

# Automag skid

Fully automated, self-contained magnetic filtration and fluid recovery system



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The Automag Skid is a self-contained, free-standing magnetic filtration system providing uninterrupted 24/7 magnetic filtration. The skid can be used in-line or, with the optional integral pump, off-line.

A patent-pending Automag self-purging magnetic filter\* removes magnetic and para-magnetic contamination, down to sub-micron size, from coolants and lubricants. The filter holds the contamination until it is released during the automated 'purge' process. This briefly diverts the filter's purged output so that fluid carries all the contamination to the buffer tank.

The buffer tank feeds the contaminated fluid to the high-intensity coolant roller.

The magnetic coolant roller removes the contamination from the fluid, putting clean fluid back into circulation. The contamination is extracted in a form ready for disposal or recycling.

\* Units can be supplied with a single filter, or double filters for duplex operation.

## Cut costs

- Eliminate disposal costs
- Extend the life of your fluids
- Extend the life of other filters

## Improve quality

- Increase workpiece accuracy
- Improve workpiece finish

## Reduce maintenance

- Reduce wear and tear of machinery

## Applications

- Grinding
- Honing
- Milling
- Fine finishing

## HOW IT WORKS

Contaminated fluid enters the inlet port where it is dispersed into the first filtration chamber. The fluid passes around the high-intensity 'rare earth' magnetic cores where contamination particles are removed. The fluid is slowed and enters the second filtration chamber where it receives further filtration.

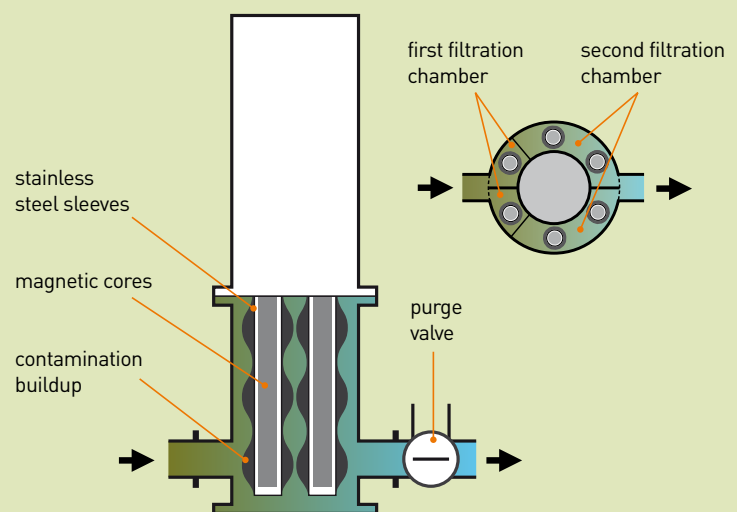
Contamination remains attached to the stainless steel sleeves of the cores. The filtered fluid exits through the outlet port.

The purging process is fully automated. The cores are raised from the sleeves and the purge valve is switched. Fluid is pumped through the filter, washing the contamination from the stainless steel sleeves and carrying it into the buffer tank.

The fluid is then slowed and passed onto the coolant roller. This purged fluid is highly contaminated. The flow rate and high magnetic strength of the roller ensure that contamination removal is extremely efficient.

The clean fluid is then re-circulated; the contamination is scraped from the roller and collected for disposal or recycling.

## In operation



Contamination is attracted to the sleeve of the cores. Cleaned fluid is circulated into the process.



**Automag magnetic filter**  
2-stage magnetic filtration, removes contamination down to sub-micron size. Automated cleaning process

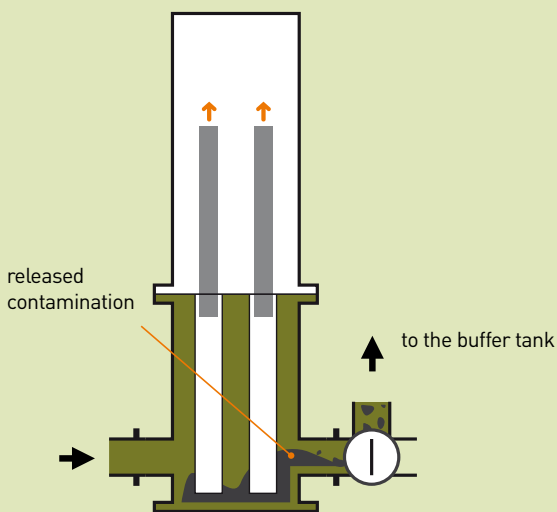
**Buffer tank**  
Provides a holding point for purged fluid and contamination before it is fed through the magnetic coolant roller

**Magnetic coolant roller**  
Separates contamination from the 'purge fluid'. Clean fluid is fed back into the system. Contamination is removed as semi-dry cake which can then be recycled

**Diverter valve**  
Automatically switched during the 'purge' process to send purged fluid and contamination to the buffer tank

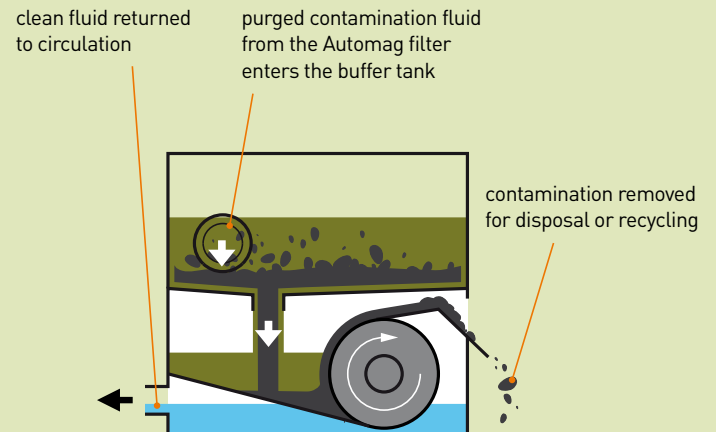
Photos show offline unit complete with integral pump

## Purging



Cleaning cycle: the magnetic cores are lifted from the sleeves and the purge valve is opened. Contamination is released and washed up into the buffer tank.

## Fluid recovery



Contaminated fluid is fed from the buffer tank onto the magnetic coolant roller. Contamination is attracted to the rotating roller, leaving clean fluid to be re-circulated. Contamination is removed from the roller by a scraper, ready for collection.

# Product data

Self contained filtration and fluid recovery system for higher flow, higher contamination applications. 24/7 automated operation.

Inline/offline filtration  
 Automatic self-cleaning filter (air operated)  
 Magnetic coolant roller for full recovery of fluid used in cleaning process  
 Temp. range: 5°C to 70°C (filter unit)



Automag filter unit	Number of cores	Maximum flow rate		Contamination capacity	Max. operating pressure
		Litres/min.	m <sup>3</sup> /hour		
AMC	8	200	12	2.5	10
AM6	6	450	27	7	10
AM12	12	900	54	14	10

Skids can be supplied with two filters to accommodate higher flow rates

## Dimensions in mm unless stated

Product number	W	L	H	D1	D2	D3	Flanges
AMCS1	900	900	1700	50 (2")	38 (1½")	38 (1½")	PN16
AM6S1	1000	1200	1300	75 (3")	50 (2")	50 (2")	PN16
AM12S1	1200	1400	1400	75 (3")	75 (3")	75 (3")	PN16

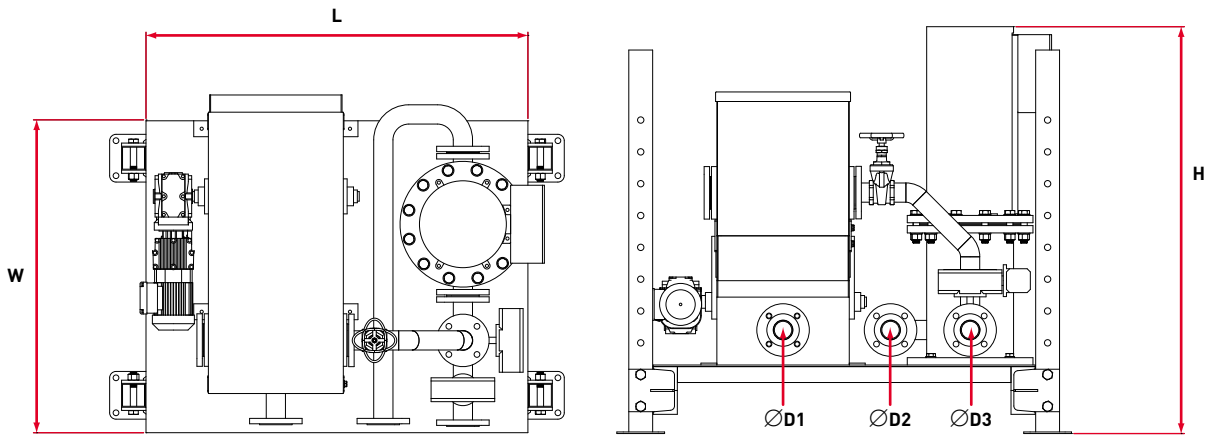


Diagram shows inline unit without integral pump

## Other Eclipse Magnetics filters



Compact, general purpose magnetic filter. Most machining applications.



Larger filter for higher contamination capacity and flow rates. Precision grinding machines and fine finishing operations. Arduous environments. Inline applications.



Automated self-cleaning filter requiring no user intervention. In-line or off-line applications. Purging actuated by machine control.

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While every effort has been made to ensure the accuracy of the information in this publication please note that specifications may change without notice.