



Original instructions in English

# OPERATING INSTRUCTIONS

## 1-7D MKII

### VERSION 1.0







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## 1. Introduction

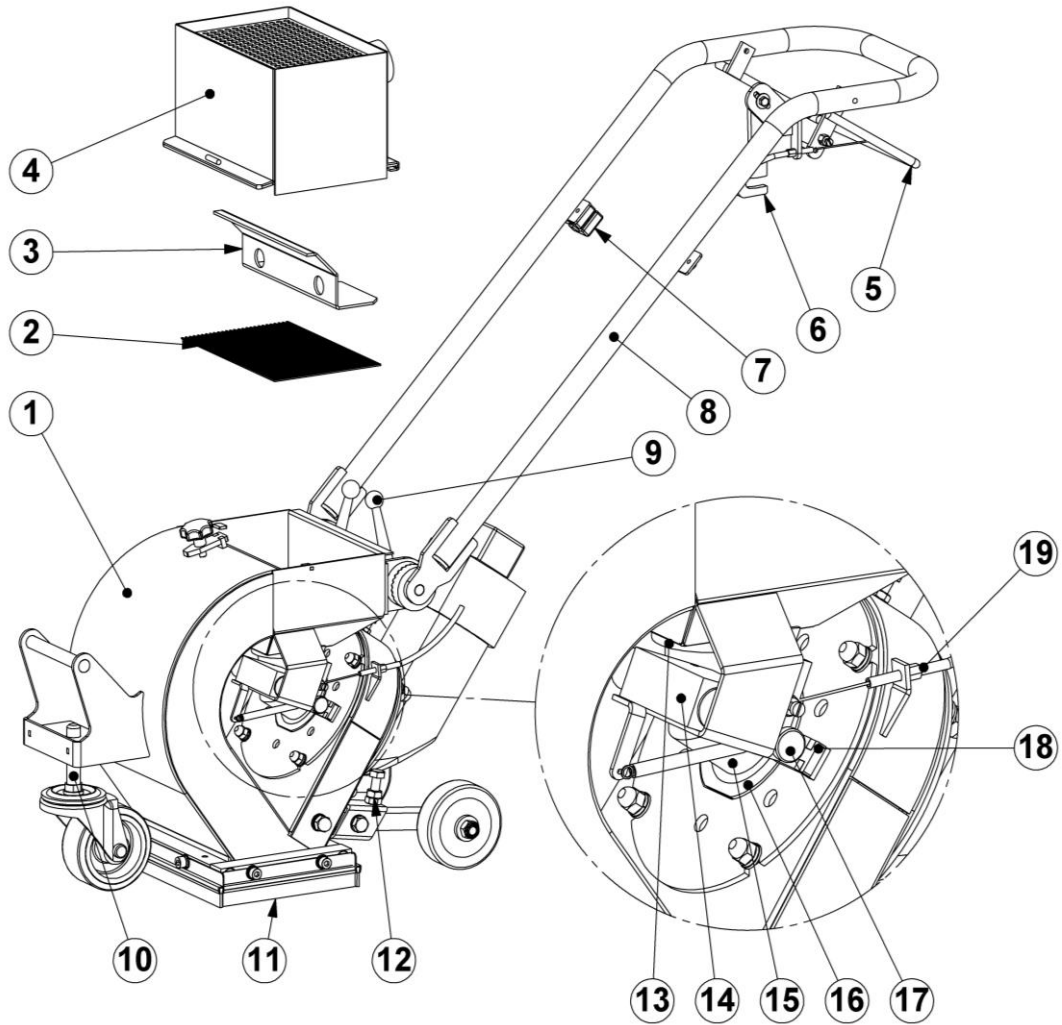
Before use, operators must be provided with information, instruction and training for the use of the machine and the substances for which it is to be used, including the safe method of removal and disposal of the material collected. All persons who are working with or maintaining this machine must read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

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

## 2. Machine description

The **Blastrac** blast cleaning machine 1-7D MKII is a downward blasting machine with a closed abrasive circuit exclusively designed for the pre-treatment of dry, frost-free horizontal surfaces. The bouncing impact of metallic abrasive onto the surface to be treated thoroughly removes surface contaminants, coats of paint, sealants and thin coatings. The intended use of this machine is blast cleaning of the following surfaces: Steel, concrete, stone and asphalt. The machine may not be used for other purposes. The manufacturer will not be liable for damage resulting from incorrect usage, in these cases the user assumes all risks.

A suitable filter unit must be connected to the machine in order to separate the dust from the abrasive. A specially designed Blastrac dust collection system ensures dust-free operation of the machine and clean air at the workspace.



1-7D MKII

<i>Number</i>	<i>Description</i>
1	Blast housing
2	Wire mesh
3	Deflector plate
4	Separator
5	Control lever
6	Safety lever
7	Pull relief
8	Steering handle
9	Height adjustment, clamp handle
10	Swivel castor; Height adjustment of magnets (front)
11	Brush seals
12	Height adjustment magnets (rear)
13	Abrasive shot valve
14	Limit switch
15	Feed spout
16	Control cage
17	Safety plunger
18	Cage clamp
19	Control cable



## 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 blasting.**
- 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) Make sure the machine can travel over all inequalities on the surface, small inequalities like weld seams or (floor) joints are no barriers for the machine.
- m) Never operate the machine when workplace is wet. Never stay in the rain with the machine.**
- n) Check if there are any obstacles that can snag the cables when the machine is moving.
- o) 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.
- p) 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.**In these cases, additional safety measures should be used. Always mind the local safety requirements.** Contact your dealer for additional options.
- q) 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.
- r) 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) If the power supply cable is damaged, it must be replaced immediately. Only use original Blastrac parts.
- e) The voltage on the identification plate must comply with the power supply.
- f) Use an electrical power supply connection with earth connection and earth leakage circuit breaker.
- g) 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.
- h) 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.





- i) Inspect and test the electrical components regularly. The electrical components have to satisfy with the requirements set out in the harmonised norm EN60204-1.
- j) Always call a skilled electrician or your distributor when you have questions about the safety of the electrical components.
- k) 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.
- l) Always use tools that are insulated against voltages.
- m) 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.
- n) Don't pull out the power supply cable out by the wire, but by the connector.
- o) Be careful with water on the treated surface. Electrical cables must not come into contact with water.
- p) The main power switch on the machine must be in the "Off" position before connecting to the power supply.
- q) During a long standstill of the machine, pull out the main plug.
- r) 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) 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

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



### 3.5 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 the machine 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.

### 3.6 Dust collector 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) Read the operating instructions of the dust collector before using it.
- c) **The dust container/bag of the dust collector must be emptied regularly.** Comply with the local waste treatment regulations considering the removed material.
- d) The dust hose must be connected properly with a hose clamp and industrial tape.
- e) The dust hose must be undamaged and free of obstructions.
- f) Always switch on the dust collector first!

### 3.7 Shot blasting safety

- a) **Never lift the blast head during blasting!** This could cause serious injury to yourself and others around you!
- b) **Abrasive can escape from the sides of the blast head at high speed!** Wear safety glasses with lateral protection and close-fitting protective clothing.
- c) Check the following parts daily for damage and wear to avoid unnecessary long and costly standstill on the workplace; blastwheel, feedspout, liners, magnet- and brush sealing;  
Replace the parts when you can see obvious signs of wear and tear.  
Wear grooves are acceptable until 75% of blade thickness has been worn away.
- d) Check the parts of the separator on wear and defects. Remove foreign bodies and dust deposits to prevent clogging of the separator.
- e) The cover of the separator and separator tray must be closed to keep the vacuum in the machine.
- f) The machine will heat up during blasting, don't risk getting burned, always wear gloves and only touch the handle.
- g) Check the level of abrasive in the storage hopper before work starts. Refill if necessary.
- h) Remove the abrasive from the abrasive storage hopper before storage.
- i) **In some cases sparks could be created by shot / steel blasting.**





### 3.8 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 the 1-7D MKII is 54,0 kg.
- c) 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.
- d) During hoisting make sure to be at a safe distance from the machine with the most optimal view on the machine and working environment.
- e) Never stand directly below the machine.
- f) 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.
- g) Always drive backwards when driving up to a ramp or grade, and forwards when driving of the ramp.
- h) Keep control handle in neutral position.
- i) Don't leave the machine unsecured on jobsites.
- j) Park the machine always on a flat horizontal and levelled surface.
- k) Remove the abrasive from the machine before transport.
- l) Make sure the electrical cable and dust hose are disconnected before transport.
- m) Store the cleaned and dry machine in a humid free room. Protect the electrical motor from moisture, heat dust and shocks.
- n) Never use the machine for lifting persons or items.



Handle for easy lifting the machine



### 3.9 Signs of the machine

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



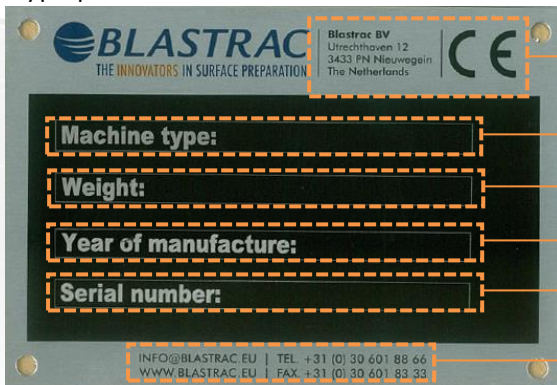
! Danger Hazardous voltage in motor even when solid state controller is OFF. Disconnect main power before servicing motor, controller or associated wiring.



DANGER Rotating parts inside. Keep hands clear. Lock-out / shut down before servicing.

	Wear a dust mask class FFP3 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 of great importance to inspect the machine. It is not permitted to use the machine if the machine safety is not according to 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 unwound from their 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 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 correctly.
- 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.
- Check the following parts for damage and wear: blastwheel, feedspout, liners, magnet- and brush sealing. Replace the parts when you can see obvious signs of wear and tear. Wear grooves are acceptable until 75% of blade thickness has been worn away.
- Check the parts of the separator on wear and defects. Remove foreign bodies and dust deposits.

### 4.3 The abrasive valve

Between the abrasive storage hopper and the feed spout there is a valve incorporating a permanent magnet in order to control the abrasive flow towards the blastwheel. The valve is hand-operated by the abrasive **control lever**. The control lever is located on the handle.

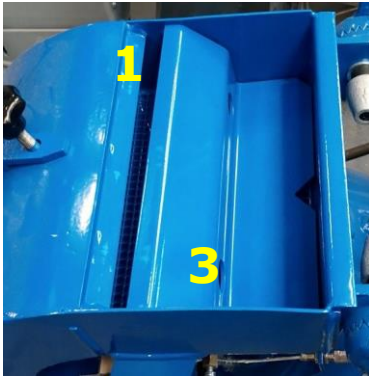




#### 4.4 Separator

The abrasive separator is mounted to the end of the rebound plenum. It separates the abrasive from contaminants and feeds the cleaned abrasive back to the abrasive circuit. A wire mesh is fitted to prevent any large contaminants from getting into the blast wheel. In order to clean the wire mesh drawer, the separator cover can be removed.

During operation you should check the separator tray every 3 hours for foreign matter and large contaminants.



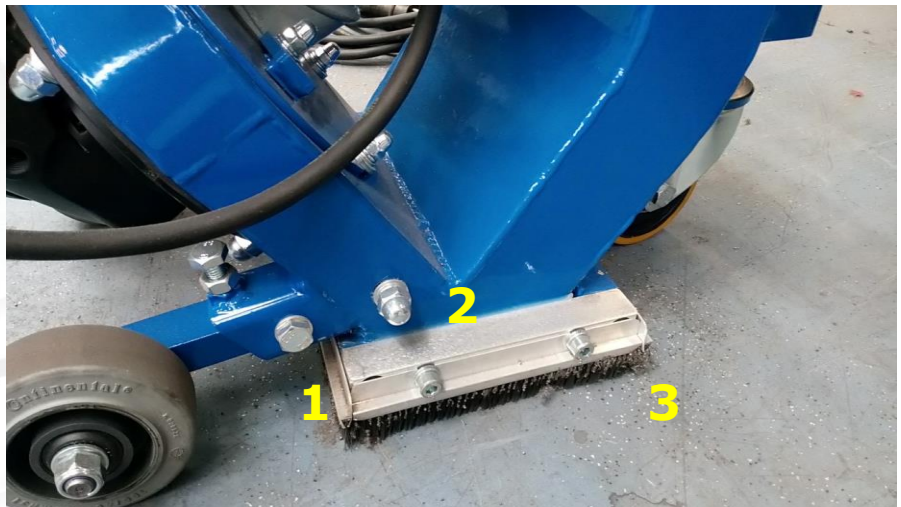
1	Separator
2	Separator drawer (wire mesh)
3	Deflector

#### 4.5 Abrasive sealing

Magnetic seals are fitted to the front and the sides of the blast housing outlet and are surrounded by brush seals.

The correct height adjustment of the magnetic seals (8–10 mm) is very important for optimum function ability of the machine. The adjustment is done using the setting screws..

The height of the brush seals should be maximum 1 mm above the surface. Adjustment is effected through slotted holes.



1	Rear seal
2	Side magnet
3	Brush seal





## 5. Operating

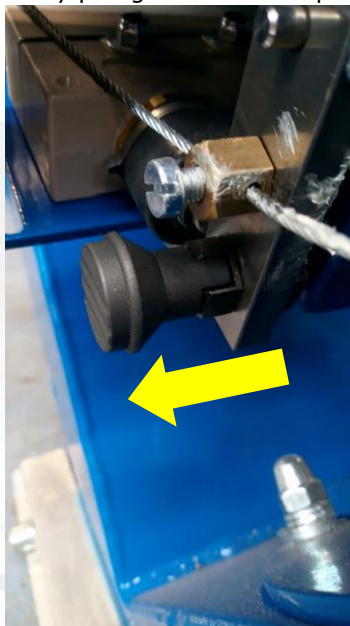
During operating the 1-7D MKII, the following additional safety instructions must be followed closely. Before switching on the machine make sure that no-one can be endangered when the machine starts up. Make sure that no vehicles, such as forklift trucks and other equipment run over the electric cable and the dust hose.

### 5.1 Before switch on the machine

- Check if the distance from magnet to the floor is 8 – 10 mm. Check this height with aluminium strips.
- Check the distance from brush sealing to the floor. This may be max. 1 mm.
- Fill the separator equally with the selected abrasive up to the bottom of the separator tray. The magnetic valve must be closed whilst doing this.
- Connect the blast machine and filter unit with the dust hose. This connection must be reliable.
- Connect the power supply cable of the filter unit with the generator. Be sure that electrical power supply is correct.

### 5.2 Switching on the machine

- Before switching on the blast machine, switch the dust collector on. The dust collector is needed to vacuum off all the created dust and helps to cool the blast machine.
- Make sure the safety plunger is out. See photo. Pull out and turn 90°.



Safety plunger



control lever

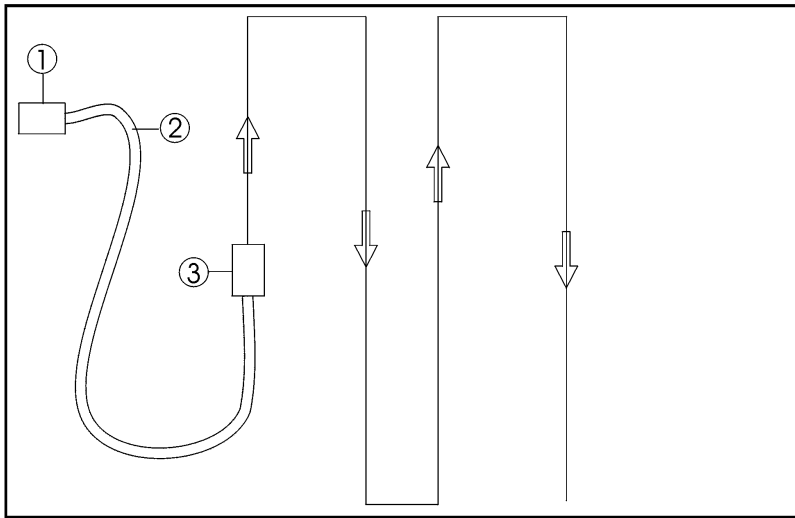
- By doing so, you can start Blasting by pulling the control lever, see photo.
- After having blasted approx. 2 m, stop the machine and check the blasted surface.





### 5.3 Operation

Carry out blasting in parallel tracks in such way that the dust hose and electric cable do not become twisted. The next figure shows the recommended blast paths leading away from the dust collector.



1	Dust collector
2	Dust hose and electric cable
3	Blast cleaning machine

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

Check the separator tray every 3 hours for foreign matter and large contaminants.

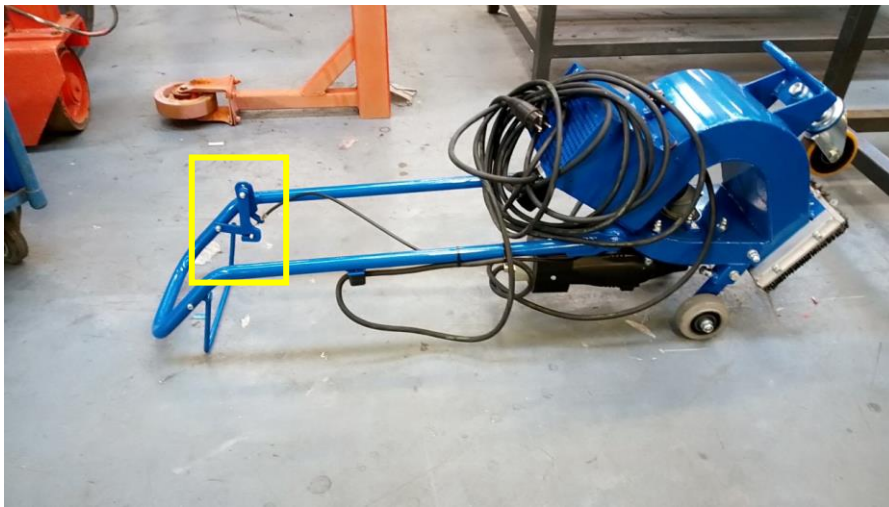
### 5.4 Switching off the machine

- Let the control lever loose, The Blast machine will stop and the abrasive valve will close.
- Pull out the connector of the main power supply of the machine.
- Switch off the filter unit.
- Wait for standstill of the machine before any inspection or maintenance works are started.
- Lock the abrasive valve with the safety plunger.



## 5.5 Tilting the machine

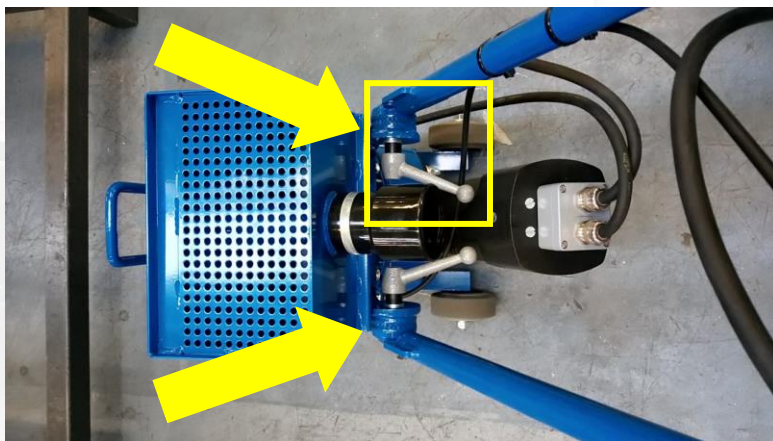
When you need to tilt the machine backwards, make sure that the safety handle blocks the control lever. And also make sure the safety plunger is in and prevents opening the valve. See picture A.



Picture A. Safety plunger is in.

## 5.6 Adjusting Handle

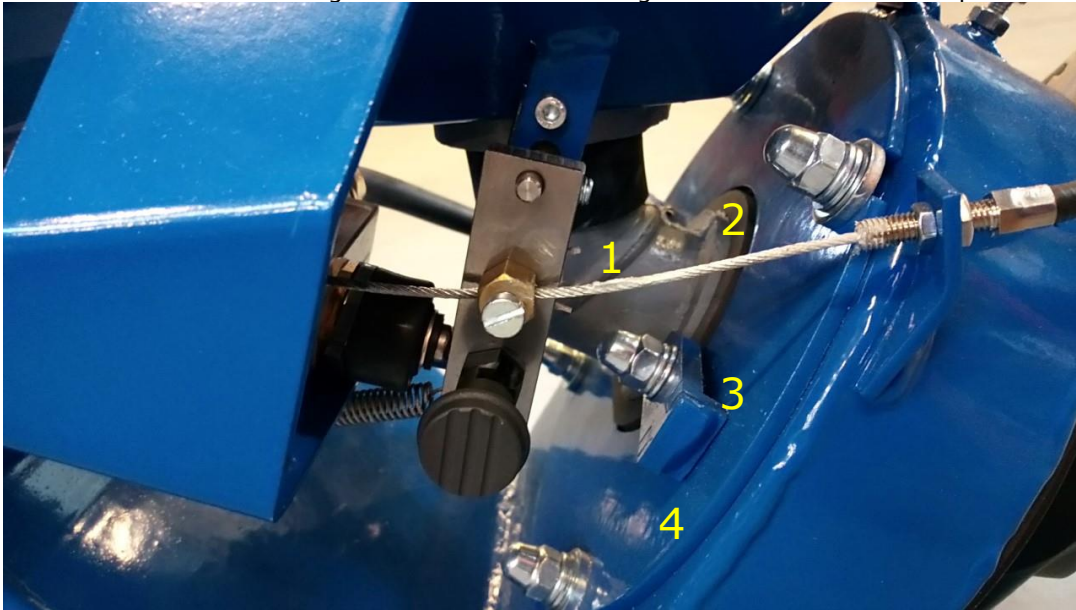
You can adjust the height with the two clamp handles.





## 5.7 The blast pattern

Abrasive leaving the blast wheel blades is not thrown in all directions. Scatter is restricted to an angle of about 50°. This is achieved through the use of a control cage which surrounds the impeller.



1	Feed spout
2	Control cage
3	Cage clamp
4	Cage retaining plate

The position of the control cage has been set by **Blastrac** and is fixed by pins and recesses. Do not remove any fixings. Incorrect adjustment of the control cage results in very high wear and premature blasting-through of the liners in the blast wheel housing, as well as reduced blasting performance and a possible loss of the rebound energy of the abrasive.

Every time the control cage is replaced, the thread of the blast wheel fastening nut should be checked. Make sure that this nut will be tightened correctly. In addition, absolute care must be taken to clean the thread from dust and abrasive.

The best speed depends on the material of the surface to be cleaned and the desired profiling.

The right speed can be found out by observing the blasted surface and varying the speed during the blast cleaning process

Slight profiling on concrete requires a higher speed than coarse profiling.

Blasting on steel requires a very low advancing speed.

### The following 3 factors affect the blast pattern:

- With increased wear of the tune-up kit (impeller, control cage) the blast pattern will change.
- The size of the abrasive affects the blast pattern.
- Different types and hardness of surfaces.



## 5.8 Adjusting the magnets

Adjust the height with the setting screws until the correct distance of 8-10 mm has been reached.



Adjusting screws front and rear

The height of the brush seals should be maximum 1 mm above the surface. Adjustment is effected through slotted holes







## 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 separator tray, the hopper, the feed spout and blast wheel unit for foreign matter and large contaminants.
Daily and prior to starting work	Check that all safety devices working adequate. Check the feed spout, magnet- and brush sealing. Check the blast wheel, control cage and liners. Check the electric motor for dirt and other contaminants. Check all safety devices working adequate. Check the function of the residual current operated device. Check the hose connections for tightness and fixed seat.
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

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

**Prior to any repair works on the machine, 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 of original equipment manufacturer if included during your service and maintenance work.**

### **Further is advised:**

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

Store the cleaned and dry machine in a dry and humid free room. Protect the electrical motors from moisture, heat, dust and shocks. Remove the abrasive out of the abrasive storage hopper.

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.

Secure the maintenance area if necessary.

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

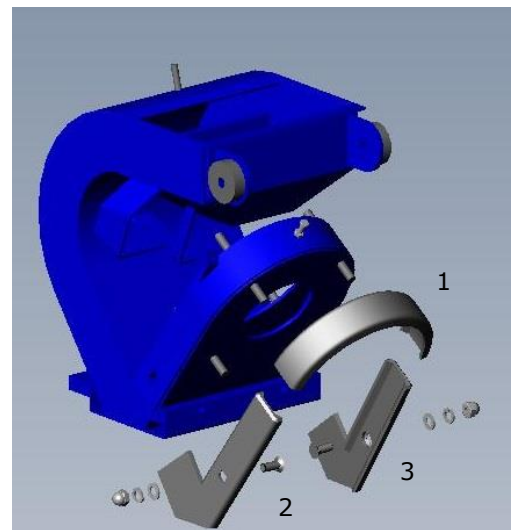
Clean the machine every day with air and non-aggressive materials. Never use a high pressure water cleaner to clean the machine.

### 6.1 Changing the liners

- Loosen the press bolt of the top liner and remove the cover.
- Take the top liner(1) out.
- Loosen the nuts of the side liners(2 & 3). Take them out at the bottom of the housing.

To mount the liners, keep on the following sequence:

- Place the side liners(2 & 3) inside the housing. The sideliners may stick out the body for max. 1mm. Tighten the nuts.
- Place the top liner in the housing and make sure that the top liner(1) sits close to the edges of the side liners(2 & 3).
- Place the cover and tighten the bolts.
- Tighten the pressure bolt of the top liner slightly and press the top liner against the side liners(2 & 3).



### 6.2 Changing the tune-up kit

The tune-up kit consists of the blastwheel, the cage and a bolt.

- Remove the feed spout
- Remove the cage clamps
- Remove the cage and blastwheel cover plate
- Block the blastwheel and remove the central fixing bolt
- Take the blastwheel out of the housing

Use a new central fixing bolt when mounting a new blastwheel

- Place the blastwheel on the hub and tighten the central fixing bolt.
- Fix the blastwheel cover plate with 3 nuts and clamping handle.
- Insert the control cage in the center and clamp the cage with the control clamps so that the blastwheel can rotate freely
- Turn the blastwheel manually. It must rotate freely.
- Place the feed spout between the abrasive valve and the cage.

### 6.3 Measures before a long standstill

Switch off the machine

- Protect the electric motor from moisture, heat dust and shocks
- Clean the machine and cover it with plastic foil.
- Preserve bright parts of the machine and power pack with Tectyl 506, for example, or a similar preservative.



## 7. Selection of abrasive

The Blastrac blast cleaning machines are designed and built to operate with **Blastrac abrasive**.

Blastrac abrasive has a very high quality and has the rebounding ability required for the efficient use of the machine. The selection of abrasive is very important since this is the material to carry out the surface treatment.

### Media nr. 2

Is often used when the surface is only subsequently sealed.

- creates fine profiles, e.g. on vacuum concrete and non-glazed tiles
- removes thin layers of rust on steel surfaces
- removes thin layers of paint

### Media nr. 3 Abrasive S330

- creates a fine to medium texture on concrete.
- removes glazing from tiles prior to subsequently coating with antiskid floor sealings
- removes old impregnations and coatings about 1 mm thick

### Media nr. 4 Abrasive S390

Standard abrasive, suitable for about 50-60 % of all applications. Creates a medium profile on concrete. Fulfils the same purpose as Media No. 3 when a higher speed of the machine is required, e.g. on asphalt, in order to keep the thermal load low.

- removes laitance from new concrete
- roughening of smooth concrete or natural stone
- removes coatings with a thickness of 1-3 mm
- cleaning of steel surfaces

### Media nr. 5 Abrasive S460

This media is used to create a coarse profile or to increase the work speed in the case of surfaces hard to treat.

- removes sediments on concrete prior to coating
- removes thick paint coatings or rust from steel surfaces, bridges, tanks, etc.
- removes flexible coatings on parking house decks
- removes road markings and retexturing of asphalt and concrete roads

### Media nr. 8 Abrasive SG25

Only as an addition to Media No. 3, No. 4 and No. 5 with maximum 30% content.

Media No. 8 should never be used without blending since otherwise the wear in the machine as a whole would increase disproportionately.

- removes polyurethane coatings
- removes adhesive remnants
- removes rubber deposits
- penetrates coatings hard to remove
- also suitable to be used on steel for extraordinary roughness

Our service engineers have the experience to select the appropriate abrasive for the individual cases of application.

Please consult your local **Blastrac** customer service department if you have any questions about the selection of the best abrasive for your blast cleaning work.



## 8.Troubleshooting

Fault	Possible cause	Remedy
Excessive vibration	Blast wheel is worn irregularly. Imbalance due to worn or broken wheel blades.	Replacing the tune-up kit. Replace the tune-up kit and remove all broken parts from the machine.
Unusual noise	Too little play or poor alignment of the rotating parts.  Loose and incorrect set screws.  Squeaking wheels.  Seizing motor.	Check alignment of the rotating parts (blast wheel and control cage).  Check whether all screws and parts are fixed tightly).  Replace the wheels.  Replace the motor.
Reduced or no blasting performance	Inadequate abrasive supply to the blast wheel.  Contaminated abrasive.  Feeding of abrasive - magnetic valve and abrasive storage hopper.  Blast wheel or control cage.  Adjustment of the magnetic valve.  "Shocked blast wheel". At the start of the blast process too much abrasive at once hits the wheel.	Clean wire mesh, top up abrasive if necessary.  Abrasive is heavily contaminated, check the dust collection system.  Check and clean blocked feed spout or magnetic valve.  Worn blast wheel or control cage, replace tune-up kit if necessary.  Check the adjustment of the magnetic valve.  Close the magnetic valve and stop the blast wheel motor. Start the blast process again and slowly open the valve.
Escaping abrasive	Poor sealing.	Check all seals and replace if necessary.
Abrasive loss on the surface or escaping abrasive at the blast head	Incorrect height adjustment of the magnetic seals.  Worn magnetic seals.  Poor abrasive quality.  Worn tune-up kit.	Adjust the magnetic seals.  Replace the magnetic seals.  Contact <b>Blastrac</b> .  Replace the tune-up kit.
Contaminated abrasive	The dust collector is not generating enough suction power so that dust remains in the abrasive.  Clogged dust hose  Ripped or damaged dust hose	Check the dust collector (filter-cartridges, dust hopper and seals)  Check and clean the dust hose  Replace dust hose



Excessive wear in blast housing and rebound plenum	Wrong abrasive.  Incorrect setting of the control cage	Contact <b>Blastrac</b> .  The thrown abrasive blasts the housing and not the surface to be blasted. Adjust the blast pattern.
Machine is not moving	Blast head gets caught on the floor.	Shut the machine down and adjust the height.



## 9. Technical data

	<b>1-7D MKII</b>
Power consumption blast motor	2,4 KW
Electrical connection	230V SF 50Hz 16 A
Blast width	200 mm
Abrasive consumption	5-75 g/m <sup>2</sup>
Length	1000 mm
Width	310 mm
Height	980 mm
Weight	54 kg
Sound emission pressure level Uncertainty	L <sub>pA</sub> = 85 dB(A) K= 2,5 dB
Vibration level	Less than 2,5 m/s <sup>2</sup>
Dust hose connection	Ø51 mm
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

### **IMPORTANT NOTES:**

The indicated values are measured on new machines. Noise and vibration 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 vibration and noise emission levels represent the main applications 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 vibration and noise should also take in account the times when 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.

Identify additional safety measures to protect the operator from the effects of vibration and noise such as: proper and regular maintenance of the machine and the accessories, keeping the hands warm, organization of work patterns for example by using rotation schedules. The use of anti-vibration gloves could also decrease the effects of the vibrations transmitted.

Although the sound pressure level at the operators position does not exceed 80 dB(A), ear protection is still strongly recommended when working with this machine.





## 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 <sup>2</sup>	2.5 mm <sup>2</sup>	10 mm <sup>2</sup>	25 mm <sup>2</sup>
20m > 50m	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	10 mm <sup>2</sup>	25 mm <sup>2</sup>
50m > 75m	4 mm <sup>2</sup>	6 mm <sup>2</sup>	16 mm <sup>2</sup>	35 mm <sup>2</sup>

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

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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