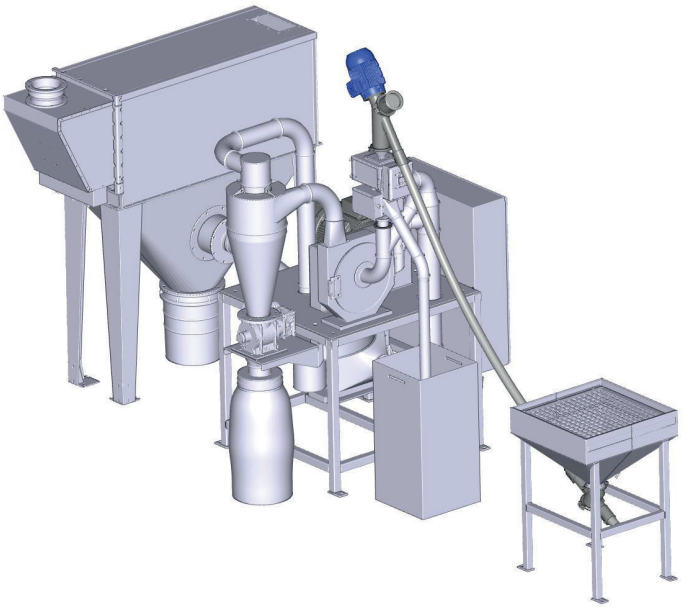
The system is designed in such a way that the pulverizer itself, the piping and the cyclone are installed at a comfortable working height and can be quickly and easily cleaned.



TYPE PM			300	600
Grinding chamber diameter		mm	300	600
Motor, main drive		kW	30 - 37	55 - 75
Throughput capacity*		kg/h	50 - 300	325 - 940
Dimensions	Width	mm	2270	3100
	Depth	mm	2600	2800
	Height	mm	5150	5100





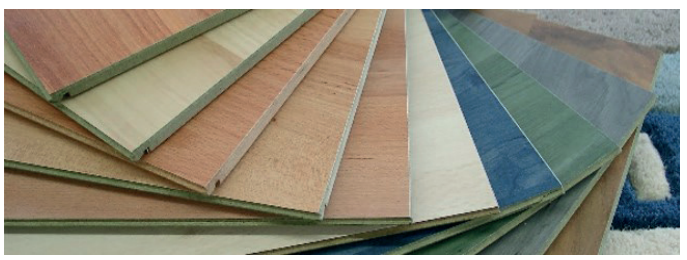


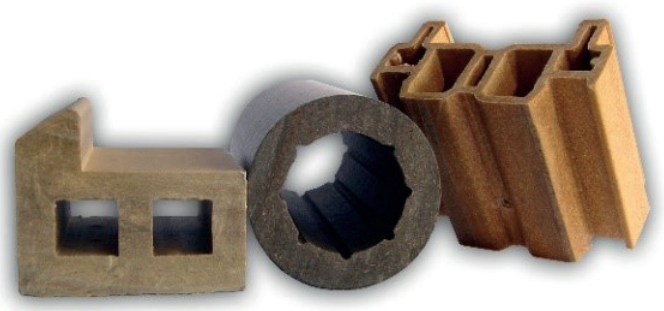
Experience the difference of PALLMANN powder

1. Flowability
Good flowability is a prerequisite to achieve an optimum distribution of the material within the mould.

2. Bulk density
Bulk density and flowability depend on each other. The bulk density of a quality powder with a spherical particle shape is > 350g/l.

3. Proportion of fines
Quality powders characterize themselves through narrow particle size distribution. To guarantee that the material distribution is uniform even in complicated moulds, 80 - 90% of the powder should have a particle size between 0.15 – 0.5 mm.





PALLMANN can also provide solutions for:

- Pipes
- Profiles
- Flooring
- Compounds

More than 1000 „ORIGINAL PALLMANN" plastic pulverizing systems all over the world guarantee their owners the adherence to these quality parameters.

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

ORIGINAL PALLMANN

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