



Original instructions in English
OPERATING INSTRUCTIONS
BG-250RS
VERSION 1.1





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	2
1. Introduction	4
2. Machine description	4
Accessories	5
3. Safety	5
3.1 Work area safety	5
3.2 Electrical safety	6
3.3 Personal safety	6
3.4 Machine safety	6
3.5 Grinding safety	7
3.6 Dust collector safety	7
3.7 Asbestos safety	8
3.8 Maintenance safety	8
3.9 Transport safety	9
3.10 Signs on the machine	10
4. Initial operation	11
4.1 Checkpoints of electrical safety	11
4.2 Checkpoints of machine safety	11
4.3 Checkpoints of work area	11
4.4 Manual moving of the machine	12
4.5 Changing the diamond disc	13
5. Operating	14
5.1 Working with the BG-250RS Remote System	14
5.2 Operating during grinding	15
5.3 Switching off the BG-250RS	15
6. Maintenance	16
6.1 Replacing the flexible coupling:	18
6.2 Other maintenance	18
6.3 Remote control maintenance	19
7. Troubleshooting	20
8. Technical data	21
Contact	



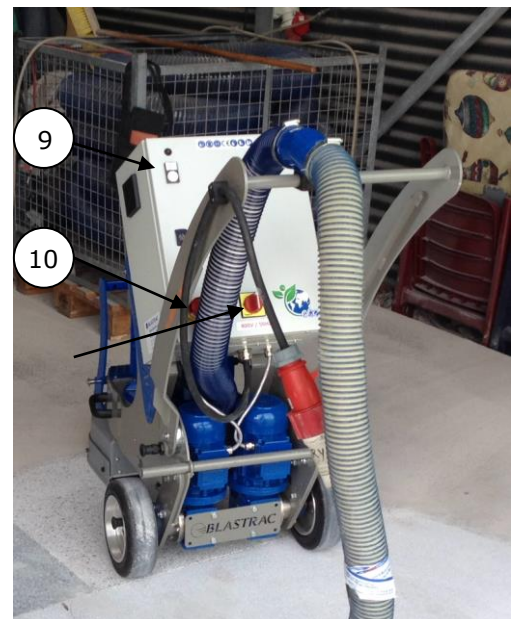
1. Introduction

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** grinding machine BG-250RS is an electrical driven, remote controlled floor grinding machine for treating horizontal surfaces. The machine has a rotating adapter plate where the diamond disc can be fixed on. The rotating parts are covered by a protection cap with a connection for a dust hose. Due to the drive motors and the wireless control unit this machine is very effective and ergonomic to operate. The machine may not be used without an adequate dust extraction system. A specially designed Blastrac dust collection system ensures dust-free operation of the machine and clean air at the workspace. The BG-250RS can be used on almost any floor to plane, to remove coatings or glue residues or to make ready for coatings. This machine may not be used on wood.



1	Remote control	7	Floating shroud	13	Electrical connection
2	Steer handle	8	Drive wheel with quick release pin	14	Drive motors
3	Dust hose connection	9	Power available light	15	
4	Electrobox	10	Emergency stop button	16	
5	Grinding motor	11	ON/OFF switch	17	
6	Machine support/ transport wheel	12	Quick release pin for steer handle	18	



Accessory's

There are several types of discs that may be used on this machine.

The discs that can be used are:

E01419	Diamond disc 250mm soft Red
E01402	Diamond disc 250mm middle Green
E01417	Diamond disc 250mm hard Blue
BG707114	250mm black star grinding disc
BG707250	250mm PCD grinding disc
005014	10m suction hose ø76mm

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) In some cases sparks could be created by grinding.**
- d) The surface to be treated must be clean, make sure to remove all stones, screws etc..**
Any stones, screws, bolts, pieces of wire etc. could cause serious damage to the machine if it gets inside the machine!
- e) Make sure there is enough ambient light on the work area. Cluttered or dark areas invite accidents.
- f) 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.
- g) 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.
- 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(s) from the surface to be treated.
- j) Make sure that there are no cables or hoses in the driving direction of the machine.
- k) Make sure that there is nothing standing or situated on the surface to be treated.
- l) 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.
- n) Remove all objects from the surface that can damage the machine. Remove reinforcing steel or other objects protruding from the surface in order to prevent damage to the compounds or diamond discs.
- o) 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.** (Except for the Asbestos version.)
- p) 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.
- q) 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) 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 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) The remote control should always be fastened around the waist.
- f) Push the emergency stop button before any inspections, adjustments and/or maintenance work is started.
- g) Always seek professional medical attention immediately in case of injury.
- h) 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 machine when it is damaged.
- f) Do not **open or remove protective guards** while driving gears are running.
- g) The machine, specially the handle grips must be dry and free of fats/oils.



- h) If the length of the brushes is, due to wear, less than 5mm or they are extremely deformed, the brushes have to be replaced. Check the Service Manual for the order numbers.
- i) All repair work has to be done by qualified Blastrac personnel, this guarantees a safe and reliable machine.
- j) **Always use original Blastrac spare parts, grinding disks and polishing pads.** 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.
- k) Check the rotating direction of the motor before operation. The correct direction is given with an arrow on the housing of the motor.
- 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.
- m) In the event of **operational malfunctions** the machine must be **shut down immediately** and secured!
- n) **Never use the machine without a suitable (Blastrac) dust collector!**

3.5 Grinding safety

- a) The machine contains rotating parts, which are protected with a cover. Always leave the diamond disc on the floor while the motor is turning.
- b) The flexible coupling can become worn out with use, because of this there can be higher vibrations than normal. Check for this reason the flexible coupling for deformation and damage before every use.
- c) Do not let the machine rest on the diamond disc or coupling when it is not in use, this will cause deformation to the flexible coupling.
- d) Always put the machine on the machine support/transport wheel which is made especially for this reason.
- e) Make sure the brush seals are in good condition, this to avoid dust escaping.
- f) Make sure the diamond disc is not damaged or worn out.
- g) Always pull out the main plug before u start changing the grinding disks or polishing pads.
- h) When mounting or removing a diamond disc; lay down the machine so it is lying on the handle. Make sure the machine will not fall back down. A second person can hold the handle down, to make sure it will not fall back down.
- i) When changing the disks u should wear Personal Protective Equipment like a dust mask, safety goggles, gloves, protective shoes, and close fitting protective clothing.
Use the vacuum cleaner while changing the discs to prevent excessive dust.
- j) **Caution! The grinding disc will heat up during grinding, don't risk getting burned, always wear protective gloves when handling them!**
- k) The machine contains rotating parts; because of this **never** pull the machine backwards with a turning motor.
- l) Be careful with the machine and pull or let down the machine slowly, big shocks can damage the electrical parts.

3.6 Dustcollector safety

- a) Always use a Blastrac dust collector to ensure a dust-free operation of the machine and clean air at the workspace. Also the airflow helps to cool the machine and prevents overheating.
- b) When working on or around **carcinogenic or pathogenic substances**, the dust collector must be fitted with a HEPA filter.
- c) Read the operating instructions of the dust collector before using it.
- d) The dust container/bag of the dust collector must be emptied regularly. Comply with the local waste treatment regulations considering the removed material.
- e) The dust hose must be connected properly with a hose clamp and industrial tape.
- f) The dust hose must be undamaged and free of obstructions.
- g) Always switch on the dust collector first!



3.7 Asbestos safety

- a) Always check and comply with the local authorities and regulations!**
- b) Employees that are responsible for the execution of the asbestos removal must be trained and certified accordingly.
 - c) Operators and other third parties that are involved in asbestos removal and in that context are present in the work area must have sufficient knowledge of the risks with respect to asbestos.
 - d) Such persons must (according to the labour regulations) proven to be instructed (information and education) about the health risks of working with (or at) asbestos (removal) and the measures for personal protection with regard to possible exposure to asbestos.
 - e) The operator must know the usual procedures when leaving the working area, including the visual inspection en cleaning of the machine being used.
 - f) The operator must use respiratory protection which is sufficient for work with asbestos, and must have knowledge of the correct HEPA filters that are to be used.
 - g) If there is a possibility that asbestos fibres are released, they shall be collected at the exit or point of origin and then be disposed of without risk to human and environment according to the local regulations.
 - h) If it is not possible to completely collect the contaminants, additional ventilation and filtration measures must be taken.
 - i) At the end of work the complete machine including the dust collector, tools, work equipment and the work area must be carefully cleaned according to local regulations.
 - j) Objects contaminated with asbestos fibres that cannot be cleaned must be moistened and eliminated properly. After cleaning the work area must be adequately ventilated.
 - k) Extracted air must be guided and cleaned so that asbestos fibres are not released into the breathing air of other employees.
 - l) The dust produced and collected must be transported in dustproof containers. Decanting is not permitted.
 - m) The extracted air which is released back into the outside air may not exceed a fibre content of 1000 F/m³.
 - n) The dust collector must be a type-approved industrial vacuum cleaner or dust collector with HEPA filter and meet this criterion.
 - o) It must be ensured that the working area is supplied with sufficient outdoor air (fresh air).
 - p) For activities involving materials containing asbestos, a recirculation of purified air in the work area are not allowed. The following activities with the industrial vacuum cleaner or dust collector recirculation of purified air are permitted: **1:** Activities involving low exposure according to TRGS 519, Number 2.8 confined spaces or small-scale work to TRGS 519, Section 2.10, and **2:** cleaning.
 - q) 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 machine must be considered as contaminated when they are removed from the hazardous zone and appropriate actions must be taken to prevent dust from dispersing.
 - r) The machine is to be serviced and cleaned, as often as is required, but at least once a year, and if necessary, repaired by a competent person (see qualification TRGS 519, Number 5.3, paragraph 2) and checked by a maintenance company. The test result must be provided on request.
 - s) The machine and dust collector used in the black area may only operate in the white area after complete cleaning, including the motor housing. For engines with bypass cooling the cooling air ducts have to be clean.
 - t) When maintenance or repair procedures are carried out, all the contaminated elements that cannot be properly cleaned, must be destroyed.
 - u) 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. This procedure must also be followed when the filter has to be disposed.

3.8 Maintenance safety

- a) Pull out the main plug and place it in sight, before starting inspections and repairing on the machine.
- 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) 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!
- h) Use lint-free **cleaning cloths!**



- i) 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.
- j) To allow the user to carry out maintenance operations, the machine must be disassembled, cleaned and inspected as far as reasonably possible, without causing hazards for the maintenance staff or other people.
- k) The suitable precautions include decontamination before disassembling the machine, 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.

3.9 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 BG-250RS is 230 kg. Use a crane or lift when transporting the machine, use the lifting eye of the machine.
- c) Before every use check the lifting eye and welds for: deformation, damages, cracks, corrosion and wear.
- d) Hold on to the steering handle until the machine is off the ground.
- e) 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.
- f) During hoisting make sure to be at a safe distance from the machine with the most optimal view on the machine and working environment.
- g) Never stand directly below the machine.
- h) 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.
- i) The lifting eye can also be used to fasten the machine on a pallet or during transport.
- j) Always drive backwards when driving up to a ramp or grade, and forwards when driving off the ramp.
- m) Chock wheels for transport and always put the machine on the machine support which is made especially for this reason.
- n) Do not let the machine rest on the diamond disc or coupling when it is not in use, this will cause deformation to the flexible coupling.
- k) Don't leave the machine unsecured on jobsites.
- l) Park the machine always on a flat horizontal and levelled surface.
- m) Make sure the electrical cable and dust hose are disconnected before transport.
- n) Store the cleaned and dry machine in a humid free room. Protect the electrical motor from moisture, heat dust and shocks.
- o) Never use the machine for lifting persons or items.
- p) Only lift the machine as shown in the picture below.





3.10 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.



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.

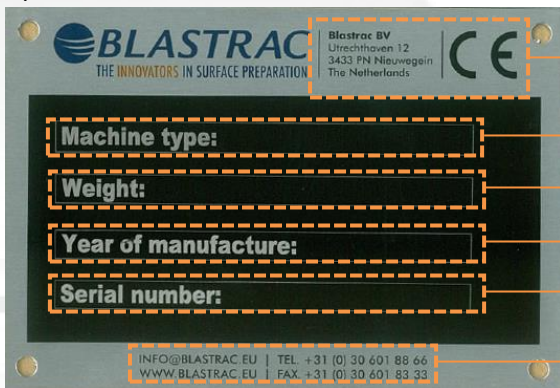


Safety shoes obliged.



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. Initial 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.

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

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.
- Make sure the power supply is in accordance with the machine specifications.
- The main switch of the machine should be put to 'Off' before connecting to the power supply.
- 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 connections must be reliable: use hose clamps and industrial tape.
- Dust hoses must be undamaged and free of obstructions.
- Make sure that the dust bin / bigbag of the dust collector is empty and connected properly.
- The flexible coupling is not deformed or damaged.
- The diamond disc is not damaged.

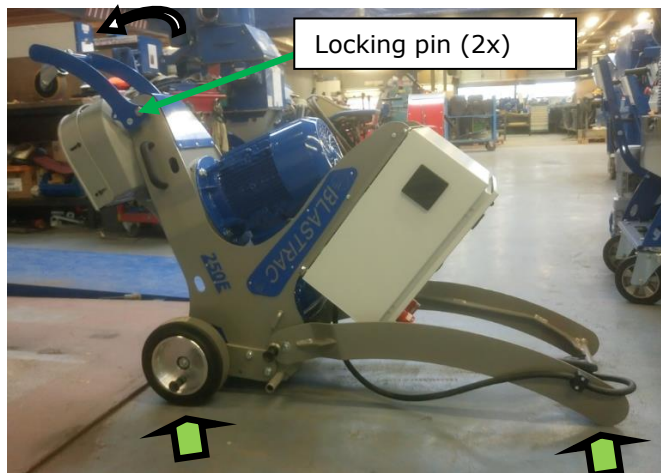
4.3 Checkpoints of work area

- Before grinding, clean the surface to be treated. There should not be any trash, stones, cloths, or oil on the surface.
- Remove all objects from the surface that can damage the machine. Remove reinforcing steel or other objects protruding from the surface in order to prevent damage to the machine, the seals or diamond disc.
- When working with the Asbestos version, check and comply with the local regulations!
- Make sure nobody is in the surrounding area of at least 5 meter from the machine.



4.4 Manual moving of the machine

The machine can be moved around manually on 3 wheels.



Lay the machine backwards on the handle and flip the bracket with the castor front wheel down. Make sure the 2 locking pins are locked into place (1 on the left and 1 on the right side of the bracket).



The traction wheels must be disconnected from the drive motors: pull out the locking pin of each rear wheel. The machine can now be pushed around on its wheels.

WARNING! Always make sure all rotating parts have come to a complete standstill before moving the machine around.

Be careful! Make sure nobodies feet can get under the wheels. Wear appropriate safety shoes when you drive the machine to or from the work area.



4.5 Changing the diamond disc

Read chapter 3 "Safety" before changing the disk.

Warning! Always wear Personal Protective Equipment!
The dust can be hazardous to the health! Wear a dustmask!
The disk can get hot! Don't risk burning your hands! 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 vacuum cleaner in order to work as dust free as possible



Make sure all moving parts of the machine have come to a complete standstill before changing the wings.

Removing the diamond disc

- Read chapter 3 Safety.
- Make sure the machine cannot start up. Push the emergency stop button and unplug the power supply plug.
- Lay down the machine so it is lying on the handle. Make sure the machine will not fall back down. A second person can hold the handle down, to make sure it will not fall back down.
- Loosen the 4 bolts with an appropriate key.
- Remove the diamond or multiflail disc.

Mounting the diamond disc

- Read chapter 3 Safety.
- Make sure the machine cannot start up. Push the emergency stop button and unplug the power supply plug.
- Lay down the machine so it is lying on the handle. Make sure the machine will not fall back down. A second person can hold the handle down, to make sure it will not fall back down.
- Fix the diamond or multiflail disc underneath the adapter plate and turn the 4 bolts with an appropriate key tight.



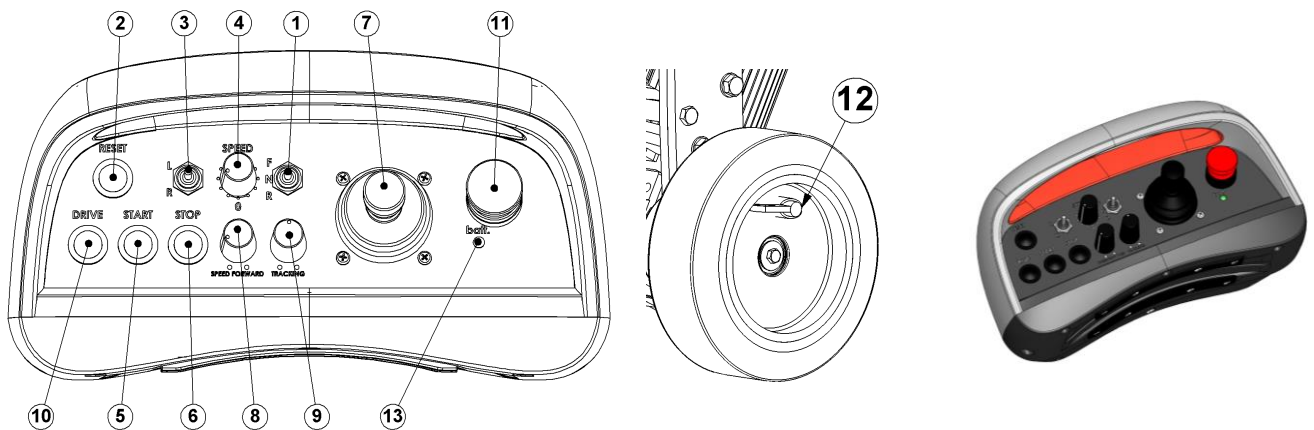
5. Operating

During operating the machine, the following additional safety instructions must be followed closely. Before switching on the machine make sure that no-one can be endangered when the machine starts up. Make sure that no vehicles, such as forklift trucks and other equipment run over the electric cable and the dust hose.

5.1 Working with the BG-250RS Remote System

- Turn on the dust collector before switching on the machine.
- Connect the dust hose between the dust collector and the machine.

1	FORWARD/REVERSE drive switch	8	SPEED FORWARD knob drive motors
2	RESET button	9	TRACKING knob drive motors
3	ON / OFF switch AUTO SWING program	10	AUTO DRIVE button drive motors
4	SPEED adjustment knob SWING program	11	EMERGENCY STOP button
5	START button grinding motor	12	Quick release pin
6	STOP button grinding motor	13	Battery warning light
7	Joystick drive motors	14	



- Secure the belt with the remote control around the middle of the body.
 - Make sure the wheel system is locked by turning both quick release pins into the wheels (12)
 - Make sure the EMERGENCY button (11) on the control unit is turned up.
 - Make sure nobody, including yourself, is in the surrounding area of at least 5 meter from the machine.
 - Push the RESET button (2) for 10 seconds.
 - To start grinding, push the START button (5) Check the turning direction of the motor. (This action must be performed first, otherwise the remote control will not respond.)
 - Push the joystick (7) in the desirable direction to the drive the machine. The further the joystick (7) is pushed into the desirable position, the faster the machine moves.
- The SPEED FORWARD button (8) & the TRACKING button (9) don't work in combination with the joystick (7).
 - To drive the machine automatically, push the DRIVE button (10). Check the FORWARD/REVERSE button (1) to check in which direction you drive. Make sure the ON/OFF switch (3) from the AUTO SWING program is off. (lower position)
 - Changing the speed and the tracking of the machine could be done with the buttons SPEED (8) and TRACKING (9)
 - If you want to work with the automatic SWING program, push the ON/OFF switch to ON (upper position) the machine now starts to swing from left to right and vice versa.
 - To have a wider swing, turn the SPEED button (4) up. This will have as result that the machine will have a longer time of swing.
 - The automatic drive (10) and the joystick won't work together. So push the DRIVE button (10) again before working with the joystick.

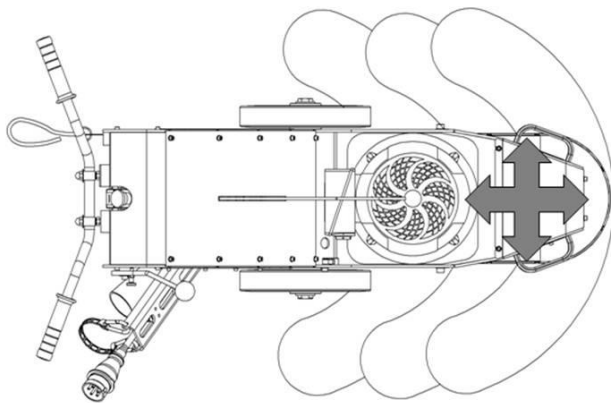


- You can turn the machine around the axle by using the joystick, this can be done by pushing the joystick totally to the right or totally to the left.
- The machine can also turn around one wheel, this can be done by pushing the joystick to the left or right upper corner.

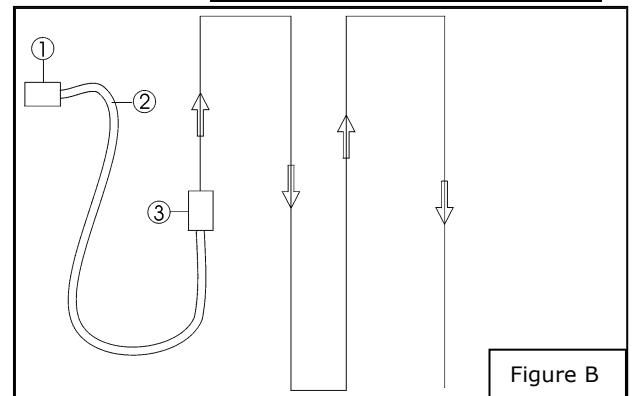
5.2 Operating during grinding

To get an optimum result during grinding, the machine may not stand still. The machine must always be in movement so it does not grind too deep into the floor. Move the machine from left to right and from forward to backwards to get a nice flat result.

Preferably use the specially designed AUTO SWING program.



1	Dust collector
2	Dust hose and electric cable
3	Grinding machine



Carry out grinding in parallel tracks in such way that the dust hose and electric cable do not become twisted. Figure B shows the recommended grind paths leading away from the dust collector.

The advancing speed depends on the material of the surface to be treated and the desired profiling.

Regularly check the contents of the dust collector. Always wear a dust mask of at least class FFP3 when emptying the dust bin or changing the dustbag /bigbag. Observe and obey the local waste disposal regulations!

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

Contact our experts at Blastrac for the correct application of the different tools and their corresponding working speeds.

In case of emergency or operating trouble, like vibrations or strong noises, switch the machine off immediately!

5.3 Switching off the BG-250RS

- To stop grinding, push the STOP button (6)
- After pushing the EMERGENCY button (11), reset the control unit by pushing the RESET button (2) for 10 seconds and switch the LEFT/RIGHT switch (3) up and down.
- **Always stop driving first before stop grinding!**
- Shut down the dust collector.

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 machine. **Regular** maintenance therefore is imperative.

Operational safety and service life of the machine depends, among other things, on proper maintenance.

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

Operating hours/ time period	Inspection points, maintenance instructions
12 h after repairing	Check all accessible screw connections for tight seat.
Every 3 hour	Check the contents of the dust collector.
Daily and prior to starting work	<p>Check that all safety devices working adequate.</p> <p>Check the electric connections for sediments of dirt or foreign bodies.</p> <p>Check the electric motors for dirt and other contaminants.</p> <p>Check the function of the residual current operated device.</p> <p>Check the hose connections for tightness and fixed seat.</p> <p>Check all hoses on the machine for damages or leakage.</p> <p>Make sure that the dust bin is emptied</p> <p>Check the diamond disk and flexible coupling for damages and wear.</p> <p>Check whether or not, there are any foreign matter in the coupling of the grinding disc.</p> <p>Check the batteries and fixing points inside the remote controller for dirt. Do not use aggressive cleaning agents.</p> <p>Make sure the inside of the electrobox is dust-free.</p>
Every 3 months	Clean the machine with a dust collector and a damp lint-free cloth.
Annually	Full overhaul and cleaning of the complete machine.

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.

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.

Generally the grinding machine requires very little special attention regarding its maintenance. After using the machine, clean the machine with the dust collector, so there is no dust on or in the machine. See to it that any wastes or fibre residues do not remain in the area of the grinding disc. Our specialists will be happy to assist you with more advice.

Prior to any repair works on the machine and its drives, secure the machine against unintentional switching on. Put the machine to its safety off position. The machine is in a safe condition when it cannot generate any hazard.



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

CONSULT THE OPERATING INSTRUCTIONS OF REMOTE CONTROL UNIT FOR ADDITIONAL MAINTENANCE INSTRUCTIONS!

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 machine. Danger of fire or explosion exists!
Provide adequate ventilation when working in a confined space.
Secure the maintenance area if necessary.

Work only with original Blastrac parts.

Check regularly to see if the diamond disc is in good condition. Replace the diamond disc immediately when it is damaged or worn out.

Check if the flexible coupling is stiff enough after every day working. Replace if any deformation or damage is found.

Unusual vibrations on the machine can be caused by worn out diamond discs and/or flexible coupling.

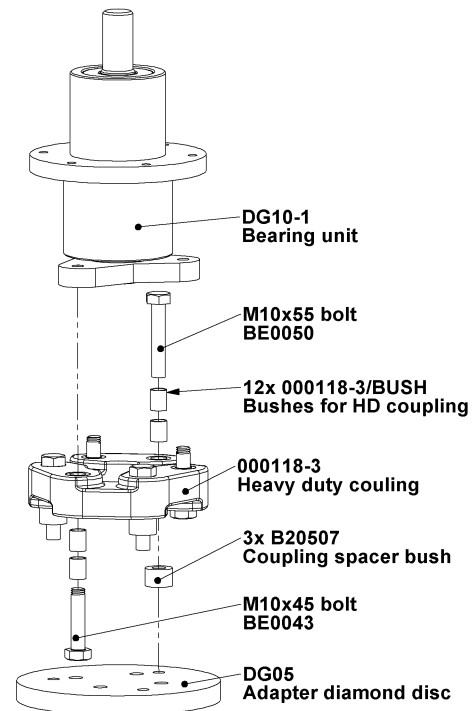
6.1 Replacing the flexible coupling:

- Push the emergency stop button
- Pull out the main plug
- Remove the diamond disc
- Remove the dustcap
- Loosen the bolts of the adapter plate and the flexible coupling
- Take a new flexible coupling (part number: 000118-3) and 12x new bushes (part number: 000118-3/BUSH) assemble this together with the adapter plate on the fixed coupling on the motor axle.
- Mount the dustcap back.

Prevent premature wear by keeping the machine as dust free as possible. Clean the machine for this reason regularly with a dust collector.

Clean the machine every day with air and non-aggressive materials. Never use a high pressure water cleaner to clean the machine.

Remove the diamond disc after using the machine.



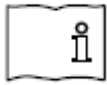
6.2 Other maintenance

Dust in the electrical box can damage the electronics; due to this the electrical box has to be cleaned every day from inside and outside. Clean the fans and filters from the electrobox with a vacuum cleaner. If you use compressed air, make sure to blow from inside the electrobox to outside. Wear a dustmask during these activities.

Check the seals for wear, and replace them at the time when they no longer provide a good seal against dust emissions from the machine, by this action damage to the surrounding workspace is avoided, and consequently saves additional charges from the job client.



6.3 Remote control maintenance



Always refer to the Safety, Service & Maintenance instructions from the Manufacturer for all information.

Periodical Maintenance

To maintain availability and operational safety, a regular maintenance is necessary on the system.

Daily maintenance

Before each use of the transmitter, check the following items for faults or damages:

- Visual inspection of rubber sealing around levers
- Broken/faulty switches or controls
- Visual inspection of transmitter housing (cracks, dents)
- Visual inspection of carrying device
- Test of battery lock is working normally
- Test of manual stop button (it shall be intact and easy to move)

Check function of:

- Check function of transmitter LED signals, short flash at power up.
- Check function of transmitter "Tilt function", by tilting the transmitter 90 degrees out of normal carry position.

If there is any damage or fault contact an authorised service technician.

After every workday, use air to blow the dust off the transmitter.

Weekly maintenance

- Clean the battery contacts and the contacts on the transmitter and charger. Do not use any **aggressive** cleaning materials!
- Clean the transmitters control panel and check that the print is still readable. Do not use any **aggressive** cleaning materials!

Yearly maintenance

To maintain availability and operational safety, a yearly maintenance is necessary on the system. Only personnel trained and qualified by Akerströms may perform the scheduled maintenance.

The maintenance is divided into a yearly check and an every 4th year check.

- | | |
|--|------------------------------|
| -Visual inspection of assembly | Yearly |
| -Replacement of seal boots for switches | Yearly |
| -Replacement of detent springs in joystick | Every 4th year |
| -Replacement of bellow for joystick | Yearly |
| -Replacement of stop switch | Yearly or after 7600 cycles, |

Do not attempt to continue working with a defect remote control. Even initially minor defects might be the start of a more extensive and expensive defect.

7. Troubleshooting

Fault	Possible cause	Remedy
Excessive vibration And / or unusual noises	Imbalance due to worn or broken grinding tools. Worn out flexible coupling Debris or dirt deposit between the grinding disc and the coupling. Defective bearing.	Replace all worn or broken parts. Replace the flexible coupling Clean the coupling and grinding disc. Check the bearing on the axle drive shaft and replace if necessary.
Reduced or no grinding performance	Grinding tools have reached the maximum permissible wear. Inappropriate grinding tool for the application.	Replace the worn parts. Replace the grinding tools with appropriate grinding tools for the surface to be treated.
Motor does not switch on	Missing phase / Wrong power supply Defective Component. The belt with the remote control is not secured around the middle of the body.	Check the mains power supply and next switch on again. Find fault and replace defective component. Make sure the remote control is in a horizontal position, tilting the remote control too much will activate the safety feature. (Which shuts down the machine if the operator falls down.)
Motor triggers while running	Motor protection switch triggered because of overload. Motor has a defect.	Reduce additional load . Check the motor.

8. Technical data

	BG-250RS 3x400V / 50 Hz
Power consumption	7,5 kW
Electrical connection	3~ 400V / 50Hz 32A
Diameter diamond disc	Ø 250 mm
Working width	250 mm
Rotation speed	1920 min ⁻¹
Length	1005 mm
Width	618 mm
Height	1235 mm
Weight	230 Kg
Disc pressure	76 kg
Noise level (under load)	83dB(A)
Dust hose connection	75 mm Ø
Suitable filter unit	Contact Blastrac BV We will assist you with a good advice

Design and specifications are subject to change without notice by Blastrac BV

Vibration level:

Declaration in conformance with EN 12096: 1997

Hand- arm vibration a_{hv} 1,8 m/s² (Which allows for continuous work all day.)
 Uncertainty K 0,6 m/s²
 Grinding surface: Terrazzo
 Tooling: Green Star disc

Measurement in conformance with EN-ISO 20643: 2008 + Amd 1: 2012
 Expanded uncertainty K (EN 12096 annex B)

**IMPORTANT NOTE:**

The indicated values are measured on new machines. Sound and vibration levels will vary in different circumstances. Area influences like open outside or closed inside space, ambient temperature, the surface to be treated, etc. will give different values at all time.

The declared vibration and sound emission levels represent the main applications of the machine. However if the machine is used with different accessories or poor maintenance, the vibration and sound emissions may differ. The values may be used for a preliminary assessment of exposure.

For a precise estimate of the vibration and sound load, the times should also be considered during which the machine is switched off or even running, but not actually in use. This may significantly decrease the exposure level over the total working period. Ear protection is recommended with the use of this equipment.

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.

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