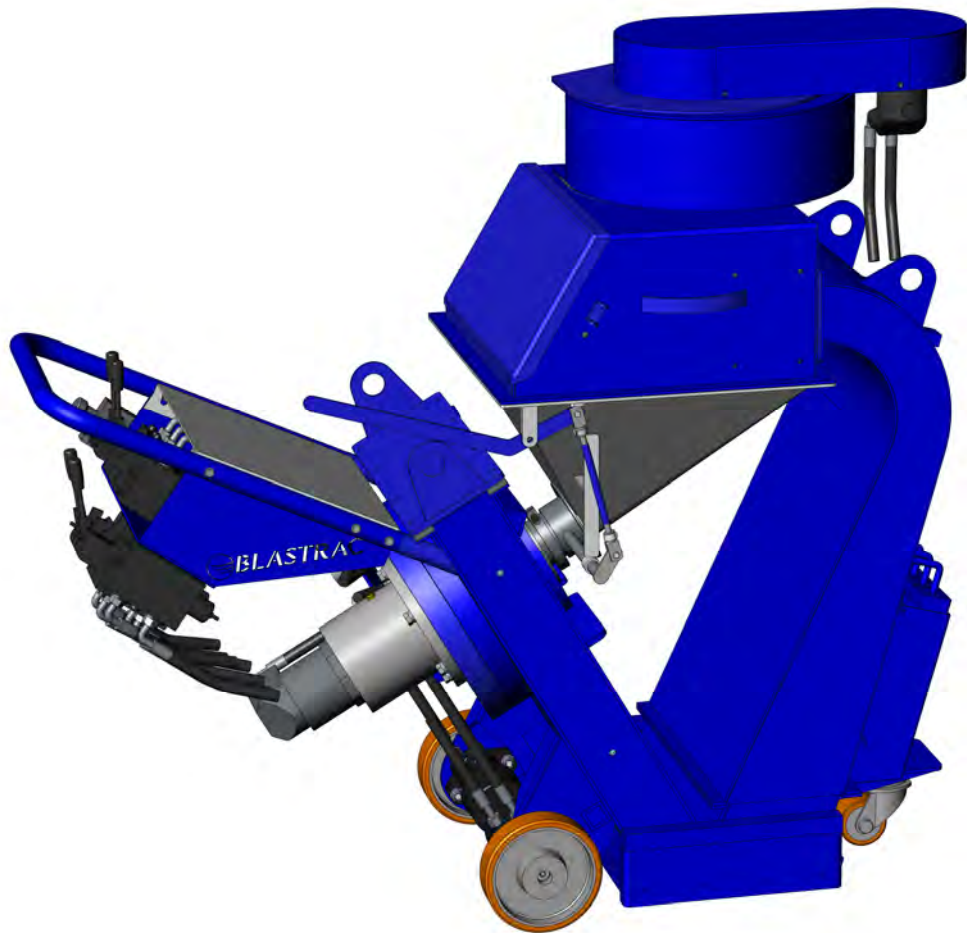




500HSH

Version 1.0



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EC DECLARATION OF CONFORMITY

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

BLASTRAC B.V.

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Declare under our sole responsibility that the machine as described below
Conforms with the Health and Safety requirements of the European Directive
of the machine Safety.

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

Model: **BLASTRAC 500HSH** **Serial number:**

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC);
Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC,
as last amended)
2. satisfies the following harmonized standards:
NEN-EN 349, NEN-EN 418, NEN-EN 294 and NEN-EN 60204

Nieuwegein



Michiel Kalisvaart



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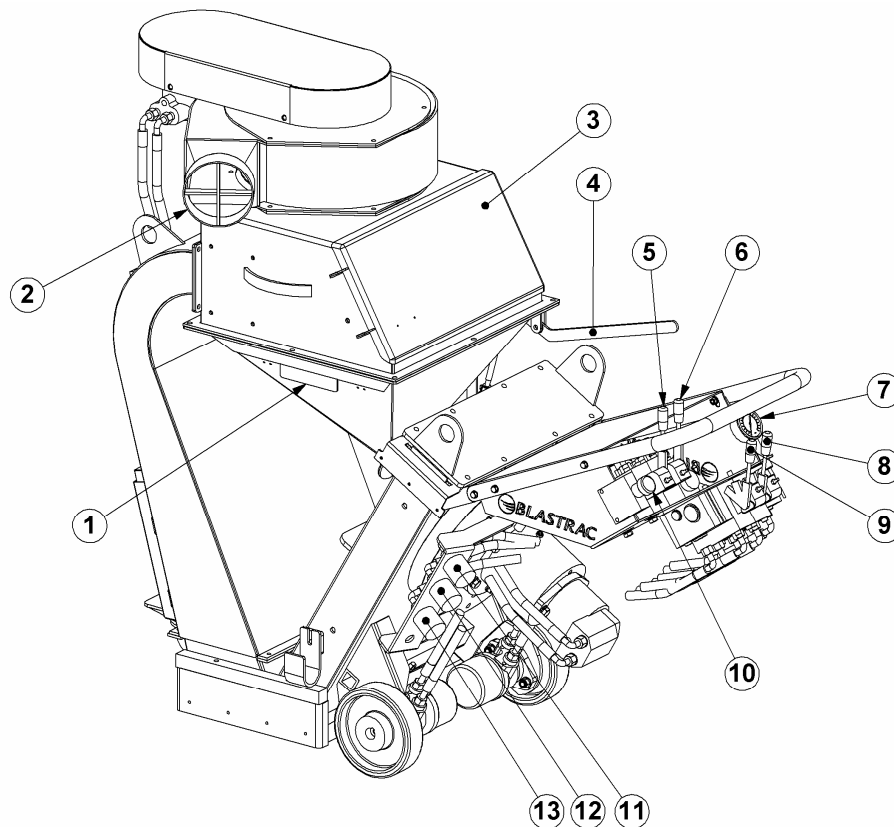
1. Introduction

It is important that all persons who are working with or maintaining this machine must read the manual carefully and understand it fully. Keep this manual near to the machine, to enable it be referred to at any time
Only authorized and trained personnel may operate this machine.

2. Machine description

The **Blastrac** blast cleaning machine 500HSH is a downward blasting machine with a closed abrasive circuit designed for the pre-treatment of 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.

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



- | | | |
|----------------------------|-----------------------------|---|
| 1 Separator tray | 6 Right drive motor control | 11 Quick disconnect coupler Pressure |
| 2 Dust hose connection | 7 Manometer | 12 Quick disconnect coupler Return Pressure |
| 3 Separator door | 8 Blast motor ON/OFF | 13 Quick disconnect coupler Drain |
| 4 Abrasive control handle | 9 Fan motor ON/OFF | |
| 5 Left drive motor control | 10 Drive speed control | |

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3. Safety

Before operating the machine, the personnel must be familiar with the safety instructions given in this manual.

Keep this manual near to the machine, so it can always be consulted.

Safety precautions

- The surface to be treated must be swept clean to remove stones, screws etc.
- Never use the machine when the surface is not clear and if there is a risk of tripping.
- Make sure there is not any water on the surface to be treated.
- Don't get disturbed during the activities.
- Remove any trailing hydraulic cables or dust hoses from the surface to be treated.
- Always switch on the dust collector.

Safety regulations

- Persons who do not operate the machine are not permitted to stay in the surrounding of the machine. Don't leave children anyway.
- Keep the machine original; Use hoses who are approved and not damaged.
- Turn off the power supply during inspections and repairing on the machine.
- Never operate the machine when workplace is wet.
- Never stay in the rain with the machine.
- Never lift the blast head during blasting.

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The following sticker is placed on the machine.



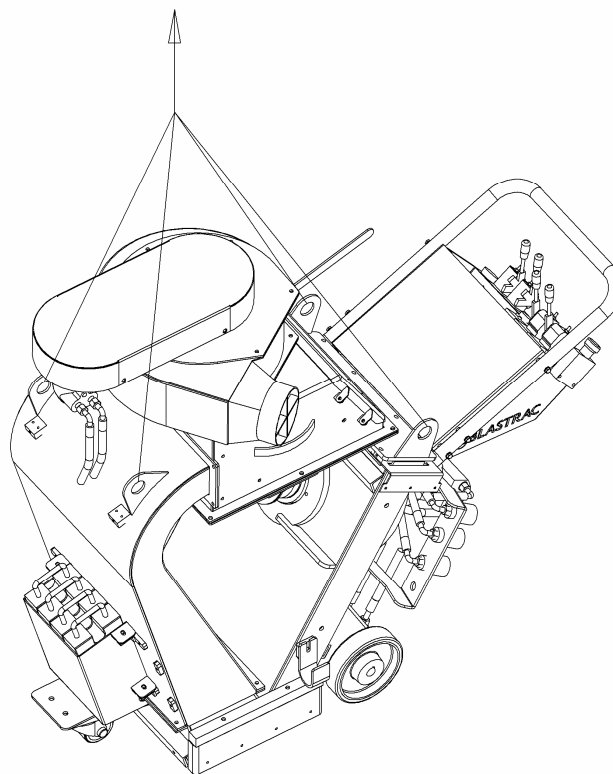
Meanings of these symbols are:

- Ear protection is obliged
- Safety glasses with lateral protection are obliged
- CE-mark on this machine
- Safety shoes obliged
- Consult the manual before operating the machine

Personnel must tie back long hair and not wear loose clothing or jewellery including rings. Wear gloves and dust mask during operating the machine.

Safety instructions

- Abrasive can escape from the sides of the blast head at high speed. Wear safety glasses with lateral protection and close-fitting protective clothing.
- The machine, specially the handle grip must be free of fats and has to be dry.
- The dust container / bag of the filter unit must be emptied regularly. Comply with the local waste treatment regulations considering the removed material.
- The weight of the 500HSH is 650 kg. By transport the machine with a crane or lift, use the lifting eyes of the machine.



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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.

Checkpoints power supply

- Use the hydraulic hoses delivered by Blastrac BV.
- Hydraulic hoses must be fully unwound from their winches.
- No damage is permitted for hydraulic hoses.
- Check if all hydraulic couplings are good connected.
- Check if all hydraulic couplings are free of leakage.

Checkpoints of machine

- Safety functions and operating functions must work correctly.
- Check the following parts for damage and wear: blast wheel blades, impeller, cage, liners and brush sealing.
- No loose bolts and nuts permitted.
- No any damage of hydraulic components permitted.
- Dust hose must be undamaged and the connection must be reliable.
- Check the parts of the separator for wear and defects. Remove foreign bodies and dust deposits.



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5. Operating

During operating the 500HSH, the following additional safety instructions must be followed closely.

Before switch on

- 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 abrasive 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 hydraulic power supply hoses of the filter unit and blast machine with the power pack. Be sure that hydraulic couplings are connected according to the labels on the hoses.

Switch on the machine

- Switch unit the power pack (see manual of the power pack)
- Before switch on the blast machine, switch on the filter unit.
- Select the speed using the speed control knob. (item 5 of machine description)
- Switch on the blast motor (item 8 of machine description)
- Switch on the fan motor (item 9 of machine description)
- When the machine is traveling pull the abrasive control handle to open the abrasive valve. Observe the manometer. It may indicate the max pressure. After having blasted aprox. 2 m, close the abrasive valve, stop the machine and check the blasted surface.
- If the 'hotspot' is too much on the right, turn clockwise the cage a little bit. Never adjust the cage during blasting.

Switch off the machine

- Close the abrasive valve
- Stop the drive motors
- Turn off the blast wheel motor
- Turn off the fan motor
- Switch off the filter unit.
- Switch off the power pack
- After switch off the power pack the hydraulic hoses are still under high pressure. It is important to switch on the filter unit or blast motor. The filter unit or blast machine will work for seconds. This will bring down the hydraulic pressure in the hoses to zero.
- Disconnect the hydraulic hoses of the blast machine and filter unit.
- Wait for standstill of all drives before any inspection or maintenance works are started.

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6. Maintenance

Changing the liners

- Loose the bolts of the top liner cover and remove the cover and top liner.
- Loosen the nuts of the side liners liners. Take them out of the housing.

To mount the liners, keep on the following sequence:

- Replace all worn items.
- Clean the liners and the inside of the blast housing thoroughly.
- Re-assemble the machine in reverse order, using kit between the top liner and the side liners, and between the top liner and the front and rear plates of the blast housing.
- Make sure that the top liner sits close at the edges of the side liners.

Changing the blast wheel blades and impeller

- Remove the abrasive storage hopper.
- Remove the cage clamps and cage.
- Block the blastwheel and remove the central fixing bolt.
- Remove the impeller using a wooden or brass drift.
- Remove the top liner cover and remove the top liner using a screwdriver or a crowbar.
- Clean the blast wheel and the blades with air
- Through the opening of the blast housing: use a wooden or brass drift to tap out all six blades from the blast wheel towards the center of the blast wheel.

Use a new central fixing bolt when mounting new blast wheel blades.

- Replace the blades with six new ones and re-assemble the machine in reverse order. Note: blast wheel blades must be replaced as a set. Replacing only some of the blades can cause imbalance of the blast wheel.

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 machine in a dry room. Protect the hydraulic parts from moisture, heat dust and shocks. Remove the abrasive out of the abrasive storage hopper.

All repair work has to be done by qualified Blastrac personnel, this guarantee a save and reliable machine.

Any guarantee on the machine is expired when:

- By not using original Blastrac spare parts and abrasive.
- When repair work is not done by qualified Blastrac personnel.
- When changes, add ons or conversions are undertaken without written permission of Blastrac BV.

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7. Selection of abrasive

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

- 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

Standard abrasive, suitable for about 50-60 % of all applications. Creates a medium profile on concrete. Fulfills 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

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

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

8. Technical data

	500HSH
Blast width	500 mm
Drive speed	0 – 30 m/min
Length	1593 mm
Width	730 mm
Height	1454 mm
Weight	650 kg
Noise level (under load)	92dBa
Vibration level	1.23 RMS Allows >8 hrs. of working with the mentioned equipment without having to use anti vibration precaution measures.
Dust hose connection	Ø150 mm

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

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9. Disassemble procedure

Disconnect all quick disconnect couplings and cover them with the red covers to protect the couplings against dirt.



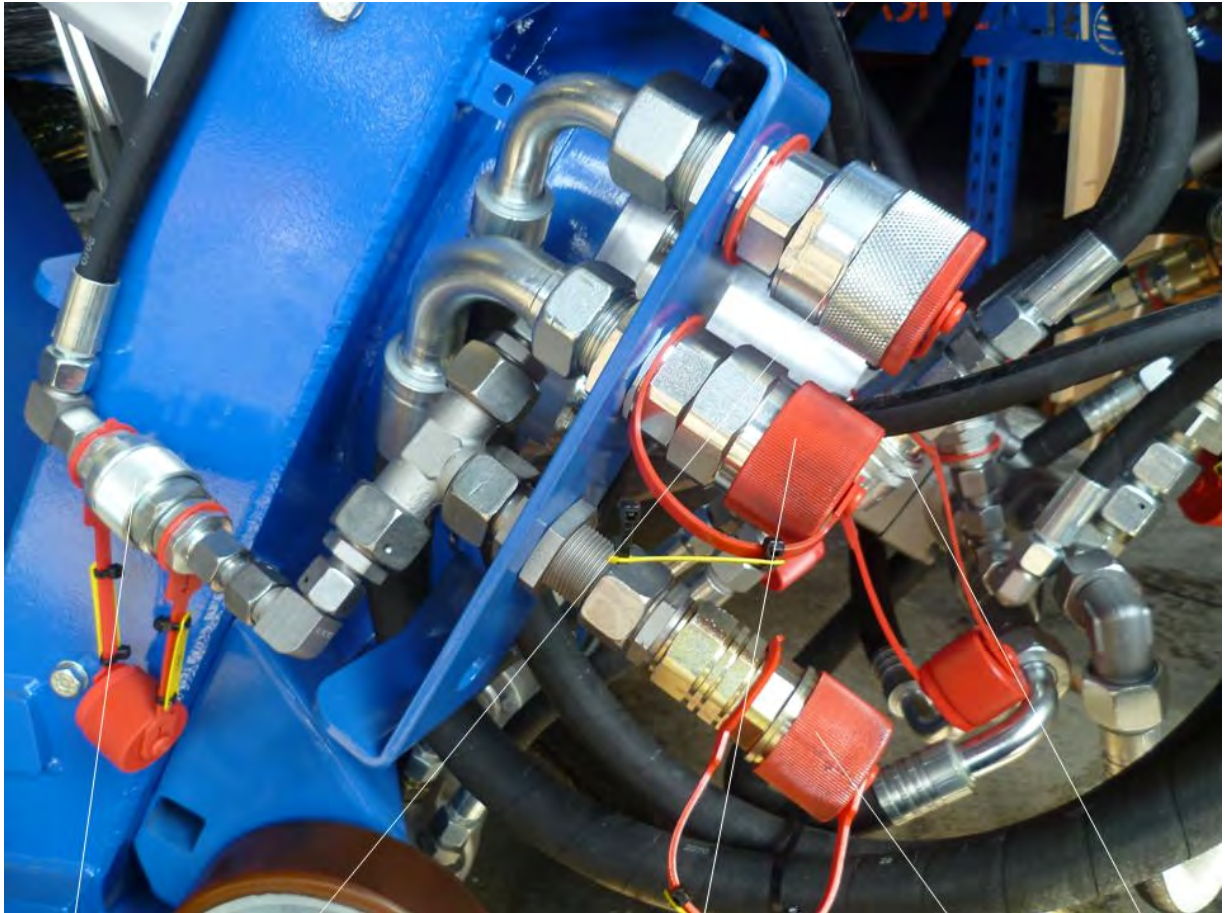
Return / Pressure

Blastmotor

Fan motor

Right drive motor

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Drain (fan)

Pressure

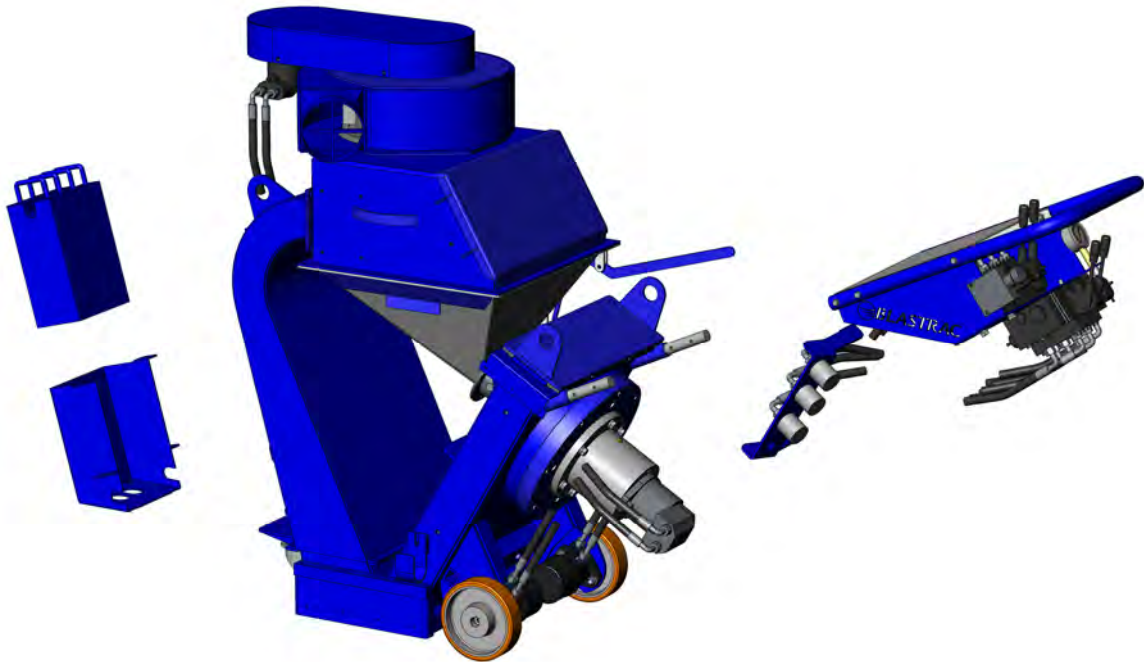
Return

Drain

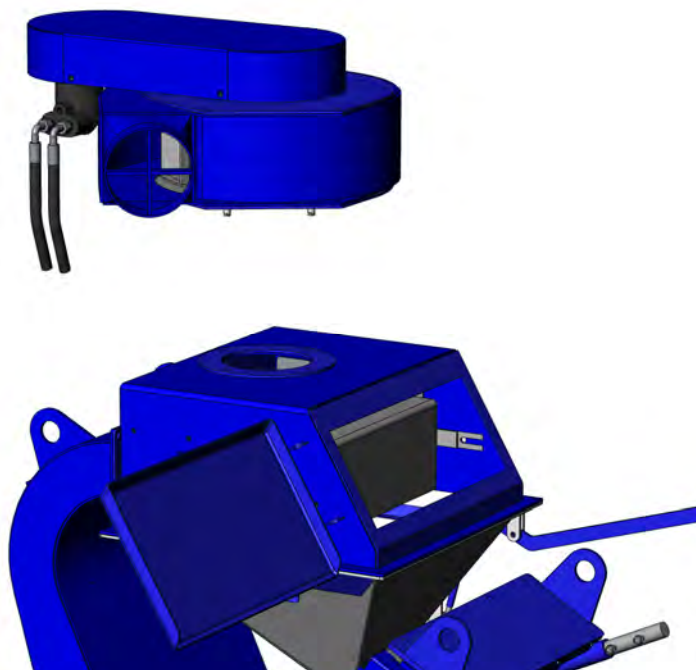
Drain
(blast motor)

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- Remove handle including hydraulic parts (M8 bolts)
- Remove weights and weight bracket (M8 bolts)



- Open the separator door; this give access to the nuts of the fan unit. Remove fan unit (4x M12 nut).

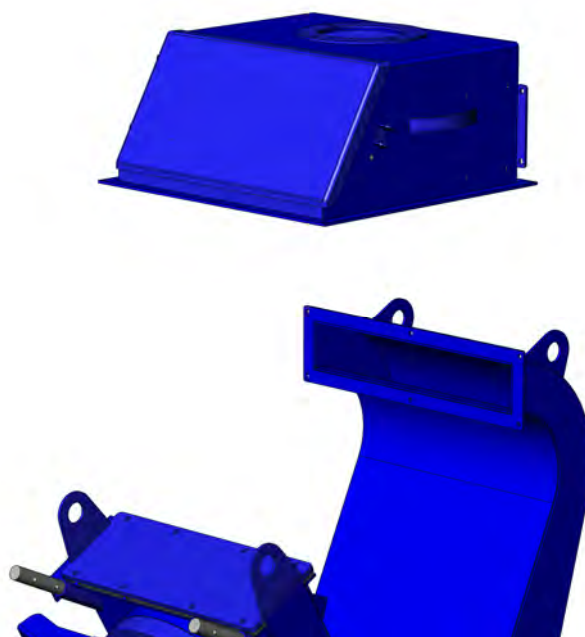


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- Remove the hopper (8x M8 bolts). Move the hopper out at the side of the shot valve handle.

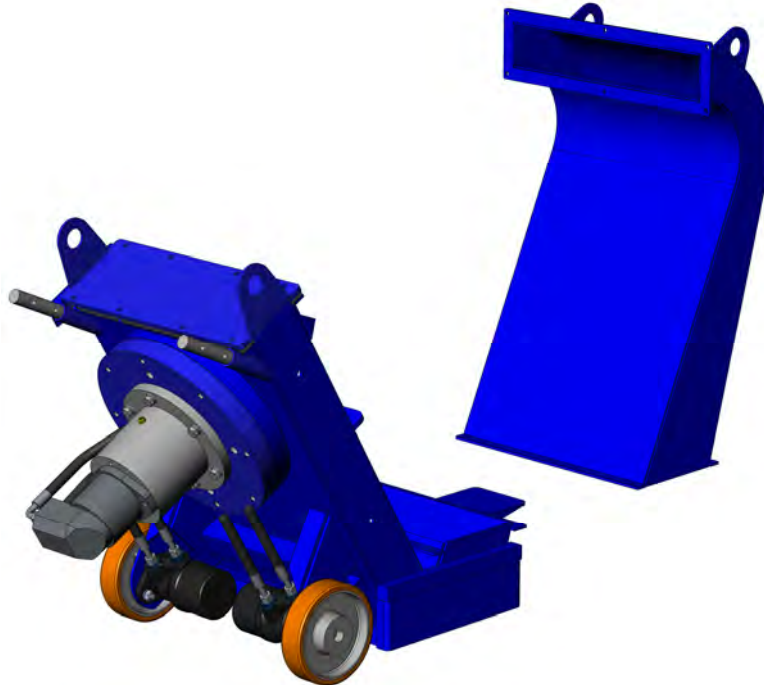


- Remove rebound (6x M8 bolt).



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- Remove the rebound (6x M8 bolt). Remove lute rests of the flanges.

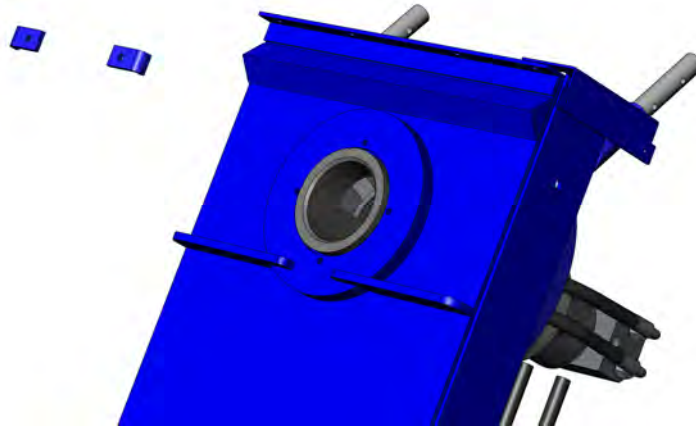


- Remove the top liner cover (8x M10 bolt).
- Remove the top liner cover with a crowbar or a solid screwdriver. Remove lute rests.

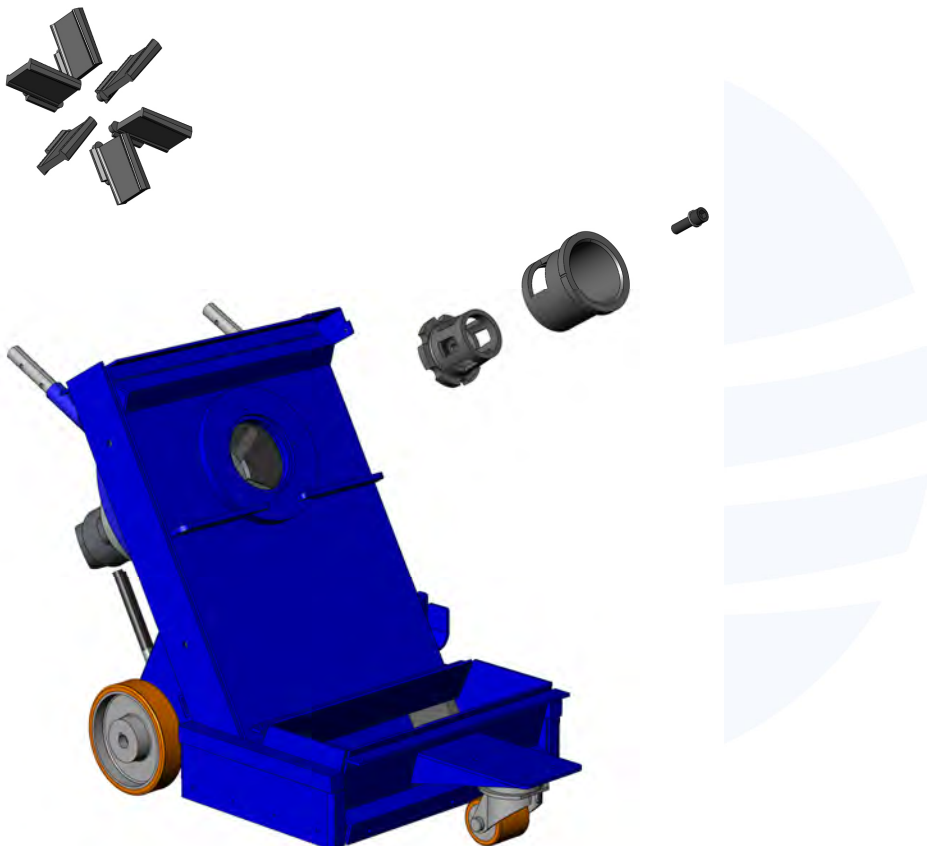


- Remove the 2 cage kickers (2x M8 nut)

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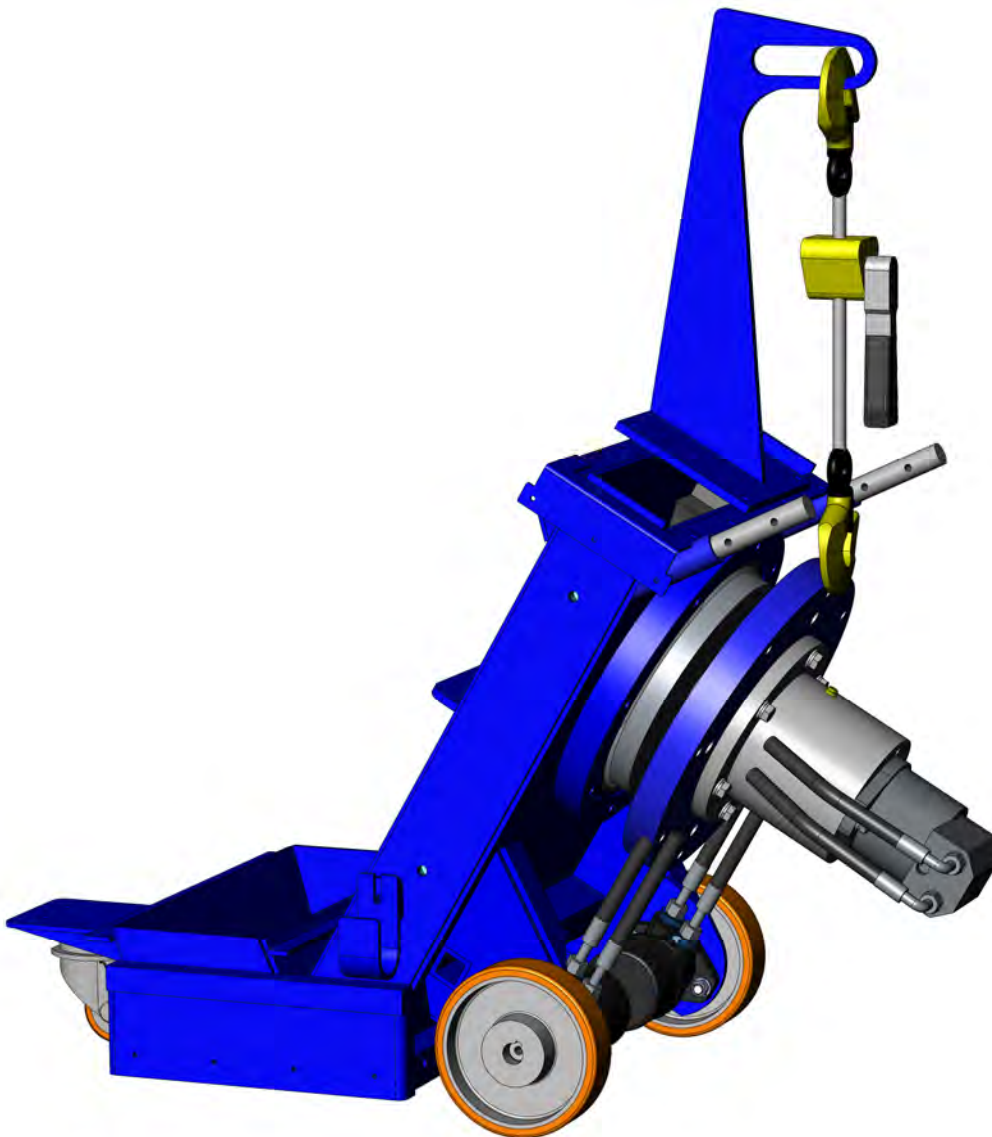


- Remove the cage
- Remove the impeller bolt, M16 hexagon bolt
- Remove the impellor
- Through the opening of the blast housing: use a wooden or brass drift to tap out all six blades from the blast wheel towards the center of the blast wheel.



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- Mount the lifting tool bracket on the flange of the top liner cover
- Put a strap on the blast wheel bearing housing and put the lifting tool on the lifting tool bracket.
- Remove all bolts of the big flange what is mounted to the blast housing.
- Let down carefully the blast wheel unit to the ground.
- Remove the lifting tool bracket



- Loose the two bolts of the drive systems and pull them out of the blast body.

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The machine will now fit through a 24"-man hole. Before building up the machine clean the body and the blastwheel with air. Inspect the body, seals and brushes. Replace them when they are damaged or worn.

Building up the machine, do this program backwards.

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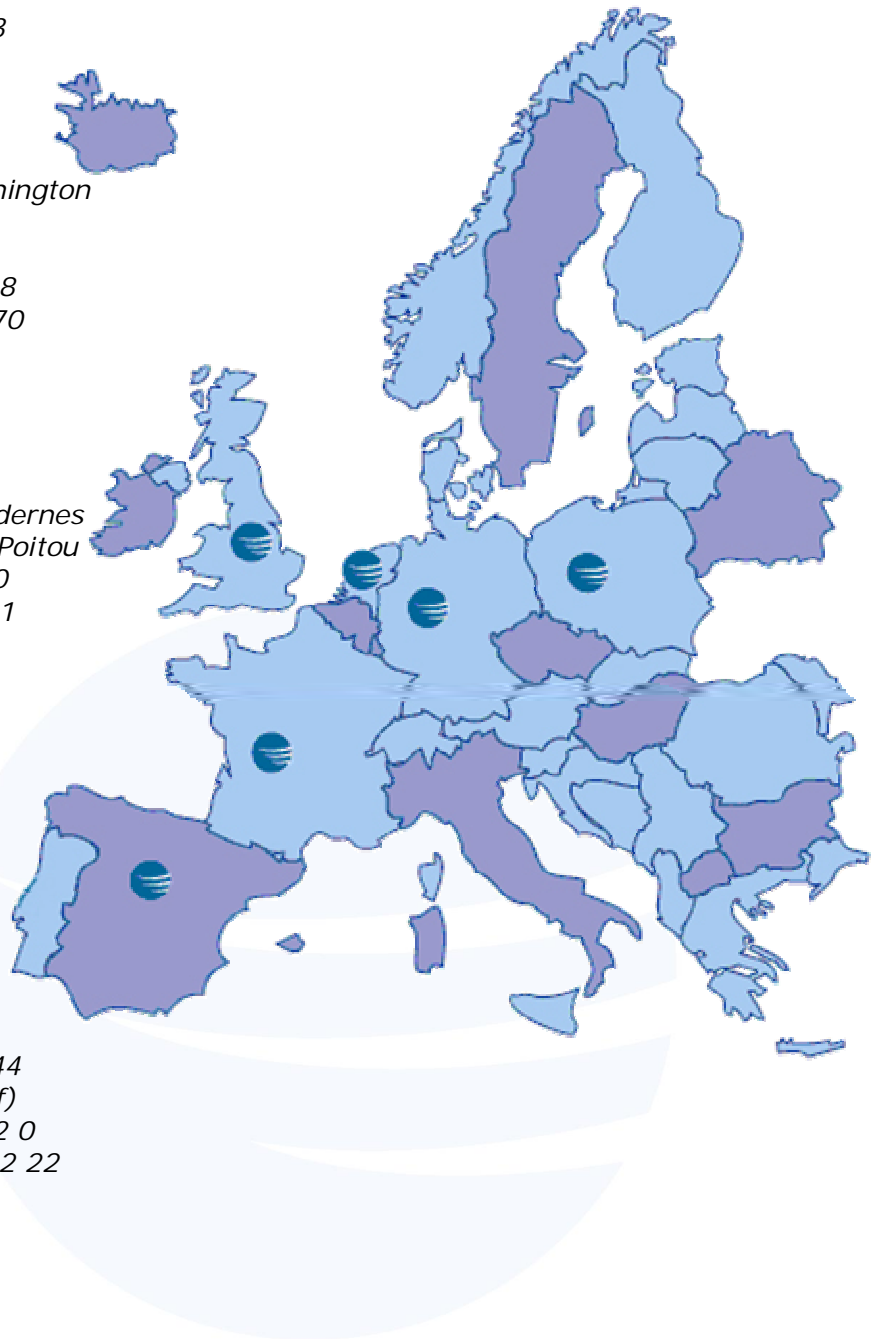
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