

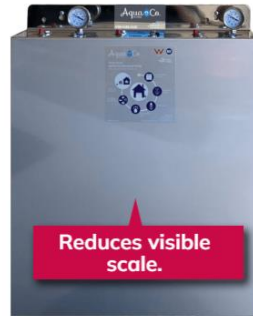
## CERTIFICATIONS

**5 YEARS WARRANTY**

**WaterMark**  
AS/NZS 3497:1998  
No. 23448

## BENEFITS

- ✓ Water feels softer.
- ✓ Softer skin and hair.
- ✓ Better tasting tea and coffee.
- ✓ Clean and clear shower glass.
- ✓ Less scrubbing.
- ✓ Reduce scale build up.
- ✓ Cleaner and softer laundry.
- ✓ Longer-lasting appliances.
- ✓ Better lather and soap action.



Reduces visible scale.

3-Stage Whole House Water Filtration System with Stainless Steel Cover <sup>1</sup>

Including Installation <sup>2,3</sup>

**CLASSIC**

**PREMIUM**

**\$2995**

**\$3195**



Removes hardness & limescale (Calcium Carbonate) 100% Guaranteed.

Water Softener with 2-Stage Pre-Filtration System

Including Installation <sup>2,3,4</sup>

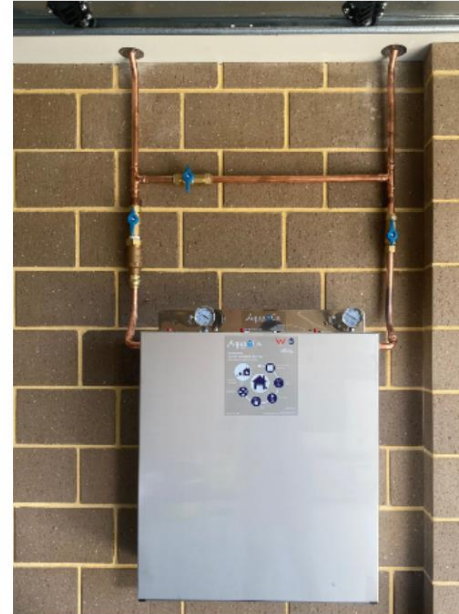
**CLASSIC**

**PREMIUM**

**\$4400**

**\$4600**

The whole house filtration system is a "point of entry" system that purifies all water (Town, Bore, Dam, and Rain) before pipes divert into your home or business; the whole house system cleans your water from the source. This means you can enjoy filtered water from every tap in your home.



Preferred option for new builds and home renos!



For alkaline water and fluoride removal, add a Compact Reverse Osmosis for only \$595.

**\$595**

For customers looking for alkaline water (pH>9), a 99.99% fluoride and hardness removal as well as sweet tasting water (Bottled-like Water). The purchase, installation and maintenance of the system will be a fraction of a full-size reverse osmosis.

Consider having a 3 Way Mixer to avoid drilling a hole for a separate drinking faucet.



Alkaline Water

## Certified Reduction Claim

- ✓ Fluoride
- ✓ PFAS
- ✓ Antibiotics
- ✓ Hardness
- ✓ Salt & Silica
- ✓ Nitrates & Nitrites

## SPECIFICATIONS

Dimensions:  
200 H x 300 W x 100 D mm  
Connects To: Cold Water Line  
Membrane Flow Rate: 16L/h  
System Outflow Rate: 3 L/min  
Min. Operating Pressure: 35 psi

## MAINTENANCE RO

1st Stage: Carbon Filter (Every year)  
2nd Stage: Membrane (Every 3 years)  
3rd Stage: Alkalising Filter (Every 2 years)

## Certified Reduction Claim

	CLASSIC	PREMIUM	CLASSIC	PREMIUM
Sediments	✓	✓	✓	✓
Chlorine	✓	✓	✓	✓
Pesticides & Herbicides	✓	✓	✓	✓
Volatile Organic Compounds	✓	✓	✓	✓
Taste, Odours & Colour	✓	✓	✓	✓
Heavy Metals (Copper, Iron, Lead...)	✗	✓	✗	✓
Parasites, Bacteria & Viruses	✗	✓	✗	✓
Chloramines	✗	✓	✗	✓
Visible Calcium Scale	✗	60%	✗	100%

Dimensions	System: 600 W x 740 H x 220 D mm	System: 400 W x 740 H x 220 D mm Softener: 470 W x 1100 H x 340 D mm
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## Replacement Filters Bundle

**\$270**

**\$399**

**\$165**

**\$299**

Filters last up to 18 months. Replacement frequency also depends on water quality and usage.

## Notes

- <sup>1</sup> \$200 OFF if stainless steel cover is not required (Indoor installations).
- <sup>2</sup> Installation is available in Perth, Sydney, Brisbane and Gold Coast.
- <sup>3</sup> Terms and conditions apply for installation included in price (Special location requests can incur extra charges).
- <sup>4</sup> Power Point for water softener is not included.

## SPECIFICATIONS

Flow Rate: 50-60 LPM  
Connection Type: 1" or 3/4" Ports  
Operating Pressure: 80 psi (620 kPa)  
Operating Temperature: 2°C - 52°C (protect from freezing)  
Filter Life: Up to 300,000 litres in city/town water

## 1st Stage



ALGAE



DIRT & SAND



RUST, SILT, MUD & CLAY



**Sediment Filter**

100% Polypropylene Triple Gradient Sediment Filter for the most efficient reduction of dust, dirt, rust, algae and sand.

- Removes particles down to 5 microns.
- Made with materials complying with NSF/ANSI Standard 42.

## 2nd Stage



VOCs



CHLORINE, TASTE & ODOURS



HERBICIDES & PESTICIDES



**Carbon Block**

Carbon Filters for the most effective reduction of chlorine, volatile organic compounds, pesticides, herbicides, taste, colour and odour from water.

- Made with compliant raw materials using cutting-edge methods resulting in premium performance, reliability, adsorption and flow rates.
- Made with materials complying with NSF/ANSI Standard 42.

## 3rd Stage: Premium



CHLORAMINES



CHEMICALS



BACTERIA & VIRUSES



PARASITES



HEAVY METALS

Aragon features the latest technology in water filtration. The media combines mechanical, ion exchange, adsorption, and electric adsorption filtration methods. Each filtration method removes different contaminants to deliver high quality drinking water.

- Particles >2 microns.....99.999%
- Lead, Arsenic.....99.95%
- Copper, Selenium.....97.6%
- Barium.....99.99%
- Beryllium.....95%
- Chromium, Mercury.....99%
- Thallium.....98%
- Zinc.....100%
- Cesium.....98%
- Chlorine.....100%
- Chloramines.....>90% +
- Pesticides.....97%
- Iron.....90%
- Antimony.....90%
- Aluminium.....97%
- Turbidity.....99%
- Oil Products.....90%
- Legionella.....99.99987%
- Salmonella Typhimurium.....99.9998%
- Poliovirus.....99.84%
- Rotavirus.....99.99%
- Hepatitis A virus.....96%
- Bacteria E.coli.....100%
- Pseudomonas aeruginosa.....100%
- Colifag f-2.....100%
- Eterobacter cloaceae.....100%



**Aragon Guard**



## 3rd Stage: Classic



VOCs



CHLORINE, TASTE & ODOURS



HERBICIDES & PESTICIDES



**Silver Carbon**

Silver Impregnated Carbon Filter for the most effective reduction of chlorine, taste, odour, volatile organic compounds, herbicides, pesticides.

- This filter is bacteriostatic. This means that it will prevent the reproduction and growth of bacteria within the filter.
- Made with materials complying with NSF/ANSI Standard 42.

Big Carbon filters employ a high-grade carbon with industry-leading surface area, allowing for the most exceptional efficiency of the carbon absorption. The higher surface area extends the life of the cartridge, maximizing the time between cartridge changes.

Carbon Filters are also Tested and Certified by NSF International under NSF/ANSI Standard 42 for material requirements only.

## 200% CAPACITY FILTERS

20"



10"



20" x 4.5" filters offer 200% capacity when compared to 10" x 4.5" filters

Please note our new whole house systems are 20" in height, giving you as twice as much contact time, flow rates, longevity and chemical removal rates, compared to old technologies and components used in older 10" systems.

New systems also come with a durable Stainless Steel Enclosure (not plastic), that will not bend over time, to protect housings from extreme conditions and UV rays. They also come with Stainless Steel Components rather than plastic for maximum durability.

## High Capacity • High Porosity • High Performance

### CERTIFICATIONS

- Certified by Institut Pasteur de Lille (France)
- Certified by S.M Kirov Military Medical Academy (Russia)
- Certified by The Research Institute of Influenza (Russia)
- Certified by V.G Khlopin Radium Institute (Russia)
- Certified by The Research Institute of Epidemiology and Microbiology (Russia)
- Certified by IFTS (France)
- Certified by IAPMO (United States)
- Certified by University of Ferrara (Italy)
- Tested in Vienna University (Austria)
- Tested in National Institute of Mineral Raw Materials of Russian Academy of Sciences (Russia)



Made in Europe

## Automatic Water Softener With Pre-Filtration System



### SPECIFICATIONS

Water Softener Dimensions:  
470 W x 1100 H x 340 D mm  
Pre-Filtration Dimensions:  
600 W x 740 H x 220 D mm  
Operating Flow Rate:  
50 LPM  
Connection Type:  
1" or 3/4" Ports  
Operating Pressure:  
8.6 Bar  
Operating Temperature  
2°C - 60°C

The stainless steel enclosure in the pre-filtration system is corrosion resistant and protects the system from UV rays, sun damage and extreme conditions. Reflects sunlight whilst keeping low temperature in summer.

### 1st Stage



**NSF Certified Triple Gradient Sediment Filter**

For removal of dirt, sand, rust, dust, silt and algae.

Significantly prolongs the life in the post-filter.

### 2nd Stage



**NSF Certified Coconut Shell Carbon Filter**

Bacteriostatic filter that inhibits the reproduction of bacteria within the filter and reduces chlorine, taste, odours, pesticides, herbicides, VOCs and other chemicals.



**Double Layered Aragon Filter (Aragon Polymers on the outside and coconut shell carbon in the core)**

Combines assisted crystallization, coconut shell carbon, disinfection and bacteriostatic properties for significant reduction of chemicals, heavy metals, viruses, bacteria, parasites, radioactives, and other human pathogens.



## Information Guide

1. Thank you and congratulations on your Automatic Water Softener purchase. Please read these instructions carefully prior to installation.

2. For right operation of this water filter system, it is vital to observe the manufacturer's instruction. This system has to be mounted in vertical position and must be positioned to allow access for annual filter cartridges replacement and services.

3. After completing the installation, the installer should inspect for leaks and correct if necessary.

### WARNING:

#### DO NOT USE THE THREAD SEALANTS:

Thread tape only is permitted. If thread sealants are used all warranty is void.

#### Pressure Gauge or Plug Installation:

When installing pressure gauges, hand tight (no tape, no sealant).

### Note:

- This product must be installed by a licensed plumber, unauthorised installation on this unit will void warranty.
- Filter housing must be protected against freezing.
- Must be operated under recommended pressure.
- Do not install filter housings to direct sunlight without our cover.

### What's included?

- 2 Stage Pre-Filtration system
- 1 x 20" x 4.5" NSF Certified Triple Gradient Sediment Filter
- 1 x 20" x 4.5" NSF Certified Carbon Filter for Classic Filtration OR 1 x 20" x 4.5" Aragon for Premium Filtration
- 1 x Stainless Steel Frame
- 1 x Stainless Steel Cover\*
- 1 x Stainless Steel Bracket
- 1 x Stainless Steel Glass/Pressure Gauges
- 1 x Tool Opening - Spanner
- Pressure Relief Buttons
- 2 x Brass reinforced ports for maximum durability
- 17,000 Litres Capacity Water Softener

### Optional:

- Compact Reverse Osmosis System (Fluoride Reduction)
- Stainless Steel Cover (For outdoor installations)

### System Qualities:

- ✓ Stainless steel cover for UV protection and extend system life
- ✓ Heavy-duty brass reinforced connections for high water pressure
- ✓ Stainless steel pressure gauges for easy monitoring
- ✓ Twist off housings for quick filter changes
- ✓ 20" filters for higher capacity compared to 10" filters

## Automatic Water Softener SEV17



**Product Description:** Water softeners are typically used for removing calcium carbonate, manganese, iron and hardness from water sources and are regenerated by brine solutions. The treated water is soft and non scaling/staining. Commercial systems are available in single or twin (duplex) models and domestic units are available in cabinet style models.

### SPECIFICATIONS

Type	Automatic Water Softener	
Description	One piece roto moulded plastic cabinet with lid, containing salt and brine storage all in the unit	
Capacity	17,000 litres at 100 mg/l hardness	
Resin Capacity	28 litres of high grade softening resin	
Control Valve	Fleck 5000 microprocessor 5 stage with regeneration All functions fully adjustable Valve controls brine refill	
Pressure Vessel	Thermowound fibreglass with blow moulded seamless liner	
Flow Rate	Continuous	35 litres per minute
	Peak	40 litres per minute
Pressure	Maximum	600 kpa (85psi)
	Minimum	175 kpa (25psi)
Pipe Sizes	Inlet/outlet	3/4" (20mm)
	Drain	1/2" (15mm)
Salt Storage	50kg capacity	
Salt Usage	4.5kg per regeneration	
Dimensions	1100mm (h) x 470mm (w) x 340mm (d)	
Weight	47kg (dry)	
Voltage	240 volts operation	

Note: Product specifications are a guide only and can change without notice.

### WHERE TO INSTALL

Water softeners are designed to treat the water supply to the entire home and therefore need to be connected to the main water supply to the property. It is advisable to segregate garden taps if possible. During regeneration a pre-determined capacity of saline water will be discharged to drain necessitating connection to a sewer/ deep drain rather than to a storm water drain. Automatic models require a 240V general power outlet to operate – semi automatic models do not. Automatic models are supplied with all parameters pre-set apart from the time of day. The time of day can be set by pushing the "arrow up" or "arrow down" buttons until the correct time is displayed. No adjustments are required for semi-automatic models.

Salt Usage ► 4.5kg per regeneration. Every regeneration occurs every 8,500 litres at 200mg/l of hardness (2-3 months).

**5 YEARS WARRANTY**



## Automatic Water Softener FAQ's



### Salt Compartment

Salt Usage ► 4.5kg per regeneration. Every regeneration occurs every 17,000 litres at 100mg/l of hardness (3-4 weeks depending on water usage).

### What type of salt is required?

Water Softener Salt



### Why does the water softener require a pre-filter?

Installing a pre-filter prior to the water softener will prevent chlorine from entering the water softener.

Whilst the softening resin can tolerate some chlorine, the lifespan of the resin will be significantly prolonged if a carbon pre-filter installed prior to the softener.

Depending on the initial water quality being supplied to the softener it may be diligent to install a sediment and carbon pre-filter.

Pre-Filters should be replaced every year to protect the life span of the resin. However, this depends on water quality and water usage.

### Why do softeners use salt?

Salt is used purely as a regenerate to wash accumulated hard-water salts to drain and to recharge the softening resin. The softening process relies on resin releasing sodium to make the water soft.

When salt (sodium chloride) is passed through the softening resin, the sodium is used to re-charge the resin and the chloride combines with accumulated hard-watersalts. They are reconstituted as insoluble salts that can then be washed to drain as part of the regeneration cycle.

The brine solution created by the salt is used only during the regeneration cycle. The brine water is rinsed from the resin bed with fresh water during the last stage of the regeneration cycle before the water softener is returned to service.

Once a supersaturated brine solution has been formed, the salt automatically stops dissolving. The level of water in the brine tank (softener cabinet) is preset and this determines the amount of brine that will be formed. In summary, the brining process happens automatically – all you need to do is to add salt.

### When will I need to replenish the salt in the brine tank?

As a general rule it is diligent to keep the brine tank at least a third full at all times. If a brined tank is empty this could mean that the water softener has not been regenerating properly therefore will not work as required.

**NOTE:** Before adding a new bag of salt, it is a good idea to stir up the existing salt to prevent it from compacting. The rounded end of a broom handle is ideal for this.

### When does a softener need to be regenerated?

The softener capacity is dependent on a combination of the amount of water being treated and the hardness of water being softened. Automatic water softeners regenerate once the pre-set capacity is reached.

### How long should the softener regenerate for?

For optimum results it is important not to reduce regeneration times below that are recommended for your water softener. Doing so may have a detrimental impact on the softening resin or and/or allow salty water through to service.

The recommended time for regeneration is 90 minutes.

## PRE-FILTRATION SYSTEM SERVICE GUIDE

AquaCo thanks you for purchasing the pre-filtration system for the water softener. The filter cartridges need to be replaced regularly to maintain optimum performance. This is a simple procedure when following instructions.

To order cartridge replacements or service, please contact our sales team at (08) 6156 0220

Annual replacement approximate cost  
Standard: Sediment and Silver Carbon \$180\*  
Premium: Sediment and Aragon \$299\*

1st Stage	2nd Stage	
<b>SEDIMENT</b> 20" x 4.5" (PP-2045-5-WAWF) Every 12-18 Months (Dependant on water quality)	<b>SILVER CARBON</b> 20" x 4.5" (SCB-2045-5-WAWF) Every 12-18 Months	<b>ARAGON</b> 20" x 4.5" (ARA-2045-WAWF): Every 12-18 Months

Every 18 months all filter cartridges should be replaced. However, replacement frequency also depends on water quality and usage.

**To do any service in your Pre-Filtration System, close the valve 1 and 2.**

To allow unfiltered water going into the property while servicing the system, close valve 1 and open valve 2.



Valves 1 and 3 remain open. Valve 2 remain close.

## PROCEDURE

1. Close the bypass: Close the valves going in and out of the filter system (1 and 3) and open the valve #2 to allow unfiltered water going into the property. Otherwise, you can leave the valve #2 closed (Figure 1).

2. Softly press one of the red buttons on top of the bracket to release the pressure.

3. Open the housings: Slide the spanner underneath the first housing and twist the housing counterclock wise. Once is unlocked, unscrew the housing using both hands (Figure 2).

*Note: Be careful as the housing will be full of water and quite heavy.*

4. Remove the housing, take the old filter cartridge out and empty the housing.

5. Remove the plastic/packaging from the new filter cartridge and drop the new filter cartridge in the housing.

6. Screw in the filter housing using both hands and tighten it with the spanner.

7. Repeat the same process with the other filters housings.

8. Once you have replaced all filter cartridges, leave system valves as they were in the initial position:

- Valve 1 Open
- Valve 2 Close
- Valve 3 Open

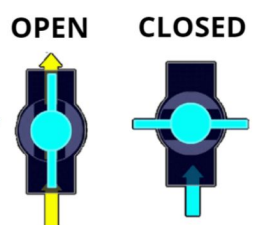


Figure 3. Valve close and open direction

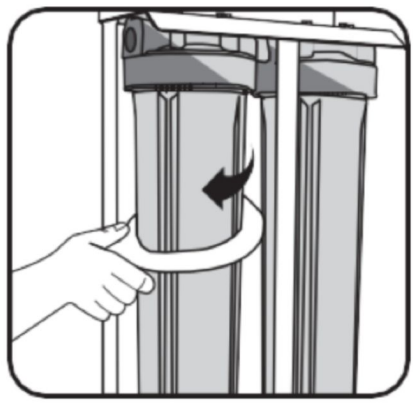


Figure 2. Unscrew the housing counterclock wise

# Twin Premium Whole House Water Filtration System

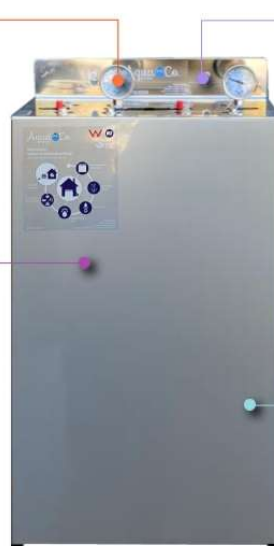
## Stainless Steel/Glass Pressure Gauges

- ✓ Sun resistant.
- ✓ Corrosion resistant.
- ✓ Monitor incoming and outgoing water pressure
- ✓ Stainless Steel oil filled pressure gauges for maximum precision and durability.

## Stainless Steel Cover

- ✓ Highly anticorrosive and durable.
- ✓ Designed to protect equipment in extreme conditions keeping filters and housings cool.
- ✓ The cover will not discolour and go brittle like plastic covers do.

Note: Plastic covers will get hotter under the sun and will go brittle and crack over time due to UV rays.



## Stainless Steel Bracket

- ✓ Corrosion resistant.
- ✓ Designed to protect equipment in extreme conditions. Unlike powder coated brackets which rust and bend over time.

Note: Make sure exterior components are DURABLE and SUN-RESISTANT.



## Brass Reinforced Ports

- ✓ Dezincified and lead-free brass-reinforced heads prevent leaks, cracks and material fatigue after years of use under pressure.

## ABS Caps

- ✓ Maximum strength and durability.
- ✓ Our super-seal mechanism protects the washers from being damaged when tightening the housings preventing water bypass.



## Stainless Steel Stand and Frame

- ✓ Corrosion resistant.
- ✓ Designed to protect equipment in extreme conditions.
- ✓ Powder coated brackets rust over time.
- ✓ A full Stainless-Steel Frame gives rigidity to the system, protecting the heads and pipework from stress when replacing the filters.

## 20" x 4.5" Filters

- ✓ 100% more capacity compared to 10" x 4.5" housings.
- ✓ Filters last up to 18 months compared to 6 to 9 months for 10" and 15".



## Sediment Filter

- ✓ Triple gradient sediment filter.
- ✓ 100% polypropylene.
- ✓ Removes sediments, dust, dirt, rust, sand, silt, and algae.

## Aragon Filter

- ✓ Aragon polymers in the outer layer and coconut shell carbon core.
- ✓ Combines mechanical, electrical, ion exchange and adsorption filtration methods.
- ✓ Removes chlorine, taste, odour, volatile organic compounds, pesticides, herbicides, chloramines, heavy metals, viruses, bacteria, and parasites from water.



## Reduction Claim

- ✓ Particles >2 microns.....99.999%
- ✓ Lead.....99.95%
- ✓ Iron.....90%+
- ✓ Copper.....99.99%
- ✓ Cadmium.....100%
- ✓ Manganese.....98.99%
- ✓ Zinc, Cesium.....98%
- ✓ Chlorine.....100%
- ✓ Chloramines.....>90%+
- ✓ Pesticides.....97%
- ✓ Aluminium.....97%
- ✓ Turbidity.....99%
- ✓ Oil Products.....90%
- ✓ Legionella.....99.99987%
- ✓ Salmonella Typhimurium.....99.998%
- ✓ Poliovirus.....99.84%
- ✓ Rotavirus.....99.99%
- ✓ Hepatitis A virus.....96%
- ✓ Bacteria E.coli.....100%
- ✓ Pseudomonas aeruginosa.....100%
- ✓ Colifag f-2.....100%
- ✓ Eterobacter cloacea.....100%
- ✓ Coronavirus.....100%
- ✓ Strontium.....99%
- ✓ Uranium.....99%
- ✓ Radium.....99%

# AquaCo SEV 17 Water Softener

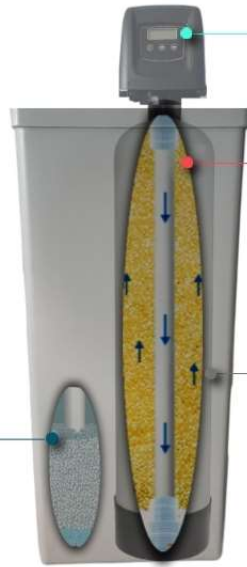
⚠ Unlike Salt-Free 'Softeners' or Water Conditioners, which cannot be reliably tested for calcium removal and often lack consistent performance, Automatic Water Softeners can be systematically assessed to validate their claims of calcium removal and softening capacity.

## NSF Certified

- ✓ Certified to NSF/ANSI 44 and WQA S-100
- ✓ Laboratory tested to prove structural integrity and performance claims.
- ✓ Tested for softening capacity and rinse effectiveness.
- ✓ **Calcium removal claims backed with test results!**

## Brine Tank

- ✓ Salt Compartment.
- ✓ Used to regenerate and rinse the resin with a brine solution.



## Integrated Flow Meter

- ✓ Counts how many litres have gone through the system to operate at peak efficiency without manual intervention.

## High-Capacity Resin Cylinder

- ✓ 28 Litres of High-Grade Softening Resin.
- ✓ Removes hardness (calcium carbonate and magnesium), copper and iron.
- ✓ The treated water is soft, non-scaling/staining.

## Fiber-reinforced Body

- ✓ The pressure vessel features a valve body constructed from fiber-reinforced polymer.
- ✓ Exceptional strength and durability. It's not only resistant to corrosion but also safeguards against UV degradation.



## Automatic Regenerations

- ✓ It automatically regenerates after filtering 17,000 Litres at a hardness level of 100mg/l. Unlike cartridges filled with softening resin which only last 910 litres at the same hardness level and can't regenerate. When the resin in our system becomes saturated, the computer initiates a process called REGENERATION, wherein the resin is cleansed with a saline solution.
- ✓ As this regeneration process concludes, the system performs a final flush with fresh water, eliminating any residual salt, guaranteeing that the water that comes out of the water softener is not salty.

## Water Softener Pre-Filtration

- ✓ The presence of chlorine, chloramines, and other oxidizing agents in the water can damage or degrade the resin beads inside the softener over time, reducing the effectiveness and lifespan of the water softener. The Whole House Water Filter is installed before the water softener to remove these oxidizing agents, protecting the resin beads and prolonging the lifespan of the water softener.

## Bypass Valve

- ✓ Allows for easy maintenance and the ability to bypass the softener if needed without shutting off the main water supply.



## Safety Features

- ✓ Includes overflow prevention, leak detection, and other safety measures to protect both the unit and the home.

## Efficient Power Usage

- ✓ Automatic regeneration ensures the softener only operates when necessary, saving on water, energy and salt consumption.







# Polypropylene Sediment Cartridges

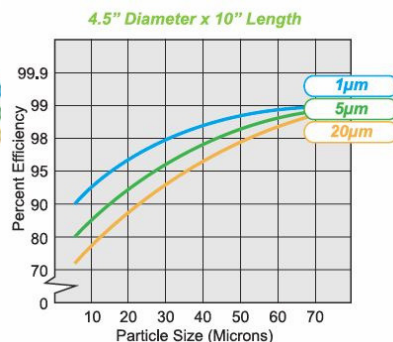
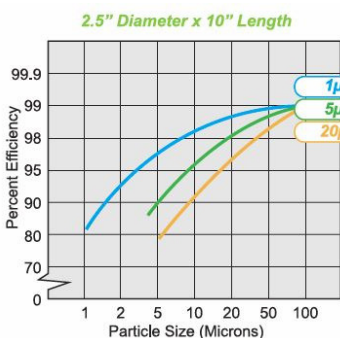
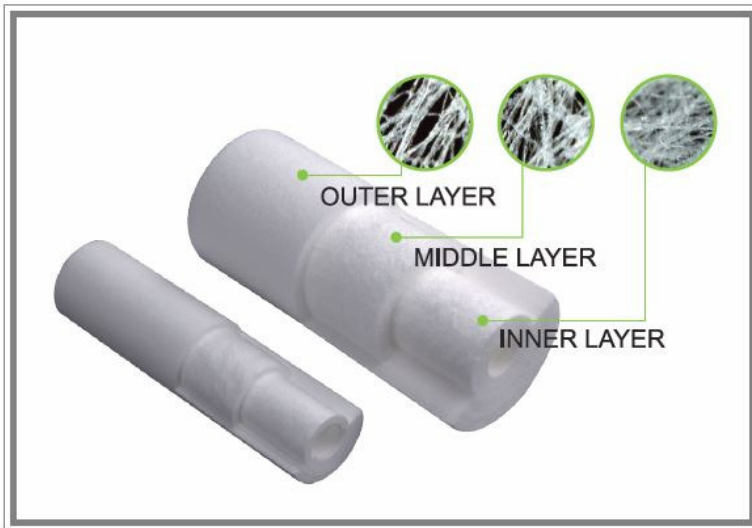
Sediment filters are used as a primary filter to help to remove dirt, rust and sediment deposits, from water to help prevent or slow down the blockage of the secondary carbon filter.

Sediment filters range from less than 1 micron to about 70 microns but the most typically used are 5, 10, 20, 25, 30, 50. They would typically be used in a sequence with the biggest "pore" size or micron size being the first one the water goes through and the smallest the last.

AWC recommends sediment filter made from Polypropylene which is resistant to the growth of bacteria. They typically come in four sizes which are 9", 10" and 20" tall and 2.5" and 4.5" radius. They are typically referred to as either Slim Line or Big Blue.

## Features & Benefits

- Three-layers structure cartridge, high contaminant holding capacity, long filter service life.
- 100%PP for compatibility with a wide range of process fluids.
- Micro-Denier melt-blown fiber, high removal ratings.
- Formed by thermal bond without use of any binders and adhesives
- Certificated by NSF42 and FDA CFR Title 21.



Model No.	FPP-LL-WX-ZZZ
Micron Rating	1,3,5,10,25,50,75,100 Micron
Material of Construction	100% melt-blown micron-denier PP fibre
Length	9", 10", 20", 30", 40" (251mm, 254mm, 508mm, 762mm, 1016mm)
Inner Diameter	28mm
Outer Diameter	2.5", 4.5" (63mm, 110mm)



# Aragon Filter Cartridge

Made in Europe

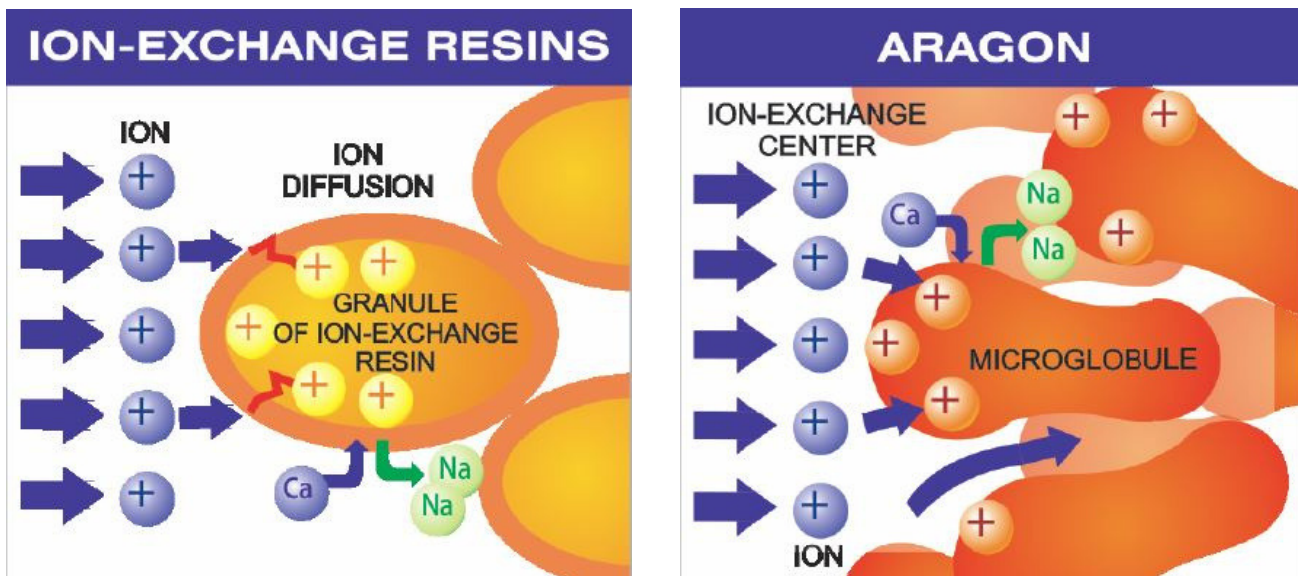
This world leading cartridge is based on the innovative, patented Aragon Media. It has been extensively tested by Certified Laboratories in Europe, to effectively remove chemicals, pesticides, bacteria and heavy metals as well as sediment down to >2 microns.

This high quality extruded carbon block cartridge is equally effective at purifying both **hot** and **cold** water.

## Manufacture

Developed in Eastern Europe, these new SGS-polymers (space globular structure) material for water purification combines 3 methods of filtration: mechanical, sorption and ion-exchange, making this filter the best to date at removing the widest range of chemicals & heavy metals

Long polymer chains are formed in the production process, providing a porous yet mechanically strong structure. These polymer chains are coated and enable a highly effective ion exchange process.



**This method of SGS-polymer filtration is up to 20 times more effective than common methods of ion-exchange.**

The Aragon filter is especially effective when using tank or bore water to protect the user from organisms such as Protozoa, Giardia & Chryptosporidium. Like wise, the Aragon compound filters water high in heavy metals often found in bore water and some tank water.

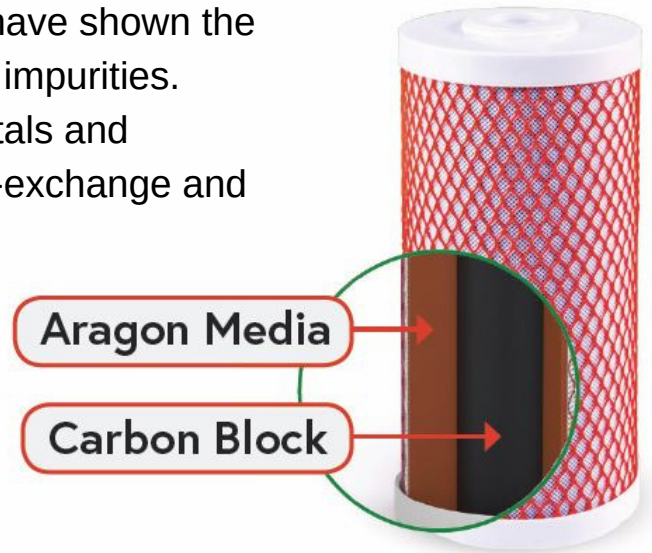
# Filtration Process

Mechanical impurities are filtered out through the surface layers with extremely high accuracy. SGS-polymers have shown the best results in the complex removal of harmful impurities.

Elements and compounds including heavy metals and radioactive materials are removed through ion-exchange and sorption mechanisms.

The Aragon solid block material is a bacteriostatic polymer made from additives of silver and granules of ion-exchange resins.

**Hardness salts**, dissolved and colloidal iron, heavy metals and their compounds are removed through the resin and polymer ion-exchange properties. The Aragon filters capacity also provides removal of active chlorine, chlorine containing compounds and organic compounds.



## Specifications

### Max Flow Rate:

10" Big Blue..... 25 litres p/m

20" Big Blue..... 50 litres p/m

**Water Temperature**..... +4°C to +75°C

### Filter Life:

10" Big Blue..... 30,000 litres

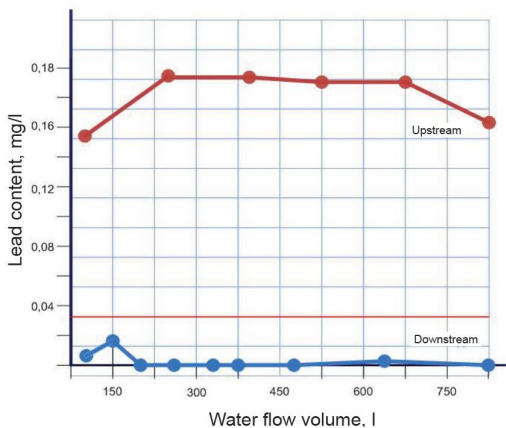
20" Big Blue..... 60,000 litres

## Filtration Efficiency

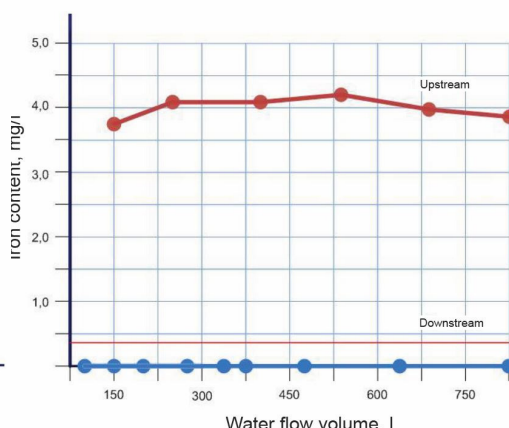
Particles >2 microns.....	100%
Lead, zinc, cadmium, cesium.....	95%
Chlorine.....	100%
Chloramines.....	>90% +
Pesticides.....	92%
Iron.....	90%
Aluminium.....	97%
Turbidity.....	99%
Oil Products.....	90%

## Heavy Metal Removal

Example: Lead Removal Efficiency

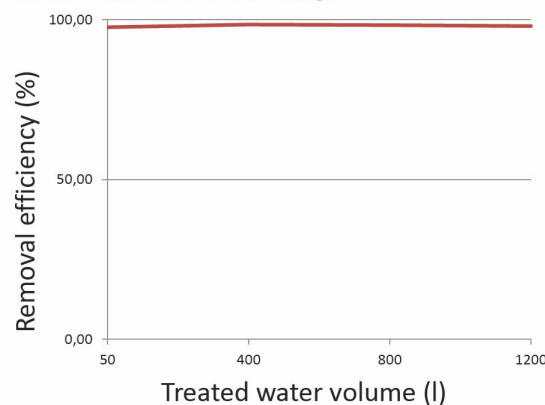


Example: Iron Removal Efficiency



## Pesticides Removal

Simazin Removal Efficiency





# Institut Pasteur de Lille

France

The institute took its name from the famous French microbiologist Louis Pasteur, the founder and the first director. Louis Pasteur was buried in Notre-Dame de Paris cathedral for his prominent services to France, but later reburied in the territory of the Institute (Lille).

Important discoveries have been made In Pasteur Institute. That contributed to successful control of such virulent diseases as diphtheria, tetanus, tuberculosis, poliomyelitis, influenza, yellow fever and plague. In 1983 the human immunodeficiency virus was discovered in the institute. Since 1908 ten scientists of the institute have received Noble Prizes for Medical Science and Physiology.



## How the Tests Were Conducted?



*Photo: the modules and the housing presented to the Institut Pasteur de Lille*

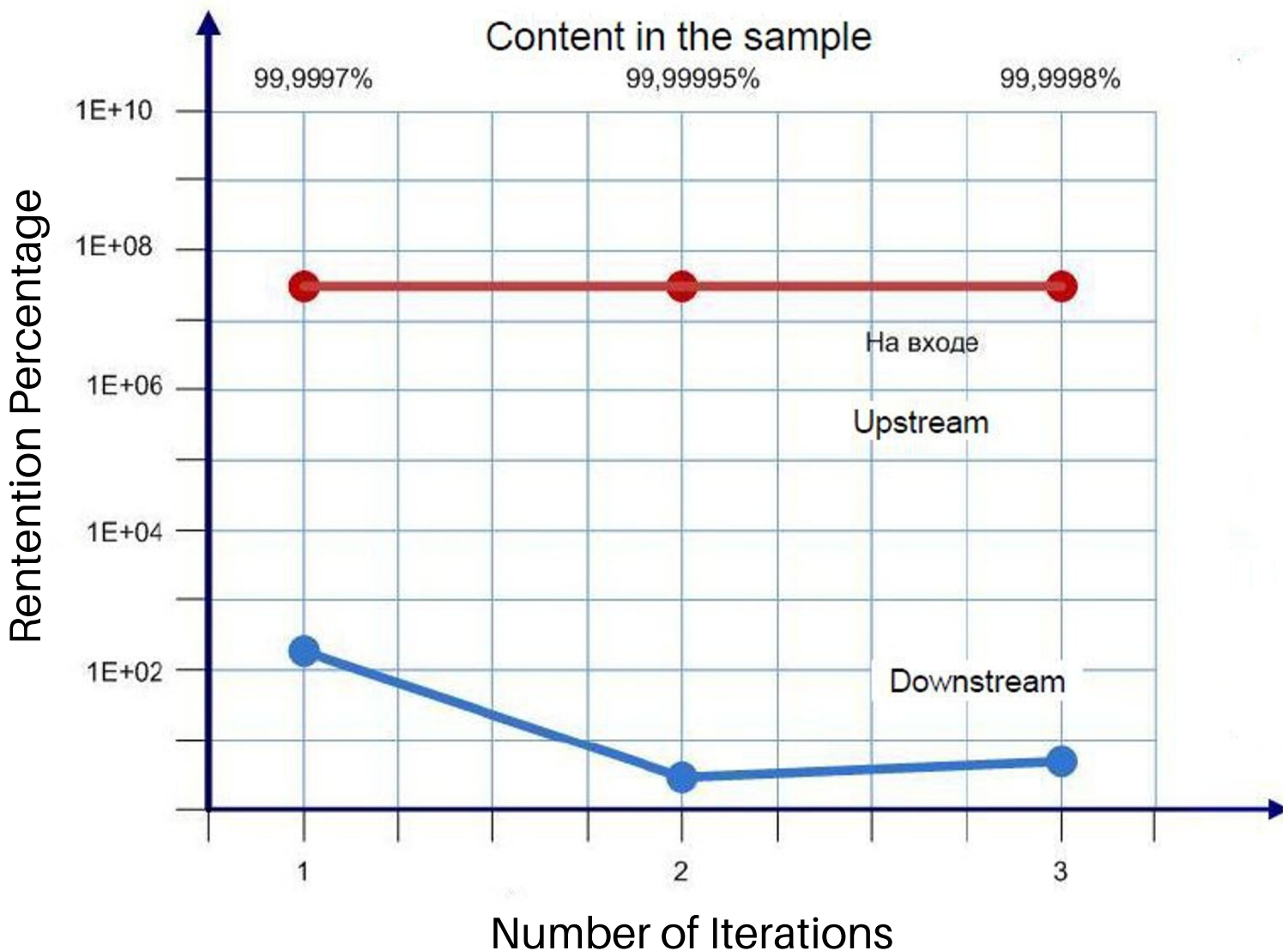
The filtering modules made of ARAGON were taken randomly from the batch. They were placed into a standard series-produced plastic housing. A peristaltic pump was used to circulate water through the modules. Each module was tested once. The tests were conducted with the use of artificially contaminated ultrapure water. Pollution-free water passed through the module prior to the experiment then contaminants were added and the treated water was collected after being filtered.



# Removal of Salmonella

Salmonella is a mouse typhus agent. Nonspore-forming rod-shaped bacteria.

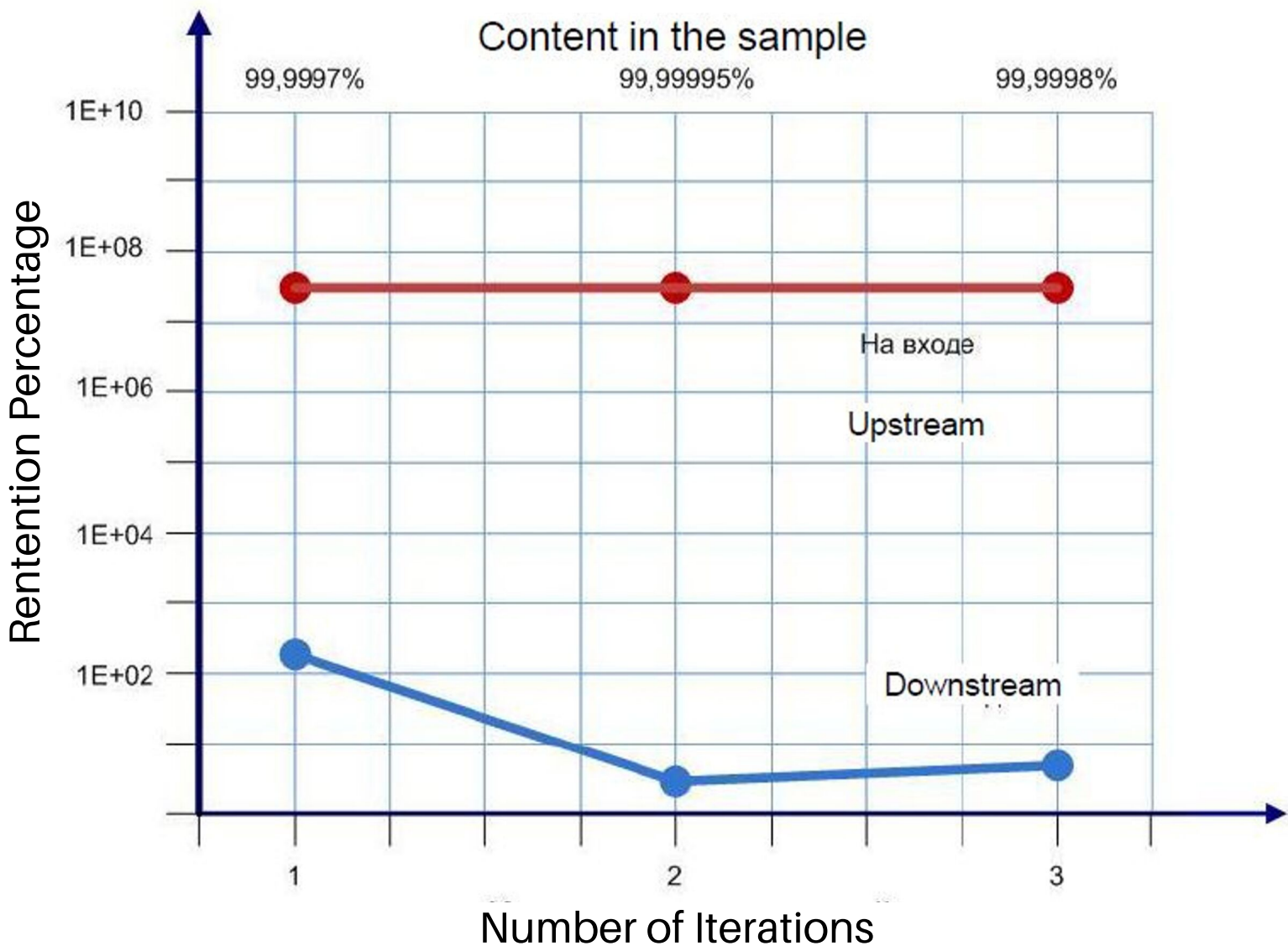
Length: 1-7  $\mu\text{m}$ ; width: around 0.3-0.7  $\mu\text{m}$ . The salmonellas are gram-negative mobile facultative-anaerobic bacilli.



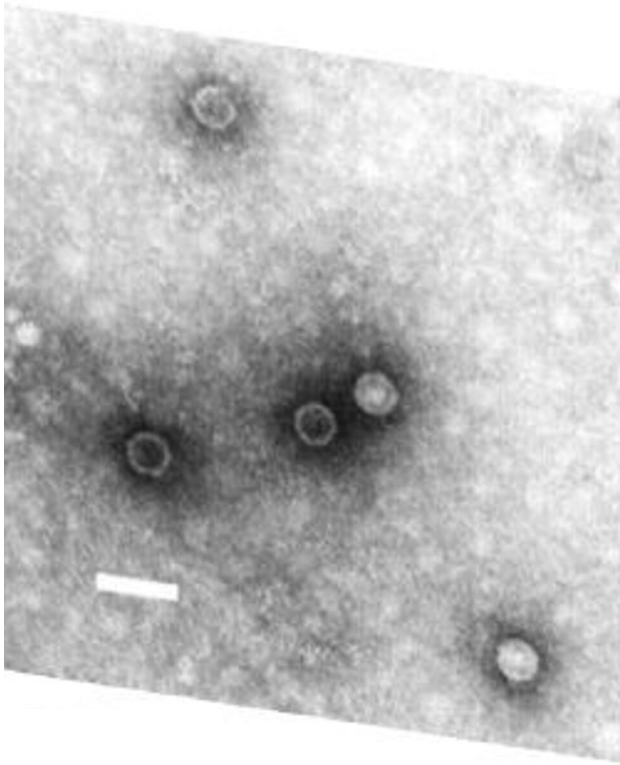
# Removal of Legionella



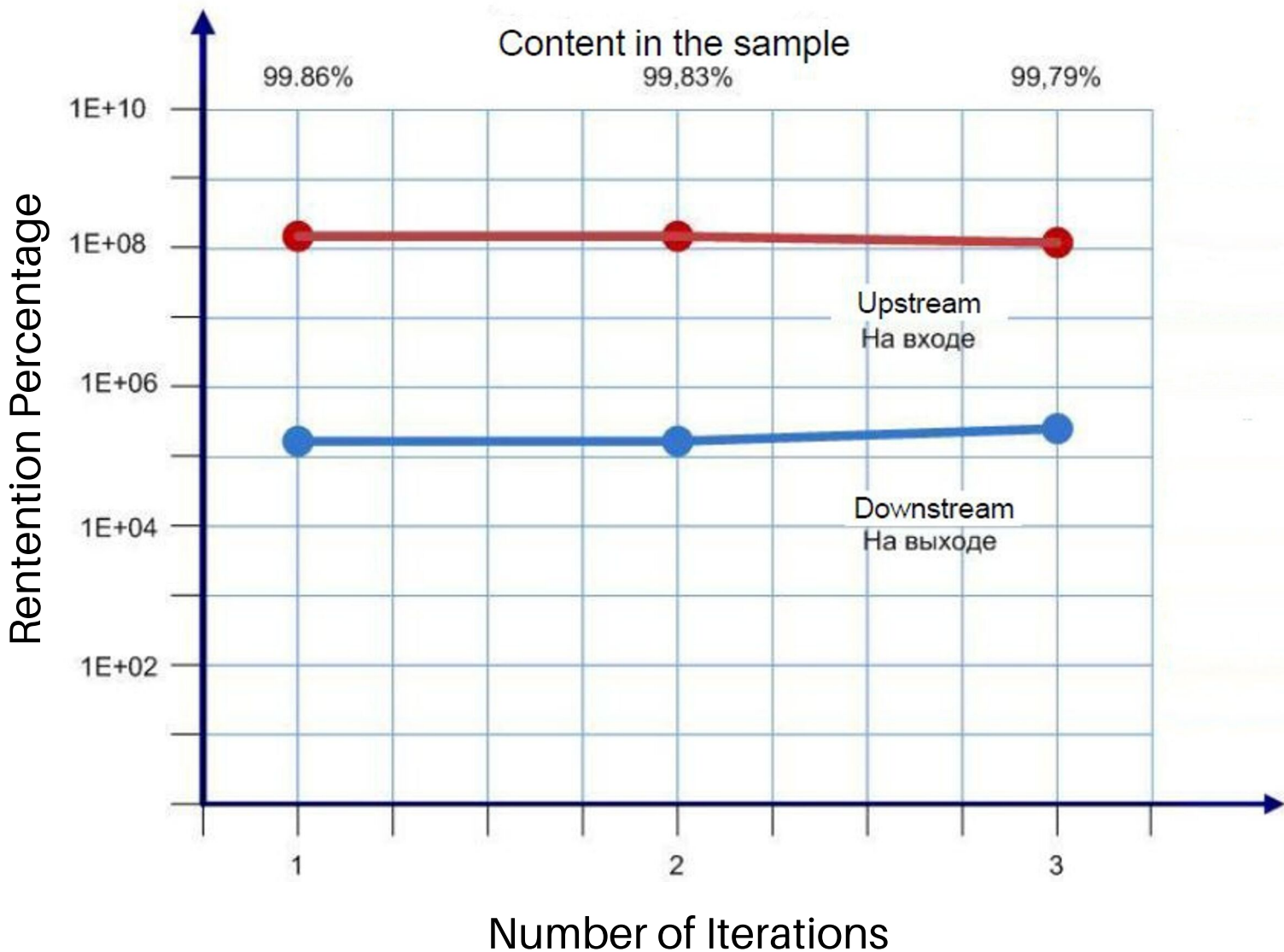
Legionella pneumophila are pathogenic gram-negative bacteria. Diameter: 0.2 to 0.7  $\mu\text{m}$ , length: 2 to 20  $\mu\text{m}$ . The inhabitation places of legionella are fresh water bodies and soil and also water supply and air conditioning systems in buildings, heating water converter plants and shower facilities, fountains, etc.



# Removal of Poliovirus



Poliovirus (Poliovirus Strain Sabin type I) belongs to the family Picornaviridae, enterovirus (enteric virus) group. Virus size: 27-30  $\mu\text{m}$ . Production and titration were on the BGMK cells (African green monkey's kidney).

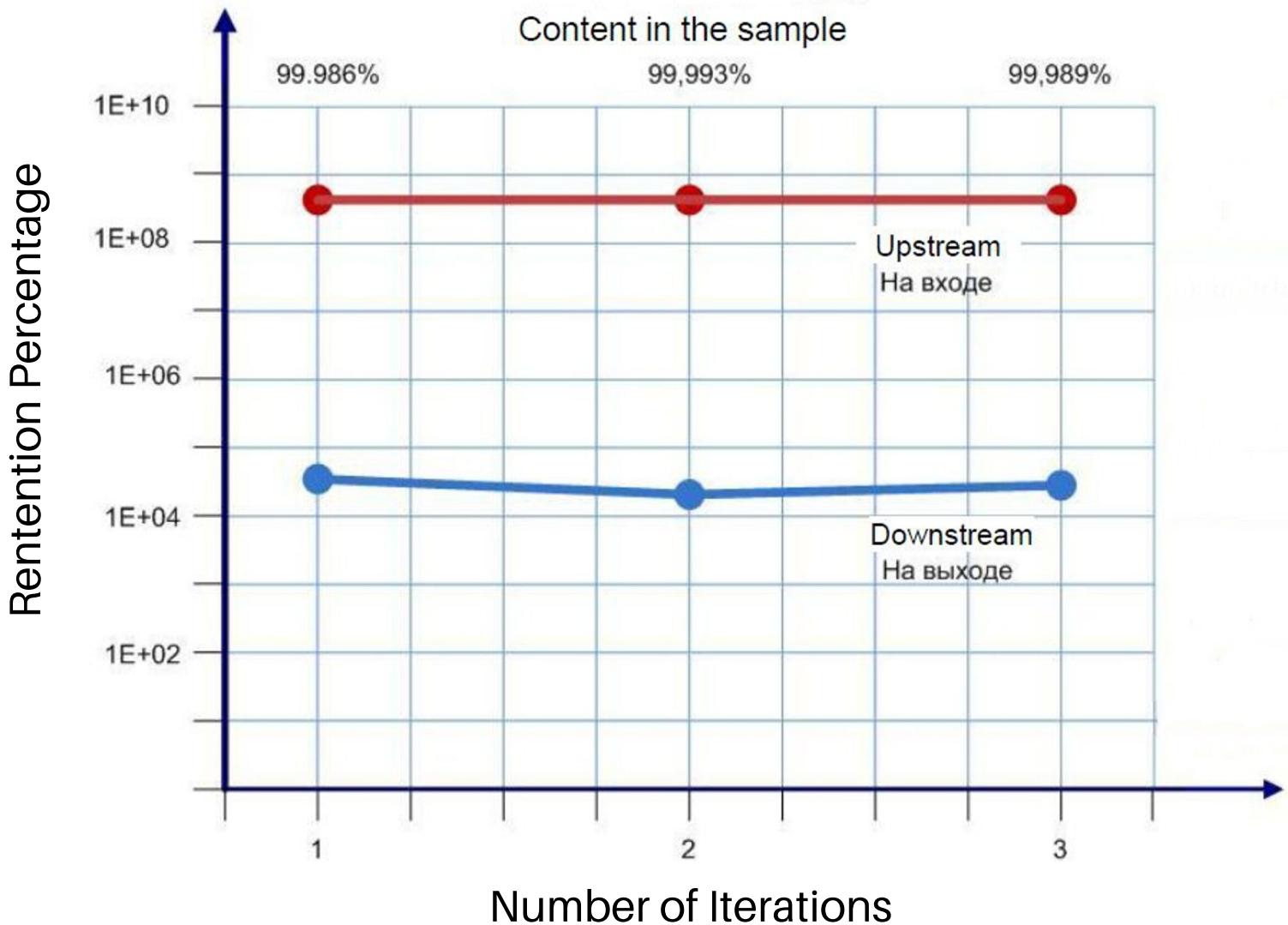


# Removal of Rotavirus

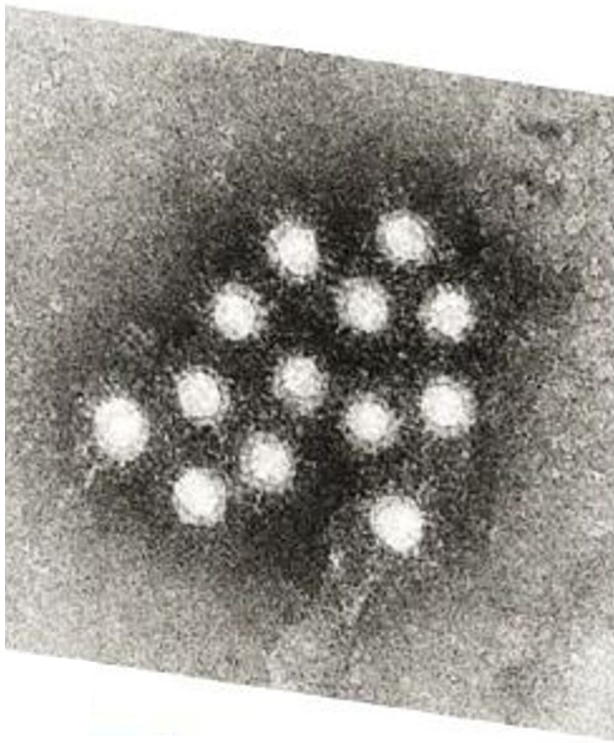


Rotavirus is an enveloped virus with two-strand fragmented RNA belonging to the family Reoviridae, rotavirus infection agent.

Virus size: 76.5  $\mu\text{m}$  in diameter. Production and titration were on the primates MA104 cells.

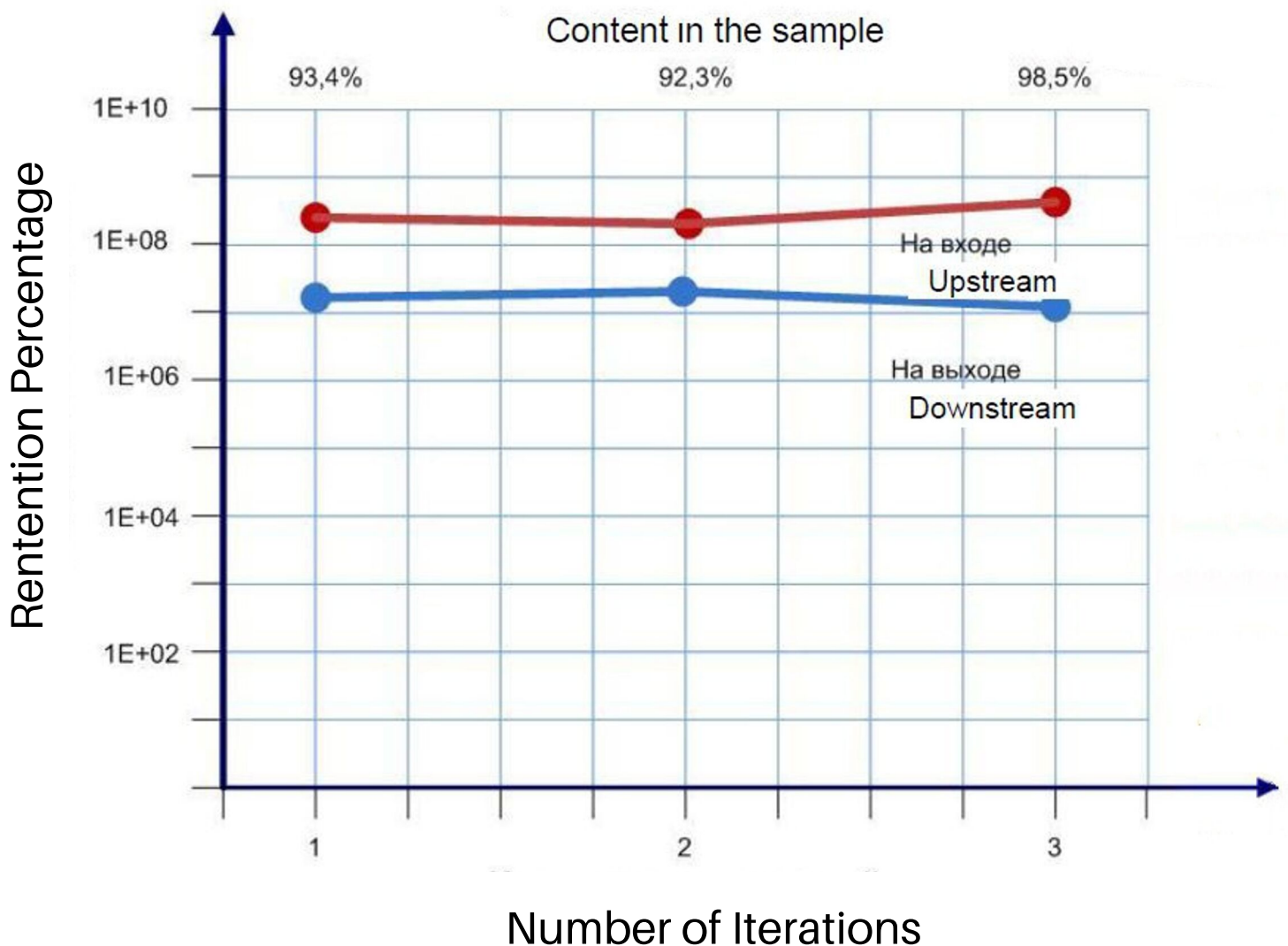




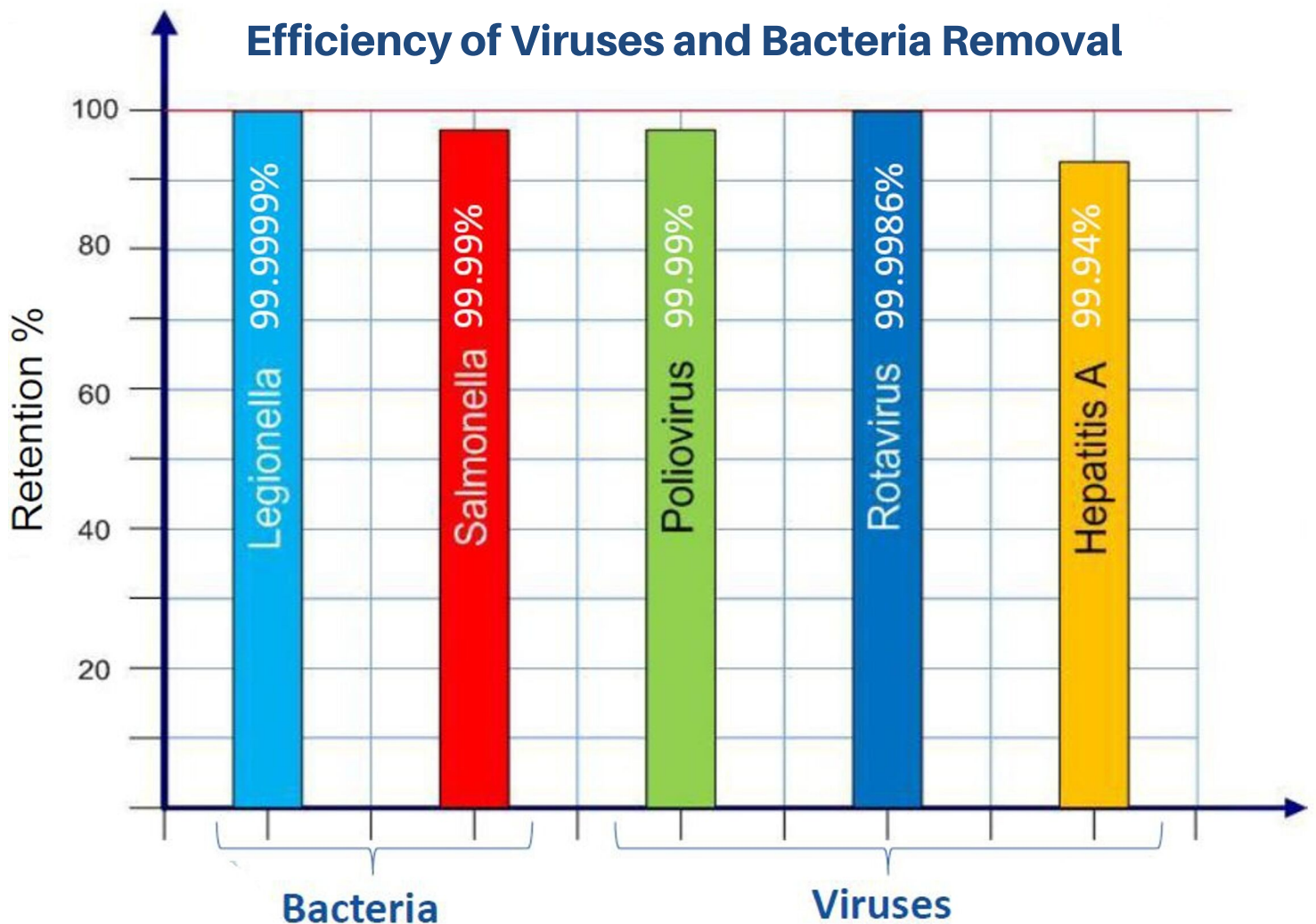


## Removal of Hepatitis A

Hepatitis A (formerly known as infectious hepatitis) belongs to Picornaviridae family of viruses. It has no envelope and contains (+) singlestranded RNA packaged into protein capsid. Size: 27  $\mu\text{m}$  in diameter.



## Efficiency of Viruses and Bacteria Removal



## Conclusion

**Aragon BIO** represents the most up-to-date technology for water treatment and viruses, bacteria and cists removal. That makes it possible to get completely safe and health-promoting water without boiling.

**Aragon BIO** can be used as well as the main element in water treatment and decontamination systems and as one of the pre-treatment stages, e.g. as a part of the membranes protection against bio contamination.

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**Aragon BIO** is comparable to polymeric UF/MF membranes (that are for domestic use) in efficiency. But it has greater productivity and significantly lower pressure drop.

**Aragon BIO** provides higher efficiency of filtration and kinetic absorption as compared to standard nonwoven fabrics including granular activated carbon.

**Aragon BIO** is absolutely environmentally-friendly. It can be used for potable water treatment and decontamination according to GOST R 51871-02, 51232-98.

### Domestic Use

- Potable water filtration both at home and outdoors
- Water supply of house
- Water purification in emergency zones, (radioactive pollution conditions)
- Water treatment in mainlines

### Commercial Use

- Treatment and purification systems for discharges
- Hot water supply (boilers)
- Pre-filtration in the membrane filtering systems
- Pre-filters for mainlines