



ISO 9001

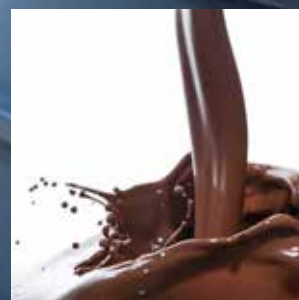
ATEX

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HiFlux Filtration A/S

AUTO-LINE® HYGIENIC SELF-CLEANING FILTERS FOR IMPROVED PRODUCTIVITY AND HYGIENE IN THE FOOD INDUSTRY



**Compliance with EC1935/2004 for materials with food contact,
registered by the national Danish Food Administration.**



Auto-line® MLR-E for filtration of melt cheese



Filter housing polished to Ra 0,8 micron

Food industry demands

When it comes to food production, there is an ever increasing demand for hygienic solutions from the industry. At HiFlux Filtration A/S we designed the first Auto-line® Hygienic Filters more than a decade ago, and it is today the renowned standard liquid filtration solution in many food processing industries, like dairy, cheese, chocolate, honey, beer, sugar, starch, gelatine etc.

Hygienic design

The HiFlux Auto-line® Hygienic Filter is designed with respect to the hygienic design recommendations by the European Hygienic Equipment Design Group (EHEDG), ensuring a hygienic (sanitary) filter design which prevents bacteria build-up and is easy to clean, while reducing labor costs and down time. It complies to the regulation EC1935/2004 and FDA standards for polymers and elastomers with food contact. HiFlux Filtration A/S is registered by the Danish Food Administration.

Easy to clean

The design is CIP-friendly with a minimum of crevices and dead space, ensuring that the filter is easily cleaned between batches. The result is reliable food safety while avoiding manual cleaning and reducing labor costs. All food contact surfaces of the filter housing are polished to Ra 0.8 micron as standard, providing superior finish.

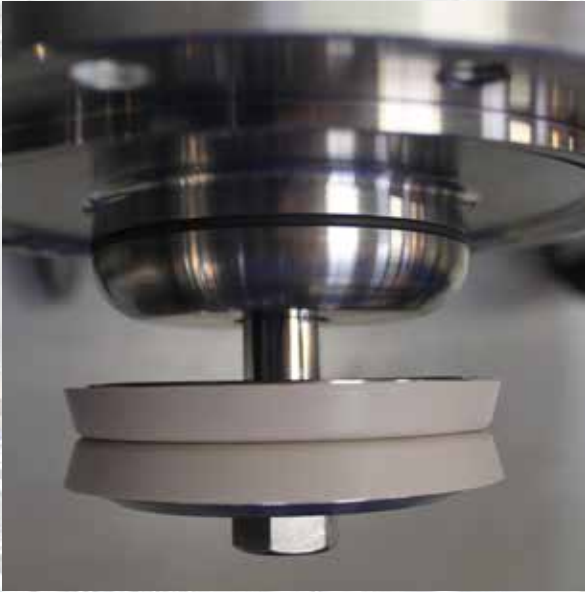
Closed system

The HiFlux Auto-line® Hygienic Filter is designed as a compact self-cleaning liquid filter. Its robust construction makes it suitable for process conditions where reliability and continuous operation are essential. The closed system prevents ingress of any foreign particles, safeguarding product quality and food safety.

Plant problems that Auto-line® filters can solve:

- Plant stops due to blocked strainer or bag filters
- Impurities in the final product
- Batch rejection due to burst filter bag
- Clogged up UF and RO filters
- Too high costs for waste removal (filter bags)

AUTO-LINE® Hygienic Filters for the food industry



Hygienic sealing box and double scraper system

Hygienic sealing box design

Modular designed sealing boxes with O-rings in EPDM, Viton or other EC 1935/2004 compliant elastomer.

Rotating scraper systems with PEEK scraper knives. Linear scraper systems with single or double acting PEEK scrapers.

Extended cylinder

In applications where the linear cleaning principle is recommended, we apply an extended pneumatic cylinder. The benefit of this design is, that the piston rod doesn't have contact with the media in the filter housing and then retracts into the pneumatic cylinder. This eliminates any cross contamination and bacteria build-up in the pneumatic cylinder, for maximum food safety.



Auto-line XXLE police filter for condensate filtration before UF/RO installation



Auto-line® LE for filtration of whey in a cheese factory

Sluice system

The optional sluice purge system featuring 2 drain valves, makes it possible to reduce media loss and to prevent pressure drops in the system. This increases productivity and control of the production process.



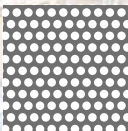
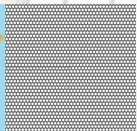
Auto-line® LE for filtration of chocolate

Heating jacket

With the optional heating jacket it is possible to maintain a fixed temperature of the media, ensuring product quality and required process flow during filtration.

Screen options

A wide range of perforated, wedge wire and laser bore (defined pore) filter elements, with grades from 30 to 2000 microns 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. Filter elements are designed for a differential pressure over the filter of 3, 5 or 7 bar.

			
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	✓	✓	



Laser bore filter element in hygienic design

As standard, Auto-line® Hygienic Filters are made from acid-proof stainless steel EN 1.4404, and designed for a system pressure of 10 bar and a working temperature of 110°C. As inlet/outlet connections, weld ends and sanitary couplings acc. to DIN 11850 and 11851 are standard. Other connections can be supplied upon request.

SPECIFICATIONS AUTO-LINE®	ME	MLE	LE	XLE	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

Customized solutions

The engineering department at HiFlux Filtration A/S is able to combine a wide range of standard Auto-line® product features with customized solutions suitable for any specific filtration application.

Test filters

HiFlux Filtration A/S offers a range of standard Auto-line® filters and filter elements for onsite testing. Before and during the test period we will offer you our professional advice and support.

Food safety, increased productivity and better bottom line earnings

- Hygienic design = increased product quality and food safety
- Comply to the EC1935/2004 EU 10/2011 and FDA standards for polymers and elastomers with food contact = reliable food safety
- Designed with respect to the hygienic design recommendations by the European Hygienic Equipment Design Group (EHEDG) = best possible hygienic filter design = improved food safety
- CIP friendly design = high degree of certainty that filter is clean after CIP = avoid manual cleaning = reduced labor costs and reliable food safety
- Closed system = save 1 pump compared to vibration sieve = lower investment and reduced operating costs
- Closed system = no ingress of foreign particles in the system = fulfill hygienic demands
- Laser bore filter insert in CIP-friendly design = accurate, defined pore filtration, also for soft/gelly particles = high filtrate quality



Auto-line® XLE for filtration of curd particles from whey after cheese forming



2 pcs. Auto-line® XLE for filtration of brine from brine bath in hard cheese production facility

AUTO-LINE® Hygienic Filters for the food industry

Areas of application

The area of application is broad and includes the filtration or homogenization of many different types of food.

Dairy & cheese industry

- ✓ Whey
- ✓ Brine
- ✓ Cheese curd
- ✓ Washing water cheese forms
- ✓ Condensate
- ✓ Lactose
- ✓ Cream cheese
- ✓ Melt cheese
- ✓ Rework cheese
- ✓ CIP liquids

Other food & beverages

- ✓ Chocolate & chocolate rework
- ✓ Honey
- ✓ Sugar juice (syrup, glucose)
- ✓ Gelatine
- ✓ Starch
- ✓ Fat
- ✓ Thickening agents
- ✓ Lecithin
- ✓ Hot frying oil
- ✓ Beer (beer wort, yeast, hops)
- ✓ Soft drinks
- ✓ Coffee extract



Auto-line® LR-E for filtration of gelatine water



2 pcs. Auto-line® XXL-R-E for filtration of syrup from sugar beets



HiFlux Filtration A/S

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