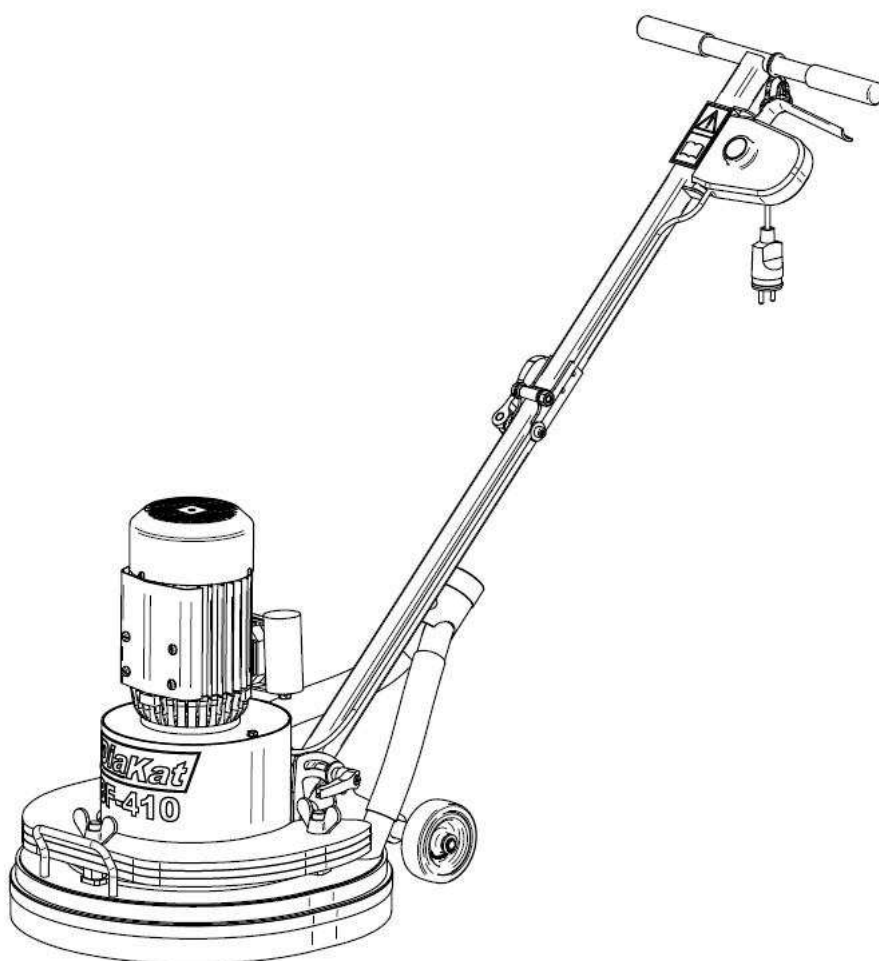




## Operator's Manual



**DiaKat**® **BF-410**

**Floor Grinder**

Read the operator's manual carefully and understand the contents before you use this equipment. Always use the machine in accordance with all the instructions contained in this manual, in order to ensure safe and efficient operation as well as longevity of the machine.

The manufacturer can not be held responsible for any damages or injury arising from the use of the machine not in accordance with the instructions contained in this manual.

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## 1. SAFETY INSTRUCTION

### 1.1. General safety instructions

#### 1.1.1. Qualification requirements

**Persons operating this machine must fulfil the following requirements:**

1. The machine may be operated independently only by workers who are:
  - older than 18- teen years (or as the law in the country of use prescribes)
  - physically and mentally competent
  - trained, who proved their ability to operate the machine safely
2. All workers who will operate this machine must make themselves familiar with all the instructions contained in this manual and must adhere to them.
3. The operator must make himself familiar with all the safety instructions pertinent for use of this machine (including those specific to the country of use) and must adhere to them. The familiarisation must be documented and signed by the operator.

#### 1.1.2. Duties of the entrepreneur:

Entrepreneur is a physical or legal entity who undertakes the work with this machine. The entrepreneur is the guarantor of the safe use of the machine.

**The entrepreneur must:**

- appoint the operator and provide his training
- insure safe conditions for the use of the machine by the operator
- provide regular checks and maintenance of the machine
- ensure adherence to legal requirements for the safety of the work
- regularly check observance of safety regulations
- regularly check if the operator is using the machine in conformity with the operator's manual

#### 1.1.3. Duties of the operator:

Operator is a person which actually uses the machine to do the work for which the machine is designed. The operator must fulfil the requirements as set in 1.1.1.

**Operator must:**

- thoroughly familiarise himself with the Operator's manual and all safety instruction required for the work
- comply with all instructions and requirements set in this manual
- comply with all safety regulations set for work with machinery
- acquaint himself with the work environment including safety instructions
- pay full attention to operating the machine whilst working
- demand regular checks and maintenance of the machine as prescribed by this manual
- demand from his employer securing of conditions conducive to upkeep of safety regulations
- secure the machine against accidental movement and out of reach of unauthorised persons when not working

#### 1.1.4. Using the machine

**When using the machine the operator must comply with the following instructions:**

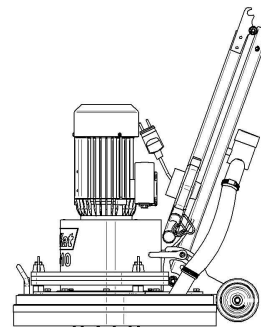
1. Check the machine before use.
2. Before commencing work check if it is safe to start the machine with out endangering the operator or other persons.
3. Use prescribed personal safety aids while working. (Helmet, earmuffs, safety shoes, goggles, respirator, gloves...).
4. While working monitor the machine for unusual sounds or smoke which may indicate defect. When defect is indicated immediately stop the machine and call for expert repair.
5. When finish working, switch off the motor and move the machine the secure place and insure against unauthorized use.

#### 1.15. Checkups, maintenance, service and repair.

- regularly check the technical state of the machine.
- if fault or damage is discovered ensure expert repair.
- repair or service may be carried out only by qualified personnel from a manufacturer's service organisation.
- it is prohibited to carry repairs or service at places where the safety of work is not ensured and can be affected by outside impingement, such as falling objects, collision with other machinery etc.
- changes and alteration to the machine can be carried out only with the explicit agreement of the manufacturer!

#### 1.2. Transporting the machine

1. It is advantageous to fold the handlebars to Compact transport mode whilst transporting see pic. 1. (440x600x740mm).
2. When transporting secure the machine against overturning, moving or falling off.



**Pic.1 Compact transport mode**

#### 1.3. Prohibited activities

**When using the machine it is forbidden:**

1. Using the machine for work other than for which is designed.
2. Operating the machine in other manners than those described in this manual.
3. Start the machine while the tool is touching the floor.
4. Using the machine under influence of alcohol, narcotics or drugs and medicaments.
5. Using the machine whilst its running may endanger the safety or persons, property or traffic.
6. Bring in to operation and work with the machine if any of the safety features are dismantled or damaged. (Tool cover, rubber cover etc.).
7. Leave running or unsecured machine with out safeguarding it against unauthorised use.
8. Cleaning the machine while it is running.
9. Cleaning the machine with high pressure water.

#### 1.4. Liquidating the machine at the end of its useful lifetime

When liquidating or disposing of the machine it is absolutely necessary to adhere to all rules or legislation pertinent to the country where the machine have been is used.

The manufacturer can not be held responsible for damages to health or environment in cases where all the above mentioned principles where not adhered to.

#### 1.5. Safety instruction for work with BF-410 Floor Grinder

**Attention!** The machine is designed to comply with current safety legislation. It is prohibited to remove any of the safety covers on the machine.

**Attention !** Never start the machine with the tool touching the floor (surface to be grinded) !

**When working with the machine the following instructions must be complied with:**

1. It is prohibited to work with the machine without the tool cover (including the rubber collar).
2. No person except the operator is permitted within the danger perimeter of the machine.
3. Start the machine always slightly tilted over its rear wheels with the tool a safe distance (10 to15 cm) above the ground.
4. After every adjustment or maintenance mount back all safety covers.
5. If a large amount of dust is created use dust cleaner.

#### 1.6 List of safety labels used on the machine



**1. READ THE OPERATORS  
MANUAL BEFORE USE!**



**2. SENSE OF ROTATION OF THE TOOL**

## 2. TECHNICAL DATA AND DESCRIPTION OF THE MACHINE

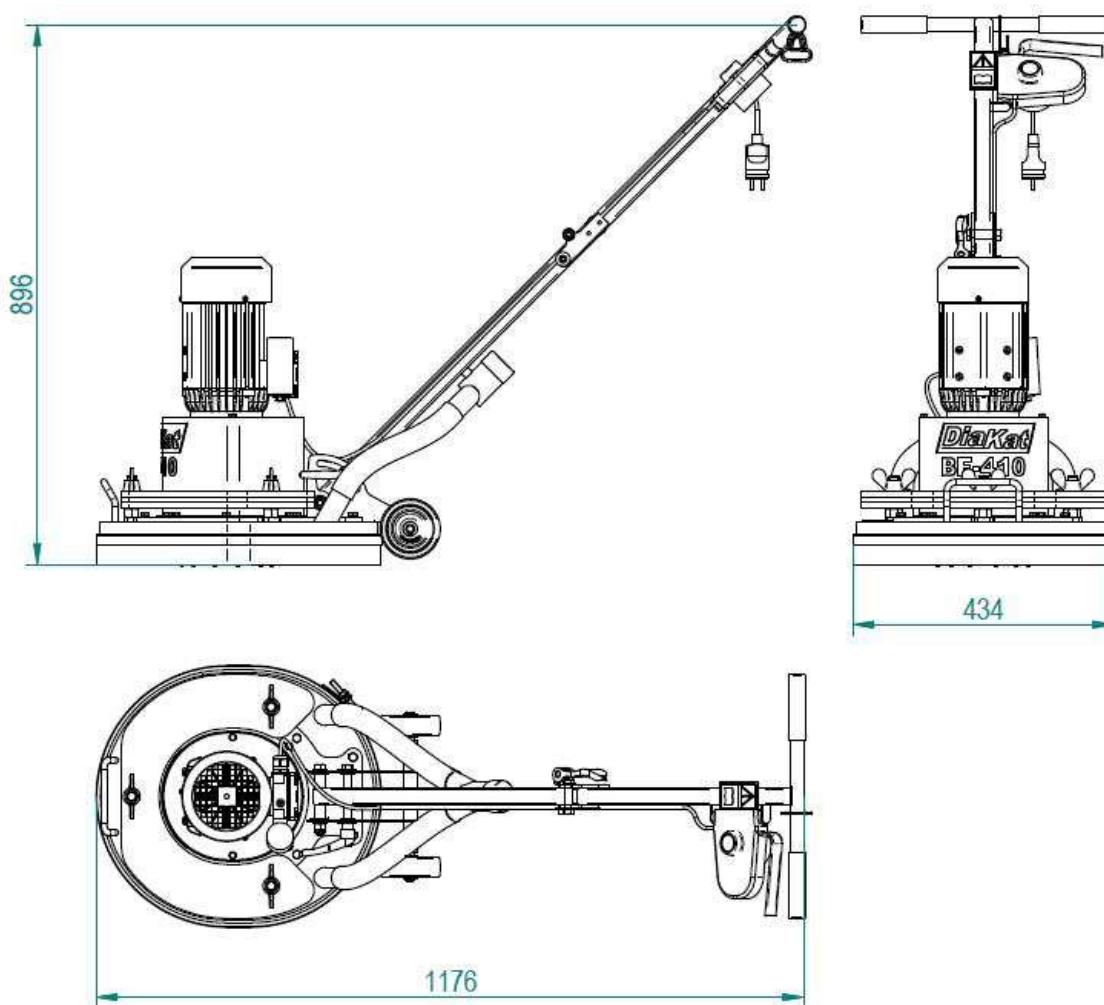
### 2.1. Description of the machine

The DiaKat BF-410 Floor Grinder is designed for grinding levelled floor areas. Thanks to its low rev it is suitable for finishing work on materials such as concrete, screeds, anhydride, wood, or epoxy, be it in or outdoors.

If the operation is needed to be dust free industrial dust remover can be connected to the machine via port in the tool cover.

Various operations such as grinding, roughing, polishing, cleaning etc. on various surfaces, depending on tool and additional weights configuration can be performed.

**Note:** maximum of additional weight permitted = **15 kg!**

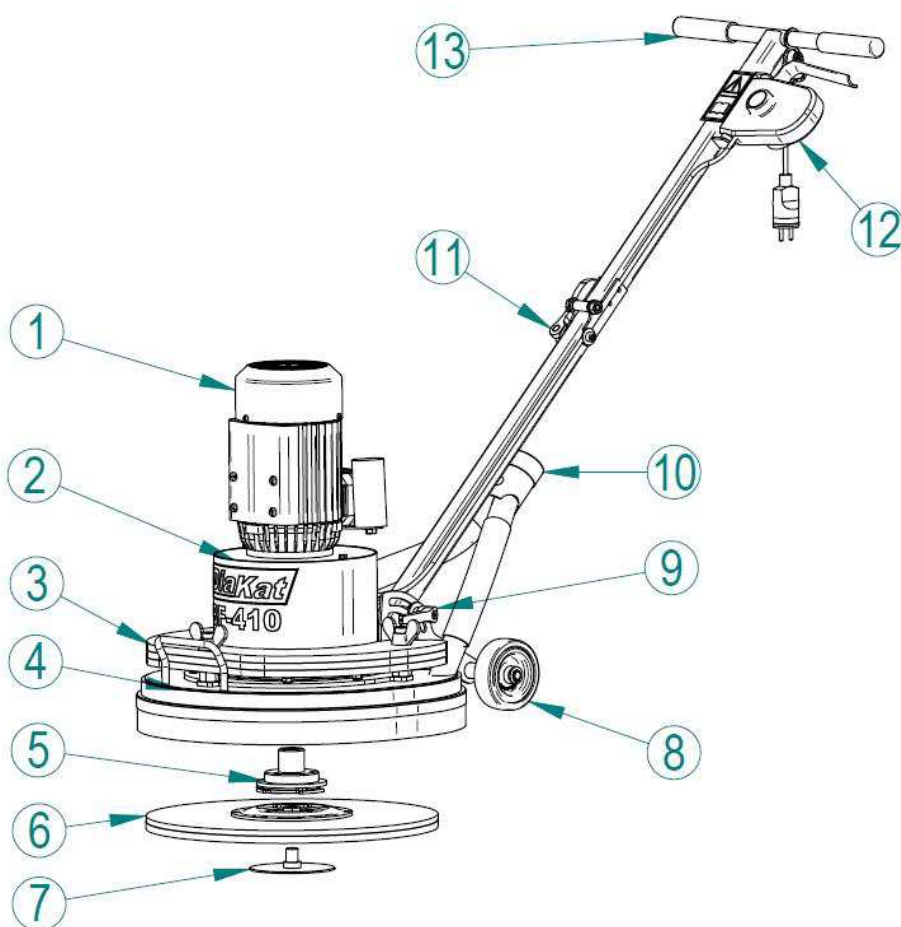


**Pic. 2** Machine dimensions

### 2.2. Technical specifications

Tool diameter	410 mm
Length of machine (handlebars in work mode)	1176 mm, adjustable
Height of machine with / without handlebars	896 mm / 495 mm, adjustable
Weight of machine + additional weights	42 kg + 15 kg additional weights
Power unit	Cantoni 1ph / 230V / 1,1 kW
Motor rpm.	1370 revs per minute
Nominal current	7,20A
Rated voltage	230 V
Circuit breaker	B/10
Tool spindle rpm.	154 revs per minute
Dust port OD	50 mm

### 2.3. Primary operative parts of the machine



**Pic. 3** Description of operative parts

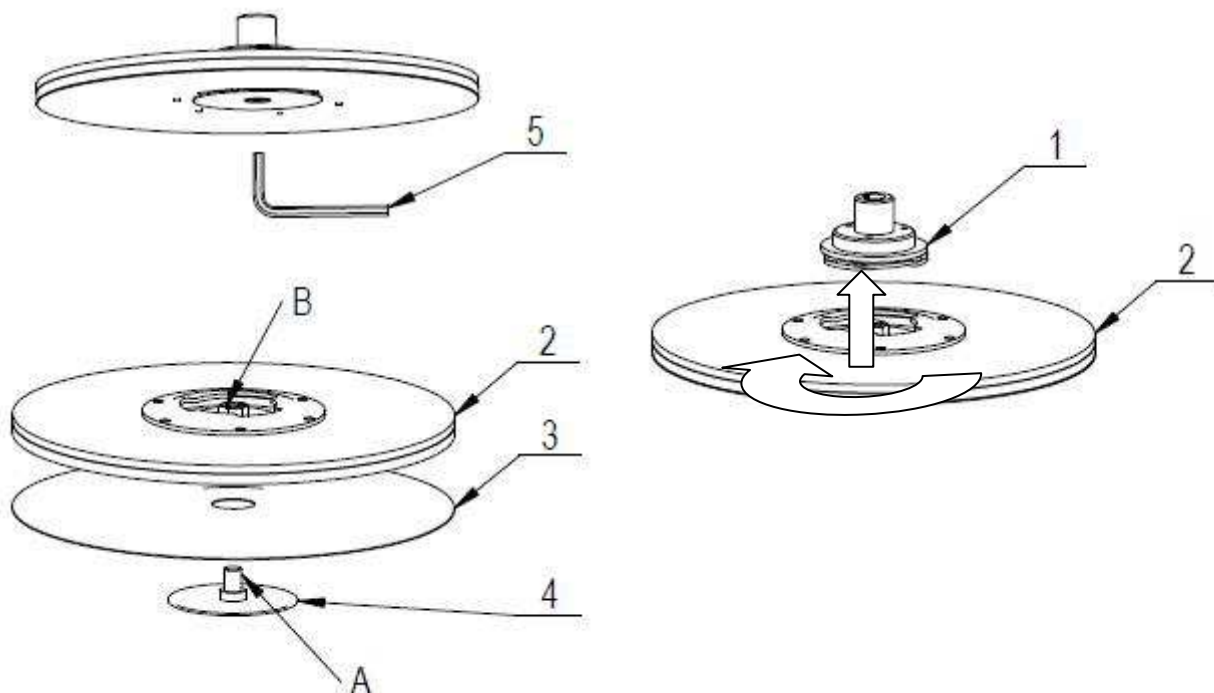
- |                        |                                    |
|------------------------|------------------------------------|
| 1 – Motor              | 8 – Undercarriage                  |
| 2 – Gearbox with cover | 9 – Handlebars locking lever       |
| 3 – Additional weights | 10 – Dust port                     |
| 4 – Tool cover         | 11 – Handlebars folding lever      |
| 5 – Carrier            | 12 – Safety switch with pin socket |
| 6 – Tool               | 13 – Handlebars                    |
| 7 – Mounting bolt      |                                    |

**2.4. Mounting and dismounting of tool**

**!ATTENTION!** Always follow the instructions below when mounting or dismounting tool! (Only then you can set up the machine with tool correctly and safely.) The machine must be always secured against movement and the motor switched off and unplugged when changing tool!

**2.4.1. Mounting of tool (see Pic.)**

1. Remove all additional weights.
2. Make sure that handlebars are securely locked.
3. Tilt the machine over its rear wheels and rest it on the handlebars.
4. Secure machine against tilting back.
5. Do not leave the machine in this position longer then necessary!
6. Abrasives (3) (emery disc, TC disc.) place it on tool (2) and tighten with bolt (4) so, that the screw (A) protrude maximally 2 mm over the tools nut (B).
- Note:** Always use the correct diameter of abrasive disc (410 mm).
7. Place the tool (2) on to carrier (1) so, that the slots in the tool correspond with the protrusions on the



carrier. Secure the tool by turning it against the sense of rotation of the motor until it clicks in and after that tighten the mounting bolt with Allen key (5) so, that can not turn the tool freely.

**2.4.2. Dismounting of tool**

Similarly dismount the tool in rear order.



### 3. BEFORE STARTING

#### 3.1. Visual check up of the machine state

**Regularly (before commencing work) check:**

- all covers and safety features
- all locking leavers
- state of tool's wear

#### 3.2. Additional burdening

The pressure of the tool can be increased by adding up to three additional weights, weighting 5 kg each.

If you need more down force (deeper cut) place additional weights (1 -3) on the pins provided and secure with 3 fly nuts.

**! ATTENTION!** Never load more than 3 additional weights provided by the manufacturer. Never use for additional burdening anything else than the weights provided by the manufacturer.

### 4. WORKING WITH THE MACHINE

#### 4.1. Setting of the machine, starting the motor

**! ATTENTION!** Never start the motor if the tool is touching the floor.

1. Loosen the locking leaver and set the handlebars to comfortable height, retighten the locking leaver. The height of the handlebars should be approximately the waist height of the operator.

2. Connect the machine to 220V / 50 Hz mains, secure the cable by the holder on the handlebars, this will prevent accidental rip out from the pin socket of the safety switch.

3. Grip the handlebars and tilt the machine over its rear wheel towards you so that the tool is NOT touching the floor and is a safe distance from the surface to be grinded.

4. Hold the handlebars with your left hand so, that you can reach with your fingers the leaver of the safety switch. With your right hand press the yellow safety button and consequently pull the leaver towards the handlebars – the motor will start running.

5. Release the yellow button and grip the handlebars with both hands. Slowly and carefully lower the tool in to cut.

**! ATTENTION!** It is necessary to follow the instruction for controlling the machine immediately after you lower the machine to touch the floor. In the first moments of operation it is necessary to find the balance point of the machine, when the machine is not moving to either side but remains in one place and acquire the feeling for controlling the machine.

#### 4.2. Controlling the machine

The movement of the machine is controlled by slight tilting of the machine over the tools rotating edges.

- \* Application of slight pressure on the handlebars towards the ground will cause moving of the machine to the left
- \* slight lifting of the handlebars will cause moving of the machine to the right.
- \* slight tilting of the machine to the left will cause moving of the machine to the front
- \* slight tilting of the machine to the right will cause the machine to move back

#### **4.3. Switching of the machine**

When the safety switch lever is released (even accidentally) the circuit is broken and the machine will stop.

### **5. MAINTENANCE**

The basic steps of preventive maintenance described in this manual can be carried out by the operator appointed by the entrepreneur. We recommend that all repairs and adjustments beyond the scope of this manual are carried out by authorised service centre.

***!ATTENTION!*** In the guarantee period it is prohibited to interfere with the motor and power transmitting components in any manner whatsoever!

#### **5.1. Visual control**

Before commencing work visually check if the machine complete and do not show any signs of damage.

#### **5.2. Checking screw joints**

Check the tightness of screw joints and locking levers before every start of the machine. Regularly check the tightness of quick lock tool carrier screws.

#### **5.3. Cleaning of the machine**

Regular cleaning prolong the life of the machine its components and tools. After finishing work clean the machine from dust and dirt by wet cloth or air before storing. Never use pressurised water for cleaning.

## 6. CONDITIONS OF GUARANTEE

Diakat machines are designed and manufactured to withstand the toughest working conditions and still remain safe, defect free and long-lasting. The following conditions are the same for the whole Diakat range of products.

If not otherwise agreed the manufacturer guarantees all his products for **24 months** from the date of the delivery to the end user, under the condition that the first year paid service inspection is carried out. This guarantee service inspection must take place in between 10 to 12 month from date of sale. If this condition is not fulfilled the guarantee is **12 months**.

If within the period of the guarantee a defect caused by faulty design, material or manufacturing process occurs, the manufacturer will at his discretion remedy it by repair or replacing the faulty part.

The guarantee do not cover consumer and fast wearing parts such as air filters, spark plugs, V belts, cable wires, rubber covers etc.

The guarantee also do not cover faults or damages caused by not abiding to the instructions contained in the Operators manual, unskilled use, use of the machine for other work than for which it is designed, unauthorised service interference, faulty or inadequate maintenance, use of improper fuel or lubricants, accident or act of God.

Furthermore the manufacturer can not be held responsible for damages occurring during transport or storage.

1. The guarantee applies only to the end purchaser stated on the guarantee certificate.
2. The guarantee applies only to those parts of the equipment which demonstrates faulty material or manufacturing process and only for the period of 12 months from the date of sale shown on the guarantee certificate.
3. The Guarantee do not apply to wear parts such as rubber wheels, carbon brushes etc.
4. The Guarantee covers expenses incurred in order to repair or replace parts of the equipment that demonstrates faulty material or manufacturing process within the period of 12 months from the date of sale. Other expenses linked to the repair such as travelling, down time etc. are not covered.
5. The Guarantee period is extended by the eventual period of guarantee repair.
6. The Guarantee do not apply to the following:
  - faults or damages caused by not abiding to the instructions contained in the Operators manual
  - faults or damages caused by faulty or inadequate maintenance
  - faults or damages caused by unauthorised interference with the equipment structure
  - faults or damages caused by the use of other then recommended spare parts
  - faults or damages caused by the use of the equipment for purpose other than for which it was designed
7. The supplier is reserving the right to asses the fault of a part or whole of the equipment. If necessary the supplier can request the part for assessment.
8. For eventual Guarantee claim it is necessary to produce the Guarantee certificate or relevant invoice.

Any other guarantees except those mentioned above do not apply to the equipment.