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### Dear customer, thank you for your choice!

Dear customer, you have got an ABF-BB series in-line filter, manufactured and developed by our company. It is a result of our brand new development decisions and researches in a field of water treatment and manufacturing of plastic units. We are sure that ABF-BB series in-line filters will help you in solving water supply tasks in your house or apartment.

ABF-BB series in-line filters are being installed into a cold water main and they are aimed for water purification and protection of sanitary fittings from mechanical impurities, rust, sand, silt, organochlorides, dissolved iron, heavy metals. It depends on a cartridge installed in the filter (you can find varieties of cartridges in this manual).

### ADVANTAGES OF ABF-BB SERIES FILTERS AND WATER PURIFICATION SYSTEMS

- An O-ring in a filter body. It excludes a possibility of water leakage and provides more steady connection of filter's cap and body.
- Brass inserts in threaded joints arrange more steady connection.
- Usage of modern materials and improved technology of production of plastic AQUABRIGHT in-line filter components gave the opportunity to increase margin of strength up to 30 bar.
- Filters of ABF-PRO-xxBB series are equipped with filter cartridge replacement calendar.

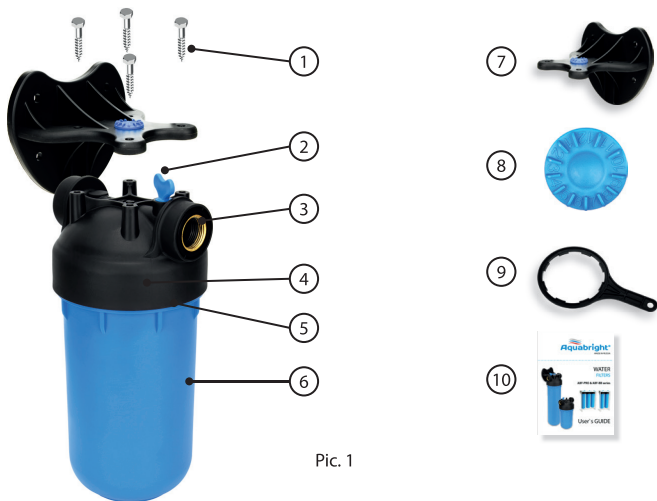


#### CAUTION!

- *ABF-BB in-line filters are intended only for domestic individual use. Commercial and industrial use of this filters are not recommended and may cause the seller and the manufacturer to deny their warranty liabilities.*
- *In-line filters must be installed by a specialist with proper qualification.*
- *The installation of a 6-bar pressure reducer into a water main before the in-line filter is a must.*
- *Before installation check the filter for any defects, breakings or deformations.*
- *In-line filters must be installed out of reach of children and pets.*
- *Do not use in-line filter for purifying microbiologically hazardous water. The demands to source water are described in this manual.*

- *Do not allow direct sunlight to hit the filter's body.*
- *Do not install the in-line filter in places with too low or too high temperature.*
- *Water temperature must be from +2 °C to +45 °C. Air temperature in a room must not decrease to 0 °C or below.*
- *Do not let the water get frozen in a filter's body or in a pipeline.*
- *Use the filter only according to its assignment and demands of this manual.*
- *Do not flow through the filter explosive, flammable and chemically aggressive liquids.*
- *Do not flow through the filter water with fibrous inclusions and with a lot of sand or other big particles.*
- *Do not subject the filter to strikes, overloads, exposure to atmospheric precipitation, aggressive liquids and gasses.*
- *In case of finishing or in case of a long break in the use of an in-line filter, we recommend you to turn the water supply to the filter off.*
- *In-line filters are not intended for use by persons (including children) with reduced physical, sensory or mental abilities or lack of life experience or knowledge, unless they are supervised or instructed about the use of filters by a person responsible for their safety.*
- *Not following to this manual's terms may cause water leakage, accidental situations, property damage or other troubles.*
- *All the responsibility for safety exploitation and maintenance of a filter in working order lays upon the owner of filters.*
- *ABF-BB series in-line filters intended to be installed only into a COLD WATER pipeline. Installation of ABF in-line series filters into a hot water pipeline IS NOT ALLOWED, because it can cause a filter body damage and an accidental situation.*

**ABF-PRO-xxBB FILTER HOUSING ARRANGEMENT**



Pic. 1

- |                                       |  |
|---------------------------------------|--|
| 1. Set of screws for mounting bracket | 6. Filter body                           |
| 2. Pressure release valve             | 7. Mounting bracket                      |
| 3. Brass insert                       | 8. Filter cartridge replacement calendar |
| 4. Filter cap                         | 9. Wrench for filter body                |
| 5. O-ring                             | 10. Manual                               |

**List of parts for ABF-PRO-xxBB**

Assembled filter .....	1 pc.
Mounting bracket .....	1 pc.
Wrench for screwing off a filter's body .....	1 pc.
Mounting screw .....	4 pc.
Operational manual .....	1 pc.
Packing box .....	1 pc.

**TECHNICAL FEATURES FOR ABF-PRO-xxBB SERIES:**

MODEL	ABF-PRO-10BB	ABF-PRO-20BB
Type of cartridge	Big Blue 10	Big Blue 20
Material of cap / body	reinforced PP	reinforced PP
Cartridge height (size)	10 Inch	20 Inch
Max breaking pressure	up to 30 bar	up to 30 bar
Working pressure	2-8 bar	2-8 bar
Performance*	up to 30 l/min	up to 60 l/min
Working temperature	+2°+45°C	+2°+45°C
Connection diameter	1 inch (brass)	1 inch (brass)
Dimensions	398 x 178 x 164	658 x 178 x 164

\* Depends on type and level of contamination of installed cartridge.  
 Cartridge is not included in base completion.


**CAUTION!**

*When installing an in-line filter the installation of a 6-bar pressure reducer into a water main before the in-line filter is a must.*

All the filters are being selectively tested for leaks. According to it there could be a small amount of water in some of filters.

Before the installation into municipal water works, please arrange a coordination of your activities with the organization that is in charge for your building's exploitation. It is not recommended to install the filter yourself.

All the works according to filter installation and changing of filtering elements must be done by specialists with proper qualification.

**INSTALLATION PROCESS**

AQUABRIGHT ABF-PRO-xxBB series in-line filter can be installed on steel, brass, plastic or metal-plastic pipes. Before the installation the filter must be held in indoor temperature at least for 3 hours. The filter must not take any mechanical stress from the pipeline.

1. Turn the cold water off at the mainline of your house or apartment.
2. Open the faucet to release pressure and to run the water off the pipeline.
3. Set the pressure reducer to a not more than 6 bar position.
4. Fix the bracket to a wall in a necessary place.
5. Fix the filter's cap to the bracket by four screws form a set.
6. Wrap a piping tape or flax on threaded joints and screw the filter's cap into a cold water pipeline according to a direction of the arrow located on a filter's cap.

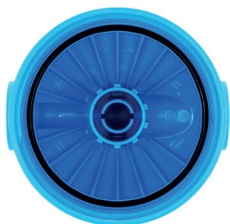
**Excess of the tape and/or force of screwing can cause a connection brake or a filter's body damage.**

7. Put off a transparent packing film from a chosen cartridge and install it into a filter's body.
8. Screw the transparent filter's body into a filter's cap up to the stop.
9. Open a cold water faucet and wash the filter with at least 10 liters of water.
10. Set the cartridge replacement calendar so that the number opposite the arrow on the bracket coincides with the number of the current month.
11. The installation process is finished. We wish you a pleasant experience using AQUABRIGHT ABF-PRO-xxBB series filter.

*After installing AQUABRIGHT ABF-PRO-xxBB series in-line filter and changing cartridges make sure that there is no water leakage and, from time to time, visually inspect it for water leakage.*

*An O-ring must be installed into an inner hole of a filter's cap.  
Installation of an O-ring on a filter body is strictly not allowed.*

FILTER CAP



**RIGHT**

FILTER BODY



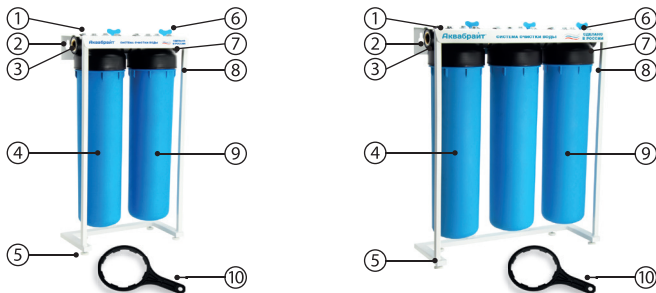
**WRONG**

Pic. 2

### Systems for water purification - ASSIGNMENT

AQUABRIGHT systems for water purification are intended for purification of cold water and protecting sanitaryware from different impurities.

#### Arrangement of ABF-BB series systems on a frame



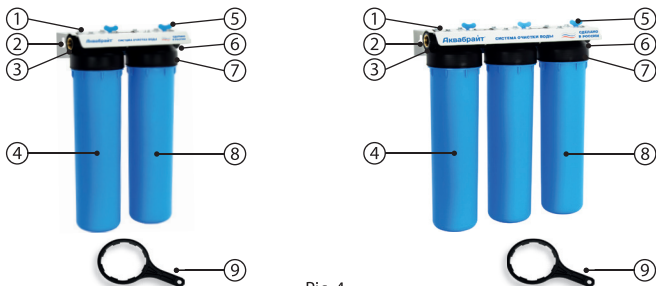
Pic. 3

1. Bolts for mounting the filter cap to the bracket
2. A hole for mounting to the wall
3. Inlet hole for assembling to the water main
4. Filter body of the 1st step of purification
5. Leg (support) with height adjustment
6. Pressure release valve
7. Outlet hole for assembling to the water main
8. Metal frame of the whole construction
9. Filter body of the last step of purification
10. Wrench for changing cartridges

MODEL	ABF-210BB	ABF-220BB	ABF-310BB	ABF-320BB
Cartridge height (size)	10 inch	20 inch	10 inch	20 inch
Number of steps	2		3	
Max breaking pressure	25 bar			
Working pressure	2-8 bar			
Performance*	up to 15 l/min			
Working temperature	+2° +45° C			
Connections (in and out)	1 inch			
Dimensions (mm)	427 x 365 x 180	687 x 365 x 180	427 x 556 x 180	687 x 556 x 180

\* depends on installed cartridges and level of their contamination

**Systems for water purification without a frame**



Pic. 4

1. Bolts for mounting the filter cap to the bracket
2. A hole for mounting to the wall
3. Inlet hole for assembling to the water main
4. Filter body of the 1st step of purification
5. Pressure release valve
6. Outlet hole for assembling to the water main
7. Filter cap of the last step of purification
8. Filter body of the last step of purification
9. Wrench for changing cartridges

MODEL	ABF-10BB-2	ABF-20BB-2	ABF-10BB-3	ABF-20BB-3
Cartridge height (size)	10 inch	20 inch	10 inch	20 inch
Number of steps	2		3	
Max breaking pressure	25 bar			
Working pressure	2-8 bar			
Performance*	up to 15 l/min			
Working temperature	+2° +45° C			
Connections (in and out)	1 inch			
Dimensions (mm)	398 x 365 x 180	612 x 365 x 180	398 x 556 x 180	612 x 556 x 180

\* depends on installed cartridges and level of their contamination



**List of parts for ABF-BB series water filtration systems:**

System on a frame without a frame .....	1 pc.
Set of cartridges (2 or 3 pc.).....	1 set.*
Valve (1 or 2 pc.) .....	1 set.
Gauge(s).....	1 set.**
Wrench for changing cartridges.....	1 pc.
Manual.....	1 pc.
Packing box .....	1 pc.

\* Cartridges are only included in packages of models STANDARD, SOFTENING, ANTIIRON.

\*\* Included only in a set of a model marked with «M» letter.

**Sets of cartridges depending on a model**

TYPE	SET	CARTRIDGES	FILTERS
Standard	K-1-10BB	PS(PP)-10M-10BB + UGA-10BB + UGP-10BB	ABF-310BB ABF-10BB-3
	K-1-20BB	PS(PP)-10M-20BB + UGA-20BB + UGP-20BB	ABF-320BB ABF-20BB-3
	K-1-10BB-2	PS(PP)-10M-10BB + UGP-10BB	ABF-210BB ABF-10BB-2
	K-1-20BB-2	PS(PP)-10M-20BB + UGP-20BB	ABF-220BB ABF-20BB-2
Softening	K-2-10BB	PS(PP)-10M-10BB + S-10BB + UGP-10BB	ABF-310BB ABF-10BB-3
	K-2-20BB	PS(PP)-10M-20BB + S-20BB + UGP-20BB	ABF-320BB ABF-20BB-3
Antiiron	K-3-10BB	PS(PP)-10M-10BB + FP-10BB + UGP-10BB	ABF-310BB ABF-10BB-3
	K-3-20BB	PS(PP)-10M-20BB + FP-20BB + UGP-20BB	ABF-320BB ABF-20BB-3

**Sequence of installation of cartridges in stages of filtration**

Model	ABF-210BB/ ABF-10BB-2	ABF-220BB/ ABF-20BB-2	ABF-310BB/ ABF-10BB-3	ABF-320BB/ ABF-20BB-3
1st stage	PS-10M-10BB PP-10M-10BB	PS-10M-20BB PP-10M-20BB	PS-10M-10BB PP-10M-10BB	PS-10M-20BB PP-10M-20BB
2nd stage	UGP-10BB	UGP-20BB	UGA-10BB* S-10BB* FP-10BB*	UGA-20BB* S-20BB* FP-20BB*
3d stage	-		UGP-10BB	UGP-20BB

Models of water purification systems can be equipped with different types of cartridges. You can see full technical characteristics and features in the instruction to each cartridge.

\* Mechanical treatment step is mandatory after cartridge with filling



**CAUTION!**

*When installing an ABF-BB system the installation of a 6-bar pressure reducer into a water main before the in-line filter is a must.*

**Installation of ABF-BB series systems**

Water purification system must be installed into a water main. For ease of maintenance and disassembly, shut-off valves must be installed before the inlet and after the outlet of the water purification system.

On the top of the water purification system above the inlet and outlet holes, there are guidelines in the form of arrows and inscriptions IN (inlet) and OUT (outlet), according to which the water purification system must be installed.

1. Shut off the water supply in the apartment or house.
2. Open the faucet in your kitchen or your bath to release pressure in a water main and flow off the remaining water from it.
3. Only for ABF-220BB and ABF-320BB. Put the system in a place of installation and adjust it by rotating leg supports (point 5 on pic. 3) to the horizontal position or necessary tilt of the frame.
4. If it is needed - mount the system to the wall or hang it on the wall in the place of installation.
5. Wrap a piping tape or flax on threaded joint of inlet pipe or a fitting and screw it into a first stage cap. **(Excess of the tape and/or force of screwing can cause a connection brake or a filter's body damage.)**
6. Wrap a piping tape or flax on threaded joint of outlet pipe or a fitting and screw it into a last stage cap. Same way as for the first stage.
7. Use cartridge installation guide from pages 14-15.
8. Turn on the water supply in the apartment or a house. Open shut-off valves before and after the system and make sure there are no leakages in connection points and check them from time to time for leakages.
9. When you run the system for the first time the water flow can be turbid for a couple of minutes it is caused by washing of the purification filling of the cartridge.

After installing or changing cartridges there may stay air particles in a filter's body that may cause a light white color of water.

After a while, air particles will disappear and water will gain its natural color.

### TECHNICAL SERVICE (CHANGING CARTRIDGES)

During the exploitation process of a filter cartridges gradually become contaminant, what leads to a cartridge's efficiency loss and decrease of water pressure.

To save water quality on a high level you need to change contaminated cartridges to new ones in time.

Changing period of cartridges depends on a source water contamination level and filter's usage mode.

**The maximal time of using cartridge in a filter can't exceed 6 months, it is caused by a bacterial growth on a cartridge surface.**

**Before technical service(changing of a cartridge) ATTENTIVELY examine the filter and connection parts for leakages(even small) or cracks. If you find a crack, please change the filter, if you find a leakage – ask for a specialist's help.**

1. Put a towel or a tank under the installed system.
2. Turn off the cold water main faucet that is installed in a water main before the water filtration system.



3. Open any cold water faucet after the system (In your kitchen or bathroom) to release pressure in the pipeline.
4. Using a plastic wrench (supplied with the filter) screw off the filter's body of the first stage from the filter's cap.



For ABF-PRO series - cartridge replacement calendar

5. Take of the expanded cartridge from the filter's body.



6. Wash the transparent body with hot water then clean it dry.
7. Anoint the O-ring with silicone grease or petrolatum ointment.
8. Put of a transparent packing film from a chosen cartridge.



9. Install the cartridge into a filter body.



10. Screw the filter body into the filter cap up to the stop.
11. Tighten the filter body by a special wrench.



12. Repeat steps 4-11 for second and third stages.
13. Open the Off-valve installed before the water purification system.



14. Wash the filter by flowing water through it for 10-15 minutes.
15. Changing cartridges is finished.
16. After changing cartridges check the system for leakages for a while.

**TROUBLES AND REMEDIES:**

<b>Trouble</b>	<b>Causes</b>	<b>Remedy</b>
Leaking in the place where the cap connects with filter body.	Filter body screwed not tight enough.	Tighten up the cap.
	The O-ring's lifespan is out.	Change and anoint the O-ring with silicone material.
	The O-ring is damaged.	Change and anoint the O-ring with silicone material.
	The O-ring is unevenly installed in the gap of the filter cap.	Anoint the O-ring and install it in a right way.
Leaking in the place where filter cap connects with the pipe.	Bad waterproofing.	Screw off the connection and fit it again using plumber's tape or flax.
	The connection threaded joint is not screwed tight.	Tighten the threaded joint.
	Insufficient amount of plumber's tape or flax in the threaded connection.	Apply a little more plumber's tape or flax to the threaded connection.
Water running through the filter does not become pure.	When screwing the filter body into the filter cap, the cartridge was skewed.	Screw off the body, reinstall the cartridge in a proper way and screw the body into the cap again.
Water pressure on the filter's outlet decreased.	End of cartridge's lifespan.	Replace cartridge with a new one.
Micro-breaks appeared on a transparent body.	Hydraulic impact happened.	It is not a warranty case, change the whole filter.
Water flows through the filter but remains dirty.	Wrong setting-up. The direction of the flow and the direction of the arrow on the filter's cap are different.	Reinstall the filter in the way when the flow direction and the direction of the arrow on the filter's cap are similar.
Filter body became blown.	Hot water appeared in a cold water plumbing.	It is not a warranty case, change the whole filter.



**GUARANTEE COMMITMENTS DO NOT SPREAD OVER FOLLOWING CASES:**

- Defects of an in-line filter caused by violation of rules of this manual
- Violation of guarantee terms – water temperature from +2 to +45 C, working pressure not more than 8 bar.
- Filter is installed in a plumbing with no pressure reducer with 6 bar limiter. The reducer must be installed before the filter.
- For replaceable elements (cartridges), since they belong to consumables and the service life of which depends on the quality of the source water.
- In case of mechanical damages caused by outer strike or any other impact or aggressive environments' impacts.
- Defects caused by incorrect hydraulic or mechanical setting-in and use.
- Defects caused by using the filter for purposes other than that intended or not according the operational manual rules.
- Natural wear of filter's body, severe inner or outer contamination.
- Filters and water purification systems that have been opened, repaired or modified by an unauthorized person or service organization.
- Too much plumbing tape or flax in the place where brass insert connects with the pipe.

**SOURCE WATER REQUIREMENTS**

Hydrogen index, pH	6 - 9
Total hardness of purifying water, mg-equ/L	up to 20
Contamination of iron – mg/L	up to 0,3
Total mineralization mg/l	up to 1000
Permanganate index mg/L	up to 5,0
Petrochemicals, in summary, mg/L	up to 0,1
Surface active agents, anionic, mg/L	up to 0,5
Phenolic index, mg/L	up to 0,25





