



acuraLine®
Filtration on high level



The Fuhr GmbH is a competent partner for industrial filter technology since 1972 and deals with filter systems for liquid and gaseous media.

The **acuraLine**[®] product line includes liquid filters, gas filters and compressed air filters. These products consist of filter cartridges, filter bags and filter modules. The **acuraLine**[®] industrial filters further include the engineering and the production of filter housings such as bag filter housing, cartridge filter housing as well as basket filters and self cleaning filters.

Furthermore, the Fuhr GmbH is an authorized dealer for filter products of **3M** Deutschland GmbH.

Fuhr GmbH Filter technology

Am Weinkastell 14

D-55270 Klein-Winternheim

Phone +49 6136 / 99 43-0

Fax +49 6136 / 99 43-25

info@fuhr-gmbh.com

www.fuhr-gmbh.com



Head office



Main stock 1



Main stock 3



Housing stock

The right filter for each application

Filter cartridges

Depth filter and membrane filter cartridges in various materials for the filtration of liquids and gases.



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Filter modules

Cellulose-based depth filter modules with additional electrokinetic potential.



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Filter bags

Fully welded filter bag for coarse and pre-filtration, and high-performance inserts for bag filter housings



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Filter housings / Filter units

Filter housings / filter units, plastic or stainless steel for all industrial applications.



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Depth Filter Cartridge MICRO KLEAN® III

The Micro Klean filter cartridge is an asymmetric, resin bonded and supporting core-less depth filter cartridge in different material configurations. From the outside to the inside denser pore structure enables a highly efficient particle retention and excellent dirt holding. The cartridge is ideal for filtration of solvent-based paints, varnishes and resins, even with higher viscosity. Modeling 2 is mainly used in pre-filtration in the food and pharmaceutical sectors.

Filter cartridge specifications

Material	modeling 2: cellulose / melamine resin modeling 3: cellulose / phenolic resin modeling 8: acrylic fiber / phenolic resin
Temperature	modeling 2 max. 100°C / modeling 3 and 8 max. 120°C
Cartridge length	4" up to 60"
Diameter	I.D. 27 mm, O.D. 65 mm
Micron rating	1 µm up to 150 µm, nominal
Differential pressure	max. 4.8 bar at 80°C
FDA approved	modeling 2: yes / modeling 3 and 8: no

Depth Filter Cartridge BETAPURE®

Depth filter cartridge with homogeneous, fibre-free and supporting core-less filter matrix. The heat-sealed bicomponent fibres provide an extremely stable construction that supplies reproducible results with high quality filtration. The bicomponent fibre matrix allows high flow rates and offers broad chemical resistance. The Betapure polyolefin is used for food or ultrapure water, the Betapure polyester is mainly suitable for end-filtration of paints and varnishes.



Filter cartridge specifications

Material	Betapure polyolefin: polypropylene / polyethylene Betapure polyester: entirely polyester
Temperature	BP polyolefin max. 80°C / BP polyester max. 120°C
Cartridge length	4" up to 50"
Diameter	I.D. 27 mm, O.D. 64 mm
Micron rating	BP polyolefin 1 µm up to 200 µm / BP polyester 3 µm up to 30 µm
Differential pressure	max. 5.5 bar at 20°C
FDA approved	BP polyolefin: yes / BP polyester: no

Depth Filter Cartridge *acuraMultiflow*®

Melt-blown depth filter cartridge with multi-layer structure, which enables a high dirt holding capacity and long service life due to the increasing pore structure from the inside out. Construction of pure polypropylene without any adhesives or binding agents with a high flow rate at low differential pressure. Universal pre-filter cartridge with applications in all industrial sectors. Particularly well suited for filtration of hydrous media such as acids and alkalis but also for paints, inks and other chemicals.



Filter cartridge specifications

Material	polypropylene
Temperature	max. 60°C
Cartridge length	4" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	0.5 µm up to 100 µm, nominal
Differential pressure	max. 3.2 bar at 20°C
FDA approved	yes

Depth Filter Cartridge *acuraPromelt*[®]

The depth filter cartridge is manufactured in a patented melt-blown process. The continuously increasing inward pore structure provides excellent particle retention and high dirt holding capacity. The absolute deposition rate ensures reproducible results. The extraordinarily stable matrix ensures consistently high efficiency and high flow rates even when the differential pressure increases. This allows an use in many critical applications in all industrial sectors, such as fine chemicals, sterile water, photoresists, coatings and food, even in the end-filtration.

Filter cartridge specifications

Material	polypropylene
Temperature	max. 80°C
Cartridge length	4" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	1 µm up to 100 µm, absolute (99.9%)
Differential pressure	max. 4.2 bar at 20°C / 1.2 bar at 80°C
FDA approved	yes



Depth Filter Cartridge *acuraPure*

The melt-blown depth filter cartridge made of Nylon 6 was developed for use at higher temperatures and for applications with high chemical resistance, in which polypropylene can not be used. The increasing inward porosity also ensures good retention rates and high dirt holding. To raise the stability of the filter cartridge, it has an extra support cage made of nylon.

Filter cartridge specifications

Material	Nylon 6
Temperature	max. 125°C
Cartridge length	9.87" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	1 µm up to 100 µm, nominal (90%)
Differential pressure	max. 2.5 bar
FDA approved	yes



Depth Filter Cartridge *acuraPEpro*

The depth filter cartridge is manufactured in a patented melt-blown process. The pore structure which is increasing continuously inward, provides excellent particle retention and high dirt holding capacity. The absolute deposition rate ensures reproducible results. The extraordinarily stable matrix ensures consistently high efficiency and high flow rates even when the differential pressure increases. This allows an use in many critical applications in all industrial sectors, such as fine chemicals, sterile water, photoresists, coatings and food, even in the final filtration.

Filter cartridge specifications

Material	polyester (Super-PBT)
Temperature	max. 120°C
Cartridge length	9.87" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	1 µm up to 100 µm, absolute (99,9%)
Differential pressure	max. 4.2 bar at 20°C / 1.2 bar at 80°C
FDA approved	yes



Depth Filter Cartridge *apuraStar*



Melt-blown depth filter cartridge with single-layer structure, which enables a high dirt holding capacity and long service life due to the increasing pore structure from the inside out. Construction of pure polypropylene without any adhesives or binding agents with a high flow rate at low differential pressure. Universal pre-filter cartridge with applications in all industrial sectors. Particularly well suited for filtration of hydrous media such as acids and alkalis but also for paints, inks and other chemicals.

Filter cartridge specifications

Material	polypropylene
Temperature	max. 60°C
Cartridge length	4" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	0.5 µm up to 100 µm, nominal
Differential pressure	max. 3.2 bar at 20°C
FDA approved	yes

Depth Filter Cartridge *apuraMaxiline*



Melt-blown depth filter cartridge with four layered built-up. The different layers with several, graded filter finenesses allow optimal storage of the burial of dirt particles in the filter matrix. Thus the filtration efficiency and the service life are significantly higher than comparable wound filter cartridges. The *apuraMaxiline* is made of 100% polypropylene, without adhesives or binding agents, and thereby complies the requirements for the food industry.

Filter cartridge specifications

Material	polypropylene
Temperature	max. 52°C
Cartridge length	9.87" up to 40"
Diameter	I.D. 28 mm, O.D. 110 mm
Micron rating	1 µm up to 100 µm, nominal (80%)
Differential pressure	max. 3.2 bar at 20°C
FDA approved	yes

Large-Scale Element *apuraTube*



Melt-blown large-scale element with special structure, which enables a high dirt holding capacity and long service life due to the increasing pore structure from the inside out. Construction of pure polypropylene with support core without any adhesives or binding agents with a high flow rate at low differential pressure. Pre-filter element with applications in all industrial sectors. Particularly well suited for filtration of hydrous media such as paints, water and other chemicals.

Large-scale element specifications

Material	polypropylene
Temperature	max. 80°C
Cartridge length	10" up to 40"
Diameter	I.D. 115 mm, O.D. 152 mm
Micron rating	5 µm up to 40 µm, nominal
Differential pressure	max. 3.0 bar at 20°C
Filter area	0.2 up to 0.8 m ²

High Performance Filter Cartridge High Capacity



High Capacity high performance filter cartridges with a patented radial pleating construction, resulting in a much higher surface area than conventional cartridge filter systems produced in a given space. Each high performance filter cartridge contains up to 18 m² filter area. The easy-to-use cartridge design with a diameter of 166 mm and 995 mm length. The large surface area allows a high flow rate and high dirt holding capacity. Each cartridge can charge up to 11 kg ACFTD test dust before the maximum differential pressure is reached to change. The filter material consists of fibres having precisely controlled diameter in order to achieve precise micro retention values. This leads to consistent, high-quality filtration results.

Filter cartridge specifications

Material	polypropylene
Temperature	max. 70°C
Cartridge length	995 mm
Diameter	I.D. 39 mm, O.D. 166 mm
Micron rating	1 µm up to 70 µm, absolute
Differential pressure	max. 2.4 bar at 20°C
Flow rate	max. 18 m ³ /h

High Performance Filter Cartridge High Flow



High Flow high performance filter cartridges with a patented radial pleating construction, resulting in a much higher surface area than conventional cartridge filter systems produced in a given space. The easy-to-use cartridge design with a diameter of 165 mm and 40" or 60" length. The large filter area and the special support adaptor allow maximum flow rate of up to 113 m³/h and a high dirt holding capacity. With only one High Flow performance filter cartridge up to 24 standard filter cartridges of the same length can be replaced. In addition, the system saves space and high filter changing costs.

Filter cartridge specifications

Material	polypropylene
Temperature	max. 71°C
Cartridge length	40" or 60"
Diameter	165 mm
Micron rating	1 µm up to 70 µm, nominal
Differential pressure	max. 3.4 bar at 20°C
Flow rate	40" : up to 80 m ³ /h 60" : up to 113 m ³ /h

Fillable Filter cartridge *apuraRefill*



apuraRefill fillable cartridges are used to hold resins, granular activated carbon and other ad- and absorptions. The fluid to be filtered enters from the bottom of the filter cartridge and flows through the filter container axially. Thereby a maximum contact time is achieved with the filling medium. The filling is held in place by a foam plastic inlay, it effectively prevents the formation of a bypass. An integrated 20 micron post-filter prevents particles from escaping.

Filter cartridge specifications

Material	polypropylene	
Material gasket	NBR	
Temperature	max. 37°C	
Cartridge length	4 7/8", 10" and 20"	
Diameter I.D./O.D.	standard: 27 / 63 mm / BB: 27 / 114 mm	
Volume	200 ml, 700 ml, 800 ml, 1650 ml, 1900 ml, 4500 ml	
Micron rating	pre-filter: 100 µm post-filter: 20 µm	



Activated Carbon Cartridge *apuraCarbon* GAC

GAC filter cartridges are used to remove unwished flavors, oil, fat, organic contaminations as well as reactive compounds (e.g. chlorine, hydrazine) from drinking water and hydrous liquids or gases. The medium to be filtered enters from the bottom of the filter cartridge and flows through the activated carbon bed axially. Thereby the maximum contact time with the activated carbon is achieved. The granulated activated carbon is fixed in position by a foam plastic inlay, it effectively prevents the formation of a bypass. A built-in 5 micron post-filter prevents leakage of activated carbon pieces.

Filter cartridge specifications

Material	polystyrene, granulated activated carbon
Material gasket	NBR
Temperature	max. 52°C
Cartridge length	type GAC: 5", 9.87" and 20" / Typ GAC-BB: 9.87" and 20"
Diameter I.D. / O.D.	type GAC: 27 / 73 mm / type GAC-BB: 27 / 114 mm
Micron rating	5 µm
FDA approved	yes

Activated Carbon Cartridge *apuraCarbon* EP

apuraCarbon EP filter cartridges consist of a compressed carbon block and serve to remove unwished flavors, oil, fat, organic contaminations as well as reactive compounds (e.g. chlorine, hydrazine) from drinking water, hydrous liquids or gases. Due to the patented manufacturing process, these cartridges have an extremely high chlorine and dirt-holding capacity. The flow is radial from the outside inwards. A built-in 5 micron post-filter prevents leakage of activated carbon pieces.

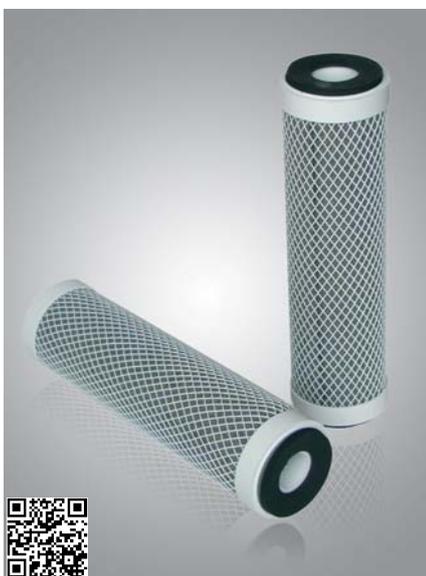


Filter cartridge specifications

Material	polypropylene, compressed activated carbon
Temperature	max. 83°C
Cartridge length	9.87", 20" and 30"
Diameter	I.D. 27 mm, O.D. 73 mm
Micron rating	5 µm
FDA approved	yes

Oil Adsorptive Filter Cartridge *apuraOil*

The filter elements are made of a novel patented filter material based on cellulose. This material can bind dissolved, emulsified and dispersed oil from water by chemical adsorption. In only one cycle, a retention rate up to 95% is achieved. The efficiency can be increased by cascading two or three systems. The unique design allows significant higher flow rates compared to activated carbon at minimum differential pressure. The formation of any by-pass channels can be excluded. The application range covers the chemical and metal processing industries. The material can be used e.g. to clean contaminated surface water, bilge water in ships, condensate from compressors, and for many other applications.



Filter cartridge specifications

Material	cellulose, polypropylene
Temperature	max. 80°C
Cartridge length	9 3/4" and 20"
Diameter I.D. / O.D.	type AOA: 27 / 70 mm / type AOA-BB: 27 / 117 mm
Oil adsorption capacity	up to 2580 g
FDA approved	no

Stainless Steel Filter Cartridge *acuraScreen*

The stainless steel filter cartridges are made of stainless steel wire mesh, which is applied to a stable supporting cage of perforated sheet. Fine mesh is equipped additionally with drainage mesh. Depending on the micron rate square mesh (> 90 microns) or twilled weave mesh is used. The filter cartridges are regenerative and can be easily cleaned by various methods (backflushing, with high-pressure, ultrasonic cleaning or acid bath). They are used especially at high temperatures, at high viscosities or corrosive media. Stainless steel filter cartridges are supplied with DOE end-caps or common adaptors.

Filter cartridge specifications

Material	stainless steel 1.4301 / 1.4401
Material gasket	PTFE or FPM
Temperature	max. 400°C (note the gasket)
Cartridge length	4" up to 30", special lengths possible
Diameter	I.D. 27 mm, O.D. 65 mm
Micron rating	1 µm up to 3000 µm



Stainless Steel Filter Cartridge *acuraPlate*

acuraPlate stainless steel sintered cartridges are made of multiple layers of sintered stainless steel mesh which is placed on a stable support cage. Shifting the various sintering filter layers against one another is not possible, which results consistent, reproducible results of filtration. Depending on the requirement Topmesh or Absoluta mesh are used for the production. The filter cartridges are regenerative and can be easily cleaned by various methods (backflushing, with high-pressure, ultrasonic cleaning or acid bath). They are used especially at high temperatures, at high viscosities or corrosive media. Stainless steel filter cartridges are supplied with DOE end-caps or common adaptors.

Filter cartridge specifications

Material	stainless steel 1.4301 / 1.4401
Material gasket	PTFE or FPM
Temperature	max. 400°C (note the gasket)
Cartridge length	4" up to 30", special lengths possible
Diameter	I.D. 27 mm, O.D. 65 mm
Micron rating	1 µm up to 500 µm



Stainless steel profile and filter parts

We offer prefabricated metal filter mesh and ready for use products such as:

- Filter baskets** For process engineering and chemical instruments. Made of stainless steel with or without metallic lining
- Extruder screens** For all common types of extruders, in round, aggregated or kidney shape
- Assembled parts** In custom and serial production according to customer requirements, in single-layer as well as in multi-layer designs



Pleated Filter Cartridge *acuraProflow*[®]

Filter cartridge with pleated woven filter medium made of polypropylene fibres. The two-layer structure of the filter matrix, coupled with the high efficiency and long service life, makes this cartridge ideal for pre- and end-filtration in all critical applications. Supporting cage and end-caps are also heat-sealed polypropylene parts. Common applications are pre-filtration in front of membranes, photo emulsions, process solutions, high purity chemicals, deionized water, acids, alkalis, cosmetics, beverages and foods.

Filter cartridge specifications

Material	100 % polypropylene
Temperature	max. 95°C
Cartridge length	4" up to 40"
Diameter	I.D. 28 mm, O.D. 63 mm
Micron rating	0.2 µm up to 20 µm, absolute (99.9%)
Filter area	< 0.67 m ² / 10" filter cartridge
Differential pressure	max. 4.9 bar at 20°C / max. 1.4 bar at 95°C
FDA approved	yes

Membrane Filter Cartridge *acuraFine AFA*

Pleated filter cartridge with polyamide (nylon) membrane. The hydrophilic properties of the membrane allow the use in many sectors of end-filtration. Especially in the beverage and food industry, in the fine chemical, in water treatment and generally in hydrous solutions, the advantages of the good wettability are obviously. Support cage and end-caps are made from polypropylene and heat-sealed.

Filter cartridge specifications

Material	membrane nylon (hydrophilic), support cage polypropylene
Temperature	max. 90°C in water / max. 60°C for chemical applications
Cartridge length	10" up to 40"
Diameter	I.D. 28 mm, O.D. 69 mm
Micron rating	0.1 µm, 0.2 µm, 0.45 µm, 0.65 µm und 1 µm, absolute
Filter area	0.9 m ² / 10" filter cartridge
Differential pressure	max. 5.6 bar at 20°C / max. 1.4 bar at 90°C
Fabrication	in a clean room, on request pre-rinsed with 18 MΩ DI water integrity test during production possible
FDA approved	yes

Membrane Filter Cartridge *acuraFine AFS*

Filter cartridge with pleated polyethersulfone membrane. The membrane has an asymmetric structure, this allows long service life along with maximum efficiency. Polyethersulfone has excellent chemical resistance and allows the use in many critical areas. A deposition rate up to 0.04 micron makes this filter cartridge suitable especially for applications in the electronics industry.

Filter cartridge specifications

Material	membrane polyether sulfone (hydrophilic), support cage polypropylene
Temperature	max. 80°C
Cartridge length	10" up to 40"
Diameter	I.D. 28 mm, O.D. 69 mm
Micron rating	0.04 µm, 0.1 µm, 0.2 µm, 0.45 µm and 0.65 µm and 1.2 µm absolute
Filter area	0.55 m ² / 10" filter cartridge
Differential pressure	max. 5.5 bar at 20°C / max. 1.7 bar at 80°C
Fabrication	in a clean room, on request pre-rinsed with 18 MΩ DI water integrity test during production possible
FDA approved	yes

Membrane Filter Cartridge *acuraVent AVF*

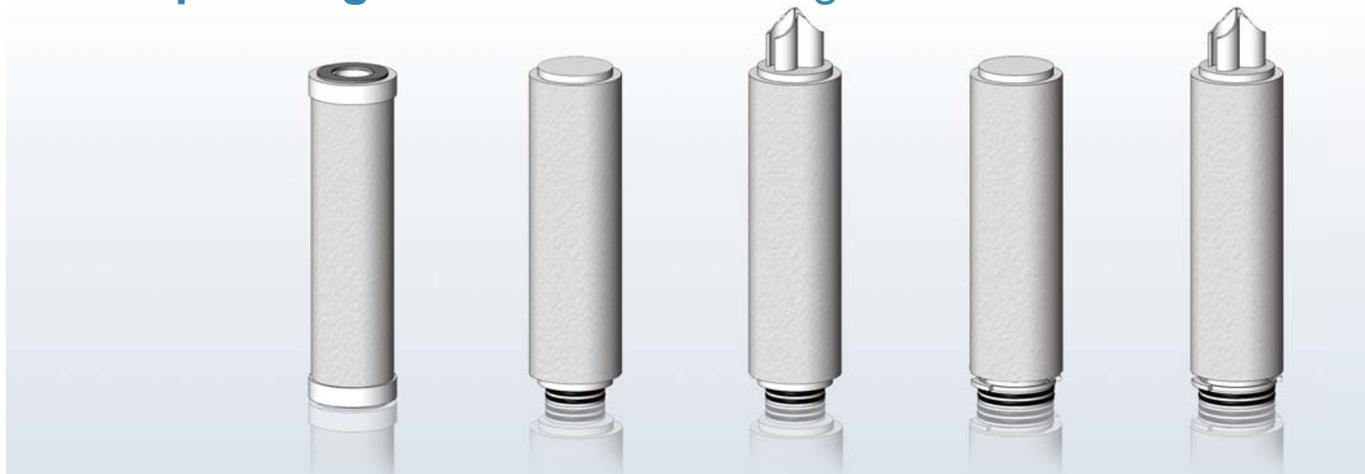


Pleated filter cartridge with PTFE membrane. The hydrophobic properties of the membrane filter cartridge is perfect for ventilation. Because of the good chemical resistance of the membrane the cartridge can also be used in the filtration of aggressive chemicals and solvents. By 40% more filter surface area than conventional filter cartridges have, long life can be achieved at low differential pressure. Support cage and end-caps are made of polypropylene and heat-sealed.

Filter cartridge specifications

Material	membrane PTFE (hydrophobic), support cage polypropylene
Temperature	max. 95°C
Cartridge length	5" up to 40"
Diameter	I.D. 28 mm, O.D. 69 mm
Micron rating	0.05 µm, 0.1 µm, 0.2 µm, 0.45 µm and 1 µm, absolute
Filter area	0,9 m ² / 10" filter cartridge
Differential pressure	max. 5.6 bar at 20°C / max. 1.4 bar at 95°C
Fabrication	in a clean room, on request pre-rinsed with 18 MΩ DI water integrity test during production possible
FDA approved	yes

End-Cap Configuration Filter Cartridges



<i>acuraLine</i> ® Code	F0	F2	F3	F4	F5
Standard Code	DOE	Code 3	Code 8	Code 2	Code 7
Description	both-sided flat gasket	top: flat 222-adaptor	top: fin 222-adaptor	top: flat 226-adaptor	top: fin 226-adaptor

Single-Use Capsule *acuraCap*



Pleated filter capsules with PTFE or PP matrix. Specially designed for small filtration amounts and do not require any further pressure vessel. *acuraCap* filter capsules are commonly used in laboratories, but also for ventilation of containers. Housing and matrix are free of metal components and because of the heat-sealed construction free of adhesives and binding agents.

Filter capsule specifications

Material	matrix polypropylene / PTFE, cage polypropylene
Temperature	max. 25°C
Overall length	114 mm
Volume	200 ml
Micron rating	0.1 µm, 0.2 µm, 0.5 µm, 1.0 µm, 3.0 µm, 5.0 µm, 10 µm, 25 µm, 50 µm, absolute
Filter area	1300 cm ²
Connection IN/OUT	MNPT 1/4"
Max. pressure	4.9 bar for fluids / 2.9 bar for gases
Differential pressure	max. 3.5 bar at 25°C
Fabrication	in a clean room
FDA approved	yes

Filter Module Fibrafix®

Depth filter modules designed for use in closed systems, combined with a simple and safe handling. The efficiency of this filter material is improved by additional electrokinetic forces (Zeta Potential). Thereby particles are retained, which are smaller than the actual pore size of the mechanical filter matrix. This mechanism ensures excellent filtration quality and high dirt holding capacity up to 4 kg / m². The modules are available double open end (flat adapter) or with bayonet adaptor.



Filter module specifications

Material	cellulose, support cage and edge grouting polypropylene
Temperature	max. 82°C
Diameter	10", 12" or 16"
Number of cells	16 (modules with less cells are available on request)
Micron rating	0.04 µm up to 20 µm
Filter area	10" - module: 1.4 m ² / 12" - module: 1.8 m ² / 16" - module: 3.6 m ²
Differential pressure	max. 2.4 bar
FDA approved	yes

Filter Module *acura*Cell ACN-ST

Depth filter module made of cellulose fibers, inorganic filter additives (diatomaceous earth) and cationic binder resins. Core support, drainage and edge grouting are in the series ACN made of polyamide. This allows to operate at higher temperatures and critical applications where polypropylene is not stable enough. The depth filter modules can be supplied with a diameter of 12" or 16" and packaged according to the application with a different number of cells. The large range of deposition rates allows the use in many applications.



Filter module specifications

Material	cellulose, support cage and edge grouting polyamide
Temperature	max. 110°C
Diameter	12" or 16"
Number of cells	5, 9, 10, 14, 16 or 17
Micron rating	0.1 µm up to 4.0 µm
Filter area	12" - module: 2 m ² / 16" - module: 3.9 m ²
Differential pressure	max. 3.0 bar
FDA approved	yes

Activated Carbon Filter Module Carbofil®

Activated carbon depth filter module with high adsorptive capacity. Manufactured under specific criteria of purity. Consists of activated carbon, purified and bleached cellulose and diatomaceous earth. The applications are mainly in the discoloration of chemicals, cosmetics, sugar syrup and drinks, but also in the blood treatment and in the dechlorination of water.



Filter module specifications

Material	activated carbon/cellulose, support cage and edge grouting polypropylene
Temperature	max. 82°C
Diameter	10", 12" or 16"
Number of cells	16 (modules with a lower number of cells are available on request)
Carbon content	10" - module: 630 g / 12" - module: 810 g / 16" - module: 1620 g
Filter area	10" - module: 1.4 m ² / 12" - module: 1.8 m ² / 16" - module: 3.6 m ²
Differential pressure	max. 2.4 bar
FDA approved	yes

Filter Module *acuraCell* ACH 10"



Depth filter modules developed for specific use in the hydraulic oil filtration. Typical applications of this depth filter are units for filling, flushing and cleaning of hydraulic oils, as well as the cleaning of cutting oils and coolants. With *acuraCell* ACH filter modules you reduce your production costs and increase the service life of your fluid. System impurities and extra maintenance are avoided. The result is a compact and efficient filtration.

Filter module specifications

Material	cellulose, support cage and edge grouting polypropylene
Temperature	max. 82°C
Diameter	10"
Number of cells	16 (modules with less cells are available on request)
Micron rating	2 µm up to 30 µm
Filter area	10"- module: 1.4 m ²
Differential pressure	max. 2.4 bar
FDA approved	yes

Mini Capsules *Purafix*® / *Carbofil*®



The mini capsules were developed to carry out small graduated filtrations in an easy, quick and low priced way. Indispensable assistant in the laboratory or college of technology to test the potential application of depth filters in actual production. The deposition rate of the filter materials *Purafix*® / *Carbofil*® correspond precisely to the *Fibrafix*® or *Carbofil*® material, so a transference of the filtration quality is possible one-to-one. For the use with especially high solid load, the capsule is available with enlarged reservoir (fig. on the left).

Mini capsule specifications

Material	<i>Purafix</i> ®: cellulose, polyamide / <i>Carbofil</i> ®: activated carbon/cellulose, polyamide
Temperature	max. 82°C
Diameter	69 mm
Micron rating	0,04 µm and 20 µm
Filter area	28 cm ²
Differential pressure	max. 2.4 bar
Hose connection	8 up to 10 mm
FDA approved	yes

Filter Layers *Fibrafix*®



Depth filter sheets designed for use in open systems. The efficiency of this filter material is improved by additional electrokinetic forces (Zeta Potential). Thereby, particles are retained, which are smaller than the actual pore size of the mechanical filter matrix. This mechanism ensures excellent filtration quality and high dirt holding capacity of up to 4 kg / m². The filter layers are available as standard material as a rectangle, but can be arbitrarily assembled.

Filter layers specifications

Material	cellulose
Temperature	max. 82°C
Dimensions	max. 1215 x 2425 mm
Micron rating	0.04 µm and 20 µm
Filter area	max. 2.95 m ²
Flow rate	max. 1000 l per m ² /h
Differential pressure	max. 2.5 bar
FDA approved	yes



Standard Filter Bags



Filter Bag *acuraBag*® - Depth Filter



The *acuraBag*® filter bags are cheap and powerful filters. They are made from textile needle felts made of polypropylene or polyester in various micron ratings. The top is sealed by a welded plastic collar, the sealing lips ensure a bypass free sealing. The collar material is adapted to the respective filter material to avoid resistance problems. All abutting edges are welded, particle migrations through seams and needle holes are a thing of the past.

Filter bag specifications	
Material filter bag	polypropylene / polyester
Material plastic collar	polypropylene / polyester
Temperature	polypropylene: max. 70°C / polyester: max. 150°C
Diameter	Ø 178 mm
Micron rating	1 µm up to 200 µm
Filter area	size 1: ~0.25 m² / size 2: ~0.5 m²

Filter Bag *acuraBag*® - Monofil



The monofil filter bags *acuraBag*® are made of textile nylon square mesh in various micron rates. The top is sealed by a welded plastic collar, the sealing lip ensure a bypass free sealing. These filters find their applications mainly as a surface filter in the pre-filtration for retention of coarse particles. Also wash and re-use is common practice for these filter bags.

Filter bag specifications	
Material filter bag	nylon
Material plastic collar	polypropylene
Temperature	max. 140°C
Diameter	Ø 178 mm
Micron rating	50 µm up to 1200 µm
Filter area	size 1: ~0.25 m² / size 2: ~0.5 m²

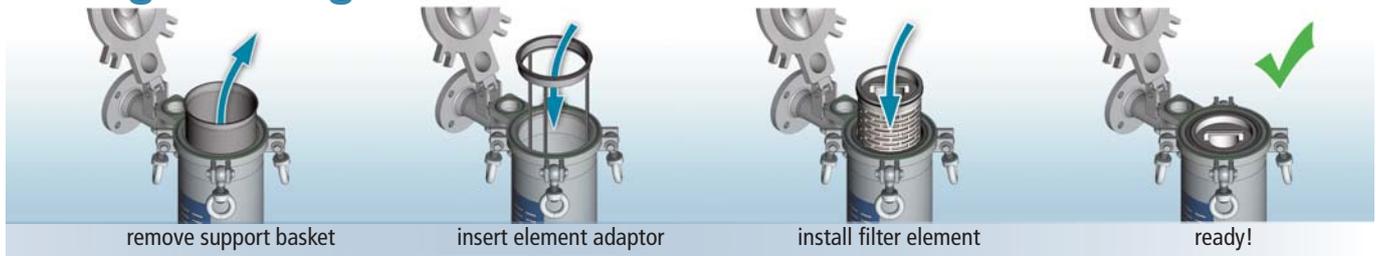
Filter Bag BP / BN



Filter bags BP / BN are cheap filters which are characterized by high efficiency and high performance. They have been developed specifically for use in PBH filter housings. The top is sealed by a welded-sealing adaptor. All joints are also welded at the BP bags. Particle migrations through seams and needle holes belong to the past. The filter bags BP / BN are available in polypropylene and nylon. All processed materials are free from harmful substances, such as silicone.

Filter bag specifications	
Material filter bag	BP: polypropylene needle felt / BN: nylon monofil
Material sealing face	BP: polypropylene needle felt / BN: nylon monofil
Temperature	max. 38°C
Diameter	Ø 102 mm
Micron rating	1 µm up to 800 µm
Filter area	size 410: ~0.07 m² / size 420: ~0.12 m²

Change To Bag Filter Elements



remove support basket

insert element adaptor

install filter element

ready!

Bag Filter Element *apuraPleat*



apuraPleat high performance filter elements combine the advantages of conventional filter bags and filter cartridges in one filter element. By the patented pleating a substantially bigger filter surface (3.15 m² to 0.5 m²) is reached compared with filter bags. Service life and dirt-holding capacity will increase several times. Analogous to the filter bag is the filtration from the inside instead of the outside. All dirt particles are reserved inside the filter element and will not contaminate the clean room during the filter change.

Filter bag element specifications

Material mesh	polypropylene / polyethylene
Material cage	polypropylene
Material gasket	EPDM
Temperature	max. 80°C
Dimensions	O.D. = 152 mm; lg = 20"
Micron rating	1 µm up to 70 µm
Filter area	3.15 m ²
Differential pressure	max. 3.0 bar



Bag Filter Element *apuraSpace*



apuraSpace high performance filter elements combine the advantages of conventional filter bags and filter cartridges in one filter element. By the patented vertical pleating a substantially bigger filter surface (4.4 m² to 0.5 m²) is reached compared with filter bags. Service life and dirt-holding capacity will increase several times. Analogous to the filter bag is the filtration from the inside instead of the outside. All dirt particles are reserved inside the filter element and will not contaminate the clean room during the filter change.

Filter bag element specifications

Material mesh	polypropylene
Material cage	polypropylene
Material gasket	EPDM
Temperature	max. 80°C
Dimensions	O.D. = 152 mm; lg = 20"
Micron rating	2 µm up to 70 µm
Filter area	4.4 m ²
Differential pressure	max. 2.5 bar



Bag Depth Filter Element *apuraMeltflow*



apuraMeltflow high performance filter elements combine the advantages of conventional filter bags and filter cartridges in one filter element. It is produced by the patented melt blown process. In this case the pore structure and the polypropylene fibres are from the inside to the outside increasingly refined. This structure allows the storage of different sized particles of dirt. Thanks to its large filtration thickness they have a particularly high performance depth filter. Analogous to the filter bag is the filtration from the inside instead of the outside. All dirt particles are reserved inside the filter element and will not contaminate the clean room during the filter change.

Filter bag element specifications

Material mesh	polypropylene
Material cage	polypropylene
Material gasket	EPDM
Temperature	max. 80°C
Dimensions	O.D. = 152 mm; lg = 20"
Micron rating	1 µm up to 100 µm
Filter area	0.14 m ²
Differential pressure	max. 2.4 bar at 20°C



Cartridge Filter Housing AC-PP / AC-PC



The plastic filter housings are made of polypropylene and sealed with a revolutionary double O-ring gasket on the filter sump. This allows a by-pass free installation of filter cartridges whose production lengths deviate from the standard length. Polypropylene is extremely resistant to non-oxidizing acids such as hydrochloric and sulfuric acids, salt solutions, liquid hydrocarbons, alcohols, and concentrated alkalis. Useful accessories such as opening wrench or wall mounting bracket can be optionally included.

Series AC-PP

Filter head and filter sump made of polypropylene. The optional mounted vent button on the filter head allows a simple and straightforward way of venting.

Series AC-PC

Filter head made of polypropylene, filter sump made of colorless, transparent SAN (styrene-acrylonitrile). The housing bottom SAN used for filtration of water or dilute acids.

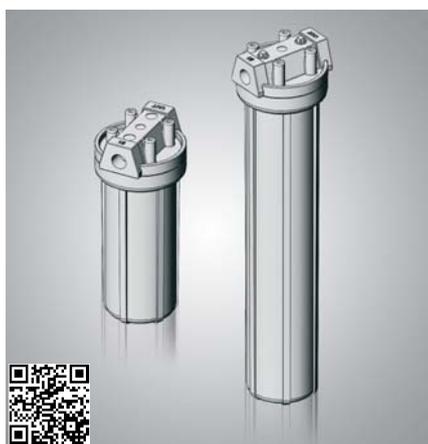
Series AC-BB

Filter housings are used to hold filter cartridges up to a maximum diameter of 115 mm. This allows higher flow rates and longer service life.

Filter housing specifications

Housing series	AC-PP	AC-PC	AC-BB
Material filter head	PP	PP	PP
Material filter sump	PP	SAN	PP
Max. operating pressure	5.8 bar at 38°C	5.8 bar at 38°C	5.8 bar at 38°C
Connection IN/OUT	Rp 3/4"	Rp 3/4"	Rp 1", Rp 1 1/2"
Cartridge diameter	max. 72 mm	max. 72 mm	max. 115 mm
Cartridge length	9 7/8", 20"	9 7/8", 20"	9 7/8", 20"
End-cap configuration	DOE	DOE	DOE
Drain	no	no	no
Vent	vent button optional	vent button	vent button

Cartridge Filter Housing FFU-N



The filter housing series FFU-N are made of polypropylene (natural) acc. the FDA requirements and take a single filter cartridge of a length of 10" or rather 20". Bacterial adhesion is excluded by the ultra-smooth surface of the polypropylene. The material is also highly resistant to non-oxidizing acids such as hydrochloric and sulfuric acid up to 70% concentration, salt solutions, liquid hydrocarbons, alcohols, and concentrated alkalis. The FFU-N filter housings are used for filtration of water and diluted acids at temperatures below 40°C, and find their application in laboratories, the pharmaceutical and electronics industries.

Series FFU-N 37/47

To install a DOE double open end filter cartridge. Available with or without vent / drain connections and plugs.

Series FFU-N 39/48

To install an 222-adaptor filter cartridge. Available with or without vent and drain connections and plugs.



Filter housing specifications

Housing series	FFU-N 37/47	FFU-N 39/48
Material filter head	PP natural	PP natural
Material filter sump	PP natural	PP natural
Max. operating pressure	6.9 bar at 38°C	6.9 bar at 38°C
Connection IN/OUT	Rp 3/4"	Rp 3/4"
Cartridge diameter	max. 72 mm	max. 72 mm
Cartridge length	10", 20"	10", 20"
End-cap configuration	DOE	222-adaptor
Drain	optionally Rp 1/4"	optionally Rp 1/4"
Vent	optionally Rp 1/4"	optionally Rp 1/4"

Cartridge Filter Housing 1FU/1FO



Series 1FU

The lid closure is designed with round thread and sealing by an O-ring. The high pressure strength opens up the use in many industrial applications. Filter head / filter sump made of stainless steel 304/316. DOE cartridges and adaptor filter cartridges with 222-adaptor can be used in this housing. DOE filter cartridges are fixed with a removable cartridge adaptor. This allows a small removal length and by-pass free filtration.



Series 1FO-SS

The lid closure is designed with a quick clamp and sealed by an O-ring. The high pressure strength opens up the use in many industrial applications. Filter housing completely made of stainless steel 316. The housing is designed to connect cartridges with bayonet adaptor code 7 (226).

Filter housing specifications

Housing series	1FU-A2	1FU-A4	1FO-SS
Material filter head	stainless steel 304	stainless steel 316	stainless steel 316
Material filter sump	stainless steel 304	stainless steel 316	stainless steel 316
Max. operating pressure	25 bar at 80°C	25 bar at 80°C	25 bar at 80°C
Connection IN/OUT	Rp 1"	Rp 1"	Rp 3/4", Rp 1"
Cartridge diameter	max. 72 mm	max. 72 mm	max. 72 mm
Cartridge length	5", 10", 20" and 30"	5", 10", 20" and 30"	10", 20" and 30"
End-cap configuration	DOE, 222-adaptor	DOE, 222-adaptor	226-adaptor
Drain	Rp 3/8" with plug	Rp 3/8" with plug	Rp 3/8" with plug
Vent	Rp 1/4" with plug	Rp 1/4" with plug	Rp 1/4" with plug

Cartridge Filter Housing ALKF / FWK



Welded stainless steel constructions for 5 or 7 filter cartridges. They consist of a casted head with a hinged lid and a vertical cylindrical vessel shell with welded boiler dished head. The lid is sealed by an O-ring and closed with eye-bolts. The inlet is located sidewise to the shell, the outlet on the opposite side in the lower boiler dished head, respectively downwards in the boiler dished head.

Series 5ALKF2/3

Filter housing to install 5 pcs. DOE filter cartridges or adaptors filter cartridges. Due to the design, it has 54% less volume than conventional cartridge filter housings. The filter housing is designed for the filtration of liquids of fluid group 2 (non-dangerous). The filter housings are electropolished inside and outside and equipped with adjustable legs.

Series 5(7)FWK

Filter housing to install 5 or 7 pcs. DOE filter cartridges or adaptor filter cartridges. Filter housing designed for the filtration of liquids of fluid group 2 (non-dangerous). The filter housings are electropolished inside and outside and equipped with adjustable legs.

Filter housing specifications

Housing series	5ALKF2	5ALKF3	5(7)FWK2	5(7)FWK3
Material filter housing	stainless steel 304	stainless steel 304	stainless steel 316 L	stainless steel 316 L
Max. operating pressure	10 bar at 80°C	10 bar at 80°C	10 bar at 80°C	10 bar at 80°C
Connection IN/OUT	flange DN50 PN16	flange DN50 PN16	flange DN50 PN16	flange DN50 PN16
Cartridge diameter	max. 72 mm	max. 72 mm	max. 72 mm	max. 72 mm
Cartridge length	DOE: 19 1/2" / 222-ad.: 20"	DOE: 29 1/4" / 222-ad.: 30"	19 1/2", 20"	29 1/4", 30"
End-cap configuration	DOE / 222-adaptor	DOE / 222-adaptor	DOE / 222-adaptor	DOE / 222-adaptor
Drain	Rp 1/2" / R 1/2"	Rp 1/2" / R 1/2"	Rp 1/2"	Rp 1/2"
Vent	Rp 1/4"	Rp 1/4"	Rp 1/2"	Rp 1/2"
Conformity evaluation	without category	without category	without category	without category

Bag Filter Housing BFOS



Welded stainless steel construction to install a filter bag size 1 or 2. They consist of a vertical cylindrical vessel shell with casted lids and casted bag support. The lid is sealed by an O-ring and is flapped with a hinge and remains on the vessel while opening. The closure is designed with eye-bolts and ring nuts. The filter support is fixed reliably with a continuously variable downholder. Filter bags with plastic collar as well as bags with internal steel ring can be sealed bypass free. Additional connections and a casted bolting on both sides enable a rapid installation of a differential pressure gauge. The filter housings are electropolished inside and outside and equipped with adjustable legs. The filter housings are designed for the filtration of liquids of fluid group 2 (non-dangerous).

Optional equipment:

- Differential pressure gauge kit (completely assembled on request)
- Manometer venting units
- Drain valves
- Volume reducer
- Bag easy-fit tool
- Magnet bar brackets



Filter housing specifications

Housing series	BFOS1(2)F flange connection	BFOS1(2)G thread connection
Material filter housing	stainless steel 304 or 316	stainless steel 304 or 316
Max. operating pressure	10 bar at 80°C	10 bar at 80°C
Connection IN/OUT	DN50 PN16 / DN80 PN16	Rp 2"
Bag size	size 1 or size 2	size 1 or size 2
Vent	2x Rp 1/4	2x Rp 1/4
Differential pressure	2x Rp 1/4	2x Rp 1/4
Conformity evaluation	without category	without category

Bag Filter Housing BFOT(S)



Welded stainless steel construction to install a filter bag size 1 or 2. They consist of a vertical cylindrical vessel shell with casted lids and casted bag support. The lid is sealed by an O-ring and is flapped with a hinge and remains on the vessel while opening. The closure is designed with eye-bolts and ring nuts. The top-line design allows an optimal inlet flow through the lid into the filter bag and a short overall length for the same filter area. Additional connections and a casted bolting on both sides enable a rapid installation of a differential pressure gauge. The filter housings are electropolished inside and outside and equipped with adjustable legs. The filter housings are designed for the filtration of liquids of fluid group 2 (non-dangerous).

Optional equipment:

- Differential pressure gauge kit (completely assembled on request)
- Manometer venting units
- Drain valves
- Volume reducer
- Bag easy-fit tool
- Magnet bar brackets



Filter housing specifications

Housing series	BFOTS1(2) flange connection	BFOT1(2) flange / thread conn.	BFOT4 thread connection
Material filter housing	stainless steel 304	stainless steel 316	stainless steel 316
Max. operating pressure	10 bar at 80°C	10 bar / 16 bar at 80°C	10 bar at 80°C
Connection IN/OUT	DN50 PN16	DN50 PN16 / DN65 PN16 / R2"	Rp 1"
Bag size	size 1 or size 2	size 1 or size 2	size 4
Vent	Rp 1/2"	Rp 1/2"	Rp 1/2"
Differential pressure	1x Rp 1/4" / 1x Rp 1/2"	no	no
Conformity evaluation	without category	without category	without category

Bag Filter Duplex Filter Units 2-BFOS



Duplex filter consist of two flanged bag filter housings BFOS. The pipework is available in DN80 or DN100, it enables high flow rates. The hinged lids with eye-bolts allow a quick and easy bag change. By toggling flap valves, the duplex filter can also be converted to switchable filter stations. The housings are equipped with adjustable legs, a differential pressure measurement is optional.

2-BFOS2-10/80

Consisting of two filter housings with inlet and outlet in DN50. The pipework is designed in DN80, hence depending on the used filter bag and the filtration medium, a maximum flow rate of 50 m³/h is possible.

2-BFOS2-10/100

Consisting of two filter housings with inlet and outlet in DN80. The pipework is designed in DN100, hence depending on the used filter bag and the filtration medium, a maximum flow rate of 80 m³/h is possible.

Optional:

welded double bag filter units



Filter housing specifications

Duplex filter type	2-BFOS2-10/80	2-BFOS2-10/100
Material filter housings	stainless steel 304	stainless steel 304
Max. operating pressure	10 bar at 80°C	10 bar at 80°C
Connection IN/OUT	DN80	DN100
Bag size	size 2	size 2
Vent	2x Rp 1/4"	2x Rp 1/4"
Differential pressure	2x Rp 1/4"	2x Rp 1/4"
Conformity evaluation	without category	without category

Bag Filter Housing 4ALSLS / 6ALSLS / 8ALSLS



Welded stainless steel construction to install four, six or eight filter bags size 2. They consist of a vertical cylindrical vessel shell with hinged lid and welded boiler dished head. The closure is designed with eye-bolts with ring nuts and sealed by an O-ring. The inlet is located sidewise to the shell and the outlet tangential to the boiler dished head at the bottom. The lid is built-on with a spring-assisted opening device that allows an easy and safe opening of the lid without any tools. The housings are equipped with vent and drain valves.

The filter housings are designed for the filtration of liquids of fluid group 2 (non-dangerous).

Optional equipment:

- Differential pressure gauge (on request)
- Manometer
- Volume reducer
- Bag easy-fit tool
- Magnet bar brackets

Optional with quick closure



Filter housing specifications

Housing series	4ALSLS	6ALSLS	8ALSLS
Material filter housing	stainless steel 304 or 316L	stainless steel 304 or 316L	stainless steel 304 or 316L
Max. operating pressure	10 bar at 80°C	10 bar at 80°C	10 bar at 80°C
Connection IN/OUT	DN100 PN16	DN150 PN16	DN200 PN16
Quantity / bag size	4 pcs. / size 2	6 pcs. / size 2	8 pcs. / size 2
Vent/ Drain	Rp 1/2" / Rp 1/2"	Rp 1/2" / Rp 1/2"	Rp 1/2" / R 1 1/4"
Manometer	R 1/2"	R 1/2"	R 1/2"
Conformity evaluation	without category	without category	without category

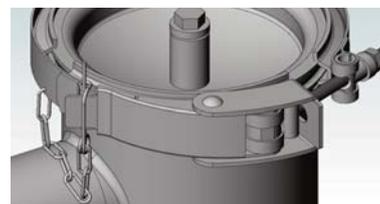
Bag Filter Housing ALSI3 / ALSI4



Welded stainless steel constructions to install a filter bag size 3 or 4. They consist of a vertical cylindrical vessel shell with molded cover and welded boiler dished head. The lid is sealed by an O-ring. The lid closure is designed with a clamp with safety pin. The filter support is fixed reliably with a downholder. Filter bags with plastic collar as well as those with internal steel ring be sealed bypass free. The filter housings are designed for the filtration of liquids fluid group 2 (non-dangerous).

Optional equipment:

- Manometer venting units
- Wall bracket
- Adjustable legs



Filter housing specifications

Housing series	ALSI3	ALSI4
Material filter housing	stainless steel 304 or 316	stainless steel 304 or 316
Max. operating pressure	10 bar at 90°C	10 bar at 90°C
Connection IN/OUT	Rp 1 1/2"	Rp 1 1/2"
Bag size	size 3	size 4
Vent	Rp 1/4"	Rp 1/4"
Conformity evaluation	without category	without category

Bag Filter Housing PBH 410 / 420



The plastic filter housings are made of polypropylene and comply with FDA requirements. The material is extremely resistant to non-oxidizing acids such as hydrochloric and sulfuric acids, salt solutions, liquid hydrocarbons, alcohols, and concentrated alkalis. The housing is designed for a bag elements with a length of 220 mm or 460 mm. The lid is sealed by an O-ring on the filter sump. The filter housing is equipped with a pressure gauge, drain valve and opening wrench.

Optional equipment:

- Bracket for wall mounting

Available reverse unit:



Filter housing specifications

Housing series	PBH 410	PBH 420
Material filter housing	polypropylene	polypropylene
Max. operating pressure	6.5 bar at 38°C	6.0 bar at 38°C
Connection IN/OUT	Rp 1" / Rp 1 1/2"	Rp 1 1/2"
Bag element length	220 mm	460 mm
Manometer	Rp 1/4"	Rp 1/4"
Drain	NPT 3/8"	NPT 3/8"

Bag Filter Housing ALPT / ALPS



Welded plastic constructions to install a filter bag size 2. They consist of a vertical cylindrical vessel shell with flat lid and welded flat bottom. The lid is sealed with a profile gasket and is flapped over a hinge and remains on the housing while opening. The closure is designed with eye-bolts and comfort nuts. A splash guard provides additional safety in use with hazardous materials. The filter support is fixed reliably with a downholder. Both filter bags with plastic adaptor, as well as those with internal steel ring be sealed bypass free. The filter housings are equipped as standard with a pressure gauge with diaphragm seals, as well as a venting valve unit and a drain valve. The filter housings are designed for the filtration of liquids fluid group 1 (dangerous).

Series ALPT

The inlet is from above over the lid, the outlet is located sidewise to the shell.

Series ALPS

The inlet is located sidewise to the shell, the outlet is located sidewise to the shell on the opposite side.



Filter housing specifications

Housing series	ALPT	ALPS
Material filter housing	polypropylene	polypropylene
Max. operating pressure	6 bar at 30°C	6 bar at 30°C
Connection IN/OUT	D 63 - 2" PN10	DN65 PN10 / DN80 PN10 (loose flange)
Bag size	size 2	size 2
Vent, Manometer	Rp 1/2"	Rp 1/2"
Drain	DN20 - hose clip	DN20 - hose clip
Conformity evaluation	without category	without category

Element Filter Housing 1TU



Welded stainless steel constructions to install one large-scale filter element *acuraTube*. They consist of a vertical cylindrical vessel shell with casted lid. The lid is sealed by an O-ring and is flapped with a hinge and remains while opening on the vessel. The closure is designed with eye-bolts and ring nuts. The filter insert is fixed reliably with a removable element adaptor. Additional connections enable a rapid installation of a differential pressure gauge. The filter housings are satined inside and outside and equipped with adjustable legs.

The filter housings are designed for the filtration of liquids of fluid group 2 (non-dangerous).

Optional equipment:

- Differential pressure gauge kit (completely assembled on request)
- Manometer venting units
- Drain valves
- Automatic vent unit



Filter housing specifications

Housing series	1TU F flange connection	1TU R thread connection
Material filter housing	stainless steel 304 or 316	stainless steel 304 or 316
Max. operating pressure	10 bar at 80°C	10 bar bei 80°C
Connection IN/OUT	DN50 PN16 / DN80 PN16	R 2"
Cartridge diameter	I.D. 115 mm / O.D. 152 mm	I.D. 115 mm / O.D. 152 mm
Cartridge length	20" up to 40"	20"
Vent / drain	Rp 1/2" / 2x Rp 3/4"	Rp 1/2" / Rp 3/4"
Differential pressure	2x Rp 1/4"	2x Rp 1/4"

Module Filter Housing PTC / F10-ZB

Welded stainless steel construction to install one or two filter modules size 10" (F10-ZB) / 12" (PTC).

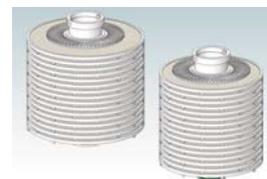


Series PTC

Consist of a vertical cylindrical vessel shell with flat lid and flat bottom. The lid is covered with a quick closure clamp, sealing is ensured by an O-ring. The inlet is decentralized, the outlet centrally located in the lower bottom. The housings are supplied with three welded legs.

Series F10-ZB

Consist of a vertical cylindrical vessel shell with hinged lid and flat bottom. The lid is sealed by an O-ring and closed with eye-bolts and star handle nuts. The inlet is decentralized, the outlet centrally located in the lower bottom. Additional connections allow the installation of a differential pressure gauge. The housings are supplied with three welded legs.



Filter housing specifications

Housing series	PTC 30A1	PTC 30A2	F10-ZB
Material filter housing	stainless steel 304	stainless steel 304	stainless steel 304
Max. operating pressure	6 bar at 80°C	6 bar at 80°C	10 bar at 80°C
Connection IN/OUT	R 2"	R 2"	DN50 PN16
Filter module	1 pc. 12" - type A	2 pcs. 12" - type A	1 od. 2 pcs. 10" - type A
Vent	R 3/8"	R 3/8"	Rp 1/2"
Drain	R 1/2"	R 1/2"	Rp 1/2"

Basket Filter Housing SF-IL

Welded stainless steel construction to install a filter basket with a filter area of 0.11 m² up to 0.31 m². They consist of a vertical cylindrical vessel shell with flat lid and welded flat bottom. The lid is sealed by an O-ring and closed with eye-bolts and star handle nuts. This enables a very fast cleaning service of the filter basket without tools. The above-average large filter area allows a long service life and high dirt holding capacity. The product inlet is located sidewise to the shell, the outlet on the opposite side in a line. Additional connections allow the installation of a differential pressure gauge.

Available standard screen basket
micron ratings: 50, 100, 300, 500, 1000 µm

The filter housings are designed for filtration of liquids of fluid group 1 (dangerous)
CE marked and fluid group 2 (non-dangerous).



Filter housing specifications

Housing series	SF-IL-16	SF-IL-22	SF-IL-27
Material filter housing	stainless steel 304	stainless steel 304	stainless steel 304
Max. operating pressure	10 bar	10 bar	10 bar
Max. operating temperature	-10/+80°C	-10/+80°C	-10/+80°C
Connection IN/OUT	DN50 PN16 / DN65 PN16	DN80 PN16 / DN100 PN16	DN125 PN16 / DN150 PN16
Filter area	0.11 m ²	0.22 m ²	0.31 m ²
Vent	Rp 3/8"	Rp 3/8"	Rp 3/8"
Drain	Rp 3/4"	Rp 3/4"	Rp 3/4"
Differential pressure	2x Rp 1/4"	2x Rp 1/4"	2x Rp 1/4"
Conformity evaluation	without category / category I	without category / category I	without category / category I



Mobile Filter Unit *acuraMobil*



Mobile filter unit for filtration of cooling lubricants, mineral oils and aqueous emulsions. The modular filter system is available in three variants and can be changed over in a few steps with the required filter. The completely self-priming system is equipped with an inlet and outlet hose. The filter unit can be used in full flow or bypass. The control of the pump via integrated switch with motor protection contactor. All necessary pressure gauges and fittings are included.

Inclusive equipment:

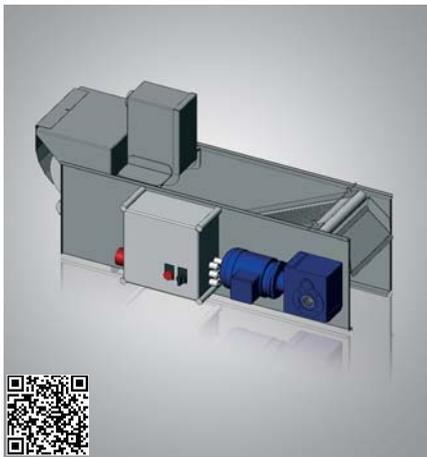
- Differential pressure measurement
- Manometer venting units
- Drain valves
- Control (two-stage operation, 5 m-cable with Cekon-plug, motor protection)
- Inlet- and outlet hose (each 3 m)
- Hose end-caps
- Hose suction protection



Filter unit specifications

Unit series	<i>acuraMobil</i> filter module	<i>acuraMobil</i> filter bag	<i>acuraMobil</i> filter cartridge
Material filter unit	stainless steel 304 (1.4301)	stainless steel 304 (1.4301)	stainless steel 304 (1.4301)
Max. operating pressure	4 bar at 80°C	4 bar at 80°C	4 bar at 80°C
Connection IN/OUT	optional DN50 PN16 / DN32-KN	optional DN50 PN16 / DN32-KN	optional DN50 PN16 / DN32-KN
Installed filter housing	module filter F10-ZB2-10/F50-A2	bag filter ALGT2-10/F50-A2	cartridge filter 5ALKF3(2)-10/F50-A2
Usable filter media	2 pcs. 10" bay. adaptor modules	1 pcs. filter bag size 2 / bag element	5 pcs. 20" or 30" DOE-filter cartridges
Max. flow rate	5 up to 11 m ³ /h	5 up to 11 m ³ /h	5 up to 11 m ³ /h
Control voltage	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz

Belt Filter FUHRMATIC



The FUHRMATIC belt filter has an angular designed filter support. Due to the higher hydrostatic pressure thus result in better flow rates, more efficient filter cake formation and longer service life. The filter belt seals secure and is wound on a roll at the filter output again. The filter cake is scraped off with a scraper blade into a collecting tray. The belt is transported by a gear motor and is controlled by a float switch. All wetted parts are made of stainless steel.

Equipment:

- Reservoir in different sizes available, used to collect the filtrate and is placed under the belt filter
- Filtrate supply pump for installation in the storage tank, complete with float switch
- Woven filter medium available in various materials and micron ratings for all standard applications

Belt filter specifications

Belt filter series	FUHRMATIC 250	FUHRMATIC 500 (SE)	FUHRMATIC 700 (SE)	FUHRMATIC 1000 (SE)
Material belt filter	stainless steel 304 (1.4301)	stainless steel 304 (1.4301)	stainless steel 304 (1.4301)	stainless steel 304 (1.4301)
Max. flow rate*	80 l/min	150 l/min. / type SE : 300 l/min.	250 l/min. / type SE : 500 l/min.	400 l/min. / type SE : 700 l/min.
Filter area	0.18 m ²	0.38 m ² / type SE : 0.88 m ²	0.52 m ² / type SE : 1.23 m ²	0.76 m ² / type SE : 1.73 m ²
Power supply	230/400 V, 50 Hz	230/400 V, 50 Hz	230/400 V, 50 Hz	230/400 V, 50 Hz
Control voltage	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz

Note *based on clean water

Wedge Wire Filter KSF

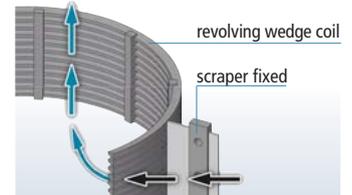


The self-cleaning filters of the KSF series consist of an upper and a lower part. Both parts are connected with a quick closure clamp or clamp screws. The inlet and outlet nozzle of the series KSF-400 up are located vertically offset and opposed to one another. The outlet is located higher.

The adjustable scraper plate is fixed on the wedge wire and maintenance free. The filter element is driven by a geared motor. The incoming sedimentation is collected in the lower part of the housing and has to be drained at intervals.

The system of our self-cleaning filter is made of a V-profile which is welded in a precisely defined distance on a circle of supporting profiles. This creates a solid, stable wedge wire element.

An interlocking of the free filter surface is avoided by the used V-profile. Continuous cleaning of the rotating element is effected by a fixed scraper plate. The wedge wire elements are available from 35 µm up to 3000 µm.



Wedge wire filter specifications

Wedge wire series	KSF-240 K/L	KSF-400	KSF-700	KSF-1000
Material housing	stainless steel 1.4301	stainless steel 1.4571	stainless steel 1.4571	stainless steel 1.4571
Max. operating pressure	16 bar at 80°C	10 bar at 100°C	10 bar at 100°C	10 bar at 100°C
Connection IN/OUT	Rp 1" (DIN 2999)	DN50 PN16	DN65 PN16	DN80 PN16
Vent	Rp 1/8"	Rp 1"	Rp 1"	Rp 1"
Drain	Rp 2"	Rp 2"	Rp 2"	Rp 2"
Power supply	400 V, 50 Hz			
Conformity evaluation	without category	without category	without category	without category

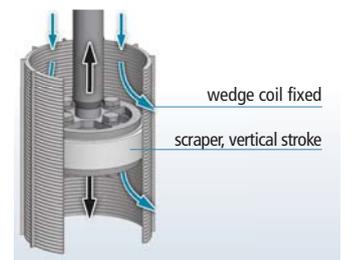
Wedge Wire Filter *apura*Strainline FMC-FB-03



The pneumatic self-cleaning filters of FMC-FB-03 series consist of an upper and a lower part. The outlet is located on the lower part of the wedge wire filter. The filter is driven by a pneumatic control unit, which allows continuous cleaning, as well as a manually controlled drain button. The incoming sedimentation is collected in the lower part of the housing and has to be drained at intervals. Optionally, the drain can be fitted with a timer, which ensures a defined drain interval. The wedge wire is scraped by a vertically moving, self-pressing scraper ring.

Serially supplied are a wall bracket, a compressed air control unit with pressure reducer. The wedge wire element can be changed easily and without tools. The housings can be delivered with separate connection adaptors with R 1/2"; R 3/4" and R1".

Optionally, the system is also available with EX approval.



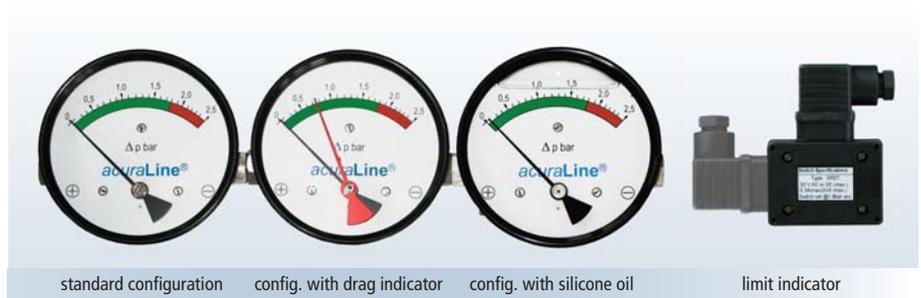
Wedge wire filter specifications

Wedge wire series	FMC-FB-03
Material housing	stainless steel 1.4301
Max. operating pressure	10 bar at 80°C
Connection IN/OUT	TC40 - DIN32676-DIN
Drain	TC50 - DIN32676-DIN
Air supply	4 up to 6 bar
Flow rate	up to 3.8 m³/h

Differential Pressure Gauge Type DFA



The differential pressure gauge DFA is used to monitor the differential pressure in filter systems, measuring systems, valves, coolers and heat exchangers in many areas of industry. The pressures act on two pressure chambers separated by a magnetic piston. Due to the pressure difference in the pressure chambers, there is an axial movement of the magnetic piston. This effects a compression spring and generates the measurement range. Said range is transmitted by a ring magnet from the magnetic piston to the pointer and the reed contacts of the limit switch.



Gauge specification

Gauge series	DFA		
Connection IN/OUT	Rp 1/4" (AF 17)	Material (indicator cover)	plastic fiber-glass reinforced black
Max. operation pressure	100 bar	Reed contact	max. 30 V AC or DC / max. 0.3 A
Max. operating temperature	120°C	Quantity of reed contacts	optional 1 or 2
Indicating range	0 - 2.5 bar	Optional equipment:	
Indicating accuracy	± 3 % scale value	- Mounting kit for all standard <i>acuraLine</i> ® filter housings	
Material (media contact)	stainless steel 301 / 316	- electric limit indicator can be installed easily afterwards	
Material (gasket)	FPM		

Equipment/Spare Parts



A large program of accessories and spare parts completes our product range and allows the customer to purchase plug-and-play units.

- Screen basket elements, single and multi layers
- Volume reducer, Bag easy-fit tool
- Magnet remover for bag and basket filter
- Manometer venting units, Automatic Vent
- Differential pressure gauge optical / electrical
- Valves, manometer
- Chemical valves
- O-rings in various sealing materials
- Screw sets stainless steel / carbon steel, galvanized
- Legs adjustable

Special Constructions

In addition to our standard program we can design filter housings to your wishes and needs. Safety standards authority decrease, higher pressure or temperature areas, changed nozzle positions or additional connections are no problem. To our program of delivery also belong on inquiry:

- Housing with heating or cooling jacket
- Multiple filters
- Pump filter, stationary or mobile
- Shift and double filter stations
- Coated chemical housing
- Housing made of special materials (e.g. Hastelloy)
- New developments according to customer



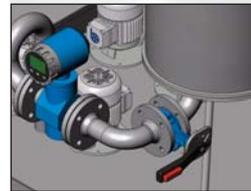
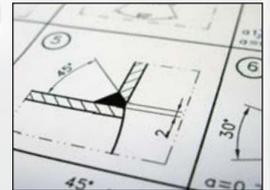
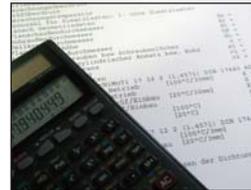
Constructions And Approvals

- Construction acc. **DGRL 97/23/EG**
- Calculation for all current special materials
Stainless Steel: 1.4571, 1.4439, 1.4462, Hastelloy
Plastics: PP, PVDF, PVC
- 3D-CAD modeling
- Detailing, drafting production
- Pressure vessels for liquid and gaseous media
- Support, service
- Documentation:
Manuals, certificates, approvals, CD's

Our filter housings are manufactured according to the Pressure Equipment Directive 97/23/EC. The Fuhr GmbH is certified in cooperation with the TÜV Hessen GmbH. Pressure vessel can be approved according to the following guidelines:

- Category I, module A
- Category II, module A1
- Category III+IV, module G
- TÜV, ASME for non-European export

Since 2009, Fuhr GmbH is certified by TÜVRheinland® with **ISO 9001:2008**.



TÜV Technische Überwachung Hessen GmbH
Anlagentechnik
Rüdesheimer Straße 119
Postfach 20 01 53
Telefon: 06151/600-529

64285 Darmstadt
64300 Darmstadt
Telefax: 06151/600-290



ZERTIFIKAT

**Interne Fertigungskontrolle mit Überwachung der Abnahme (Modul A1)
nach Richtlinie 97/23/EG**

Zertifikat-Nr.: ATD-22-02-003

Name und Anschrift des Herstellers: **Fuhr GmbH
Am Weinkastell 14
D-55270 Klein-Winternheim**

Der Hersteller ist berechtigt, für die von ihm im Rahmen des Geltungsbereichs hergestellten und einer Abnahme unterzogenen Druckgeräte die CE - Kennzeichnung mit unserer Kennnummer wie abgebildet zu verwenden:

CE 0091

Prüfbericht - Nr.: 40868370
Geltungsbereich: Filtergehäuse / Behälter der Kategorie II, Entwurfsprüfung erfolgt durch TÜV Hessen
Fertigungsstätte: siehe Anlage

Bemerkungen: Der Inhaber dieses Zertifikates verpflichtet sich dazu, die Entwurfsprüfung der Druckgeräte bei der TÜV Technischen Überwachung Hessen GmbH durchführen zu lassen.
Die in der Anlage zur Fertigungsstätte aufgeführten Hersteller/Zulieferer müssen ebenfalls eine Zertifizierung nach Modul A1 nachweisen.
Liegt eine der vorgenannten Voraussetzungen nicht bzw. nicht mehr vor, verliert dieses Zertifikat seine Gültigkeit.

Anlagen: Bericht zur Fertigungsstättenbesichtigung-Nr.: 40868370, Liste der Fertigungsstätten

TÜV Technische Überwachung Hessen GmbH
Benannte Stelle Nr.: 0091

Darmstadt, 2002-02-12
Ort, Datum

Zertifizierungsstelle für Druckgeräte
R. Weis




32374 148/01

Zertifikat

Prüfungsnorm **ISO 9001:2008**

Zertifikat-Registrier-Nr. 01 100 186071

TÜV Rheinland Cert GmbH bescheinigt:

Zertifikatsinhaber: **Fuhr GmbH
Am Weinkastell 14
D - 55270 Klein-Winternheim**

Geltungsbereich: **Handel mit technischen Produkten sowie Planung von Maschinen und Anlagen der Filtertechnik**

Durch ein Audit, Bericht Nr. 186071, wurde der Nachweis erbracht, dass die Forderungen der ISO 9001:2008 erfüllt sind.
Das Fälligkeitsdatum für Folgeaudits ist der 04. März.

Gültigkeit: **Dieses Zertifikat ist gültig vom 13.03.2009 bis zum 12.03.2012.**

Köln, 13.03.2009


TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln





TGA-ZM-58-95-00

www.tuv.com

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Fuhr GmbH
Am Weinkastell 14 • D-55270 Klein-Winternheim near Mainz
Phone +49 (0) 61 36 / 99 43-0 • Fax +49 (0) 61 36 / 99 43-25
info@fuhr-gmbh.com • www.fuhr-gmbh.com

