

# Microfilt 47

## USER MANNUAL



## 1.1 Intended Use

### Operating Conditions for the Product

The product may only be used indoors. The product may only be used with the equipment and under the operating conditions described in the Technical Data section of these instructions.

The product must be operated with negative pressure. The vacuum source to generate the negative pressure must be suitable for the product (for suitability,

### Modifications to the Product

You must not modify or repair the product or make any technical changes. Any retrofitting or technical changes to the product are only permitted with prior written permission from Aone Engg works.

## 1.2 Personnel Qualification

If persons who do not possess sufficient knowledge about safely handling the product are working on the product, those people can injure themselves or others.

- Ensure that all persons working on the product possess the necessary skills and qualifications
- If a particular qualification is required for the tasks described, these tasks must be performed by the required target group.
- If no qualification is required for the tasks described, the tasks can be performed by the target group "User".

## 1.3 Significance of these Instructions

Failure to follow the instructions in this manual can have serious consequences, e.g. exposure of individuals to electrical, mechanical, or chemical hazards.

- Read the instructions carefully and in full.
- Ensure that the information contained in these instructions is available to all individuals working with the product.
- Keep the instructions safe.
- If these instructions are lost: Contact to website [www.aoneengg.in](http://www.aoneengg.in)

## 1.4 Proper Working Order of the Product

A damaged product or worn parts may lead to malfunctions or cause hazards which are difficult to recognize.

- Only operate the product when it is safe and in perfect working order.
- Observe the maintenance and cleaning intervals (for intervals and maintenance tasks,
- Have any malfunctions or damage repaired immediately by Aone Service.

## **2. Filtration through the Vacuum**

The method of membrane filtration enables you to determine the microbiological quality of liquid samples.

By means of filtration, any microorganisms present in the sample are concentrated on the membrane filter in order to then cultivate them on a culture medium.

Reusable stainless-steel funnels and various disposable products can be used on the product in conjunction with a filter membrane. A membrane filter and a funnel with a specific volume must be placed on the suction strip in advance for filtration. In order to filter the liquid sample through the filter, the manifold must first be connected to a vacuum source

### 3. Installing the Product

#### Procedure

- Install the following components (as needed) on the ventilation hole
- (1.1, 1.2): - The sterile ventilation filter (without touching the filter opening) or: - the sealing plug.
- Connect the product to the vacuum source via the hose (1.1).
- Turn the valve stopcock to "Stop".
- Ensure that the filtrate is being properly drained on the pump side.
- Ensure that the sealing cap (1.2) is fitted
- Place the base support (1.3) in the manifold (1.4) t Use a rotary movement to check if the base support has engaged.

<p>(1.1)</p> 	<p>(1.2)</p> 
<p style="text-align: center;"><b>Hose Barb</b></p>	<p style="text-align: center;"><b>Sealing plug</b></p>
<p>(1.3)</p> 	<p>(1.4)</p> 
<p style="text-align: center;"><b>Rotate the adapter Anti clockwise remove it</b></p>	<p style="text-align: center;"><b>Rotate the adapter clockwise to fix it</b></p>
<p>(1.5)</p> 	
<p style="text-align: center;"><b>Stainless Steel Disk Filter can easily be removed for decontamination.</b></p>	

## 4.0 Preparing the Process

### Procedure

- Ensure that the base support is decontaminated before the process begins.

#### 4.1.1 Preparing the Base Support (When Using AONE MF47 @filters) Procedure

- Removing the Stainless Steel Disk Filter. *See Fig (1.5) Page 4*
- Adapt the filtration unit on the base support.

#### 4.1.2 Preparing the Base Support (When Using Mlcrofilt-250)

### Procedure

- Mount the filtration unit Mlcrofilt-250 to the base support with an adapter. **See Fig (3) Page 6**

#### 4.1.3 Preparing the Base Support (When Using Stainless-Steel Funnels, the AONE MF47Manifold and Mlcrofilt-250 Funnel)

### Procedure

- Remove the sterile membrane filter from the packaging using tweezers.
- Carefully use tweezers to place the membrane filter on the base support with the grid facing upward.
- Place the funnel (1) on the base support (3) and fix it to the pins provided using the bracket (2).
- When using the Mlcrofilt-250, place the funnel on the base support and connect to the pins by gently turning it to the right.
- When using the Mlcrofilt-250 Funnel, apply the funnel to the base support after applying the membrane filter.

## 4.2 Starting the Process Procedure

- Switch on the vacuum pump.
- Connect Vacuum Receiver Flask Between Manifold And Vacuum Pump
- Fill the liquid sample into the filtration unit or the funnel (depending on application). **See Fig (4) Page 6**
- Set the valve stopcock to the "Start" position. **See Fig (5) Page 6**

## 4.3 Finishing the Process Procedure

- After fully vacuuming the liquid sample (filtration unit or funnel no longer contains liquid), turn the valve stopcock back to the "Stop" position. **See Fig (6) Page 6**
- Remove the membrane filter with tweezers and transfer it to a corresponding culture medium. **See Fig (8) Page 6**

## 4.4 Repositioning the Process Structure

### Procedure

- Finish the process.
- Clean the components.
- Fit the filtration unit / funnel according to the process specifications.

### 4.1 Removing the Base Support

Remove the Stainless Steel Disk Filters for cleaning purposes. The base support can also be removed for maintenance purposes.

### Procedure

- Hold the manifold at the drain pipe of the manifold.
- Lift out the base support.

## 5.0 Preparing the Process

### Step 1

Sanitize the Microfilt filtration system support prior to processing each sample. Recommended methods include the use of alcohol or a quick flaming of the Microfilt filtration system support steel surface.

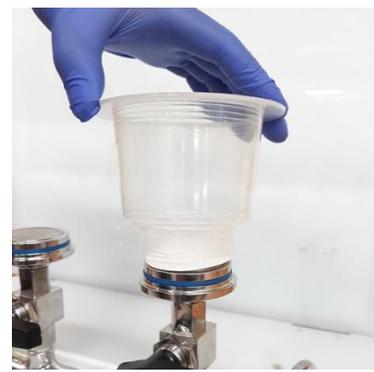


(1)

(2)



(3)



### Step 2

Place a filter paper or a membrane filter on the Microfilt 47 filtration system support.

### Step 3

Place the Microfilt -250 funnel on the support and push down to fix it firmly in place.

(4)



(5)



### Step 4

Pour the sample into the funnel and filter by applying vacuum

### Step 5

Rotate the knob to the Anti Clockwise to turn it on

(6)



**Step 6**

After Filtration Rotate the knob to the Clockwise to turn it off

(7)



**Step 7**

Filter support can easily be removed for decontamination.

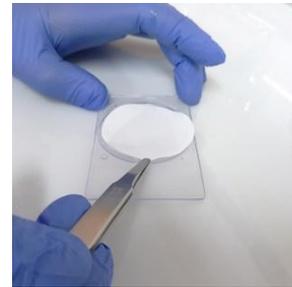
(8)



**Step 8**

Remove the funnel. The tweezers is stopped by a Protective rim to avoid touching the filtration area.

(9)



**Step 9**

Place the membrane filter into a Petri dish Containing solid or liquid medium and incubate.

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