



KAB

Sludge Filter

Applications

KAB has been developed for the purpose of removing particles caused by corrosion of heating/cooling applications. This system is designed specifically for use in new and existing installations and networks.

Principle

Iron oxide can easily be identified in an installation. It settles out in the form of black sludge and is made of dissolved iron precipitated as hydroxide.

This hydroxide releases hydrogen and turns into magnetised oxide Fe_3O_4 also called magnetite. The size (0.5μ) and density of this product do not allow for an efficient settlement or centrifugal separation.

KAB uses magnetic bars to remove these magnetised particles.

Working Principle

The water held in the pipework is bypassed through a set of multi-field magnetic bars.

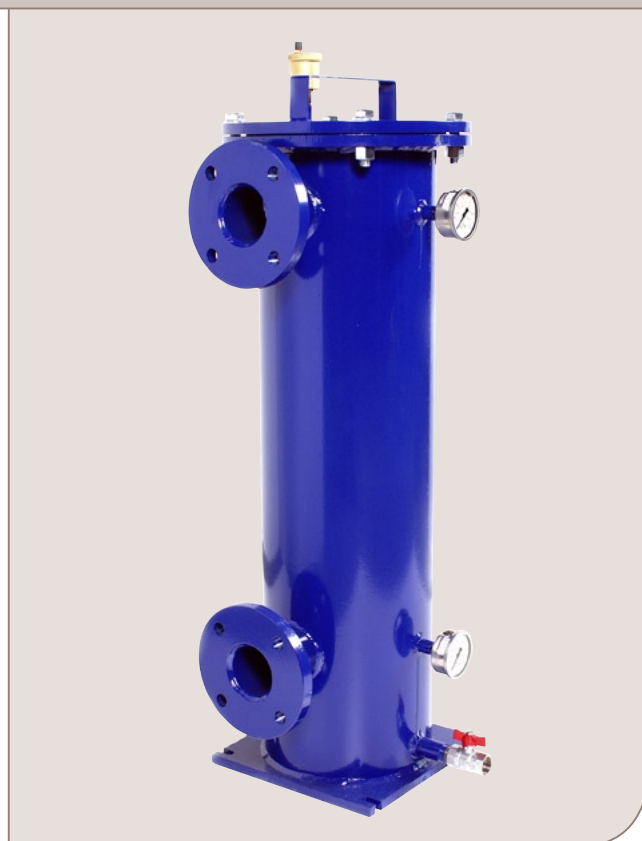
The low speed flow and the laminar flow enable KAB to retain 99.9% of magnetised particles of less than 0.5 micron.

The particles then agglomerate and form a deposit on the magnetic bars. This deposit then enables the trapping of the non-magnetised particles thanks to their position around the magnetic bars.

This results in the settling of particles in the installations and circulation of treated water. KAB will bypass 20% of the water flow of the installation and may operate 24 hours a day.

Advantages

- Compact and easy to install.
- Easily cleaned by simply wiping the magnetic bars.
- High efficiency enabling the treatment of particles of less than 0.5μ .
- No risk of leakage or heating/cooling shutdown during treatment
- With the optional isolating valve, minimal water loss while cleaning.
- It can be used as an injection cylinder when chemical treatment is required (ex: pH rectifier, oxygen reducer)



Options

50 μ m removable mesh strainer.

Feed pump to prevent disruption of an existing installation.

Isolating valve.

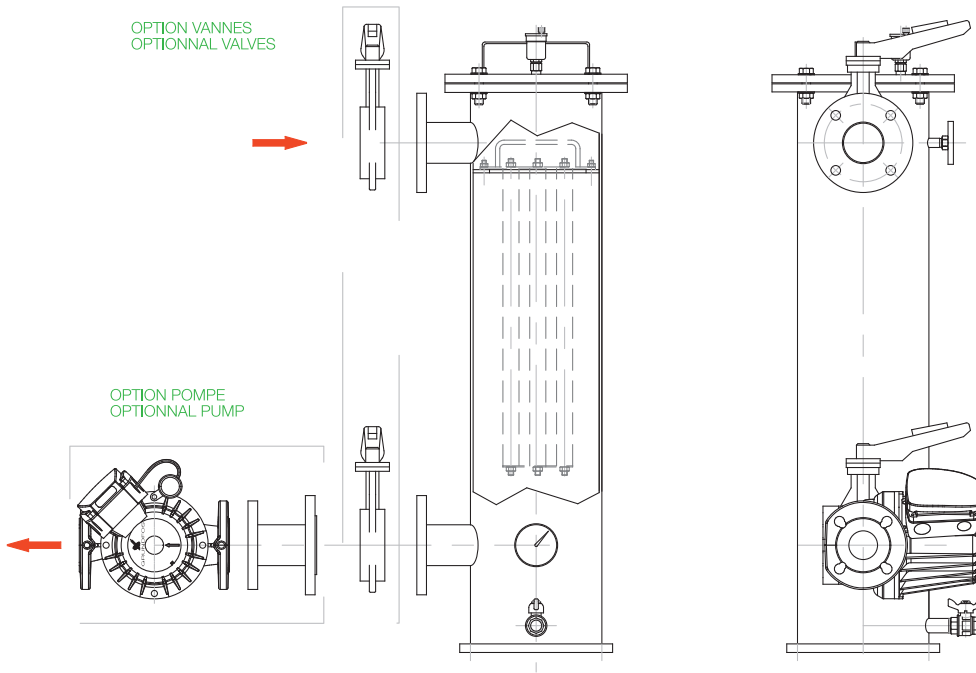
Description

KAB is made of a carbon steel cylindrical body with a tangential water inlet at the top. The water outlet is located at the bottom.

The multi-field magnetic bars are assembled radially in a gasket that can easily be removed for maintenance.

The shape and assembly of KAB creates a cyclonic effect where all the particles are driven to the magnetic bars and to the bottom of the body thanks to the rotational effect and gravity.

The magnetic bars will catch the magnetite whereas the non-magnetised particles will be trapped by settling.



Operating Limits:

	Water
Max. operating pressure	10 bar
Max. operating temperature	110°C

Description	Heat Load	Pipework content m ³	Flow Rate (m ³ /h)		Capacity Kg	Hydraulic connection	Net Weight	Article Number
	kW		Installation	KAB			Kg	
KAB03	350	5	15	3	0	1"	50	KAB0300
KAB07	820	10	35	7	1	DN65	90	KAB0700
KAB15	1750	25	75	15	2	DN65	105	KAB1500
KAB25	3000	40	125	25	4	DN65	120	KAB2500

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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval
 Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.