



ISO 9001

ATEX

PED



HiFlux Filtration A/S

AUTO-LINE®

LINEAR AND ROTATING TYPE

AUTOMATIC SELF-CLEANING LIQUID FILTERS

HiFlux Auto-line® is designed as a compact self-cleaning filter

Its robust construction makes it suitable for industrial applications where reliability and continuous operation are essential. The area of application is broad and includes filtration of many different types of liquid, such as highly viscous liquids, paint & varnish, polymer suspensions, emulsions, process water and waste water, where effective pre- or final filtration in the 30-2000 µm range is required.

Reduction in operational costs

The Auto-line® continuously removes unwanted particles. This means that consumption of conventional filter bags or cartridges, including the time spent changing them, can be substantially reduced or eliminated altogether. As a result, operating costs are reduced and the need to handle problem waste in the form of filter cartridges or bags is minimized.

Function

The filtration principle is based on a filter strainer, with the solid particles being retained on the inside of the filter element. In the cleaning process, a vertical or a rotating scraper scrapes the solids into a sludge chamber in the bottom of the filter. The chamber is designed in such a way that a high concentration of solids can be retained before purging. The scraping action is activated either automatically by differential pressure across the filter or at fixed time intervals. The concentrated slurry is drained at appropriate intervals through the discharge valve at the bottom of the filter. Drainage is controlled individually by an electrically or pneumatically operated control system, which means that product loss is kept at an absolute minimum. Drainage in batch processes may also be controlled manually in cases where it is only required at the end of the batch.

Operation

On a linear type filter, the plunger movement is actuated with a pneumatic cylinder. The pneumatic cylinder can be equipped with an extended piston rod (E-models), in order to avoid that any part of the piston rod comes into contact with the media as well as the inside of the pneumatic cylinder.

The rotating type filter may be supplied either with an electric drive motor - the R-E type, or a pneumatic drive motor type R-P.



Linear scraping system



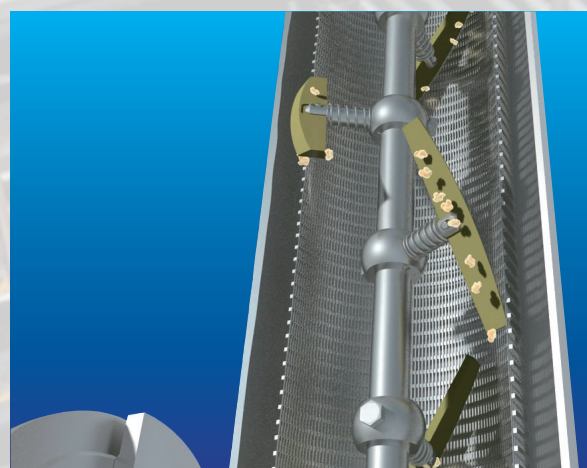
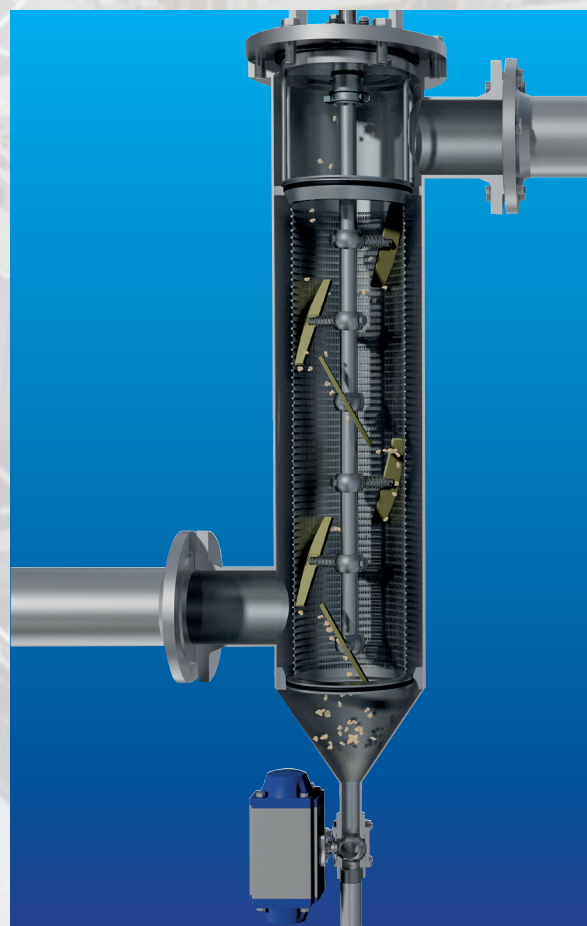
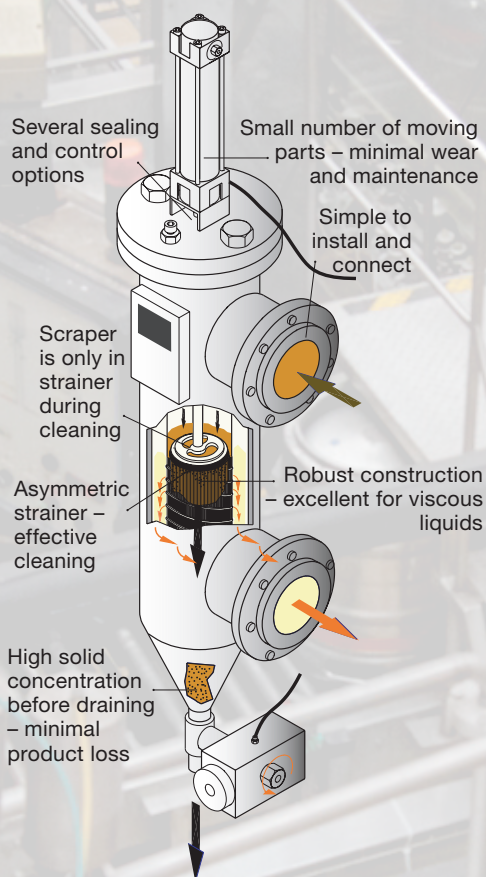
Rotating scraping system

AUTO-LINE® linear and rotating type self-cleaning filters

Which filter where?

Selection of the linear or rotating cleaning principle depends on several factors like product type, flow, viscosity, temperature and dirt rate, which will be evaluated closely by our specialists for each specific application.

For most applications the linear cleaning principle has proven to perform excellently. For applications with high dirt rates, the rotating cleaning principle is recommended. In continuous operation, the rotating scrapers ensure that the filter has a very high dirt removal capacity due to the frequent scraping of the surface.

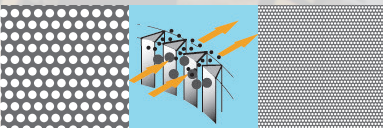


SPECIFICATIONS AUTO-LINE	M/ME	ML/MLE	L/LE	XL/XLE	XXL/XXLE
SPECIFICATIONS AUTO-LINE R	n/a	MLR-P/E	LR-P/E	XLR-P/E	XXLR-E
Capacity (1 cSt, ΔP 0.2 bar, 100 μm)	27 m³/h	44 m³/h	63 m³/h	100 m³/h	223 m³/h
Filtration area	860 cm²	1500 cm²	2175 cm²	3300 cm²	4840 cm²
Filter volume	6 liters	15 liters	27 liters	35 liters	89 liters
Connections inlet/outlet	DN50	DN65	DN80	DN100	DN150

As standard, Auto-line® filters are made of acid-proof stainless steel EN1.4404 (AISI 316L), and designed for a system pressure up to 16 bar, a working temperature up to 150°C and a differential pressure of 7 bar. Flange connections acc. to EN1092-1/11 are standard, other connections can be supplied upon request. Higher system pressure and working temperature on request.

Screen options

A wide range of perforated, wedge wire and laser bore (defined pore) filter elements, with grades from 30 to 2000 µm are available. This makes it easy to adapt the filter exactly to each particular application. By adjusting the set values on the electronic controller, hard, soft and fragile solids can be retained.



Retention	Perforated	Wedge wire	Laser bore
30 µm		✓	
35 µm			✓
50 µm		✓	✓
100 µm		✓	✓
150 µm		✓	✓
200 µm		✓	✓
300 µm		✓	✓
500 µm	✓	✓	
1000 µm	✓	✓	
2000 µm	✓	✓	



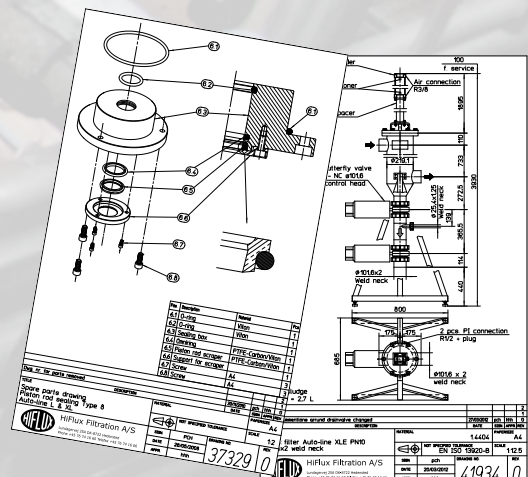
Controller options

Depending on application and customer requirement, a wide range of control options are available: fully electronic ΔP control, timer based or continuous oscillating activation of the scraping function are just some of the available options.



Customized solutions

HiFlux Filtration A/S has developed a wide range of options to adapt their Auto-Line® series filters to the specific application and its demands. HiFlux Filtration A/S has designed and developed various sealing boxes, drain sluice systems, heating jackets, mobile filtration units, etc. HiFlux Filtration A/S offers flexibility and supplies filters designed and manufactured for each specific duty.



Increase your productivity & bottom line earnings

- ✓ Concentrates dirt particles in the drain before purging – reduces product loss and hazardous waste
- ✓ Closed system filtration – no manual handling, improved working environment, reduced operating costs when replacing bag filters, no foaming problems (as with vibration sieves)
- ✓ Filtration of hard particles, soft particles, fibers etc. – improved product quality
- ✓ Filter elements with large open area – high filtration capacity
- ✓ Continuous filtration process – No production stops
- ✓ Simple, robust and high quality design with few moveable parts – minimum maintenance required, easy and fast to service without need for external assistance – low maintenance costs
- ✓ Filtration of high temperature liquids, up to 300°C
- ✓ Filtration of highly viscous media, up to 60.000 cSt
- ✓ FOOD: designed for easy cleaning – reduce manual cleaning – reliable food safety
- ✓ FOOD: no ingress of foreign particles – fulfills hygienic requirements and ensures product quality
- ✓ ATEX filter design – can operate in EX areas
- ✓ Increase purge concentration even further by installation of a sluice drain system – reduce product loss and prevent pressure drop in the system
- ✓ Maintain a fixed temperature of your product by installation of a heating jacket – ensures the product stability

Rules and Regulations

HiFlux Filtration A/S Auto-Line® filters are designed acc. to the EC directive for pressure vessels PED 2014/68/EU, and can be supplied with approval to categories I, II, III or IV. Further, Auto-Line® filters can be supplied for use in explosive areas, category 2 (zone 1) and category 3 (zone 2), according to 2014/34/EU.

For any food application, HiFlux Filtration A/S designs hygienic self-cleaning Auto-Line® filters in accordance with EU regulation EC 1935/2004 (registered by the Danish Food Administration). Further HiFlux Filtration A/S can fulfil the FDA material certification requirements, and respect the European Hygienic Equipment Design Group (EHEDG) design recommendations.



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So, why choose a HiFlux Auto-Line® filter?

Because HiFlux Filtration A/S doesn't see an Auto-Line® filter as a commodity. Different customers, different applications and different demands, require different filter solutions. The Auto-line® filters are modular built, and offers the option of switching between the rotating and the linear cleaning principle, as well as a wide range of sealing boxes and control options. It is the open-minded approach combined with 50 years of filtration experience and thinking in solutions, which is the base of designing high performance filters for satisfied customers, worldwide. HiFlux Filtration A/S increases your productivity & bottom line earnings.

AUTO-LINE® linear and rotating type self-cleaning filters

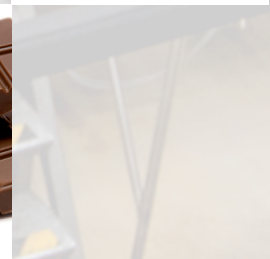
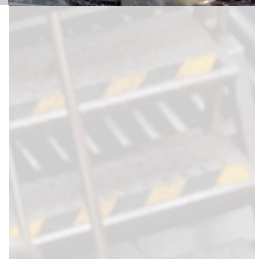
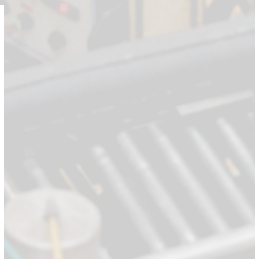
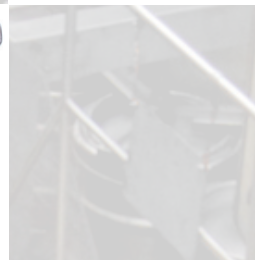
Widely applicable

Auto-line® filters can be used in almost any filtration process, including:

- Cooling water • Gel particles
- Emulsion • Poly- and monomers
- Waste water • Process water
- Oils and grease • Cooling lubricants
- Tea and coffee extracts • Whey • Brine
- District heating water • Adhesives
- Paint & varnish • Inks
- Antibiotics • Pigments
- Starch • Resins • Thermic oils

Typical markets

- ✓ Dairy
- ✓ Food & Beverage
- ✓ Paint & coatings
- ✓ Chemical
- ✓ Petrochemical
- ✓ Ethanol and Biofuels
- ✓ Pharmaceutical
- ✓ Industrial and Municipal Water
- ✓ Manufacturing
- ✓ Pulp and Paper
- ✓ Power generation



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QA System ISO 9001

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