

Lafil 200
Lafil 200 - Plus
Lafil200 - BioDolphin
Suction system



Important Notice

- Read and comply with this manual before installing or operating the equipment.
- Please ensure that the power supply voltage matches the voltage rating for the instrument.
- Please operate the instrument in well ventilated area and keep away from inflammables.
- This instrument is not corrosion-proof pump. It is not suitable for pumping acid, base or organic vapors or gases directly.
- Do not modify the equipment without authorization.
- Clean and maintain the instrument and accessories according to the maintenance method after every use.

Unpacking

Carefully check if the shipping carton is damaged before unpacking. Please check the items according to standard package list. If you have any questions, please preserve serial number, shipping carton and contact your dealer for quick solution.

Item	Designation
1	Lafil 200 suction unit
2	Power Adapter
3	Operating Manual



- **Lafil 200 - Plus**

Item	Designation
1	Lafil 200 suction unit
2	4L PP vacuum bottle with quick-coupling connectors
3	Plus Suction Kit
4	Silicone Tube
5	Power Adapter
6	Foot Switch (optional)
7	Repair Kit
8	Operating Manual



- **Lafil 200 - BioDolphin**

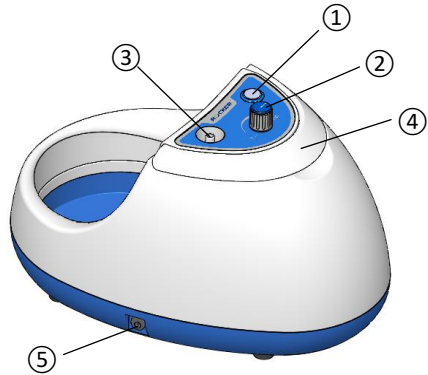
Item	Designation
1	Lafil 200 suction unit
2	4L PP vacuum bottle with quick-coupling connectors
3	BioDolphin Suction Kit
4	Silicone Tube
5	Power Adapter
6	Foot Switch (optional)
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Assembly & Disassembly Diagram

(1). Lafil 200

Position	Designation
1	Power switch
2	Vacuum regulator
3	Inlet
4	Foldable handle
5	Power plug



(2). PP Waste Bottle

Position	Designation
1	"LIQ" Inlet, 1/4 inch quick-coupling connector (optional: 5/16 inch quick-coupling connector)
2	"AIR" Outlet, 1/4 inch quick-coupling connector (optional: 5/16 inch quick-coupling connector)
3	Quick pressure relief hole
4	Cap
5	QC cap adaptor
6	Overflow Protection
7	Silicone Tube
8	Bottle body

(diagram shows in next page)



(3). 3.5L Glass Bottle :

Position	Designation
1	GL45 suction cap
2	O-ring
3	Silicone Tube
4	3500ml Glass Bottle



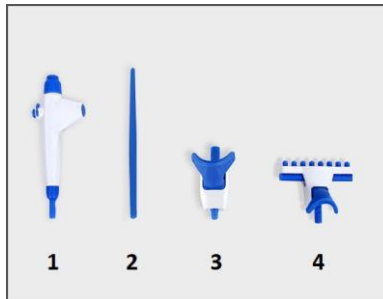
(4). Accessories :

- BioDolphin Suction Kit



Position	Designation	Position	Designation
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		

- Plus Suction Kit



Position	Designation	Position	Designation
1	Handle	2	1-channel tip adaptor (150 mm)
3	1-channel tip adaptor with ejector	4	8-channel tip adaptor with ejector

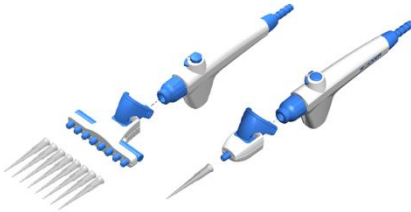
Installation and Operation

Lafil 200



Assemble the short tube with the disc filter to the "AIR" hose barb of the suction cap.

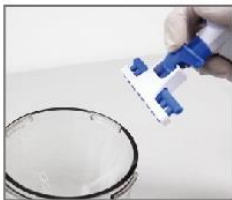
Assemble the long tube with the handle to the "LIQ" hose barb of the suction cap



Connect the power supply and switch on the power. Choose the suitable adaptor to connect with the handle.

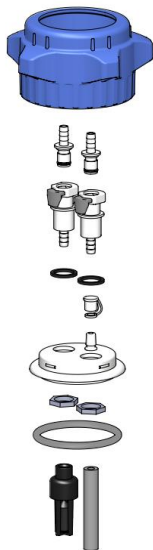


You can press the lock switch to do operation continuously.

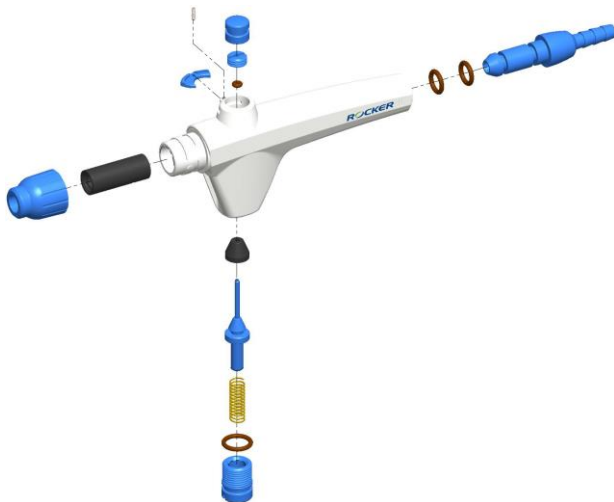


You can press the ejector bottom to eject tips.

PP Waste Bottle Cap



BioDolphin Handel



Maintenance

1. Please suck in pure water to clean the tubing after every use.
2. Suction accessories and silicone tube are autoclavable. Please clean and autoclave if need.
3. Lafil 200 suction unit is not autoclavable. Please clean the case by pure water or 75% alcohol.
4. It is strongly recommended to replace the main parts (internal rubber adaptor, O-ring and SS spring) of the handle every year at least to keep good aspiration.
5. Silicone tubes are consumables, please replace at least every half year to ensure good aspiration.

Troubleshooting

Symptoms	Possible causes	Remedy
Instrument fails to start	1. No electrical supply	Check the power supply conform to power specified on main unit or the switch is broken
	2. Power switch off	Switch on power
	3. High vacuum still	Release the vacuum
Vacuum fails to adjust	1. Air outlet clogged	Clean or replace the air outlet
	2. Weak power supply	Check the power supply
	3. Leak in the system	Check tubing, seals and coupling, replace if necessary
Low filtration speed/ poor vacuum	1. Leak in the system	Check tubing, seals and coupling, replace if necessary
	2. Liquid overflow	Check if the suction bottle is overflowing
	3. Weak power supply	Check the power supply
	4. Filter clogged	Replace filter

Ordering Information

197200-01(02)	Lafil 200, Vacuum Pump with AC 100-240V adaptor, US plug (EU plug)
197203-01(02)	Lafil 200 – BioDolphin, Large Capacity Suction System with AC 100-240V adaptor, US plug (EU plug)
197205-01(02)	Lafil 200 – Plus, Large Capacity Suction System with AC 100-240V adaptor, US plug (EU plug)
197200-53	4L PP Heavy-Duty Vacuum Bottle with 1/4 inch quick-coupling connectors
197200-54	4L PP Heavy-Duty Vacuum Bottle with 5/16 inch quick-coupling connectors
197000-60-3500	3.5L laboratory glass bottle (include GL45 suction cap)
199100-00	New BioDolphin Suction Kit - LB
199200-00	Plus Suction Kit - LB
199100-51	Repair Kit (include L type cleaning rod, SS spring, silicone sleeve)
199100-68	Silicone Tube (Φ 4.2 x 8 mm), 200cm
199100-53	Seal Pack of handle (includes O-ring P7, AS004, AS012, sleeve, valve)