

# OPERATING INSTRUCTIONS

Vibrators

**KV 16 / KV 26**

**KV 36 / KV 56**



Fig 1: KV models

**WASSERMANN**  
DENTAL-MASCHINEN



WASSERMANN DENTAL-MASCHINEN GMBH

***Dear customer,***

Thank you for choosing a Wassermann product. Wassermann Dental-Maschinen bring you the highest quality and the latest technology. Before you start this unit, please read the User's Manual carefully and operate the unit accordingly. In that way, you'll maximise its output and can look forward to many years of trouble-free operation.

Also, please make sure that all personnel who operate the unit have read and understood the User's Manual.

**Keep this User's Manual in a safe place so that it can be referred to at any time.**

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## 1 Features

These vibrators are very sturdy units, thanks to their solid chassis and high dead-weight. As a result, the vibrating table moves, and not the entire unit.

The use of these units ensures homogenous vibration, without blisters.

All units can be set to between 3000 and 6000 vibrations per minute. *In addition*, all vibrators are fitted on the left-hand side with a stainless steel handle which can be used when removing casts.

All switches are recessed to protect them from dirt and moisture. The vibrating surface is made of rubber and can be removed easily for cleaning.

Vibrators **KV 16** and **KV 26** have rubber suction feet, vibrator **KV 36** has vibration-damping rubber feet and vibrator **KV 56** has normal rubber feet.

*As well as* the vibrations per minute, the vibrating intensity of the **KV 36** and **KV 56** is also infinitely variable.

## 2 For your safety

### ***2.1 Correct use of the product***

These vibrators are used in dental laboratories exclusively for vibrating mixed materials (plaster, etc.) to produce a homogenous, blister-free compound.

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## **2.2 Safety symbols used in this manual**



### **Warning!**

This symbol indicates a risky or dangerous situation. Ignoring this symbol could lead to life-threatening situations. Do not ignore this symbol!



### **Information**

This symbol indicates features which must be observed.

## **2.3 Safety instructions**



- **Servicing and repairs to your unit must be carried out by qualified personnel.**
  
  - **Always disconnect the unit from mains power before carrying out cleaning or maintenance. Keep well away from water.**
  
  - **The unit is designed to operate on 110-120 V / 50/60Hz. Ensure that your unit is always connected to the correct mains power.**
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## 2.4 Dangers



- **Shocks from handle.**
- **The handle is not intended for carrying the unit. Its mounting points are not designed to take the weight of the unit, which could be dropped as a result.**

## 2.5 Follow the User's Manual

Each User's Manual sets out the information and procedures to be observed when the unit is turned on and operated. The unit must be used **only** for its intended purpose.

## 2.6 Responsibility for operation and damage

The owner or operator are in all cases responsible for the operation of this unit if it is used by persons not employed by an approved laboratory, is wrongly serviced, maintained or altered, or if it is operated for purposes other than its intended use.

The unit must be maintained and operated in accordance with this User's Manual. Any damage resulting from ***non-observance*** of these instructions is not the responsibility of Wassermann Dental-Maschinen GmbH.

Warranty and responsibility terms covered by the sales and supply conditions of Wassermann Dental-Maschinen GmbH do not extend beyond those stated here.



**Responsibility for the product becomes void if alterations are made to it by third parties or if non-approved parts are installed. Only original WASSERMANN parts should be used. If damage occurs following the installation of third-party parts, responsibility lies with the person introducing said parts.**

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## 2.7 Authorised users

The owner of the unit must provide the operator with the User's Manual and ensure that the operator has first read and understood it. Only then should the operator use the unit.



**Make sure that the User's Manual is always accessible, and has been read and understood.**

## 3 Maintenance and care

### 3.1 Maintenance

Our vibrators are maintenance-free. You only need to keep them clean.

### 3.2 Care

The unit should be cleaned at regular intervals to ensure fault-free operation.

Do not use chemical cleaners. The unit needs only normal cleaning (sponge, damp cloth, mild detergent).

The **model plate** must always be legible and must not be removed.

## 4 Use/Applicability

**KV units** are used exclusively in dental laboratories to provide a blister-free, homogenous compound which is the prerequisite for a smooth finish on casts. *In addition*, all vibrators are fitted on the left-hand side with a stainless steel handle which can be used when removing casts.

**\*\*\* Use the unit only for its intended application.\*\*\***

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## 5 Before start-up

### 5.1 Unpacking and transporting the unit



Do **not** use the handle to carry the unit. The mounting points are not designed to take the weight. **NOTE:** Injury could result if the unit is dropped.

- Open the carton, remove the packing material, then carefully lift out the unit and accessories. Check that all accessories are present.
- Before transporting the unit, ensure that it is disconnected from the mains. Use appropriate packing when transporting the unit in order to avoid damaging it.



- **Take out the User's Manual and read it carefully.**
- **It is important to record any transport damage when you unpack the unit. If necessary, fill out a condition report immediately.**

### 5.2 Unit and accessories

The delivered unit and accessories consist of:

- Unit, complete with rubber feet.
-

### **5.3 Set-up/Storage**

- Set up the unit on a flat surface.
- Always ensure that the unit is placed on a firm, flat base.
- Locate the unit so that there is an adequate working area (check the dimensions).
- Do not set up the vibrator in the open air or in poorly ventilated locations.
- If the unit is to be stored for lengthy periods, protect it from moisture and dust.

## **6 Operation**

### **6.1 KV-16**

Switch the unit on.

**KV-16:** Turn knob I-0-II to select the vibrations per minute.

(I = 3000 vibrations/min. II = 6000 vibrations/min.)

### **6.2 KV-26**

Switch the unit on.

**KV-26:** Select the vibrations per minute using rocker switch 1-0-2.

( 1 = 3000 vibrations/min. 2 = 6000 vibrations/min.)

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### 6.3 KV-36 and KV-56

Switch the unit on.

1. On the **KV-36** and **KV-56**, select the vibrations per minute using the left-hand knob labelled 3000-0-6000 (data on scale = vibrations/min.)
2. On the **KV-36** and **KV-56**, select the vibration intensity using the right-hand knob (with the arrow).  
(Turn left for lower intensity or right for increased intensity.)



**If the unit is *not going to be used* for an extended period, remove the plug from the socket.**

### 6.4 Use



**All recommendations on the use of the unit, whether verbal, written or in the form of a manual will depend on your own experience and familiarisation with the unit and can, therefore, only be regarded as guidelines.**

- Switch on the unit or install it (see 6.2 to 6.4).
- Place the container on the vibrating table or attach it to the handle (the intensity is varied by pressing the container on the vibrating surface).

*Note:*

When mixing materials or removing casts using vibrators, there will be almost zero air disturbance.

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## 7 Specifications

### 7.1 169 994 Vibrator KV-16 with screwed suction rubber feet

Power supply :	110-120 V / 50/60 Hz
Power consumption:	0.6 A - 70 W
Vibrating intensity:	3000 / 6000 vibrations/min
Table dimensions:	130 x 130 mm
Overall dimensions:	Width 130 mm Height 115 mm Depth 130 mm
Weight :	4.5 kg

### 7.2 169 993 Vibrator KV-26 with screwed suction rubber feet

Power supply :	110-120 V / 50/60 Hz
Power consumption:	0.6 A - 70 W
Vibrating intensity:	3000 / 6000 vibrations/min
Table dimensions:	210 x 150 mm
Overall dimensions:	Width 210 mm Height 110 mm Depth 150 mm
Weight :	5.0 kg



**7.3 169 999 Vibrator KV-36 with infinitely variable vibrating intensity and vibration absorbing feet**

Power supply :	110-120 V / 50/60 Hz
Power consumption:	1.2 A - 136 W
Vibrating intensity:	3000 / 6000 vibrations/min
Table dimensions:	290 x 200 mm
Overall dimensions:	Width 290 mm Height 123 mm Depth 200 mm
Weight :	11.0 kg



**7.4 169 997 Vibrator KV-56 with infinitely variable vibrating intensity**

Power supply :	110-120 V / 50/60 Hz
Power consumption:	2.45 A - 282 W
Vibrating intensity:	3000 / 6000 vibrations/min
Table dimensions:	435 x 230 mm
Overall dimensions:	Width 435 mm Height 155 mm Depth 230 mm
Weight :	16.9 kg



The noise emission values of the vibrators are  $\ominus$  **70 dB(A)**.

The safety class of the vibrators is **IP 54**.



**Specifications and design are subject to change without notice.**



## **8 Installation**

### **8.1 Location**

Always locate the unit on a firm, flat and non-slip surface. Ensure that there is adequate room to work (check the dimensions).

The unit must always be used in a dry and well-ventilated area.

### **8.2 Power**

Insert the plug in the socket, ensuring that the power requirements of the unit and the mains are the same.

## **9 Installation**

No special installation requirements are required for starting the unit or for normal operation.

## **10 Equipment**

Aside from the *mains plug (7.2)*, no other equipment is needed for normal operation.

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## 11 Maintenance

### 11.1 Servicing

Our vibrators do not require servicing. You only need to keep the unit clean.

### 11.2 Rubber mounts

To make cleaning the rubber mounts easier, they can simply be removed from the vibrating table and reinstalled after cleaning.

### 11.3 Faults and troubleshooting

Fault/problem	Likely cause	Possible solution
Vibrator does not vibrate	Power plug not connected	Insert and/or check plug
	Faulty knob or rocker switch	Replace or repair switch (Service workshop)
Vibrator does not vibrate or vibrates at the same level, i.e., the intensity is not variable ( <b>KV-36 and KV-56 only</b> )	Faulty KV vibration regulator and potentiometer	Replace or repair potentiometer or entire assembly (Service workshop)



**If the above suggestions do not fix the problem, contact your dental depot or our Service Department.**

### 11.4 Spare parts and accessories

<b>Spare parts</b>	
Item no.	Description
169009	Rubber foot with grooved stud D4 x 18 <b>(KV 56 only)</b>
169010	Replacement rubber mount for KV 36
169014	3000-0-6000 scale <b>(KV 36 / KV 56 only)</b>
169020	KV vibration regulator and potentiometer <b>(KV 36 / KV 56 only)</b>
169026	Handle <b>(KV 36 / KV 56 only)</b>
169101	Replacement rubber mount for KV 26
169114	Handle <b>(KV 16 / KV 26 only)</b>
169201	Replacement rubber mount for KV 16
169204	I-0-II scale <b>(KV 16 only)</b>
169207	Switch, complete <b>(KV 16 / KV 36 / KV 56 only)</b>
169510	Replacement rubber mount for KV 56
325021	Rubber cap, black <b>(KV 26 only)</b>
353009	Vibration-damping rubber feet <b>(KV 36 only)</b>
392014	Suction foot <b>(KV 16 / KV 26 only)</b>
511056	Rocker switch <b>(KV 26 only)</b>
560002	Scale with arrow <b>(KV 36 / KV 56 only)</b>
560101	Knob <b>(KV 36 / KV 56 only)</b>
560102	Cover for knob <b>(KV 36 / KV 56 only)</b>
560107	Knob <b>(KV 16 only)</b>
560108	Cover for knob <b>(KV 16 only)</b>

<b>Accessories</b>	
Item no.	Description
169050	Damper plate for KV 16 <b>(not supplied)</b>
169051	Damper plate for KV 26 <b>(not supplied)</b>
169053	Damper plate for KV 36 <b>(not supplied)</b>
169054	Damper plate for KV 56 <b>(not supplied)</b>
169070	Wall mount for vibrator <b>(not supplied)</b>



### **11.5 Repairs**

Service or repair work on the unit must only be carried out by qualified personnel. Only original parts are to be used as replacements. Our responsibility for the product becomes void if the unit is altered by unauthorised personnel or if third-party parts are installed.

## **12 Warranty**

Our units come with a 12-month warranty. If a fault develops in the unit within the warranty period, please contact your dental depot or get in touch directly with our Service Department.

The vibrators should only be operated in fault-free condition. If faults develop which might injure operators or third parties, the unit should only be used again after it has been repaired.

This warranty does not cover damage brought about by improper use, external mechanical causes, transport damage or unsanctioned access to the unit by unauthorised personnel.

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### 13 EC Conformity certificate

**changed according to 73/23/EWG (low-voltage device guidelines) with 93/68/EWG and 89/336/EWG (EMV guidelines) and 89/392/EWG (machine guidelines), with modifications**

Manufacturer : W A S S E R M A N N      Product description:      Vibrators for  
Dental-Maschinen GmbH      dental applications  
Rudorffweg 15 – 17  
D-21031 Hamburg, Germany

Machine model:      KV 26 with screw-on rubber suction feet      (169993)  
KV 56 with infinitely adjustable vibration intensity      (169997)  
KV 16 with screw-on rubber suction feet      (169994)  
KV 36 with infinitely adjustable vibration intensity      (169999)  
and vibration-damping feet

Applicable standards:      EN 61010-1:1993 + A2:1995  
EN 50081-1 + EN 50082-1  
DIN 45635 Part 1

Hiermit wird bestätigt, daß die oben bezeichnete Maschine den genannten EG-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above-mentioned machine complies with the described EC rules. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur de la Communauté Européene. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los limites requeridos por el reglamento EC. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date: Hamburg, den 10.Apr.2003

Company stamp :

Signed: \_\_\_\_\_



Wilfried Wassermann  
(Managing Director)







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