ROCKER
make filtration easy

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make filtration easy

2023 ~2024
Product Guide

Rocker Scientific Co., Ltd.

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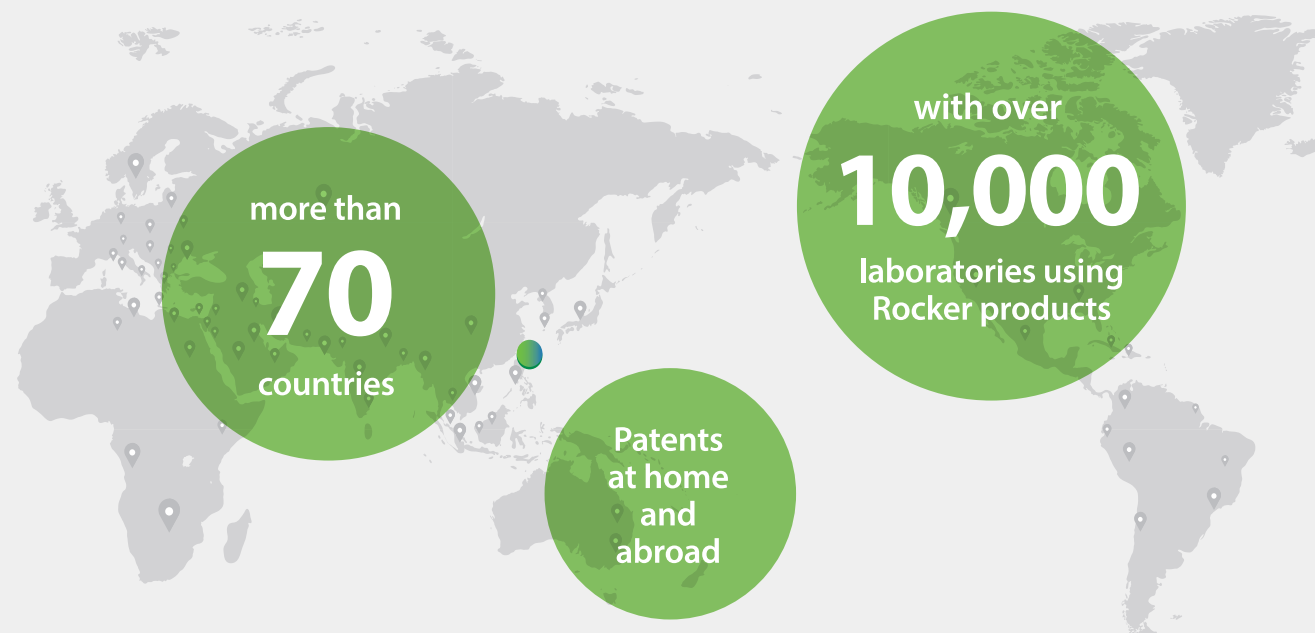T/ +886-2-26033311   F/ +886-2-26036622
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RO-CAT-EN2023-03

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

www.rocker.com.tw

ROCKER

Global Distribution Network

more than **70** countries

with over **10,000** laboratories using Rocker products

Patents at home and abroad

About Rocker®

Established in 2007, Rocker Scientific Co., Ltd. provides a variety of professional vacuum filtration solutions for laboratory and industrial customers in the fields of food, water, micro-organisms testing, molecular biology lab and purification. Rocker Scientific fulfills in-house R&D, manufacture and distribution in compliance with ISO 9001-2015 quality management system; the majority of products are CE/CSA/RoHS certified. MF magnetic filter holder wins " Taiwan Excellence Award 2019".

Through devoting to R&D constantly, Rocker Scientific has been granted numerous patents in various countries and has successfully established a sales network covering more than 70 countries with over 10,000 laboratories using Rocker products. "Rocker" has become the world-leading brand of laboratory vacuum filtration system by our commitment to continuous innovation to provide customers with safe, efficient and eco-friendly solutions.

Company Philosophy

Passion
Enthusiasm to succeed at everything we do
Innovation
Creating new ways to solve challenges
Integrity
Consistently providing solutions according to our values
Insight
Full understanding of what the customer and user requires

Rocker Scientific Co., Ltd.

President
William Horng, Mar. 2023

LABORATORY PUMP

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.

Air inlet protection
Filter cartridge absorbs particle and moisture to prolong pump life.
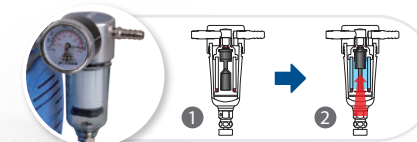
Quieter and more stable
Enhanced rubber assemblies make all Rocker pumps work much quieter and more stable.

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

Oil Free
Vacuum Pump Guide

Aluminum alloy Pump head

FKM — Valve plates

PTFE complex — Piston seal
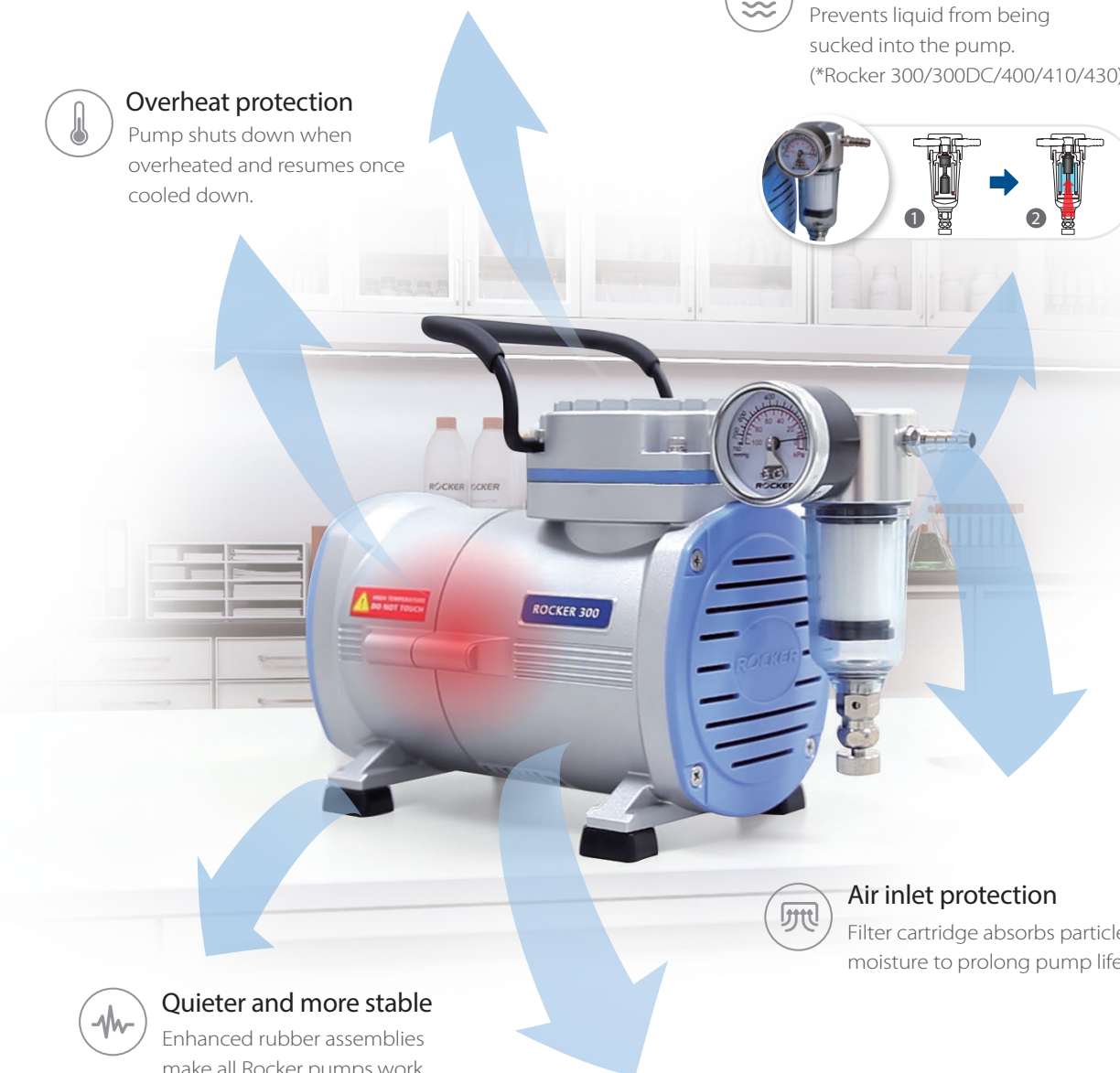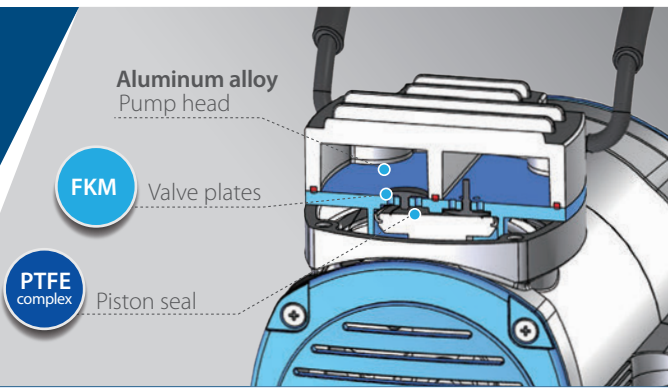
Rocker 300
Max. vacuum : 99 mbar abs.
Max. flow rate : 23 (20) L/min

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

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

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

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

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

Rocker 910
Max. vacuum : 25 mbar abs.
Max. flow rate : 55 (45) 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

Rocker 901 (60Hz)
Rocker 900 (60Hz)
Rocker 911 (60Hz)
Rocker 910 (60Hz)
Rocker 400 (60Hz)
Rocker 300DC (12V)
Rocker 410 (60Hz)
Rocker 300 (60Hz)

Rocker 901 (50Hz)
Rocker 900 (50Hz)
Rocker 911 (50Hz)
Rocker 910 (50Hz)
Rocker 400 (50Hz)
Rocker 300DC (12V)
Rocker 410 (50Hz)
Rocker 300 (50Hz)

Oil Free Vacuum Pump

VIDEO | 2 YEAR WARRANTY

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^{TM} overflow protection**
Equipped with Prote^{TM} 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)

Patented
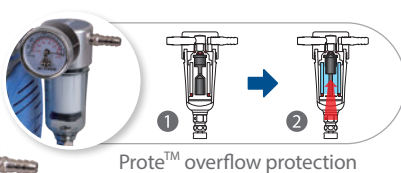
Prote^{TM} overflow protection

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

VIDEO
2 YEAR WARRANTY

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**

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)

Patented

Prote™ overflow protection

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	

Oil Free Vacuum Pump

VIDEO
2 YEAR WARRANTY

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**

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)

Rocker 900

Rocker 901

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

VIDEO | **2** YEAR WARRANTY

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**

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)

Rocker 910

Rocker 911

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

PTFE coated — Pump head
FKM — Valve plates
PTFE coated — Diaphragm
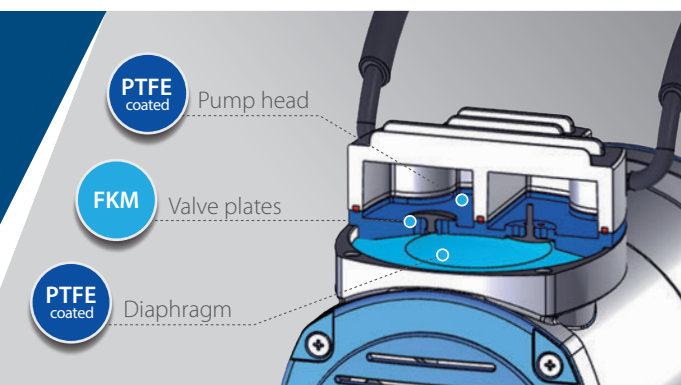
· FFKM valve plates are available (Cat. No. 189301-32-1).

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

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

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

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

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

Pumping Speed Graph

LPM

Rocker 900C (60Hz)
Rocker 910C (60Hz)
Rocker 400C (60Hz)
Rocker 410C (60Hz)
Rocker 300C (60Hz)

Rocker 900C (50Hz)
Rocker 910C (50Hz)
Rocker 400C (50Hz)
Rocker 410C (50Hz)
Rocker 300C (50Hz)
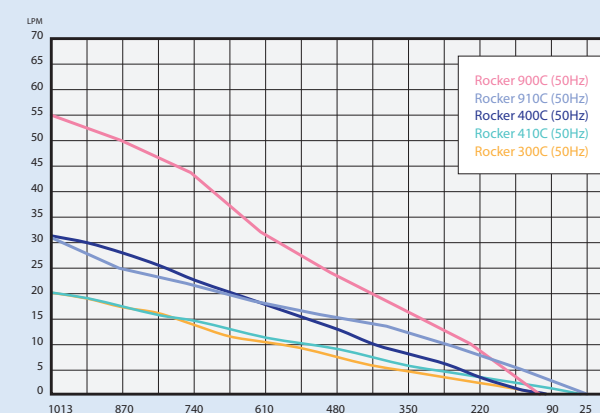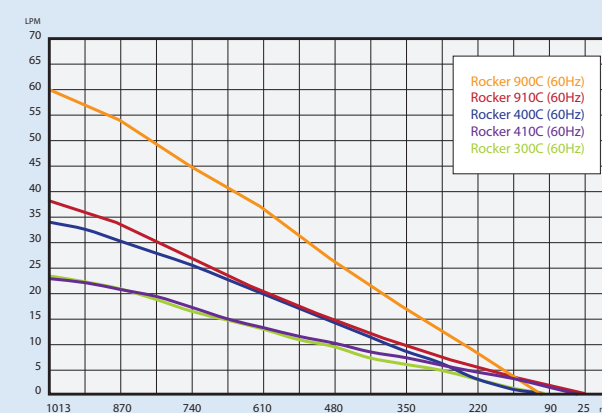
PTFE Coated Chemical Resistant Vacuum Pump

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

PTFE Coated Chemical Resistant Vacuum Pump

VIDEO

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

VIDEO

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**

Applications

▶ Solvent purification
▶ Gel dryer
▶ 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)

Rocker 400C

Rocker 410C

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

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

VIDEO

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**

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)

Rocker 900C

Rocker 910C

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

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

PTFE — Pump head

FFKM — Valve plates

PTFE coated — Diaphragm
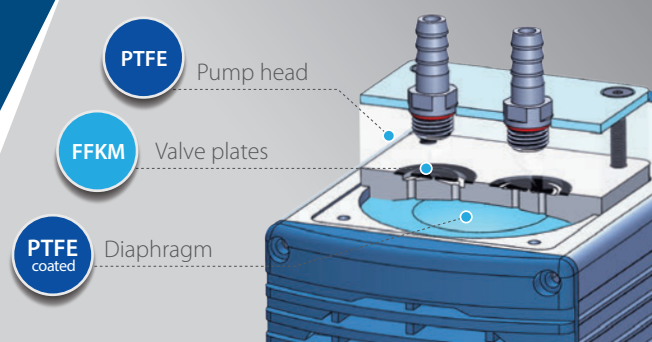
Chemker 300
Max. vacuum : 99 mbar
Max. flow rate : 20 (18) L/min

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

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

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

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

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

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

LPM

Chemker 600 (60Hz)
Chemker 400 (60Hz)
Chemker 611 (60Hz)
Chemker 610 (60Hz)
Chemker 411 (60Hz)
Chemker 300 (60Hz)
Chemker 410 (60Hz)

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
1013 870 740 610 480 350 220 90 23 mbar

LPM

Chemker 600 (50Hz)
Chemker 400 (50Hz)
Chemker 611 (50Hz)
Chemker 610 (50Hz)
Chemker 410 (50Hz)
Chemker 411 (50Hz)
Chemker 300 (50Hz)

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
1013 870 740 610 480 350 220 90 23 mbar
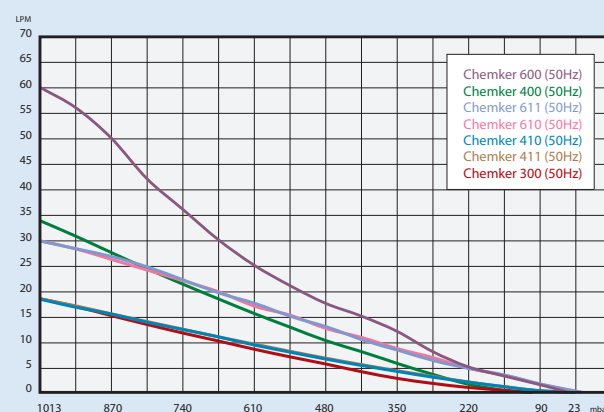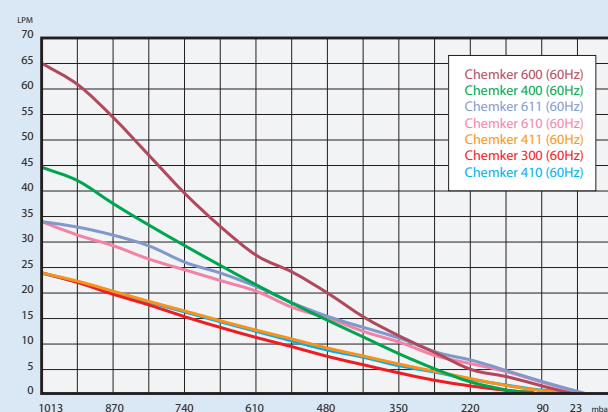
Chemical Resistant Vacuum Pump

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

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

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

Over-heat 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)

Chemical Resistant Vacuum Pump

VIDEO

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

VIDEO

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 dryer
▶ 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

VIDEO

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**

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)

Patented

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	-	

Chemical Resistant Vacuum Pump

VIDEO

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**

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)

Patented

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	

Vacuum Controller

VIDEO

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**

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)

Patented   Self clean

Pilot 100

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

Vacuum Controller

Auto evaporation mode
Avoid bumping and keep optimal vacuum level. Feel free to start and leave.

Pressure

△ Vacuum
△ t

Time

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 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

VIDEO

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**

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

Patented Self clean

DC Chem 610 Pro

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

Auto Vacuum System

Detachable & remote control
Detachable remote control panel with magnetic mount base.

GUI & flex in control
Intuitive and modularized settings, set up to 10 steps per program.

Auto evaporation mode
Avoid bumping and keep optimal vacuum level. Feel free to start and leave.

Consume less, save more
BLDC motor consumes 40% less power. Saves more environmentally and economically.

Leave your gloves on
The panel reads the taps underneath thick lab gloves.

Precise & zero lag
Direct RPM control leads to instant and precise reaction.

Pressure

Vacuum Valve Control

Pressure

Motor Speed Control

Larger flunctuation Time

Smoother and stabler Time

Diaphragm Liquid Pump

TAIWAN EXCELLENCE 2022

AWARD | VIDEO

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.

▶ **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 60W brushless DC motor offers stronger and stabler flow than other equivalent models.

▶ **International certification**
CE certification
IP 64 protection
RoHS certification

▶ **One-Year Warranty**

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)

Patented

Alligator 200

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, Silicone, PP, PPS
ELECTRICAL DATA	
Power input	DC24V, 1.8A
Max. power	44W
Motor	Brushless DC Motor (BLDC)
Safety	Overheat Protection

Diaphragm Liquid Pump

Illuminated switch design
Easy-to-read and intuitive.

High efficiency, no pollution.
Oil-free diaphragm design, creates no oil-mist pollution. Built-in eco-friendly brushless DC motor.

40% **Save 40% bench space**
Kiss-goodbye waste bottles. Direct drainage saves you more space.

Liquid input
Water-proof design.

Liquid direct drainage / output
Zero contact to potential hazards.

Direct drain
Make filtration easy and time-saving.

Adjustable vent valve   Quick-Fit hose barb

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 SC Lubricant
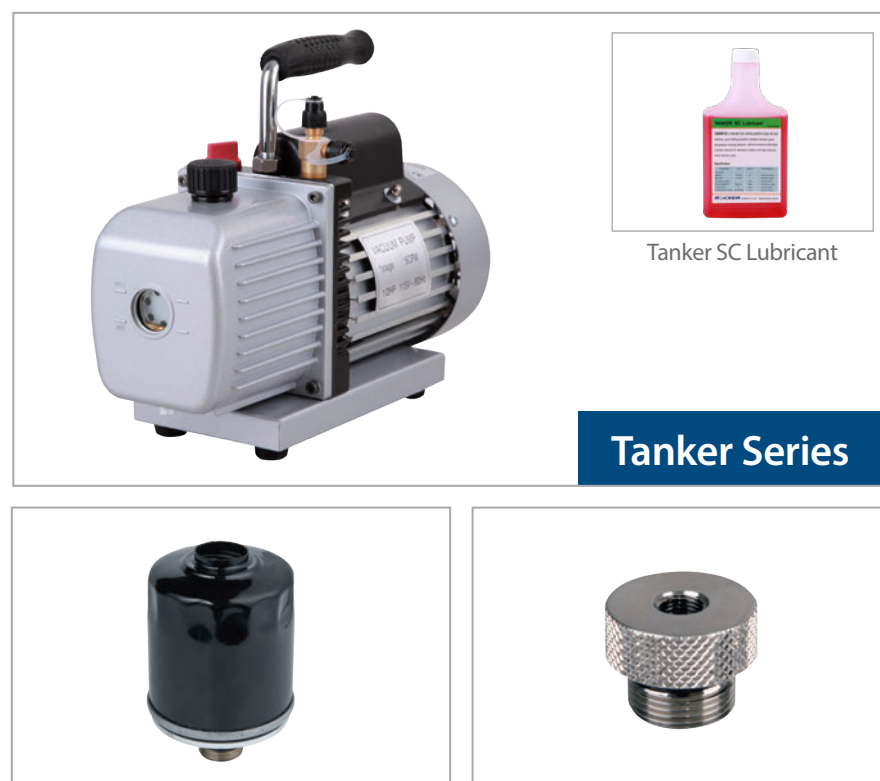
Tanker Series

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 laboraotry 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	1×10^{-1} torr abs.		1×10^{-1} torr abs.		5×10^{-2} torr abs.		5×10^{-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 regulation, ideal for dispensing media and dilute buffer in all microbiological tests.

▶ **International certification**
CE certification
IP 33 protection
RoHS certification

▶ **One-Year Warranty**

Applications

▶ **Liquid dispensing and transferring**
Sterile solution, buffer, chemicals Beverage, winery, dairy products

▶ **Instrument dosing and feeding**
Fermenter, analyzer, etc.

Ordering Information

185600-01(02)
Buller 600, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)
184100-39
Normal Flow Rate Pump Head, ~1600 mL/min
184100-20
High Flow Rate Pump Head, ~ 2160 mL/min
184100-10
Double-Channel Pump Head, ~1800 mL/min (for each channel)
185600-40
Handling Dispenser, DB9 Connector
185600-41
Foot Switch, DB9 Connector
185600-49-68
TYGON S3™ E-3603 Tubing, #17, 2 m

*Please refer to P.96 for optional accessories.

Buller 600

Specification

Model	Buller 600
PERFORMANCE DATA	
Speed	1 ~ 600 rpm
Speed accuracy	1 rpm
Max. flow rate	1600 mL/min
Control type	Digital, variable-speed
Channel	1
Net weight	5.0 Kg
Dimension (LxWxH)	17 x 33 x 24 cm
ELECTRICAL DATA	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	60W
Motor	Brushless DC Motor (BLDC)
External inputs	0 ~ 5V / 4 ~ 20mA / 0 ~ 10kHz
Remote control	RS 232
Safety	Motor Overload Protection (1.7 bar), Fuse

* Each unit includes a normal speed pump head and a silicone tube.

Oil Free Vacuum Pump / Compressor

VIDEO | **2 YEAR WARRANTY**

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)

Patented

Prote™ overflow protection

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 / Pressure regulator Overflow protection / Filter cartridge	

Oil Free Compressor

VIDEO | **2 YEAR WARRANTY**

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

2 YEAR WARRANTY

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 L/min @50Hz
	40 psig 52 L/min @60Hz	50 L/min @50Hz
	60 psig 65 L/min @60Hz	60 L/min @50Hz
Hose barb	ID8	
Noise level	52 dB	
Net weight	8.4 Kg	
Dimension (LxWxH)	29 x 31 x 25 cm	
PERFORMANCE 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 : 1/8 PT	1/8 PT	1/8 PT	1/8 PT	1/8 PT	1/8 PT	1/4 PT	1/4 NPS	1/4 NPS

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

Pressure Regulator		Hoop Holder		Filter Cartridge	
167320-06	167440-06	167300-37	189300-37	167301-07	167801-07
For Rocker	For Rocker	For Rocker	For Rocker	For Rocker	For Rocker
320/420/430	440	300/400/410	300/400/410	300/400/410/430	900/910
		300C/400C/410C	300C/400C/410C	(with Prote™ overflow protection)	(without Prote™ overflow protection)
		LF 30/SF 10/SF 30	VF 12		

Check Valve	Air Outlet (Copper Muffler)		Silicone Tube			Universal Foot Switch	
187100-33	167300-42	167600-42	167200-38	199100-68	180300-68	167200-41	167200-41-1
For Tanker	For Rocker	For Rocker	Ø 6 x 12 mm	Ø 4.2 x 8 mm	Ø 8 x 14 mm	Momentary action	Maintained action
130/150/215/230	300/400/410/430	900/901/910/911	Length: 1 m	Length: 2 m	Length: 2 m		
ID10							
1/4 SAE							

* PT (pipe thread) = BSPT

LABORATORY FILTRATION

Filtration Apparatus Selection Guide

PPSU		PES		
MF, Magnetic Filter Holder			**LF, Spin-Lock Filter Holder**	**PES Filtration Apparatus**

P.33 — MF 3 Pro MF 3a Pro
MF 5 Pro MF 5a Pro

P.34 — MF 3 MF 3a
MF 5 MF 5a

P.35 — LF 3 LF 3a
LF 5 LF 5a

P.37 — LF 30 MF 31

SS316 Stainless Steel

SF, Spin-Lock Filter Holder	**Stainless Steel Filtration Apparatus**	

P.36 — SF 1 SF 3 SF 5

P.38 — SF 10 SF 30

P.39 — SF 11 SF 52

Borosilicate Glass

Glass Filtration Apparatus

P.40 — VF 5 VF 8

P.41 — VF 6 VF 7

P.42 — VF 3 VF 12

P.43 — VF 15 VF 16

*PPSU : Polyphenylsulfone, PES : Polyethersulfone

MF, Magnetic Filter Holder

MF 3 Pro   MF 5 Pro

MF 3a Pro   MF 5a Pro

Features

▶ Magnetic seal makes it easy to operate with one-hand and prevents twists of membranes.
▶ 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 series filter holders are applied with PPSU, which provides better chemical and heat resistance than PES. Making them more durable and long-lasting.
▶ International certification : RoHS certification

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

Specifications

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
Syringe filter	PTFE	PTFE

Specifications		
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
Syringe filter	25 mm, 0.2 μm	25 mm, 0.2 μm
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
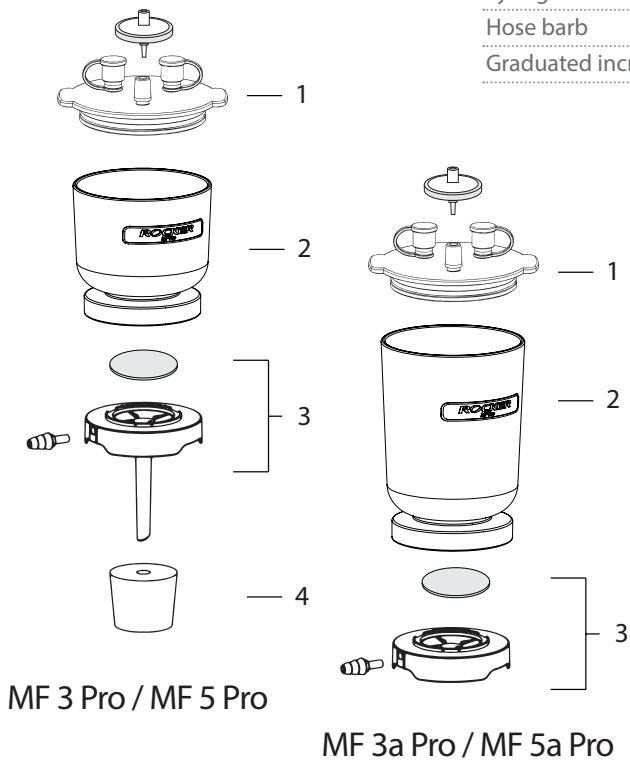
MF, Magnetic Filter Holder

MF 3   MF 5

MF 3a   MF 5a

Features

▶ Magnetic seal makes it easy to operate with one-hand and prevents twists of membranes.
▶ 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, resistant to a wide range of chemicals and high temperature, is sturdy and unbreakable.
▶ International certification : RoHS certification

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

Specifications

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
Syringe filter	PTFE	PTFE

Specifications		
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
Syringe filter	25 mm, 0.2 μm	25 mm, 0.2 μm
Hose barb	ID4 ~ ID8	ID4 ~ ID8
Graduated increment	50 mL	50 mL

MF 3 / 5

MF 3a / 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

VIDEO | 121°C / 1 bar / 20 min AUTOCLAVABLE

LF 3   LF 5

LF 3a   LF 5a
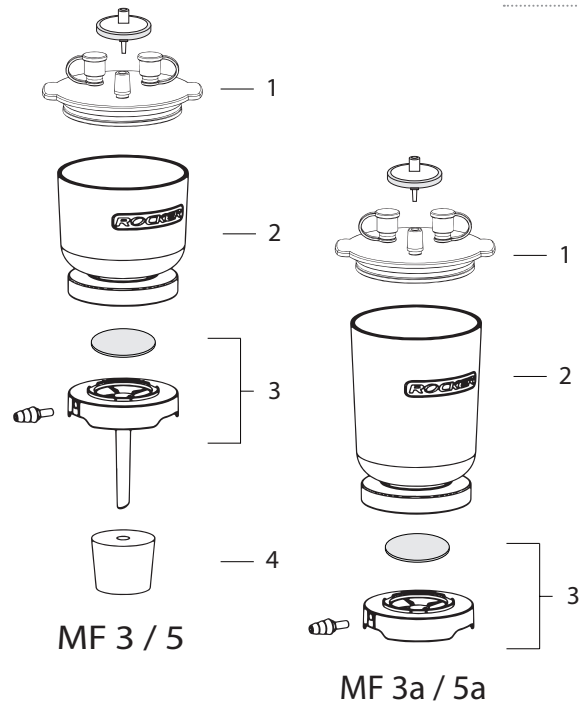
Features

▶ 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 : GL45 adaptor is available for GL45 glass bottles.

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

Specifications

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
Syringe filter	PTFE	PTFE

Specifications		
Funnel capacity	300 mL / 500 mL	300 mL / 500 mL
Filter diameter	47 mm	47 mm
Effective filtration area	12.5 cm^2	12.5 cm^2
Syringe filter	25 mm, 0.2 μm	25 mm, 0.2 μm
Hose barb	-	ID8

LF 3 / 5

LF 3a / 5a

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
	LF 5, PP lid kit	200300-36
2	PES funnel, 300 mL	197000-34
	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
	LF 5a, PP lid kit	200300-36
2	PES funnel, 300 mL	197000-34
	PES funnel, 500 mL	197000-56
3	Storage bottle adaptor	197000-38

* PES: Polyethersulfone

SF, Stainless Steel Filter Holder

VIDEO | 121°C / 1 bar / 20 min AUTOCLAVABLE | 2 YEAR WARRANTY

Patented

SF 1   SF 3   SF 5

SF, Stainless Steel Funnel Lid (optional)

Features

▶ Clamp-free spin-lock design.
▶ Precise laser-marking ensures high volume accuracy.
▶ 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 required fast flame sterilization.

Specifications

Material	100 mL	300 mL	500 mL
Funnel	SS316	SS316	SS316
Support base	SS316	SS316	SS316
Membrane support	SS316	SS316	SS316
Funnel lid	SS316	SS316	SS316

Specifications			
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
SF, Stainless Steel Funnel Lid		
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

VIDEO 121°C / 1 bar / 20 min AUTOCLAVABLE

LF 30

Patented
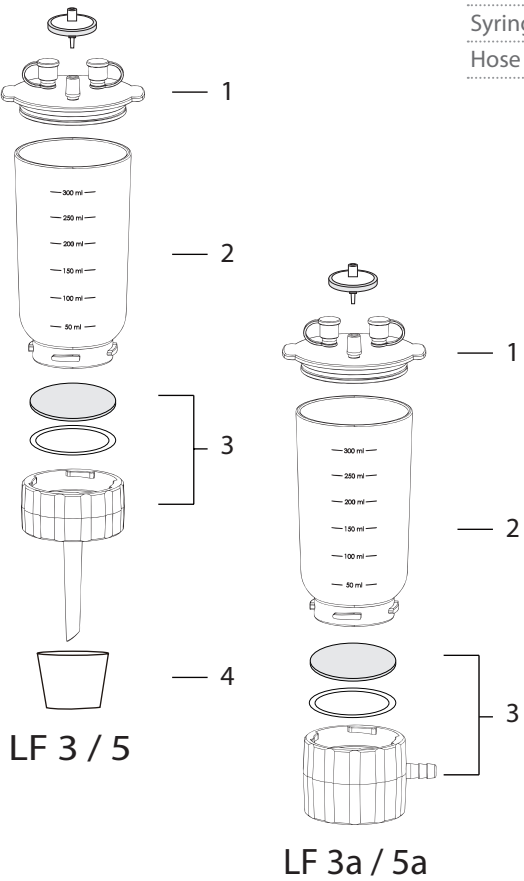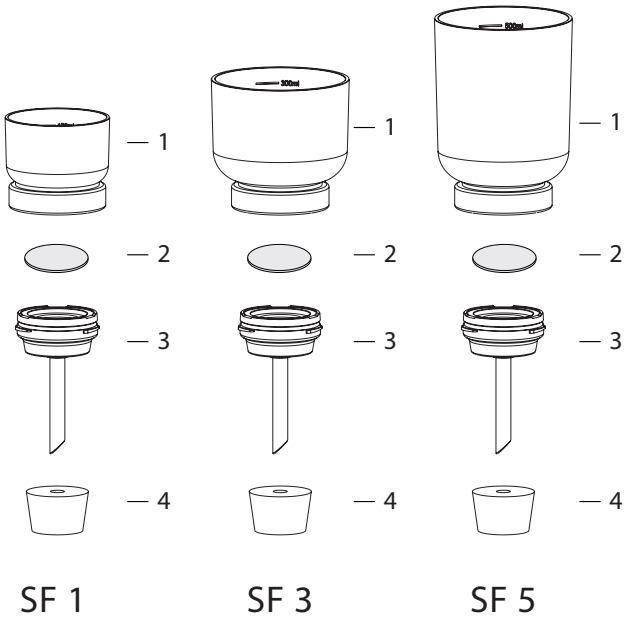
MF 31

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.

Specifications

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

Specifications		
Funnel capacity	300 mL	300 mL
Flask capacity	1200 mL	1000 mL
Filter diameter	47 mm	47 mm
Effective filtration area	12.5 cm^2	13.1 cm^2
Hose barb	ID8	ID8
Drain device	-	Yes
Overflow protection	Yes	-

LF 30

1
2
3
4
5

MF 31

1
2
3
4
5
6

Ordering Information

LF 30, Filtration Set		197010-30
1	PP lid kit	197000-36
2	PES funnel, 300 mL	197000-34
3	PC support base	197000-35
4	PC cover set	197000-32-PC
5	PC bottle, 1200 mL	197000-31-PC

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

Stainless Steel Filtration Apparatus

121°C / 1 bar / 20 min AUTOCLAVABLE 2 YEAR WARRANTY

Patented

SF 10

Patented

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.

Specifications

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

Specifications		
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

1
2
3
4
5
6

SF 30

1
2
3
4
5
6

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

121°C / 1 bar / 20 min **AUTOCLAVABLE**

2 YEAR WARRANTY

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.
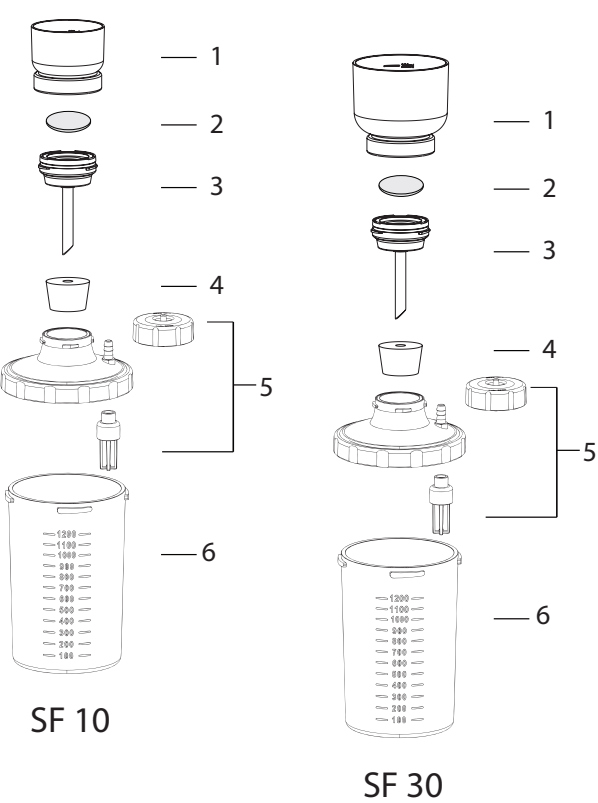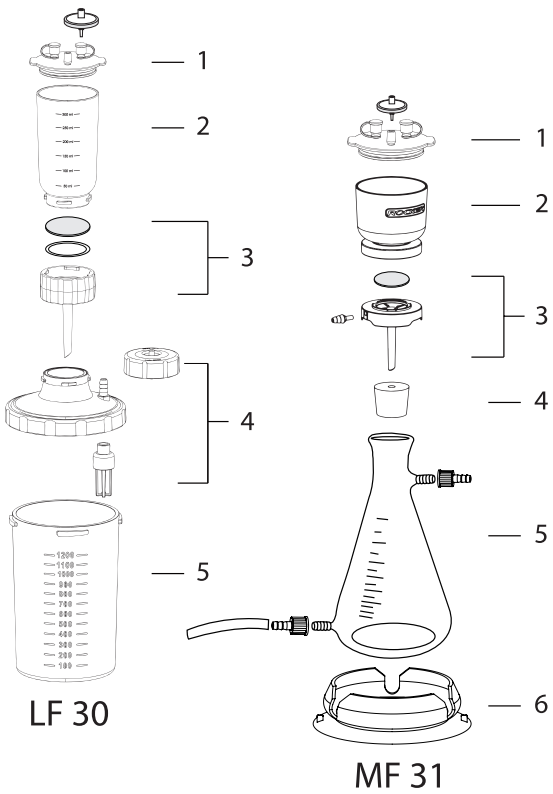
Specifications

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)

Specifications		
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.

SF 11

SF 52

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.18)	167110-18
5	Receiver flask with drain, 2000 mL (with screwthread connector)	167200-13

25 mm Microanalysis Glass Filtration Apparatus

121°C / 1 bar / 20 min **AUTOCLAVABLE**

VF 5

VF 8
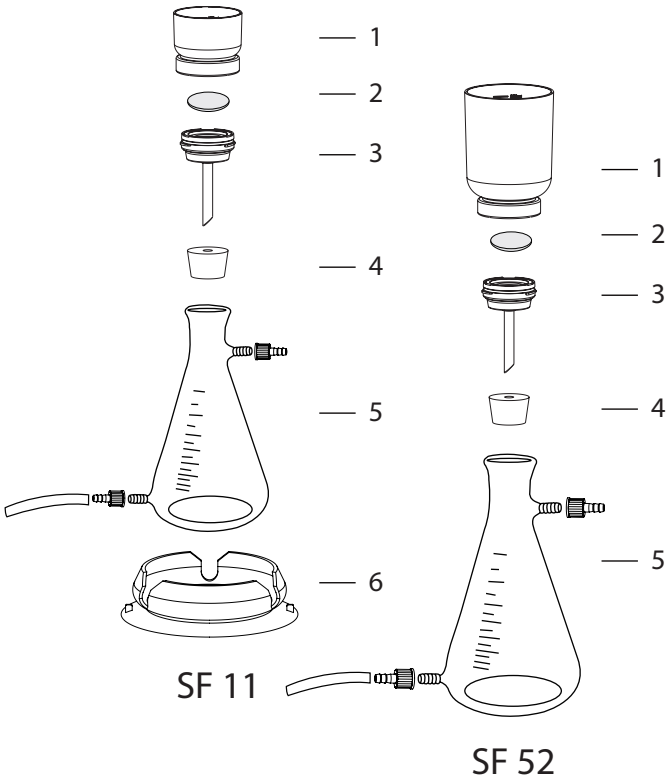
Features

▶ Accurate scale marking makes precise sample addition easy.
▶ Select sintered glass or stainless steel as membrane support.

Applications

Small volume vacuum filtration for biological or particulate contamination analysis.

Specifications

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

Specifications		
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.

VF 5

VF 8
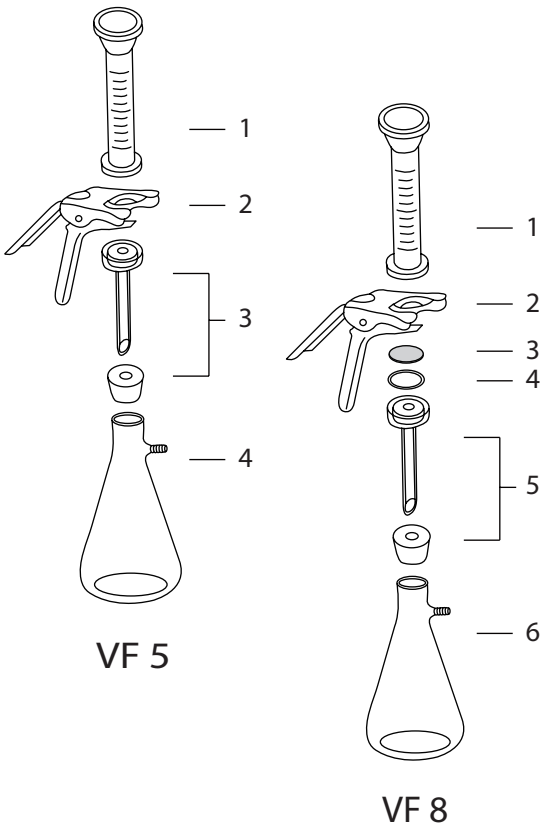
Ordering Information

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	167230-42
5	Glass support base, 25 mm (Including No.5 silicone stopper)	167230-08
6	Receiver flask, 125 mL	167250-05

ROCKER

ROCKER

47 mm Glass Filtration Apparatus

VIDEO | 121℃ / 1 bar / 20 min AUTOCLAVABLE

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.

Specifications

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
Specifications		
Funnel capacity	300 mL	300 mL
Flask capacity	1000 mL	1000 mL
Filter diameter	47 mm	47 mm
Effective filtration area	13.2 cm^2	9.6 cm^2
Hose barb	ID8	ID8

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

VF 6

VF 7

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	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

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47 mm Glass Filtration Apparatus

VIDEO | 121℃ / 1 bar / 20 min AUTOCLAVABLE

VF 3
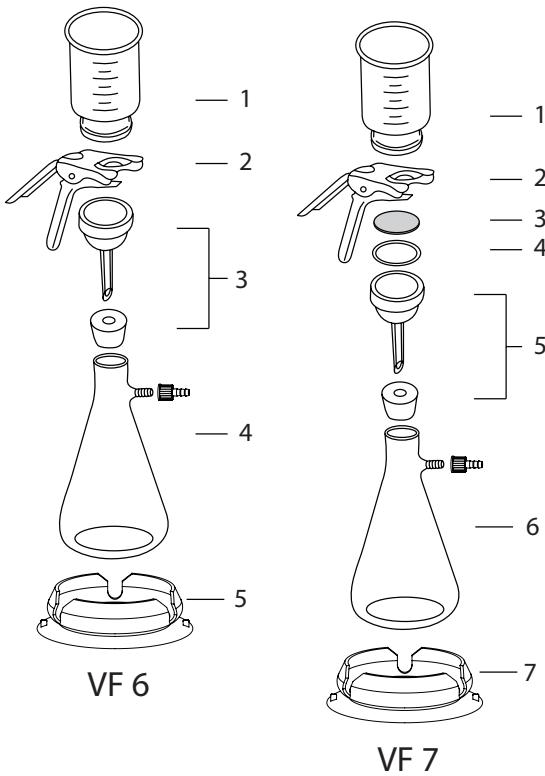
Patented

VF 12

Features

▶ VF 3 : Borosilicate glass-made filter holder and flask provides extraordinary chemical resistance.

▶ VF 12 : Filter and store directly in GL45 bottle with patented filtration adaptor.

Applications

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

Specifications

Material	VF 3	VF 12
Funnel	Borosilicate glass	Borosilicate glass
Support base	Borosilicate glass	Borosilicate glass
Membrane support	Sintered glass	Sintered glass
Clamp	Aluminum	Aluminum
Filtration adaptor	-	PP
Receiver flask	Borosilicate glass	Borosilicate glass
Specifications		
Funnel capacity	300 mL	300 mL
Flask capacity	1000 mL	1000 mL
Filter diameter	47 mm	47 mm
Effective filtration area	13.2 cm^2	13.2 cm^2
Hose barb	ID8	ID 4~ID8

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

VF 3

VF 12

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 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

90 mm Glass Filtration Apparatus

VIDEO | 121℃ / 1 bar / 20 min AUTOCLAVABLE
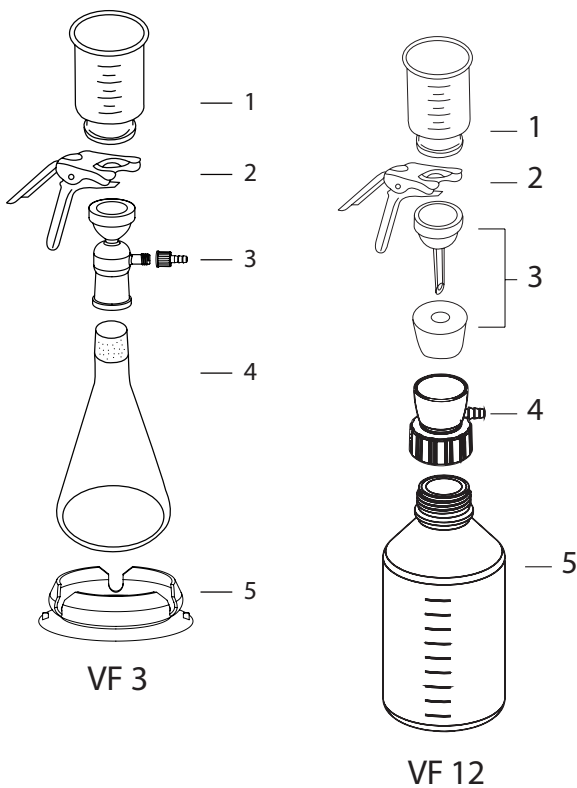
VF 15

VF 16

Features

► Filter and store directly in GL45 bottles with equipped adaptor. No more cross-contamination.

Applications

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

* Membrane support of VF 15 is made of stainless steel and may not be resistant enough to strong acids. Please refer to chemical compatibility chart if required.

Specifications

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
Specifications		
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.

VF 15

VF 16

Ordering Information

VF 15, 90 mm Glass Filtration Set		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	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

VIDEO | 121℃ / 1 bar / 20 min AUTOCLAVABLE

Stream 3 / Stream 10

Stream, Continuous Filtration System

Features

► A smart kit to allow continuous feed for larger volume samples. No more repetitive pouring works.

► Equipped with suction anchor that misses no drops till the end.

► Filtration adaptor can be connected to all GL45 bottles.

Applications

Large volume purification and filtration, such as solvent for HPLC, GC, AA analysis and culture medium.

Specifications

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
Specifications		
Funnel capacity	300 mL	1000 mL
Filter diameter	47 mm	90 mm
Effective filtration area	13.2 cm^2	45.5 cm^2
Hose barb	ID4 ~ ID8	ID4 ~ ID8
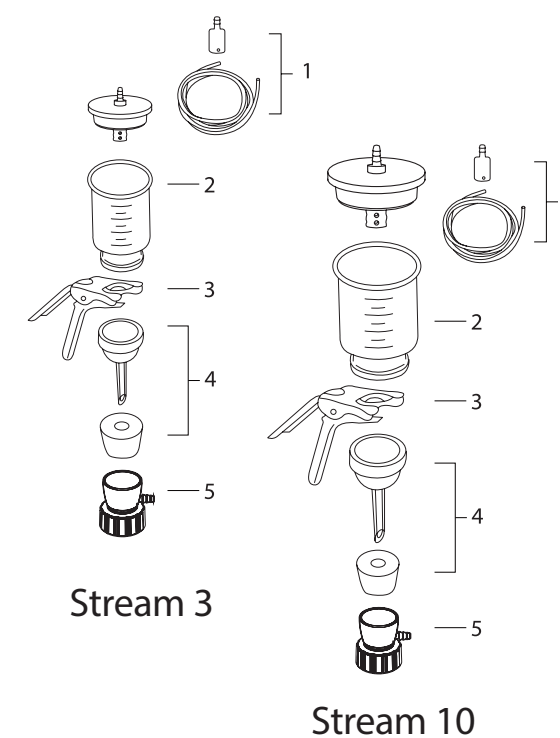
Stream 3

Stream 10

Ordering Information

Stream 3, Continuous Filter Holder (300 mL)		167200-S3
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-S10
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
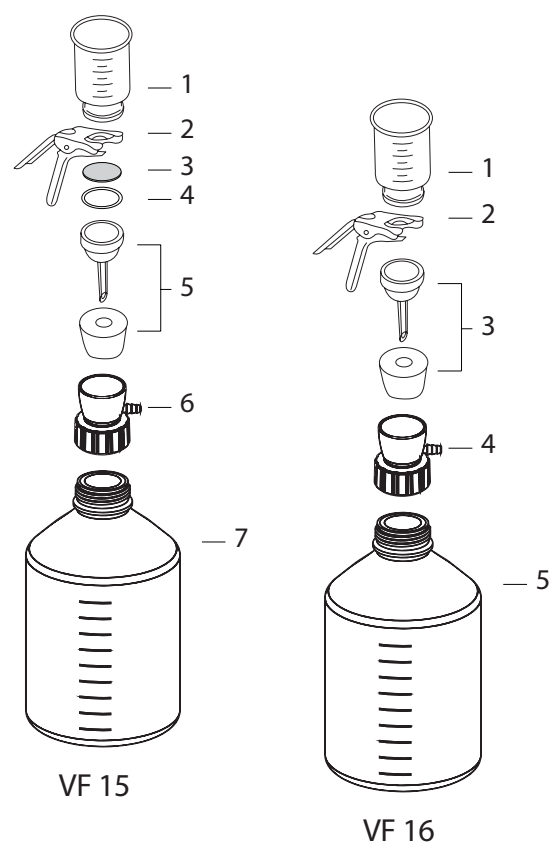
Vacuum Filtration System

VIDEO | 2 YEAR WARRANTY

Features

▶ **Oil-free & care-free**
Rocker pumps are driven by piston that needs no lubricant, making them maintenance-free and oil-mist-free.

▶ **Clamp-free with spin-lock**
LF 30 bottles are equipped with LF filter holders that can be mounted with revolutionary spin-lock and totally clamp-free.

▶ **Clamp-free with magnet**
MF 31 bottles are equipped with patented magnetic MF filter holders. Its strong magnetic seal enables one-hand and clamp-free operation.

▶ **Drain out directly**
MF 31 can drain the filtrate away directly without disassembly.

▶ **International certification**
CE certification
CSA certification (Rocker 300)
IP 30 protection (Rocker 300)
RoHS certification (Rocker 300)

▶ **Two-Year Warranty (Rocker 300)**

Applications

▶ Suspended solid test
▶ Vacuum filtration

Ordering Information

167305-11(22)
Rocker 300 - LF 30, Vacuum Filtration System, complete set includes :
* Rocker 300, Vacuum Pump
* LF 30, Filtration Set
* Silicone Tube

167311-11(22)
Rocker 300 - MF 31, Vacuum Filtration System, complete set includes :
* Rocker 300, Vacuum Pump
* MF 31, Filtration Set
* Silicone Tube

167300-37
Hoop Holder for
Rocker 300 - LF 30 / SF 30 / SF 10

Rocker 300 - LF 30
Patented

Rocker 300 - MF 31
Patented

Specification

Model	Rocker 300 - LF 30		Rocker 300 - MF 31	
Voltage	110V	220V	110V	220V
Max. power	65W	60W	65W	60W
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
Vacuum regulator	Yes		Yes	
Overflow protection	Yes		Yes	
Noise level	50 dB		50 dB	
Model of Apparatus	LF 30		MF 31	
Funnel	300 mL		300 mL	
Receiver flask	1200 mL		1000 mL	
Filter diameter	47 mm		47 mm	
Overflow protection	Yes		-	
Drain device	-		Yes	

Solvent Purification System

VIDEO

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 - VF 12 are resistant in different degrees to wide range of chemicals and solvents.

▶ **One-step filtration**
Filter and store directly in all GL45 bottles to prevent repetitive transfers and cross-contamination.

▶ **International certification**
CE certification
IP 30 protection (Rocker 300C)
RoHS certification
(Rocker 300C, Chemker 300)

▶ **One-Year Warranty**
(Rocker 300C / Chemker 300 / Lafil 300C)

Applications

▶ Solvent purification
▶ HPLC mobile phase purification
▶ Vacuum filtration

Ordering Information

189302-11(22)
Rocker 300C - VF 12, Solvent Purification System, complete set includes :
* Rocker 300C, Vacuum Pump
* VF 12, Filtration Set
* Silicone Tube

169302-11(22)
Chemker 300 - VF 12, Solvent Purification System, complete set includes :
* Chemker 300, Vacuum Pump
* VF 12, Filtration Set
* Silicone Tube

197331-11(22)
Lafil 300C - VF 12, Solvent Purification System, complete set includes :
* Lafil 300C, Vacuum Pump
* VF 12, Filtration Set
* Silicone Tube

197330-11(22)
Lafil 300C, PTFE Coated Chemical Resistant Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

189300-37
Hoop Holder for
Rocker 300C - VF12

Rocker 300C - VF 12
Patented

* Not resistant to strong acid and alkali.

Chemker 300 - VF 12

Lafil 300C - VF 12

Specification

Model	Rocker 300C - VF 12		Chemker 300 - VF 12		Lafil 300C - VF 12	
Voltage	110V	220V	110V	220V	110V	220V
Max. power	65W	60W	70W	60W	65W	60W
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
Vacuum regulator	Yes		-		Yes	
Noise level	50 dB		50 dB		50 dB	
Model of Apparatus	VF 12					
Funnel	300 mL					
Storage bottle	1000 mL					
Filter diameter	47 mm					

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, 100 mL

Lafil 300 - LF 30

Lafil 300 - SF 10

Patented

Specification

Model	Lafil 300 - LF 30		Lafil 300 - SF 10	
Voltage	110V	220V	110V	220V
Max. power	65W	60W	65W	60W
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
Vacuum regulator	Yes		Yes	
Noise level	50 dB		50 dB	
Dimension (LxWxH)	34 x 24 x 30 cm		34 x 24 x 30 cm	
Model of Apparatus	LF 30		SF 10	
Funnel	300 mL		100 mL	
Receiver bottle	1200 mL		1200 mL	
Filter diameter	47 mm		47 mm	
Funnel lid	Yes		Optional	
Overflow protection	Yes		Yes	

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, 100 mL

Lafil 400 - LF 30

Lafil 400 - SF 10

Patented

Specification

Model	Lafil 400 - LF 30		Lafil 400 - SF 10	
Voltage	110V	220V	110V	220V
Max. power	100W	80W	100W	80W
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
Vacuum regulator	Yes		Yes	
Noise level	52 dB		52 dB	
Dimension (LxWxH)	34 x 24 x 30 cm		34 x 24 x 30 cm	
Model of Apparatus	LF 30		SF 10	
Funnel	300 mL		100 mL	
Receiver bottle	1200 mL		1200 mL	
Filter diameter	47 mm		47 mm	
Funnel lid	Yes		Optional	
Overflow protection	Yes		Yes	

Vacuum Filtration System

VIDEO

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
▶ 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

WaterVac 100 - MS

Improve operation time   Compatible with various kinds of adaptor and filter holder

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

VIDEO

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**
Use WaterVac 100 - MB with ROCKER SF funnels. These 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
▶ 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 ROCKER SF funnel adaptor, 100 mL SF funnel, 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

WaterVac 100 - MB

WaterVac 101 - MB

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

VIDEO

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).

▶ **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**

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

WaterVac 200 - MS

Patented

360° Rotational
L - type hose barb

Compatible with various kinds of adaptor and filter holder

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	Overheat 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

ROCKER

Vacuum Filtration System

VIDEO

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**
Use WaterVac 200 - MB with ROCKER SF funnels. These 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**

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 ROCKER SF funnel adaptor,
100 mL SF funnel x 2, 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

WaterVac 200 - MB

Patented

WaterVac 201 - MB

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	Overheat 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

ROCKER

Maximize Your WaterVac Versatility!

A

B

C

Customized Design

We can offer customized adaptor for your funnel

A

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

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

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

B

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

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

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

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

C

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

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

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.

Aluminum Multi-Branch Manifold

VIDEO | **2** YEAR WARRANTY

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 with No.8 stopper funnel adaptor
180610-01
MultiVac 610 - MS, 6 Places Aluminum Manifold with No.8 stopper funnel adaptor
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

Stainless Steel Multi-Branch Manifold

VIDEO | **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, 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 with No.8 stopper funnel adaptor
180600-01
MultiVac 600 - MS, 6 Places SS Manifold with No.8 stopper funnel adaptor
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

Stainless Steel Multi-Branch Manifold

VIDEO | 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 design 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 with ROCKER SF funnel adaptor
180600-02
MultiVac 600 - MB, 6 Places SS Manifold with ROCKER SF funnel adaptor
180100-01
SF Stainless Steel Funnel, 100 mL
180100-03
SF Stainless Steel Funnel, 300 mL
180100-05
SF Stainless Steel Funnel, 500 mL

MultiVac 300 - MB

Adjustable vent valve

Quick-Fit hose barb

MultiVac 600 - MB

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

ROCKER

Stainless Steel Multi-Branch Manifold

VIDEO | 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 with ROCKER SF funnel adaptor, 100 mL SF funnel x 3
180601-02
MultiVac 601 - MB, 6 Places SS Manifold with ROCKER SF funnel adaptor, 100 mL SF funnel x 6
180100-01
SF Stainless Steel Funnel, 100 mL
180100-03
SF Stainless Steel Funnel, 300 mL
180100-05
SF Stainless Steel Funnel, 500 mL

MultiVac 301 - MB

Adjustable vent valve

Quick-Fit hose barb
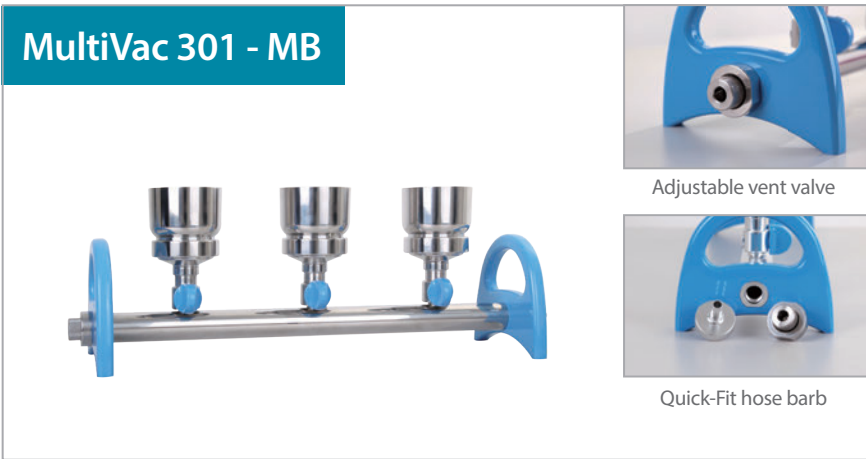
MultiVac 601 - MB

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 14.3 cm	85 x 13 x 14.3 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

ROCKER

Vacuum Filtration System

TAIWAN EXCELLENCE 2022 | VIDEO | **2 YEAR WARRANTY**

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

MultiVac 310 - MS - A
Patented

MultiVac 610 - MS - A
Patented

Specification

Model	MultiVac 310 - MS - A	MultiVac 610 - MS - A
Power input	DC24V, 1.8A	
Max. power	44W	
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Motor	Brushless DC Motor (BLDC)	
Noise level	60 dB	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	
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
Material contact with filtrate	Aluminum	Aluminum

Vacuum Filtration System

TAIWAN EXCELLENCE 2022 | VIDEO | **2 YEAR WARRANTY**

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

▶ Suspended solid test
▶ Microbiological 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/PK
*Silicone Tube

MultiVac 301 - MB - A
Patented

MultiVac 601 - MB - A
Patented

Specification

Model	MultiVac 301 - MB - A	MultiVac 601 - MB - A
Power input	DC24V, 1.8A	
Max. power	44W	
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Motor	Brushless DC Motor (BLDC)	
Noise level	60 dB	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	
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
Material contact with filtrate	SS316	SS316

Vacuum Filtration System

VIDEO | 2 YEAR WARRANTY

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 for one-handed operation, and can prevent 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)**

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 (2 pcs)

MultiVac 310 - MS - T
Patented

MultiVac 610 - MS - T
Patented

Specification

Model	MultiVac 310 - MS - T		MultiVac 610 - MS - T	
Voltage	110V	220V	110V	220V
Max. power	100W	80W	100W	80W
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Vacuum regulator	Yes			
Overflow protection	Yes			
Noise level	52 dB			
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	
Material contact with filtrate	Aluminum		Aluminum	

Vacuum Filtration System

VIDEO | 2 YEAR WARRANTY

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**
Adjustable vent valve 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)**

Applications

▶ Microbiological test
▶ Vacuum filtration

Ordering Information

180300-11-T (22-T)
180600-11-T (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/PK
* Silicone Tube (2 pcs)

MultiVac 301 - MB - T
Patented

MultiVac 601 - MB - T
Patented

Specification

Model	MultiVac 301 - MB - T		MultiVac 601 - MB - T	
Voltage	110V	220V	110V	220V
Max. power	100W	80W	100W	80W
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Vacuum regulator	Yes			
Overflow protection	Yes			
Noise level	52 dB			
OTHER DATA				
Number of branch	3		6	
Filter holder	SF stainless steel funnel 100 mL x 3		SF stainless steel funnel 100 mL x 6	
Filter diameter	47 mm		47 mm	
Material contact with filtrate	SS316		SS316	

Maximize Your MultiVac Versatility!

A

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

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

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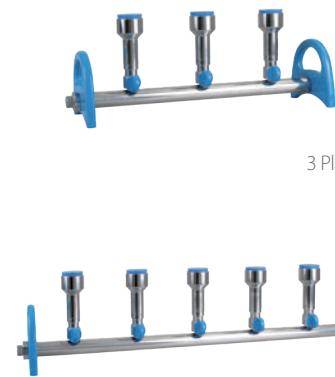
MultiVac 300 - MS
3 Places Stainless Steel Manifold
(180300-01)

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

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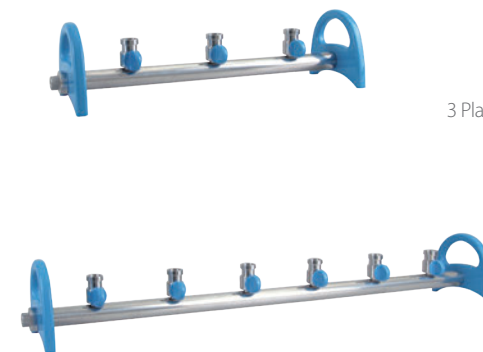
MultiVac 300
3 Places Stainless Steel Manifold Base
(180300-00)

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

Customized Design
We can offer customized adaptor for your funnel
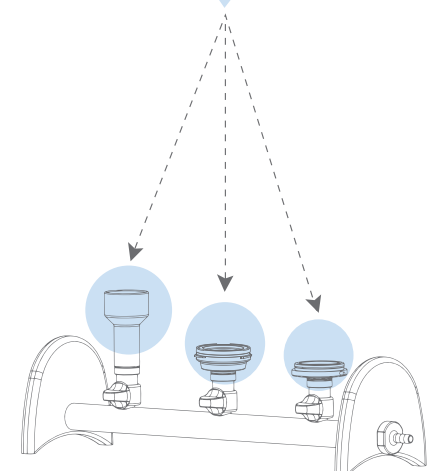
ROCKER, 100 mL
SF Stainless Steel Funnel
(180100-01)

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)

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

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

ROCKER, 300 mL
VF 6, Glass Filter Holder
(167120-31)

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).

Rotary Multi-Branch Manifold

2 YEAR WARRANTY

Features

▶ **Rotary design**
Turn the funnels and add samples at same position and prevent cross-contamination.

▶ **Save 60% space**
Compared to conventional linear manifolds, SolarVac's rotary design saves 60% of space and fits better in laminar flow hoods.

▶ **Easy tracking**
Each funnel position is marked clearly with numbers, making tracking easy and effortless.

▶ **Durable and autoclavable**
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.

▶ **Individual control valve**
Control feeds of each funnel individually.

▶ **International certification**
RoHS certification

▶ **Two-Year Warranty**

Applications

▶ Microbiological test
▶ Suspended solid test
▶ Vacuum filtration

Ordering Information

186600-01
SolarVac 600 - MS, 6 Places Rotary Manifold with No.8 Stopper Funnel Adaptor

186600-02
SolarVac 600 - MB, 6 Places Rotary Manifold with ROCKER SF Funnel Adaptor

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

Patented

Adjustable vent valve

SolarVac 600 - MB

Patented

Specification

Model	SolarVac 600 - MS	SolarVac 600 - MB
Number of branch	6	6
Filter diameter	Dependent to filter holders	47 mm
Funnel capacity	Optional	(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
Tubing connection	Silicone	Silicone

Rotary Multi-Branch Manifold

2 YEAR WARRANTY

Features

▶ **Rotary design**
Turn the funnels and add samples at same position and prevent cross-contamination.

▶ **Save 60% space**
Compared to conventional linear manifolds, SolarVac's rotary design saves 60% of space and fits better in laminar flow hoods.

▶ **Easy tracking**
Each funnel position is marked clearly with numbers, making tracking easy and effortless.

▶ **Durable and autoclavable**
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.

▶ **Individual control valve**
Control feeds of each funnel individually.

▶ **International certification**
RoHS certification

▶ **Two-Year Warranty**

Applications

▶ Microbiological test
▶ Suspended solid test
▶ Vacuum filtration

Ordering Information

186601-02
SolarVac 601 - MB, 6 Places Rotary Manifold with ROCKER SF funnel adaptor, 100 mL SF Funnel x 6

1861201-02
SolarVac 1201 - MB, 12 Places Rotary Manifold with ROCKER SF funnel adaptor, 100 mL SF Funnel x 12

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

Patented

Adjustable vent valve

SolarVac 1201 - MB

Patented

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
Tubing connection	Silicone	Silicone

Vacuum Filtration System

2 YEAR WARRANTY

Features

▶ **For microbiological filtration**
SolarVac 601 / 1201 - MB - A, include Alligator 200 diaphragm liquid pump, rotary manifold, burner and MCE membrane, are designed for a large number of samples in microbiological test.

▶ **Rotary manifold design**
Turn the funnels and add samples at same position and prevent cross-contamination.

▶ **Save time & space**
Alligator 200 is a liquid pump that bypasses filtrate directly to drain without additional bottles. Save 60% bench space and save time from tedious cleaning works.

▶ **Durable and autoclavable**
The wetted parts of SolarVac series are made of SS316 and silicone that is durable and autoclavable.

▶ **International certification**
CE certification (Alligator 200)
IP 64 protection (Alligator 200)
RoHS certification

▶ **One-Year Warranty (Alligator 200)**
▶ **Two-Year Warranty**
(SolarVac 601 / 1201 - MB)

Applications

▶ Microbiological test
▶ Suspended solid test
▶ Vacuum filtration

Ordering Information

182601-01/02-A
1861201-01/02-A
SolarVac 601 / 1201 - MB - A, Vacuum Filtration System, complete set includes:
* Alligator 200, Diaphragm Liquid Pump
* SolarVac 600 / 1200 - MB,
  6 / 12 Places Rotary Manifold
* SF Stainless Steel Funnel, 100 mL (6/12pcs)
* Dragon 100, Torch Burner
* MCE Membrane, 47 mm, 0.45 μm, 200/PK
* Silicone Tube

SolarVac 601 - MB - A

Patented

SolarVac 1201- MB - A

Patented

Specification

Model	SolarVac 601 - MB - A	SolarVac 1201 - MB - A
Power input	DC24V, 1.8A	
Max. power	44W	
Max. vacuum	313 mbar abs.	
Max. liquid flow rate	4.5 L/min	
Motor	Brushless DC Motor (BLDC)	
Noise level	60 dB	
Material contact with filtrate	SS316, FKM, Silicone, PP, PPS	
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, Silicone	SS316, Silicone

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Vacuum Filtration System

2 YEAR WARRANTY

Features

▶ **For microbiological filtration**
SolarVac 601 / 1201 - MB - T, include Rocker 400 vacuum pump, rotary manifold, waste bottle, burner, and MCE membrane, are designed for a large number of samples in microbiological test.

▶ **Rotary manifold design**
Turn the funnels and add samples at same position and prevent cross-contamination.

▶ **4000 mL PP vacuum bottle with drain**
The large capacity of 4000 mL vacuum bottle with drain offers convenience of collecting and draining waste solution.

▶ **Durable and autoclavable**
The wetted parts of SolarVac manifold are made of SS316 and silicone which is durable and autoclavable.

▶ **International certification**
CE certification (Rocker 400)
CSA certification (Rocker 400)
IP 30 protection (Rocker 400)
RoHS certification

▶ **Two-Year Warranty (Rocker 400)**
▶ **Two-Year Warranty**
(SolarVac 601 / 1201 - MB)

Applications

▶ Microbiological test
▶ Suspended solid test
▶ Vacuum filtration

Ordering Information

186600-11/22-T
1861200-11/22-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 (6/12pcs)
* PP Vacuum Bottle with drain, 4000 mL
* Dragon 100, Torch Burner
* MCE Membrane, 47 mm, 0.45 μm, 200/PK
* Silicone Tube (2 pcs)

SolarVac 601 - MB - T

Patented

SolarVac 1201 - MB - T

Patented

Specification

Model	SolarVac 601 - MB - T		SolarVac 1201 - MB - T	
Voltage	110V	220V	110V	220V
Max. power	100W	80W	100W	80W
Max. vacuum	99 mbar abs.			
Max. flow rate	37 L/min @60Hz	34 L/min @50Hz	37 L/min @60Hz	34 L/min @50Hz
Vacuum regulator	Yes			
Overflow protection	Yes			
Noise level	52 dB			
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, Silicone		SS316, Silicone	

Maximize Your SolarVac Versatility!

A

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

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

B

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

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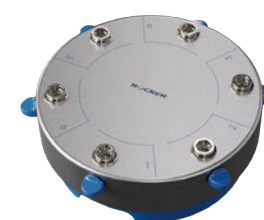
SolarVac 600
6 Places Rotary Manifold Base
(186600-00)

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

A

ROCKER, 100 mL
SF Stainless Steel Funnel
(180100-01)

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

ROCKER, 300 mL
SF Stainless Steel Funnel
(180100-03)

Stainless Steel Funnel Lid
for SF funnel, 100 mL
(180100-11)

ROCKER, 500 mL
SF Stainless Steel Funnel
(180100-05)

Stainless Steel Funnel Lid
for SF funnel, 300 mL / 500 mL
(180100-13)

B

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

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

C

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)

Make filtration easy with this
Lazy Susan Manifold!

* SolarVac 1200 - MB can only be used with 100 mL SF stainless steel funnel &
Pall Sentino® disposable plastic funnel.

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

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

PP Heavy-Duty Vacuum Bottle

Specification	PP vacuum bottle, 4000 mL	PP vacuum bottle with drain, 4000 mL
Catalog number	197200-47	197200-48
Connector	Hose barb	Hose barb
Graduated increment	500 mL	500 mL
Overflow protection	Yes	Yes
Hose barb	ID4 ~ ID8	ID4 ~ ID8
Drain device	-	Yes
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

Hoop Holder   NEW

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

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

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Filtration Accessories

Membrane Filters

Specification	Glass fiber filter	MCE membrane
Catalog number	167100-20	167100-52
Brand	Pall	Pall
Filter diameter	47 mm	47 mm
Pore size	1 µm	0.45 µm
Material of filter	Glass fiber	MCE
Package	100/PK	200/PK

GL45 Suction Cap / Filtration Adaptor

Specification	GL45 suction cap	GL45 filtration adaptor
Catalog number	197000-60	197000-65
Material of cap	PP	PP
Material of gasket	-	PTFE
Stopper	-	No.8 stopper
Hose barb	ID6	ID4 ~ ID8
Autoclavable	Yes	Yes

Application for GL45 Suction Cap

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

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

On vapor absorption (neutralization) bottle
Attaching to GL45 bottles used for absorbing acid or alkaline vapor (to prevent from harmful vapor).
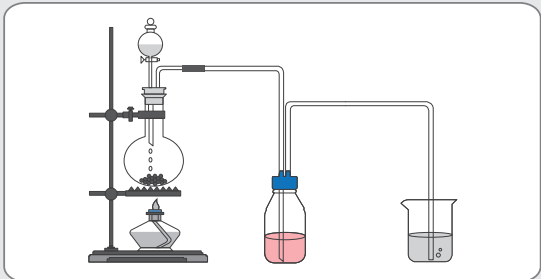
On safety bottle
Working as a safety bottle to prevent liquid from being sucked into pump.

* Please refer to P.82 to select GL45 Laboratory Glass Bottle

Life Sciences

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)

BioDolphin

Green

Deep Blue

Light Blue

1 2 3 4 5 6 7 8 9
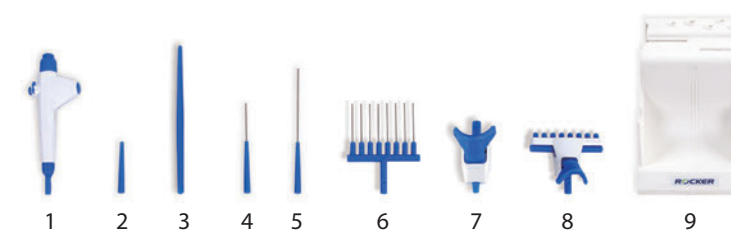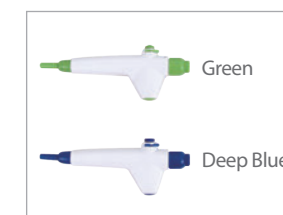
Standard accessory :

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	600g	100g
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

VIDEO

ROCKER

Portable Suction System

VIDEO

Features

▶ **All in One, saving 65% space**
Lafil 100 suction system integrates vacuum sources, waste bottle and suction kit into one single system. Saving 65% bench space.

▶ **Ideal size for in-hood operation**
Lafil 100 suction system is in perfect size that allows operations in laminar flow hood.

▶ **Safe and convenient**
(1) Tripping-proof and spill-proof fence-like bottle platform.
(2) Syringe filter at air inlet prevents liquid from entering the pump.
(3) Smart built-in tool storage makes it convenient and easy to use.

▶ **Eco control feature (Lafil 100^{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, 1000 mL
197000-60-500
Glass Bottle with GL45 Suction Cap, 500 mL

Lafil 100

Patented

* Color of power switch is different on Lafil 100 and Lafil 100^{eco}.

197100-48 (Optional)Anti-UV Cloth Cover   With optional glass bottle, 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	• 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

Storage rack
Keep the bench top tidy and spacious by accommodating all suction tools in storage.

Perfect size
Suitable for in-hood operations.

PP vacuum bottle, 1000 mL
Optional 500 mL glass bottles are also available.
(Catalog number: 197000-60-500)

Liquid collection tray
Collects liquid waste dripping from suction tools and can be cleaned easily.

Fence-like platform
Tripping-proof and spill-proof.

Ergonomic handle
Lock switch keeps continuous suction and relives your finger muscle from repetitive procedures.

More energy-saving & quiter
Eco modles pause and resume operation automatically.

One-finger tip ejection
Effortless tip removal.

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

Large Capacity Suction System

Features

▶ **All in One, saving 50% space**

Lafil 200 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.

▶ **Large volume, effort-saving**

Equipped with 4L large-capacity PP bottle, saves efforts of repetitive waste draining. (Optional 3.5L glass bottles are also available)

▶ **Safety features**

Multiple safety featured designs protect both the operator and the machine.
(1) Easier and safer waste drain with quick-coupling bottle connectors.
(2) Tripping-proof and spill-proof fence-like bottle platform.
(3) Overflow protection prevents liquid from entering the pump

▶ **Eco control feature (Lafil 200^{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

▶ **One-Year Warranty (Lafil 200 / Lafil 200^{eco})**

Applications

▶ Cell culture aspiration
▶ Laboratory waste suction

Ordering Information

197205-01(02)
Lafil 200 - Plus, Suction System with AC100-240V adaptor, US plug (EU plug)

197203-01(02)
Lafil 200 - BioDolphin, Suction System with AC100-240V adaptor, US plug (EU plug)

197215-01(02)
Lafil 200^{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

197000-60-3500
Laboratory Glass Bottle with GL45 Suction Cap, 3500 mL

VIDEO

Lafil 200 - Plus

Lafil 200 - BioDolphin

* 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	• Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector	• 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

X2 Doubled efficiency
Supporting up to 2 suction kits work at the same time.

Overflow protection
Protects the pump from liquid overflowing.

Quick-coupling connector
Makes repetitive waste removal much easier.

Foldable handle
Easy to carry.

PP vacuum bottle, 4000 mL
Optional 3500 mL glass bottles are also available.
(Catalog number：197000-60-3500)

Multi-functional storage rack
Accommodates all the adaptors in the rack and avoids cross-contamination.

Fence-like platform
Tripping-proof and spill-proof.

One-finger tip ejection
Effortless tip removal.

Ergonomic handle
Lock switch keeps continuous suction and relives your finger muscle from repetitive procedures.

More energy-saving & quiter
Eco modles pause and resume operation automatically.

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

Suction System

| **2** YEAR WARRANTY

Features

▶ **All in One, saving 50% space**
Lafil 300 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.

▶ **Safety features**
Multiple safety featured designs protect both the operator and the machine.
(1) Tripping-proof and spill-proof fence-like bottle platform.
(2) Overflow protection prevents liquid from entering the pump.

▶ **Oil-free & care-free**
Lafil systems are built-in with oil-free pumps that need no lubricant, making it maintenance-free and oil-mist-free.

▶ **Autoclavable**
The waste bottle and all fittings are made of autoclavable materials such as PES or POM.

▶ **International certification**
CE certification

▶ **Two-Year Warranty (Lafil 300)**

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	60W	65W	60W
Max. current	0.7A	0.3A	0.7A	0.3A
Safety	Overheat Protection			
OTHER DATA	**Plus**		**BioDolphin**	
Suction Kit	• Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector		• 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

| **2** YEAR WARRANTY

Features

▶ **All in One, saving 50% space**
Lafil 400 suction system integrates vacuum source, waste bottle and suction kit into one single system. Saving 50% bench space.

▶ **Safety features**
Multiple safety featured designs protect both the operator and the machine.
(1) Tripping-proof and spill-proof fence-like bottle platform.
(2) Overflow protection prevents liquid from entering the pump.

▶ **Oil-free & care-free**
Lafil systems are built-in with oil-free pumps that need no lubricant, making it maintenance-free and oil-mist-free.

▶ **Autoclavable**
The waste bottle and all fittings are made of autoclavable materials such as PES or POM.

▶ **International certification**
CE certification

▶ **Two-Year Warranty (Lafil 400)**

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	50 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	80W	100W	80W
Max. current	1.0A	0.4A	1.0A	0.4A
Safety	Overheat Protection			
OTHER DATA	**Plus**		**BioDolphin**	
Suction Kit	• Handle • 1-channel tip adaptor (150 mm) • 1-channel tip adaptor with ejector • 8-channel tip adaptor with ejector		• 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

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
Catalog number	197200-47	197200-48	197200-53
Connector	Hose barb	Hose barb	Quick-coupling connector
Graduated increment	500 mL	500 mL	500 mL
Overow protection	Yes	Yes	Yes
Hose barb	ID4 ~ ID8	ID4 ~ ID8	ID6
Drain device	-	Yes	-
Autoclavable	Yes	Yes	Yes

1 Connector (optional)

Hose Barb   Quick-Coupling Connector

2 Overflow Protection

3 With/Without Drain Device
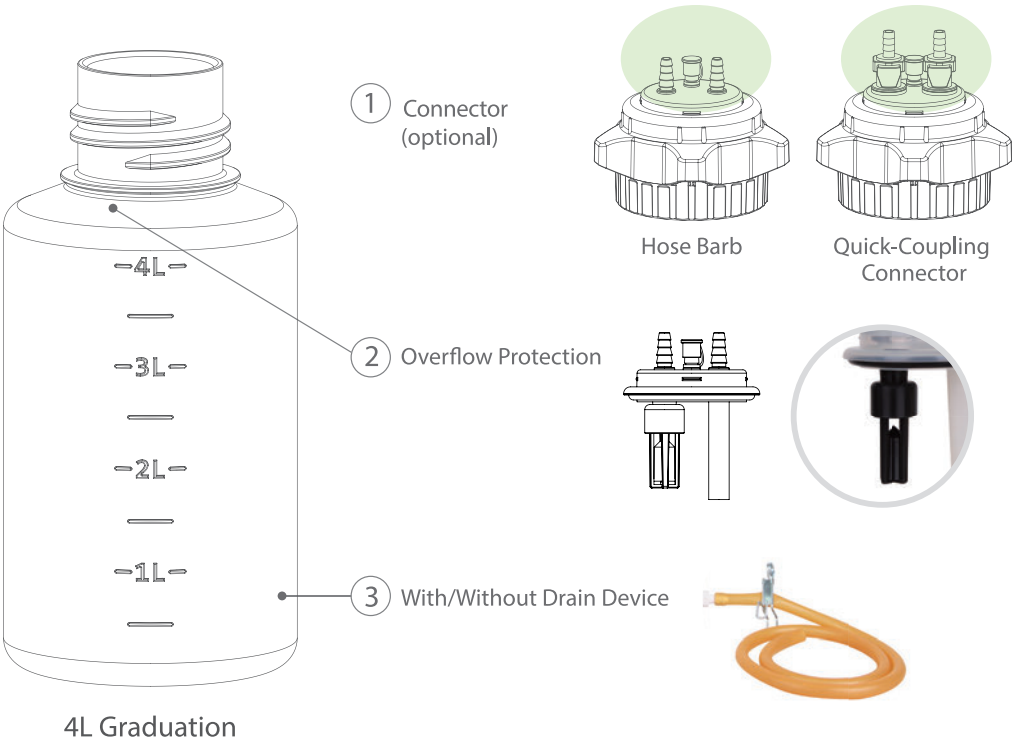
4L Graduation

* PP : Polypropylene

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

PP Vacuum Bottle

Specification	PP vacuum bottle, 1000 mL	PP vacuum bottle, 2000 mL
Catalog number	197100-10	196100-0406
Graduated increment	250 mL	-
Overflow protection	-	-
Hose barb	ID6	ID6
Autoclavable	Yes	Yes

Quick Connect Fitting

197201-38
197201-39

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

GL45 Laboratory Glass Bottle

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 ertification

▶ **One-Year Warranty**

Applications

▶ Concentration and desalting
▶ Diafiltration and purification
▶ Buffer exchange and dialysis

Ordering Information

184100-01(02)
Tanfil 100, Tangential Flow Filtration System, AC100-240V, 50/60Hz, US plug (EU plug)

203100-01
MS 100, Low Profile Magnetic Stirrer with AC100-240V adaptor, US/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

Tanfil 100

Specification

Model	Tanfil 100
PERFORMANCE DATA	
Max. inlet pressure	60 psig
Max. gauge pressure	80 psig
Recirculation flow rate	0~600 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	• Pall, Minimate™ TFF Capsules • Sartorius, Sartocon 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.

Tangential Flow Filtration (TFF) **NEW!**
Less membrane fouling. High permeate rate.

Continuous diafiltration
Buffer auto-refill, ensures smooth diafiltration with lowest impact.
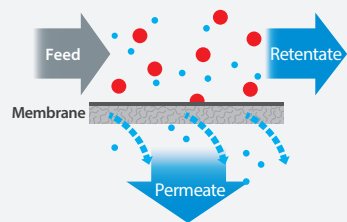
Traditional Dead-End Filtration
Membrane clogged. Low permeate rate.

More economical
No more membrane foulings, longer life of filtration membranes.
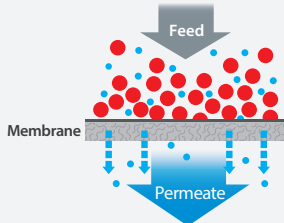
Magnetic stirrer
Prevent precipitation, more effective filtration.

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

◆ TFF Capsule

• Pall Minimate™ Tangential Flow Filtration Capsules (1/pk)
• Membrane Material: Omega (PES), Effective Filtration Area: 50 cm^2

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		

* MWCO : Molecular Weight Cut-off

• HansaBioMed TFF Hollow Fibers (1/pk)
• Recommend for Extracellular Vesicles (EVs) Research.

Catalog number	Description	Pore size
HBM-TFF1	TFF-Easy Polysulfone hollow fibers	5 nm
HBM-TFFMV	TFF-MV Polysulfone hollow fibers	200 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
MS 100, Low Profile Magnetic Stirrer with AC100-240V adaptor, US/EU plug

203100-10
PTFE Magnetic Stirring Bar,
Ø 3.6 x 25 mm

MS 100

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 ~ 30mm
Set-up plate material	Polyester
Set-up plate dimensions	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
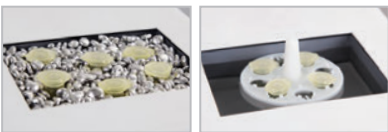
Ordering Information

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)

Sahara 310 / 320

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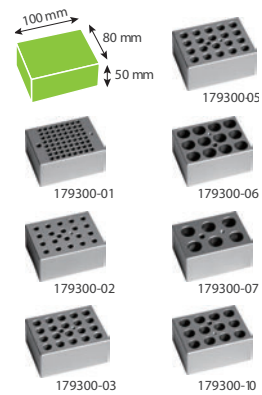
◆ Aluminum Block (LxWxH): 80 x 100 x 50 mm

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

Specification

Model	Sahara 310		Sahara 320	
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		50 / 60Hz	
Max. power	120W		240W	
Safety	Overheat Protection (170°C)			

Microplate Vacuum Manifold

VIDEO | 2 YEAR WARRANTY

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 adapter board and luer connector make WelVac 200 highly compatible with various kinds of spin column and 96-well microplate.

▶ **International certification**
CE certification
CSA certication (Rocker 300)
IP 30 protection (Rocker 300)
RoHS certification (Rocker 300)

▶ **Two-Year Warranty**

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 Adapter Board (24 hole)
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

WelVac 200

96-well microplate

Micro centrifuge tubes (24 holes)

Large-volume centrifuge tubes (8 holes)

WelVac 210

Specification

Model	WelVac 200	WelVac 210	
PERFORMANCE DATA			
Max. vacuum	-	99 mbar abs.	
Max. flow rate	-	23 L/min @60Hz	23 L/min @60Hz
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	
PERFORMANCE DATA			
Voltage	-	110V	220V
Frequency	-	50 / 60Hz	
Max. power	-	65W	60W
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, 2m
196100-31
Dynalon® Dura-Clamp Tubing Flow Valve, accepts tubing OD 3.2 ~ 11 mm

BioWasher 100

BioWasher 100 - T

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

> 60 cm

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	

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**
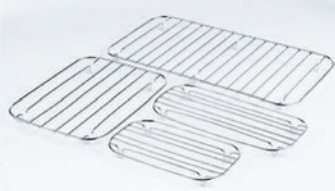CE certification

▶ **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

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		1 ~ 99 min		1 ~ 99 min		1 ~ 99 min	
Heating	-	R.T. ~ 60℃	-	R.T. ~ 60℃	-	R.T. ~ 60℃	-	R.T. ~ 60℃
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		50 / 60Hz		50 / 60Hz		50 / 60Hz	
Ultrasonic power	100W		180W		200W		500W	
Heating power*	88W		170W		270W		550W	
Safety	Fuse		Fuse		Fuse		Fuse	

* Only applied to heating models.   ** Each unit includes a bracket and a stainless steel cover.

Accessories

	Bracket	Basket	Beaker Positioning Cover
	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

Colony Counter

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.
(3) Compatible with Petri-dishes in various diameters.

▶ **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 16G USB and connecting cable)

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	2~3X
Petri dish diameter	60 mm or 90~150 mm (adjustable)
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

ROCKER

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)

▶ **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)

Dragon 100

Dragon 200 - T

Dragon 200
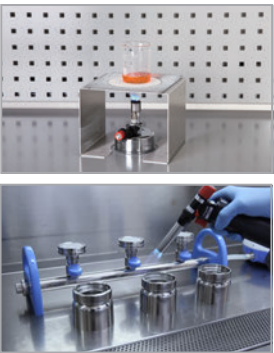
Dragon 220

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 sterlization
▶ Inoculating loops and needles sterlization

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 regulation, 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.

▶ **Pharmaceutics**

Ordering Information

185601-01(02)
Buller 600 - DSP, Dispensing Peristaltic Pump, AC100-240V, 50/60Hz, US plug (EU plug)
184100-39
Normal Flow Rate Pump Head, ~1600 mL/min
184100-20
High Flow Rate Pump Head, ~2160 mL/min
184100-10
Double-Channel Pump Head, ~1800 mL/min (for each channel)

Buller 600 - DSP

Specification

Model	Buller 600 - DSP
PERFORMANCE DATA	
Speed	1 ~ 600 rpm
Speed accuracy	1 rpm
Max. flow rate	1600 mL/min
Control type	Digital, variable-speed
Channel	1
Handling dispenser	(Standard) start/stop control
Net weight	5.3 Kg
Dimension (LxWxH)	20 x 33 x 24 cm
ELECTRICAL DATA	
Voltage	100-240V
Frequency	50 / 60Hz
Max. power	60W
Motor	Brushless DC Motor (BLDC)
External inputs	0~5V / 4~20mA / 0~10kHz
Remote control	RS 232
Safety	Motor Overload Protection (1.7 bar), Fuse

*Each unit includes a normal speed pump head, a handling dispenser, a nozzle, and a silicone tube.

Dispensing Peristaltic Pump

Accurate dispensing
Accurate dosage volume from 1 mL to 9999 mL with back-suction.

Touch screen
Allows easy operation with your gloves on.

Ergonomic & comfortable
Grip and click the dispenser comfortably.

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

Design for microbiological test
Built-in microbial programs are ideal for dispensing media and dilute buffer.

Tubing	ID	Wall thickness (mm)	TYGON S3™ E-3603	PHARMED® BPT	Nozzle	Countersunk
			Length: 2 m	Length: 2 m		
#16	3.1 mm	1.6 mm	185600-48-68	184100-48-68	185600-42	185600-45
#25	4.8 mm	1.6 mm	185600-50-68	185600-52-68	185600-44	185600-47
#17	6.4 mm	1.6 mm	185600-49-68	185600-51-68	185600-43	185600-46

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

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℃, 120 min (Standard mode)
(2) COD2 : 165℃, 20 min (Preheated mode)

▶ **User-definable programs**
Built-in with 2 user-definable programs that allows manual adjustments for temperature (30℃ ~ 200℃) 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) Safety Shield
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℃ ~ 200℃	
Temperature accuracy	± 2℃	
Temperature stability	± 1℃	
Built-in programs	· COD program: 150℃ / 120 min · COD2 program: 165℃ / 20 min · TP program: 150℃ / 30 min · TN program: 105℃ / 30 min · TPN program: 120℃ / 30 min · TOC program: 105℃ / 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	• Anti-heat PTFE plate on the top of heating block • Overheat Protection (220℃)	

ROCKER

COD Detector

VIDEO

Features

▶ **Use reagents of your choice**
CD 200 detector reads reagents from different brand owners. Pre-programmed with Hach, Lovibond and CHEMetrics 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)

CD 200

Specification

Model	CD 200
PERFORMANCE DATA	
Display	LCD with backlight
Brands of reagents	HACH, Lovibond, CHEMetrics
Measure range	10 ~ 150 mg/L, 100 ~ 1500 mg/L, 1000 ~ 15000 mg/L
User-defined curve	6 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

Multiparameter Colorimeter

VIDEO

Features

▶ **4-in-1 portable reader**
WD 100 is a portable instrument that reads 4 major water quality measures including COD, Total Phosphorus, Total Nitrogen and Ammonia Nitrogen.

▶ **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)

WD 100

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

Graphite Hotplate

VIDEO

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℃~200℃
(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

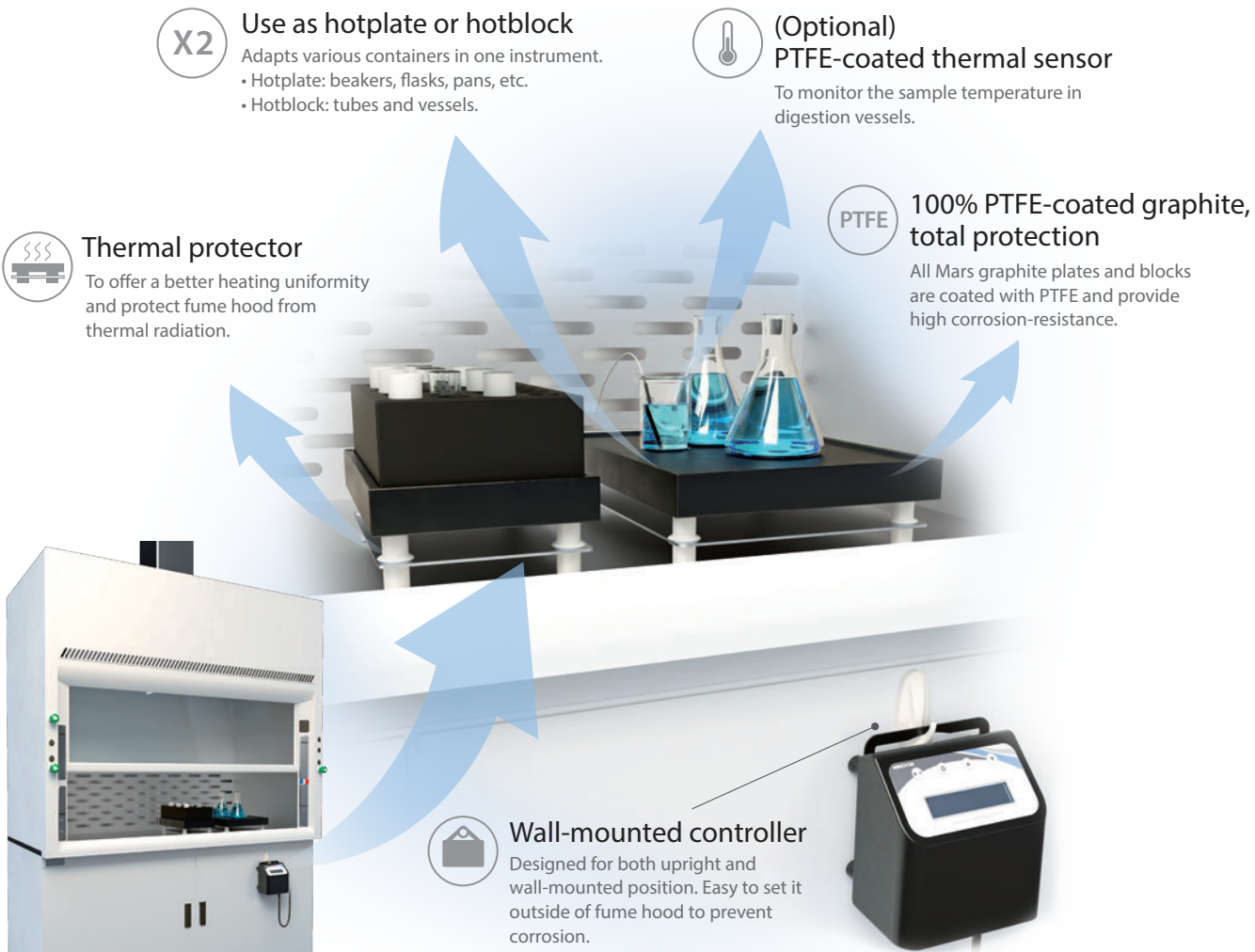**178200-45**
PTFE-Coated Thermal Sensor

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℃ ~ 200℃	
Resolution	1℃	
Temperature accuracy	± 1℃ (@150℃)	
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℃)	

* 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 upright and wall-mounted position. Easy to set it outside of fume hood to prevent corrosion.

◆ Digestion Tube

PP   Glass   PTFE

	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 ℃ • Glass / PTFE : 200 ℃

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

295 mm — 197 mm — Depth

178200-07   178200-10
178200-08   178200-11
178200-09   178200-12

	Hole Diameter	Hole Depth	Max. Capacity	Applicable Tube
178200-07	16.5 mm	45 mm	70 well	φ 16 mm tube
178200-08	20.5 mm	55 mm	54 well	φ 20 mm tube
178200-09	25.5 mm	70 mm	40 well	φ 25 mm tube
178200-10	19 mm	90 mm	54 well	15 mL digestion tube, φ 18 mm tube
178200-11	31 mm	90 mm	24 well	50 mL digestion tube, φ 30 mm tube
178200-12	47 mm	90 mm	15 well	100 mL digestion tube
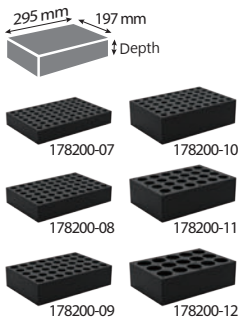
Buffer Solutions

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_2SO_4	O	X	O	O	O	O	O	X	O	O	O
20% Nitric Acid	HNO	O	X	O	O	X	-	O	O	O	O	O
20% Acetic Acid	$C_2H_4O_2$	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_3OH	X	O	O	O	O	O	O	O	O	X	O
Ethanol	C_2H_5OH	O	O	O	O	▲	O	O	O	O	O	O
Propanol	C_3H_8O	-	O	-	O	O	-	O	O	O	O	O
Isopropanol	C_3H_8O	O	O	O	O	O	O	O	O	O	O	O
n-Butanol	$C_4H_{10}O$	X	O	O	O	O	O	O	O	O	O	O
KETONES												
Acetone	C_3H_6O	X	O	X	O	X	X	O	O	O	X	O
Methyl Ethyl Ketone (MEK)	C_4H_8O	X	O	X	O	X	-	O	O	O	X	X
OTHERS												
Acetonitrile	CH_3CN	-	X	X	O	X	-	O	O	O	X	O
10% Hydrogen Peroxide	H_2O_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).