



Original instructions in English language

OPERATING INSTRUCTIONS EBE 900DC

VERSION 1.4





Inspection comments

Inspection before initial operation on:	_____
By:	_____
Date of initial operation:	_____
Serial number & Year of manufacture:	_____

Recurring inspections / maintenance log

Date / Hour counter	Findings	Repairs / Cleaning	Test on	By*

*Competent person

Table of contents

Maintenance log	02
1. Introduction	04
2. Machine description	04
3. Safety	06
3.1 Work area safety	06
3.2 Electrical safety	06
3.3 Personal safety	07
3.4 Machine safety	07
3.5 Dust collector safety	08
3.6 Maintenance safety	08
3.7 Transport safety	09
3.8 Signs on the machine	10
4. Before operation	11
4.1 Checkpoints of power supply	11
4.2 Checkpoints of the machine	11
4.3 Control box	12
5. Operation	12
5.1 Starting / stopping the machine	12
5.2 Work with the machine	12
5.3 Interrupting work	13
5.4 Startup Problems	13
5.5 Replacing a bigbag	14
5.6 Silencer	14
6. Maintenance	15
6.1 When to change the filters?	16
6.2 Filter replacement	17
6.3 Pulse system	19
6.4 Water separator	21
6.5 Compressor	22
6.6 Rotating valves	23
6.7 The v-belts	25
6.8 V-belt mounting	25
6.9 V-belt tension	25
7. Troubleshooting	26
8. Technical data	27
Contact	

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. **Blastrac BV** offers a course on the use of the machine in order to make the operating and maintenance personnel familiar with all elements of the machine. Always use common sense when working with machines.

2. Machine description

The Blastrac dust collector 900 DC may only be used in combination with Blastrac blast cleaning machines, grinders and / or scarifying machines. The 900 DC can **only** be used for **dry cleaning**. It should **only be** used for removing **noncombustible/non-explosive dust or substances**. The 900 DC must **not** be used for **pathogenic or carcinogenic or asbestos substances**. **In these cases, additional safety measures should be used. Always mind the local safety requirements.** Do not use the machine in the presence of dangerous atmospheres.

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

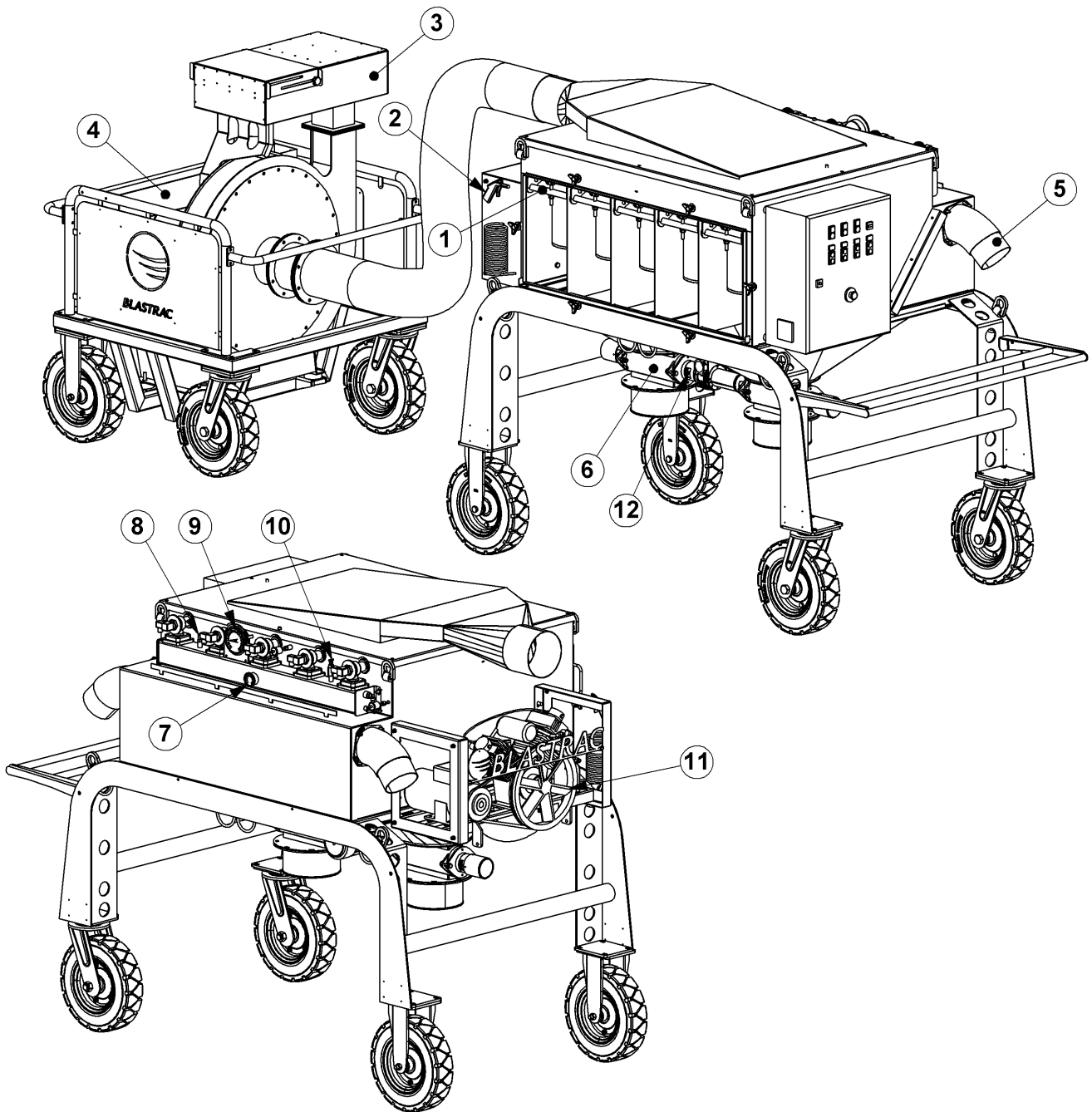
Classification according to standard EN 60335-2-69 – Annexe AA	
Class	Designation
L	(light hazard) suitable for separating dust with a limit value of occupational exposure of greater than 1 mg/m ³ ;
M	(medium hazard) for separating dust with a limit value of occupational exposure not less than 0,1 mg/m ³
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

Application

The 900DC is especially designed and built to be used in combination with Blastrac machines.

Contact Blastrac B.V. for the correct execution and combinations.



01	Tension system filter bracket	07	Manometer, shows the pressure of the air tank. The pulse to clean the filters must be given between 6 - 7 bar.
02	Air pistol. Use this pistol regular to remove water from the air tank.	08	Safety valve (10 bar)
03	Silencer with air flow pressure regulator.	09	Vacuum gauge, replace filters when indicating 20cm.H2O
04	Fan unit	10	Control valve compressor
05	Hose connection tube	11	Compressor
06	Rotating valve (must be switched ON all the time)	12	Gland seal adjusting nut

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.

It is the responsibility of the user to analyse the surface to be treated. The surface may not contain any substances which could pose a fire-, explosion- or health risk when treated. The user should make a risk assessment on the basis of the information obtained about the surface to be treated and take proper precautions for the work to be performed.

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) Do not suck up sparks or burning / glowing material.
- d) Make sure there is enough ambient light on the work area. Cluttered or dark areas invite accidents.
- 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) Never use the machine when the surface is not clear and if there is a risk of stumbling or tripping.
- h) Remove electrical cables and dust hose(s) from the surface to be treated.
- i) Never operate the machine when workplace is wet. Never stay in the rain with the machine.**
- j) Warning! Make sure that the dust being sucked up does not contain dangerous materials such as:**
 - combustible or explosive dusts or substances.
 - carcinogenic or pathogenic substances.

In these cases, additional safety measures should be used. Always mind the local safety requirements. Contact your dealer for additional options.
- k) It is necessary to provide for an adequate air change rate L in the room if the exhaust air from the dust collector is returned to the room. Comply with the National regulations.
- l) 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.

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) Make sure that the phases and the earth wire of the extension cable(s) are connected in the same order as the supply cable of the machine and the power supply.
- c) Electrical cables must be rolled entirely off of the reels.
- d) Any damage to the electric cables and/or electrical components is not permitted.
- e) If the power supply cable or plug is damaged, it must be replaced immediately. Only use original Blastrac parts.
- f) The voltage on the identification plate must comply with the power supply.
- g) Use an electrical power supply connection with earth connection and earth leakage circuit breaker.
- h) 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.
- i) 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.
- j) Inspect and test the electrical components regularly. The electrical components have to satisfy with the requirements set out in the harmonised norm EN60204-1.
- k) Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.



- l) 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.
- m) Always use tools that are insulated against voltages.
- n) 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.
- o) Don't pull out the power supply cable out by the wire, but by the connector.
- p) Be careful with water on the treated surface. Electrical cables must not come into contact with water.
- q) The main power switch on the machine must be in the "Off" position before connecting to the power supply.
- r) During a long standstill of the machine, pull out the main plug.
- s) 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 or around the machine.

- Dust mask class FFP3 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, test them regularly.
- b) No loose bolts and nuts are 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 machine when it is damaged.
- f) Do not **open** or **remove protective guards** while driving gears are running.
- g) Hoses and pipe work can be under high pressure. The temperature can be above 37° C. Use only hoses and pipe work that are sized and marked in accordance with the machine's overall power consumption.
- h) The temperature of the machine can be above 37° C.
- i) The machine, specially the handle grips and control devices must be dry and free of fats/oils.
- j) All repair work has to be done by qualified Blastrac personnel, this guarantees a safe and reliable machine.
- k) Always use original Blastrac spare parts bigbags and filters. This will ensure the best performance. Only original parts meet the factory specifications and quality. Otherwise Blastrac BV cannot guarantee the safety of the machine. The part numbers can be found in the Service Manual.
- l) Check the rotating direction of the motor before operation. The correct direction is given with an arrow on the housing of the motor.
- m) 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.
- n) In the event of operational malfunctions the machine must be shut down immediately and secured!



3.5 Dustcollector safety

- a) The Blastrac dust collector can **only** be used for **dry cleaning**.
- b) It should **only** be used for removing **noncombustible/non-explosive dust or substances**.
- c) The machine may **not** be used for **pathogenic** or **carcinogenic** or **asbestos substances** without additional safety measures. **Always mind the local safety requirements**. Contact your dealer for additional options.
- d) Do not use the machine in the presence of dangerous atmospheres like flammable gasses or dusts.
- e) The machine is designed for usage in conditions according to classification **M**.
- f) The dust hose must be undamaged and free of obstructions. It must be connected properly with hose clamps and industrial tape.
- g) Do not point hose at people or animals.
- h) Never use this machine for sucking water or liquids.
- i) Acids, acetone or solvents can damage the machine.
- j) Never use the machine without the filters in place!**
- k) Be sure that rotating valve motor is switched on. This will increase the life-time of the filter cartridges.
- l) Never use the machine without big bags attached.**
- m) Regularly check the contents of the bigbag. Always wear a **dust mask of at least class FFP3** when changing the bigbag. Comply with the local waste treatment regulations considering the removed material.
- n) Regularly use the air pistol and drain valve to remove water from the air tank.
- o) 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.
- p) During a longer stand still of the dust collector, first switch off the fan unit. Let the pulse cleaning cycle run for +/-30 minutes. Switch off the compressor and Main-switch. Remove water from the pressure tank.
- q) 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!
- r) Close the sliding cover of the silencer when the machine is turned off. This prevents moisture, dust and other contaminants to enter the machine.
- s) 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!
- t) When a filter is leaking it has to be replaced. The compartment above the filters and silencer also have to be cleaned thoroughly.
- u) Compartments that are not dust-tight must be opened with suitable tools and thoroughly cleaned.
- v) Operators should observe all safety regulations appropriate to the materials being handled.
- w) Make sure the machine is parked on a flat and horizontal surface before operation.
- x) The machine must be braked by actuating the levers on the wheels with brakes.
- y) Do not allow the operation of the machine while it is moving, during operation the machine must be braked.

3.6 Maintenance safety

- a) Pull out the main plug and place it in sight, 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 a standstill of all drives before any inspections, adjustments and/or maintenance work is started.
- c) Block the machine in a stable position before doing any maintenance work.
- d) 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.
- e) Operational safety and service life of the machine depends, among other things, on proper maintenance.
- f) 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. Never use a high pressure water cleaner to clean the machine.
- g) Do not use any **aggressive** cleaning materials! Use lint-free **cleaning cloths!**
- h) 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.
- i) Use the air pistol to depressurize the air pressure tank before maintenance.
- j) WARNING! Do not weld, flame cut or perform grinding works on or near the dust collector. Danger of fire or explosion exists!**
- 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) Use only original Blastrac parts.
- q) The dust collector must be yearly overhauled by a skilled technician.

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 weight of 900 DC filterunit is 860 kg, the weight of the fan is 500kg. Use a crane or lift when transporting the machine, use the lifting eyes / lugs of the machine.
- c) Before every use check the lifting eyes/lugs and welds for: deformation, damages, cracks, corrosion and wear.
- d) Each lifting lug has a WLL of 1500kg.
- e) Pay attention that the drive unit does not turn away during lifting of the machine. Hold on to the steering handle until the machine is of the ground.**
- f) 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.
- g) During hoisting make sure to be at a safe distance from the machine with the most optimal view on the machine and working environment.
- h) Never stand directly below the machine.
- i) 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.
- j) The lifting eyes/lugs can also be used to fasten the machine on a pallet or during transport.
- k) Chock wheels for transport and keep control handle in neutral position. Use the brakes on the wheels.
- l) Don't leave the machine unsecured on jobsites.
- m) Park the machine always on a flat horizontal and levelled surface.
- n) Remove the dust from the dust collector before the dust collector is transported.
- o) Make sure the electrical cable and dust hose are disconnected before transport.
- p) Always dispose the contents of the dust collector before the end of the working day. Observe the local waste disposal regulations!
- q) Before the dust collector is removed from the hazardous zone, take precautions to prevent dust from escaping.
- r) For class H and M machines, the outside of the machine should 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.
- s) Always close the inlets of the dust collector when the dust hose is disconnected.
- t) Store the cleaned and dry machine in a humid free room. Protect the electrical motor from moisture, heat dust and shocks.
- u) Never use the machine for lifting persons or items.



3.8 Signs on the machine

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



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



Lifting point.



WARNING! It is not permitted to use Steel Abrasive harder than 50 Rockwell hardness. Abrasive harder than 50 Rockwell will damage the machine housing extremely.



No unauthorised person may operate this machine.



Wear a dust mask class FFP2 or higher.

Hearing protection is obliged.

Safety glasses with lateral protection are obliged.

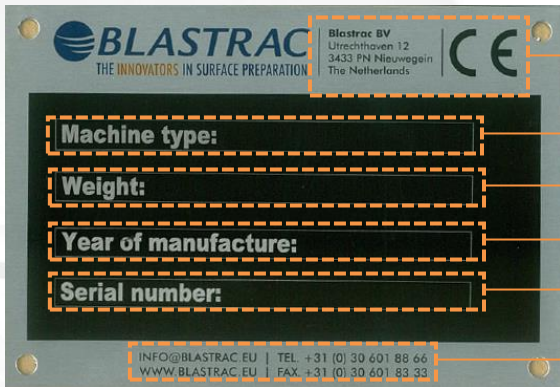
CE-mark on this machine.

Wear protecting gloves.

Safety shoes obliged.

Consult the manual before operating the machine.

Type plate:



Name, address and CE mark.

The machine type.

The net weight of the machine in kilogram.

The year of manufacture.

The serial number of the machine.

Email address, Website, Telephone & fax number.

EU Declaration of Conformity:





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

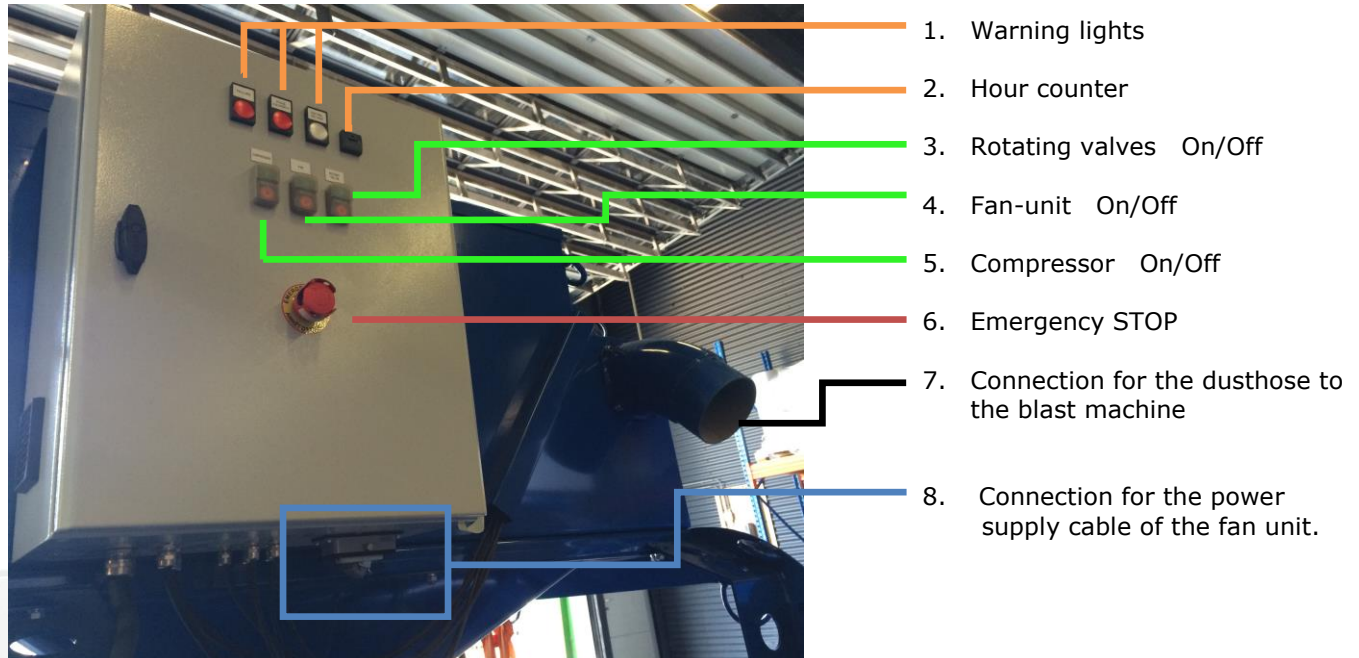
- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be fully unwind of their reels.
- No damage is permitted for electrical cables.
- Use an electrical power supply connection with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

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 bigbag 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. 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 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 machine.



5. Operation

5.1 Starting / stopping the machine

- Connect the fan-unit and filter-unit with the airhose and supply cable (8.)
- Connect the dust hoses to the blastmachine and dust collector (7.)
- Connect the dust collector to the power supply
- Check the warning lights, if a warning light is lit, see 5.4 Startup Problems for guidance.
- Switch on the compressor motor (5.)
- Switch on the fan motor (4.) wait for the fan to get at full speed.
- Switch on the rotating valve motor (3.)
- Carry out this actions in opposite sequence to stop the machine.

5.2 Work with the machine

- Be sure that rotating valve motor is switched on and the compressor pulses at the correct pressure. This will increase the life-time of the filter cartridges.
- Regularly check the contents of the big bag, exchanging the big bag too late can cause a big mess and be potential dangerous to the health.
- Regularly use the air pistol to remove water from the air tank. Excessive water can have a negative impact on the pulse power and shortens the life-time of the filter cartridges.
- The suction power of the dust collector can be adjusted with the air flow pressure regulator on the silencer. Slide the hood open for more power, and close it for less power. (Page 5, point 3)



5.3 Interrupting work

- This machine is built to work continuously, leave the 900DC running during short interruptions.
- 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 +/- 30 minutes. Switch off the compressor unit and rotating valves.
- Disconnect the power-supply cable.
- Close the sliding cover of the silencer when the machine is turned off. This prevents moisture, dust and other contaminants to enter the machine
- 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 !

5.4 Startup Problems

- If the light 'Failure' is lit up, a fault has been detected and the system has shut down.
- If the light 'Phase Incorrect' is lit up, the phases of the power connection are wrong.
- If the light 'Control Voltage' is lit up, the power supply is wrong.

Warning! 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.

The 900DC has a softstarter to protect the electrical equipment. On this softstarter the information regarding the failure is shown to help resolve problems.

The soft starter can be found in the electrobox.

The LED on the soft starter shows the problem in code:



LED OFF	Check power connections and power source
LED ON	Check isolation contactor for proper closure Check presence of line power
LED Flashing 1 x - Overload	Reset Overload
2 x - Over Temperature	Trip on Over Temperature. Allow time for unit to cool.
3 x - Phase Reversal	Check for proper phase rotation of line power
4 x - Phase Loss / Open Load	Confirm that 3-phase is present.
5 x - Phase Imbalance	Check line current present in each phase. Unit will trip if imbalance is >50%
6 x - Shorted SCR	Please contact your Blastrac dealer .



5.5 Replacing a bigbag

ATTENTION! Wear a dust mask of at least class FFP3!

- 1 Stop the rotating valves.
- 2 Remove and close the funnel of the full BigBag.
- 3 Place a new bigbag, sleeve the funnel on and secure it with the pull strap.
- 4 Start the rotating valves.

NOTE: The rotating valves should always be turned on during operation, only stop them for changing the bigbag or transport.

5.6 Silencer

The silencer on top of the fan unit reduces the noise emission but can also be used to adjust the suction power of the machine. Close it a little bit for less suction power, and open it for more suction power.



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 the hose to the filter for damages. Make sure there is no water in the air pressure tank. Check the electric connections and motors for sediments of dirt, foreign bodies and other contaminants. Check the v-belt tension of the compressor. Check the condition of the filters by observing the press.diff gauge. Make sure empty bigbags are connected and empty. Clean the inside of the electrobox.
Every week	Check the oil level and quality of the compressor.
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. Check the blades of the rotating valves Check the spider coupling of the rotating valves Clean the inside of the electrobox and replace the ventilation filter.
Annually	Full overhaul and cleaning of the complete dust collector. Replace the oil of the compressor. Replacement of the rotating valve seals and blades.

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 and a technical inspection must be carried out at least once a year, consisting of inspection of filters for damage, air tightness of the machine and proper function of the control mechanism. This technical inspection shall be carried out by the manufacturer or an instructed person.

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.

Pay attention to unusual noises or strong vibrations. Check for the cause of every big change. Call a technician if you have doubts about the cause or when a repair without a technician seems not possible without damages. Only use genuine Blastrac spare parts.

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



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.

Follow additional operating and maintenance instructions of Original Equipment Manufacturers if included during your service and maintenance work.

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 Blastrac personnel, this to guarantee a safe and reliable machine.

Any guarantee on the machine is expired when:

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

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

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.

6.1 When to change the filters?

When the "Pressure Diff" gauge is above 20 cm H₂O, the filters are probably clogged.



Pressure Diff.

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

A vacuum gauge measures the difference between the under pressure above the filters and inner filter house. This readout indicates the degree of pollution of the filters, with this system you can always keep an eye on the condition and pollution of the filters inside the dust extractor. It can also help you fine-tune the airflow when precise adjustment is required for the job.

If the dust collector 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 drain 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 H₂O, the filters probably need to be exchanged.
When the machine still does not perform adequately, 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!



Blastrac Cartridge Filter
IFA/BIA certificate M-class

Order nr. E10600

6.2 Changing the filters

Read chapter 3 Safety before changing the filters.
Operators should observe any safety regulations appropriate to the materials being handled.

Warning! **Always wear Personal Protective Equipment!**
The dust can be hazardous to the health! Wear a dustmask!
Wear protective gloves!

- Pull out the mains plug before you start
- Always wear gloves and a **dust mask** of at least **class FFP3**
- Use an extra dust collector in order to work as dust free as possible

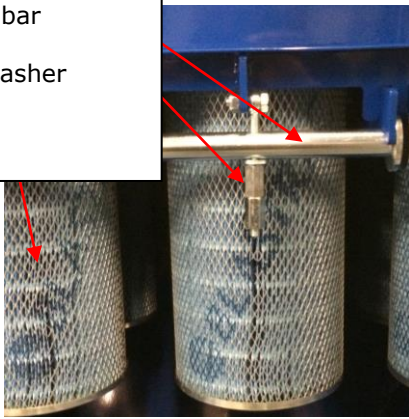


Make sure you have enough sturdy plastic bags or use big bags for the disposal of the old filters.
Observe the national regulations in force both during exchange and disposal of the old filters.

1: Locking bar

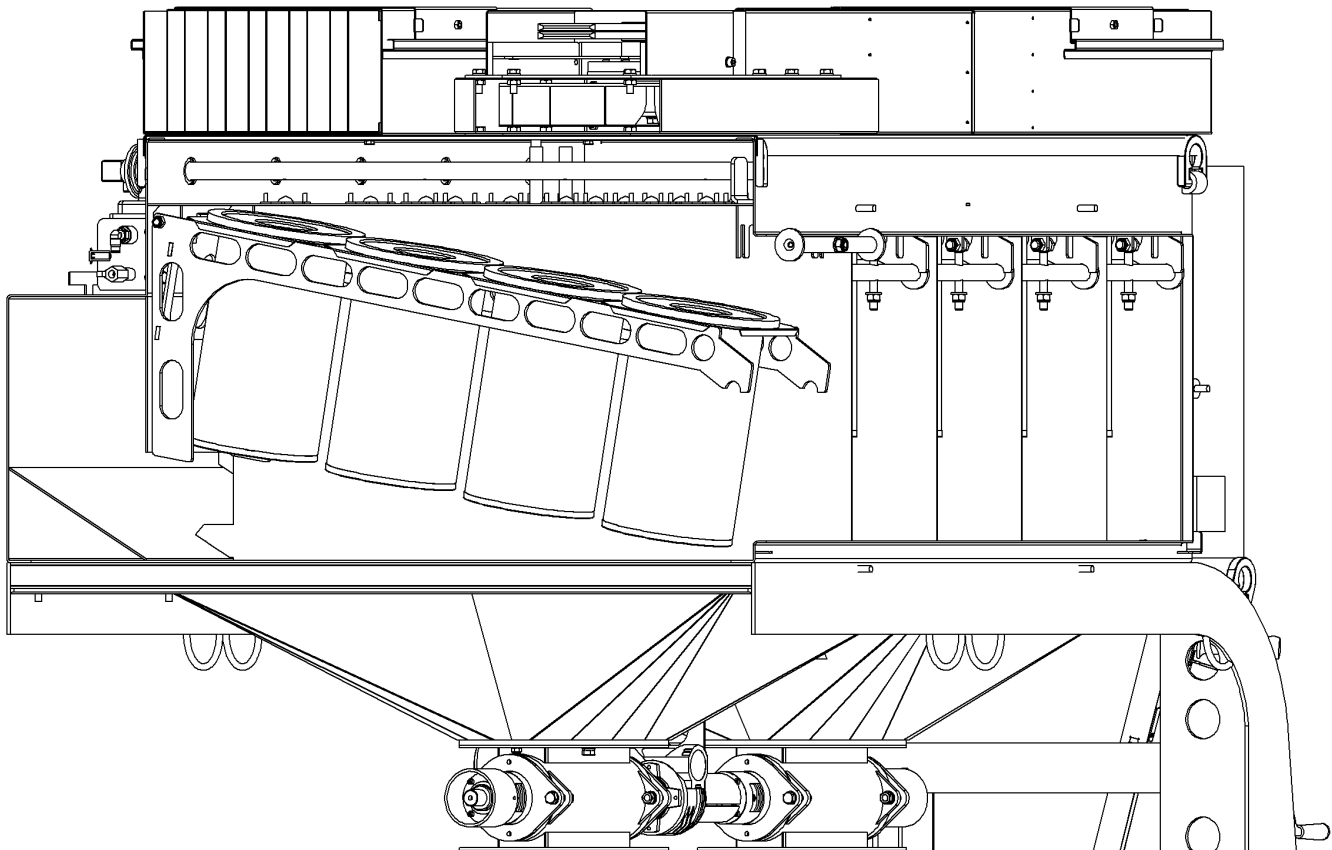
2: Nut + washer

3: Filter



- Remove the filter house door.
- Loosen the nut+washer (2).
- Remove the locking bar (1).
- The filter bracket will now be tilted downwards so the filters can be taken out easily.
- Slide out the filter (3) and put it in a sturdy plastic bag.
- Close the bags properly.

When mounting new filter cartridges pay attention that their gasket at the upper side lies firm at the sheet steel of the filter chamber. A tilt of the filter cartridge results in leakage and the suction of contaminants in the clean parts and consequently the machine blows dirt backwards in the outer air.



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.

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.

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 belt driven compressor.

The air is lead 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.

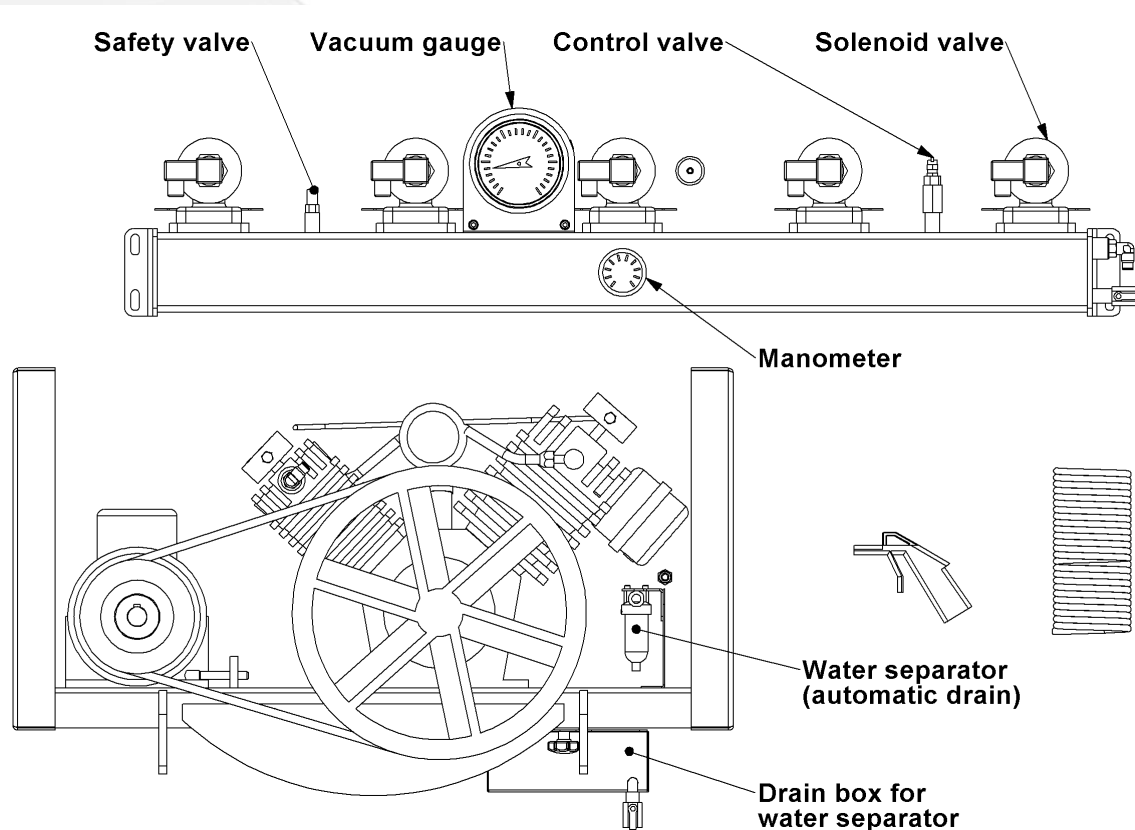
This provision is to ensure that when there is a defect in the Control valve, the pressure in the pulse tank remains within safe limits.

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 Blastrac.

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 hoses and connectors for leakage and check electrical wiring for damages. 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 **Blastrac** support in order to prevent operational problems.



Advised is to take contact with Blastrac 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 450 operating hours.

NEVER remove the water separator from the pulse system. The water separator keeps the pulse system from clogging up with oil, dirt and water.

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

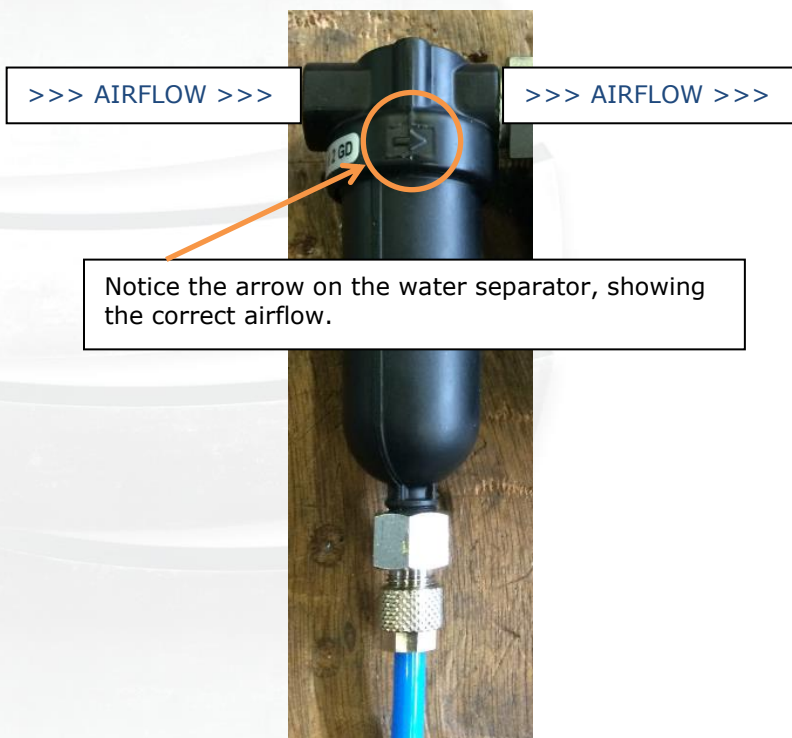
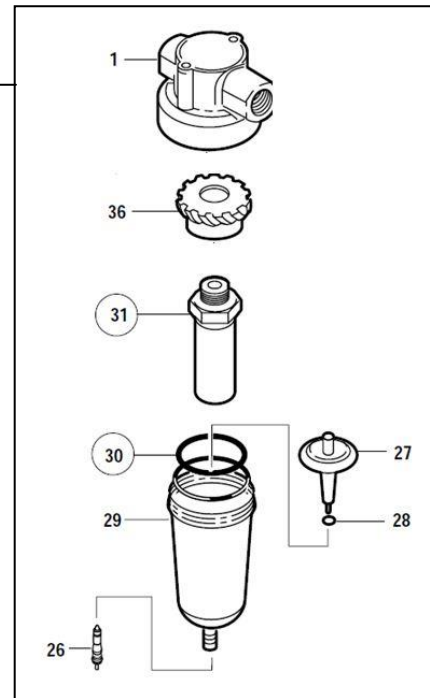
This spitter type drain operates momentarily when a rapid change in air flow occurs or when the supply pressure is reduced.

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 Floater 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.





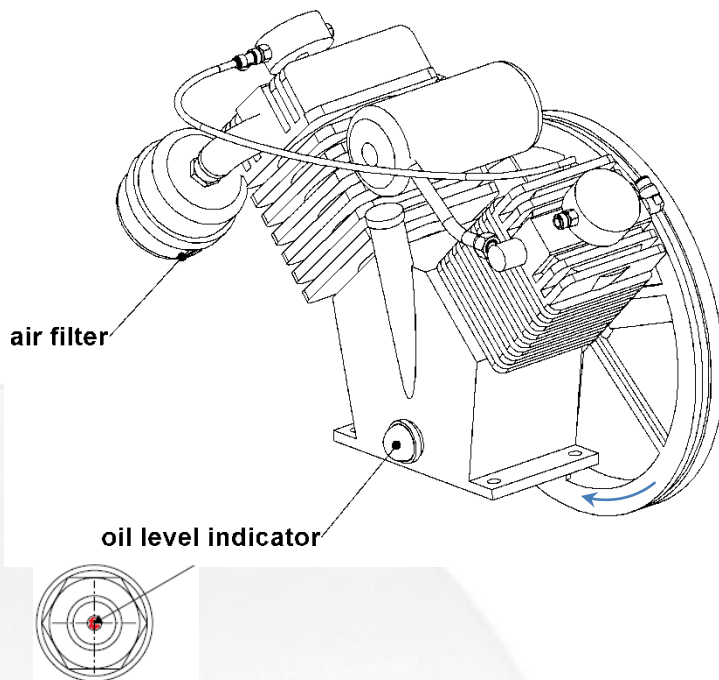
6.5 Compressor

The oil level and oil colour of the compressor should be inspected once per week. The air filter of the compressor should be cleaned every 48 hours. Only use air to clean the air filter. Replace the air filter at least once every 6 months or 450 working hours (whichever comes first).

The red point on the oil level glass indicates the normal oil level. (About 0.25 liter.)

The oil in the crank case lubricates all moving parts so that no other lubrication is necessary.

The oil in the compressor should be clear and transparent. If the oil is dark and dirty it has to be replaced.



Oil change

Carry out the first oil change after 48 working hours, then after 450 working hours when using synthetic oil, and after 150 working hours when using mineral oil. Please note that oil change must be carried out at least once every 6 months.

Use only oil especially intended for compressors, according specification C.T. 68 (ISO 68- viscosity).

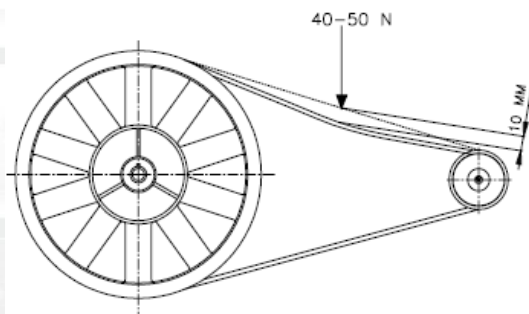
Blastrac Compressor oil – Part nr. E00498

Prior to draining off the oil, the compressor unit should have operating temperature. Check oil level 2 or 3 minutes after stopping.

The compressor is factory filled with synthetic oil. Because of the rough conditions Blastrac recommends to use synthetic oil.

Oil must be visible in oil sight glass but never above or below the red point.

After approximately 20 operating hours check the belt tension of the compressor. When the tension is too low the belt will slip and when the tension is too high, the belt may break and cause damage to the bearings.



When the belt can be pressed in by hand 5 - 10mm, it has the correct tension. (At +/- 10 kg pressure)

If the compressor does not attain the required working pressure or becomes too hot, check the following:

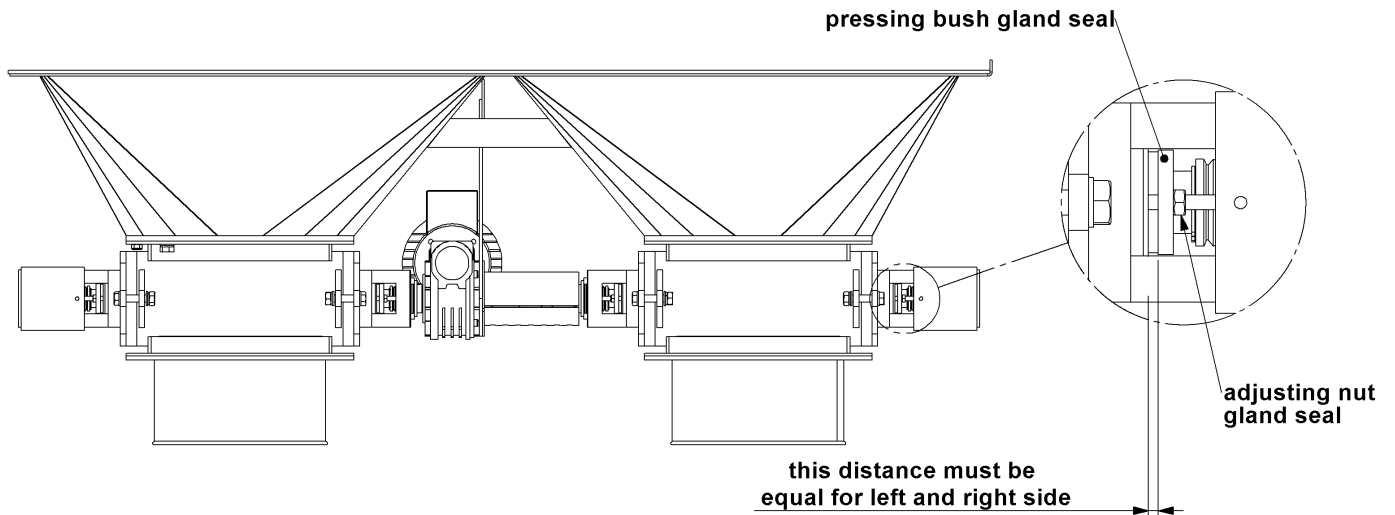
- Suction filter
- V-belt tension
- Oil level and quality of oil
- Leaks in the system
- Dirty cooling ribs
- Valves and seals
- Rotating direction of the flywheel
- Loose bolts
- Non-return valve
- Drain valve for water release

IMPORTANT Make sure the compressor cannot turn on and make sure there is no pressure in the system before dismantling any part of the compressor.



6.6 Rotating valves

The rotating valves have gland seals that must be tightened by the adjusting nuts if the gland seals are leaking dust. It is important that the pressing bush is not on an angle. Tighten the nuts 180° and test the rotating valves for leaking dust. Do not over tighten because that will damage the gland seal.

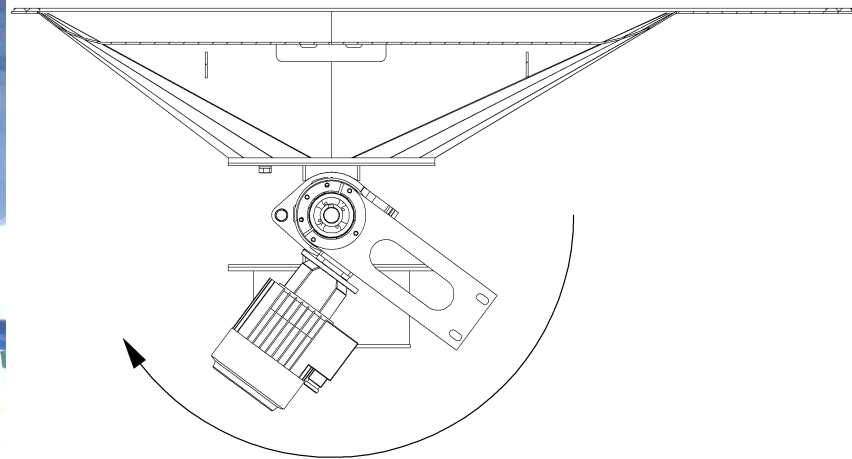




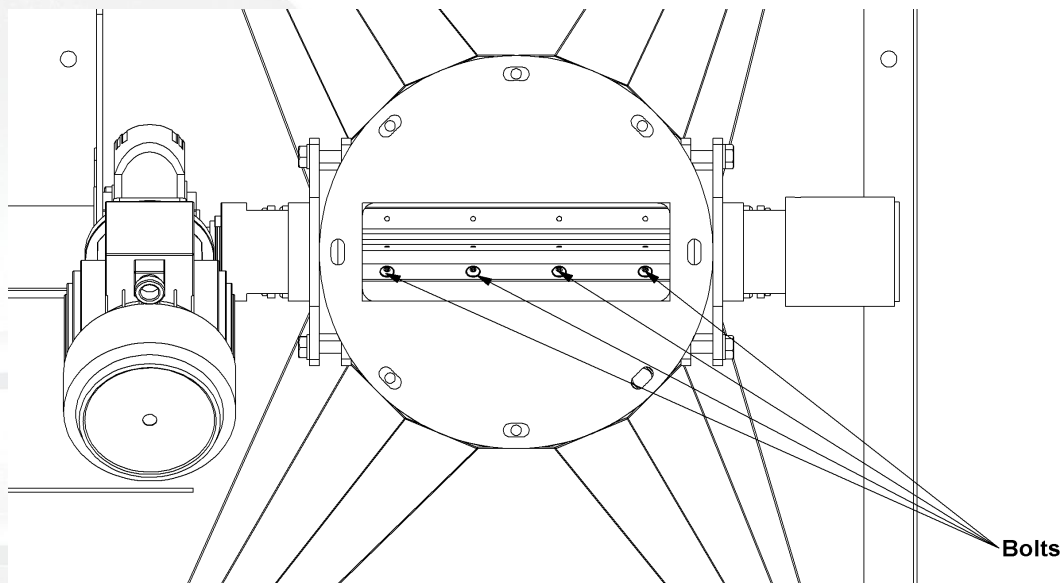
Replace rotating valve seals

Replace the rotating valve seals when they are damaged or worn out.

- 1) Remove the two big bag adapters by removing the 8 bolts.
- 2) Remove the two bolts of the drive motor plate that is fixed to the body of the dust hopper. Now it is possible to rotate the rotating valves by rotating the drive motor with drive motor plate for more than 180°. (see figure below).



- 3) Pull out the main plug and remove the bolts and clamp strip of the rotating valve blade.



- 4) Place the new blade and clamp strip and bolts. Apply Loctite 243 on the bolts. First tighten the two inside bolts, then tighten the two outside bolts. Make sure that the seal is in one line with the valve housing and check that the seal has a minimum clearance with the valve housing.

6.7 The V-belts

The V-belt drives are designed for the installed driving power. To force a higher output through an excessive high tension of the V-belts will result in broken belts, damage to the bearings and causes loss of the total efficiency. Too low belt tension will cause slipping with the result of a very high temperature of the V-belt and a premature destruction of it. Temperatures over 70° for a longer period will decrease the working life and the efficiency of the V-belts. The grooves of the V-belt pulleys must be free of rust, fat and dirt and must not show any damages. The use of belt wax or similar substances in order to increase the friction coefficient is not necessary and it damages the V-belts. Soiling due to oil, grease or chemicals have to be avoided.

In order to get perfect power transmission the V-belt drives have to be checked every 3 months.

6.8 V-belt mounting

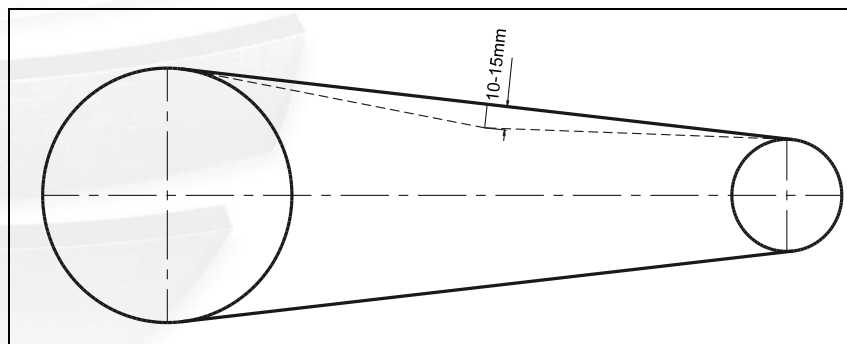
Remove the belt guard only when the driving motor is in standstill and the power supply cable of the machine is disconnected from the power source.

- Reduce the distance between the driving motor and the bearing to release the tension of the V-belt drive.
- Carefully put the V-belt in the grooves of the V-belt pulley by hand and without using the force.
- Increase the distance between the driving motor and the bearing to stretch the V-belt as following described.
- Fix the required driving gear guards.

6.9 V-belt tension

The correct V-belt tension is of utmost importance in order to obtain a perfect power transmission and to reach the usual working life of the V-belt. Too low or too high tension causes frequently a premature breakdown of the V-belt. Excessive belt tension results in damaged bearings at drives.

Check the tension of the V-belt by pressing the thumb on the belt. The belt has the correct tension if you can press it in about 10-15 mm at approx. 10 kg. pressure.





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 Too little grease in the bearing Silencer assembly defective	Check the alignment and adjustment of the rotating parts. Check screws and all parts for tight seat. Lubricate the bearing. Check and replace if needed.
Too low or no pressure	Check the whole pneumatic system for leaks. Dirty airfilter Check the tension of the compressors V-belt. Dirty/too little oil in the compressor	Fill the leaks or replace the damaged components. Clean or replace the air filter of the compressor. Adjust the tension of the V-belt. Change or refill the oil.
Bad or no filter cleaning	Pressure too low. Pulse timer / PLC defective or wrong settings.	See above. Contact Blastrac.
No suction power	Dirty filter cartridges. Foreign air leaks in the dust container. Obstructed or ripped dusthose.	Clean or replace the filter cartridges. Check the alignment or replace the seal. 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

	EBE 900DC
Power consumption	17 kW
Electrical connection EBE-900DC	400-440V / 50 or 60Hz (is given on elektro box) 32A CEE plug 5 pole
Air stream	4710 m ³ /hr
Dust hose connection	(2x) Ø150 mm
Dust hose length	20m
Big bag capacity	385 L
Filter surface	94m ²
Length (Dust collector)	2250 mm
Length (Fan unit)	1275 mm
Width (Dust collector)	1365 mm
Width (Fan unit)	1160 mm
Height (Dust collector)	1976 mm
Height (Fan unit)	1648 mm
Weight (Dust collector)	860 kg
Weight (Fan unit)	500 kg
Pressure adjusting compressor	6-7 bar
Pressure differential filter surface (MAX)	50-150 mm/WS 2-6 inch / WG
Noise level (at 1 mtr. distance)	Up to 83 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 Blastrac BV

Extension cables

Cable length	Cross section			
	≤ 16 A	≤ 32 A	≤ 63 A	≤ 125 A
Calculated at a pre-fuse GG:	16amp*	32amp*	63amp*	125amp*
> 20m	1.5 mm ²	2.5 mm ²	10 mm ²	25 mm ²
20m > 50m	2.5 mm ²	4 mm ²	10 mm ²	25 mm ²
50m > 75m	4 mm ²	6 mm ²	16 mm ²	35 mm ²

*The cross-sections need to be re-calculated when using any other type or size pre-fuse than mentioned.

**IMPORTANT NOTES:**

The indicated values are measured on new machines. Noise levels will vary in different circumstances. Area influences like open outside or closed inside space, ambient temperature, different surfaces to be treated, daily use, different tools or accessories, poor maintenance, etc. will give different values at all time and could increase the exposure level over the total working period.

The declared noise emission level represents the main application of the machine. The values may be measurements from a representative sample of technically comparable machinery. The values may be used for a preliminary assessment of exposure.

A precise estimation of the level of exposure to noise should also take in account the fact that the dust collector does not require constant operating. Most of the times the operator won't be near the machine during normal activities. This may significantly decrease the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of noise such as: proper and regular maintenance of the machine and the accessories, provision of proper ear protection and organization of work patterns for example by using rotation schedules.

Always use ear protection when working with this machine.

Old equipment contains valuable materials which are valuable 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. This way the materials can be re-used in an environmentally responsible manner.

Despite the fact that this guide is made with care, Blastrac takes no liability for errors in the manual and the possible consequences. We are naturally very interested in your findings and additions. No part of this publication may be reproduced and / or published in print, photocopy, or other form without prior permission by Blastrac.

The original Operating Instructions are in the English language. Any other language is a translation of the original version.



BLASTRAC EUROPE

WE'RE READY TO ASSIST YOU!

BLASTRAC THE NETHERLANDS

EUROPEAN HEAD OFFICE

Utrecht haven 12
 NL - 3433 PN Nieuwegein
 Tel.: +31 (0)30 601 88 66
 Fax: +31 (0)30 601 83 33
 Email: info@blastrac.nl
WWW.BLASTRAC.EU

BLASTRAC POLAND

SALES & SERVICE CENTRE

Golina, ul. Dworcowa 47E
 63-200 Jarocin
 Tel.: +48 (0)62 740-41-50
 Fax: +48(0)62 740-41-51
 Email: info@blastrac.pl
WWW.BLASTRAC.PL

BLASTRAC FRANCE

SALES & SERVICE CENTRE

ZI - 29, Av. des Temps Modernes
 F - 86360 Chasseneuil du Poitou
 Tel.: +33 (0)5 49 00 49 20
 Fax: +33 (0)5 49 00 49 21
 Email: info@blastrac.fr
WWW.BLASTRAC.FR

BLASTRAC ITALY

SALES & SERVICE CENTRE

S.S. 10 Padana Inferiore, 41
 IT - 29012 Caorso (PC)
 Tel.: +39 0523 814241
 Fax: +39 0523 814245
 Email: info@blastrac.it
WWW.BLASTRAC.IT

BLASTRAC GERMANY

SALES & SERVICE CENTRE

Richard-Byrd-Str. 15
 50829 Köln
 Tel.: +49 (0) 221 709032-0
 Fax: +49 (0) 221 709032-22
 Email: info@blastrac.de
WWW.BLASTRAC.DE

BLASTRAC UKRAINE

SALES & SERVICE CENTRE

Nezalezhnosti 14, of. 21
 07400 Brovary
 Tel.: +38 (0)44 222 51 28
 Fax: +38 (0)44 277 98 29
 Email: info@blastrac.com.ua
WWW.BLASTRAC.COM.UA

BLASTRAC SPAIN

SALES & SERVICE CENTRE

Calle del Estío, 9
 E - 28500
 Arganda del Rey, Madrid
 Tel.: +34 91 660 10 65
 Fax: +34 91 672 72 11
 Email: info@blastrac.es
WWW.BLASTRAC.ES

BLASTRAC UNITED KINGDOM

SALES & SERVICE CENTRE

Unit 2a, Outgang Lane, Dinnington
 Sheffield, South Yorkshire
 GB - S25 3QU
 Tel.: +44 (0) 1909 / 569 118
 Fax: + 44 (0) 1909 / 567 570
 Email: info@blastrac.co.uk
WWW.BLASTRAC.CO.UK

BLASTRAC MIDDLE EAST

SALES & SERVICE CENTRE

P.O. box 29424
 Dubai / United Arab Emirates
 Tel.: +971 4 3245760
 Fax: +971 4 3245761
 Email: info@blastracdxb.ae
WWW.BLASTRAC.AE

BLASTRAC NORDIC

SALES & SERVICE CENTRE

Lekstors Industriväg 13D,
 443 41, Gråbo
 Sweden
 Tel.: +46 (0) 31 30 333 55
 Email: info@blastrac.se
WWW.BLASTRAC.SE

BLASTRAC INDIA

SALES & SERVICE CENTRE

G.B. Warehousing, GAT NO- 523,
 Pune- Nagar Road, Wagholi
 Pune- 412 207
 Tel.: +91 99213 98109
 Email: info.blastrac.in
WWW.BLASTRAC.IN