



## DESCRIPTION

The ATEX sleeve filter GIC-M is a machine with very high filtration efficiency, and has been designed to work in environments where a high protection against explosions is needed, in accordance with the legislation ATEX 94/9 / EC. It has a high structural strength that allows it to withstand very high pressures, designed using the finite element method (FEM ANALISYS), complying with the UNI welding process standards

EN 288-4 and directive 97/23 / CE (PED). This allows the use of the filter with highly explosive dust and is suitable for use in classified areas ATEX 21 and 22. The filter is equipped with anti-explosion breaking membranes certified, of a size appropriate to the explosive class of the powder to be treated. An explosion suppression or compartment system is installed in combination with the filter. The subdivision is necessary in order to avoid the propagation of the explosion in other parts of the plant or in the environment; it must always be associated with a suppression or relief system. The compartment system can be mechanical (guillotine valve) or chemical (dust suppressor).

### *Principle of operation*

The dusty air is introduced into the lower part of the filter (4) through the tangential hole. The coarsest dust contained in the air already sucked up, they undergo a first felling and fall into the collection hopper.

Passing the quiet chamber the dust passes through the filtering sleeves passing. During work, the filter is always kept in perfect working order through a counter-current cyclic cleaning system. A jet of compressed air, accumulated in a special tank (3), is quickly injected inside the sleeves, creating a violent shaking wave in counter flow able to detach and precipitate the particles deposited on the outside of the sleeves. The rotary valve (7) will discharge the dust.

### Construction details

The filter is made entirely of very thick carbon steel sheet, properly worked and treated, to favor its durability. The filter is equipped with a pneumatic system for cleaning sleeves and a programmer cyclical for washing the sleeves. It is also complete with support legs, inspection hatches (2), explosion-proof panels (5), dust collection hopper.

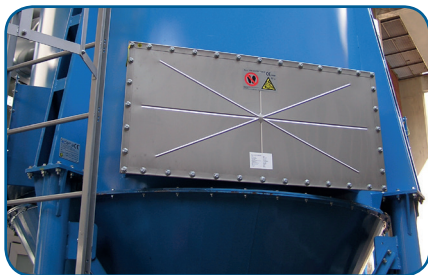
### OPTIONALS

Discharge valve with rotocell, discharge system with exclusion valve, explosion suppression system, compartment valve, paint resistant to hostile environments, manufactured with special steel, fire protection system.

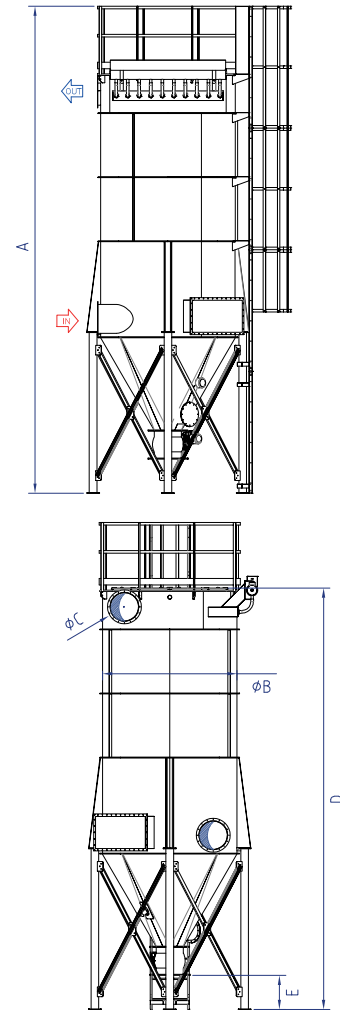
### APPLICATION FIELDS

Ideal for highly explosive particles and for workplaces where extremely effective protection against explosions is needed.

**BREAKAGE PANEL**



MOD. GIC-M	UNITS OF MEASURE	GIC-M25	GIC-M51	GIC-M88	GIC-M132
Filtering surface	m <sup>2</sup>	29.25	49.98	99.44	149.16
Quantità filtering sleeves	n°	25	51	88	132
Max fume temperature	°C	80			
Types of dust filtered	/	Industrial dusts and fumes			
Sleeve material	/	Antistatic felt polyester 500 gr/m <sup>2</sup>			
Sleeve dimensions	mm	Ø 123 x H 3000	Ø 123 x H 2500	Ø 123 x H 3000	Ø 123 x H 3000
Venturi tube cages	Material	galvanized/abs			
Electrovalves	n°/Ø	4/1"	5/1"	10/1"	12/1"
Electric Sequencer	n° uscite	8	8	10	12
Air tank capacity	n°/l	1x25	1x25	1x35	1x45
Air tank pressure	Bar	5			
Air compression consumption per air pulse	Nlt	210 @ 6 bar (200ms)			
Dust container / capacity	n°/l	-	1/100	-	-
Antiexplosion panels	n°	1	1	2	3
Drop loss max	mmH <sub>2</sub> O	150			
Structure	Material	Painted sheets, galvanized upon request			
Weight	kg	1260	1700	2300	2800
A	mm	5900	5400	7600	7600
D	mm	4900	4400	6600	6600
ØB	mm	1100	1500	2100	2400
E	mm	530			
Ø IN-OUT	mm	200	300	450	550



#### ROTARY DISCHARGE VALVE



#### VENTURI FOR PNEUMATIC TRANSPORT



- 1 Breakage panel
- 2 Filtered air output
- 3 Compressed air tank
- 4 Dusty air input
- 5 Point of attachment fire hose
- 6 Ladder
- 7 Dust collection hopper
- 8 Inspection panel
- 9 Rotary discharge valve