

Our innovative solutions to achieve Legionella and Bacteria safe water

“Point of Use” solutions

All systems with self-cleaning-filters

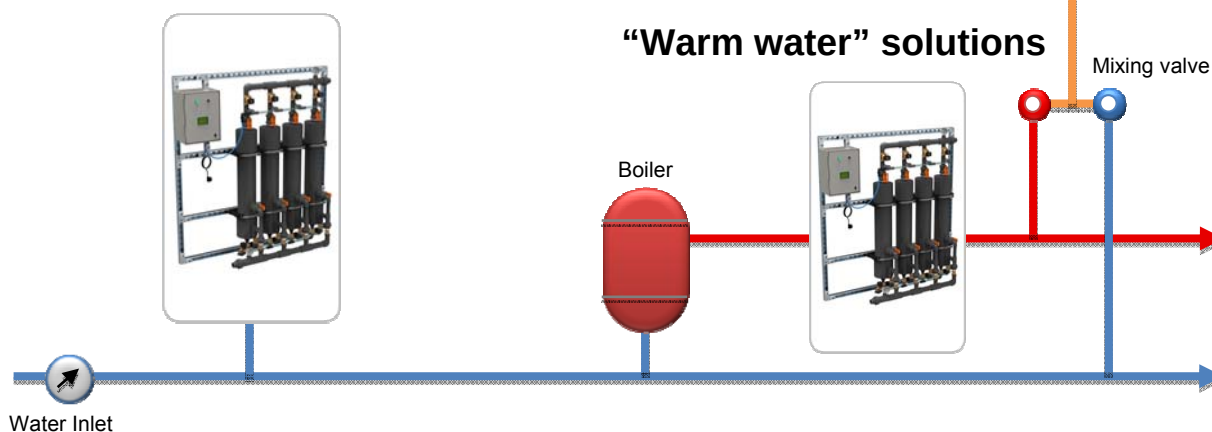


Shower panel

Wall shower

Shower filter

“Warm water” solutions



“Point of Entry” solutions

Member of:

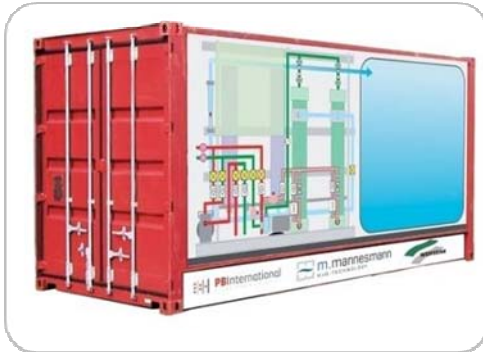


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Sustainable protection against bacteria from beginning to end

Clean and Safe Water



Water, the basic of all the life, human well-being and economic development, linking together, for better and for worse, all aspects of life on this planet, human and environmental health, food supply, energy and industry. At the same time water consumption has almost doubled in the last 50 years: a child born in the developed world consumes 30-50 times more of the world's water resources than one born in the developing world, while resources are diminishing at a rapid rate as some 2 million tons of waste are dumped per day into the rivers and streams.

Water, is the lifeblood of the environment, essential to the survival of all the things, plants, animal and human. About 70% of the earth is covered with water, and 97% of that is part of the salty oceans. The remaining 3% of the fresh water out of which, less than 1% is usable, amounting to only 0.01% of the earth's total water. This includes sources like rivers, lakes and groundwater.

Even this 0.01% of fresh water would be enough to support the world's population three times over, if used with care. However, water – like population – isn't distributed evenly. Asia has the greatest annual availability of fresh water and Australia the lowest.

Mission Statement Acquaspar

Through the detailed continual study of Legionella and water quality, we will strive to provide the public, in all areas of society around the world, with the best products and technologies in the combat against Legionella and we will continue to be a reliable and professional partner in the fight to provide: **Clean and Safe Water for All Humankind**



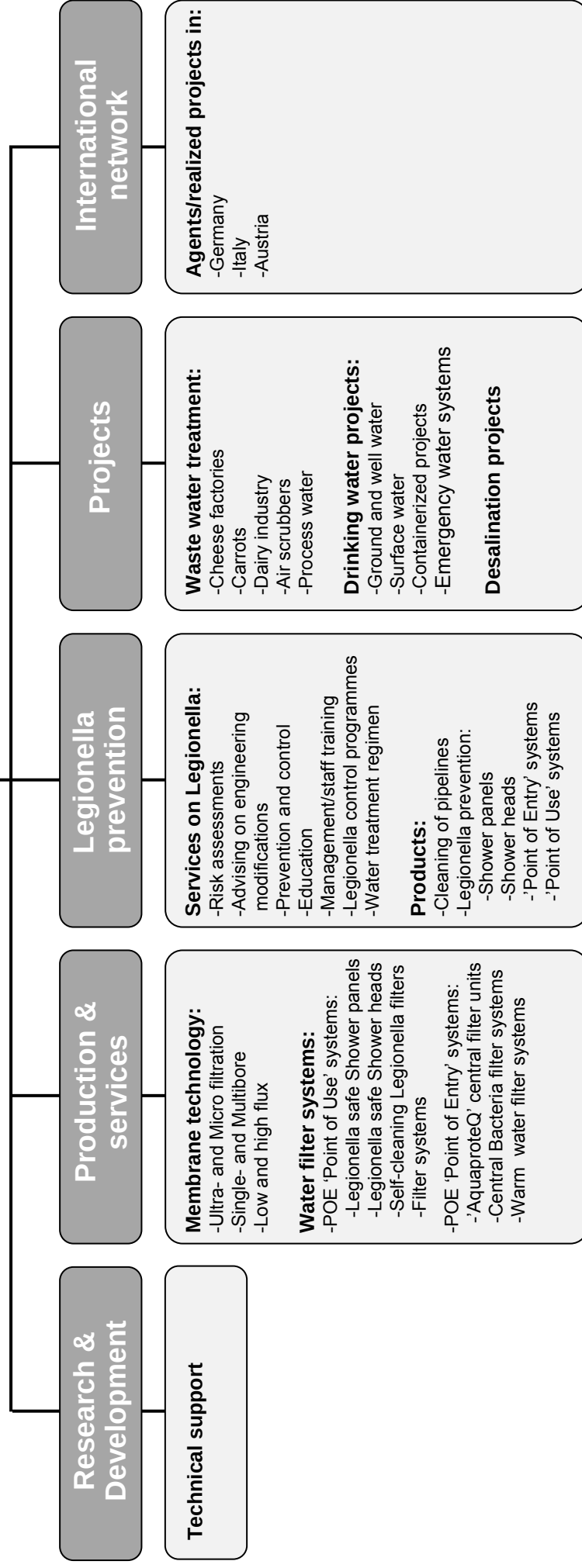
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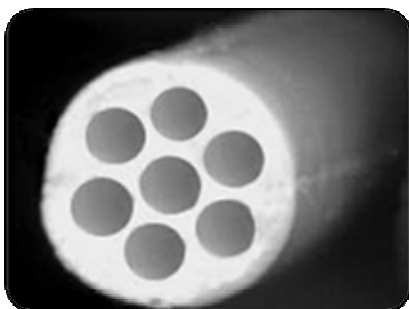


Sustainable protection against bacteria from beginning to end

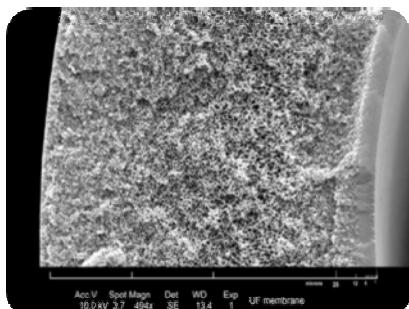




Detail of potting



Multibore membrane



Detail of filtration wall

Acquaspar Ohg. is an international operating company producing a wide large range of standard and custom-made **Ultrafiltration (UF)** filter elements.

Membrane types:

- Single-bore
- 7 Bores
- Low and high flux membranes

Applications:

- Pre-filtration of RO installations and desalination plants
- Legionella protection
- To remove bacteria, viruses and other micro-organism
- As an alternative to sand-filters in swimming pools
- Drinking water systems
- Process water
- "Point of Entry" and "Point of Use"
- Warm water
- Process water and process waste water
- Surface water
- Ground and well water

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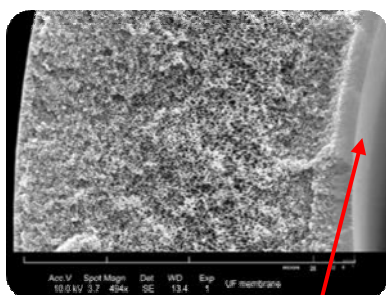


Ultrafiltration is a pressure-driven technology commonly used to remove suspended solids, bacteria and viruses, providing a physical barrier to pathogens in consumable water production. In addition to providing a very high purity, low Silt Density Index (SDI) product.

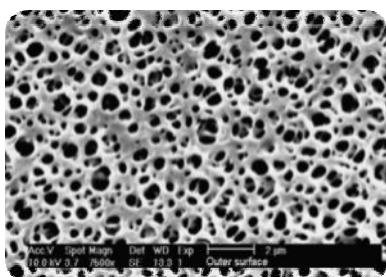
Ultrafiltration offers a pretreatment alternative for surface water, seawater, and biological treatment of municipal effluent prior to reverse osmosis (RO) and other membrane systems.

As a result of a special mixture of the polymers and new production methods our membrane has a very open foam structure as well as a very low resistance with a higher flux and lower fouling. In addition to a high chemical and biological resistance, our revolutionary 7 Bore membrane has a very high mechanical stability. The revolutionary 7 Bore membrane with 7 capillaries in each fiber is much stronger and can sustain high-pressure water surges more easily than conventional single bore membranes.

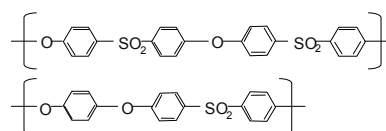
With our unique 7 Bore membrane Acquaspar has set a new standard in Ultrafiltration technology.



Detail of membrane wall



Detail of fiber structure



Molecular structure of Polyethersulphone

Technical specification

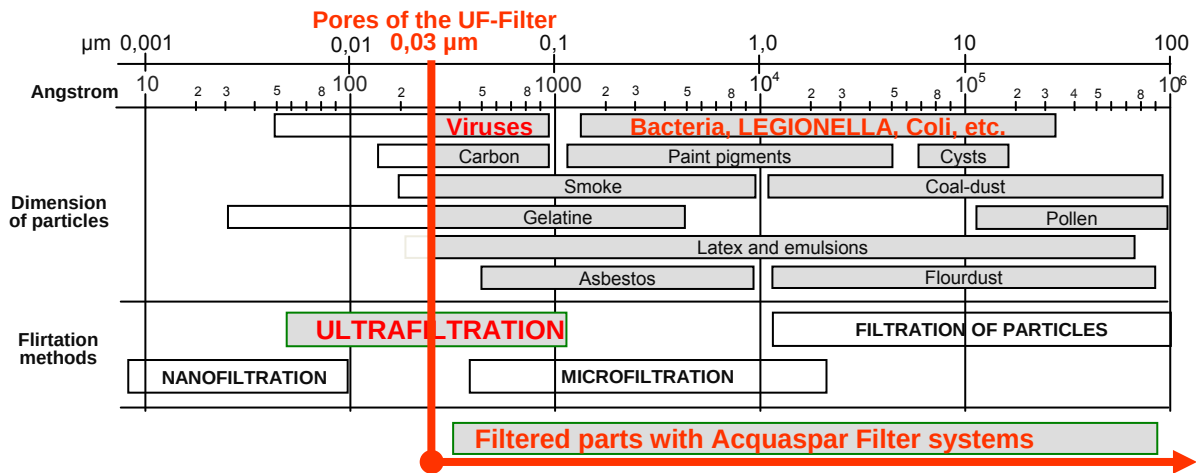
Type of filtration	Ultrafiltration
Poresize of membrane	0.015 µm
Number of bores per fiber	7
Material of membrane	Polyethersulfone
Diameter bores ID	0.9 mm
Diameter fiber OD	4.2 mm
MWCO	100 – 150 kD
Maximum system pressure	10 bar
Trans membrane pressure operation	0.5 – 1 bar
Maximum	2.5 bar
Productivity clean water at 25°C	< 1000 l/m ² /bar/h
PH range during operation	3 – 10
Maximum water temperature	80°C
Soaking time during cleaning	5 min
PH range during cleaning	1 – 13
Disinfection chemicals	50 – 100 ppm hypochlorite (NaOCl) 100 – 200 ppm hydrogen peroxide (H ₂ O ₂)

The membrane removes all water related pathogens like

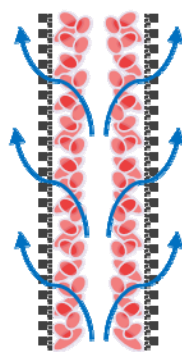
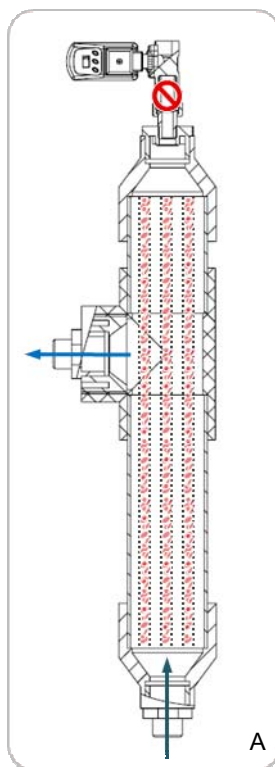
Legionella Pneumophila	Legionella spp.
Escherichia coli (E-coli)	Pseudomonas aeruginosa
Amoeba associated bacteria	Fungi
Mycobacterium	Vibrio cholera

Member of:





Filtration process

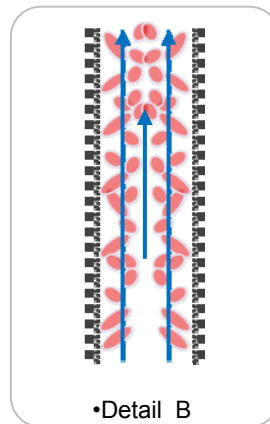


•Detail A

Filtration stage

The UF-Filter element consists of a number of hollow membranes with a pore size of 0,03 µm. The solenoid valve is closed. The water is pushed through the pores whilst the bacteria will stay on the inside of the membrane wall.

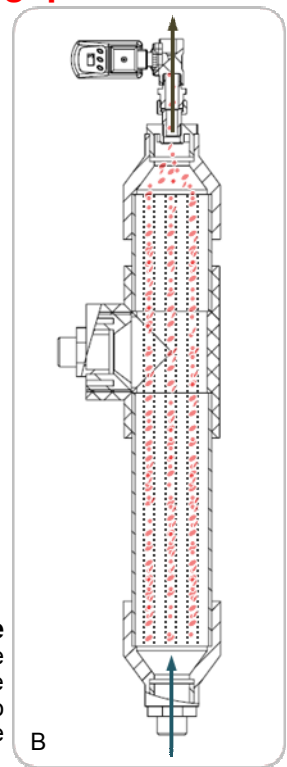
Cleaning process



•Detail B

Cleaning stage

During the cleaning stage of the filter the solenoid valve must be opened and the bacteria and particles will be flushed to drain. The cleaning frequency and time are depending on the water quality



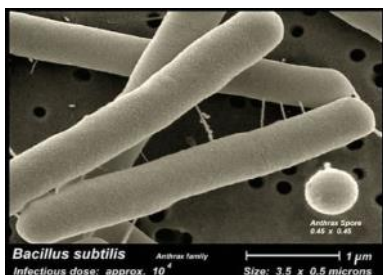
The revolutionary membrane of Acquaspar

The operation of the PB-Filter system is based on the principle of Ultrafiltration. Ultrafiltration is a pressure-driven technology commonly used to remove suspended solids, bacteria and viruses, providing a physical barrier to pathogens in consumable water production. In addition to providing a very high purity, low Silt Density Index (SDI) product, regardless of the incoming water quality. Ultrafiltration offers a pretreatment alternative for surface water, seawater, and biological treatment of municipal effluent prior to reverse osmosis (RO) and other membrane systems. As a result of a special mixture of the polymers and new production methods our membrane has a very open foam structure as well as a very low resistance with a higher flux and lower fouling. In addition to a high chemical and biological resistance, our revolutionary membranes has a very high mechanical stability. Our membranes with 7 capillaries in each fiber are much stronger and can sustain high-pressure water surges more easily than conventional single bore membranes.

With our unique membrane, Acquaspar has set a new standard in Ultrafiltration technology.

Sustainable protection against bacteria from beginning to end

Effective removal with **UF-Filters** of:



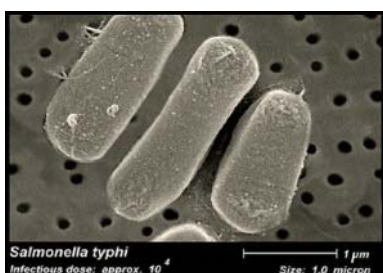
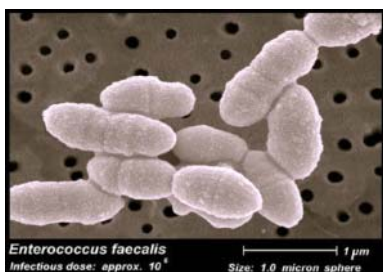
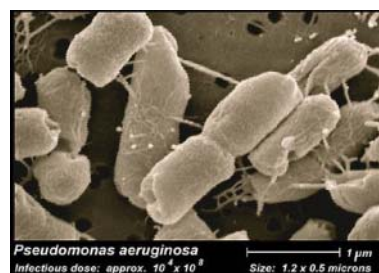
Pathogenic germs

Germes aérobies 37°C
Germes aérobies 22°C
Coliformes totaux 37°C
Coliformes fécaux 44°C
Streptococoques fécaux



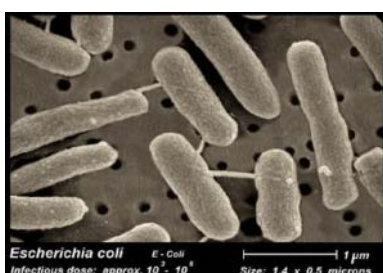
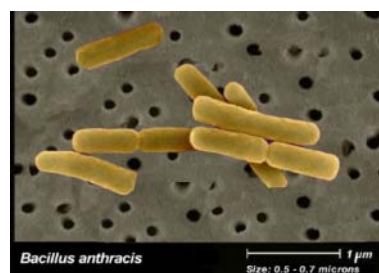
Bacterium

Escherichia coli (E-coli)
Enterococcus faecalis
Staphylocoque aureus
Staphylocoque haemolyticus
Enterobacter cloacae
Pseudomonas aeruginosa
Legionella pneumophila
Legionella spp
Amoeba associated bacteria
Mycobacterium
Vibrio cholera



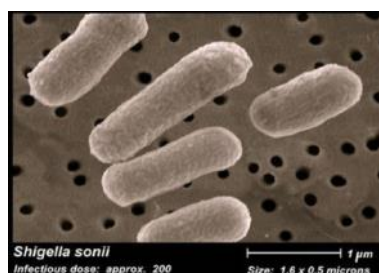
Micro organisme

Entamoeba coli
Giardia lamblia
Cryptosporidium parvum
Hymenolepsia nana
Schistosoma mansoni
Ascaris suum



Fungi

Candida albicans
Rhodotorula mucilaginosa
Saccharomyces cerevisiae



Sustainable protection against bacteria from beginning to end

Chemical resistance of UF- filters

Technical data sheet



Recommended/suitable	
Limited exposure	
Not recommended	

Acetic acid	CH ₃ COOH	
Acetone	CH ₃ COCH ₃	
Acetonitrile	CH ₃ CN	
Ammonium hydroxide	NH ₄ OH	
Amyl acetate	CH ₃ CO ₂ (CH ₂)CH ₃	
Amyl alcohol	C ₅ H ₁₁ OH	
Aniline	C ₆ H ₅ NH ₂	
Benzene	C ₆ H ₆	
Benzyl alcohol	C ₆ H ₅ CH ₂ OH	
Boric acid	H ₃ BO ₃	
Brine		
Butyl acetate	H ₃ CO ₂ C ₄ H ₉	
Butyl alcohol	CH ₉ OH	
Butyl cellosolve	C ₄ H ₉ O(CH ₂) ₃ OH	
Carbon tetrachloride	CCl ₄	
Cellosolve	C ₂ H ₅ O(CH ₂)OH	
Chloroform	CHCl ₃	
Chromic acid	H ₂ CrO ₄	
Cresol	C ₆ H ₄ (CH ₃)OH	
Cyclohexane	C ₆ H ₁₂	
Cyclohexanone	C ₆ H ₁₀ O	
Diacetone alcohol	(CH ₃) ₂ C(OH)CH ₂ COCH ₃	
Dimethyl formalide	HCON(CH ₃) ₂	
Dioxane	C ₄ H ₈ O ₂	
Ethyl alcohol(15%)	C ₂ H ₅ OH	
Ethylene dichloride	ClCH ₂ CH ₂ Cl	
Ethylene glycol	ClCH ₂ -CH ₂ OH	
Ethylene oxide	(CH ₂) ₂ O	
Fomaldehyde(2%)	HCHO	
Gasoline		
Glycerine	C ₃ H ₅ (OH) ₃	
Hexane	C ₆ H ₁₄	
Hydrochloric acid(15-38%)	HCl	
Hydrofluoric acid(10%)	HF	
Hydrogen peroxide(5-20%)	H ₂ O ₂	
Hydrogen peroxide(30%)	H ₂ O ₂	
Hydrogen peroxide(50-90%)	H ₂ O ₂	
Iodine solutions(10%)		
Isobutyl alcohol	(CH ₃) ₂ CHCH ₂ OH	
Isopropyl acetate	CH ₃ COOH(CH ₃) ₂	

Member of:



Sustainable protection against bacteria from beginning to end

Chemical resistance of UF filters

Technical data sheet



Recommended/suitable	
Limited exposure	
Not recommended	

Isopropyl alcohol	(CH ₃) ₂ CHOH	
Isopropyl ether	(CH ₃) ₂ CH-O-CH(CH ₃) ₂	
Kerosine		
Latic acid	CH ₃ CH(OH)COOH	
Methyl acetate	CH ₃ COOCH ₃	
Methyl alcohol	CH ₃ NH ₃ of CH ₃ OH	
Methyl cellosolve	HOCH ₂ CH ₂ OCH ₃	
Methyl chloride	CH ₃ CL	
Methyl formate	HCOOCH ₃	
Methyl isobutyl ketone	(CH ₃) ₂ CHCH ₂ COCH ₂	
Mineral oils		
Monochlorobenzene	C ₆ H ₅ CL	
Nitric acid(10-30%)	HNO ₃	
Nitric acid(50%)	HNO ₃	
Nitric acid(70%)	HNO ₃	
Nitrobenzene	C ₆ H ₅ NO ₂	
Perchloric acid(10%)	HCLO ₄	
Perchloric acid(70%)	HCLO ₄	
Perchloroethylene	C ₁₂ C=CCl ₂	
Petroleum oils		
Phenol(0,5%)	C ₆ H ₅ OH	
Phenol(10%)	C ₆ H ₅ OH	
Phosphoric acid(10-80%)	H ₃ PO ₄	
Potassium hydroxide(25%)	KOH	
Pyridine	C ₅ H ₅ N	
Silicone oil		
Sodium hydroxide(15-50%)	NaOH	
Sodium hydroxide(70%)	NaOH	
Sodium hypochlorite(3-13%)	NaClO	
Sulfuric acid(10-80%)	H ₂ SO ₂	
Sulfuric acid(90%)	H ₂ SO ₂	
Tetrahydrofuran	C ₄ H ₈ O	
Toluene	C ₆ H ₅ CH ₃	
Trichloroacetic acid	Cl ₃ -COOH	
Trichloroethylene	ClCH-CCl ₂	
Triethylamine	(C ₂ H ₅) ₃ N	
Turpentine il		
Urea	CO(NH ₂) ₂	
Xylene	C ₅ H ₄ (CH ₃) ₂	

Member of:





Shower panels

The integrated self-cleaning UF-Filter module in the stainless steel shower panel can be installed against the wall in the bathroom.

Capacity 12 l/min



Central filters for shower rooms

This central self-cleaning UF-Ultrafiltration bathroom set can be installed in the water supply line of the shower room. All existing showers and wash tables can be connected to the system.

Capacities: 12 to 120 l/min



Shower filters

This self-cleaning UF-Filter set is especially designed to be installed under the existing mixing valves in the bathroom.

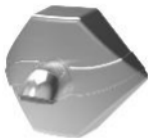
Capacities: 8 to 12 l/min



Filters for dentist chairs (External)

The self-cleaning UF-filter is especially designed for use in the water supply line to the dentist chair. The filter is easy to install in the water supply to the dental chair. The product is available in 230VAC or 6VDC (battery), and will be delivered ready for installation.

Capacity: 3 l/min



Wall shower for shower rooms

The Wall Shower ProteQ is integrated with a self-cleaning Legionella filter element. The wall shower panel will be delivered "Ready for Use". Depending on the water quality the UF-filter module has a life time of at least 2 years.

Capacity: 6 l/min



Filters for dentist chairs (Internal)

The self-cleaning UF-filter is especially designed for use inside the dentist chair. The filter is self-cleaning by forward-flush. The connections for flushing are pre-mounted on the filter.

Capacity: 3 l/min



Filters in shower cubicles

The self-cleaning UF-filter element can be used in the water supply line just before the shower head and will be installed behind the panel wall in the shower cubicle.

Capacities: 8 to 12 l/min



Tap filters

The UF-Tap-filter is a very effective and simple solution for clean and safe tap water. This solution is ideal for kitchen application, and for filling water drinking bottles.

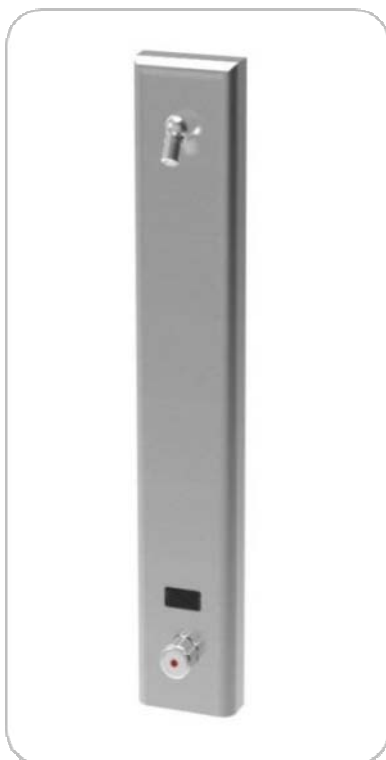
Capacities: 3 to 6 l/min

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Product

The stainless steel UF-shower panel is integrated with a self-cleaning Legionella filter element. The built-in UF-filter module gives the best possible protection against infection from pathogenic bacteria. The filter mechanically removes suspended solids, bacteria, like the Legionella bacterium and viruses, without chemicals.

The shower panel will be delivered "Ready for Use" with all necessary controls for regular and automatic cleaning of the filter element.

Depending on the water quality the UF-filter module has a life time of at least 2 to 3 years.

The panel is operated by a infrared sensor. All settings can be changed by a remote control.



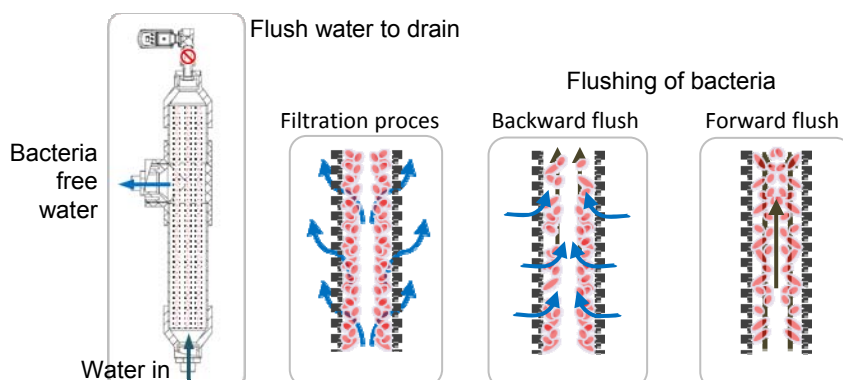
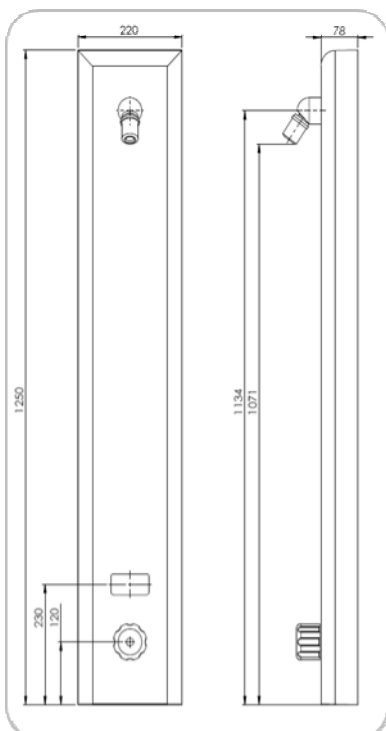
Operation

The operation of the shower filter is based on the principal of Ultrafiltration. The filter system is self-cleaning. The shower panel can be installed against the wall in the bathroom as a "Point of Use" solution. The filter removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretococci, Cryptosporidium

Technical specification

Water quality	Drinking water
Type of filtration	Ultrafiltration
Average life time of PB-Filter element	2 to 3 years
Efficiency for reduction of bacterie	99,9999% (log6)
Efficiency for reduction of viruses	99,99% (log4)
Pore size of membranes	0,03 micron
Water flow*	8 to 10 l/min
Maximum water pressure	6 bar
Minimum water pressure	2,5 bar
Maximum water temperature	80°C
Cleaning system	Automatically during showering
Casing	Stainless Steel

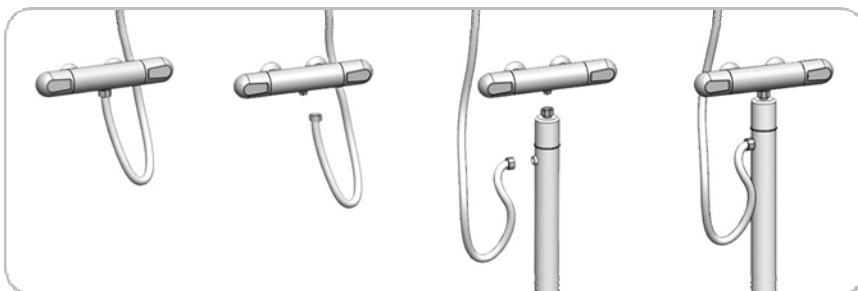
* Capacity depending on water quality and feed pressure





Product

The UF-Shower filter is especially designed to connect in a very simple way to the existing mixing valves. The self-cleaning UF-Filter element gives the best possible protection against being infected with the Legionella bacterium. The filters are certified by accredited European institutes.



Operation

The UF-Filter system removes all water related pathogen germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretococci, Cryptosporidium



Forward flush



UF-ultrafilter



Point of Use



Plug and Play



Cold water



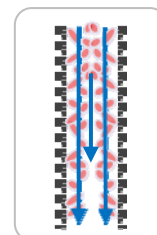
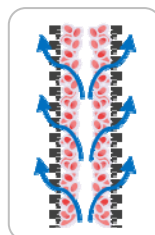
Warm water

System is including:

- Shower filter
- Fixing material

Optional:

- Shower hose
- Shower head



Technical specifications

Water quality	Drinking water
Type of filtration	Ultrafiltration
Average life time of PB-Filter element	2 to 3 years
Efficiency for reduction of bacterie	99,9999% (log6)
Efficiency for reduction of viruses	99,99% (log4)
Pore size of membranes	0,03 micron
Water flow*	8 to 10 l/min
Maximum water pressure	6 bar
Minimum water pressure	2,5 bar
Maximum water temperature	80°C
Flushing system of filter	Automatically self-cleaning
External	ABS white
Water inlet connection	½"
Water outlet connection	½"

* Capacity depending on water quality and feed pressure

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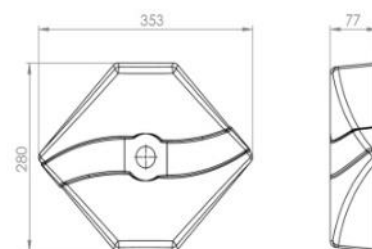
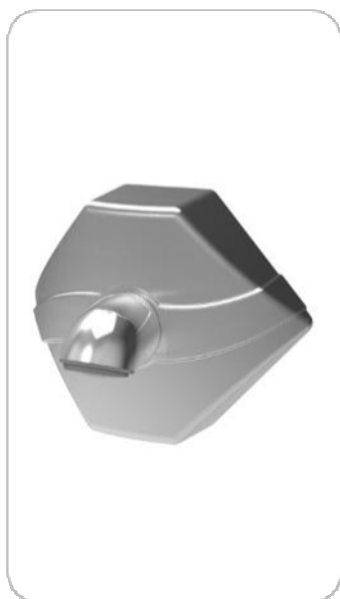
Technical data sheet

Product

The Wall Shower ProteQ is integrated with a self-cleaning Legionella filter element. The built-in UF-filter module gives the best possible protection against infection from pathogenic bacteria. The filter mechanically removes suspended solids, bacteria, like the Legionella bacterium and viruses, without chemicals. The wall shower panel will be delivered "Ready for Use". Depending on the water quality the PB-filter module has a life time of at least 2 years.

Operation

The operation of the shower filter is based on the principal of Ultrafiltration. The filter system is self-cleaning. The shower panel can be installed against the wall in the bathroom as a "Point of Use" solution. The filter removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretococoques, Cryptosporidium



Technical specification

Water quality	Drinking water
Type of filtration	Ultrafiltration
Average life time of PB-Filter element	2 to 3 years
Efficiency for reduction of bacterie	99,9999% (log6)
Efficiency for reduction of viruses	99,99% (log4)
Pore size of membranes	0,03 micron
Water flow*	6 to 8 l/min
Maximum water pressure	6 bar
Minimum water pressure	2,5 bar
Maximum water temperature	70°C
Flushing system of filter	Automatically self-cleaning
External	ABS (Stainless Steel look)

*Capacity depending on water quality and feed pressure

Legionella filter for shower cubicles



Product

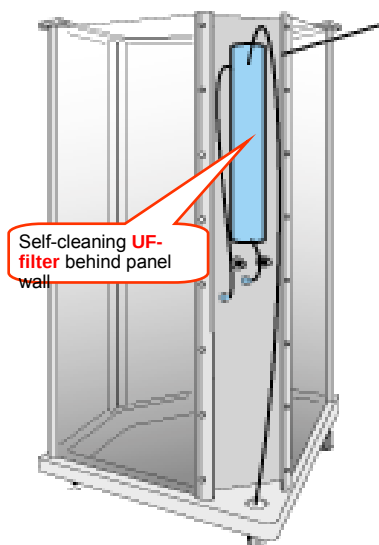
The self-cleaning **UF-filter element** is especially designed for use in the water supply line just before the shower head and will be installed behind the panel wall in the shower cubicle. The **UF-filter** element gives the best possible protection against infection from pathogenic bacteria. Depending on the water quality the **UF-filter** module has a life time of at least 2 years.

The filter removes all water related pathogens like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginos, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, etc.

Operation

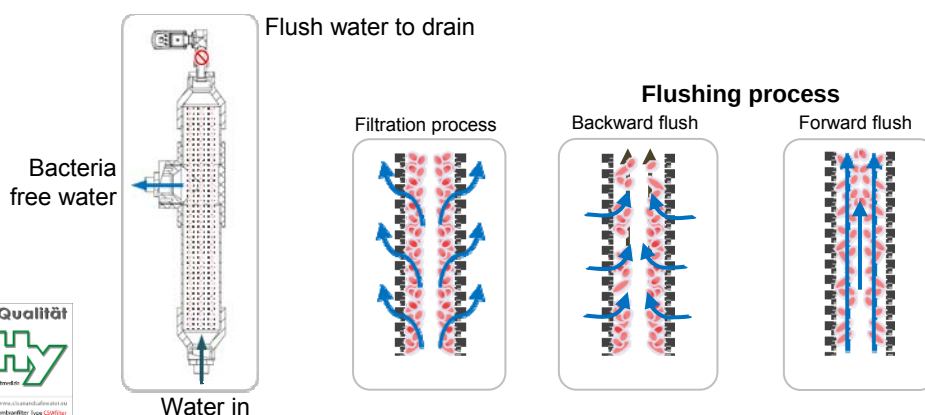
The operation of the **UF-filter** is based on the principal of Ultrafiltration. The **UF-filter** system automatically self-cleans during showering. The filter element consists of a large number of hollow membranes with a pore size of 0.03µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the 0.03µm pores in the wall from the inside to the outside of the membrane whilst removing suspended solids, particles, viruses and bacteria like the Legionella bacterium out of the water. The remaining particles on the inside of the membrane can be easily removed from the membrane wall via an automatic forward flush device. This self-cleaning process makes use of the water pressure from the supply source. The remaining particles, including the bacteria and viruses will be flushed to drain.

Technical specification

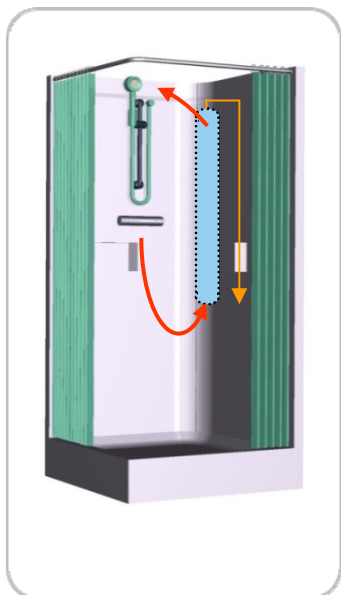


Filter type	UFWM 50-510
Water quality	Drinking water
Type of filtration	Ultrafiltration
Average live time of filter	2 to 3 years
Efficiency for reduction of bacteria	99,9999% (log6)
Efficiency for reduction of viruses	99,99% (log4)
Casing	PVC-C
Water flow*	8 to 10 l/min
Maximum water pressure	6 bar
Minimum water pressure	2,5 bar
Maximum water temperature	80°C
Cleaning system	Automatically during showering

Principle of operation



Legionella filter for shower cubicles



Product

The self-cleaning **UF-filter element** is especially designed for use in the water supply line just before the shower head and will be installed behind the panel wall in the shower cubicle. The **UF-filter** element gives the best possible protection against infection from pathogenic bacteria. Depending on the water quality the **UF-filter** module has a life time of at least 2 years.

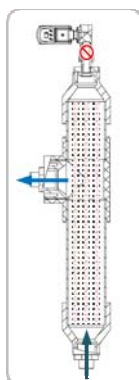
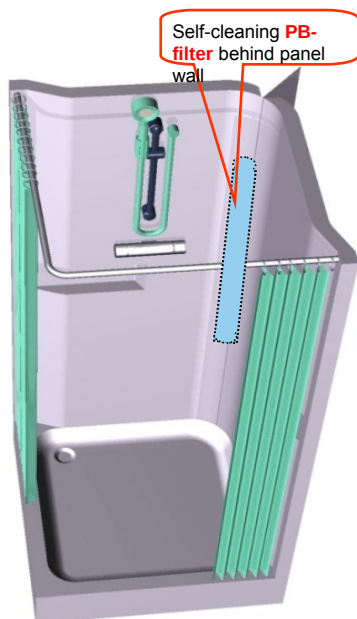
The filter removes all water related pathogens like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginos, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, etc.

Operation

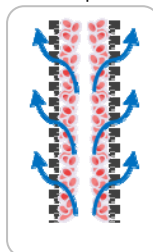
The operation of the **UF-filter** is based on the principal of Ultrafiltration. The **UF-filter** system automatically self-cleans during showering. The filter element consists of a large number of hollow membranes with a pore size of 0.03µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the 0.03µm pores in the wall from the inside to the outside of the membrane whilst removing suspended solids, particles, viruses and bacteria like the Legionella bacterium out of the water. The remaining particles on the inside of the membrane can be easily removed from the membrane wall via an automatic forward flush device. This self-cleaning process makes use of the water pressure from the supply source. The remaining particles, including the bacteria and viruses will be flushed to drain.

Technical specification

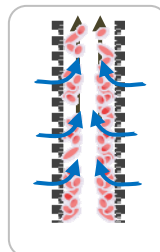
Filter type	UFWM 50-510
Water quality	Drinking water
Type of filtration	Ultrafiltration
Average live time of filter	2 to 3 years
Efficiency for reduction of bacteria	99,9999% (log6)
Efficiency for reduction of viruses	99,99% (log4)
Casing	PVC-C
Water flow*	8 to 10 l/min
Maximum water pressure	6 bar
Minimum water pressure	2,5 bar
Maximum water temperature	80°C
Cleaning system	Automatically during showering



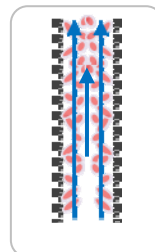
Filtration process



Backward flush



Forward flush



Central filter system for shower

Cold and Warm water



Product

The self-cleaning UF-filter system is especially designed for use in the cold and warm water line to the shower room. The filter elements are mounted on the galvanized steel frame. The system will be delivered „Ready for Use“.

Operation

The operation of the PB-filter is based on the principal of Ultrafiltration. The filter element consists of a large number of hollow membranes with a pore size of 0.03 µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the pores in the wall of the filter membrane from the inside to the outside continually removing suspended solids, particles viruses and bacteria.

Minimal system requirements

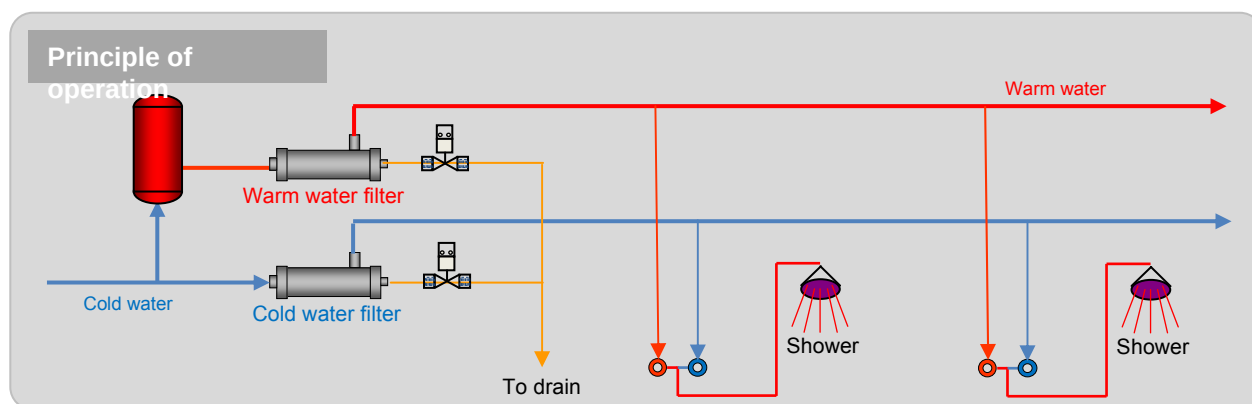
For the use of this product, the following system requirements are applicable:

- The quality of the water has to be drinking water
- The system pressure of the water flow should be at least 1.5 bar.

Technical specification

Central filter system for Cold and Warm water					
Number of showers	Type	Max. water flow		Filter warm water	Filter cold water
		M ³ /h*	l/min*		
2	UFKWS 25	1,5	25	1	1
3	UFKWS 42	2,5	42	1	1
4 to 5	UFKWS 48	2,8	48	1	2
6	UFKWS 62	3,7	62	2	2
7	UFKWS 74	4,5	74	2	2
8	UFKWS 96	5,7	96	2	3
9 to 12	UFKWS 118	7,1	118	2	3

* Capacity depending on water quality and feed pressure



Member of:



Sustainable protection against bacteria from beginning to end

Central filter system for shower

Mixing water



Product

The self-cleaning UF-filter system is especially designed for use in the mixing water line to the shower room. The filter elements are mounted on the galvanneal steel frame. The system will be delivered „Ready for Use“.

Operation

The operation of the UF-filter is based on the principal of Ultrafiltration. The filter element consists of a large number of hollow membranes with a pore size of 0.03 µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the pores in the wall of the filter membrane from the inside to the outside continually removing suspended solids, particles viruses and bacteria.

Minimal system requirements

For the use of this product, the following system requirements are applicable:

- The quality of the water has to be drinking water
- The system pressure of the water flow should be at least 1.5 bar.

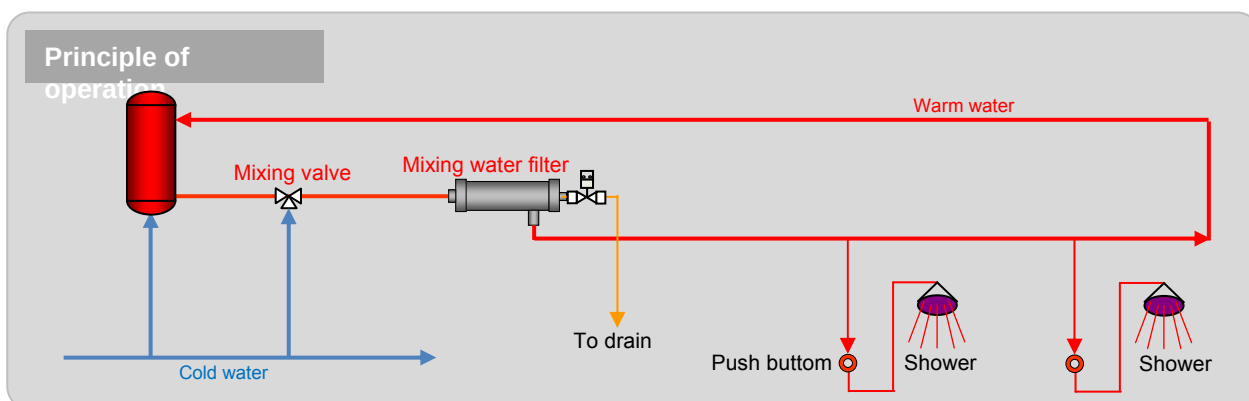


Mengwater filter

Technical specification

Central filter system for mixing water					
Number of showers	Type	Max. water flow		Number of filters	Max. water temperature
		M ³ /h*	l/min*		
2	UFMS 25	1.5	25	1	70°C
3	UFMS 42	2.5	42	1	70°C
4 to 5	UFMS 48	2.9	48	2	70°C
6	UFMS 62	3.7	62	2	70°C
7	UFMS 74	4.4	74	2	70°C
8	UFMS 96	5.8	96	3	70°C
9 to 12	UFMS 118	7.1	118	3	70°C

* Capacity depending on water quality and feed pressure



Member of:

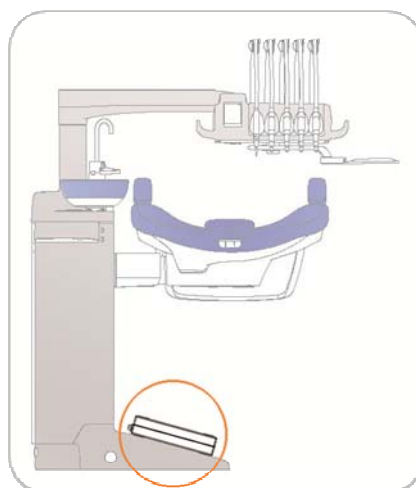




Product

The self-cleaning UF-filter is especially designed for use in the water supply line to the dentist chair. The UF-filter module provides unequalled protection against infection from pathogenic bacteria. The filter element mechanically removes all suspended solids, bacteria, like the Legionella bacterium and viruses.

The filter is easy to install in the water supply to a dental chair. The product is available in 230VAC or 6VDC (battery), and is ready for installation.



Forward flush



UF-ultrafilter



Point of Use



Coldwater



6VDC powersupply
(optional)



230VAC powersupply
(optional)

Operation

The operation of the UF-filter is based on the principal of Ultrafiltration. The filter element consists of a large number of hollow membranes with a pore size of 0.03 µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the pores in the wall of the filter membrane from the inside to the outside continually removing suspended solids, particles viruses and bacteria.

Minimal system requirements

For the use of this product, the following system requirements are applicable:

- The quality of the water has to be drinking water
- The system pressure of the water flow should be at least 1.5 bar.

Benefits

- ✓ Reducing costs for chemicals
- ✓ Environmentally friendly
- ✓ Self flushing/cleaning
- ✓ Bacteria and virus safe water
- ✓ Easy to replace
- ✓ Easy to mount
- ✓ Sustainable product
- ✓ Less labor-intensive

Member of:





Forward flush



UF-ultrafilter



Point of Use



Coldwater

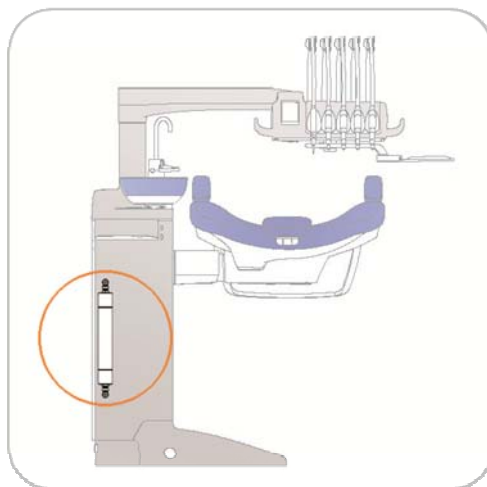


Optional custom made

Product

The self-cleaning UF-filter is especially designed for use in the water supply line to the dentist chair. The UF-filter module provides unequalled protection against infection from pathogenic bacteria. The filter element mechanically removes all suspended solids, bacteria, like the Legionella bacterium and viruses.

The filter is self cleaning by forward-flush. The connections for flushing are pre-mounted on the filter, so the filter can be connected easily to the existing piping in the seat.



Operation

The operation of the UF-filter is based on the principal of Ultrafiltration. The filter element consists of a large number of hollow membranes with a pore size of 0.03 µm. The active filter layer of the membrane is on the inside of the capillary. The water is pushed through the pores in the wall of the filter membrane from the inside to the outside continually removing suspended solids, particles viruses and bacteria.

Minimal system requirements

For the use of this product, the following system requirements are applicable:

- The quality of the water has to be drinking water
- The system pressure of the water flow should be at least 1.5 bar.

Benefits

- ✓ Reducing costs for chemicals
- ✓ Environmentally friendly
- ✓ Self flushing/cleaning
- ✓ Bacteria and virus safe water
- ✓ Easy to replace
- ✓ Easy to mount
- ✓ Sustainable product
- ✓ Less labor-intensive

Member of:





According BRL 14010-1



UF-ultrafilter



Point of Use



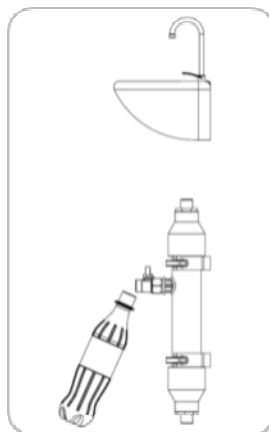
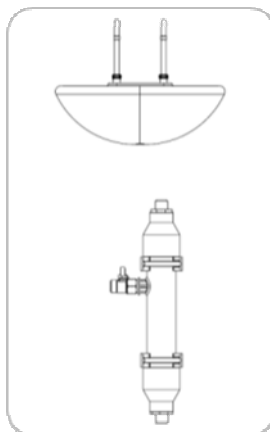
Coldwater

The product

The UF-Tap-filter is a very effective and simple solution for clean and safe tap water. This solution is ideal for kitchen application, and for filling water drinking bottles.

This product is developed especially to be used under the sink, directly before the water tap. Therefore the product will be delivered as ‘Do-it-Yourself’ package. This product is available in three models. These all have the same function. Just the capacity and sizes are different.

Tap filter UFKM 40-250	Capacity 2 L/min
Tap filter UFKM 50-250	Capacity 3,5 L/min
Tap filter UFKM 63-250	Capacity 6 L/min



Operation

The UF-Tap-filter filters all microbiological parts out of the water, based on ultrafiltration.

With this product, the current situation of the sink doesn't change. Even the current water tap can still be used for tapping supply water. On the side of the UF-Tap-filter is placed an extra valve for tapping clean and safe water anytime. This water is bacteria,- and virus safe.

Minimum system requirements

For using this product, the system should meet the following requirements:

- The quality of supply water needs to be ‘drinking water’.
- The system pressure must be at least 1,5 bar (21,7 psi)

Technical specifications

Color	RAL 7011
Filtration principle	Ultrafiltration
Material	PVC-U
Maximum watertemperature	40°C
Capacity	2 - 6 L/min

Member of:





Central cold water filter system

The self-cleaning central UF-Filter systems are especially designed to remove all bacteria out of the feed water. The UF-Filter system can be installed directly into the supply water line. The UF-Filter system will be delivered "Ready for Use" built on a hot dipped galvanized frame, including all necessary controls for automatic and regular cleaning of the filter elements.

Capacities: 8 to 100 m³/h



Central warm water filter system

The self-cleaning central UF-Filter systems are especially designed to remove all bacteria out of the warm water. The UF-Filter system can be installed directly after the boiler. The UF-Filter system will be delivered "Ready for Use" built on a hot dipped galvanized frame, including all necessary controls for automatic and regular cleaning of the filter elements.

Capacities: 8 to 100 m³/h



Filter set for cold water

The self-cleaning PB-filter is especially designed for use in houses. The filter is self-cleaning by forward-flush. The connections for flushing are pre-mounted on the filter.

Capacity: 0,31 to 5 m³/h



Filter set for warm water

The self-cleaning UF-filter is especially designed for use in houses. The filter is easy to install in the water supply to the dental chair. The product is available in 230VAC or 6VDC (battery), and will be delivered ready for installation.

Capacities: 0,4 to 6 m³/h

Member of:



KTW
approved





Product

The self-cleaning central **UF-Filter systems** are especially designed to remove all bacteria out of the feed water. The UF-Filter system can be installed directly into the supply water line. The UF-Filter system will be delivered "Ready for Use" built on a hot dipped galvanized frame, including all necessary controls for automatic and regular cleaning of the filter elements.

Model	Capacity in m ³ /h		
	200 l/m ²	275 l/m ²	350 l/m ²
UFKS 2-160-750	4	6	8
UFKS 2-160-1000	5	7	10
UFKS 3-160-750	6	8	12
UFKS 4-160-750	8	11	16
UFKS 4-160-1000	10	14	20
UFKS 5-160-1000	14	19	25
UFKS 6-160-1000	17	23	30
UFKS 7-160-1000	20	27	35
UFKS 8-160-1000	22	31	40
UFKS 9-160-1000	25	35	45
UFKS 10-160-1000	28	39	50
UFKS 11-160-1000	31	42	55
UFKS 12-160-1000	34	46	60
UFKS 13-160-1000	36	50	65
UFKS 14-160-1000	39	54	70

Operation

The **UF-Filter system** removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretocokes, Cryptosporidium

Applications:

- Well water
- Surface water
- Pre-filtration of Reverse Osmosis systems

System requirements:

- **Feed water** : Pre-filtered at 100 micron
- **Required feed water pressure**: Minimum of 3 bar

General Technical specification

Type of filtration	Ultrafiltration
Pore size of membrane	0,015 µm
Maximum water temperature	40°C
Material	PVC-U
Electrical supply	230V AC

* Capacity depending on water quality and feed pressure

-  Integrity check
-  Backward flush
-  Forward flush
-  Adjustable
-  UF-ultrafilter
-  Point of Entry system
-  Cold water

Member of:

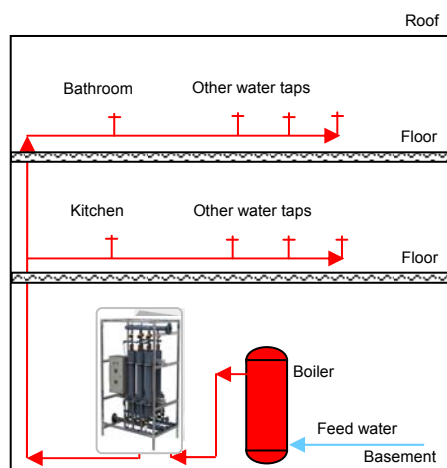




Product

The self-cleaning central **UF-Filter systems** are especially designed to remove all bacteria out of the warm water. The UF-Filter system can be installed directly into the supply water line. The UF-Filter system will be delivered "Ready for Use" built on a hot dipped galvanized frame, including all necessary controls for automatic and regular cleaning of the filter elements.

Flow scheme in houses:



-  Integrity check
-  Backward flush
-  Forward flush
-  Adjustable
-  UF-ultrafilter
-  Point of Entry system
-  Cold water

Operation

The **UF-Filter system** removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretocokes, Cryptosporidium

Applications:

- Well water
- Surface water
- Pre-filtration of Reverse Osmosis systems

System requirements:

- **Feed water** : Pre-filtered at 100 micron
- **Required feed water pressure:** Minimum of 3 bar

General Technical specification

Type of filtration	Ultrafiltration
Pore size of membrane	0,015 µm
Maximum water temperature	70°C
Material	PVC-C
Electrical supply	230V AC

* Capacity depending on water quality and feed pressure

UFK-filter set for Cold water lines

Technical data
sheet



Product

The universal UFK-filter set can be built-in directly into the incoming cold water line just behind the water meter.

The system will be delivered including:

- PB Ultrafiltration element
- 2 clamps for wall mounting of the filter element
- Couplings for easy installing and removing of the filter element
- 2 Hand operated shut of valves
- 2 Manometers
- Pre-filter
- Non return valve
- Forward flushing system for automatically cleaning of the filter element
- Adjustable cleaning frequency
- Adjustable cleaning times

Operation

The filter system removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretococci, Cryptosporidium. The automatic forward flushing system flushes all removed bacteria to drain.

System requirements:

- **Feed water:** Drinking water quality
- **Required feed water pressure:** Minimum of 2,5 bar

Product specification

Color	Dark gray RAL 7001
Principle of filtration	Ultrafiltration
Material	PVC-U
Maximum water temperature	40°C

Technical specification

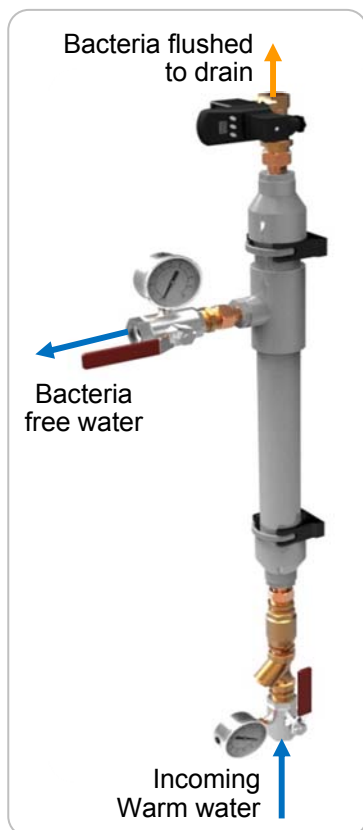
Artikel	Model	Capacity*	Dimensions (LxDxH)
10021	UFK 50-510	0,31 m³/h	550x50x60
10022	UFK 63-510	0,55 m³/h	550x63x73
10023	UFK 75-510	0,8 m³/h	550x75x85
10024	UFK 90-510	1,1 m³/h	550x90x100
10025	UFK 90-750	1,7 m³/h	800x90x100
10026	UFK 90-1000	2,25 m³/h	1100x90x100
10027	UFK 110-750	2,45 m³/h	800x110x120
10028	UFK 125-750	3,2 m³/h	800x125x135
10029	UFK 140-750	3,75 m³/h	800x140x150
10030	UFK 160-750	4 m³/h	800x160x170
10031	UFK 160-1000	5 m³/h	1100x160x170

* Capacity depending on water quality and feed pressure

Member of:



Sustainable protection against bacteria from beginning to end



Product

The universal UFW-filter set can be built-in directly into the warm water line.

The system will be delivered including:

- PB Ultrafiltration element
- 2 clamps for wall mounting of the filter element
- Couplings for easy installing and removing of the filter element
- 2 Hand operated shut of valves
- 2 Manometers
- Pre-filter
- Non return valve
- Forward flushing system for automatically cleaning of the filter element
- Adjustable cleaning frequency
- Adjustable cleaning times

Operation

The filter system removes all water related pathogene germs and bacteria like: Legionella Pneumophila, Legionella spp., Escherichia coli (E-coli), Pseudomonas aeruginosa, Amoeba associated bacteria, Fungi, Mycobacterium, Vibrio cholera, Stretococci, Cryptosporidium. The automatic forward flushing system flushes all removed bacteria to drain.

System requirements:

- Feed water: Drinking water quality
- Required feed water pressure: Minimum of 2,5 bar

Product specification

Color	Light gray
Principle of filtration	Ultrafiltration
Material	PVC-C
Maximum water temperature	70°C

Technical specification

Artikel	Model	Capacity*	Dimensions (LxDxH)
10032	UFW 50-510	0.4 m³/h	550x50x60
10033	UFW 63-510	0.7 m³/h	550x63x73
10034	UFW 75-510	0.9 m³/h	550x75x85
10035	UFW 90-510	1.3 m³/h	550x90x100
10036	UFW 90-750	2.1 m³/h	800x90x100
10037	UFW 90-1000	2.7 m³/h	1100x90x100
10038	UFW 110-750	2.9 m³/h	800x110x120
10039	UFW 160-750	5 m³/h	800x160x170
10040	UFW 160-1000	6 m³/h	1100x160x170

* Capacity depending on water quality and feed pressure