



KERNLOCHBOHRER[®]
PROFESSIONAL POWER TOOLS



Operating instructions

Vacuum pump VP-113/PRO

BA-07-000002-01-EN

Scope of application

These Operating instructions only apply to the appliance labelled on the cover sheet.

Check the model using the rating plate on the appliance.

Original instructions / translation of the original instructions

In accordance with the EU Machinery Directive, the German copy of these Operating instructions is the original instructions.

Copies in other languages are translations of the original instructions.

Kernlochbohrer GmbH

Geigersbühlweg 52

72663 Großbettlingen

Germany

Phone: +49 (0)70 22 / 50 34 900

E-mail: info@kernlochbohrer.com

Internet: <http://www.kernlochbohrer.com>

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The function of the machine is limited to the functions described in the associated technical documentation.

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1 Information and support

1.1 Thanks to the buyer

Thank you for purchasing a machine from Kernlochbohrer GmbH.

Please read the Operating instructions carefully and observe the safety instructions. By following the Operating instructions, you will be able to fully utilise the outstanding performance of our product.

If you have any questions regarding the operation of the machine, please contact Kernlochbohrer GmbH directly. We are available to answer your questions at any time.

1.2 Using the Operating instructions

The machine is intended for professional use and may only be operated by trained personnel. Strictly adhere to the instructions in the Operating instructions.

Our company declines all responsibility in the event of non-compliance with the Operating instructions, which may result in injury or damage to property.

The Operating instructions are indispensable for using the machine. The Operating instructions must therefore always be kept in the vicinity of the machine and be accessible to the intended personnel at all times.

In addition to the Operating instructions, the generally applicable and local regulations for accident prevention and environmental protection must be provided; compliance with these regulations must be checked regularly.

1.3 Changes

Kernlochbohrer GmbH reserves the right to change the design and appearance of the products and their Operating instructions. Future changes to the Operating instructions will be made without prior notice.

1.4 Explanation of symbols



The symbol draws your attention to dangers that you must be aware of when carrying out the following work in order to avoid damage to yourself, other persons or property.



Cross-reference to another point in the Operating instructions.



Prerequisite for an action.



Action to be performed.



Behaviour of the machine that is to be expected as a result of the preceding action.



Background information or reference to special features.

1.5 Guarantee

In accordance with Kernlochbohrer GmbH's general terms of delivery, a warranty period of 12 months applies for material defects in business transactions with companies (proof by invoice or delivery note).

Damage caused by natural wear and tear, overloading or improper handling is excluded.

Damage caused by material or manufacturer defects will be rectified free of charge by repair or replacement delivery. Complaints can only be recognised if the machine is sent to Kernlochbohrer GmbH undismantled

Wear parts are excluded from the warranty.

1.6 Environmental protection

1.6.1 Disposal of the product

Follow national regulations on environmentally friendly disposal and recycling of used machines and accessories.

For EU countries only:

Do not dispose of the device with household waste! In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its transposition into national law, used electrical tools must be collected separately and recycled in an environmentally friendly manner.

1.6.2 Disposal of the packaging

The packaging is made from recyclable materials. They must be disposed of in accordance with their labelling and municipal guidelines.

1.7 Service

Precise information and specific questions allow faults to be rectified quickly, make it easier to order spare parts and prevent incorrect deliveries.

Before contacting the service, please collect the following data first.

The model designation must be stated in all enquiries and orders. This information can be found on the rating plate of the machine.

Further information is required in the event of faults:

Type and extent of the disorder, accompanying circumstances, suspected cause.

This is required when ordering spare parts:

Quantity and item number in the exploded view of these Operating instructions or item number (if known).

- ① You are welcome to send us photos when ordering spare parts or videos in the event of faults.

Contact details:

Kernlochbohrer GmbH

Geigersbühlweg 52

72663 Großbettlingen

Germany

Phone: +49 (0)70 22 / 50 34 900

E-Mail: info@kernlochbohrer.com

Internet: <http://www.kernlochbohrer.com>

2 Security

2.1 General information

The machine was built according to the state of the art and in compliance with the applicable laws, standards and safety regulations. Use of the machine may nevertheless result in hazards for the user or third parties as well as damage to the appliance and other property.

The machine may only be used if it is in perfect working order and in accordance with its intended use and in a safe and hazard-conscious manner.

If the machine is damaged or malfunctions, take it out of operation immediately, secure it against use and repair it or arrange for it to be repaired.

2.2 Intended use

The machine is intended exclusively for the generation of negative pressure.

Together with the vacuum base plate from Core Drill, the machine is used to attach Core drilling rigs to floor and wall surfaces.

The machine may only be used within the limits of its technical data. This information, for example performance data and ambient conditions, can be found in the "Technical data" chapter.

Any other use or use beyond this is considered improper use - risk of accident! Kernlochbohrer GmbH is not liable for any resulting damage. The risk is borne solely by the operator.

Intended use also includes observing the operating instructions and complying with the prescribed maintenance intervals.

2.3 Safety regulations for the operator

2.3.1 Organisational safety measures

The Operating instructions must always be available for the operating and maintenance personnel. It must therefore always be kept at the machine's place of use.

The regulations on accident prevention and environmental protection applicable at the machine's place of use must also be available. The operator of the machine must regularly check compliance with these regulations.

The use of sound-emitting machines may be limited in time by national or local regulations.

The machine must not be operated in potentially explosive atmospheres or in the vicinity of flammable liquids, gases or combustible dust.

All safety and danger notices on the machine must be legible and must not be removed.

The protective equipment required to operate the machine must be provided by the operator. The operator must ensure that the protective equipment is used properly by the personnel.

Operating and auxiliary materials, such as lubricants or cleaning agents, must be selected in such a way that the limit values for hazardous substances applicable at the place of use are complied with. The regulations for environmental protection and disposal applicable at the place of use must be complied with.

2.3.2 Changes to the device

The operator may not make any modifications to the machine without written authorisation from Kernlochbohrer GmbH. If the operator carries out modifications without authorisation, the warranty becomes void. Kernlochbohrer GmbH is not liable for damage caused by unauthorised modifications.

2.3.3 Spare parts

Spare parts must comply with the properties defined by Kernlochbohrer GmbH. This is always guaranteed for spare parts supplied by Kernlochbohrer GmbH. Kernlochbohrer GmbH is not liable for damage caused by the use of unsuitable spare parts.

2.3.4 Personnel

All persons who are authorised to commission, operate and maintain the machine must have read and understood the Operating instructions beforehand.

The machine may only be operated by persons who have been adequately instructed beforehand.

The machine may only be serviced by persons who have completed the appropriate specialised training for this activity.

Minors are not permitted to work with the machine. Young people over the age of 16 who are trained under supervision are exempt from this regulation.

2.4 Safety regulations for staff

2.4.1 Safe behaviour

All persons responsible for commissioning, operating and maintaining the machine must have read and understood the Operating instructions beforehand.

The machine may only be operated by persons who have been adequately instructed beforehand.

The machine may only be serviced by persons who have completed the appropriate specialised training for this activity.

Minors are not permitted to work with the machine. Young people over the age of 16 who are trained under supervision are exempt from this regulation.

Any work on and with the machine that could jeopardise safety must be avoided.

All safety and danger notices on the machine must be legible and must not be removed.

2.4.2 Safe operation

Operating the machine requires the full concentration and ability of the personnel. Persons who are overtired, unable to concentrate or under the influence of alcohol, drugs or medication must not work on or with the machine.

Persons who are not directly required to operate the machine must maintain a sufficient safety distance from the machine.

Before using the machine, check that it is in perfect condition. If the machine is damaged, it must not be used. Then secure the machine against use and repair it or arrange for it to be repaired.

In order not to jeopardise the functionality and safety of the machine, covers or other components of the machine must not be removed.

Before starting or starting up the machine, ensure that persons are not endangered by the starting machine.

Operating elements must not be operated thoughtlessly or wilfully. This could result in personal injury or damage to the appliance.

When using the machine, personnel must ensure that they stand securely and adopt an ergonomic posture.

The machine must not be left unattended during use.

Stopping the machine during operation with a heavy load must be avoided. This could lead to damage due to overheating.

Air inlet and outlet openings must not be covered during use.

The machine must not be exposed to rain or moisture and must never be immersed in water. Water entering the machine increases the risk of electric shock.

The machine must be cleaned regularly so that dirt does not accumulate. All operating elements and handles must be kept clean, dry and free of grease.

When the machine is not in use, it must be parked in such a way that nobody is endangered. Secure the machine against unauthorised use.

2.4.3 Protective equipment

Wearing protective equipment reduces the risk of injury:

- Safety shoes with non-slip sole and protective toe cap
- Cut-resistant and non-slip gloves
- Safety goggles according to standard EN 166 or face protection
- Safety helmet

If the noise emissions generated when using the appliance exceed the limits applicable to this workplace, suitable hearing protection must be worn.

Persons carrying out maintenance work on the appliance are obliged to wear the appropriate protective equipment required for this work.

2.5 Safety during maintenance

2.5.1 General information

The machine may only be serviced by persons who have completed the appropriate specialised training for this activity.

The maintenance activities and intervals specified in the Operating instructions must be observed.

Workshop equipment appropriate to the type of work is required to carry out maintenance activities.

The following safety precautions must be taken before starting maintenance work:

- Position the machine so that the access point is easily accessible.
- Set the machine to the appropriate operating status.

After completion of maintenance activities:

- Assemble the machine completely.
- If operating elements or safety devices have been removed, they must be refitted and their function checked.

Persons carrying out maintenance work on the machine are obliged to wear the appropriate protective equipment required for this work.

2.5.2 Cleaning

Do not use any corrosive, harmful or environmentally damaging substances to clean the machine. Dispose of cleaning agents in an environmentally friendly manner.

Under no circumstances should high-pressure cleaners, water jets or compressed air be used to clean the machine.

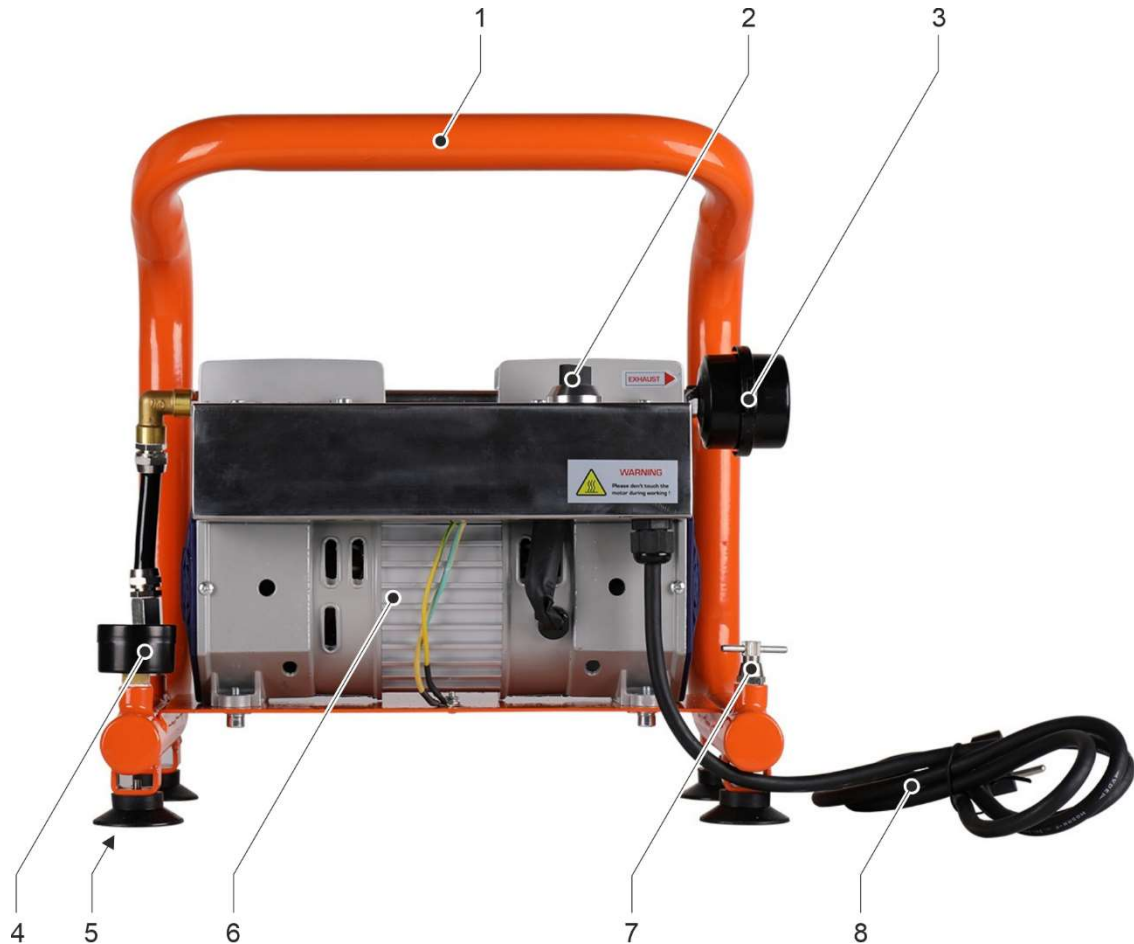
3 Technical data

Article number	6256
Power consumption	430 W
Tension	230 V \pm 5% 50 Hz
Generated negative pressure	0.7 bar
Air flow	113 L/min
Length	390 mm
Width	230 mm
Height	390 mm
Weight	14.3 kg
Hose length	Spiral hose (approx. 4 m)
Permissible ambient temperature	5°C to 40°C
Permissible relative humidity	30% to 80%
Compatible with	Vacuum base plate VGP-420/PRO (article number 6262) from Kernlochbohrer GmbH

- ① Conversion of the different units for pressure:
1 bar = 0.1 MPa = 750 mmHg

4 Machine description

4.1 Machine components



Front page

- 1 Transport handle and vacuum tank
- 2 On/off switch
- 3 Air outlet silencer
- 4 Vacuum pressure gauge
- 5 Stand (4 pieces)
- 6 Vacuum generator
- 7 Ventilation valve
- 8 Mains cable



Back

- 1 Water separator
- 2 Connection for vacuum hose

4.2 Scope of delivery

The scope of delivery of the machine includes the following components:

- Vacuum pump
- Vacuum hose (usable length approx. 4 m)
- Operating instructions

① The vacuum base plate required for using the device as well as the Core drilling machine and Core drilling rig must be procured separately.

Kernlochbohrer GmbH offers an extensive range of machines, tools and accessories for the device. The webshop <http://www.kernlochbohrer.com> is available for information and ordering.

5 Utilisation of the machine

- ① In these Operating instructions, the term drilling system is used for a combination of Core drilling rig, Core drilling machine and drill bit.
- ① The vacuum base plate, Core drilling rig and Core drilling machine may only be used in accordance with their Operating instructions.

5.1 Specific precautions



The vacuum pump and the vacuum base plate may only be used to attach a Core drilling rig for wall or floor drilling.

The use of the vacuum pump and vacuum base plate to attach a Core drilling rig to the ceiling is prohibited, as failure of the attachment could result in death or serious injury to the persons involved.

The vacuum pump may only be operated in a dry, clean and well-ventilated place. It must not be exposed to corrosive, flammable or explosive gases.

If a fault occurs during operation of the machine (e.g. smell of burning), switch off the machine immediately and disconnect the mains cable from the plug. Otherwise a fire, electric shock or other incident could occur. The machine may only be switched on again once the fault has been rectified and the machine is functioning correctly.

5.2 Optical inspection

Before working with the machine, it must be visually inspected:

- Check general condition and cleanliness.
- Check that all covers and components are present.
- Check that all screws are tight.
- Air inlet and outlet openings must not be dirty or covered.
- The mains cable and connection plug must not be damaged.
- Check the fill level of the compressed air condensate in the water separator. If necessary, drain the compressed air condensate into a container. To do this, push the pin on the water separator's collection container upwards.


5.3 Electrical connection



Danger of electric shock!

The machine does not have the appropriate degree of protection and must therefore not be operated in wet rooms (e.g. bathrooms or laundry rooms).

Please note the following points:

- Observe the electrical connection values of the appliance.
 See chapter 3 "Technical data".
- The mains cable and connection plug must not be damaged.
- Damaged mains cable or damaged mains plug may only be replaced by Kernlochbohrer GmbH or a qualified electrician.
- The mains plug and socket must be clean and dust-free.
- The electrical voltage supplied must not deviate by more than 5% from the nominal value. Excessive voltages can lead to irreparable damage to the machine.
- Voltage peaks must not occur when operating the machine with power generators.

- When connecting the machine to the mains, a residual current device (RCD) with a maximum tripping current of 30 mA must be connected upstream.
- The machine is supplied with a type F mains plug (CEE 7/4). It may only be operated with the corresponding safety sockets (CEE 7/3).
- When using extension cables, the cable cross-section must be suitable for the power consumption of the machine.
- When using a cable reel, the cable must always be unrolled completely.
- To remove the mains plug from the socket, grasp the mains plug. Do not pull on the cable.
- If the machine is not to be used for a longer period of time, switch off the machine and remove the mains plug from the socket.

5.4 Switch on the machine



- 1 Core drilling rig
- 2 Vacuum base plate
- 3 Vacuum hose
- 4 Vacuum pump

**Risk of burns!**

The vacuum pump motor becomes very hot during operation (70 - 80°C).

Do not touch the vacuum pump during operation and allow it to cool down sufficiently at the end of operation!

Procedure:

- Visual inspection carried out.
- Electrical connection established.
- Close the ventilation valve of the vacuum tank.
- Connect the vacuum pump and vacuum base plate with the vacuum hose.
- Switch on the vacuum pump at the on/off switch.

① If the vacuum pump does not build up a vacuum after switching on:
Switch off the vacuum pump, ventilate the vacuum tank by opening the venting valve, grind the venting valve and switch the vacuum pump on again.

① The filter element of the water separator absorbs dust and moisture.

To maintain the full performance of the vacuum pump, the water separator must be replaced when the filter element is saturated.

① The vacuum pump has a thermal switch that switches off the vacuum pump if it overheats or the voltage is too low.

5.5 Switch off the machine

Procedure:

- Drilling process completed.
- Core drilling machine removed from the Core drilling rig.
- Core drilling rig removed from vacuum base plate.
- Switch off the vacuum pump at the on/off switch.
- Allow the vacuum pump to cool down sufficiently.
- Hold the vacuum base plate firmly with one hand and open the ventilation valve of the vacuum base plate with the other hand.
 - The space under the vacuum base plate is ventilated and the vacuum base plate can be removed.
- Disconnect the vacuum hose from the vacuum base plate and vacuum pump.
- Remove the mains plug from the socket.
- Open the vent valve to release the vacuum in the tank.
- Close the ventilation valve again.
- Empty the compressed air condensate from the water separator. To do this, push the pin on the collection container upwards and collect the compressed air condensate in a container.
- Check the vacuum pump for soiling. If necessary, clean the vacuum pump. Use a damp cloth dipped in water mixed with a mild detergent.

5.6 Store the machine

Procedure:

- Machine switched off and cooled down.
- Close the ventilation valve of the vacuum tank.
- Store the machine in a dry, cool place protected from moisture and direct sunlight.
- Secure the machine against unauthorised use.

6 EU Declaration of Conformity

The manufacturer/distributor

Kernlochbohrer GmbH
Geigersbühlweg 52
72663 Großbettlingen
Germany

hereby declares that the following product

Product description: **Vacuum pump**
Type: **VP-113/PRO**

complies with all relevant provisions of the applicable legal regulations (hereinafter) - including their amendments valid at the time of the declaration. This declaration of conformity is issued under the sole responsibility of the manufacturer. This declaration relates only to the machine in the state in which it was placed on the market; parts and/or modifications subsequently fitted by the end user are not taken into account.

The following legal provisions were applied:

Machinery Directive 2006/42/EU

Electromagnetic Compatibility Directive 2014/30/EU

The following harmonised standards were applied:

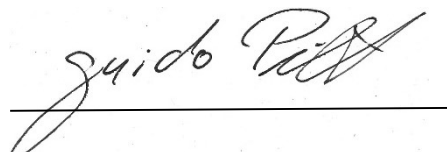
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
EN 1012-2:1996+A1:2009	Compressors and vacuum pumps - Safety requirements - Part 2: Vacuum pumps
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
EN 61000-6-1:2007	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
EN 61000-6-3:2007+A1:2011	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

Name and address of the person authorised to compile the technical documentation:

Kernlochbohrer GmbH | Geigersbühlweg 52 | 72663 Großbettlingen | Germany

Großbettlingen 02.02.2025

Kernlochbohrer GmbH



Guido Pillat

Managing Director / Chief Executive Officer