



HARNESSING NATURE'S TECHNOLOGY

## BIOZONE FILTRATION AND UF SYSTEM

### USER MANUAL

BIOZONE BBUF4040B



**BIOZONE.CO.ZA**

DISINFECTION, SANITISING  
& STERILISING SOLUTIONS



SUPPLIERS OF



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## 1.0 Introduction

Congratulations on the purchase of your new Filtration and UF System from Biozone Manufacturing (PTY) Ltd. We thank you for your trust in us.

Treated with care and regular maintenance, your new system will provide you many years of trouble free operation.

This user's manual outlines installation, operation, maintenance and troubleshooting details vital to the sustained performance of your system.

If your system is altered at the site of operation, or if the feed water conditions change, please contact us on +27791440 or sales@biozone.co.za.

All rights regarding the design and configuration of this system may not be copied or passed on to a third party without permission from Biozone Manufacturing (PTY) Ltd.

**Note:** Prior to operating or servicing a Biozone UF System this user's manual must be read and fully understood. Keep it and other associated information for future reference.

## 2.0 Safety Precautions

### 2.1 General

This system should be operated only by trained personnel. During operation, the system volume and certain line items are under pressure (higher and / or lower than atmospheric pressure). The feed water to this system must be clean and clear. Feed Water quality and conditions are the responsibility of the user. Water Components South Africa will not be held liable for any damages, injury or death that may result from the use of this equipment.

It is the responsibility of the customer to ensure the raw water is of a known quality. Any fluctuations or changes in raw water quality will be the responsibility of the customer. If changes in quality are deemed to be a possibility regular water tests are recommended.

The use of this product is at the customer's own risk.

### 2.2 Safety headings

The safety section of this user's manual outlines the various safety headings used throughout this manual's text and are enhanced and defined below

**Note** Indicates statements that provide further information and clarification.

**Caution** Indicates statements that are used to identify conditions or practices that could result in equipment or other property damage.

**Warning** Indicates statements that are used to identify conditions or practices that could result in injury or loss of life. Failure to follow warnings could result in serious injury or even death.

Incorrect operation or use for other than the intended purpose may:

- Endanger the health of the operator
- Damage the unit and other equipment
- Prevent efficient operation of the unit

All persons concerned with the installation, commissioning, operation, maintenance and repair of the unit must:

- Be suitably qualified
- Observe these Operating Instructions.

Take the time to read and understand the operating manual before attempting to use the system in order to ensure correct and safe operation.

### 3.0 Labelling

Do not remove any warning labels or system labels or direction arrows from the plant as they identify flows and warn against potential hazards.

### 4.0 Specifications

#### 4.1 System Specifications

##### 4.1.1 Size and Weight

Length	1050 mm
Width	200 mm
Height	160 mm
Weight (excl. Water)	± 20 kg

##### 4.1.2 Filtration

Filter Housing 1	20" Big Blue Meltblown filter 20 micron (APPBB20-20)
Filter Housing 2	20" Big Blue Carbon Block (CBBB20)
Filter housing 3	20" Big Blue Meltblown filter 5 micron (APPBB20-5)

##### 4.1.3 Ultra-Filter Module

UF Type	Aquacell 4040-PVC-100KH
Flow	Upto 480 ltr/hr

### 5.0 System Requirements

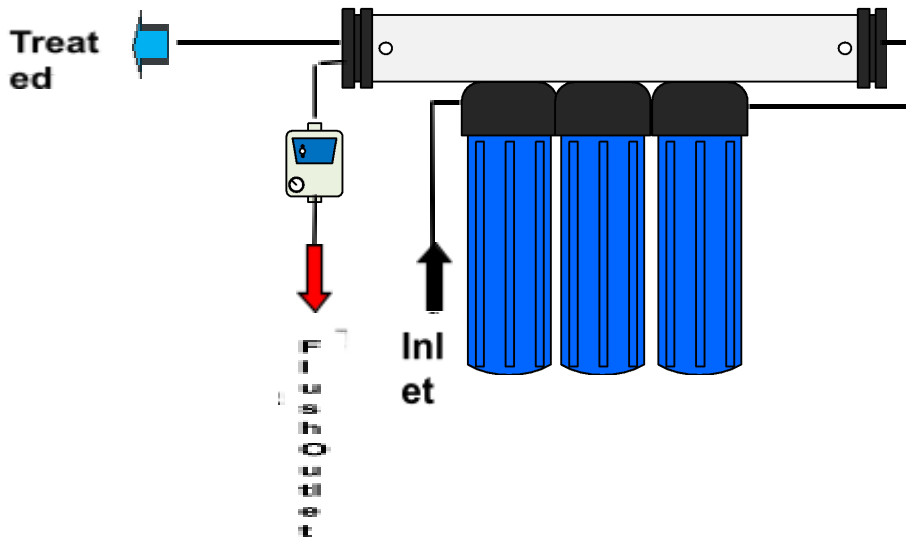
#### 5.1 Plumbing

##### 5.1.1 Connections

Feed Water Connection	1' inch Female BSP thread
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**Note:** Maximum Pressure on system max. 4.0 bar.  
Maximum Temperature on system max. 35°C.

##### 5.1.2 Drawing Basic Flow



## 6.0 System Description

### 6.1 Filtration

#### 6.1.1 Micro Filter

The polypropylene Micro Filters are designed to remove any particulate material such as iron, rust, scale, algae etc. The system comprises the following Micro Filters:

- 20 micron, Big blue Cartridge, Melt blown Polypropylene
- 5 micron, Big blue Cartridge, Melt blown Polypropylene

#### 6.1.2 Carbon Filter

The carbon filter is designed to remove unwanted tastes, odours, organics and Chlorine. This filter needs to be replaced every 2-6 month or when any unwanted tastes or odours are detected. The system comprises the following Activated Carbon Filter:

- Carbon Block, 20 inch, Big blue, CBBB20

### 6.2 UF System

The UF Module AQ4040 is designed to remove particles down to 0.1-0.01 microns. It removes most viruses, bacteria as well as fine suspensions from the water, while leaving the minerals in the water.

## 7.0 System Installation

## 7.1 Placing

Firstly take the plant and secure it firmly in position on site. Make sure to have at least 1.0 m free space to the left or right of the system (determined by which end the UF module is inserted) for maintenance reasons.

## 7.2 Plumbing

Connect pipe work from the feed water tanks or the municipal supply lines to the inlet feed water connection. Connect pipework from the clean water outlet to the clean water storage tank or point of use. Maximum inlet pressure is 4 bar. A pressure reducing valve will be required if the feed pressure exceeds 4 bar

## 7.3 Replacing Filter Cartridges

### 7.3.1 Sediment Filtration Cartridges Replacing Process

1. **Loosen** blue filter housing with the filter spanner provided in a **clockwise direction**.
2. Remove the dirty filter and expose of it. **DO NOT TRY TO CLEAN FILTERS!**
3. Fit the replacement 20 Micron cartridge into the blue filter bowl
4. **Tighten** blue filter bowls up onto the black filter cap in an **anti-clockwise direction** with the spanner provided.

**Note:** depending on sediment loading and water usage filters should be replaced every 1-6 months.

### 7.3.2 Carbon Cartridges

5. **Loosen** blue filter housings 2 with the filter spanner provided in a **clockwise direction**.
6. Remove the dirty filter and expose of it. **DO NOT TRY TO CLEAN FILTERS!**
7. Fit the replacement carbon cartridge
8. **Tighten the blue** filter bowl up onto the black filter cap in an **anti-clockwise direction** with the spanner provided.

## 7.4 Auto Flush Timer Setup

### 7.4.1 Step 1 (Manual/ Automatic)

Press -" key to process the change between Manual/automatism. When the top left corner of the screen shows ON, timer turns on compulsory function for draining, while repress +" key, the compulsory function for draining will be closed (turn into automatic condition)

### Step 2 (Adjust Clock)

Under the automatic condition, press M" key once, the front two digits flash (hour digital spaces of the clock), press +" key to adjust, press >" key to change to the back two digits (minute digital spaces of the clock). Press M" for two times or wait 5 seconds, automatically return to be the automatic condition

### Step 3 (Timing Setup)

Under automatic condition, press M" key twice, turn into timing setup, then the below left corner 01" will flash. 01" is the order number of automatic draining, the maxi-order number can be set to 36 (within 24 hours). Using "+" to adjust order number, press ">" to change. Adjust timing, the method is the same as adjust clock". Continually press ">" to set up draining time,

turn into page, temporarily the digital unit is second. Press "+" key to adjust (from 0 to 99 seconds), press "M" key to return to be the automatic condition.

**Step 4 (Cancel Timing)**

Set up the draining time to be 0 second.

**Step 5 (Pause)**

Press "+", "-" keys at the same time, timer will turn into pause condition, timing setup will pause, the clock will operate in the background of the timer. Re-press "+", "-" keys at the same time, the condition will return to be automatism. (Fig 5)

**Step 6 (Change Battery)**

When the timer shows low battery, it needs to change the battery (9V), if not, the valve will keep on close condition

## 8.0 Consumables

Generally the following consumables are required when operating these filtration and UF plants:

Description	Part N°	Consumption
<b>Filters</b>		
20" BB Meltblown filter 20 micron	(APPBB20-20)	2-12 pce. per year
20" BB Carbon Block	(CBBB20)	6-12 pce. per year
20" BB Meltblown filter 5 micron	(APPBB20-5)	2-12 pce. per year
<b>UF Module</b>		
Aqucell 4040-PVC-100KH	AQ4040	12-24 months

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