

FLUID ASPIRATION SYSTEMS



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## FLUID ASPIRATION SYSTEMS

The compact BioChem-VacuuCenter offers the perfect solution for safe, sensitive and efficient aspiration of supernatants in all application areas. The BVC basic is intended for connection to an external vacuum source. The BVC control and the BVC professional are equipped with a high performance, chemically resistant diaphragm pump. The vacuum level and thus the suction force at the hand control can be sensitively adjusted via a touch panel. In addition, the BVC professional features a non-contact liquid level sensor and self-closing quick couplings (4l PP bottle version). All systems are available either with a vacuum-resistant, autoclavable 4l PP bottle or with a 2l borosilicate glass bottle, e.g., for working with aggressive disinfectants such as chlorine bleach. All versions are ready for connection of a second hand control.



VHC<sup>pro</sup> - Ergonomic aspiration hand set with tip holder and adapter to accept a variety of common pipettes and tips. Level for manual suction control, rotary knob for permanent aspiration. With 2.5 m tubing



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### FLEXIBILITY AND COMFORT

- ✦ 4l PP or 2l glass bottle - for a perfect fit with process protocols (glass version, e.g., for chlorine bleach)
- ✦ compact size with control handle - for flexible, space-saving setup with perfect ergonomics
- ✦ very low noise levels in operation - to work comfortably in daily routine
- ✦ sensitive suction power adjustment via touch panel - for sample protection and reproducible results
- ✦ vacuum pump that responds automatically to demand - no foot pedal switch needed

### ECONOMIC EFFICIENCY

- ✦ powerful chemical-resistant diaphragm vacuum pump with a very long service life even when working with aggressive disinfectants - minimal costs for maintenance and spare parts
- ✦ ready to accept a second hand controller - double use for lower cost per user
- ✦ high-quality components for trouble-free operation in continuous professional use

### SAFETY

- ✦ 0.2 µm protection filter - high protection against contamination of the environment
  - ✦ hand controller with flow-through suction tube - no contamination of handle with aspirated media
  - ✦ collection flask made of PP or coated borosilicate glass - completely autoclavable, with 0.2 µm protection filter
  - ✦ 2l borosilicate glass flask for high chemical resistance, with splinter-proof coating for safety and leakage protection
  - ✦ BVC professional includes liquid-level sensor to prevent aspiration of liquids into pump. Self-closing couplings (4l PP bottle version) for safe removal of bottle for change and transport
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- mechanical vacuum regulator to provide optimum working vacuum and minimize the vapor load on the vacuum network
- stable base and electricity-free operation for convenience
- autoclavable collection bottle designed to reduce aerosol and foam formation; autoclavable quick-couplings available as accessory
- aspiration hand set VacuuHandControl (VHC<sup>pro</sup>) with flow-through suction tube - no contamination of handle by aspirated media
- hydrophobic 0.2 µm sterilizable filter - contamination risks for the vacuum pumping system are greatly reduced; autoclavable as complete unit together with the collection bottle



BVC basic

The BioChem-VacuuCenter BVC basic is designed for connection to an existing external vacuum source like a diaphragm pump or a vacuum network (e.g., VACUU-LAN<sup>®</sup>) and does not require electric power. The chemical-resistant mechanical vacuum controller always ensures an optimal operating vacuum. The controller opens only when needed thus limiting the gas load on the vacuum source. The evaporation of collected liquid is minimized. The inlet tubing integrated in the bottle head reduces aerosol and foam formation and ensures a long service life of the hydrophobic protection filter. The aspiration system is available either as BVC basic with 4l PP bottle or as BVC basic G with 2l coated borosilicate glass bottle.

**TECHNICAL DATA**

Collection bottle	4l Polypropylene
Dimensions (L x W x H), approx.	250 x 200 x 490 mm
Weight, approx.	2.8 kg

**BVC basic****TECHNICAL DATA**

Collection bottle	2l Glass
Dimensions (L x W x H), approx.	230 x 180 x 430 mm
Weight, approx.	3.2 kg

**BVC basic G****ITEMS SUPPLIED**

Complete fluid aspiration system for existing vacuum source, with automatic vacuum control, hose nozzle DN 6/10 mm for connection to a vacuum supply, aspiration hand set VacuuHandControl VHC<sup>pro</sup>, collection bottle, protection filter and manual.

**ORDERING INFORMATION****\*BVC basic**

727000

**ORDERING INFORMATION****\*\*BVC basic G**

727100

\* With 4l PP collection bottle for general aspiration tasks, completely autoclavable together with a 0.2 µm protection filter

\*\* With 2l borosilicate glass collection flask with splinter-proof coating and leakage protection, with high chemical resistance for aggressive disinfectants like chlorine bleach; completely autoclavable together with 0.2 µm protection filter.

## FLUID ASPIRATION SYSTEMS

- powerful and long-lasting chemistry diaphragm pump for universal economical use
- extremely compact, space saving and low noise and thus the ideal tool in the workplace
- easy operation due to electronically adjustable suction power via touch panel, for strong or sensitive suction
- autoclavable collection bottle designed to reduce aerosol and foam formation; with hydrophobic protection filter 0.2 µm, autoclavable quick-couplings available as accessory
- ready to accept a second aspiration hand controller (VHC<sup>pro</sup>) to support two users



## BVC control

The BioChem-VacuuCenter BVC control serves for efficient and convenient aspiration of supernatants. The vacuum level - and thus the suction force - is exactly adjustable by the electronic touch panel and allows a sensitive and reproducible operation. The chemically resistant diaphragm vacuum pump is automatically turned on and off as needed, which reduces the low noise level even further. The BVC control is available in two complete equipment options with different collection flasks. The 2l borosilicate glass bottle with a protective coating has a very high chemical resistance. For larger amounts of liquids the 4l bottle of unbreakable polypropylene (PP) is used. The smooth surfaces allow an easy cleaning of the systems.

## TECHNICAL DATA

	<b>BVC control</b>
Vacuum pump	ME 1C
Ultimate vacuum (abs.)	150 mbar
Dimensions (L x W x H), approx.	408 x 194 x 500 mm
Weight, approx.	7.3 kg

## ORDERING INFORMATION

## \*BVC control

230 V ~ 50-60 Hz	CEE	727200
230 V ~ 50-60 Hz	CH	727201
230 V ~ 50-60 Hz	UK, IN	727202
100-120 V ~ 50-60 Hz	US	727203
230 V ~ 50-60 Hz	CN	727206

## ITEMS SUPPLIED

Fluid aspiration system complete with powerful chemistry diaphragm pump, collection bottle, adjustable suction power control via touch panel, aspiration hand set VHC<sup>pro</sup> and protection filter, ready for use with manual.

## ORDERING INFORMATION

## \*\*BVC control G

230 V ~ 50-60 Hz	CEE	727300
230 V ~ 50-60 Hz	CH, CN	727301
230 V ~ 50-60 Hz	UK, IN	727302
100-120 V ~ 50-60 Hz	US	727303

\* With 4l PP collection bottle for general aspiration tasks, completely autoclavable together with a 0.2 µm protection filter

\*\* With 2l borosilicate glass collection flask with splinter-proof coating and leakage protection, with high chemical resistance for aggressive disinfectants like chlorine bleach; completely autoclavable together with 0.2 µm protection filter

## FLUID ASPIRATION SYSTEMS

- with all the advantages of the BVC control
- non-contact sensor for electronic monitoring of the liquid level in the collection bottle
- disinfection routine for the suction tubing for drawing in disinfectant after switching off the pump
- self-closing quick couplings (as accessory to the BVC professional G) for convenient and safe bottle change, e.g., for work with biohazards
- for professional work and a perfect fit for required safety protocols



## BVC professional

The BioChem-VacuuCenter BVC professional serves for aspiration and disposal of biological fluids, providing outstanding levels of comfort and safety for working with biological and biohazardous materials. A non-contact sensor monitors the liquid level in the collection bottle electronically and prevents overfilling. A disinfection routine allows the suction of disinfectants through aspiration hand set and tubing after switching off the pump, and so supports demanding safety protocols. The BVC professional with 4l PP bottle with self-closing quick couplings minimizes risk in transporting hazardous waste and of contamination in the workplace. The version with coated 2l borosilicate glass bottle allows you to work with aggressive disinfectants like chlorine bleach.

## TECHNICAL DATA

	<b>BVC professional</b>
Vacuum pump	ME 1C
Ultimate vacuum (abs.)	150 mbar
Dimensions (L x W x H), approx.	408 x 194 x 500 mm
Weight, approx.	7.3 kg

## ORDERING INFORMATION

**\*BVC professional**

230 V ~ 50-60 Hz	CEE	727400
230 V ~ 50-60 Hz	CH, CN	727401
230 V ~ 50-60 Hz	UK, IN	727402
100-120 V ~ 50-60 Hz	US	727403

## ITEMS SUPPLIED

Fluid aspiration system complete with powerful chemistry diaphragm pump, collection bottle, adjustable suction power control via touch panel, non-contact liquid level sensor, quick couplings (4l PP version), aspiration hand set VHC<sup>PRO</sup> and protection filter, ready for use with manual.

## ORDERING INFORMATION

**\*\*BVC professional G**

230 V ~ 50-60 Hz	CEE	727500
230 V ~ 50-60 Hz	CH, CN	727501
230 V ~ 50-60 Hz	UK, IN	727502
100-120 V ~ 50-60 Hz	US	727503

\* 4l PP collection flask, with self-closing quick couplings made of PVDF, completely autoclavable together with protection filter 0.2 µm

\*\* With 2l borosilicate glass collection flask with splinter-proof coating and leakage protection, with high chemical resistance for aggressive disinfectants like chlorine bleach; completely autoclavable together with 0.2 µm protection filter.

## FLUID ASPIRATION SYSTEMS ACCESSORIES

Ergonomic aspiration hand set with tip holder and adapter to accept a variety of common pipettes and tips. Level for manual suction control, rotary knob for permanent aspiration. With 2.5 m tubing.

VacuuHandControl VHCpro ..... 688061

VacuuHandControl VHC<sup>pro</sup>



The stainless steel stand for the VHC<sup>pro</sup> enables to place the tipped suction handset conveniently and stable during work with cell cultures.

Table stand for VHCpro ..... 635680

Table stand for VHC<sup>pro</sup>



Silicone tubing (minimum order quantity 2m).

Spare tubing for VHC / VHCpro ..... 636156

Spare tubing for VHC / VHC<sup>pro</sup>



This adapter is designed for pipette tips 2 - 200 µl and has got a tip ejector to remove the used pipette tip.

Adapter for pipette tips with tip ejector ..... 635638

Adapter for pipette tips with tip ejector



This adapter allows parallel operation of eight pipette tips (size 2 - 200 µl or 5 - 300 µl). It is designed to match the dimensions of standardized 96-well microplates and has got a tip ejector to remove the used pipette tips.

VHCpro 8-channel tip adapter with ejector ..... 635679

VHC<sup>pro</sup> 8-channel tip adapter with ejector



Hose nozzle and inlet tube for minimized foam and aerosol formation (VHC / VHC<sup>pro</sup> not included). For BVC professional with 4l bottle PP please order article 635807 instead

Extension kit second VHC / VHCpro connection ..... 699943

Extension kit second VHC / VHC<sup>pro</sup> connection



The BVC shuttle is a mobile underframe for all models BVC control and BVC professional. It serves to pull out the BVC easily from under the safety cabinet for cleaning and removal of bottle for change.

BVC shuttle ..... 696880

BVC shuttle



## FLUID ASPIRATION SYSTEMS ACCESSORIES

Hydrophobic 0.2 µm protection filter, to protect pump system and work environment. Autoclavable up to 20 times.

Protection filter 0.2 µm ..... 638266

Protection filter 0.2 micron



Quick coupling made of PVDF, with adapter to connect a VHC / VHC<sup>pro</sup> to a collection bottle, very good chemical resistance, complete with inlet tube for minimized foam and aerosol formation, autoclavable

Quick coupling VHC / VHC<sup>pro</sup> - bottle ..... 635807

Quick coupling VHC / VH-  
C<sup>pro</sup> - bottle



Quick coupling made of PVDF, to connect a collection bottle to a BVC unit. Very good chemical resistance. Autoclavable. When disconnected, the collection bottle closes vacuum tight.

Quick coupling set connection bottle - pump ..... 635808

Quick coupling set connection bottle - pump



4l heavy-walled, vacuum-proof collection bottle with high chemical resistance (PP). Special bottle head for minimized foam and aerosol formation, with hose nozzle for VacuuHandControl VHC / VHC<sup>pro</sup> and additional port to connect a second VHC / VHC<sup>pro</sup> (optional). Hydrophobic filter element 0.2 µm to protect pump and environment. Hose for connection to BVC. Fully autoclavable.

4l collection bottle made of polypropylene (PP) ..... 635810

4l collection bottle made of polypropylene (PP)



2l borosilicate glass collection bottle with high chemical resistance, with splinter-proof coating, special bottle head for minimized foam and aerosol formation, hose nozzle for VacuuHandControl VHC<sup>pro</sup> and additional port to connect a second VHC<sup>pro</sup> (optional), hydrophobic filter element 0.2 µm to protect pump and environment, hose for connection to pump unit BVC or BVC basic; fully autoclavable.

2l collection bottle made of borosilicate glass ..... 635809

2l collection bottle made of borosilicate glass



Holder for 2 liter glass bottle for BVC control or BVC professional (included in BVC control G and BVC professional G).

Adapter for 2l glass bottle ..... 635839

Adapter for 2l glass bottle

