Sager + Mack®

Leading the way in pumps and filters

PRODUCTRANGE

PUMPS

FILTERS

FILTERMEDIA

THE PLUS

WELCOME TO THE WORLD OF **SAGER + MACK**

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THE PLUS

User-friendly products

Our development is characterized by permanent research, regarding costumerrequirements and a constant product innovation.

Quality and certificates

Because of our systematic quality managament we are a DIN ISO 9001 certified company. The costumers profit is a smart organisation.

International locations

Our supply chain management is flexible and just-in-time. Because of our strategic placement of distribution locations, we show an excellent competence in logistics.

Service

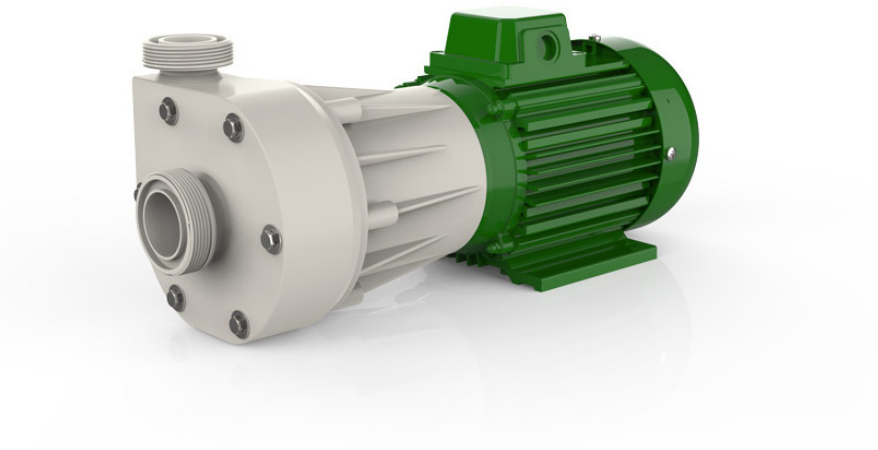
Our qualified specialists will handle your just-in-time support in a solution-orientated way. A close contact in combination with trained experts is our daily business with costumers.

Environment

Our processes are based on an efficient use of ressources and deal responsibly with our environment. We supply energy-efficient products with high life-time to support a sustainable management.

Presence

To keep our costumers up to date, we are exhibiting and visiting numerous industryrelevant fairs. You can also find us on social media channels with informations and news from us and about our company.



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MAGNETIC DRIVEN PUMP

Type MPK-2

- 2-pole centrifugal pump with 2900 rpm (4-pole Type MPK-4 with 1450 rpm)
- Capacity up to 55 m /h (4-pole Type MPK-4 up to 130 m³/h)
- Especially for pumping neutral, aggressive or corrosive media
- Due to the bearing arrangement of the inner rotor / impeller shaft there is no bearing in the suction area of the pump. The result is an excellent flow, low NPSH values and a very silent running
- The special tubular impeller provides high pressures, even without the normal small gap widths, which are sensitive to crystallizations or contaminations
- Bearings made of high quality silicon carbide
- Only the strongest types of available permanent magnets are used to guarantee a good torque transmission in the whole operating range
- Our modular construction system ensures an optimal adjustment to the required applications
- Operating temperatures: PP, PP-N < 75°C | PVDF < 95°C
- 100% leakage-free --> magnetic coupling

STANDARD FEATURES:

- Version in PP
- Static sealing in EPDM or FPM
- Standard union bush
- Horizontal build as block assembly
- Leakage-free and environmentally safe
- Protection class IP55
- IE3 drives from 0.75 kW
- Suitable for frequency controller
- Improvement of efficiency and reduction of noise emission
- Normal suction - radial single stage version

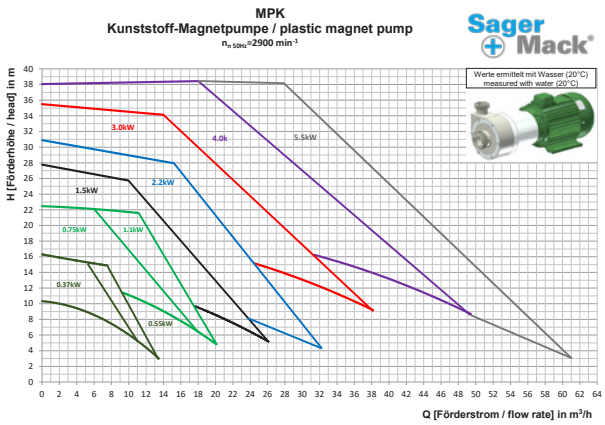
OPTIONS:

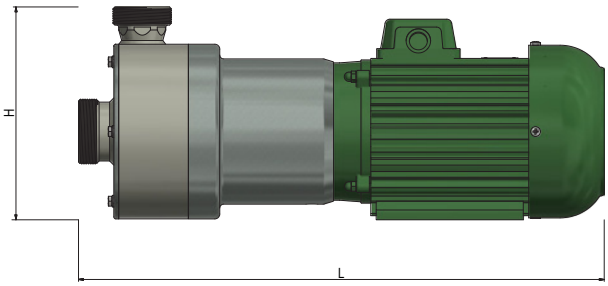
- Version in PP-N or PVDF
- Static sealings in FEP coated
- Flange connection
- Inner rotor in stainless steel
- Connector fittings
- Protection class IP56 or higher
- Special voltage
- IE4-model, IE5-model
- PTC-resistor
- Frequency controller assembly
- Special motor coating

	MPK-56-2-0.09kW	MPK-56-2-0.12kW	MPK-63-2-0.18kW	MPK-63-2-0.25kW	MPK-71-2-0.37kW	MPK-71-2-0.55kW	MPK-80-2-0.75kW
Power (kW)	0,09	0,12	0,18	0,25	0,37	0,55	0,75
H_{max} (m)	8,5	9	10,5	10,5	14,5	16	22
Q_{max} (m³/h)	4,5	5	7	7	11,5	13	17
LxH (mm)	312x147,5	312x147,5	364x158	370x138	395x181	410x181	453,5x205

	MPK-80-2-1.1kW	MPK-90-2-1.5kW	MPK-90-2-2.2kW	MPK-100-2-3.0kW	MPK-112-2-4.0kW	MPK-112-2-5.5kW
Power (kW)	1,1	1,5	2,2	3,0	4,0	5,5
H_{max} (m)	22	27,5	31	36	38	38,2
Q_{max} (m³/h)	21	26,5	31	36	50	56,4
LxH (mm)	453,5x205	561x217	581x217	592x246	612,5x258	636,5x258

CHARACTERISTIC CURVES:





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PLASTIC IMMERSION PUMP

Type TPK | run dry safe

Immersion depths 270 / 400 mm

- These single stage vertical immersion centrifugal pumps, designed as standpipe versions are specifically produced for application in corrosive, aggressive and crystallizing liquids
- The pump shaft is cantilevered in the motor. These pumps are therefore run dry safe
- All plastic components are manufactured by means of shape cutting technology of semi-finished products. The chemical resistance is thus more definite and the risk e.g. glass fibres might be washed out and in turn lead to weakening of the components or contamination of the pumped medium can be avoided
- The tubular impeller of the pump is designed to obtain high pressure heads even without the prevailing tight sealing gaps which are sensitive to deposits and contamination
- Operating temperatures: PP, PP-N < 75°C | PVDF < 95°C

STANDARD FEATURES:

- Model in PP
- Immersion depths 270mm / 400mm
- Run dry safe immersion pump in block assembly
- High operational safety due to bearingless design
- Intake strainer
- Resistant to solids
- Discharge pipe with male union and axial gasket seal
- PP-wrapped stainless steel shaft
- Labyrinth-seal
- Static sealings in EPDM or FPM
- Protection class IP55
- Suitable for frequency controller
- Rain protection motor

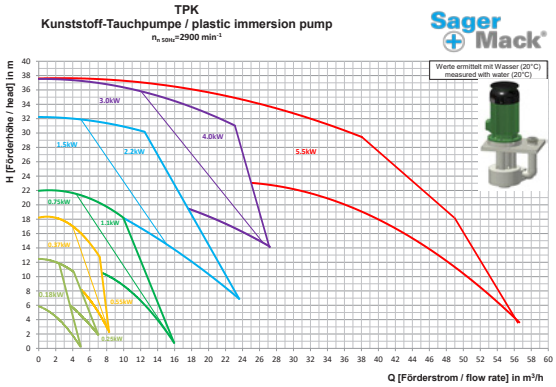
OPTIONS:

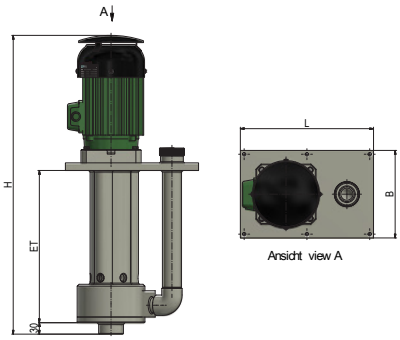
- Model in PVDF
- Immersion depth 600mm
- Suction pipe extension
- Bearing flange with O-Ring sealing in EPDM, FPM or FEP coated
- Pressure pipe with special connection
- PVDF-wrapped stainless steel shaft or full metal shaft in titanium or stainless steel
- Shaft seal optional in gas tight or gas-tight shaft with labyrinth-seal
- Static sealings in FEP coated
- Protection class IP56
- Special voltage; special motor coating; special frequencies

Delivery also as Out-of-tank pump.

	TPK 63-2-0,18kW Typ 4	TPK 63/71-2-0,25-00 Type 6	TPK 63/71-2-0,37-00 Type 8	TPK 71-2-0,37-00 Type 10	TPK 71-2-0,55-00 Type 12	TPK 80-2-0,75-00 Type 14
Power (kW)	0,18	0,25	0,37	0,37	0,55	0,75
H_{max} (m)	12,0	13,0	13,0	18,0	18,0	22,0
Q_{max} (m^3/h)	5,5	7,0	7,0	8,0	9,0	14,0
LxBxH (270mm ET)	290x180x534	290x180x534	290x200x569	290x200x569	290x200x569	320x200x590
LxBxH (400mm ET)	290x180x664	290x180x664	290x200x699	290x200x699	290x200x699	320x200x720

	TPK 80-2-1,1-00 Type 16	TPK 90-2-1,5-00 Type 18	TPK 90-2-2,2-00 Type 20	TPK 100-2-3,0-00 Type 22	TPK 112-2-4,0-00 Type 24	TPK 112-2-5,5-00 Type 26
Power (kW)	1,1	1,5	2,2	3	4	5,5
H_{max} (m)	22,0	32,0	32,0	38,0	38,0	38,0
Q_{max} (m^3/h)	17,0	16,0	23,0	28,0	29,0	54,0
LxBxH (270mm ET)	320x200x590	350x230x652	350x230x685	360x250x666	360x250x666	420x300x716,5
LxBxH (400mm ET)	320x200x720	350x230x782	350x230x815	360x250x796	360x250x796	420x300x846,5





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PLASTIC IMMERSION PUMP

Type TPK

Immersion depth 600 mm

- These single stage vertical immersion centrifugal pumps, designed as standpipe versions are specifically produced for application in corrosive, aggressive and crystallizing liquids
- All plastic components are manufactured by means of shape cutting technology of semi-finished products. The chemical resistance is thus more definite and the risk e.g. glass fibres might be washed out and in turn lead to weakening of components or contamination of the pumped medium can be avoided
- The tubular impeller of the pump is designed to obtain high pressure heads even without the prevailing tight sealing gaps which are sensitive to deposits and contamination
- Operating temperatures: PP, PP-N < 75°C | PVDF < 95°C

STANDARD FEATURES:

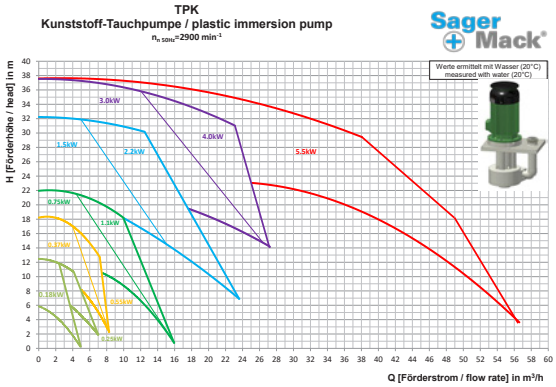
- Model in PP
- Immersion depth 600mm
- Intake strainer
- Resistant to solids
- Discharge pipe with male union and axial gasket seal
- PP-wrapped stainless steel shaft
- Labyrinth-seal
- Static sealings in EPDM or FPM
- Protection class IP55
- Suitable for frequency controller
- Rain protection motor

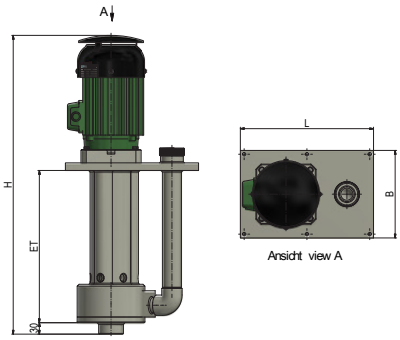
OPTIONS:

- Model in PVDF
- Suction pipe extension
- Bearing flange with chemical resistand O-ring sealing
- Pressure pipe with special connection
- PVDF-wrapped stainless steel shaft or full metal shaft in titanium or stainless steel
- Shaft seal optional in gas tight or gas-tight shaft with labyrinth-seal
- Static sealings in FEP coated
- Protection class IP56
- Special voltage
- Special motor coating
- Special frequencies

	TPK-63-2-0,18kW Typ 4	TPK-63/71-2-0,25-00 Type 6	TPK-63/71-2-0,37-00 Type 8	TPK-71-2-0,37-00 Type 10	TPK-71-2-0,55-00 Type 12	TPK-80-2-0,75-00 Type 14
Power (kW)	0,18	0,25	0,37	0,37	0,55	0,75
Impeller Ø	80	76 - 91,5	76 - 91,5	86 - 108	86 - 108	90 - 120
H_{max} (m)	12,0	13,0	13,0	18,0	18,0	22,0
Q_{max} (m^3/h)	5,5	7,0	7,0	8,0	9,0	14,0
LxBxH (600mm ET)	290x180x864	290x180x864	290x180x899	290x200x899	290x200x899	320x200x920

	TPK-80-2-1,1-00 Type 16	TPK-90-2-1,5-00 Type 18	TPK-90-2-2,2-00 Type 20	TPK-100-2-3,0-00 Type 22	TPK-112-2-4,0-00 Type 24	TPK-112-2-5,5-00 Type 26
Power (kW)	1,1	1,5	2,2	3	4	5,5
Impeller Ø	95 - 120	115 - 140	115 - 140	125 - 152	125 - 152	142 - 156
H_{max} (m)	22,0	32,0	32,0	38,0	38,0	38,0
Q_{max} (m^3/h)	17,0	16,0	23,0	28,0	29,0	54,0
LxBxH (600mm ET)	320x200x920	350x230x982	350x230x1015	360x250x996	360x250x996	420x300x1046,5,5





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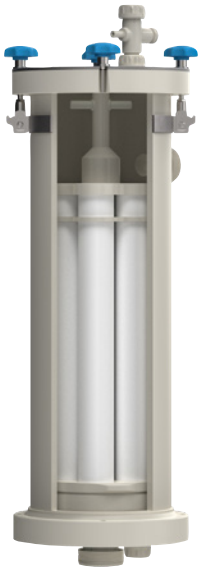

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Leading the way in pumps and filters

10"- 20"- 30"- CARTRIDGE FILTER

Type series 4

Adaption for 3/5/7/15 cartridges

- These filters are characterized by a large dirt intake capacity and a low pressure drop
- The filter cartridges can be easily changed without tools
- Central cartridge clamp device for DOE cartridges
- Filters of type series 4 are specifically designed for high pressures of max. 4.0 bar
- Categorization acc. to Directive 2014/68/EU
- Non-metallic solution contact for plastic versions in PP, PPN and PVDF
- All other parts (brackets, handles and lid-reinforcing plate) are made of stainless steel
- Housing inlet horizontal, housing outlet vertical

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Standard union bush
- Through bolt cover
- Air bleeding unit with connection for pressure gauge
- Stainless steel lid reinforcing plate
- Surrounding splash guard
- Suitable for 4 bar
- Connection for housing drain

OPTIONS:

- Version in PVDF
- Sealings in FPM or FEP coated
- Swing bolt cover / swing cover
- Pressure gauge
- Flange connections or similar on customer's request
- Special adaption (Code 3 / Code 7 → see figure on the back side)

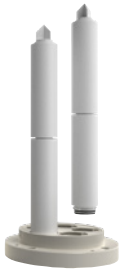
TECHNICAL DESCRIPTION:

These filter units are fitted with depth filter cartridges (e.g. special wounded or melt blown type) and are flown through from inside to outside. The packing density of these cartridges is increasing from the outside to the inside, so that a graduated filtration is possible. Dirt particles will be kept back in different depths of the cartridge depending on their size. The cartridges can be easily replaced without tools and are characterized by a large dirt intake capacity with a high flow capacity and a low pressure drop. Depending on flow capacity and porosity the filter housings are produced for cartridge lengths up to 10" and for a number of 3 up to 15 cartridges. The filter housings are available for almost every marketable cartridge.

CARTRIDGE ADAPTION:

Filter cartridge DOE with central clamp device

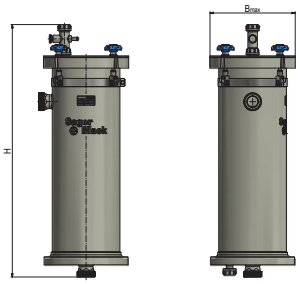
Filter cartridge code 3 // 8 with double o-ring (222)



Filter cartridge code 2 // 7 with double o-ring (226) locking tab

MAX. OPERATING TEMPERATURES:

Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C



	FI-3K			FI-5K		
Total height	**H**	**B_{max}**	**Cap.***	**H**	**B_{max}**	**Cap.***
10"	659 mm	280 mm	6 m³/h	679 mm	350 mm	10 m³/h
20"	913 mm	280 mm	12 m³/h	933 mm	350 mm	20 m³/h
30"	1167 mm	280 mm	18 m³/h	1187 mm	350 mm	30 m³/h
	FI-7K			**FI15K**		
Total height	**H**	**B_{max}**	**Cap.***	**H**	**B_{max}**	**Cap.***
10"	699 mm	420 mm	14 m³/h	-	-	-
20"	953 mm	420 mm	28 m³/h	1083 mm	520 mm	60 m³/h
30"	1207 mm	420 mm	42 m³/h	1337 mm	520 mm	90 m³/h

* capacity - Reference value for H_2O depending on filter porosity and application

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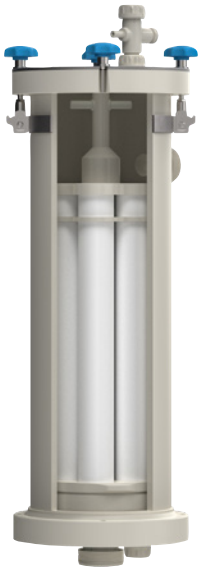

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10"- 20"- 30"- CARTRIDGE FILTER

Type series 6

Adaption for 3/5/7/12 cartridges

- These filters are characterized by a large dirt intake capacity and a low pressure drop
- The filter cartridges can be easily changed without tools
- Central cartridge clamp device for DOE cartridges
- Filters of type series 6 are specifically designed for high pressures of max. 6.0 bar
- Categorization acc. to Directive 2014/68/EU
- Non-metallic solution contact for plastic versions in PP, PPN and PVDF
- All other parts (brackets, handles and lid-reinforcing plate) are made of stainless steel
- Housing inlet horizontal, housing outlet vertical

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Standard union bush
- Through bolt cover
- Air bleeding unit with connection for pressure gauge
- Stainless steel lid reinforcing plate
- Surrounding splash guard
- Suitable for 6 bar
- Connection for housing drain

OPTIONS:

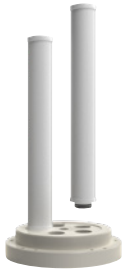
- Version in PVDF
- Sealings in FPM or FEP coated
- Swing bolt cover / swing cover
- Pressure gauge
- Flange connections or similar on customer's request
- Special adaption (Code 3 / Code 7 → see figure on the back side)

TECHNICAL DESCRIPTION:

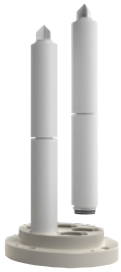
These filter units are fitted with depth filter cartridges (e.g. special wounded or melt blown type) and are flown through from inside to outside. The packing density of these cartridges is increasing from the outside to the inside, so that a graduated filtration is possible. Dirt particles will be kept back in different depths of the cartridge depending on their size. The cartridges can be easily replaced without tools and are characterized by a large dirt intake capacity with a high flow capacity and a low pressure drop. Depending on flow capacity and porosity the filter housings are produced for cartridge lengths up to 10" and for a number of 3 up to 12 cartridges. The filter housings are available for almost every marketable cartridge.

CARTRIDGE ADAPTION:

Filter cartridge DOE with central clamp device



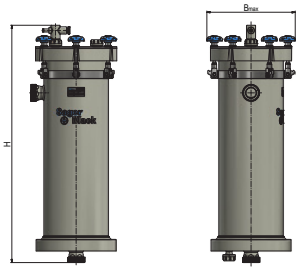
Filter cartridge code 3 // 8 with double o-ring (222)



Filter cartridge code 2 // 7 with double o-ring (226) locking tab

MAX. OPERATING TEMPERATURES:

Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C



	FI-3K			FI-5K		
Total height	**H**	**B_{max}**	**Cap.***	**H**	**B_{max}**	**Cap.***
10"	636 mm	290 mm	6 m³/h	666 mm	350 mm	10 m³/h
20"	890 mm	290 mm	12 m³/h	920 mm	350 mm	20 m³/h
30"	1144 mm	290 mm	18 m³/h	1174 mm	350 mm	30 m³/h
	FI-7K			**FI12K**		
Total height	**H**	**B_{max}**	**Cap.***	**H**	**B_{max}**	**Cap.***
10"	684 mm	420 mm	14 m³/h	-	-	-
20"	938 mm	420 mm	28 m³/h	1022 mm	520 mm	48 m³/h
30"	1192 mm	420 mm	42 m³/h	1276 mm	520 mm	72 m³/h

* capacity - Reference value for H_2O depending on filter porosity and application

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DISC FILTER

Disc Ø 210 mm / Ø 350 mm

- Disc filters are especially designed for applications in which a large dirt intake capacity and a large filter area is required
- The Sager + Mack disc filters differ due to the newly developed optimized flow design of the filter discs for large volume flows
- The filter systems generate relatively low pressures; this results in longer service life and better filtration, since no dirt is being „ pushed through „
- The newly - designed filter discs have an optimized flow design
- The housing lid is fitted with a stainless steel reinforcing plate and for additional security with a surrounding splash guard
- Categorization acc. to Directive 2014/68/EU
- The specially designed housing offers the possibility to use filter cartridges besides discs

STANDARD FEATURES:

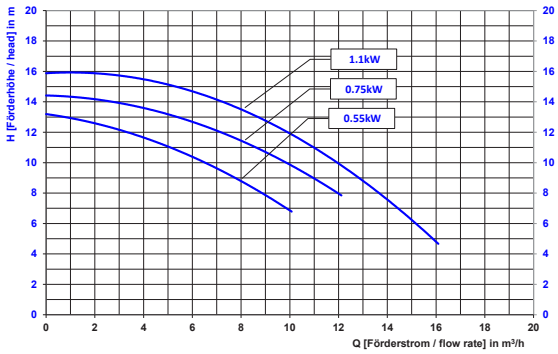
- Model in PP
- Sealings in EPDM
- Standard union bush
- Through bolt star knob fastening
- Air bleeding unit with connection for pressure gauge
- Stainless steel cover reinforcing plate
- Surrounding splash guard

OPTIONS:

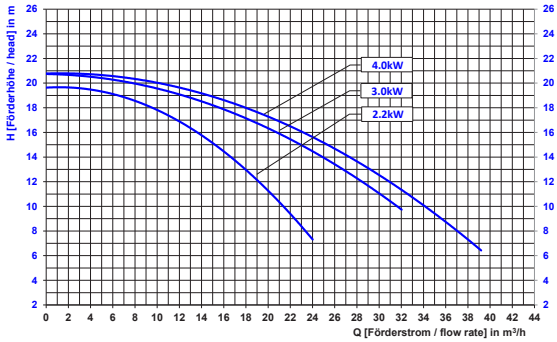
- Sealings in FPM or FEP coated
- Special connections on customer's request
- Swing star knob fastening
- Pressure gauge
- Cover switch
- Swing cover
- Designed as station including magnetic driven pumps
- Designed as station including slurry tank

Innovative design of the discs results in less pressure loss and optimized flow design.

DISC FILTER Ø 210 mm:



DISC FILTER Ø 350 mm:



Specification	Disc insert	Disc insert
Amount of disc	max. 65	max. 53
Filter type	Ø 210/50	Ø 350/68
Drive kW / Q_{max}	0,55 kW / 7 m³/h 0,75 kW / 10 m³/h 1,1 kW / 15 m³/h	2,2 kW / 20 m³/h 3,0 kW / 30 m³/h 4,0 kW / 40 m³/h*
approx. filter area	max. 2,1 m² **	max. 4,81 m² **

* Longer filter housing needed
** Depending on thickness of filter media

DIMENSIONS FILTER STATION:

	Ø 210 mm		Ø 350 mm	
Dimensions	**without ST**	**with ST**	**without ST**	**with ST**
L	640 mm	776 mm	544 mm	1200 mm
W	490 mm	370 mm	544 mm	544 mm
H*	1372 mm	1627 mm	1638 mm	1707 mm

ST = Slurry tank
* System height depending on construction and chosen options

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Leading the way in pumps and filters

BAG FILTER

Type Series 4 & Type Series 6
Size 1 - 4

- Filters of type series 4 are specifically designed for pressures of max. 4.0 bar
- Filters of type series 6 are specifically designed for higher pressures of max. 6.0 bar
- Categorization acc. to Directive 2014/68/EU
- These filters are characterized by a large dirt intake capacity
- Retention of high particle concentrations
- Big range of available filter bags
- An integrated support in the filter housing minimizes waste materials that have to be disposed
- Ensured hermetic sealing due to a hold down device with o-ring
- Filter bags with a plastic flange or with an inserted ring
- Owing to the large diameter of the filter bag considerable advantages will be given by the flow from the inside to outside: the contamination is collected inside the filter bag
- Horizontal housing inlet, vertical housing outlet
- Reduced cleaning effort
- Fast and easy change of filter bags, very short process interruption
- Brackets, handles and cover reinforcing plate are made of stainless steel

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Through bolt star knob fastening
- Air bleeding unit with connection for pressure gauge
- Stainless steel lid reinforcing plate
- Standard union bush
- Surrounding splash guard

OPTIONS:

- Version in PVDF
- Sealings in FPM or FEP coated
- Swing star knob fastening
- Pressure gauge
- Flange connections or similar on customer's request
- Cover switch

SPECIFICATIONS:

	Size 1 40DN32	Size 1 50DN40	Size 2 50DN40	Size 2 63DN50	Size 3 25DN20	Size 4 32DN25
max. flow rate *	18,0 m³/h	18,0 m³/h	35,0 m³/h	35,0 m³/h	6,0 m³/h	12,0 m³/h
ca. filter area	0,25 m²	0,25 m²	0,5 m²	0,5 m²	0,1 m²	0,15 m²
Bag-Ø	182 mm	182 mm	182 mm	182 mm	108 mm	108 mm
Bag length	440 mm	440 mm	814 mm	814 mm	225 mm	365 mm
Bag volume in l	8,0	8,0	17,5	17,5	1,5	2,5
Installation	The filter unit is intented for the external installation to the system and is equipped with a mounting flange for attaching					

* Reference value for H_2O depending on filter porosity and application

TECHNICAL DESCRIPTION:

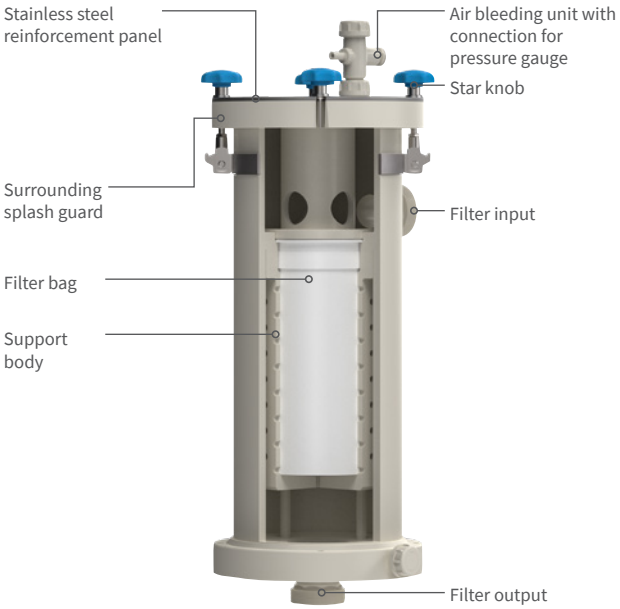
The big range of available filter bags made of polypropylene-needle felt or polypropylenefabricin various grades of porosity allows the exact adaption to the requirement.

- PP-needle felt filter bags have a 3-dimensional filter structure whose filter characteristics are both found on the surface and in the depth. So a combination of surface filtration and depth filtration takes place
- PP-fabric filter bags consist of a monofil fabric with smooth, uniform threads. The size of the fabric-pores is exactly defined. Here the filtration is a surface filtration

An integrated support in the filter housing minimizes waste materials that have to be disposed.
The filter bag is being pushed against the adapter with o-ring by a hold down device. So a hermetic sealing is ensured - in spite of quick filter change. The design of the hold down device allows the usage of both types of filter bags with a plastic-flange and filter bags with an inserted ring.
Due to the large diameter of the filter bag considerable advantages will be given by the flow from inside to outside: the contamination is collected inside the filter bag and the cleaning effort is reduced notably.

MAX. OPERATING TEMPERATURES:

Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C



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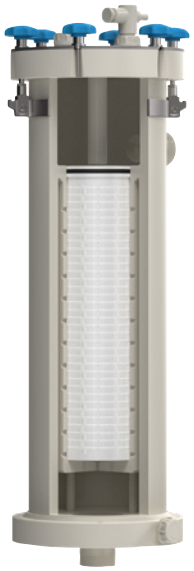

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HIGHFLOWFILTER

Type series 4 & Type series 6

- Filters of type series 4 are designed for high pressures of max. 4.0 bar
- Filters of type series 6 are specially designed for higher pressures of max. 6.0 bar
- Categorization acc. to Directive 2014/68/EU
- With these filters high flow capacities can be managed with relatively small systems
- This results in a reduction of investment costs and installation effort
- Due to the special laid-over (crescent shaped) pleat geometry of the PP-filter cartridge a large surface area will be reached which causes a low flow resistance and thus resulting in low initial differential pressures
- An integrated support in the filter housing minimizes waste materials that have to be disposed
- Due to the large diameter of the filter cartridge considerable advantages will be given by the flow from inside to outside: the contamination is collected inside the filter cartridge and the cleaning effort is reduced notably
- The filter cartridge is sealed by an o-ring with the adapter in the filter housing, whereby a hermetic seaking is ensured - in spite of quick filter change

STANDARD FEATURES:

- Model in PP
- Standard union bush
- Sealings in EPDM
- Through bolt star knob fastening
- Air bleeding unit with connection for pressure gauge
- Stainless steel cover reinforcing plate
- Surrounding splash guard

OPTIONS:

- Model in PVDF
- Special connections on customer's request
- Sealings in FPM or FEP coated
- Swing star knob fastening
- Pressure gauge
- Swing cover

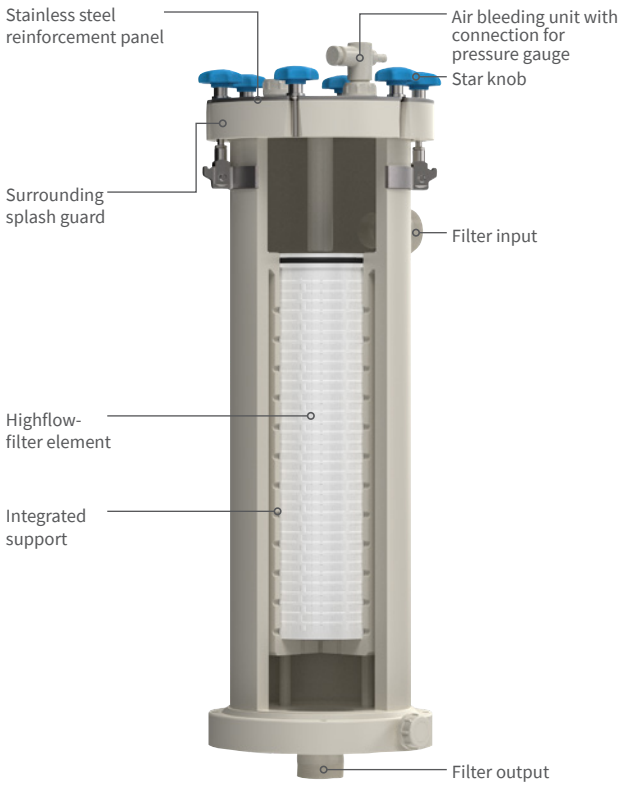
MAX. OPERATING TEMPERATURES:

Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C

SPECIFICATIONS:

	10"40DN32	10"50DN40	20"50DN40	20"63DN50	40"75DN65**	40"90DN80**
Element length	10"	10"	20"	20"	40"	40"
Max. flow rates*	15 m^3/h	20 m^3/h	20 m^3/h	30 m^3/h	50 m^3/h	75 m^3/h
Installation	The filter unit is intended for the external installation to the system and is equipped with a mounting flange for attaching					

* Reference value for H_2O depending on the filter porosity and application
** Flange connection



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SCREW TOP CARTRIDGE FILTER
SVS110-1K

Type series 3

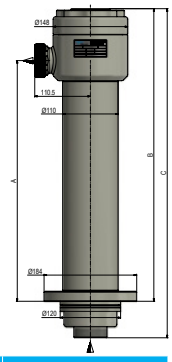
- Cost-efficient alternative solution to conventional filters
- Easy handling, short process interruptions
- Filter cartridges (DOE) can be easily exchanged without tools
- Reduced cleaning effort
- Large dirt intake capacity with a high flow capacity and a low pressure drop
- Includes surrounding splash guard
- Non-metallic liquid contact
- Categorization acc. to directive 2014/68/EU
- Operating pressure up to max. 3.0 bar

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Standard union bush
- Vertical inlet
- Horizontal outlet
- Surrounding splash guard
- Quick and easy change of filter media

OPTIONS:

- Version in PVDF
- Sealings in FPM
- Flange connections or similar on customer's request



SPECIFICATIONS:

	SVS110-1K-10"	SVS110-1K-20"	SVS110-1K-30"
max. flow rates*	2,0 m³/h	4,0 m³/h	6,0 m³/h
Volume	2,2 l	3,8 l	5,4 l
Inlet	32DN25 / G 1 1/2"	50DN40 / G 2 1/4"	50DN40 / G 2 1/4"
Outlet	32DN25 / G 1 1/2"	50DN40 / G 2 1/4"	50DN40 / G 2 1/4"
A	224 mm	478 mm	732 mm
B	327 mm	581 mm	835 mm
C	399,5 mm	653,5 mm	907,5 mm
Installation	The filter unit is intended for the external installation to the system and is equipped with a mounting flange for attaching		

* Reference value for H_2O depending on filter porosity and application

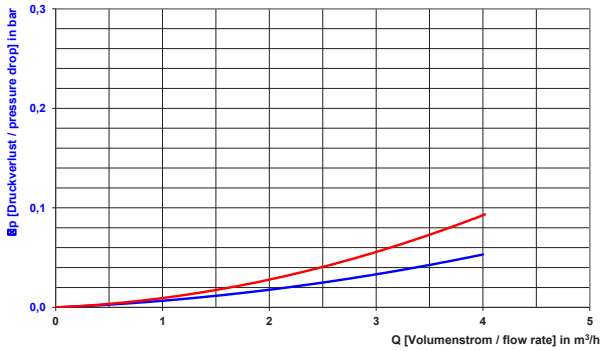
MAX. OPERATING TEMPERATURES:

Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C

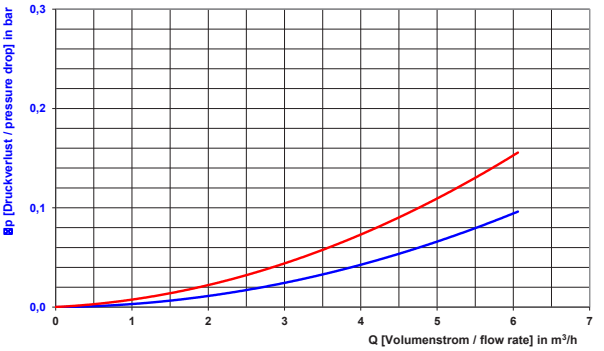
CHARACTERISTIC CURVES:

Measured with water 20° C

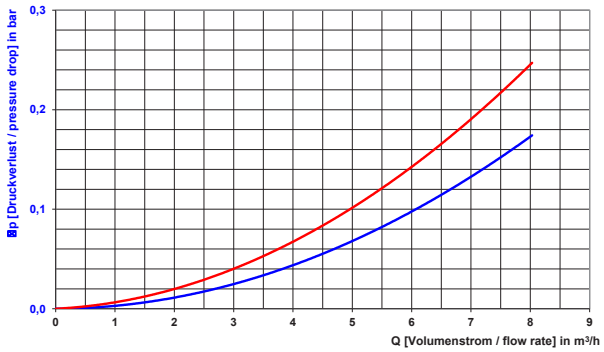
SVS110-1K-10"



SVS110-1K-20"



SVS110-1K-30"



with mounted cartridge Melt Blown 10 µm
Housing

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QUICK CHANGE FILTER SWF-110 / SWF-180

Type series 6

- Filters of type series 6 are specially designed for high pressures of 6.0 bar
- Categorization acc. to Directive 2014/68/EU
- Suitable for aggressive, corrosive, polluted media with low viscosity
- Easy handling
- High flow capacity and a low pressure drop
- Opening the filter cover by means of a lever
- Filtermedia fabric hose, flow from inside to outside - large dirt intake capacity
- Contamination is collected inside the filter, reduced cleaning effort
- Less production stop while changing filter media

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Connection for air bleeding unit and blind cap
- Surrounding splash guard
- Standard union bush
- Micron rating between 1 and 200 µm
- Plug lever

OPTIONS:

- Version in PVDF
- Sealings in FPM or FEP coated
- Air bleeding unit
- Connection for pressure gauge
- Lid switch and/or locking tool
- Flange connections or similar on customer's request
- Mounted lever
- Cartridge filter insert 10" / 20" (SWF-110)

MAX. OPERATING TEMPERATURES:

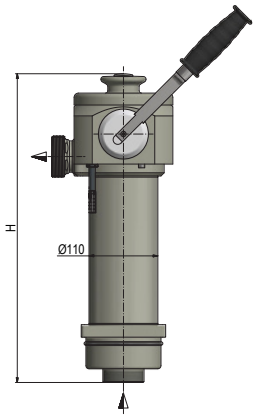
Polypropylene (PP) (PPN)	max. 75°C
Polyvenylidenfluoride (PVDF)	max. 95°C

SPECIFICATIONS:

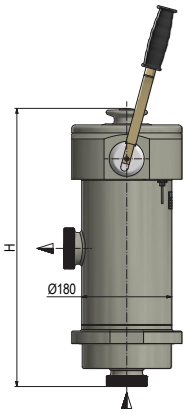
	SWF-110	SWF-180
max. flow rates*	10,0 m^3/h	40,0 m^3/h
Volume	2 l | 10" (3,6 l | 20")	7 l
H	494 mm | 10" (748 mm | 20")	556 mm
Connection	DN32	DN40
Installation	The filter unit is inteted for the external installation to the system and is equipped with a mounting flange for attaching	

* Reference value for H_2O depending on filter porosity and application

TYPE AND SIZE:



Type SWF 110
with mounting flange



Type SWF 180
with mounting flange

SWF 110 (depending on filter insert) available with:

- Filtercloth
- Filtercambric
- 10" and 20" Filter cartridge

SWF 180 available with:

- Filtercloth

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QUICK CHANGE FILTER SWF200-4K-10“

- These filters are characterized by a large dirt intake capacity and a low pressure drop
- Direct access to the filter media
- The special locking machanism allows the user to quickly and smoothly change the filter elements
- Short process interruption and minimal set-up times in case of maintenance work
- Very compact, little space requirement
- Categorization acc. to Directive 2014/68/EU

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Connection for air bleeding unit
- Surrounding splash guard
- Standard union bush
- Pressure gauge (input/output) with diaphragm transmitter
- Support flange for frame installation

OPTIONS:

- Version in PVDF
- Sealings in FPM
- Non-standard cartridge adaption
- Connection for pressure gauge
- Encoded lid switch

TECHNICAL DATA:

Filter media:	4 x 10" DOE-cartridges (Double Open End)
Max. flow rate:	14 m³/h
Volume filter housing:	7,4 l
Weight filter housing:	14,5 kg
Installation:	The filter unit is intented for the external installation to the system and is equipped with a mounting flange for attaching

MAX. OPERATING TEMPERATURES:

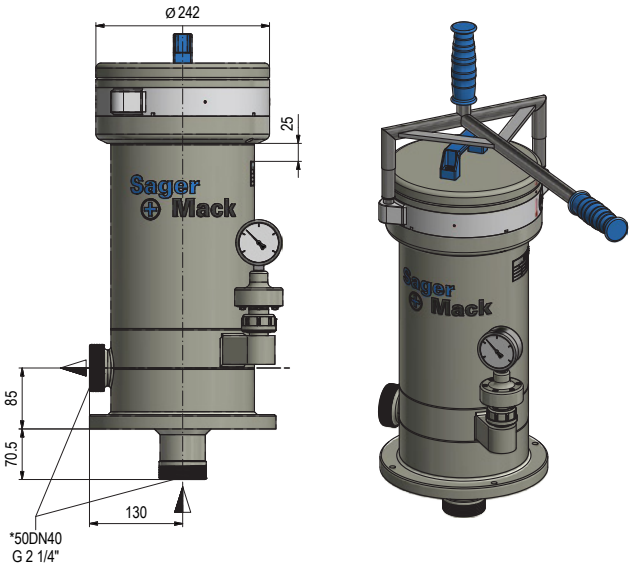
Polypropylene (PP) (PPN)	max. 75°C at 1.0 bar
Polyvenylidenfluoride (PVDF)	max. 95°C at 1.0 bar
Max. pressure	3.5 bar at 20°C

TECHNICAL DESCRIPTION:

The filter unit consits of a welded PP housing that is closed / locked from above by a PP cover via a quick locking ring. The locking ring is actuated with a special pluggable locking tool. In the upper part of the housing is a lip seal ring to seal the cover. The filter unit is intended for the external installation to the system and is equipped with a mounting flange for attaching.
The filter feed is attached vertically from below and the filter back flow is horizontal.

Allowable system operating pressure in reference to temperature:

(valid for water or other fluids without reduction ratio of chemical resistance)



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ADSORBTION FILTER

10D-0,25kW

APPLICATION FIELD:

- Adsorption from mineral oils of aqueous cleaners like i.e. surfactant solutions, alcaline or neutral media (emulsifying or non emulsifying), electrolytic degreasing, ultrasonic cleaners, acid etch degreasers and phosphate baths
- Separation of oil slurry in the media surface
- For maintaining cleaning baths to achieve highly pure, residue-free surface

BENEFITS:

- Extended lifetime of aqueous cleaners
- Notably extended lifetime of aqueous cleaners
- Optimization of the cleaning result: adsorbs oil and mechanical debris
- Significant reduction of the chemicals consumption
- Reduced process costs
- Short amortization time - low costs!

DESIGN:

- Modular
- Magnetically coupled pump (hermetically sealed)
- Flow meter
- optional magnetic prefilter

TECHNICAL DATA:

- Filter media: Sorber SM / Sorbertex
- Volume capacity of the filter housing: 26 l
- Max. Media temperature: 75°C
- Max. System overpressure: 1.0 bar
- Capacity up to 3 m^3/h
- Weight: 46 kg
- Outlet flow / inlet flow Ø32 mm

ADSORBTION FILTER MATERIAL

Sorber SM

COMPOSITION:

100% Polypropylene

DESIGN:

Long-stranded, fiber-based,
surface-enlarging, string-like

CHEMICAL RESISTANCE:

Resistant in alcaline and acid media (substrates)

TEMPERATURE RESISTANCE:

Max. 95°C, oil-adsorption ability is dependent of temperature

ADSORPTION CHARACTERISTICS:

Oleophiousl, hydrophobic;
Selective adsorption of mineral or synthetic lipophilic substances

FIELD OF APPLICATION:

Adsorbtion of water-insoluble substances as well as mineral and synthetic oils from:

- Neutral tenside solution
- Alcaline cleaner
- Acid cleaner
- Electrolytic degreasing
- Ultrasonic cleaners
- Etch degreasers
- Combined degreasing and phosphate baths

FURTHER ADSORBTION FILTER MATERIAL ON DEMAND.

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MULTIFUNCTIONAL FILTER

Type 8 / 20 nch / Series 4

MODULAR DESIGN

- The plastic filter housing is multifuncional: it offers the possibility to choose different types of filter elements (cartridges, discs or adsorption material)
- Easy handling: the PP filter housing allows a fast and easy change of the filter medium without any tools
- Horizontal filter inlet on top - vertical filter outlet on the bottom
- Housing drain for reduced cleaning effort
- Non-metallic solution contact for plastic version; this means high chemical resistance
- The housing cover is equipped with a stainless steel reinforcing plate and with a surrounding splash guard for additional safety
- This housing is designed for pressures up to max. 4 bar
- Categorization acc. to Directive 2014/68/EU
- Application area: GMF, PCB, waste water and many others
- Including a magnetic driven pump according to your request

STANDARD FEATURES:

- Version in PP
- Sealings in EPDM
- Connection (blind) on the cover for an air bleeding unit and pressure gauge
- Cartridge-, disc- or adsorption-insert
- Housing connections with external thread and axial o-ring sealing
- Through bolt star knob fastening

OPTIONS:

- Version in PVDF
- Sealing in FPM or FEP coated
- Pressure gauge with diaphragm transmitter
- Additional filter elements for change
- Swing star knob fastening
- Swing cover
- Flow rate display

OVERVIEW FILTER INSERT:

	Cartridge filter insert	Disc filter insert	Adsorbtion insert
Filter medium	5x20"	max. 65 discs ***	Adsorption volume ca. 16 l
Filter type	DOE** / Ø2.5" (~Ø64mm)	Ø 210/50	Sorber SM / Sorbertex
max. flow rate*	20 m^3/h	13 m^3/h	3 m^3/h
approx. filter area	3.0 m^2	max. 2.1 m^2 ** polluting load volume 9.4 dm^3	

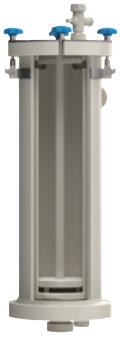
* Reference value for H_2O depending on filter porosity and application
** Double Open End
*** Depending on the thickness of inlays (Overall height of deck ca. 20")

FILTER ELEMENTS IN ASSEMBLED STATUS:

Cartdridges

Discs

Adsorbtion material



Whether you equip these filters with cartridges, discs, or with adsorption material, Sager + Mack provides you with the necessary consumables in stock.

PUMP CHOICE:

Depending of your choice of the filter insert and the required capacity, the appropriate Sager + Mack magnetic driven pump or immersion centrifugal pump will be delivered to you.

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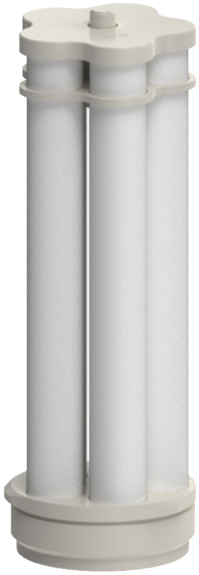

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CARTRIDGE INSERT FOR MULTIFUNCTIONAL FILTER

Type 8 / 20 inch/ Series 4

DESCRIPTION FILTER INSERT:

This cartridge filter insert is designed for the Sager+Mack multifuncional filter. These filter elements are depth filter elements that are usually specially wound or produced by the melt-blown method and are flowed through from the outside to the inside. Contamination of different sizes infiltrate to different depths in the filter cartridge and are retained here. The filter cartridges are attached by a central tension rod and counter-holder and fixed to the insert, thus a by-pass is excluded.

BENEFITS:

- When cleaning the filter, these cartridges will be changed easily and fast
- Extremly short process interruption during filter change
- Installation error absolutely minimized
- Large dirt adsorption capacity
- High flow rate
- Low pressure drop
- Cartridge change easy and without any tools
- Non-metallic solution contact - non-corrosive

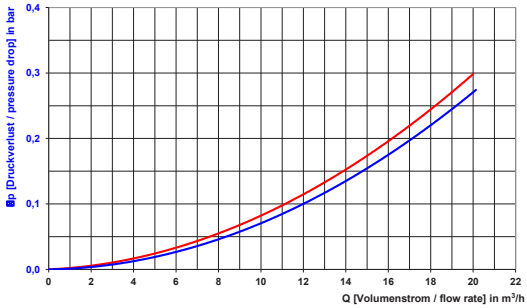
SPECIFICATIONS:

Material of the filter insert:	PP (optional PPN or PVDF)
Filter medium:	5 Filter cartridges 20“
Type:	DOE* / Ø 2.5“ (~ Ø 64 mm)
Max. flow rate:	20 m^3/h**
Approx. filter area:	3.0 m^2
Max. operating temperature:	75 °C

* Double Open End
** Reference value for H_2O depending on filter porosity and application

CHARACTERISTIC CURVE:

Non-metallic solution contact; non-corrosive



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DISC INSERT FOR MULTIFUNCTIONAL FILTER

Type 8 / 20 inch/ Series 4

DESCRIPTION FILTER INSERT:

This disc filter insert is designed for the Sager+Mack multifuncional filter. The filter inserts are assembled with filter inlays (i.e. paper, nonwoven fabric or mesh). The contamination is collected on the filter inlays. which can be easily disposed and changed. Depending on the flow rate and the filter porosity, different filter inlays can be used, which can be compiled to filter packages. The filter inserts are clamped between screened and grooved plastic plates - so by-pass is excluded.

BENEFITS:

- This is a very low-price filter media
- The filter inlays can be easily replace when cleaning the filter
- Low amounts of the filter media have to be disposed
- Disc filters are also particularly suitable for slugging with a filter aid such as diatomaceous earth or activated carbon
- High polluting load volume, large filter area
- Change easy and without any tools
- Non-metallic solution contact - non-corrosive

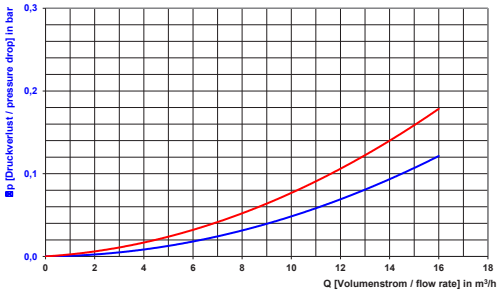
SPEZIFICATION:

Material of filter insert:	PP (optional PPN or PVDF)
Filter medium:	max. 65 Filter disc*
Type:	210/50
Max. flow rate:	13 m^3/h**
Approx. filter area:	2.1 m^2
Polluting load volume:	9.4 dm^3**
Max. operating temperature:	75 °C

* Depending on thickness of filter inlays (max. height of deck approx. 20")
** Reference value for H_2O depending on filter porosity and application

CHARACTERISTIC CURVE:

Values for water at 20°C



Filter disc insert with 45 paper discs 90 g/m² ~25 µm
Filter disc insert with filter discs without filter inlays

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ADSORBTION FILTER INSERT FOR MULTIFUNCTIONAL FILTER

Type 8 / 20 inch/ Series 4

DESCRIPTION ADSORBTION INSERT:

This adsorbtion filter insert is designed for the Sager + Mack adsorbtion filter. The insert is filled with the adsorbtion filter material. The dirt attaches on this special material. The saturated material can simply be busted and disposed.

SPECIFICATIONS:

Material of filter insert:	PP (optional PPN)
Filter medium:	Adsorbtionmaterial
Type:	Sorber SM / Sorbertex
Max. flow rate:	3 m^3/h*
Ca. filter area:	1.9 m^2
Adsorbtion volume:	16 l
Max. operating temperature:	75 °C

* Reference value for H_2O depending on filter porosity and application

BENEFITS:

- Optimization of the cleaning result: removes oil and mechanic dirt
- Reduces the consumption of chemicals
- Reduces the process-costs
- Maintains rinsing bath in top condition
- Reduces amount of COD, TOC and DOC**
- Einfach und schnell austauschbar
- Non-metallic solution contact; non corrosive

** COD - chemical oxygen demand
TOC - total organic carbon
DOC - dissolved organic carbon

APPLICATION FIELD:

- Adsorption from mineral oils of aqueous cleaners like i.e.
  - surfactant solutions
  - alcaline or neutral media (emulsifying or non emulsifying)
  - electrolytic degreasing
  - ultrasonic cleaners
  - acid etch degreasers
  - phosphate baths
- Separation of oil slurry in the media surface
- Extended lifetime of aqueous cleaners

→ Find further field of application on the data sheet for adsorbtion material

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Sager + Mack®

Leading the way in pumps and filters

CONSUMABLES

You certainly use different kind of filters - disc filters, cartridge filters or bag filters and you purchase these from various suppliers, which in turn deliver each their own consumables. But would it not be much easier for you, to only have one reliable supplier for all consumables.
Sager + Mack offers this possibility. Because we distribute consumables worldwide, we purchase them on favorable terms, and this is a clear benefit for you!
We supply the majority of market consumables from stock. Filter consumables are our top sellers and we do everything we can so that you receive your consmables just in time!

SAGER + MACK CONSUMABLES FROM STOCK:

PAPER:

As a manufacturer of disc filters Sager + Mack of course delivers proprietary high quality filtration paper in various sizes and weights. This filtration paper is available at attractive prices from stock in measures and weights common in the market. Just ask for an offer.

FILTERCARTRIDGES:

Filter cartridges are available in different versions (Double Open End (DOE), Single Open End (SOE), etc.) from stock. Whether proprietary melt blown, string-wound or active carbon cartridges, Sager + Mack offers various micro sizes and different lengths at best conditions.

HIGHFLOW FILTERELEMENTS:

Sager + Mack advanced highflow filterelements for electroplating industry, available in lengths of 10 „ , 20 „ , 40 „ from stock. The filter elements are chemically resistant and have a very large filter surface. Since these self - developed elements filter from the inside out, no dirt enters the filter housing when the pump is switched off . Thanks to the attached supporting ring there is no risk that the highflow filterelement bursts with excessive pressure.

SORBER SM / SORBERTEX:

There is a special filter material for the adsorption filter: Sorber SM is manufactured in defined fiber thickness and density. It consists of long-stranded, fiber-based, surface-enlarging, stringlike structures and is especially designed for pressure filtration. The surface selectively adsorbs mineral and synthetic oils, mineral impurities are also filtered.

FILTERBAG:

Filter bags are available for Sager + Mack own filter devices as well as other commercially available filter systems.

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