

VITA VACUMAT® 6100 M

Instructions for use



VITA shade determination

VITA shade communication

VITA shade reproduction

VITA shade control



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1 Introduction

Dear Customer,

Thank you for purchasing a VITA VACUMAT 6100 M.

The long-proven heating system for ceramic firing devices using a quartz Kanthal firing muffle and newly developed insulating material in the firing chamber, ensures many years of uniform firing results with all-ceramic materials.

The high-quality temperature control and automatic temperature adjustment ensures a precision of plus/minus 1°C.

This device has been designed in accordance with the latest technological benchmarks and complies with all international safety standards. However, incorrect use can be dangerous. Please read these instructions for use and follow the instructions provided.

Reading and understanding this operating manual will help you maintain safety, reduce expenses due to less downtime and fewer repairs and increase the reliability and service life of the device.

These instructions for use must always be kept close to the device. They must be read and followed by all persons responsible for performing tasks such as operation, troubleshooting during operation and cleaning and servicing (maintenance, inspection, repairs), either with or on the device.

We hope that you will find using the VITA VACUMAT 6100 M to be an enjoyable and successful experience.

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These instructions for use must be treated as confidential. They should only be used by authorized persons. They may only be transmitted to third parties with the written consent of VITA Zahnfabrik H. Rauter GmbH & Co. KG.

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1 Introduction

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This device has been designed in accordance with the latest technological benchmarks and complies with all international safety standards. However, incorrect use can be dangerous. Please read these instructions for use and follow the instructions provided.

Reading and understanding this operating manual will help you maintain safety, reduce expenses as a result of repairs and downtime and increase the reliability and service life of the device. All of the illustrations and drawings in these instructions for use are intended for general explanatory purposes and are not authoritative for the detailed construction of the device.

These instructions for use must always be kept close to the device. They must be read and followed by all persons responsible for performing tasks such as operation, troubleshooting during operation and cleaning and servicing (maintenance, inspection, repairs), either with or on the device.

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2 Safety information

The device has left the factory in proper safety condition. In order to maintain this condition and to ensure safe operation, the user must observe and follow the safety and operating instructions contained in these instructions for use. The manufacturer is not responsible for damage caused by not following the instructions.

We hope that you will find using the VITA VACUMAT 6100 M to be an enjoyable and successful experience.

2.1 Pictograms used

	General warning sign	This pictogram warns of hazards and risks.
	Warning about electrical voltage	This pictogram warns the user about hazardous voltage. Before opening the instrument, always disconnect it from the mains current by unplugging the power plug.
	Warning about hot surfaces	This pictogram warns the user about hot surfaces. Burns are possible.
	Mandatory sign "Follow instructions"	This device complies with the applicable regulations of the European Union (EU). The declaration of conformity can be accessed on the homepage under MyVITA or requested directly from VITA Zahnfabrik.
	Separate disposal	This instrument and all accessories labeled with this symbol are subject to Directive 2012/19/EU (WEEE) and the applicable national regulations, and may not be disposed of as unsorted municipal waste in the European Union (EU). Old units can be returned to VITA Zahnfabrik.
	CE marking	This device complies with the applicable regulations of the European Union (EU). The declaration of conformity can be accessed on the homepage under MyVITA or requested directly from VITA Zahnfabrik.

2.2 Intended use

The firing, sintering and press furnaces from VITA Zahnfabrik were designed and built for use in dental technology. They are used for firing, sintering and pressing dental-specific materials.

Any other or additional use, such as heating food, processing hazardous substances or products, other than those intended for the firing process, is considered improper. The manufacturer will not be liable for any damage resulting from such unauthorized use. The risk of such use is borne exclusively by the user.

2.3 Insulation material of the firing chamber

The insulation of the firing chamber contains ceramic mineral fibers (Index No. 650-017-00-08), which is classified as a CAT 2 carcinogen (Annex VI, EC 1272/2008). When working with the firing chamber or exchanging the firing muffle, fiber dust may be discharged. Dust may be harmful if inhaled and cause irritation to the skin, eyes and respiratory system. Therefore, always follow these instructions when replacing parts of the firing chamber:

- Wear long-sleeved protective clothing.
- Wear safety goggles, as well as protective gloves.
- Use a dust vacuum system or wear a FFP 2 respirator.
- In case of skin contact, wash the dust off with clear running water.
- Wipe off released dust with a damp cloth. Do not blow or sweep away dust.

2.4 General safety and hazard warnings



The instructions for use must be read and used by all persons who operate, clean and maintain the device.



General precautions

- Ventilation openings must not be covered or blocked. The unit may not be used without the fan, as the fan prevents the unit from becoming too hot.
- Do not place any objects on top of the furnace.
- Always keep any safety and hazard warnings on the device in legible condition. These must not be removed.
- Do not place any objects in the area of the lift plate
- The housing must only be cleaned with a damp cloth and no cleaning agent. Do not use any solvents.



Installation and commissioning instructions

- Set up the device in such a way that the main switch can be easily operated and the power supply cable can be easily disconnected.
- Use the device in dry rooms only.
- Prevent direct sunlight from coming into contact with the device.
- When the temperature is below 15°C (e.g., after transport), leave the device to stand for approx. 30 minutes at room temperature before using it for the first time.
- Place on a non-flammable surface.
- Maintain a safe distance from walls and furniture.
- Do not place the VITA vPad control unit directly in the heat radiation area of the firing chamber.
- Do not place any flammable objects, liquids or gases in the vicinity of the device.
- Do not operate in potentially explosive areas.



Risk of burns

- Do not touch parts that become hot during operation.
- Always use the firing tongs / tweezers to load and remove the items to be fired. Heat protection gloves are recommended.
- Do not reach into the danger area with your hand.
- Always place the items to be fired on the designated tray / cooling table.



Danger of electric shock

- Before switching on, make sure that the operating voltage specified on the device corresponds to the mains voltage.
- Before any care, cleaning or maintenance, let the device cool down, switch it off and pull out the power plug.
- Always connect the furnace to a separate electrical circuit. Do not connect to distribution sockets with extensions.
- Do not handle liquids on or above the device.

3 Scope of delivery

Device supplied in a special box with:

- | | |
|--|----------|
| • 1 VITA VACUMAT 6100 M coated furnace | Item no. |
| • 1 network cable, 200 cm | |
| • 1 VITA vacuum tubing, 200 cm | D33218 |
| • 1 firing base | D23294 |
| • 1 bar light status display | D47225 |
| • 1 furnace tweezers | D20191 |
| • 1 firing tray G | B009NU |
| • 1 VITA safety information | 10526M |
| • 1 Instructions for use | 10856 |

3.1 Control unit VITA vPad

The VITA VACUMAT 6100 M can be equipped with the following control units:

- VITA vPad comfort
- VITA vPad excellence

i The VITA Switchbox II with connection cable is also required for the operation of two or more VITA VACUMAT 6000 M/6100 M/VITA VACUMAT 6000 MP or VITA ZYRCOMAT 6000/6100 MS with a VITA vPad excellence control unit. You need the VITA MultiPump and the VITA vPad excellence for operation with a VITA vacuum pump for up to four VITA VACUMAT 6000 M/6100 M or VITA VACUMAT 6000 MP.

Please read the information in the instructions for use of the corresponding VITA vPad control unit.

3.2 Accessories (can be purchased separately):

- VITA VACUMAT 6100 M side panels, 2 pcs. per set
- VITA vacuum pump II or VITA vacuum pump
- VITA number set (magnetic, numbers 1-4)
- VITA Switchbox II for multi-furnace operation
- VITA MultiPump for supplying up to four firing furnaces with only one VITA Vacuum Pump

4 Technical information

With VITA VACUMAT 6100 M, you benefit from:

- Innovative firing technology and high-tech materials inside the firing chamber for even better homogenous heat distribution
- A firing muffle with maximum durability ("Made in Germany") and reliable electronics for consistently excellent firing results
- Numerous monitoring and service programs to maximize working comfort, safety and time savings, including:
 - automatic prevention of condensation in the firing chamber (VITA AntiCon)
 - automatic temperature adjustment to +/-1 °C at the start of each program (VITA AutoAdjust)
 - automatic cleaning function (VITA SpecialClean)
 - controlled rapid cooling and energy-saving night mode (VITA Energy Efficiency)
- Operate up to four furnaces using just a single VITA vPad control unit
- Use the VITA MultiPump to supply up to four furnaces with only one vacuum pump
- Reduce your energy bills up to 70 % with VITA Energy Efficiency
- With the VITA vPad, all your information is stored in one location – program parameters, integrated instructions for use for the VITA materials, patient photos and all data related to the firing process
- Automatic service cycle monitoring ensures the stability of your devices
- Intelligent menu navigation on all VITA vPads makes intuitive furnace operation easier
- Optical operating status display

5 Technical Data

5.1 Dimensions / weights

- Width: 230 mm
- Depth: 325 mm
- Height: 444 mm
- Housing, weight: lacquered steel 13 kg
- Firing chamber inner diameter: 90 mm, height: 55 mm
- Firing chamber temperature: max. 1200 °C

5.2 Electrical data

5.2.1 Firing device

- Electrical connection: 230 Volt AC, 50 Hz
or 100/110 Volt AC, 50/60 Hz
- Power consumption: max. 1500 Watt

5.2.2 Vacuum pump

- Electrical connection: 230 Volt, 50/60 Hz
or 100/110 Volt, 50/60 Hz
- Power consumption: max. 200 Watt
- Final vacuum: < 960 mbar
- Dimensions: 320 x 110 x 220 mm
- Weight: approx. 6.4 kg

6 Ambient conditions

- Use indoors
- Ambient temperature 2°C to 40°C
- Relative humidity 80% at 31°C
- Max. altitude: 2000 m above sea level (standard elevation zero, NHN).
- Fluctuations in nominal voltage are not greater than plus/minus 10% of the nominal voltage.

7 Safety functions

The furnace is in operation with the control unit

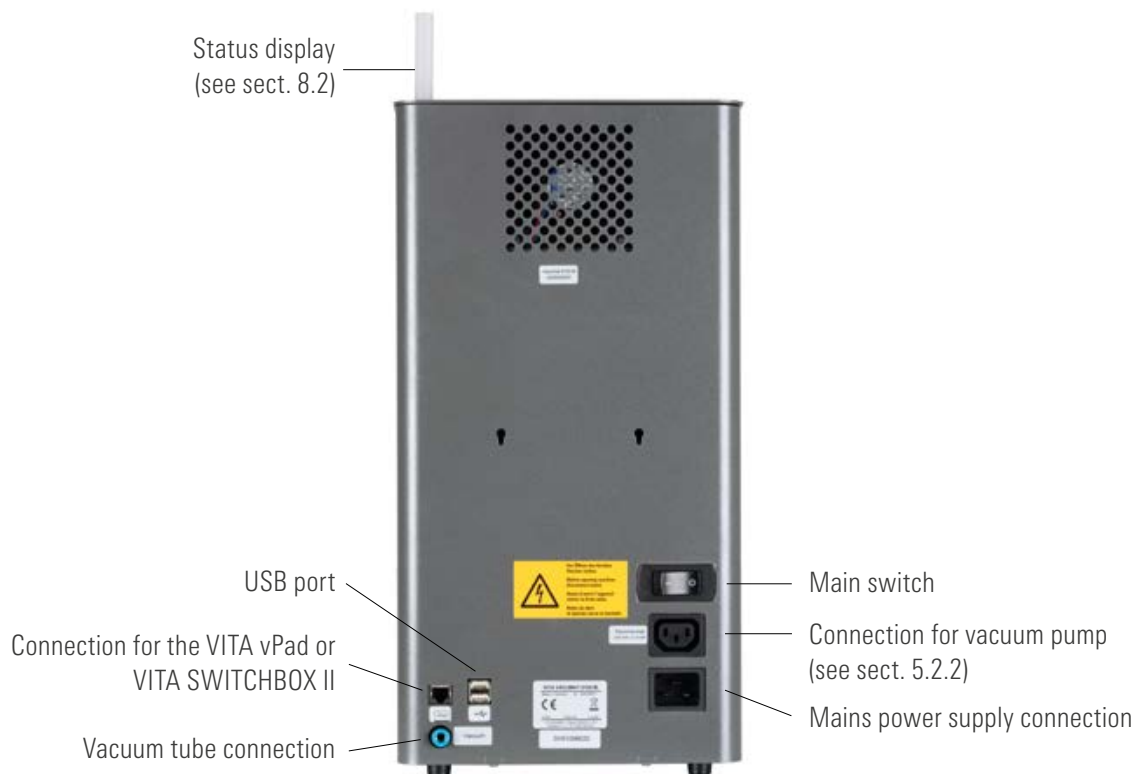
VITA vPad comfort or VITA vPad excellence

and has the following safety and monitoring features:

- Automatic prevention of condensation in the firing chamber (VITA AntiCon)
- Automatic temperature adjustment to +/-1 °C every time a program is started (VITA AutoAdjust)
- Automatic cleaning function (VITA SpecialClean)
- Controlled fast cooling and energy-saving night mode (VITA Energy Efficiency)
- Temperature sensor monitoring
- Temperature monitoring
- Vacuum monitoring
- Power failure protection
- Lift monitoring

8 Installation and first use

8.1 Device connections






8.2 Status display

The optical status display shows the following operating modes:

- Green – device in standby operation
- Blue – program active
- Red – error

Read the corresponding instructions for use for the VITA vPad.

8.3 Information about the identification plates		
9.2 Hazardous voltage	This pictogram warns the user about hazardous voltage. Before opening the unit, always disconnect the device from the mains current by unplugging the AC adapter.	
Residual voltage	After the back plate has been removed, a residual voltage of up to 400 V may still be present in components in the area of the power supply unit on the circuit board, even when the device is switched off.	
Note	Do not place any objects in the area of the lift plate. When the device is switched on, the lift will move down to the lower position. For setting down firing objects, use the laterally extendable storage plates.	

The manufacturer is not liable for accidents to the user occurring when the device is open!

Never operate the device in any case without the firing base installed. In continuous operation (max. final temperature, max. firing time), some parts of the firing chamber may reach high temperatures (above 70°C). Do not reach into the open firing chamber when the device is switched on. There is a risk of touching electrically live, as well as hot parts.

8.4 Connecting the device to the mains voltage

⚠ Important! Before first use, please read Section 6, Safety Information!

For information about the connections, see Sect. 8.1

- Attach the connection cable to the VITA vPad control unit and the furnace.
- Plug in the status display
- Connect the vacuum pump, electrical connection and tubing connection.
- Connect the device to the mains power supply using the mains power cable supplied.

⚠ Important! Avoid electrical multiway socket outlets with extensions, as there is a risk of fire with overload.

- Switch on the device at the main switch. The lift moves to the lower position.
- Clean or wipe the lift plate and the lift plate gasket (dust particles from the insulation are deposited during transportation of the device).
- Attach the firing base to the lift plate.

⚠ Important! Never operate the device in any case without the firing base installed!

8.5 Switching off the device or stopping its operation

When the device is not in operation, the lift should be moved into the firing chamber and the device must be switched off at the main switch (see sect. 8.1). Closing the firing chamber protects the insulation and prevents moisture absorption.

Please read the instructions for use of the VITA vPad used.

9 Cleaning the furnace

Before each cleaning operation, remove the power supply plug!

It is not necessary to clean the inside of the firing chamber.

Cleaning the casing of the firing chamber at regular intervals with a damp cloth contributes to its operating safety.

In all cleaning work, you must never use any detergents or flammable liquids.

9.1 Cleaning firing for the firing chamber

Consult the instructions for use of the VITA vPad for information about the cleaning firing.

10 CE mark

With the CE mark, a legally binding declaration is made to the effect that the device corresponds to the fundamental requirements pursuant to IEC 61010-1:2010, IEC 61010-2-010:2019, EN 61326-1:2020, EN 61000-3-2:2014 und EN 61000-3-3:2013.

11 Fan

The device is equipped with a fan. The fan is temperature-controlled. Activation, deactivation and speed of the fan are controlled automatically. The fan prevents excessive heating of the unit and contributes to overall operational safety. If the fan fails, an error message is shown on the display (for information about this, refer to the Error Messages section of the VITA vPad instructions for use).

For safety reasons, the device should not be operated without a fan. The upper cover of the firing chamber and the openings in the rear cover must not be closed or blocked.

12 Mains power supply failure

The instrument is equipped with power supply failure protection. This component prevents a program stop and any incorrect firing in the event of a brief failure of the mains power supply. The power failure protection is activated as soon as the mains power supply fails when a firing program is running.

If the temperature drop in the firing chamber is less than 80°C, the program continues to run after re-establishment of the mains power supply and is not interrupted. The display is out of order during this period. Once the mains power is supplied again, the running program reappears in the display.

If the temperature drop in the firing chamber is higher than 80°C, the Program is stopped. Display is out of order. Once the mains power supply has been established, an alarm tone sounds and the display shows that the firing cannot continue.

Once the mains power is supplied again, the time required for switching back on is approx. 30 seconds

13 Warranty and liability

The warranty and liability are based on the terms and conditions stipulated in the contract.

i In the event of software modifications without the knowledge and approval of VITA Zahnfabrik H. Rauter GmbH & Co. KG, all liability and warranty claims are invalidated.

Please note that wearing parts, including the firing base and all insulating material, are excluded from the warranty. Any cracks in the insulating material are caused by thermal factors and cannot be avoided. They therefore do not constitute grounds for a claim and are not covered by the warranty.

13.1 Spare parts

Spare parts must comply with the technical requirements specified by the manufacturer. This is always ensured when using original VITA spare parts.

13.2 Service

For more information on the device, go to our homepage at:

<http://www.vita-zahnfabrik.com>

Software updates are available as downloads under **Documents & Media / Download Center / Product Information / Software Updates.**

An option to register is also provided via the **Service / Update Messenger** so that the latest information on the device is automatically emailed to you via the **Update Messenger.**

In case of technical questions regarding the device or regarding repair services and warranty provisions, contact us at:

Email: info@vita-zahnfabrik.com

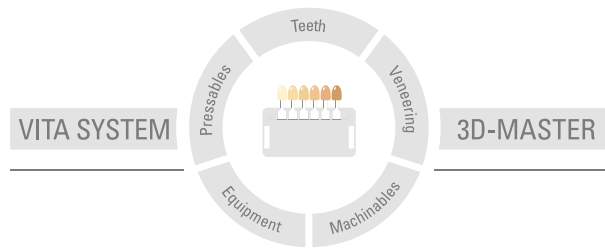
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With the unique VITA SYSTEM 3D-MASTER, all natural tooth shades are systematically determined and perfectly reproduced.



Please note: Our products must be used in accordance with the instructions for use. We accept no liability for any damage resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of application. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product and this results in damage. The VITA Modulbox is not a required component of the product. Date of issue of these instructions for use: 2024-10

VITA VACUMAT® 6100 M is CE marked according to EC Directives 2006/42/EG, 2014/30/EU and 2011/65/EU.

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