

DUST COLLECTOR CYCLONE CY

DESCRIPTION

The cyclone can be used for dust with specific weight beyond 300kg/m^3 , and with coarse particles (beyond 10 micron for dust with specific weight beyond $1000\text{-}1500\text{ kg/m}^3$ and beyond 50 micron for dust with specific weight beyond 500 kg/m^3 , in the air in high concentrations). It can offer treatment efficiency up to 80%.

Operating Principle

Thanks to centrifugal force, dust particles are separated from the gas fluid which moves according to the rotary motion by means of the tangential inlet on the body of the cyclone.

Centrifugal acceleration acts on the particles in the same way as the weight force but radially. Treatment efficiency depends from high peripheral speed of the flux and on the contrary of the ray bend. For this reason one tries to increase flux speed and rotator motions with small bend. At the same peripheral speed the increasing diameter of the cyclone decreases centrifugal effect and con-

sequently its efficiency. The designer must choose the correct shape and size creating a tailored products according to the customer's needs.

Construction Details

The cyclone is a treatment system of cylindrical shape in its top side, truncated cone in its bottom part. It is manufactured in carbon steel or stainless steel (20/10 metal sheet).

OPTIONALS

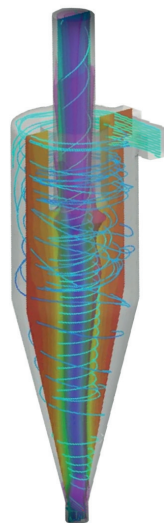
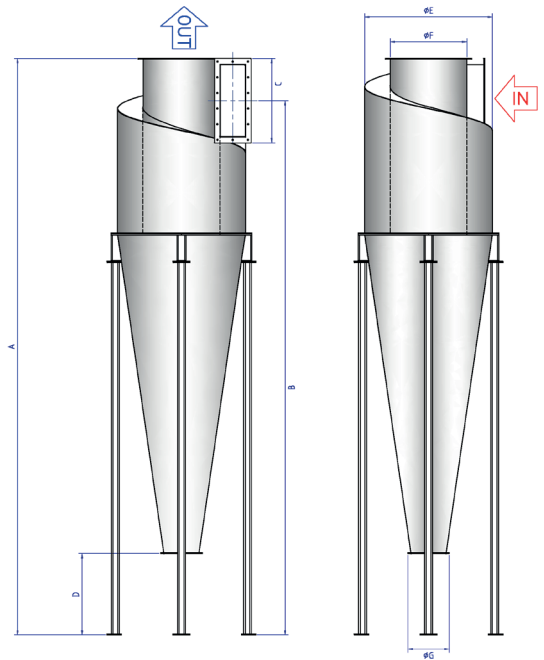
ATEX version, Star valve, suction probe connection for pneumatic transport, galvanized steel body, stainless or painted steel, dust container.

APPLICATION FIELDS

Dust treatment plants, pneumatic transport for wood industries, engineering industries, recycling plants, glass, inert waste, foundries, etc.



MOD. CY	UNITS	CY40	CY61	CY90	CY110	CY110
Maximum air flow rate	m ³ h	960	2400	6000	8800	11000
Maximum fumes temperature	°C	80	80	80	80	80
Types of dust filtered	/	Industrial dusts and fumes				
Filtering efficiency	%	85-95%				
Dust pan capacity	n°/l	1 / 440	1 / 650	1 / 720	1 / 720	1 / 1100
Non-return valve	n°	1	1	2	2	2
Drop loss	mmH ₂ O	60				
Structure	Material	Painted carbon stainless steel - galvanized				
Weight	kg	192	240	320	395	445
A	mm	1900	2700	3600	4300	4700
E	mm	400	610	900	1100	1200
F	mm	250	380	500	620	700



CAD FLOW SIMULATION

- 1 Dusty air input
- 2 Purified air output
- 3 Dust container
- 4 Dust discharger