



**OPERATING INSTRUCTIONS BDC-654**  
**TruBrand**  
**VERSION 1.0**





## EC DECLARATION OF CONFORMITY

in accordance with Appendix II sub A of Directive 2006/42/EC

We,

**BLASTRAC B.V.**  
Utrechthaven 12  
NL - 3433 PN NIEUWEGEIN  
The Netherlands

Declare under our sole responsibility that the dust collector machine as described below,

**Model:**

**BDC-654**

**Serial number: .....**

satisfies the conditions set out in the:

Machine Directive  
Low voltage directive  
EMC directive

(2006/42/EC);  
(2006/95/EC);  
(2004/108/EC);

Where appropriate, are in conformity with the following harmonized standards:

NEN-EN-ISO 12100:2010  
NEN-EN-IEC 60204-1:2006/C11:2010

In case of changes to the machine without our written authorization this declaration loses its validity.

Nieuwegein 17-11-2015



Michiel Kalisvaart  
Operational Manager

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## 1. Introduction

Before use, operators must be provided with information, instruction and training for the use of the machine and the substances for which it is to be used, including the safe method of removal and disposal of the material collected. All persons who are working with or maintaining this machine must read the manual carefully and understand it fully. In case you sell the unit, hand it on to the next owner. Keep this manual always with the machine, to enable it to be referred to at any time. Any other work not covered by this operating manual must not be carried out.

This machine is designed for industrial use by professionals. **Only authorized and trained personnel may operate this machine.** This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.

## 2. Machine description

The TruBrand dust collector BDC-654 can **only** be used for **dry cleaning**. It should **only be** used for removing **noncombustible/non-explosive dust or substances**. The BDC-654 may **not** be used for **carcinogenic or pathogenic substances**.

The machine is designed for usage in conditions according to classification **M** (see below).

Classification acc. standard EN 60335-2-69 – Annexe AA	
Class	Designation
L	(light hazard) suitable for separating dust with a limit value of occupational exposure of greater than 1 mg/m <sup>3</sup> ;
M	(medium hazard) for separating dust with a limit value of occupational exposure not less than 0,1 mg/m <sup>3</sup>
H	(high hazard) for separating all dusts with all limit values of occupational exposure, including carcinogenic and pathogenic dusts.

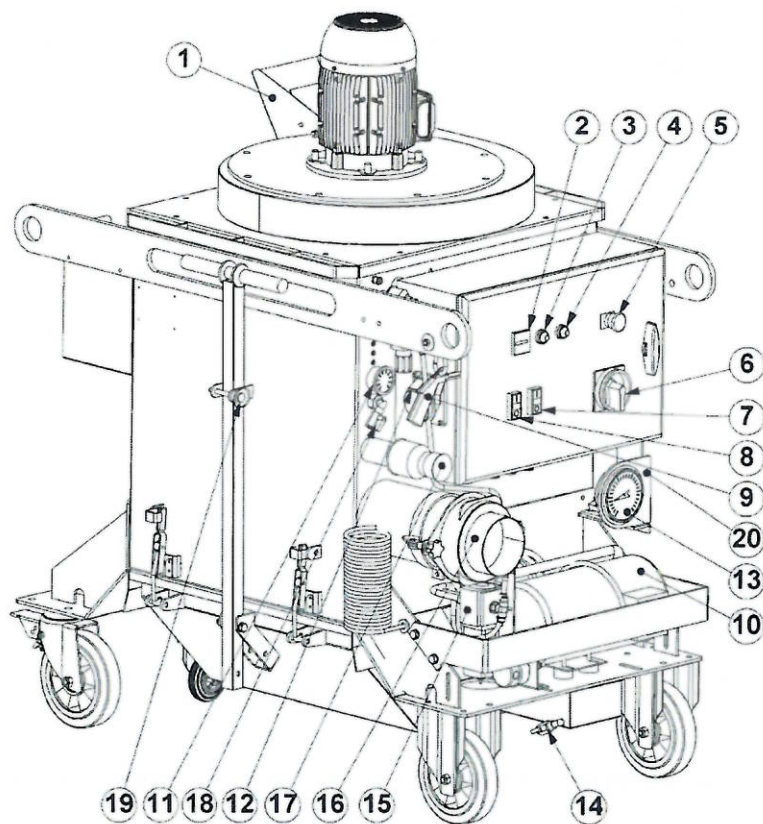
Dust emissions into the environment	
Class	Value of performance
L	Retains at least 99 % of Most Penetrating Particle Size (MPPS) 0.3 µm
M	Retains at least 99,9 % of Most Penetrating Particle Size (MPPS) 0.3 µm
H	Retains at least 99,995 % of Most Penetrating Particle Size (MPPS) 0.3 µm

*In the case of dust harmful to health, contact the local health and safety authorities, and observe national regulations in force both during use and disposal.*

*In addition to the Operating Instructions general and legal regulations regarding accident prevention and environmental protection must be complied with and indicated!*

*Such duties may for example relate to the handling of hazardous substances or to the provision and wearing of personal protection equipment as well as compliance with local regulations.*





<b>1</b>	<b>Deflector.</b> Deflects the air stream upwards. The pressure of the airflow can be regulated to adjust the position of the valve inside the deflector.	<b>11</b>	<b>Manometer,</b> shows the pressure of the air tank. The pulse to clean the filters must be given at 7 bar.
<b>2</b>	<b>Voltage meter.</b>	<b>12</b>	<b>5 pole Plug socket,</b> for 60A plug
<b>3</b>	<b>Motor failure light,</b> lights up if the motor protection switch is triggered.	<b>13</b>	<b>Difference pressure manometer,</b> indicates how dirty the filters are.
<b>4</b>	<b>Phase incorrect light,</b> lights up if the power supply has an incorrect phase.	<b>14</b>	<b>Drain box.</b> This box collects the drain water of the water separator. Empty the box regularly.
<b>5</b>	<b>Emergency shut down switch</b>	<b>15</b>	<b>Water separator</b> with automatic drain.
<b>6</b>	<b>Main power switch</b>	<b>16</b>	<b>Hose adapter,</b> 5" (Ø127mm) and 6" (Ø150mm)
<b>7</b>	<b>Fan ON / OFF</b>	<b>17</b>	<b>Hose connection</b> 2" (Ø51mm)
<b>8</b>	<b>Compressor ON / OFF</b>	<b>18</b>	<b>Drain valve.</b> Open this drain valve regular to remove water from the air tank.
<b>9</b>	<b>Air pistol</b>	<b>19</b>	<b>Quick release pin.</b> Put this pin into the hole at bottom of the handle.
<b>10</b>	<b>Compressor</b>	<b>20</b>	Difference pressure manometer support



The BDC-654 is a very powerful mobile dust extractor. This high performance machine is exclusively designed and built to be used in combination with TruBrand machines. It is equipped with **6 pieces** of specially designed **high quality M-class cartridge filters**.

The dust extractor is provided with an air pulse cleaning system which increases the life of the filter cartridges. This system works by use of pressurized air, built up by a belt driven compressor. The air is led through a water separator to the pulse system.

The conditioned air then passes a control valve which regulates the system pressure, and then builds up pressure in the pulse tank. The pressurized air is used to generate a pulse of air which cleans the filters from the inside. With every pulse of the pulse system, dust and particles are released from the filter surface.

### 3. Safety



#### Warning!

**Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire, explosions and / or serious injuries.

Only authorized and trained personnel may operate this machine. This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.

In case of any inappropriate usage, improper operation or repair, the producer shall be exempt from liability.

#### 3.1 Work area safety

- a) Do not use the machine in rain, damp or wet locations.
- b) **Avoid dangerous environments:** do not work in the presence of explosive atmospheres, in the presence of flammable liquids, gases or dust. Remove materials or debris that may be ignited by sparks.
- c) Make sure there is enough ambient light on the work area. Cluttered or dark areas invite accidents.
- d) Only use the machine when it is parked on a flat, horizontal surface.
- e) Keep children and bystanders away while operating the machine. They are likely not to foresee the potential dangers of the machine. Distractions could cause you to lose control of the machine.
- f) Persons who are not operating the machine must not be permitted to stay in the surrounding area of at least 5 meter from the machine.
- g) Secure the work area around the machine in public areas providing an adequate safety distance from the machine. Use a red and white safety chain and danger sign to enclose the work area.
- h) Never use the machine when the surface is not clear and if there is a risk of stumbling or tripping.
- i) Remove electrical cables and dust hose from the surface to be treated.
- j) Make sure that there is nothing standing or situated on the surface to be treated.
- k) Make sure the machine can travel over all inequalities on the surface, small inequalities like weld seams or (floor) joints are no barriers for the machine.
- l) **Never operate the machine when workplace is wet. Never stay in the rain with the machine.**
- m) Check if there are any obstacles that can snag the cables when the machine is moving up or down
- n) **Warning!**  
**Make sure that the surface to be treated does not contain dangerous materials such as:**
  - **combustible or explosive dusts or substances.**
  - **carcinogenic or pathogenic substances.**
- o) It is necessary to provide for an adequate air change rate L in the room if the exhaust air is returned to the room. Comply with the National regulations.



### 3.2 Electrical safety

- a) Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine. **Do not use damaged extension cables.**
- b) Electrical cables must be rolled entirely off of the reels.
- c) Any damage to the electric cables and/or electrical components is not permitted.
- d) The voltage on the identification plate must comply with the power supply.
- e) Use an electrical power supply connection with earth connection and earth leakage circuit breaker.
- f) The circuit breaker of the power supply must have a "D" characteristic. Circuit breakers with a "C" or "B" characteristic can give problems when switching the machine on.
- g) **Keep the machine original; The machine is always equipped with an earthed connection, do not change this** and always use earthed cables with an earthed plug.
- h) Inspect and test the electrical components regularly. The electrical components have to satisfy with the requirements set out in the harmonised norm EN60204-1.
- i) Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.
- j) Work on electrical equipment or operating materials may only be undertaken by a skilled electrician or by trained persons under the guidance and supervision of a skilled electrician as well as in accordance with the electrical engineering regulations.
- k) Always use tools that are insulated against voltages.
- l) Do not abuse the cables. Never use the cables for carrying, pulling or unplugging the machine. Keep cables away from heat, oil, sharp edges or moving parts. Damaged or entangled cables increase the risk of electric shock. Do not fold the cable or clamp it.
- m) Don't pull out the power supply cable out by the wire, but by the connector.
- n) Be careful with water on the treated surface. Electrical cables must not come into contact with water.
- o) The main power switch on the machine must be in the "Off" position before connecting to the power supply.
- p) During a long standstill of the machine, pull out the main plug.
- q) If the machine is to be operated using power from a generator, the generator must be operated in accordance with the current legal regulations and directives in force. (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and to eliminate possible damage to electrical components.

### 3.3 Personal safety

- a) **Always wear Personal Protective Equipment while working with the machine.**
  - Dust mask class FFP2 or higher
  - Ear protection
  - Safety glasses with lateral protection
  - Protecting gloves
  - Safety shoes
- b) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts!
- c) Personnel must tie back long hair and not wear loose clothing or jewellery including rings.
- d) Stay alert, watch what you are doing and use common sense when operating the machine.
- e) Always seek professional medical attention immediately in case of injury.
- f) All persons surrounding the machine should wear Personal Protective Equipment.

### 3.4 Machine safety general

- a) Safety functions and operating functions must work correct.
- b) No loose bolts and nuts permitted.
- c) Never operate machine without the guards and/or safety devices in place.
- d) Never change anything on the safety devices on the machine!
- e) Do not use the unit when it is damaged.
- f) Do not **open or remove protective guards** while driving gears are running.
- g) The machine, specially the handle grip(s) must be free of fats/oils and has to be dry.



- h) All repair work has to be done by qualified TruBrand personnel, this guarantees a safe and reliable machine.
- i) Always use original TruBrand spare parts and filters. This will ensure the best performance. Only original parts meet the factory specifications and quality. Otherwise TruBrand cannot guarantee the safety of the machine. The part numbers can be found in the Service Manual.
- j) Check the rotating direction of the motor. The correct direction is given with an arrow on the housing of the motor.
- k) Do not point hose at people or animals.
- l) If safety-critical changes occur to the machine or its working method, the machine must be shut down immediately! The cause of the fault must be established, and rectified.  
In the event of operational malfunctions the machine must be shut down immediately and secured!

### 3.5 Dust collector safety

- a) The dust container/bag of the dust collector must be emptied regularly. Comply with the local waste treatment regulations considering the removed material.
- b) The dust hose must be connected properly with a hose clamp and industrial tape.
- c) The dust hose must be undamaged and free of obstructions.
- d) Never use this machine for sucking water or liquids.
- e) Acids, acetone or solvents can damage the machine.
- f) Never use the machine without the filters in place!
- g) Before the dust collector is removed from the hazardous zone, take precautions to prevent dust from escaping.
- h) The external parts of the dust collector must be decontaminated by cleaning and vacuuming methods, de-dusted before being taken out from the hazardous zone. All parts of the dust collector must be considered as contaminated when they are removed from the hazardous zone and appropriate actions must be taken to prevent dust from dispersing.
- i) Never use the machine without the dust bin.
- j) Regularly check the contents of the dust bin.
- k) Regularly use the air pistol (item 9 page 5) to remove water from the air tank.
- l) When temporarily interrupting the work (1/2 hour – 1 hour), turn off the fan unit only. Pulse cleaning of the filter system will continue and will increase the life-time of the filter cartridges.
- m) During a longer stand still of the dust collector, first switch off the fan unit. Let the pulse cleaning cycle run for +/- 5 minutes. Switch off the compressor unit and Main-switch. Remove water from the air tank.
- n) If dust leaves the filter unit instead of clean air, this is a sign that the filter cartridges are damaged or not fixed correctly inside the chamber.
- o) **WARNING!** Do not weld, flame cut or perform grinding works on or near the dust collector. Danger of fire or explosion exists!

### 3.6 Maintenance safety

- a) Pull out the main plug before starting inspections and repairing on the machine. The main switch can be locked in the "OFF" position by using a padlock and placing it through the main switch.
- b) Wait for standstill of all drives before any inspections, adjustments and/or maintenance work is started.
- c) Block machine in stable position before doing any maintenance work.
- d) Provide adequate local filtered positive ventilation and appropriate personal protective equipment where the vacuum cleaner is to be dismantled.
- e) Secure the maintenance area if necessary.
- f) Failures due to inadequate or incorrect maintenance may generate very **high repair costs** and long standstill periods of the machine. **Regular** maintenance therefore is imperative.
- g) Operational safety and service life of the machine depends, among other things, on proper maintenance.
- h) Prevent premature wear by keeping the machine as dust free as possible. Clean the machine for this reason regularly with a dust collector and non-aggressive materials.
- i) Never use a high pressure water cleaner to clean the machine.
- j) Never use pressurized air to clean the filters!
- k) To allow the user to carry out maintenance operations, the dust collector must be disassembled, cleaned and inspected as far as reasonably possible, without causing hazards for the maintenance staff or other people.



- l) The suitable precautions include decontamination before disassembling the dust collector, adequate filtered ventilation of the exhaust air from the room in which it is disassembled, cleaning of the maintenance area and suitable personal protection equipment.
- m) When maintenance or repair procedures are carried out, all the contaminated elements that cannot be properly cleaned, must be destroyed.
- n) These elements must be disposed of in sealed bags according to the applicable regulations and in accordance with the local laws governing the disposal of such material.
- o) This procedure must also be followed when the filters have to be disposed.
- p) When a filter is leaking it has to be replaced. The compartment above the filters and silencer also have to be cleaned thoroughly.
- q) Compartments that are not dust-tight must be opened with suitable tools and thoroughly cleaned.
- r) **WARNING! Do not weld, flame cut or perform grinding works on or near the dust collector. Danger of fire or explosion exists!**
- s) Use only original TruBrand parts.
- t) The dust collector must be yearly overhauled by a skilled technician.
- u) It is advisable to stock all spare parts or wear parts that cannot be supplied quickly. As a rule, production standstill periods are more expensive than the cost for the corresponding spare part.

### 3.7 Transport safety

- a) Be aware of your surroundings and machine operating level. Do not side hill, do not run on steep incline, this could cause machine to tip over.
- b) The net weight of the BDC-654 is 370 kg. Use a crane or lift when transporting the machine, use the lifting eyes of the machine.
- c) Before every use check the lifting eyes and welds for: deformation, damages, cracks, corrosion and wear.
- d) Remove the dust from the dust collector before the dust collector is transported.
- e) For class H and M machines, the outside of the machine should be decontaminated by vacuum cleaning methods and wiped clean or treated with sealant before being taken out of a hazardous area. All the machine parts shall be regarded as contaminated when removed from the hazardous area and appropriate action taken to prevent dust dispersal, take precautions to prevent dust from escaping.
- f) Always close the inlet of the dust collector with the appropriate plug.
- g) Make sure the dust hoses are disconnected and put away properly before transport.
- h) Keep the machine clean, dry, and humid free. Protect the motors and electrical components from moisture, heat dust and shocks.
- i) Always dispose the contents of the dust collector before the end of the working day. Observe the local waste disposal regulations!
- j) When transporting the machine do so in such a manner that damage due to the effects of the use of force or incorrect loading and unloading is avoided.
- k) The lifting eyes can also be used to fasten the machine on a pallet or during transport.
- l) Always drive backwards when driving up to a ramp or grade, and forwards when driving of the ramp.
- m) Chock wheels for transport.
- n) Don't leave the machine unsecured on jobsites.
- o) Park the machine always on a flat horizontal and levelled surface.
- p) Make sure the electrical cable and dust hose are disconnected before transport.
- q) Store the cleaned and dry machine in a humid free room. Protect the electrical motor from moisture, heat dust and shocks.
- r) Never use the machine for lifting persons or items.
- s) When lifting the machine from the ground, always use the lowest lifting speed. The cables must first be tensioned at this speed; they must not be slack when the machine is lifted from the ground.
- t) During hoisting make sure to be at a safe distance from the machine with the most optimal view on the machine and working environment.
- u) Never stand directly below the machine.
- v) Only lift the machine on the 4 lifting eyes, see picture.



### 3.8 Signs on the machine

The following stickers are placed on the machine. Meanings of these symbols are:





- Wear a dust mask class FFP2 or higher
- Ear protection is obliged
- Safety glasses with lateral protection are obliged
- CE-mark on this machine
- Wear protecting gloves
- Safety shoes obliged
- Consult the manual before operating the machine



- ! Danger Hazardous voltage in motor even when solid state controller is OFF. Disconnect main power before servicing motor, controller or associated wiring.



- Lifting point.

 <div style="border: 1px dashed red; padding: 2px;"> TruBrand  Sales, Service &amp; Rental  Call: 855-698-3732 </div> 	
MACHINE TYPE	<input type="text"/>
WEIGHT	<input type="text"/>
YEAR OF MANUFACTURE	<input type="text"/>
SERIAL NUMBER	<input type="text"/>

Name and telephone number.

CE mark.

The machine type.

The net weight of the machine in kilogram.

The year of manufacture.

The serial number of the machine.



## 4. Before operation

Before using the machine it is essential to inspect the machine.  
It is not permitted to use the machine if the machine safety is not according the checkpoints below.

### 4.1 Checkpoints power supply

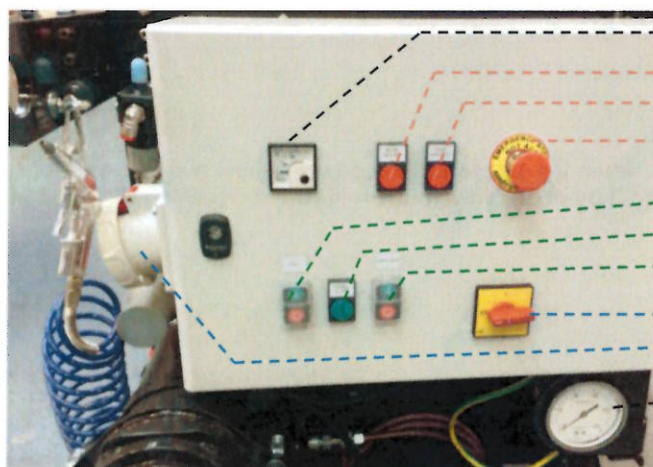
- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be fully unwind of them reels.
- No damage is permitted for electrical cables.
- Use an electrical power supply connection with earth connecting.
- The main switch of the machine should be put to 'Off' before connecting to the power supply.

### 4.2 Checkpoints of machine

- Safety functions and operating functions must work correct.
- Check all screws and other fasteners for tightness. No loose bolts and/or nuts are permitted.
- Check the electrical components, cables and connections for wear and/or damages.
- Dust hose connection must be reliable: use hose clamps and industrial tape.
- Dust hoses must be undamaged and free of obstructions
- Make sure that the dust bin is empty and connected properly.
- If dust leaves the filter unit instead of clean air, this is a sign that the filter cartridges are damaged or not fixed correctly inside the chamber. Do not proceed! Rectify immediately!
- All water must be removed from the air tank and drain box. Excessive water can have a negative impact on the pulse power and shortens the life-time of the filter cartridges.
- Check all air hoses for leakage.
- Make sure the machine is parked on a flat and horizontal surface before operation.
- The machine must be braked by actuating the levers on the wheels with brakes.
- Do not allow the operation of the machine while it is moving, during operation the machine must be braked.

### 4.3 Control box

The control box is equipped with all control elements and instruments for monitoring and controlling the dust collector.



1	Voltage meter
2	Motor failure control lamp
3	Phase sequence control lamp
4	Emergency shutdown button
5	Fan ON/OFF button
6	Control voltage lamp
7	Compressor ON/OFF button
8	Main power switch
9	Extension lead
10	Pressure difference gauge



**1. Voltage meter**

This meter indicates the power coming into the control box in Volts. If the power coming in exceeds more than +10% of the correct power supply, the protection switch will be activated and the machine will shut down.

**2. Motor failure Control lamp**

This lamp shines when the whole electric will be switched off due to an overload of one motor.

**3. Phase sequence Control lamp**

This lamp shines when the phases of the power supply are incorrect.

**4. Emergency shutdown button**

Red mushroom-shaped emergency shutdown push button, this button cuts off all power to the machine and the extension lead. Turn to unlock.

**5. Button Fan ON/OFF, Control lamp**

Pressing the green button switches the fan on. Pressing the red button switches the fan off.

**6. Control voltage lamp**

When lit it indicates that the machine has power supply.

**7. Button Compressor ON/OFF, Control lamp**

Pressing the button "ON" switches the compressor on, the control lamp shines. Pressing the button "OFF" switches the compressor off.

**8. Main power switch**

The main power switch is located on the control box. It has to be switched ON before operating the dust collector and the use of the extension lead.

**9. Extension lead**

The extension lead on the vacuum cleaner may only be used as an extension lead for TruBrand machines. Contact TruBrand for the correct combinations.

The extension lead on the vacuum cleaner will only be live when the mains plug is plugged in, and the main power switch is turned ON. Connection value: Vacuum cleaner + connected unit, maximum 60A.

CAUTION! Machines must be switched off when they are connected.

**10. Pressure difference gauge**

This indicates the pressure difference between the clean and dirty side of the filters. To check the status of the filters.

- **Phase inverter switch**

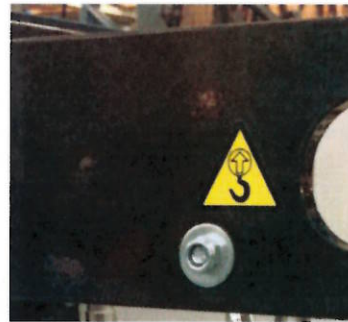
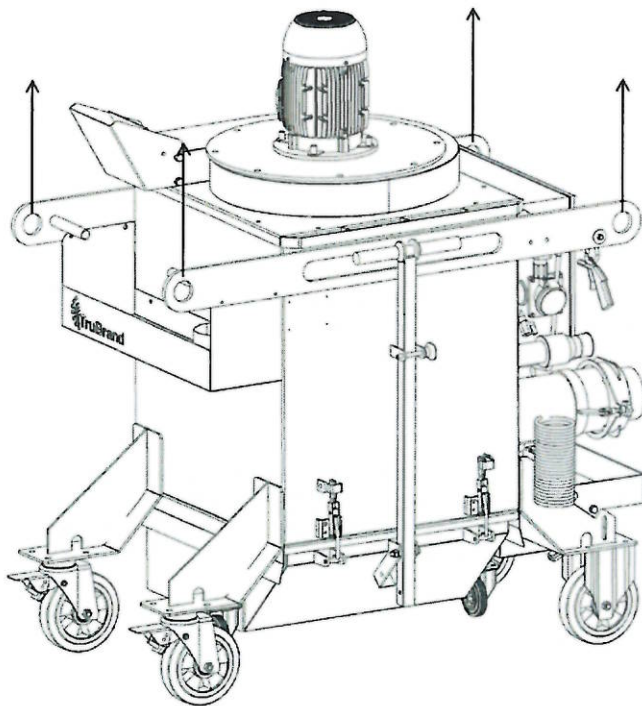
This switch is located inside the control box. It is used when the phases of the power supply are incorrect. Set the main switch in position "0" and open the control box door. Now you can adjust the turning direction at the phase inverter switch.



#### 4.4 Transport

Be careful! Make sure nobody's feet get under the wheels. Wear appropriate safety shoes when you drive the machine to or from the work area.

Remove the dust from the dust collector before it is transported. The dust collector may only be lifted by using the suspension eyelets. The weight and dimensions of the dust collector are shown in Chapter 8 "Technical data".



Make sure that no vehicles, such as forklift trucks and other equipment run over the electric cable and the dust hose.

## 5. Operation

Before switching on the machine make sure that no-one can be endangered when the machine starts up.

### 5.1 Before switch on

#### Checking the turning direction of the motors

- Start the machine for a few seconds by pressing the 'compressor ON' and 'fan ON' buttons.
- Stop the machine by pressing the 'fan OFF' and 'compressor OFF' buttons.
- Check the rotating direction of the fan motor or compressor motor (indicated with arrows).

### Correcting the turning direction of the motors

- Switch off all motors and put the main power switch to the OFF-position
- Wait for a complete standstill of all drives.
- Open the control box of the machine.
- Set the inverter switch to the opposite position.
- Close the control box and check the turning direction of the motors again.

### 5.2 Starting / stopping the machine

- Connect the dust hose between the dust collector and the machine.
- Connect the dust collector to the power supply.
- Switch on the main switch.
- First switch on the compressor motor.
- Secondly switch on the fan motor.
- Carry out this actions in opposite sequence to stop the machine.

### 5.3 Work with the machine

- Regular check the contents of the dust-bin. Always wear a **dust mask of at least class FFP2** when emptying the dust bin. Observe and obey the local waste disposal regulations!
- Regular open the drain valve (item 5 page 5) to remove water from the air tank.

### 5.4 Interrupting work

- When temporarily interrupting the work (1/2 hour – 1 hour), turn off the fan unit only. Pulse cleaning of the filter system will continue and will increase the life-time of the filter cartridges.
- During a longer stand still of the dust collector, first switch off the fan unit. Let the pulse cleaning cycle run for +/- 5 minutes. Switch off the compressor unit and Main-switch.
- Disconnect the power-supply cable.
- Prevent unauthorized persons from getting access to the dust collector or take measurements to prevent unauthorized working with the equipment.

### IMPORTANT NOTE !

Always close off the inlet of the dust collector when running the pulse cleaning cycle!  
Failure to do so results in blown out dust, which can be hazardous to the health !

### 5.5 Emptying the dust hopper

The level of the hopper must be regularly checked. The periods are dependent on the surface to be cleaned.

<b>Safety precaution:</b> Pay attention to the increased weight of the hopper when you loosen the hopper toggle clamps. Loosen the clamps with caution!
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## 6. Maintenance

Pay attention to Chapter 3 "**Safety**" during maintenance and repair works.

Failures due to inadequate or incorrect maintenance may generate very **high repair costs** and long standstill periods of the dust collector. **Regular** maintenance therefore is imperative.

Operational safety and service life of the dust collector depend, among other things, on proper maintenance.

The following table shows recommendations about time, inspection and maintenance for the normal use of the dust collector.

Operating hours/ time period	Inspection points, maintenance instructions
12 h after repairing	Check all accessible screw connections for tight seat.
Daily and prior to starting work	Check all safety devices working adequate. Check the function of the residual current operated device. Check the hose connections for tightness and fixed seat. Check all hoses on the machine for damages or leakage. Make sure that the dust bin is emptied Check the electric connections for sediments of dirt or foreign bodies. Check the electric motors for dirt and other contaminants. Make sure there is no water in the air pressure tank.
Every 3 months	Clean the upper section of the filter unit. Clean or replace the air filter of the compressor. Clean or replace the filter inside the water separator.
Annually	Full overhaul and cleaning of the complete dust collector.

The time indications are based on uninterrupted operation. When the indicated number of working hours is not achieved during the corresponding period, the period can be extended. However a full overhaul must be carried out at least once a year.

Due to different working conditions it can't be foreseen how frequently inspections for wear check's, inspection, maintenance and repair works ought to be carried out. Prepare a suitable inspection schedule considering your own working conditions and experience.

Screws, bolts etc. that have been removed must be replaced with those of the same quality, strength, material and design.

Our specialists will be happy to assist you with more advice.

**Follow additional operating and maintenance of OEM if included during your service and maintenance work.**

**Prior to any repair works on the dust collector and its drives, secure the dust collector against unintentional switching on. Put the dust collector to its safety off position. Also make sure there is no air pressure on the pulse system.**

**Further is advised:**

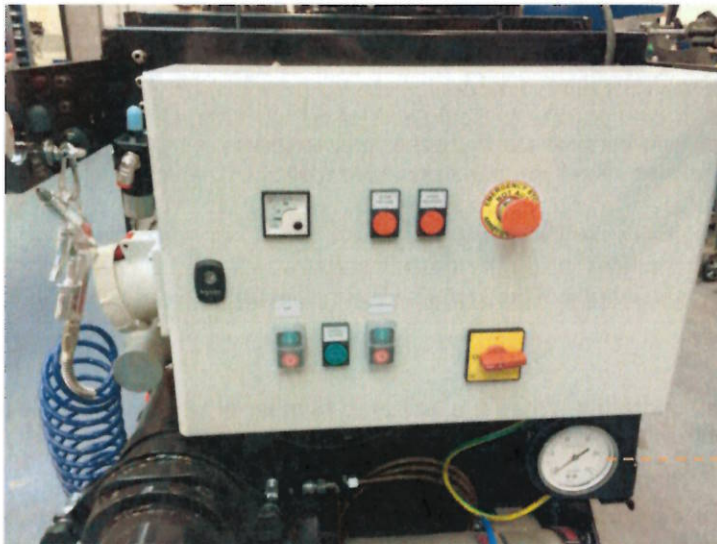
Store the cleaned and dry machine in a dry and humid free room. Protect the electrical motors from moisture, heat, dust and shocks.

All repair work must to be done by qualified TruBrand personnel, this to guarantee a safe and reliable machine.

Any guarantee on the machine is expired when:

- Non original TruBrand parts have been used
- Repair work is not done by qualified TruBrand personnel
- Changes, add on's or conversions are undertaken without written permission of TruBrand

Do not weld, flame cut or perform grinding works on or near the dust collector. Danger of fire or explosion exists! Provide adequate ventilation when working in a confined space. Secure the maintenance area if necessary.



**Pressure Diff.**

This indicates the pressure difference between the clean and dirty side of the filters. To check the status of the filters.

### 6.1 When to change the filters?

When the "Pressure Diff" gauge is above 20 cm H<sub>2</sub>O, the filters are probably clogged.

If the vacuum cleaner loses suction power first try the following before continuing:

1. Check if the blower throttle on the silencer is fully opened.
2. Ensure that the compressor is fully pressurized and then turn it off. Remove all moisture from the compressed air tank by using the release valve. Turn on the compressor again until it is fully pressurized again, now use the air gun to completely empty the pulse tank.
3. Only turn on the compressor, and keep the fan unit turned off. Let the machine pulse for about a half an hour. This action will clean the filters from the inside.



When the "Pressure Diff" gauge keeps indicating more than 20 cm H<sub>2</sub>O, the filters probably need to be exchanged.

**If the silencer blows out dust, stop the machine immediately!**

This means probably that a filter is damaged or not fitted properly inside the filter chamber.

Check the filters and replace if necessary.

When a filter was damaged, has leaked or was mounted incorrect, it has to be replaced. The compartment above the filters, the connecting air hoses and the silencer also have to be cleaned thoroughly.

Continuing work with a broken/leaking filter can cause serious damage to the machine and is a health hazard!

**Never expose the filter cartridges to moisture!**



Cartridge Filter  
IFA/BIA certificate M-class

Order nr. 490803-1

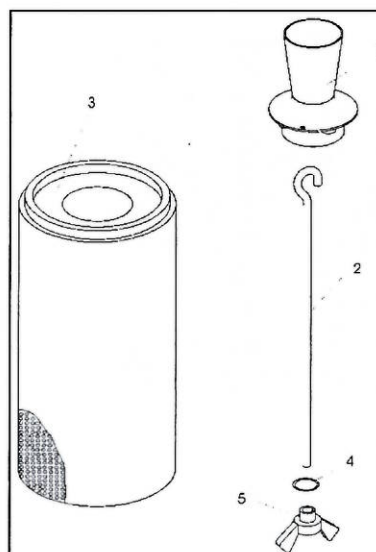
## 6.2 Filter replacement

Warning! Always wear Personal Protective Equipment, the dust can be hazardous to the health!

- Make sure the machine is turned off.
- Always wear gloves and a **dust mask** of at least **class FFP2**.
- Use an extra vacuum cleaner in order to work as dust free as possible.



- Unscrew the wing nut by hand. Make sure that both the wing nut and the rod seal washer end up in your hands or pockets. (Spares are available at TruBrand.)
- Remove the old filter cartridge and Replace it with a new one.
- While mounting a new filter cartridge make sure that its rubber gasket at the upper side lies firm at the sheet steel of the filter chamber. A tilt of the filter cartridge can result in leakage, causing suction of contaminants in the clean area and therefore less performance.



1: Venturi  
2: Rod  
3: Filter cartridge  
4: Rod seal  
5: Wing nut

- Tighten the wing nut by hand, not using too much force.

Make sure you have enough sturdy plastic bags or use big bags for the disposal of the old filters. Observe the national regulations in force both during exchange and disposal of the old filters.

### **If the silencer blows out dust, stop the machine immediately!**

This means probably that a filter is damaged or not fitted properly inside the filter chamber. Check the filters and replace if necessary.

When a filter was damaged, has leaked or was mounted incorrect, it has to be replaced. The compartment above the filters, the connecting air hoses and the silencer also have to be cleaned thoroughly.

Continuing work with a broken/leaking filter can cause serious damage to the machine and is a health hazard!

## **6.3 Pulse system**

The Dust collector is provided with an air pulse cleaning system which increases the life of the filter cartridges and ensures a constant suction power.

The system works by use of pressurized air, built up by a compressor

The air is leaded through a water separator to the pulse system.

The cooled air passes a control valve, which regulates the systems pressure , and then builds up pressure in the pulse tank.

Normally the pressure in the system lies between 6 and 7 bar. The control valve is activated above 7 bar.

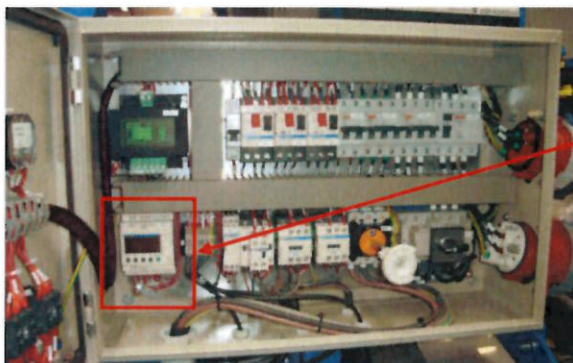
The safety valve mounted on the compressor is activated at approximately 10 bar.

This provision is to ensure that when there is a defect in the Control valve, the pressure in the pulse tank remains within safe limits.

If the pressure of 7 bar is not reached, it is possible that either the filter of the water separator or the air filter of the compressor is dirty.

If inspection of the water separator and compressor shows no abnormalities, it is possible that either there is a leakage in the air tubing, or the control valve is defect. In that case replace the defective parts or have it checked by TruBrand.

When there is pressure but the pulse system does not function, there might be a problem in the electrical system which controls the pulsing system. Check the wiring and the PLC-settings.



This unit is at delivery of the dust collector already programmed with regard to optimal filter cleaning. If however doubts arise about settings, this unit can be checked. We advise to contact **TruBrand** support in order to prevent operational problems.

#### 6.4 Water separator

The water separator filters dirt particles, oil and water from the air. It is recommended to replace the filter after every 1000 operating hours.

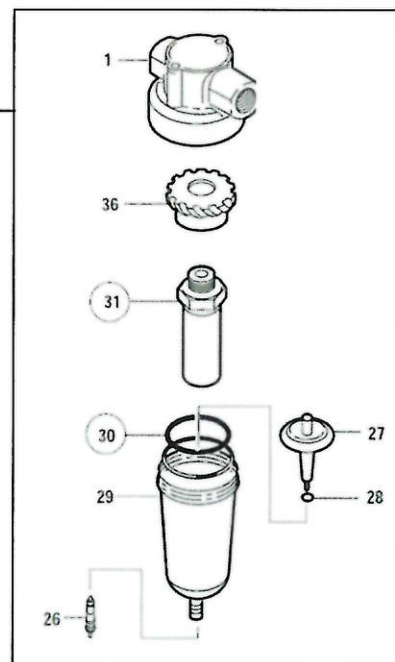
- 1. Head
- 26. Valve
- 27. Vlotter
- 28. O-ring
- 29. Bowl
- 30. O-ring
- 31. Filter element
- 36. Louver

This splitter type drain operates momentarily when a rapid change in air flow occurs or when the supply pressure is reduced.

The separated water will be drained in the 'Drain Box' It has to be emptied daily.

##### Checking the filter:

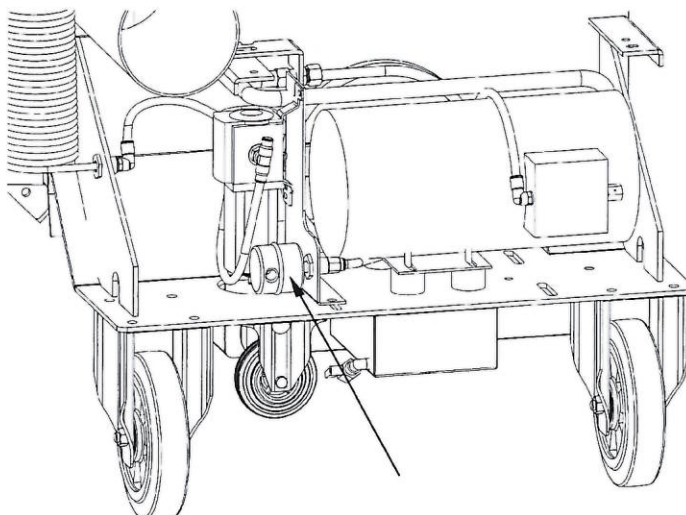
Unscrew 29. Bowl and keep it upright, so that the vlotter and o-ring will stay in place.  
Check 31. Filter element on contaminants and calcium deposits.  
Clean the filter with warm water and pressurised air or replace if needed.



#### 6.5 Compressor

Replacement or cleaning of the air filter of the compressor is depending on the environment in which the Dust collector is operating.

Unscrew the cap and take out the filter inside.  
Clean or replace if necessary.





## 7. Troubleshooting

**Prior to any repair works on the equipment or its drives the equipment must be secured against unintentional switching-on. Disconnect the power supply.**

Fault	Possible cause	Remedy
Unusual noises	To little clearance or wrong adjustment of the rotating parts	Check the alignment and adjustment of the rotating parts. Check screws and all parts for tight seat.
	Too little grease in the bearing	Lubricate the bearing.
Too low or no pressure	Check the whole pneumatic system for leaks.	Fill the leaks or replace the damaged components.
	Dirty airfilter	Clean or replace the air filter of the compressor.
Bad or no filter cleaning	Pressure too low.	See above.
	PLC defective or wrong settings.	Contact TruBrand.
No suction power	Dirty filter cartridges.	Clean or replace the filter cartridges.
	Foreign air leaks in the dust container.	Check the alignment or replace the seal.
	Obstructed or ripped dust hose.	Check and replace if necessary.
Motor failure warning light is lit	The motor protection switch was triggered, for example: caused by wrong power supply or defective equipment.	Check the power supply for the correct voltage and Hertz. Call for a skilled electrician to check the motor protection switch inside the electrobox.
Phase sequence warning light is lit	The phases of the power supply are connected wrong.	Call for a skilled electrician to change the phase inversion switch inside the electrobox.

Note: If a motor protection switch has been triggered by overload, it can be switched on again after a short cooling down period.

## 8. Technical data

	<b>BDC-654</b>
Power consumption	4.5 kW
Electrical connection	3x 230V / 60Hz / 63A 3x 460V / 60Hz / 63A
Air stream 50Hz (hose 5" at the end)	920 m <sup>3</sup> /hr
Air stream 60 Hz (hose 5" at the end)	1104 m <sup>3</sup> /hr
Dust hose connection	Ø51, Ø130 and Ø150 mm
Dust bin capacity	87.5 L
Filter surface	27.6m <sup>2</sup>
Length	1332 mm
Width	855 mm
Height	1500 mm
Weight	370 kg
Noise level (at 1 mtr. distance)	Up to 80 dB(A)

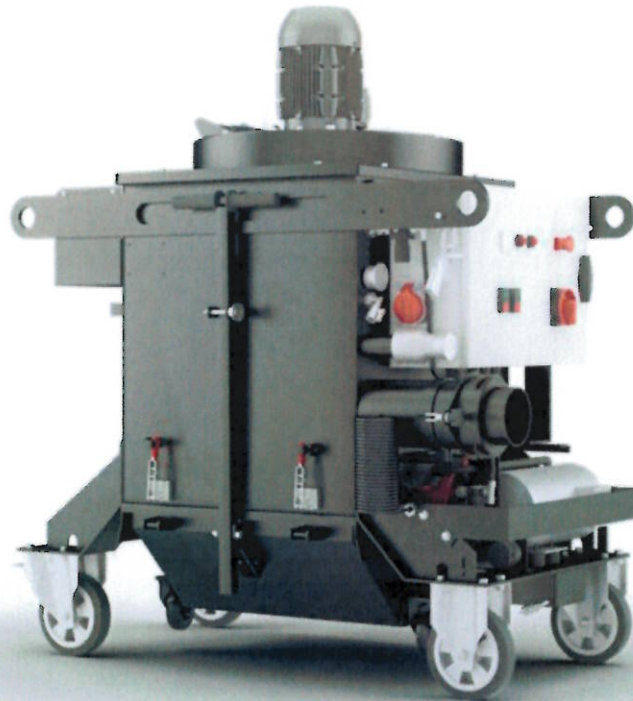
The electrical diagrams of the electrical system are placed inside of the control panel.

Design and specifications are subject to change without notice by TruBrand.

Old equipment contains valuable materials which are designed for re-processing. **The machine parts must not be thrown away in the normal household waste**, but should be disposed of at a suitable proper collection system, e. g. via your communal disposal location.





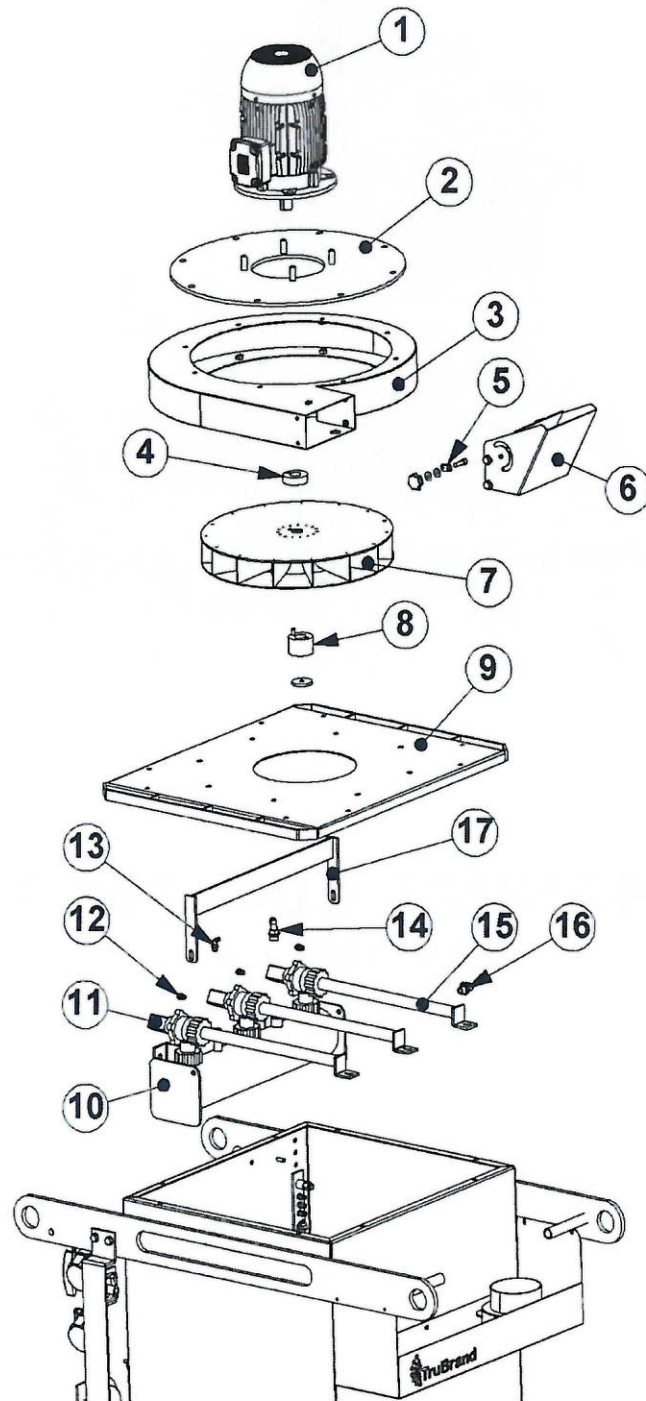


# **SERVICE MANUAL BDC-654 TruBrand**

## **VERSION 1.0**

## 1. Spare parts

Fig. 01



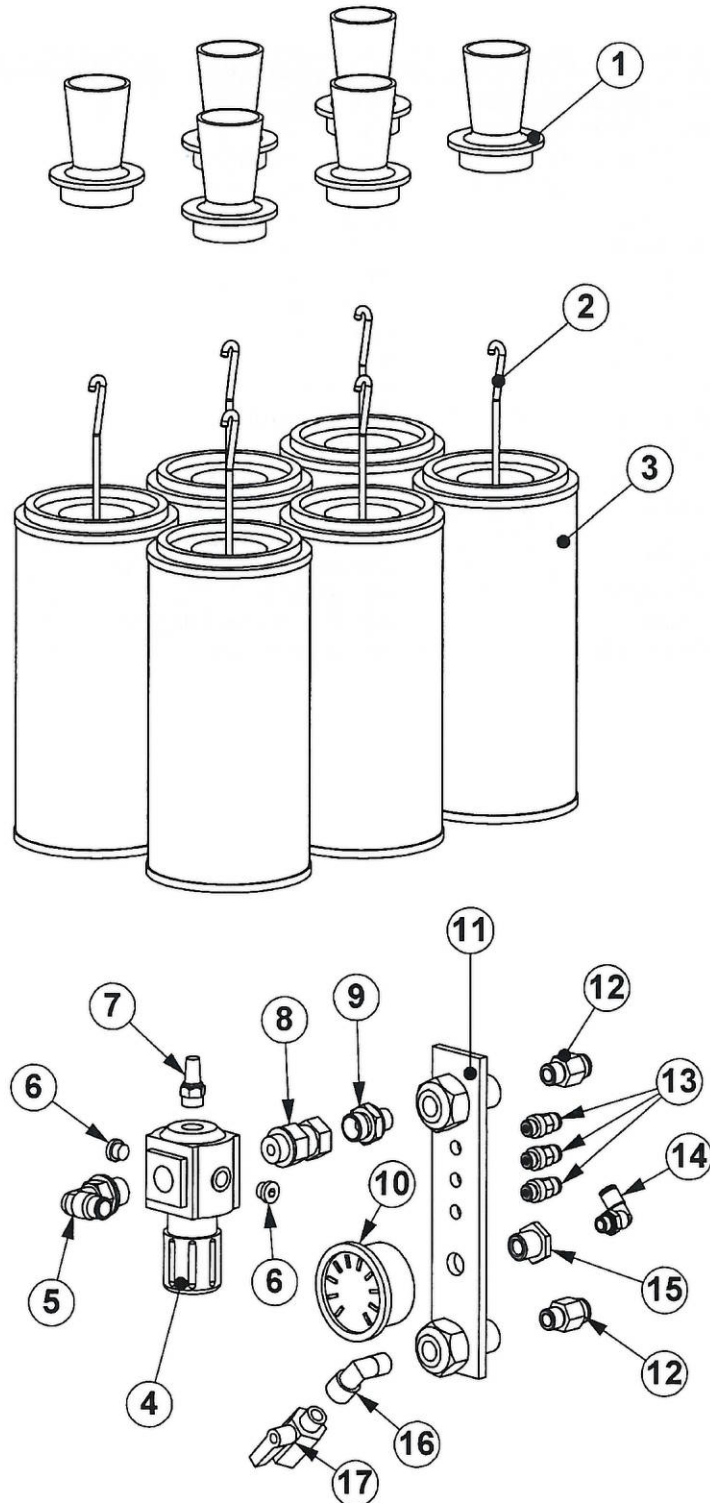


**Fig. 01**

Item	Part number	Description	Qty.
1	E07580-IE3/RAL9007	Fan motor	1
	E07580-IE3/1/GREY	Fan cover	1
	E07580-IE3/BL/2	Fan aluminium	1
	E07580-IE3/3/GREY	Terminal box cover	1
2	6854010_4/TB	Motor plate	1
3	E06989/TB	Fan housing	1
4	E06964	Fan ring	1
5	E06998	Slide plate	1
6	E06992/TB	Deflector	1
7	E07473	Fan	1
8	E06965	Fan hub	1
9	676064/TB	Lid bag house	1
10	676550/TB	Air tank	1
11	E01300	Air valve 24V AC	3
12	E00669	Hose conn.straight 6x1/8"mbsp	3
13	E00672	Adaptor knee 6x1/4	3
14	B20057	Adapter knee 10x1/2"	1
15	E06873/TB	Pulse tube	1
16	E04620	Adaptor knee 10x3/8"	1
17	E07210/TB	Safety support	1



Fig. 02





**Fig. 02**

Item	Part number	Description	Remarks	Qty.
1	001403	Venturi		6
2	739605	Cartridge hook		6
3	490803-1	Cartridge filter		6
4	E06948	Pressure valve		1
5	E04620	ADAPTOR KNEE 10x3/8"		1
6	E06968	Plug 1/8"		2
7	E00034	Dust excluder 1/4" mbsp		1
8	E06970	Adapter female swivel 3/8" x 3/8" male		1
9	E06972	Adapter male 1/4" BSP x male 3/8"binnenconus		1
10	E10349	Panel mount manometer		1
11	E06884/TB	Air connection plate		1
12	E00674	Hose conn.straight 10x1/4"mbsp		2
13	E00669	Hose conn.straight 6x1/8"mbsp		3
14	E00670	Knee adaptor swivel 6x1/8"mbsp		1
15	E00668	Feed through nipple 1/8"fbsp x M16x1.5		1
16	E03197	KNEE 1/4" MBSPT x 1/4" FBSP		1
17	E14003	Mini ball valve 1/4" m/f bsp		1



Fig. 03

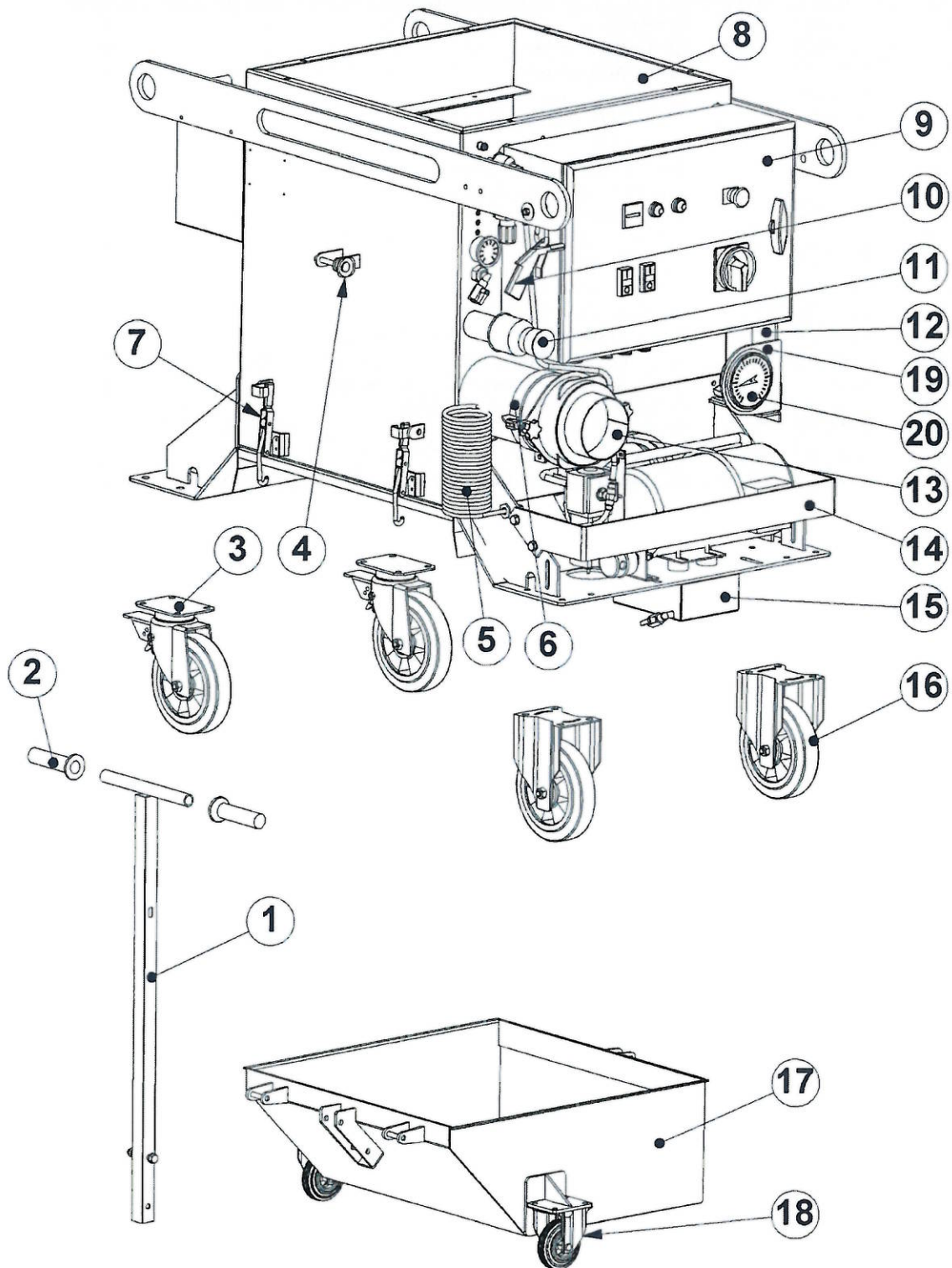


Fig. 03

Item	Part number	Description	Qty.
1	4900970/TB	Handle	1
2	453290	Handle grip	2
3	E10699	Castor wheel	2
4	E06934	Quick release pin	1
5	DA-9290.2	Air hose spiral	1
6	E07001/TB	Clamp	1
7	483551	Toggle clamp	1
8	6760660/TB	Filter house	1
9	E10790	Electrobox BDC-645 3x230V	1
	E10791	Electrobox BDC-645 3x480V	1
10	DA-9290.1	Air pistol	1
	E01912 /	PVC shrinking sleeve 50mm /	
11	E01913 /	Rubber seal set for PVC shrinking sleeve	1
	E01914	50mm /PVC end cover 50mm.	
12	E06993/TB	Protection strip	1
13	E06456/TB	Hose adapter	1
14	E06990/TB	Protection strip front	1
15	E06932/TB	Drain box	1
16	E10698	Wheel	2
17	505-0006/TB	Dust hopper	1
18	E06887-1	Wheel	2
19	E10696	Difference pressure manometer support	1
20	491837	Difference pressure manometer	1

Fig. 04

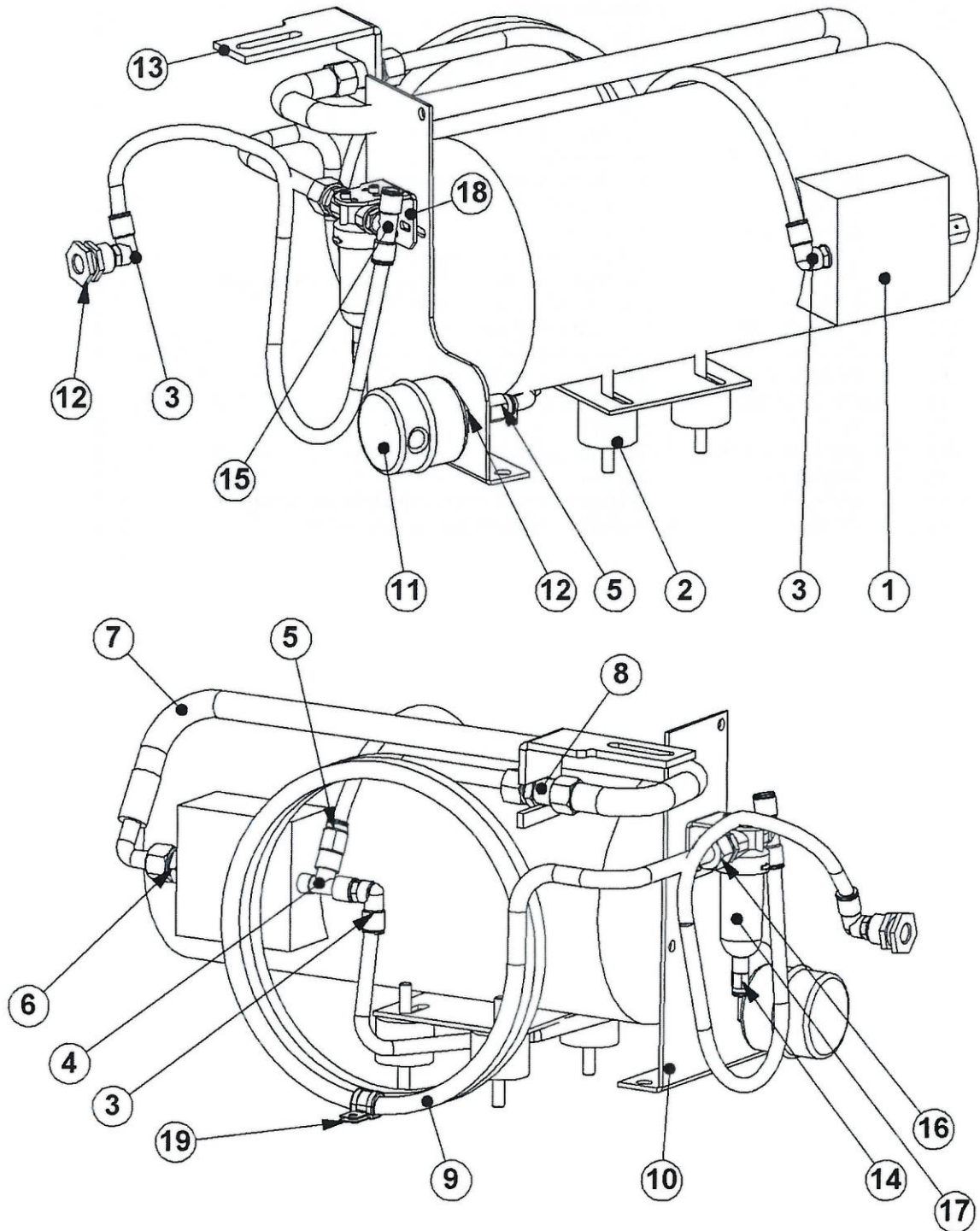




Fig. 04

Item	Part number	Description	Qty.
1	E06933	compressor	1
2	999-9107	Shock absorber A40-30	4
3	E06923	Adaptor knee 10mm x 1/4" mbsp, swivel	3
4	E03215	T-nipple F-F-M 1/4"	1
5	E00674	Hose conn.straight 10x1/4"mbsp	2
6	E06972	Adapter male 1/4" BSP x male 3/8"binnenconus	1
7	E06925	Hydraulic hose M18x1.5 female x 3/8" BSP female / knee 90° L=1000	1
8	E06974	Rechte schotkoppeling M18x1.5 Ø12	1
9	E06928	Cooling spiral	1
10	E06971/TB	Mounting plate water separator	1
11	E06935	Filter	1
	E06935_1	Filter element	1
12	E03158	PANEL MOUNT.CONN. 1/4x M20	2
13	E06976/TB	Bracket hydraulic hose	1
14	E01157	straight coupler Ø6x1/8" fbsp	1
15	E01926	Adaptor T Ø10x1/4"	1
16	E01925	Male stud coupling 1/4" BSP x Ø12 + Bonded seal	1
17	E07456	Water separator	1
18	E07457	Bracket water separator	1
19		Cable clamp Ø10	1

