VITA VACUMAT® 6000 M

Operating manual

VITA shade determination | VITA shade communication | VITA shade reproduction | VITA shade control

Date of issue: 09.19

VITA – perfect match.

VITA

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1 Introduction

Dear Customer,

Thank you for purchasing a VITA VACUMAT 6000 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. Nevertheless, incorrect use can be dangerous - please read this operating manual 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 this operating manual are intended for general explanatory purposes and are not authoritative for the detailed construction of the device.

The operating manual must always be kept close to the device. It 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 6000 M to be an enjoyable and successful experience.

Copyright

2 Scope of delivery

Device supplied in a special box with:

- 1 firing furnace **VITA VACUMAT 6000 M lacquered (anthracite, crimson, sky blue, deep black, turquoise blue, standard white) or stainless steel**

	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 VITA VM concept brochure	1218

2.1 Control unit VITA vPad

The VITA VACUMAT 6000 M can be equipped with the following control units:

- VITA vPad comfort
- VITA vPad excellence

An additional VITA SWITCHBOX and connection cable is required for the operation of two or more VITA VACUMAT 6000 M / VITA VACUMAT 6000 MP or VITA ZYRCOMAT 6000/6100 MS with a VITA vPad excellence control unit. You will need the VITA MultiPump and the VITA vPad excellence for operation with a VITA Vacuum Pump for up to four VITA VACUMAT 6000 M or VITA VACUMAT 6000 MP.

Please read the information in the operating manual of the corresponding VITA vPad control unit.

2.2 Accessories (can be purchased separately):

- VITA VACUMAT 6000 M side panels, 2 pcs. per set
- VITA Vacuum Pump: 230/240 Volt, 50/60 Hz, 115 Volt, 50/60 Hz or 100 Volt/60 Hz.
- FDS (Firing Data System) firing data administration program for PC
- VITA number set (magnetic, numbers 1-4)
- VITA SWITCHBOX for operating multiple furnaces
- VITA MultiPump for supplying up to four firing furnaces with only one VITA Vacuum Pump

3 Technical information

With VITA VACUMAT 6000 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 working instructions for the VITA materials, patient photos, as well as 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

4 Technical Data

4.1 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

4.2 Electrical data

4.2.1 Firing device

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

4.2.2 Vacuum pump

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

5 Intended use

Basic information on the device design
The device is designed according to state of the art and recognized safety standards. However, if it is used inappropriately, hazards for the health and safety of the user or third parties may arise, as well as the risk of damaging the device and other material property.

Unauthorized modes of operation
Operation of the device with power sources, products, etc., which are subject to hazardous materials regulations or could have any negative impact on the health of the operating personnel, and using equipment modified by the user, are not permitted.

Authorized modes of operation
The operation of the device is only permitted if this operating manual has been completely read and understood and the procedures described in it have been observed. Any other or additional use, e.g., processing of products other than those intended, as well as handling of hazardous materials or substances injurious to health, is considered to be contrary to the recommended use. The manufacturer/supplier will not be liable for any damage resulting from such unauthorized use. The risk of such use is borne exclusively by the user.

6 Safety information

	6.1 Pictograms	
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.	
Hot surface	This pictogram warns the user about hot surfaces that can cause burns.	
Separate disposal	Dispose of electrical and electronic equipment separately, not with household waste. The black bar under the "wheeled bin" symbol indicates that the device was placed on the market after August 13, 2005. Please note that the device is subject to European Community Directive 2002/96/EC (WEEE) and the national laws valid in your country, and it must be disposed of accordingly. Contact your dealer if you need to dispose of the device.	
Note	This pictogram warns of hazardous situations with the risk of personal injury or damage to the device.	
Information	This pictogram points to useful advice, explanations and supplements regarding the handling of the equipment.	

7 Ambient conditions

- Use indoors
- Ambient temperature: 2 °C to 40 °C
- Relative humidity 80% at 31 °C
- Max. altitude: 3800 m above sea level (standard elevation zero, NHN).
- Fluctuations in nominal voltage are not greater than plus/minus 10% of the nominal voltage.

8 Safety functions

The furnace is operated 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

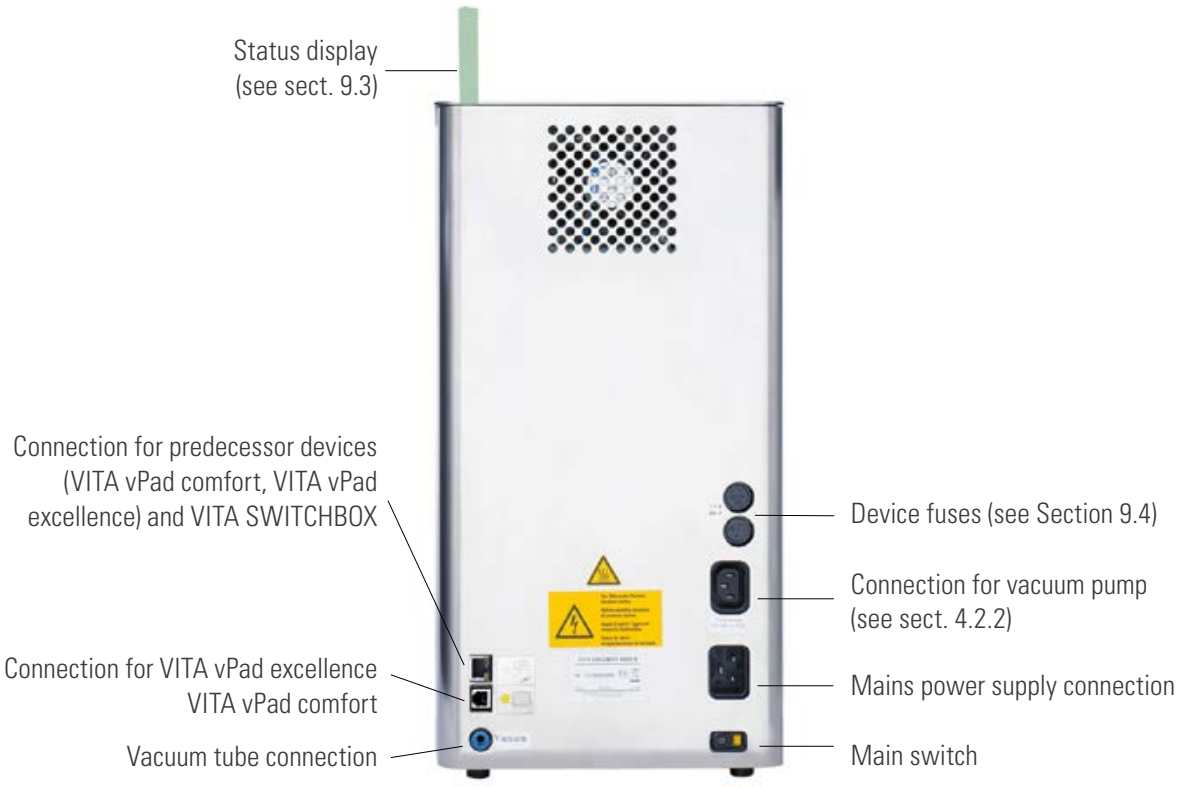
9 Installation and first use

9.1 Installation location

- Install the device in a dry, heated room. The distance to the closest wall should be at least 25 cm (see also Section 7, Ambient conditions).
- 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.
- Ensure that the surface where the device is installed is heat resistant. The radiation and heating of the device is within a non-hazardous range. Nevertheless, heat-sensitive surfaces on furniture and veneers could become somewhat discolored over time, due to the constant effects of heat.
- Prevent direct sunlight from coming into contact with the device.
- Do not place any flammable objects in the vicinity of the device. Do not place the VITA vPad control unit directly in the heat radiation area of the firing chamber.
- Do not set up the device in such a way that it makes it difficult to press the main switch and pull out the power supply cord.

  Before using for the first time, read the corresponding operating manual for the control unit.

9.2 Device connections



9.3 Status display

The optical status display shows the following operating modes:

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

Read the corresponding operating manual for the VITA vPad.

9.4 Fuses

On the back of the device (see Section 9.2) there are two fuses for the device. The identification plates show information about the fuses used in the device. Fuses with other ratings must not be used.

230 V model
T 8 H 250 V

100/110 V model:
T 15 H 250 V

9.5 Information about the identification plates		
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.

9.6 Connecting the device to the mains voltage

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

For information about the connections, refer to Section 9.2

- 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!

9.7 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 Section 9.2).
Closing the firing chamber protects the insulation and prevents moisture absorption.
Please read the operating instructions for the VITA vPad used.

10 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.

10.1 Cleaning firing for the firing chamber

Consult the operating manual of the VITA vPad for information about the cleaning firing.

10.2 Firing chamber insulation

The firing chamber contains ceramic mineral fibers as insulation material (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.
Exposure to this dust can potentially be carcinogenic on inhalation and result in irritation of the skin, eyes and respiratory organs. When exchanging the firing muffle, please proceed as follows:

- Wear long-sleeved protective clothing
- Wear safety goggles as well as protective gloves
- Use a dust vacuum system or wear a FFP 2 respirator.

Once work has been completed, rinse the dust from unprotected skin using cold water. Wash workwear separately from everyday clothing.

11 CE mark

With the CE mark, a legally binding declaration is made that the device meets the essential requirements of European Community Directive 2006/95/EC (Low-Voltage Directive) as well as of European Community Directive 2004/108/EC (EMC Directive).

12 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 for the VITA vPad operating manual).
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.

13 Mains power supply failure

The instrument is equipped with power supply failure protection. This component prevents a program interruption 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.

Mains voltage downtime less than approx. 15 sec.

The program continues to run and is not interrupted. The display is out of order during this period. Once mains power is supplied again and the program interruption is over, the running program reappears in the display.

Mains voltage downtime longer than approx. 15 sec.

The program is interrupted and the display is out of order. Once mains power is supplied again, the display indicates that there was a power failure.

> ⚠ **Important! Once mains power is supplied again, the time required for the VITA vPad to switch back on again is approx. 20 sec.**

14 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.

14.1 Spare parts

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

14.2 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 instrument or regarding repair services and warranty provisions, contact us at:
Email: info@vita-zahnfabrik.com
Tel. +49 (0) 7761 / 562 -222

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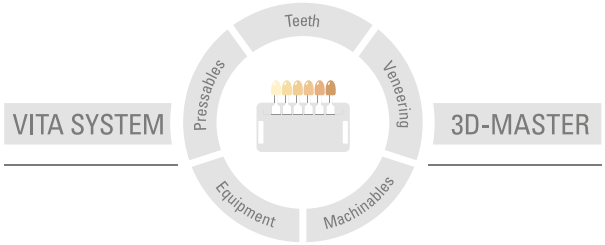
With the unique VITA SYSTEM 3D-MASTER, all natural tooth shades are systematically determined and perfectly reproduced.



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VITA VACUMAT® 6000 M is CE marked according to EC Directives 2006/95/EC, 2004/108/EC and 2011/65/EC.

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