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without prior notification.

Laboratory Filtration  
Laboratory Pump / Life Sciences  
Food Analysis / Water Analysis

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# ROCKER

## Global Expert in Laboratory Vacuum Filtration Equipment

Rocker Scientific Co., Ltd. established in 2007 in Taiwan, is a professional vacuum filtration solutions provider and manufacturer for laboratories in food, water, pharmaceutical, biotech industries, and academia. Our manufacturing factories are in compliance with ISO 9001-2015 quality management system and majority of products are CE/CSA/RoHS certified.

Our R&D excels over time and have been awarded with Taiwan Excellence for 2 times - MF Magnetic Filter Holder in 2019 and Alligator 200 Diaphragm Liquid Pump in 2022. By continuously creating solutions that are time-saving, space-saving, budget-saving and safe-to-use for all lab scientists, Rocker Scientific has been granted numerous patents in various countries and has over 10K laboratories in more than 70 countries that had chosen Rocker value and products.

ROCKER, as an expert of laboratory filtration, is committed to continuously providing safer, more efficient and eco-friendlier lab solutions for all scientists.

with over  
**10,000+**

laboratories using  
Rocker products



more than  
**70+**  
countries

**TOP**

Patents at home  
and abroad



**PASSION**

Be willing to do everything successfully.

**INNOVATION**

Find creative solutions when facing challenges.

**INTEGRITY**

Being sincere and honest to solve issues.

**INSIGHT**

See through the needs of customers and market.

## CONTENTS

### LABORATORY PUMP

#### Oil Free Vacuum Pump

Guide [P.2](#)  
Rocker 300 / 300DC [P.4](#)  
Rocker 400 / 410 [P.5](#)  
Rocker 900 / 901 [P.6](#)  
Rocker 910 / 911 [P.7](#)

#### PTFE Coated Chemical Resistant Vacuum Pump

Guide [P.8](#)  
Rocker 300C [P.10](#)  
Rocker 400C / Rocker 410C [P.11](#)  
Rocker 900C / Rocker 910C [P.12](#)

#### Chemical Resistant Vacuum Pump

Guide [P.13](#)  
Chemker 300 / 400 [P.15](#)  
Chemker 410 / 411 [P.16](#)  
Chemker 600 [P.17](#)  
Chemker 610 / 611 [P.18](#)

#### Vacuum Controller

Pilot 100 [P.19](#)

#### Auto Vacuum System

DC Chem 610 Pro [P.21](#)

#### Diaphragm Liquid Pump

Alligator 200 [P.23](#)

#### Rotary Vane Vacuum Pump

Tanker 130 / 150 / 215 / 230 [P.25](#)

#### Dispensing Peristaltic Pump

Buller 600 [P.26](#)

#### Oil Free Vacuum Pump / Compressor

Rocker 430 [P.27](#)

#### Oil Free Compressor

Rocker 320 / 420 [P.28](#)

#### Air Supply System

Rocker 440 [P.29](#)

#### Pump Accessories [P.30](#)

### LABORATORY FILTRATION

#### Filtration Apparatus

Selection Guide [P.32](#)  
MF 3 Pro / MF 5 Pro / MF 3a Pro / MF 5a Pro [P.35](#)  
MF 3 / MF 3a / MF 5 / MF 5a [P.36](#)  
LF 3 / LF 3a / LF 5 / LF 5a [P.37](#)  
SF 1 / SF 3 / SF 5 [P.38](#)  
LF 30 / MF 31 [P.39](#)  
SF 10 / SF 30 [P.40](#)  
SF 11 / SF 52 [P.41](#)  
VF 5 / VF 8 [P.42](#)  
VF 6 / VF 7 [P.43](#)  
VF 12 / VF 14 [P.44](#) **NEW**  
VF 3 [P.45](#)  
VF 20 / VF 21 [P.46](#) **NEW**  
VF 15 / VF 16 [P.47](#)

#### Stream 3 / Stream 10 [P.48](#)

VFC 47 / SFC 142 [P.49](#) **NEW**

#### Vacuum Filtration System

Rocker 300 - LF 30 / MF 31 [P.51](#)

Rocker 300C / Chemker 300 / Lafil 300C - VF 12 [P.52](#)

Rocker 300C - VFC 47 [P.53](#) **NEW**

Rocker 400 - SFC 142 [P.54](#) **NEW**

Lafil 300 - LF 30 / SF 10 [P.55](#)

Lafil 400 - LF 30 / SF 10 [P.56](#)

#### Filtration System

WaterVac100 [P.57](#)

WaterVac 200 [P.59](#)

WaterVac 100 / 200

Combination Guide [P.61](#)

#### Manifold and Filtration System

MultiVac 310 / 610 - MS [P.63](#)

MultiVac 300 / 600 - MS [P.64](#)

MultiVac 300 / 600 - MB [P.65](#)

MultiVac 301 / 601 - MB [P.66](#)

MultiVac 310 / 610 - MS - A [P.67](#)

MultiVac 301 / 601 - MB - A [P.68](#)

MultiVac 310 / 610 - MS - T [P.69](#)

MultiVac 301 / 601 - MB - T [P.70](#)

MultiVac Combination Guide [P.71](#)

SolarVac 600 - MS / MB [P.73](#)

SolarVac 601 / 1201 - MB [P.74](#)

SolarVac 601 / 1201 - MB - A [P.75](#)

SolarVac 601 / 1201 - MB - T [P.76](#)

SolarVac Combination Guide [P.77](#)

PP Vacuum Bottle [P.79](#) **NEW**

Filtration Accessories [P.81](#)

### LIFE SCIENCES

#### Suction Kit

Plus / BioDolphin [P.84](#)

#### Suction System

Lafil 100 / Lafil 100<sup>eco</sup> [P.85](#)

Lafil 200 - Plus / BioDolphin [P.87](#)

Lafil 200<sup>eco</sup> - Plus / BioDolphin [P.87](#)

Lafil 300 - Plus / BioDolphin [P.89](#)

Lafil 400 - Plus / BioDolphin [P.90](#)

Suction Accessories [P.91](#)

#### Tangential Flow Filtration System

Tanfil 100 [P.93](#)

#### Low Profile Magnetic Stirrer

MS 100 [P.95](#)

#### Dry Bath

Sahara 310 / 320 [P.96](#)

#### Microplate Vacuum Manifold

WelVac 200 / 210 [P.97](#)

#### Gravity-fed Microplate Washer

BioWasher 100 / 100 - T [P.98](#)

#### Ultrasonic Cleaner

Soner 203 / 203H / 206 / 206H

Soner 210 / 210H / 220 / 220H [P.99](#)

Ultrasonic Cleaner Accessories [P.100](#)

### FOOD ANALYSIS

#### Colony Counter

Galaxy 330 [P.102](#)

#### Lab Burner

Dragon 100 / 200

Dragon 200 - T / 220 [P.103](#)

Dragon 300 / 320 [P.104](#)

#### Dispensing Peristaltic Pump

Buller 600 - DSP [P.105](#) **NEW**

#### Multi-Tube Vortex Mixer

Tornado 100 [P.107](#) **NEW**

### WATER ANALYSIS

#### COD Reactor / Detector

CR 25 [P.110](#)

CD 200 [P.111](#)

#### Multiparameter Colorimeter

WD 100 [P.112](#)

#### Graphite Hotplate

Mars 320 / 430 [P.113](#)

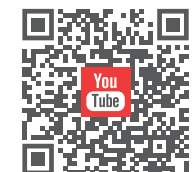
#### Buffer Solutions

pH 4.01 / 7.00 / 10.01 / 3M KCl [P.115](#)

Chemical Compatibility Guide [P.116](#)



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# LABORATORY PUMP

## Oil Free Vacuum Pump

Rocker 300 / 300DC

Rocker 400 / 410

Rocker 900 / 901 / 910 / 911

## PTFE Coated Chemical Resistant Vacuum Pump

Rocker 300C

Rocker 400C / 410C

Rocker 900C / 910C

## Chemical Resistant Vacuum Pump

Chemker 300 / 400

Chemker 410 / 411

Chemker 600 / 610 / 611

## Vacuum Controller

Pilot 100

## Auto Vacuum System

DC Chem 610 Pro

## Diaphragm Liquid Pump

Alligator 200

## Rotary Vane Vacuum Pump

Tanker 130 / 150 / 215 / 230

## Dispensing Peristaltic Pump

Buller 600

## Oil Free Vacuum Pump / Compressor

Rocker 430

## Oil Free Compressor

Rocker 320 / 420

## Air Supply System

Rocker 440

## Pump Accessories

# Oil Free Vacuum Pump



### Small & space-saving

The compact design makes Rocker pumps light, space-saving and easy-to-carry for various applications.



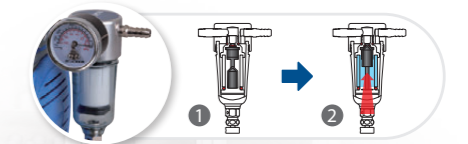
### Prote™ overflow protection

Prevents liquid from being sucked into the pump. (\*Rocker 300/300DC/400/410/430)



### Overheat protection

Pump shuts down when overheated and resumes once cooled down.



### Quieter and more stable

Enhanced rubber assemblies make all Rocker pumps work much quieter and more stable.



### Air inlet protection

Filter cartridge absorbs particle and moisture to prolong pump life.

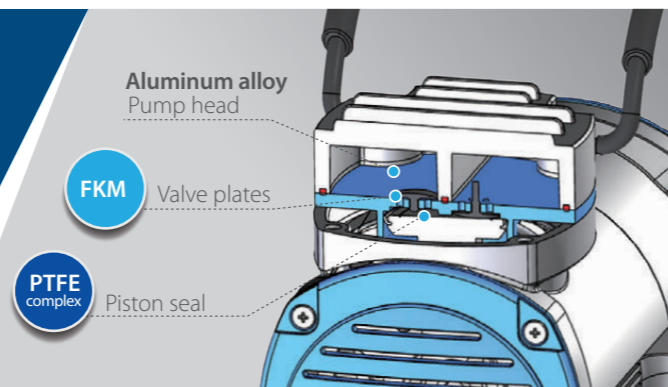


### Quality compliance

- CE certification
- CSA certification
- IP 30 protection
- RoHS certification



# Oil Free Vacuum Pump Guide



**Rocker 300**  
 Max. vacuum : 99 mbar abs.  
 Max. flow rate : 23 (20) L/min



**Rocker 900**  
 Max. vacuum : 85 mbar abs.  
 Max. flow rate : 100 (90) L/min



**Rocker 300DC**  
 Max. vacuum : 99 mbar abs.  
 Max. flow rate : 25 L/min



**Rocker 901**  
 Max. vacuum : 85 mbar abs.  
 Max. flow rate : 120 (100) L/min



**Rocker 400**  
 Max. vacuum : 99 mbar abs.  
 Max. flow rate : 37 (34) L/min



**Rocker 910**  
 Max. vacuum : 25 mbar abs.  
 Max. flow rate : 55 (45) L/min



**Rocker 410**  
 Max. vacuum : 25 mbar abs.  
 Max. flow rate : 23 (20) L/min

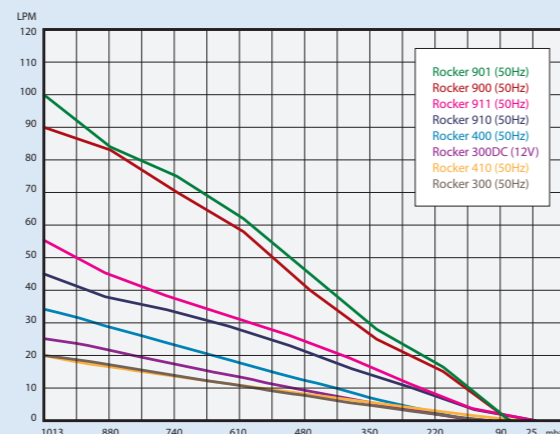
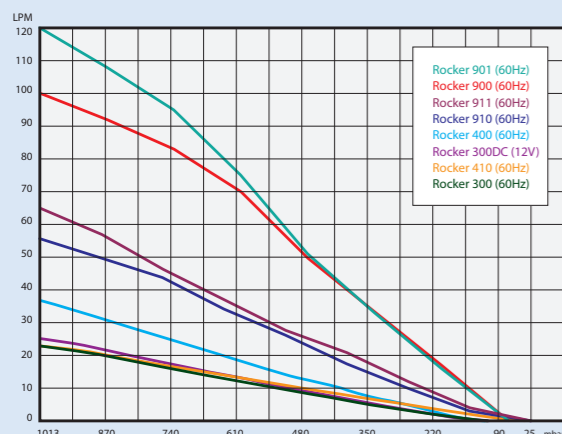


**Rocker 911**  
 Max. vacuum : 25 mbar abs.  
 Max. flow rate : 65 (55) L/min

\* The value in () is the max. flow rate at 50Hz.

\*\* The mbar value is the gas particles left in the system, the less particles left in, the higher vacuum it is.

## Pumping Speed Graph



# Oil Free Vacuum Pump



## Features

- ▶ **Compact & care-free**  
 Rocker oil-free pumps are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ▶ **Prote™ overflow protection**  
 Equipped with Prote™ overflow protection to prevent liquid from being sucked into the pump.
- ▶ **Air inlet protection**  
 Filter cartridge at air inlet filters particles and moisture, which prevents pumps from damage.
- ▶ **Vacuum regulation**  
 Equipped with vacuum gauge and regulator for vacuum monitoring and adjustment.
- ▶ **Overheat protection**  
 All Rocker oil-free pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
 CE certification  
 CSA certification (Rocker 300)  
 IP 30 protection (Rocker 300)  
 RoHS certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ Vacuum filtration
- ▶ Suspended solid test
- ▶ Microbiological test
- ▶ Air sampling

## Ordering Information

**167300-11(22)**  
 Rocker 300, Vacuum Pump  
 AC110V, 60Hz (AC220V, 50Hz)

**167330-00**  
 Rocker 300DC, DC Power Vacuum Pump (DC12V)



**Rocker 300**



**Rocker 300DC**

## Specification

Model	Rocker 300	Rocker 300DC
<b>PERFORMANCE DATA</b>		
Max. vacuum	99 mbar abs.	99 mbar abs.
Max. flow rate	23 L/min @60Hz 20 L/min @50Hz	25 L/min
Hose barb	ID8	ID8
Noise level	50 dB	50 dB
Net weight	4.1 Kg	3.5 Kg
Dimension (LxWxH)	27 x 14 x 20 cm	27 x 12 x 17 cm
<b>ELECTRICAL DATA</b>		
Voltage	110V 220V	DC12V
Frequency	50 / 60Hz	-
Max. power	65W (1/8 HP) 60W (1/8 HP)	35W (1/8 HP)
Max. current	0.7A 0.3A	3.0A
Safety	Overheat Protection	Overheat Protection
<b>OTHER DATA</b>		
Equipped with	Vacuum regulator Overflow protection / Filter cartridge	Vacuum regulator Overflow protection / Filter cartridge



# Oil Free Vacuum Pump



## Features

- ▶ **Compact & care-free**  
Rocker oil-free pumps are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ▶ **Prote™ overflow protection**  
Equipped with Prote™ overflow protection to prevent liquid from being sucked into the pump.
- ▶ **Air inlet protection**  
Filter cartridge at air inlet filters particles and moisture, which prevents pumps from damage.
- ▶ **Vacuum regulation**  
Equipped with vacuum gauge and regulator for vacuum monitoring and adjustment.
- ▶ **Overheat protection**  
All Rocker oil-free pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
CSA certification  
IP 30 certification  
RoHS certification
- ▶ **Two-Year Warranty**



Rocker 400



Rocker 410

## Specification

Model	Rocker 400		Rocker 410	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		25 mbar abs.	
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	52 dB		52 dB	
Net weight	5.2 Kg		5.2 Kg	
Dimension (LxWxH)	31 x 14 x 20 cm		31 x 14 x 20 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6 HP)	80W (1/6 HP)	100W (1/6 HP)	80W (1/6 HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	Vacuum regulator Overflow protection / Filter cartridge		Vacuum regulator Overflow protection / Filter cartridge	

## Applications

- ▶ Suspended solid test
- ▶ Vacuum filtration
- ▶ Microbiological test
- ▶ Air sampling

## Ordering Information

**167400-11(22)**  
Rocker 400, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

**167410-11(22)**  
Rocker 410, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Oil Free Vacuum Pump



## Features

- ▶ **Compact & care-free**  
Rocker oil-free pumps are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ▶ **Vacuum regulation**  
Equipped with vacuum gauge and regulator for vacuum monitoring and adjustment.
- ▶ **Overheat protection**  
All Rocker oil-free pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **Air inlet protection**  
Filter cartridge at air inlet filters particles and moisture, which prevents pumps from damage.
- ▶ **International certification**  
CE certification  
IP 30 certification  
RoHS certification
- ▶ **Two-Year Warranty**



Rocker 900



Rocker 901

## Applications

- ▶ Vacuum filtration
- ▶ Vacuum drying / oven / defoaming
- ▶ Suspended solid test
- ▶ Microbiological test
- ▶ Air sampling

## Ordering Information

**167900-11(22)**  
Rocker 900, Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

**167901-11(22)**  
Rocker 901, Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Rocker 900		Rocker 901	
<b>PERFORMANCE DATA</b>				
Max. vacuum	85 mbar abs.		85 mbar abs.	
Max. flow rate	100 L/min @60Hz	90 L/min @50Hz	120 L/min @60Hz	100 L/min @50Hz
Hose barb	ID8		ID10	
Noise level	68 dB		68 dB	
Net weight	7.3 Kg		7.0 Kg	
Dimension (LxWxH)	35 x 13 x 21 cm		35 x 13 x 21 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	270W (1/3 HP)	250W (1/3 HP)	270W (1/3 HP)	250W (1/3 HP)
Max. current	2.4A	1.2A	2.4A	1.2A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	Vacuum regulator Filter cartridge		Vacuum regulator	

\* Overflow protection is not included.

# Oil Free Vacuum Pump



## Features

- ▶ **Compact & care-free**  
Rocker oil-free pumps are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ▶ **Vacuum regulation**  
Equipped with vacuum gauge and regulator for vacuum monitoring and adjustment.
- ▶ **Overheat protection**  
All Rocker oil-free pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **Air inlet protection**  
Filter cartridge at air inlet filters particles and moisture, which prevents pumps from damage.
- ▶ **International certification**  
CE certification  
IP 30 certification  
RoHS certification
- ▶ **Two-Year Warranty**



Rocker 910



Rocker 911

## Applications

- ▶ Vacuum filtration
- ▶ Vacuum drying / oven / defoaming
- ▶ Suspended solid test
- ▶ Microbiological test
- ▶ Air sampling

## Ordering Information

**167910-11(22)**  
Rocker 910, Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

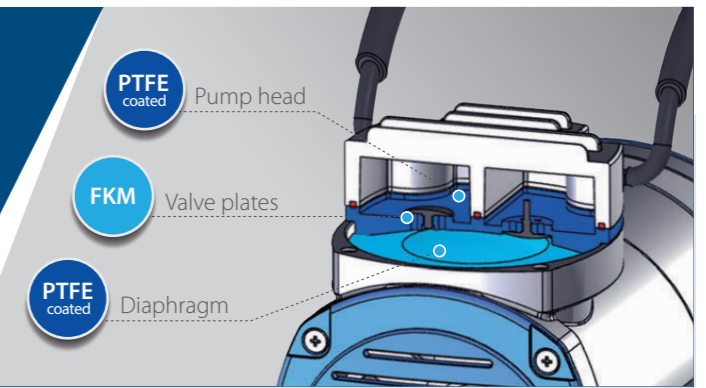
**167911-11(22)**  
Rocker 911, Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Rocker 910		Rocker 911	
<b>PERFORMANCE DATA</b>				
Max. vacuum	25 mbar abs.		25 mbar abs.	
Max. flow rate	55 L/min @60Hz	45 L/min @50Hz	65 L/min @60Hz	55 L/min @50Hz
Hose barb	ID8		ID10	
Noise level	68 dB		68 dB	
Net weight	7.3 Kg		7.0 Kg	
Dimension (LxWxH)	35 x 13 x 21 cm		35 x 13 x 21 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	270W (1/3 HP)	250W (1/3 HP)	270W (1/3 HP)	250W (1/3 HP)
Max. current	2.4A	1.2A	2.4A	1.2A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	Vacuum regulator Filter cartridge		Vacuum regulator	

\* Overflow protection is not included.

## PTFE Coated Chemical Resistant Vacuum Pump Guide



· FFKM valve plates are available (Cat. No. 189301-32-1).



**Rocker 300C**  
Max. vacuum : 99 mbar abs.  
Max. flow rate : 23 (20) L/min



**Rocker 900C**  
Max. vacuum : 99 mbar abs.  
Max. flow rate : 60 (55) L/min



**Rocker 400C**  
Max. vacuum : 99 mbar abs.  
Max. flow rate : 34 (31) L/min

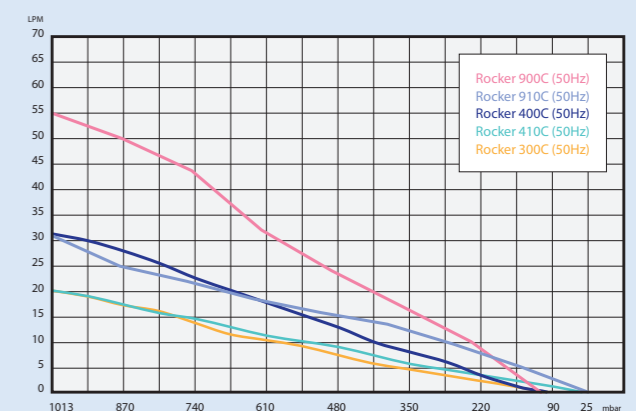
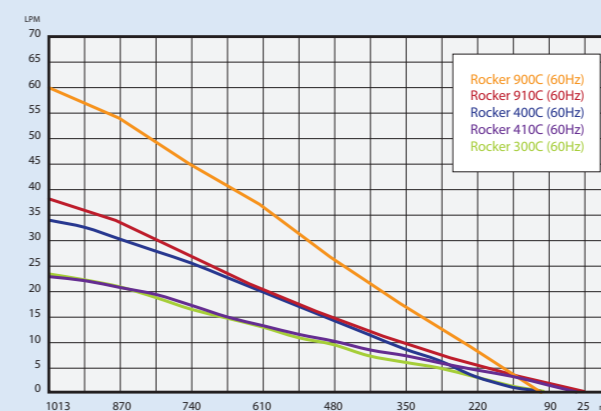


**Rocker 910C**  
Max. vacuum : 25 mbar abs.  
Max. flow rate : 37 (31) L/min



**Rocker 410C**  
Max. vacuum : 25 mbar abs.  
Max. flow rate : 23 (20) L/min

## Pumping Speed Graph





# PTFE Coated Chemical Resistant Vacuum Pump

# PTFE Coated Chemical Resistant Vacuum Pump



**PTFE** PTFE-coated pump head  
Provides great resistance to milder solvent vapor.

**Overheat protection**  
Auto shut-off when overheated and resume once cooled down.

**100-hour nonstop work guaranteed**  
Rocker C pumps survived ROCKER's extreme test of 100-hour nonstop operation that ensures durability.

**Vibration-proof pad**  
Absorbs vibration and reduce noise.

**Certificated & safe**  

- CE certification
- IP 30 protection
- RoHS certification

## Features

- ▶ **Chemical resistance & effective**  
Applied with PTFE-coated diaphragm and pump head with FKM valves, Rocker 300C pumps are adequate to work in milder chemical gases and be cost-effective at the same time.
- ▶ **Oil-free & care-free**  
Rocker 300C pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Minimized vibration & quiet**  
Superior weight distribution and assemblies minimize the vibration and noises and maximize stability.
- ▶ **Overheat protection**  
Rocker 300C pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
IP 30 protection  
RoHS certification
- ▶ **Ono-Year Warranty**

## Applications

- ▶ Solvent purification
- ▶ Solid-Phase Extraction (SPE)
- ▶ Vacuum filtration

## Ordering Information

**189300-11(22)**  
Rocker 300C, PTFE Coated Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)



**Rocker 300C**

\* For aggressive solvents and solutions, please refer to Chemker pumps.

## Specification

Model	Rocker 300C	
<b>PERFORMANCE DATA</b>		
Max. vacuum	99 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz
Hose barb	ID8	
Noise level	50 dB	
Net weight	4.1 Kg	
Dimension (LxWxH)	29 x 14 x 20 cm	
<b>ELECTRICAL DATA</b>		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	65W (1/8 HP)	60W (1/8 HP)
Max. current	0.7A	0.3A
Safety	Overheat Protection	
<b>OTHER DATA</b>		
Equipped with	Glass moisture trap Vacuum regulator	

# PTFE Coated Chemical Resistant Vacuum Pump



## Features

- ▶ **Chemical resistance & effective**  
Applied with PTFE-coated diaphragm and pump head with FKM valves, Rocker 400C / 410C pumps are adequate to work in milder chemical gases and be cost-effective at the same time.
- ▶ **Oil-free & care-free**  
Rocker 400C / 410C pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Minimized vibration & quiet**  
Superior weight distribution and assemblies minimize the vibration and noises and maximize stability.
- ▶ **Overheat protection**  
All Rocker 400C / 410C pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
IP 30 protection  
RoHS certification
- ▶ **One-Year Warranty**



Rocker 400C



Rocker 410C

\* For aggressive solvents and solutions, please refer to Chemker pumps.

## Applications

- ▶ Solvent purification
- ▶ Gel drying
- ▶ Vacuum desiccator
- ▶ Vacuum filtration

## Ordering Information

**189400-11(22)**  
Rocker 400C, PTFE Coated Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

**189410-11(22)**  
Rocker 410C, PTFE Coated Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Rocker 400C		Rocker 410C	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		25 mbar abs.	
Max. flow rate	34 L/min @60Hz	31 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	52 dB		52 dB	
Net weight	5.7 Kg		5.6 Kg	
Dimension (LxWxH)	31 x 14 x 20 cm		31 x 14 x 20 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6 HP)	80W (1/6 HP)	100W (1/6 HP)	80W (1/6 HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	Glass moisture trap Vacuum regulator		Glass moisture trap Vacuum regulator	

# PTFE Coated Chemical Resistant Vacuum Pump



## Features

- ▶ **Chemical resistance & effective**  
Applied with PTFE-coated diaphragm and pump head with FKM valves, Rocker 900C / 910C pumps are adequate to work in milder chemical gases and be cost-effective at the same time.
- ▶ **Oil-free & care-free**  
Rocker 900C / 910C pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Minimized vibration & quiet**  
Superior weight distribution and assemblies minimize the vibration and noises and maximize stability.
- ▶ **Overheat protection**  
All Rocker 900C / 910C pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
IP 30 protection  
RoHS certification
- ▶ **One-Year Warranty**



Rocker 900C



Rocker 910C

\* For aggressive solvents and solutions, please refer to Chemker pumps.

## Applications

- ▶ Vacuum evaporation and concentration
- ▶ Vacuum drying / oven / defoaming
- ▶ Solvent purification
- ▶ Vacuum filtration

## Ordering Information

**189900-11(22)**  
Rocker 900C, PTFE Coated Chemical Resistant Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

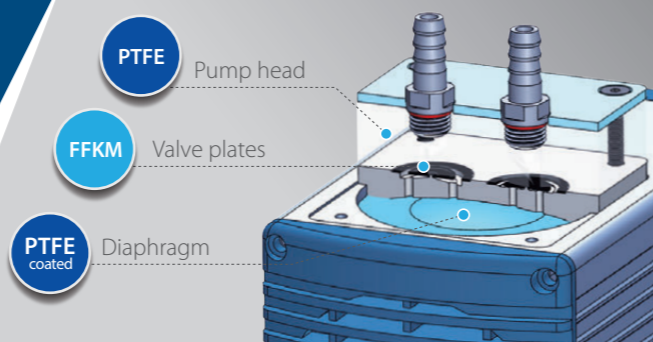
**189910-11(22)**  
Rocker 910C, PTFE Coated Chemical Resistant Vacuum Pump,  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Rocker 900C		Rocker 910C	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		25 mbar abs.	
Max. flow rate	60 L/min @60Hz	55 L/min @50Hz	37 L/min @60Hz	31 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	60 dB		60 dB	
Net weight	6.8 Kg		6.8 Kg	
Dimension (LxWxH)	37 x 13 x 21 cm		37 x 13 x 21 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	250W (1/3 HP)	190W (1/3 HP)	250W (1/3 HP)	190W (1/3 HP)
Max. current	1.2A	0.9A	1.2A	0.9A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	Glass moisture trap Vacuum regulator		Glass moisture trap Vacuum regulator	



# Chemical Resistant Vacuum Pump Guide



# Chemical Resistant Vacuum Pump

**PTFE** Superior corrosion resistance  
Fully PTFE-made pump head and FFKM valves.

**No air pollution, maintenance free**  
Oil-free diaphragm design eliminates use of lubricant. No oil mist and works quieter.

**100-hour non-stop operation guaranteed**  
Impressive quality with over 70-country testimonials.

**Overheat protection**  
Auto-stop and restart with built-in intelligence.

**Keep high vacuum with patented valves**  
Provide superior pressure balance and ensure pump durability.

**Vacuum regulator & moisture trap**  
Make operation easier and pump life longer.  
(\*Chemker 411 / 611)



**Chemker 300**  
Max. vacuum : 99 mbar  
Max. flow rate : 20 (18) L/min

**Chemker 600**  
Max. vacuum : 65 mbar  
Max. flow rate : 65 (60) L/min

**Chemker 400**  
Max. vacuum : 99 mbar  
Max. flow rate : 38 (33) L/min

**Chemker 610**  
Max. vacuum : 7 mbar  
Max. flow rate : 34 (30) L/min

**Chemker 410**  
Max. vacuum : 10 mbar  
Max. flow rate : 20 (18) L/min

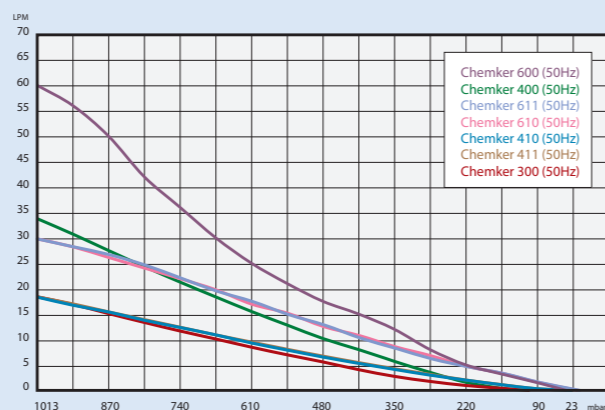
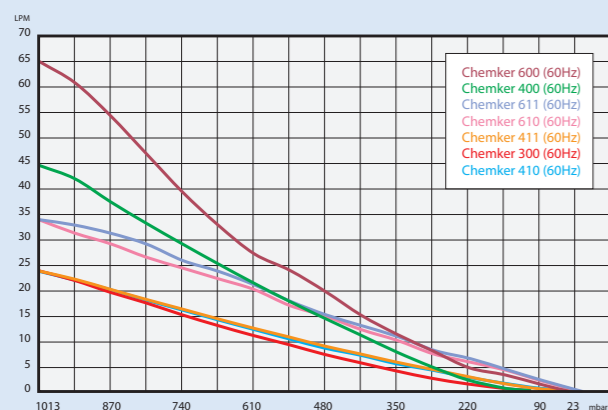
**Chemker 611**  
Max. vacuum : 7 mbar  
Max. flow rate : 34 (30) L/min

**Chemker 411**  
Max. vacuum : 10 mbar  
Max. flow rate : 20 (18) L/min

\* The value in () is the max. flow rate at 50Hz.

\*\* The mbar value is the gas particles left in the system, the less particles left in, the higher vacuum it is.

Pumping Speed Graph



# Chemical Resistant Vacuum Pump



## Features

- ▶ **Superior chemical resistance**  
All wetted parts of Chemker pumps are made of PTFE and FFKM material, making them resistant to most of corrosive gases.
- ▶ **Oil-free & care-free**  
Chemker pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Chemker pumps much quieter and more stable.
- ▶ **Overheat protection**  
All Chemker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**



**Chemker 300**



**Chemker 400**

## Applications

- ▶ Solvent purification
- ▶ Solid-Phase Extraction (SPE)
- ▶ Gel electrophoresis
- ▶ Vacuum filtration

## Ordering Information

**169300-11(22)**  
Chemker 300,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

**169400-11(22)**  
Chemker 400,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Chemker 300		Chemker 400	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		99 mbar abs.	
Max. flow rate	20 L/min @60Hz	18 L/min @50Hz	38 L/min @60Hz	33 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	50 dB		52 dB	
Net weight	5.0 Kg		7.0 Kg	
Dimension (LxWxH)	20 x 11 x 21 cm		27 x 11 x 18 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	70W (1/8 HP)	60W (1/8 HP)	90W (1/6 HP)	90W (1/6 HP)
Max. current	0.8A	0.4A	1.1A	0.5A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	-		-	

# Chemical Resistant Vacuum Pump



## Features

- ▶ **Superior chemical resistance**  
All wetted parts of Chemker pumps are made of PTFE and FFKM material, making them resistant to most of corrosive gases.
- ▶ **Oil-free & care-free**  
Chemker pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Chemker pumps much quieter and more stable.
- ▶ **Overheat protection**  
All Chemker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**



**Chemker 410**



**Chemker 411**

## Applications

- ▶ Solvent purification
- ▶ Gel drying
- ▶ Rotary evaporation
- ▶ Vacuum filtration

## Ordering Information

**169410-11(22)**  
Chemker 410,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

**169411-11(22)**  
Chemker 411,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

## Specification

Model	Chemker 410		Chemker 411	
<b>PERFORMANCE DATA</b>				
Max. vacuum	10 mbar abs.		10 mbar abs.	
Max. flow rate	20 L/min @60Hz	18 L/min @50Hz	20 L/min @60Hz	18 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	52 dB		52 dB	
Net weight	7.0 Kg		7.4 Kg	
Dimension (LxWxH)	26 x 15 x 18 cm		26 x 24 x 19 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	90W (1/6 HP)	90W (1/6 HP)	90W (1/6 HP)	90W (1/6 HP)
Max. current	1.2A	0.5A	1.2A	0.5A
Safety	Overheat Protection		Overheat Protection	
<b>OTHER DATA</b>				
Equipped with	-		Glass moisture trap Vacuum regulator	



# Chemical Resistant Vacuum Pump



## Features

- ▶ **Superior chemical resistance**  
All wetted parts of Chemker pumps are made of PTFE and FFKM material, making them resistant to most of corrosive gases.
- ▶ **Start against vacuum**  
Chemker 600 series pumps, designed to start against vacuum, are ideal for various kinds of laboratory instruments which need to stop and restart pump repeatedly during operating process.
- ▶ **Oil-free & care-free**  
Chemker pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Chemker pumps much quieter and more stable.
- ▶ **Overheat protection**  
All Chemker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**



## Specification

Model	Chemker 600		
PERFORMANCE DATA			
Max. vacuum	65 mbar abs.		
Max. flow rate	65 L/min @60Hz	60 L/min @50Hz	
Hose barb	ID10		
Noise level	60 dB		
Net weight	13.2 Kg		
Dimension (LxWxH)	35 x 15 x 23 cm		
ELECTRICAL DATA			
Voltage	110V	220V	
Frequency	50 / 60Hz		
Max. power	220W (1/3 HP)	200W (1/3 HP)	
Max. current	2.0A	1.2A	
Safety	Overheat Protection		
OTHER DATA			
Equipped with	-		

## Applications

- ▶ Rotary evaporation
- ▶ Vacuum concentration and distillation
- ▶ Vacuum drying / oven / defoaming
- ▶ Solvent purification
- ▶ Vacuum filtration

## Ordering Information

**169600-11(22)**  
Chemker 600,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Chemical Resistant Vacuum Pump



## Features

- ▶ **Superior chemical resistance**  
All wetted parts of Chemker pumps are made of PTFE and FFKM material, making them resistant to most of corrosive gases.
- ▶ **Start against vacuum**  
Chemker 600 series pumps, designed to start against vacuum, are ideal for various kinds of laboratory instruments which need to stop and restart pump repeatedly during operating process.
- ▶ **Vacuum regulation**  
Chemker 611 is equipped with vacuum regulator and moisture trap for vacuum adjustment and condensation collection to enhance pump durability.
- ▶ **Oil-free & care-free**  
Chemker pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Chemker pumps much quieter and more stable.
- ▶ **Overheat protection**  
All Chemker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**



## Specification

Model	Chemker 610		Chemker 611	
PERFORMANCE DATA				
Max. vacuum	7 mbar abs.		7 mbar abs.	
Max. flow rate	34 L/min @60Hz	30 L/min @50Hz	34 L/min @60Hz	30 L/min @50Hz
Hose barb	ID10		ID10	
Noise level	60 dB		60 dB	
Net weight	13.3 Kg		13.7 Kg	
Dimension (LxWxH)	35 x 16 x 23 cm		35 x 20 x 24 cm	
ELECTRICAL DATA				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	220W (1/3 HP)	200W (1/3 HP)	220W (1/3 HP)	200W (1/3 HP)
Max. current	2.0A	1.2A	2.0A	1.2A
Safety	Overheat Protection		Overheat Protection	
OTHER DATA				
Equipped with	-		Glass moisture trap Vacuum regulator	

## Applications

- ▶ Rotary evaporation
- ▶ Vacuum concentration and distillation
- ▶ Vacuum drying / oven / defoaming
- ▶ Solvent purification
- ▶ Vacuum filtration

## Ordering Information

**169610-11(22)**  
Chemker 610,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

**169611-11(22)**  
Chemker 611,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Vacuum Controller



## Features

- ▶ **Auto evaporation mode**  
Pilot 100 detects the vapor pressure and keep vacuum at optimal level to avoid bumping. Feel free to start and leave.
- ▶ **Graphical user interface**  
Processes of Pilot 100 can be defined via its user-friendly GUI. With intuitive drop-down lists and modules up to 10 steps, it provides user full flexibility of control.
- ▶ **High compatibility**  
Pilot 100 Vacuum Controller can be installed with most of vacuum sources including diaphragm pumps, piston pumps, rotary vane pumps, etc.
- ▶ **Touch panel**  
Touch panel of Pilot 100 reads the taps underneath thick lab gloves, making the control easy and convenient.
- ▶ **Detachable & remote control**  
Control panel of Pilot 100 is detachable from its magnetic mount base, and can be remotely controlled.
- ▶ **International certification**  
CE certification  
IP 42 protection (front)  
RoHS certification
- ▶ **One-Year Warranty**



## Specification

Model	Pilot 100
<b>PERFORMANCE DATA</b>	
Measuring range	1100 ~ 0 mbar abs.
Measurement accuracy	± 2 mbar (after adjustment, constant temp.)
Setting range	1013 ~ 0 mbar
Resolution	1 digit
Pressure display	mbar, hPa, torr
Hose barb	ID8 ~ ID10
Net weight	2.2 Kg
Dimension (LxWxH)	21 x 20 x 18 cm
<b>ELECTRICAL DATA</b>	
Power input	DC24V, 1.0A
Max. power	15W
Safety	Overpressure Protection, Error Message

## Applications

- ▶ Laboratory vacuum control
- ▶ Rotary evaporation
- ▶ Vacuum concentration and distillation

## Ordering Information

- 183100-01(02)**  
Pilot 100, Vacuum Controller with AC100-240V adaptor, US plug (EU plug)
- 169410-11(22)**  
Chemker 410,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 169610-11(22)**  
Chemker 610,  
Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Vacuum Controller

- Auto evaporation mode**  
Avoid bumping and keep optimal vacuum level. Feel free to start and leave.
- Detachable & remote control**  
Detachable remote control panel with magnetic mount base.
- Solenoid valve control**  
Compatible with most vacuum systems.
- High resistance**  
Made of chemical-resistant materials.
- Leave your gloves on**  
The 7" panel reads the taps underneath thick lab gloves.
- GUI & flex in control**  
Intuitive and modularized settings, set up to 10 steps per program.



# Auto Vacuum System



## Features

- ▶ BLDC motor-driven**  
 DC Chem 610 Pro is driven by brushless DC motor that consumes 40% or less power and contributes to less wear and tear.
- ▶ Precise & zero lag**  
 DC Chem 610 Pro performs more precise and stabler vacuum control as compared to general solenoid valve controllers by direct controlling motor rotation.
- ▶ Self-cleaning mechanism**  
 DC Chem 610 Pro draws and bypasses clean air automatically to evacuate remaining moisture and gas every time after use without detaching any connected equipment. Making the maintenance easy and effortless.
- ▶ Auto evaporation mode**  
 DC Chem 610 Pro detects the vapor pressure and keep vacuum at optimal level to avoid bumping. Feel free to start and leave.
- ▶ Detachable & remote control**  
 Control panel of DC Chem 610 Pro is detachable from its magnetic mount base, and can be remotely controlled.
- ▶ International certification**  
 CE certification  
 IP 42 protection (front)  
 RoHS certification
- ▶ One-Year Warranty**



## Specification

Model	DC Chem 610 Pro
<b>PERFORMANCE DATA</b>	
Max. vacuum	7 mbar abs.
Max. flow rate	37 L/min
Measuring range	1100 ~ 0 mbar abs.
Measurement accuracy	± 2 mbar (after adjustment, constant temp.)
Setting range	1013 ~ 0 mbar
Motor speed	1 ~ 100%, adjustable
Resolution	1 digit
Pressure display	mbar, hPa, torr
Hose barb	ID10
Noise level	50 dB
Net weight	15.0 Kg
Dimension (LxWxH)	44 x 38 x 25 cm
<b>ELECTRICAL DATA</b>	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	120W (1/6 HP)
Motor	Brushless DC Motor (BLDC)
Safety	Fuse, Error Message
<b>OTHER DATA</b>	
Equipped with	Glass moisture trap

## Applications

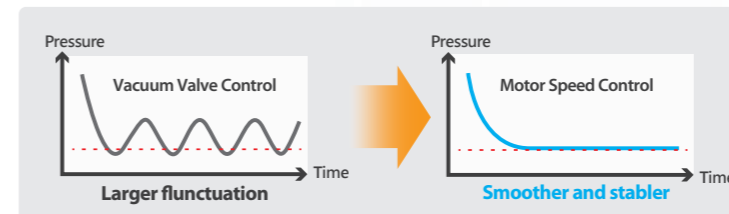
- ▶ Laboratory vacuum control
- ▶ Rotary evaporation
- ▶ Vacuum concentration and distillation

## Ordering Information

- 182610-01(02)-P**  
DC Chem 610 Pro, Auto Vacuum System, AC100-240V, 50/60Hz, US plug (EU plug)
- 182610-50**  
Glass flask set for DC Chem 610 Pro
- 182610-51-P**  
Emission condenser for DC Chem 610 Pro

# Auto Vacuum System

- Detachable & remote control**  
 Detachable remote control panel with magnetic mount base.
- Auto evaporation mode**  
 Avoid bumping and keep optimal vacuum level. Feel free to start and leave.
- GUI & flex in control**  
 Intuitive and modularized settings, set up to 10 steps per program.
- Consume less, save more**  
 BLDC motor consumes 40% less power. Saves more environmentally and economically.
- Precise & zero lag**  
 Direct RPM control leads to instant and precise reaction.
- Leave your gloves on**  
 The 7" panel reads the taps underneath thick lab gloves.



# Diaphragm Liquid Pump



## Features

- ▶ **Save 30% time**  
Alligator 200 comes with a built-in liquid pump to transfer the filtered liquid directly to waste. It saves time by simplifying filtration process.
- ▶ **Save 40% bench space**  
Alligator 200 pump can be connected directly to filtration system without attaching to waste bottles, which can save up to 40% of bench space in limited lab area.
- ▶ **Touchless operation, contamination-free**  
Equipped with an infrared sensor switch that activates filtration with a wave of your hand. No touch necessary.
- ▶ **In compliance with ISO 8199**  
Alligator 200 complies with ISO 8199 regulation and is ideal for microbiological sample filtration. (\*ISO 8199: Water quality - General guidance for microbiological examinations by culture).
- ▶ **Clean and efficient**  
Alligator 200 is diaphragm pump with no needs for lubricant and oil-mist-free. Its built-in brushless DC motor offers stronger and stabler flow than other equivalent models.
- ▶ **International certification**  
CE certification  
IP 64 protection  
RoHS certification
- ▶ **One-Year Warranty**



## Specification

Model	Alligator 200
<b>PERFORMANCE DATA</b>	
Max. vacuum	313 mbar abs.
Max. liquid flow rate	4.5 L/min
Hose barb	ID8
Noise level	60 dB
Net weight	2.4 Kg
Dimension (LxWxH)	24 x 19 x 20 cm
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS
<b>ELECTRICAL DATA</b>	
Power input	DC24V, 1.8A
Max. power	44W
Motor	Brushless DC Motor (BLDC)
Safety	Overload Protection

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ General filtration without collecting filtrate

## Ordering Information

**181200-01(02)**  
Alligator 200, Diaphragm Liquid Pump with AC100-240V adaptor, US plug (EU plug)

# Diaphragm Liquid Pump





# Rotary Vane Vacuum Pump

## Features

- ▶ **High vacuum, high flow rate**  
Tanker pumps are high-flow-rate and high vacuum driven by rotary vane that can reach up to  $10^{-1}$  torr. Suitable for experiments require medium to high flow rate and vacuum capacity.
- ▶ **Quiet and low vibration**  
Tanker pumps feature low noise level, low vibration and long product life.
- ▶ **Overheat protection**  
All Tanker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Vacuum filtration
- ▶ Vacuum drying / oven / defoaming
- ▶ Various vacuum applications

## Ordering Information

- 187130-11(22)**  
Tanker 130, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 187150-11(22)**  
Tanker 150, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 187215-11(22)**  
Tanker 215, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 187230-11(22)**  
Tanker 230, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 187100-05** Lubricant (500 mL)
- 187100-30** Exhaust filter
- 187100-25** Oil mist outlet



Tanker Series



**187100-30** (Optional) Exhaust filter  
Exhaust filter with stainless steel housing can be used to prevent oil mist from being sprayed into the room and keep laboratory clean.



**187100-25** (Optional) Oil mist outlet  
Oil mist outlet is to be connected to an optional hose barb (Thread 1/8 PT) and tube to exhaust oil mist.

## Specification

Model	Tanker 130		Tanker 150		Tanker 215		Tanker 230	
<b>PERFORMANCE DATA</b>								
Max. vacuum	1 x 10 <sup>-1</sup> torr abs.		1 x 10 <sup>-1</sup> torr abs.		5 x 10 <sup>-2</sup> torr abs.		5 x 10 <sup>-2</sup> torr abs.	
Max. flow rate	85 L/min @60Hz	70 L/min @50Hz	142 L/min @60Hz	127 L/min @50Hz	42 L/min @60Hz	36 L/min @50Hz	85 L/min @60Hz	70 L/min @50Hz
Hose barb	ID10		ID10		ID10		ID10	
Noise level	52 dB		52 dB		52 dB		52 dB	
Net weight	9.6 Kg		13.0 Kg		11.4 Kg		14.0 Kg	
Dimension (LxWxH)	32 x 12 x 36 cm		34 x 13 x 38 cm		32 x 12 x 36 cm		34 x 13 x 38 cm	
<b>ELECTRICAL DATA</b>								
Voltage	110V	220V	110V	220V	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz		50 / 60Hz		50 / 60Hz	
Max. power	250W (1/3 HP)	250W (1/3 HP)	375W (1/2 HP)	375W (1/2 HP)	250W (1/3 HP)	250W (1/3 HP)	375W (1/2 HP)	375W (1/2 HP)
Max. current	4.2A	2.5A	6.5A	3.0A	4.2A	2.5A	6.5A	3.0A
Safety	Overheat Protection		Overheat Protection		Overheat Protection		Overheat Protection	

# Dispensing Peristaltic Pump



## Features

- ▶ **Accurate dispensing**  
Accurate dosage volume from 1 mL to 9999 mL ensured by back-suction function.
- ▶ **Make calibration easy**  
No more repetitive number entries, Buller 600 calls all required parameters automatically. Finish calibration in a single tap.
- ▶ **User-defined program**  
Set your own dispensing program to maximum 8 steps with constant, ramp, dispensing, interval or cycle steps.
- ▶ **In compliance with ISO 7218**  
Built-in microbial program in compliance with ISO 7218 guidance, ideal for dispensing media and dilute buffer in all microbiological tests.
- ▶ **International certification**  
CE certification  
IP 33 protection  
RoHS certification
- ▶ **One-Year Warranty**

## Applications

- ▶ **Liquid dispensing and transferring**  
Sterile solution, buffer, chemicals  
Beverage, winery, dairy products
- ▶ **Instrument dosing and feeding**  
Fermenter, analyzer, etc.

## Ordering Information

- 185600-01(02)**  
Buller 600, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)
- 185601-01(02)**  
Buller 600 - DSP, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)
- 184100-15**  
Normal flow rate pump head, ~ 1950 mL/min
- 184100-20**  
High flow rate pump head, ~ 2130 mL/min
- 185600-10**  
Handling dispenser, DB9 connector, 200 cm
- 185600-41**  
Foot switch, DB9 connector, 200 cm

\*Please refer to P.106 for optional accessories.



Buller 600



**185601-01(02)** Buller 600 - DSP  
The included ergonomic dispenser facilitates easy dispensing with a single click, refer to P.105.

## Specification

Model	Buller 600
<b>PERFORMANCE DATA</b>	
Speed	1 ~ 600 rpm
Speed accuracy	1 %
Max. flow rate	1950 mL/min
Control type	Digital, variable-speed
Channel	1
Net weight	5.5 Kg
Dimension (LxWxH)	17 x 33 x 24 cm
<b>ELECTRICAL DATA</b>	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	80W
Motor	Step Motor
External inputs	0 ~ 5V / 4 ~ 20mA / 0 ~ 10kHz
Remote control	RS 232
Safety	Fuse

\* Each unit includes a normal flow rate pump head and a silicone tube.

# Oil Free Vacuum Pump / Compressor



## Features

- ▶ **2-in-1 machine**  
Rocker 430 works as both vacuum pump and compressor. Equipped with gauges and regulators for easy monitoring and adjusting the vacuum level or delivery pressure.
- ▶ **Oil-free & care-free**  
Rocker pumps are driven by piston that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Prote™ overflow protection**  
Equipped with Prote™ overflow protection to prevent liquid from being sucked into the pump.
- ▶ **Overheat protection**  
All Rocker pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **Moisture trap with filter cartridge**  
Filter cartridge filters particles and moisture to ensure air cleanliness of both inlet and supply.
- ▶ **International certification**  
CE certification  
IP 30 protection  
RoHS certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ Vacuum filtration
- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Air sampling
- ▶ Pressure filtration

## Ordering Information

**167430-11(22)**  
Rocker 430, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)



Rocker 430

## Specification

Model	Rocker 430	
PERFORMANCE DATA		
Max. vacuum	145 mbar abs.	
Max. pressure	80 psig	
Max. flow rate	34 L/min @60Hz	28 L/min @50Hz
Hose barb	ID8	
Noise level	52 dB	
Net weight	5.5 Kg	
Dimension (LxWxH)	25 x 24 x 20 cm	
ELECTRICAL DATA		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	147W (1/6 HP)	125W (1/6 HP)
Max. current	1.5A	0.6A
Safety	Overheat Protection	
OTHER DATA		
Equipped with	Vacuum regulator / Pressure regulator Overload Protection / Filter cartridge	

# Oil Free Compressor



## Features

- ▶ **Compact & care-free**  
Rocker oil-free compressors are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ▶ **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Rocker compressors much quieter and much stabler.
- ▶ **Overheat protection**  
All Rocker compressors are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ▶ **Air outlet filter**  
Every Rocker compressor is equipped with filter cartridge at the air outlet to filter particles and moisture to supply clean air.
- ▶ **International certification**  
CE certification  
CSA certification  
IP 30 protection  
RoHS certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ Aeration
- ▶ Pressure filtration

## Ordering Information

**167320-11(22)**  
Rocker 320, Compressor  
AC110V, 60Hz (AC220V, 50Hz)

**167420-11(22)**  
Rocker 420, Compressor  
AC110V, 60Hz (AC220V, 50Hz)



Rocker 320



Rocker 420

## Specification

Model	Rocker 320		Rocker 420	
PERFORMANCE DATA				
Max. pressure (w/o moisture trap)	90 psig		90 psig	
Max. pressure (w/ moisture trap)	80 psig		80 psig	
Max. flow rate	14 L/min @60Hz	12 L/min @50Hz	27 L/min @60Hz	25 L/min @50Hz
Hose barb	ID8		ID8	
Noise level	50 dB		52 dB	
Net weight	4.1 Kg		5.2 Kg	
Dimension (LxWxH)	27 x 14 x 17 cm		30 x 14 x 17 cm	
ELECTRICAL DATA				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	90W (1/8 HP)	85W (1/8 HP)	147W (1/6 HP)	125W (1/6 HP)
Max. current	0.9A	0.4A	1.5A	0.6A
Safety	Overheat Protection		Overheat Protection	
OTHER DATA				
Equipped with	Pressure regulator Filter cartridge		Pressure regulator Filter cartridge	



# Air Supply System



## Features

- **Compact & care-free**  
Rocker oil-free compressors are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- **Quieter & more stable**  
Motor-driven transmission and vibration-proof assembly, making Rocker compressors much quieter and stabler.
- **Overheat protection**  
All Rocker compressors are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- **Air outlet filter**  
Every Rocker series compressor is equipped with filter cartridge at the air outlet to filter particles and moisture to supply clean air.
- **International certification**  
CE certification  
CSA certification  
IP 30 protection  
RoHS certification
- **Two-Year Warranty**

## Applications

- Fermenter
- Bioreactor
- Gas chromatograph

## Ordering Information

**167440-11(22)**  
Rocker 440, Air Supply System  
AC110V, 60Hz (AC220V, 50Hz)

**167304-31**  
Auto stop switch, 60 ~ 80 psig



**Rocker 440**

\* The capacity of SS304 tank is 2.5 L

## Specification

Model	Rocker 440	
<b>PERFORMANCE DATA</b>		
Pressure range	40 ~ 60 psig	
Max. flow rate (w/o tank)	27 L/min @60Hz	25 L/min @50Hz
Max. flow rate (w/ tank)	20 psig	40 L/min @60Hz
	40 psig	52 L/min @60Hz
	60 psig	65 L/min @60Hz
Hose barb	ID8	
Noise level	52 dB	
Net weight	8.4 Kg	
Dimension (LxWxH)	29 x 31 x 25 cm	
<b>ELECTRICAL DATA</b>		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	147W (1/6 HP)	125W (1/6 HP)
Max. current	1.5A	0.6A
Safety	Overheat Protection	
<b>OTHER DATA</b>		
Equipped with	Pressure regulator Filter cartridge	

\* The pressure range can be regulated by replacing the auto stop switch.

# Pump Accessories



Hose Barb							Chemical Resistant Hose Barb		
Rocker Series Pump							Chemker Series Pump		
Cat.No.:	167300-20	167300-21	167300-63	167300-23	167300-24	167300-25	167800-25	169300-21	169300-20
Barb:	3/8 inch	5/16 inch	1/4 inch	3/16 inch	1/8 inch	5/16 inch	3/8 inch	5/16 inch	3/8 inch
	ID10	ID8	ID6	ID5	ID3	ID8	ID10	ID8	ID10
Thread:	1/4 PT	1/8 PT	1/8 PT	1/8 PT	1/8 PT	1/8 PT	1/4 PT	1/4 NPS	1/4 NPS



Hose Barb			Moisture Trap / Vacuum Regulator			
Tanker Series Pump						
Cat.No.:	187100-32	187100-31	187100-34	167301-06	169411-06	189300-06
Barb:	1/2 inch	3/8 inch	1/4 inch	For Rocker	For Chemker	For Rocker
	ID12	ID10	ID6	300/400/410/430	300/400/410/411	300C/400C/410C
Thread:	1/4 SAE	1/4 SAE	1/4 SAE	167801-06	169611-06	189900-06
				For Rocker	For Chemker	For Rocker
				900/910	600/610/611	900C/910C



Pressure Regulator		Hoop Holder		Filter Cartridge	
167320-06	167440-06	167300-37	189300-37	167301-07	167801-07
For Rocker	For Rocker	For Rocker	For Rocker	For Rocker	For Rocker
320/420/430	440	300/400/410	300/400/410	300/400/410/430	900/910
		300C/400C/410C	300C/400C/410C	(with Prote™ overflow protection)	(without Prote™ overflow protection)
		Max. 118 mm	Max. 103 mm		



Check Valve	Air Outlet (Copper Muffler)	Silicone Tube	Universal Foot Switch	
187100-33	167300-42	167600-42	167200-38	199100-68
For Tanker	For Rocker	For Rocker	Ø 6 x 12 mm	Ø 4.2 x 8 mm
130/150/215/230	300/400/410/430	900/901/910/911	Length: 100 cm	Length: 200 cm
ID10	320/420		Ø 8 x 14 mm	Length: 200 cm
1/4 SAE			Momentary action	Maintained action
			167200-41	167200-41-1

\* PT (pipe thread) = BSPT

# LABORATORY FILTRATION

## Filtration Apparatus Selection Guide

### PPSU / PES Filter Holder

MF 3 Pro / MF 3a Pro / MF 5 Pro / MF 5a Pro

MF 3 / MF 3a / MF 5 / MF 5a

LF 3 / LF 3a / LF 5 / LF 5a

### Stainless Steel Filter Holder

SF 1 / SF 3 / SF 5

### Filtration Apparatus

LF 30 / MF 31

SF 10 / SF 30 / SF 11 / SF 52

VF 5 / VF 8 / VF 6 / VF 7

VF 3 / VF 12 / VF 14 / VF 20 / VF 21

VF 15 / VF 16 / Stream 3 / Stream 10

VFC 47 / SFC 142

### Filtration System

Rocker 300 - LF 30 / Rocker 300 - MF 31

Rocker 300C - VF 12 / Chemker 300 - VF 12 / Lafil 300C - VF 12

Rocker 300C - VFC 47 / Rocker 400 - SFC 142

Lafil 300 - LF 30 / Lafil 300 - SF 10

Lafil 400 - LF 30 / Lafil 400 - SF 10

### Filtration System

WaterVac 100 - MS / WaterVac 100 - MB / WaterVac 101 - MB

WaterVac 200 - MS / WaterVac 200 - MB / WaterVac 201 - MB

### Manifold and Filtration System

MutilVac 310 - MS / MutilVac 610 - MS

MutilVac 300 - MS / MutilVac 600 - MS

MutilVac 300 - MB / MutilVac 600 - MB

MutilVac 301 - MB / MutilVac 601 - MB

MultiVac 310 - MS - A / MultiVac 610 - MS - A

MultiVac 301 - MB - A / MultiVac 601 - MB - A

MutilVac 310 - MS - T / MutilVac 610 - MS - T

MutilVac 301 - MB - T / MutilVac 601 - MB - T

### Rotary Manifold and Filtration System

SolarVac 600 - MS / SolarVac 600 - MB

SolarVac 601 - MB / SolarVac 1201 - MB

SolarVac 601 - MB - A / SolarVac 1201 - MB - A

SolarVac 601 - MB - T / SolarVac 1201 - MB - T

### Filtration Accessories

## Filtration Apparatus Selection Guide



SELECT THE BEST COMPONENTS  
FOR YOUR NEEDS

PPSU

### MF Pro, Magnetic Filter Holder

Model: MF 3 / 3a / 5 / 5a Pro

Feature: Magnetic seal

Page 35 ▶



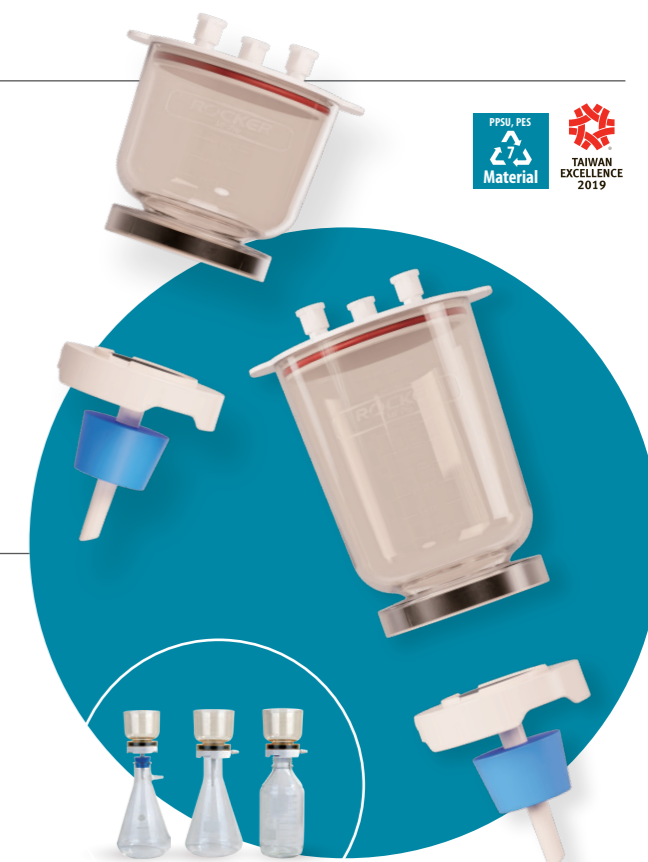
PES

### MF, Magnetic Filter Holder

Model: MF 3 / 3a / 5 / 5a

Feature: Magnetic seal

Page 36 ▶



Compatible with various bottles and flasks for direct filtrate collection.

### LF, Spin-Lock Filter Holder

Model: LF 3 / 3a / 5 / 5a

Feature: Clamp-free lock

Page 37 ▶



### Filtration Apparatus

Model: LF 30 / MF 31

Feature: PES filtration set

Page 39 ▶



\* PPSU : Polyphenylsulfone, PES : Polyethersulfone



# Filtration Apparatus Selection Guide



SS 316

## SF, Spin-Lock Filter Holder

Model: SF 1 / 3 / 5  
Feature: Clamp-free lock

Page 38 ▶



## SFC, Continuous Filter Holder

Model: SF 142  
Feature: Continuous feed

Page 50 ▶



## Filtration Apparatus

Model: SF 10 / SF 30 / SF 11 / SF 52  
Feature: SS316 filtration set

Page 40 ▶



Borosilicate Glass

## VFC, Continuous Filter Holder

Model: VFC 47  
Feature: Continuous feed

Page 49 ▶



## Continuous Filter Holder

Model: Stream 3 / 10  
Feature: Continuous feed

Page 48 ▶



## 25 mm Filtration Apparatus

Model: VF 5 / 8  
Feature: Small-volume sample filtration

Page 42 ▶



## 47 mm Filtration Apparatus

Model: VF 3  
Feature: All-glass construction

Page 45 ▶



## 47 mm Filtration Apparatus

Model: VF 6 / 7  
Feature: General filtration with secure fixing

Page 43 ▶



## 47 mm Filtration Apparatus

Model: VF 12 / 14  
Feature: Filter and store in one step

Page 44 ▶



## 47 mm Filtration Apparatus

Model: VF 20 / 21  
Feature: Filter in evaporating flask

Page 46 ▶



## 90 mm Filtration Apparatus

Model: VF 15 / VF 16 / VF 17  
Feature: Filter and store in one step

Page 47 ▶



# Manifold Selection Guide

Model: MultiVac 310 / 610 - MS  
Feature: Aluminum-made

Page 63 ▶



Model: MultiVac 300 / 600 - MS  
Feature: SS316-made

Page 64 ▶



Model: MultiVac 300 / 600 - MB  
Feature: SS316-made

Page 65 ▶



Model: MultiVac 301 / 601 - MB  
Feature: Whole set for microbial analysis

Page 66 ▶



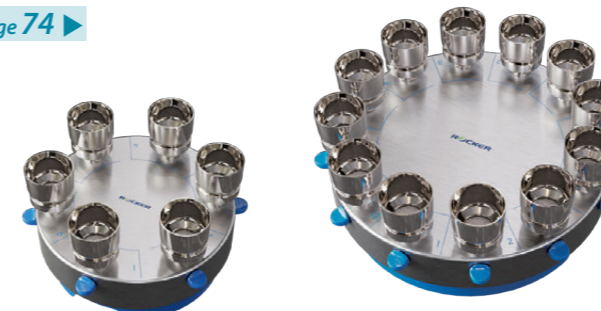
Model: SolarVac 600 - MS / MB  
Feature: 60% space-saving

Page 73 ▶



Model: SolarVac 601 / 1201 - MB  
Feature: Whole set for microbial analysis

Page 74 ▶



▲ Compatible with various kinds of funnels and filter holders.

Traditional Manifold

Rotary Manifold

# MF, Magnetic Filter Holder



## Features

- ▶ Magnetic seal enables one-handed operation and prevents membrane twisting.
- ▶ Compatible with various kinds of bottles and vacuum flasks.
- ▶ Membrane guide at support base helps position membrane easily.
- ▶ Forceps access points on support base help retrieve membrane without damage.
- ▶ MF Pro filter holders are made of PPSU, offering better chemical and heat resistance compared to PES, ensuring greater durability.
- ▶ Volume error ≤ 2.5% at Max. graduation.
- ▶ International certification : RoHS certification

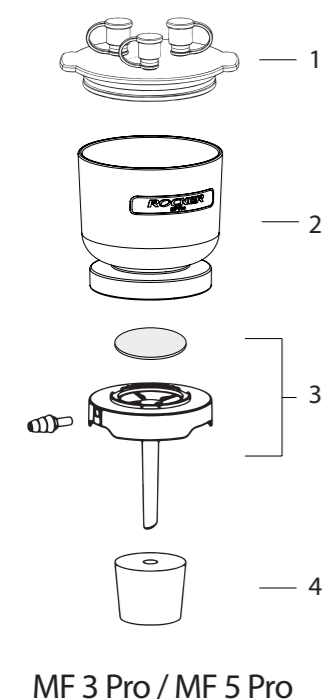
*Recommended for applications that require frequent autoclaves in pharmaceutical and biotech labs.*

## Specification

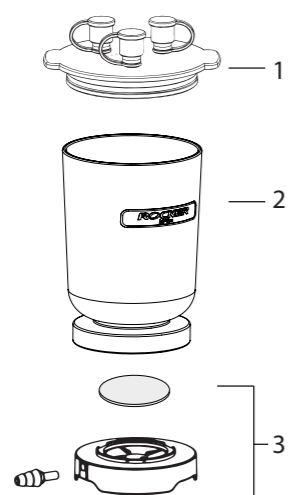
Material	MF 3 Pro / MF 5 Pro	MF 3a Pro / MF 5a Pro
Funnel	PPSU	PPSU
Support base	PPSU	PPSU
Membrane support	PPSU	PPSU
Funnel lid	PP	PP
Hose barb	PPSU	PPSU
Cap of lid	Silicone	Silicone

## Specification

	MF 3 Pro / MF 5 Pro	MF 3a Pro / MF 5a Pro
Funnel capacity	300 mL / 500 mL	300 mL / 500 mL
Filter diameter	47 mm	47 mm
Effective filtration area	13.1 cm <sup>2</sup>	13.1 cm <sup>2</sup>
Hose barb	ID4 ~ ID8	ID4 ~ ID8
Graduated increment	50 mL	50 mL



MF 3 Pro / MF 5 Pro



MF 3a Pro / MF 5a Pro

## Ordering Information

MF 3 Pro, Magnetic Filter Holder (300 mL)	200300-01-P
MF 5 Pro, Magnetic Filter Holder (500 mL)	200500-01-P
1 PP lid kit	200300-36
2 PPSU magnetic funnel, 300 mL	200300-30-P
PPSU magnetic funnel, 500 mL	200500-30-P
3 PPSU magnetic support base	200300-32-P
4 Silicone stopper (No.8)	167110-16
MF 3a Pro, Magnetic Filter Holder (300 mL)	200310-01-P
MF 5a Pro, Magnetic Filter Holder (500 mL)	200510-01-P
1 PP lid kit	200300-36
2 PPSU magnetic funnel, 300 mL	200300-30-P
PPSU magnetic funnel, 500 mL	200500-30-P
3 PPSU magnetic support base (short)	200310-32-P

\* PPSU: Polyphenylsulfone

# MF, Magnetic Filter Holder



## Features

- ▶ Magnetic seal enables one-handed operation and prevents membrane twisting.
- ▶ Compatible with various kinds of bottles and vacuum flasks.
- ▶ Membrane guide at support base helps position membrane easily.
- ▶ Forceps access points on support base help retrieve membrane without damage.
- ▶ PES construction resists a wide range of chemicals and heat, ensuring durability.
- ▶ Volume error ≤ 2.5% at Max. graduation.
- ▶ International certification : RoHS certification

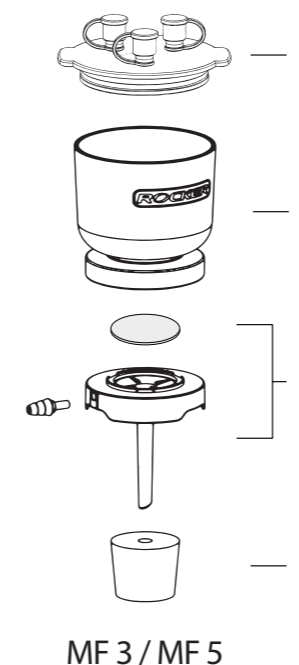
*Recommended for applications that require less frequent autoclaves in general and environmental labs.*

## Specification

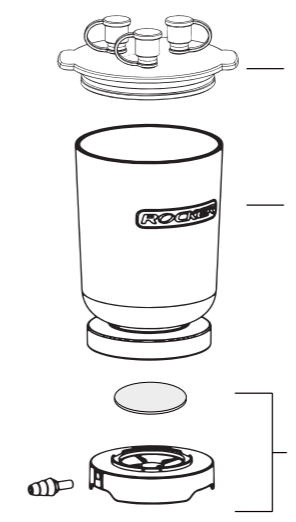
Material	MF 3 / MF 5	MF 3a / MF 5a
Funnel	PES	PES
Support base	PES	PES
Membrane support	PES	PES
Funnel lid	PP	PP
Hose barb	PES	PES
Cap of lid	Silicone	Silicone

## Specification

	MF 3 / MF 5	MF 3a / MF 5a
Funnel capacity	300 mL / 500 mL	300 mL / 500 mL
Filter diameter	47 mm	47 mm
Effective filtration area	13.1 cm <sup>2</sup>	13.1 cm <sup>2</sup>
Hose barb	ID4 ~ ID8	ID4 ~ ID8
Graduated increment	50 mL	50 mL



MF 3 / MF 5



MF 3a / MF 5a

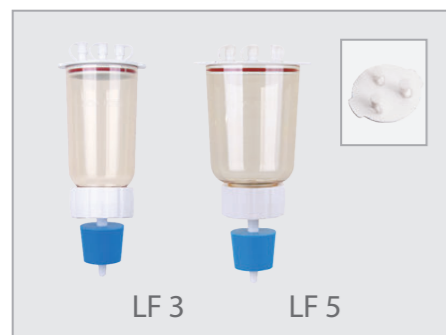
## Ordering Information

MF 3, Magnetic Filter Holder (300 mL)	200300-01
MF 5, Magnetic Filter Holder (500 mL)	200500-01
1 PP lid kit	200300-36
2 PES magnetic funnel, 300 mL	200300-30
PES magnetic funnel, 500 mL	200500-30
3 PES magnetic support base	200300-32
4 Silicone stopper (No.8)	167110-16
MF 3a, Magnetic Filter Holder (300 mL)	200310-01
MF 5a, Magnetic Filter Holder (500 mL)	200510-01
1 PP lid kit	200300-36
2 PES magnetic funnel, 300 mL	200300-30
PES magnetic funnel, 500 mL	200500-30
3 PES magnetic support base (short)	200310-32

\* PES: Polyethersulfone



# LF, Spin-Lock Filter Holder



## Features

- ▶ Clamp-free spin-lock design.
- ▶ Shock-proof and heat-resistant (180°C) PES funnel.
- ▶ Groove design on membrane support facilitates filtration speed.
- ▶ Durable & reusable, less waste and more cost-efficient.
- ▶ LF 3 / 5 : Fits most of lab flasks with No.8 silicone stopper.
- ▶ LF 3a / 5a : Fits GL45 laboratory glass bottles.

*Recommended for applications that require less frequent autoclaves in general and environmental labs.*

## Specification

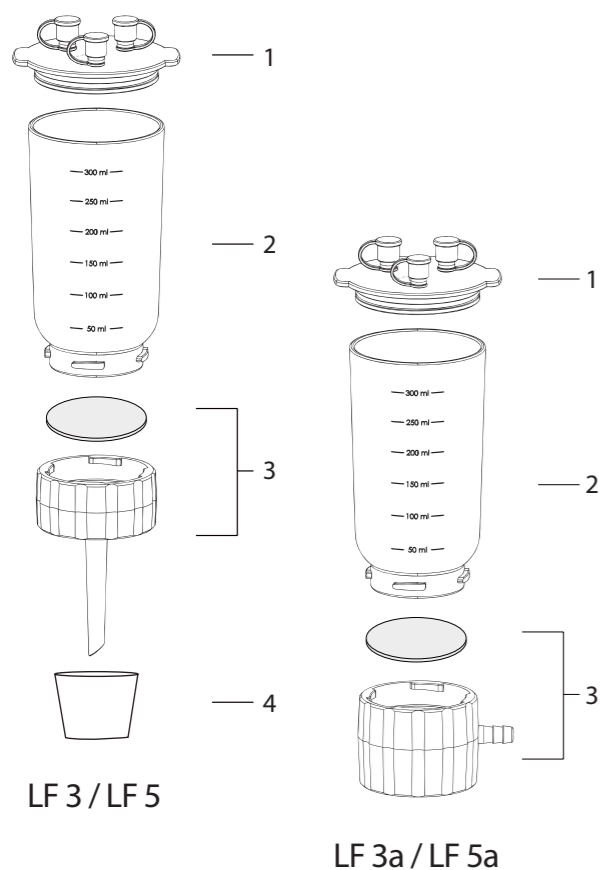
Material	LF 3 / LF 5	LF 3a / LF 5a
Funnel	PES	PES
Support base	PC	PC
Membrane support	PP	PP
Funnel lid	PP	PP
Cap of lid	Silicone	Silicone

Specification	LF 3 / LF 5	LF 3a / LF 5a
Funnel capacity	300 mL / 500 mL	300 mL / 500 mL
Filter diameter	47 mm / 50 mm	47 mm / 50 mm
Effective filtration area	12.5 cm <sup>2</sup>	12.5 cm <sup>2</sup>
Hose barb	-	ID8

## Ordering Information

LF 3, Spin-Lock Filter Holder (300 mL)	197000-01
LF 5, Spin-Lock Filter Holder (500 mL)	197000-06
1 LF 3, PP lid kit	197000-36
1 LF 5, PP lid kit	200300-36
2 PES funnel, 300 mL	197000-34
2 PES funnel, 500 mL	197000-56
3 PC support base	197000-35
4 Silicone stopper (No.8)	167110-16
LF 3a, Spin-Lock Filter Holder (300 mL)	197000-02
LF 5a, Spin-Lock Filter Holder (500 mL)	197000-07
1 LF 3a, PP lid kit	197000-36
1 LF 5a, PP lid kit	200300-36
2 PES funnel, 300 mL	197000-34
2 PES funnel, 500 mL	197000-56
3 Storage bottle adaptor	197000-38

\* PES: Polyethersulfone



# SF, Stainless Steel Filter Holder



## Features

- ▶ Clamp-free spin-lock design.
- ▶ Precise laser-marking ensures ≤ 2.5% volume error at max. graduation.
- ▶ Membrane guide at the support base helps position membrane easily.
- ▶ Forceps access points on support base help retrieve membrane without damage.
- ▶ SS316 funnel is shatterproof, durable and can be fast sterilized by flame.
- ▶ Two-Year Warranty

*Recommended for microbiological applications that require fast flame sterilization.*

## Specification

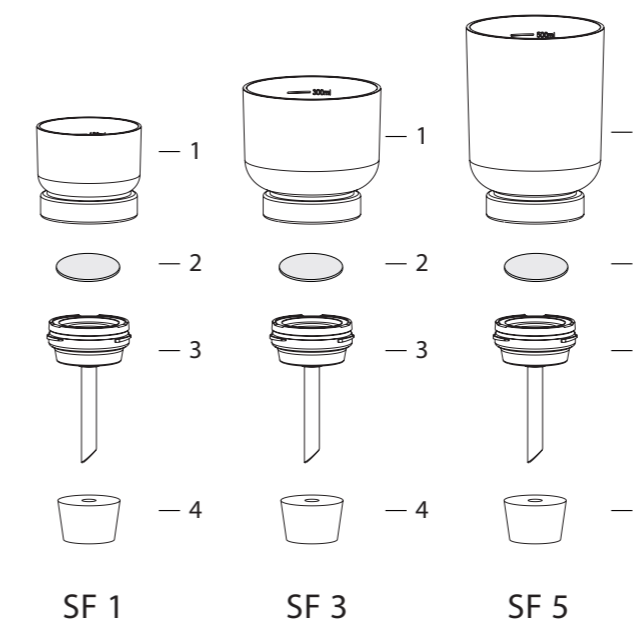
Material	SF 1	SF 3	SF 5
Funnel	SS316	SS316	SS316
Support base	SS316	SS316	SS316
Membrane support	SS316	SS316	SS316
Funnel lid	SS316	SS316	SS316

Specification	SF 1	SF 3	SF 5
Funnel capacity	100 mL	300 mL	500 mL
Filter diameter	47 mm	47 mm	47 mm
Effective filtration area	11.6 cm <sup>2</sup>	11.6 cm <sup>2</sup>	11.6 cm <sup>2</sup>
Graduated increment	50 / 100 mL	100 / 250 / 300 mL	250 / 500 mL

## Ordering Information

SF 1, Stainless Steel Filter Holder (100 mL)	180100-10
1 Stainless steel funnel, 100 mL	180100-01
2 Stainless steel support screen	180100-31
3 Stainless steel support base	180100-00
4 Silicone stopper (No.8)	167110-16
SF 3, Stainless Steel Filter Holder (300 mL)	180100-30
1 Stainless steel funnel, 300 mL	180100-03
2 Stainless steel support screen	180100-31
3 Stainless steel support base	180100-00
4 Silicone stopper (No.8)	167110-16
SF 5, Stainless Steel Filter Holder (500 mL)	180100-50
1 Stainless steel funnel, 500 mL	180100-05
2 Stainless steel support screen	180100-31
3 Stainless steel support base	180100-00
4 Silicone stopper (No.8)	167110-16

Optional	
Stainless steel funnel lid, 100 mL	180100-11
Stainless steel funnel lid, 300 mL / 500 mL	180100-13



# PES Filtration Apparatus



LF 30



MF 31

## Features

- ▶ LF 30 : A safe and sturdy combination of clamp-free spin-lock PES filter holder, and bottle with built-in overflow protection.
- ▶ MF 31 : Combination of a glass flask with direct-drain, spill-proof silicone sucker, and a magnetic filter holder. Allows simple single-hand operation.

## Applications

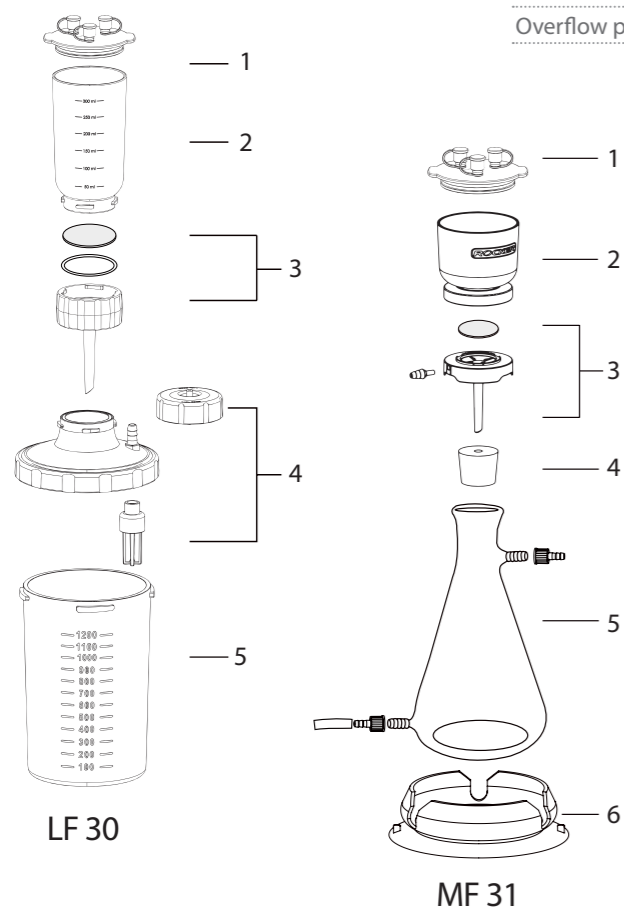
General filtration, such as microbiological test, suspended solid analysis, etc.

## Specification

Material	LF 30	MF 31
Funnel	PES	PES
Support base	PC	PES
Membrane support	PP	PES
Receiver flask	PC	Borosilicate glass
Drain hose	-	Rubber (non-autoclavable)

## Specification

	LF 30	MF 31
Funnel capacity	300 mL	300 mL
Flask capacity	1200 mL	1000 mL
Filter diameter	47 mm / 50 mm	47 mm
Effective filtration area	12.5 cm <sup>2</sup>	13.1 cm <sup>2</sup>
Hose barb	ID8	ID8
Drain device	-	Yes
Overflow protection	Yes	-



## Ordering Information

LF 30, Filtration Set		197010-30
1	PP lid kit	197000-36
2	PES funnel, 300 mL	197000-34
3	PC support base	197000-35
4	PC cover set	197000-32-PC
5	PC bottle, 1200 mL	197000-31-PC
MF 31, Filtration Set		200320-31
1	PP lid kit for magnetic funnel	200300-36
2	PES magnetic funnel, 300 mL	200300-30
3	PES magnetic support base	200300-32
4	Silicone stopper (No.8)	167110-16
5	Receiver flask with drain, 1000 mL (with screwthread connector)	167300-08
6	Silicone fixing sucker	167200-45



# Stainless Steel Filtration Apparatus



SF 10



SF 30

## Features

- ▶ Handy, clamp-free SF filter holder with spin-lock design.
- ▶ SS316 funnel is shatterproof, durable and can be fast sterilized by flame.
- ▶ Built-in overflow protection makes filtration easier and care-free.
- ▶ Two-Year Warranty (SF Filter Holder)

## Applications

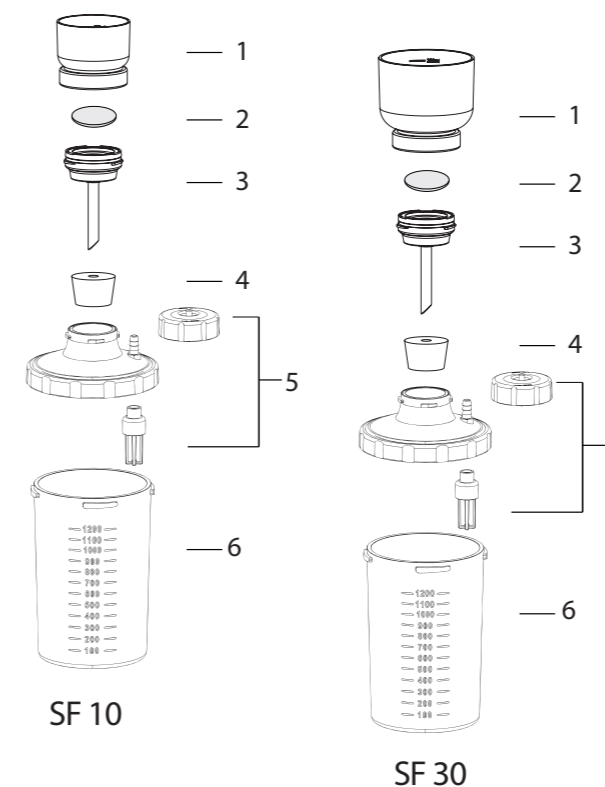
General filtration, such as medium purification, microbiological test etc.

## Specification

Material	SF 10	SF 30
Funnel	SS316	SS316
Support base	SS316	SS316
Membrane support	SS316	SS316
Receiver bottle	PC	PC

## Specification

	SF 10	SF 30
Funnel capacity	100 mL	300 mL
Bottle capacity	1200 mL	1200 mL
Filter diameter	47 mm	47 mm
Effective filtration area	11.6 cm <sup>2</sup>	11.6 cm <sup>2</sup>
Hose barb	ID8	ID8
Overflow protection	Yes	Yes



## Ordering Information

SF 10, Stainless Steel Filtration Set		197010-32
1	Stainless steel funnel, 100 mL	180100-01
2	Stainless steel support screen	180100-31
3	Stainless steel support base	180100-00
4	Silicone stopper (No.16)	167110-17
5	PC cover set	197000-32-PC
6	PC bottle, 1200 mL	197000-31-PC
SF 30, Stainless Steel Filtration Set		197010-33
1	Stainless steel funnel, 300 mL	180100-03
2	Stainless steel support screen	180100-31
3	Stainless steel support base	180100-00
4	Silicone stopper (No.16)	167110-17
5	PC cover set	197000-32-PC
6	PC bottle, 1200 mL	197000-31-PC



# Stainless Steel Filtration Apparatus



SF 11



SF 52

## Features

- ▶ Fast and stable installation with the filter holder's clamp-free spin-lock design.
- ▶ SS316 funnel is shatterproof, durable and can be fast sterilized by flame.
- ▶ Drains the filtrate away directly without removing the tubes.
- ▶ Two-Year Warranty (SF Filter Holder)

## Applications

General filtration, such as medium purification, microbiological test, etc.

## Specification

Material	SF 11	SF 52
Funnel	SS316	SS316
Support base	SS316	SS316
Membrane support	SS316	SS316
Stopper	Silicone rubber	Silicone rubber
Receiver flask	Borosilicate glass	Borosilicate glass
Drain hose	Rubber (non-autoclavable)	Rubber (non-autoclavable)

## Specification

Funnel capacity	100 mL	500 mL
Flask capacity	1000 mL	2000 mL
Filter diameter	47 mm	47 mm
Effective filtration area	11.6 cm <sup>2</sup>	11.6 cm <sup>2</sup>
Hose barb	ID8	ID8
Drain device	Yes	Yes

\*The flask withstands nearly full vacuum for use in vacuum filtration.

## Ordering Information

SF 11, Stainless Steel Filtration Set 167200-02

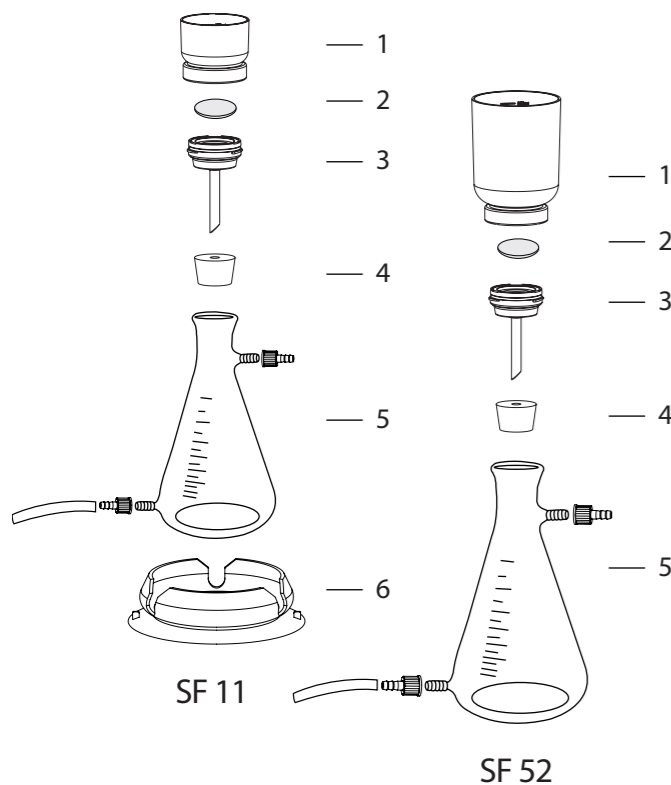
SF 1, Stainless Steel Filter Holder (100 mL) 180100-10

1	Stainless steel funnel, 100 mL	180100-01
2	Stainless steel support screen	180100-31
3	Stainless steel support base	180100-00
4	Silicone stopper (No.8)	167110-16
5	Receiver flask with drain, 1000 mL (with screwthread connector)	167300-08
6	Silicone fixing sucker	167200-45

SF 52, Stainless Steel Filtration Set 167200-11

SF 5, Stainless Steel Filter Holder (500 mL) 180100-50

1	Stainless steel funnel, 500 mL	180100-05
2	Stainless steel support screen	180100-31
3	Stainless steel support base	180100-00
4	Silicone stopper (No.8)	167110-16
5	Receiver flask with drain, 2000 mL (with screwthread connector)	167200-13



# 25 mm Microanalysis Glass Filtration Apparatus



VF 5



VF 8

## Features

- ▶ Accurate graduations enable precise sample addition.
- ▶ Membrane supports are available in sintered glass or stainless steel.

## Applications

Small-volume sample filtration for biological or particulate contamination analysis.

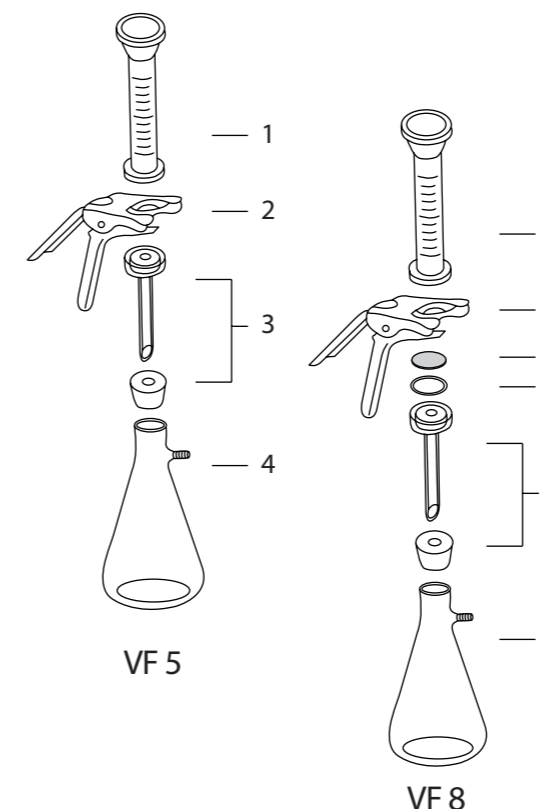
## Specification

Material	VF 5	VF 8
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	SS screen with PTFE gasket
Clamp	Aluminum	Aluminum
Stopper	Silicone rubber	Silicone rubber
Receiver flask	Borosilicate glass	Borosilicate glass

## Specification

Funnel capacity	15 mL	15 mL
Flask capacity	125 mL	125 mL
Filter diameter	25 mm	25 mm
Effective filtration area	3.1 cm <sup>2</sup>	2.5 cm <sup>2</sup>
Hose barb	ID8	ID8

\*The flask withstands nearly full vacuum for use in vacuum filtration.



## Ordering Information

VF 5, 25 mm Microanalysis Glass Filtration Set 167200-05

Glass Filter Holder (15 mL) 167120-32

1	Glass funnel, 15 mL	167220-15
2	Aluminum clamp, 25 mm	167240-05
3	Sintered glass support base, 25 mm (Including No.5 silicone stopper)	167230-04
4	Receiver flask, 125 mL	167250-05

VF 8, 25 mm Microanalysis Glass Filtration Set 167200-08

Glass Filter Holder (15 mL) 167120-34

1	Glass funnel, 15 mL	167220-15
2	Aluminum clamp, 25 mm	167240-05
3	SS support screen, 25 mm	167230-32
4	PTFE gasket, 25 mm	167230-42
5	Glass support base, 25 mm (Including No.5 silicone stopper)	167230-08
6	Receiver flask, 125 mL	167250-05

# 47 mm Glass Filtration Apparatus



VF 6



VF 7

## Features

- ▶ Quick and easy disconnection with screwthread connector at side arm.
- ▶ Equipped with spill-proof silicone fixing sucker.

## Applications

Solvent purification and general filtration such as microbiology, suspended solid analysis, etc.

## Specification

Material	VF 6	VF 7
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	SS screen with PTFE gasket
Clamp	Aluminum	Aluminum
Stopper	Silicone rubber	Silicone rubber
Receiver flask	Borosilicate glass	Borosilicate glass

## Specification

Funnel capacity	300 mL	300 mL
Flask capacity	1000 mL	1000 mL
Filter diameter	47 mm / 50 mm	47 mm / 50 mm
Effective filtration area	12.6 cm <sup>2</sup>	9.6 cm <sup>2</sup>
Hose barb	ID8	ID8

\*The flask withstands nearly full vacuum for use in vacuum filtration.

## Ordering Information

VF 6, 47 mm Glass Filtration Set	167200-06
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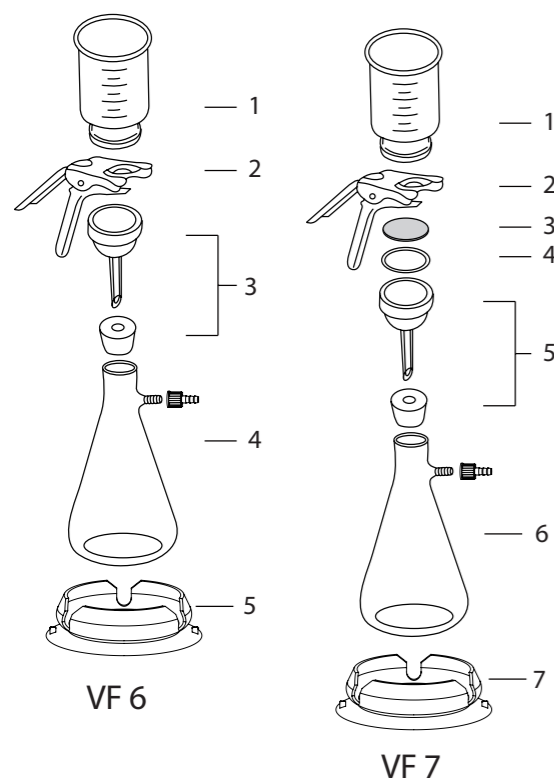
Glass Filter Holder (300 mL)	167120-31
------------------------------	-----------

1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	Sintered glass support base, 47 mm (Including No.8 silicone stopper)	167230-03
4	Receiver flask, 1000 mL (with screwthread connector)	167250-03
5	Silicone fixing sucker	167200-45

VF 7, 47 mm Glass Filtration Set	167200-07
----------------------------------	-----------

Glass Filter Holder (300 mL)	167120-33
------------------------------	-----------

1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	SS support screen, 47 mm	167230-31
4	PTFE gasket, 47 mm	167230-41
5	Glass support base, 47 mm (Including No.8 silicone stopper)	167230-07
6	Receiver flask, 1000 mL (with screwthread connector)	167250-03
7	Silicone fixing sucker	167200-45



# 47 mm Glass Filtration Apparatus



VF 12



VF 14

## Features

- ▶ Filter and store directly in GL45 bottle. No cross-contamination.
- ▶ Membrane supports are available in sintered glass or stainless steel.

## Applications

Purification of organic, corrosive liquid such as solvent, mobile phase for HPLC, GC and AA analysis.

## Specification

Material	VF 12	VF 14
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	SS screen with PTFE gasket
Clamp	Aluminum	Aluminum
Filtration adaptor	PP	PP
Receiver flask	Borosilicate glass	Borosilicate glass

## Specification

Funnel capacity	300 mL	300 mL
Flask capacity	1000 mL	1000 mL
Filter diameter	47 mm / 50 mm	47 mm / 50 mm
Effective filtration area	12.6 cm <sup>2</sup>	9.6 cm <sup>2</sup>
Hose barb	ID 4 ~ ID8	ID 4 ~ ID8

\*The flask withstands nearly full vacuum for use in vacuum filtration.

## Ordering Information

VF 12, 47 mm Glass Filtration Set	167200-12
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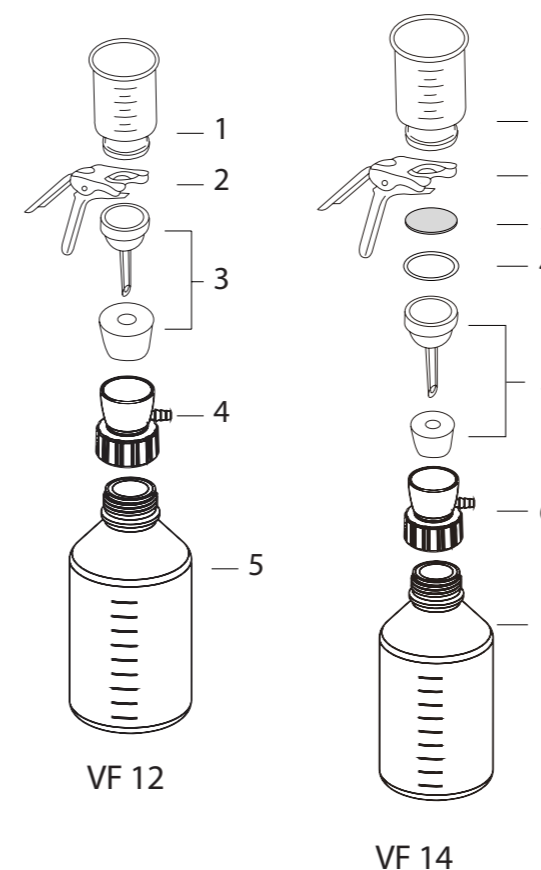
Glass Filter Holder (300 mL)	167120-31
------------------------------	-----------

1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	Sintered glass support base, 47 mm (Including No.8 silicone stopper)	167230-03
4	GL45 filtration adaptor	197000-65
5	Laboratory glass bottle, 1000 mL	197000-59

VF 14, 47 mm Glass Filtration Set	167200-14
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Glass Filter Holder (300 mL)	167120-33
------------------------------	-----------

1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	SS support screen, 47 mm	167230-31
4	PTFE gasket, 47 mm	167230-41
5	Glass support base, 47 mm (including No.8 silicone stopper)	167230-07
6	GL45 filtration adaptor	197000-65
7	Laboratory glass bottle, 1000 mL	197000-59



VF 12

VF 14



# 47 mm Glass Filtration Apparatus



## Features

- ▶ Borosilicate glass-made filter holder and flask provides extraordinary chemical resistance.
- ▶ Equipped with spill-proof silicone fixing sucker.

## Applications

Purification of organic, corrosive liquid such as solvent, mobile phase for HPLC, GC and AA analysis.

## Specification

Material	VF 3
Funnel	Borosilicate glass
Support base	Borosilicate glass
Membrane support	Sintered glass
Clamp	Aluminum
Receiver flask	Borosilicate glass

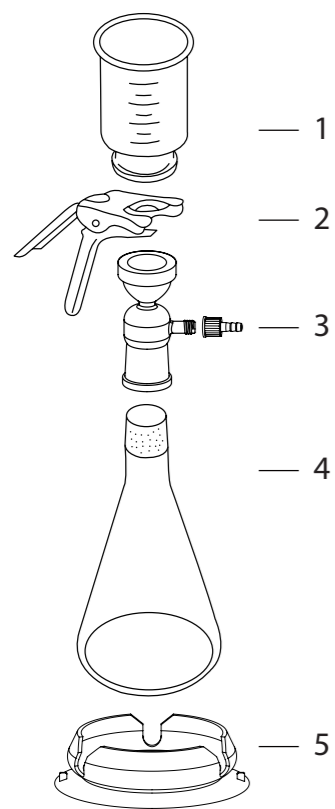
## Specification

Funnel capacity	300 mL
Flask capacity	1000 mL
Filter diameter	47 mm / 50 mm
Effective filtration area	12.6 cm <sup>2</sup>
Hose barb	ID8

\* The flask withstands nearly full vacuum for use in vacuum filtration.

## Ordering Information

VF 3, 47 mm Glass Filtration Set		167200-03
Glass Filter Holder (300 mL)		167120-30
1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	Sintered glass support base w/ tubulated cap, 47 mm (with screwthread connector)	167230-01
4	Ground joint flask, 1000 mL	167250-01
5	Silicone fixing sucker	167200-45



VF 3

# 47 mm Glass Filtration Apparatus



## Features

- ▶ Filtration, concentration and evaporation - all in one bottle.
- ▶ Less transfer, less sample loss.

## Applications

Chemical experiments that require both filtration and concentration, such as extraction of oil in water.

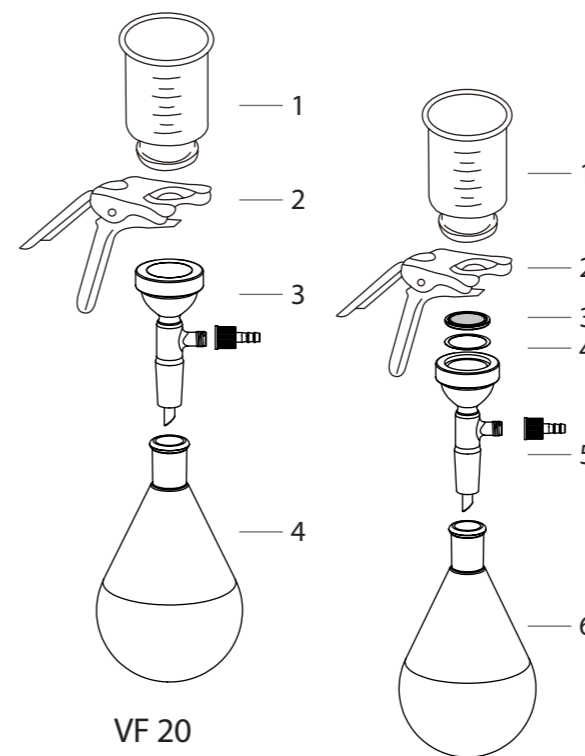
## Specification

Material	VF 20	VF 21
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	SS screen with PTFE gasket
Clamp	Aluminum	Aluminum
Evaporating flask	Borosilicate glass	Borosilicate glass

## Specification

Funnel capacity	300 mL	300 mL
Flask capacity	1000 mL	1000 mL
Filter diameter	47 mm / 50 mm	47 mm / 50 mm
Effective filtration area	12.6 cm <sup>2</sup>	9.6 cm <sup>2</sup>
Hose barb	ID8	ID8
Joint size	TS 24/40	TS 24/40

\* Filtration sets and flasks are available with various sizes and joints, such as TS 29/38.



VF 20

VF 21

## Ordering Information

VF 20, 47 mm Glass Filtration Set for Evaporation		167200-20
Glass Filter Holder (300 mL)		167120-31-1
1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	Sintered glass support base, 47 mm (for TS 24/40 joint)	167230-03-1
4	Evaporating flask, 1000 mL, TS 24/40	167250-10
VF 21, 47 mm Glass Filtration Set for Evaporation		167200-21
Glass Filter Holder (300 mL)		167120-33-1
1	Glass funnel, 300 mL	167210-03
2	Aluminum clamp, 47 mm	167240-01
3	SS support screen, 47 mm	167230-31
4	PTFE gasket, 47 mm	167230-41
5	Glass support based, 47 mm (for TS 24/40 joint)	167230-07-1
6	Evaporating flask, 1000 mL, TS 24/40	167250-10

# 90 mm Glass Filtration Apparatus



VF 15



VF 16

## Features

- ▶ Filter and store directly in GL45 bottle. No cross-contamination.

## Applications

Purification of organic, corrosive liquid such as solvent, mobile phase for HPLC, GC and AA analysis.

\* VF 15 membrane support may not withstand strong acids. Refer to the chemical compatibility chart before use.

\* VF 17 is similar to VF 16 but features a 3500 mL laboratory glass bottle.

## Specification

Material	VF 15	VF 16
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	SS screen with PTFE gasket	Sintered glass
Clamp	Aluminum	Aluminum
Filtration adaptor	PP	PP
Storage bottle	Borosilicate glass	Borosilicate glass

## Specification

	VF 15	VF 16
Funnel capacity	1000 mL	1000 mL
Bottle capacity	5000 mL	5000 mL
Filter diameter	90 mm	90 mm
Effective filtration area	45.5 cm <sup>2</sup>	45.5 cm <sup>2</sup>
Hose barb	ID4 ~ ID8	ID4 ~ ID8

\*The bottle withstands nearly full vacuum for use in vacuum filtration.

## Ordering Information

Glass Filter Holder (1000 mL)	167200-15
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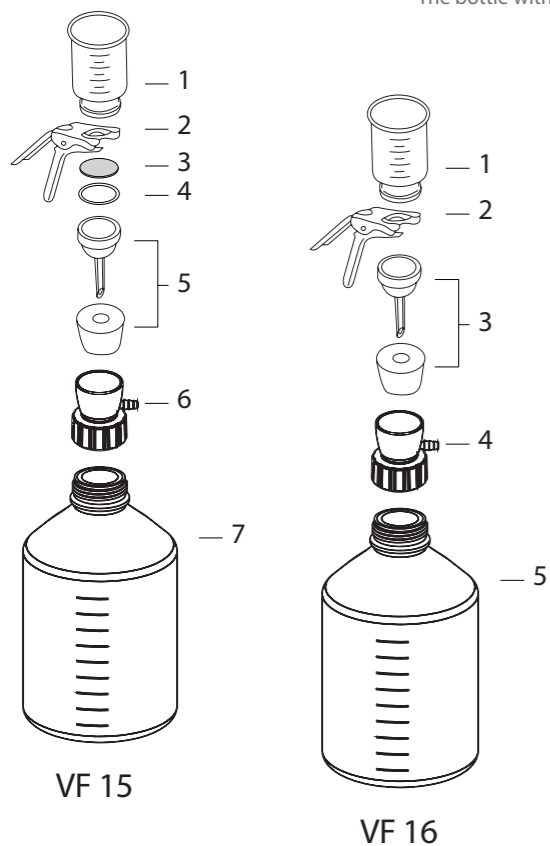
Glass Filter Holder (1000 mL)	167120-37
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1	Glass funnel, 1000 mL	167210-10
2	Aluminum clamp, 90 mm	167240-02
3	SS support screen, 90 mm	167230-33-1
4	PTFE gasket, 90 mm	167230-43
5	Glass support base, 90 mm	167230-10
(Including No.8 silicone stopper)		
6	GL45 filtration adaptor	197000-65
7	Laboratory glass bottle, 5000 mL	197000-55

VF 16, 90 mm Glass Filtration Set	167200-16
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Glass Filter Holder (1000 mL)	167120-38
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1	Glass funnel, 1000 mL	167210-10
2	Aluminum clamp, 90 mm	167240-02
3	Sintered glass support base, 90 mm	167230-11
(Including No.8 silicone stopper)		
4	GL45 filtration adaptor	197000-65
5	Laboratory glass bottle, 5000 mL	197000-55



# Stream, Continuous Filter Holder



Stream 3 / Stream 10



Stream, Continuous Filtration System

## Features

- ▶ A smart kit enables continuous sample feeding. No more repetitive pouring tasks.
- ▶ Equipped with a sinker that misses no drops till the end.
- ▶ Filtration adaptor can be connected to all GL45 bottles.

## Applications

Large-volume liquid purification and filtration, such as solvents used in HPLC, GC, AA analysis, and culture medium purification.

## Specification

Material	Stream 3	Stream 10
Continuous filtration kit	PTFE, Silicone	PTFE, Silicone
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	Sintered glass
Clamp	Aluminum	Aluminum
Filtration adaptor	PP	PP

## Specification

	Stream 3	Stream 10
Funnel capacity	300 mL	1000 mL
Filter diameter	47 mm / 50 mm	90 mm
Effective filtration area	13.2 cm <sup>2</sup>	45.5 cm <sup>2</sup>
Hose barb	ID4 ~ ID8	ID4 ~ ID8

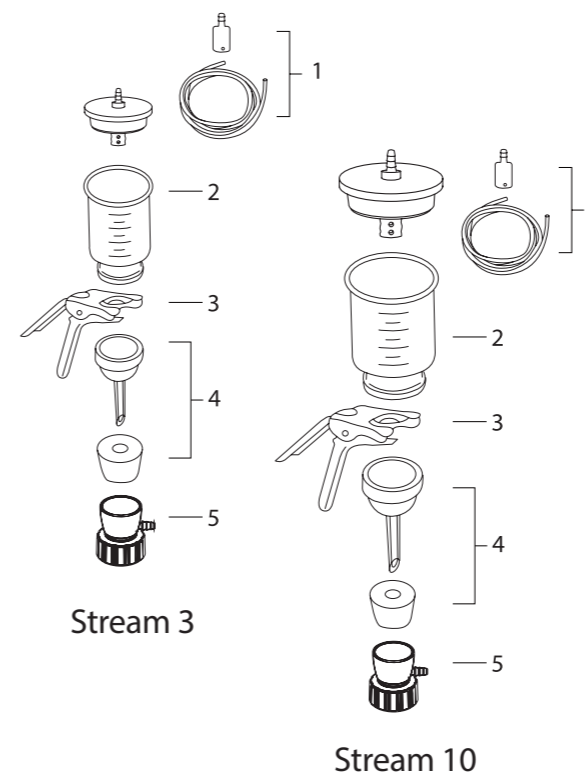
## Ordering Information

Stream 3, Continuous Filter Holder (300 mL)	167200-53
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1	Continuous filtration kit for 300 mL glass filter holder	167210-36
2	Glass funnel, 300 mL	167210-03
3	Aluminum clamp, 47 mm	167240-01
4	Sintered glass support base, 47 mm	167230-03
(Including No.8 silicone stopper)		
5	GL45 filtration adaptor	197000-65

Stream 10, Continuous Filter Holder (1000 mL)	167200-510
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1	Continuous filtration kit for 1000 mL glass filter holder	167210-35
2	Glass funnel, 1000 mL	167210-10
3	Aluminum clamp, 90 mm	167240-02
4	Sintered glass support base, 90 mm	167230-11
(Including No.8 silicone stopper)		
5	GL45 filtration adaptor	197000-65

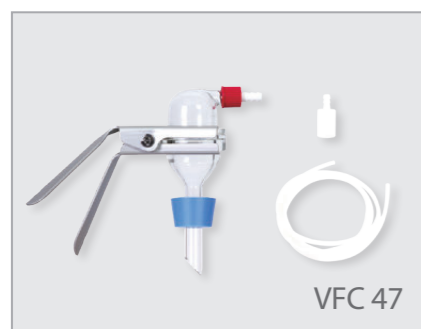


Stream 3

Stream 10



## 47 mm Continuous Filter Holder



VFC 47

Rocker 300C - VFC 47  
refer to P.53

### Features

- ▶ Enables continuous sample feeding. No more repetitive pouring tasks.
- ▶ Equipped with a sinker that misses no drops till the end.
- ▶ Borosilicate glass construction offers extraordinary chemical resistance.

### Applications

Large-volume liquid purification and degassing, such as solvents used in HPLC, GC, AA analysis.

### Specification

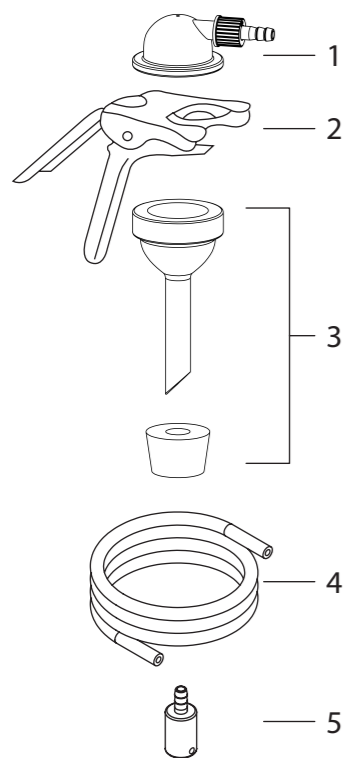
Material	VFC 47
Cover	Borosilicate glass
Support base	Borosilicate glass
Membrane support	Sintered glass
Inlet hose barb	PP, Silicone
Clamp	Aluminum
Tube	Silicone
Sinker	PTFE

### Specification

Filter diameter	47 / 50 mm
Effective filtration area	12.6 cm <sup>2</sup>
Inlet hose barb	ID8
Flask capacity	-

### Ordering Information

VFC 47, Continuous Filter Holder		167200-S4
1	Glass cover	167210-01
2	Aluminum clamp, 47 mm	167240-01
3	Sintered glass support base, 47 mm (Including No.8 silicone stopper)	167230-03
4	Silicone tube, Ø 6 x 12 mm, 100 cm	167200-38
5	PTFE sinker	167210-36-05
Optional		
	GL45 filtration adaptor	197100-65
	Laboratory glass bottle, 500 mL	197000-58
	Laboratory glass bottle, 1000 mL	197000-59
	Rocker 300C - VFC 47, Continuous Solvent Purification System, AC110V, 60Hz (AC220V, 50Hz)	189303-11(22)



VFC 47

## 142 mm Continuous Filter Holder



SFC 142

Rocker 400 - SFC 142  
refer to P.54

### Features

- ▶ Enables continuous sample feeding for larger volume. No more repetitive pouring tasks.
- ▶ Equipped with sinker that misses no drops till the ends.
- ▶ Stainless steel construction is durable and reusable.
- ▶ Two-Year Warranty

### Applications

Large-volume liquid purification and filtration, such as medium purification, wine filtration, etc.

### Specification

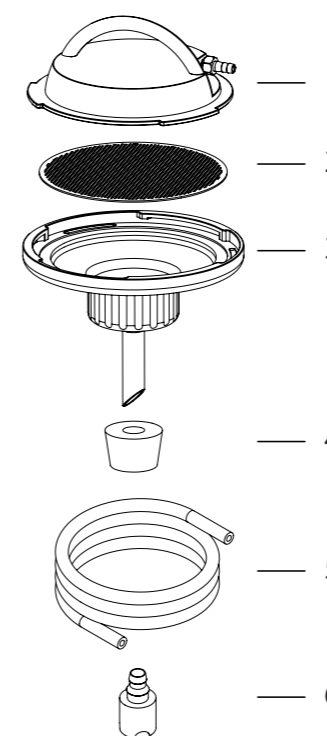
Material	SFC 142
Cover	SS304
Support base	SS304
Membrane support	SS304
Inlet hose barb	SS304
Tube	Silicone
Sinker	SS304

### Specification

Filter diameter	142 mm
Effective filtration area	124.6 cm <sup>2</sup>
Inlet hose barb	ID8
Flask capacity	-

### Ordering Information

SFC 142, Continuous Filter Holder		180200-S1
1	Stainless steel cover	180200-11
2	Stainless steel support screen, 142 mm	180200-31
3	Stainless steel support base, 142 mm	180200-00
4	Silicone stopper (No.8)	167110-16-1
5	Silicone tube, Ø 8 x 14 mm, 200 cm	180300-68
6	Stainless steel sinker	180200-32
Optional		
	GL45 filtration adaptor	197100-65
	Laboratory glass bottle, 10 L	197000-69
	Laboratory glass bottle, 20 L	197000-70
	PALL Supor™ PES membrane disc filters, 142 mm, 0.2 µm, tabbed, 25/PK	201PAL60305
	PALL Nylaflo™ Nylon membrane disc filters, 142 mm, 0.2 µm, 25/PK	201PAL66604
	RONE PES membrane, 142 mm, 0.2 µm, 50/PK	201PES-142-022-50
	RONE Nylon membrane, 142 mm, 0.2 µm, 50/PK	201NY-142-022-50
	Rocker 400 - SFC 142, Continuous Vacuum Filtration System, AC110V, 60Hz (AC220V, 50Hz)	167405-11(22)



SFC 142

# Vacuum Filtration System



## Features

- ▶ **Oil-free & care-free**  
Rocker pumps are driven by piston that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Clamp-free with spin-lock**  
LF 30 bottles are equipped with LF filter holders that can be mounted with revolutionary spin-lock and totally clamp-free.
- ▶ **Clamp-free with magnet**  
MF 31 bottles are equipped with patented magnetic MF filter holders. Its strong magnetic seal enables one-hand and clamp-free operation.
- ▶ **Drain out directly**  
MF 31 can drain the filtrate away directly without disassembly.
- ▶ **International certification**  
CE certification  
CSA certification (Rocker 300)  
IP 30 protection (Rocker 300)  
RoHS certification (Rocker 300)
- ▶ **Two-Year Warranty (Rocker 300)**

## Applications

- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 167305-11(22)**  
Rocker 300 - LF 30, Vacuum Filtration System, complete set includes :  
\* Rocker 300, Vacuum Pump  
\* LF 30, Filtration Set  
\* Silicone tube
- 167311-11(22)**  
Rocker 300 - MF 31, Vacuum Filtration System, complete set includes :  
\* Rocker 300, Vacuum Pump  
\* MF 31, Filtration Set  
\* Silicone tube
- 167300-37**  
Hoop holder for  
Rocker 300 - LF 30 / SF 30 / SF 10

### Rocker 300 - LF 30



### Rocker 300 - MF 31



## Specification

Model	Rocker 300 - LF 30		Rocker 300 - MF 31	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		99 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Noise level	50 dB			
Net weight	4.7 Kg		4.7 Kg	
Dimension (LxWxH)	28 x 25 x 39 cm		50 x 16 x 43 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	65W (1/8 HP)	60W (1/8 HP)	65W (1/8 HP)	60W (1/8 HP)
Max. current	0.7A	0.3A	0.7A	0.3A
Safety	Overheat Protection			
<b>FILTRATION APPARATUS</b>				
Filter holder	300 mL		300 mL	
Receiver bottle	1200 mL		1000 mL (with drain)	
Filter diameter	47 mm / 50 mm		47 mm	
Equipped with	Vacuum regulator, Overflow protection			

# Solvent Purification System



## Features

- ▶ **Oil-free & care-free**  
Rocker 300C / Chemker 300/ Lafil 300C pumps are driven by diaphragm that needs no lubricant, making them maintenance-free and oil-mist-free.
- ▶ **Chemical resistant**  
Rocker 300C / Chemker 300 / Lafil 300C - VF12 are resistant in different degrees to wide range of chemicals and solvents.
- ▶ **One-step filtration**  
Filter and store directly in all GL45 bottles to prevent repetitive transfers and cross-contamination.
- ▶ **International certification**  
CE certification  
IP 30 protection (Rocker 300C)  
RoHS certification (Rocker 300C, Chemker 300)
- ▶ **One-Year Warranty**  
(Rocker 300C / Chemker 300 / Lafil 300C)

## Applications

- ▶ Solvent purification
- ▶ HPLC mobile phase purification
- ▶ Vacuum filtration

## Ordering Information

- 189302-11(22)**  
Rocker 300C - VF 12, Solvent Purification System, complete set includes :  
\* Rocker 300C, Vacuum Pump  
\* VF 12, Filtration Set  
\* Silicone tube
- 169302-11(22)**  
Chemker 300 - VF 12, Solvent Purification System, complete set includes :  
\* Chemker 300, Vacuum Pump  
\* VF 12, Filtration Set  
\* Silicone tube
- 197331-11(22)**  
Lafil 300C - VF 12, Solvent Purification System, complete set includes :  
\* Lafil 300C, Vacuum Pump  
\* VF 12, Filtration Set  
\* Silicone tube
- 197330-11(22)**  
Lafil 300C, PTFE Coated Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)
- 189300-37**  
Hoop holder for Rocker 300C - VF12

### Rocker 300C - VF 12



\* Not resistant to strong acid and alkali.



### Chemker 300 - VF 12



### Lafil 300C - VF 12

## Specification

Model	Rocker 300C - VF 12		Chemker 300 - VF 12		Lafil 300C - VF 12	
<b>PERFORMANCE DATA</b>						
Max. vacuum	99 mbar abs.		99 mbar abs.		99 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	20 L/min @60Hz	18 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Noise level	50 dB		50 dB		50 dB	
Net weight	5.3 Kg		6.1 Kg		6.7 Kg	
Dimension (LxWxH)	28 x 25 x 44 cm		25 x 21 x 44 cm		34 x 24 x 50 cm	
<b>ELECTRICAL DATA</b>						
Voltage	110V	220V	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz		50 / 60Hz	
Max. power	65W (1/8HP)	60W(1/8HP)	70W (1/8HP)	60W(1/8HP)	65W (1/8HP)	60W(1/8HP)
Max. current	0.7A	0.3A	0.8A	0.4A	0.7A	0.3A
Safety	Overheat Protection					
<b>FILTRATION APPARATUS</b>						
Filter holder	300 mL					
Storage bottle	1000 mL					
Filter diameter	47 mm / 50 mm					
Equipped with	Vacuum regulator		-		Vacuum regulator	



# Continuous Solvent Purification System



WATCH VIDEO

## Features

- ▶ **Ideal for HPLC solvent purification**  
VFC 47 is a perfect kit for HPLC mobile phase purification. All wetted parts are made of borosilicate glass, PP, PTFE and silicone, ensuring resistance to common HPLC solvents.
- ▶ **No more repetitive tasks**  
Rocker 300C - VFC 47 enables continuous sample feeding with direct storage in GL45 bottles, eliminating pouring and transferring steps. No cross-contamination risks.
- ▶ **Oil-free & care-free**  
Rocker 300C pump is driven by diaphragm that needs no lubricant, making it maintenance-free and oil-mist-free.
- ▶ **Aspiration till the last drop**  
Equipped with a sinker to ensure minimal residue, leaving no drops behind.
- ▶ **International certification**  
CE certification (Rocker 300C)  
IP 30 protection (Rocker 300C)  
RoHS certification (Rocker 300C)
- ▶ **One-Year Warranty (Rocker 300C)**

## Applications

- ▶ HPLC mobile phase purification
- ▶ Solvent purification and degassing
- ▶ Microbial and contaminants removal

## Ordering Information

### 189303-11(22)

Rocker 300C - VFC 47, Continuous Solvent Purification System, complete set includes:

- \* Rocker 300C, Vacuum Pump
- \* VFC 47, Continuous Filter Holder
- \* GL45 filtration adaptor
- \* Laboratory glass bottle, 1000 mL
- \* Silicone tube

### 197000-59

Laboratory glass bottle, 1000 mL

### 197000-58

Laboratory glass bottle, 500 mL

## Rocker 300C - VFC 47



## Specification

Model	Rocker 300C - VFC 47	
PERFORMANCE DATA		
Max. vacuum	99 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz
Noise level	50 dB	
Net weight	5.2 Kg	
Dimension (LxWxH)	28 x 25 x 37 cm	
ELECTRICAL DATA		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	65W (1/8 HP)	60W (1/8 HP)
Max. current	0.7A	0.3A
Safety	Overheat Protection	
FILTRATION APPARATUS		
Filter holder	VFC 47	
Storage bottle	1000 mL	
Filter diameter	47 mm / 50 mm	
Equipped with	Vacuum regulator, Silicon tube, Sinker	

# Continuous Vacuum Filtration System



WATCH VIDEO

**2**  
YEAR  
WARRANTY

## Features

- ▶ **Ideal for large volume clarification**  
SFC 142 is designed for efficient liquid purification and clarification. All wetted parts are made of SS304 and silicone, making them shatterproof and durable.  
\* For solvent filtration, please use the Rocker 400C vacuum pump.
- ▶ **No more repetitive tasks**  
Rocker 400 - SFC 142 enables continuous sample feeding with direct storage in GL45 bottles, eliminating pouring and transferring steps. No cross-contamination risks.
- ▶ **Clamp-free operation**  
SFC 142 is gravity-sealed with an additional locking mechanism to prevent tipping during operation.
- ▶ **Oil-free & care-free**  
Rocker 400 pump is driven by piston that needs no lubricant, making it maintenance-free and oil-mist-free.
- ▶ **Aspiration till the last drop**  
Equipped with a sinker to ensure minimal residue, leaving no drops behind.
- ▶ **International certification**  
CE certification (Rocker 400)  
IP 30 protection (Rocker 400)  
RoHS certification (Rocker 400)
- ▶ **Two-Year Warranty**

## Applications

- ▶ Wine filtration
- ▶ HPLC solvent purification and degassing
- ▶ Microbial and contaminants removal

## Ordering Information

### 167405-11(22)

Rocker 400 - SFC 142, Continuous Vacuum Filtration System, complete set includes:

- \* Rocker 400, Vacuum Pump
- \* SFC 142, Continuous Filter Holder
- \* GL45 filtration adaptor
- \* Laboratory glass bottle, 10L

### 197000-69

Laboratory glass bottle, 10L

### 197000-70

Laboratory glass bottle, 20L

### 189400-11(22)

Rocker 400C, PTFE Coated Chemical Resistant Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

## Rocker 400 - SFC 142



## Specification

Model	Rocker 400 - SFC 142	
PERFORMANCE DATA		
Max. vacuum	99 mbar abs.	
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz
Noise level	52 dB	
Net weight	11.2 Kg	
Dimension (LxWxH)	60 x 23 x 56 cm	
ELECTRICAL DATA		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	100W (1/6 HP)	80W (1/6 HP)
Max. current	1.0A	0.4A
Safety	Overheat Protection	
FILTRATION APPARATUS		
Filter holder	SFC 142	
Storage bottle	10000 mL	
Filter diameter	142 mm	
Equipped with	Vacuum regulator, Overflow protection, Silicon tube, Sinker	

# Vacuum Filtration System



## Features

- **Compact & safe**  
Lafil 300 filtration system integrates vacuum source, and all other filtration accessories into one single system. Save 50% bench space and stay safe with its tripping-proof and spill-proof fence-like platform.
- **Clamp-free with spin-lock**  
LF 30 and SF 10 bottles are equipped with filter holders that can be mounted with revolutionary spin-lock and be totally clamp-free.
- **Overflow protection**  
The PC waste bottle comes with a built-in overflow protection to keep the filtrate from overflowing when it is full.
- **Autoclavable and shatterproof**  
The waste bottle and filter holder are made of engineering plastics and SS316 stainless steel which are shatterproof, heat-resistant and autoclavable.
- **International certification**  
CE certification
- **Two-Year Warranty (Lafil 300)**



## Applications

- Vacuum filtration
- Suspended solid test
- Microbiological test

## Ordering Information

- 197301-11(22)**  
Lafil 300 - LF 30, Vacuum Filtration System AC110V, 60Hz (AC220V, 50Hz)
- 197302-11(22)**  
Lafil 300 - SF 10, Vacuum Filtration System AC110V, 60Hz (AC220V, 50Hz)
- 197300-11(22)**  
Lafil 300, Vacuum Pump AC110V, 60Hz (AC220V, 50Hz)
- 180100-11**  
Stainless steel funnel lid for SF funnel, 100 mL

## Specification

Model	Lafil 300 - LF 30		Lafil 300 - SF 10	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.		99 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Noise level	50 dB			
Net weight	6.4 Kg		7.4 Kg	
Dimension (LxWxH)	34 x 24 x 44 cm		34 x 24 x 37 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	65W (1/8 HP)	60W (1/8 HP)	65W (1/8 HP)	60W (1/8 HP)
Max. current	0.7A	0.3A	0.7A	0.3A
Safety	Overheat Protection			
<b>FILTRATION APPARATUS</b>				
Filter holder	300 mL		100 mL	
Receiver bottle	1200 mL		1200 mL	
Filter diameter	47 mm / 50 mm		47 mm	
Equipped with	Vacuum regulator, Overflow protection			

# Vacuum Filtration System



## Features

- **Compact & safe**  
Lafil 400 filtration system integrates vacuum source, and all other filtration accessories into one single system. Save 50% bench space and stay safe with its tripping-proof and spill-proof fence-like platform.
- **Clamp-free with spin-lock**  
LF 30 and SF 10 bottles are equipped with filter holders that can be mounted with revolutionary spin-lock and be totally clamp-free.
- **Overflow protection**  
The PC waste bottle comes with a built-in overflow protection to keep the filtrate from overflowing when it is full.
- **Autoclavable and shatterproof**  
The waste bottle and filter holder are made of engineering plastics and SS316 stainless steel which are shatterproof, heat-resistant and autoclavable.
- **International certification**  
CE certification
- **Two-Year Warranty (Lafil 400)**



## Applications

- Vacuum filtration
- Suspended solid test
- Microbiological test

## Ordering Information

- 197401-11(22)**  
Lafil 400 - LF 30, Vacuum Filtration System, AC110V, 60Hz (AC220V, 50Hz)
- 197402-11(22)**  
Lafil 400 - SF 10, Vacuum Filtration System, AC110V, 60Hz (AC220V, 50Hz)
- 197400-11(22)**  
Lafil 400, Vacuum Pump AC110V, 60Hz (AC220V, 50Hz)
- 180100-11**  
Stainless steel funnel lid for SF funnel, 100 mL

## Specification

Model	Lafil 400 - LF 30		Lafil 400 - SF 10	
<b>PERFORMANCE DATA</b>				
Max. vacuum	25 mbar abs.		25 mbar abs.	
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Noise level	52 dB			
Net weight	7.8 Kg		8.5 Kg	
Dimension (LxWxH)	34 x 24 x 44 cm		34 x 24 x 37 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6 HP)	80W (1/6 HP)	100W (1/6 HP)	80W (1/6 HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
<b>FILTRATION APPARATUS</b>				
Filter holder	300 mL		100 mL	
Receiver bottle	1200 mL		1200 mL	
Filter diameter	47 mm / 50 mm		47 mm	
Equipped with	Vacuum regulator, Overflow protection			



# Vacuum Filtration System



## Features

- ▶ **Save 70% bench space**  
WaterVac 100 is a revolutionary filtration system that integrates filter holder with a liquid pump that bypasses liquid directly to waste. Kiss all tubes and bottles goodbye.
- ▶ **Improve efficiency**  
Built-in liquid pump transfers filtered liquid directly to waste, saving time for emptying and cleaning bottles.
- ▶ **Versatile & compatible**  
Replaceable adaptors make WaterVac 100 compatible with most available filter funnels and holders.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

**190110-01(02)**  
WaterVac 100 - MS, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)

**200300-01**  
MF 3, Magnetic Filter Holder, 300 mL

**200500-01**  
MF 5, Magnetic Filter Holder, 500 mL



## Specification

Model	WaterVac 100 - MS
<b>PERFORMANCE DATA</b>	
Max. vacuum	313 mbar abs.
Max. liquid flow rate	0.5 L/min
Hose barb	ID6
Noise level	55 dB
Net weight	1.2 Kg
Dimension (LxWxH)	17 x 12 x 10 cm
Material contact with filtrate	SS316, FKM, Silicone, PP, PA66
<b>ELECTRICAL DATA</b>	
Power input	DC12V, 1.0A
Max. power	12W
Motor	Brushless DC Motor (BLDC)
<b>OTHER DATA</b>	
Number of branch	1
Adaptor	No.8 Stopper
Filter holder	(Optional) MF 3 / MF 5, Magnetic Filter Holder, 300 mL / 500 mL

# Vacuum Filtration System



## Features

- ▶ **Save 70% bench space**  
WaterVac 100 is a revolutionary filtration system that integrates filter holder with a liquid pump that bypasses liquid directly to waste. Kiss all tubes and bottles goodbye.
- ▶ **Improve efficiency**  
Built-in liquid pump transfers filtered liquid directly to waste, saving time for emptying and cleaning bottles.
- ▶ **Versatile & compatible**  
Replaceable adaptors make WaterVac 100 compatible with most available filter funnels and holders.
- ▶ **Use with ROCKER SF funnels**  
These SF stainless steel 316 funnels can be sterilized with flame and made this system super handy for microbiological tests.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

**190120-01(02)**  
WaterVac 100 - MB, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)

**190121-01(02)**  
WaterVac 101 - MB, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)

**180100-01**  
SF stainless steel funnel, 100 mL

**180100-03**  
SF stainless steel funnel, 300 mL

**180100-05**  
SF stainless steel funnel, 500 mL



## Specification

Model	WaterVac 100 - MB	WaterVac 101 - MB
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	0.5 L/min	
Hose barb	ID6	
Noise level	55 dB	
Net weight	1.2 Kg	
Dimension (LxWxH)	17 x 12 x 10 cm	
Material contact with filtrate	SS316, FKM, Silicone, PP, PA66	
<b>ELECTRICAL DATA</b>		
Power input	DC12V, 1.0A	
Max. power	12W	
Motor	Brushless DC Motor (BLDC)	
<b>OTHER DATA</b>		
Number of branch	1	1
Adaptor	Spin-lock design	Spin-lock design
Filter holder	(Optional) SF stainless steel funnel, 100 mL / 300 mL / 500 mL	(Standard) SF stainless steel funnel, 100 mL

# Vacuum Filtration System



## Features

- ▶ **Save 70% bench space**  
WaterVac 200 is a revolutionary filtration system that integrates filter holders with a liquid pump that bypasses liquid directly to waste. Kiss all tubes and bottles goodbye.
- ▶ **Improve operation efficiency**  
Built-in liquid pump transfers filtered liquid directly to waste, saving time for emptying and cleaning bottles.
- ▶ **In compliance with ISO 8199**  
WaterVac 200 complies with ISO 8199 regulation and is ideal for microbiological sample filtration. (\*ISO 8199: Water quality – General guidance for microbiological examinations by culture).
- ▶ **Versatile & compatible**  
Replaceable adaptors make WaterVac 200 compatible with most available filter funnels and holders.
- ▶ **International certification**  
CE certification  
IP 41 protection  
RoHS certification
- ▶ **One-Year Warranty**

WaterVac 200 - MS

360° Rotational  
L - type hose barb

Compatible with various kinds of  
adaptors and filter holders

## Specification

Model	WaterVac 200 - MS	
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Hose barb	ID8	
Noise level	60 dB	
Net weight	2.8 Kg	
Dimension (LxWxH)	21 x 18 x 26 cm	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	
<b>ELECTRICAL DATA</b>		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
<b>OTHER DATA</b>		
Number of branch	2	
Adaptor	No.8 Stopper	
Filter holder	(Optional) MF 3 / MF 5, Magnetic Filter Holder, 300 mL / 500 mL	

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 190210-01(02)**  
WaterVac 200 - MS, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)
- 200300-01**  
MF 3, Magnetic Filter Holder, 300 mL
- 200500-01**  
MF 5, Magnetic Filter Holder, 500 mL

# Vacuum Filtration System



## Features

- ▶ **Save 70% bench space**  
WaterVac 200 is a revolutionary filtration system that integrates filter holders with a liquid pump that bypasses liquid directly to waste. Kiss all tubes and bottles goodbye.
- ▶ **Improve efficiency**  
Built-in liquid pump transfers filtered liquid directly to waste, saving time for emptying and cleaning bottles.
- ▶ **In compliance with ISO 8199**  
WaterVac 200 complies with ISO 8199 regulation and is ideal for microbiological sample filtration. (\*ISO 8199: Water quality – General guidance for microbiological examinations by culture).
- ▶ **Use with ROCKER SF funnels**  
These SF stainless steel 316 funnels can be sterilized with flame and made this system super handy for microbiological tests.
- ▶ **International certification**  
CE certification  
IP 41 protection  
RoHS certification
- ▶ **One-Year Warranty**

WaterVac 200 - MB

## Specification

Model	WaterVac 200 - MB	WaterVac 201 - MB
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Hose barb	ID8	
Noise level	60 dB	
Net weight	2.8 Kg	
Dimension (LxWxH)	21 x 18 x 26 cm	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	
<b>ELECTRICAL DATA</b>		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
<b>OTHER DATA</b>		
Number of branch	2	
Adaptor	Spin-lock design	Spin-lock design
Filter holder	(Optional) SF stainless steel funnel, 100 mL / 300 mL / 500 mL	(Standard) SF stainless steel funnel, 100 mL x 2

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 190220-01(02)**  
WaterVac 200 - MB, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)
- 190221-01(02)**  
WaterVac 201 - MB, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)
- 180100-01**  
SF stainless steel funnel, 100 mL
- 180100-03**  
SF stainless steel funnel, 300 mL
- 180100-05**  
SF stainless steel funnel, 500 mL

# Maximize Your WaterVac Versatility!

**A**

**B**

**C**

## Customized Design

We can offer customized adaptors for your funnel



WaterVac 100 - MB Vacuum Filtration System (190120-01/02) (US plug / EU plug)

WaterVac 200 - MB Vacuum Filtration System (190220-01/02) (US plug / EU plug)



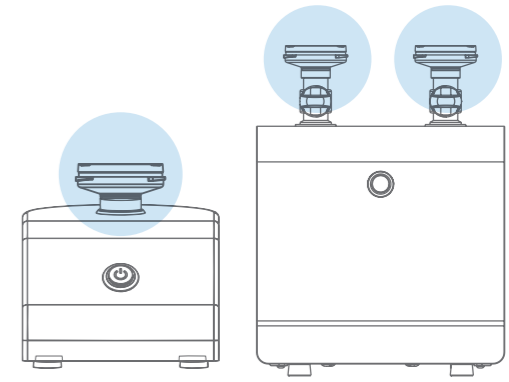
WaterVac 100 - MS Vacuum Filtration System (190110-01/02) (US plug / EU plug)

WaterVac 200 - MS Vacuum Filtration System (190210-01/02) (US plug / EU plug)



WaterVac 100 Vacuum Filtration System (190100-01/02) (US plug / EU plug)

WaterVac 200 Vacuum Filtration System (190200-01/02) (US plug / EU plug)




ROCKER, 100 mL SF stainless steel funnel (180100-01)

Pall, 100 mL / 250 mL Sentino® disposable plastic funnel (4870 / 4871)

ROCKER, 300 mL SF stainless steel funnel (180100-03)

Stainless steel funnel lid for SF funnel, 100 mL (180100-11)

ROCKER, 500 mL SF stainless steel funnel (180100-05)

Stainless steel funnel lid for SF funnel, 300 mL / 500 mL (180100-13)



ROCKER, 300 mL MF 3 / MF 3 Pro, Magnetic Filter Holder (200300-01 / 200300-01-P)

ROCKER, 500 mL MF 5 / MF 5 Pro, Magnetic Filter Holder (200500-01 / 200500-01-P)



Sartorius, 100 mL / 250 mL Microsart® disposable plastic funnel (16A07-10---N/ 16A07-25---N)

Millipore, 100 mL / 250 mL Microfil® disposable plastic funnel (MIHAWG100 / MIHAWG250)

Silicone tube Ø 4.2 x 8 mm, 200 cm (199100-68)

SS316 Adaptor for Sartorius disposable plastic funnel (190100-74)

SS316 Adaptor for Millipore disposable plastic funnel (190100-73)

SS316 Hose barb for silicone tube (ID4 ~ ID8) (190100-76)

\* SS316 adaptor is only available for above-mentioned disposable funnels.

\* MB adaptors are also compatible with Pall, Sentino® disposable funnels (4870 / 4871).



# Aluminum Manifold

## Features

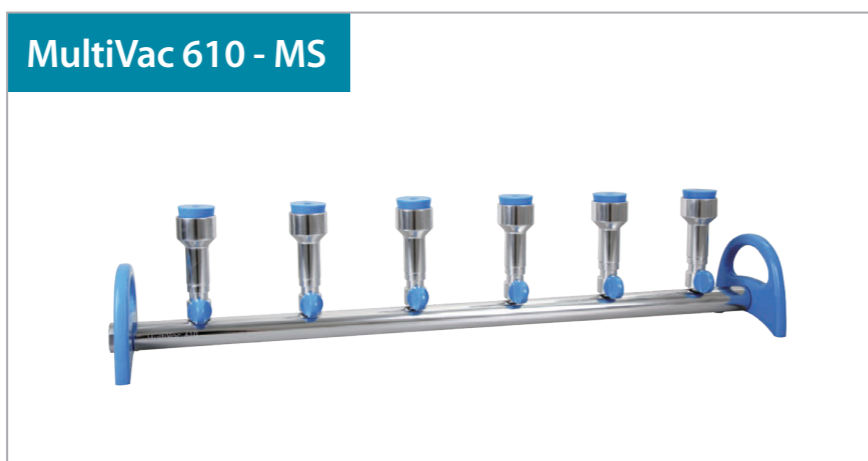
- ▶ **Quick-assembly and disassembly**  
Each component can be easily removed for cleaning and autoclaving .
- ▶ **Light and handy**  
All parts of MultiVac 310 / 610 manifold are made of aluminum, making it light, cost-effective and autoclavable.
- ▶ **Quick-Fit hose barb**  
Detachable hose barb can be connected to either side of the manifold quickly towards the vacuum source.
- ▶ **Individual control valve**  
Control feeds of each filter holder individually.
- ▶ **Versatile & compatible**  
MultiVac 310 / 610 - MS manifolds include No.8 silicone stoppers that are adaptable to most filter holders.
- ▶ **Two-Year Warranty**

## Applications

- ▶ Suspended solid test
- ▶ Microbiological test
- ▶ Vacuum filtration

## Ordering Information

- 180310-01**  
MultiVac 310 - MS,  
3 Places Aluminum Manifold
- 180610-01**  
MultiVac 610 - MS,  
6 Places Aluminum Manifold
- 200300-01**  
MF 3, Magnetic Filter Holder, 300 mL
- 167110-16**  
No.8 silicone stopper



## Specification

Model	MultiVac 310 - MS	MultiVac 610 - MS
Number of branch	3	6
Filter diameter	Depends on filter holder	Depends on filter holder
Funnel capacity	Depends on filter holder	Depends on filter holder
Hose barb	ID8	ID8
Net weight	1.8 Kg	3.0 Kg
Dimension (LxWxH)	48 x 13 x 16 cm	85 x 13 x 16 cm
Part	Material	Material
Body	Aluminum	Aluminum
Control valve	Aluminum	Aluminum
Adaptor	Aluminum	Aluminum
Hose barb	Aluminum	Aluminum
Handle / Knob	Aluminum	Aluminum
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are aluminum, FKM.

# Stainless Steel Manifold

## Features

- ▶ **Quick-assembly and disassembly**  
Each component can be easily removed for cleaning and autoclaving .
- ▶ **SS316 stainless steel**  
All wetted parts of MultiVac 300 / 600 manifold are made of SS316 stainless steel, which is more durable.
- ▶ **Quick-Fit hose barb**  
Detachable hose barb can be connected to either side of the manifold quickly towards the vacuum source.
- ▶ **Innovative vent valve design**  
Adjustable vent valve eliminates water hammer phenomenon and helps drain residual liquid in pipe.
- ▶ **Individual control valve**  
Control feeds of each filter holder individually.
- ▶ **Versatile & compatible**  
MultiVac 300 / 600 - MS manifolds include No.8 silicone stoppers that are adaptable to most filter holders.
- ▶ **Two-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 180300-01**  
MultiVac 300 - MS, 3 Places SS Manifold
- 180600-01**  
MultiVac 600 - MS, 6 Places SS Manifold
- 200300-01**  
MF 3, Magnetic Filter Holder, 300 mL
- 167110-16**  
No.8 silicone stopper




## Specification

Model	MultiVac 300 - MS	MultiVac 600 - MS
Number of branch	3	6
Filter diameter	Depends on filter holder	Depends on filter holder
Funnel capacity	Depends on filter holder	Depends on filter holder
Hose barb	ID8	ID8
Net weight	3.0 Kg	5.1 Kg
Dimension (LxWxH)	48 x 13 x 16 cm	85 x 13 x 16 cm
Part	Material	Material
Body	SS316	SS316
Control valve	SS316	SS316
Adaptor	SS316	SS316
Hose barb / Vent valve	SS316	SS316
Handle / Knob	Aluminum	Aluminum
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are SS316, FKM.

# Stainless Steel Manifold



WATCH VIDEO

121°C / 1bar / 20 min  
Autoclavable

2 YEAR WARRANTY

## Features

- ▶ **Quick-assembly and disassembly**  
Each component can be easily removed for cleaning and autoclaving .
- ▶ **SS316 stainless steel**  
All wetted parts of MultiVac 300 / 600 manifold are made of SS316 stainless steel, making it durable and autoclavable.
- ▶ **Quick-Fit hose barb**  
Detachable hose barb can be connected to either side of the manifold quickly towards the vacuum source.
- ▶ **Innovative vent valve design**  
Adjustable vent valve eliminates water hammer phenomenon and helps drain residual liquid in pipe.
- ▶ **Individual control valve**  
Control feeds of each funnel individually.
- ▶ **Use with ROCKER SF funnels**  
Use MultiVac 300 / 600 - MB with ROCKER SF funnels. These stainless steel 316 funnels can be sterilized with flame and made this system super handy for microbiological tests.
- ▶ **Two-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 180300-02**  
MultiVac 300 - MB, 3 Places SS Manifold
- 180600-02**  
MultiVac 600 - MB, 6 Places SS Manifold
- 180100-01**  
SF stainless steel funnel, 100 mL
- 180100-03**  
SF stainless steel funnel, 300 mL
- 180100-05**  
SF stainless steel funnel, 500 mL



## Specification

Model	MultiVac 300 - MB	MultiVac 600 - MB
Number of branch	3	6
Filter diameter	47 mm	47 mm
Funnel capacity	(Optional) 100 mL / 300 mL / 500 mL	(Optional) 100 mL / 300 mL / 500 mL
Hose barb	ID8	ID8
Net weight	2.9 Kg	5.0 Kg
Dimension (LxWxH)	48 x 13 x 11 cm	85 x 13 x 11 cm
Part	Material	Material
Body	SS316	SS316
Control valve	SS316	SS316
Adaptor	SS316	SS316
Membrane support	SS316	SS316
Hose barb / Vent valve	SS316	SS316
Handle / Knob	Aluminum	Aluminum
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are SS316, FKM.

# Stainless Steel Manifold



WATCH VIDEO

121°C / 1bar / 20 min  
Autoclavable

2 YEAR WARRANTY

## Features

- ▶ **Quick-assembly and disassembly**  
Each component can be easily removed for cleaning and autoclaving .
- ▶ **SS316 stainless steel**  
All wetted parts of MultiVac 301 / 601 manifold are made of SS316 stainless steel, making it durable and autoclavable.
- ▶ **Quick-Fit hose barb**  
Detachable hose barb can be connected to either side of the manifold quickly towards the vacuum source.
- ▶ **Innovative vent valve design**  
Adjustable vent valve eliminates water hammer phenomenon and helps drain residual liquid in pipe.
- ▶ **Individual control valve**  
Control feeds of each funnel individually.
- ▶ **Two-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 180301-02**  
MultiVac 301 - MB, 3 Places SS Manifold
- 180601-02**  
MultiVac 601 - MB, 6 Places SS Manifold
- 180100-01**  
SF stainless steel funnel, 100 mL
- 180100-03**  
SF stainless steel funnel, 300 mL
- 180100-05**  
SF stainless steel funnel, 500 mL



## Specification

Model	MultiVac 301 - MB	MultiVac 601 - MB
Number of branch	3	6
Filter diameter	47 mm	47 mm
Funnel capacity	100 mL	100 mL
Hose barb	ID8	ID8
Net weight	3.7 Kg	6.6 Kg
Dimension (LxWxH)	48 x 13 x 14 cm	85 x 13 x 14 cm
Part	Material	Material
Body	SS316	SS316
Control valve	SS316	SS316
Adaptor	SS316	SS316
Membrane support	SS316	SS316
Hose barb / Vent valve	SS316	SS316
Handle / Knob	Aluminum	Aluminum
Funnel	SS316	SS316
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are SS316, FKM.

# Vacuum Filtration System



## Features

- ▶ **For large number of samples**  
MultiVac 310 / 610 - MS - A is an economical kit for filtration with large number samples.
- ▶ **Save time & space**  
Alligator 200 liquid pump bypasses filtrate directly to waste without connecting to additional waste bottles. Saving time for doing tedious cleaning works and more than 40% of bench space.
- ▶ **Light and handy**  
This aluminum-made manifold is autoclavable, light and cost-effective.
- ▶ **Magnetic filter holder is included**  
Magnetic filter holder allows one-handed operation and prevents the membrane from being twisted or torn.
- ▶ **International certification**  
CE certification  
IP 64 protection (Alligator 200)  
RoHS certification (Alligator 200)
- ▶ **One-Year Warranty (Alligator 200)**
- ▶ **Two-Year Warranty (MultiVac 310 / 610 - MS)**



## Applications

- ▶ Suspended solid test
- ▶ Microbiological test
- ▶ Vacuum filtration

## Ordering Information

- 180311-01(02)-A**  
**180611-01(02)-A**  
MultiVac 310 / 610 - MS - A, Vacuum Filtration System, complete set includes:  
\* Alligator 200, Diaphragm Liquid Pump  
\* MultiVac 310 / 610 - MS, 3 / 6 Places Aluminum Manifold  
\* MF 3, Magnetic Filter Holder, 300 mL (3 / 6 pcs)  
\* Silicone tube

## Specification

Model	MultiVac 310 - MS - A	MultiVac 610 - MS - A
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Noise level	60 dB	
Net weight	6.5 Kg	10.3 Kg
Dimension (LxWxH)	75 x 19 x 30 cm	114 x 19 x 30 cm
<b>ELECTRICAL DATA</b>		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
<b>OTHER DATA</b>		
Number of branch	3	6
Filter holder	MF 3, 300 mL x 3	MF 3, 300 mL x 6
Filter diameter	47 mm	
Material contact with filtrate	PES, Aluminum, SS316, FKM, Silicone, PP, PPS	

# Vacuum Filtration System



## Features

- ▶ **For microbiological filtration**  
MultiVac 301 / 601 - MB - A is a perfect kit for microbiological tests with large number samples. All wetted parts of manifold are made of SS316 stainless steel, which can be fast sterilized by flame.
- ▶ **Save time & space**  
Alligator 200 liquid pump bypasses filtrate directly to waste without connecting to additional waste bottles. Saving time for doing tedious cleaning works and more than 40% of bench space.
- ▶ **Quick-assembly and disassembly**  
Each component of manifold can be easily removed for cleaning and autoclaving.
- ▶ **Innovative vent valve design**  
Adjustable vent valve eliminates water hammer phenomenon and helps drain residual liquid in pipe.
- ▶ **International certification**  
CE certification  
IP 64 protection (Alligator 200)  
RoHS certification (Alligator 200)
- ▶ **One-Year Warranty (Alligator 200)**
- ▶ **Two-Year Warranty (MultiVac 301 / 601 - MB)**



## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 180301-01(02)-A**  
**180601-01(02)-A**  
MultiVac 301 / 601 - MB - A, Vacuum Filtration System, complete set includes:  
\* Alligator 200, Diaphragm Liquid Pump  
\* MultiVac 300 / 600 - MB, 3 / 6 Places Stainless Steel Manifold  
\* SF stainless steel funnel, 100 mL (3 / 6 pcs)  
\* Dragon 100, Torch Burner  
\* MCE membrane, 47 mm, 0.45 µm (200 pcs)  
\* Silicone tube

## Specification

Model	MultiVac 301 - MB - A	MultiVac 601 - MB - A
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Noise level	60 dB	
Net weight	7.7 Kg	10.5 Kg
Dimension (LxWxH)	89 x 19 x 20 cm	128 x 19 x 20 cm
<b>ELECTRICAL DATA</b>		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
<b>OTHER DATA</b>		
Number of branch	3	6
Funnel	SF stainless steel funnel 100 mL x 3	SF stainless steel funnel 100 mL x 6
Filter diameter	47 mm	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	



# Vacuum Filtration System



## Features

- **For large number of samples**  
MultiVac 310 / 610 - MS - T is an economical kit for filtration with large number samples.
- **Light and handy**  
This aluminum-made manifold is light, cost-effective and autoclavable. Each component can be easily removed for cleaning and autoclaving.
- **Magnetic filter holder is included**  
Magnetic filter holder allows one-handed operation and prevents the membrane from being twisted or torn.
- **4000 mL PP vacuum bottle with drain**  
The large capacity of 4000 mL vacuum bottle with drain offers convenience of collecting and draining liquid waste.
- **International certification**  
CE certification  
CSA certification (Rocker 400)  
IP 30 protection (Rocker 400)  
RoHS certification (Rocker 400)
- **Two-Year Warranty (Rocker 400)**
- **Two-Year Warranty (MultiVac 310 / 610 - MS)**



## Specification

Model	MultiVac 310 - MS - T		MultiVac 610 - MS - T	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Noise level	52 dB			
Net weight	10.6 Kg		14.4 Kg	
Dimension (LxWxH)	105 x 16 x 45 cm		144 x 16 x 45 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6HP)	80W (1/6HP)	100W (1/6HP)	80W (1/6HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
<b>OTHER DATA</b>				
Number of branch	3		6	
Filter holder	MF 3, 300 mL x 3		MF 3, 300 mL x 6	
Filter diameter	47 mm		47 mm	
Vacuum bottle	4000 mL (with drain)		4000 mL (with drain)	
Material contact with filtrate	PES, Aluminum, FKM, Silicone, PP			

## Applications

- Suspended solid test
- Microbiological test
- Vacuum filtration

## Ordering Information

**180311-11(22)-T**

**180611-11(22)-T**

MultiVac 310 / 610 - MS - T, Vacuum Filtration System, complete set includes :

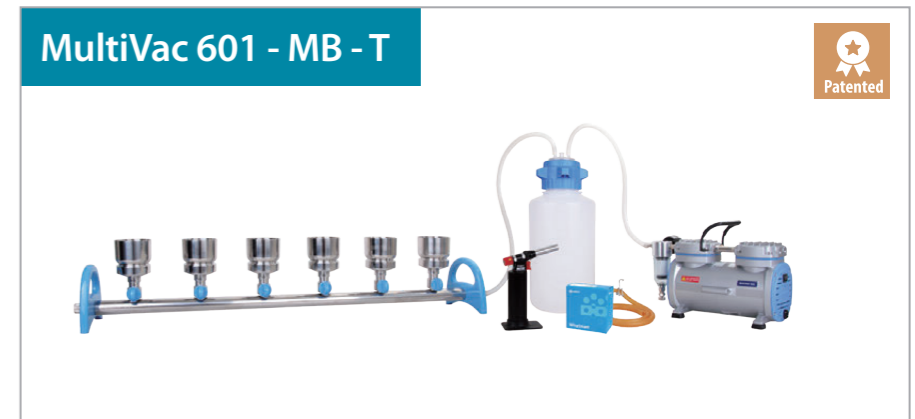
- \* Rocker 400, Oil Free Vacuum Pump
- \* MultiVac 310 / 610 - MS, 3 / 6 Places Aluminum Manifold
- \* MF 3, Magnetic Filter Holder, 300 mL (3 / 6 pcs)
- \* PP vacuum bottle with drain, 4000 mL
- \* Silicone tube

# Vacuum Filtration System



## Features

- **For microbiological filtration**  
MultiVac 301 / 601 - MB - A is a perfect kit for microbiological tests with large number samples. All wetted parts of manifold are made of SS316 stainless steel, which can be fast sterilized by flame.
- **Quick-assembly and disassembly**  
Each component can be easily removed for cleaning and autoclaving .
- **Innovative vent valve design**  
Unique adjustable vent valve design eliminates water hammer phenomenon and helps drain residual liquid in pipe.
- **4000 mL PP vacuum bottle with drain**  
The large capacity of 4000 mL vacuum bottle with drain offers convenience of collecting and draining liquid waste.
- **International certification**  
CE certification  
CSA certification (Rocker 400)  
IP 30 protection (Rocker 400)  
RoHS certification (Rocker 400)
- **Two-Year Warranty (Rocker 400)**
- **Two-Year Warranty (MultiVac 301 / 601 - MB)**



## Specification

Model	MultiVac 301 - MB - T		MultiVac 601 - MB - T	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Noise level	52 dB			
Net weight	11.8 Kg		15.6 Kg	
Dimension (LxWxH)	105 x 16 x 45 cm		144 x 16 x 45 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6HP)	80W (1/6HP)	100W (1/6HP)	80W (1/6HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
<b>OTHER DATA</b>				
Number of branch	3		6	
Funnel	SF stainless steel funnel 100 mL x 3		SF stainless steel funnel 100 mL x 6	
Filter diameter	47 mm		47 mm	
Vacuum bottle	4000 mL (with drain)		4000 mL (with drain)	
Material contact with filtrate	SS316, FKM, Silicone, PP			

## Applications

- Microbiological test
- Suspended solid test
- Vacuum filtration

## Ordering Information

**180301-11(22)-T**


**180601-11(22)-T**

MultiVac 301 / 601 - MB - T, Vacuum Filtration System, complete set includes :

- \* Rocker 400, Oil Free Vacuum Pump
- \* MultiVac 300 / 600 - MB, 3 / 6 Places Stainless Steel Manifold
- \* SF stainless steel funnel, 100 mL (3 / 6 pcs)
- \* PP vacuum bottle with drain, 4000 mL
- \* Dragon 100, Torch Burner
- \* MCE membrane, 47 mm, 0.45 µm (200 pcs)
- \* Silicone tube

# Maximize Your MultiVac Versatility!


**A** Step 1. Choose the manifold




MultiVac 300 - MB  
3 Places Stainless Steel Manifold  
(180300-02)

MultiVac 600 - MB  
6 Places Stainless Steel Manifold  
(180600-02)


Step 2. Choose the funnel




ROCKER, 100 mL  
SF stainless steel funnel  
(180100-01)




Pall, 100 mL / 250 mL  
Sentino® disposable plastic funnel  
(4870 / 4871)




ROCKER, 300 mL  
SF stainless steel funnel  
(180100-03)



Stainless steel funnel lid  
for SF funnel, 100 mL  
(180100-11)




ROCKER, 500 mL  
SF stainless steel funnel  
(180100-05)



Stainless steel funnel lid  
for SF funnel, 300 mL / 500 mL  
(180100-13)


**B** Step 1. Choose the manifold




MultiVac 300 - MS  
3 Places Stainless Steel Manifold  
(180300-01)

MultiVac 600 - MS  
6 Places Stainless Steel Manifold  
(180600-01)


Step 2. Choose the filter holder



ROCKER, 300 mL  
MF 3 / MF 3 Pro,  
Magnetic Filter Holder  
(200300-01 / 200300-01-P)



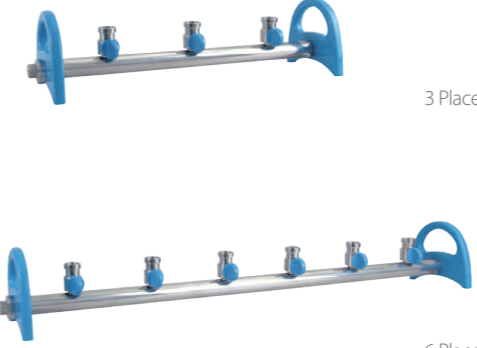
ROCKER, 500 mL  
MF 5 / MF 5 Pro,  
Magnetic Filter Holder  
(200500-01 / 200500-01-P)



ROCKER, 300 mL  
Glass Filter Holder  
(167120-31)

\* MB adaptors are compatible with Pall, Sentino® disposable funnels (4870 / 4871).


**C** Step 1. Choose the manifold




MultiVac 300  
3 Places Stainless Steel Manifold Base  
(180300-00)

MultiVac 600  
6 Places Stainless Steel Manifold Base  
(180600-00)


Step 2. Choose the disposable funnel and adaptor




Sartorius, 100 mL / 250 mL  
Microsart® disposable plastic funnel  
(16A07-10-N / 16A07-25-N)




Millipore, 100 mL / 250 mL  
Microfil® disposable plastic funnel  
(MIHAWG100 / MIHAWG250)




Silicone tube  
Ø 4.2 x 8 mm, 200 cm  
(199100-68)



SS316 Adaptor for Sartorius  
disposable plastic funnel  
(190100-74)



SS316 Adaptor for Millipore  
disposable plastic funnel  
(190100-73)



SS316 Hose barb  
for silicone tube (ID4 ~ ID8)  
(190100-76)

\* SS316 adaptor is only available for above-mentioned disposable funnels.

## Customized Design

We can offer customized adaptors for your funnel

71

ROCKER

ROCKER

72

# Rotary Manifold



WATCH VIDEO

121°C / 1bar / 20 min  
Autoclavable

2 YEAR WARRANTY

## Features

- ▶ **Rotary design**  
Turn the funnels and add samples at same position and prevent cross-contamination.
- ▶ **Save 60% space**  
Compared to conventional linear manifolds, SolarVac's rotary design saves 60% of space and fits better in laminar flow hoods.
- ▶ **Easy tracking**  
Each funnel position is marked clearly with numbers, making tracking easy and effortless.
- ▶ **Durable and autoclavable**  
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.
- ▶ **Individual control valve**  
Control feeds of each funnel individually.
- ▶ **International certification**  
RoHS certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 186600-01**  
SolarVac 600 - MS, 6 Places Rotary Manifold
- 186600-02**  
SolarVac 600 - MB, 6 Places Rotary Manifold
- 180100-01**  
SF stainless steel funnel, 100 mL
- 180100-03**  
SF stainless steel funnel, 300 mL
- 180100-05**  
SF stainless steel funnel, 500 mL
- 200300-01**  
MF 3, Magnetic Filter Holder, 300 mL
- 200300-01-P**  
MF 3 Pro, Magnetic Filter Holder, 300 mL
- 200500-01**  
MF 5, Magnetic Filter Holder, 500 mL
- 200500-01-P**  
MF 5 Pro, Magnetic Filter Holder, 500 mL



## Specification

Model	SolarVac 600 - MS	SolarVac 600 - MB
Number of branch	6	6
Filter diameter	Depends on filter holders	47 mm
Funnel capacity	Depends on filter holders	(Optional) 100 mL / 300 mL / 500 mL
Hose barb	ID8	ID8
Net weight	8.6 Kg	8.4 Kg
Dimension (LxWxH)	Ø 34 x 18 cm	Ø 34 x 14 cm
Part	Material	Material
Body	SS304	SS304
Control valve	SS316	SS316
Adaptor	SS316	SS316
Membrane support	SS316	SS316
Hose barb / Vent valve	SS316	SS316
Knob	Aluminum	Aluminum
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are SS316, FKM, and silicone.

# Rotary Manifold



WATCH VIDEO

121°C / 1bar / 20 min  
Autoclavable

2 YEAR WARRANTY

## Features

- ▶ **Rotary design**  
Turn the funnels and add samples at same position and prevent cross-contamination.
- ▶ **Save 60% space**  
Compared to conventional linear manifolds, SolarVac's rotary design saves 60% of space and fits better in laminar flow hoods.
- ▶ **Easy tracking**  
Each funnel position is marked clearly with numbers, making tracking easy and effortless.
- ▶ **Durable and autoclavable**  
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.
- ▶ **Individual control valve**  
Control feeds of each funnel individually.
- ▶ **International certification**  
RoHS certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 186601-02**  
SolarVac 601 - MB, 6 Places Rotary Manifold
- 1861201-02**  
SolarVac 1201 - MB, 12 Places Rotary Manifold
- 180100-01**  
SF stainless steel funnel, 100 mL
- 180100-03**  
SF stainless steel funnel, 300 mL
- 180100-05**  
SF stainless steel funnel, 500 mL



## Specification

Model	SolarVac 601 - MB	SolarVac 1201 - MB
Number of branch	6	12
Filter diameter	47 mm	47 mm
Funnel capacity	100 mL	100 mL
Hose barb	ID8	ID8
Net weight	10.0 Kg	17.6 Kg
Dimension (LxWxH)	Ø 34 x 19 cm	Ø 45 x 19 cm
Part	Material	Material
Body	SS304	SS304
Control valve	SS316	SS316
Adaptor	SS316	SS316
Membrane support	SS316	SS316
Hose barb / Vent valve	SS316	SS316
Knob	Aluminum	Aluminum
Funnel	SS316	SS316
O-ring	FKM, Silicone	FKM, Silicone

\* Materials in contact with the filtrate are SS316, FKM, and silicone.



# Vacuum Filtration System



## Features

- ▶ **For microbiological filtration**  
SolarVac 601 / 1201 - MB - A, include Alligator 200 diaphragm liquid pump, rotary manifold, burner and MCE membrane, are designed for a large number of samples in microbiological test.
- ▶ **Rotary manifold design**  
Turn the funnels and add samples at same position and prevent cross-contamination.
- ▶ **Save time & space**  
Alligator 200 is a liquid pump that bypasses filtrate directly to drain without additional bottles. Save 60% bench space and save time from tedious cleaning works.
- ▶ **Durable and autoclavable**  
The wetted parts of SolarVac series are made of SS316 and silicone that is durable and autoclavable.
- ▶ **International certification**  
CE certification (Alligator 200)  
IP 64 protection (Alligator 200)  
RoHS certification
- ▶ **One-Year Warranty (Alligator 200)**
- ▶ **Two-Year Warranty (SolarVac 601 / 1201 - MB)**



## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration

## Ordering Information

- 186601-01(02)-A**  
**1861201-01(02)-A**  
SolarVac 601 / 1201 - MB - A, Vacuum Filtration System, complete set includes:  
\* Alligator 200, Diaphragm Liquid Pump  
\* SolarVac 601 / 1201 - MB, 6 / 12 Places Rotary Manifold  
\* SF stainless steel funnel, 100 mL (6 / 12 pcs)  
\* Dragon 100, Torch Burner  
\* MCE membrane, 47 mm, 0.45 µm (200 pcs)  
\* Silicone tube

## Specification

Model	SolarVac 601 - MB - A	SolarVac 1201 - MB - A
<b>PERFORMANCE DATA</b>		
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Noise level	60 dB	
Net weight	13 Kg	21 Kg
Dimension (LxWxH)	76 x 34 x 20 cm	77 x 45 x 20 cm
<b>ELECTRICAL DATA</b>		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
<b>OTHER DATA</b>		
Number of branch	6	12
Funnel	SF stainless steel funnel 100 mL x 6	SF stainless steel funnel 100 mL x 12
Filter diameter	47 mm	47 mm
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	

# Vacuum Filtration System



## Features

- ▶ **For microbiological filtration**  
SolarVac 601 / 1201 - MB - T, include Rocker 400 vacuum pump, rotary manifold, waste bottle, burner, and MCE membrane, are designed for a large number of samples in microbiological test.
- ▶ **Rotary manifold design**  
Turn the funnels and add samples at same position and prevent cross-contamination.
- ▶ **4000 mL PP vacuum bottle with drain**  
The large capacity of 4000 mL vacuum bottle with drain offers convenience of collecting and draining waste solution.
- ▶ **Durable and autoclavable**  
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.
- ▶ **International certification**  
CE certification (Rocker 400)  
CSA certification (Rocker 400)  
IP 30 protection (Rocker 400)  
RoHS certification
- ▶ **Two-Year Warranty (Rocker 400)**
- ▶ **Two-Year Warranty (SolarVac 601 / 1201 - MB)**



## Applications

- ▶ Microbiological test
- ▶ Suspended solid test
- ▶ Vacuum filtration


## Ordering Information

- 186601-11(22)-T**  
**1861201-11(22)-T**  
SolarVac 601 / 1201 - MB - T, Vacuum Filtration System, complete set includes:  
\* Rocker 400, Oil Free Vacuum Pump  
\* SolarVac 600 / 1200 - MB, 6 / 12 Places Rotary Manifold  
\* SF stainless steel funnel, 100 mL (6 / 12 pcs)  
\* PP vacuum bottle with drain, 4000 mL  
\* Dragon 100, Torch Burner  
\* MCE membrane, 47 mm, 0.45 µm (200 pcs)  
\* Silicone tube


## Specification

Model	SolarVac 601 - MB - T		SolarVac 1201 - MB - T	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Noise level	52 dB			
Net weight	16.7 Kg		24.2 Kg	
Dimension (LxWxH)	108 x 34 x 45 cm		119 x 45 x 45 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz			
Max. power	100W (1/6HP)	80W (1/6HP)	100W (1/6HP)	80W (1/6HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
<b>OTHER DATA</b>				
Number of branch	6		12	
Filter holder	SF stainless steel funnel 100 mL x 6		SF stainless steel funnel 100 mL x 12	
Filter diameter	47 mm			
Vacuum bottle	4000 mL (with drain)		4000 mL (with drain)	
Material contact with filtrate	SS316, Silicone, FKM, PP			


# Maximize Your SolarVac Versatility!




SolarVac 600 - MB  
6 Places Rotary Manifold  
(186600-02)




ROCKER, 100 mL  
SF stainless steel funnel  
(180100-01)




Pall, 100 mL / 250 mL  
Sentino® disposable plastic funnel  
(4870 / 4871)




ROCKER, 300 mL  
SF stainless steel funnel  
(180100-03)




Stainless steel funnel lid  
for SF funnel, 100 mL  
(180100-11)




ROCKER, 500 mL  
SF stainless steel funnel  
(180100-05)




Stainless steel funnel lid  
for SF funnel, 300 mL / 500 mL  
(180100-13)




SolarVac 600 - MS  
6 Places Rotary Manifold  
(186600-01)




ROCKER, 300 mL  
MF 3 / MF 3 Pro,  
Magnetic Filter Holder  
(200300-01 / 200300-01-P)




ROCKER, 500 mL  
MF 5 / MF 5 Pro,  
Magnetic Filter Holder  
(200500-01 / 200500-01-P)




SolarVac 600  
6 Places Rotary Manifold Base  
(186600-00)




Sartorius, 100 mL / 250 mL  
Microsart® disposable plastic funnel  
(16A07-10---N/  
16A07-25---N)



Millipore, 100 mL / 250 mL  
Microfil® disposable plastic funnel  
(MIHAWG100 / MIHAWG250)




SS316 Adaptor for Sartorius  
disposable plastic funnel  
(190100-74)




SS316 Adaptor for Millipore  
disposable plastic funnel  
(190100-73)


\* SS316 adaptor is only available for above-mentioned disposable funnels.

Make filtration easy with this  
**Lazy Susan Manifold!**







SolarVac 1200 - MB  
12 Places Rotary Manifold  
(1861200-02)



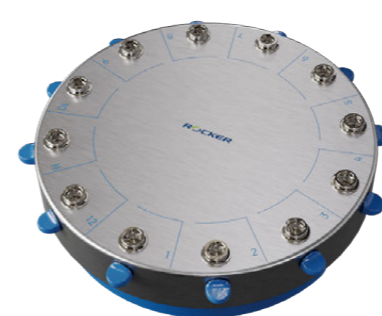
ROCKER, 100 mL  
SF stainless steel funnel  
(180100-01)




Pall, 100 mL / 250 mL  
Sentino® disposable plastic funnel  
(4870 / 4871)




Stainless steel funnel lid  
for SF funnel, 100 mL  
(180100-11)




SolarVac 1200  
12 Places Rotary Manifold Base  
(1861200-00)




Sartorius, 100 mL / 250 mL  
Microsart® disposable plastic funnel  
(16A07-10---N/  
16A07-25---N)



Millipore, 100 mL / 250 mL  
Microfil® disposable plastic funnel  
(MIHAWG100 / MIHAWG250)



SS316 Adaptor for Sartorius  
disposable plastic funnel  
(190100-74)



SS316 Adaptor for Millipore  
disposable plastic funnel  
(190100-73)

\* SS316 adaptor is only available for above-mentioned disposable funnels.

# PP Heavy-Duty Vacuum Bottle

The perfect container for your applications



### Sturdy and Shatterproof

- ◆ Thick-walled construction withstands full vacuum for 24 hours.\*
- ◆ Made from rugged polypropylene (PP), an excellent alternative to glass.

\* Test at room temperature (25°C).



### High Quality

- ◆ EPDM and silicone o-ring guaranteed leak proof under vacuum conditions.



### Volume Identification

- ◆ Volume graduations are marked at side of bottle for easy identification.



### Chemical Resistant & Autoclavable

- ◆ Good resistance to a wide range of chemicals.
- ◆ Autoclavable at 1 bar and 121°C for 20 minutes.

**BPA FREE**

**FDA APPROVED**

### Applications

- ▶ Vacuum applications
- ▶ Waste bottle, safety bottle
- ▶ Aseptic liquid transfer bottle
- ▶ HPLC solvent container



# PP Heavy-Duty Vacuum Bottle



### PP Heavy-Duty Vacuum Bottle, 4000 mL

Specification				
Catalog number	197200-47	197200-48	197200-53	197200-46
Cap size	B83	B83	B83	B83
Connector	Hose barb	Hose barb	Quick-coupling connector	-
Graduated increment	500 mL	500 mL	500 mL	500 mL
Overflow protection	Yes	Yes	Yes	-
Hose barb	ID4 ~ ID8	ID4 ~ ID8	ID6	-
Drain device	-	Yes	-	-



### PP Heavy-Duty Vacuum Bottle, 2000 mL

Specification			
Catalog number	197202-47	197202-53	197202-46
Cap size	B83	B83	B83
Connector	Hose barb	Quick-coupling connector	-
Graduated increment	500 mL	500 mL	500 mL
Overflow protection	Yes	Yes	-
Hose barb	ID4 ~ ID8	ID6	-



### PP Heavy-Duty Vacuum Bottle, 1000 mL

Specification			
Catalog number	197100-10	197100-10SC	197100-10SCN
Cap size	GL45	GL45	GL45
Connector	Hose barb	Hose barb	Hose barb
Graduated increment	250 mL	250 mL	250 mL
Overflow protection	-	Yes	-
Hose barb	ID6	ID4 ~ ID8	ID4 ~ ID8



# Filtration Accessories



## PES / PC Vacuum Bottle

Specification	PES vacuum bottle, 1200 mL	PC vacuum bottle, 1200 mL
Catalog number	197000-11	197000-11-PC
Graduated increment	100 mL	100 mL
Overflow protection	Yes	Yes
Cap with suction fitting	Yes	Yes
Hose barb	ID8	ID8
Autoclavable	Yes	Yes



## Multilayer Filtration Adaptor

Specification	Multilayer filtration adaptor
Catalog number	167230-05
Main material	PTFE
Material of membrane support	SS screen
Filter diameter	47 mm
Filter holder	(Optional) Glass filter holder 300 mL
Autoclavable	Yes



## Hoop Holder

Specification	Hoop Holder	Hoop Holder
Catalog number	167300-37	189300-37
Applicable pump	Rocker 300 / 400 / 410 Rocker 300C / 400C / 410C	Rocker 300 / 400 / 410 Rocker 300C / 400C / 410C
Applicable filtration apparatus	LF 30 / SF 10 / SF 30	VF 12
Applicable apparatus diameter	Max. 118 mm	Max. 103 mm



## Membrane Filters **NEW**

Specification	Glass fiber filter	MCE membrane
Catalog number	167100-20	167100-52-1
Brand	Pall	Whatman
Filter diameter	47 mm	47 mm
Pore size	1 µm	0.45 µm
Material of filter	Glass fiber	MCE
Package	100/PK	100/PK

\* PES : Polyethersulfone, PC : Polycarbonate, PP : Polypropylene

# Filtration Accessories



## GL45 Filtration Adaptor

Specification	GL45 filtration adaptor
Catalog number	197000-65
Material of cap	PP
Material of gasket	PTFE
Stopper	No.8 stopper
Hose barb	ID4 ~ ID8
Autoclavable	Yes



## GL45 Suction Cap **NEW**

Specification	GL45 suction cap	SC45 Suction Cap	SC45 Suction Cap Kit
Catalog number	197000-60	197000-61-P2N	197000-61-P2
Material of cap	PP	PP	PP
Material of gasket / O-ring	Silicone	EPDM	EPDM
Overflow protection	-	-	Yes
Hose barb	ID6	ID4 ~ ID8	ID4 ~ ID8
Autoclavable	Yes	Yes	Yes

## SC45 Suction Cap GL45 Bottle Applications

### ► On waste bottle

Collecting liquid waste by being connected to vacuum pumps and filtration accessories.



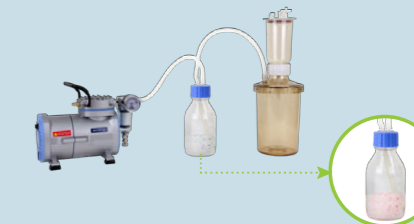
### ► On safety bottle

Working as a safety bottle to prevent liquid from being sucked into pump.



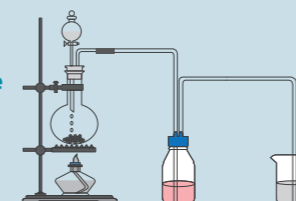
### ► On moisture trap bottle

Attaching to GL45 bottle filled with desiccant to prevent moisture from entering the vacuum pump.



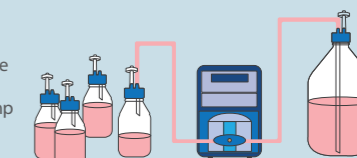
### ► Vapor absorption (neutralization) bottle

Ideal for absorbing acid or alkaline vapor to prevent harmful vapors from spreading into the environment or pump.



### ► Transfer bottle

Ideal for transferring sterile media stored in GL 45 bottle to another container or reactor with peristaltic pump in a closed system.



\* Please refer to P.92 to select laboratory glass bottle.

## Suction Kit

Plus / BioDolphin

## Suction System

Lafil 100 / Lafil 100<sup>eco</sup>

Lafil 200 - Plus / Lafil 200 - BioDolphin

Lafil 200<sup>eco</sup> - Plus / Lafil 200<sup>eco</sup> - BioDolphin

Lafil 300 - Plus / Lafil 300 - BioDolphin

Lafil 400 - Plus / Lafil 400 - BioDolphin

Suction Accessories

## Tangential Flow Filtration System

Tanfil 100

## Low Profile Magnetic Stirrer

MS 100

## Dry Bath

Sahara 310 / 320

## Microplate Vacuum Manifold

WelVac 200 / 210

## Gravity-fed Microplate Washer

BioWasher 100

BioWasher 100 - T

## Ultrasonic Cleaner

Soner 203 / 203H

Soner 206 / 206H

Soner 210 / 210H

Soner 220 / 220H

Ultrasonic Cleaner Accessories

# Suction Kit



## Features

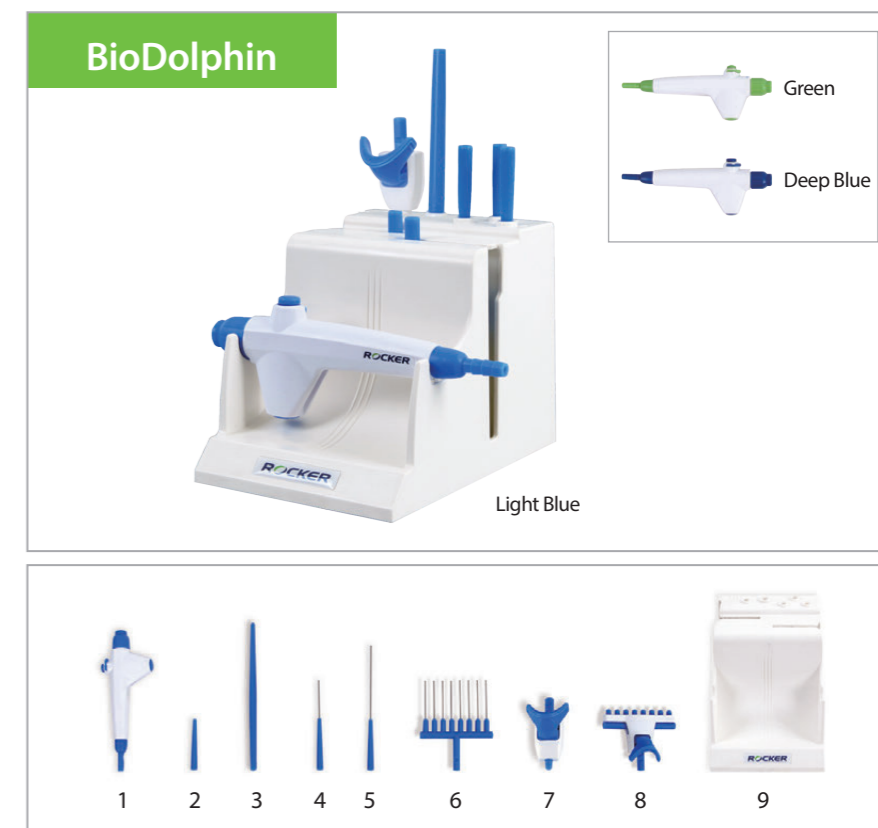
- ▶ **Quick connection**  
Easy installation between handle and adaptors.
- ▶ **One-finger tip ejection**  
Ergonomic ejector makes tip removal easy and effortless.
- ▶ **Easy lock switch**  
Keep continuous suction with a single click to save efforts during repetitive procedures.
- ▶ **Multi-funtional storage rack**  
Accommodating all accessories in this rack to keep a tidy working environment. Built-in liquid tray collects dripping liquid from the adaptors and can be cleaned easily.
- ▶ **Autoclavable**  
The complete kit except the storage rack are made of autoclavable materials including POM and SS304.

## Applications

- ▶ Cell culture aspiration
- ▶ Laboratory waste suction

## Ordering Information

- 199100-00**  
BioDolphin Suction Kit (Light Blue)
- 199200-00**  
Plus Suction Kit (Light Blue)
- 199110-00**  
BioDolphin Suction Kit (Deep Blue)
- 199210-00**  
Plus Suction Kit (Deep Blue)
- 199130-00**  
BioDolphin Suction Kit (Green)
- 199230-00**  
Plus Suction Kit (Green)



### Standard accessory :

- 1. 199100-30** Handle
- 2. 199100-46** 1-channel tip adaptor (50 mm)
- 3. 199100-76** 1-channel tip adaptor (150 mm)
- 4. 199100-47** 1-channel SS adaptor (40 mm)
- 5. 199100-48** 1-channel SS adaptor (80 mm)
- 6. 199100-49** 8-channel SS adaptor (40 mm)
- 7. 199100-75** 1-channel tip adaptor with ejector
- 8. 199100-50** 8-channel tip adaptor with ejector
- 9. 199100-61** Rack

## Specification

Model	BioDolphin	Plus
Operation	Press to suck	
Hose barb	ID6	
Suction kit material	POM, SS304	
Rack material	ABS	-
Net weight	600 g	100 g
Dimension (LxWxH)	15 x 15 x 20 cm	15 x 8 x 6 cm
Suction kit	1. Handle 2. 1-channel tip adaptor (50 mm) 3. 1-channel tip adaptor (150 mm) 4. 1-channel SS adaptor (40 mm) 5. 1-channel SS adaptor (80 mm) 6. 8-channel SS adaptor (40 mm) 7. 1-channel tip adaptor with ejector 8. 8-channel tip adaptor with ejector 9. Rack	1. Handle 3. 1-channel tip adaptor (150 mm) 7. 1-channel tip adaptor with ejector 8. 8-channel tip adaptor with ejector

\*The storage rack is NOT autoclavable.



# Portable Suction System



## Features

- ▶ **All in One, saving 65% space**  
Lafil 100 suction system integrates vacuum sources, waste bottle and suction kit into one single system. Saving 65% bench space.
- ▶ **Ideal size for in-hood operation**  
Lafil 100 suction system is in perfect size that allows operations in laminar flow hood.
- ▶ **Safe and convenient**
  - (1) Tripping-proof and spill-proof fence-like bottle platform.
  - (2) Syringe filter at air inlet prevents liquid from entering the pump.
  - (3) Smart built-in tool storage makes it convenient and easy to use.
- ▶ **Eco control feature (Lafil 100<sup>eco</sup>)**  
Lafil 100<sup>eco</sup>'s pump pauses when maximum vacuum is detected and resumes operation to maintain a constant and stable suction, making Lafil 100<sup>eco</sup> more energy-saving and quieter machine to work with.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty (Lafil 100 / Lafil 100<sup>eco</sup>)**



## Applications

- ▶ Cell culture aspiration
- ▶ Laboratory waste suction

## Ordering Information

- 197100-01(02)**  
Lafil 100, Portable Suction System with AC100-240V adaptor, US plug (EU plug)
- 197110-01(02)**  
Lafil 100<sup>eco</sup>, Portable Suction System with AC100-240V adaptor, US plug (EU plug)
- 197100-10**  
PP vacuum bottle with GL45 suction cap, 1000 mL
- 197000-60-500**  
Laboratory glass bottle with GL45 suction cap, 500 mL

## Specification

Model	Lafil 100	Lafil 100 <sup>eco</sup>
<b>PERFORMANCE DATA</b>		
Max. vacuum	345 mbar abs.	480 mbar abs.*
Max. flow rate	4.0 L/min	
Aspiration rate	9 mL/sec	
Waste bottle	PP vacuum bottle, 1000 mL / (Optional) Laboratory glass bottle, 500 mL	
Auto shut-off	-	Yes
Noise level	50 dB	
Net weight	1.3 Kg	1.5 Kg
Dimension (LxWxH)	27 x 13 x 28 cm	
<b>ELECTRICAL DATA</b>		
Power input	DC12V, 0.5A	
Max. power	6W	
<b>OTHER DATA</b>		
Suction Kit	<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> </ul>	

\* Lafil 100<sup>eco</sup> will shut off at 480 mbar and restart at 813 mbar.

# Portable Suction System

- Storage rack**  
Keep the bench top tidy and spacious by accommodating all suction tools in storage.
- Perfect size**  
Suitable for in-hood operations.
- PP vacuum bottle, 1000 mL**  
Optional 500 mL glass bottles are also available. (Catalog number: 197000-60-500)
- Liquid collection tray**  
Collects liquid waste dripping from suction tools and can be cleaned easily.
- Fence-like platform**  
Tripping-proof and spill-proof.
- Ergonomic handle**  
Lock switch keeps continuous suction and relieves your finger muscle from repetitive procedures.
- More energy-saving & quieter**  
Eco models pause and resume operation automatically.
- One-finger tip ejection**  
Effortless tip removal.

The product can be disinfected with 70% ethanol or isopropanol (IPA).



# Large Capacity Suction System



## Features

- ▶ **All in One, saving 50% space**  
Lafil 200 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.
- ▶ **Large volume, effort-saving**  
Equipped with 4L large-capacity PP bottle, saves efforts of repetitive waste draining. (Optional 3.5L glass bottles are also available)
- ▶ **Safety features**  
Multiple safety featured designs protect both the operator and the machine.  
(1) Easier and safer waste drain with quick-coupling bottle connectors.  
(2) Tripping-proof and spill-proof fence-like bottle platform.  
(3) Overflow protection prevents liquid from entering the pump
- ▶ **Eco control feature (Lafil 200<sup>eco</sup>)**  
Lafil 200<sup>eco</sup>'s pump pauses when maximum vacuum is detected and resumes operation to maintain a constant and stable suction. Making Lafil 200<sup>eco</sup> more energy-saving and quieter machine to work with.
- ▶ **International certification**  
CE certification  
IP 41 protection  
RoHS certification (Lafil 200)
- ▶ **One-Year Warranty (Lafil 200 / Lafil 200<sup>eco</sup>)**

## Applications

- ▶ Cell culture aspiration
- ▶ Biochemical waste suction
- ▶ Laboratory waste suction

## Ordering Information

- 197205-01(02)**  
Lafil 200 - Plus, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197203-01(02)**  
Lafil 200 - BioDolphin, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197215-01(02)**  
Lafil 200<sup>eco</sup> - Plus, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197213-01(02)**  
Lafil 200<sup>eco</sup> - BioDolphin, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197200-53**  
PP vacuum bottle with quick-coupling connector, 4000 mL
- 197000-60-3500**  
Laboratory glass bottle with GL45 suction cap, 3500 mL

### Lafil 200 - Plus



### Lafil 200 - BioDolphin



\* The nameplate is different on Lafil 200 and Lafil 200<sup>eco</sup>.

## Specification

Model	Lafil 200 - Plus / BioDolphin	Lafil 200 <sup>eco</sup> - Plus / BioDolphin
<b>PERFORMANCE DATA</b>		
Vacuum range	1013 ~ 213 mbar abs.	880 ~ 370 mbar abs.
Max. flow rate	10 L/min	
Aspiration rate	17 mL/sec	
Waste bottle	4L PP vacuum bottle / (Optional) 3.5L laboratory glass bottle	
Auto shut-off	-	Yes
Noise level	55 dB	
Net weight	2.1 Kg	2.3 Kg
Dimension (LxWxH)	38 x 26 x 22 cm	
<b>ELECTRICAL DATA</b>		
Power input	DC12V, 1.5A	
Max. power	18W	
<b>OTHER DATA</b>		
	Plus	BioDolphin
Suction Kit	<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> </ul>	<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (50 mm)</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel SS adaptor (40 mm)</li> <li>• 1-channel SS adaptor (80 mm)</li> <li>• 8-channel SS adaptor (40 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> <li>• Rack</li> </ul>

# Large Capacity Suction System

- X2 Doubled efficiency**  
Supporting up to 2 suction kits work at the same time.
- Overflow protection**  
Protects the pump from liquid overflowing.
- Quick-coupling connector**  
Makes repetitive waste removal much easier.
- PP vacuum bottle, 4000 mL**  
Optional 3500 mL glass bottles are also available. (Catalog number : 197000-60-3500)
- Fence-like platform**  
Tripping-proof and spill-proof.
- Foldable handle**  
Easy to carry.
- Multi-functional storage rack**  
Accommodates all the adaptors in the rack and avoids cross-contamination.
- Ergonomic handle**  
Lock switch keeps continuous suction and relieves your finger muscle from repetitive procedures.
- One-finger tip ejection**  
Effortless tip removal.
- More energy-saving & quieter**  
Eco models pause and resume operation automatically.

The product can be disinfected with 70% ethanol or isopropanol (IPA).

# Suction System



## Features

- ▶ **All in One, saving 50% space**  
Lafil 300 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.
- ▶ **Safety features**  
Multiple safety featured designs protect both the operator and the machine.  
(1) Tripping-proof and spill-proof fence-like bottle platform.  
(2) Overflow protection prevents liquid from entering the pump.
- ▶ **Oil-free & care-free**  
Lafil systems are built-in with oil-free pumps that need no lubricant, making it maintenance-free and oil-mist-free.
- ▶ **Autoclavable**  
The waste bottle and all fittings are made of autoclavable materials such as PES or POM.
- ▶ **International certification**  
CE certification
- ▶ **Two-Year Warranty (Lafil 300)**



## Specification

Model	Lafil 300 - Plus		Lafil 300 - BioDolphin	
<b>PERFORMANCE DATA</b>				
Max. vacuum	99 mbar abs.			
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min@60Hz	20 L/min @50Hz
Aspiration rate	18 mL/sec			
Waste bottle	PES vacuum bottle, 1200 mL			
Noise level	50 dB			
Net weight	5.9 Kg			
Dimension (LxWxH)	34 x 25 x 30 cm			
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	65W (1/8 HP)	60W (1/8 HP)	65W (1/8 HP)	60W (1/8 HP)
Max. current	0.7A	0.3A	0.7A	0.3A
Safety	Overheat Protection			
<b>OTHER DATA</b>				
	Plus		BioDolphin	
Suction Kit	<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> </ul>		<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (50 mm)</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel SS adaptor (40 mm)</li> <li>• 1-channel SS adaptor (80 mm)</li> <li>• 8-channel SS adaptor (40 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> <li>• Rack</li> </ul>	

## Applications

- ▶ Cell culture aspiration
- ▶ Laboratory waste suction

## Ordering Information

**197305-11(22)**  
Lafil 300 - Plus, Suction System  
AC110V, 60Hz (AC220V, 50Hz)

**197303-11(22)**  
Lafil 300 - BioDolphin, Suction System  
AC110V, 60Hz (AC220V, 50Hz)

**197300-11(22)**  
Lafil 300, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Suction System



## Features

- ▶ **All in One, saving 50% space**  
Lafil 400 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.
- ▶ **Safety features**  
Multiple safety featured designs protect both the operator and the machine.  
(1) Tripping-proof and spill-proof fence-like bottle platform.  
(2) Overflow protection prevents liquid from entering the pump.
- ▶ **Oil-free & care-free**  
Lafil systems are built-in with oil-free pumps that need no lubricant, making it maintenance-free and oil-mist-free.
- ▶ **Autoclavable**  
The waste bottle and all fittings are made of autoclavable materials such as PES or POM.
- ▶ **International certification**  
CE certification
- ▶ **Two-Year Warranty (Lafil 400)**



## Specification

Model	Lafil 400 - Plus		Lafil 400 - BioDolphin	
<b>PERFORMANCE DATA</b>				
Max. vacuum	25 mbar abs.			
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Aspiration rate	19 mL/sec			
Waste bottle	PES vacuum bottle, 1200 mL			
Noise level	52 dB			
Net weight	7.0 Kg			
Dimension (LxWxH)	34 x 25 x 30 cm			
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	100W (1/6 HP)	80W (1/6 HP)	100W (1/6 HP)	80W (1/6 HP)
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
<b>OTHER DATA</b>				
	Plus		BioDolphin	
Suction Kit	<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> </ul>		<ul style="list-style-type: none"> <li>• Handle</li> <li>• 1-channel tip adaptor (50 mm)</li> <li>• 1-channel tip adaptor (150 mm)</li> <li>• 1-channel SS adaptor (40 mm)</li> <li>• 1-channel SS adaptor (80 mm)</li> <li>• 8-channel SS adaptor (40 mm)</li> <li>• 1-channel tip adaptor with ejector</li> <li>• 8-channel tip adaptor with ejector</li> <li>• Rack</li> </ul>	

## Applications

- ▶ Cell culture aspiration
- ▶ Laboratory waste suction

## Ordering Information

**197405-11(22)**  
Lafil 400 - Plus, Suction System  
AC110V, 60Hz (AC220V, 50Hz)

**197403-11(22)**  
Lafil 400 - BioDolphin, Suction System  
AC110V, 60Hz (AC220V, 50Hz)

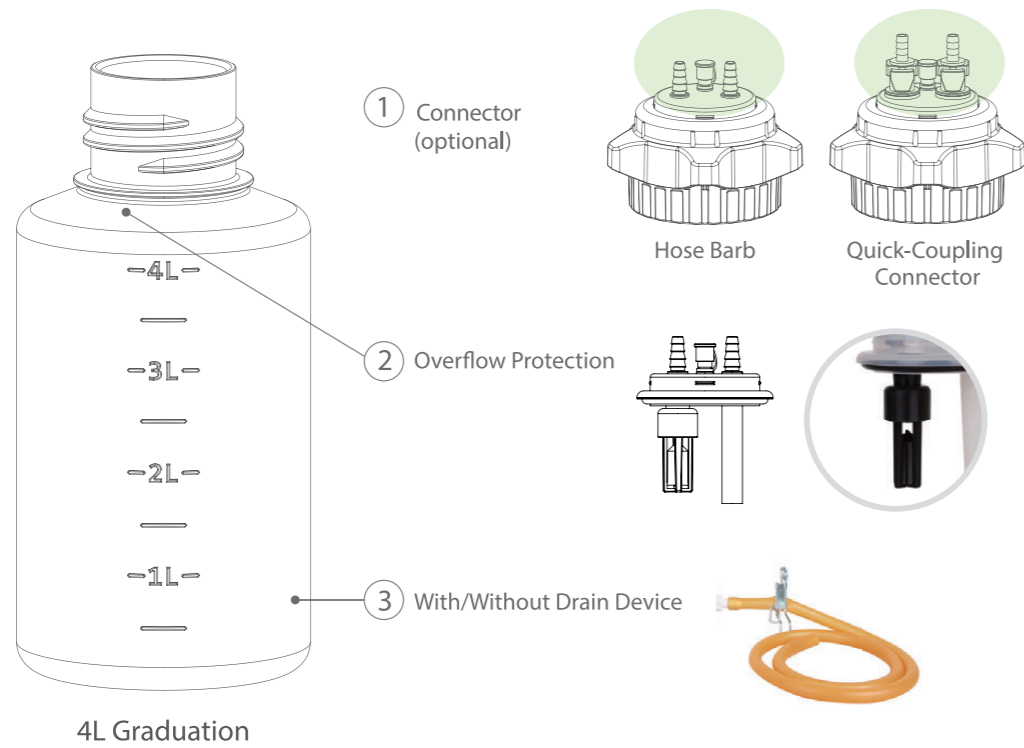
**197400-11(22)**  
Lafil 400, Vacuum Pump  
AC110V, 60Hz (AC220V, 50Hz)

# Suction Accessories



## PP Heavy-Duty Vacuum Bottle

Specification	PP vacuum bottle, 4000 mL	PP vacuum bottle with drain, 4000 mL	PP vacuum bottle with quick-coupling connector, 4000 mL	PP vacuum bottle, 4000 mL
Catalog number	197200-47	197200-48	197200-53	197200-46
Connector	Hose barb	Hose barb	Quick-coupling connector	-
Graduated increment	500 mL	500 mL	500 mL	500 mL
Overflow protection	Yes	Yes	Yes	-
Hose barb	ID4 ~ ID8	ID4 ~ ID8	ID6	-
Drain device	-	Yes (Rubber, NOT autoclavable)	-	-
Autoclavable	Yes	Yes	Yes	Yes



\* PP : Polypropylene

Refer to P.79 for full PP bottle series.



# Suction Accessories

## PP Vacuum Bottle



Specification	PP vacuum bottle, 1000 mL	PP vacuum bottle, 2000 mL
Catalog number	197100-10	197202-47
Graduated increment	250 mL	500 mL
Overflow protection	-	Yes
Hose barb	ID6	ID4 ~ ID8
Autoclavable	Yes	Yes

## PES Vacuum Bottle



Specification	PES vacuum bottle, 1200 mL	PES vacuum bottle, 1200 mL
Catalog number	197000-11	197000-12
Graduated increment	100 mL	100 mL
Overflow protection	Yes	Yes
Cap with suction fitting	Yes	-
Hose barb	ID8	ID4 ~ ID8
Autoclavable	Yes	Yes

## Quick Connect Fitting



Specification	1/4 inch Male fitting	5/16 inch Female fitting
Catalog number	197201-38	197201-39
Hose barb	ID6	ID8
Material	POM, FKM	POM, SS316, FKM
Autoclavable	Yes	Yes

## Laboratory Glass Bottle with GL45 Suction Cap



Specification	Glass bottle, 500 mL	Glass bottle, 1000 mL	Glass bottle, 3500 mL
Catalog number	197000-60-500	197000-60-1000	197000-60-3500
Cap	GL45 suction cap	GL45 suction cap	GL45 suction cap
Graduated increment	100 mL	100 mL	500 mL
Hose barb	ID6	ID6	ID6
Autoclavable	Yes	Yes	Yes

\* PES : Polyethersulfone, PP : Polypropylene



# Tangential Flow Filtration System



## Features

- ▶ **Multi-purpose**  
Tangential flow filtration technique enables concentration and diafiltration at same run.
- ▶ **Less membrane fouling**  
Feed flows parallel to membrane and thus prevents membrane fouling and increases membrane utility.
- ▶ **Easy scale-up**  
Use same parameters and conditions from trial to mass production.
- ▶ **Plug & start**  
Integrated with pump, liquid reservoir and pressure gauges. Plug the tube, add samples and start processing.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Concentration and desalting
- ▶ Diafiltration and purification
- ▶ Buffer exchange and dialysis
- ▶ Exosomes and protein isolation

## Ordering Information

- 184100-01(02)**  
Tanfil 100, Tangential Flow Filtration System, AC100-240V, 50/60Hz, US plug (EU plug)
- 203100-01(02)**  
MS 100, Low Profile Magnetic Stirrer with AC100-240V adaptor, US plug (EU plug)
- 203100-10**  
PTFE magnetic stirring bar, Ø 3.6 x 25 mm
- 184100-47**  
TYGON®, Sani-Tech® Ultra-C platinum-cured silicone tubing, ID 1/8" x OD 1/4", 50 ft
- 184100-48**  
Pharmed® BPT tubing, ID 1/8" x OD 1/4", 25 ft



## Specification

Model	Tanfil 100
<b>PERFORMANCE DATA</b>	
Max. inlet pressure	60 psig
Max. gauge pressure	80 psig
Recirculation flow rate	0 ~ 460 mL/min
Min. recirculation volume	7 mL
Reservoir	PES Reservoir, 500 mL
Noise level	55 dB
Net weight	7.8 Kg
Dimension (LxWxH)	28 x 33 x 16 cm
<b>ELECTRICAL DATA</b>	
Power input	100-240V
Frequency	50 / 60Hz
Max. power	50W
Safety	Motor Overload Protection, Fuse
<b>OTHER DATA</b>	
Applicable capsules	<ul style="list-style-type: none"> <li>• Pall, Minimate™ TFF Capsules</li> <li>• Sartorius, Sartocoon Slice 50</li> <li>• Merck, Pellicon® XL 50 Device</li> </ul> Contact us for capsule compatibility of others.

\* Each unit includes a peristaltic pump, a reservoir, pressure gauges, a magnetic stirrer and tubing.

# Tangential Flow Filtration System

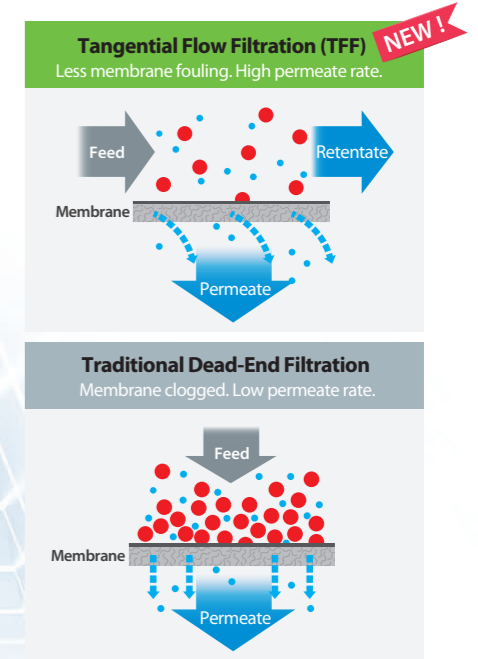
**Multi-purpose**  
Tangential flow filtration technique enables concentration and diafiltration at same run.

**Continuous diafiltration**  
Buffer auto-refill, ensures smooth diafiltration with lowest impact.



**Magnetic stirrer**  
Prevent precipitation, more effective filtration.

**Plug & start**  
Integrated with pump, liquid reservoir and pressure gauges. Plug the tube, add samples and start processing.



**More economical**  
No more membrane foulings, longer life of filtration membranes.

## ♦ TFF Capsule

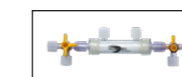
### Pall Minimate™ Tangential Flow Filtration Capsules (1/pk)



• Membrane Material: Omega (PES), Effective Filtration Area: 50 cm<sup>2</sup>  
\* MWCO : Molecular Weight Cut-off

Catalog number	MWCO*	Catalog number	MWCO*
PALOA001C12	1K	PALOA070C12	70K
PALOA003C12	3K	PALOA100C12	100K
PALOA005C12	5K	PALOA300C12	300K
PALOA010C12	10K	PALOA500C12	500K
PALOA030C12	30K	PALOA990C12	1000K
PALOA050C12	50K		

### HansaBioMed TFF Hollow Fibers (1/pk)



• Recommend for EVs\* and Exosomes Isolation  
\* EVs : Extracellular Vesicles

Catalog number	Description	Pore size
HBM-TFF1	TFF-Easy Polysulfone hollow fibers	5 nm
HBM-TFFMV	TFF-MV Polyethersulfone hollow fibers	150 nm
HBM-TFFEVS-S	TFF-EVs Polyethersulfone hollow fibers	50 ± 10 nm

# Low Profile Magnetic Stirrer

## Features

- ▶ **Lighter & thinner**  
Low profile with only 12 mm height, MS 100 can fit perfectly in tight lab and hood spaces. Carry or store it everywhere.
- ▶ **Durable & safe**  
Chemical-resistant and water-proof casing with slip-proof pads. Making MS 100 stirrer durable and safe to use.
- ▶ **Magnetic coil technology**  
Motorless driven mechanism with no moving parts ensures lighter, quieter, wear-free and maintenance-free operation.
- ▶ **Mix more efficiently**  
2 stirring options increase the mix efficiency:  
(1) One direction: Spin in counterclockwise direction.  
(2) Auto-reverse: Spin reversely every 45 seconds for more evenly mix.
- ▶ **International certification**  
CE certification  
IP 65 protection  
RoHS certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Basic stirring
- ▶ Mix solutions
- ▶ Reagent preparation

## Ordering Information

**203100-01(02)**  
MS 100, Low Profile Magnetic Stirrer with AC100-240 adaptor, US plug (EU plug)

**203100-10**  
PTFE magnetic stirring bar, Ø 3.6 x 25 mm



## Specification

Model	MS 100
<b>PERFORMANCE DATA</b>	
Max. stirring quantity (H <sub>2</sub> O)	1L
Speed range	20 ~ 1500 rpm
Stirring direction	Counterclockwise, Reverse stirring
Timer	(1) Countdown timer: 0:05~9:00 (H:MM) (2) Continuous mode: 0:00 (H:MM)
Stirring bar length	25 ~ 30 mm
Set-up plate material	Polyester (PE)
Set-up plate dimension	Ø 10 cm
Net weight	200 g
Dimension (LxWxH)	18 x 11 x 1.2 cm
<b>ELECTRICAL DATA</b>	
Power input	DC12V, 0.3A
Frequency	50 / 60Hz
Max. power	3W

\* Each unit includes a magnetic stirrer and a stirring bar.

# Dry Bath

## Features

- ▶ **A multi-function machine**  
Sahara 310 / 320's heating tank is made of one-piece aluminum with PTFE coating that allows purposes as:  
(1) Dry bath: Blocks, armor beads  
(2) Water bath
- ▶ **User-friendly programs**  
Built-in memory can store up to 3 user-definable heating programs. Timer can be set infinite or up to 99:59 (HH:MM).
- ▶ **Programmable timer & beep alarm**  
Sahara dry bath stops heating automatically with beeping alarm after the program is complete.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Molecular biology experiment
- ▶ Biochemistry experiment
- ▶ Bead bath / Water bath



## Ordering Information

**179310-11(22)**  
Sahara 310, Dry Bath (without block)  
AC110V, 60Hz (AC220V, 50Hz)

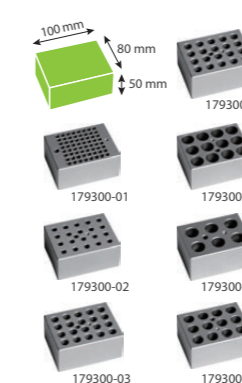
**179320-11(22)**  
Sahara 320, Dry Bath (without block)  
AC110V, 60Hz (AC220V, 50Hz)

**179300-00**  
Armor beads (1 block capacity)

## Sahara 310 / 320



## The optional blocks



◆ Aluminum Block (LxWxH): 80 x 100 x 50 mm

	Hole Diameter	Hole Depth	Max. Capacity	Applicable Tube
179300-01	6.4 mm	17 mm	64 well	0.2 mL
179300-02	8.2 mm	25 mm	20 well	0.5 mL
179300-03	10.2 mm	33 mm	20 well	1.5 mL, 2.0 mL
179300-05	13 mm	36 mm	20 well	Kahn Tube
179300-06	20 mm	45 mm	12 well	
179300-07	25 mm	45 mm	6 well	
179300-10	17 mm	45 mm	12 well	5 mL, 15 mL

## Specification

Model	Sahara 310	Sahara 320
<b>PERFORMANCE DATA</b>		
Capacity	1 block	2 blocks
Display	OLED	
Tank	Integrated, PTFE-coated tank	
Temperature range	R.T. +5°C ~ 150°C	
Resolution	0.1°C	
Temperature accuracy	± 0.2°C (@37°C)	
Temperature homogeneity	± 0.2°C (@37°C)	
Timer	(1) Countdown timer: 00:01~99:59 (HH:MM) (2) Counter: 00:00 (HH:MM)	
Net weight	2.3 Kg	3.0 Kg
Dimension (LxWxH)	27 x 19 x 11 cm	35 x 19 x 11 cm
<b>ELECTRICAL DATA</b>		
Voltage	110V    220V	110V    220V
Frequency	50 / 60Hz	
Max. power	120W	240W
Safety	Overheat Protection (170°C)	



▶ WATCH VIDEO

# Microplate Vacuum Manifold



## Features

- ▶ **Simplifying operation**  
WelVac 200 is designed to replace traditional centrifuges with vacuum source to simplify purification process of plasmid DNA, ssDNA, RNA, genomic DNA, viral nucleic acids, etc.
- ▶ **Improved efficiency**  
WelVac vacuum manifold provides rapid and continuous sample purification without repetitive centrifugation processes.
- ▶ **Multi-use of one machine**  
Uniquely designed column adaptor board and luer connector make WelVac 200 highly compatible with various kinds of spin column and 96-well microplate.
- ▶ **International certification**  
CE certification  
CSA certification (Rocker 300)  
IP 30 protection (Rocker 300)  
RoHS certification (Rocker 300)
- ▶ **Two-Year Warranty (Rocker 300 & WelVac 200)**

## Applications

- ▶ DNA purification
- ▶ RNA purification
- ▶ Gel purification
- ▶ PCR clean up

## Ordering Information

- 195200-00**  
WelVac 200, Microplate Vacuum Manifold, complete set includes the following 4 fitting parts:
- 195200-42**  
Spin column adaptor board (24 holes)
- 195200-43** Luer connector (25/pk)
- 195200-44** Luer stopper (25/pk)
- 195200-45** Waste tray
- 195210-11(22)**  
WelVac 210, Microplate Vacuum Manifold System, AC110V, 60Hz (AC220V, 50Hz), complete set includes:  
\*Rocker 300, Vacuum Pump  
\*WelVac 200, Microplate Vacuum Manifold  
\*Silicone tube
- 197000-12**  
PES vacuum bottle, 1200 mL



## Specification

Model	WelVac 200	WelVac 210	
<b>PERFORMANCE DATA</b>			
Max. vacuum	-	99 mbar abs.	
Max. flow rate	-	23 L/min @60Hz	20 L/min @50Hz
Waste bottle	(Optional) PES vacuum bottle, 1200 mL		
Hose barb	ID8	ID8	
Noise level	-	50 dB	
Net weight	2.6 Kg	6.8 Kg	
Dimension (LxWxH)	23 x 12 x 10 cm	60 x 14 x 20 cm	
<b>ELECTRICAL DATA</b>			
Voltage	-	110V	220V
Frequency	-	50 / 60Hz	
Max. power	-	65W (1/8 HP)	60W (1/8 HP)
Max. current	-	0.7A	0.3A
Safety	-	Overheat Protection	
<b>MATERIAL</b>			
Vacuum manifold	Aluminum		
Column adaptor board	PC		
Gasket / O-ring	Rubber		
Luer connector / stopper	Silicone		

# Gravity-fed Microplate Washer

## Features

- ▶ **Economical ELISA washer**  
Biowasher 100 is a gravity-fed manual washer, no electricity needed. Ideal for lab scale ELISA washing of 96-well microplate, 8-tube strip, or similar applications.
- ▶ **Wise-tilt stand**  
A secure stand to support flat or tilted plate to reduce liquid residue and be more ergonomic.
- ▶ **No cross-contamination**  
The 8-channel dispenser is designed with 2 rows of tubes with different heights to prevent cross-contamination in each well.  
- Short tubes: Distribute washing solution  
- Long tubes: Suck the waste liquid by vacuum
- ▶ **Durable and autoclavable**  
The wetted parts of 8-channel dispenser are made of PTFE and SS304, making it resistant to chemical and fully autoclavable.
- ▶ **International certification**  
CE certification (Lafil 200)  
IP 41 protection (Lafil 200)  
RoHS certification (Lafil 200)
- ▶ **One-Year Warranty (Lafil 200)**

## Applications

- ▶ ELISA washing
- ▶ 96-well microplate washing

## Ordering Information

- 196100-00**  
BioWasher 100, Microplate Wash Kit, includes following 3 parts:  
196811-00 8-channel dispenser  
196100-02 Microplate stand  
196100-03 Spare parts kit
- 196100-01(02)-T**  
BioWasher 100 - T, Gravity-fed Microplate Washer, complete set includes:  
\* BioWasher 100, Microplate Wash Kit  
\* PP buffer bottle, 4000 mL  
\* Lafil 200, Vacuum Pump  
\* PP vacuum bottle with quick-coupling connector, 4000 mL  
\* Silicone tube
- 196100-05**  
PP buffer bottle, 4000 mL
- 199100-68**  
Silicone tube, Ø 4.2 x 8 mm, 200 cm
- 196100-31**  
Dynalon® Dura-Clamp tubing flow valve, accepts tubing OD 3.2 ~ 11 mm



## Specification

Model	BioWasher 100	BioWasher 100 - T
<b>PERFORMANCE DATA</b>		
Max. vacuum	-	213 mbar abs.
Max. flow rate	-	10 L/min
Buffer bottle	-	4L PP buffer bottle
Waste bottle	-	4L PP vacuum bottle
Hose barb	ID5	ID5
Noise level	-	50 dB
Net weight	560 g	4.5 Kg
Dimension (LxWxH)	20 x 15 x 8 cm	75 x 29 x 40 cm
<b>ELECTRICAL DATA</b>		
Power input	-	DC12V, 1.5A
Max. power	-	18W
<b>MATERIAL</b>		
8-channel dispenser	PTFE, SS304	
Microplate stand	Acrylic	

## BioWasher 100 - T

\* Buffer bottles should be placed 60 cm higher than the stand to ensure smooth gravity feeds.

> 60 cm



# Ultrasonic Cleaner

## Features

### ► Degassing function

All Soner ultrasonic cleaners are programmed with degassing modes to maintain performance of cavitation.

### ► Industrial-level transducer

All Soner ultrasonic cleaners are equipped with industrial-level transducers to ensure durability.

### ► Lower frequency

With 35 kHz frequency, Soner ultrasonic cleaners perform extraordinarily well on removing stains and particles from large surfaces.

### ► Stainless steel construction

The cleaning tank is made of SS304, making it durable and easy to clean.

### ► International certification

CE certification

### ► One-Year Warranty

## Applications

### ► Solvent degassing

HPLC mobile phase

### ► Vessels, tools cleaning

cuvette, tube, glassware  
optical lenses, medical tools

### ► Components cleaning

PCB, electronics, hardware parts

Soner 203



Soner 203H



Soner 206



Soner 206H



Soner 210



Soner 210H



Soner 220



Soner 220H



\* Each unit includes a bracket and a stainless steel cover.

## Specification

Model	Soner 203	Soner 203H	Soner 206	Soner 206H	Soner 210	Soner 210H	Soner 220	Soner 220H
<b>PERFORMANCE DATA</b>								
Tank capacity	3L		6L		10L		20L	
Frequency	35 kHz		35 kHz		35 kHz		35 kHz	
Timer	1 ~ 99 min		1 ~ 99 min		1 ~ 99 min		1 ~ 99 min	
Heating	-	R.T. ~ 60°C	-	R.T. ~ 60°C	-	R.T. ~ 60°C	-	R.T. ~ 60°C
Degas	Yes		Yes		Yes		Yes	
Drain	-		-		Yes		Yes	
Net weight	4.0 Kg	4.1 Kg	5.5 Kg	5.7 Kg	7.5 Kg	7.7 Kg	14.5 Kg	15.0 Kg
Tank dimension (LxWxH)	24 x 14 x 10 cm		30 x 15 x 15 cm		30 x 24 x 15 cm		50 x 30 x 15 cm	
Overall size (LxWxH)	27 x 16 x 24 cm		33 x 18 x 29 cm		36 x 27 x 31 cm		57 x 33 x 33 cm	
<b>ELECTRICAL DATA</b>								
Voltage	110V	220V	110V	220V	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz		50 / 60Hz		50 / 60Hz	
Ultrasonic power	100W		180W		200W		500W	
Heating power	-	88W	-	170W	-	270W	-	550W
Safety	Fuse		Fuse		Fuse		Fuse	

# Accessories

	Bracket (standard)	Basket (optional)	Beaker Positioning Cover (optional)
	Ideal for big parts	Ideal for small parts	For indirect beaker cleaning
for Soner 203/203H	<b>188203-31</b>	<b>188203-30</b>	<b>188200-31</b>
for Soner 206/206H	<b>188206-31</b>	<b>188206-30</b>	<b>188200-31</b>
for Soner 210/210H	<b>188210-31</b>	<b>188210-30</b>	<b>188200-32</b>
for Soner 220/220H	<b>188220-31</b>	<b>188220-30</b>	<b>188200-33</b>

## Ordering Information

- 188203-11(22)** Soner 203, Ultrasonic Cleaner, AC110V, 60Hz (AC220V, 50Hz)
- 188204-11(22)** Soner 203H, Ultrasonic Cleaner (with heating function), AC110V, 60Hz (AC220V, 50Hz)
- 188206-11(22)** Soner 206, Ultrasonic Cleaner, AC110V, 60Hz (AC220V, 50Hz)
- 188207-11(22)** Soner 206H, Ultrasonic Cleaner (with heating function), AC110V, 60Hz (AC220V, 50Hz)
- 188210-11(22)** Soner 210, Ultrasonic Cleaner, AC110V, 60Hz (AC220V, 50Hz)
- 188211-11(22)** Soner 210H, Ultrasonic Cleaner (with heating function), AC110V, 60Hz (AC220V, 50Hz)
- 188220-11(22)** Soner 220, Ultrasonic Cleaner, AC110V, 60Hz (AC220V, 50Hz)
- 188221-11(22)** Soner 220H, Ultrasonic Cleaner (with heating function), AC110V, 60Hz (AC220V, 50Hz)

# FOOD ANALYSIS

## Colony Counter

Galaxy 330

## Lab Burner

Dragon 100 / 200 / 220

Dragon 200 - T

Dragon 300 / 320

## Dispensing Peristaltic Pump

Buller 600 - DSP

## Multi-Tube Vortex Mixer

Tornado 100

# Colony Counter



## Features

- ▶ **Pressure sensor design, no contamination**  
Pressure sensor design allows users to operate with any marking pens. No worries about sample spoiled or contaminated.
- ▶ **4-display panel**  
The panel shows up to 4 counts, including current and the most recent three counting(s).
- ▶ **User-friendly design**  
(1) Auto average: Calculating average of multiple counts with a single press.  
(2) BACK button: Opportunity to count back when over-counting by mistake.
- ▶ **High compatibility**  
Compatible with Petri-dishes (various diameters), Petrifilm™, MC Media Pads™, Compact Dry™, EasyPlate™, and filtration membranes.
- ▶ **International certification**  
CE certification
- ▶ **Two-Year Warranty**

## Applications

- ▶ **Microbiology colony counting**  
Total bacteria counting  
Total coliform counting

## Ordering Information

### 175330-01(02)

Galaxy 330, Colony Counter with AC100-240V adaptor, US plug (EU plug)

### 175331-01(02)

Galaxy 330, Colony Counter with software, AC100-240V adaptor, US plug (EU plug)

### 175330-12

Software Package for Galaxy 330 (Include a 16GB USB and connecting cable)

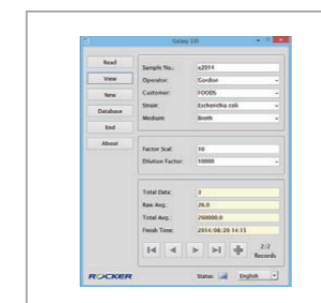
### 175200-34-2

Magnifier, 1.5X

### 175330-09-1

Adaptor for Petrifilm™ / MC-Media Pads / Compact Dry™ / EasyPlate™

## Galaxy 330



### (Optional) Galaxy 330 PC software

Use the software and make dilution rate calculation, data tracing and summary easier in csv file format.

## Specification

Model	Galaxy 330
<b>PERFORMANCE DATA</b>	
Display	3-digit, LED panel
Magnification	2X
Petri dish diameter	Ø 60 mm, and Ø 90 ~ 150 mm
Optinol adaptor	Petrifilm™, MC Media Pads™, Compact Dry™, EasyPlate™
Storage	100 records
Operating function	Average, Zero reset, Count back
Illumination	LED (adjustable)
Pressure sensitivity	Adjustable
Acoustical counting signal	Adjustable
Net weight	5.6 Kg
Dimension (LxWxH)	35 x 30 x 37 cm
<b>ELECTRICAL DATA</b>	
Power input	DC12V, 0.8A
Max. power	10W
Output	USB



# Lab Burner

## Features

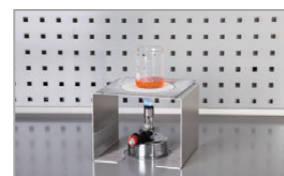
- ▶ **Reliable & professional**
  - (1) Metal-made base ensures steadiness and spill-proof.
  - (2) Compliant to CE safety regulation for gas-fired appliance.
- ▶ **Stable flame**
  - (1) Superior gas inlet design ensures sufficient butane feed and stable flame outputs.
  - (2) Burns up to 1300°C for max. 60 minutes.
- ▶ **Easy yet safe**
  - (1) Triggered by Piezo Igniter, providing instant flame at one press.
  - (2) Additional safety lock provides additional security. (Dragon 100)
- ▶ **International certification**
  - CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Sterilizing
- ▶ Welding
- ▶ Heating
- ▶ Cooking

## Ordering Information

- 177100-00**  
Dragon 100, Torch Burner
- 177200-00**  
Dragon 200, Lab Burner
- 177220-00**  
Dragon 220, Lab Burner
- 177200-T**  
Dragon 200 - T, Lab Burner Set includes:  
\* Dragon 200, Lab Burner  
\* Lab burner stand  
\* Ceramic net mesh (14 x 14 cm)
- 177200-10**  
Lab burner stand
- 177200-12**  
Ceramic net mesh (14 x 14 cm)



▶ WATCH VIDEO



Dragon 100



Dragon 200 - T



Dragon 200



Dragon 220

## Specification

Model	Dragon 100	Dragon 200	Dragon 200 - T	Dragon 220
<b>PERFORMANCE DATA</b>				
Max. temperature	1300 °C	1300 °C	1300 °C	1300 °C
Fuel tank capacity	40 g	35 g	35 g	35 g
Working time	60 min	60 min	60 min	60 min
Safe switch	Yes	-	-	-
Net weight	380 g	410 g	1235 g	425 g
Dimension (LxWxH)	8 x 14 x 16 cm	8 x 12 x 9 cm	15 x 17 x 13 cm	8 x 12 x 9 cm
<b>OTHER DATA</b>				
Equipped with	-	-	Lab burner stand Ceramic net mesh	-

# Electric Sterilizer

## Features

- ▶ **Fuel-free**  
Dragon 300 / 320 are electric burners for rapid sterilization. By generating heat from electricity, Dragon 300 / 320 is fuel-free and free of the risks of cross-contamination that may caused by open flame.
- ▶ **Fast & stable heating**  
Max. temperature is up to 850°C. Powerful heating elements ensure fast and stable heating.
- ▶ **Wide entrance**  
With much wider entrance, Dragon 320 can hold objects with larger head diameter up to 37 mm.
- ▶ **User-friendly & easy**  
Weighted base, loop rack and adjustable chamber angle (from 45° to 75°) make Dragon 300 / 320 handy and easy to use inside laminar flow hoods or anaerobic chambers.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

## Applications

- ▶ Culture tube sterilization
- ▶ Inoculating loops and needles sterilization

## Ordering Information

- 177300-11(22)**  
Dragon 300, Electric Sterilizer  
AC110V, 60Hz (AC220V, 50Hz)
- 177320-11(22)**  
Dragon 320, Electric Sterilizer  
AC110V, 60Hz (AC220V, 50Hz)



Dragon 300



Dragon 320

## Specification

Model	Dragon 300		Dragon 320	
<b>PERFORMANCE DATA</b>				
Max. temperature	850 °C			
Standby temperature	600 °C			
Chamber diameter	16 mm		37 mm	
Net weight	1.1 Kg		1.1 Kg	
Dimension (LxWxH)	17 x 9 x 21 cm		19 x 9 x 22 cm	
<b>ELECTRICAL DATA</b>				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	180W		180W	
Safety	Fuse		Fuse	



# Dispensing Peristaltic Pump



WATCH VIDEO

## Features

### ► Design for microbiological test

Pump's in-built quick-start modes:

- Tube (2.5 mL, 5 mL, 9 mL)
- Petri dish (15 mL, 18 mL, 20 mL)
- Bottle (90 mL, 225 mL, 450 mL)

### ► Ergonomic & comfortable

Ergonomic dispenser makes the grip more comfortable. Effortless dispensing with a single click.

### ► Keep-in-place

Hidden magnet inside pump keeps the dispenser in place smartly and tidy.

### ► Accurate dispensing

Accurate dosage volume from 1 mL to 9999 mL ensured by back-suction function.

### ► Make calibration easy

No more repetitive number entries, Buller 600 pump calls all required parameters automatically. Finish calibration in a single tap.

### ► In compliance with ISO 7218

Built-in microbial program in compliance with ISO 7218 guidance, ideal for dispensing media and dilute buffer in all microbiological tests.

### ► International certification

CE certification  
IP 33 protection  
RoHS certification

### ► One-Year Warranty

## Applications

### ► Microbiological test

Media dispensing and dosing  
Buffer dispensing and dosing  
All kinds of sterile solution dispensing

### ► Biomedical liquid transferring

Blood, protein, tissue, buffer, liquid medicine, etc.

### ► Pharmaceuticals

## Ordering Information

### 185601-01(02)

Buller 600 - DSP, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)

### 185600-01(02)

Buller 600, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)

### 184100-15

Normal flow rate pump head, ~ 1950 mL/min

### 184100-20

High flow rate pump head, ~ 2130 mL/min

## Buller 600 - DSP



185600-01(02) Buller 600  
Basic model without a dispenser.





## Specification

Model	Buller 600 - DSP
<b>PERFORMANCE DATA</b>	
Speed	1 ~ 600 rpm
Speed accuracy	1 %
Max. flow rate	1950 mL/min
Control type	Digital, variable-speed
Channel	1
Handling dispenser	(Standard) start/stop control
Net weight	5.8 Kg
Dimension (LxWxH)	20 x 33 x 24 cm
<b>ELECTRICAL DATA</b>	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	80W
Motor	Step Motor
External inputs	0~5V / 4~20mA / 0~10kHz
Remote control	RS 232
Safety	Fuse

\* Each unit includes a normal flow rate pump head, a handling dispenser, a nozzle, a sink and a silicone tube.

# Dispensing Peristaltic Pump



Tubing	ID	Wall thickness	TYGON S3™ E-3603	Biosicon	PHARMED® BPT	Dispensing Kit
			Laboratory applications	Biocompatibility & GMP compliance	Biocompatibility & sensitive bioprocessing	
			 15 m / box	 15 m / box	 7.5 m / box	
16#	3.1 mm	1.6 mm	185600-48	185600-55	184100-48	185600-51-16
25#	4.8 mm	1.6 mm	185600-54	185600-57	185600-50	185600-51-25
17#	6.4 mm	1.6 mm	185600-53	185600-56	185600-49	185600-51-17

# Multi-Tube Vortex Mixer

## Features

- ▶ **Innovative 3D shaking motion**  
By adopting special 3D oscillation with a maximum speed of 3000 rpm, the samples can be mixed thoroughly.
- ▶ **Designed for QuEChERS**  
The rack can be fully assembled and disassembled, making it easy to operate and clean. It accommodates 15 mL or 50 mL centrifuge tubes, making it particularly suitable for QuEChERS.
- ▶ **Dual modes**  
Built-in continuous and intermittent modes, users can choose the mode best suited to their samples and methods, ensuring maximum flexibility.
- ▶ **High safety**  
The instrument operates only when the safety shield is securely closed and immediately stops when the shield is opened, enhancing operational safety and preventing liquid splashes.
- ▶ **Compact size without displacement**  
Tornado 100 is 80% smaller than traditional high-speed shakers and is designed to prevent displacement.
- ▶ **International certification**  
CE certification  
RoHS certification
- ▶ **One-Year Warranty**

## Applications

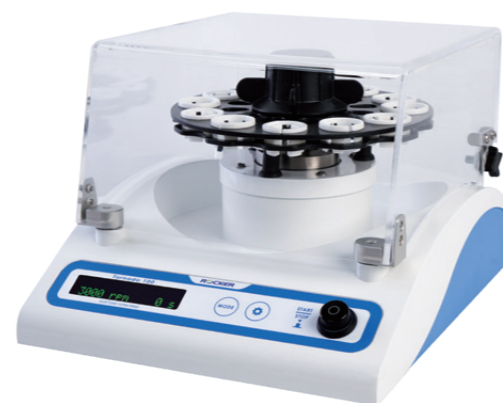
- ▶ **QuEChERS**
- ▶ **Animal drug test**
- ▶ **Pesticides test**
- ▶ **Sample pretreatment: blending**

## Ordering Information

**193100-01(02)**  
Tornado 100, Multi-Tube Vortex Mixer,  
AC100-240V, 50/60Hz, US plug (EU plug)

**193000-01**  
Rack, 50 mL x 6 + 15 mL x 6

### Tornado 100



## Specification

Model	Tornado 100
<b>PERFORMANCE DATA</b>	
Speed	0 ~ 3000 rpm (w/o sample)
Timer	(1) Countdown timer: 1 ~ 240 min (2) Counter: 0 ~ 999 min
Operation mode	• Continuous mode • Intermittent mode
Applicable vials	15 mL centrifuge tube (Ø 16.5 ~ 17.0 mm) 50 mL centrifuge tube (Ø 28.6 ~ 29.6 mm)
Max. loading	420 g
Display	OLED
Noise	65 dB @Max. rpm
Net Weight	12.1 Kg
Dimension (LxWxH)	36 x 30 x 24 cm (with safety shield)
<b>ELECTRICAL DATA</b>	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	130W
Safety	Safety Shield, Overheat Protection, Fuse

# Multi-Tube Vortex Mixer

**Designed for QuEChERS**  
Easy-operation rack is suitable for 15 mL and 50 mL vials used in QuEChERS.

**3D shaking motion**  
With a maximum speed of 3000 rpm, the samples can be mixed thoroughly.

Applicable Tube	
15 mL	Ø 16.5 ~ 17.0 mm
50 mL	Ø 28.6 ~ 29.6 mm

**Compact size without displacement**  
It is 80% smaller than traditional high-speed shakers and is displacement-free.

**High safety**  
Safety shield enhances operational safety and prevents liquid splashes.

**Dual modes**  
Continuous mode and intermittent mode for choices.

rpm

Continuous

rpm

Intermittent



# WATER ANALYSIS

## COD Reactor / Detector

CR 25  
CD 200

## Multiparameter Colorimeter

WD 100

## Graphite Hotplate

Mars 320 / 430

## Buffer Solutions

pH 4.01 / 7.00 / 10.01  
3M KCl

## COD Reactor



WATCH VIDEO

### Features

- ▶ **ISO compliant**  
CR 25 COD reactor is used to digest closed reflux COD vial according to ST-COD method (ISO 15705:2002) and can meet USEPA 410.4. It is easier and safer than traditional open reflux titrimetric method.
- ▶ **Designed for COD tests**  
CR 25 is pre-programmed with 6 heating programs for quick and easy start. Most popular programs include:  
(1) COD: 150°C, 120 min (Standard mode)  
(2) COD2: 165°C, 20 min (Preheated mode)
- ▶ **User-definable programs**  
Built-in with 2 user-definable programs that allows manual adjustments for temperature (30°C ~ 200°C) and time (1 ~ 999 min).
- ▶ **Programmable timer & beep alarm**  
CR 25 stops heating automatically with beeping alarm after the program is complete.
- ▶ **International certification**  
CE certification
- ▶ **One-Year Warranty**

### Applications

- ▶ Waste water test from factories
- ▶ Water quality test in lake, pond and river

### Ordering Information

**179250-11 (22)**  
CR 25, COD Reactor  
AC110V, 60Hz (AC220V, 50Hz)

**179250-43**  
Protective lid

**197010-36**  
Multi-function test tube rack - white base

**197010-36-1**  
Multi-function test tube rack - blue base

### CR 25



**179250-43 (Optional) Protective lid**  
Protect users from splattering reagents in accidents.



**(Optional) Multi-function test tube rack**  
\* Rack only, glass tubes NOT included.

### Specification

Model	CR 25	
<b>PERFORMANCE DATA</b>		
Display	OLED	
Temperature range	R.T. +5°C ~ 200°C	
Temperature accuracy	± 2°C	
Temperature stability	± 1°C	
Built-in programs	<ul style="list-style-type: none"> <li>• COD program: 150°C / 120 min</li> <li>• COD2 program: 165°C / 20 min</li> <li>• TP program: 150°C / 30 min</li> <li>• TN program: 105°C / 30 min</li> <li>• TPN program: 120°C / 30 min</li> <li>• TOC program: 105°C / 120 min</li> </ul>	
Timer	(1) Countdown timer: 1 ~ 999 min (2) Continuous mode: On	
Number of vials	25 vials	
Applicable vials	φ 16 mm	
Net weight	5.1 Kg	
Dimension (LxWxH)	31 x 19 x 12 cm	
<b>ELECTRICAL DATA</b>		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	350W	350W
Safety	<ul style="list-style-type: none"> <li>• Anti-heat PTFE plate on the top of heating block</li> <li>• Overheat Protection (220°C)</li> </ul>	



# COD Detector



## Features

- **Use reagents of your choice**  
CD 200 detector reads reagents from different brand owners. Pre-programmed with HACH, Lovibond, CHEMetrics, HANNA and Merck parameters, or set up by yourself.
- **Wide measure range**  
CD 200 can measure COD values in 3 different ranges: 10 ~ 150 mg/L, 100 ~ 1500 mg/L and 1000 ~ 15000 mg/L.
- **Fast detection**  
CD 200 can detect and save COD value in 3 seconds.
- **Data storage up to 100 records**  
The built-in memory can store up to 100 records for easy access.
- **International certification**  
CE certification
- **One-Year Warranty**

## Applications

- Wastewater analysis from factories
- Water monitoring, such as surface water and groundwater
- Environment monitoring in lake, pond and river

## Ordering Information

**198200-01 (02)**  
CD 200, COD Detector with AC100-240V adaptor, US plug (EU plug)



## Specification

Model	CD 200
<b>PERFORMANCE DATA</b>	
Display	LCD with backlight
Brands of reagents	HACH, Lovibond, CHEMetrics, HANNA, Merck
Measure range	10 ~ 150 mg/L, 100 ~ 1500 mg/L, 1000 ~ 15000 mg/L
User-defined curve	4 curves
Light source	LED
Working wavelength	420 nm, 610 nm (automatic)
Detecting time	3 sec
Optical stability	≤ 0.005 Abs / 30 min
Storage	100 records
Data information	Concentration, Sample number, Time
Net weight	0.5 Kg
Dimension (LxWxH)	23 x 13 x 9 cm
<b>ELECTRICAL DATA</b>	
Power input	DC12V, 1.0A
Power supply	DC9V battery or power adaptor
Max. power	1W

Brand	Applicable Reagents
HACH	COD Digestion Vials (2125825 / 2125815 / 2125925 / 2125915 / 2415925)
Lovibond	COD Reagent Tubes (2420720 / 2420721 / 2420722)
CHEMetrics	COD Vials Kit (K-7350S / K-7355 / K-7360S / K-7365 / K-7370S / K-7375)
HANNA	COD Reagent Vials (HI93754A / HI93754B / HI93754C)
Merck	Spectroquant® COD Cell Test (1.18751 / 1.18752 / 1.18753)

# Multiparameter Colorimeter



## Features

- **4-in-1 portable reader**  
WD 100 is a portable instrument that reads 4 major water quality measures including COD, Total Phosphorus (TP), Total Nitrogen (TN) and Ammonia Nitrogen (NH<sup>3</sup>-N).
- **User-programmable curves**  
WD 100 allows users to enter up to 11 different curves and increases flexibility in different applications.
- **Fast detection**  
Read and save testing records in 3 seconds without preheating. Up to 100 data can be stored automatically.
- **User-friendly setting**  
Users can add most frequently used programs into Favorite list, making the access even easier.
- **International certification**  
CE certification
- **One-Year Warranty**

## Applications

- Wastewater analysis from factories
- Water monitoring, such as surface water and groundwater
- Environment monitoring in lake, pond and river

## Ordering Information

**191100-01(02)**  
WD 100, Multiparameter Colorimeter with AC100-240V adaptor, US plug (EU plug)



## Specification

Model	WD 100
<b>PERFORMANCE DATA</b>	
Display	LCD with backlight
Brand of reagents	HACH
Standard program	COD, NH <sub>3</sub> -N, TP, TN
User-defined curve	11 curves
Light source	LED
Working wavelength	420 nm, 610 nm (automatic)
Detecting time	3 sec
Optical stability	≤ 0.005 Abs / 30 min
Storage	100 records
Data information	Item, Wavelength, Concentration, Sample number, Time
Net weight	0.5 Kg
Dimension (LxWxH)	23 x 13 x 9 cm
<b>ELECTRICAL DATA</b>	
Power input	DC12V, 1.0A
Power supply	DC9V battery or power adaptor
Max. power	1W

Parameters	HACH Catalog Number		
	Low Range (LR)	High Range (HR)	High Range Plus (HR plus)
COD	2125825 / 2125815	2125925 / 2125915	2415925
NH <sub>3</sub> -N	2604545	2606945	
TP	2742645	2767245	
TN	2672245	2714100	

# Graphite Hotplate



## Features

### ► Designed for ultra-trace metal analysis

Designed specially for ultra-trace metal analysis, all graphite plates and blocks are coated with PTFE and ensured zero metal exposure. Corrosive-gas-resistant and durable.

### ► Uniform heating technology

Made of isostatic graphite with high density and great thermal conductivity. New heater design makes excellent uniformity between each sample.

### ► Multipurpose usage

Mars hotplate can be used with various graphite blocks as hotblock for different purposes.

### ► 2 heating mode

Built-in 2 heating modes with temperature range from R.T. +5°C ~ 200°C  
 (1) Continuous mode  
 (2) Countdown mode

### ► International certification

CE certification  
 RoHS certification

### ► One-Year Warranty

## Applications

- Heavy metal digestion
- Acid digestion
- Heating experiments

## Ordering Information

### 178320-22

Mars 320, Graphite Hotplate  
 AC220V, 50/60Hz

### 178430-22

Mars 430, Graphite Hotplate  
 AC220V, 50/60Hz

### 178200-45

PTFE-coated thermal sensor



Mars 320 / 430

## Specification

Model	Mars 320	Mars 430
<b>PERFORMANCE DATA</b>		
Capacity	1 graphite block	2 graphite blocks
Display	OLED	
Plate material	PTFE-coated graphite	
Temperature range	R.T. +5°C ~ 200°C	
Resolution	1°C	
Temperature accuracy	± 1°C (@150°C)	
Timer	(1) Countdown timer: 00:01~99:59 (HH:MM) (2) Counter: 00:00 (HH:MM)	
Net weight	6.8 Kg	11.0 Kg
Controller dimension (LxWxH)	18 x 18 x 10 cm	
Hotplate dimension (LxWxH)	36 x 22 x 11 cm	46 x 32 x 11 cm
<b>ELECTRICAL DATA</b>		
Voltage	220V	220V
Frequency	50 / 60Hz	50 / 60Hz
Max. power	1000W	2000W
Safety	Overheat Protection (210°C)	

\* Each unit includes a controller and a hotplate.

# Graphite Hotplate

**X2** Use as hotplate or hotblock

Adapts various containers in one instrument.

- Hotplate: beakers, flasks, pans, etc.
- Hotblock: tubes and vessels.

**(Optional)** PTFE-coated thermal sensor

To monitor the sample temperature in digestion vessels.

**Thermal protector**

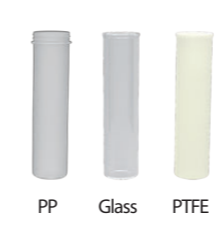
To offer a better heating uniformity and protect fume hood from thermal radiation.

**PTFE** 100% PTFE-coated graphite, total protection

All Mars graphite plates and blocks are coated with PTFE and provide high corrosion-resistance.

**Wall-mounted controller**

Designed for both desk-top and wall-mounted position. Easy to set it outside of fume hood to prevent corrosion.

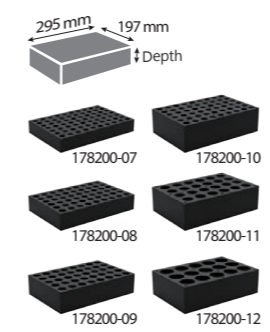


### ◆ Digestion Tube

	Tube Volume		
	15 mL	50 mL	100 mL
PP	178200-15-PP (1000 ea/pk)	178200-50-PP (500 ea/pk)	178200-100-PP (225 ea/pk)
Borosilicate Glass	178200-15-G (60 ea/pk)	178200-50-G (28 ea/pk)	178200-100-G (18 ea/pk)
PTFE	178200-15-PTFE (8 ea/pk)	178200-50-PTFE (4 ea/pk)	178200-100-PTFE (2 ea/pk)

\* Max. Operating Temperature • PP: 130 °C • Glass / PTFE: 200 °C

### ◆ Graphite Block (L x W): 295 x 197 mm



	Hole Diameter	Hole Depth	Max. Capacity	Applicable Tube
178200-07	16.5 mm	45 mm	70 well	Ø 16 mm tube
178200-08	20.5 mm	70 mm	54 well	Ø 20 mm tube
178200-09	25.5 mm	90 mm	40 well	Ø 25 mm tube
178200-10	19 mm	85mm	54 well	15 mL digestion tube, Ø 18 mm tube
178200-11	31 mm	90 mm	24 well	50 mL digestion tube, Ø 30 mm tube
178200-12	47 mm	90 mm	15 well	100 mL digestion tube

# Buffer Solutions

## Features

- ▶ High Accuracy: ± 0.01pH
- ▶ COA certificate provided with each bottle



## Specification

pH Buffer		
Cat. No.	Description	Shelf year
168400-50	pH 4.01 ± 0.01, 500 mL	2 years
168700-50	pH 7.00 ± 0.01, 500 mL	2 years
168100-50	pH 10.01 ± 0.01, 500 mL	1 year

KCl Buffer		
Cat. No.	Description	Shelf year
168103-50	3M KCl, 500 mL	2 years

# Chemical Compatibility Guide

This guide should be used as a reference to select the proper pump, filter holder, and accessories with regard to chemical compatibility. The results were tested on raw material whose properties will be affected by many factors. Hence, the data can only serve as a basic guide and do not imply any guarantee of certain properties.

**O - Recommended. / ▲ - Limited resistance. / X - Not recommended. / - Data not available.**

Chemicals	Formula	ABS	POM	PC	PP	PES	PPSU	PTFE	SS316	EPDM	FKM	FFKM
<b>ACIDS</b>												
10% Hydrochloric Acid	HCl	O	O	O	O	O	O	O	X	O	O	O
20% Sulfuric Acid	H <sub>2</sub> SO <sub>4</sub>	O	X	O	O	O	O	O	X	O	O	O
20% Nitric Acid	HNO <sub>3</sub>	O	X	O	O	X	-	O	O	O	O	O
20% Acetic Acid	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	X	▲	O	O	O	O	O	O	O	O	O
10% Hydrofluoric Acid	HF	-	X	O	O	O	-	O	O	O	O	O
Aqua Regia	HNO <sub>3</sub> +3HCl	X	X	X	▲	X	-	O	X	X	O	O
<b>ALKALIS</b>												
20% Sodium Hydroxide	NaOH	O	O	O	O	O	O	O	O	O	O	O
20% Potassium Hydroxide	KOH	O	O	X	O	O	-	O	O	O	O	O
28% Aqueous Ammonia	NH <sub>3</sub>	O	X	X	O	▲	-	O	O	O	O	O
<b>ALCOHOLS</b>												
Methanol	CH <sub>3</sub> OH	X	O	O	O	O	O	O	O	O	X	O
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	O	O	O	O	▲	O	O	O	O	O	O
Propanol	C <sub>3</sub> H <sub>7</sub> OH	-	O	-	O	O	-	O	O	O	O	O
Isopropanol	C <sub>3</sub> H <sub>7</sub> OH	O	O	O	O	O	O	O	O	O	O	O
n-Butanol	C <sub>4</sub> H <sub>9</sub> OH	X	O	O	O	O	O	O	O	O	O	O
<b>KETONES</b>												
Acetone	C <sub>3</sub> H <sub>6</sub> O	X	O	X	O	X	X	O	O	O	X	O
Methyl Ethyl Ketone (MEK)	C <sub>4</sub> H <sub>8</sub> O	X	O	X	O	X	-	O	O	O	X	X
<b>OTHERS</b>												
Acetonitrile	CH <sub>3</sub> CN	-	X	X	O	X	-	O	O	O	X	O
10% Hydrogen Peroxide	H <sub>2</sub> O <sub>2</sub>	O	X	O	O	O	-	O	O	▲	O	O
5% Bleach (Sodium Hypochlorite)	NaClO	O	X	O	O	O	-	O	O	O	O	O
Mineral Oil	-	O	O	O	O	O	O	-	O	X	O	O
Sea water	-	-	-	-	-	-	-	-	▲	-	-	-

Recommendations are based on a 24-hour static exposure to the test fluid at RT (21°C / 71 °F).