Agglomerating, an environmentally friendly process

PALLMANN, for many years, placed high value on the considerate use of limited natural resources. This is visible through the consistent orientation of the production processes that follow basic ecological principles and by the extensive program of machines and systems for environmental and recycling technology. With the PALLMANN Plast-Agglomerator, type PFV, thermoplastic waste and compounds can be recycled and reintroduced into the production stream. The decisive advantages in comparison to other procedures are the relatively low acquisition costs and the low thermal stress of the materials whereby allowing them to maintain, as much as possible, their original characteristics. Due to targeted advancements, it is now possible to decrease installation times, to increase the lifetime of the agglomerating elements and to reduce the need for wear parts. This leads to an even more economic use of the plast agglomerating systems by our customers.

Waste occurs during the production of film, fibers, foam, carpets or other mixed materials, i.e. from PP, PE, PVC, ABS, and XPS as well as compounded materials. After introducing this waste, precut to 8-10 mm, into PALLMANN Plast-Agglomerator, it is gently plastified by means of frictional heat, pressed through a die and cut at the outer circumference by rotating knives. The agglomerated material is transported pneumatically and is size-equalized in the downstream hot melt granulator, thereby creating free flowing granules of high bulk density and a minimum of heat and thermo-degradable damage. As valuable raw material, it is reintroduced into the production process or used in other applications, i.e. filler.

New technical characteristics make the Plast-Agglomerator now more attractive. Complete systems can be delivered, premounted on a base frame, including wiring and water hook-up thereby simplifying the installation and decreasing the assembly time. Even after assembly, the complete system can be quickly moved and is thereby easily adaptable to changing production conditions of customers. Especially for abrasive materials such as carpet, the die and the agglomerating vane are equipped with a specially developed wear resistant coating. The result is considerably increased lifetime of the agglomerating elements as well a reduction in unproductive downtime that occurs during wear part exchange. These newly developed components are of course suited for retrofitting all existing PFV-systems.

In order to meet today’s market demands for a higher throughput capacity, the series was expanded to include the PFV, type 600. Depending on the feed material, the hourly output can be increased by up to 30%.

K2007, hall 9, booth A22
Pallmann is a leading manufacturer of machines and systems for size reduction of various materials, mainly for the wood-, plastic-, chemical-, pharmaceutical-, food-, mineral- and recycling industries.

The company employs approximately 700 people worldwide, and commands four production sites as well as an international sales- and service network, consisting of sales offices and representatives.

The headquarters of the Pallmann group is located in Zweibrücken/Germany, with the largest research and development center for size reduction technology.