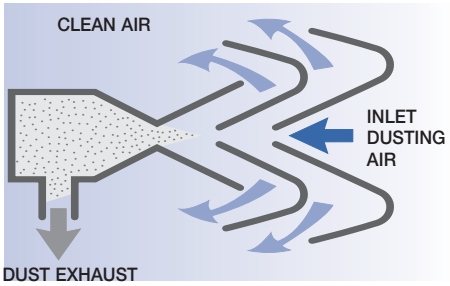


STL *SAND TRAP GRID*
MCS *MULTI-CYCLONE*
INER ST *INERTIAL FILTERS*
INER DA *INERTIAL FILTERS*

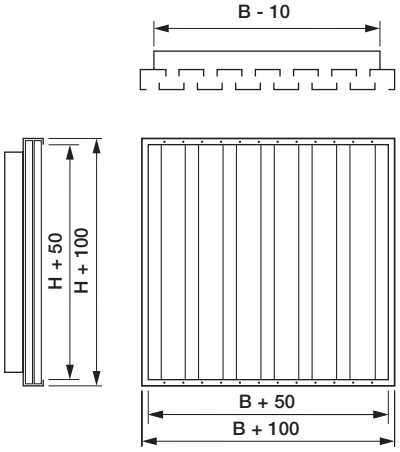
Inertial separation is an excellent pre-filtration system, particularly indicated in rooms with high dust levels such as steel mills, cement factories or desert areas with possibilities of dust storms.
This filtration system is based on the principle of the conservation of kinetic energy from the dust particles transported by the flow of treated air; with a series of quick direction changes the fluid flows are directed towards the room whereas the particulate, through inertia, continues to flow towards an area of the filter that exhausts the separated dusts thanks to the drop in pressure.

Evidently the higher the mass of the particles and the speed through which they are transported the higher the efficiency of an inertial filter.

An inertial filter needs, except for sporadic exceptions, an auxiliary fan for the extraction of separate dusts; this fan, must be suitable for the transportation of abrasive dusts.

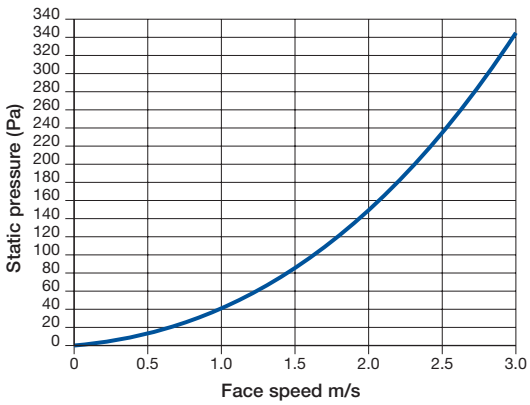
Our range of products includes four types of inertial filters.

STL - Sand Trap grid - Model

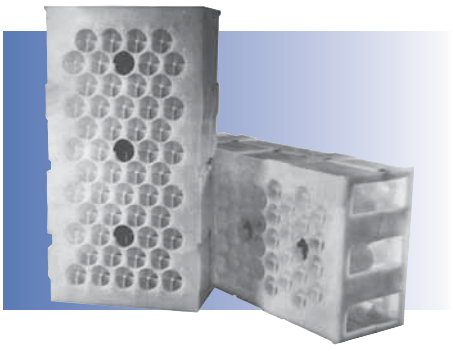


This is the most economic and simple system to separate coarse particles.
It is made of galvanized or stainless steel aluminium, and it is particularly appreciated for the extremely limited thickness. It is a shaped labyrinth that creates quiet zones where the particles, that have discharged the kinetic energy through the impact against the metallic surface, can precipitate to the bottom without being captured by the air flow.
The average ponderal efficiency is 55% on particles bigger than 60/80 micron.

Pressure drop



MCS - Spin Filter Multi-cyclone - Model

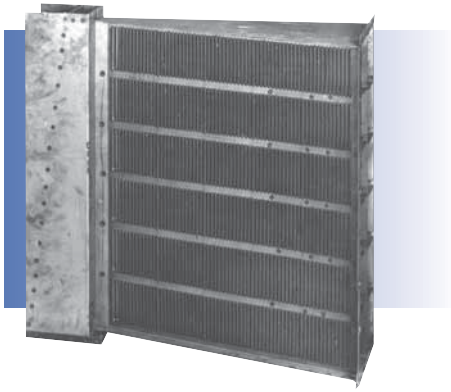


This is the most versatile inertial separator.
It is based on the principle of centrifugal separation and it can operate in a speed range, hence pressure drop range, wider than the previous models.
The MCS filter panel we offer is constructed of polypropylene and holds 64 mini-cyclones.

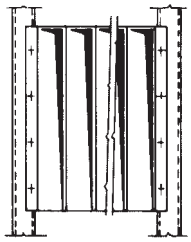
It's wide modularity makes it suitable for applications with variable volumes and for rooms with a high concentration of aggressive and abrasive dusts. 90% ponderal efficiency on particles bigger than 5 micron with 250 Pa pressure drop

Inertial filters

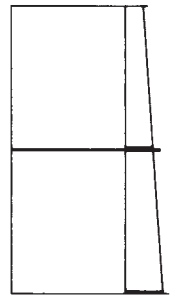
INER ST - Model - Inertial filter with stamp-formed blades



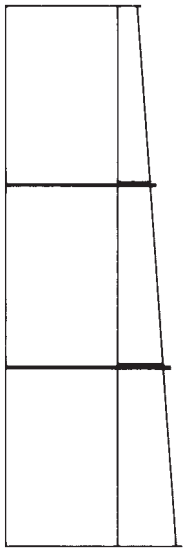
The air is channeled inside a diehedral made of two walls with a series of slots. The bottom of the diehedral is connected to the dust extraction fan; air deviates its linear flow to pass through the slots, whereas the dust particles continue until they are captured and exhausted.
The INER ST filter works correctly with a pressure drop of 250 Pa and a ponderal efficiency of 75/78% with Arizona Dust Fine. Thanks to its economic convenience it is particularly used on CTA.
It can be made in COR-TEN steel or stainless steel.



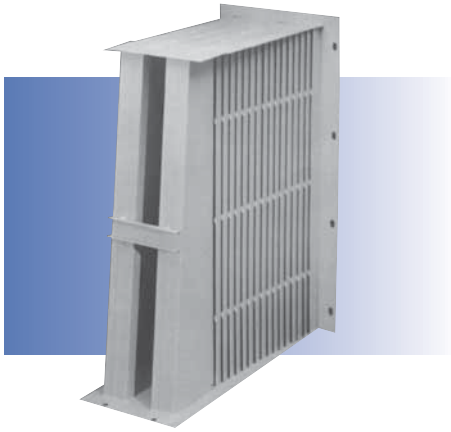
24” module



30” module



INER DA - Model - Inertial filter with inserted blades



Just like the ST model, the DA inertial filter has a diehedral shape with the peak held in depression by the extraction fan.
The faces of the diehedral are made of a series of V-shaped blades inserted one in the other to force the air to move suddenly (two 135° angles) thus incredibly improving the separation efficiency (up to 85%) and reducing intake noise production.
Thanks to the excellent performances, this filter is used in systems that require high efficiency and reliability rates like centrifugal compressors and gas turbines.
The INER DA filter works correctly in a pressure drop range of 200 and 300 Pa and it is made in COR-TEN steel or stainless steel