



AutoFluid
Automatic backflushing filter

AutoFluid – the fine one for low and high viscosity liquids



In the field of process filtration AutoFluid the automatic filter has proven itself to be highly efficient and economic for low and high viscosity materials with gap widths above 10 µm. Using a backflushing action it is automatically cleaned without using mechanical scrapers.

Thanks to this efficient cleaning system AutoFluid achieves a long service life. In comparison to conventional automatic filters or non self-cleaning filter systems AutoFluid additionally offers considerable potential for reducing operating costs.

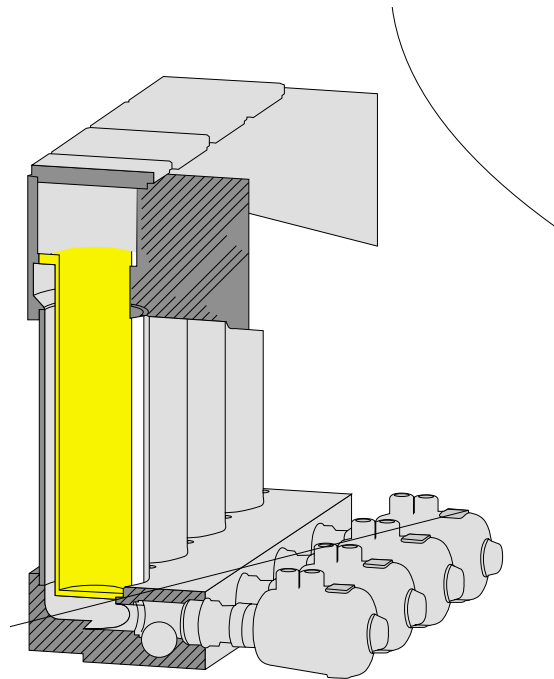
AutoFluid offers the following advantages:

- high potential for reducing operating costs
- fully-automatic operation
- long service life
- process reliability through a defined sieve geometry
- gap widths from 10 µm
- quick cleaning cycles with minimal backflushing volumes and pressure loss
- compact system thanks to the easy-to-clean characteristics of the inserts
- high stability of inserts with varying differential pressures
- easy to service
- variable and easy integration of a filter in an existing production line
- easy operation with the supplied control system
- innovative design

Working principle of the AutoFluid

Design

The MANN AutoFluid is a multi-chamber backflushing filter with four inserts which serve to offer ideal backflushing characteristics. Depending on the requirements of the application, the housing is available in aluminium or stainless steel. A control unit specially designed for the AutoFluid monitors the pre-set differential pressure, manages the valves according to the operating parameters and controls the backflushing process which cleans the insert.



Operation and control



The MANN AutoFluid functions fully automatically.

The microcontroller specially developed for the AutoFluid can be easily operated using the 4 button operating panel and the LCD without previous programming knowledge.

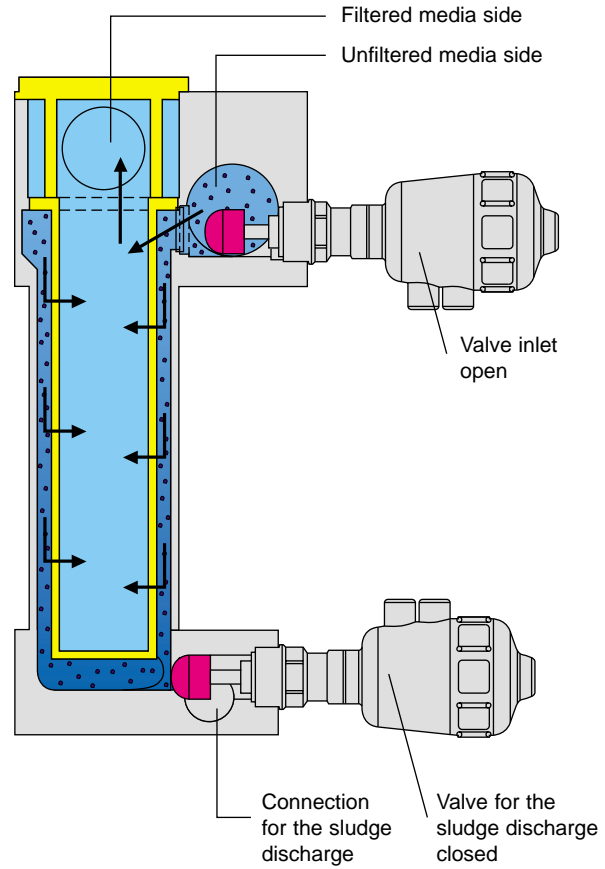
The control unit checks the function of the pressure transmitter, monitors the set pressure values and times and creates error messages if critical operating conditions arise. It thereby protects the devices and machines located downstream in the production line.

The ability to select between several backflushing programs means that efficient cleaning with a minimum backflushing volume and long service life can be achieved.

All parameters on the MANN AutoFluid can be individually set in order to adapt to the respective operating conditions and requirements regarding the concentration, type, form and density of the dirt and the fractional distribution and viscosity of the medium to be filtered.

Filtration

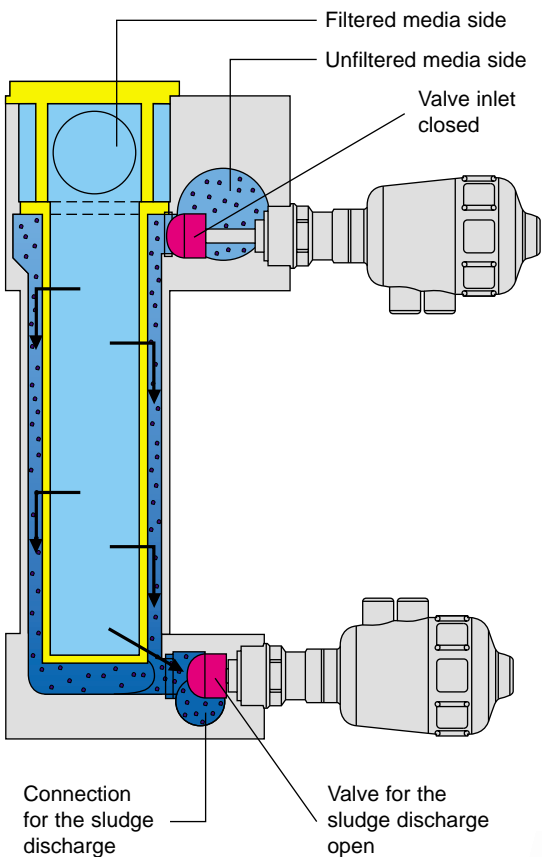
The medium to be cleaned flows in from the unfiltered media side into the housing and flows through the inserts from the outside to the inside. The coarse dirt particles held back either form a sediment in the lower part of the housing or a deposit on the surface of the inserts. The cleaned medium flows through to the filtered media side and out of the filter.

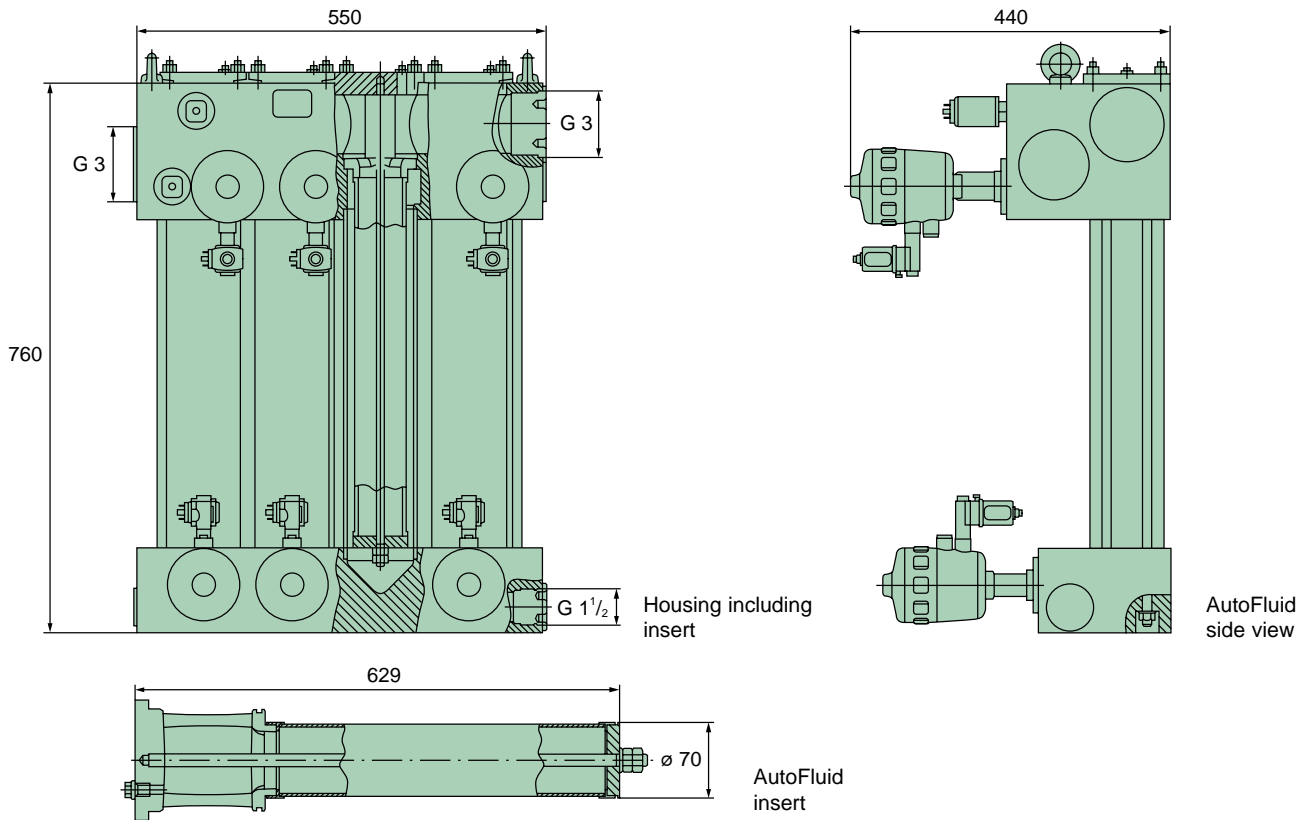


Backflushing

The dirt particles filtered out lead to an increase in the differential pressure. When the pre-set differential pressure is reached, all four inserts are backflushed one after the other without stopping the operation of the whole system. During this cleaning process the inlet in the respective insert is closed

and the sludge discharge valve is opened. As a result the insert is cleaned. After the cleaning of the first insert has taken place, the other three inserts are backflushed one after the other. When the backflushing cycle has ended the differential pressure in the filter has returned to its initial value.





Specifications and order numbers

| Complete filter | Order number | Material * |
|--|---------------|--------------------|
| Standard model 30 µm including control | 62 404 93 101 | Anodised aluminium |

* Other materials on request.

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|---|--|
| Gap widths | 10 µm, 20 µm, 30 µm, 50 µm, 75 µm, 100 µm (other gap widths on request) |
| Nominal flow rate (e.g.: water, gap width 30 µm, 25 °C) | 75 m³/h with 0.5 bar initial differential pressure 100 m³/h with 0.85 bar initial differential pressure |
| Connections | G 3 (unfiltered and filtered media side) G 1 1/2 (sludge outlet) |
| Backflushing | Integrated |
| Sludge outlet | Integrated |
| Permissible operating pressure | 10 bar |
| Differential pressure supervision | Integrated, adjustable |
| Pressure on the unfiltered media side | P1 = 1.5 - 10 bar |
| Permissible operating temperature | 80 °C |
| Materials | Aluminium (coatings on request), stainless steel |
| Pneumatic connection | G 1/4, 6 ±1 bar |
| Mains connection | 230 V AC, 50 Hz |
| Control | Integrated MANN+HUMMEL microcontroller |
| Backflushing medium | Own medium |
| Backflushing control | Time or differential pressure dependent |
| Version for explosive atmospheres | Optional |
| Filter configuration | For your filter system enquiry please use the filter configuration questionnaire on page 50. |