



Air Washer



Air Washing : the ideal addition to your ventilation system helping to reduce odours

The concept of air washing is to make the air extracted by ventilation going through a curtain of water. This process induces a 70% reduction in airborne dust.

In addition, the air washer reduces ammonia by around 50% with water only -based washing, and by 90% ⁽¹⁾ with addition of sulfuric acid to the water.

In case of sulfuric acid addition, the air washer is called a «chemical» washer.

Above all, the air washing developed by SODIS will help reducing by more than 55% the odors related to ventilation systems in pig farms.⁽²⁾

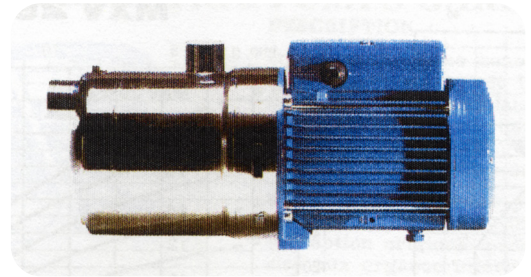
(1) Data ITP - Villefranche

(2) Data N. Guigand ITP - SODIS / 2005



A stainless steel water pump continuously feeds the nozzles for efficient spraying. These nozzles have a large passage diameter to prevent dust clogging.

A dedicated suction strainer protects the water pump for longer life and optimal operation.



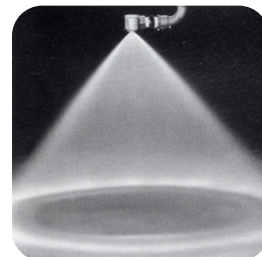
The air extracted by the ventilation system is highly dust-laden. Therefore, the air washer can quickly get dirty and clogged. To avoid this important constraint, SODIS recycles the water used in the washing system. The water used in recycling for air washing works like a shower and 'cleans' the PVC mesh permanently.



Thus, the reduction of dust is increased and the fouling of the mesh almost zero.

A washer is made up of two parts :

A drawn grid of plastic «hollow cone» nozzles. The «water curtain» obtained by nozzles placement, whose jets intersect, so that all the extracted air is put in contact with the water.



A PVC mesh is installed between the nozzles and the extraction fans to create the «water curtain» as a water flux down through the PVC mesh. The extracted air is filtered up by this water through the mesh, which retains dust, dissolves ammonia and reduces odours. Its design ensures high efficiency with low pressure drop and losses.



The black mesh at the bottom, and in front are the hollow-cone nozzles.

The air washing system designed and developed by SODIS is suitable for all ventilation configurations : Low Air Duct, High Air Duct, etc...

Diagram exemple for extracting stale air via a low air duct.

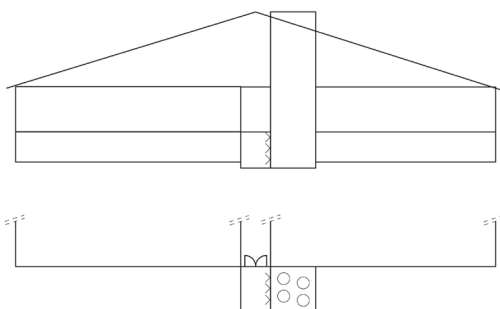
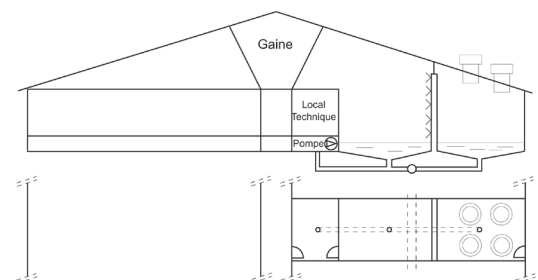


Diagram exemple for extracting stale air via a high air duct.





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