



# Vacuum Pumps

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Version 1.0



# Overview

Vacuum Pumps are used in laboratories across a wide range of industries, including pharmaceutical, material science, biotechnology, universities, life science, environmental analysis, food and beverage and many more. Vacuum pumps are used to create and maintain a vacuum, then facilitate processes like filtration, degassing and distillation.

Please explore our range of laboratory pumps, manufactured by Rocker Scientific.

## OIL-FREE

Also known as a dry vacuum pump, these vacuum pumps operate without the use of oil as a lubricant or sealant in the pumping mechanism.

Traditional vacuum pumps, such as rotary vane pumps, utilise oil to lubricate moving parts and create a seal between the rotating components and the pump housing. While effective, the use of oil in these pumps can introduce contamination concerns, especially in applications where a clean vacuum environment is crucial, such as in analytical instrumentation, semiconductor manufacturing and biotechnology.



## CHEMICAL RESISTANT

A range of chemical resistant diaphragm pumps with either a PTFE coated chamber that is resistant to moderate corrosive gases that are more cost-effective; or the Chemker series with all wetted parts made from PTFE and FFKM material that can be used with hard acidic, basic and solvent vapours.



## DIAPHRAGM LIQUID PUMP

A diaphragm liquid pump is a type of positive displacement pump that uses a flexible diaphragm to move liquid. These pumps are commonly used in various industries, including pharmaceuticals, food and beverage, chemical processing and wastewater treatment.



## COMPRESSORS / AIR SUPPLY

Compressor pumps are widely used in industrial, commercial, and residential applications to generate compressed air or other gases for a multitude of purposes.

The basic principle of operation involves drawing in a gas, typically air, and then compressing it to a higher pressure before discharging it into a storage tank or directly into a system.





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## VACUUM FILTRATION

Vacuum filtration is employed in labs and industries to separate solids from liquids by applying reduced pressure, enabling efficient particle removal, solution clarification and solid residue isolation.

## SOLVENT PURIFICATION

Solvent purification involves the removal of unwanted particles or impurities from solvents or reagents through methods such as distillation, recrystallisation or filtration. Solvent filtration, in particular, is a commonly employed technique in the pre-treatment of precise analyses, such as HPLC.

## TOTAL SUSPENDED SOLIDS

TSS is a vital parameter for environmental monitoring and water quality assessment. It measures solid particles, both organic and inorganic, remaining in suspension in water or wastewater after gravity settling, aiding in water quality evaluation, pollution assessment and the detection of harmful substances or sediments.

## SOLID-PHASE EXTRACTION

SPE is a sample pre-treatment technique derived from solid-liquid extraction and chromatography. It is used for fractionation, purification, enrichment and concentration. SPE is commonly used before HPLC, LC and GC-MS analysis, resulting in simplifying and enhancing sensitivity.

## MICROBIOLOGICAL TEST

Microbiology testing is crucial for identifying, characterising and monitoring microorganisms, facilitating infectious disease diagnosis and treatment, foodborne pathogen detection as well as water and air quality assessment.

## GEL DRYING

Gel drying quickly removes moisture from gels for analysis and preservation. It uses gentle heating and vacuum to speed up drying, while reducing the risk of gel cracking.

## AIR SAMPLING

Air sampling collects and analyses quantified air samples to measure pollutant concentrations, including particulates and microbes. It assesses air quality, identifies pollution sources and monitors environmental changes.

## ROTARY EVAPORATION

Rotary evaporation is a common lab technique for solvent removal and concentration. It is used in various fields such as organic chemistry, pharmaceutical research and food analysis. A rotary evaporator uses heat, vacuum and rotation to separate solvents from samples, enabling compound isolation.

## VACUUM DRYING/OVEN

**Vacuum drying** is a method that removes moisture from a solid sample or air. The principle is to use a vacuum to lower the boiling point of moisture or solvent. A **vacuum oven** is an essential tool used in laboratories and industrial settings for drying, curing and heat treatment processes under reduced pressure conditions.



# Oil-Free Vacuum Pumps

Rocker oil-free vacuum pumps are compact in size, lightweight and oil-mist-free. Perfect for vacuum filtration, microbiological tests, air sampling and suspended solids testing. Selected models are equipped with Prote™ overflow protection and a moisture trap with filter cartridge and vacuum regulator.

## FEATURES + BENEFITS

### No Air Pollution & Maintenance-Free

Rocker Pumps are piston-driven, without the need for lubricants, regular oil changes or maintenance.

### Prote™ Overflow Protection

Equipped with Prote™ overflow protection, preventing large amounts of liquid from being sucked into the pump.

### Vacuum Regulator

Vacuum can be adjusted as needed.

### Thermal Protection Device

Every Rocker series pump has a built-in thermal protection device that automatically shuts off the pump when overheated and resumes once the temperature decreases.

### Moisture Traps\* (Selected models only)

Fitted with a filter cartridge in the air inlet to filter particles and moisture, which prolongs the life of the pump.

### Warranty

Two year warranty.

## OPERATION

### Small & space saving

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

### Overheat protection

Pump shuts down when overheated and resumes once cooled down

### Quiet and stable

Enhanced rubber assemblies make all Rocker pumps operate more quietly and with greater stability

### Quality compliance

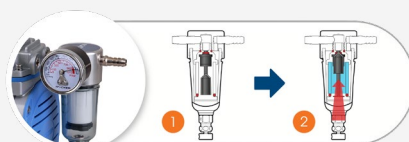
- CE certification
- CSA certification
- IP 30 protection
- RoHS certification

### Air inlet protection

Filter cartridge absorbs particles and moisture to prolong pump life

### Prote™ overflow protection

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



1. Moisture trap is empty
2. Moisture trap begins to fill, which triggers Prote™ Overflow Protection to prevent the liquids from entering the pump

### Key benefits of Prote™ Overflow Protection:

- Enhanced safety
- Improves the life span of the vacuum pump
- Easy maintenance



**ROCKER**



# Oil-Free Vacuum Pumps

## ROCKER 300



- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 20L/min
- Vacuum Regulator: ✓
- Filter Cartridge: ✓
- Overflow Protection: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167300-22</a>	Rocker 300	Each

## ROCKER 400



- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 34L/min
- Vacuum Regulator: ✓
- Filter Cartridge: ✓
- Overflow Protection: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167400-22</a>	Rocker 400	Each

## ROCKER 410



- Max. Vacuum: 25mbar abs.
- Max. Flow Rate: 20L/min
- Vacuum Regulator: ✓
- Filter Cartridge: ✓
- Overflow Protection: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167410-22</a>	Rocker 410	Each

## VACUUM PUMP + COMPRESSOR



- Max. Vacuum: 145mbar abs.
- Max. Pressure: 80psi
- Max. Flow Rate: 28L/min
- Vacuum Regulator: ✓
- Filter Cartridge: ✓
- Overflow Protection: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing
- Pressure Filtration

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167430-22</a>	Rocker 430	Each



# Oil-Free Vacuum Pumps

## ROCKER 900



- Max. Vacuum: 85mbar abs.
- Max. Flow Rate: 90L/min
- Vacuum Regulator: ✓
- Overflow Protection: X
- Overheat Protection: ✓
- Filter Cartridge: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing
- Vacuum Drying
- Vacuum Oven

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167900-22</a>	Rocker 900	Each

## ROCKER 910



- Max. Vacuum: 25mbar abs.
- Max. Flow Rate: 45L/min
- Vacuum Regulator: ✓
- Overflow Protection: X
- Overheat Protection: ✓
- Filter Cartridge: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Air Sampling
- Microbiology Testing
- Vacuum Drying
- Vacuum Oven

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167910-22</a>	Rocker 910	Each



# Oil-Free Vacuum Pumps

## TECHNICAL SPECIFICATIONS



SPECIFICATIONS	ROCKER 300	ROCKER 400	ROCKER 410
MAX. POWER	60W	80W	
MAX. CURRENT	0.3A	0.4A	
MAX. VACUUM	99mbar abs.		25mbar abs.
MAX. FLOW RATE	20L/min	34L/min	20L/min
NOISE LEVEL	50dB	52dB	
HOSE BARB	ID8		
NET WEIGHT	4.1kg	5.2kg	
DIMENSIONS (LxWxH)	27 x 14 x 20cm	31 x 14 x 20cm	
VACUUM REGULATOR	Yes		
FILTER CARTRIDGE	Yes		
OVERFLOW PROTECTION	Yes		
OVERHEAT PROTECTION	Yes		



SPECIFICATIONS	ROCKER 430	ROCKER 900	ROCKER 910
MAX. POWER	125W	250W	
MAX. CURRENT	0.6A	1.2A	
MAX. VACUUM	145mbar	85mbar abs.	25mbar abs.
MAX. PRESSURE	80psi	-	
MAX. FLOW RATE	28L/min	90L/min	45L/min
MOTOR ROTATION SPEED	1,450rpm	-	
HORSE POWER	1/6 HP	-	
NOISE LEVEL	52dB	68dB	
HOSE BARB	ID8		
NET WEIGHT	5.5kg	7.3kg	
DIMENSIONS (LxWxH)	24.7 x 23.5 x 20.4cm	35 x 13 x 21cm	
VACUUM REGULATOR	Yes		
FILTER CARTRIDGE	-	Yes	
OVERFLOW PROTECTION	Yes	-	
OVERHEAT PROTECTION	Yes		
VACUUM GAUGE	Yes	-	



# Vacuum Pumps | PTFE Coated

Unique to these units, the chambers of the Rocker C pump series are coated in PTFE and are resistant to moderately corrosive gases and are thus a more cost-effective solution when compared to traditional acid resistant pumps.

## FEATURES + BENEFITS

### Good Chemical Resistance

PTFE coated diaphragm and chamber plus the SS316 Valve offers good resistance to moderately corrosive gases.

### Thermal Protection

Built-in thermal protection device shuts off the pump automatically when it is overheated. Once the temperature decreases, it resumes operation.

### Minimised Vibration and Quiet Operation

Superior weight distribution and assemblies minimise vibration and noise, maximising stability.

### No Air Pollution & Maintenance Free

Driven by a diaphragm, without the need of lubricant, regular oil changes or maintenance.

## Applications

- Solvent Purification
- Solid Phase Extraction
- Vacuum Drying
- Liquid Aspiration
- Rotary Evaporator
- Gel Drying
- Vacuum Oven/Drying





# Vacuum Pumps | PTFE Coated

## ROCKER 300C

TEFLON COATED!

- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 20L/min
- Moisture Trap: ✓
- Vacuum Regulator: ✓
- Overheat Protection: ✓
- Glass Moisture Trap: ✓



### Applications

- Vacuum Filtration
- Solvent Purification
- Solid Phase Extraction

### Ordering Information



PRODUCT CODE	MODEL	PACK SIZE
<a href="#">189300-22</a>	Rocker 300C	Each

## ROCKER 410C

TEFLON COATED!

- Max. Vacuum: 25mbar abs.
- Max. Flow Rate: 23L/min
- Vacuum Regulator: ✓
- Overheat Protection: ✓
- Glass Moisture Trap: ✓



### Applications

- Vacuum Filtration
- Solvent Purification
- Gel Drying
- Vacuum Desiccator

### Ordering Information



PRODUCT CODE	MODEL	PACK SIZE
<a href="#">189410-22</a>	Rocker 410C	Each

## TECHNICAL SPECIFICATIONS



SPECIFICATIONS	ROCKER 300C	ROCKER 410C
MAX. POWER	60W	80W
MAX. CURRENT	0.3A	0.4A
MAX. VACUUM	99mbar	25mbar
MAX. FLOW RATE	20L/min	
NOISE LEVEL	50dB	52dB
HOSE BARB	ID8	
NET WEIGHT	4.1kg	5.7kg
DIMENSIONS (LxWxH)	29 x 14 x 20cm	31 x 13.5 x 20.4cm
VACUUM REGULATOR	Yes	
OVERHEAT PROTECTION	Yes	
MOISTURE TRAP	Yes	
TEFLON COATED	Yes	



# Vacuum Pumps | Chemical Resistant

Chemker™ pumps are diaphragm vacuum pumps made from PTFE, offering exceptional chemical resistance, suitable for a broad spectrum of harsh acidic, basic and solvent vapours. Chemker™ pumps are meticulously engineered to be cost-effective, to operate quietly and to provide optimal safety.

## FEATURES + BENEFITS

### Superior Chemical Resistance

All wetted parts of Chemker™ pumps are made of PTFE and FFKM material, making them resistant to most corrosive gases.

### Oil-Free & Maintenance Free

Driven by a diaphragm, oil-mist-free, without the need of lubricant, regular oil changes or maintenance.

### Quiet & Low Vibration

Motor driven transmission and vibration-proof assembly, resulting in a quieter and more stable operation.

### Thermal Protection Device

Has a built-in thermal protection device to shut off the pump automatically when it is overheated. Once the temperature decreases, it resumes operation.

### Warranty

1 year warranty.

### Certified

- CE certification
- UKCA certification
- RoHS certification

## OPERATION

### No air pollution, maintenance free

Oil-free diaphragm design eliminates use of lubricant. No oil mist and works quieter

**100-hour non-stop  
operation guaranteed**

### Overheat protection

Auto-stop and restart with built-in intelligence

### Superior corrosion resistance

Fully PTFE-made pump head and FFKM valves

### Vacuum regulator & moisture trap

Makes operation easier and pump life longer (\*Chemker 411 & 611)





# Vacuum Pumps | Chemical Resistant

## CHEMKER 300



- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 18L/min
- Noise Level: 52dB
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Solvent Purification
- Solid Phase Extraction
- Gel electrophoresis

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">169300-22</a>	Chemker 300	Each

## CHEMKER 411



- Max. Vacuum: 10mbar abs.
- Max. Flow Rate: 18L/min
- Noise Level: 52dB
- Glass Moisture Trap: ✓
- Vacuum Regulator: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Solvent Purification
- Gel Drying
- Rotary Evaporation

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">169411-22</a>	Chemker 411	Each

## CHEMKER 611



- Max. Vacuum: 7mbar abs.
- Max. Flow Rate: 30L/min
- Noise Level: 60dB
- Glass Moisture Trap: ✓
- Vacuum Regulator: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Vacuum Drying
- Vacuum Oven
- Solvent Purification
- Rotary Evaporation

### Ordering Information

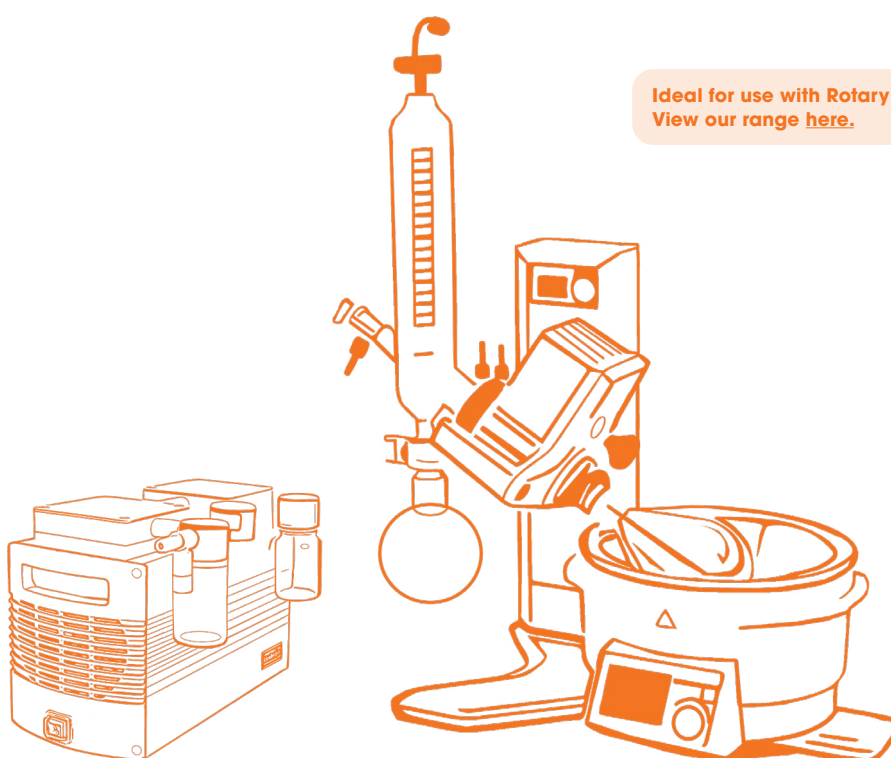
PRODUCT CODE	MODEL	PACK SIZE
<a href="#">169611-22</a>	Chemker 611	Each



## TECHNICAL SPECIFICATIONS



SPECIFICATIONS	CHEMKER 300	CHEMKER 411	CHEMKER 611
MAX. POWER	60W	90W	220W
MAX. CURRENT	0.32A	0.5A	1.2A
MAX. VACUUM	99mbar abs.	10mbar abs.	7mbar abs.
MAX. FLOW RATE	18L/min		30L/min
VOLTAGE / FREQUENCY	220V/50Hz		
NOISE LEVEL	52dB		60dB
HOSE BARB	ID8		ID10
NET WEIGHT	5.0kg	7.4kg	13.7kg
DIMENSIONS (LxWxH)	20 x 11 x 21cm	26 x 24 x 19cm	35 x 20 x 24cm
GLASS MOISTURE TRAP	-	Yes	
VACUUM REGULATOR	-	Yes	
OVERHEAT PROTECTION	Yes		



Ideal for use with Rotary Evaporators  
View our range [here](#).



# Diaphragm Liquid Pump | Alligator 200



The Alligator 200 is a compact diaphragm liquid pump that transfers filtered liquid directly to waste, eliminating the need for external waste bottles. An Infrared sensor enables touchless, contamination-free operation. It's clean and efficient thanks to the oil-free, brushless DC motor.

## FEATURES + BENEFITS

### Time Saving

The built-in liquid pump transfers filtered liquid directly to waste, saving time by simplifying the filtration process.

### Space Saving

Saves up to 40% bench space, as it connects directly to the filtration system without attaching to waste bottles which can take up a lot of bench space!

### Clean and Efficient

Does not require lubricant and is oil-mist-free. Its 60W brushless DC motor delivers stronger, more stable flow than comparable models.

### ISO 8199

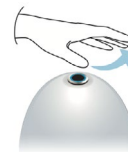
Complies with ISO 8199 regulation and is ideal for microbiological sample filtration.



## OPERATION

### Touchless operation

Infrared sensor activates filtration



### Time saving

Liquid goes directly to drainage/output

### Save up to 40% bench space

Direct drainage saves you more space

Liquid input  
waterproof design

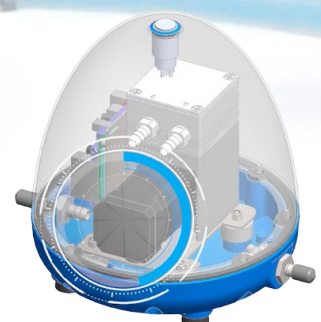
Liquid direct drainage/output  
No contact with potential hazards

### ISO 8199

Ideal for microbiological sample filtration

### Efficient built-in brushless DC motor

Provides a stable flow rate and prolongs pump life





# Diaphragm Liquid Pump | Alligator 200

**SAVE UP TO 40% OF BENCH SPACE!**



## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	ALLIGATOR 200
POWER	DC24V, 1.8A
MAX. VACUUM	313mbar
MAX. LIQUID FLOW RATE	4.5L/min
MOTOR	60W Brushless DC Motor
NOISE LEVEL	60dB
HOSE BARB	ID8
MATERIAL CONTACT WITH FILTRATE	SS316, FKM, Silicone, PP, PPS
SAFETY	Thermal Protection
NET WEIGHT	2.4kg
DIMENSIONS (LxWxH)	24 x 19 x 20cm

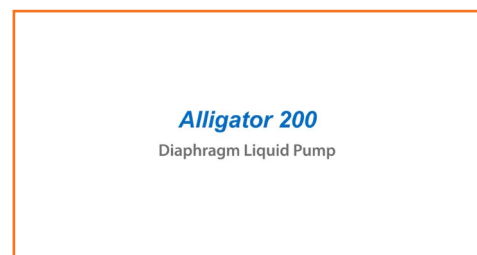
### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">181200-02</a>	Alligator 200	Each

## APPLICATIONS

- Microbiological test by MF Technique
- Suspended solid test
- General filtration

See the Alligator 200 in action below:



**Alligator 200**  
Diaphragm Liquid Pump





# Accessories



[180300-01](#)  
Manifold 3 Place Stainless Steel



[180600-01](#)  
Manifold 6 Place Stainless Steel



[200310-01](#)  
Filter Holder PES Magnetic 47mm -  
Supplied with lid



[200510-01](#)  
Filter Holder PES Magnetic 47mm -  
Supplied with lid



[200300-01](#)  
Filter Holder PES Magnetic No.  
8 Stopper 47mm - Supplied with lid



[200500-01](#)  
Filter Holder PES Magnetic No.  
8 Stopper 47mm - Supplied with lid



[167120-32](#)  
Filter Holder 25mm - Sintered Glass



[167120-31](#)  
Filter Holder 47mm - Sintered Glass



[167120-38](#)  
Filter Holder 90mm - Sintered Glass



[167120-34](#)  
Filter Holder Glass 25mm - Stainless  
Steel Support with PTFE Gasket



[167120-33](#)  
Filter Holder Glass 47mm - Stainless  
Steel Support with PTFE Gasket



[167120-37](#)  
Filter Holder Glass 90mm - Metal  
coated with PTFE Gasket



[197200-48](#)  
Bottle Vacuum Heavy Duty PP 4L



[1632412022500](#)  
Flask 500mL



[355.012.901](#)  
Bottle 1,000mL



[167110-16](#)  
Stopper for Filter Holders No. 8  
Silicone



[197000-60](#)  
Suction Cap for GL45 Bottle PP  
6mm Hose Barb



[197000-65](#)  
Adapter Filtration GL45 PP PTFE  
Gasket, 4-8mm Hose Barb for  
No. 8 Stopper



[167200-38](#)  
Tubing Silicone 6mm ID x 12mm  
OD, 1m length

**View our complete range  
of filtration apparatus &  
accessories online [here](#).**



# Vacuum System Setups

**BUY THE COMPLETE SETUP!**

## Vacuum Pump Setup



## Alligator 200 Setup





# Vacuum Pumps | Compact Oil-Free



The Lafil series combines a vacuum pump with a filtration system in a compact, all-in-one design. This integration reduces the need for separate components and simplifies your laboratory setup. Featuring overflow protection and thermal protection, these vacuum pumps ensure user safety and extend the lifespan of the unit.

## FEATURES + BENEFITS

### Compact & Safe

Unique filtration unit that combines a vacuum source with optional filtration ware. Its compact design saves bench space.

### Maintenance Free

Lafil pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance.

### Thermal Protection

Every Lafil series pump has a built-in thermal protection device to turn off the pump automatically when overheated, and then resume operation when the temperature decreases.



\*Filter holder & funnel sold separately.

The fence-like platform design prevents the waste bottle from tipping over

## LAFIL 300



- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 20L/min
- Vacuum Regulator: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Microbiology Testing

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">197300-22</a>	Lafil 300	Each

## LAFIL 400



- Max. Vacuum: 25mbar abs.
- Max. Flow Rate: 20L/min
- Vacuum Regulator: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Total Suspended Solids
- Microbiology Testing

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">197400-22</a>	Lafil 400	Each

## LAFIL 300C

TEFLON COATED!

- Max. Vacuum: 99mbar abs.
- Max. Flow Rate: 20L/min
- Vacuum Regulator: ✓
- Overheat Protection: ✓



### Applications

- Vacuum Filtration
- Solvent Purification
- Solid Phase Extraction

### Ordering Information

PRODUCT CODE	MODEL	PACK SIZE
<a href="#">197330-22</a>	Lafil 300C	Each



# Vacuum Pumps | Compact Oil-Free

## TECHNICAL SPECIFICATIONS



SPECIFICATIONS	LAFIL 300	LAFIL 400	LAFIL 300C
MAX. POWER	60W	80W	60W
MAX. CURRENT	0.3A	0.4A	0.3A
MAX. VACUUM	99mbar	25mbar	99mbar
MAX. FLOW RATE	20L/min		
NOISE LEVEL	50dB	52dB	50dB
HOSE BARB	ID8		
NET WEIGHT	5.9kg	7kg	5.9kg
DIMENSIONS (LxWxH)	34 x 24 x 30cm		
VACUUM REGULATOR	Yes		
OVERFLOW PROTECTION	Need Overflow Protection? Refer to table below.		
OVERHEAT PROTECTION	Yes		
TEFLON COATED	-		Yes

## Suction Waste Bottle | Built-in Overflow Protection



SPECIFICATIONS	DESCRIPTION
CAPACITY	1,200mL
MATERIAL	PES
GRADUATE INCREMENTS	100mL
OVERFLOW PROTECTION	Yes
CAP WITH SUCTION FITTING	Yes
HOSE BARB	ID8
AUTOCCLAVABLE	Yes



PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">197000-11</a>	Suction System Accessory Waste Bottle	Each



# Vacuum Pumps | Compact Oil-Free



## BIODOLPHIN SUCTION KIT

Turn a Lafil pump into a Laboratory Suction System with the BioDolphin suction kit! This kit is an ideal solution for cell culture aspiration and laboratory waste suction.

### FEATURES + BENEFITS

#### Quick Connection

Easy installation between handle and adapters.

#### One-Finger Tip Ejection

Ergonomic ejector makes tip removal easy and effortless.

#### Easy Lock Switch

Maintain continuous suction with a single click to reduce effort during repetitive procedures.

#### Multi-Functional Storage Rack

Conveniently store all accessories in a rack to keep a tidy working environment. Built-in liquid tray collects dripping liquid from the adapters and can be cleaned easily.

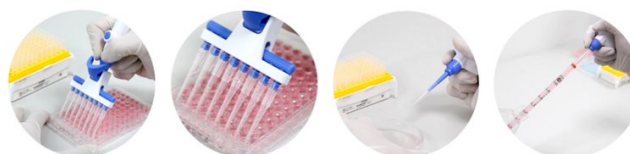
#### Autoclavable

The complete kit except the storage rack is made of autoclavable materials, including POM and SS304.



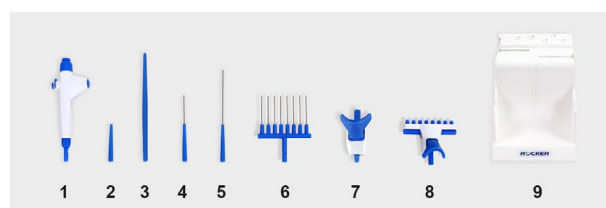
#### Applications

- Cell culture aspiration
- Laboratory waste suction



### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">199100-00</a>	BioDolphin Suction Kit	Each
<a href="#">199100-30</a>	1: Handle	Each
<a href="#">199100-46</a>	2: 1-channel tip adapter (50mm)	Each
<a href="#">199100-76</a>	3: 1-channel tip adapter (150mm)	Each
<a href="#">199100-47</a>	4: 1-channel SS adapter (40mm)	Each
<a href="#">199100-48</a>	5: 1-channel SS adapter (80mm)	Each
<a href="#">199100-49</a>	6: 8-channel SS adapter (40mm)	Each
<a href="#">199100-75</a>	7: 1-channel tip adapter with ejector	Each
<a href="#">199100-50</a>	8: 8-channel tip adapter with ejector	Each
<a href="#">199100-61</a>	9: Rack	Each



\*Lafil & filter holder not included.



# Vacuum Pumps | Compact Oil-Free

## ACCESSORIES



**Built-in Overflow  
Protection**

[197010-30](#)  
Filtration Set LF30 47mm 300mL PES



**Built-in Overflow  
Protection**

[197000-11](#)  
Suction System Accessory Waste Bottle



[167200-38](#)  
Tubing Silicone 6mm ID x 12mm OD  
1m length

## Complete Lafil System Setup

Filtration Set LF30 300mL PES  
[197010-30](#) [VIEW HERE](#)

Silicone Tubing, 1m length  
[167200-38](#) [VIEW HERE](#)

Lafil 300 Compact  
Vacuum Pump  
[197300-22](#) [VIEW HERE](#)





# Compressors / Air Supply

## ROCKER 430 VACUUM PUMP + COMPRESSOR

The Rocker 430 is an oil-free, piston-driven vacuum pump and compressor, offering both suction and pressure capabilities. With built-in safety features like Prote™ overflow protection, overheat protection as well as moisture traps that filter particles to extend pump life.

It is ideal for lab applications like filtration, air sampling and microbial testing.



### FEATURES + BENEFITS

- 2-in-1 machine
- Oil-free & maintenance free
- Prote™ overflow protection
- Overheat protection
- Moisture trap with filter cartridge

### Specifications

- Max. Vacuum: 145mbar abs.
- Max. Pressure: 80psi
- Max. Flow Rate: 28L/min
- Vacuum Regulator: ✓
- Filter Cartridge: ✓
- Overflow Protection: ✓
- Overheat Protection: ✓

### Applications

- Vacuum Filtration
- Microbiology Testing
- Total Suspended Solids
- Pressure Filtration
- Air Sampling

### Ordering Information



PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167430-22</a>	Rocker 430	Each

## ROCKER 320 COMPRESSOR

- Max. Pressure (w/o moisture trap): 90psi
- Max. Pressure (w/ moisture trap): 80psi
- Max. Flow Rate: 12L/min
- Pressure Regulator: ✓
- Filter Cartridge: ✓
- Overheat Protection: ✓



### Applications

- Aeration
- Pressure filtration

### Ordering Information



PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167320-22</a>	Rocker 320	Each

## ROCKER 440 COMPRESSOR

- Pressure range: 40 ~ 60psi
- Max. Flow Rate (w/o tank: 25L/min
- Max. Flow Rate (w/ tank: 60L/min
- Pressure Regulator: ✓
- Filter Cartridge: ✓
- Overheat Protection: ✓



### Applications

- Fermenter
- Bioreactor
- Gas Chromatography

### Ordering Information



PRODUCT CODE	MODEL	PACK SIZE
<a href="#">167440-22</a>	Rocker 440	Each

### Max. Flow Rate (w/ tank)

PRESSURE	FLOW RATE
20psi	40L/min
40psi	50L/min
60psi	60L/min



# Compressors / Air Supply

## TECHNICAL SPECIFICATIONS



SPECIFICATIONS	ROCKER 430 VACUUM PUMP + COMPRESSOR	ROCKER 320 COMPRESSOR	ROCKER 440 COMPRESSOR
MAX. POWER	125W	85W	125W
MAX. CURRENT	0.6A	0.4A	0.6A
MAX. VACUUM	145mbar	-	-
MAX. PRESSURE (W/O TANK)	-	90psi	See table on page 22
MAX. PRESSURE (W/ TANK)	80psi		See table on page 22
MAX. FLOW RATE	28L/min	12L/min	60L/min
HORSE POWER	1/6 HP	1/8 HP	1/6 HP
NOISE LEVEL	52dB	50dB	52dB
HOSE BARB	ID8		
NET WEIGHT	5.5kg	4.1kg	8.4kg
DIMENSIONS (LxWxH)	24.7 x 23.5 x 20.4cm	27 x 14 x 17cm	29 x 31 x 25cm
VACUUM GAUGE	Yes	-	
VACUUM REGULATOR	Yes	-	
FILTER CARTRIDGE	Yes		
OVERFLOW PROTECTION	Yes	-	
OVERHEAT PROTECTION	Yes		
PRESSURE REGULATOR	Yes		



# Microplate Vacuum Manifold

## WELVAC 200

The WelVac 200 Vacuum Manifold simplifies and accelerates nucleic acid purification by replacing repetitive centrifugation with a continuous vacuum-based system. Designed for plasmid, genomic, viral DNA/RNA, and PCR cleanup.

It supports both 96-well microplates and individual spin columns using a universal adapter board and luer-style connectors. Made of aluminium and lightweight, it's efficient and space saving.



## FEATURES + BENEFITS

### Simplifying Operation

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

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.

## APPLICATIONS

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

## ACCESSORIES



[195200-34](#)  
Silicone Tubing



[195200-36](#)  
Deep Well



[195200-42](#)  
Spin Column



[195200-43](#)  
Luer Connectors



[195200-44](#)  
Luer Stoppers



[195200-45](#)  
Waste Tray

### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">195200-00</a>	Microplate Vacuum Manifold WelVac 200	Each
<a href="#">195200-34</a>	Silicone Tubing	30cm
<a href="#">195200-36</a>	Deep Well	Each
<a href="#">195200-42</a>	Spin Column	Each
<a href="#">195200-43</a>	Luer Connectors	PK25
<a href="#">195200-44</a>	Luer Stoppers	PK25
<a href="#">195200-45</a>	Waste Tray	Each



# Microplate Vacuum Manifold

## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	WELVAC 200
HOSE BARB	ID8
WEIGHT	2.6kg
DIMENSIONS (LxWxH)	23 x 12 x 10cm
MATERIALS	
VACUUM MANIFOLD	Aluminium
COLUMN ADAPTER BOARD	PC
GASKET / O-RING	Rubber
LUER CONNECTOR / STOPPER	Silicone



## Complete WelVac System Setup

Rocker 300 Vacuum Pump  
[167300-22](#)

[VIEW HERE](#)

WelVac 200 Microplate  
Vacuum Manifold  
[195200-00](#)

[VIEW HERE](#)

WelVac 200 Spin  
Column, 24 Positions  
[195200-42](#)

[VIEW HERE](#)

Silicone Tubing, 30cm length  
[195200-34](#)

[VIEW HERE](#)





**Pressure Conversion Table (Ultimate Vacuum)**

psi	Atmosphere	mbar	kPa	Kg/cm <sup>2</sup>	oz/in <sup>2</sup>	in.Hg	mmHg (Torr)	in. H <sub>2</sub> O
1	0.068	68.947	6.895	0.07	16	2.036	51.72	27.68
14.7	1	1013.2	101.3	1.033	235.1	29.92	760	406.8
0.0145	0.00098	1	0.1	0.00102	0.2321	0.02953	0.75006	0.40146
0.145	0.01	0.00001	1	0.01	2.321	0.295	7.501	4.015
14.22	0.968	980.664	98.07	1	227.6	28.96	735.6	393.7
0.063	0.004	4.309	0.431	0.004	1	0.127	3.232	1.73
0.491	0.033	33.863	3.386	0.035	7.858	1	25.4	13.6
0.019	0.001	1.333	0.133	0.001	0.309	0.039	1	0.535
0.036	0.002	2.4909	0.249	0.003	0.578	0.074	1.868	1

**Flow Rate Table**

Litre/min	CFM	m <sup>3</sup> /h	Litre/sec
1	0.03531	0.06	0.01666
28.316	1	1.69896	0.47193
16.667	0.58857	1	0.27778
60	2.11893	3.6	1

**Cubic Measure Table**

Millilitre	Litre	U.S. Ounce	U.S. Pint	U.S. Gal
1	0.001	0.033814	0.0021134	0.00026417
1,000	1	33.814	2.1134	0.26417
29.574	0.029574	1	0.0625	0.007813
473.176	0.473176	16	1	0.125
3,785.4	3.7854	128	8	1



**Chemical Resistant of Commonly Used Materials Table**

	Weak Acids	Weak Bases	Temperature (°C) Prolonged Use	Temperature (°C) Short-term Use	Izod Impact Strength (kg-cm/cm)	Ultraviolet Ray	Specific Gravity
ABS	E	E	75	100	21	P	1.06
PP	E	E	85	100	20	F	0.92
PC	E	F	130	140	12	F	1.20
POM	P	F	90	110	19.1	P	1.42
NYLON6	G	E	80	120	6	F	1.15
PSU	E	E	160	180	20	F	1.24
PES	E	E	180	220	8.7	F	1.37
PVDF	E	E	105	150	19.6	G	1.78
PTFE	E	E	260	260	16.3	G	2.25

E: Excellent G: Good F: Fairish P: Poor

**Sterilisation Method**

	Autoclavable (121°C, 20min)	Dry (160°C)	Ultraviolet Ray	Gamma Radiation
ABS	P	P	P	G
PP	F	P	F	P
PC	G	P	F	G
POM	F	P	P	P
NYLON6	G	P	F	F
PSU	E	G	F	G
PES	E	E	F	G
PVDF	G	P	G	G
PTFE	E	E	G	G

Note: Above information is based on experience to date. It is intended as a reference for use at your own discretion and risk.

E: Excellent G: Good F: Fairish P: Poor





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