



Absaugwelt24 GmbH

# BENCHVAC BV3000



INSTRUCTION  
MANUAL



# BENCHVAC BV3000

Carefully read these instructions before use and keep them safely after reading for later reference.

## INSTRUCTION MANUAL

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Dear customer,

Thank you for choosing a BV3000 made by MAXVAC.

The BV3000 from MAXVAC has been manufactured with the greatest care, and we hope that you will be happy with the BV3000 you have just purchased. However, if it does not fully comply with your expectations, please contact your supplier.

The MAXVAC brand was born in Switzerland to provide maximum performance equipment to deal with dust management and provide environmental cleaning solutions.

The MAXVAC team is passionate about providing the most environmentally and ecologically acceptable cleaning solutions to promote clean and healthy environments in the home town and workplace.

The BV3000 was specifically designed for the construction industry. This machine is suitable for collective use, e.g. in welding / carpentry environments.

We are committed to continuous effective improvement in the battle against fine dust.

## CONGRATULATIONS

Congratulations on your purchase, you have obtained a state-of-the-art bench vacuum system. We hope that you will enjoy your purchase for years to come.

Read ALL instructions carefully before using this product.

### FOR YOUR RECORDS

Please record the model and serial number below, for easy reference, in case of loss or theft. These numbers are located on the back panel of your air purification unit. Space is also provided for other relevant information.

Model number

---

Serial Number

---

Date of Purchase

---

Purchased From

---

## SAFETY PRECAUTIONS

**The Manufacturer reserves the right to update and improve its production without the duty to modify the previously sold machines. Each machine is tested in our factory before being delivered.**

The function of this machine is only "bench vacuum" therefore the Manufacturer refuses all responsibility inherent in a different use from the one set by the Manufacturer.

The user and other people are not allowed to modify, alterate, change, etc. Its products. The transgressor will be responsible for all the risks and damages caused by improper and dangerous tampering.

It's absolutely necessary to observe carefully the safety measures of UE directives and national laws which are in force to protect the safety and health of the workers.

They are the best prerogative for a better use and a warranty against injuries.

Don't use the vacuum without right safety devices (check always their functionality).

While using the machine do not make dangerous manouvers for you and other people. Keep foreign people away from your work. The maintenance must be done by authorized personnel. Always use original spare parts.

## WARRANTY

Within 5 days from delivery the customer must check that what has been delivered is what was ordered. After such a term, no complaint can be made to this effect.

All complaints concerning delivered and sold products must be sent to MAXVAC in writing within eight days from delivery (by means of a registered letter with return receipt) otherwise the guarantee will no longer be considered valid. Complaints can in no way justify delayed or non-payments. Shortages and defects must be reported to the carrier at the time of delivery.

It is expressly agreed that the guarantee given by MAXVAC is for repairs of the product supplied or for its replacement, and as such shall substitute, to all effects, guarantees established by the law which are expressly excluded together with any rights if the contract is cancelled, for damages or reductions in prices.

MAXVAC guarantees its products against manufacturing defects for a period of 12 months from the date of delivery. The guarantee is limited to the replacement or repairs of products found to have manufacturing defects; the cost of labour, travelling and accommodation expenses for any technical staff that may be called out shall be charged to the customer. Parts to be repaired or replaced must be sent carriage free to MAXVAC. Parts to be repaired or replaced shall be delivered to the customer with carriage payable on arrival

MAXVAC reserves the right to modify the technical and dimensional data without prior notice.

MAXVAC does not accept liability for direct damage and damage to products or personal injury if the product is not used for its intended purpose. The operating company must prove that the defect is not caused by improper installation, assembly, maintenance or use of the product. For your own safety, use only original spare parts and accessories. MAXVAC accepts no liability for any damage that may occur if other products are used.

# WARNINGS

## Hazard Prevention

Serious injury, including death

- Work on the electrical network and active components may only be carried out by an electrician.
- Follow the safety rules for working with electrical products.
- Before working on it, turn off the product or any live components and secure against reactivation (e.g. padlock).
- Make the electrical connections of the components according to the manufacturer's specifications.
- Protect the power supply cables from damage and size them for the drive motor power draw.
- Carry out the electrical installation and connection of the drive motor in accordance with regional regulations, country legal standards and the rules of the regional power company.
- Check the power cord regularly for damage and wear.
- If there is visible damage to the product or power supply, do not open and secure against reactivation (e.g. padlock).
- Have a damaged cable replaced by qualified personnel.
- Check the protective devices (motor protection relay, grounding resistance, etc.) and adjust them to the operating conditions of the product.

## Fire hazard due to sparks and combustible particles

Serious injury, including death.

- Keep flammable and combustible materials away from the work area.
- Never run away if your clothes catch fire. Extinguish the flames by lying on the floor or suffocating them with a blanket.
- If there is a fire, alert the fire brigade immediately and contain the fire with suitable means.
- Have a suitable extinguisher (not included in the scope of delivery) near the product before and during operation.

# WARNINGS

## Risk of Falling Tripping

Caused by falling objects or loads life threatening

- Do not stand under suspended loads.
- Fix and mark the mounting area (eg with barrier tape).
- Always lift the product vertically during loading and assembly work.
- Only move the product with suitable, approved lifting and handling equipment.
- Keep a sufficient distance from the product during installation. Distance at least 1.5 times the height of the product.
- Use personal protective equipment.

## Risk of crushing due to loose or open cover

Limb injuries

- Keep covers tightly closed during operation.
- Make sure the inspection doors are tightly closed.
- Regularly check that the fixing screws and component connections are secure.
- Only operate the product after installation is complete and verified.

## Toxic Dusts

Short-term in the respiratory organs during breathing corruption

- Maintenance, cleaning, repair and emptying works can only be done by qualified personnel.
- Use personal protective equipment.
- Only use the product with the filter elements installed.
- Check the filter elements regularly for clogging.
- Since it is connected to the discharge hole of the collection container.
- be sure.
- Make sure the inspection doors are tightly closed.
- Do not move the product during the process.
- Always complete all maintenance and repair work in a well-ventilated room.
- Do not blow or strike the filter elements while removing them.
- Put used filter elements in airtight disposal bags and dispose of them in accordance with local regulations

# WARNINGS

## Dust deposits in the piping system

Short-term deterioration of the respiratory organs during breathing

- Check the connected tubing regularly for dust deposits.
- Monitor the minimum air velocity required for your application and the resulting minimum flow volume.

## Self-Acting Movement

Minor injuries to body or limbs

- Do not place the product on a sloping surface.
- Always make sure that the wheel lock is engaged during installation.
- Make sure the surface is plow able, level and sufficiently load-bearing.
- Use personal protective equipment.

## Electric Shock From High Voltage

Serious injuries, including death, are possible.

- Work on the electrical network and live components may only be carried out by an electrician.
- Follow the safety rules for working with electrical products.(eg padlock).
- Before working on it, turn off the product or any live components and secure against reactivation
- Make the electrical connections of the components according to the manufacturer's specifications.

## Release of Compressed Air Pulses While Cleaning the Filter Elements (For the with jetpulse system)

Risk of hearing damage

- Use personal protective equipment.
- Do not open the product during cleaning.
- Make sure the inspection doors are tightly closed.
- Only open the unit doors when the compressed air tank is depressurized.
- Wait for the auto cleaning process to finish.
- Disconnect the compressed air supply from the product.
- Empty the compressed air tank.

# INFORMATION

## Fire Hazard in the Spark Arrestor Filter

Traces of dust and accumulation of particles can cause a fire on the air guide plate.

- Remove adhesive dirt and debris from the guide plate and inspection cover. clean it regularly.
- Prevent sparks from entering the air guide plate.

## Work Station Ventilation

The provisions of DGUV rule 109-002 must be followed. During suction and filtration, the volume flow from the product back to the room should not exceed 50% of the supply air. In open room ventilation, a supply air flow equal to 1 times the room volume per hour should be assumed.

This means that the air exchange rate should be 1 / hour.

Calculation: Supply air flow [m<sup>3</sup> / hour] = room volume [m<sup>3</sup>] x air exchange rate [1 / hour]

Example: While the product is operating at the nominal air flow rate of 1,060 m<sup>3</sup> / hour, the same amount of fresh air must be supplied. This is with natural ventilation if the volume of the study room is 1,060 m<sup>3</sup>. takes place. (e.g. 353 m<sup>2</sup> surface x 3 m ceiling height).

## Safety Notes

The following basic safety precautions should be observed to prevent electric shock, injury or fire.

- Read and follow all instructions listed below before using the unit!
- Keep operating and service instructions in a safe and easily accessible place!
- Do not use this unit for suction of easily flammable and explosive gases!
- Do not use in explosive areas! For example; zone0, zone1, zone2, zone20, zone21, zone22
- Do not use for suction of flammable and combustible materials! Sample; cigarettes, matches, aluminum powder and shavings, paper, cleaning cloths, etc.
- Do not use for suction of flammable or combustible materials! Sample; oil and oil mist, animal fats, release agents (such as silicone spray), cleaning agents, etc.
- Do not use to absorb aggressive substances!
- Do not use for sucking up liquids!
- Do not use to absorb any organic material without the written consent of the manufacturer!

# INFORMATION

## Safety Notes

- Protect the connecting cable from heat, moisture, oil and sharp edges!
- Check that you are supplying the correct voltage! (Pay attention to the information on the label!)
- Only use original MAXVAC spare parts!

## Qualified Personnel/Trained Personnel

### Trained personnel

Trained personnel are those who are informed about the correct use of the product and are aware of the risks posed by improper use. Personnel should receive instruction on safety equipment. Knowledge of this manual is mandatory.

### Qualified semi-skilled

Have the appropriate technical training, knowledge and equipment to identify and prevent hazards. An employee with technical experience. In accordance with the directions of this manual.

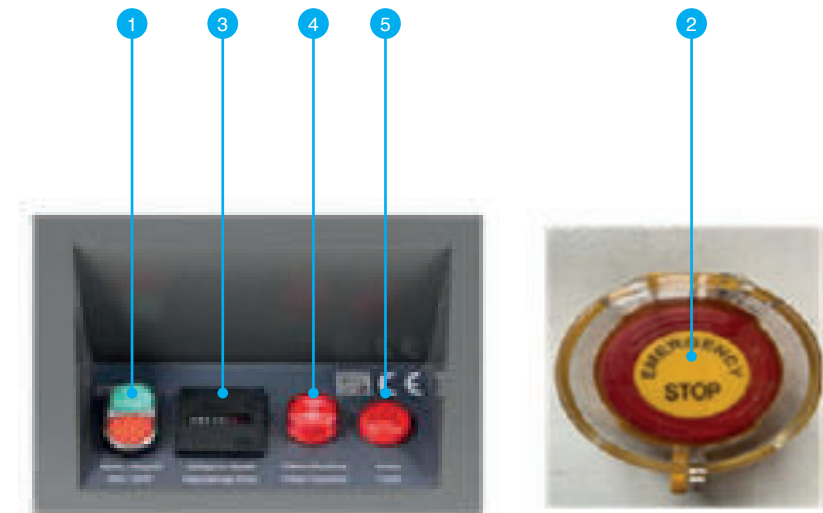
### Trained Skilled Worker

Qualified technician in a qualified profession. In accordance with the directions of this manual.

| Target Group                | Duty                   | Qualification                      | Protector Equipment |
|-----------------------------|------------------------|------------------------------------|---------------------|
| Transport Personnel         | Transport Placement    | Qualified Semi-Skilled Technicians |                     |
| Installation Personnel      | Setup                  | Trained Skilled Worker             |                     |
| Commissioning Personnel     | Installation           | Trained Skilled Worker             |                     |
| Operating Personnel         | Operation              | Qualified Semi-Skilled Technicians |                     |
| Maintenance Personnel       | Audit Care Repair Work | Educated Qualified                 |                     |
| Maintenance, Cleaning Staff | Cleaning               | Trained Skilled Worker             |                     |

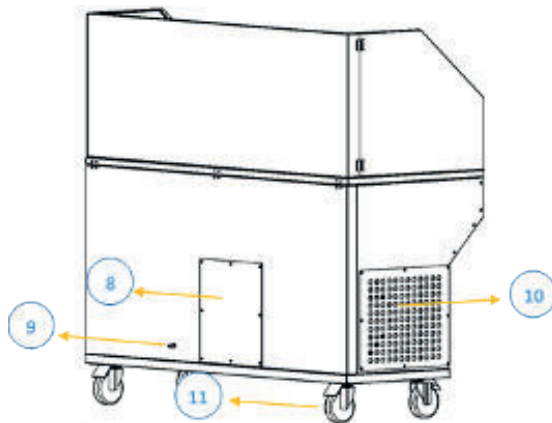
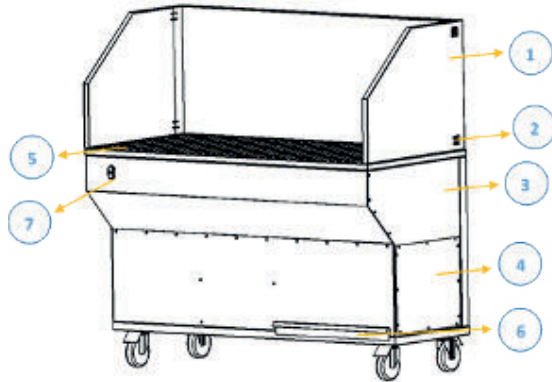
# CONTROLS

1. On/Off Switch
2. Emergency Stop Button
3. Operating Time Counter
4. Filter Control
5. Warning



## MAIN PARTS

- |                   |                         |
|-------------------|-------------------------|
| 1. TRENCH         | 7. CONTROL PANEL SCREW  |
| 2. HINGE          | 8. FILTER AREA COVER    |
| 3. CHASSIS        | 9. COMPRESSED AIR INPUT |
| 4. FAN AREA COVER | 10. AIR BLOW OUT        |
| 5. WORKING SHEET  | 11. WHEELS              |
| 6. DUST DRAWER    |                         |



## FILTER CHANGE

1. Open the filter unit cover.
2. The filter is fixed to a metal profile with a bolt. Unscrew the bolt completely. Prevent a person from falling by holding the filter.
3. Remove the fixing profile.
4. Pass a waste bag over the filter.
5. Fold the waste bag over the edge of the filter cartridge.
6. Operator 1 carefully removes the filter cartridge, while operator 2 carefully folds the waste bag over the entire filter cartridge.
7. Wrap the disposal bag around the filter cartridges and seal tightly. (e.g. cable ties)
8. Used filter cartridges have been removed and are ready for disposal.
9. Clean the housing, including the back side of the air guide plate, with an industrial vacuum cleaner. The dust should not be dispersed while doing this.
10. Unpack the new original MAXVAC filter cartridges.
11. Check the tightness of the gasket (below) on the filter cartridge and adjust as necessary.
12. Place the new filter cartridges in the housing.
13. Attach the profile and fix the filter with the bolt.
14. Two personnel or a suitable lifting device should be used to place the filter unit.
15. Tighten the thumbscrew by hand.
16. Put the work plate in place





## CLEANING FILTER

### Auto Clean

When the filters reach the saturation point, a filter cleaning warning appears on the panel and the cleaning is automatically activated. It performs cleaning for the set time of 1 minute. The cycle continues until the alarm is deactivated.

- The system performs automatic post-cleaning every time the system is turned off.
- Filter elements are cleaned from coarse dirt.
- Wait at least 5 minutes before opening the inspection door. This ensures that the cleaning cycle is complete and contaminants are poured into the collection container.



#### WARNING

For manual cleaning of filters, plug F or manual cleaning of filters mplug compressed air into the air connection above. Wait 30-40 seconds, the filter will be cleaned. For models with two filters, do the same for both filters in turn. PRESSURE 5-6 BAR. Approximate air consumption 0.96 m<sup>3</sup> / min air into the air.



## SPECIFICATIONS

| Description                | BV3000                               |
|----------------------------|--------------------------------------|
| Power Supply               | 415 VAC                              |
| Frequency                  | 50 Hz                                |
| Motor Power                | 2.2 kW                               |
| Fan                        | Aluminium, w/o weld                  |
| Maximum Flow               | 3500 m <sup>3</sup> /h               |
| Average flow at surface    | 1700 m <sup>3</sup> /h               |
| Protection Class           | IP 54                                |
| Body                       | Galvanised steel DX51D+Z100-EN 10346 |
| Dimensions                 | 1500W x 700D x900H (mm)              |
| Carrying Capacity          | 500 Kg                               |
| Weight                     | 150 Kg                               |
| ISO Class                  | F                                    |
| Filter                     | F9 Cylindrical cartridge             |
| Filter clean               | Rotary type automatic                |
| Noise Level                | 71dB(A)                              |
| Filter Surface             | 11m <sup>2</sup>                     |
| Compressed air consumption | 700 lt/min at 4-6 bar                |

# TROUBLESHOOTING

## ERROR AND FAULT DETECTION

| Problem   | Causes  | Solution  |
|---|---|---|
| The unit does not suck.<br>(Fume extraction cannot be performed.) | Suction holes are clogged.                                  | Open the holes to allow suction.  |
|   | The work plate is damaged.                                  | Replace the work plate.   |
|   | The cables are damaged.                                     | Renew the wiring.   |
|   | The fresh air outlet section is closed.                     | Check the fresh air discharge, rectify the fault if necessary.                      |
| Low suction power   | Cartridge filter is full                                    | Change the filter. Execute replacement and disposal in accordance with regulations! |
|   | Mesh filter needs to be cleaned                             | Clean with water in accordance with the rules.                                      |
|   | Drawers are not closed correctly.                           | Push the filter drawers until the gasketing is provided correctly                   |
|   | Fan rotation direction is reverse.<br>(Only 3 phase models) | Check the fan rotation direction and change the phase direction.                    |
|   | There is an obstacle in front of air exit                   | Remove the obstacle.  |
| The system does not activate.                                     | There is no energy.   | Make sure the main connection is correct. Check the power connections.              |
|   | There is no electricity in the main connection              | Provide main connection.  |

# TROUBLESHOOTING

## FAN AND DRIVE MOTOR FAILURE

| Failure                                    | Causes                                      | Solution   |
|--|---|--|
| Unusual sounds                             | The fan is rubbing against something        | Notify MAXVAC service.   |
| The desired air volume cannot be reached.  | Filters are blocked.                        | Clean/replace filters  |
| Fume generation or loud noise from the fan | Imbalance in the fan                        | Turn it off now. Have it checked by MAXVAC service.                |
| Vibration rate too high                    | Problem with fan holder                     | Have the fan checked by MAXVAC service.                            |
| Fan is not working properly                | Fan out of balance due to dust accumulation | Turn it off immediately. Carefully and clean it thoroughly the Fan |
| Power cables front fuse blown              | There is a main power supply problem        | Check fuse, wiring and main power supply voltage                   |

# EU - DECLARATION OF CONFORMITY

BV3000

**Models:** MV-BV3000

Machine: Mobile downdraft table for welding, grinding

MAXVAC, hereby declares the above stated models  
comply with the following or relevant part thereof:

Developed, designed and manufactured in accordance with EU directives set out  
in this declaration. It also fulfills the protection objectives of the following EC / EU  
directives:

2014/30/EU EU – Electromagnetic Compatibility Directive  
Protective targets of 2014/35/EU Low Voltage Directive 2006/42/EC Machinery.

Applied harmonized standards:

DIN EN ISO 12100:2011-03

DIN EN ISO 13857:2008-06

DIN EN 349:2008-09

DIN EN 60335-1:2012-10

DIN EN 61000-6-1:2007-10

DIN EN 61000-6-2:2006-03

DIN EN 61000-6-3:2011-09

DIN EN 61000-6-4:2011-09

DIN EN 61000-3-2:2015-03

DIN EN 61000-3-3:2014-03

**Manufacturer:** MAXVAC, Schweiz.

**Date:** 1st September 2020.