

## **VACUUM ASPIRATION SYSTEM**

BVC basic BVC control BVC professional BVC basic G BVC control G BVC professional G VHCpro



# Instructions for repair





#### Original instructions Keep for further use!

This manual is only to be used and distributed in its complete and original form. It is strictly the user's responsibility to carefully check the validity of this manual with respect to the product.

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Thank you for purchasing this product from **VACUUBRAND GMBH + CO KG**. You have chosen a modern and technically high quality product.

## **CONTENT**

1	Introduction	5
	1.1 User information	6
		/
2	Safety instructions	8
	2.1 Target groups	8
	2.2 Safety precautions	
	2.2.1 Personal responsibility	
	2.2.2 Eliminate sources of danger	9
	2.3 Environmental protection	. 10
3	Notes concerning repair	11
	3.1 Lifetime when used as intended	. 11
	3.2 Prior to maintenance and repair	
	3.3 After maintenance or repair	
	3.4 Replacing diaphragms and valves	
4	Replacing the main switch	15
5	Replacing the motor capacitor	20
6	Exploded drawing	28
7	Spare parts	35
Ω	Sarvica	30



#### 1 Introduction

Make yourself familiar with the device.

Use this manual as reference for the repair of your device.

#### 1.1 User information

#### **Safety**

Instructions for use and safety

- Read this manual thoroughly and completely before starting repair. Keep this manual in an easily accessible location.
- Observe all safety instructions provided also in the instructions for use of the device and in the document "Safety instructions for vacuum equipment"! The document "Safety information for vacuum equipment - Sicherheitshinweise für Vakuumgeräte" is part of the instructions for use!
- In addition to this manual, adhere to any relevant local accident prevention regulations and comply with industrial safety regulations.

#### General

General information

- The illustrations in this manual are provided as examples. They are intended to aid in your understanding.
- VACUUBRAND GMBH + CO KG reserves the right to modify or change the product design and/or technical specifications at any time without advanced notice.

#### Copyright

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#### Contact us

#### Contact

- Please ask for replacement in case of incomplete instructions for use. Alternatively, you can download instructions for use on our web page: <a href="https://www.vacuubrand.com">www.vacuubrand.com</a>.
- Contact us regarding any questions about this product, if you need further information, or to provide us with feedback.
- When contacting our Customer Service Department, please be sure to have the data from the rating plate.

#### 1.2 About this document

#### 1.2.1 Symbols and icons

Safety symbols



General danger sign.



Caution! Electrical voltage!



Disconnect equipment from AC power.



Read manual.

Additional icons



Attention!

Observe precautions for handling electrostatic sensitive devices.

Convention for additional notes



Refers to content of other documents.

#### Additional notes

**IMPORTANT!** Information or specific use recommendation, which must be observed.



- ⇒ Helpful tips
- ⇒ Additional information

#### 1.2.2 Display conventions

#### Warning levels

Convention for warnings

## DANGER

Indicates an imminent hazardous situation.

Disregarding the situation will result in serious and even fatal injury or death.

⇒ Take appropriate action to avoid dangerous situation!



#### **WARNING**

### Indicates a potentially hazardous situation.

Disregarding the situation could result in serious, even fatal injury or massive damage to property.

⇒ Observe instruction to avoid dangerous situation!



#### **CAUTION**

#### Indicates a potentially hazardous situation.

Disregarding the situation could result in slight or minor injury or damage to property.

⇒ Observe instruction to avoid dangerous situation!

#### Individual step (single step)

Design of steps

- ⇒ Do the described step.
  - ☑ Result of action.

## **Multiple steps**

#### Graphic

- 1. First step,
- 2. next step.
  - ☑ Result of action.

Follow steps in the described order.

## 2 Safety instructions

All safety instructions must be observed by all individuals working with the products described here.

Maintenance and repair are intended to ensure the functional condition or the return to function in the event of a failure.

Repair includes troubleshooting and remedy.

#### 2.1 Target groups

Qualified personnel

Maintenance and repair may only be carried out by suitable qualified personnel.

The qualified personnel has to carry out the necessary work in accordance with the statutory requirements (e.g., safety at work, environmental protection).

The function and safety of the device must not be impaired.

The qualified personnel must be adequately informed of the risk involved in their intervention.

The qualified personnel must be adequately informed of potentially hazardous substances in the device.

## 2.2 Safety precautions

Quality standards and safety

Products of **VACUUBRAND GMBH + CO KG** are subject to high quality tests with goals for safety and operation. Prior to delivery each product has been tested thoroughly.

Nevertheless, during operation unforeseen dangerous situations may occur which may lead to injuries or damage of property. Therefore observe the following chapter and take the appropriate safety precautions.

#### 2.2.1 Personal responsibility

# Qualification and personal responsibility

Ensure that only authorized and skilled personnel works with the equipment. This is particularly important with regard to trouble-shooting and remedy.

- ⇒ Carefully read these instructions for repair before starting work.
- ⇒ Replace wear parts regularly.
- ⇒ Never operate a defective or damaged device.
- ⇒ Personal safety has top priority!
- ⇒ Always be conscious of safety.
- ⇒ Observe the owners' directives at work, the national accident prevention regulations and occupational safety provisions.

#### 2.2.2 Eliminate sources of danger

## Use only in proper working condition

Only use the vacuum system when it is in proper working condition.

⇒ Carry out maintenance and repair outside the hazardous area, i.e., outside potential explosive atmospheres.

#### Safe work

The owner must determine additional protective measures to ensure safe personal protection if work has to carry out inside a hazardous area.

- ⇒ Observe the operating instructions of the owner.
- ⇒ Switch off the device prior to maintenance and repair.
- ⇒ Secure the device against restarting.

#### Dangerous voltage

Parts may carry dangerous voltages for some minutes even when the device is switched off.

To avoid fatal injuries to not carry out any work during this period.

- ⇒ Mark activities at the device appropriately, e. g. using a instruction plate. Ensure that the instruction plate is available also during temporary interruption.
- ⇒ Afterwards restore the protective equipment immediately, if you have deactivated safety functions and protective equipment due to maintenance or repair work.

- ⇒ Replace defective components by new components with the same order number or by equivalent components.
- ⇒ Prevent the entry of liquids or dust in the device.

Health hazards

The device may be contaminated with substances dangerous to health or otherwise dangerous substances.

Decontaminate or clean the device prior to maintenance or repair, if necessary.

Observe safety and protective measures when working with hazardous substances.

Ask regularly for actual material safety data sheets.

Observe the owners' hazardous substances operating instructions.

Wear your personal protective equipment.

## 2.3 Environmental protection

Observe environmental regulation Observe the national and international environmental regulations for disposal of your product as well as spare parts. This applies particularly to all components that are contaminated with hazardous substances.

Dispose of chemicals, e. g., cleaning agent, according to regulations.

## Scrapping and waste disposal

Proper disposal

As a result of increased environmental awareness and more stringent general requirements imposed by environmental legislation, a proper scrapping and disposal of no longer usable or non-reparable equipment is required.



If you wish to dispose of a VACUUBRAND electrical or electronic device, this must be done separately from unsorted municipal waste. This is indicated by the symbol of the crossed-out wheelie bin (see illustration).

VACUUBRAND offers to dispose of your device with this symbol for you.

To do this, please contact our service team.

Please note the data privacy rules and delete all data on the device.

service@vacuubrand.com

Tel.: +49 9342 808 5660

## 3 Notes concerning repair

**IMPORTANT!** Replace defective parts in any case.

## 3.1 Lifetime when used as intended

Part	Operating hours
Diaphragm	15000
Valve	15000
Motor capacitor	10000 - 40000
Motor bearing	40000



#### WARNING

### Risk of injury due to a disassembled device.

Operating a disassembled device may lead to personal injury.

- ⇒ Never operated a opened or disassembled device.
- Ensure that a disassembled device never starts unintentionally.



#### **WARNING**

## Damage due to an overaged motor capacitor.

If an old motor capacitor fails, the capacitor may get hot. It may even melt or emit a flame,

- Check every capacitor regularly by measuring its capacity and estimating its operation time. Exchange old capacitors early enough to prevent a failure.
- ⇒ The capacitors have to be replaced by a qualified electrician.



#### **CAUTION**

Damage due to defective wear parts.

Defective wear parts may lead to failure of the device.

⇒ Wear parts have to be replaced in time.



#### **DANGER**

## Danger of electric shock.

Improperly executed repairs will result in an electrical shock.

- ⇒ Check the electrical safety of the device according to IEC 61010 and national regulations after repair.
- ⇒ Check the protective conductor resistance.
- ⇒ Check the insulation resistance.
- ⇒ Carry out a high voltage test.
- ⇒ Check the leakage current.

### 3.2 Prior to maintenance and repair

#### **Preparation**

Genuine spare parts

⇒ Use only genuine spare parts and accessories.

When using components of other manufacturers the safety and performance of the equipment as well as the electromagnetic compatibility of the equipment might be reduced.

Possibly the CE mark or the C/US conformity (see rating plate) becomes void if not using genuine spare parts.

- ⇒ Check that the required tools and parts are available and of the correct type before you start your work.
- Check the operating sequence mentally using exploded view drawings, spare parts lists and circuit diagram on feasibility, safety requirements and consequences on safety and function of the equipment.
- ⇒ Vent the device.

⇒ Allow the device to cool down.

- ⇒ Separate the device from mains prior to maintenance or repair. Switch off the device and unplug.
- ⇒ Allow the capacitors to discharge.
- ⇒ Ensure ESD protection measures at the workplace.







## 3.3 After maintenance or repair

#### **Testing**

Testing

Check operability and safety after maintenance and repair.

⇒ Check the safety of the device according to IEC 61010 and national regulations.

## BVC control / G and BVC professional / G

BVC control / G BVC professional / G

⇒ Check the ultimate vacuum of the pump after maintenance and repair.



The pump achieves its ultimate vacuum if switching off at an atmospheric pressure > 1000 mbar absolute, a maximum underpressure of 850 mbar (8 LEDs glow) and a leak-free apparatus.

#### **BVC** professional / G



⇒ Adjust the liquid level sensor if necessary.

Adjusting the liquid level sensor is described in the instructions for use of the device.

## 3.4 Replacing diaphragms and valves



Inspection and maintenance of the pump heads and **replacement of diaphragms and valves** is described in the instructions for use of the device.

Please ask for replacement in case of missing instructions for use. Alternatively, you can download instructions for use on our web page: <a href="https://www.vacuubrand.com">www.vacuubrand.com</a>.



In case of problems return the device to the factory for inspection or repair if necessary.

⇒ Observe section "Return".

## 4 Replacing the main switch



#### Spare part

Main switch, blue (635239)



#### Tool

Torx screw driver TX20



#### **DANGER**

## Danger of electric shock.

A defective main switch will result in an electrical shock.

- ⇒ Replace a defective main switch immediately.
- ⇒ Replacement of the main switch must be carried out by a qualified electrician.



#### **DANGER**

## Danger of electric shock.

Improperly executed repairs will result in an electrical shock.

- ⇒ Check the electrical safety of the device according to IEC 61010 and national regulations after repair.
- ⇒ Check the protective conductor resistance.
- ⇒ Check the insulation resistance.
- ⇒ Carry out a high voltage test.
- ⇒ Check the leakage current.



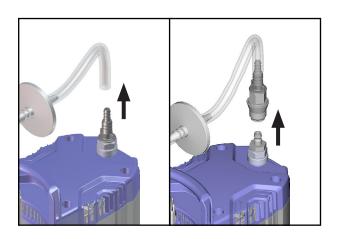
## <u>^</u>

#### CAUTION

## Electrostatic discharge (ESD).

Electronic components can be damaged or destroyed if ESD protection measures are not observed.

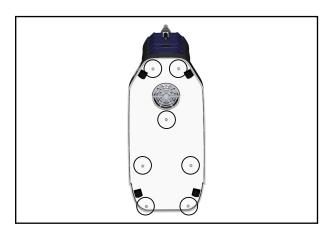
⇒ Ensure ESD protection measures at the workplace.



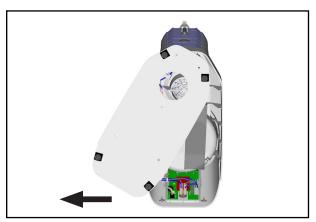
1. Depending on BVC version, remove connection tubing at the hose nozzle or detach quick coupling.



2. Remove bottle from support.



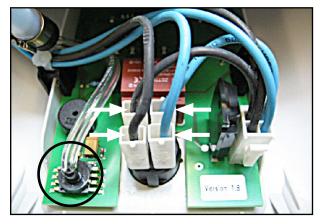
- 3. Lay down the BVC as shown.
- 4. Unscrew screws at the base plate.



5. Slide the base plate to the side. It is not necessary to disconnect the earth cables.



## **IMPORTANT!** Ensure ESD protection measures at the workplace.



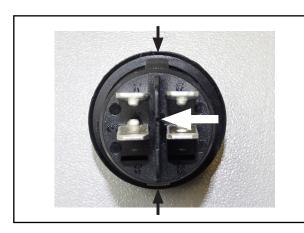
The pressure sensor (see mark) is sensitive to electrostatic discharge.

Do not touch the pressure sensor, observe ESD protection measures!

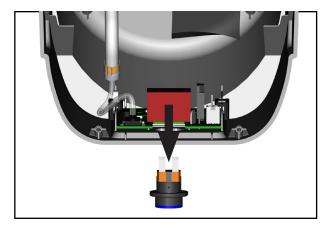
6. Mark the cables if necessary.



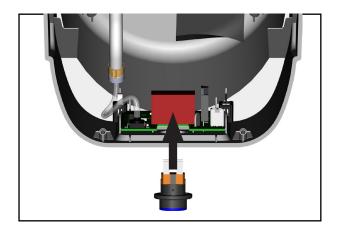
7. If necessary, note the position of the cables on the switch (1a, 1b, 2a, 2b) and disconnect the cables from the switch.



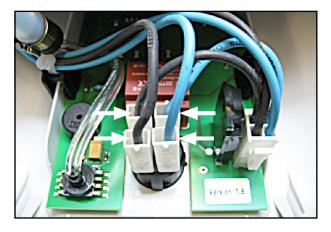
8. Press the tabs at the main switch together and press the bottom of the main switch.



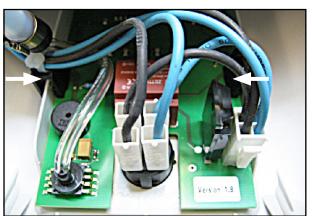
9. Remove the main switch from housing.



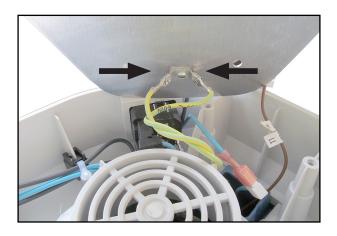
- 10. Take care of the lugs at the main switch and the recesses provided in the housing when assembling the main switch.
- 11. Insert the main switch in the housing.



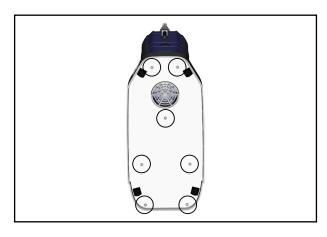
12. Plug the cables on the main switch correctly.



- 13. Check the firm seat of the circuit board.
- 14. Press the mounting clips if necessary.



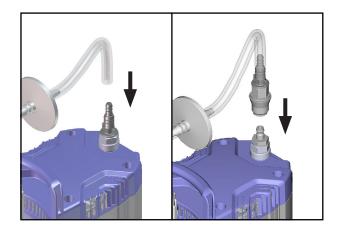
15. Check the firm seat of the earth cables at the base plate.



- 16. Position the base plate.
- 17. Screw the base plate.



- 18. Position the BVC on the feet.
- 19. Position bottle in the support.



20. Depending on BVC version, position tubing to hose nozzle or quick coupling.



#### **DANGER**

## Danger of electric shock.

Improperly executed repairs will result in an electrical shock.

- ⇒ Check the electrical safety of the device according to IEC 61010 and national regulations after repair.
- ⇒ Check the protective conductor resistance.
- ⇒ Check the insulation resistance.
- ⇒ Carry out a high voltage test.
- ⇒ Check the leakage current.

## 5 Replacing the motor capacitor

### Spare part capacitor on request

Please be sure to include the serial number of the device with your request.



#### Tool



Torx screw driver TX20
Open-ended wrench SW 13, 17, 19



#### **DANGER**

#### Danger of electric shock.

Improperly executed repairs will result in an electrical shock.

- ⇒ Check the electrical safety of the device according to IEC 61010 and national regulations after repair.
- ⇒ Check the protective conductor resistance.
- Check the insulation resistance.
- ⇒ Carry out a high voltage test.
- ⇒ Check the leakage current.

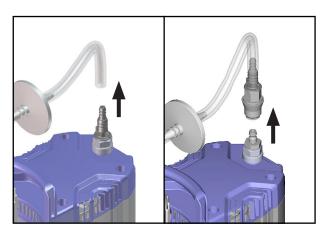


#### WARNING

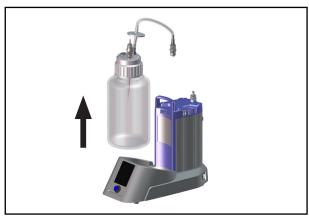
## Damage due to an overaged motor capacitor.

If an old motor capacitor fails, the capacitor may get hot. It may even melt or emit a flame.

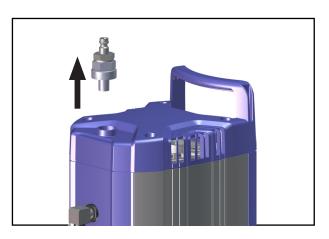
- Check every capacitor regularly by measuring its capacity and estimating its operation time. Exchange old capacitors early enough to prevent a failure.
- ⇒ The capacitors have to be replaced by a qualified electrician.



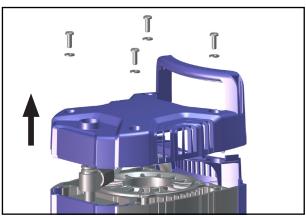
1. Depending on BVC version, remove connection tubing at the hose nozzle or detach quick coupling.



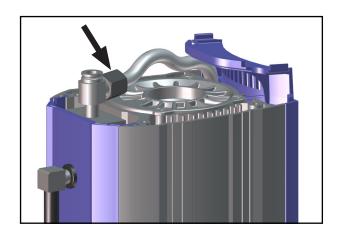
2. Remove bottle from support.



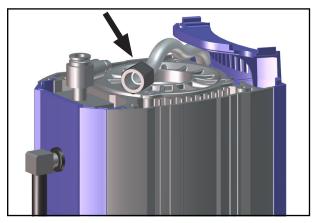
3. Depending on BVC version, unscrew the hose nozzle or the coupling.



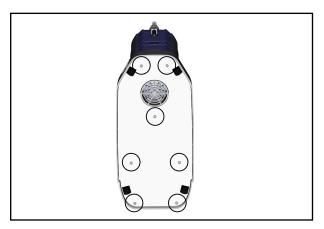
- 4. Unscrew the cover.
- 5. Pay attention to washers.



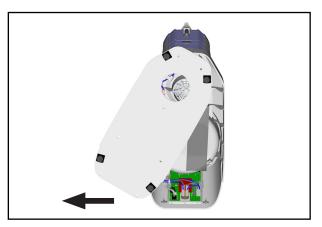
6. Loosen the union nut.



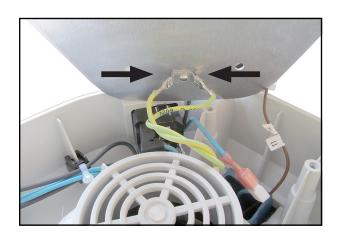
7. Turn away hose from hose connector.



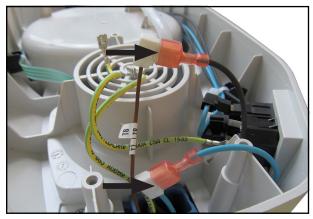
- 8. Lay down the BVC as shown.
- 9. Unscrew screws at the base plate.



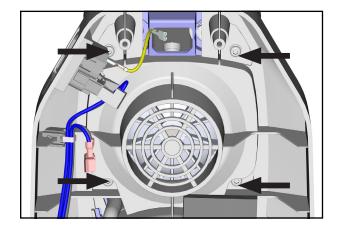
10. Slide the base plate to the side.



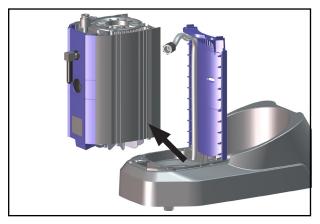
11. Pull both earth cables from base plate.



- ⇒ Electronic components are sensitive to electrostatic discharge (ESD).
- ⇒ Observe ESD protective measures.
- 12. Pull both cables at the main switch.

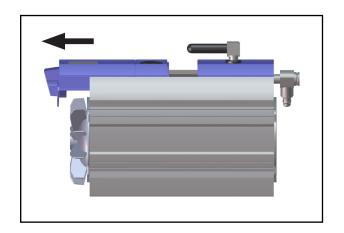


13. Unscrew the four screws fixing the motor.



- 14. Hold the pump and position the BVC on the feet.
- 15. Lift the pump from holder.

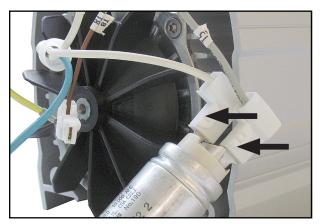




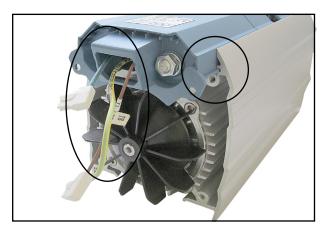
- 16. Place the pump as shown.
- 17. Remove the blind.



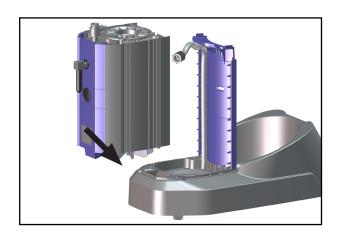
18. Unscrew the motor capacitor.



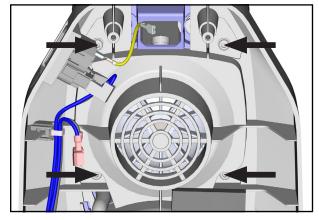
- 19. Pull both cables at the motor capacitor.
- 20. Attach both cables to the new motor capacitor.
- 21. Screw the motor capacitor to blind.



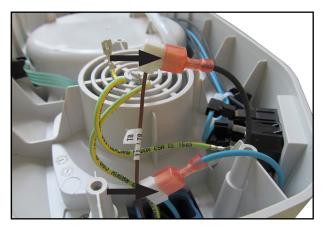
- 22. Insert the cable through the opening in the blind.
- 23. Pay attention to correct position of the blind in the housing.
- 24. Slide the blind on the pump.



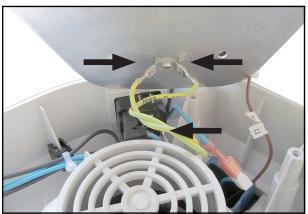
- 25. Pay attention to cables. Do not squeeze cables.
- 26. Insert the cables through the holder.
- 27. Position pump in holder.



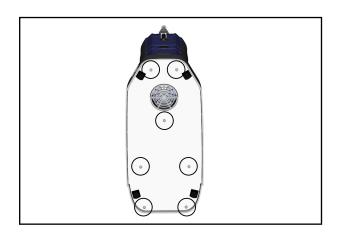
- 28. Hold the pump and lay down the BVC.
- 29. Screw the pump.



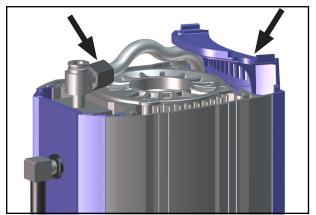
30. Connect the cables.



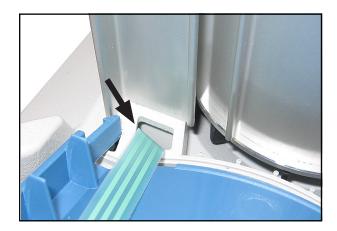
- 31. Twist the earth cables three times.
- 32. Plug the earth cables to the base plate.



- 33. Position the base plate.
- 34. Screw the base plate.



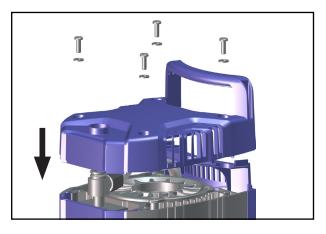
- 35. Position the BVC on the feet.
- 36. Connect hose to hose connector.
- 37. Screw the union nut.
- 38. Position blind in holder if necessary.



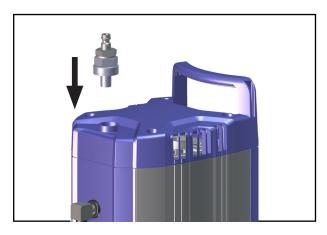
## Only BVC professional / G:

During repair it may happen that the blind with liquid level sensor foil falls out from the holder.

Do not squeeze the foil cable when assembling the blind.



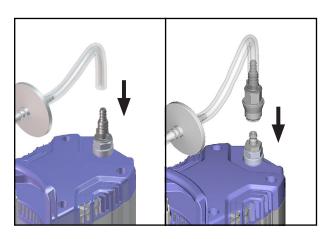
39. Screw the blind.



40. Depending on BVC version, screw coupling or hose nozzle.



41. Position bottle in the support.



42. Depending on BVC version, position tubing to hose nozzle or quick coupling.



## **DANGER**

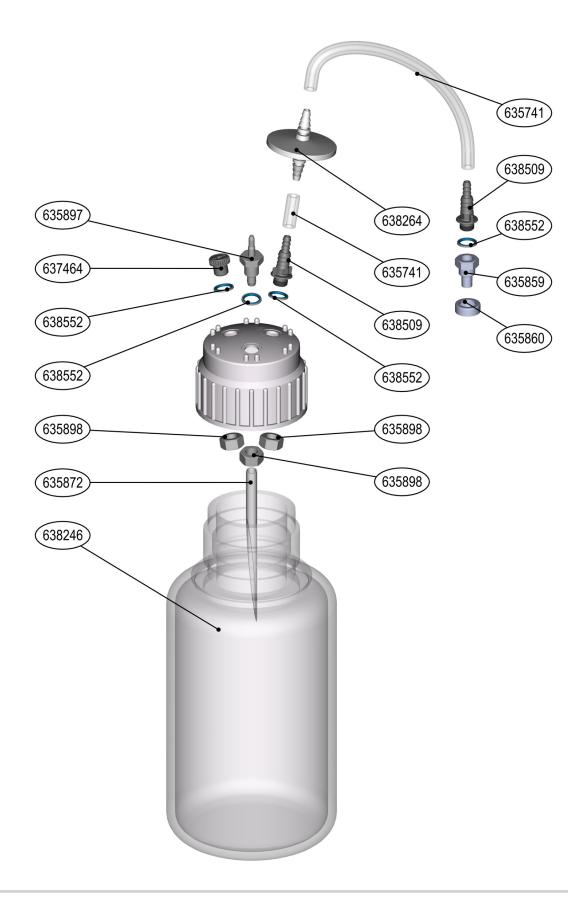
## Danger of electric shock.

Improperly executed repairs will result in an electrical shock.

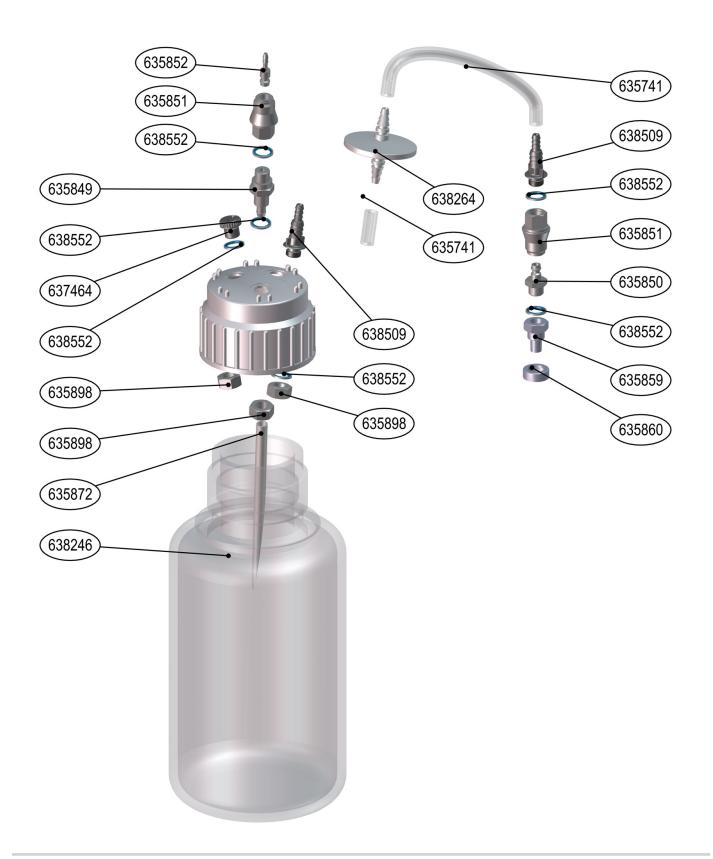
- ⇒ Check the electrical safety of the device according to IEC 61010 and national regulations after repair.
- ⇒ Check the protective conductor resistance.
- ⇒ Check the insulation resistance.
- ⇒ Carry out a high voltage test.
- ⇒ Check the leakage current.

## 6 Exploded drawing

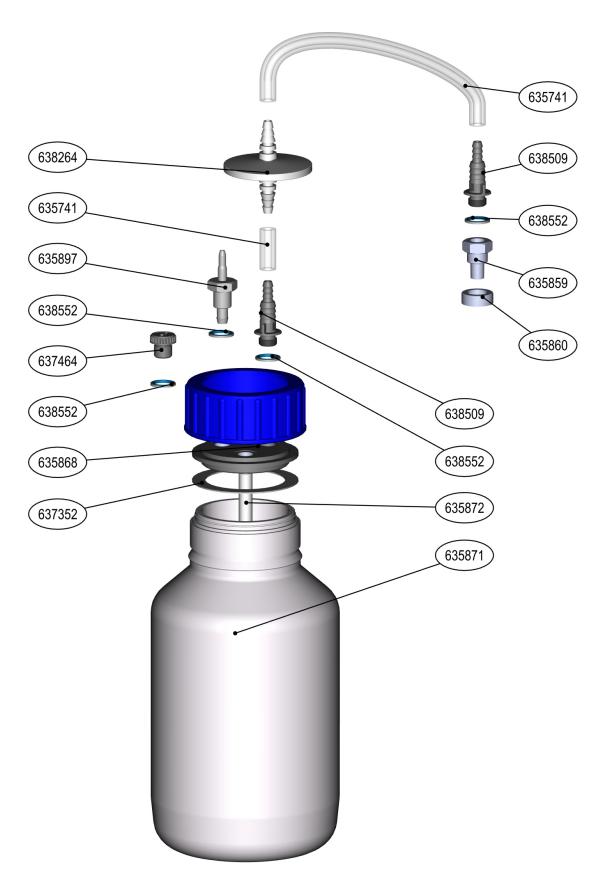
## **BVC** polypropylene bottle without coupling



## **BVC** polypropylene bottle withcoupling

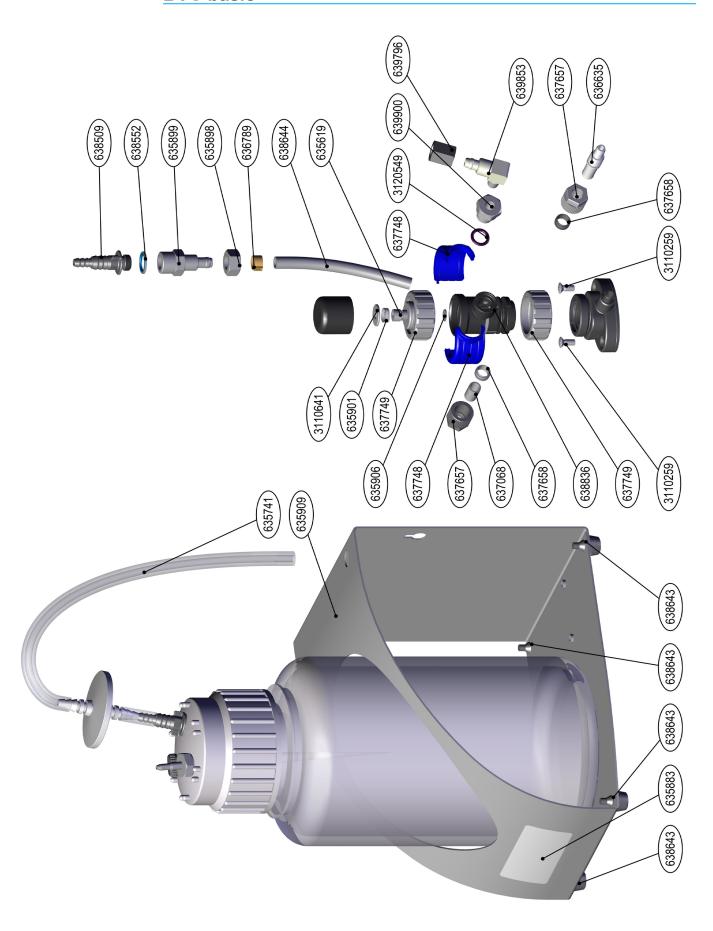


## **BVC** glass bottle

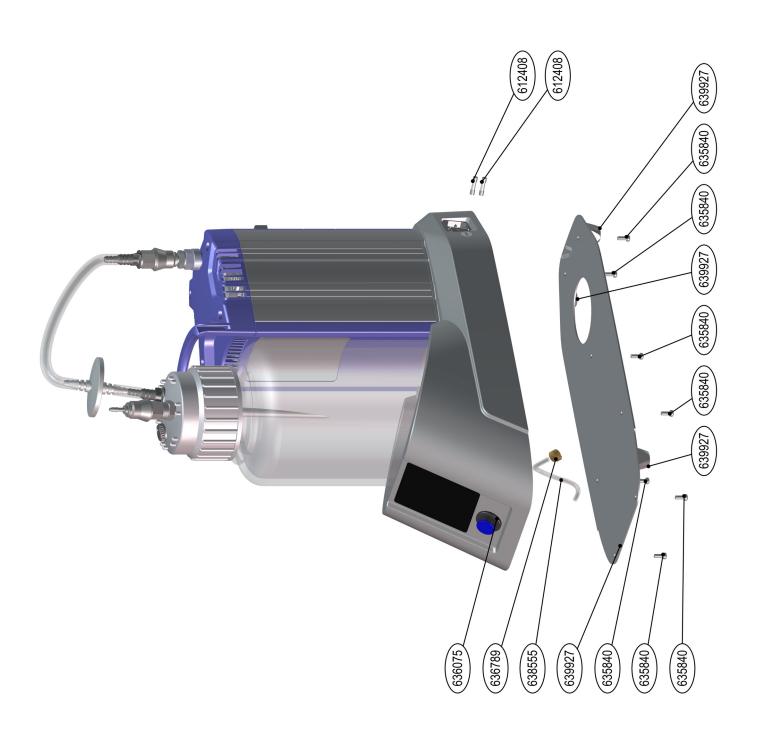


Attention: The seal 637352 has a thickness of 2 mm. If an old seal with a thickness of 1 mm is replaced, please also order a new cover insert 635868.

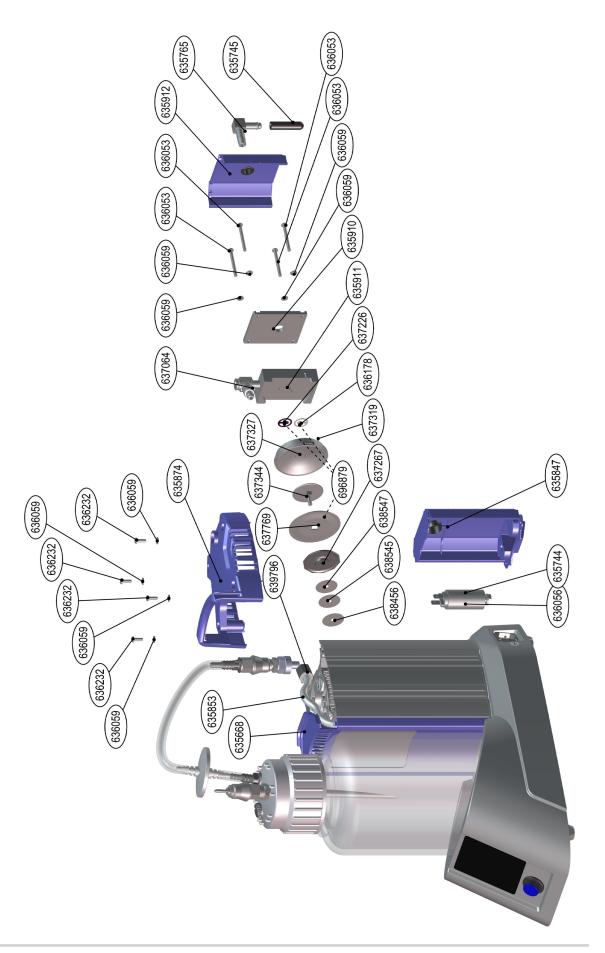
## **BVC** basic



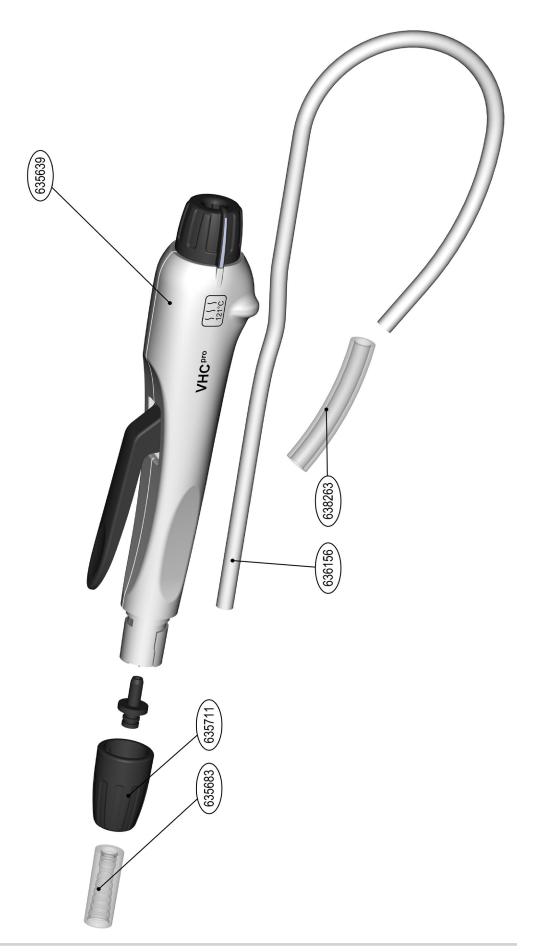
## **BVC** control / professional



## **BVC** control / professional



## VHC PRO



## 7 Spare parts

With the introduction of our new ERP system, our order numbers have been extended to eight digits by adding the digits 2 and 20 in front.

	Bezeichnung	Designation	Désignation
612408	Sicherung 5x20 2,5AT, Mindestbestellmenge 10 St.	Fuse 5x20 2,5AT, minimum order quantity 10 pcs.	Fusible 5x20 2,5AT, quantité minimum de commande est de 10 pièces
635619	Stempel mit Membrane	Plunger with diaphragm	Poussoir avec membrane
635639	VHCpro Basisteil als Ersatzteil, ohne Saugschlauch, ohne Adapter und ohne Zubehör	VHCpro base part as spare part, w/o suction tubing, w/o adapters and w/o accessories	VHCpro base, comme pièce de rechange, sans tuyau d'aspiration, sans adapteurs, sans accessoires
635668	Blende BVC	Blind BVC	Couverture BVC
635683	Adapter für Pipetten	Adapter for pipettes	Adapteur pour pipettes
635711	Schraubkappe für VHCpro	Screw cap for VHCpro	Bouchon fileté pour VHCpro
635741	Schlauch, Silikon, 12/6 mm	Hose, silicone, 12/6 mm	Tuyau, silicone, 12/6 mm
on re- auest	Kondensator 2,5µF / 450V	Capacitor 2.5µF / 450V	Condensateur 2.5µF / 450V
635745	Kappe, geschlitzt	Cap, slotted	Couvercle, rainuré
635840	Linsenkopfschraube M4x10mm, Torx	Round head screw M4x10mm, Torx	Vis à tête bombée M4x10mm, Torx
635847	Gehäusedeckel Rückseite BVC	Housing cover rear side BVC	Couvercle de carter du revers BVC
635849	Durchführung G1/4-G1/4-10/8mm	Lead-through G1/4-G1/4-10/8mm	Passage G1/4-G1/4-10/8mm
635850	Stecker für Schnellkupplung	Plug for quick-coupling	Connecteur pour coupleur
635851	Schnellkupplung	Quick-coupling	Coupleur
635852	Schnellverschluss-Stecker BVC Professional	Quick-plug for BVC Professional	Connecteur rapide pour BVC Professional
635853	Schlauch, geformt, PTFE, 10/8 mm	Formed hose, PTFE, 10/8 mm	Tuyau modelé, PTFE, 10/8 mm
635860	Kappe	Сар	Couvercle
635871	Flasche 2L Glas, mit Schraubkappe unbearbeitet (ohne Filter, Schlauchanschluss, Blindstopfen)	Bottle 2L glass, with cap unmachined (w/o filter, connection for hose, blind plug)	Flacon collecteur en verre 2L, avec bouchon bru- te (sans filtre, raccord de tuyau, obturateur)
635872	Schlauch, gerade, PTFE, 10/8 mm für BVC	Hose, straight, PTFE, 10/8 mm for BVC	Tuyau plan, PTFE, 10/8 mm pour BVC
635872	Schlauch, gerade, PTFE, 10/8 mm für BVC, ein Schlauchende angeschrägt	Hose, straight, PTFE, 10/8 mm for BVC, one hose end bevelled	Tuyau plan, PTFE, 10/8 mm pour BVC, un bout biseauter
635874	Blende BVC	Cover BVC	Couvercle BVC
635883	Klebeschild ,BVC basic'	Adhesive label ,BVC basic'	Autocollant ,BVC basic'

635897	Schlauchwelle DN 3/5mm, Gewinde G1/4	Hose nozzle DN 3/5mm, thread G1/4	Embout cannelé DN 3/5mm, G1/4
635898	Gegenmutter G1/4	Counternut G1/4	Contre-écrou G1/4
632899	Durchführung G1/4-G1/4-10/8mm	Lead-through G1/4-G1/4-10/8mm	Passage G1/4-G1/4-10/8mm
635901	Druckfeder	Vane spring	Ressort pour palette
632909	Flaschenträger für 4l Flasche	Bottle support for 4l bottle	Support de bouteille pour bouteille 4I
635910	Spannplatte	Clamping plate	Griffe
635911	Gehäusedeckelinnenteil ME 1C/BVC	Housing cover insert ME 1C/BVC	Intérieur du couvercle de carter ME 1C/BVC
635912	Gehäusedeckel Vorderseite BVC	Housing cover front BVC	Couvercle de carter frontal BVC
636053	Flachkopfschraube M4x40mm, Torx	Oval head screw M4x40mm, Torx	Vis à tête cylindrique bombée M4x40mm, Torx
on re-	Kondensator 6µF / 280V	Capacitor 6µF / 280V	Condensateur 6µF / 280V
dnest			
630029	Spannscheibe	Clamping disc	Disque de serrage
636073	Lüfterflügel	Fan blade	Ailette de ventilateur
636075	Ein-/Ausschalter, blau	Main switch, blue	Interrupteur principal, bleu
636077	Toleranzring 10x6	Tolerance ring 10x6	Bague de tolérance 10x6
636156	Ersatz-Schlauch für VHC, Mindestbestellmenge 2 m	Spare hose for VHC, minimum order quantity 2 m	Tuyaux de rechange pour VHC,la quanti- té minimum de commande est de 2 mèt
636178	Ein- und Auslassventil D18, PTFE	Inlet and outlet valve D18, PTFE	Joint de clapet d'entrée et de sortie D18, PTFE
636232	Flachkopfschraube M4x12mm, Edelstahl, Torx	Oval head screw M4x12mm, stainless steel, Torx	Vis à tête cylindrique bombée M4x12mm, inox, Torx
636635	Schlauchwelle DN 6/10mm mit Rohransatz 10/8mm	Hose nozzle DN 6/10mm with tube 10/8mm	Embout cannelé DN 6/10mm
636764	Senkschraube M4x10mm, Edelstahl, Torx	Countersunk screw M4x10mm, stainless steel, TorxVis à tête fraisée M4x10mm, inox, Torx	Vis à tête fraisée M4x10mm, inox, Torx
636789	Schlauchschelle D 10,5	Hose clamp D 10.5	Collier de serrage pour tuyau D 10,5
637064	Winkelverschraubung 1/8 NPT	Threaded elbow joint 1/8 NPT	Raccord à vis coudé 1/8 NPT
637068	Verschlusskappe PTFE DN 10/8mm	Sealing cap PTFE DN 10/8mm	Bouchon de fermeture PTFE DN 10/8mm
637226	Ein- und Auslassventil D18, FFKM (Ersatz für Best.Nr. 637568)	Inlet and outlet valve D18, FFKM (replacement for cat.no. 637568)	Joint de clapet d' entrée et de sortie D18, FFKM (remplace réf. 637568)
637267	Membranstützscheibe 7,2mm, klein	Diaphragm support disc 7.2mm, small	Disque de support de membrane 7.2mm
637295	U - Scheibe A3,2	Plain washer A3,2	Rondelle A3,2

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637319	Zylinderstift 2m6x10 A A2 EX LF ISO 2338	Zylinderstift 6x10mm	Cylindrical pin 6x10mm
637327	Kopfdeckel Chemiemembranpumpe (klein)	Head cover chemistry diaphragm pump (small)	Couvercle de tête pour pompe à membrane chimie (petite)
637344	Membranspannscheibe, klein	Clamping disc, small	Disque de tension de membrane
637352	Flachdichtung BVC professional/control G	Flat sealing BVC professional/control G	Garniture plate BVC professional/contgrol G
637464	Verschlussschraube G 1/4	Blanking screw G 1/4	Obturateur G 1/4
637657	Rändelmutter M14x1 für Schlauchver- schraubung DN 10/8mm, ohne Klemmring	Knurled nut M14x1mm for hose fit- ting DN 10/8mm, w/o locking ring	Ecrou moleté M 14x1, pour raccord pour tu- yau 10/8mm, sans bague de serrage
637658	Klemmring 10mm für Rändelmutter M14x1 (637657)	Locking ring 10mm for knurled nut M14x1 (637657)Bague de serrage D10 pour écrou moleté M 14x1 (637657)	Bague de serrage D10 pour écrou moleté M 14x1 (637657)
637748	Halbschale D40 POM	Half-shell D40 POM	Gouttière D40 POM
637749	Überwurfmutter M35x1,5mm	Union nut M35x1.5mm	Ecrou d`accouplement M35x1,5mm
637769	Membrane PTFE (klein)	Diaphragm PTFE (small)	Membrane PTFE (petite)
638246	Flasche 4L PP mit Schraubkappe unbearbeitet (ohne Filter, Schlauchanschluss, Blindstopfen)	Bottle 4L PP with cap, unmachined (w/o fil-ter, connection for hose, blind plug)	Flacon collecteur 4L en PP avec bouchon bru- te (sans filtre, raccord de tuyau, obturateur)
638263	Schlauch, Silikon, 9/6 mm	Hose, silicone, 9/6 mm	Tuyau, silicone, 9/6 mm
638264	Schutzfilter 64/0,2 hydrophob	Protection filter hydrophobic 64/0,2	Filtre de protection hydrophobe 64/0,2
638456	Distanzscheibe 0,1mm	Shim 0.1mm	Rondelle 0,1mm
638486	Dichtung Flaschendeckel BVC PP	Sealing for bottle head BVC PP	Joint pour bouchon filité BVC PP
638209	Schlauchwelle DN 6/10mm, Gewinde G1/4	Hose nozzle DN 6/10mm, thread G1/4	Embout cannelé DN 6/10mm, G1/4
638545	Distanzscheibe 0,2mm	Shim 0.2mm	Rondelle 0,2mm
638547	Distanzscheibe 0,15mm	Shim 0.15mm	Rondelle 0,15mm
638552	VS-Dichtring G1/4	Bonded seal G1/4	Joint Usit G1/4
638555	Schlauch, PVC, 4,8/1,6 mm	Hose, PVC, 4.8/1.6 mm	Tuyau, PVC, 4,8/1,6 mm
638643	Steckfuß	Plug-in rubber foot	Pied caoutchouc insérable
638644	Schlauch, gerade, PTFE, 10/8 mm	Hose, straight, PTFE, 10/8 mm	Tuyau plan, PTFE, 10/8 mm
638836	Ein- und Auslassventil D24, FFKM	Inlet and outlet valve D24, FFKM	Joint de clapet d'entrée et de sortie D24, FFKM
962659	Überwurfmutter M14x1,5mm	Union nut M14x1.5mm	Ecrou raccord M14x1,5mm
639848	Toleranzring 12x12mm	Tolerance ring 12x12mm	Bague de tolérance 12x12mm

639853	639853 Winkelverschraubung NPT 1/8, kurz, mit	Elbow fitting NPT 1/8, short, with con-	Raccord à vis coudé NPT 1/8, pour tu-
	PTFE-Schlauchanschluss DN 10/8mm	nector for PTFE hose DN 10/8mm	yaux PTFE DN 10/8mm
006689	639900 Übergangsstück	Adapter	Adaptateur
639927	639927 Gummipuffer	Rubber foot	Pied caoutchouc
636879	696879 Dichtungssatz für BVC professional, BVC control Set of diaphragms and valves for BVC professional, BVC professional, BVC control		Set de membranes et clapets pour BVC professional, BVC control
3110259	3110259 Linsensenkschraube M5x12mm, Edelstahl	Round head countersunk screw M5x12mm, stainless steel	Vis à tête fraisée bombée M5x12mm, inox
3110641	3110641 Unterlegscheibe 6,4	Washer 6.4	Rondelle 6,4
3111274	3111274 Fächerscheibe A 3,2 verzinkt	Serrated lock washer A 3.2 galvanised	Rondelle éventail A 3,2 zinguée
3120549	3120549 O-Ring, 11mm x 2,5mm, FPM	O-ring, 11mm x 2.5mm, FPM	Joint torique, 11mm x 2,5mm, FPM

#### **Service** 8

Service range

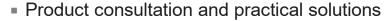
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#### **Service handling**

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- ▶ Your order can be quickly and easily processed.
- ▶ Hazards can be prevented.
- ▶ A brief description and/or photos will help locate the source of the error.













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