



DF

Dense Phase Pneumatic Conveying "DF"

The **DF** dense phase pneumatic conveying is suitable to handle bulk products such as pellets, powders and regrinds, it is the best way to transport blends, abrasive and breakable products. The main features are the low speed of conveying (5-10 m/s) and the small amount of air used to move big quantities of product.



PRINCIPLE OF OPERATION

A pressurized vessel moves the product through compressed air in the conveying line for the "Full line" systems. Parallel to the product pipelines, additional air injectors are installed to keep constant the speed of transport and reduce the friction of the product. In this way, big quantities of product can be conveyed over long distances whilst keeping the original characteristics.

MAIN FEATURES

DIFFERENT PRESSURIZED HOPPER CAPACITIES

The modularity of Plantech-CST's equipment allows the user to use different standard hopper capacities (from 24 to 2000L) and for different throughputs (from 100 to 30000 Kg/h).

CONTROL SYSTEM AND INDUSTRY 4.0

Conveying control system can manage from a single receiver up to several receiver and production lines. The PLC is supplied with OPC/UA protocol embedded, which make each machine modular and ready for industry 4.0.

HMI

The conveying control system is equipped with a user friendly HMI touch screen (7"-9"-15").

INSTALLATIONS

The equipment is always supplied prewired with junction boxes to permit an easy and fast installation.

OPTIONS AVAILABLE

As an option it can be designed for high temperatures, ATEX compliant and/or FDA compliant.

BENEFITS

LOW PRODUCT DEGRADATION

The low speed of conveying preserves the quality of the product without modifying the original characteristics. When a pellet product is conveyed no dust or angel hair is created.

CONVEYING OVER LONG DISTANCES

Thanks to the low ratio of air to product it is possible to convey big volumes of product over long distances.

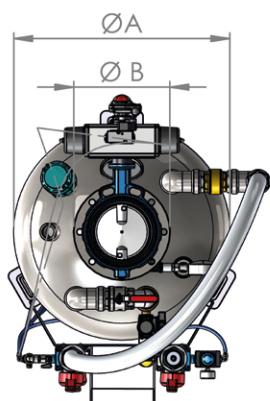
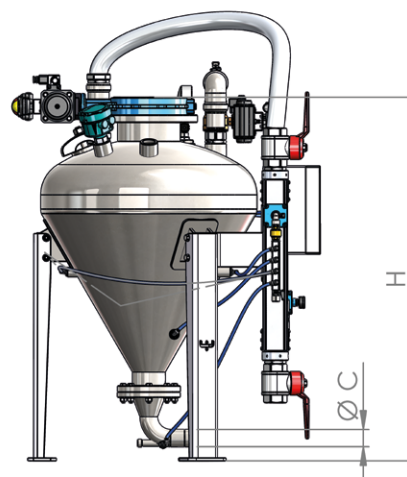
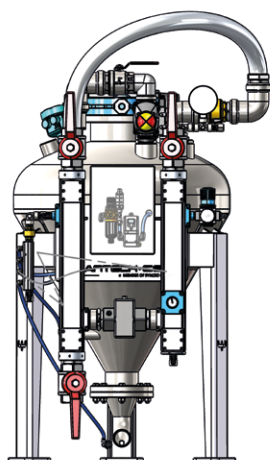
LOW PIPE WEAR

The friction of the product on the pipes is minimized and this factor reduces drastically the maintenance costs, especially when an abrasive product is conveyed.

LOW PRODUCT SEPARATION.

In the conveying of blended products, thanks to the low speed and the low ratio of air to product, separation is minimized. In the dense phase transport, all the product contained in the propeller is conveyed creating a "clogging effect" in the pipe. In this way it is guaranteed, no separation of the blends.

TECHNICAL DATA



Code	Capacity	ØA	ØB	ØC	H	Range *	Pressure range
	[lt]	[mm]	[mm]	[mm]	[mm]	[Kg/h]	[bar]
DF-0024	24	400	168	50÷60	1050	360	max 6
DF-0080	80	600	219	60÷88,9	1050	1200	max 6
DF-0150	150	762	273	76÷101,6	1200	2200	max 6
DF-0300	300	1067	273	76÷101,6	1500	4500	max 6
DF-0600	600	1220	311	88,9÷114,3	2000	9000	max 6
DF-0850	850	1220	325	101,6÷139,7	2400	13500	max 6
DF-1200	1200	1219	325	114,3÷168	2750	18000	max 6
DF-1400	1400	1219	325	114,3÷168	2900	21000	max 6
DF-1700	1700	1219	325	139÷219	3050	25500	max 6
DF-2000	2000	1219	325	139÷273	3300	30000	max 6

*Calculated with Bulk density 0.5 Kg/dm³