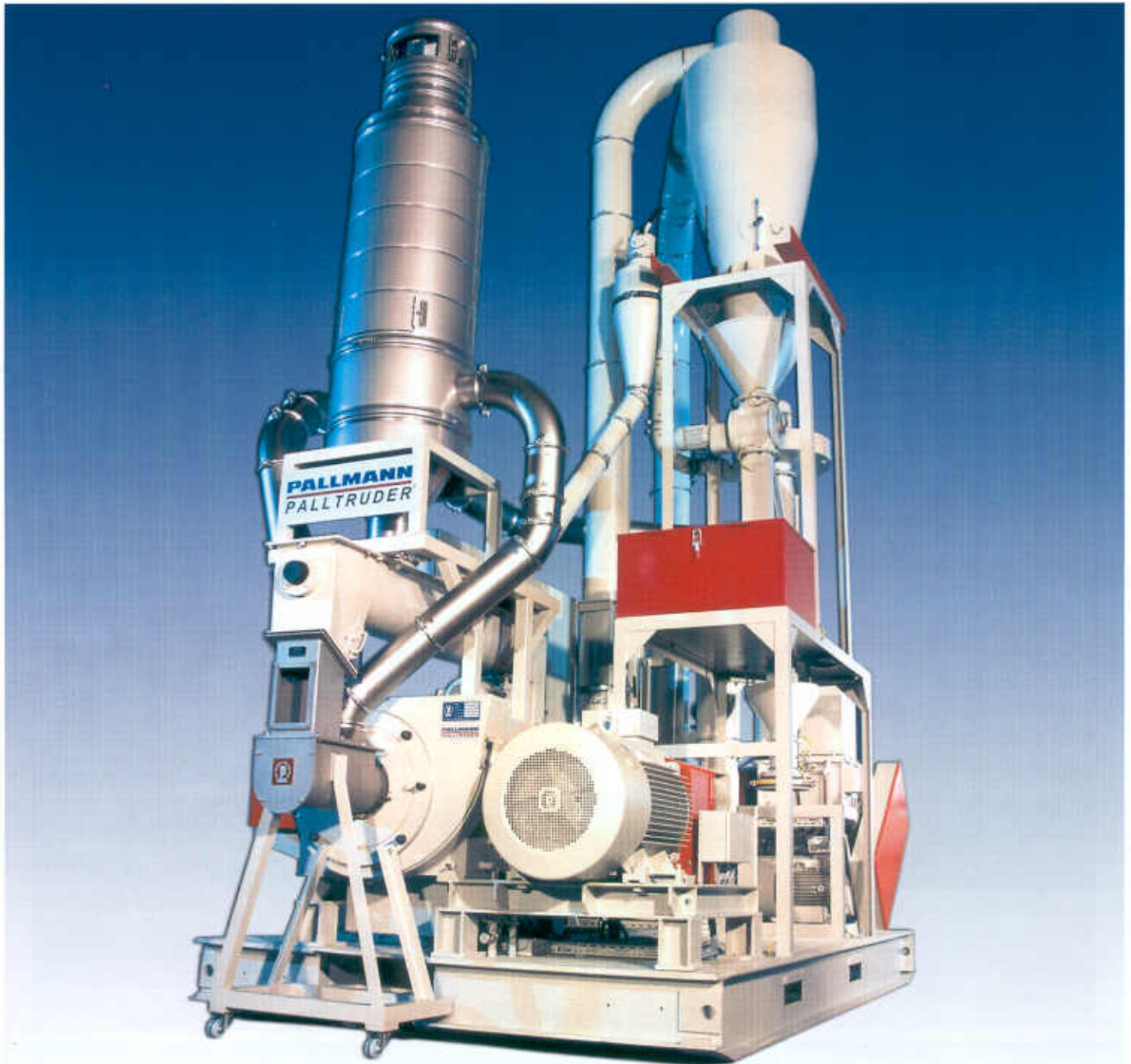


PALLMANN

Manufacturing of Wood-Plastic Composites



Manufacturing of Wood-Plastic Composites

PALLMANN has set new standards in the production of wood plastic composites with the development of the Palltruder[®].

An improved product quality, higher throughput rate and a broad processing range characterize Palltrusion[™] technology.

The Palltruder[®] produces an optimum end product: Granules with reproducible quality affecting a wide material spectrum – at low cost.

The granules produced, Pallwood[®], are further processed in additional production processes such as extrusion, injection moulding, pressing, i.e. P-Fix[®], etc. into high quality end products.



Wood flour



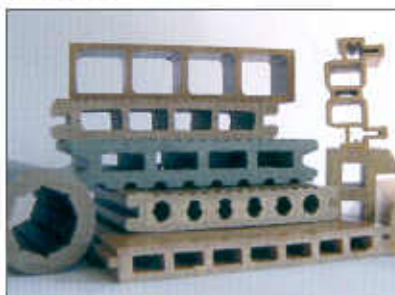
Plastic granules



PALLWOOD[®]

End products:

Profiles



Panels

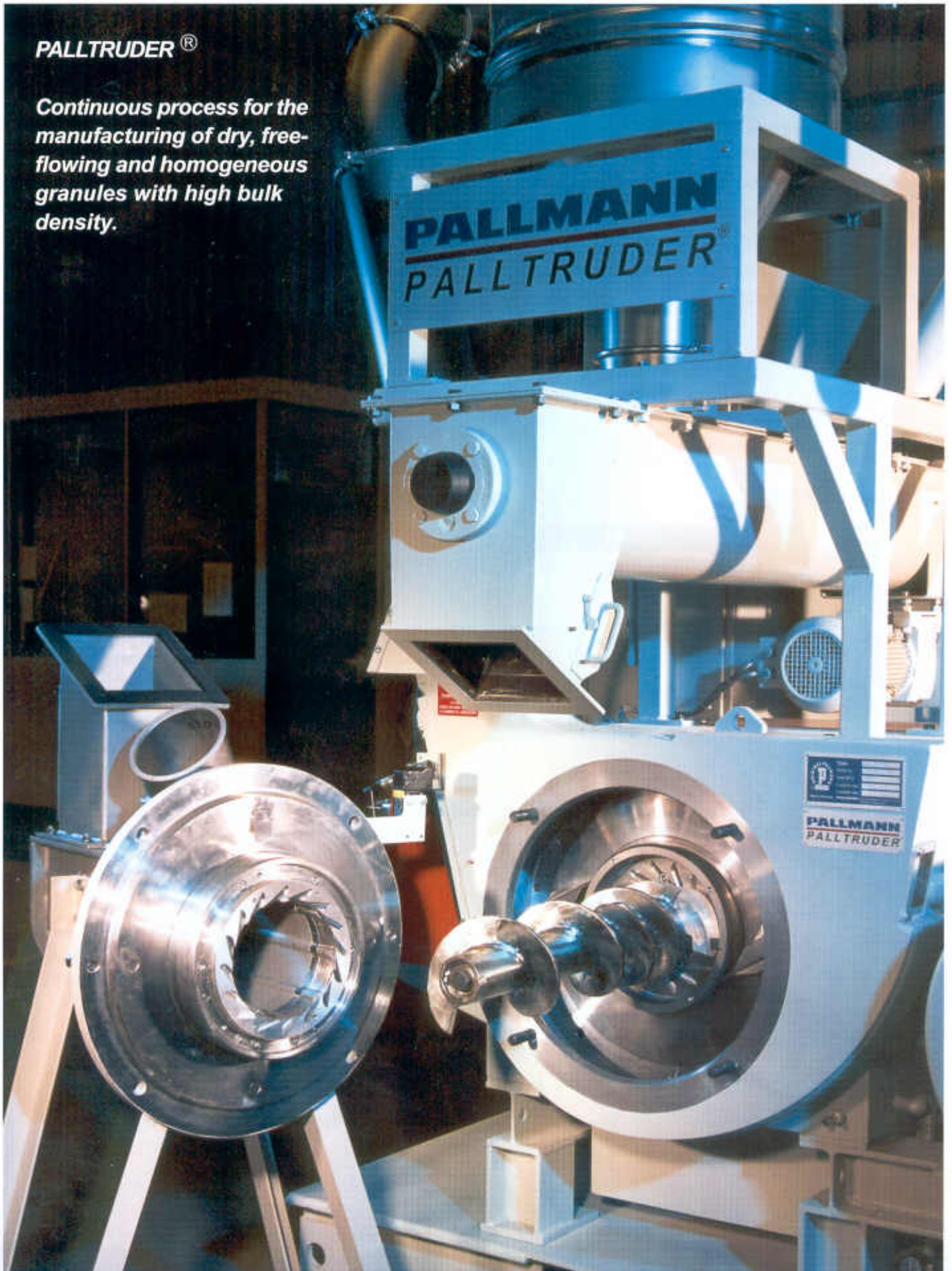


Injection moulded parts



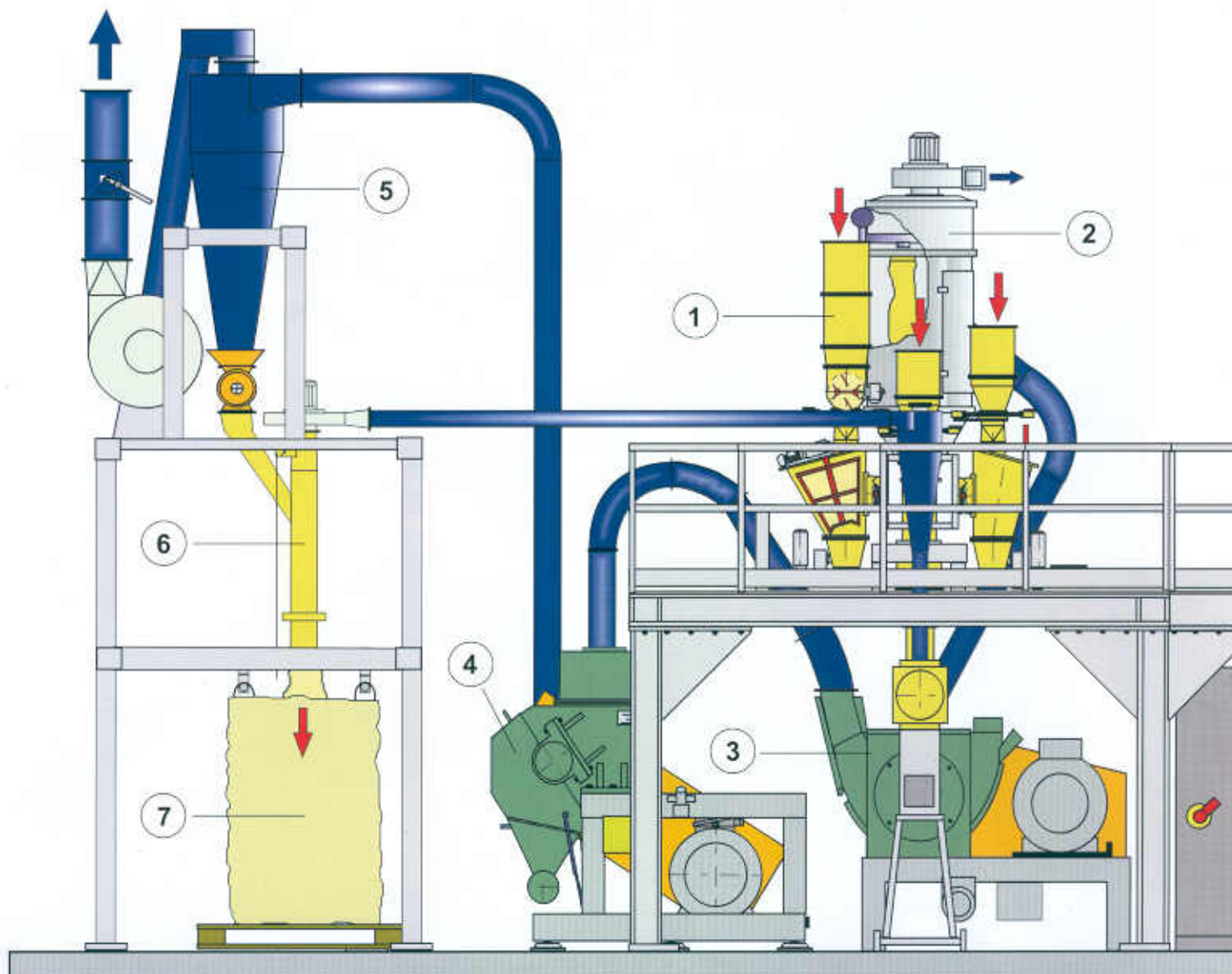
PALLTRUDER®

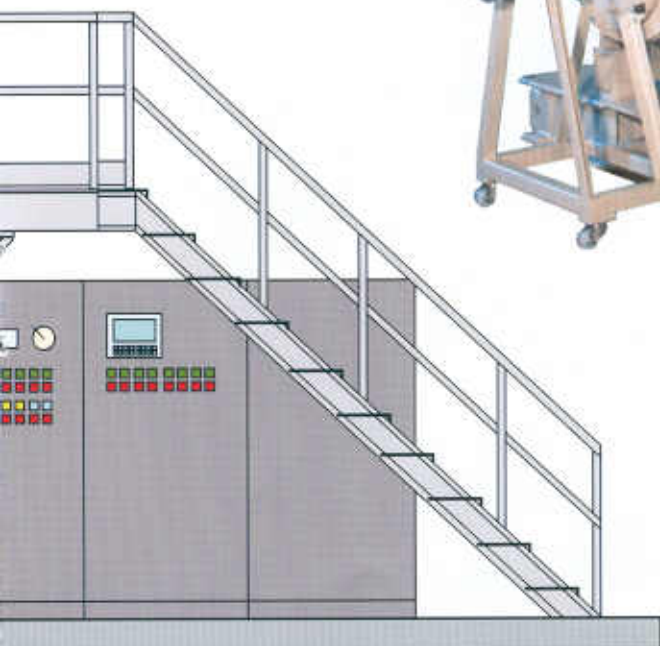
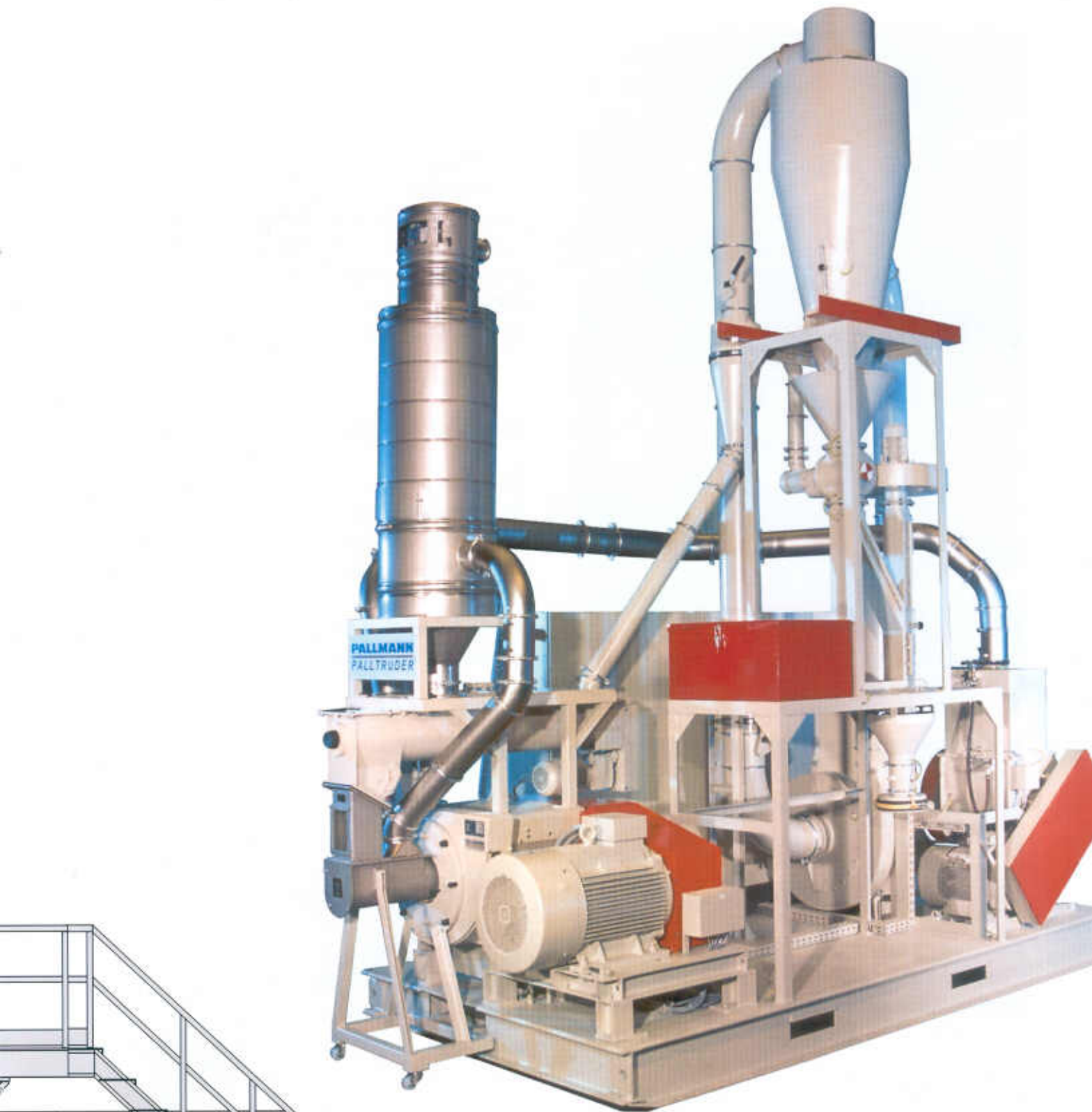
Continuous process for the manufacturing of dry, free-flowing and homogeneous granules with high bulk density.



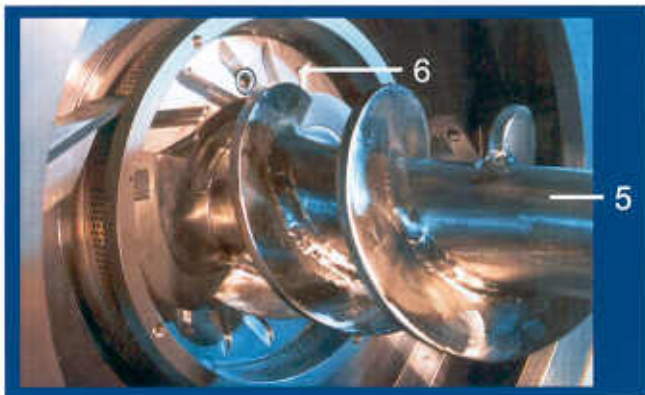
Four main processing steps characterize Palltrusion™ technology:
Metering of the components - natural raw material, plastic and additives, -
palltrusion, cooling and screening.
The technical characteristics of the system are convincing due to modular and compact design.
Most modern control techniques guarantee a fully automatic continuous operation.
The Palltruder® preferably processes material with a moisture content of up to 8 percent.

Steam arising in the process is directed through a filter unit into the atmosphere by a vacuum device. Fines are automatically re-introduced into the process.
The moisture content of the granules produced is below 1 percent.





1. Dosing unit
2. Steam vacuuming
3. Palltruder®
4. Granulator
5. Cyclone
6. Sifter
7. Big bag filling station



- | | |
|------------------|--------------------|
| 1. Knives | 4. Pressure pieces |
| 2. Die | 5. Feed screw |
| 3. Pressure Disc | 6. Cooling disc |

Metering

The mixing ratio, the type of plastic and the natural fibers as well as their moisture content are decisive for the throughput rate to be achieved by the system.

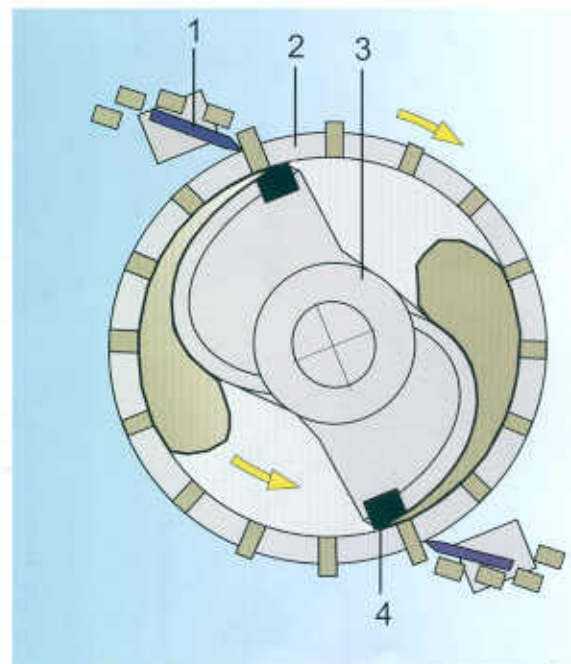
The effectiveness of the Palltruder[®] is improved by the integration of intelligent, gravimetric sensor technology. The quality of the granules produced is kept constant by the stabilization of the mass flow.

Method of Operation

Fibers from natural materials – especially wood flour, plastic chips or flakes, fibers or powders as well as lubricants and other additives are equally dosed into the Palltruder[®].

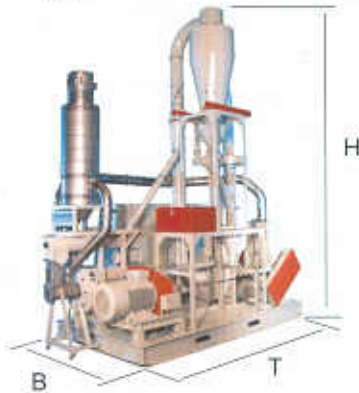
Frictional heat and high pressure, produced by a screw ending in a special pressure disc work the plastic into the natural fibers.

Rotating knives at the outside diameter of a die cut the palltruded material into free flowing granules.



Technical Data:

PFV		250	400	600
Drive, Palltruder®	kW	75-90	200-250	400-500
Cool water consumption	l/h	300-500	500-700	1.000-1.400
Throughput rate*	kg/h	200-500	500-1.200	800-2.000
Weight	kg	6.400	9.500	13.000
Width (B)	mm	6.400	6.600	8.100
Depth (T)	mm	3.200	3.900	5.100
Height (H)	mm	5.600	6.100	6.500



* depending on feed material, moisture content and mixing ratio

PALLTRUDER® Characteristics :

- Produces dry, free-flowing and homogeneous granules with high bulk density
- Flexible material choice and recipe
- Continuous processing
- Automatic start without preheating
- High throughput rate, low energy consumption
- Low space requirement
- Moisture content of the granules < 1%.
20-50% higher throughput rates possible on the Extruder



The PALLMANN Group of Companies

The Pallmann Group of companies is the leading manufacturer for size reduction machines and systems for the plastic and recycling industry.

Pallmann Maschinenfabrik develops and manufactures machines and complete systems according to customer requirements or as standard solutions for the preparation of almost any plastic as well as recycling products. In its headquarters in Zweibrücken, Pallmann operates one of the world's largest research and technology centers as well as a training- and service center. More than 130 different test machines are available for the preparation of a wide variety of materials. A downstream laboratory analysis of the test material as well as the preparation on a production scale is possible. In addition to the manufacturing facilities in North- and South America, the Pallmann group of companies operates a worldwide spare parts- and service network.



The PALLMANN Program

Engineering and Service:

- Design and manufacturing
- Research and development
- Production scale testing
- Laboratory analysis
- Worldwide service
- Spare parts
- Controlling
- Process Control
- Installation & Start-up
- Overhaul & Repair

System solutions for:

- Pulverizing
- Granulating
- Agglomerating
- Recycling

Products:

- Agglomerators
- Pulverizing Systems
- Disc Mills
- Turbo Mills
- Pin Mills
- Laboratory Mills
- Universal Mills
- Complete Grinding Systems
- Knife Mills
- Profile Shredders
- Rubber Granulators
- Pipe Crusher
- Air-Swept Mills
- Impact Mills
- Industrial Granulators
- Cryogenic Grinding Systems

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