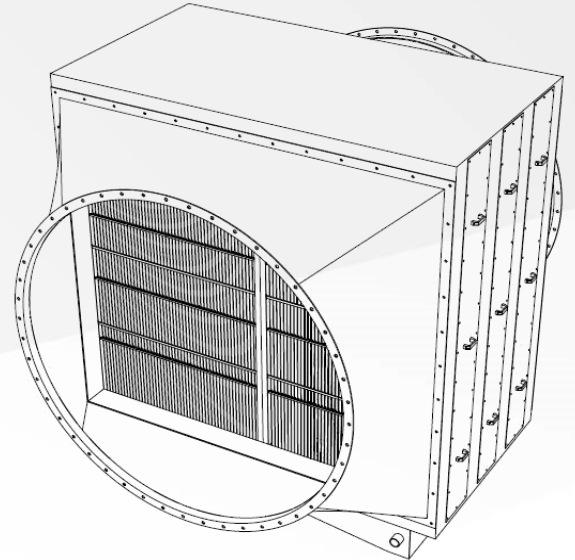




## Integrated droplets separator for air ducts

### Working principle:

This system is a droplets separator for horizontal flux, designed for many industrial applications requiring very high water droplets and dusts removal from the air flux in air ducts and canalizations. The final product consists of a containment box, available in different materials, which contains blade-type droplets separators and/or coalescing filters in PP or PVC. The system can be equipped with connections and flanges (circular or squared), and it can be completely integrated in any air duct.



### Configurations:

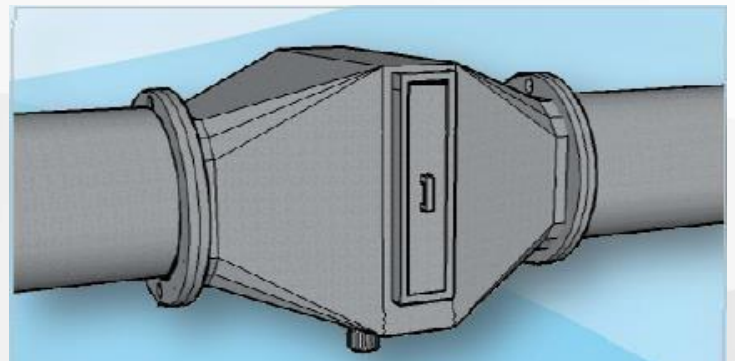
Depending on flux characteristics (velocity, water content, droplets average dimension), it will be chosen the right profile, the number of stages and the blades pitch. In case of very low diameter droplets ( $\phi < 8 \mu\text{m}$ ), it is strongly advised to use a coalescing filter before the system.

Our qualified staff is constantly available to design the system depending on the customer requirements and efficiency required.

### Fields of application

This integrated system can be customized in order to be applied in many industrial and civil fields. The main fields of application are the following:

- ❖ Air Handling Units, air conditioning and humidification
- ❖ Aspiration systems from acid tanks (ex. Chromic Acid)
- ❖ Air ventilation and treatment (ex. Tunnels)
- ❖ Treatment sections after scrubbers (ex. Dust removal)
- ❖ Combustion gas treatment systems
- ❖ Gas turbines aspiration systems
- ❖ Sulphur removal systems



Drift separation system



### Working conditions and limits

The system can be used for velocity ranging from 1,5 and 10 m/s and water sizes ranging from 8 and 40  $\mu\text{m}$ . The system is able to remove 4 liters of water per  $\text{m}^3$ .

The recommended maximum height is 2,5 m and for greater heights it is suggested to use an intermediate drainage tank.

The working temperature limits are  $-10^{\circ}\text{C}$   $+80^{\circ}\text{C}$ .

### Customization:

To meet every requirements, our technical office is able to provide many customizations:

- ❖ Proper material choice for the containment box: aluminium, galvanised steel, SS304, SS316L
- ❖ Configurations of the water extraction system (exit sleeve, drainage tank, double stage...)
- ❖ Choice of the connection between the frame and the air duct (truncated cone or pyramide, squared or circular connection...)
- ❖ Choice of the system for separators replacement (Top extraction, lateral extraction...)

### Additional documentation:

Following the analysis and the design of the system, we will provide data and information regarding the removal efficiency, air pressure drops, user manual and mechanical warranty.

Drift separation system



Droplets removal system for an aspiration duct inside a tunnel



Droplets and glass fibres removal system for industrial application