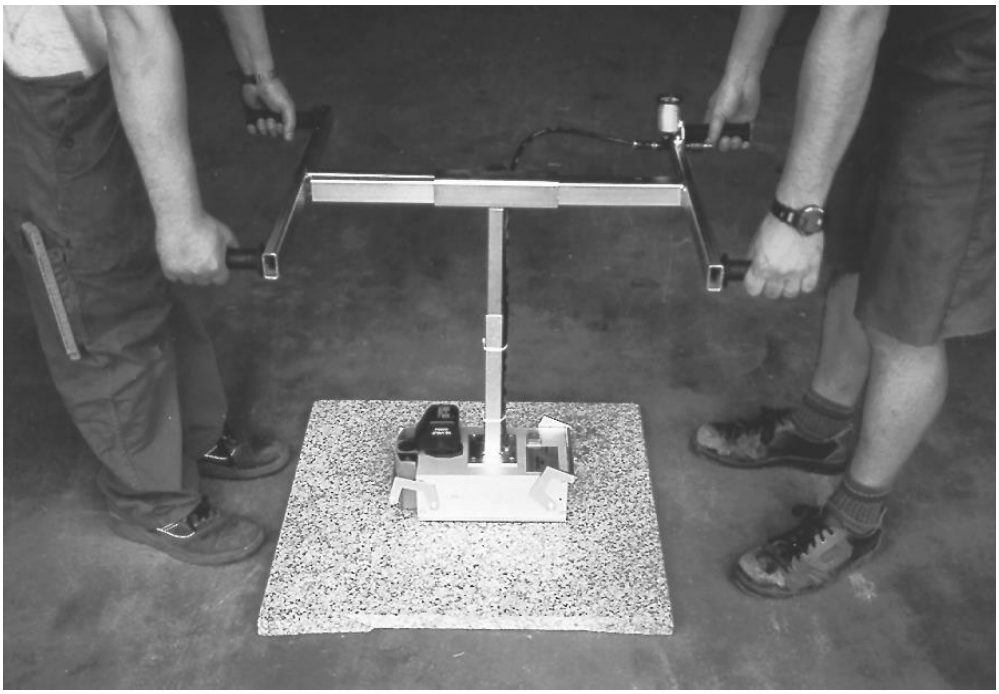
These operating instructions are for use on the c o n s t r u c t i o n s i t e !

Caution Please respect and refer to the operating instructions and safety regulations prior to operation!



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1. Definitions

Danger indicates a dangerous situation. If it is not avoided, it will cause death or major injuries.

Caution indicates for a dangerous situation. If it is not avoided, it can cause light or minor injuries or material damages. It also indicates incorrect use.

2. Safety Regulations

2.1. Utilisation In Line With Safety Regulations

- The Beta-Levator may **only be used for the lifting of even, rigid, air-tight and horizontally positioned plates near to the ground. Do not use the equipment high above the ground.** Prior to operation, the functioning and working condition of the equipment as well as the suitability of the material to be lifted must be examined. During the lifting procedure the plates must remain in a horizontal position. No other use, e.g. in conjunction with a material handling lifting equipment is allowed.
- Current safety regulations and the regulation for the prevention of accidents must be respected.

Danger The following is prohibited: there is a danger that the load may be released.

- **Do not exceed** the safe working load.
- No personnel are allowed to remain under the load or within the danger area, **life threatening!**
- **Do not lift** rough, porous or non rigid plates.
- **Do not swivel** plates away from the horizontal position.
- **Do not use** use the equipment for any other lifting operations than for manual lifting.
- **Do not use** the equipment to transport people, **life threatening!**
- **Do not use** the equipment to transport animals.
- **Do not pull** load to one side and do not drag load along the ground. Load must be always suspended in the true vertical position.
- **Do not allow** loads to break free, be pulled or dragged.
- **Do not allow** sudden movements.

2.2 Safety Guidelines

Although the Beta-Levator is technologically advanced in its construction, however, misuse or use against manufacturer's instructions may prove hazardous.

Danger The following must be respected:

- Prior to operation of the equipment the operator must read in full and understand both the operating instructions and the safety regulations of the Beta-Levator. Only personnel who have been fully trained in its use can operate the equipment.
- Always work with safety in mind and avoid risks.
- Prior to every operation a functional inspection of the equipment must be carried out. The sponge rubber must be treated with special care as a damaged sponge rubber will no longer be able to create a vacuum.

- Should there be any defects which may affect the safety of the equipment. No opportunity should arise whereby it is possible to use the equipment prior to repair, **safety hazard!**
- The Levator must only be used for lifting, transporting and holding of horizontally positioned plates near to the ground.
- The Beta-Levator is a tool and may not be used in conjunction with a material handling lifting equipment (e.g. crane, fork lift, wheel loader).
- **Do not move** the Levator with load above people. Prevent people from leaning, hanging or sitting onto the Levator as the Levator is not designed for lifting people: **safety hazard!**
- Only use the Levator on even, horizontal and air-tight surfaces, which are clean, dry and free from oil or grease. On rough or porous surfaces there is only very limited or no adhesive force!
- **Do not exceed** the safe working load.
- The individual protective gear must comply with safety regulations: safety clothes, protective gloves and shoes.

2.3 Safety Measures

Caution The following must be respected:

- At regular intervals, check that work is being carried out safely.
- Keep the operating instructions within easy reach of where the Levator is used.
- The Levator should always be treated with care and be protected from humidity. Special attention must be paid to the fact that the sponge rubber should not be damaged as a damaged sponge rubber will no longer be able to create a vacuum, **there is a danger of the load being released!**

2.4 Visual And Functional Inspection

Prior to any operation, the functioning and the working condition of the Levator must be examined. **Should there be any defects which may affect the safety of the equipment, the Levator must only be used following repair!** No opportunity should arise whereby it is possible to use the equipment prior to repair.

2.5 Inspections

Inspection prior to initial operation

The contractor must ensure that the Levator is only operated once it has been checked by an expert and only if all defects have been repaired.

Regular inspections

The contractor must ensure that the Levator is checked by an expert at least once a year.

Special inspections

The contractor must ensure that following damage or particular incidents, which may have affected the safe working load of the equipment, as well as following repairs, the Levator must be subjected to a special inspection by an expert.

Recording

The contractor must ensure that all inspections are recorded. We recommend all regular inspections and repairs are carried out by the manufacturer.

3. Specification

Order No.	Model	Safe Working Load	Width x Length	Weight
816 200	Beta-Levator with two men lifter and 2 batteries	100 kg *	160 x 275 mm	12 kg
049 736	Rechargeable battery			0.3 kg
049 735	Charger 220 V / 12 V			0.6 kg
816 201	Beta-Levator with one men lifter and 2 batteries			12 kg
815 400	Suction pad with adapter	150 kg *	275 x 460 mm	2.0 kg

* Maximum carrying capacity to handle the optimal surface. In the case of rough or porous surfaces, the carrying capacity decreases or does not exist.

All component parts of the Levator are packed in the housing. There are no trailing cables. The rechargeable battery can be charged using a suitable battery charger. The Levator is equipped with the two men lifter. If necessary, the 2 two men lifter can be converted to a one man lifter using a pair of handles.

4. Initial Operation And Control

Caution Prior to operation the functioning and working condition of the equipment and the battery output of the rechargeable battery must be examined. (see also Para. 5).

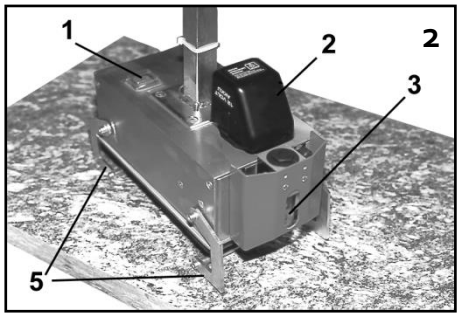
Danger Prior to operation it must be examined, if the material is suitable to be lifted by vacuum and if it is possible to create a vacuum. The low pressure must be at least 0.5 bar. (indicator within the green working zone).**If there is only a low pressure of 0-0.45 bar (indicator within the red danger zone), do never lift the load!**

- Only horizontally positioned and even plates of air-tight material are allowed to be lifted near to the ground.
- Protect the equipment and the rechargeable battery from humidity.
- **Do not lift uneven, wet, porous or dirty plates.**
- The Beta-Levator is delivered as a complete assembly and is ready for operation after recharging the battery.
- It is not permitted to swivel the plate away from the horizontal position, **safety hazard!**
- The Levator may only be directed using the handles, **danger of trapping fingers!**
- Carefully and slowly set down load. **Warning: danger of trapping feet!**

Initial operation

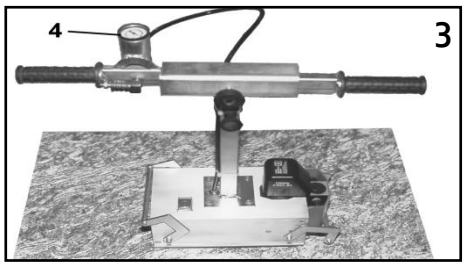
- Remove and recharge the battery (2).
- Empty water trap (3) by turning the lower screw, if necessary.
- Put up resting arms (5) on both sides and actuate rocker switch (1) to start the pump (Fig. 2).

Creating the vacuum

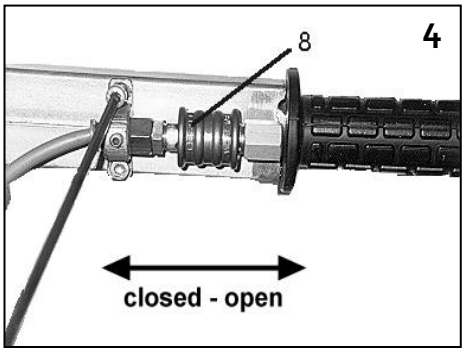


- Close sliding switch (8) (Fig. 4 and 5). Firmly and equally press Levator against the surface to be moved for approx. 2 sec. Care must be taken that the plate is moved from its centre of gravity, otherwise **there is a danger of the load being released!**
- Prior to lifting check manometer (4) to ensure that the vacuum has been created:
  - Indicator within the green working zone:
    lifting allowed.
  - Indicator within the red danger zone:
    no lifting allowed as the vacuum has not been sufficiently created, other-wise there is a danger of the load being released!

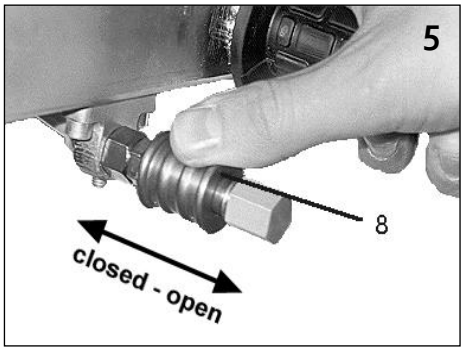
Only now slowly and carefully lift plate in a horizontal position.



- The plate must be moved from its centre of gravity.
- Avoid one-sided and rapid movements of the load, **there is a danger of the load being released!**
- The transport of the plate may only be carried out in a horizontal position and near to the ground.
- **Do never open** the sliding switch (8) during transport: **danger of immediately releasing the load!**

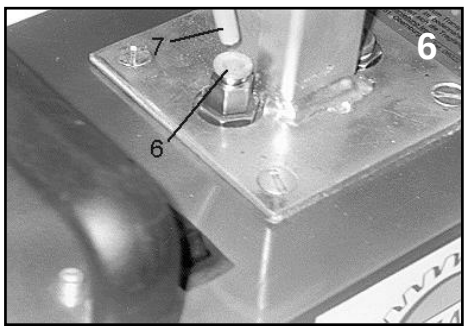


- After the safe setting down of the plate, open sliding switch (8) wait for approx. 2 sec. and remove Levator (Fig. 4 and 5).



- If the Levator is not needed actuate rocker switch (1) to switch off pump.
- In order to protect the sponge rubber place Levator onto its 4 feet (5).

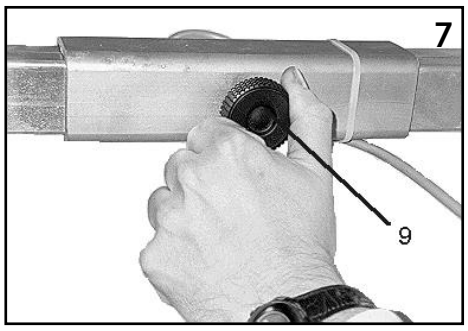
It is recommended to recharge the battery using the battery charger and to empty the water trap (3) after finishing work.



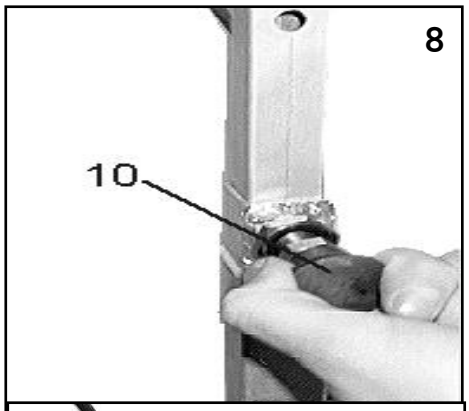
- If required, a suitable charger 220V/12V can be supplied.
- Remove rechargeable battery (2) and put into charger.

- The charger works automatically. After connecting the rechargeable battery the charging starts and the red LED shines. When the green LED shines, the battery is fully charged.

One man lifter / two men lifter

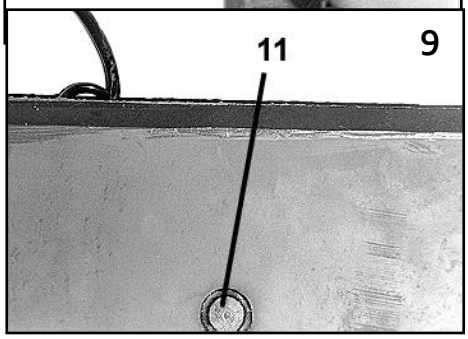


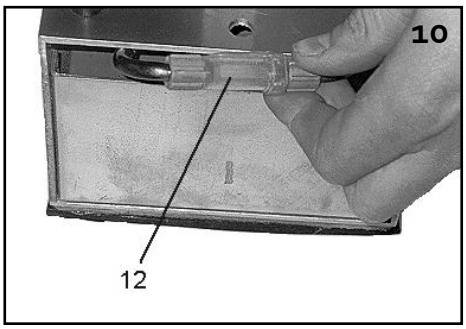
- If necessary the basic equipment can be equipped with a one man lifter or a two men lifter. Press down clutch ring (6) and connect hose (7) with the clutch (Fig. 6).
- The Levator can be released via the sliding switch (8): when working with the one man lifter move ring to the right, when working with the two men lifter move ring backwards (Fig. 4 and 5).
- The working width is adjusted via the screw (9): readjust screw. The height required is adjusted via the bolt (10). Ensure that the bolt snaps in (Fig. 8).



5. Maintenance

- Always keep the Levator clean and free from oil and dust.
- Especially the sponge rubber must be treated with care. If it is damaged it is no longer possible to create a vacuum and the basic plate must be replaced. Avoid longer periods of load pressure as it may reduce the elasticity of the sponge rubber. Therefore, always place the Levator onto its 4 feet, if it is not needed.
- Avoid overstressing, one-sided and rapid movements of the load, **there is a danger of the load being released!**
- Regularly clean and empty the water trap.
- If the suction strength of the Levator reduces, clean coarse filter (11) and replace fine filter (12) (Fig. 9 and 10).
- The battery and the vacuum pump are maintenance-free.
- Protect the complete unit from humidity.
- Only original WIMAG spare parts may be used.
- It is recommended to arrange for the Levator to be examined at least once a year by the manufacturer.
- At regular intervals, examine and retighten screw connections and examine distortions and cracks in welded joints.





6. Troubleshooting

As with all technical devices, the Levator may develop failures. Please consult the following checklist in the first instance in order to find out whether the failure can be easily solved. If not, please contact the manufacturer.

Problem	Solution
The pump does not work.	1. Examine position of the rocker switch (1). 2. Replace battery (2). 3. Examine cables and connections.
The pump works with low pressure.	1. Sliding switch (8) is not completely closed. 2. Recharge battery (2). 3. Empty/clean water trap (3). 4. Clean coarse filter (11). 5. Replace fine filter (12). 6. Examine cables for breakages, loose connections and damages.
The pump works, but vacuum has not been created	1. Press Levator equally and firmly. 2. Sponge rubber does not cover the complete surface. 3. Sliding switch (8) stays open. 4. Empty/clean water trap (3). 5. Clean coarse filter (11). 6. Replace fine filter (12). 7. The material to be lifted is not suitable for vacuum lifters: rough and porous surface... 8. Sponge rubber is damaged: remove sponge rubber, clean and remove grease from the plate, stick on new self-adhesive sponge rubber (remove protective strip).

7. Repairs

- Repairs may only be carried out by qualified personnel or by the manufacturer.
- Only original spare parts may be used, otherwise the warranty will become invalid.
- Do not carry out any alterations or modifications.
- A special inspection must be carried out by an expert before the equipment can be operated again.

8. Warranty And Liability

The warranty and the liability is no longer valid, if the Levator has not been assembled, installed, operated, checked and maintained according to these instructions.

Any doubts about instructions should be raised with the manufacturer prior to use.

Prior to operation the user must ensure that

- **the Levator is suitable for the intended operation,**
- **the functioning and the working condition of the Levator is examined,**
- **the plates to be lifted are suitable for vacuum lifting.**

Failures are to be reported in writing to the supplier immediately, at the latest two weeks following delivery.

It is unacceptable for the client to repair failures or have them repaired by a third party, and then request to be reimbursed for the costs.

According to the manufacturer's general contract conditions the Levator is under warranty for a period of six months from the invoice date. Wearing parts are not covered by the warranty.

The manufacturer is not responsible for any damage occurring in the event of an installation error or insufficient training by a third party, negligence, misuse or excessive stress of the equipment.

It is within the responsibility of the client to check prior to operation the functional condition of the Levator, the suitability of the loads to be handled as well as any damage to the loads before and after installation.

The manufacturer does not take responsibility for any additional claims, for instance, the right to compensation for damage not caused to the Levator itself.

WIMAG GmbH
Brückenstraße 5
D - 63785 Obernburg am Main
Germany
Telefon +49 (0) 6022 / 68 47 0
Telefax +49 (0) 6022 / 68 47 50
gressbach@wimag.de
www.wimag.de

Inspection Sheet

Model	
Serial number	
Year of construction	
Contractor	
Date of first operation	

The inspection of the load handling equipment is carried out by an expert according to BGR 500 Chapter 2.8 of January 2004.

Inspection And Maintenance According To BGR 500 Chapter 2.8

Inspection prior to initial operation according to 3.15.1:	Date Signature of expert
Special inspection according to 3.15.3:	Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert

EC Declaration Of Conformity
As Defined By Machinery Directive 2006/42/EC

We hereby declare that the design and the construction of the equipment mentioned hereafter complies with the following Directive.

This declaration will become invalid, if a modification of the equipment is carried out which has not been agreed with us as manufacturer.

The validity will also expire, if the equipment is not used as directed in accordance with manufacturer's relevant operating instructions and/or all regular inspections are not carried out according to BGR 500 Chapter 2.8.

Description:	**WIMAG Beta - Levator**
Directives:	EC Machinery Directive 2006/42/EC of 17 May 2006
Harmonised Standards:	DIN EN 13 155
National Standards:	BGR 500 Chapter 2.8 of January 2004

As stipulated in Annex VII of the EC Machinery Directive the following documents are available for inspection:

- Operating instruction
- Production drawings
- Production plans
- Static verification
- Certification of welding (DIN 18 800 Part 7)

The CE symbol is marked on the equipment.

Obernburg, 29 December 2009

Gerhard Gressbach
(Dipl.-Ing.)