MAVADISC® FILTER
Closed centrifugal cake discharge filter
MAVAG PROCESS TECHNOLOGY

Our extensive experience in the areas of mixing, filtration and sterile technology and related equipment and plant construction provides a sound basis for an innovative, economical approach to your process and production needs.

The expert knowledge of our engineers, designers and application specialists and the craftsmanship of the staff in our own factory are the keys to reliable project execution at an outstanding level of quality. It is our aim to work closely with you and support you in selecting the best components and systems that meet your specific filtration requirements. We at MAVAG welcome the challenge to develop with you projects on pilot plant and production scale.

MAVAG FILTER TECHNOLOGY

MAVAG filters serve as clarifying or cake filters in direct, precoat or polishing applications of many production operations.

MAVADISC filters are compact, totally enclosed horizontal plate filters with centrifugal cake removal for use in precoat or residue filtration, with slurry or cake discharge. They perform filtration, extraction, cake washing and drying all in one process programme.

Chemical processing industry • Fine chemicals production • Pharmaceutical production • Biochemicals processing • Flavours and fragrances industry • Agrochemicals and dyestuffs • Metallurgical industry • Photocatalyst industry • Food industry • Environmental applications
MAVAG KNOW-HOW

MAVAG filter systems are configured to your specific processing needs. Their design is based on the know-how from a wide range of applications.

**Pharmaceutical Industry**
- Antibiotics
- Citric Acid
- Protein

**Chemical Industry**
- Mercury Recovery
- Catalyst Separation
- Zeolites
- Pigments
- Sodium Perborate
- Sodium Silicate

**Petroleum Refining**
- Polyoles
- Mineral Oils, Gasoils

**Metal Working**
- Cutting and Honing Oils
- Petroleum

**Food Industry**
- Sugar
- Vegetable Oil
- Glucose
- Dextrose
- Gelatine

**Fibres/Polymer Industry**
- Viscose
- Cellulose Diacetate
- Cellulose Triacetate
- Polycrylonitrile
- PVC
- Polyethylene
- Melamine Resin
- Epoxy Resin
- Plastizisers

**Nuclear Industry**
- Nuclear Waste Water
- Pond Water

MAVAG SYSTEM TECHNOLOGY

MAVAG filters are key elements in solid-liquid separation processes. For realization MAVAG offers:
- Feasibility studies
- Pilot trials
- Scale-up
- Basic engineering
- Detail engineering
- Filter manufacture
- Supply of complete systems, turnkey plants, control systems
- Operator and maintenance training

Our specialists are at your disposal for system integration at your plant and are keen to perform planning and engineering work for complete systems and plants.

Filtration plants with product and solids processing • Filter plants with heel filtration, extraction, cake drying • Filter systems with dry cake or slurry discharge • Filter systems to meet FDA and GMP requirements • Preassembled, processor controlled systems in modular construction
MAVACON 2000

MAVACON 2000 is a digital control and process management system for the direct automation of filtration plants. It features comfortable handling in the field, high operating safety, stand-alone operation or integration into master control system, flexible expansion possibilities. Investment protection by using industrial standard components.

Construction Materials, Fabrication

The selection of the construction material is defined by the corrosion protection requirements of the process. MAVAG has extensive experience with:

- Carbon steel, stainless steel, hastelloy, monel, titanium, coatings (glass, halar or rubber lining)

Design and reception by:

- SVTI (ASCP), TUeV, ASME, APAVE, resp. per guideline 97/23/EG for pressure vessels, or others

MAVADISC FILTER

MAVADISC Filters are selected for specific process capabilities; they feature characteristics as follows:

- totally enclosed system for environmentally safe, hazardous-free operation
- uniform cake formation self-supporting plate design
- top-mounted drive system with external bearing design
- minimum wash liquid consumption
- no product or filtrate loss
- heel filtration
- cake extraction by cascade method
- no residual liquid impairing cake drying in filter
- cake drying with closed gas circuit
- Up to 3x higher filtration capacity with Viscodisc system extension for viscose products
- microfilter plates for enhanced throughput with exactly defined, easy to clean perforation
- magnetic coupling (packless design)

Cartridge-type Filters

Static filters in closed system without mechanical elements for the separation of solids from dilute suspensions.

Typical application ranges of filters

Sterile Filter

Moducir filtration unit on mounting frame. Complete with piping, instrumentation, controls, and ready to operate. Designed for CIP and SIP functions.

MAVADISC Cake Discharge Filters

for slurry discharge of the filtered solids

MAVADISC Pre-Coat Filters

for dry cake discharge

Laboratory/Pilot Filters

Filtration units available on rental basis for on-site process and product evaluation by clients.

Nutsche Filters

Static single-sheet filters, agitated pressure filters or filter-dryers as enclosed separation systems for the separation of solids from concentrated suspensions.

Scherrer-Group

Tailor-made processing concepts • Hardware program for a wide range of filtration applications • Filtermedium to meet specific product and process requirements • Environmentally safe, totally closed filtration systems • Reliable, proven filter design and construction
### Standard connections and dimensions for MAVADISC Residue Filter

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<thead>
<tr>
<th>Filter size (m²)</th>
<th>DN I</th>
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<th>Speed of filter (rpm)</th>
<th>Motor rating (kW)</th>
<th>Filter weight empty (approx. kg)</th>
<th>Filling volume (approx. liters)</th>
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### Standard connections and dimensions for MAVADISC Pre-Coat Filter

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Pre-coat filters with slurry discharge • Residue filters with dry cake discharge • Horizontal plate filters • Pressure filter • Sterile filters • Laboratory and pilot plant filters • Special filters and tailor-made solutions • Complete filtration systems and turnkey plants
MAVAG’s scope of supply and services in the process technology field includes development, design, construction and installation of quality hardware, systems and plants.

Hardware components and services from MAVAG are backed by experienced and professional staff with capacity to perform engineering and design work for complete plants, from conceptional layout to start-up of the plant.

For MAVAG’s clients, this means straight forward project handling and single-source responsibility.

Experienced engineers follow your project from the first contact to performance verification, from design specification to validation and training of operating personnel.

Our business areas are:

- MAVAG Sterile and Bio Technology
- MAVAG Filtration Technology
- MAVAG Agitation Technology

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