HiFlux Filtration A/S

AKS-137 Automatic Filters

50 - 3000 micron / 25 - 100 m^3/h

Heco AKS-137 Automatic Filters are designed as compact self-cleaning automatic filters with many applications. The robust construction of the filter makes it suitable for cleaning practically all liquids, including tung oil, lubricating oil, bitumen, grease, paint, toothpaste, water, fermentation liquids, petrol, syrup, condensate, CIP liquids, antibiotic suspensions, etc.

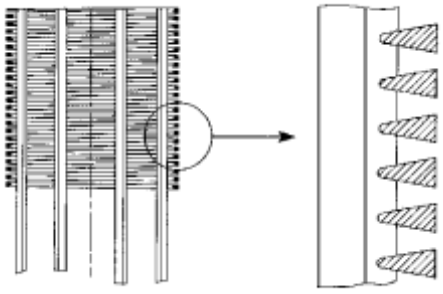
The filter is used where continuous operation without interruption in the flow is desired. The cleaning process is initiated automatically at a preset differential pressure, and the dirt is compressed in the filter until it is drained away.

The filtration principle is based on an asymmetric edge-gap element with the dirt particles being retained on the surface of the filter element.

In the cleaning cycle the filter insert rotates, making three fixed blades scrape the dirt off into a sludge chamber from where it is drained out of the filter at appropriate intervals. This results in defined absolute cleaning of the filter and controlled drainage.

The filter is operated by an integrated PLC which makes it possible to program the cleaning sequence individually and so adapt it to the task in question. Drainage is controlled individually, which means that the cleaning process is independent of drainage. This means that the loss of liquid is reduced to an absolute minimum.

As the cleaning process does not require the filter to be blocked off from the rest of the system, the flow in the filter will continue during the scraping process. This means that the filter can work continuously, and that the flow is not interrupted during the cleaning process.



The cleaning process is started when the preset differential pressure is reached on the filter strainer as a result of clogging of the filter surface. This differential pressure can be set freely by means of the PLC to be activated after a given number of scrapings. This means that the dirt is concentrated before it is pushed out of the filter, which reduces product loss significantly.

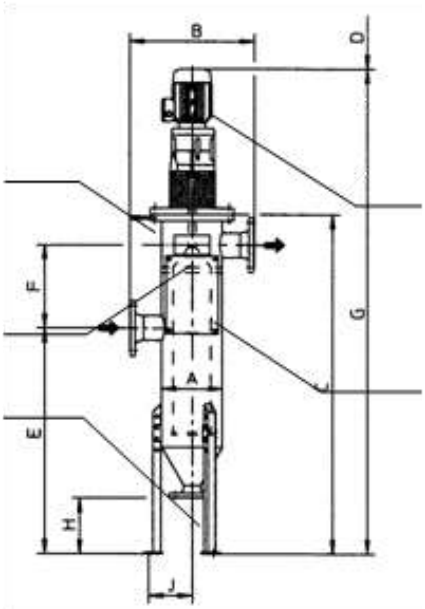
Normally drainage is carried out over a period of 1-3 seconds, during which time a minor drop in system pressure may occur. The liquid flow in the filter is only reduced by approximately 5-10% for the short interval in which drainage takes place.

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 minimised. The simple construction makes the filter so easy to service that there is no need for external assistance in this connection.

For other options see also **Auto-line, Auto-line R, KS-137** and **MKS-137** filters**.**

HiFlux Filtration A/S

AKS-137 Automatic Filters



Air vent

0,1 to 2,5 bar (8 bar)
differential pressure

Drain

Standard-dimensioned gear motor

Switch and PLC controller for differential pressure cleaning process and indepent controlling of the drain valve

Type	A	B	C	D	E	F	G	H	J	K	Drain	Air	Connection	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	DN	valve	DN	kg
AKS-137/80	219,1	450	1270	760	860	300	1840	250	157,5	250	50/80	G1/4B	80	123
AKS-137/100	219,1	450	1270	760	860	300	1840	250	157,5	250	50/80	G1/4B	100	125
AKS-137/125	219,1	450	1270	800	860	275	1840	250	157,5	250	50/90	G1/4B	125	130

Heco standard filters type AKS are supplied in stainless acid-proof steel EN 1.4404.
The filter element is fully welded in stainless acid-proof steel EN 1.4404.

Design pressure:	16 bar
Test pressure:	According to EN 13445
Max differential pressure:	2,5 bar (8 bar)
Max working temperature:	110° C (water) according to customers requirements
Flange connection:	EN 1092-1/11
Filtration:	50-100-130-250-500-1000-2000-3000 micron
Power supply:	3 x 230/400 V, 50 Hz
Air:	5-7 bar, filtered

The fully automatic self-cleaning AKS edge-gap filter consists of a complete filter with gear motor, motor protection, PLC control, two pressure transmitters, pneu-

Capacity:

	Capacity in m^3/h / micron					
Differential pressure clean	**AKS-137/80**	**AKS-137/100**		**AKS-137/125**		
	50 - 3000	**50 - 130**	**250 - 3000**	**50**	**100 - 130**	**250 - 3000**
0,05	25	30	35	45	50	50
0,10	41	52	63	62	74	74
0,15	55	65	82	85	90	92
0,20	66	85	95	93	100	107
0,30	83	105	120	118	125	132
0,40	97	125	140	138	142	150

The filter should be installed in systems which have an a positive pressure of at least 0.1

LENNTECH
info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289