HARD RECYCLE

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PRODUCT CATALOG

PRE-SEPARATION AND DRY FILTRATION 2025

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OMAR AIR FILTRATION SYSTEMS

Self-cleaning Modular Bag Filters with Panels | OMAR® PJ

OMAR's modular self-cleaning PJ panel bag filters are engineered to handle substantial volumes of dust-laden air in industrial settings. Constructed from modular, interchangeable panels bolted together, these filters are available in materials such as galvanised metal sheet, black sheet, or stainless steel, tailored to the specific pollutants. The filtration system employs specialised fabrics selected according to the type of pollutant, ensuring high-efficiency particulate capture. A compressed air impulse cleaning mechanism, managed by a sequencer/economiser, facilitates continuous operation by periodically removing accumulated dust from the filter bags. These filters can also be equipped with a bag cleaning system utilising counter air flow generated by a dedicated ventilator. The system can be supplied with extraction augers and rotary valves, accommodating many exhaust flows. The design emphasizes ease of maintenance, high filtration efficiency, and low pressure drop, making these filters a reliable choice for industrial air purification needs.

Self-cleaning Filters for High-Temp Smoke & Gas | OMAR® PJt

OMAR's self-cleaning PJt bag filters are specifically designed for high-temperature environments such as smelting, metal processing, and chemical manufacturing, providing efficient and reliable air filtration in demanding industrial applications. Constructed from welded carbon steel plate panels, these filters feature a longitudinal settling chamber to optimise flow distribution across the filtering section.

Engineered to handle high temperatures, they utilise advanced filtering media capable of withstanding up to 250°C, supported by multi-strand cataphoresis-painted baskets for enhanced durability.These filters are equipped with a compressed air impulse cleaning system to ensure continuous operation by removing accumulated dust from the bags efficiently. For applications involving potentially explosive materials, they are certified for ATEX environments, and thermal insulation is available as an optional feature to enhance safety and performance under extreme conditions.

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Vertical and Horizontal Cartridge Filters | OMAR® CF

Omar's vertical and horizontal cartridge filters are compact panel filtering units designed to achieve high filtration efficiency for very fine dust particles in industrial applications. Constructed from materials such as painted carbon steel plate, galvanised plate, or stainless steel plate, these units incorporate self-cleaning filtering cartridges arranged either vertically or horizontally, depending on the specific design and size requirements. The self-cleaning mechanism operates through compressed air impulses, ensuring continuous operation and maintaining optimal filtration performance. A wide range of filtering media is available, including options with external treatments, allowing customisation based on the type of pollutant present. This versatility ensures that the filters can be tailored to meet the specific needs of various industrial processes. The units are equipped with hoppers for the collection of dust that settles during the filtration process. The collected dust is deposited into special mobile containers or evacuated via augers and discharge valves, facilitating easy disposal and maintenance.

Self-cleaning Bag, Cell & Special Filters | OMAR® PJs

OMAR's self-cleaning PJs panel bag filters with special cells are modular filtration systems designed to handle large volumes of dust-laden air, particularly in applications involving fine granulometry and volatile pollutants.
Constructed from black or special metal sheets, these filters feature independent cells that operate offline, allowing for maintenance without disrupting overall system performance.
The compressed air impulse cleaning mechanism ensures continuous operation by periodically removing accumulated dust from the filter bags. Specialised filtering fabrics are selected based on the specific substances requiring treatment, ensuring high filtration efficiency and compliance with safety standards.
Exclusively represented in Australia by Hard Recycle, Omar's self-cleaning PJ panel bag filters with special cells offer reliable and customisable solutions for maintaining air quality and adhering to environmental and safety regulations across diverse industrial applications.

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Static Panel Filters – Pockets (Demister) | OMAR® SPF

OMAR's static panel and pocket filters, known as demisters, are advanced multi-stage systems designed to efficiently remove airborne contaminants, including oily mists and aerosols, in industrial settings.

Featuring pre-filtering, inertial separation, and post-filtering stages, they ensure high-efficiency pollutant removal with minimal maintenance.

Equipped with regenerable metal wool panels and advanced microfibre pocket modules, these filters condense micro-droplets and aerosols effectively, prolonging filter life. To further ensure efficiency, the filters utilise advanced glass or polyester microfibre pocket modules, with optional absolute filter elements for applications demanding exceptionally clean air. The design prioritises low resistance and energy consumption, offering a cost-effective solution for maintaining air quality.

With automatic monitoring for filter obstruction, OMAR's demisters deliver reliable, cost-effective solutions for maintaining air quality, exclusively available in Australia through Hard Recycle.

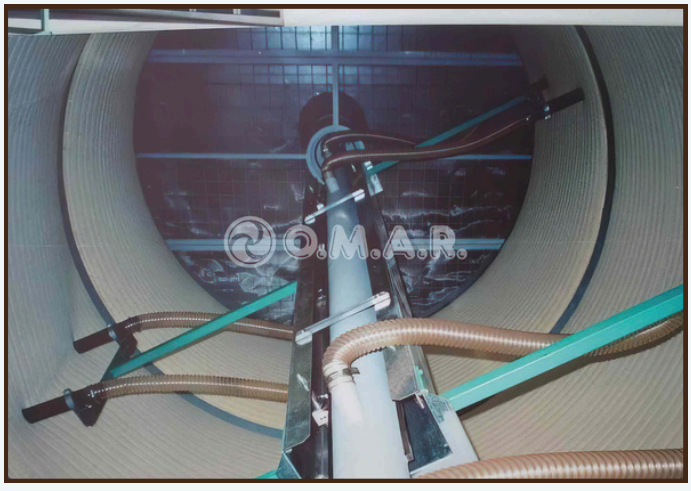
Industrial Rotary (HV) Filters | OMAR® IRF

OMAR's rotary filters are advanced air filtration systems specifically designed to address the needs of the textile industry, particularly for managing large volumes of air containing volatile fabric fibres. These filters are engineered to handle the unique challenges of fibre-laden air by incorporating a robust and efficient self-cleaning system, ensuring consistent performance and minimal maintenance.

The rotary filters operate using high vacuum capabilities, effectively capturing fine textile fibres and other airborne particles. This self-cleaning mechanism helps to maintain the filter's operational efficiency over extended periods, reducing downtime and operational costs.

The system is also designed to minimise pressure drops, maintaining consistent airflow while optimising energy efficiency, which is critical in environments where continuous high-volume air treatment is required.

Constructed from high-quality, durable materials, OMAR's rotary filters are built to withstand the demanding conditions of textile manufacturing.



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Self-cleaning Bag Filter Cyclones | OMAR® BFC

OMAR's self-cleaning cyclonic bag filters are engineered to handle fluids with high concentrations of solid materials. Featuring a tangential inlet on the cylindrical body, they utilise the cyclonic effect—centrifugal force—to pre-treat coarse particles, thereby enhancing the longevity and efficiency of downstream bag filters. Constructed from various materials to suit specific requirements, these filters can be equipped with ATEX safety systems for operations in explosive atmospheres. The integration of cyclonic pre-separation with self-cleaning bag filtration ensures effective removal of both large and fine particulates, making these filters suitable for demanding industrial applications. The self-cleaning mechanism maintains consistent performance and reduces maintenance needs, contributing to operational efficiency. Exclusively represented in AU/NZ by Hard Recycle, OMAR's self-cleaning cyclonic bag filters offer robust & adaptable solutions for air purification, ensuring compliance with environmental and safety standards across industrial sectors.

Pre-separator Cyclones | OMAR® PsC

OMAR's pre-separator cyclones are designed to serve as preliminary filtration systems, effectively removing coarse materials from airflows before they undergo further treatment. Operating on the principle of centrifugal force, these cyclones introduce polluted air tangentially, causing heavier particles to decant towards the lower part of the system. These cyclones are classified based on their abatement performance—high, medium, or low—and can be constructed from various materials, including those with anti-wear coatings like Hardox, ceramic, or refractory linings, to enhance durability and adapt to specific industrial requirements. By efficiently separating larger particulates, OMAR's pre-separator cyclones reduce the load on subsequent filtration stages, thereby enhancing overall system efficiency and prolonging the lifespan of downstream equipment. Exclusively represented in Australia by Hard Recycle, OMAR's pre-separator cyclones offer robust & adaptable solutions for heavy industries requiring effective preliminary air purification.

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Multi-cyclones | OMAR® MC

OMAR's multicyclones are advanced pre-abatement systems designed for the purification of fumes from solid fuel boilers. They consist of multiple high-performance small cyclones that utilise centrifugal force to separate coarse particles from the combution gases.

This design effectively treats any incandescent material emanating from the combustion chamber of hot water generators, such as those using vapour or diathermic oil.

Typically, these multicyclones are thermally insulated to maintain efficiency and safety during operation.

By incorporating multicyclones into the fume extraction process, industries can achieve significant reductions in particulate emissions, thereby enhancing environmental compliance and operational efficiency.

Exclusively represented in Australia by Hard Recycle, OMAR's multicyclones offer reliable and effective solutions for managing emissions in solid fuel combustion applications.

Static Spark Separators | OMAR® SSS

OMAR's static spark separators are specialised pre-abatement systems designed to remove sparks and coarse particulates from industrial airflows, thereby protecting downstream filtration equipment and reducing fire risks. These units are constructed as parallelepiped-shaped enclosures made from painted metal sheets, housing separator elements crafted from specially profiled metal sheets.

Developed and refined by OMAR's over the years, these separators effectively decelerate and capture sparks and larger particles. The collected material is then removed via an auger and rotary valve system, ensuring continuous operation with minimal maintenance. By incorporating static spark separators into industrial ventilation systems, facilities can enhance safety measures, prolong the lifespan of filtration equipment, and maintain compliance with environmental and occupational health standards.

OMAR's static spark separators offer reliable & efficient solutions for industries requiring effective pre-abatement of sparks and coarse particulates.

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Static Aeraulic Separators | OMAR® SAS

OMAR's static aeraulic separators, also referred to as pre-separators, are engineered to efficiently extract trim cuts of materials such as paper, cardboard, nylon, plastic, and other lightweight substances conveyed through an airflow. These systems are equipped with an external efficiency regulation mechanism, allowing precise adjustment based on the size, weight, and characteristics of the materials being processed. This ensures optimal separation performance, even for varied and complex industrial requirements.

By integrating static aeraulic separators into production processes, facilities can significantly enhance material recovery and recycling efficiency, reducing waste and supporting environmental sustainability goals. These separators also contribute to improved workflow continuity by effectively managing lightweight material streams.

Exclusively represented in Australia by Hard Recycle, OMAR's static aeraulic separators provide robust and adaptable solutions tailored to the needs of industries handling lightweight materials.

Rotary Aeraulic Separators | OMAR® RAS

OMAR's Rotary Aeraulic Separators (RAS) are advanced systems designed to efficiently separate medium-sized plastic films, such as shopping bags, from airflows in industrial processes. These separators operate by allowing finer dust particles and conveyance air to pass through a perforated metal sheet, while plastic materials adhere to the outer part of the device.

An automatic scraper then decants the separated plastic, ensuring continuous operation and maintaining system efficiency.

Over the years, OMAR has meticulously refined the design of these separators, focusing on detailed enhancements that have significantly increased their operational efficiency. The compact and robust construction of the Rotary Aeraulic Separators ensures durability and reliability in demanding industrial environments.

Their integration into production lines facilitates the effective handling of plastic film contaminants, improving overall product quality and reducing equipment wear.

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Activated Carbon Filter | OMAR® ACF

OMAR's active carbon filters are advanced filtration units designed to effectively remove volatile organic compounds (VOCs) from gaseous emissions in various industrial applications. These filters utilise layers of granulated active carbon through which the contaminated gas flows, allowing VOCs to adsorb onto the carbon surface, thereby purifying the air.Key design parameters for these filters include the composition and concentration of pollutants, contact time between the gas and the active carbon, and the velocity at which the gas traverses the filter. These factors are crucial in determining the appropriate dimensions of the filter and the quantity of active carbon required to achieve optimal filtration efficiency.

An added advantage of OMAR's active carbon filters is the regenerability of the saturated active carbon. Once the carbon reaches its adsorption capacity, it can be regenerated and reused, enhancing the system's cost-effectiveness and sustainability. The filter housings are constructed from various materials, including Fe Corten and AISI steel, with optional anti-acid coatings available to withstand corrosive environments. This versatility ensures that the filters can be customised to meet the specific needs of different industrial processes.

Exclusively represented in Australia by Hard Recycle, OMAR's active carbon filters provide reliable and efficient solutions for controlling VOC emissions, aiding industries in complying with environmental regulations and maintaining air quality standards.

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Equipment and Solutions for the Circular Economy

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