

**An encompassing commitment
to clean water**

DANGO & DIENENTHAL FILTERTECHNIK



DANGO & DIENENTHAL
FILTERTECHNIK GMBH

Our job is to provide you with the most effective and economical solutions for your filtration needs.

The more and more automatization and improvement of factories and plants results in a requirement of high quantities of cooling-, process- or waste water with an increasing demand on the liquid filtration.

The inserted Automatic Filters respectively Manual Filters are particularly suited for the following responsibilities:

- reliable and guaranteed filtering out
- trouble-free operation
- minimization of the maintenance and service costs

Our Filters are especially suited for these requirements and comply with a high performance and quality standard, specially granted with our Automatic Filters during operation and backwashing.

The ranges of application are:

- steel works
- power plants
- paper industry
- chemical industry
- heat technology, refrigeration engineering and climatology
- filtration of oil / emulsion
- environmental protection
- foodstuff industry
- operation as pre-filter
- mussel filtration
- replacement of sand filters

Plate Filter

Filter with flat bar screen for separation of coarse solids.

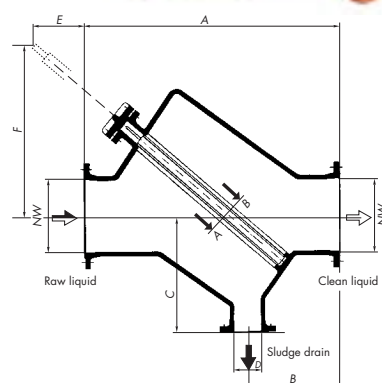
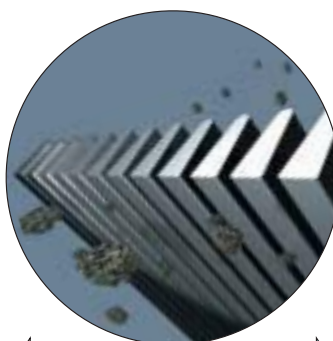
Well proven as preliminary filter and back-up filter.

- Filter Throughput : 50 m³/h to 2500 m³/h
- Filtration Fineness : \cong 0,8 mm
- Flanges : DN 80 to DN 500
- Solids Separation : mainly coarse solids
- Operating Pressures : max. 10 bar (standard design)
16 bar (special design)
- Filter Housing : GG25, GGG40, internal epoxy resin coating
- Cleaning : at present differential pressure (visual or electric signal)

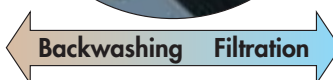
either manual-remove flat screen or open the sludge drain
or by reverse flow via by-pass
inlet valve closed
outlet valve open
sludge drain open

Type PLF

with backwash in reverse flow and uninterrupted filtration



For detailed description see brochure R-11e



Solutions for an economically efficient separation of solids and liquids



Filterautomat

Type DDF

The only dynamic type filter having a constant rotation filter drum capable of continuous and complete strainer element cleansing.

Particularly suitable for the filtration of river water and recirculating cooling water systems.

Outstanding feature: Exceptionally high throughput in relation to its compactness.

Primary Application

Filtering out a mixture of solids (up to 150 mg/litre) where higher percentages of the admix are particles of lower specific gravity.

- Filter Throughput : ranges from 5 m³/h to 4.500 m³/h according to size of filter unit and fineness of filtration
- Filtration Fineness : $\geq 20 \mu\text{m}$
- Flanges : DN 50 to DN 800
- Required Pressure : $\geq 1,2 \text{ bar}$ (allows element backwash with system water)
Clean Water Side : $\geq 0,5 \text{ bar}$ (requires external source water for backwash)
- Contamination : $\leq 150 \text{ mg/litre}$ of solids depending on filtration fineness and density
- Backwash Control : freely programmable with timer and differential pressure control
- Filter Housing : GGG25 or GGG40 cast iron, plastic coated internally
ni-resist cast iron (seawater resistant)
cast stainless steel 1.4408
stainless steel 1.4571/1.4539
housing DN 600 and larger steel fabrication - plastic coated internally

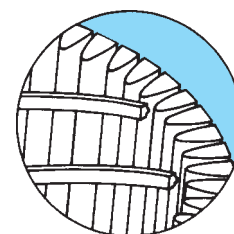
For detailed description see brochure R-12e



patented



Bar screen strainer = 100% surface filtration



with automatic flushing and uninterrupted filtration

JET Filter

Type 2000

An especially economic, continuous cartridge filter without moveable parts

Particularly suitable for the filtration of river water and cooling tower-circulating water systems.

Outstanding feature: Inline Filter with any fitting position whatever and the same diameter as assembled nominal width. High solids concentration allowed because of installed „common collector“ for retained solids

Primary Application:

Filtering out a mixture of solids where higher percentages of the admix are not smudgy particles.

- Throughput : ranges from 5m³/h to 25.000m³/h
(**independent** of filtration fineness)
- Filtration Fineness : $\geq 50 \mu\text{m}$
- Flanges : DN 65 to DN 2000
- Operating Pressure : $\geq 2,0 \text{ bar}$
- Contamination : several 100mg/l acc. to density
- Automatic Flushing : freely programmable
(with timer and differential pressure control)
- Filter Housing : steel zinc-coated or epoxy-coating.
stainless steel, plastic



For detailed description see brochure R-17e

filter cartridge = 100% surface filtration (slotted tube cylinder)



patented

and for an active environment protection

Combi Filter

This filter is a combination of two successful methods for separating and filtering out solids.

Firstly, **higher specific gravity** solids are separated by the hydrocyclone (discharged as a concentrate to drainline).

Thereafter, bar screen cartridges filter the remaining solids with **lower specific gravity**, the cartridges being cleaned by sequential backwashing and drainline discharge.

Proven and ideally suited to sinter or grit contaminated water.

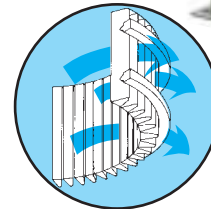
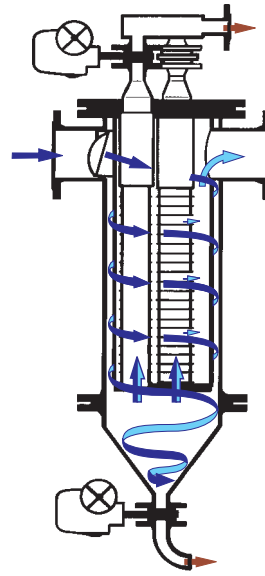
Outstanding feature: The durability and extended capability due to the separate separation of solids with higher and lower specific gravities.

Primary Application

Filtering out a mixture of solids (up to 3.000mg/litre) where the admix has a greater percentage of particles with a high specific gravity.

- Filter Throughput : ranges from 5 m³/h to 3.500 m³/h according to size of filter unit and fineness of filtration
- Filtration Fineness : ≥ 100 µm solids with low specific gravity (bar screen cartridges)
≥ 30 µm solids with high specific gravity (hydrocyclone)
- Flanges : DN 50 to DN 700
- Operating Pressure : ≥ 2,0 bar
- Contamination : ≤ 3.000 mg/litre depending on specific gravity
- Automatic Backwash : freely programmable with timer or differential pressure control
- Filter Housing : boiler plate H11 or equivalent stainless steel 1.4301/1.4571/1.4539

Type DCF



patented

Bar screen strainer = 100% surface filtration

For detailed description see brochure R-14e

Dynamic Twin Filter

Fully-automatic dynamic depth filter with breathing filter-elements.

Especially suited to semi-open circulation systems with fibrous contamination.

Outstanding feature: Depth filter for high throughput by collecting the solids in the wedge-shaped slots.

Primary Application: Filtering out all kinds of solids, particularly **long-stapled contamination** (fibres).

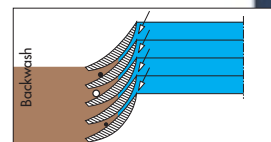
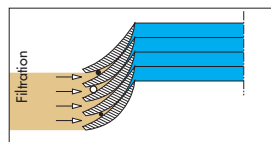
- Filter Throughput: ranges from 5- 400 m³/h
- Filtration Fineness: 50-500 µm
- Operating Pressure: PN 10 or higher (acc. request)
- Operating Temperature: max. 80°C
- Contamination: 150-1000 mg/l (depending on filtration fineness and specific gravity)
- Backwash Control: freely programmable (with timer and/or differential pressure control)
- Filter Housing: steel welded/stainless steel/plastic
- Filter Element: nylon

with backwash in reverse flow and uninterrupted filtration

Type DTF



Functional characteristics of the breathing filter elements



For detailed description see brochure R-18d

Separator

Type SPR

An automatic separator functioning in accordance with the hydrocyclone concept and incorporating continuous or periodic concentrate discharge, the design based on two fundamental principles of hydrodynamics

- centrifugal separation in an outer and inner vortex
- separating by inertia through the bar screen tube

Application: exclusively for solids with high specific gravity.

Outstanding feature: a compact space-saving static filter (no movable parts) which is employed as a single unit or as a unit cluster.

Particularly suitable for separating out

- pipe incrustations
- scale
- sinter
- sand and grit

in circulation systems.

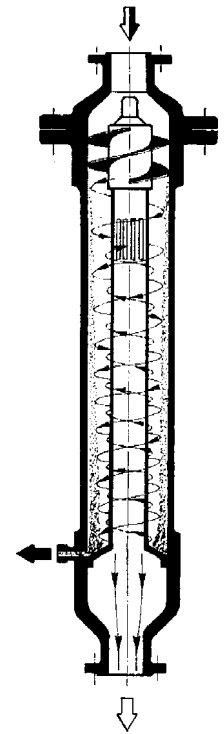
Pre-cleaning down to 5 mm grain size required.

- Throughput : 2 m³/h up to 3000 m³/h
- Separation : only solids with specific gravity $\geq 1,3 \text{ g/cm}^3$
- Separating Fineness : $\geq 5 \mu\text{m}$ depending on specific gravity
- Flanges : DN 50 to DN 700
- Operating Pressure : $\geq 1 \text{ bar}$
- Solids : $\leq 2 \%$ depending on type
- Continuous Concentrate Discharge: control not required
- Construction : wear resistant PVC, PP, steel, stainless steel

For detailed description see brochure R-16e



with automatic concentrate discharge



Multicartridge Filter

with automatic backwash and uninterrupted filtration

Type RKF

A filter with automatic rotational backwashing of the cartridge pack by means of a stepped drive and a fixed backwash pipe. The housing cover is provided with a handhole for cartridge inspection and replacement eliminating the need to dismantle the housing.

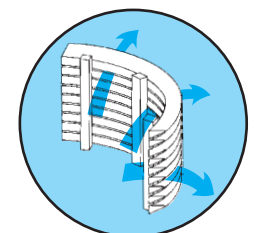
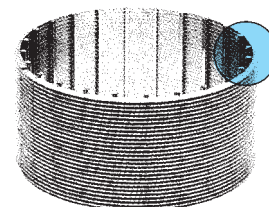
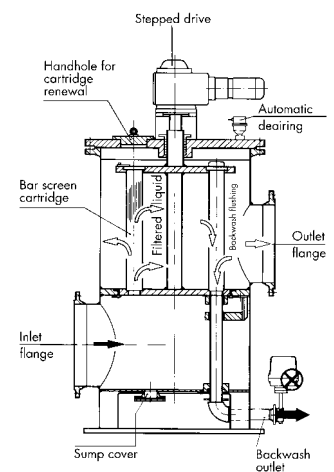
Especially suited to semi-open circulation systems with varying solids contamination.

Outstanding feature: High flow rate relative to fineness of filtration.

Primary Application

Filtering out of up to 150 mg/litre of mixed solids having a greater particle percentage with lower specific gravity and concentrations of microfines.

- Filter Throughput : up to 20.000 m³/h depending on filtration fineness
- Filtration Fineness : $\geq 50 \mu\text{m}$
- Flanges : DN 80 to DN 1800
- Operation Pressure : $\geq 1,5 \text{ bar}$
- Contamination : $\leq 150 \text{ mg/litre}$ of solids depending on filtration fineness and specific gravity
- Automatic Backwash : freely programmable with timer and differential pressure control
- Filter Housing : boiler plate H11 plastic coated internally
boiler plate H11 rubber coated internally
stainless steel 1.4301 / 1.4571 / 1.4539



Bar screen cartridge = 100% surface filtration

For detailed description see brochure R-15e

Single Filter

Type EF

For intermittent filtration of almost all free flowing liquids.



Duplex Filter

Type DF

For continuous filtration of almost all free flowing liquids.



Well proven as back-up filters supportive to other filtration systems.

- Filter Throughput : 1 m³/h to 1100 m³/h
- Filtration Fineness : $\geq 5,0 \mu\text{m}$ to 5 mm
- Flanges : DN 15 to DN 500
- Operating Pressure : max 100 bar

- Contamination : as low as possible to reduce intervals of manual cleaning.
- Control : visual signal and upon request, electric contactor
- Filter Housing : spheroidal graphite cast iron, steel welded, stainless steel.

Bag Filter

Type EFBS



Type EFBM



- Filter Throughput : 1 m³/h to 500 m³/h
- Filtration Fineness : $\geq 1,0 \mu\text{m}$ to 500 mm
- Flanges : DN 50 to DN 100
- Operating Pressure : max 16 bar
- Filtermedium : wirecloth, vlies

Schlammcon



- Dewatering unit with collector for
- reworking of backflush water of automatic filters
 - reworking of concentrate of separators
 - waste water treatment
 - sludge treatment



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