HYDAC INTERNATIONAL

Automatic Back-flushing Filter AutoFilt® RF10.

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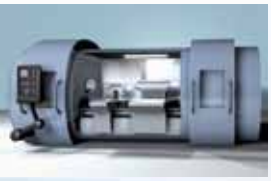
New paths in filtration – AutoFilt® RF10.









The challenge

The conventional technology of automatic back-flushing filters already exists for decades but nevertheless the requirements for performance, efficiency and environmental friendliness of the systems have increased enormously in the recent years.

Almost all „conventional back-flushing filters“ are pressure-driven systems.
This means that these systems require a certain operating pressure on the clean side of the filter as driving force in order to remove the dirt out through the backwash line.
The higher the pressure, the more efficient the cleaning.

Other limiting factors for the use of conventional filters are high pollution loads, as they particularly occur in ballast water applications, or counter-pressure in the flushing lines, which generally reduces the efficiency of the backflushing significantly.

Consequently the questions arise:
What happens if the appropriate pressure conditions are not met, the counter pressure in the back-flushing line is too large, or the dirt load is too high?
In these cases „conventional back-flushing filters“ cannot be used.

The solution

As a manufacturer of automatic back-flushing filter series AutoFilt®, our products have demonstrated their reliable performance in nearly all industrial areas thousands of times.

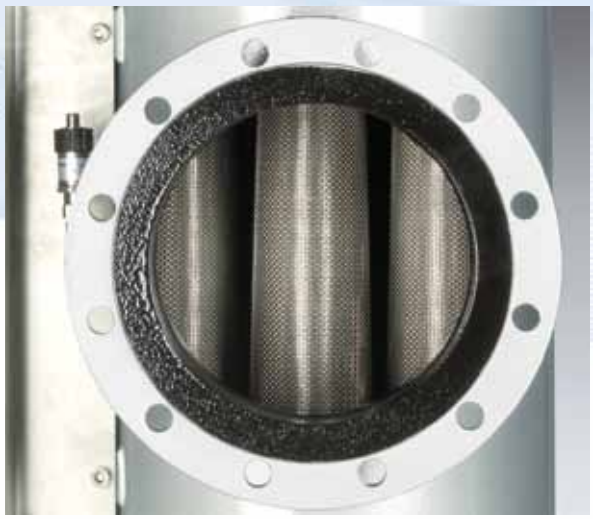
With the new, patented technology of the HYDAC AutoFilt® RF10 we break new ground and offer a solution for applications where conventional back-fluhing filters reach their limits.

Service spectrum of the AutoFilt® RF10:

- Back-flushing independent of the pressure on the filter clean side
- Only depending on the inlet pressure
- Highly-efficient back-flushing even under low pressure conditions and with long back-flushing lines
- Due to its highly efficient back-flushing the filter is even suitable for high dirt loads and peaks in contamination

AutoFilt® RF10 – element technology at the highest level.

Element Technology



The filter elements are the heart of each filter. They are highly crucial for the efficiency. AutoFilt® RF10 only uses the best filter materials in terms of stability and durability:

- **Conical filter elements**
- **Slotted tube filter materials**
- **SuperMesh filter materials**
- **SuperFlush technology**

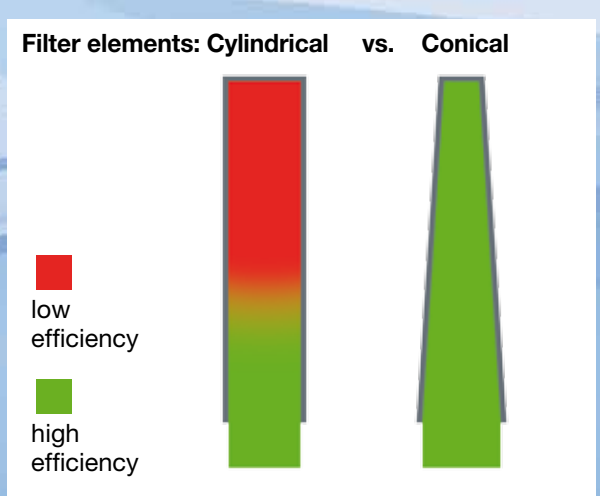
Isokinetic filtering and back-flushing

The special conical shape and arrangement of the filter elements allow an even flow through the filter elements with the result of a low pressure drop and complete cleaning over the entire element surface.

Advantages:

- Less back-flushing cycles
- Less back-flushing water loss

Efficiency of back-flushing with new AutoFilt® RF10 technology



SuperMesh Filter elements

SuperMesh
(3-layer sintered wire mesh)

Conventional Filter elements (with support structure)

3-layer sintered wire mesh

- Excellent stability due to sintered element technology
- Highly efficient cleaning due to optimal velocity within the element layers
- No adherence or sticking of particles between the element layers
- Reliable filtration rates ensured by sintered element layers and thus the stable pore structure
- Self-supporting structure, no support structure that reduces the filtration area
- Significantly larger open filtration area of up to 40 % compared to conventional wire mesh elements with support structure

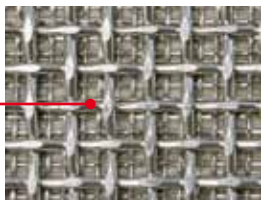
SuperFlush technology

With SuperFlush **Without SuperFlush**

Unique technology in filtration business:
Prevents adherence and deposits of sticky particles as well as biofilm formation on the surface of the filter element.

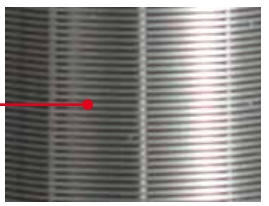
Innovative. Powerful. Efficient. Automatic.

Selection of filter materials



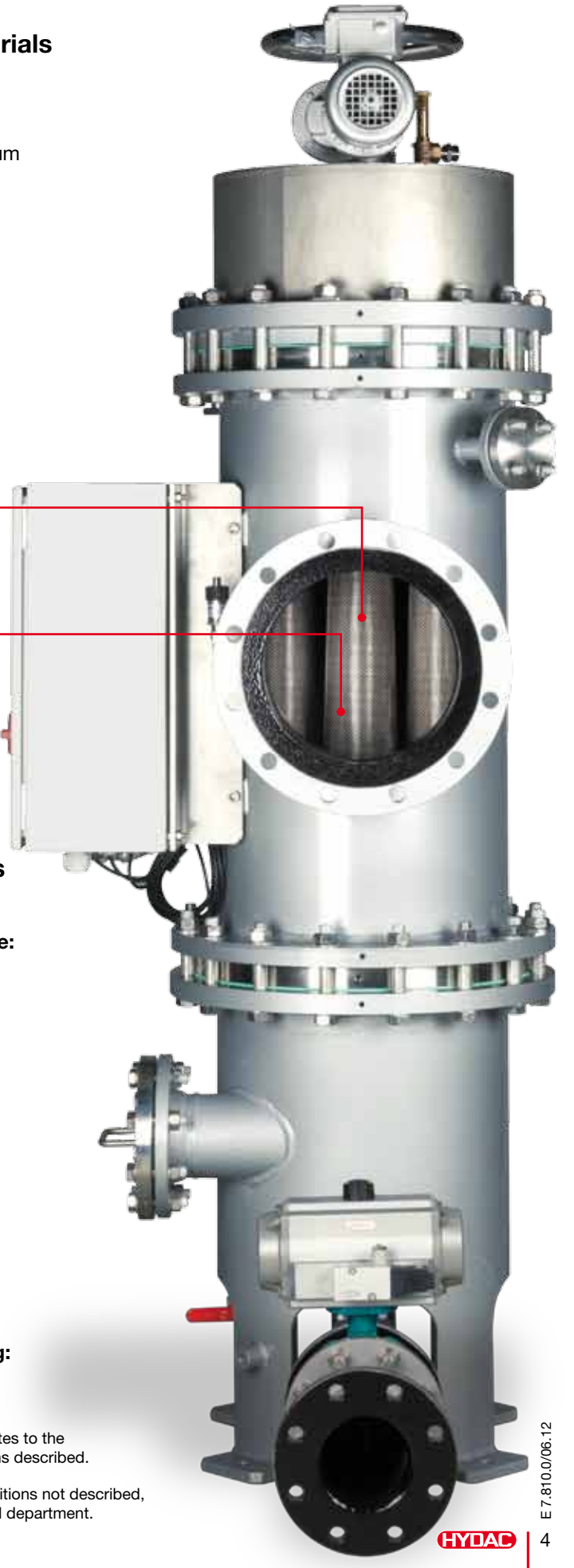
SuperMesh (Wire mesh)

- Material: stainless steel
- Filtration rating: 25 µm - ≤ 60 µm
- With optional SuperFlush technology



Slotted tube

- Material: stainless steel
- Filtration rating: 50 µm – 3 mm
- With optional SuperFlush technology



Technical specifications at a glance*

- **Maximum operating pressure:** 6 bar
- **Operating temperature:** 90 °C
- **Filtration rating:** 25 µm up to 3 mm
- **Energy supply:** Electropneumatic
- **Material housing:** Carbon steel or stainless steel
- **Material filter element:** Stainless steel
- **Material of interiors:** Stainless steel
- **Corrosion protection for carbon steel filterhousing:** Polyurethane Coating

* The information in this brochure relates to the operating conditions and applications described. Subject to technical modifications. For applications and operating conditions not described, please contact the relevant technical department.

Flexible. Robust.
Low-maintenance. Service friendly.

Maintenance friendly

Low maintenance requirements
cut operating costs to a minimum.
The optional **davit**
simplifies the access to the filters internals.

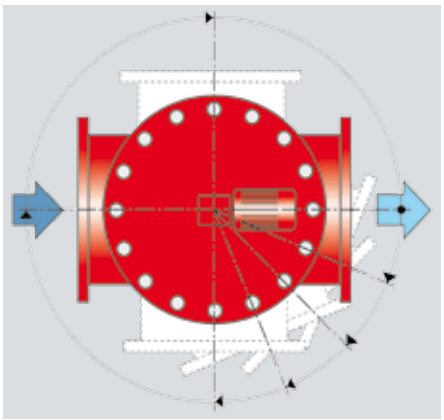
Individual control parameters

Control system with PLC and LCD Display
Adjustable operating parameters
such as:

- Differential pressure to initiate the back-flushing
- "Test"- cycle initiation
- Timer

And many more …

Variable filter isometry



Highest flexibility for integration
of the filter into systems
due to its **rotatable flange position**
is guaranteed (Inlet / Outlet /
Back-flushing line).

Sacrificial anode

Optional corrosion protection by
cathodic protection provided by an
easily to integrate **sacrificial anode**.
This protects the filters internal parts
as well as the filter elements against
corrosion for e. g. in sea water applications.

Accumulators E 30.000

Filter Technology E 70.000

Process Technology E 77.000

Filter Systems E 79.000

Compact Hydraulics E 53.000

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