

EMSIPLUS

Fluids master knowledge

Storage proportioning and pneumatic transfer of powders

EMSIPLUS designs and supplies turn-key complete or partial units, automated or not, for storage, transfer and proportioning of powders entering the manufacture of paints, products to be roughcast, glues etc...

Our know-how guarantees installations realization according to the standards in force which respects safety and the environment.

Pneumatic transport is carried out by blowing of air in the product (fluidization).

The product after being put suspended into the air flows out like a liquid.

It is possible to extract the product from storage by vibration and/or fluidization and to transfer it towards the point from use via a piping under pressure or depression of air (or nitrogen).

At the destination the product is separated from the air by a self-cleaning filter or a cyclone

The proportioning of the quantity which must be transferred can be realized either on the level of storage or on the level of the receiving hopper with a high degree of accuracy.

ADVANTAGES :

- **Automation of proportioning.**
- **Reduction of the product losses.**
- **Reduction in handling of bags or Big-Bags and their elimination.**
- **Distribution towards several points of use starting from a storage area...**

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EMSIPLUS masters all the various extraction techniques of storage silos and the transfer by depression -0,5 bar, low pressure up to 0,8 bars, or by pressure up to 4 bars.



1) Detail of the transfer in diluted phase: vibrating bottom, isolating valves silo/transfer, powders transfer screw.

2) 4 silos of 80 m³ for TiO₂, CaCO₃ and TALC on balances with transfer in diluted phase of 15 Ton/H towards a tower of manufacture, arrival on a weighed hopper (± 2 kg).

3) Weighed powders hopper on mixer/dissolver.



Selection criteria of a pneumatic transfer			
	depression	low pressure	pressure
Pressure	-0.5 bars	0.7 à 0.9 bars	< 4 bars
Distance	short 20 to 30 m	< or = 200 m	up to 1000 m
Product to be conveyed	High or heterogeneous granulometry (15 mm and 50µ)	Relatively homogeneous product	
Air speed	25 to 28 m/s	20 to 25 m/s	3 to 17 m/s
Power installed		2 to 5 kw/t	1 kw/t to 2 kw/t



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