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# PRODUCT CATALOG



2025

WET FILTRATION



## Multi-stage Static Scrubbers | OMAR® MsSS

OMAR's multi-stage static scrubbers are advanced wet reduction systems designed to eliminate malodorous substances from industrial emissions. Utilising multi-stage neutralisation technology with static packing media, these scrubbers effectively treat acidic, basic, and oxidative pollutants. Constructed from materials such as plastic or AISI 304 stainless steel, the choice depends on the specific pollutants and corresponding reagents involved. The scrubbers feature automatic reagent dosing, managed by pH and redox meters, ensuring precise neutralisation of contaminants. They are capable of handling low concentrations of dust (up to 10 mg/Nm<sup>3</sup>) and are predominantly employed in the waste treatment sector. Key design parameters, including contact times, flow velocities, and bed heights, are meticulously configured to achieve high-performance pollutant removal. OMAR's multi-stage static scrubbers provide reliable and efficient solutions for industries requiring stringent control of odorous emissions, ensuring compliance with environmental and safety standards.



## Venturi Scrubbers | OMAR® SsVS

OMAR's Venturi scrubbers are single-stage wet abatement systems designed to treat airflows containing low concentrations of dust particles. In these systems, the dust-laden air enters the Venturi section at high velocity, where it is mixed with a washing liquid. This interaction causes the dust particles to become heavier, facilitating their decantation at the bottom of the collection tank. The construction materials for these scrubbers can vary, including options such as plastic materials or AISI 304 stainless steel sheets, selected based on the specific application requirements. For airflows containing acidic or basic components, the system includes an automatic reagent dosing mechanism managed by a pH meter, ensuring effective neutralisation within the scrubber. The efficiency of the system is determined by the contact time between the washing solution and the polluted airflow, particularly within the packing media bed. To maintain cleanliness and reduce maintenance intervals, a motorised sludge dredger is installed to keep the bottom of the tank clean.





## Floating Bed Scrubbers | OMAR® FBS

OMAR's floating bed scrubbers are specialised wet abatement systems primarily utilised in the bio-filtration sector as humidifiers. These scrubbers feature uniquely designed filling chambers that facilitate high-velocity airflow, causing polypropylene spheres within the chamber to float. This floating action enables effective dust abatement while simultaneously allowing the packing media to self-clean, enhancing operational efficiency and reducing maintenance requirements. The system includes an underlying tank that collects the resultant slurry, and an external recirculation pump ensures the continuous supply of the washing solution. Depending on the specific pollutants being treated, the scrubbers can be constructed from plastic materials or AISI 304 stainless steel sheets, providing versatility to meet diverse industrial needs. Exclusively represented in Australia by Hard Recycle, OMAR's floating bed scrubbers offer efficient and reliable solutions for industries requiring effective humidification and dust abatement, ensuring compliance with environmental & safety standards.



## Variable Throat Venturi Scrubbers | OMAR® VtVS

OMAR's variable throat Venturi scrubbers are specialised wet abatement systems designed for the treatment of humid airflows containing very fine dust particles. These scrubbers feature a Venturi section equipped with a motorised movable ogive, allowing for the adjustment of the air passage section to optimise performance. A circular hydraulic ring introduces washing water to both the upper and central parts of the ogive, ensuring proper flow distribution. Following the Venturi section, a cylindrical tower with tangential entry facilitates the decantation of liquid particles through centrifugal force. By incorporating variable throat Venturi scrubbers into industrial processes, facilities can achieve high-efficiency dust abatement, even in challenging humid conditions with fine particulate matter. Exclusively represented in Australia by Hard Recycle, OMAR's variable throat Venturi scrubbers offer reliable and adaptable solutions for industries requiring effective wet scrubbing technology.





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**OMAR** AIR FILTRATION  
SYSTEMS



## Plastic Scrubbers (PP) | OMAR® SPP

OMAR's PP plastic material scrubbers are advanced wet filtration systems designed to effectively neutralise acidic and basic substances in industrial emissions.

Constructed from polypropylene (PP), these scrubbers offer excellent chemical resistance and durability, making them suitable for handling corrosive pollutants.

The scrubbers operate by introducing a washing liquid that interacts with the contaminated airflow, facilitating the neutralisation of harmful substances. Automatic reagent dosing systems, managed by pH meters, ensure precise control of the neutralisation process, enhancing efficiency and compliance with environmental standards.

Incorporating OMAR's PP plastic material scrubbers into industrial processes provides a reliable solution for emission control, contributing to improved air quality and adherence to regulatory requirements. Exclusively represented in Australia by Hard Recycle, OMAR offers tailored solutions to meet the specific needs of various industries.



## Venturi Scrubbers for Press Emissions | OMAR® PEVS

OMAR's Venturi scrubbers for press fumes are highly specialised wet abatement systems tailored for the chipboard panel industry, where extracted pollutants typically consist of a combination of vapours and wood dust. These scrubbers are designed to handle the complex challenges posed by such emissions, providing efficient and reliable air purification.

The system operates by introducing dust-laden air into the Venturi section at high velocity, where a substantial amount of water is injected. This process causes the dust particles to interact with the water, increasing their mass and facilitating their decantation at the bottom of the collection tank. This design ensures the effective removal of both fine wood dust and vapours, contributing to improved air quality and reducing environmental impact.

Exclusively represented in Australia by Hard Recycle, OMAR's Venturi scrubbers for press fumes offer reliable and efficient solutions tailored to the specific needs of the chipboard panel industry.





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**OMAR** AIR FILTRATION  
SYSTEMS



## Hydrofilters | OMAR® Hf

OMAR's hydrofilters are advanced wet filtration systems engineered to effectively abate dusty hygroscopic substances by facilitating close contact between water and dust-laden airflows. This interaction ensures the efficient capture and removal of particulate matter, enhancing air quality in various industrial processes. The hydrofilter operates by introducing the contaminated airflow into a chamber where it encounters a water spray. The intimate contact between water droplets and dust particles leads to the agglomeration and subsequent settling of particulates into a collection tank. To maintain continuous operation and reduce maintenance requirements, these systems can be equipped with an automatic sludge evacuation mechanism that periodically removes accumulated sludge from the tank.

Constructed from durable materials, OMAR's hydrofilters are designed to withstand the rigours of industrial environments. Their robust construction ensures longevity and consistent performance, making them a reliable choice for facilities aiming to control dust emissions effectively.

By integrating hydrofilters into their air purification processes, industries can achieve significant improvements in environmental compliance and workplace safety. Exclusively represented in Australia by Hard Recycle, OMAR's hydrofilters offer tailored solutions to meet the specific needs of various industrial applications, ensuring optimal performance and efficiency.





# HARD RECYCLE

**Equipment and Solutions for the Circular Economy**

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