

30 - 1000 micron

HiFlux Auto-line filters are designed as compact self-cleaning automatic filters made from stainless acid-proof EN 1.4404 steel with a wide range of applications. The robust construction of the filter makes it suitable for cleaning practically all liquids, including paint, lacquer, lubricating oil, bitumen, HFO, grease, paint, toothpaste, water, fermentation liquids, petrol, syrup, condensate, CIP liquids, antibiotic suspensions, many types of waste water etc.

The filter is used when an automatic continuous cleaning process is required. As the impurities are being concentrated in the filter until it is drained away while the filter is still in operation the liquid loss due to cleaning is minimal.

The filtration principle is based on filter elements, with the dirt particles being retained on the inside surface of the filter element.

In the cleaning process the dirt is scraped into a sludge chamber from where it is drained away from the filter at appropriate intervals. This results in a defined and absolute cleaning of the filter.

Drainage is controlled individually, which means that the loss of medium is reduced to an absolute minimum in connection with sludge removal.

When cleaning a number of knives scrape the surface of the filter element leading the sludge into the sludge chamber in the bottom of the filter. The principle is that of a rotating screw. This principle means that the filter gains a large dirt capacity due to frequently scraping. The flow through the filter is continuous during the scraping period which means that the filter can work continuously and the flow is not interrupted.

Drainage of the filter takes place through the bottom valve which can be set to be activated after a certain period of time. This results in the sludge being concentrated before it is pushed out of the filter. Hence the product loss is reduced to a minimum.

Draining usually takes place within a period of 1 - 3 seconds where a minor fall of pressure can occur. The flow in the filter will only be reduced by about 5 - 10% during the short period the drainage takes place.

The filter is available as R-E version where the scraping process is driven by a gear-motor or as the R-P version, where the scraping process is driven by a pneumatic actuator.

In the design of the filter importance has been attached to making the construction robust and reliable. By limiting the number of moving components, wear and maintenance requirements are minimized. The simple construction makes the filter very easy to service hence there is no need for external service assistance or special tools. Furthermore the compact design of the filter is making it suitable for situations where the height is a limitation.

For other possibilities see **Auto-line Automatic Filters, KS and AKS 137 filters.**

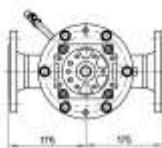
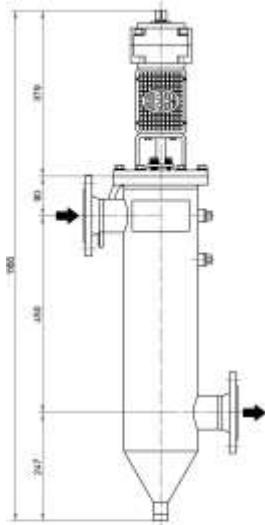




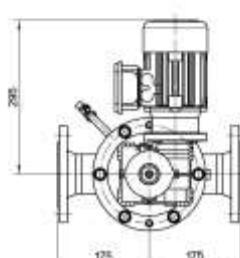
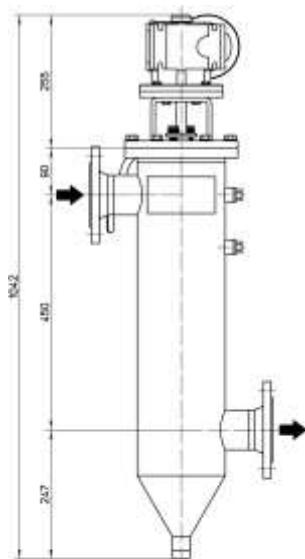
**HiFlux Filtration A/S**

# Auto-line<sup>®</sup> MLR

## MLR-P



## MLR-E



HiFlux Auto-line filters are manufactured from stainless acid-proof EN 1.4404 steel. The filter meets current standards and norms for pressure vessels, complies with the EMC directive and is CE labelled. The MLR-E filter is available ready for installation, complete with electronic controller and automatic drainvalve. In addition, the MLR-P filter is available with or without pneumatic controller.

Design pressure:

16 bar

Test pressure:

According to EN 13445

Max differential pressure:

3,0 bar

Max working temperature:

150°C (Fluid grp. 2 and steam pre.  $\leq$  0,5 bar)

Volume:

15 litres

Weight:

55 kg

Power supply (for R-E version):

3 x 230/400V, 50 Hz

Air supply (for R-P version):

5-7 bar, filtered

Flange connection:

DN65 EN 1092-1/11

Drain:

Rp1 (Rp1 $\frac{1}{2}$ , Rp2)

Sludgechamber volume:

0,9 litres

Filtration:

30-50-100-150-200-300-500-1000 micron

Special versions can be supplied according to customer requirements - typically other temperature and/or pressure levels.

### Capacity

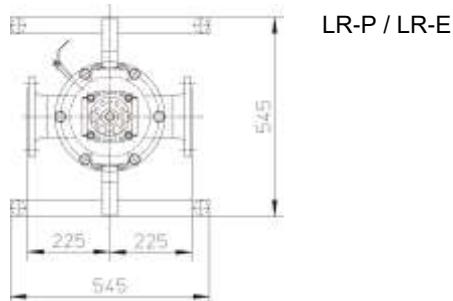
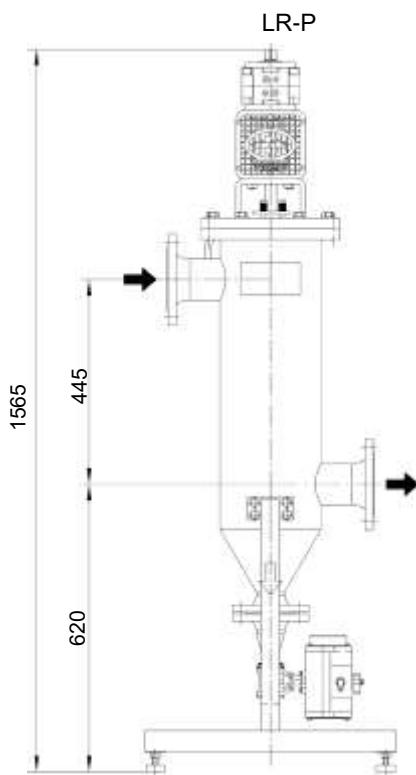
(at a viscosity of 1 cSt and  
as a pressure filter)

Diff. pressure	cm <sup>2</sup>	Capacity in m <sup>3</sup> /h / micron							
		30	50	100	150	200	300	500	1000
<b>0,05</b>	1500	12,0	14,0	22,0	24,0	24,0	24,0	24,0	24,0
<b>0,10</b>	1500	15,0	18,0	28,0	31,0	31,0	31,0	31,0	31,0
<b>0,15</b>	1500	19,0	23,0	36,0	37,0	39,0	39,0	39,0	39,0
<b>0,20</b>	1500	24,0	27,0	44,0	45,0	47,0	47,0	47,0	47,0

The filter should only be installed as a pressure filter in systems which have a positive overpressure (the surroundings must be taken into consideration).

All Auto-line filters are standardly produced according to the pressure equipment directive 97/23/EC article 3, section 3, but can be delivered with approval according to category I, II, III or IV.

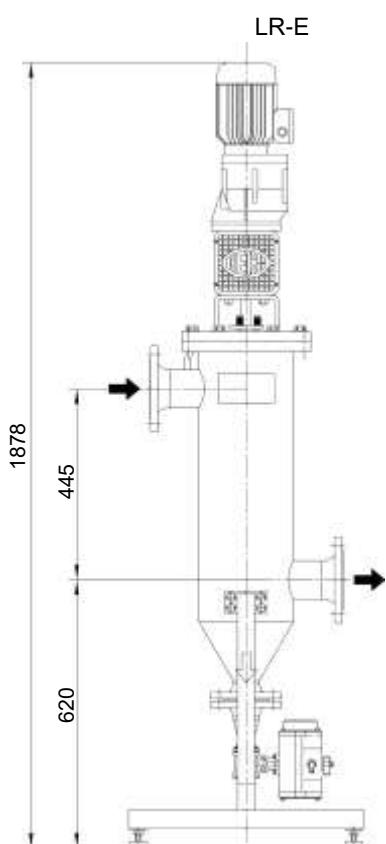
Auto-line filters can be delivered with approval for use in explosive atmospheres (zone 1/21) according to directive 94/9/EC.



HiFlux Auto-line filters are manufactured from stainless acid-proof EN 1.4404 steel. The filter meets current standards and norms for pressure vessels, complies with the EMC directive and is CE labelled. The LR-E filter is available ready for installation, complete with electronic controller and automatic drainvalve. In addition, the LR-P filter is available with or without pneumatic controller.

Design pressure:	16 bar
Test pressure:	According to EN 13445
Max differential pressure:	3,0 bar
Max working temperature:	150°C (Fluid grp. 2 and steam pre. $\leq$ 0,5 bar)
Volume:	27 litres
Weight:	85 kg
Power supply (for R-E version):	3 x 230/400V, 50 Hz
Air supply (for R-P version):	5-7 bar, filtered
Flange connection:	DN80 EN 1092-1/11
Drain:	Rp1 (Rp1 $\frac{1}{2}$ , Rp2)
Sludgechamber volume:	2,1 litres
Filtration:	30-50-100-150-200-300-500-1000 micron

Special versions can be supplied according to customer requirements - typically other temperature and/or pressure levels.



## Capacity

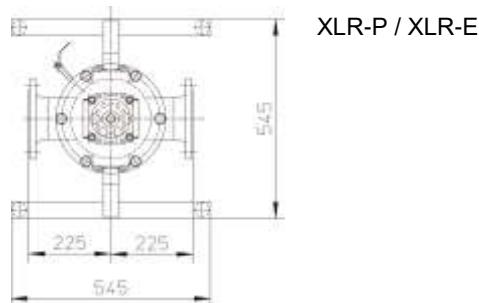
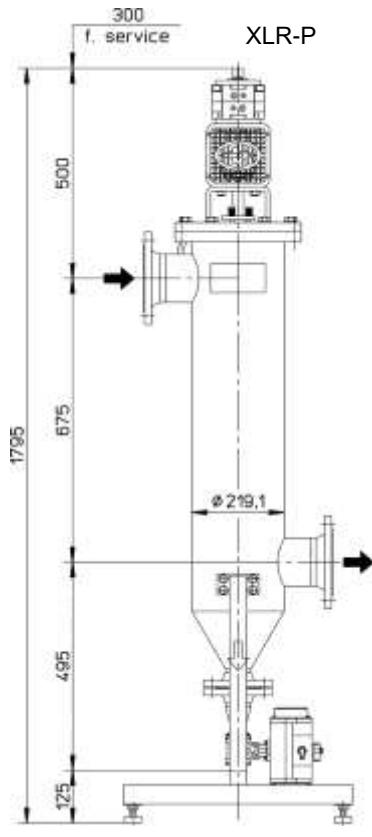
**Capacity**  
(at a viscosity of 1 cSt and  
as a pressure filter)

Strainer area			Capacity in m³/h / micron						
Diff. pressure	cm²	30	50	100	150	200	300	500	1000
<b>0,05</b>	2175	20	22	36	39	39	39	39	39
<b>0,10</b>	2175	29	33	48	48	48	48	48	48
<b>0,15</b>	2175	34	40	55	58	58	60	60	60
<b>0,20</b>	2175	37	45	63	66	66	66	66	66

The filter should only be installed as a pressure filter in systems which have a positive overpressure (the surroundings must be taken into consideration).

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Auto-line filters can be delivered with approval for use in explosive atmospheres (zone 1/21) according to directive 94/9/EC.



The technical drawing illustrates the XLR-E pump unit. At the top, a horizontal line indicates a total height of 300 mm from the base to the top of the pump body. A vertical dimension of 760 mm is shown from the base to the center of the vertical pipe. The vertical pipe has a diameter of Ø 219,1 mm at the top section. A flange with a diameter of Ø 630 mm is located 495 mm above the base. Below this flange, there is a vertical pipe section with a diameter of Ø 125 mm. A small pump unit is mounted on the bottom of this vertical pipe. On the right side, an arrow points to the right, indicating the direction of flow.

HiFlux Auto-line filters are manufactured from stainless acid-proof EN 1.4404 steel. The filter meets current standards and norms for pressure vessels, complies with the EMC directive and is CE labelled. The XLR-E filter is available ready for installation, complete with electronic controller and automatic drain-valve. In addition, the XLR-P filter is available with or without pneumatic controller.

Design pressure:	16 bar
Test pressure:	According to EN 13445
Max differential pressure:	3,0 bar
Max working temperature:	150°C (Fluid grp. 2 and steam pre. $\leq$ 0,5 bar)
Volume:	35 litres
Weight:	95 kg
Power supply (for R-E version):	3 x 230/400V, 50 Hz
Air supply (for R-P version):	5-7 bar, filtered
Flange connection:	DN100 EN1092-1/11
Drain:	Rp1 Rp1½, Rp2
Sludgechamber volume:	2,1 litres
Filtration:	30-50-100-150-200-300-500-1000 micron

Special versions can be supplied according to customer requirements - typically other temperature and/or pressure levels.

## Capacity

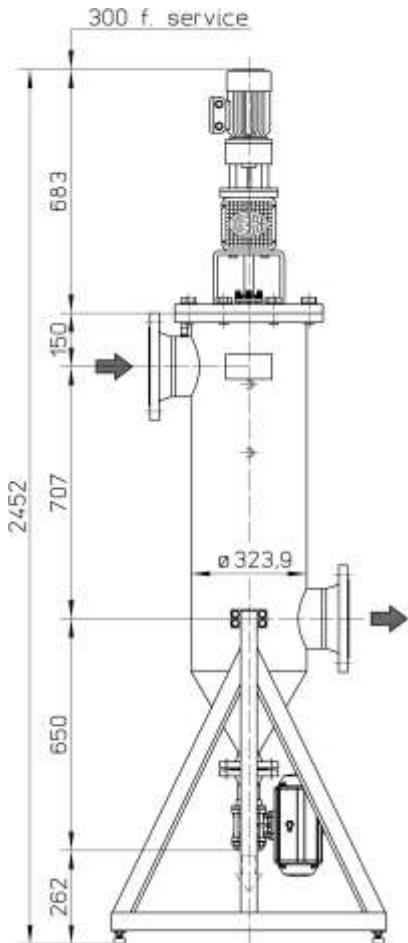
(at a viscosity of 1 cSt and  
as a pressure filter)

Strainer area			Capacity in m³/h / micron						
Diff. pressure	cm²	30	50	100	150	200	300	500	1000
<b>0,05</b>	3300	27	30	50	54	54	54	54	54
<b>0,10</b>	3300	39	44	68	72	72	72	72	72
<b>0,15</b>	3300	47	54	84	88	90	90	90	90
<b>0,20</b>	3300	52	62	100	105	110	110	110	110

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Auto-line filters can be delivered with approval for use in explosive atmospheres (zone 1/21) according to directive 94/9/EC.



HiFlux Auto-line filters are manufactured from stainless acid-proof EN 1.4404 steel. The filter meets current standards and norms for pressure vessels, complies with the EMC directive and is CE labelled. The XLR-E filter is available ready for installation, complete with electronic controller and automatic drain-valve. In addition, the XLR-P filter is available with or without pneumatic controller.

Design pressure:	16 bar
Test pressure:	According to EN 13445
Max differential pressure:	3,0 bar
Max working temperature:	150°C (Fluid grp. 2 and steam pre. $\leq$ 0,5 bar)
Volume:	89 litres
Weight:	200 kg
Power supply (for R-E version):	3 x 230/400V, 50 Hz
Air supply (for R-P version):	5-7 bar, filtered
Flange connection:	DN150 EN1092-1/11
Drain:	Rp2 or DN50 EN1092-1/11
Sludgechamber volume:	6,3 litres
Filtration:	30-50-100-150-200-300-500-1000 micron

Special versions can be supplied according to customer requirements - typically other temperature and/or pressure levels.

#### Capacity (at a viscosity of 1 cSt and as a pressure filter)

Diff. pressure	cm <sup>2</sup>	Capacity in m <sup>3</sup> /h / micron						
		30	50	100	150	300	500	1000
<b>0,05</b>	4840	61	71	111	121	121	121	121
<b>0,10</b>	4840	80	93	144	157	157	157	157
<b>0,15</b>	4840	102	118	184	192	200	200	200
<b>0,20</b>	4840	124	143	223	233	243	243	243

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