

## User Guide

# EZ-Fit<sup>®</sup> Manifold



The Life Science business of  
Merck operates as MilliporeSigma  
in the US and Canada.

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# Introduction

The EZ-Fit® Manifold is a filtration manifold used for universal laboratory filtrations. The unique design optimizes workflow and maintenance, and reduces risk of contamination:

- Different filtration heads fit both reusable and disposable filtration devices.
- Each component can be removed quickly and easily without the use of tools.
- Vacuum tubing uses quick-fit connections.
- Easy access to all inner parts facilitates efficient cleaning, which prevents biofilm buildup.
- All manifold components can be autoclaved.
- Low height facilitates use in laminar flow hood.

The EZ-Fit® Manifold is available in 1-place, 3-place, and 6-place models. Filtration heads for EZ-Fit® filtration units, Microfil® filtration system, 55-Plus™ Monitor, and standard glass or stainless steel funnels are available.

## Operator and Equipment Safety

- Read and understand this user guide before using the EZ-Fit® Manifold. Failure to follow operating instructions could result in user injury or damage to the equipment.
- Read and understand all maintenance instructions in this user guide before performing maintenance on the EZ-Fit® Manifold. Failure to follow instructions could result in user injury or damage to the equipment.
- Any alteration of the EZ-Fit® Manifold from factory specification may cause unsafe conditions and will void the product warranty.
- Any attempt to use the EZ-Fit® Manifold in a manner not specified in this user guide may result in damage to the equipment, voiding of product warranty, and possible operator injury.

# Specifications and Operating requirements

	Version	Length	Width	Height range*	Weight range*
Dimensions with quick connections (nominal)	EZ-Fit® Manifold 1-place	204 mm/8.0 in.	168 mm/6.6 in.	119 to 168 mm/ 4.7 to 6.6 in.	1.3 to 1.4 kg/ 2.9 to 3.1 lbs.
	EZ-Fit® Manifold 3-place	433 mm/17.0 in.	168 mm/6.6 in.	119 to 168 mm/ 4.7 to 6.6 in.	2.4 to 2.7 kg/ 5.2 to 6.0 lbs.
	EZ-Fit® Manifold 6-place	823 mm/32.4 in.	168 mm/6.6 in.	119 to 168 mm/ 4.7 to 6.6 in.	4.1 to 4.8 kg/ 9.0 to 10.5 lbs.
Tubing connection	Hose barb for 10 mm tubing (NPS 3/8 or DN10)				
Materials of construction	Handles		Anodized HE30 aluminium		
	Quick connector		316L Stainless steel		
	Quick plug		316L Stainless steel		
	Quick connections O-rings		Ethylene propylene diene monomer (EPDM)		
	Pipe		316L Stainless steel		
	Valve		316L Stainless steel		
	Valve O-rings		Ethylene propylene diene monomer (EPDM)		
	Valve button and valve button trigger		Anodized AU4G aluminium		
	Filtration head support O-ring		Silicone		
Autoclave conditions	Vanguard		PEI (Polyetherimide)		
	All components can be autoclaved at 121 °C for up to 30 mins.				

\* Depending on the filtration head used.

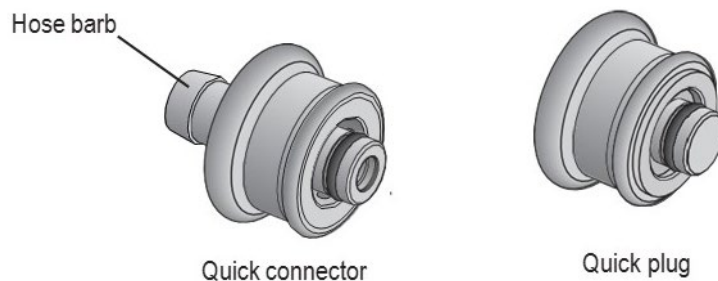
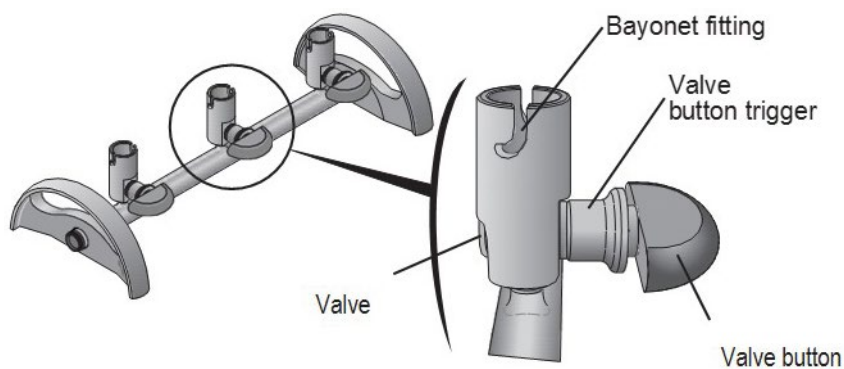
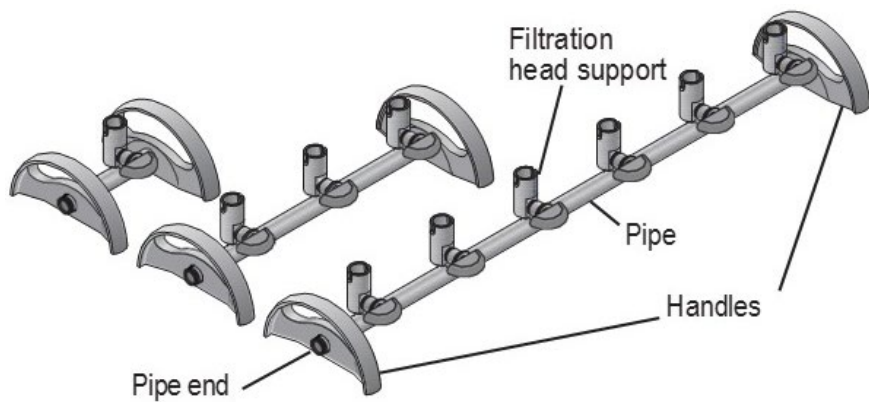
# System components

## The package contains:

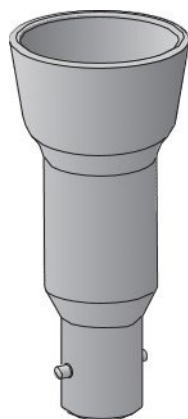
- EZ-Fit® Manifold Base: 1-place, 3-place, or 6-place
- EZ-Fit® Manifold quick connections (1 plug and 1 connector with hose barb)

**NOTE: Filtration heads are delivered in a separate package.**

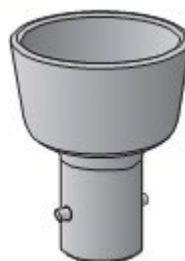
The following illustration shows three EZ-Fit® Manifold bases: 1-place, 3-place, and 6-place.



## Available filtration heads (delivered in separate package)



**Filtration head long  
support for rubber stopper n°8  
Cat. No.: EZFITHIE1**



**Filtration head short  
support for rubber stopper n°8  
Cat. No.: EZFITL0HE1**



**Filtration head for  
Microfil® device  
Cat. No.: EZFITMIHE1**



**Filtration head for  
EZ-Fit® device  
Cat. No.: EZFITMHTA1**



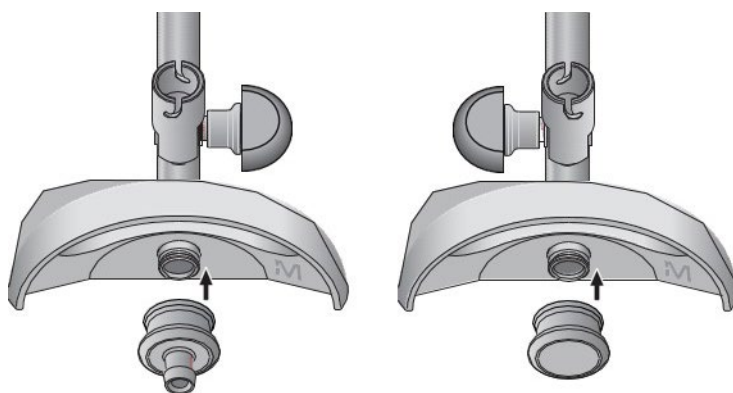
**Height extension  
Cat. No.: EZFITEXTE1**

# Installing the EZ-Fit® Manifold

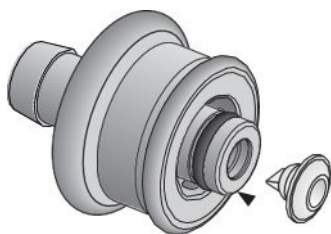
1. Remove all components from the box. Place the EZ-Fit® Manifold on a flat, stable, horizontal surface.

**NOTE: The right handle automatically adjusts to compensate for an uneven work surface.**

2. Before first use, clean and decontaminate all the components of the EZ-Fit® Manifold and the quick connections (see "Maintenance" in this user guide).
3. The quick connector and the quick plug fit either end of the manifold pipe. Choose the flow direction and connect the quick connections to each manifold pipe end by pushing them onto the manifold pipe end until they click.



**NOTE: To remove a quick connection, simply pull it.**

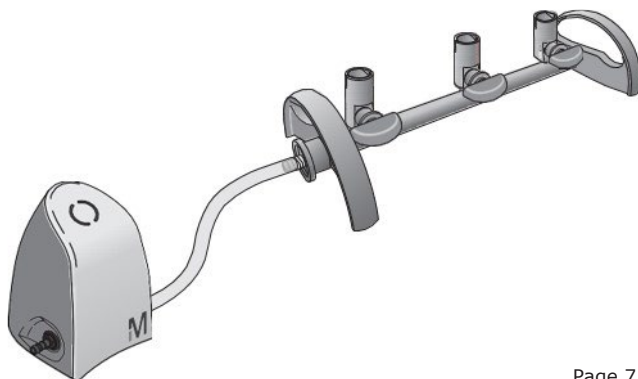


## EZ-Fit® Manifold check valve

**Warning! Usage of this check valve may affect the filtration rate.**

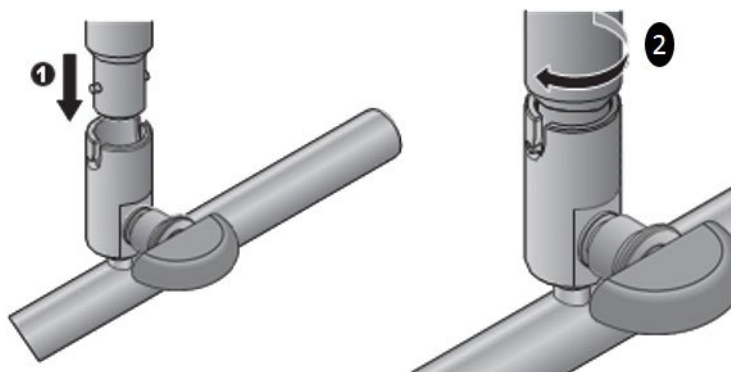
**NOTE: Before connecting the quick connector to the EZ-Fit® Manifold, a check valve (sold separately: Catalogue number EZFITBACKF) can be added on.**

4. Using a hose (Catalog number STREAMTUB), connect the EZ-Fit® Manifold quick connector to a vacuum system. The optimal vacuum is obtained using the EZ-Stream® Pump.

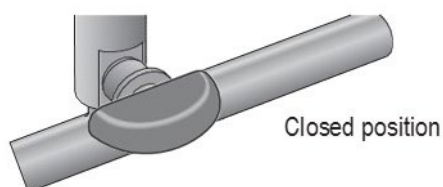


## Using the EZ-Fit<sup>®</sup> Manifold

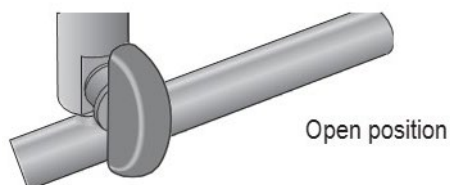
1. Clean and decontaminate the filtration head (see "Maintenance" in this user guide).
2. Install the filtration head on the filtration head support. Secure the bayonet fitting.



3. Place the filtration device on the filtration head.
4. Check that the valve button is in the closed position (horizontal).



5. Pour the sample into the device.
6. Start the vacuum system.
7. Start filtration of the sample by rotating the valve button counter clockwise to the end stop. This is the open position.



8. When the filtration is finished, rotate the valve button clockwise to the end stop.
9. Stop the vacuum system.



# Maintenance

Clean and decontaminate the EZ-Fit® Manifold on a regular basis, depending on the schedule of use and type of samples used.

If the equipment is not to be used for several days, decontaminate it and store it in a dry place.

## Recommended cleaning agents list

Recommended agent	Cleaning Product Composition	Tested dilution
1	Ethanol (<30%) Didecyldimethylammonium chloride (<1%) Propanol (<1%) N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (<1.5%)	Ready to use
2	Isopropyl alcohol 70%	Ready to use
3	Ethanol 70%	Ready to use
4	Sodium Hypochlorite	250 ppm
5	Peracetic acid at (5 to 15%) Acetic acid at (5 to 15%) Hydrogen peroxide (15 to 30%)	2.5%
6	Ethanol (25 to 50%) Polyhexamethylene biguanide hydrochloride (<2.5%) N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (<2.5%) Didecyldimethylammonium chloride (<1%)	Ready to use

**Important note:** Ensure that there is no sanitizer's residuals anywhere on stainless steels parts (filtration head, filtration head support, etc).

Careful rinsing with appropriate fluid shall be considered upon sanitizer agent.

## Rinsing the flow path and cleaning and decontaminating the filtration head(s)

### For each filtration head:

1. Rinse the EZ-Fit® Manifold flow path with clean water or with one of the products listed in the recommended cleaning agents list in this section. If a cleaning agent is used, rinse the flow path once again with clean water.
2. Remove the filtration head from the EZ-Fit® Manifold.
3. Clean the filtration head using a nonwoven wipe moistened with one of the products listed in the recommended cleaning agents list in this section.
4. Rinse the filtration head with clean water. If the head is not directly used after cleaning ensure that all remaining water in all angles is wiped away.
5. Optional: autoclave the filtration head at 121 °C for up to 30 minutes.

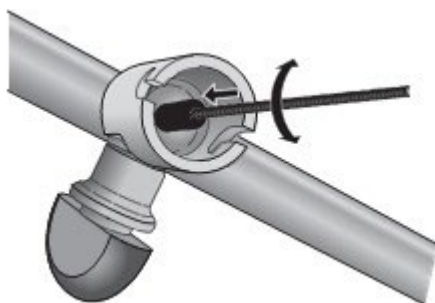
## Cleaning and decontaminating the filtration head support(s)

### For each filtration head support:

1. Remove the filtration head from the filtration head support.
2. Make sure the valve button is in open position (vertical).
3. Using the filter forceps, grasp and remove the filtration head support O-ring.



4. Clean the O-ring and the filtration head support using a nonwoven wipe moistened with one of the products listed in the recommended cleaning agents list in this section.
5. Clean the small canal in the filtration head support using the dedicated small brush, which is part of the EZ-Fit® Manifold Maintenance Kit (see "Ordering Information" in this user guide), moistened with one of the products listed in the recommended cleaning agents list in this section.



6. Rinse the O-ring, the filtration head support, and the small canal with clean water.
7. Optional: Autoclave this O-ring at 121 °C for up to 30 minutes.

**CAUTION! Do not lubricate the filtration head support O-ring.**

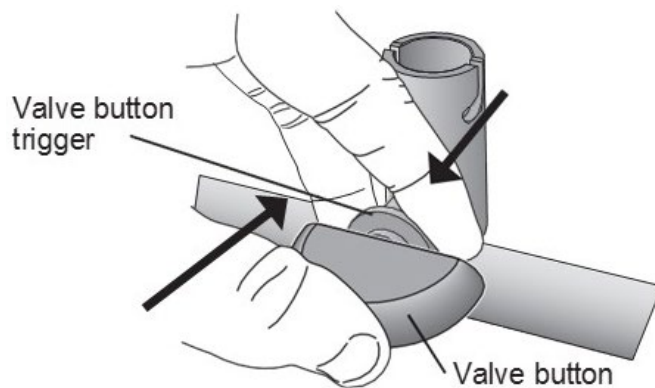
**NOTE: Replace the filtration head support O-ring on a yearly basis. Spare filtration head support O-rings are part of the EZ-Fit® Manifold O-Rings Kit (see "Ordering Information" in this user guide).**

8. Put the O-ring back into the bottom of the filtration head support.

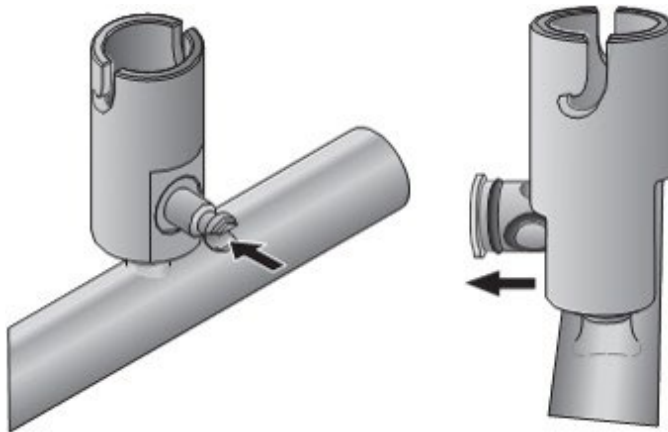
## Cleaning and decontaminating the valve(s)

### For each valve:

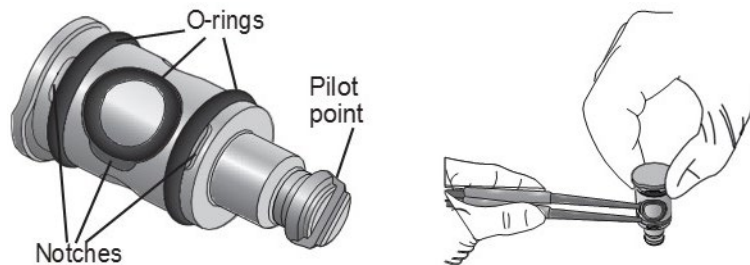
1. Open and close the valve a few times to facilitate the removal of the valve from the filtration head support
2. Disconnect the valve button from the valve, by pushing on the blue part of the valve button (with the thumb), while, at the same time, pulling on the valve button trigger (with the forefinger and middle finger).



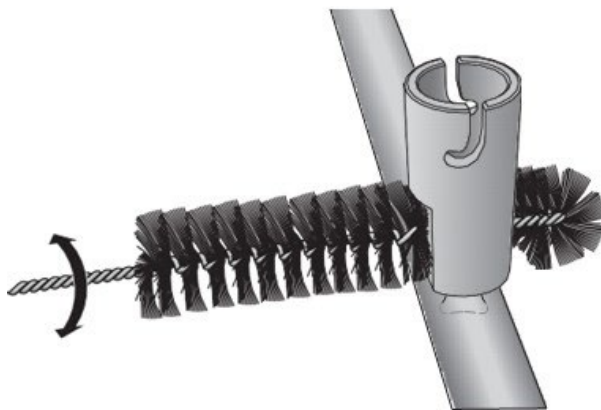
3. Remove the valve by pushing it through the filtration head support.



4. Remove each of the 3 O-rings from the valve by placing the tips of the filter forceps into the small notch near each O-ring. Grasp the ring in the tips of the forceps and remove it.



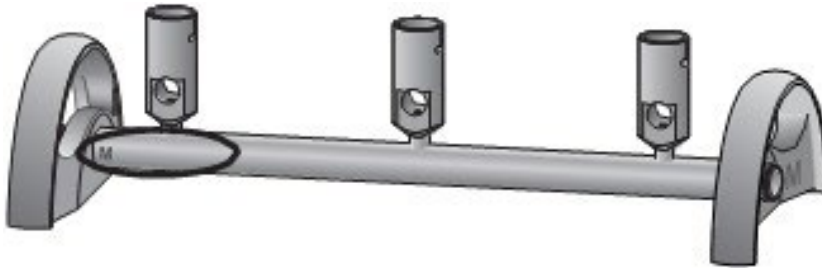
5. Clean the valve button, the valve, and the O-rings using a nonwoven wipe moistened with one of the products listed in the recommended cleaning agents list in this section.
6. Rinse the valve button, the valve, and the O-rings with clean water.
7. Optional: Autoclave the valve button, the valve, and the O-rings at 121 °C for up to 30 minutes.
8. Clean the valve housing using the dedicated big brush, which is part of the EZ-Fit® Manifold Maintenance Kit (see "Ordering Information" in this user guide), moistened with one of the products listed in the recommended cleaning agents list in this section. Then rinse with clean water.



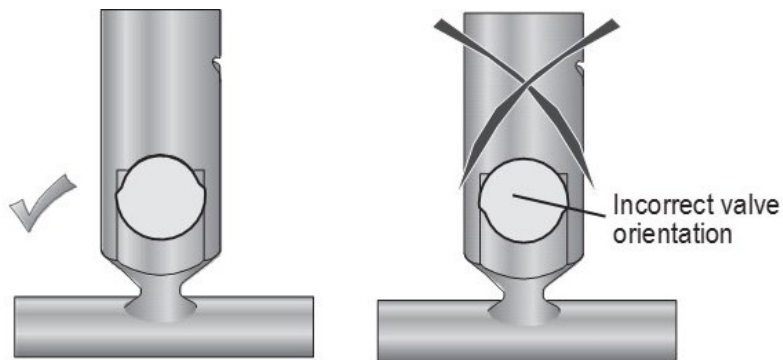
9. Lubricate the O-rings using the dedicated lubricant, which is part of the EZ-Fit® Manifold Maintenance Kit (see “Ordering Information” in this user guide).

**NOTE: Replace the valve O-rings on a yearly basis. Spare valve O-rings are part of the EZ-Fit® Manifold O-Rings Kit (see “Ordering Information” in this user guide).**

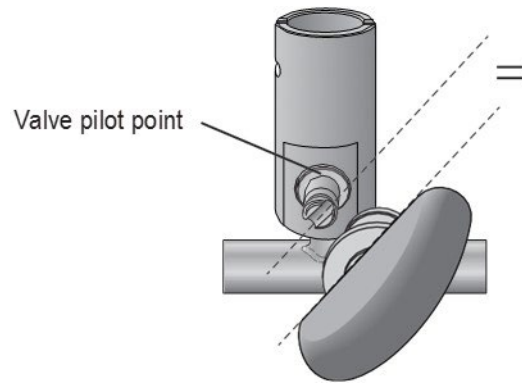
10. Put the O-rings back onto the valve.
11. Insert the valve into the valve housing from the side of the EZ-Fit® Manifold on which the product catalog number is visible.



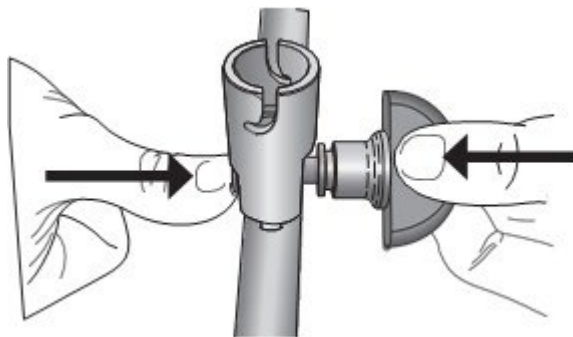
12. Make sure the valve is oriented according to the following illustration:



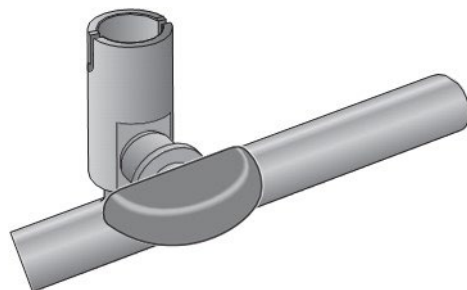
13. Push the valve to the end stop.
14. On the other side of the EZ-Fit® Manifold, align the notch at the end of the valve pilot point with the blue valve button.



15. Keeping the end of the valve in place, push the valve button onto the valve pilot point until it clicks.



16. Actuate the valve button to check that it is properly assembled. Then, rotate the valve button clockwise to the end stop (closed position).

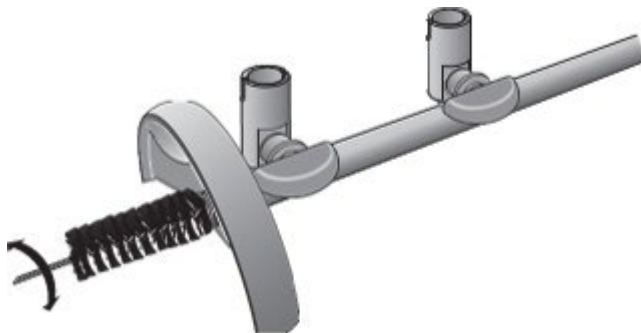


## Cleaning and decontaminating the quick connections

1. Pull on the quick connections to remove them from the EZ-Fit® Manifold pipe ends.
2. Clean the quick connections using a nonwoven wipe moistened with one of the products listed in the recommended cleaning agents list in this section.
3. Rinse the quick connections with clean water.
4. Optional: Autoclave the quick connections at 121 °C for up to 30 minutes.
5. Lubricate the quick connection O-rings using the dedicated lubricant, which is part of the EZ-Fit® Manifold Maintenance Kit (see “Ordering Information” in this user guide).
6. Connect the quick connections to each manifold pipe end by pushing them onto the manifold pipe ends until they click.

## Cleaning and decontaminating the pipe

1. Pull on the quick connections to remove them from the EZ-Fit® Manifold pipe ends.
2. Clean the inside of the pipe using the dedicated big brush, which is part of the EZ-Fit® Manifold Maintenance Kit (see “Ordering Information” in this user guide), moistened with one of the products listed in the recommended cleaning agents list in this section.



3. Rinse the inside of the pipe with clean water.
4. Optional: Autoclave the pipe and handles.
  - Remove the filtration head(s) and the O-ring(s) from the filtration head support(s) (see “Cleaning and decontaminating the filtration head support” in this section).
  - Remove the valve(s) (see “Cleaning and decontaminating the valves” in this section).
  - Autoclave the EZ-Fit® Manifold pipe and handles at 121 °C for up to 30 minutes.
5. Assemble the EZ-Fit® Manifold components to the pipe.

# Ordering Information

Description	Qty/Pk	Catalogue Number
<b>EZ-Fit® Manifolds</b>		
EZ-Fit® Manifold Base with High Throughput Application (HTA) Manifold Head, 1-place for EZ-Fit® filtration units	1	EZFITSAM1
EZ-Fit® Manifold Base with High Throughput Application (HTA) Manifold Head, 3-place for EZ-Fit® filtration units	1	EZFITSAM3
EZ-Fit® Manifold Base with High Throughput Application (HTA) Manifold Head, 6-place for EZ-Fit® filtration units	1	EZFITSAM6
<b>EZ-Fit® Manifold components</b>		
EZ-Fit® Manifold base, 1-place, stainless steel	1	EZFITBASE1
EZ-Fit® Manifold base, 3-place, stainless steel	1	EZFITBASE3
EZ-Fit® Manifold base, 6-place, stainless steel	1	EZFITBASE6
EZ-FIT® Manifold Head High-Throughput Application (HTA), head for EZ-Fit filtration units	1	EZFITMHTA1
EZ-FIT® Manifold Head High-Throughput Application (HTA), head for EZ-Fit filtration units	3	EZFITMHTA3
EZ-Fit® adapter for using EZ-Fit® filtration units on Microfil® Manifolds	3	EZFITMICAD
Microfil® filtration head for EZ-Fit® Manifold	1	EZFITMIHE1
	3	EZFITMIHE3
Filtration head short for rubber stopper n°8 for EZ-Fit® Manifold	1	EZFITL0HE1
	3	EZFITL0HE3
Filtration head long for rubber stopper n°8 for EZ-Fit® Manifold	1	EZFITHIHE1
	3	EZFITHIHE3
Height extension for EZ-Fit® Manifold	1	EZFITEXTE1
	3	EZFITEXTE3
<b>Spare parts</b>		
EZ-Fit® Manifold quick connection, 1 plug and 1 connector	1	EZFITQUICKC
EZ-Fit® Manifold check valve	3	EZFITBACKF
EZ-Fit® Manifold O-Rings Kit (valve, filtration head support and quick connector)	3	EZFITGASK3
EZ-Fit® Manifold complete valve	1	EZFITVALV1
EZ-Fit® Manifold removable porous filter support, stainless steel	3	EZFITFRIT3
EZ-Fit® Manifold Maintenance Kit including lubricant and brush	1	EZFITMAKIT
N°8 blue stopper (9.5 mm - 3/8 in.), silicone	5	XX2004718
EZ-Fit® filtration units filtration head gasket	3	EZFITMVG3
EZ-Fit® Vanguard	3	EZFITVANG3
<b>Related products</b>		
EZ-Stream® vacuum Pump	1	EZSTREAM1
Silicone hose—Autoclavable Internal diameter: 9.5 mm (3/8 in.) Length: 5.0 m (196.8 in.)	1	STREAMTUB
Filter forceps	3	XX6200006P

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