

# KAS<sup>®</sup>

## Automatic Gap-type Scraper-Filter

For continuous filtration without process interruption

PN 2,5–40  
 DN 25–300  
 ANSI 1–12"  
 DN 25–50 also  
 as G1–2"



ISO 9001:2015

## Applications

The self-cleaning automatic KAS<sup>®</sup> is a versatile self-cleaning, virtually maintenance-free filter for removal of particulate contaminants from highly polluted waters as well as other process fluids. It can separate particles from 50µm to 5 mm.

## Characteristics

- Continuous filtration without process interruption
- Also suitable for low flow rates
- Suitable for discontinuous & continuous operation
- Suitable for liquids with high viscosity
- Low flush volumes in the cleaning process without process interruption
- External connections for cleaning support possible (steam or solvents)

## Approvals

3.1. Certificate, DGRL / TÜV, GL, LS, DNV, ABS, TR TF / TR CU Certificates (EAC), ASME U-Stamp, CE.

CE conformity evaluation according 2014/68/EU and marking according the directive.



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 SOLUTIONS IN FILTRATION

## Brief description

The scraper filter system consists of a housing, filter element and a scraper. Optionally a geared motor, a filter control, drain valve and differential pressure gauge are also included.

The medium to be cleaned flows through the filter inlet into the housing and passes through the filter insert from outside to inside. The optional electronic control panel (or customer DCS) monitors the pending differential pressure over the filter by means of a differential pressure measuring device. A manual and a timer cleaning option are also available.

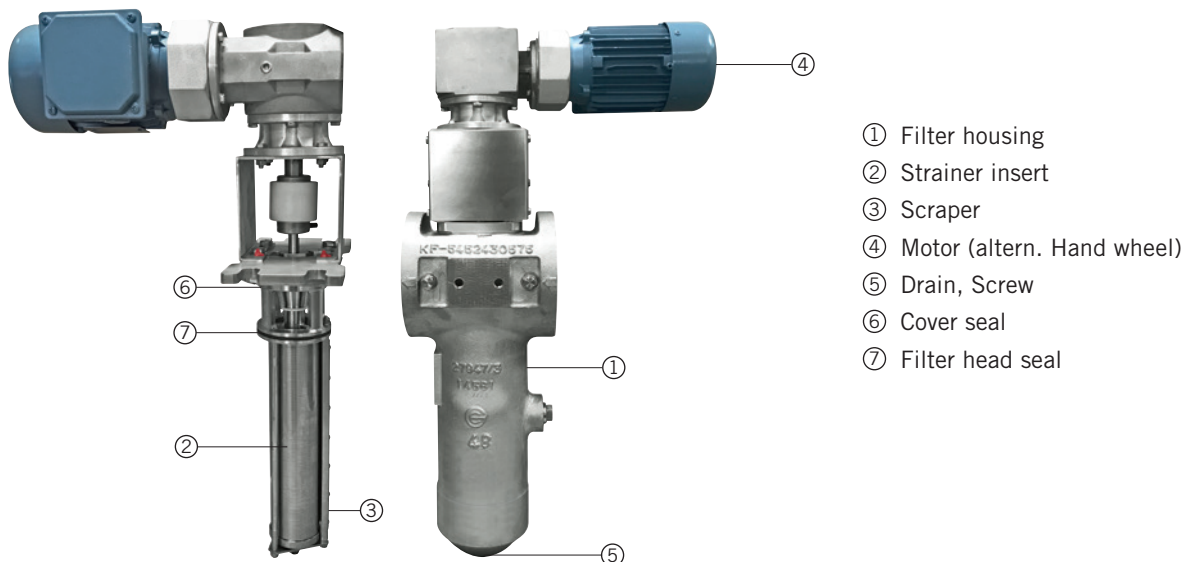
All impurities in the medium that are larger than the gap width are retained on the strainer insert surface. The coarser dirt particles sink into the lower conical part of the housing or form a filter cake on the strainer insert, which is removed by the scraper plate through the rotation of the filter element. The scraping can be done during operation timer based or be continuous. The opening of a purge valve (connected at POS 5) creates a pressure gradient to the working pressure, whereby the retained components are discharged.

## Cleaning

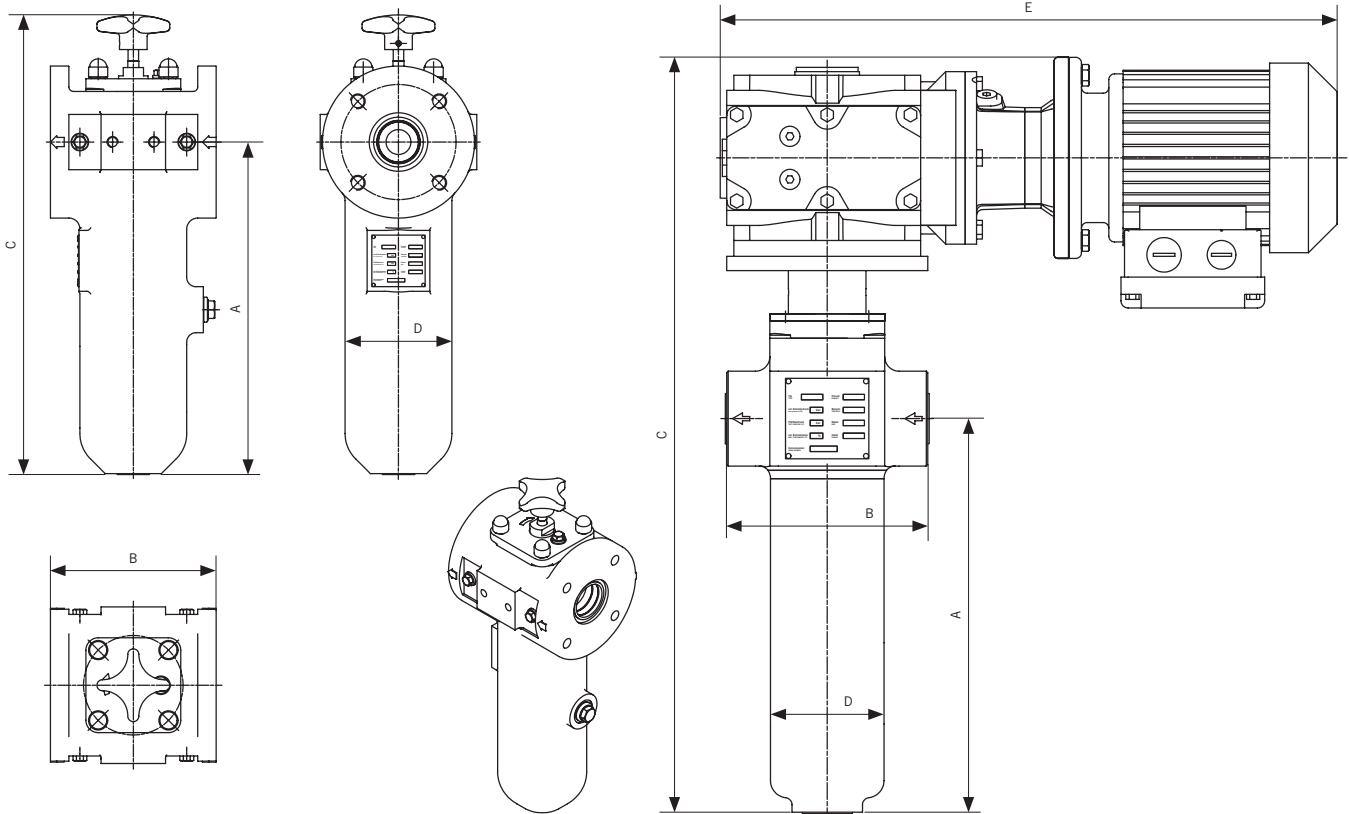
The retained particles form a layer on the screen, which creates a pressure loss. When the previously defined maximum differential pressure is reached, the cleaning process starts by a signal from the control unit or the control room. Depending on the operating conditions, with the control unit the cleaning can also be started manually by pressing a button, or by time control.

By turning the insert by hand or by the geared motor (option), the strainer insert is guided along the tightly fitting scrapers and the filter cake is scraped off. The filter cake sinks down in the housing (depending on the density) and is discharged due to a pressure gradient when the purge valve opens. The valve (optional) on the drain outlet can be opened and closed by a signal from the electronic control panel.

KAS®



# Technical data and dimensions



Pict. 1 KAS® with Hand Wheel (drawing without discharge valve)

Pict. 2 KAS® with Motor (drawing without discharge valve)

Nom. Diameter	Size	Version	Vessel design pressure	A	B	C	D	E	Max. Flow rate	Volume
				mm	mm	mm	mm	mm	m³/h	L
G1"	1	Motor	40	274	140	520	79	355	50 µm - 2,0	0,5
									100 µm - 4,5	
									200 µm - 5,0	
G1"	1	Hand wheel	40	274	140	276	79		50 µm - 2,0	0,5
									100 µm - 4,5	
									200 µm - 5,0	
DN 50/G2"	2	Motor	40	360	180	611	116	366	50 µm - 5,0	1
									100 µm - 10,0	
									200 µm - 15,0	
DN 50/G2"	2	Hand wheel	40	360	180	498	116		50 µm - 5,0	1
									100 µm - 10,0	
									200 µm - 15,0	
DN 32-80	3	Motor	40	1151	500	1813	273		50 µm - 50	31
									100 µm - 80	
									200 µm - 120	
DN 40-100	4	Motor	12	1415	640	2045	406.4		50 µm - 80	130
									100 µm - 100	
									200 µm - 150	

DN 125-300 Project specific design & dimensions

## Technical data

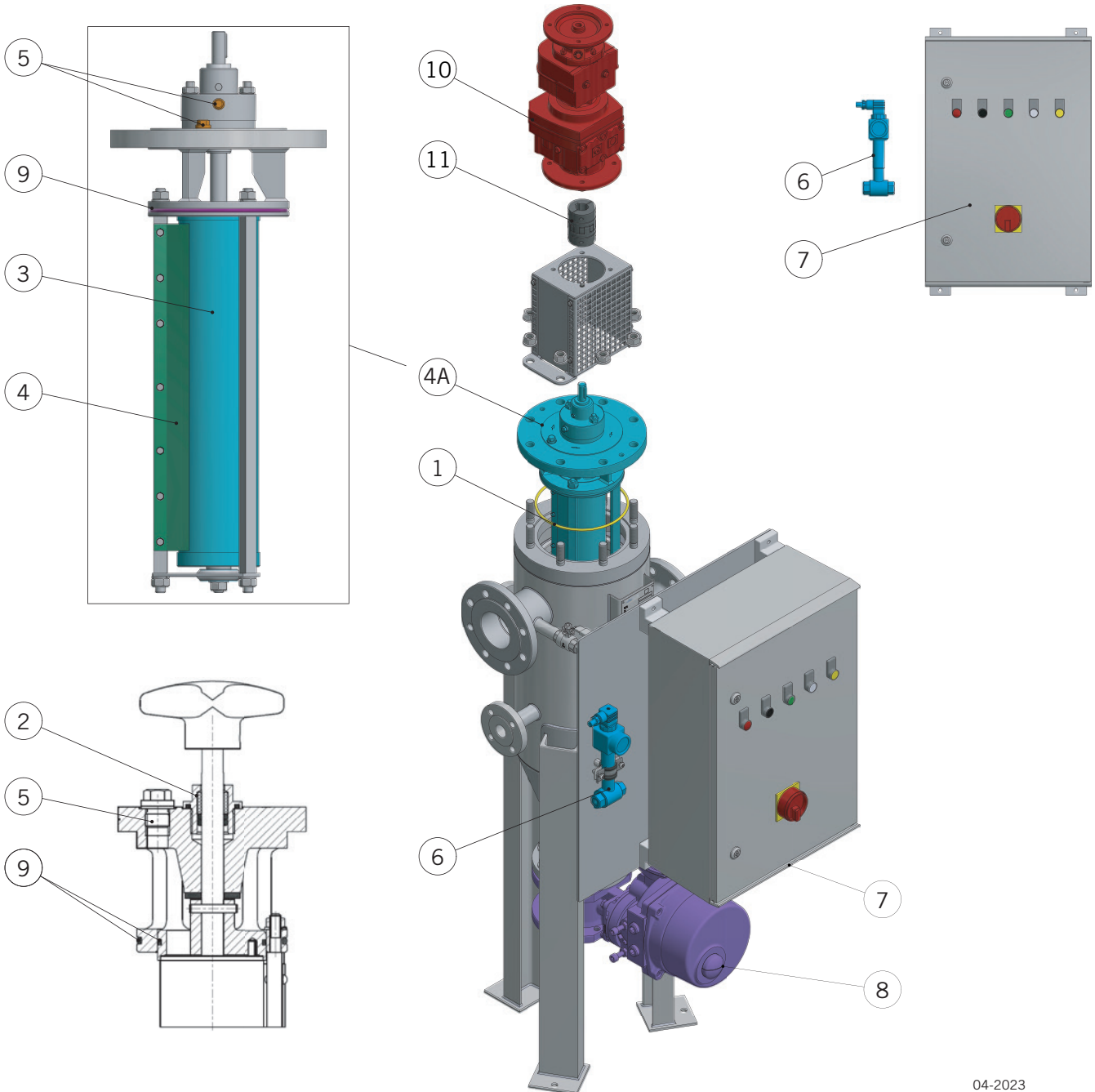
Technical data		
	Standard version	Special versions
Filter insert/ filtration degree	0,05–5 mm	–
Filter cover	Cover with hex bolts + nuts	Cover with tommy screws, wing nuts
Venting device	Plug	–
Draining device	Plug	Automatic valves
Connection	EN 1092-1 PN 10/16 or threaded socket G 1–2"	As specified by the customer/ANSI/JIS
<b>Materials</b>		
Housing		
1"	1.4404	1.4571
DN 50/2"	1.4581/1.4404	1.4571
>= DN 65	1.4571	Carbon Steel/Carbon Steel rubber lined
Seals	PTFE/FKM/FEP/VA	On request
Slot wedge wire strainer	1.4404	Super Duplex
Scraper	1.4404	On request
Discharge valve	1.4408	On request
<b>Version</b>		
Gear motor	230/400 V/50 Hz/3 Ph/protection class IP 55	–
Control	Separate/Not mounted with transformer 230/400 V/50 Hz Protection class IP 65, programmable	
Discharge valve	Ball valve, electric, 1.4541	
<b>Surface treatment</b>		
1"	n/a	–
DN 50/2"	n/a	–
>= DN 65	Pickled and passivated	Glass bead blasting

## Accessories

We produce and deliver additional designs and material variants on request.  
We solicit your request.



## KAS<sup>®</sup> spare part sets



04-2023

### KAF<sup>®</sup> spare part sets

Set	Content	Set	Content
1	Cover gasket	6	DPS
2	Spindle seal and bearing	7	Control unit
3	Insert	8	Sludge valve
4	Scraper	9	Insert gaskets
4A	Complete unit – Insert/Scraper/Cover	10	Motor
5	Screw plugs and gaskets	11	Coupling

# Overview of our Filter Types

## Self cleaning filter



- KAF® Self cleaning Bernoulli®-filter
- KAF-G
- KAF-S
- KRF Backflush-filter
- KAS Scraper filter

## Single filter



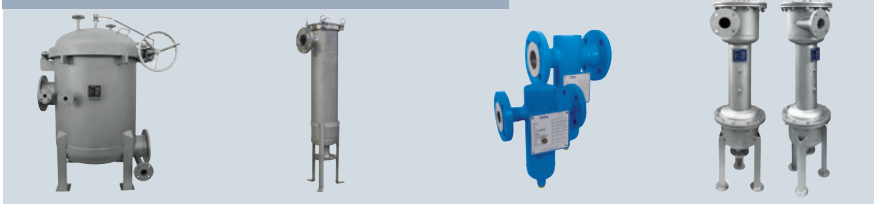
- KSF® Single basket filter (flanged)
- KMF Threaded basket filter
- KWF Welded/custom made basket filter
- KWF-Inline Inlet flange and outlet flange inline

## Duplex filter



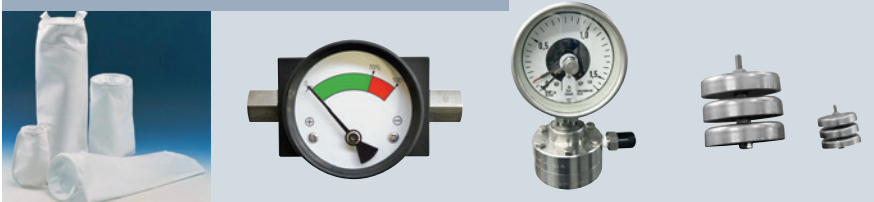
- KDF-K Duplex filter
- KDF-V Valve switch duplex filter
- KDF-VB Butterfly valve switch filter
- KDF-W Duplex filter

## Other filter solutions



- KBF Bag filter
- KBF-M Multi-Bag filter
- KOW Oil and water separator
- KCS Centrifugal separator

## Accessoires

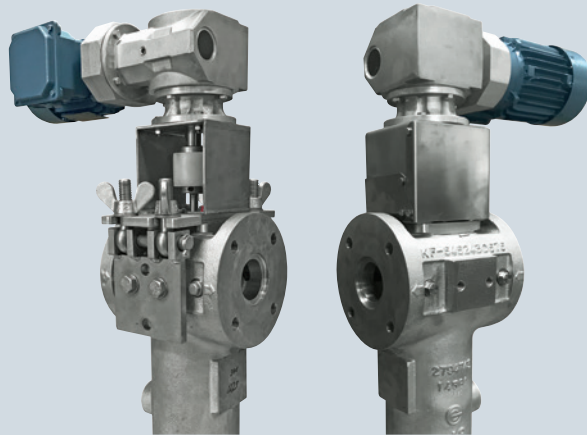


- DeltaP Differential pressure indicator
- Contaminant level indicator
- Filterbags
- Magnets

## Filter elements



- Basket elements
- Ring elements
- Star-pleated elements
- Wedge wire elements
- Custom-made elements



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