

Operating Instructions

RETOMIX MINI

LABORATORY EQUIPMENT IN
STAINLESS STEEL



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Dear Customer!

The RETOMIX MINI is a compact design vacuum mixer perfectly suitable for mixing plaster, investment material and alginates, equipped with a powerful and durable vacuum pump. The electronic timer ensures mixing process control per second. Variable speed control enables precise mixing speed according to manufacturer's recommendations. Vacuum intensity is variable as well. The device can be used as a wall-mounted or bench-top unit (option).

Prior to installation of the device operating instructions and especially the safety instructions must be read and followed by all personnel who use this device.

After having unpacked the device, please check carefully whether transportation damages of any kind have occurred. If that is the case, the carrier or manufacturer must be notified within 3 days. The company will **not** be responsible for any damages found after that.

These operating instructions must be read and followed by all personnel who use this device. To ensure quick access we recommend to keep it at a safe place near the device. In case of loss it can be ordered at a nominal fee from the manufacturer.

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1 Technical Description

1.1 Basic Equipment

- RETOMIX MINI Vacuum mixer
- 1 Mixing bowl 400 ml
- Power cord

1.2 Special Accessories

- Order-No. 23701000 Bench-top stand
- Order-No. 21302100 Mixing bowl 75 ml
- Order-No. 21302000 Mixing bowl 150 ml
- Order-No. 21303000 Mixing bowl 400 ml
- Order-No. 21304000 Mixing bowl 600 ml
- Order-No. 21213000 Mixing bowl 1000 ml
- Order-No. 21306000 Mixing bowl for alginates 150 ml
- Order-No. 21307000 Mixing bowl for alginates 400 ml

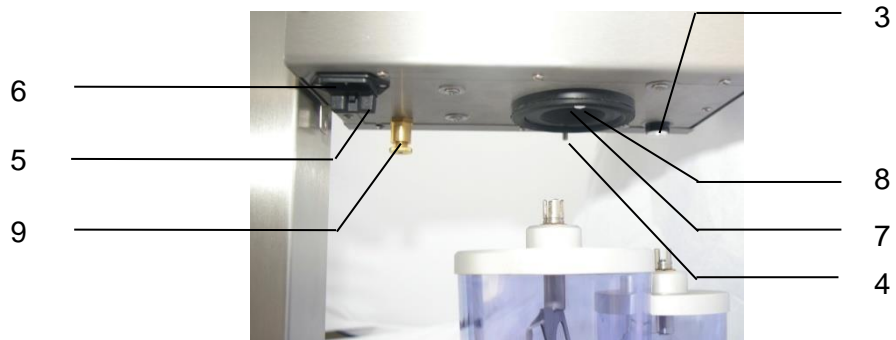
1.3 Operating Elements

- 1 Timer
- 2 Gauge
- 3 Switch „Flooding“
- 4 Start switch for vacuum pump
- 5 Device's use
- 6 Mains input
- 7 Bowl support
- 8 Filter
- 9 Vacuum relief valve
- 10 Mixing bowl
- 11 Speed display
- 12 Speed control



Fig.: Timer

Fig.: Device view



1.4 Technical Data

Line voltage	230 V/50-60 Hz
Current consumption	420 W
Height/width/depth	290/155/285 mm
Height/width/depth incl. stand	710/220/360 mm
Weight	8 kg/15 kg (incl. stand)
Speed	var.from 370 to 630 rpm
Vacuum	approx. 93 %
Timer	electronic
Housing	stainless steel
Made in Germany (Subject to modifications)	

2 Safety Notes

2.1 General Safety Notes

- All equipment undergoes final inspection and testing before leaving our factory. However, if equipment is damaged during shipping or through any other circumstances, it must not be used in service. Please check the device regularly for damages. Damaged parts should be replaced immediately.
- All power/air/water/gas sources should be rated for the demands of the device as listed in the technical data sheets. Maximum ratings must not be exceeded. All VDE (Verein Deutscher Elektro-Ingenieure) standards should be followed. Equipment should be grounded according to standards.
- Adherence to valid regulations regarding necessary checks (e.g. according to Accident Prevention & Insurance or electrical equipment) is exclusively taken over by the buyer/user of this product.
- This device has been designated to be used only for its intended purpose. All other applications must be prohibited for safety reasons as otherwise the manufacturer's warranty expires.
- The device should be set-up in a clean, well-ventilated room, if necessary under a hood.
- Supporting surfaces should be straight, flat and adequately stable.
- Don't place anything on top of the machine.
- To avoid injury, appropriate protection should be worn (e.g. gloves, safety glasses, safety shoes, hearing protection etc.)
- If the machine is defective or working improperly it must be taken out of service. In case of further use of the machine the owner will be held responsible for any consequential damage.
- To prevent accidents from water, fire or explosion, all power/air/water/gas sources should be turned off after working hours and during breaks, and secured against unauthorized access.
- When carrying out maintenance works or repairs or when opening the device always turn off the main power switch and unplug the whole unit.
- Repairs should be carried out only by the manufacturer or by qualified and certified personnel appointed according to chapter 7 – warranty.
- In case of leaking water out of housing or tank shut down device and call service.
- Mobiles may lead to malfunctioning of the device and should be switched off near the device.

2.2 Specific Safety Instructions

- Don't mix any alienated material or material containing solvents, dangerous to health.
- The pump and other conducting components are not explosion-proof. Application with burnable substances is therefore prohibited.
- Don't use any high-viscosity material leading to a considerable decrease in mixing speed.
- If the machine gets unusually hot, turn off immediately.
- Don't put your hands into the running driving axle and never put the mixer on the support without a bowl.
- Don't overfill the mixing bowl.

Note:

The mixing bowl is dishwasher-proof and may be cleaned with solvent-free cleaning agents. The mixing bowl is non-resistant to some chemicals like e.g. concentrated mineral acids, aromatic hydrocarbons and chlorinated hydrocarbons as ester, ether and ketone. Keep the housing clean and dry.

3 Installation

The electric equipment is being delivered fully installed. The sealed plug can be connected directly to the mains supply 230 V/16 A. For installation please refer to chapter 2.

3.1 Installation

1. The device can be used as a wall-mounted (see chapter 12 wall mounting) or bench-top unit.
2. Use the device only in a dust-free environment.

3.2 Preparation for Installation

1. Insert the attached power cord into the power outlet (6) of the device.
2. Put the power plug of the RETOMIX MINI into a socket. Now the device is ready for use.
3. During long periods of non-use disconnect the device from mains supply.

4 Operation

4.1 Mixing with vacuum

1. Use timer (1) to set mixing time.

Programming: Press key PROG.

- Press once – hours
- Press twice – minutes
- Press three times – seconds
- Use + and – to change settings for hours/minutes/seconds.

Pressing again PROGR, settings are stored. Mixing time is stored and can be started at any time.

2. **Special feature:**

Speed display (11) indicates zeroes: Push and hold all three keys for a couple of seconds. Display indicates time:

00:00 00

Continuous mixing is started by pressing Start when display indicates: 00:00 00.

3. **OPTION:** Mixing time may be changed with the speed control (12) even during running mixing procedure (according to material).
4. Maximum filling level of the mixing bowl (10) is paddle top. (Attention: avoid overfilling, see chapter 5 overfilling.)
5. Insert the mixing bowl (10) into the bowl support (7), slightly pressing the bowl. Vacuum pump starts automatically after a couple of seconds. You can release the bowl. (while observing the gauge (2). As soon as vacuum drops below -0,4 bar the mixing bowl has to be held tight.)
6. Start mixing procedure with timer (1) key START (minus-key). Mixing starts and may be interrupted at any time with the key STOP (minus-key).
7. After time has elapsed the paddle stops. The device emits a beeping sound twice and the vacuum pump maintains the vacuum.
8. Activate the switch for flooding (3) until the pressure at the gauge (2) has returned to „0“. (while observing the gauge (2). As soon as vacuum drops below -0,4 bar the mixing bowl has to be held tight.) The pump switches off, initializing flooding of the mixing bowl.
9. The mixing bowl is ready to take out mixture.

4.2 Mixing with reduced vacuum

1. Use timer (1) to set mixing time.

Programming: Press key PROG.

- Press once - hours
- Press twice – minutes
- Press three times - seconds
- Use + and – to change settings for hours/minutes/seconds.

Pushing again PROG-key, settings are stored. Mixing time is stored and can be restarted at any time.

2. **Special feature:**

Speed display (11) indicates zeroes: Push and hold all three keys for a couple of seconds. Display indicates time:

00:00 00

Continuous mixing is started by pressing Start when display indicates: 00:00 00.

3. **OPTION:** Mixing time may be changed with the speed control (12) even during running mixing procedure (according to material requirements).
4. Maximum filling level of the mixing bowl (10) is paddle top. (Note: please avoid overfilling, see chapter 5 troubleshooting.)
5. Insert the mixing bowl (10) into the bowl support (7), slightly pressing the bowl. Vacuum pump starts automatically after a couple of seconds. You can release the bowl.
6. Activate the vacuum relief valve (9) for mixing with reduced vacuum:
 - Opening the vacuum relief valve (9), vacuum is reduced.
 - Closing the vacuum relief valve (9) vacuum is increased.(Note: As soon as vacuum drops below -0,4 bar the bowl has to be held tight. Please observe the gauge (2).)
7. Start mixing procedure with timer (1) key START (minus key). Mixing starts. Mixing may be interrupted at any time with the key STOP (minus key).
8. After time has elapsed the paddle stops. The device emits a beeping sound twice and the vacuum pump maintains the vacuum.
9. Activate the switch for flooding (3) until the pressure at the gauge (2) has returned to „0“. (while observing the gauge (2). As soon as vacuum drops below -0,4 bar the mixing bowl has to be held tight manually.) The pump switches off, initializing a flooding of the mixing bowl.
10. The mixing bowl is ready to take out mixture.

4.3 Mixing bowl for alginates (special accessories)

In order to prevent power residues from falling from the edge of the bowl into the mixed alginate, first of all water and power should be premixed without vacuum.

1. Put power and water into the bowl, mixing it with reduced vacuum (Procedure see chapter 4.2.)
2. Mixing time is dependent on used material (see manufacturer's indications).
3. During the first ten seconds a lower mixing speed of approx. 400 min⁻¹ should be selected, then speed should be increased to 600 min⁻¹.

5 Troubleshooting

Device doesn't start. (Power switch (2) doesn't shine after switching on).	<ol style="list-style-type: none">a. No power at the socket (Check fuse of the building).b. Machine's (5) has blown (unplug the machine and replace the fuse. The fuse holder is located at the device's plug).
Bubbles in investment material (low vacuum).	<ol style="list-style-type: none">a. Dirty lid surface of the mixing bowl → clean it.b. Dirty gasket at the bowl support (7) → clean it.c. O-ring of mixing bowl (10) is untight – clean it.d. Adjust vacuum relief valve (9).
Bowl isn't fixed although gauge indicates max. vacuum.	<ol style="list-style-type: none">a. Clogged filter (8) in bowl support (7) → replace filter.b. Don't overfill the mixing bowl (10).c. Clogged filter in the device → call Service.
Cracks in the bowl.	Note: Don't use spirit or other solvents for cleaning or mixing. The bowl (10) is not resistant to some chemicals according to description in chapter 2.2. Scratch marks at the bowl are normal wear.
Timer fault	Reset the system: Press all 3 timer keys simultaneously for approx. 4 sec. Mixing time must be entered again (see chapter 4).

6 Maintenance

- Please check the device regularly for damages. Pay attention to visible damages at the housing or cable.
- Regularly clean gasket and mixing bowl's sealing space (10) and bowl support (7).
- Regularly grease the mixing bowl to keep in good condition.
- Regularly replace the filter at the bowl support (7).
- Regularly clean the housing with a damp cloth and REITEL Stainless steel care spray.

Note

Clean and protect your device at regular intervals with the REITEL stainless steel care spray (order -no.: 90405000) to remove lime, plaster and dust as well as other contaminants from the surface of the equipment and to prevent corrosion. The spray creates a lasting, water repellent protective film which helps keep the equipment clean.

7 Warranty

We, REITEL Feinwerktechnik GmbH, offer a 1 year's warranty beginning from the proven date of purchase. This warranty covers all defects traceable to materials, design or workmanship. The following warranty regulations are applicable:

Within the warranty period Reitel Feinwerktechnik GmbH or an authorized distributor agrees at its sole option, to perform repair or replace this product at no charge covering all defects traceable to materials, design or workmanship. Warranty only applies to appropriate use and regular maintenance of this product according to the operating instructions. Claims under warranty are restricted to complementary performance. Additional claims, especially claims for indemnifications, are not covered by this warranty.

1.

Warranty claims have to be addressed to the distributor the product was purchased from or directly to our service department.

Contact:

REITEL Feinwerktechnik GmbH

Senfdamm 20

49152 Bad Essen

Germany

Phone: +49(0)5472-9432-32 (Service Department)

Phone: +49(0)5472-9432-0 (Reception)

Fax-No: +49(0)5472-9432-40

2.

In case of warranty claim application the sales receipt or your purchase invoice showing the date of purchase of the product and the serial number must be furnished. Securely pack and ship the device, freight charges prepaid, at your own risk to us, along with a report describing the defect. We reserve the right to decline warranty if this information has been removed or modified after purchase of the product or if they are not included.

3.

Warranty repairs have to be performed by REITEL Feinwerktechnik GmbH or by authorized distributors. Repairs performed by non-authorized companies will void the claim for refund since damages to the product resulting hereof are not covered by warranty.

4.

If the unit sent in for repair or replacement is still under the original warranty then warranty is to the end of the original 1 year warranty.

5.

If the unit is destined to be operated in another country than originally intended and manufactured for, modifications to the product might be necessary to comply to special technical and /or safety standards of that specific country. Such modifications are no defects traceable to materials, design or workmanship. and are therefore expressly excluded from warranty claims.

Modification costs or damages arising from operation of the product under deviating conditions are not covered by warranty.

6.

Exclusions from warranty:

- Service and maintenance work as well as repair and replacement of consumables according to our consumables' list
- Transportation cost of the machine or installation and dismounting expenses incurred
- Damages due to use of the product other than for its intended purpose
- Damages due to faulty installation or insufficient maintenance of the product (e.g. decalcification)
- Damages due to natural disaster e.g. lightning, water, fire, act of nature beyond control, war, inadequate line voltage, insufficient ventilation, no decalcification, insufficient care and cleaning or non-adherence to operation and maintenance instructions according to the accompanying operation guide.
- Damage due to use of the product other than in accordance with the instructions provided by REITEL Feinwerktechnik GmbH;
- The warranty does not cover the cost of removal and replacement of parts and accessories, unless supplied as original equipment by REITEL Feinwerktechnik GmbH
- All kind of damages occurred not directly at the device as well as consequential damages (e.g. damages to furniture due to a lack of water, downtime of the machine, material, lost working hours, wages and other consequential damages).

This warranty shall be rendered null and void if:

- the product has been subject to any modification, repair or replacement other than as authorized by REITEL Feinwerktechnik GmbH

- the product is continued to be operated despite a functional defect

7.

The warranty is device specific and may be claimed, within the warranty period, by any person who has legally acquired the device.

8.

Consumables are excluded from warranty. Spare parts are subject to a warranty coverage of 6 months against all defects traceable to materials, design or workmanship according to these warranty regulations.

9.

Legal default claims on the part of the purchaser remain unaffected by this warranty.

10.

We reserve the right to charge a fee if repair of the device is rejected and the device is destined to be sent back unrepaired.

11.

Please note:

Upon repair or replacement of this unit, personal data and settings might get lost or damaged. We don't accept liability for all kind of data loss. The customer is advised to backup essential programs and data before sending for service.

12.

This warranty shall be interpreted in accordance with German law to the exclusion of UN sales law. Place of jurisdiction is our business location.

13.

If any provisions of this warranty are judged to be illegal or unenforceable, the continuation in full force and effect of the remaining provisions will not be prejudiced. The provisions of this warranty judged to be illegal or unenforceable shall be construed so as to give effect to the intent manifested by the provision by the provision held invalid, illegal or unenforceable and to give effect to section 13 hereof.

14.

Should you need to borrow a device while your device is being repaired, please contact Messrs. REITEL or your distributor. These loans are a service for which availability cannot necessarily be guaranteed. After the warranty period, a fee may be charged for loan equipment as well as for shipping and packaging.

8 Disposal Regulation

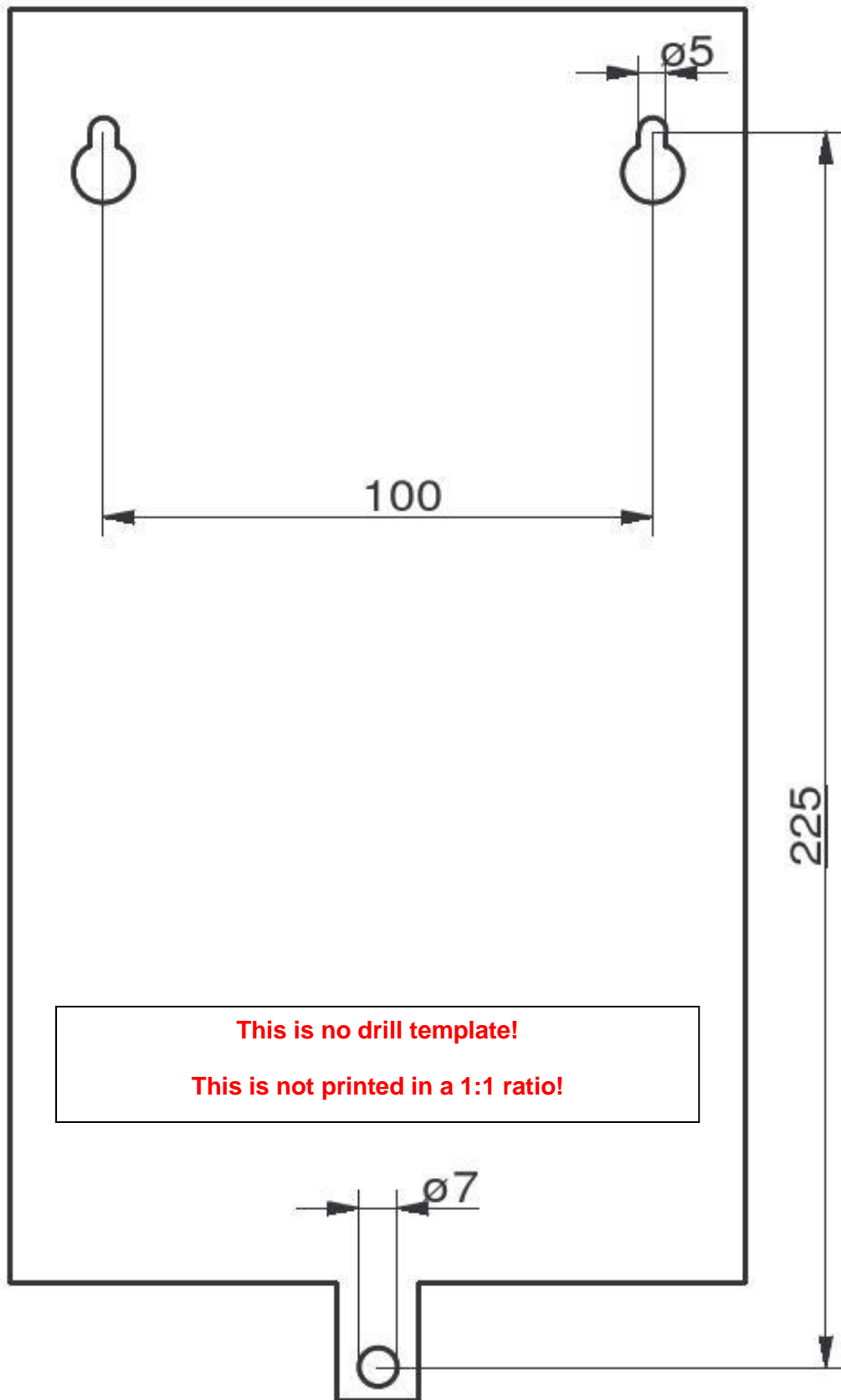


According to valid laws our devices are disposed of according to B2B – regulations for proper disposal. Pls. contact your local dealer for additional information.

9 Spare Parts List

Best.Nr. neu 2018	Retomix Mini Ersatzteilliste / Spare parts list	Stck Qty.	ME Unit
E7010400	Deckel mit Rührwerk für 150mL-Becher Lid with mixer for 150 ml bowl	1	Stck piece
E7010500	Deckel mit Rührwerk für 400mL-Becher Lid with mixer for 400 ml bowl	1	Stck piece
E7010600	Deckel mit Rührwerk für 600mL-Becher Lid with mixer for 600 ml bowl	1	Stck piece
E7010210	Deckel mit Rührwerk für 75mL-Becher Lid with mixer for 75 ml bowl	1	Stck piece
E6555610	Dichtring für 150ml Becher Sealing ring for 150ml bowl	1	Stck piece
E6555620	Dichtring für 400ml Becher Sealing ring for 400 ml bowl	1	Stck piece
E6555630	Dichtring für 600ml Becher Sealing ring for 600 ml bowl	1	Stck piece
E7011700	Dichtring für Becheraufnahme, mit Kleber E7056200 Sealing ring for bowl support, with glue E7056200	1	Stck piece
E7015700	Filter (im Gerät) mit PU- Schläuchen - Serie 37/15 ab 2001 Filter	1	Stck piece
E7015710	Filter (im Gerät) Filter	1	Stck piece
E7205100	Filter als Schalldämpfer Filter for sound absorption	1	Stck piece
E7011200	Filter in Becheraufnahme (5Stck) Filter in bowl holder (5 pcs.)	1	Pack pack
E6301330	Kohlebürsten für Motor Carbon brushes for motor	2	Stck piece
E7951800	Mitnehmer incl. Gewindestift Driving pin incl. set screw	1	Stck piece
E7010810	Rührbecher ohne Rührwerk 150ml Höhe 72 mm Mixing bowl without mixer 150 ml Durchmesser aussen 86 mm	1	Stck piece
E7010820	Rührbecher ohne Rührwerk 400ml Höhe 100 mm, Mixing bowl without mixer 400 ml Durchmesser aussen 116 mm	1	Stck piece
E7010830	Rührbecher ohne Rührwerk 600ml Höhe 140 mm Mixing bowl without mixer 600 ml Durchmesser aussen 129 mm	1	Stck piece
E7404200	Schalter rund (Retomix Comfort) Switch (Retomix Comfort)	1	Stck piece
E7049300	Sicherung 4 A träge Delay fuse 4 A	1	Stck piece
E7212700	Taster rund Fluten Air inlet switch	1	Stck piece
E7630450	Wandmontageset (Schrauben und Dübel) Wall mounting set (screws and anchors)	1	Set set

10 Wall Mounting



11 EU DIRECTIVE

EU-Konformitätserklärung EC-Conformity Declaration CE-Déclaration de Conformité

im Sinne der EG-Richtlinie 2006/42/EG über Maschinen (Anhang II A)
according to Machinery Directive 2006/42/EC (Appendix II A)
au sens de la Directive Machines 2006/42/CE (Annexes II A)

Name und Anschrift des Herstellers/Name and address of manufacturer/Nom et adresse du fabricant:

Reitel Feinwerktechnik GmbH
Senfdamm 20
49152 Bad Essen

Diese Erklärung bezieht sich nur auf die Maschine in dem Zustand, in dem sie in Verkehr gebracht wurde; vom Endnutzer nachträglich angebrachte Teile und/oder nachträglich vorgenommene Eingriffe bleiben unberücksichtigt. Die Erklärung verliert ihre Gültigkeit, wenn das Produkt ohne Zustimmung umgebaut oder verändert wird./This declaration relates exclusively to the machinery in the state in which it was placed on the market and excludes components which are added and/or operations carried out subsequently by the final user. This declaration will become invalid if any unauthorised modification is made to the product./Cette déclaration concerne exclusivement les machines dans l'état dans lequel elles ont été mises sur le marché et exclut des composants ajoutés et/ou les opérations effectuées par la suite par l'utilisateur final. La présente déclaration perd sa validité si des modifications non-autorisées ont été apportées à la machine.

Hiermit erklären wir, dass die nachstehend beschriebene Maschine/We hereby declare that the machine described below/Nous déclarons que la machine ci-dessous

Produktbezeichnung/Product name/Nom du produit: **Vakuumrührgerät/
Vakuum Mixing Device/
Malaxeur sous vide**

Typenbezeichnung/Type/Type: **RETOMIX EASY / MINI**

allen einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG sowie der Richtlinie 2014/30/EU (EMV-Richtlinie) über elektromagnetische Verträglichkeit entspricht. Die Schutzziele der Richtlinie 2014/35/EU über elektrische Betriebsmittel sowie 2011/65/EU (RoHS 2) werden eingehalten./is in conformity with all applicable requirements of the Machinery Directive 2006/42/EC and the Electromagnetic Compatibility Directive 2014/30/EU. The safety objectives of the Directive on Electrical Equipment 2014/35/EU as well as the Directive 2011/65/EU (RoHS 2) are adhered to./est conforme aux dispositions applicables de la Directive Machines 2006/42/CE et de la Directive Compatibilité Electromagnétique 2014/30/EU. Les objectifs de sécurité de la Directive sur les Matériels Electriques 2014/35/EU ainsi que de directive 2011/65/EU (RoHS 2) sont respectés.

Angewandte harmonisierte Normen/Harmonised standards applied/Normes harmonisées appliquées:

EN ISO 12100:2011	EN 61010-1:2020
DIN EN 60204-1:2019	EN 61000-6-1:2019
DIN EN 45635-1	EN 61000-6-3:2011

Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen/Representative authorised to compile the relevant technical documentation/Personne autorisée à constituer la documentation technique pertinente:

Daniel Reitel
Reitel Feinwerktechnik GmbH
Senfdamm 20
49152 Bad Essen

11.02.2021

Ort, Datum
Place, Date
Lieu, Date

Daniel Reitel, Geschäftsführender Gesellschafter/Managing Director/
Directeur Général



Unterschrift/Signature/
Signature

We manufacture in compliance with Quality Management ISO 13485:2016 incorporating established standards.

