BMB TECHNOLOGY

BMB-1000 HYDRA SERIES
INSTALLATION GUIDE

Models:

BMB-1000 HYDRA WHOLE HOUSE FILTRATION SYSTEM
BMB-1000 HYDRA PRO WHOLE HOUSE FILTRATION SYSTEM

smart water technology

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IMPORTANT INFORMATION

Please ensure the incoming water pressure is tested before taking out the installation. This can be performed by using a Pressure Gauge

This can be purchased online or at your local plumbing stores.

Otherwise, you may want to ask your plumber to test the water pressure for you.

The BMB-1000 Hydra Series are designed to be used for water pressure between 1.5 - 6 Bar. In order to protect the property from incrase in water pressure which can cause leaks, we'd strongly advise the installation of a PRV (Pressure Reducing Valve). Your selected plumber will know about the importance of a PRV for your property.

Pressure Gauge

INTRODUCTION

SPECIFICATIONS

Brand	BMB Technology
Series	BMB-1000 Hydra Series
Filters	4 Filters
Filter Size	2.5” x 9.5”
Recyclable Filters	Yes
In / Out Port Size	3/4” NPT Female (2 x 3/4” Nipples provided)
Removes / Reduces	Bacteria, Chlorine, Heavy Metals, Particles, Limescale and much more (see description below)
Filter Lifetime	6 months - 12 months depending on water quality
Capacity	250 Liters / Hour @ 4 Bar
Temperature	10 °C Min. - 30 °C Max.
Pressure	1.5 Bar Min. - 6 Bar Max.
Dimensions	42 cm (Length) x 16 cm (Width) x 28 cm (Height)
Weight	8.1 Kg uninstalled / 10.4 Kg working

DESCRIPTION

The BMB-1000 Hydra Series by BMB Technology is a state-of-the-art point of entry (POE) water filtration system that is powered by nanotechnology. The 4 filter system utilises unique filters and processes to remov or reduce thousands of water contaminants without the need for electricity, waste water or storage tank. The bottom to top flow design of the system ensures maximum contact time with filtration media for the highest absorption rate possible while extending the filter lifetime.

Filter	**Removes or Reduces**
1. Antibacterial 5 Micron Sediment	Sediment, particles, dust, rust, iron, manganese, microorganisms (bacterira, algae, fungi, etc.)
2. Sediment + Coconut Shell CTO Carbon Block	Chlorine, chloramine, pesticides, herbicides, nitrate, phosphate, lithium, pharmaceuticals, microplastics, arsenics, asbestos, lead, zinc, copper, mercury and other heavy metals.
3. KDF + Silver Impregnated Coconut Shell GAC Carbon	Chlorine, hydrogen sulfide, calcium carbonate, phosphate, lithium, pharmaceuticals, microplastics, arsenic, asbestos, heavy metals (lead, zinc, copper, mercury, iron, chromium, etc.) and microorganisms (bacteria, algae, fungi, etc.)
4. Anti-Scale & Anti-Corrosion	Water hardness (calcium carbonate, magnesium carbonate, carbonate, bicarbonate etc.)

1st Filter: Antibacterial 5 Micron Sediment

The Two stage filter is made from nano zinc powder infused, NSF certified polypropylene fibres. The fibres have a +97% efficiency of filtering particles that are 5 microns or larger while the nano zinc powder acts as an antibacterial agent for any microorganisms in the incoming water supply. Although zinc is an element that humans cannot live without, it is lethal to microorganisms such as bacteria, virus, algae, fungi, etc.

2nd Filter: Sediment + Coconut Shell CTO Carbon Block

This two-stage filter is made from NSF Certified Coconut Shell Carbon which has a very high capacity to reduce taste and odour compared to charcoal filters. The carbon block filter is also wrapped in a microporous cloth which not only filters sediment but also protects the honeycomb style pores of the carbon from particles so their filter capacity used on contaminants such as chlorine as opposed to dirt. To increase the adsorption process even further, the carbon is treated with Nitrogen to make it “activated”. This will not only attract the contaminants into the pores but also make sure they stay there.

3rd Filter: KDF + Silver Impregnated Coconut Shell GAC Carbon

This three-stage filter is made from NSF certified KDF (Kinetic Degradation Fluxion) Media and NSF Certified Silver Impregnated Coconut Shell Granule Activated Carbon (GAC). The KDF media is a high-purity copper-zinc media that filters contaminants in water using an oxidation/reduction (redox) process. The nano silver impregnated Coconut Shell Granule Activated Carbon (GAC) is a two-stage media that not only filters common contaminants found in water supplies such as chlorine, but also kills bacteria and reduces taste and odor. Each granule is impregnated with silver and unlike standard GAC carbon which can promote bacteria growth, the silver will not only prevent the growth of bacteria but also aid in killing them.

4th Filter: Anti-Scale & Anti-Corrosion

This filter is made from harmless polyphosphate mineral (siliphos), which is gradually released into the filtered water to form a very thin layer of film on water contact surfaces such as: pipes, heating elements, shower, kitchen, etc. This thin layer prevents limescale (scale) found in hard water to deposit on these surfaces by repelling scale forming molecules as well as coating them to prevent scaling further downstream. The film will also protect surfaces from corrosion because it blocks molecules containing oxygen, which leads to oxidation, which leads to rust and corrosion.

INSTALLATION

EQUIPMENT

IMPORTANT: We strongly recommend the Installation to be carried out by a professional plumber

For the installation you will need the following equipment:

- 2 x screws & wall plugs for designated mounting location
- Plumbers Wrench
- Spanner
- Silicone Grease
- Teflon Tape (PTFE)
- Screwdriver (Philips & Flat)
- Marker Pen
- Power Drill
- Spirit Level

Depending on the location and current pipework, you may need extra equipment such as extra copper pipes, hoses, pipe cutters etc.

CONTENTS

BMB-1000 Hydra

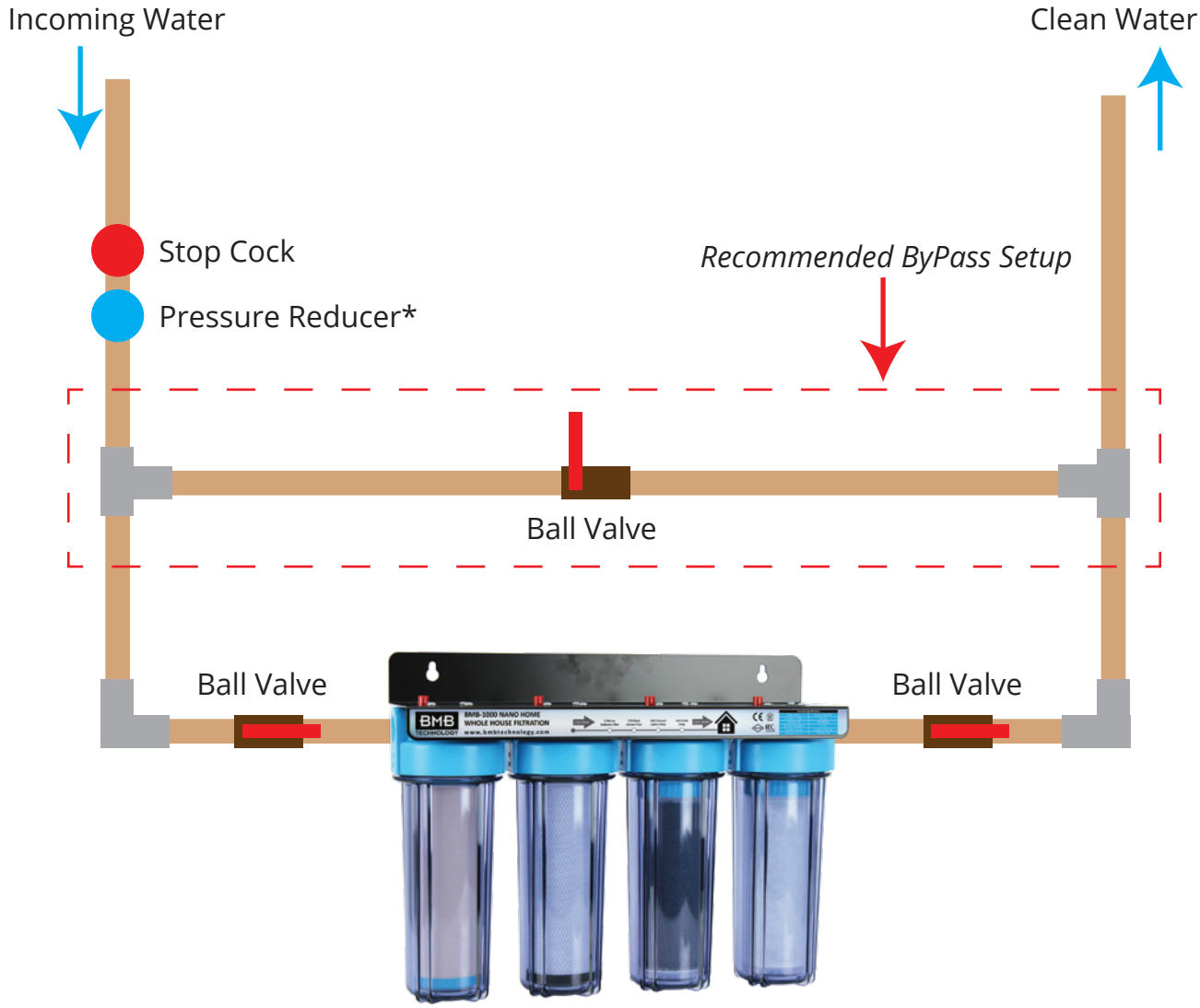
Housing Wrench

3/4” NPT – 3/4” BSP Nipple (2 Qty.)

BEFORE YOU BEGIN

- Make a list of all the plumbing parts and tools you will need to completely install the system to fit your home's needs.
- Confirm the inflow direction of the system and your install location.
- Turn off all incoming water to the house. The valve for this may be located under the house, on the side of the house, under a ground panel, in the kitchen under the sink, or elsewhere.
- If you have an electric water heater turn off the electricity to your water heater. If you have a gas water heater turn the knob to pilot.
- We suggest planning for a bypass loop around the system.
- Use Teflon tape on the threaded connections

INSTALLATION GUIDE (WITH BYPASS SETUP)



Please Note: Every setup will differ on the plumbing setup of your property. Different pipes are fittings may be used.

**Pressure Reducer required if the water pressure is above 6 Bar.*

INSTALLATION GUIDE

Once the main water line is turned off, simply turn on all plumbing fixtures in the property to drain the water and reduce the pressure within the pipework.

Select and Prepare Installation Location

The location to install the system should be the point the water enters to your property before splitting to the rest of the house. In certain cases, the water pipe branches off to external and internal plumbing directly; you may wish to install on the internal water line if you would only like to filter your internal water.

Measure the amount of pipe you will need to remove at the location of the installation. You will need enough space for the system, and any adapters, shut-off valves, bypass valves, or other fittings you may need.

Prepare for the pipe to discharge water once cut. Allow the pipe to drain before proceeding. Make sure the end of the pipe is smooth with no jagged edges after cutting.

You can mount the system to the wall at your install location, or it can stand on its frame on the floor. If you are mounting the system off the floor make sure the wall can support the weight of the system when full of water (10.4 kg). Please ensure you mount the system with at least 15cm gap between the floor and the bottom of the filtration system. We would advise installing the system at chest level to make it easier for filter replacements.

Attaching the Plumbing

Attach the necessary pipes, valves, and fittings to each side of the system. Once all of your pipes and connections are complete and flow is opened you are ready to turn your water back on.

Restart Water Flow

Turn your main water valve back on slowly. You will be able to hear and see the water entering the BMB-1000 Pro Nano Whole House Filtration System. Once the system is full, you will need to flush the system before you are ready to use the water.
Go to your nearest tap and turn on a flow of the COLD WATER.

! DO NOT USE HOT WATER FOR THE FLUSHING THE SYSTEM !

Double check to the system and the pipework for any leaks. The flush water will be pretty dark as loose carbon particles are flushed out of the system. The water may also appear cloudy as air bubbles are pushed out of the system and your pipes after the shutdown. This is perfectly normal. Run the water until it becomes clear, then run for 5 additional minutes before turning the tap off.

Your system is now ready for use!

NOTES

The cloudiness in the water may persist for anywhere between 1 day to 1 week as your system and pipes expel tiny air bubbles from your plumbing and the carbon filters. This is perfectly normal and the air bubbles are harmless. They should clear up within a week of regular use.

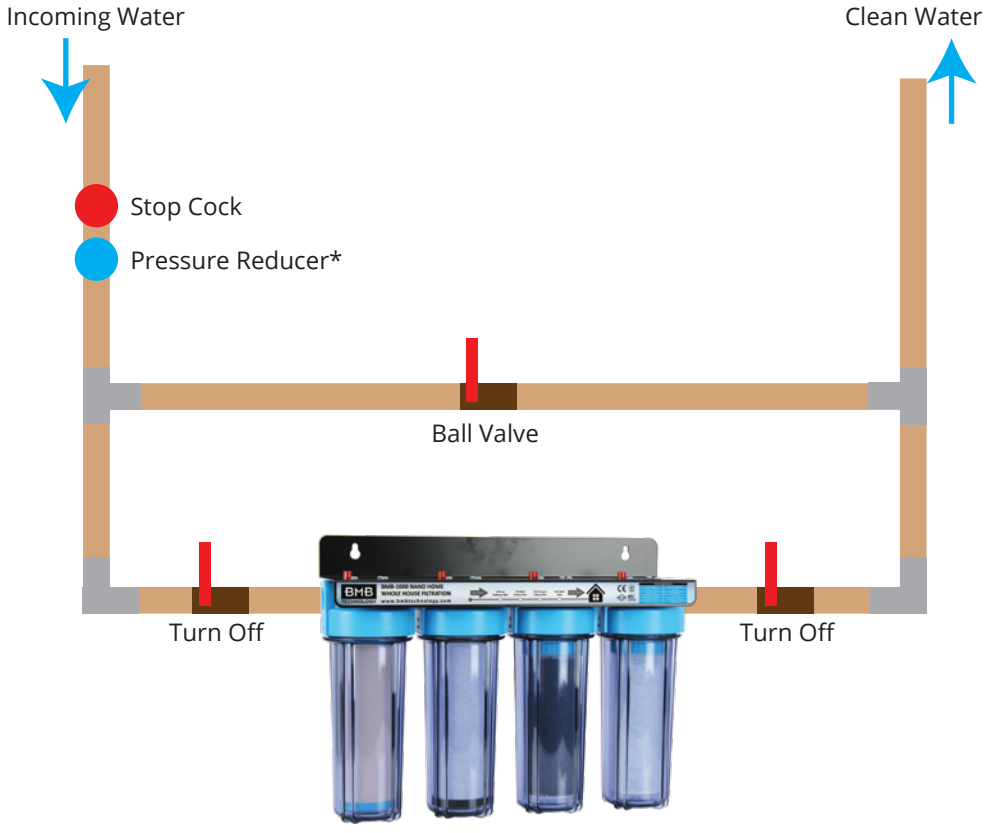
Occasionally check for leaks during your first week of use to be sure all of your connections are stable.

You can flush the old non-filtered hot water from your plumbing by running your hot water at this point. Or you can expend this water through regular use over the next few days.

REPLACING THE FILTERS

The filters should be changed between 6 – 12 months depending on water usage, quality of water, temperature and water supply pressure. If you realise a drop in the water pressure, this is usually an indication for replacing the filters.

Tools you will need:
- Silicone Grease
- Replacement Filters
- Housing Wrench
- Towels
- Bucket



STEPS

1. If you have the recommended bypass setup, start by turning off both of the valves on either side of the filter system

2. Turn on the nearest tap and wait until the water flow stops (this will decrease the pressure in the pipes) then the tap off once the water flow stops

3. Prepare for water discharge then press the red pressure release button (we advise you do this one by one for each filter)

4. The towels will be useful at this point as water will discharge as you open the filter housing
5. Empty the housing full of water and remove the old filter

6. Insert the filters in the same order
    a. 1st Filter: Antibacterial 5 Micron Sediment
    b. 2nd Filter: Sediment + Coconut Shell CTO Carbon Block
    c. 3rd Filter: KDF + Silver Impregnated Coconut Shell GAC Carbon
    d. 4th Filter: Anti-Scale & Anti-Corrosion

7. Repeat this process for all four filters

8. Once all four filters have been replaced and the housings are tightened, you are ready to turn the system back on by turning off the bypass valve and turning on the valves on both sides of the filtration system

9. Ensure you check the system for leaks as it fills up with water again. If you spot any leaks, check the connection, the housings, the filter placements, retighten and try again

10. You will now need to flush the filters by following the steps on page 8 under the title Restart Water Flow

If you haven't purchased replacement filters with your system, you can do so from our website under Replacement Filters