



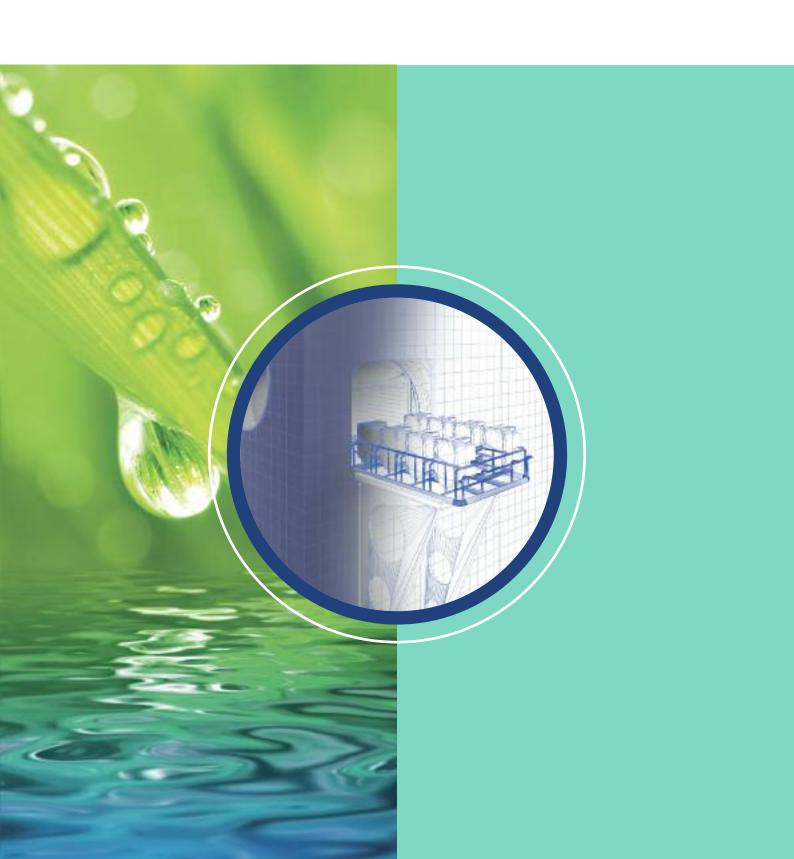
Purely on an aqueous basis.



Innovative cleaning technology from the Black Forest

Purely into the future.

Sparkling ideas for inno



vative development.



CEOs Rainer and Joachim Schwarz add a new dimension to aqueous parts cleaning systems.

Aqueous cleaning of technical components has been our key competence for more than 20 years. What we do particularly well is researching new fields of application in connection with developing innovative technologies and engineering features in line with the requirements of the market. Sparkling ideas, profound know-how, and the perseverance we Swabians are famous for – those are the pillars on which the development of our compact parts cleaning systems is based. Motivated by the responsibility we feel for our environment and consistently geared to the requirements of the international markets, we specialized in aqueous cleaning systems.

Today, our customized process solutions range from de-centralized machines in stand-alone operation to fully automated machine concepts. Thanks to constant research and sustainable development, our highly qualified team is able to master the steadily increasing demands in cleanliness in industry, even in high-tech sectors such as automotive or aerospace.







Purely premium quality.

Patented technology for clean



liness in technical components.





MAFAC gets parts cleaning moving. Our patented technology, the rotation of basket and nozzle systems in the opposite or the same direction, sets global standards in cleaning engineering. All MAFAC machine models are based on kinematic cleaning as a system approach, ensuring clean and efficient solutions tailored to your individual cleaning requirements. Here, our priority is on the optimization of our reproducible, energy-efficient and resource-preserving technologies. To attain this goal, we get our bearing from bionic processes, which are by nature sustainable and highly efficient. In the field of advance and system development, our experienced team of engineers and technicians is working hard to develop the respective basics principles.

To this end, we have our own development laboratory where we carry out fundamental analyses of the part surface in small-scale in a glass reactor; in our own machine lab, we do research at machines or technologies in original 1:1 scale. For many years now, our trend-setting development competence in aqueous parts cleaning has made us an esteemed partner for university research projects.







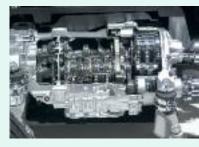
Purely attuned to market requirement Optimum cleanliness for



a wide range of industries



For many industries, the cleanliness of the technical components is a major quality criterion. Sectors such as aerospace and automotive industry and their suppliers are considered as leading in respect of the high level of their quality assurance standards. Wellknown representatives of these industries have appreciated MAFAC for many years as a competent partner and provider of reliable cleaning solutions. In the high-end sector, the parts to be cleaned are often highly precise components with very narrow tolerances that have to be able to withstand extreme loads - for example with cleanliness requirements for safety-relevant parts in the particle range of 200 μm . Generally, MAFAC compact systems are used in all types of industrial cleaning of metal, non-ferrous metal, and synthetic parts. Our machines are found primarily in the automotive industry and at automotive suppliers', in precision mechanics and light engineering, in hydraulics engineering, electrical industry, automation engineering, and in all fields of metal-cutting manufacturing. Our customer portfolio also comprises watchmaking and medical engineering companies.







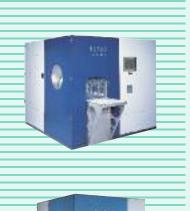


Purity in manufacture.

Compact machines for opti



mized process solutions









As a modern machine manufacturer, we wish to meet all the requirements you specify for your project. We proceed on the basis of the MAFAC M_2P philosophy, since the perfect synergy of machine, man, and process is the precondition for the implementation of customized process solutions. To ensure that we reach this goal, we start at an early project stage with competent advice and a detailed check of your requirements. Before you purchase a machine, we offer as an option welldocumented test cleaning runs in our Alpirsbach Technical Center. In the single- or dual-tank ranges, the MAFAC machine portfolio comprises the sprayflood systems PALMA and JAVA, and the

spray cleaning systems ELBA and KEA. In particular the machine series JAVA and PALMA are characterized by patented cleaning and drying technologies, as well as by versatile optional packages. We also offer fully-automated machine concepts for multi-stage part cleaning. To ensure optimum functionality of your processes, our application professionals will be at your side during commissioning of your system; later on, they will provide sound advice based on their profound know-how and broad practical experience.



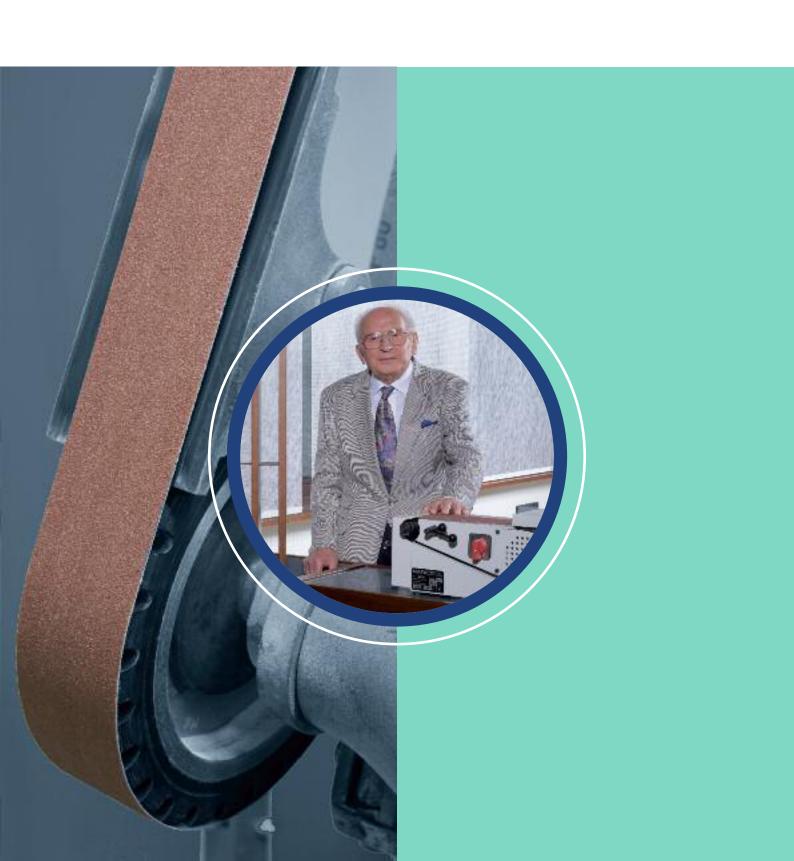






Purely history.

Swabian innovative spirit



sets technological standards.

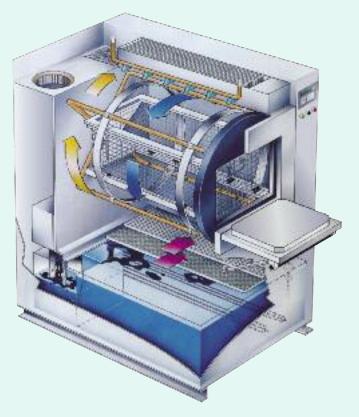


Currently, MAFAC is one of the global market and technology leaders in aqueous parts cleaning. The success story dates back to 1963 when founder Ernst Schwarz in Alpirsbach in the romantic Black Forest started to manufacture vendor parts for neighboring engineering companies. The machine factory MAFAC was established in 1968 when the first shopfloor was built at today's company site; at that time, belt grinders were the company's main product. Very soon, however, the innovative family-owned business recognized the huge potential of industrial parts cleaning. In 1974, the cleaning systems division was established and continually expanded over the following years with strategic vision and great innovative power. In 1991, MAFAC set new technological standards in aqueous parts cleaning when the parts cleaning system SF60.40 was introduced to the international markets.

With its novel, patented technology, this compact machine – the first of its design type to comprise an integrated spray-flood cleaning system – opened completely new perspectives for industrial parts cleaning.

Based on the basket-and-nozzle rotation which is unique to this day, MAFAC offers a variety of premium-quality cleaning machines as well as comprehensive system solution for a wide range of industries.







www.mafac.de

Parts Cleaning. Systems and Solutions.

Ernst Schwarz GmbH & Co. KG Maschinenfabrik Max-Eyth-Strasse 2 D-72275 Alpirsbach Telefon + 49 (0) 74 44/95 09-0 Telefax + 49 (0) 74 44/95 09-99 info@mafac.de



Purity all over the world.

Application support and service – fast reaction thanks to close proximity to our customers.

at MAFAC, customers get much more than technologically sophisticated cleaning machines: We provide lastingly stable process solutions for complex cleaning tasks. With patented process technologies combined with customized application support and fast service availability, MAFAC provides clean solutions on all continents. Users benefit from our comprehensive service portfolio in the field of process analysis, process consulting, and optimization. With the help of various test series with different cleaning additives, wash cycles and temperatures, the process parameters are optimally adapted to the individual conditions at your site. Our experienced application engineers will also gladly advise you in case of an increase of your cleaning requirements, for example by suggesting options and accessories to retrofit your machine. A reliable after-sales service complements our customer support portfolio: Thanks to our global network of technical sales agencies and our establishment in France, our service technicians are on call 24/7.

Presented by: