



FACTORY EQUIPMENT

WELL-EQUIPPED FOR CLEAN PROCESSES

Versatile solutions for efficient
filtration and separation



Filtration Group®
Industrial

OVERVIEW

A CLEAN SOLUTION – IN PRODUCTION LINES WORLDWIDE

Whether to clean cooling lubricants in machine tools, air purification in production facilities, or as filtration solutions in hydraulic systems: our innovative and proven filter solutions in devices, machines, and systems ensure smooth production processes, keep production lines moving reliably, and are the perfect foundation for the efficient and safe production of high quality products.

YOUR GLOBAL SYSTEM PARTNER FOR THE MANUFACTURING INDUSTRY

As an innovative solution partner, Filtration Group Industrial has been developing and producing a wide range of products and systems for factory equipment for many years. The high-performance technology, maximum reliability, and exceptional efficiency give you an edge over the competition. Our extensive application knowledge for all kinds of production facilities guarantee maximum productivity and plant safety, and helps to improve sustainability, environmental protection, and work safety.

EXTENSIVE EXPERTISE IN FACTORY EQUIPMENT:

- Manufacturing and production lines
- Steel and rolling mills
- Injection molding and die casting machines
- Paper and printing machines
- Surface technology
- Industrial parts cleaning
- Process water treatment
- Service

HIGH-PERFORMANCE PRODUCTS AND SOLUTIONS IN THE FOLLOWING AREAS:



TOGETHER WE ARE MAKING THE WORLD



safer

in that our filter systems ensure that machines can operate at full capacity, even in extreme conditions, and so protect people and capital goods



healthier

in that our high-performance filter systems keep the workplace and the environment clean



more productive

in that our filter systems protect your systems from wear, ensuring high efficiency levels over a long period of time and increasing the service life

HISTORY

The **Purolator** subsidiary in Öhringen takes over responsibility for the European market. In the same year, MAHLE joins Knecht, which produces filters for Purolator.

1972

The **Knecht** company merged into the **MAHLE** group. In Öhringen, the company has now become the largest employer with 800 employees, and the filter division has become the main pillar of the group.

1999

MAHLE buys Purolator Öhringen, but continues to produce the filter systems under the well-known brand. After the license agreement expired in 1990, filters from Öhringen were only sold under the Knecht and MAHLE brand names.

2006 - 2016



MAHLE takes over **Norddeutsche-Filter-Vertriebs GmbH (NFV)** and **AKO Filter GmbH**. From 2011, MAHLE Filtersysteme GmbH and MAHLE Industriefiltration GmbH in Öhringen will operate as two independent companies under one roof.



2016

The American filter specialist **Filtration Group** integrates the industrial filtration sector into the corporate family. The company, a subsidiary of Madison Industries, operates over 100 locations in 28 countries.

1962



The American company **Purolator** is establishing the first location of an international subsidiary in Öhringen. In addition to filters for motor vehicles, industrial filters were also produced from 1966.

1974



MAHLE buys Purolator Öhringen, but continues to produce the filter systems under the well-known brand. After the license agreement expired in 1990, filters from Öhringen were only sold under the Knecht and MAHLE brand names.

CLEAN FLUIDS AND AMBIENT AIR – WITH INDIVIDUAL, ENERGY-EFFICIENT SOLUTIONS

Industrial filtration solutions manufactured by Filtration Group Industrial get the job done under challenging conditions in production facilities around the world. All components and systems are constantly being developed and improved. They demonstrate exception energy efficiency and sustainability and can be designed for specific applications and needs.

APPLICATION EXPERTISE IN THE CATEGORIES:

1 Machine tools

- Cooling lubricant treatment
- Oil mist separators
- Solid/liquid separation
- Dedusting
- Mobile filter units
- Hydraulic and lubricant filtration
- Backflush treatment

2 Industrial parts cleaning

- Cleaning media filtration
- Oil separation (liquid/liquid separation)

3 Injection molding machines

- Hydraulic and lubricant filtration
- Product additive filtration
- Cooling water filtration
- Vacuum product transportation
- Silo filtration
- Product filtration (isocyanate/polyol)

4 Surface technology

- Central and single-station extraction
- Overspray/powder-coating
- Sand-blasting
- Curing baths
- Electroplating bath treatment

5 Manufacturing and production lines

- Hydraulic and lubricant filtration
- Cooling water filtration
- Dedusting
- Wash bath filtration
- Electroplating bath filtration
- Overspray and powder-coating
- Product filtration (sealants)

6 Air filtration

- Central and single-station extraction
- Compressor ventilation
- Filtration components for industrial vacuum cleaners
- Pneumatic transportation
- Aerosol mist separation
- SilentCare room air filter

7 Process water treatment

- Cooling water filtration
- Surface water filtration
- Waste water/service water filtration
- Oil/water separation

9 Service and supply area

- Fuel treatment for standby generators
- Compressor ventilation
- Filtration components for industrial vacuum cleaners
- Filtration for industrial trucks

Paper and printing machinery

- Hydraulic and lubricant filtration
- Dedusting
- Process water filtration
- Paint filtration

Steel/rolling mills

- Cooling water filtration
- Dedusting
- Hydraulic and lubricant filtration
- Fuel treatment for standby generators



MACHINE TOOLS RUN LIKE CLOCKWORK



Filtration Group Industrial hydraulic and automatic filters ensure reliable plant operation by cleaning the cooling lubricants in metalworking operations.

PRECISE OPERATION, EFFICIENT DIRT SEPARATION, and maximum employee protection are the main features of our filter systems. As our automatic filters independently clean during operation, they do not cause any process interruptions. This means that operations can be maintained, even when using duplex filters: if a filter needs to be replaced, the employee can simply manually switch to the second filter. Our innovative aerosol mist separators reliably extract harmful aerosols that are caused by cooling lubricants when working with fast-rotating tools directly from the work area. In areas where short, highly abrasive chips are generated, star-pleated filter elements are gently cleaned with our patented cleaning system. This leads to less wear on the machine.

THE RIGHT FILTER SYSTEM FOR EVERY APPLICATION:

- for cooling lubricant treatment
- in hydraulic drives for machine tools
- for separating aerosol mists
- in extraction systems for dry machining and for minimum quantity lubrication



Duplex filters



LGA aerosol mist separators



Metal-edge filters



MFA500

OUR PRODUCT RANGE AT A GLANCE:

- Line filters, breather filters
- Basket strainer filters
- Automatic filters
- Suction return line filters
- Hydraulic and dedusting filters
- Aerosol mist separators

INDUSTRIAL PARTS CLEANING

INDUSTRIAL COMPONENT CLEANING WITH MAXIMUM EFFICIENCY



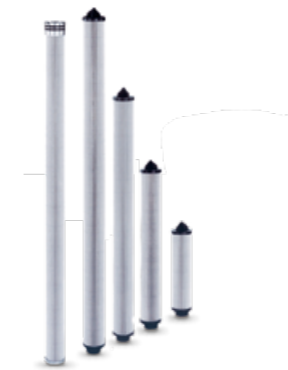
The demands on the quality and cleanliness of surfaces, as well as residual dirt and particulate levels in cleaning processes are constantly rising. Our perfectly coordinated filtration and separation systems ensure the high availability of the cleaning fluids with a high degree of purity – with maximum efficiency and environmental compatibility, as well as shorter process times.

CUSTOMIZED SOLUTIONS FOR CLEANING MEDIA FILTRATION

When manufacturing complex parts, automatic filters significantly reduce coarse impurities from cooling lubricants. In doing so, they eliminate the need for cleaning and prevent quality losses in the process. For the subsequent component cleaning, we offer candle filters, basket strainer filters, automatic backflush filters, and oil/water separators for cleaning media filtration based on your individual requirements. Oil/water separators enable the reliable removal of oil from critical process media, such as detergents.

OUR PRODUCT RANGE AT A GLANCE:

- Automatic and basket strainer filters
- Filter elements
- Candle filters and housings
- Particle counters
- Oil/water separators



High-end candle filter elements



Oil separation - liquid/liquid separation

FILTRATION OF INDUSTRIAL PROCESS FLUIDS:

- Cooling water and other process water
- Alkali, neutral, and acidic aqueous cleaning solutions
- Hydrocarbon-based solvent cleaner (benzine)
- Testing fluids

INJECTION MOLDING MACHINES

IN TOP FORM EVEN UNDER HIGH PRESSURE



EFFICIENT SOLUTIONS FOR INJECTION MOLDING MACHINES

Hydraulic and lubricant filters ensure the necessary purity of the fluid in injection molding machines. Our modular product range with high-quality filters gives you access to durable solutions for every application – a reliable foundation for uninterrupted operation.

PROTECTION FROM THE INSIDE WITH INNOVATIVE FILTER ELEMENTS

In plastics processing, star-pleated filter elements reliably keep both the product as well as the machines and systems clean. Smooth workflows and low wear are ensured by protecting plastic granules and processing plants, such as injection molding machines or extruders, from dust and dirt particles. And star-pleated filter elements also ensure optimum operation in pneumatic vacuum transport systems.



High-pressure filters



CapFree
Air filter elements for better filter performance with open bottom pleat



Metal-edge filters

OUR PRODUCT RANGE AT A GLANCE:

- Hydraulic filters
- Filter elements
- Breather filters
- Exhaust air filters
- Automatic and basket strainer filters
- Filter elements for vacuum conveyor systems



MANUFACTURING AND PRODUCTION LINES

SMOOTH PROCESSES IN THEIR PUREST FORM



HIGH-PERFORMANCE FILTER TECHNOLOGY FOR MAXIMUM PROCESS QUALITY

Solid and liquid impurities in the air and in liquids cause abrasion, wear, and corrosion. We offer highly-effective filter systems with maximum safety and efficiency for the reliable and efficient operation of your sensitive production plants.

INNOVATIVE FILTER ELEMENTS FOR DUST-FREE AIR

Wherever welding and grinding dusts occur, innovative, star-pleated filter elements and the tried-and-tested FG cam ensure clean air and safety at the workplace – as an efficient filtration system with low differential pressures and minimum energy requirements.

OUR PRODUCT RANGE AT A GLANCE:

- Hydraulic filters
- Automatic and basket strainer filters
- Filter elements
- Oil/water separators
- Breather filters
- Spin-on cartridges
- Oil treatment systems
- Mechanical emulsion and foam breakers
- Dust filter cartridges



Dust filter elements



Filter elements



Breather filters

QUIET, EFFICIENT, EFFECTIVE: THE SILENTCARE ROOM AIR FILTER

IN THE SILENTCARE ROOM AIR FILTER Filtration Group Industrial presents a device that is ahead of its time. Equipped with a H14 HEPA filter to EN1822, the elegant device eliminates 99.995 % of all particles $>0,13\mu\text{m}$ - including viruses. When in operation, the SilentCare is so quiet that you can barely hear it. Its outstanding features and compact size make the new Filtration Group Industrial room air filter perfect for use in offices and meeting rooms, as well as in high traffic areas.

air. The microfiber layer in which the air is filtered is embedded between two polyester nonwovens. This prevents contact with the filter medium.

SILENTCARE COMBINES BEAUTY WITH INNER QUALITIES

The SilentCare filter's elegant, powder-coated sheet-metal housing contains innovative filter technology: the filter medium certified under European standard EN 1822 reliably removes aerosols from the ambient

ADDED BENEFITS:

- Extremely quiet - 43 db(A), this is equivalent to the sound level in a quiet office, as well as draft-free operation
- Very low power consumption (45 W at 600 m³/h)
- Multi-level operation that enables individual adjustment to the ambient situation
- Compact design with castors for mobile use
- 360-degree air circulation and cleaning
- Long service life



SilentCare

PROCESS WATER TREATMENT

WE MAKE THE WATER CLEAN AND PURE

HIGH-QUALITY PROCESS WATER with maximum purity is essential for efficient, uninterrupted industrial processes. The reduction of the pollution load also plays an important role in the direct or indirect discharge of waste water. Filtration Group Industrial has a range of high-performance solutions for different applications at its disposal.

OUR PRODUCT RANGE AT A GLANCE:

- Back-flushing filters
- Oil separators



Back-flushing filters

AIR FILTRATION

ALWAYS CLEAN AIR



HIGHLY-EFFECTIVE AIR PURIFICATION TECHNOLOGIES

Filtration Group Industrial also sets standards in air cleaning, with high-performance, service life-optimized conical filter elements and patented, highly-efficient multijet and rotating nozzle cleaning units. Our innovative, durable air filtration solutions are the basis for uninterrupted operation and efficient production processes.

As an experienced system partner, we optimize your entire system—from the filter medium through to the filter elements, and from specially developed cleaning systems through to convenient app control. The range of solutions extends from washable filter elements through to compact and easy-to-integrate dedusting devices, such as mixer filters and product separators, through to large, ATEX-compliant system solutions and filters for potentially explosive atmospheres.



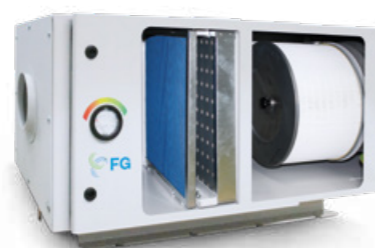
Dust filter elements



Quick-Lock air filter elements

OUR PRODUCT RANGE AT A GLANCE:

- Dedusting units
- Dust filter cartridges
- Cleaning units
- Control systems
- Aerosol separators
- Air intake filters
- Fine oil separators
- Accessories



ASL aerosol separator device for emulsion mist



LGA aerosol separator device for oil mist

DURABLE SOLUTIONS FOR THE STEEL INDUSTRY



SMOOTH PROCESSES IN STEEL PRODUCTION AND PROCESSING

To maximize efficiency, production processes in steel production and processing must be able to run without interruption. Seamlessly integrated process steps are needed to make the best possible use of all the efficiency potentials. Filtration Group Industrial hydraulic and lubricant filters master challenging filtration tasks in smelting and rolling mill installations as well as in foundry machinery. They protect stressed hydraulic systems from dirt and secure the availability of your installations.



OUR PRODUCT RANGE AT A GLANCE:

- Automatic and basket strainer filters
- Systems for oil/water and water/oil separation
- Hydraulic filters
- Filter elements
- Oil treatment systems
- Dust filter cartridges
- Breather filters



Back-flushing filters



Basket strainer duplex filters



High-pressure filters



SAFE SOLUTIONS FOR THE PAPER AND PRINT INDUSTRY



GREATER EFFICIENCY IN PAPER PRODUCTION AND PROCESSING

Highly efficient, uninterrupted production processes are critical to survival in times of increased competition. To keep your production facilities rolling and protect your hydraulic systems from dirt and contamination, we offer you high-performance and durable hydraulic and lubricant filters for every requirement.



Duplex filters



Conical air filter elements



Hydraulic filter elements

OUR PRODUCT RANGE AT A GLANCE:

- Automatic and basket strainer filters
- Hydraulic filters
- Filter elements
- Air breather filters/aeration driers
- Oil separators
- Dust filter cartridges

SURFACE TECHNOLOGY

SIMPLY FLAWLESS SURFACES



PROVEN SOLUTIONS FOR SURFACE TECHNOLOGY

Our cleaning systems have proven themselves in surface technology, powder-coating systems, and blasting machines worldwide. They make short work of any kind of dust load: in flame spraying, grinding and polishing, or in wet paint/overspray extraction in long painting lines.

High-performance filter media made from a cellulose base, polyester, or polypropylene with the perfect finish ensure reliable, long-lasting operation. Energy-efficient cleaning units help ensure a gentle clean. The FG Pleat Lock and FG cam pleat spacing technologies maximize the filter surface.

THE COMPACT SUPER DUST CATCHER

Compact filter elements (CFE™) are flat, pleated filter elements. They are designed for use in harsh environments, such as in mining, tunnel construction, wet coating, and laser cutting. The compact, flat design together with the outstanding cleaning properties make it the number one choice for difficult dedusting solutions in a confined space.



Dedusting devices



Dust filter elements



Metal-edge filters

OUR PRODUCT RANGE AT A GLANCE:

- Dust filter cartridges
- Cleaning units
- Automatic and basket strainer filters
- Filter elements

EVERYTHING UNDER ONE ROOF

INCLUDED IN THE SERVICE: OUR DRIVE TO INSPIRE YOU

Filtration Group Industrial complements its high-quality and diverse range of filter systems and elements with excellent service. This service is based on many years of experience with the complex requirements in filter technology, a distinct focus on customers, and competent employees.

TECHNICAL ADVICE

We recommend the filter systems that achieve the best results in the specific area of application based on a thorough assessment of the starting situation. Our analysis always starts with the overall system, the goal is smooth production flows.

INSTALLATION AND COMMISSIONING

Our Service Team installs the filter systems on site and puts them through their paces. Our work is only done once all filter systems are operating perfectly and process and production reliability is ensured.

MAINTENANCE AND REPAIR

From filter replacement through to repairs of complete systems, we offer a full range of services – irrespective of whether these are needs-based or they have been agreed in fixed maintenance contracts.

LABORATORY

Fuels, crude oil, and other fluids: in our laboratory we prepare precise analyses of every liquid and determine the filterability of a mixture. Our test results provide reliable baseline data that we can use to design your filter systems and plants.

SMARTRUN 4.0 SYSTEM WITH FULL-SERVICE CONTRACT

For optimal monitoring and an uninterrupted production process, we recommend our new full-service contract in combination with the SmartRun 4.0 system. This continuously records the operating parameters of the dedusting system and saves these in a cloud. This allows our Service Team to remotely monitor the function of the filter system. The full service contract naturally includes all the maintenance activities and regular system servicing. For you, this means predictable costs and a long service life for your machines and plants.

PLANT OPTIMIZATION

Our Engineering Team puts your existing plant under the microscope and analyzes key areas for increasing productivity. In addition to the performance capacity of the filter systems, efficiency is a key parameter in plant optimization.

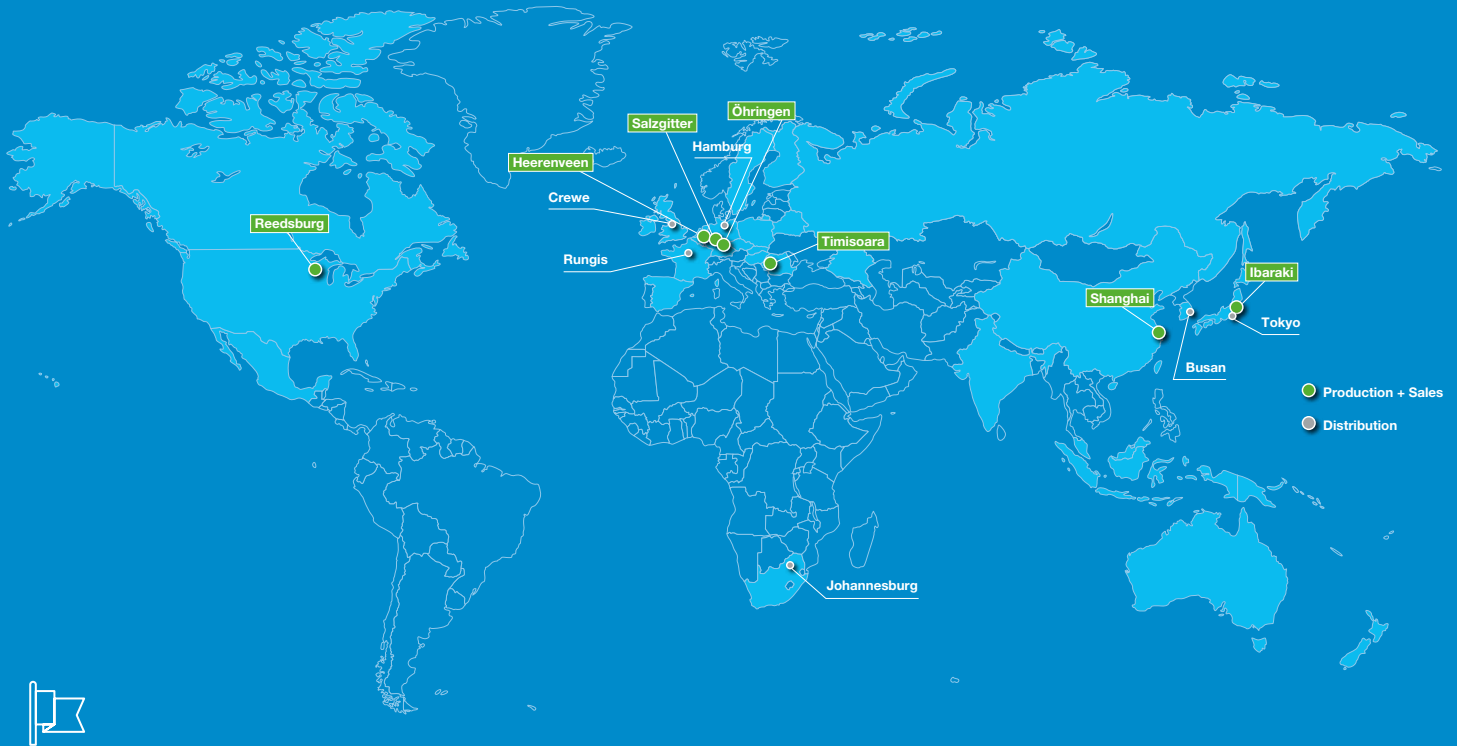
ACCESSORIES

Our range of filter systems and cartridges are complemented by perfect accessories. These include a mobile, easy-to-use particle counter, a particle monitor to constantly monitor the oil condition, and various maintenance indicators.

SPARE PARTS FOR ALL POPULAR FILTER SYSTEMS

Our huge product range includes original parts and elements for all Filtration Group Industrial filter systems as well as spare parts for all other commercially available types. If we do not have the right product in stock, we will procure it for you.

WORLDWIDE AT OVER 100 LOCATIONS IN 28 COUNTRIES



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Further information about our products and a local contact person from our worldwide partner network can be found on our website: <https://industrial.filtrationgroup.com/locations/>

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