

Vakupulse

Dense phase conveying material system

Benefits:

- No abrasion of conveying pipeline
- Low speed vacuum dense-phase conveying
- Low energy consumption
- Low noise emission
- No degradation of delicate and soft products



Penta Vakupulse system is completely different from the classic concept of pneumatic transport.

In some cases, the pellet must be transported in the system in a very delicate way. For this reason, Penta Vakupulse was born. The aim of this system is to avoid the creation of angel hair or some other defects, which can derive from the transportation speed of the product. The system moves the product at the

lowest possible speed. This option can be useful for the abrasive material, too.

The system is based on a cyclone complete with filter, which is installed on the unit that needs to be fed. The cyclone discharges in batches into the below machine. There is also a line feeding hopper, equipped with two level probes, which check and feels the presence of the product, one vacuum sleeve and an inspection window.

Vakupulse is equipped with monitoring devices, which check all the parameters involved in the process and the general status of machines.

The below scheme highlights, directly and indirectly, some characteristics, as follow:

- Transport speed of the product in the pipes, which starts from 2 mt/s
- Product such as plastic pellet with a granulometry between 0,4 and 5 mm
- Significant capacity (see below scheme)
- Lower consumption in comparison with the traditional pneumatic transport (power involved < 50 % compared to the existing TP in dilute phase)
- Noise reduction
- It is possible to set and personalize the system in the batch or continuous version
- Standard material: AISI 304 (AISI 316 on demand)
- Conformity declaration available: Declaration of Conformity, Atex Declaration, MOCA Declaration for food industry

Abrasive material

In order to avoid the abrasion of the conveying pipe due to the conveying of material

- Filled pellet with high content of filler (CaCO₃-TiO₂)
- Pellet filled by glass fiber
- Glass fibers compacted

Soft and delicate product

In order to avoid the degradation of the product due to the conveying

- EVA, PE, HDPE Pellet
- Pellet as final product in compounding plant

Type	Product	Bulk density	Capacity kg/h	External diameter mm	Horiz-vertical pipe mt	Bend	Installed power	Unit 1 kg	Unit 2 kg
VP1	Plastic granules	0,6 –kg-dm ³	742	48,3	40	6	2,5	320	430
VP2	Plastic granules	0,6 –kg-dm ³	1149	60,3	45	6	2,5	350	460
VP3	Plastic granules	0,6 –kg-dm ³	1899	76,3	50	6	2,5	350	460
VP3	Plastic granules	0,6 –kg-dm ³	2646	88,9	70	6	6	380	470

