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without prior notification.

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

www.rocker.com.tw



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.

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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.



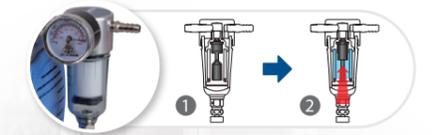
Prote™ overflow protection

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.

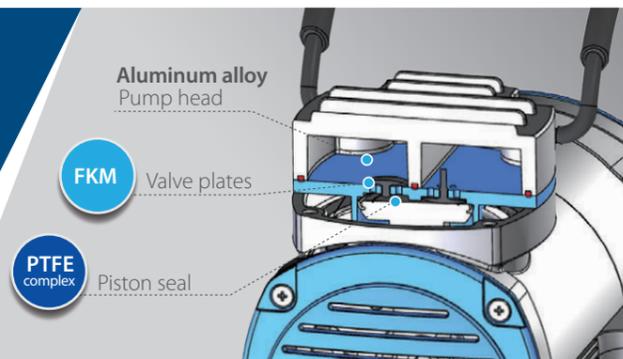


Quality compliance

- 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

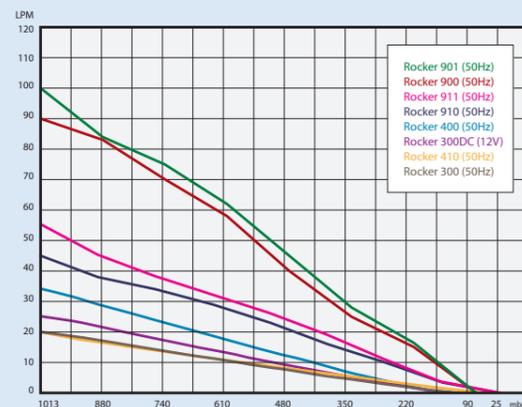
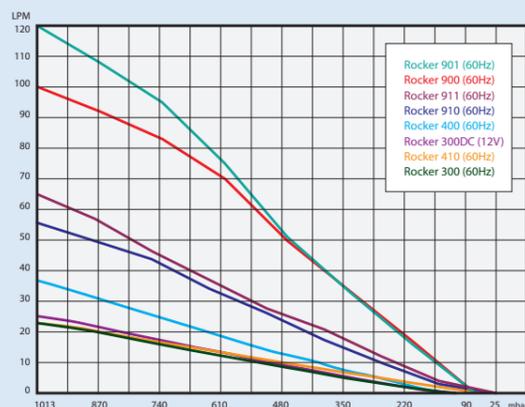


Rocker 911
 Max. vacuum : 25 mbar abs.
 Max. flow rate : 65 (55) L/min

* 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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
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
OTHER DATA		
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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)

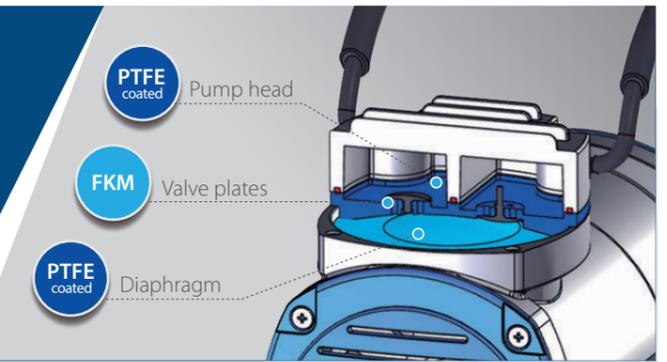
167911-11(22)
Rocker 911, Vacuum Pump,
AC110V, 60Hz (AC220V, 50Hz)

Specification

Model	Rocker 910		Rocker 911	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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

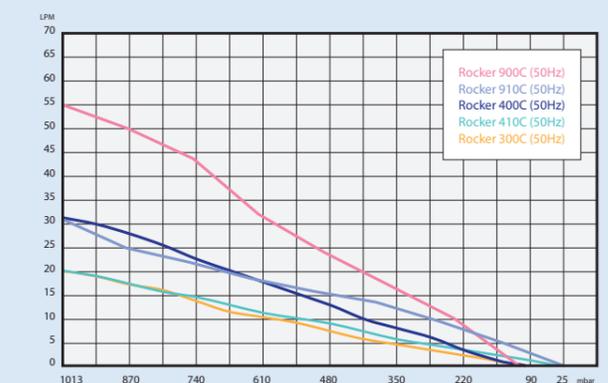
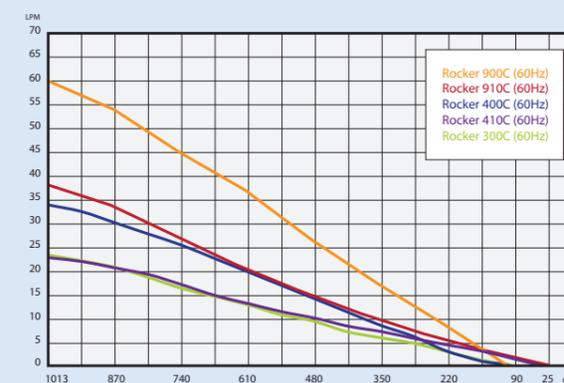


Rocker 910C
Max. vacuum : 25 mbar abs.
Max. flow rate : 37 (31) L/min



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	
PERFORMANCE DATA		
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	
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	
OTHER DATA		
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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

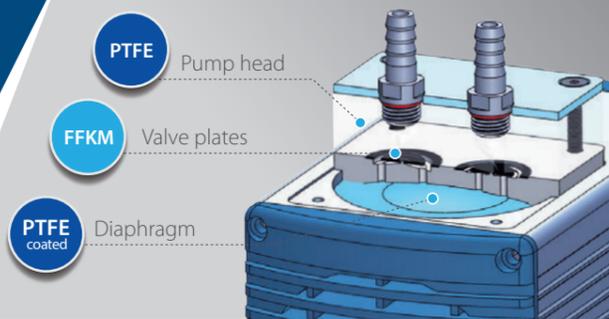
189900-11(22)
Rocker 900C, PTFE Coated Chemical Resistant Vacuum Pump,
AC110V, 60Hz (AC220V, 50Hz)

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

Specification

Model	Rocker 900C		Rocker 910C	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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

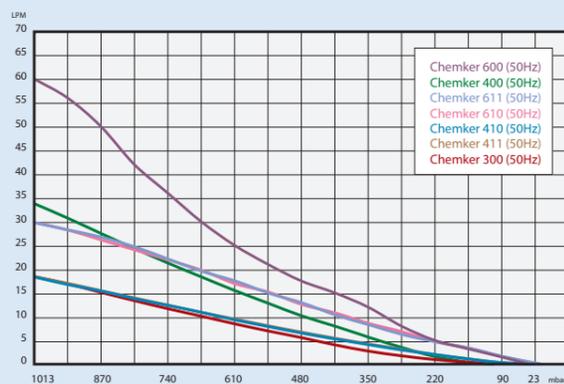
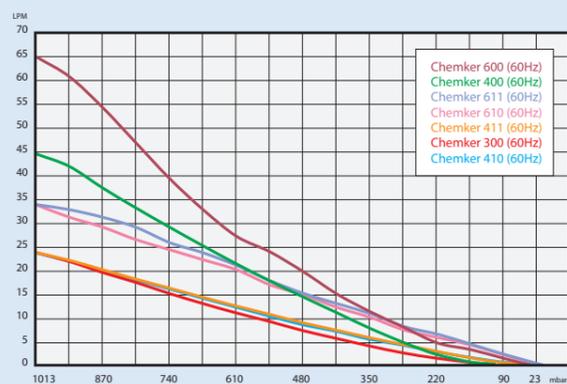
Chemker 611
Max. vacuum : 7 mbar
Max. flow rate : 34 (30) L/min

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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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	
OTHER DATA				
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**



Chemker 600

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**



Chemker 610



Chemker 611

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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	120W (1/6 HP)
Motor	Brushless DC Motor (BLDC)
Safety	Fuse, Error Message
OTHER DATA	
Equipped with	Glass moisture trap

Applications

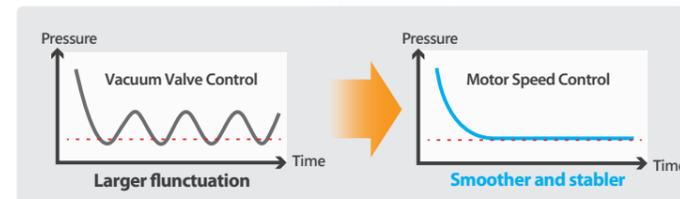
- ▶ Laboratory vacuum control
- ▶ Rotary evaporation
- ▶ Vacuum concentration and distillation

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
PERFORMANCE DATA	
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, PTFE, Silicone, PP, PPS
ELECTRICAL DATA	
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	
PERFORMANCE DATA								
Max. vacuum	1 x 10 ⁻¹ torr abs.		1 x 10 ⁻¹ torr abs.		5 x 10 ⁻² torr abs.		5 x 10 ⁻² 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	
ELECTRICAL DATA								
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

- 185601-01(02)**
Buller 600, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)
- 185601-01(02)-DSP**
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)-DSP Buller 600 - DSP
The included ergonomic dispenser facilitates easy dispensing with a single click, refer to P.105.

Specification

Model	Buller 600
PERFORMANCE DATA	
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
ELECTRICAL DATA	
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 pump head. Peristaltic tubing is required for operation; please select the appropriate tubing according to your application.

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 cleanness 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	
PERFORMANCE DATA		
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	
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	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	1/4 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

* 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

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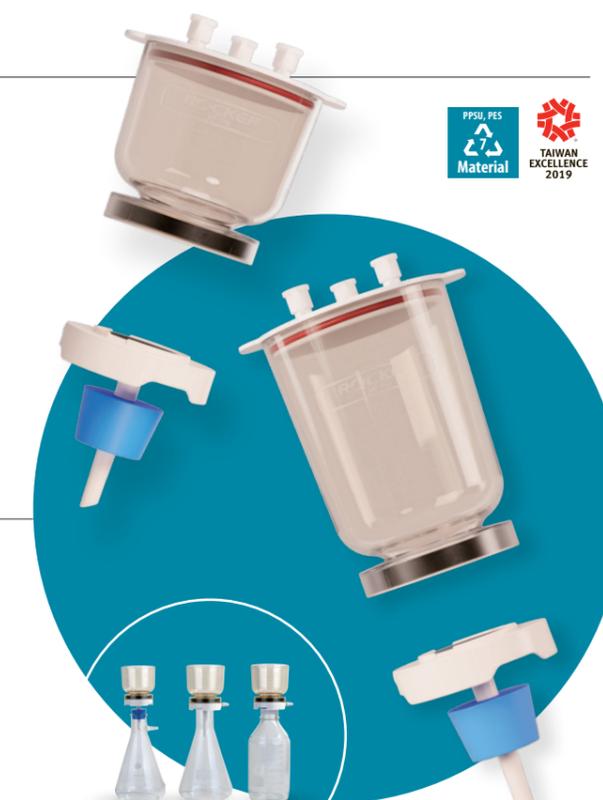
PES

MF, Magnetic Filter Holder

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

Feature: Magnetic seal

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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

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Filtration Apparatus

Model: LF 30 / MF 31

Feature: PES filtration set

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* PPSU : Polyphenylsulfone, PES : Polyethersulfone

Filtration Apparatus Selection Guide



SS 316

SF, Spin-Lock Filter Holder

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

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SFC, Continuous Filter Holder

Model: SF 142
Feature: Continuous feed

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Filtration Apparatus

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

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Borosilicate Glass

VFC, Continuous Filter Holder

Model: VFC 47
Feature: Continuous feed

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Continuous Filter Holder

Model: Stream 3 / 10
Feature: Continuous feed

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25 mm Filtration Apparatus

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

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47 mm Filtration Apparatus

Model: VF 3
Feature: All-glass construction

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47 mm Filtration Apparatus

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

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47 mm Filtration Apparatus

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

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47 mm Filtration Apparatus

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

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90 mm Filtration Apparatus

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

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Manifold Selection Guide

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

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

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

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

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

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

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▲ 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

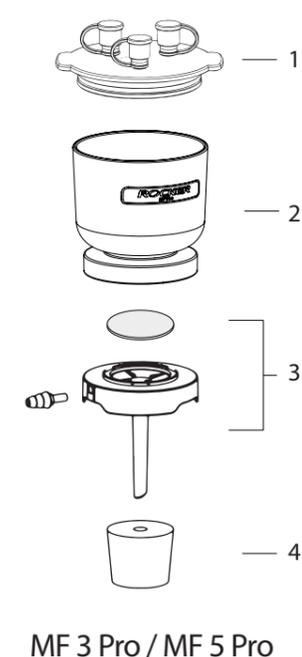
Recommended for applications that require frequent autoclaves in pharmaceutical and biotech labs.

Specification

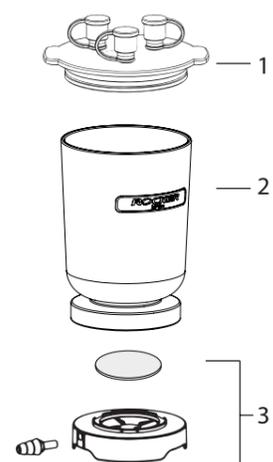
Material	MF 3 Pro / MF 5 Pro	MF 3a Pro / MF 5a Pro
Funnel	PPSU	PPSU
Support base	PPSU	PPSU
Membrane support	PPSU	PPSU
Funnel lid	PP	PP
Hose barb	PPSU	PPSU
Cap of lid	Silicone	Silicone

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 ²	13.1 cm ²
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

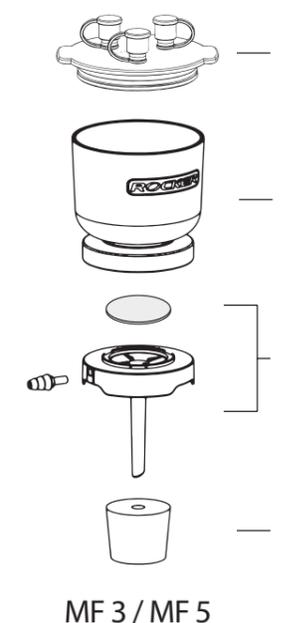
Recommended for applications that require less frequent autoclaves in general and environmental labs.

Specification

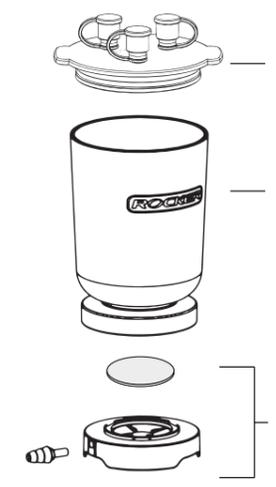
Material	MF 3 / MF 5	MF 3a / MF 5a
Funnel	PES	PES
Support base	PES	PES
Membrane support	PES	PES
Funnel lid	PP	PP
Hose barb	PES	PES
Cap of lid	Silicone	Silicone

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 ²	13.1 cm ²
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.

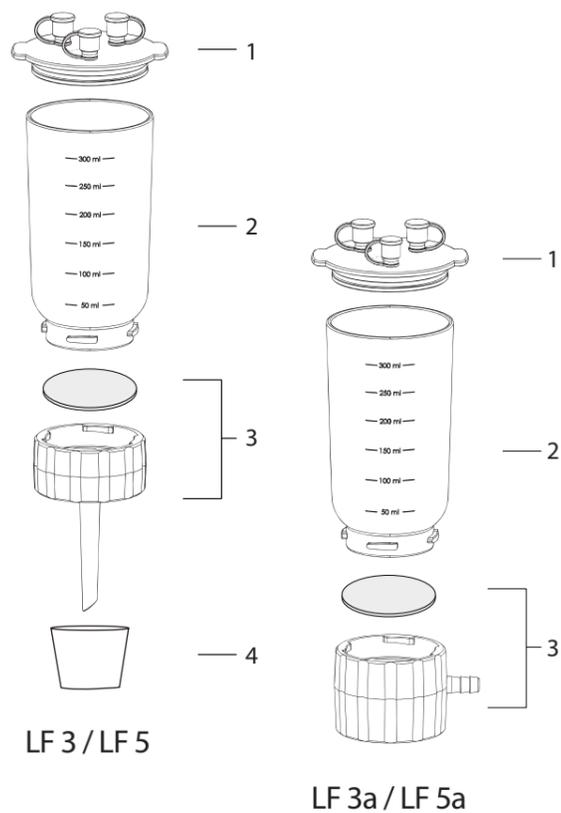
Specification

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		
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 ²	12.5 cm ²
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



LF 3 / LF 5

LF 3a / LF 5a

SF, Stainless Steel Filter Holder



SF, Stainless steel funnel lid (optional)

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

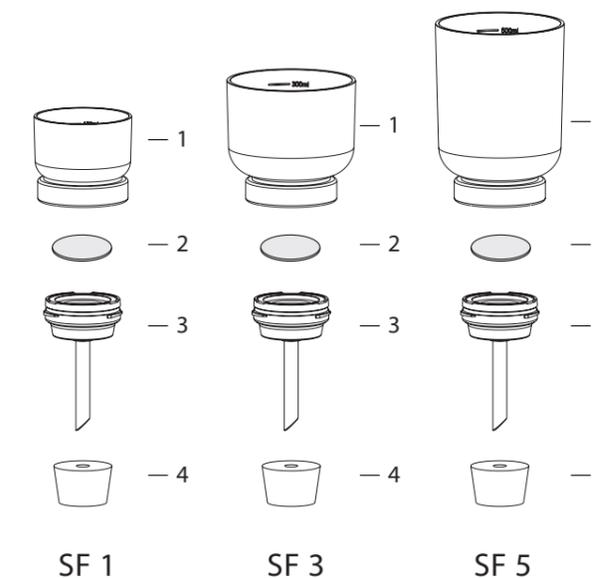
Recommended for microbiological applications that require fast flame sterilization.

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			
Funnel capacity	100 mL	300 mL	500 mL
Filter diameter	47 mm	47 mm	47 mm
Effective filtration area	11.6 cm ²	11.6 cm ²	11.6 cm ²
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



SF 1

SF 3

SF 5

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

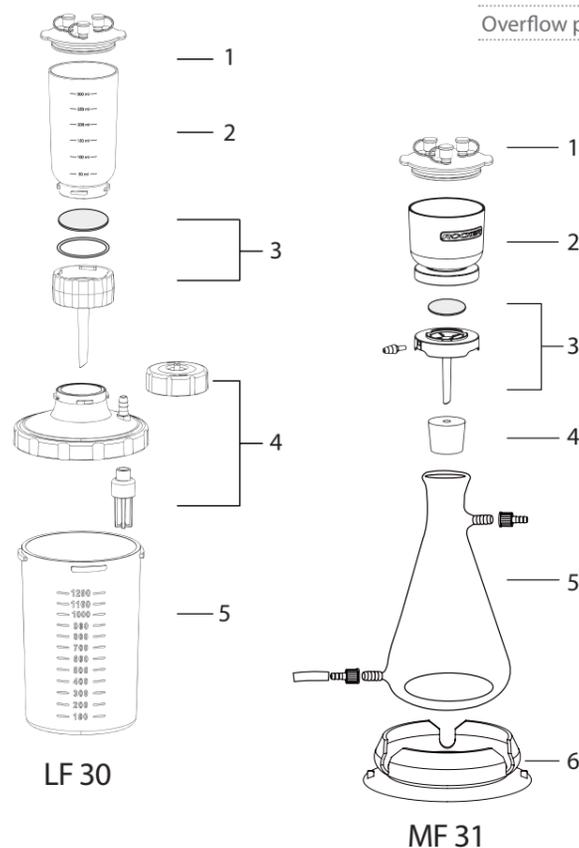
General filtration, such as microbiological test, suspended solid analysis, etc.

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 ²	13.1 cm ²
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

LF 30

MF 31

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

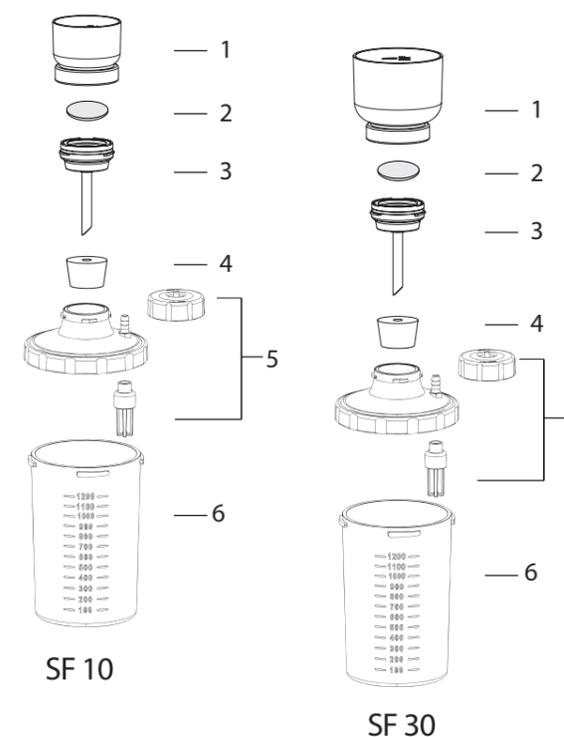
General filtration, such as medium purification, microbiological test etc.

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 ²	11.6 cm ²
Hose barb	ID8	ID8
Overflow protection	Yes	Yes



SF 10

SF 30

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 ²	11.6 cm ²
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

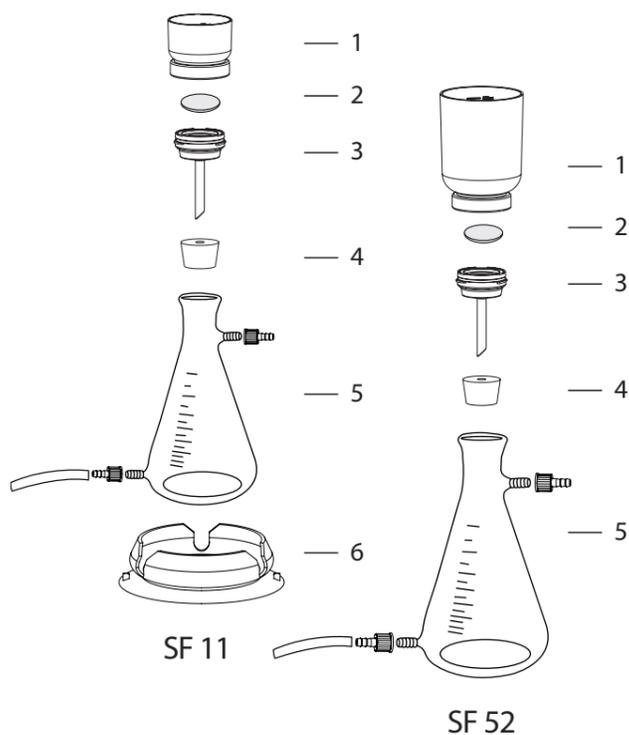
SF 1, Stainless Steel Filter Holder (100 mL) 180100-10

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.

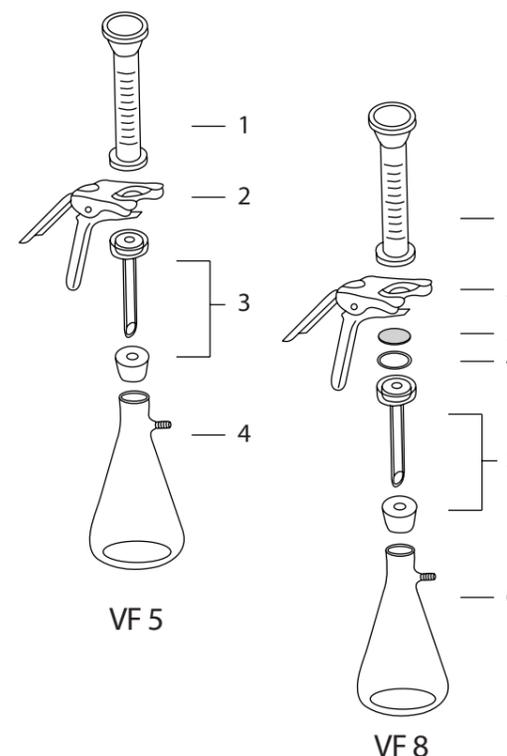
Specification

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 ²	2.5 cm ²
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

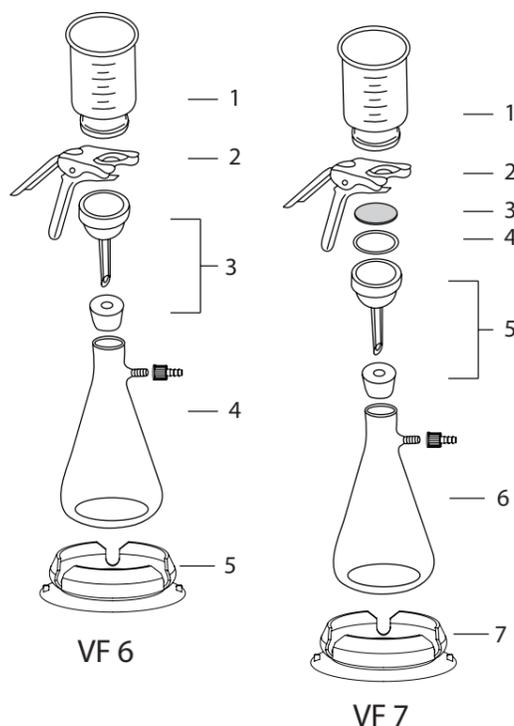
Specification

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 ²	9.6 cm ²
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
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

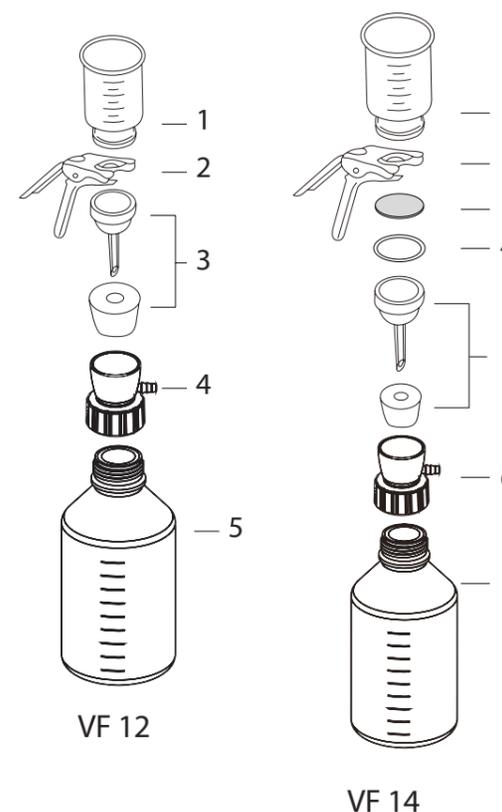
Specification

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 ²	9.6 cm ²
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
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
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



47 mm Glass Filtration Apparatus



VF 3

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

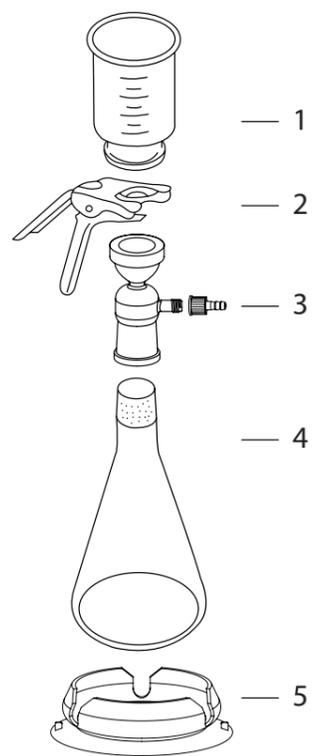
Specification

Funnel capacity	300 mL
Flask capacity	1000 mL
Filter diameter	47 mm / 50 mm
Effective filtration area	12.6 cm ²
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



VF 20



VF 21

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.

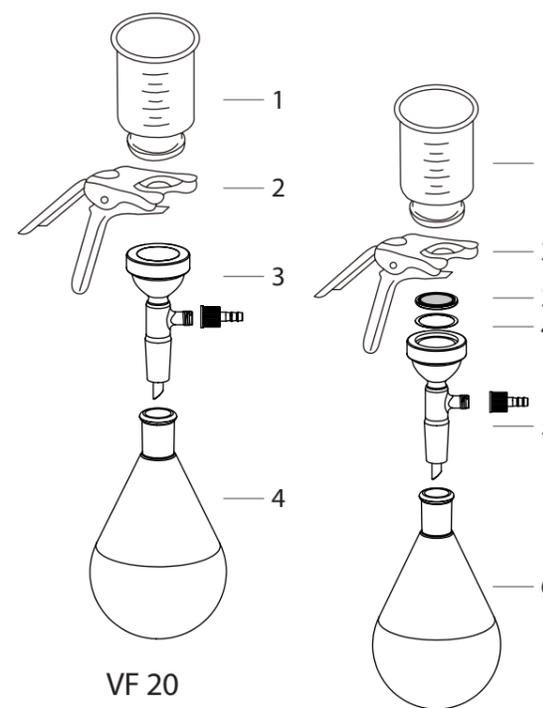
Specification

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 ²	9.6 cm ²
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

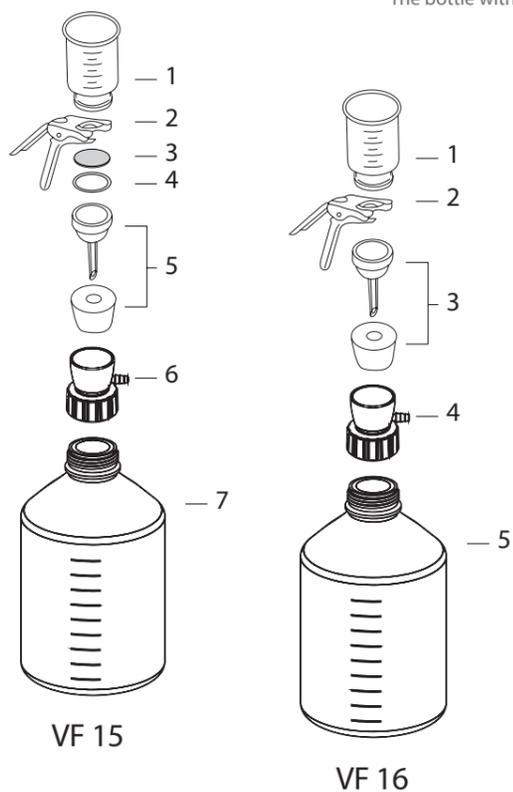
Specification

	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 ²	45.5 cm ²
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
Glass Filter Holder (1000 mL)	167120-37
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 (Including No.8 silicone stopper)	167230-10
6 GL45 filtration adaptor	197000-65
7 Laboratory glass bottle, 5000 mL	197000-55
VF 16, 90 mm Glass Filtration Set	167200-16
Glass Filter Holder (1000 mL)	167120-38
1 Glass funnel, 1000 mL	167210-10
2 Aluminum clamp, 90 mm	167240-02
3 Sintered glass support base, 90 mm (Including No.8 silicone stopper)	167230-11
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

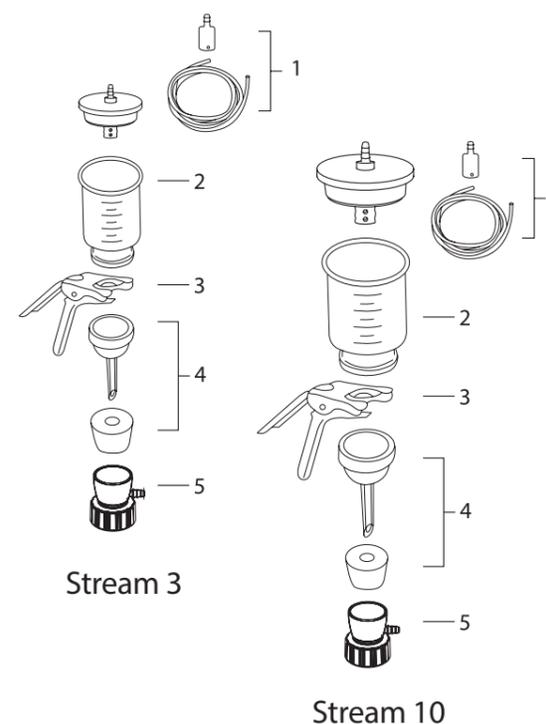
Material	Stream 3	Stream 10
Continuous filtration kit	PTFE, Silicone	PTFE, Silicone
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	Sintered glass
Clamp	Aluminum	Aluminum
Filtration adaptor	PP	PP

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 ²	45.5 cm ²
Hose barb	ID4 ~ ID8	ID4 ~ ID8

Ordering Information

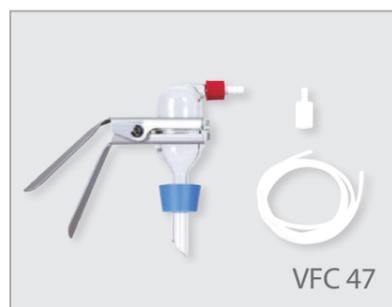
Stream 3, Continuous Filter Holder (300 mL)	167200-53
1 Continuous filtration kit for 300 mL glass filter holder	167210-36
2 Glass funnel, 300 mL	167210-03
3 Aluminum clamp, 47 mm	167240-01
4 Sintered glass support base, 47 mm (Including No.8 silicone stopper)	167230-03
5 GL45 filtration adaptor	197000-65
Stream 10, Continuous Filter Holder (1000 mL)	167200-510
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 (Including No.8 silicone stopper)	167230-11
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

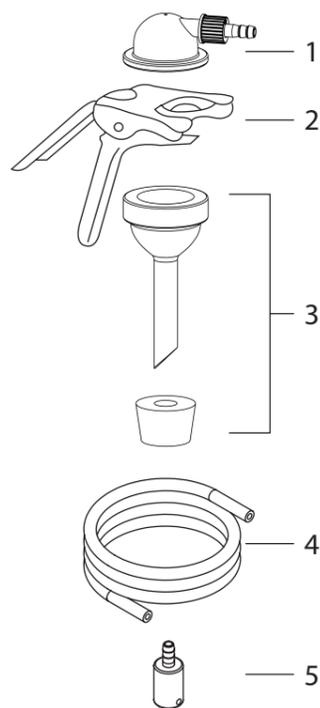
Material	VFC 47
Cover	Borosilicate glass
Support base	Borosilicate glass
Membrane support	Sintered glass
Inlet hose barb	PP, Silicone
Clamp	Aluminum
Tube	Silicone
Sinker	PTFE

Specification

Filter diameter	47 / 50 mm
Effective filtration area	12.6 cm ²
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	197000-65
	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

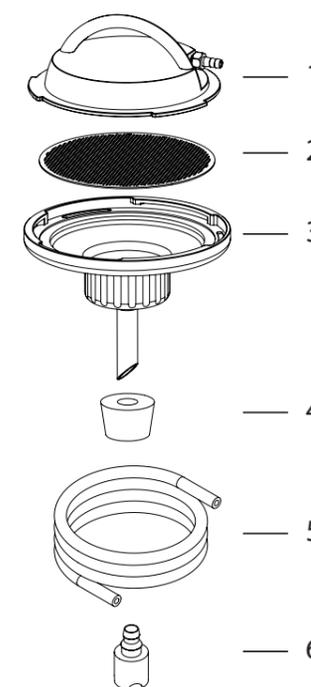
Material	SFC 142
Cover	SS304
Support base	SS304
Membrane support	SS304
Inlet hose barb	SS304
Tube	Silicone
Sinker	SS304

Specification

Filter diameter	142 mm
Effective filtration area	124.6 cm ²
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	197000-65
	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



Specification

Model	Rocker 300 - LF 30		Rocker 300 - MF 31	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
FILTRATION APPARATUS				
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



Specification

Model	Rocker 300C - VF 12		Chemker 300 - VF 12		Lafil 300C - VF 12	
PERFORMANCE DATA						
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	
ELECTRICAL DATA						
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					
FILTRATION APPARATUS						
Filter holder	300 mL					
Storage bottle	1000 mL					
Filter diameter	47 mm / 50 mm					
Equipped with	Vacuum regulator		-		Vacuum regulator	

Continuous Solvent Purification System



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



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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
FILTRATION APPARATUS				
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
FILTRATION APPARATUS				
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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
Power input	DC12V, 1.0A
Max. power	12W
Motor	Brushless DC Motor (BLDC)
OTHER DATA	
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

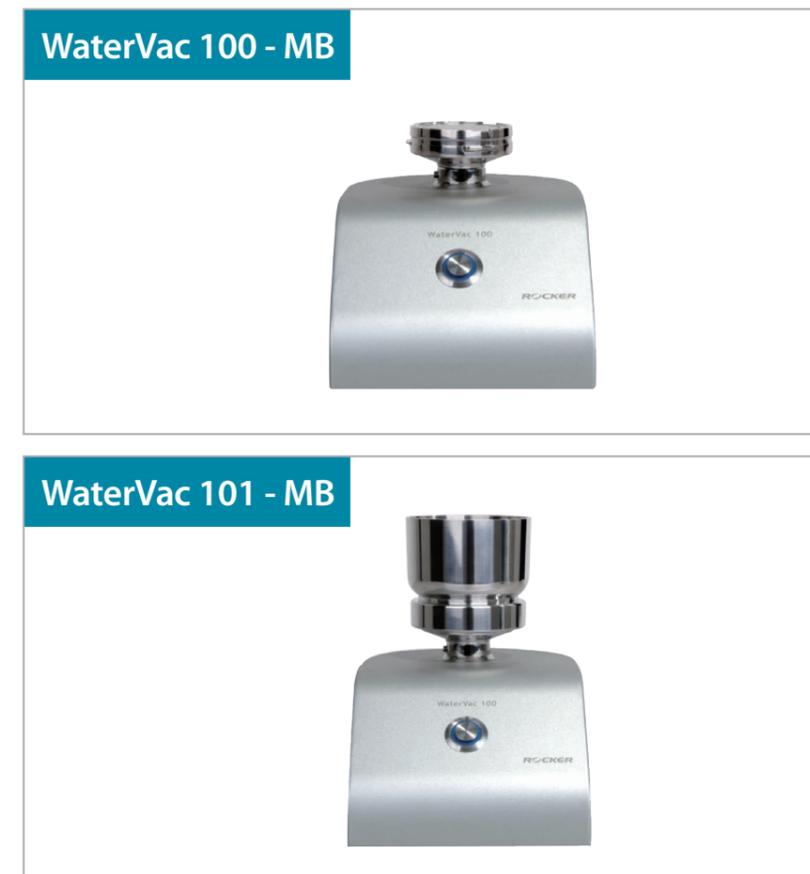
190120-01(02)
WaterVac 100 - MB, Vacuum Filtration System with AC100-240V adaptor, US plug (EU plug)

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
PERFORMANCE DATA		
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	
ELECTRICAL DATA		
Power input	DC12V, 1.0A	
Max. power	12W	
Motor	Brushless DC Motor (BLDC)	
OTHER DATA		
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



 Patented



360° Rotational L-type hose barb



Compatible with various kinds of adaptors and filter holders

Specification

Model	WaterVac 200 - MS	
PERFORMANCE DATA		
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	
ELECTRICAL DATA		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
OTHER DATA		
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



 Patented



 Patented

Specification

Model	WaterVac 200 - MB	WaterVac 201 - MB
PERFORMANCE DATA		
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	
ELECTRICAL DATA		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
OTHER DATA		
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)



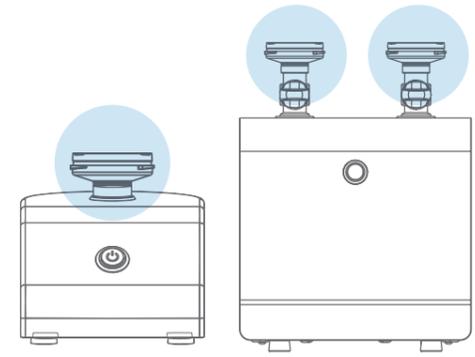
WaterVac 100 - MS Vacuum Filtration System (190110-01/02) (US plug / EU plug)

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

MultiVac 310 - MS



Quick-Fit hose barb

MultiVac 610 - MS



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

MultiVac 300 - MS



Adjustable vent valve

Quick-Fit hose barb

MultiVac 600 - MS



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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
OTHER DATA		
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, PTFE, 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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
OTHER DATA		
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, PTFE, 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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
OTHER DATA				
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
OTHER DATA				
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)

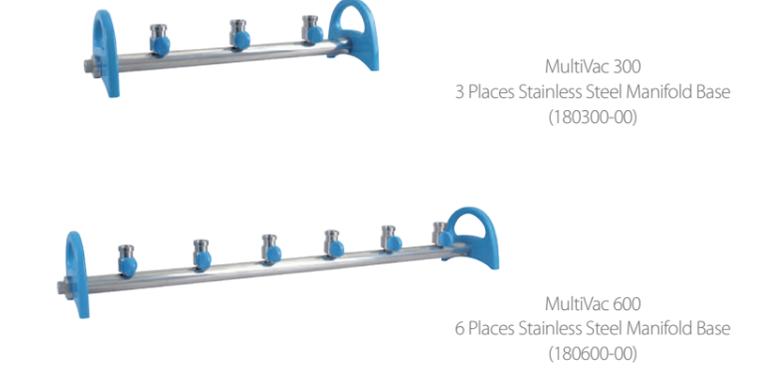
B Step 1. Choose the manifold



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

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

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 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)

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)

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)

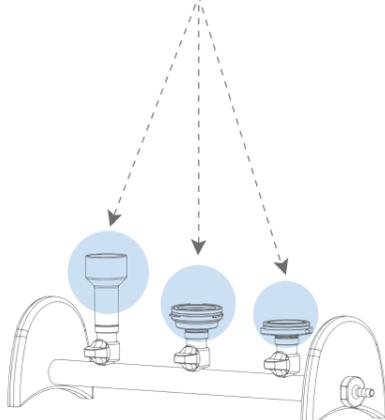
SS316 Adaptor for Millipore
disposable plastic funnel
(190100-73)

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



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

Rotary Manifold

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



SolarVac 600 - MS



SolarVac 600 - MB

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

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



SolarVac 601 - MB



SolarVac 1201 - MB

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)**



Specification

Model	SolarVac 601 - MB - A	SolarVac 1201 - MB - A
PERFORMANCE DATA		
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
ELECTRICAL DATA		
Power input	DC24V, 1.8A	
Max. power	44W	
Motor	Brushless DC Motor (BLDC)	
Safety	Overload Protection	
OTHER DATA		
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, PTFE, Silicone, PP, PPS	

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

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)**



Specification

Model	SolarVac 601 - MB - T		SolarVac 1201 - MB - T	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
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			
OTHER DATA				
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			

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

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.



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.



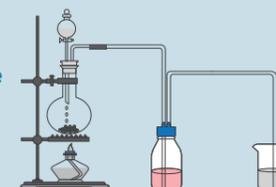
► On moisture trap bottle

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



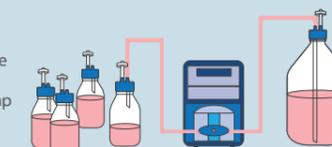
► Vapor absorption (neutralization) bottle

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^{eco}

Lafil 200 - Plus / Lafil 200 - BioDolphin

Lafil 200^{eco} - Plus / Lafil 200^{eco} - 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

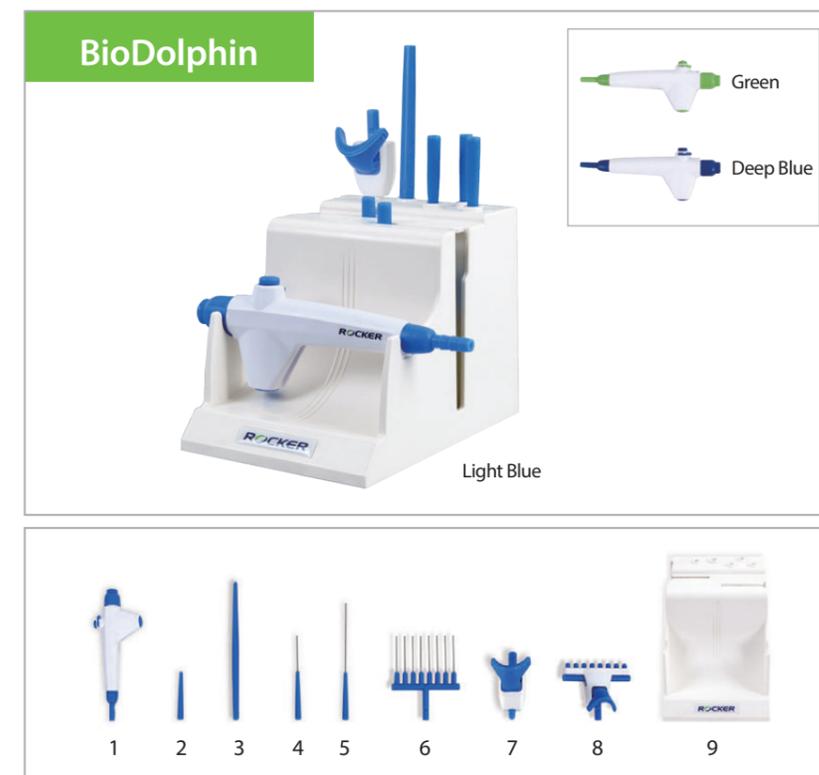
- ▶ **Quick connection**
Easy installation between handle and adaptors.
- ▶ **One-finger tip ejection**
Ergonomic ejector makes tip removal easy and effortless.
- ▶ **Easy lock switch**
Keep continuous suction with a single click to save efforts during repetitive procedures.
- ▶ **Multi-funtional storage 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 while blocking aerosols to minimize contamination.
 - (3) Smart built-in tool storage makes it convenient and easy to use.
- ▶ **Eco control feature (Lafil 100^{eco})**
Lafil 100^{eco}'s pump pauses when maximum vacuum is detected and resumes operation to maintain a constant and stable suction, making Lafil 100^{eco} more energy-saving and quieter machine to work with.
- ▶ **International certification**
CE certification
- ▶ **One-Year Warranty (Lafil 100 / Lafil 100^{eco})**



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^{eco}, 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 ^{eco}
PERFORMANCE DATA		
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	
ELECTRICAL DATA		
Power input	DC12V, 0.5A	
Max. power	6W	
OTHER DATA		
Suction Kit	<ul style="list-style-type: none"> • Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector 	

* Lafil 100^{eco} will shut off at 480 mbar and restart at 813 mbar.

Portable Suction System

- Perfect size**
Suitable for in-hood operations.
- Storage rack**
Keep the bench top tidy and spacious by accommodating all suction tools in storage.
- 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.
- ▶ **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
(4) Aerosol-blocking design with a hydrophobic filter and self-closing bottle to minimize contamination.
- ▶ **Eco control feature (Lafil 200^{eco})**
Lafil 200^{eco}'s pump pauses when maximum vacuum is detected and resumes operation to maintain a constant and stable suction. Making Lafil 200^{eco} 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^{eco})**

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)
- 197205B-01(02)**
Lafil 200 - Plus, Suction System (PP vacuum bottle w/ hose barb) with AC100-240V adaptor, US plug (EU plug)
- 197215-01(02)**
Lafil 200^{eco} - Plus, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197213-01(02)**
Lafil 200^{eco} - BioDolphin, Suction System with AC100-240V adaptor, US plug (EU plug)
- 197200-53**
PP vacuum bottle with quick-coupling connector, 4000 mL



* The nameplate is different on Lafil 200 and Lafil 200^{eco}.

Specification

Model	Lafil 200 - Plus / BioDolphin	Lafil 200 ^{eco} - Plus / BioDolphin
PERFORMANCE DATA		
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	
ELECTRICAL DATA		
Power input	DC12V, 1.5A	
Max. power	18W	
OTHER DATA		
	Plus	BioDolphin
Suction Kit	<ul style="list-style-type: none"> • Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector 	<ul style="list-style-type: none"> • Handle • 1-channel tip adaptor (50 mm) • 1-channel tip adaptor (150 mm) • 1-channel SS adaptor (40 mm) • 1-channel SS adaptor (80 mm) • 8-channel SS adaptor (40 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector • Rack

Large Capacity Suction System



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
(3) Aerosol-blocking design with a hydrophobic filter to minimize contamination.
- ▶ **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)**

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)

Lafil 300 - Plus



Lafil 300 - BioDolphin



Specification

Model	Lafil 300 - Plus		Lafil 300 - BioDolphin	
PERFORMANCE DATA				
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			
ELECTRICAL DATA				
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			
OTHER DATA				
	Plus		BioDolphin	
Suction Kit	<ul style="list-style-type: none"> • Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector 		<ul style="list-style-type: none"> • Handle • 1-channel tip adaptor (50 mm) • 1-channel tip adaptor (150 mm) • 1-channel SS adaptor (40 mm) • 1-channel SS adaptor (80 mm) • 8-channel SS adaptor (40 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector • Rack 	

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.
(3) Aerosol-blocking design with a hydrophobic filter to minimize contamination.
- ▶ **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)**

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)

Lafil 400 - Plus



Lafil 400 - BioDolphin



Specification

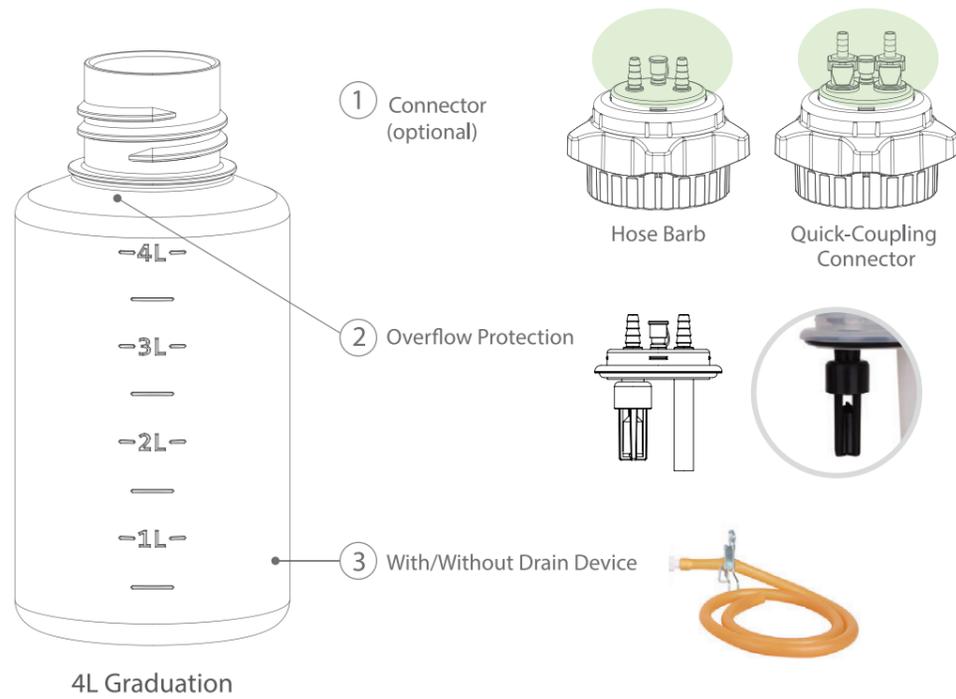
Model	Lafil 400 - Plus		Lafil 400 - BioDolphin	
PERFORMANCE DATA				
Max. vacuum	25 mbar abs.			
Max. flow rate	23 L/min @60Hz	20 L/min @50Hz	23 L/min @60Hz	20 L/min @50Hz
Aspiration rate	19 mL/sec			
Waste bottle	PES vacuum bottle, 1200 mL			
Noise level	52 dB			
Net weight	7.0 Kg			
Dimension (LxWxH)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

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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
Power input	100-240V
Frequency	50 / 60Hz
Max. power	50W
Safety	Motor Overload Protection, Fuse
OTHER DATA	
Applicable capsules	<ul style="list-style-type: none"> • Pall, Minimate™ TFF Capsules • Sartorius, Sartocoon Slice 50 • Merck, Pellicon® XL 50 Device Contact us for capsule compatibility of others.

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

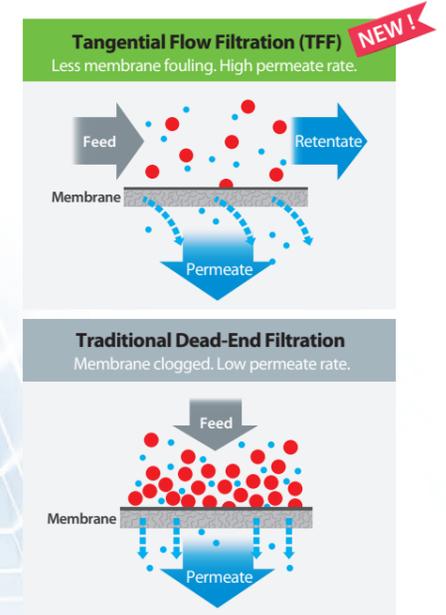
Tangential Flow Filtration System



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 cm²
* 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
PERFORMANCE DATA	
Max. stirring quantity (H ₂ 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
ELECTRICAL DATA	
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

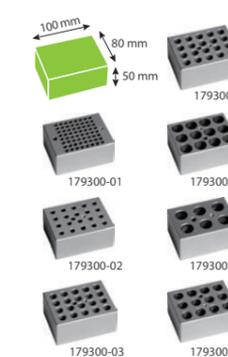
179310-11(22)
Sahara 310, Dry Bath (without block)
AC110V, 60Hz (AC220V, 50Hz)

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

179300-00
Armor beads (1 block capacity)



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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
Voltage	110V 220V	110V 220V
Frequency	50 / 60Hz	
Max. power	120W 240W	
Safety	Overheat Protection (170°C)	



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	
PERFORMANCE DATA			
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	
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	
MATERIAL			
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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
Power input	-	DC12V, 1.5A
Max. power	-	18W
MATERIAL		
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
PERFORMANCE DATA								
Tank capacity	3L		6L		10L		20L	
Frequency	35 kHz		35 kHz		35 kHz		35 kHz	
Timer	1 ~ 99 min							
Heating	-	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	
ELECTRICAL DATA								
Voltage	110V	220V	110V	220V	110V	220V	110V	220V
Frequency	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	188203-31	188203-30	188200-31
for Soner 206/206H	188206-31	188206-30	188200-31
for Soner 210/210H	188210-31	188210-30	188200-32
for Soner 220/220H	188220-31	188220-30	188200-33

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



WATCH VIDEO

2

YEAR

WARRANTY

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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
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
PERFORMANCE DATA				
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
OTHER DATA				
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	
PERFORMANCE DATA				
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	
ELECTRICAL DATA				
Voltage	110V	220V	110V	220V
Frequency	50 / 60Hz		50 / 60Hz	
Max. power	180W		180W	
Safety	Fuse		Fuse	

Dispensing Peristaltic Pump



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)-DSP

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

185601-01(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



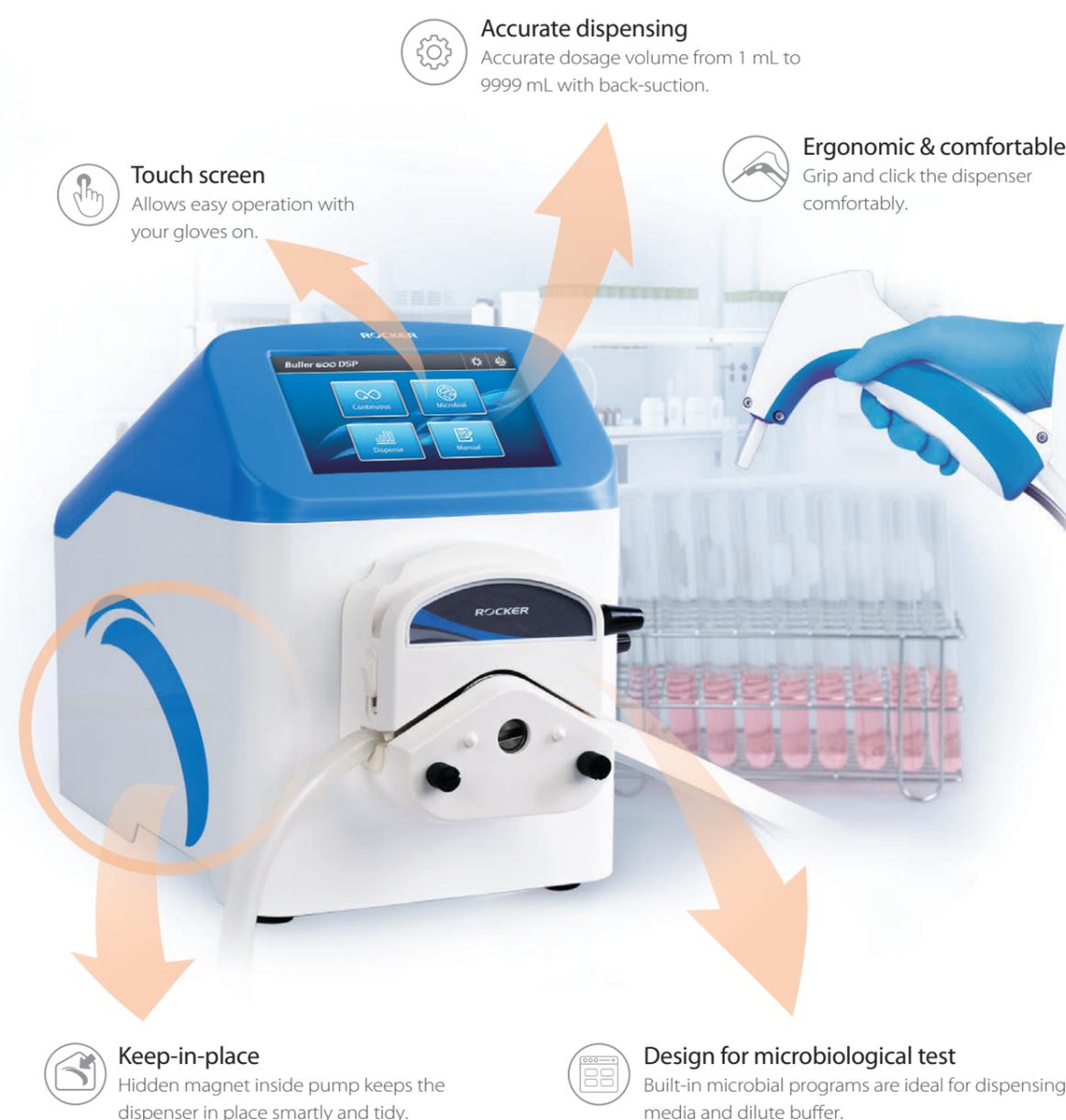
185601-01(02) Buller 600
Basic model without a dispenser.

Specification

Model	Buller 600 - DSP
PERFORMANCE DATA	
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
ELECTRICAL DATA	
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 pump head and a handling dispenser. A dispensing kit and peristaltic tubing are required for dispensing; please select the appropriate specifications based on your application.

Dispensing Peristaltic Pump



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

* The dispensing kit includes a nozzle, a holder, and a sinker.

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

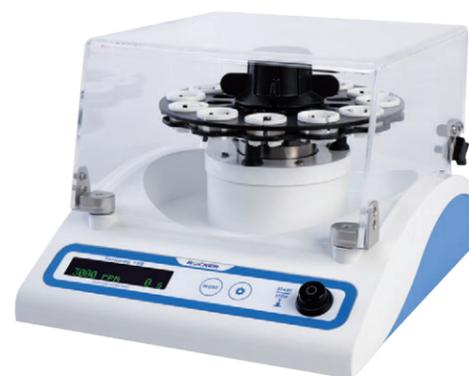
- ▶ **QuEChERS**
- ▶ **Animal drug test**
- ▶ **Pesticides test**
- ▶ **Sample pretreatment: blending**

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
PERFORMANCE DATA	
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)
ELECTRICAL DATA	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	130W
Safety	Safety Shield, Overload 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	
PERFORMANCE DATA		
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"> • COD program: 150°C / 120 min • COD2 program: 165°C / 20 min • TP program: 150°C / 30 min • TN program: 105°C / 30 min • TPN program: 120°C / 30 min • TOC program: 105°C / 120 min 	
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	
ELECTRICAL DATA		
Voltage	110V	220V
Frequency	50 / 60Hz	
Max. power	350W	350W
Safety	<ul style="list-style-type: none"> • Anti-heat PTFE plate on the top of heating block • Overheat Protection (220°C) 	

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
PERFORMANCE DATA	
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
ELECTRICAL DATA	
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 (NH³-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
PERFORMANCE DATA	
Display	LCD with backlight
Brand of reagents	HACH
Standard program	COD, NH ₃ -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
ELECTRICAL DATA	
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 ₃ -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
PERFORMANCE DATA		
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
ELECTRICAL DATA		
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

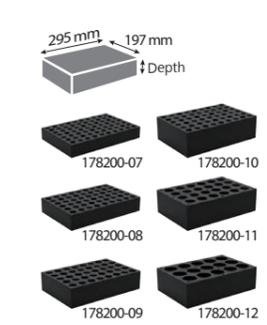
Designed for both desk-top and wall-mounted position. Easy to set it outside of fume hood to prevent corrosion.



◆ 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
ACIDS												
10% Hydrochloric Acid	HCl	O	O	O	O	O	O	O	X	O	O	O
20% Sulfuric Acid	H ₂ SO ₄	O	X	O	O	O	O	O	X	O	O	O
20% Nitric Acid	HNO ₃	O	X	O	O	X	-	O	O	O	O	O
20% Acetic Acid	C ₂ H ₄ O ₂	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 ₃ +3HCl	X	X	X	▲	X	-	O	X	X	O	O
ALKALIS												
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 ₃	O	X	X	O	▲	-	O	O	O	O	O
ALCOHOLS												
Methanol	CH ₃ OH	X	O	O	O	O	O	O	O	O	X	O
Ethanol	C ₂ H ₅ OH	O	O	O	O	▲	O	O	O	O	O	O
Propanol	C ₃ H ₇ OH	-	O	-	O	O	-	O	O	O	O	O
Isopropanol	C ₃ H ₇ OH	O	O	O	O	O	O	O	O	O	O	O
n-Butanol	C ₄ H ₉ OH	X	O	O	O	O	O	O	O	O	O	O
KETONES												
Acetone	C ₃ H ₆ O	X	O	X	O	X	X	O	O	O	X	O
Methyl Ethyl Ketone (MEK)	C ₄ H ₈ O	X	O	X	O	X	-	O	O	O	X	X
OTHERS												
Acetonitrile	CH ₃ CN	-	X	X	O	X	-	O	O	O	X	O
10% Hydrogen Peroxide	H ₂ O ₂	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).