

2014/2015

# renfert catalog



Equipment, instruments, materials and more



Quality and Service. Made in Germany.



**3-year warranty**

Enjoy the security of the 3-year warranty on Renfert laboratory equipment.

**Trust your system –  
10-year replacement part service**

Our products are designed for durability. For this reason Renfert keeps all replacement parts available for 10 years.

**No downtimes – activity assurance**

Renfert provides exceptional services in every country in close collaboration with your Renfert dealer to keep any breakdowns to a minimum. Information about your advantages can be found at [www.renfer.com](http://www.renfer.com) in the Service area.

**3** year guarantee

**10** year spare parts service

 activity guarantee

“Dear customers, associates and colleagues,

For almost 90 years Renfert has supported and shaped the development of modern working in the daily routine of dental laboratories worldwide. We stand for intelligent solutions and reliable service to make your work better, more efficient and precise.

Renfert provides you with technology and products, which are produced by dental technicians for dental technicians. This close customer orientation allows us to create solutions which are maximally suitable for everyday application and efficiency. Every product is tested in independent laboratories before being produced in series at our

Hilzingen premises in Germany. This is also a further cornerstone for our quality: Renfert stands for ‘Made in Germany’.

The entire Renfert team with over 170 employees is proud to present a new example of our quality philosophy in this catalog: On page 10 we introduce our contribution for ensuring a clean, low-noise atmosphere at your workplace.”

Hilzingen, Germany, Spring 2014  
Dr. Sören Rieger  
CEO



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### Instruments & Materials

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### Mixing trays & brushes

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## Brand new

**Christian Pilz,**

**Head of Product Management:**

“We continually develop new and innovative products for you. Our customers' wishes are our driving force. Discover our innova-

tions for yourself. We particularly recommend the following new products.”

### Silent V4



Our new four-workstation extraction unit

- ▶ Maximum health protection
- ▶ High degree of user-friendliness
- ▶ High suction power

More information on Page 10

### Top spin



Redesigned pin drilling unit

- ▶ Highest precision
- ▶ Practical emptying of the dust drawer
- ▶ Easy drill change

More information on Page 48

### Eco safety burner



New single-tube Bunsen burner

- ▶ Automatic cut off of the gas supply
- ▶ Time-saving cleaning
- ▶ Separate cleaning of the collector tray

More information on Page 58

## Coming soon

Completion of the Mesh-Tray firing tray range:

- ▶ Combination of metal and ceramic pins
- ▶ Low heat absorption
- ▶ Close-meshed honeycomb structure

Information about other innovations is available in our Renfert Report or on our homepage.



## Optimum service, integrated into every one of our products



If you have any questions: please ask

**We provide you with much more than just high-quality products.**

Maximum customer satisfaction is the focus of our after sales services. This includes valuable tips and tricks extending to solutions for technical questions and possible remedies. In brief, at Renfert you will get an answer for every question and a solution for every problem.

**What is the quickest way for callers to get information?**

It is easier if you already have the unit and serial number ready when you call. Then

we can find the required information, spare parts and solutions much more quickly.

**Which questions do we answer most frequently?**

Questions about operation and technical difficulties from dealers and end customers. Customers have very different requirements. Our technicians know every screw on the units and often find the solution during the initial contact. The service is available by telephone, fax and email.

**Are there other ways customers can obtain the information?**

Of course. Customers can also very easily download spare part lists and drawings at any time with the aid of the numbers at [www.renfert.com](http://www.renfert.com). Valuable tips and operating instructions are also available on the site.

## Spare parts, as standard with integrated service



### This is the only thing there is no replacement for: Our service

If the rare case occurs that a Renfert unit actually breaks down, our activity guarantee comes into effect. This is called an activity guarantee, as we become active immediately and do everything to provide you with the quickest possible service. Internationally, we can already ensure this above the average times of competitors.

In addition to our consulting service, within the EU we also keep a large selection of loan units. A loan unit can be delivered to the customer and the customer unit collected on the same day in these countries.

Regular dealer training courses also enable our customers to contact their dealers directly. And we are continually developing this dealer cooperation.

As you can see, you not only get spare parts from us but also something that cannot be compared: the best service. This is because for us there is no substitute for customer satisfaction.

We produce quality. And we live it.



## What can we do for you?

The satisfaction of our customers is not simply important, our creative activities are based on it. It confirms us in what we do and drives us always to become even that little bit better.

This begins with support during order processing and commitment with delivery deadlines, extending from checking export regulations to help in preparing documents and authorization. We would be happy to tell you what is required for which shipment, clarify questions about product numbers and data sheets – and much more.

In short, if you have a question, we will give you the answer. And we also provide this in over 6 languages, because our customers can be found all around the world. You can contact us from 8:30 to 17:00 hours (in the US from 8:00 to 4:30 cst.). Your requirements are generally fulfilled immediately, but at the latest within 24 hours. This is provided by a well-coordinated service team in which one colleague supports the other. Everything is for the service and interest of our customers.







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## Power ensures quietness. Renfert Silent extraction units.



### The right solution: The correct noise and health protection for your workplace

A routine day in the laboratory: A hand-piece is running, it is briefly cleaned using compressed air, the motor of the extraction is also making a noise. In short: pure noise-related stress. There is also diverse types of fine dust. Fortunately, powerful Silent extraction units are available from Renfert. This is because they solve all the problems at a stroke. Silent extraction units not only have the power required to protect you effectively against fine dusts but also operate surprisingly quietly.

The fitting solution for any size: Whether one-workstation, two-workstation or four-workstation extraction. You will always find the ideal extraction unit for your laboratory in the Silent range.

#### **Oliver Bothe, Product management:**

„Optimum extraction requires optimum motor technology. This is why changing motors with the Silent TS and TS2 is really very easy. Despite the long service life of over 800 hours even a motor of the Silent TS units must sometimes be changed. You can change the motor in only a few steps in-house, without annoying down-times. The brushless EC motor of our 4-workstation extraction unit Silent V4 is extremely low maintenance. Your guarantee for a significantly longer running time, even when operated continuously in your laboratory.“

Cleanliness can be so quiet

### Our entire clean air expertise at your workplace

The impressive advantages of a product range well designed in every detail: Silent extractor units.

#### Performance

- ▶ Clean air instead of health-relevant dust: thanks to strong, controllable suction power of up to a volume flow of 4,000 l/min. (140 cfm).
- ▶ Effective dust protection in your surroundings using a two-stage filter system.

#### Noise protection

- ▶ Reduction of the operating noise ensures significantly quieter extraction units.

#### Operation

- ▶ More convenient, direct access to all controls on the front of the unit.
- ▶ Silent V4 and Silent TS2: intuitive, convenient setting of all parameters using the bright multifunction display.

#### Calibration

- ▶ Precisely adjustable calibration of the automatic switch-on. This allows convenient control of the suction using any conventionally available handpiece.

#### Motor technology

- ▶ 800 operating hours.
- ▶ No downtimes thanks to tool-free motor exchange in only 2 min. with the TS units.
- ▶ The brushless EC motor of the Silent V4 ensures high durability and minimum maintenance.

#### Design

- ▶ Functional, esthetic, compact.

## Silent extraction units



## Silent V4



### Function & Performance

The compact four-workstation extractor Silent V4 provides individual suction power setting, adapted to the actual requirements. All functions can be set via an intuitive, convenient control panel with LCD display.

### Advantages

- ▶ Extraction for four users saves costs in terms of space and maintenance.
- ▶ Suction power at the four workstations only as required using four separate controllable pinch valves.
- ▶ The suction power is automatically readjusted to adapt it to the user.

## Quiet extraction to the power of four

Power supply	230 V, 50/60 Hz	120 V, 60 Hz
Power consumption	1.400 W	1.400 W
Ø suction fittings, internal	38 mm (1.50")	38 mm (1.50")
Ø suction fittings, external	45 mm (1.77")	45 mm (1.77")
Connection pressure, max./min.	8 bar / 4,5 bar (116.08 psi / 65.30 psi)	8 bar / 4,5 bar (116.08 psi / 65.30 psi)
Negative pressure, max.	11 kPa	11 kPa
LpA complying with EN ISO 11202 (at max. volume flow)	63 dB(A)	63 dB(A)
Fill volume, dust drawer	~ 12 l (~ 3.17 gal)	~ 12 l (~ 3.17 gal)
Dimensions (W x H x D)	350 x 750 x 590 mm (13.79 x 29.55 x 23.25")	350 x 750 x 590 mm (13.79 x 29.55 x 23.25")
Weight (empty)	~ 45 kg (~ 99.36 lbs.)	~ 45 kg (~ 99.36 lbs.)

Description	Presentation	Art. No.
Silent V4, 230 V	Silent V4, Power cable Silent V4, Quattro Control Box (= QCB), Power cable QCB, Interface cable QCB, Compressed air tube	29330000
Silent V4, 120 V	Silent V4, Power cable Silent V4, Quattro Control Box (= QCB), Power cable QCB, Interface cable QCB, Compressed air tube	29331000
End bushings set, 2 pieces		29210003
Suction hose, 3 m	Suction hose, 2 mufflers	900034240
Suction hose, 6 m		901150823
Suction hose, 9 m		902150823
Universal adapter for hose connection		900034305
Universal adapter for suction hose		900034430
External Exhaust Air Duct Silent V4		29330002
Cooling air tube Silent V4 (for integration of Silent V4 in workbench furnishing)		29330003
Adjustable feet (for integration of Silent V4 in workbench furnishing)		29330004

### Maik Witt, Project Manager:

"Your maximum health protection is our aim. We use fine filter material with a 99.9% filtration efficiency (filter Class M)."



### Video

Silent V4 – Successful concept "extraction"  
www.renfert.com/P785



## Details



### Motor technology

The commutatorless EC motor has a considerably longer motor running time in comparison with commutator motors. This long-life motor technology ensures maximum process reliability and saves expensive service and maintenance costs.

### Filter technology

The new fine filter cleaning is pneumatic. After each cleaning procedure (1x day) the fine filter is completely clean. This means: full suction power every day! The dust is collected in a drawer, which can be easily emptied from the front. Time-consuming dust bag change belongs to the past.



### Noise and health protection

The Silent V4 is as quiet as the name promises. Unpleasant frequencies have been eliminated with the help of psychoacousticians. The result: pleasant, quiet extraction. The high suction capacity (max. 4000 l/min; 140 cfm) removes all dust from the surrounding area. This means maximum health protection with total performance.

### Design

Can the Silent V4 be integrated? No problem! The comparatively compact design makes its integration in the lab furniture realizable. The standard panel can very easily be changed to the desired front panel. A stand-alone solution is also possible. The right idea for every laboratory.



#### Joanna Deligianni, Dental technician:

"I think that Renfert has developed an ideal solution for units connected to automatic switch-on technology with the centrally positioned quattro control box. I was able to connect my unit in the test laboratory virtually without an extension cable. An overload protection is also included with this innovative technique. For me Renfert means extraction expertise with the Silent range."

## Silent TS2



### Proven technology, double benefits

Power supply	220–240 V, 50/60 Hz	120 V, 60 Hz
Power consumption	1.400 W	1.400 W
Ø suction fittings, internal	45 mm (1.77")	45 mm (1.77")
Ø suction fittings, external	50 mm (1.97")	50 mm (1.97")
Unit power outlet maximum connecting value	2.000 W	360 W
Total connected power	3.400 W	1.800 W
Airflow, max.	3.300 l/min (115.5 cfm)	3.300 l/min (115.5 cfm)
LpA complying with EN ISO 11202 (at max. volume flow)	59 dB(A)	59 dB(A)
Fill volume, dust bag	7,5 l (1.98 gal)	7,5 l (1.98 gal)
Dimensions (W x H x D)	225 x 595 x 565 mm (8.8 x 23.4 x 22.2")	225 x 595 x 565 mm (8.8 x 23.4 x 22.2")
Weight (empty)	27 kg (59.62 lbs.)	27 kg (59.62 lbs.)

Description	Presentation	Art. No.
Silent TS2, 220–240 V	Silent TS2, 4 m suction hose, 4 PVC end bushings	29300050
Silent TS2, 120 V	Silent TS2, 4 m suction hose, 4 PVC end bushings	29301050

### Function & Performance

Powerful two workstation extraction, quiet and compact. The Silent TS2 frees two individual users from health-related dusts.

### Advantages

- ▶ Suction power only where and when it is needed, thanks to the intelligent independent control of the 2 separate pinch valves.
- ▶ Constant suction power thanks to automatic re-adjustment of motor output.
- ▶ Intuitive, convenient operation with large, clear multifunctional display.

### Details

- ▶ Effective dust reduction using a high volume flow of 3,300 l/min.
- ▶ Compatible with any handpiece and user due to easy calibration.
- ▶ Relaxed working thanks to very low operating noise of only max. 61 dB(A).
- ▶ High degree of health protection provided by a dust Class M filter (optional H/Hepa filter).



#### Joachim Egelhof, Technical manager:

"Why are our Silent extractors so quiet? Some noises are more stressful than others. We worked with psychoacousticians who showed us the unpleasant frequency ranges. This allowed us to minimize the noises drastically in this range and provide the units with a pleasant audio frequency."



Silencer inline silencers and other accessories  
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## Silent TS



### The elegant single workstation solution

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Power consumption	1.400 W	1.400 W (120 V), 1.000 W (100 V)
Ø suction fittings, internal	32,5 mm (1.28")	32,5 mm (1.28")
Ø suction fittings, external	40 mm (1.57")	40 mm (1.57")
Cable length	2 m (78.74")	2 m (78.74")
Unit power outlet maximum connecting value	2.000 W	360 W (120 V), 500 W (100 V)
Total connected power	3.400 W	1.800 W (120 V), 1.500 W (100 V)
Airflow, max.	3.300 l/min (115.5 cfm)	120 V: 3.300 l/min (115.5 cfm) 100 V: 2.900 l/min (101.5 cfm)
Max. noise level complying with DIN 45635–01-KL3	63 dB (A)	63 dB(A)
Fill volume, dust bag	7,5 l (1.98 gal)	7,5 l (1.98 gal)
Dimensions (W x H x D)	225 x 595 x 565 mm (8.8 x 23.4 x 22.2")	225 x 595 x 565 mm (8.8 x 23.4 x 22.2")
Weight (empty)	26 kg (57.41 lbs.)	26 kg (57.41 lbs.)

Description	Presentation	Art. No.
Silent TS, 220–240 V	Silent TS, 3 m of suction hose, special dust bag, fine-filter, universal hose connection adapter, Y-adapter	29210050
Silent TS, 100–120 V	Silent TS, 3 m of suction hose, special dust bag, fine-filter, universal hose connection adapter, Y-adapter	29211050

#### Tilo Burgbacher, Manager Design and Development:

"Renfert provides a guarantee of 800 operating hours of motor running time for our Silent TS motors. The tests even showed service lives of over 2,400 working hours in extreme cases."



#### Function & Performance

The strong, controllable suction power makes the Silent TS suitable as a machine and workstation extractor.

#### Advantages

- ▶ 3x longer service life (in comparison to conventional collector motors) due to new motor technology.
- ▶ The high volume flow (3.300 l/min) protects against dust exposure.
- ▶ Low noise pollution thanks to max. suction noise of 58 dB/A.

#### Details

- ▶ Tool-free motor change in only 2 min.
- ▶ Convenient operation of all functions such as automatic switch-on and filter-full detection.
- ▶ High degree of health protection provided by a dust Class M filter (optional H/Hepa filter).



#### Video

What should an extractor be able to do for dental technology?

[www.renfert.com/P156](http://www.renfert.com/P156)



## Silent TS and TS2 accessories



### Description

Special dust-bag, synthetic, 5 pieces

Castors, 4 pieces

Universal adapter for hose connection

Adapter for external exhaust air duct

Silencer for Silent TS2

### Art. No.

29210002

29210001

900034305

29210004

29560000

### 1. Special dust bag

For Silent TS and Silent TS2.

#### Advantages

- ▶ High intake capacity: 7.5 l filling volume.
- ▶ Resilient, fully synthetic material, tear-resistant and sealable.
- ▶ Class M dust bag (DIN EN 60335-2-69).

### 2. Caster set

#### Advantages

- ▶ Helps easy, flexible placement of the unit.
- ▶ Casters quickly and easily assembled.

### 3. Universal hose connector adapter

#### Advantages

- ▶ Suitable for the most common sizes of hoses.
- ▶ Accurately fitting connection without cutting to size.

### 4. Exhaust air adapter

For external exhaust air duct.

#### Advantages

- ▶ Reduces the heat in the laboratory.

### 5. Silencer

Inline silencer for the Silent TS2.

#### Advantages

- ▶ Up to 50% reduction of the perceptible extraction noise, with constant suction power.
- ▶ Quick and easy installation on the suction hoses.



#### Tip:

We recommend aligning the silencer vertically to obtain the full performance of noise reduction.



## Vortex compact 3L



### Extraction – robust and versatile

Power supply	230–240 V, 50/60 Hz	120 V, 60 Hz
Power consumption	1.200 W	840 W
Mains fuse protection	16 A	12 A
Cable length	7,5 m (295.28")	7,5 m (295.28")
Ø suction fittings interior/exterior	37 mm (1.46") / 45 mm (1.77")	37 mm (1.46") / 45 mm (1.77")
Ø extractor hose interior/exterior	36 mm (1.42") / 46 mm (1.81")	36 mm (1.42") / 46 mm (1.81")
Max. noise level complying with DIN 45635-01-KL3	62 dB(A)	62 dB(A)
Capacity of dust retainer	30 l (7.92 gal)	30 l (7.92 gal)
Dimensions (W x H x D)	385 x 600 x 480 mm (15.16 x 23.62 x 18.9")	385 x 600 x 480 mm (15.16 x 23.62 x 18.9")
Weight (empty)	~ 10 kg (22.08 lbs.)	~ 10 kg (22.08 lbs.)

Description	Presentation	Art. No.
Vortex compact 3L, 230–240 V	Vortex compact 3L, 1 filter bag, 3 m of tubing	29245000
Vortex compact 3L, 120 V	Vortex compact 3L, 1 filter bag, 3 m of tubing	29246000
Waste bag, 5 pieces		29245002
Dust bag, 5 pieces		29245003
Fine filter, piece		29245004
Cloth filter, piece		29245005

#### Oliver Bothe, Product Management:

"The commutator motor of the Vortex compact 3L is excluded from the guarantee, it is subject to the system-related wear and tear. The average service life is approx 800 hours."



#### Function & Performance

The Vortex compact 3L is a wet and dry extractor, specially developed for use with equipment.

#### Advantages

- ▶ Optimum protection against fine dusts (99.9% filtration efficiency) using a 2-stage filter system with M Class fine filters, optional also H/Hepa filters (art. no. 900034410/-4420).
- ▶ 25 % increase in the filter capacity at the press of a button using the free-filter system.
- ▶ Extremely powerful due to high-speed suction turbine with 3,600 Watt and 3,700 l/min (129.50 cfm).

#### Details

- ▶ Wet suction function makes it ideal for use with water-cooled trimming procedures.
- ▶ Dust free removal using an extremely tear-proof, large filter bag (15 l) made from nano-fiber fleece with integrated sealing system.
- ▶ Long service life of the washable PET fleece fine filter.



## Dustex master plus



### The Compact Dust Extractor Box

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Dimensions (W x H x D)	380 x 285 x 400 mm (14,97 x 11,23 x 15,76")	380 x 285 x 400 mm (14,97 x 11,23 x 15,76")
Power consumption, illumination	17,3 W	9,5 W
Working chamber (volume)	17 l (4.49 gal.)	17 l (4.49 gal.)
Weight	5 kg (11.04 lbs.)	5 kg (11.04 lbs.)
Ø suction fitting for external extraction unit, exterior	40 mm (1,58")	40 mm (1,58")
Ø suction fitting for external extraction unit, interior	35 mm (1,38")	35 mm (1,38")

Description	Presentation	Art. No.
Dustex master plus, 220–240 V	Dust box, fluorescent light with lamp cover, extraction port kit, armrests	26260105
Dustex master plus, 100–120 V	Dust box, fluorescent light with lamp cover, extraction port kit, armrests	26261105
High quality magnifier with flexible swan-neck		26260300
Gold filter		26260600



### Function & Performance

The non-tip and non-slip Dustex master plus extractor box protects against splinters, dust and fumes. An ergonomically well-conceived form and height-adjustable arm rests enable free, comfortable working.

### Advantages

- ▶ Extraction directly on the object ensures a clear view.
- ▶ Maximum freedom of movement thanks to a large inner volume (17 l).
- ▶ Comfortable working due to large arm inlets.

### Details

- ▶ Bright, build-in illumination with 2400 Lux.
- ▶ High safety thanks to laminated protective screen with silicone coating.
- ▶ Versatile use due to compact and stable, low-weight powder-coated housing.
- ▶ Practical wooden support, made of hard beech wood.



We recommend the Silent TS workplace extraction  
Page 13

## Extractor clamp



### Function & Performance

With this practical accessory your dental lab work station can be subsequently fitted with an extractor unit.

### Advantages

- ▶ Robust clamp made of beech wood.
- ▶ Secure fixture to work tables of 20–40 mm thickness.
- ▶ Variable and individual connection for extraction hose on the right or on the left (fitting 40 mm / 1,58 inch).

Description	Art. No.
Extractor clamp (without glass shield)	29250000
Glass shield with holder	29251000

## Extractor Switch



### Function & Performance

For connecting 2 dust producing devices to Renfert extraction units.

### Advantages

- ▶ Via selection switch individually adjustable to one or two extraction openings.
- ▶ Tool free and fast connection.

Description	Art. No.
Extractor switch incl. 4 mufflers (without hose)	29260000
End bushings set, 2 pieces	29210003
Suction hose, super-elastic PVC flex (by the metre)	150823

Ø suction fittings, interior/exterior	35 mm (1.38")/ 44 mm (1.73")
Ø muffler interior/exterior	38 mm (1.5")/ 44 mm (1.77")
Ø extractor hose interior/exterior	38 mm (1.5")/ 44 mm (1.73")

## Grinding box



### Function & Performance

Acrylic grinding box with built-in magnifying glass prevents the spread of grinding dust.

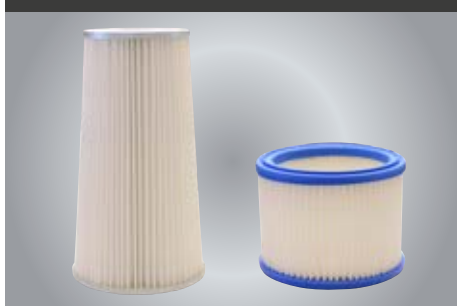
### Advantages

- ▶ Prevents ground dust from spreading.
- ▶ Very easy and particularly flexible to use.
- ▶ Optimal control of the piece of work with integrated 2 x magnifying glass.

Description	Art. No.
Grinding box	26250000

Dimensions (W x H x D)	250 x 150 x 150 mm (9.84 x 5.9 x 5.9")
Weight	400 g (0.88 lbs.)

## H/Hepa Fine Filter



### Function & Performance

Even greater safety provided by a filtration efficiency of 99,995 %.

### Advantages

- ▶ Tool less and quick change of the filter.

- ▶ Available for Silent TS, Silent TS2 and Vortex compact 3L.
- ▶ Each filter is delivered with an individual certificate (tested according to DIN EN/IEC 60335-2-69 A.3/AA.22.201.2 and EN 1822-5 Hepa Filters / MIL-STD 282 Type: C).

Description	Art. No.
H+Hepa filter Silent TS/TS2, set	900034410
H+Hepa filter Vortex compact 3L, piece	900034420

## Vario jet



## Recyclable sandblasting – professional, efficient and fully automatic

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Working pressure	1–6 bar (14.5–87 psi)	1–6 bar (14.5–87 psi)
Connecting pressure, external	max. 10 bar (145 psi)	max. 10 bar (145 psi)
Air consumption at 6 bar (87 psi)	200 l/min (7.00 cfm)	200 l/min (7.00 cfm)
Lamp power	11 W	11 W
Max. power consumption of dust extractor	1200 W	1200 W
Dimensions (W x H x D)	405 x 650 x 460 mm (15.96 x 25.61 x 18.12")	405 x 650 x 460 mm (15.96 x 25.61 x 18.12")
Blasting chamber volume	25 l (6.60 gal)	25 l (6.60 gal)
Weight	≈ 26 kg (57.41 lbs.)	≈ 26 kg (57.41 lbs.)

Description	Art. No.
Vario jet, 220–240 V	29610000
Vario jet, 100–120 V	29611000

### Function & Performance

The Vario jet is the ideal recycling sandblaster for economic sandblasting. It can be operated both in the automatic and manual mode.

### Advantages

- ▶ Exact coordination of the essential sandblasting parameters (pressure, time, grit size).
- ▶ Intelligent extraction system: only unusable fine dust is extracted.
- ▶ High degree of freedom of movement due to easily removable sandblasting basket.

**Christian Pilz,**  
Head of Product Management:  
"Another advantage in the manual program is the targeted impulse transfer via a 360° operated foot switch."



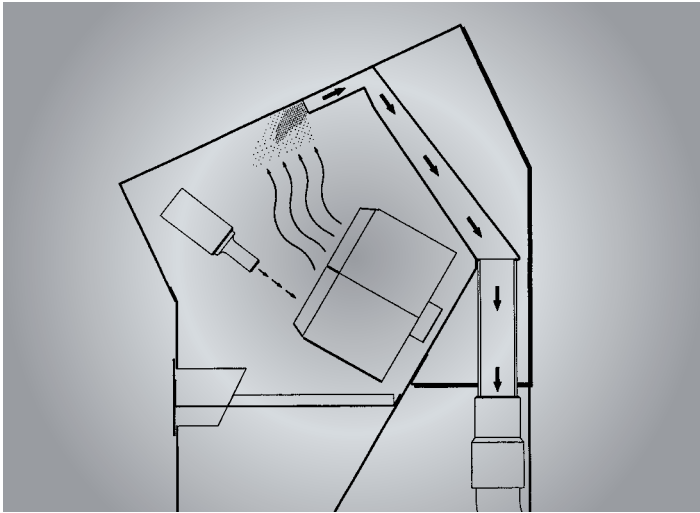
**Tip:**  
Quick amortization with only 4 CrCo frameworks per day due to 50% saving in abrasives and time.



We recommend Cobra aluminum oxide 90–125 µm and 250 µm  
Page 151



## Details



### The intelligent extraction system

50% saving in abrasive consumption. The extraction channels have been designed, so that only unusable fine dust is removed.

### The nozzle

can be positioned at three different distances to the blasting basket. It is made from highly resistant boron carbide. The distance and angle of the nozzle to the casting are determined by the rotational direction of the basket, so that 100% blasting efficiency is achieved in minimal time.



### The blasting basket

rotates with a special geometry. Up to 7 CrCo castings can be sandblasted simultaneously. On average a framework is fully automatically sandblasted in only 10 minutes. A rubber basket insert protects the frameworks and baskets. The blasting basket is easily removed in only one step (for manual sandblasting).

### Technical features

- ▶ Intuitive operating logic.
- ▶ Program selection via a membrane keypad.
- ▶ Blasting pressure can be set from 1 to 6 bar (14.5–87 psi).
- ▶ Manometer pressure display.
- ▶ Automatic control of an external extraction with controlled shut-off delay between 5 and 30 sec.
- ▶ Inlet opening and connection possibility for a compressed-air-driven unit (microblaster, pneumatic deflasking chisel, outlet nozzle).
- ▶ Highly resistant, coated glass panel.
- ▶ Cotton-coated protective gloves.



## Vario basic



### Function & Performance

The compact combination of recycling sandblaster and microblaster. A cost-effective, multifunctional solution for all relevant sandblasting work in the dental laboratory.

### Advantages

- ▶ Can be upgraded with 1 to 4 microblasting tanks.
- ▶ Individually adjustable recycling nozzle with the integrated Venturi principle and efficient sandblasting.
- ▶ 50% less abrasive consumption due to intelligent extraction system (only unusable fine dust is removed).

## The all-round sandblaster

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Working pressure	1–6 bar (14.5–87 psi)	1–6 bar (14.5–87 psi)
Connecting pressure, external	6–8 bar (87–116 psi)	6–8 bar (87–116 psi)
Air consumption at 6 bar (87 psi)	200 l/min (7.00 cfm)	200 l/min (7.00 cfm)
Dimensions (W x H x D)	380 x 540 x 450 mm (14.92 x 21.28 x 17.73")	380 x 540 x 450 mm (14.92 x 21.28 x 17.73")
Blasting chamber volume	23 l (6.07 gal)	23 l (6.07 gal)
Capacity of 1 tank	1000 ml (34 fl.oz.)	1000 ml (34 fl.oz.)
Weight	≈ 14 kg (30.91 lbs.)	≈ 14 kg (30.91 lbs.)

Description	Type	Art. No.
Vario basic base unit without blasting tanks, 220–240 V		29600005
Vario basic base unit without blasting tanks, 100–120 V		29601005
Additional tank right, incl. sandblasting nozzle 0.8 mm	25–70 µm	29540050
Additional tank left, incl. sandblasting nozzle 0.8 mm	25–70 µm	29540051
Additional tank right, incl. sandblasting nozzle 1.2 mm	70–250 µm	29540250
Additional tank left, incl. sandblasting nozzle 1.2 mm	70–250 µm	29540251
Wall bracket incl. 90° angled connector		29600001
90° angled connector		29600002
Protective grate for viewing screen		29600003
Boron carbide nozzle		900035520



**Christian Pilz,**  
Head of Product Management:  
"We use high-performance compressed air filters in our test laboratory for clean, oil- and water-free compressed air. This considerably reduces the maintenance costs."



High-performance  
compressed air filters  
Page 30

## Details



### The microblaster tanks (optional)

hold approx. 1,000 ml abrasives. They can be very easily extended without tools in a few steps via a quick-coupling and color-coded system.

### The sand silo

A removable large particle separator prevents contamination of the abrasive. The large, funnel-shaped silo ensures permanent sand supply. The unit can be emptied via an opening in the silo floor.

### Can be used as a wall-mounted or bench unit

Optional, the Vario basic (with only two blasting tanks) can be easily fixed in position using an easy to assemble wall mounting.



### Technical features

- ▶ Highly resistant coated glass panel.
- ▶ Replaceable, washable cuffs.
- ▶ Powder-coated metal housing.
- ▶ Internal tank selection switch for each microblaster tank, recycling sandblast operation or choice of an external compressed air unit.
- ▶ IT-Handpiece with exchangeable nozzles.
- ▶ Filter control with manual water separator for cleaning the supplied compressed air.
- ▶ Highly resistant boron carbide nozzle optionally available.
- ▶ Inlet opening and connection for a compressed air driven unit (e.g. deflasking chisel).



## Our fine sandblasting technology: Quality meets economy



### Renfert Basic sandblasting units. Quality that saves money.

Once a sandblaster has been purchased, the subject of material and working time costs is willingly repressed. We recommend: That you check the actual cost-effectiveness before you invest.

If you expect the best possible sandblasting quality along with minimum consumption, Renfert sandblasting units are ideal for you. A study at the University of Applied Sciences, Osnabrück, Germany confirms: Renfert Basic fine sandblasting units save money. The tests of the University of Applied Sciences mainly reveal the hidden follow-up costs of an investment: The tested, supposedly cheaper, comparable units consumed

up to 7x more abrasive than a Renfert Basic quattro IS sandblasting unit. In other words: With the same working time, a Renfert Basic quattro IS consumes abrasive to the value of € 95.00 (\$ 131) per year. In the same time, a comparable unit can produce costs of € 640 (\$ 883). Medium to long-term this adds up to amazing costs.

Our conclusion: An initial, seemingly reasonable purchase can end up being unexpectedly expensive for you.

**Christian Pilz,  
Head of Product Management:**  
"As a Dental Technician and Product Manager for sandblasting technology I know that saving money is more important than ever, but the sandblasting technology is decisive for ensuring the optimum sandblasting quality of your frameworks."



Discover more in our  
Renfert Report 1/2011.  
[www.renfert.com/P47](http://www.renfert.com/P47)



## The super talent.

### Precision and premium: Highest level technology.

Renfert advantage: the unique mixing chamber technology, developed in-house, and the special geometry of the IT nozzles provide decisive advantages.

1. Perfectly uniform abrasive flow, abrasive power and jet pattern. This allows you to achieve consistently uniform, reproducible surface conditioning, ensuring perfect bonding properties. No stresses and cracks in the porcelain.
2. Efficient sandblasting reduces abrasive costs by up to 80%, thanks to abrasive flow with optimum air-sand mixture, regardless of the tank level and with minimum to no pre-blasting and post-blasting.
3. Focused, effective and reliable sandblasting. You achieve effective removal from the framework without loss of abrasive due to scatter. At the same time your sensitive frameworks are optimally protected.

### Renfert advantage: The PerfectView concept

The constant, brightly illuminated blasting chamber (4,800 Lux) guarantees optimum contour and detail recognition on your framework.

- ▶ Thanks to the special daylight LED technology you can see greater contrasts and clearer differences in shade on the illuminated framework.

## Basic fine sandblasting units



- ▶ The intelligent ventilation technology optimizes removal of air-/sand-turbulences, so that you always have a clear view of the framework (from Basic master onwards).
- ▶ The silicone coated glass helps to reduce etching and allows a longer viewing life (optional with Basic classic).
- ▶ The color-coded system on the tank lids, tank placement, handpieces and tank selection switch make the unit very easy to operate.
- ▶ The ergonomic hose routing also creates optimum viewing conditions.



**Insider-Tip!**  
**Subject cold siliconizing in the sandblasting unit:**  
 3M Espe recommends exclusive use of the Basic series of Renfert sandblasting units with Rocatec™. Their advantage: Coverage is absolutely uniform using the prescribed impact energy and without thermal loading of the alloy.  
 More at: [www.renfert.com](http://www.renfert.com)

Overview Sandblasters	Basic classic	Basic master	Basic quattro	Basic quattro IS
Number of tanks	1-2	2	2-4	2-4
Abrasive chamber volume	14l	20l	20l	20l
Blow-out nozzle	-	-	■	■
Immediate Stop function	-	-	-	■
Individual pressure adjustment for every tank	-	-	-	■

## Basic quattro IS



### Function & Performance

Professional, comfortable sandblasting unit with 2 to 4 tanks. Provides precision & processing safety for every procedure.

### Advantages

- ▶ Controlled and exact sandblasting of finely detailed objects thanks to integrated quick stop technology, 'IS' (Immediate Stop) enabling start/stop within seconds of the sandblasting process.
- ▶ Precise and reliable processing at best possible cost effectiveness with the special mixing chamber technology.
- ▶ Quick and safe operation due to exact pressure adjustment and control of actual pressure for every tank.

## Precision microblasting

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Working pressure	1–6 bar (14.5–87 psi)	1–6 bar (14.5–87 psi)
Connecting pressure, external	5–8 bar (87–116 psi)	5–8 bar (87–116 psi)
Air consumption at 6 bar (87 psi)	98 l/min (3.43 cfm)	98 l/min (3.43 cfm)
Lamp power	16 W	16 W
Cable length	2 m (78.74")	2 m (78.74")
Dimensions 2-tank version (W x H x D)	395 x 320 x 510 mm (15.55 x 12.6 x 20.08")	395 x 320 x 510 mm (15.55 x 12.6 x 20.08")
Capacity of 1 tank	1000 ml (34 fl.oz.)	1000 ml (34 fl.oz.)
Blasting chamber volume	20 l (5.28 gal)	20 l (5.28 gal)
Weight (empty) 2-tank version	11,5 kg (25.39 lbs.)	11,5 kg (25.39 lbs.)

Description	Type	Art. No.
Basic quattro IS basic unit with 2 blasting tanks, 220–240 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29590000
Basic quattro IS basic unit with 2 blasting tanks, 100–120 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29591000
Additional tank, incl. nozzle 0.8 mm	25–70 µm	29590050
Additional tank, incl. nozzle 1.2 mm	70–250 µm	29590250

### Christian Pilz, Head of Product Management

"Renfert Basic quattro IS sandblasters are particularly suitable for the efficient and safe devesting of press ceramic as well as for the extremely delicate fissure blasting."



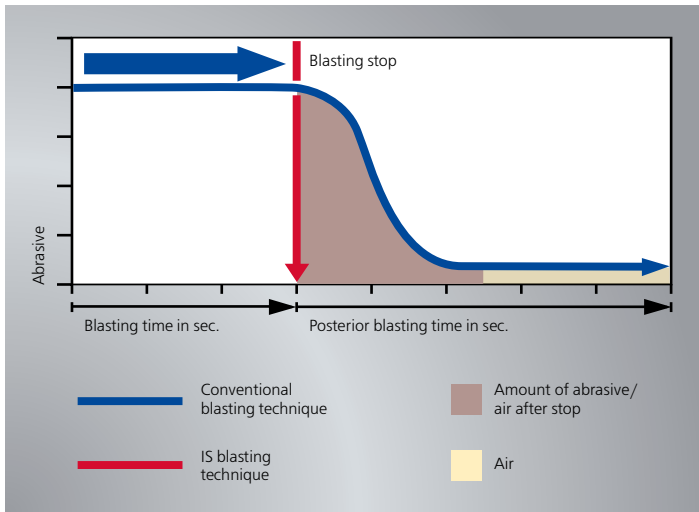
### Video

Tank assembly in only a few stages.  
[www.renfert.com/P129](http://www.renfert.com/P129)



Suitable abrasives on page 150.

## Details



### Integrated Immediate Stop Technique (Immediate Stop)

The foot switch controls the pneumatic valves. This allows the blasting process to begin or end instantly. The control system allows a very precise dosage of blasting material and prevents posterior sandblasting at the same time (savings on blasting material!).

The Immediate Stop function enables focused sandblasting for e.g. devesting delicate restorations (all porcelain/ pressable ceramics, inlays, telescope units, thin crown margins), sandblasting fissures, treatment of precision attachments as well as surface conditioning on alloys and porcelain.

### The exact control over pressure

After switching on the unit the blasting tanks are permanently under pressure. On switching off the unit the tanks remain under pressure for several hours so the pressure does not need to be continuously regained. This means the adjustable pressure for each tank is ready for use immediately on starting the blasting process and also after short interruptions.

### Tank selector switch and pressure regulator

Individual tanks and pressure adjustment can be comfortably selected from within the blasting chamber.

### Foot switch

Foot switch can be activated from any position (360°).

### Tank upgrade

Easy tank upgrade, tool-free due to the quick connection and color-coded system.

### Sandblasting chamber volume

Large sandblasting chamber (20 l) allows maximum freedom of movement.



#### Tip:

Unique: The manometers mounted in the tank lid provide information about the actual pressure at the nozzle and not about the static pressure in the tank. The desired pressure can be individually regulated on each tank.

## Basic quattro



## Microblasting – economic and versatile

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Working pressure	1–8 bar (14.5–116 psi)	1–8 bar (14.5–116 psi)
Connecting pressure, external	5–8 bar (72–116 psi)	5–8 bar (72–116 psi)
Air consumption at 6 bar (87 psi)	98 l/min (3.43 cfm)	98 l/min (3.43 cfm)
Lamp power	16 W	16 W
Cable length	2 m (78.74")	2 m (78.74")
Dimensions 2-tank version (W x H x D)	395 x 285 x 465 mm (15.55 x 11.22 x 18.31")	395 x 285 x 465 mm (15.55 x 11.22 x 18.31")
Blasting chamber volume	20 l (5.28 gal)	20 l (5.28 gal)
Capacity of 1 tank	1000 ml (34 fl.oz.)	1000 ml (34 fl.oz.)
Weight (empty) 2-tank version	8,9 kg (19.65 lbs.)	8,9 kg (19.65 lbs.)

Description	Type	Art. No.
Basic quattro basic unit with 2 blasting tanks, 220–240 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29580000
Basic quattro basic unit with 2 blasting tanks, 100–120 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29581000
Additional tank, incl. nozzle 0.8 mm	25–70 µm	29580050
Additional tank, incl. nozzle 1.2 mm	70–250 µm	29580250



### Function & Performance

Convenient, flexible premium class microblaster with 2–4 tanks.

### Advantages

- ▶ Very easy, toolless tank extension via quick-release coupling and colour-coded system.
- ▶ Precise blasting with the special mixing chamber technology (Venturi principle).
- ▶ Easy hand and framework cleaning using the integrated blow-out nozzle.

### Details

#### Several applications simultaneously

The Basic quattro enables several applications simultaneously in a compact space, e.g. surface conditioning, devesting and preparation of metal frameworks for oxide firing.

### Retrofitting

The Basic quattro can be quickly retrofitted in the lab to up to four tanks, with e.g. the following arrangement: 50 µm Cobra, 50 µm Rolloblast, 90–125 µm Cobra and 250 µm Cobra.

### Abrasive chamber volume

20 l



A large selection of sandblasting nozzles on page 29.



## Basic master



## The master for routine work

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Working pressure	1–8 bar (14.5–116 psi)	1–8 bar (14.5–116 psi)
Connecting pressure, external	5–8 bar (72–116 psi)	5–8 bar (72–116 psi)
Air consumption at 6 bar (87 psi)	98 l/min (3.43 cfm)	98 l/min (3.43 cfm)
Lamp power	16 W	16 W
Cable length	2 m (78.74")	2 m (78.74")
Dimensions (W x H x D)	395 x 285 x 460 mm (15.55 x 11.22 x 18.11")	395 x 285 x 460 mm (15.55 x 11.22 x 18.11")
Blasting chamber volume	20 l (5.28 gal)	20 l (5.28 gal)
Capacity of 1 tank	1000 ml (34 fl.oz.)	1000 ml (34 fl.oz.)
Weight (empty)	8,1 kg (17.88 lbs.)	8,1 kg (17.88 lbs.)

Description	Type	Art. No.
Basic master, 220–240 V, incl. 2 nozzles 0.8 mm	2 x 25–70 µm	29482000
Basic master, 220–240 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29482025
Basic master, 220–240 V, incl. 2 nozzles 1.2 mm	2 x 70–250 µm	29482250
Basic master, 100–120 V, incl. 2 nozzles 0.8 mm	2 x 25–70 µm	29484000
Basic master, 100–120 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29484025
Basic master, 100–120 V, incl. 2 nozzles 1.2 mm	2 x 70–250 µm	29484250

### Dr. Bonnet, dentist:

"We decided to purchase the Basic master microblaster together with the Silent TS extractor from Renfert. The unit is a daily aid in many areas and is very time-saving in its operation."



### Function & Performance

The Basic master microblaster is a genuine space-saver and provides great freedom of movement. The unit is equipped with 2 tanks.

### Advantages

- ▶ Precise blasting with the special mixing chamber technology (Venturi principle).
- ▶ Large volume blasting chamber provides maximum freedom of movement.
- ▶ Ventilation slots ensure optimal ventilation of the blasting chamber and a clear view (PerfectView-Concept).

### Details

The Basic master is preferred by laboratories, which expect a higher workload. The many extras in terms of ergonomics, ventilation and durability optimise continuous operation of the unit.

There are also two abrasive tanks for all the standard requirements in dental technology, e.g. precious metal and ceramic with abrasives from 25–70 µm and 70–250 µm.

### Abrasive chamber volume

20 l



Suitable abrasives  
on page 150.

## Basic classic



### Function & Performance

Basic classic is the low-priced entry to professional microblasting technology; a compact unit in the basic version with up to 2 tanks.

### Advantages

- ▶ Precise blasting with the special mixing chamber technology (Venturi principle).
- ▶ Can be extended to 2 tanks without the use of tools.
- ▶ Efficient working thanks to the tank selection switch inside the sandblasting chamber.

### Details

- ▶ Its slim design ensures that it can be located in the smallest space.

The two abrasive tanks cover the usual requirements in dental technology, e.g. precious metal and ceramic with abrasive from 25–70 µm and 70–250 µm.

## Large technology in a compact space

Power supply	220-240 V, 50/60 Hz	100-120 V, 50/60 Hz
Working pressure	1 – 8 bar (14.5 – 116 psi)	1 – 8 bar (14.5 – 116 psi)
Connecting pressure, external	5 – 8 bar (72 – 116 psi)	5 – 8 bar (72 – 116 psi)
Air consumption at 6 bar (87 psi)	98 l/min (3.43 cfm)	98 l/min (3.43 cfm)
Lamp power	16 W	16 W
Cable length	2 m (78.74")	2 m (78.74")
Dimensions (W x H x D)	350 x 270 x 470 mm (13.78 x 10.63 x 18.5")	350 x 270 x 470 mm (13.78 x 10.63 x 18.5")
Blasting chamber volume	14 l (3.70 gal)	14 l (3.70 gal)
Capacity of 1 tank	1000 ml (34 fl.oz.)	1000 ml (34 fl.oz.)
Weight (empty)	6,5 kg (14.35 lbs.)	6,5 kg (14.35 lbs.)

Description	Type	Art. No.
Basic classic, 220-240 V, incl. nozzle 0.8 mm	1 x 25–70 µm	29471050
Basic classic, 220-240 V, incl. nozzle 1.2 mm	1 x 70–250 µm	29471250
Basic classic, 220-240 V, incl. 2 nozzles 0.8 mm	2 x 25–70 µm	29472000
Basic classic, 220-240 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29472025
Basic classic, 220-240 V, incl. 2 nozzles 1.2 mm	2 x 70–250 µm	29472250
Basic classic, 100-120 V, incl. nozzle 0.8 mm	1 x 25–70 µm	29473050
Basic classic, 100-120 V, incl. nozzle 1.2 mm	1 x 70–250 µm	29473250
Basic classic, 100-120 V, incl. 2 nozzles 0.8 mm	2 x 25–70 µm	29474000
Basic classic, 100-120 V, incl. 2 nozzles 0.8 mm / 1.2 mm	1 x 25–70 µm, 1 x 70–250 µm	29474025
Basic classic, 100-120 V, incl. 2 nozzles 1.2 mm	2 x 70–250 µm	29474250
Retrofit tank, incl. nozzle 0.8 mm	25–70 µm	29470050
Retrofit tank, incl. nozzle 1.2 mm	70–250 µm	29470250

### Abrasive chamber volume

14 l



Recommended for use with the Rocatec™ bonding system from 3MEspe.  
See Page 23

## Basic mobil



### Mobile addition to blasting

Working pressure	1–6 bar (14.5–87 psi)	1–6 bar (14.5–87 psi)
Connecting pressure, external	6–10 bar (87–145 psi)	6–10 bar (87–145 psi)
Air consumption at 6 bar (87 psi)	120 l/min (4.20 cfm)	120 l/min (4.20 cfm)
Dimensions (W x H x D)	220 x 260 x 130 mm (8.67 x 10.24 x 5.12")	220 x 260 x 130 mm (8.67 x 10.24 x 5.12")
Weight	≈ 2,5 kg (5.52 lbs.)	≈ 2,5 kg (5.52 lbs.)

Description	Type	Art. No.
Basic mobil with foot switch, incl. nozzle 0.8 mm	25–70 µm	29143050
Basic mobil with foot switch, incl. nozzle 1.2 mm	70–250 µm	29143250

### Function & Performance

Renfert blasting technology has been reduced to a basic design in the Basic mobil sandblasters. Mobile use only requires connection to the compressed air.

### Advantages

- ▶ Ideal use with existing abrasive chamber.
- ▶ Control using pneumatic foot switch.
- ▶ Individual blasting pressure of 1–6 bar. Pressure display via manometer.

## IT sandblasting nozzles for Basic sandblasters



### Function & Performance

The quality and speed for sandblasting castings depend on the combination of abrasive agent and sandblasting nozzle as well as on use of the optimum sandblasting technique.

### Advantages

- ▶ Service life of nozzles four times longer than that of standard nozzles, as they are made of a highly resistant high-tech material.
- ▶ Excellent control and focusing of the abrasive agent due to the extended shape of the nozzle.
- ▶ Optimum sandblasting nozzles for all applications.

Sandblasting nozzles	Cobra (µm)					Rolloblast (µm)		Rocatec 3M Espe		
	25	50	90	110	125	250	50	100	Pre&Plus	Soft
Ø 0,40 mm, Art.No. 900021203	■									
Ø 0,60 mm, Art.No. 900033213		■					■			■
Ø 0,80 mm, Art.No. 900021204		■	■	■			■	■		■
Ø 1,00 mm, Art.No. 900033211			■	■	■			■	■	
Ø 1,20 mm, Art.No. 900033214		■	■	■	■	■		■	■	
Ø 1,40 mm, Art.No. 900021205				■	■	■			■	
Ø 2,00 mm, Art.No. 900021206						■				
Ø 1,5 x 3,5 mm, Art.No. 900021739				■	■	■		■		

■ highly recommended    ■ recommended

## Optional tanks for Basic units



### Extension in a few steps

Description	Type	Blasting unit	Art. No.
Additional tank right, incl. sandblasting nozzle 0.8 mm	25–70 µm	Vario basic	29540050
Additional tank left, incl. sandblasting nozzle 0.8 mm	25–70 µm	Vario basic	29540051
Additional tank right, incl. sandblasting nozzle 1.2 mm	70–250 µm	Vario basic	29540250
Additional tank left, incl. sandblasting nozzle 1.2 mm	70–250 µm	Vario basic	29540251
Additional tank, incl. nozzle 0.8 mm	25–70 µm	Basic quattro IS	29590050
Additional tank, incl. nozzle 1.2 mm	70–250 µm	Basic quattro IS	29590250
Additional tank, incl. nozzle 0.8 mm	25–70 µm	Basic quattro	29580050
Additional tank, incl. nozzle 1.2 mm	70–250 µm	Basic quattro	29580250
Retrofit tank, incl. nozzle 0.8 mm	25–70 µm	Basic classic	29470050
Retrofit tank, incl. nozzle 1.2 mm	70–250 µm	Basic classic	29470250

### Function & Performance

Tank assembly in only a few stages.

### Advantages

- ▶ Tool-free tank extension via quick-release coupling and color-coded system.
- ▶ Individual design of the tank for 25–70 µm or 70–250 µm abrasives.
- ▶ Transparent tank for checking the filling level.



### Video

Tank assembly in only a few stages.  
www.renfert.com/P129

## High performance compressed air filter



### Oil and water-free compressed air

### Function & Performance

No more problems in compressed air supply systems due to condensation water, oil, color residue or rust particles from compressors. The compressed air filter prevents clumping of the sandblasting abrasive and blockage of the fine channels of compressed air units.

### Advantages

- ▶ Three-step filter system: Prefilter, fine filter and active carbon filter.
- ▶ Three users can be connected to one filter.
- ▶ All filters can be easily exchanged.

Connecting pressure max.	10 bar (145 psi)
Air quality	ISO 8573–1, Class 1.7.1
Flow rate / minute	420 l (14.70 cfm), 6,3 bar (91.41 psi)
Dimensions	210 x 280 mm (8.27 x 11.02")

Description	Art. No.
Compressed air filter incl. connection set and filter inserts	29400000



## Power pillo / Pillo



## Deflasking – State of the art

Description	Power pillo	Pillo
Air consumption l/min	10 (0.35 cfm)	9 (0.32 cfm)
Noise level LpAep DIN EN ISO 11202	81,5 dB(A)	79,3 dB(A)
Dimensions (Ø x Length)	29 x 168 mm (1.14 x 6.61")	29 x 157 mm (1.14 x 6.18")
Weight	398 g (13.93 oz.)	300 g (10.50 oz.)
Hand/arm acceleration as per EN ISO 5349-1	Ahv: 5,2 m/s <sup>2</sup>	Ahv: 7,33 m/s <sup>2</sup>
Piston frequency	130 Hz	110 Hz
Nominal working pressure	5 bar (72 psi)	5 bar (72 psi)
Working pressure	4–6 bar (58–87 psi)	4–6 bar (58–87 psi)

Description	Presentation	Art. No.
Power pillo	Deflasking chisel, chisel insert No. 50220200, connecting hose (2 m/78.7"), set of connection filters	50225000
Pillo	Deflasking chisel, chisel insert No. 50220200, connecting hose (2 m/78.7"), set of connection filters	50224000
Flat chisel, narrow		50220100
Flat chisel, wide		50220200
Hollow-ground chisel		50220300
Pointed chisel		50220400

### Maik Witt, Project Manager:

"The risk of denture breakage is very high using nippers or a hammer, even with careful devesting. Quick and finely dispensed devesting in only approximately 1 minute using the professional deflasking pneumatic chisel (Power) Pillo is the economic alternative."



### Function & Performance

Stresses in bridges, cracks in acrylic dentures and splintered teeth are things of the past. Laboratory-fabricated restorations are gently, easily and quickly deflasked using the Power pillo and Pillo pneumatic chisels.

### Advantages

- ▶ Save time and money with powerful and gentle devesting of sensitive restorations (castings, dentures).
- ▶ Absolutely maintenance-free due to special oil-free mechanism.
- ▶ Maximum health protection provided by minimal transmission of vibration to the joints.

### Features

The Power pillo delivers a higher performance, smoother running and a quick-release coupling connection.

### Details

- ▶ Infinitely variable power setting.
- ▶ Four different tungsten carbide chisel inserts are optionally available.
- ▶ The ergonomic form provides an optimum, reliable grip and a high degree of working comfort.



## Mixing perfection with reliability: Twister mixers



### The art of perfect mixing

Homogenous and bubble-free plasters, investments, alginates and silicones: You will always mix correctly and precisely using the powerful mixers of the Renfert Twister range.

Regardless of whether using ultra-quick vacuum build-up by the Venturi principle or by an integrated vacuum pump: You will find the ideal solution for your requirements out of our four mixers. As we are aware, for example that the critical aspect during the correct processing of phosphate-bonded investments is the mixing, our Twister evolution range of units

provides you with a selectable pre-mixing function to guarantee constant, optimum mixing quality. Serious bubbles in plaster or investment materials are prevented thanks to the pre-vacuum and post-vacuum times. In addition, the interval function with a change of rotational direction ensures optimum, thorough mixing. Twister mixers ensure reliable processes and very easily achieve reproducible results.



**Christian Pilz, Head of Product Management:**  
 "Optimum, thorough mixing also depends on the paddle geometry. Renfert is a forerunner in this area. Small bars on the inside of the paddle frame transport the mixture from the center. This ensures that the outcome is uniformly and thoroughly mixed."

## Modern mixing

### Vacuum mixing technology, powerful and reliable

Made in Germany and designed by Renfert: The German development expertise and our fully developed quality management give the Twister range its internationally unbeatable price-performance ratio.

- ▶ The high torque also mixes large amounts reliably and reproducibly.
- ▶ The adjustable vacuum prevents boiling bubbles.
- ▶ Flexibility: Can be used as a wall or bench unit.

Whether vacuum build-up via a membrane pump or compressed air: Both versions build up the required vacuum with impressive speed. Setting up of the unit in the laboratory with the efficient membrane pump is particularly flexible, as only a power con-

## Renfert Twister



## Twister evolution

## Twister



nection is required. The Venturi models even operate without a motor pump, but require an additional compressed air connection.

### Constantly reliable, individually programmable

A feature of all Twister units is the reproducibility of the results, in particular the evolution models. The individual, optimum mixing parameters for different materials and different employees on over 100 programs can be called up again and again with a simple press of a button.

Overview	Twister evolution	Twister evolution venturi	Twister	Twister venturi
Membrane pump	■	–	■	–
Venturi	–	■	–	■
Programmable	■	■	–	–



Suitable accessories  
Page 38

## Twister evolution Twister evolution venturi



### Reproducibility at the press of a button

Description	Twister evolution	Twister evolution venturi
Protection class in accord. w. IEC 536	1	1
Power consumption	180 VA	180 VA
Vacuum pump capacity / min.	16 l (0.56 cfm)	24 l (0.84 cfm)
Rotational speed 1/min	100–450	100–450
Max. vacuum / Bowl pressure abs.	≈ -890 mbar / ≈ 80 mbar (-12.91 psi / 1.16 psi)	≈ -880 mbar / ≈ 90 mbar (-12.77 psi / 1.31 psi)
Unit fuse	5 x 20 / T4A (2 x)	5 x 20 / T4A (2 x)
Cable length	2 m (78.80")	2 m (78.80")
Dimensions (W x H x D)	105 x 285 x 235 mm (4.13 x 11.22 x 9.25")	105 x 285 x 235 mm (4.13 x 11.22 x 9.25")
Weight	5,2 kg (11.48 lbs.)	4 kg (8.83 lbs.)
Vacuum reduction	70–100 %	80 % / 100 %
Working pressure	–	5–6 bar (72.55–87.06 psi)

Description	Art. No.
Twister evolution, 100–240 V, incl. 500 ml bowl and mixing paddle	18280000
Twister evolution venturi, 100–240 V, incl. 500 ml bowl and mixing paddle	18290000



### Function & Performance

Twister evolution und Twister evolution venturi embody mixing technology without compromises. Operation is intuitive and the reproducibility at the press of a button meets every requirement.

### Advantages

- ▶ The high torque of the mixing motor ensures reliable processing of large amounts of mixing material.
- ▶ Intuitive programming and operation using a large, highly luminous display.
- ▶ The vacuum, which can be regulated from 70% to 100%, prevents bubbles with certain plasters and duplicating silicones.

### Features

The units have the same functions. The only difference is in the vacuum generating technology. While the Twister evolution operates using a motor pump, the Twister evolution venturi produces the vacuum with the aid of compressed air.



**Video**  
What should a mixing unit be capable of?  
[www.renfert.com/P789](http://www.renfert.com/P789)



Suitable accessories  
Page 38



## Details



### Programmable

Units with the name “evolution” have over 100 custom programmable mixing programs.

- ▶ Quick processes.
- ▶ Standardized production process.
- ▶ User-friendly operation.

### Key symbols and parameters

#### Presaturation

The two presaturation functions handle plaster and investment individually and prevent powder being thrown out of the mixing bowl. At the same time the mixing paddle “collects” powder from the top edges.

#### Prevacuum

Undesired reaction gases from investments are extracted by the prevacuum function before the main mixing time.

#### Main mixing cycle

The powerful motors of the Twister evolution effortlessly maintain the set mixing speed with any material, filling level and bowl size.

#### Reverse rotation

Dry agglomerates are broken up by the change of the paddle direction to ensure better wetting of the powder.

#### Post vacuum

The post vacuum of the Twister evolution reduces gas inclusions, which form later on the surface of the mixture.



**Tilo Burgbacher,**  
**Head of Design and Development:**  
 “An important advantage for the customer is the consistently homogeneous mixing results: the powerful motors of the Twister with a speed of 100–450 rpm 1/min. effortlessly maintain the set mixing speeds in any situation.”

## Twister Twister venturi



### Function & Performance

Twister and Twister venturi are compact mixers with easy-to-use standard functions and powerful motor technology.

### Advantages

- ▶ Optimized vacuum mixing technology produces homogeneous mixing results.
- ▶ Virtually maintenance-free components.
- ▶ Automatic bowl coupling enables convenient single-hand operation.

### Features

The units generally all have the same functions. The only difference is in the technology for generating the vacuum. While the Twister operates using a motor pump, the Twister venturi produces the vacuum with the aid of compressed air.

## Mixing – quickly, easily and efficiently

Description	Twister	Twister venturi
Protection class in accord. w. IEC 536	1	1
Power consumption	180 VA	180 VA
Vacuum pump capacity / min.	16 l (0.56 cfm)	24 l (0.84 cfm)
Rotational speed 1/min	100–450	100–450
Max. vacuum / Bowl pressure abs.	≈ -890 mbar / ≈ 80 mbar (-12.91 psi / 1.16 psi)	≈ -880 mbar / ≈ 90 mbar (12.77 psi / 1.31 psi)
Unit fuse	5 x 20 / T4A (2 x)	5 x 20 / T4A (2 x)
Cable length	2 m (78.80")	2 m (78.80")
Dimensions (W x H x D)	105 x 285 x 235 mm (4.13 x 11.22 x 9.25")	105 x 285 x 235 mm (4.13 x 11.22 x 9.25")
Weight	≈ 5,2 kg (11.48 lbs.)	≈ 4 kg (8.83 lbs.)
Vacuum reduction	70–100 %	80 % / 100 %
Working pressure	–	5–6 bar (72.55–87.06 psi)

Description	Art. No.
Twister, 100–240 V, incl. 500 ml bowl and mixing paddle	18260000
Twister venturi, 100–240 V, incl. 500 ml bowl and mixing paddle	18270000



**Video**  
What should a mixing unit be capable of?  
[www.renfert.com/P789](http://www.renfert.com/P789)



Suitable accessories  
Page 38

## Details



### Direct manual control

All mixing parameters are entered easily and quickly.

### Impressive motor power

The powerful motor guarantees homogeneous and bubble-free mixing with dental plasters, investments and silicones.

### Vacuum level can be regulated

The vacuum level, which can be regulated between 70% (with Twister venturi 80%) and 100%, prevents boiling bubbles with certain plasters and duplicating silicones.



### Universal use

The Twister units can be used for all the usual impression and model materials in dental technology.



**Sabine König, Product Management:**  
 "The Twister venturi utilizes the existing compressed air supply of the laboratory and therefore makes a vacuum pump unnecessary. Another advantage is that the unit is virtually maintenance-free and cost-effective."



### Tip:

Mixing bowls contaminated with stubborn plaster residue can be effortlessly cleaned: simply add GO-2011 to the mixing bowl and allow to take effect according to the amount of plaster. The immediately activated bubble formation indicates the beginning of the cleaning process. Rinse the bowl briefly under water after cleaning with GO-2011. Finished!

## Mixing bowls



### Function & Performance

Well-designed paddle geometry for optimal, thorough mixing.

### Advantages

- ▶ Marking indicates maximum filling capacity.
- ▶ Reservoir protects against unintentional over filling.
- ▶ Bowl made from high-strength polycarbonate.

Description	Art. No. 65 ml	Art. No. 200 ml	Art. No. 500 ml	Art. No. 700 ml	Art. No. 1000 ml
Mixing bowl incl. paddle	18206500	18200200	18200500	18200700	18201000
Mixing paddle	18206510	18200210	18200510	18200710	18201010
Mixing bowl	18206520	18200220	18200520	18200720	18201020

## Alginate mixing bowl



### Function & Performance

Specially designed for the requirements of alginates.

### Advantages

- ▶ Bubble-free material thanks to the specially contoured mixing paddle for alginate material.
- ▶ The special surface coating ensures easy cleaning.

Description	Art. No.
Alginate mixing bowl, incl. mixing paddle, 500 ml	18230500
Alginate mixing paddle, 500 ml	18230510

## Twister mixing spatula



### Function & Performance

The mixing spatula for all bowls in the Twister range now provides the optimum prespatulation tool, which is also used for scooping the mixed material completely out of the bowl.

### Advantages

- ▶ Rounded edges protect the bowl.
- ▶ Length and stability also enable mixing of large quantities of material.

Description	Art. No.
Mixing spatula	18210200

## Stand



### Function & Performance

This stand has been specially designed for all types of Twister.

### Advantages

- ▶ Converts your Twister to a bench unit.
- ▶ Secure assembly in only a few steps.
- ▶ Flexibility and ergonomics.

Description	Art. No.
Stand	18210102



# Vibrax



## Always at the correct frequency

Power supply	230 V, 50 Hz	120 V, 60 Hz	220 V, 60 Hz
Frequency at 230V	100 Hz	100 Hz	100 Hz
Power consumption	150 VA	170 VA	170 VA
Unit fuse	2 x 1,6 A (T)	2 x 1,6 A (T)	2 x 1,6 A (T)
Dimensions (W x H x D)	275 x 138 x 205 mm (10.83 x 5.43 x 8.07")	275 x 138 x 205 mm (10.83 x 5.43 x 8.07")	275 x 138 x 205 mm (10.83 x 5.43 x 8.07")
Weight	6,5 kg (14.35 lbs.)	6,5 kg (14.35 lbs.)	6,5 kg (14.35 lbs.)
Cable length	2 m (78.80")	2 m (78.80")	2 m (78.80")

### Description

Description	Art. No.
Vibrax, 230 V	18300000
Vibrax, 120 V	18301000
Vibrax, 220 V	18304000
Vibrating ball	18300001

### Function & Performance

The wide-ranging vibration spectrum optimally processes any material. The functionally sophisticated handling enables comfortable use even under difficult conditions.

### Advantages

- ▶ Bubble-free flow behavior using two wave ranges with 4 levels of intensity.
- ▶ No transfer of the vibrations to the workbench as the housing is oscillation decoupled.
- ▶ Long service life using maintenance-free vibration magnet.

### Details

- ▶ Uncomplicated adaptation of the intensity on the large lever switch using only one finger.
- ▶ Extremely quiet, ensuring a comfortable working atmosphere.
- ▶ Time-saving due to quickly cleaned elements .
- ▶ Non-tip and extremely stable even when high pressure is applied to the edges.
- ▶ No springing of the impression tray thanks to the soft tray rest.

### Optional accessory

Vibration sphere ensures uniform flow behavior during investing and pouring of impression trays.



For further information,  
please see the Model  
casting manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)

## Work with the most powerful. Renfert trimmers.



### Constructed to provide you with more power in the daily routine

Renfert has been constructing trimmers for 20 years. It is therefore no wonder that Renfert trimmers are among the best and most durable units that money can buy. This is because all of our experience goes into each individual unit. You will notice this in every minute of the daily routine in your laboratory. This is typical of Renfert trimmers:

- ▶ Unique power
- ▶ Easy cleaning
- ▶ Incomparable durability

Renfert trimmers are particularly easy to clean which ensures that your equipment always develops its full power.

And when we speak about power we mean: Unique power. The power of our trimmers is so great that you would not manage to stop the trimmer disc (within your daily operations). Renfert power is almost twice that of other units. Power that saves you time and energy.



#### Insider tip!

Discover a new, cost-effective alternative to conventional trimmer discs:

The Renfert Klettfix system. This quick-change silicon carbide disc with velcro fasteners is the ideal, cost-effective solution for wet trimming. And only available from Renfert in this quality.

Designed for the daily routine and to last

#### Durable, user-friendly, powerful:

##### These trimmers set standards

Renfert has incorporated its entire expertise in these two trimmer models. This is to ensure that you can give every effort in the daily routine of the laboratory. With exceptionally powerful motors, very easy handling and enormous, long-term stability.

#### Cleaning

The trimmers can be cleaned exceptionally easily and quickly thanks to the tool-free removable front door and spray tube. Only two quick-release couplings have to be opened for cleaning.

#### The housing

The trimmer housings are 100% non-corrosive, can withstand any environment and are consequently extremely durable.

#### Design

The trimmers are safe and comfortable to use. They have a modern, up-to-date appearance. A perfect combination of ergo-

## MT3 and MT3 Pro



nomics and style. The large door opening also allows trimming of large models and a clear view of the objects being trimmed. Overall: an exemplary high degree of working comfort.



#### Insider tip!

The compact design of the MT3 pro and MT3 is also impressive. This allows to integrate them in any workplace environment without any problem.

### Overview Trimmer

	MT3	MT3 pro	MT plus	MT2
Performance 230 V	1 300 W (1.74 hp)	1 650 W (2.21 hp)	1 300 W (1.74 hp)	1 630 W (2.18 hp)
Performance 120 V	1 325 W (1.78 hp)	1 500 W (2.01 hp)	1 500 W (2.01 hp)	–
Wet	■	■	■	■
Dry option			■	
Housing material	Glass-fiber reinforced plastic	Glass-fiber reinforced plastic	Polyurethane	Metal
Trimmer table angle changeover	90°/98°	Fully adjustable	Fully adjustable	Fully adjustable
Motor stop		■		■
Soft Touch		■		
Weight (without disc)	13,2 kg / 29.1 lbs	14,5 kg / 32.0 lbs	12,7 kg / 28.0 lbs	26,5 kg / 58.4 lbs

## MT3 pro



## Powerful trimming without compromises

Power supply	230 V, 50 Hz	120 V, 60 Hz
Power input	1.650 W (2.21 hp)	1.500 W (2.01 hp)
Motor performance P1	1.650 W (2.21 hp)	1.500 W (2.01 hp)
Motor performance P2	1.200 W (1.61 hp)	1.100 W (1.47 hp)
Rotational speed 1/min	2.900	3.400
Water consumption max. l/min.	7 l/min (0.25 cfm)	7 l/min (0.25 cfm)
Required water pressure at 6 l/min.	min. 1 bar – max. 5 bar (14.51 psi – 72.55 psi)	min. 1 bar – max. 5 bar (14.51 psi – 72.55 psi)
Ø water drain hose	35 mm (1.38")	35 mm (1.38")
Length Water drain hose	1,5 m (59.10")	1,5 m (59.10")
Dimensions (W x H x D)	305 x 330 x 410 mm (12.01 x 12.99 x 16.14")	305 x 330 x 410 mm (12.01 x 12.99 x 16.14")
Weight w/o trimmer disc	14,5 kg (32.02 lbs.)	14,5 kg (32.02 lbs.)
Noise level according to DIN 45635-01-KL3	74 dB(A)	74 dB(A)
Cable length	2 m (78.80")	2 m (78.80")

### Description

Description	Art. No.
MT3 pro, 230 V, incl. trimmer disc Klettfix	18090000
MT3 pro, 230 V, incl. Marathon trimmer disc	18090500
MT3 pro, 120 V, incl. trimmer disc Klettfix	18091000
MT3 pro, 120 V, incl. Marathon trimmer disc	18091500



**Oliver Bothe, Product Management:**  
 "The hermetically sealed membrane keypad on the top of the MT3 pro is very practical. This allows the trimmer to be easily and conveniently switched on and off."

### Function & Performance

The MT3 pro provides the most powerful performance of all Renfert trimmers and also a high degree of safety. The electronic quick-stop system stops the trimming disc as soon as the trimmer is switched off. When the front door is opened, the water supply and motor stop automatically.

### Advantages

- ▶ Effortless trimming due to maximum motor performance.
- ▶ Optimum cleaning and economical water consumption thanks to individual control of the water flow.
- ▶ Infinitely adjustable trimmer table with angle lines means that the MT3 pro can be used for every model situation.

### Details

- ▶ Safety thanks to the electronic stop system of the trimmer disc.
- ▶ The LED overheating display increases safety in the work process.
- ▶ Water flow control and automatic stop function are regulated with the aid of a magnetic valve.



Suitable trimmer discs  
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## MT3



## Impressively powerful – surprisingly inexpensive

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Power input	1.300 W (1.74 hp)	1.325 W (1.78 hp)
Motor performance P1	1.300 W (1.74 hp)	1.325 W (1.78 hp)
Motor performance P2	900 W (1.21 hp)	1.000 W (1.34 hp)
Rotational speed 1/min	2.900 (50 Hz), 3.400 (60 Hz)	2.900 (50 Hz), 3.400 (60 Hz)
Water consumption max. l/min.	7 l/min (0.25 cfm)	7 l/min (0.25 cfm)
Required water pressure at 6 l/min.	min. 1 bar – max. 5 bar (14.51 psi – 72.55 psi)	min. 1 bar – max. 5 bar (14.51 psi – 72.55 psi)
Ø water drain hose	35 mm (1.38")	35 mm (1.38")
Length Water drain hose	1,5 m (59.10")	1,5 m (59.10")
Dimensions (W x H x D)	305 x 330 x 410 mm (12.01 x 12.99 x 16.14")	305 x 330 x 410 mm (12.01 x 12.99 x 16.14")
Weight w/o trimmer disc	13,2 kg (29.15 lbs.)	13,2 kg (29.15 lbs.)
Noise level according to DIN 45635–01-KL3	74 dB(A)	74 dB(A)
Cable length	2 m (78.80")	2 m (78.80")

## Description

Description	Art. No.
MT3, 220–240 V, incl. trimmer disc Klettfix	18080000
MT3, 220–240 V, incl. Marathon trimmer disc	18080500
MT3, 100–120 V, incl. trimmer disc Klettfix	18081000
MT3, 100–120 V, incl. Marathon trimmer disc	18081500

## Oliver Bothe, Product Management:

“Do not discard the old Klettfix trimmer disc. It can be used as an ideal aid, for example to remove excess investment from a CrCo model manually.”



## Function &amp; Performance

The MT3 wet trimmer is impressive due to its exceptionally powerful motor. With the MT3 Renfert provides high-performance trimming at a low price.

## Advantages

- ▶ Quick change of the trimmer table angle using the practical tipping mechanism (90°/ 98°).
- ▶ Safety: when the front door is opened a safety switch stops the motor and water.
- ▶ Uniform coverage by the optimally positioned spray tube prevents clogging of the trimmer disc.

## Details

- ▶ A 10° inclination of the unit provides an optimum view of the model.
- ▶ Easy guidance of the plaster model with the aid of slotted angle lines in the trimmer table.



## Tip:

The stable front can be completely removed and cleaned in a few steps using the quick-release lock. The spray tube can also be removed as easily as the trimmer table and, e.g. placed in plaster remover (we recommend GO-2011 from Renfert) and cleaned.



## Video

Plaster trimming,  
MT3 – the correct unit  
[www.renfert.com/P806](http://www.renfert.com/P806)



Suitable plaster remover  
GO-2011  
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## MT plus



### Wet or dry – MT plus 2 in 1

Power supply	220–230 V, 50/60 Hz
Power consumption	6,5 A
Motor performance P1	1.300 W (1.74 hp)
Motor performance P2	900 W (1.21 hp)
Rotational speed 1/min	2.820
Water consumption max. l/min.	9 l (0.32 cfm)
Required water pressure at 6 l/min.	1 bar (14.5 psi)
Ø water drain hose	Ø 35 mm (1.38")
Dimensions (W x H x D)	298 x 318 x 412 mm (11.74 x 12.53 x 16.23")
Weight	12,7 kg (28.04 lbs.)
Noise level according to DIN 45635–01 -KL3	74 dB (A)
Cable length	2 m (78.80")

Description	Art. No.
MT plus, 220–230 V, incl. trimmer disc Klettfix	18030000
MT plus, 220–230 V, incl. Marathon trimmer disc	18030500
MT plus, 230–240 V, incl. trimmer disc Klettfix	18036000
MT plus, 230–240 V, incl. Marathon trimmer disc	18036500

#### Christian Pilz, Head of Product Management

"Wet or dry? Preferably both? Then the MT plus is the correct choice. The trimmer can be converted from wet to dry in only a few steps. The interior is designed to provide optimal flow conditions in the wet and dry modes."



**Tip:** We recommend a Marathon trimmer disc for this device. The disc consists of circular diamond-coated islands and can be used for wet and dry trimming.

#### Function & Performance

The MT plus is a wet and dry trimmer. Pure power, even the hardest stone is easily removed thanks to the powerful motor performance

#### Advantages

- ▶ The front door can be easily removed without the use of tools to allow easy, quick maintenance.
- ▶ Detachable trimmer table and spray tube enable very easy cleaning.
- ▶ Noise-reducing, scratch-resistant housing made from a special material (polyurethane).

#### Details

- ▶ Can be used for any model situation due to infinitely adjustable trimmer table.
- ▶ Integrated tool allows quick change of the trimmer disc.
- ▶ 100% stainless housing.
- ▶ The motor and water is stopped by a safety switch when opening the door, providing a high degree of safety.

#### Note

Not available in U.S./Canada.

MT Plus 120 volt no longer available.



Suitable trimmer discs  
Page 46

## MT2

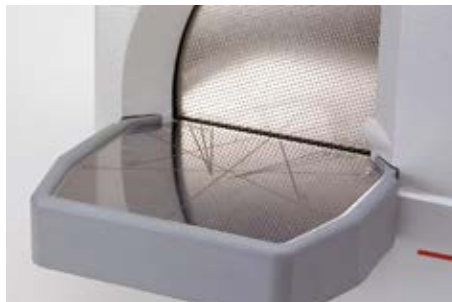


## Classic power package for professionals

Power supply	230 V, 50 Hz
Power consumption	7,2 A
Motor performance P1	1.630 W (2.18 hp)
Motor performance P2	1.200 W (1.61 hp)
Rotational speed 1/min	2.860
Water consumption max. l/min.	9 l (0.32 cfm)
Required water pressure at 6 l/min.	1 bar (14.5 psi)
Ø water drain hose	35 mm (1.38")
Length Water drain hose	1,5 m (59.10")
Dimensions (W x H x D)	334 x 320 x 456 mm (13.16 x 12.61 x 17.97")
Weight	26,5 kg (58.51 lbs.)
Noise level according to DIN 45635-01-KL3	74 dB(A)
Ø hose connecting piece internal	29 mm (1.14")
Ø hose connecting piece external	35-40 mm (1.38-1.58")
Cable length	2 m (78.80")

### Description

Description	Art. No.
MT2, 230 V (without trimmer disc)	18010000
Klettfix for MT2, 5 pcs. (3 x K80, 2 x K120) + support disc	18011000
Marathon for MT2, pc.	18012000
Infinity for MT2, pc.	18013000



### Function & Performance

The Trimmer MT2 is specially designed for extreme continuous loading. This wet trimmer sets the standard with its smooth-running, powerful electric motor.

### Advantages

- ▶ The quick-stop system guarantees that the trimmer disc halts immediately.
- ▶ An integrated safety switch cuts off the power and water supply when the door is opened.
- ▶ Tool-free change between two trimmer tables with exact inclination setting of 90° and 98°.

### Details

- ▶ A very large work surface and wide trimming section ensure a clear view and precise working.
- ▶ Non-corrosive stainless steel housing with protective coating, very smooth inner and outer surfaces.
- ▶ Easily removable spray tube for effective rinsing.
- ▶ Laser-engraved angle line for the orthodontic technique on the 90° table.
- ▶ Individual water setting up to 9 l/min.

### Note

Not available in U.S./Canada.



Suitable trimmer discs  
Page 46

## Trimmer discs



### 1. Infinity

The fully diamond-coated disc is suitable for all Renfert wet trimmers.

#### Advantages

- ▶ A closed diamond surface produces a very smooth surface finish.
- ▶ Extremely resistant and durable.
- ▶ High cutting capacity

### 2. Marathon

The partially diamond-coated disc is suitable for both wet and dry trimming.

#### Advantages

- ▶ Electroplated diamond islands.
- ▶ High cutting capacity with low pressure application.
- ▶ Long service life.

### 3. Klettfix

The Klettfix system is the inexpensive solution for wet trimming.

#### Advantages

- ▶ Tool-free change in a few seconds.
- ▶ Uniform surface finish and variable use of 80 or 120 grit size.
- ▶ High cutting capacity.

	Klettfix 80/120 Basic version	Klettfix 80/120 Refill kit	Marathon	Infinity	Diameter (cm/inch)
Comprising	5 x Klettfix (3 x corn 80, 2 x corn 120) + support disc	5 x Klettfix (corn 80 or corn 120)	1 x Marathon	1 x Infinity	
Max. revolutions	3.400 1/min	3.400 1/min	3.400 1/min	3.400 1/min	
Application	Wet	Wet	Wet and dry	Wet	
Type of material	Plaster and investment	Plaster and investment	Plaster	Plaster	
Grinding performance / sec.	9,5 g / 0.33 oz.	9,5 g / 0.33 oz.	8,5–10,5 g / 0.30–0.37 oz.	7,8–9,9 g / 0.27–0.35 oz.	
Plaster quantity	18 kg / 39.74 lbs	18 kg / 39.74 lbs	1 000 kg / 2,208 lbs	1 700 kg / 3,753.60 lbs	
Art.No. MT3 pro/MT3	18031001	18031100 (K80) 18031200 (K120)	18032001	18033001	23,4 / 9.22
Art. No. MT plus	18031000	18031100 (K80) 18031200 (K120)	18032000	18033000	23,4 / 9.22
Art. No. MT2	18011000	18031100 (K80) 18031200 (K120)	18012000 (also TT2)	18013000	25,4 / 10.0
Art. No. MT1	18001000	18031100 (K80) 18031200 (K120)	18002000	18003000	21,0 / 8.27





## Millo pro/ Millo



### Dental arch trimming: time-saving and precise

Power supply	220–240 V, 50/60 Hz	120 V, 60 Hz
Rotational speed 1/min	2.770 (50 Hz) / 3.350 (60 Hz)	2.770 (50 Hz) / 3.350 (60 Hz)
Dimensions (W x H x D)	252 x 214 x 207 mm (9.92 x 8.43 x 8.15")	252 x 214 x 207 mm (9.92 x 8.43 x 8.15")
Weight	5,7 kg (12.59 lbs.)	5,7 kg (12.59 lbs.)

#### Description

	Art. No.
Millo pro, 220–240 V	18050000
Millo pro, 120 V	18051000
Millo, 220–240 V	18040000
Millo, 120 V	18041000
Cutter tapered, cross-cut	18060001
Cutter tapered, coarse-cut (included in delivery)	18060002
Cross-cut, cylindric bur	18060003

#### Function & Performance

The Millo (pro) provides the basis for precise model fabrication. The use of the Millo (pro) also increases safety at work and saves time.

#### Advantages

- ▶ A powerful, maintenance-free motor provides quick, effortless trimming of dental arches.
- ▶ The fine surface finish and absolutely uniform conical surface in the dental arch guarantee functional reliability and accuracy.
- ▶ Connection to an extractor unit ensures a clean workstation and a high degree of health protection.

#### Features

The height of the Millo pro cutter can also be adjusted, thus enabling easy trimming of difficult tooth positions.

Extractors without automatic switch-on can be automated using a direct connection with the Millo pro.

#### Details

- ▶ Completely stable thanks to enlarged base surface.
- ▶ Space-saving due to compact design.
- ▶ Uncomplicated cutter change using the integrated tool key.
- ▶ Detachable work table ensures easy cleaning.



**Cim Özyurt, Product Management:**  
 "The Millo pro/Millo saves money. Trimming a dental arch with a hand-piece considerably increases its service costs because of the high wear and heavy contamination."



#### Tip – Three different cutters:

Fine and coarse cutters are available for reducing the material as required.

## Top spin



### Function & Performance

The Top spin provides the advantages of precision, reliability and durability. We have been successful in greatly increasing the previous level of quality. You will be fascinated by the unique concentricity, special drill technology and unparalleled dust protection.

### Advantages

- ▶ Unique shaft bearing technology ensures a drilling accuracy of  $\leq 0.01$  mm.
- ▶ Powerful motor without losing performance during drilling 8,000 rpm.
- ▶ Unique drill technology enables extremely easy drilling without resistance.

## Experience precision

Power supply	100–240 V, 50/60 Hz
Power consumption	12 W
Rotational speed 1/min	8.000
Cable length	1,8 m (70.87")
Dimensions (W x H x D)	153 x 330 x 175 mm (6.02 x 12.99 x 6.89")
Weight	4 kg (8.82 lbs)
TC-drill with shaft	$\varnothing$ 3 mm (0.12")
Permitted drill lengths	34–46 mm (1.34–1.81")
Table hub in finitely variable	0–20 mm (0–0.79")
Laser class	2

### Description

Top spin, 100–240 V

### Art. No.

18400000



#### Tip:

To provide you with the same precision independently of the pin system, three versions each (small/ medium/ large) of Renfert drills are available. This allows you to adapt the required precision to your system.



Discover more in our  
Renfert Report 1/2014:  
[www.renfert.com/P47](http://www.renfert.com/P47)



Renfert pin drills  
on Page 118

## Details



### Precision

- ▶ A unique shaft bearing eliminates even the smallest vibrations. A new dimension in drilling accuracy.
- ▶ Drills are each available in 3 versions for the individual sense of precision: "small/medium/large".
- ▶ The dual telescope table guidance ensures precision drilling over the entire movement of the drill.
- ▶ The laser point is aligned exactly to the tip of the drill.
- ▶ Markings on the surface of the table enable accurate planning of the drill hole position, even with narrow dental arches.



### Safe, simple operation

- ▶ The new drill geometry reduces the force during drilling by up to 50%. This means safety, even with dental arches that are at risk of fracture.
- ▶ A quick-release mechanism enables easy, tool-free drill change.
- ▶ The unique dust control and easily removable dust drawer with a filling level overview ensures a clean, comfortable workstation.

### Further details

- ▶ Two unit positions and different gripping options for fixing the dental arch in position enable an individual, ergonomic working posture.
- ▶ The individual, infinitely variable drill-depth setting of 0–20 mm (0–0.79 inch) also allows drilling for pin systems with resin plates.
- ▶ With adjustment it is also possible to use drills with a longer shank.
- ▶ Compact design with a high degree of stability.



**Tilo Burgbacher,**  
**Manager Design and Development:**  
 "We have conceived a new functional concept to make pin drilling even more economical: the main switch is activated via an innovative motion sensor. The unit is then in stand-by mode. The drill spindle is automatically activated by lowering the table. The main switch automatically deactivates if the unit is not used for 2 min."

## Renfert wax technology. A perfect model for saving time.



### Efficient wax technology from Renfert

In every single development stage of waxing-up units, the wishes, requirements and experience of our customers contributed to the continuing improvement of these successful devices. It is therefore no wonder that Waxlectrics with their sophisticated technology are now internationally recognized as reference units.

The Waxlectric forms the core of two optimized systems:

Heating over the Bunsen burner and the time required for heating the wax is no longer required in crown and bridge work in the interplay with the Vario E.

The advantages for you:

- ▶ 50% saving in time.
- ▶ No overheating of the wax.

The time saving is even much greater in removable prosthetics. The wax can be optimally prepared in combination with the Waxprofi and large wax knife. A creamy wax consistency makes it very easy to apply large amounts.

The advantage for you:

- ▶ 70% saving in time.
- ▶ No unnecessary contraction.

#### Joanna Deligianni, Dental Technology:

"I achieve the best results when waxing up using GEO Avantgarde sculpting waxes. The sculpting properties of these waxes are precisely matched to the use of the material-friendly technology of efficient wax technology."



#### Tip – A strong pair in the dipping technique:

Create a coping with a uniform layer thickness with hotty LED in only 10 seconds. Using our GEO dipping wax and a temperature setting of 91°C (196°F) you obtain a layer thickness of 0.4 mm; 90°C (194°F) = 0.5 mm; 92°C (198°F) = 0.3 mm.



## Perfectly formed

### Waxlectric. Waxing up in best time.

Renfert has all the answers if you want to sculpt wax stress-free and conveniently. The Renfert heat conductivity concept concentrates the temperature exactly where it is required. The sculpting tip forms the required heat center.

### Temperature setting:

- ▶ Individual matching to any of your waxes thanks to a temperature setting of 50°–200° C (122° F–392° F).

### Sculpting tips:

- ▶ Internal heating of the sculpting tip ensures direct transfer of heat to your wax.
- ▶ Special alloy tips with optimum heat conductivity.

## Renfert Waxlectric



### Handpiece:

- ▶ Maximum working comfort provided by heat-insulated, natural cork handle.
- ▶ Heat-resistant cable protected against twisting.

### Housing:

- ▶ 20° inclination allows view of the unit and optimum operation.
- ▶ Hermetically sealed, easy to clean membrane keypad.
- ▶ Increased work safety due to low-voltage technology. Power adaptor is outside the workstation.



An ideal range of modelling inserts on page 54

## Waxlectric I + II



## Waxing up – precisely and quickly

Description	Waxlectric I	Waxlectric II
Power supply	100–240 V AC, 50/60 Hz	100–240 V AC, 50/60 Hz
Supply voltage	12 V DC	12 V DC
Power consumption	5 W	10 W
Working temperature max./min. (°C)	200°C / 50°C	200°C / 50°C
Working temperature max./min. (°F)	392°F / 122°F	392°F / 122°F
Handpiece cable length	85 cm (33.46")	85 cm (33.46")
Dimensions (W x H x D)	120 x 60 x 98 mm (4.72 x 2.36 x 3.86")	150 x 60 x 98 mm (5.91 x 2.36 x 3.86")
Weight (with / without mains unit)	≈ 445 g / 235 g (15.58 oz. / 8.23 oz.)	≈ 475 g / 265 g (16.63 oz. / 9.28 oz.)

Description	Presentation	Art. No.
Waxlectric I (1 channel), 220–240 V	1 control unit, integrated holder for 1 handpiece and 6 tips, 1 handpiece, 1 waxing-up tip no. 21550102, 1 mains unit	21560000
Waxlectric I (1 channel), 100–120 V	1 control unit, integrated holder for 1 handpiece and 6 tips, 1 handpiece, 1 waxing-up tip no. 21550102, 1 mains unit	21561000
Waxlectric II (2 channels), 220–240 V	1 control unit, integrated holders for 2 handpieces and 6 tips, 2 handpieces, 2 waxing-up tips no. 21550101 + 21550103, 1 mains unit	21570000
Waxlectric II (2 channels), 100–120 V	1 control unit, integrated holders for 2 handpieces and 6 tips, 2 handpieces, 2 waxing-up tips no. 21550101 + 21550103, 1 mains unit	21571000

### Function & Performance

Waxlectric I + II are the professional instruments in the electric wax knife sector. The application concept concentrates on safety, precision and user-friendliness.

### Advantages

- ▶ Temperature setting to a precise degree ensures controlled working processes.
- ▶ Direct access of preferred working temperatures using programming function.
- ▶ Hermetically sealed membrane keyboard.

### Features

Unlike the Waxlectric I, the Waxlectric II can be operated with two handpieces simultaneously.

### Details

- ▶ Integrated holders provide ergonomic access to the handpieces and exchange tips.
- ▶ Direct setting of the maximum or minimum temperature.
- ▶ Daylight operable 3-figure LED display.
- ▶ Both channels can be set separately with the Waxlectric II.
- ▶ Color-coded for controlled management of the handpieces.

**Cim Özyurt, Product Management:**  
 "If necessary, the cork handle of your Waxlectric can be easily replaced by a new one (spare part no. 900021354)."



An ideal range of modeling inserts on page 54



**Tip:**  
 Cleaning Waxlectric inserts is very easy. Any contaminants are gently removed by sandblasting with a non-abrasive blast medium (for ex. Rolloblast 50 µm) at 2 bar. After a short high-luster polish on the lathe, you are ready.

## Waxelectric light I + II



### Cost-effective introduction to electric wax technology

Description	Waxelectric light I	Waxelectric light II
Power supply	100–240 V AC, 50/60 Hz	100–240 V AC, 50/60 Hz
Supply voltage	12 V DC	12 V DC
Power consumption	5 W	10 W
Working temperature max./min. (°C)	200°C / 50°C	200°C / 50°C
Working temperature max./min. (°F)	392°F / 122°F	392°F / 122°F
Handpiece cable length	85 cm (33.46")	85 cm (33.46")
Dimensions (W x H x D)	91 x 53 x 80 mm (3.58 x 2.09 x 3.15")	91 x 53 x 80 mm (3.58 x 2.09 x 3.15")
Weight (with / without mains unit)	≈ 425 g / 215 g (14.88 oz. / 7.53 oz.)	≈ 445 g / 235 g (15.58 oz. / 8.23 oz.)

Description	Presentation	Art. No.
Waxelectric light I (1 channel), 220–240 V	1 control unit, 1 handpiece, 1 waxing-up tip no. 21550102, 1 mains unit	21500000
Waxelectric light I (1 channel), 100–120 V	1 control unit, 1 handpiece, 1 waxing-up tip no. 21550102, 1 mains unit	21501000
Waxelectric light II (2 channels), 220–240 V	1 control unit, 2 handpieces, 2 waxing-up tips no. 21550101 + 21550103, 1 mains unit	21510000
Waxelectric light II (2 channels), 100–120 V	1 control unit, 2 handpieces, 2 waxing-up tips no. 21550101 + 21550103, 1 mains unit	21511000



### Function & Performance

These electric wax knives are the perfect introduction to efficient wax technology.

### Advantages

- ▶ Easy temperature control via a potentiometer.
- ▶ Separately adjustable temperature with Waxelectric light II.
- ▶ Compact, ergonomic design.

### Features

Unlike the Waxelectric light I, the Waxelectric light II can be operated with two handpieces simultaneously.

### Details

- ▶ No contraction in the pattern, as the wax is neither overheated nor burned.
- ▶ The technician can concentrate more on the pattern and less on the tools and instruments.

### Guido Testa, Dental Technician, Italy:

"When waxing up partial and full dentures I work with a large wax knife, which is perfectly designed to solve two important tasks: Transfer of large amounts of wax and delicate and anatomical contouring. The curved and slender tip ensures optimum contouring of the palatal wax-up and interdental spaces."



Optimum result with  
GEO Avantgarde  
sculpting waxes  
Page 134

## Sculpting tips



### Description

Description	Art. No.
Tip small, piece	21550101
Tip medium, piece	21550102
Tip large, piece	21550103
Knife narrow, piece	21550104
Knife wide, piece	21550105
Knife chamfered, piece	21550106

### Description

Description	Art. No.
Hollenback horizontal, piece	21550107
Hollenback vertical, piece	21550108
Tip mini, angled, piece	21550109
Lancet blade, piece	21550110
Beavertail blade, piece	21550111

### Function & Performance

The integrated heating element, customization option, easy and quick changing are only some of the special features of the sculpting tips.

### Advantages

- ▶ 12 different versions.
- ▶ Very rapid heating and reheating rates thanks to the extreme thermal conductivity of the special alloy.
- ▶ Easy cleaning ensures long service life.

## Large wax knife



### Quick and delicate

### Description

Large wax knife, piece

### Art. No.

21550112

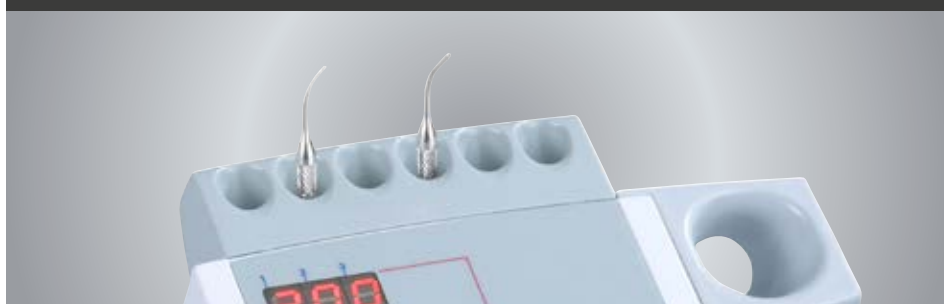
### Function & Performance

The large wax knife is suitable for all requirements in partial and full denture prosthetics.

### Advantages

- ▶ Ideal for taking up large and small amounts of wax.
- ▶ Sculpting tip is ideally suited for optimal contouring of the interdental space.
- ▶ Vertical and horizontal curvature for contouring natural curves.

## Holder set



### Quick and clean

### Description

Set of Waxlectric holders

### Art. No.

21511500

### Function & Performance

Holder set for use with Waxlectric light I and II.

### Advantages

- ▶ Quick access to up to 6 sculpting tips.
- ▶ Clean storage of the handpieces.
- ▶ Easy cleaning of the removable, steam-cleaning resistant, individual components.



## Vario E



### High-level wax technology

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Power consumption	85 W	85 W
Working temperature max./min. (°C)	110°C / 45°C	110°C / 45°C
Working temperature max./min. (°F)	230°F / 113°F	230°F / 113°F
Cable length	2 m (78.80")	2 m (78.80")
Dimensions (W x H x D)	178 x 54 x 120 mm (7.01 x 2.13 x 4.73")	178 x 54 x 120 mm (7.01 x 2.13 x 4.73")
Weight	660 g (23.10 oz.)	660 g (23.10 oz.)

#### Description

Vario E, 220–240 V  
Vario E, 100–120 V

#### Art. No.

14520000  
14521000



**Cim Özyurt, Product Management:**  
"Did you know that Vario E offers savings of 50% in modelling time, in combination with the Waxlectric of Renfert? Moreover you eliminate the risk of overheating the wax avoiding any contraction."

#### Function & Performance

The Vario E allows you to keep your sculpting wax at the required working temperature. Protect your wax against too high temperatures, your sculpting tips against mechanical loading and your wax pattern against high stresses.

#### Advantages

- ▶ 30% saving in time due to the preheating function.
- ▶ Multi-functionality provided by three wax pots with separate control.
- ▶ Individual setting of the wax consistency (from creamy to fluid) using infinitely variable temperature setting of 45–110°C (113–230°F).

#### Details

- ▶ The permanent temperature control of the actual value input is indicated by the LED display.
- ▶ Also suitable for processing light-curing waxes.
- ▶ Ergonomic working height ensures relaxed working.
- ▶ The deep wax pot is ideal for dipping copings.



For further information, please see the Wax-up manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)



Renfert recommends the special GEO Avantgarde modeling waxes on page 134



## hotty LED / hotty



## Wax copings – dipped precision

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Power consumption	25 W	25 W
Working temperature max./min. (°C)	110°C / 60°C	110°C / 60°C
Working temperature max./min. (°F)	230°F / 140°F	230°F / 140°F
Cable length	2 m (78.80")	2 m (78.80")
Dimensions (W x H x D)	90 x 65 x 98 mm (3.55 x 2.56 x 3.86")	90 x 65 x 98 mm (3.55 x 2.56 x 3.86")
Weight	360 g (12.60 oz.)	360 g (12.60 oz.)

Description	Art. No.
hotty LED, 220–240 V	14610000
hotty LED, 100–120 V	14611000
hotty, 220–240 V	14600000
hotty, 100–120 V	14601000



**Cim Özyurt, Product Management:**  
 “The dipping technique is still the quickest and most precise method for fabricating a coping. Material-appropriate wax preparation creates uniform layer thicknesses.”

### Function & Performance

The wax dipping pots hotty and hotty LED are the optimal units for producing dimensionally stable wax copings with a uniform thickness in only a few seconds.

### Advantages

- ▶ Quick, continuous heating phase.
- ▶ Accurate results due to permanent compensation of minimal temperature fluctuations.
- ▶ Uniform temperature distribution ensures consistent layer thickness of the wax copings.

### Features

The membrane keypad of the hotty LED enables the temperature to be set accurately to within a degree. The temperature status is permanently indicated by the LED display.

The hotty allows for temperature input and display via a potentiometer.

### Details

- ▶ Actual value indication in the dipping area of the dies.
- ▶ Infinitely variable temperature setting from 60–110°C (140–230°F).
- ▶ Ergonomically contoured housing provides optimal support for the fingers.
- ▶ No contamination of the unit by wax residue thanks to the specially designed wax runback pot.
- ▶ The integrated lid provides protection against dirt and dust.



For further information,  
 please see the Wax-up  
 manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)



Renfert recommends the  
 corresponding dipping  
 wax range  
 Page 133

# Waxprofi



## Waxing up in prosthetics – efficient and systematic

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Power consumption	120 W	120 W
Working temperature max./min. (°C)	110°C / 40°C	110°C / 40°C
Working temperature max./min. (°F)	230°F / 104°F	230°F / 104°F
Cable length	2 m (78.8")	2 m (78.8")
Dimensions (W x H x D)	178 x 54 x 120 mm (7.01 x 2.13 x 4.73")	178 x 54 x 120 mm (7.01 x 2.13 x 4.73")
Weight	≈ 608 g (21.28 oz.)	≈ 608 g (21.28 oz.)

### Description

Waxprofi, 220–240 V  
Waxprofi, 100–120 V

### Art. No.

14400000  
14401000



**Tip:**  
70% time-saving is achieved by using the combination of Waxlectric and Waxprofi, as heating the instrument over a Bunsen burner is no longer required.

### Function & Performance

Your individual skill is required to give a denture freshness and vitality. Our Waxprofi is required to implement this efficiently. Enjoy the pleasure of how easy setting-up has become.

### Advantages

- ▶ 50% time saving due to the preheating function.
- ▶ Individual setting of the wax consistency (from creamy to fluid) by infinitely variable temperature setting from 40–110°C (104–230°F).
- ▶ Work without continually refilling due to a large volume pot (120 ml / 4.08 fl.oz.).

### Details

- ▶ Ergonomic height ensures easy uptake of wax portions.
- ▶ Clean handling due to functional pot design.
- ▶ Integrated lid protects the wax.
- ▶ Suitable for the use of light-curing waxes.



Waxlectrics  
See page 52–54

## Bijou 90 / Safety burner



### Certified safety and maintenance-free

Type	9600000	9610000	9330100	9320100
Connecting pressure	50 mbar (0.73 psi)	20 mbar (0.29 psi)	50 mbar (0.73 psi)	20 mbar (0.29 psi)
Consumption	48 g/h	63 l/h	48 g/h	63 l/h
Power	660 W	660 W	750 W	650 W
Connecting hose	DIN 30664-1 / DVGW G 5501-(P)	DIN 30664-1 / DVGW G 5501-(P)	DIN 30664-1 / DVGW G 5501-(P)	DIN 30664-1 / DVGW G 5501-(P)
Dimensions (W x H x D)	100 x 110 x 60 mm (3.94 x 4.33 x 2.36")	100 x 110 x 60 mm (3.94 x 4.33 x 2.36")	160 x 130 x 60 mm (3.94 x 5.12 x 2.36")	160 x 130 x 60 mm (3.94 x 5.12 x 2.36")
Weight	≈ 520 g (18.2 oz.), incl. burner base	≈ 520 g (18.2 oz.), incl. burner base	≈ 640 g (22.4 oz.), incl. burner base	≈ 640 g (22.4 oz.), incl. burner base

#### Description

Description	Art. No.
Bijou 90, liquid gas	9600000
Bijou 90, natural gas E	9610000
Safety burner, liquid gas	9330100
Safety burner, natural gas E	9320100

### Function & Performance

Bijou 90 and the Safety burner are two-tube burners for use with liquid gas and natural gas E.

#### Advantages

- ▶ Two riser tubes provide the choice of flame intensity.
- ▶ Individual adjustment of the gas supply (rocker lever) and oxygen supply (adjustment wheel).
- ▶ Tested quality and safety thanks to the DIN-DVGW type-examination certificate according to DIN 30665-1.

#### Feature

High degree of safety due to automatic cut-off of gas supply if the flame is extinguished unintentionally (on the Safety burner).



**Tip:**  
Always use the liquid gas Bunsen burner with a pressure reducer at a fixed setting (50 mbar)!

## eco safety burner



Type	9340100	9350100
Connecting pressure	50 mbar (0.73 psi)	20 mbar (0.29 psi)
Consumption	50 g/h	48 l/h
Power	650 W	450 W
Connecting hose	DIN 30664-1 / DVGW G 5501-(P)	DIN 30664-1 / DVGW G 5501-(P)
Dimensions (W x H x D)	115 x 98 x 142 mm (4.53 x 3.86 x 5.59")	115 x 98 x 142 mm (4.53 x 3.86 x 5.59")
Weight	≈ 460 g (16.1 oz.)	≈ 460 g (16.1 oz.)

#### Description

Description	Art. No.
Safety burner eco, liquid gas	9340100
Safety burner eco, natural gas E	9350100

### Function & Performance

The eco safety burner is a single tube safety burner for use with liquid gas and natural gas E.

#### Advantages

- ▶ High degree of safety due to automatic shut-off of the gas supply if the flame is extinguished unintentionally.
- ▶ Quick cleaning of the easily detachable collector tray.
- ▶ Tested quality and safety thanks to the DVGW type-examination certificate according to DIN 30665-1.

## Renfert Magma. The intelligent preheating furnace.



### Very easy programming? The Magma preheating furnace shows that it is possible.

Time is money. Particularly in the laboratory routine. This is why processes must run optimally and save time. For example, it is counterproductive if programming a preheating furnace takes several minutes and is not structured in an absolutely logical way. Renfert has therefore developed the optimum solution for you: The Magma preheating furnace.

Programming the heat rate is very easy using intuitively operated symbol keys. This saves you time-consuming calculations. This is not only our opinion but that of our customers.

#### **Nikolaus Langner, Master Dental Technician:**

“After using the Magma for nine months, I can confirm that it has proven its efficiency in the laboratory routine. The furnace is comfortable and very easy to operate due to the clear symbols. I find it especially practical to copy the programs. After entering the heating phase, only the final temperature or hold time has to be changed later.”

# Magma



## Function & Performance

Magma is a preheating furnace with all the technical features, which fulfill all the requirements in terms of programming, handling and ergonomics.

## Advantages

- ▶ Four-sided heating ensures uniform heating in the entire furnace chamber.
- ▶ Quick heat rate: to 900°C (1654°F) in only 60 min.
- ▶ 99 Program storage spaces + 1 Program for speed investments.

## Preheating furnace: reliable and versatile

Power supply	220-240 V, 50/60 Hz	230 V, 50 Hz
Heating power	1.900 W	1.900 W
Max. temperature	1.100°C (2014°F)	1.100°C (2014°F)
Muffle dimensions (W x H x D)	160 x 180 x 120 mm (6.30 x 7.09 x 4.72")	160 x 180 x 120 mm (6.30 x 7.09 x 4.72")
Max. heat-up rate in 1 hour	900°C (1654°F)	900°C (1654°F)
Type S temperature sensor	PtRhPt	PtRhPt
Size (W x H x D)	430 x 500 x 450 mm (16.93 x 19.69 x 17.72")	430 x 500 x 450 mm (16.93 x 19.69 x 17.72")
Free programmable stages	99	99
Additional speed programme	1	1
Muffle volume	3,45 l (0.91 gal)	3,45 l (0.91 gal)
Weight Magma	33,5 kg (73.97 lbs.)	33,5 kg (73.97 lbs.)
Weight Catalyst Converter	6,7 kg (14.79 lbs.)	6,7 kg (14.79 lbs.)

### Description

Description	Art. No.
Magma, 220-240 V	23000000
Magma for use with catalyst converter, 220-240 V	23000500
Magma, 230 V US	23003000
Magma for use with catalyst converter, 230 V US	23003500



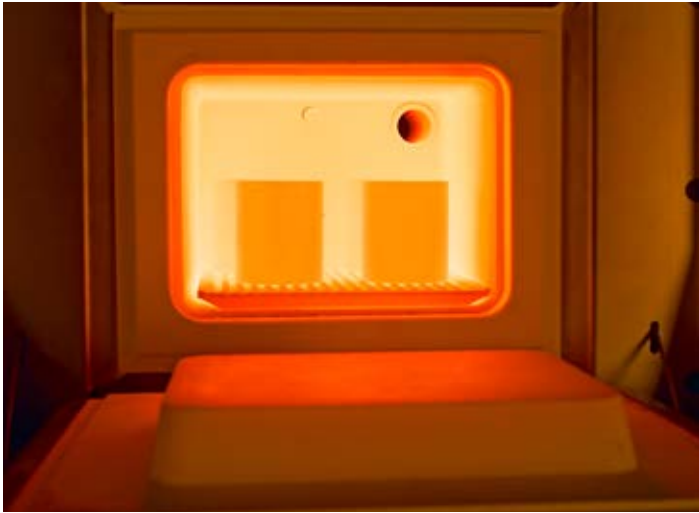
For further information,  
please see the Model  
casting manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)

### Oliver Bothe, Product Management:

"Heating coils integrated in the walls of the furnace chamber are protected against aggressive gases and mechanical damage. The result is a long service life."



## Details



### Temperature

- ▶ The one-piece furnace chamber prevents localized heat loss, which is otherwise caused by joints.
- ▶ Guarantees uniform temperature distribution due to the high density of heating coils in thermally demanding zones.

### Precision

- ▶ Temperature displayed is measured at the furnace chamber level.
- ▶ Long service life and high accuracy thanks to the Type S PtRh-Pt temperature sensor.

### Flexibility

- ▶ 9 x #3, 4 x #6, 3 x #9 casting rings.
- ▶ Casting rings can be placed on the furnace door, which is made from special ceramic fibers.

## Catalyst converter (optional)



### Function & Performance

Reduction of unpleasant odors and smoke thanks to catalytic post-combustion of furnace gases.

### Advantages

- ▶ Intelligent control over the Magma.
- ▶ Chemical conversion of organic constituents into carbon dioxide and water vapor.
- ▶ Increase in service life thanks to automatic switch-off at 650°C (1202°F). The catalyst converter operates continuously when using the speed program.

## Intelligent control of the catalyst converter

### Description

Catalyst converter, 220–240 V  
Catalyst converter, 230 V US

### Art. No.

23000001  
23003001

**Nikolas Langner, Dental Technician:**  
“The catalyst detoxifies the flue gases, which are created during heating. It is easily attached to the furnace in a few simple steps and the furnace detects the additional components automatically.”

## Bring cleanliness into the laboratory



### Health protection needs clean air



With the innovative four-user extractor Silent V4 the powerful, adapted and uniform suction power and the use of effective, pneumatic and automatic filter cleaning ensure clean air in your laboratory. Our filters have a separating efficiency of 99,9%.



## SYMPRO cleaning system. As easy as cleaning your teeth.



### Inconvenience is converted into efficiency: Your ingenious cleaning system.

Denture cleaning is an important, but inconvenient part of routine work in the dental clinic and laboratory. The Renfert SYMPRO denture cleaning unit is available to save valuable time with this routine work. It is a well-conceived system consisting of coordinated components:

- ▶ Highly effective liquid
- ▶ Special pin geometry
- ▶ SYMPRO cleaning procedure

The SYMPRO cleaning system cleans orthodontic appliances, splints and dentures, which saves you the unpleasant work. Stubborn deposits such as calculus

and plaque are removed after an average of 20 minutes. Removable dentures can be gently cleaned in a short appointment thanks to the optimized pin technology.

And this functions very easily, thanks to an intelligent idea: Due to the special positioning of the bowl (35°), the denture is situated against the current flow and can be optimally rinsed and cleaned by the pins. The SYMPRO is an additional value-creation component in the dental clinic and laboratory. In future let the SYMPRO take over the professional cleaning of removable dentures and use your valuable time more effectively.

# SYMPRO



## Function & Performance

SYMPRO is a compact, high-performance cleaning unit for dentures, orthodontic appliances and splints.

## Advantages

- ▶ Maximum oral hygiene increases the well-being of the patient and promotes patient loyalty.
- ▶ The fully automatic process involves virtually no labor costs.
- ▶ Time-saving work preparation for repairs, extensions and relines.

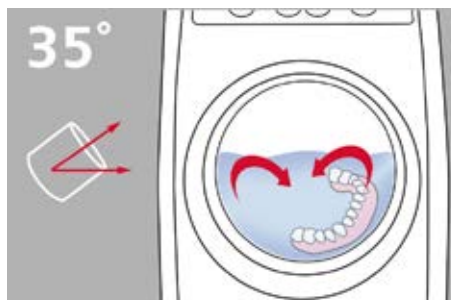
## Denture cleaning at the press of a button

Power supply	100–240 V, 50/60 Hz
Power consumption	90 VA
Dimensions (W x H x D)	230 x 140 x 300 mm (9.06 x 5.51 x 11.81")
Weight w/o beaker	≈ 3 kg (6.62 lbs.)
Noise level	70 dB
Rotational speed 1/min	1.200, 1.600, 2.000

Description	Presentation	Art. No.
SYMPRO, 100–240 V	SYMPRO, 1 tweezers, 1 cleaning vessel with cover for use in cleaning device, 1 cleaning vessel with cover (white) for post-treatment, retaining magnet, cleaning needles, waiting room poster set	650000x0
Cleaning pins	75 g (2.63 oz.)	65000550
SYMPROfluid Universal	2 x 2 l (2 x 0.53 gal)	65000600
SYMPROfluid Nicoclean	2 x 2 l (2 x 0.53 gal)	65000610
SYMPROfluid Universal	2 x 2 l (2 x 0.53 gal), incl. 50 patient brochures, english	65001602
Patient brochures	50 pieces, english	211092



Further information  
on the internet:  
[www.renfert.com/P146](http://www.renfert.com/P146)



### Oliver Bothe, Product Management:

"Why is the SYMPRO so efficient?  
As the bowl is positioned at 35°, the denture is situated against the current flow due to gravitational force enabling the needles to clean it optimally."

## Details



### Other advantages

- ▶ Aids in the early detection of damage due to regular, prophylactic cleaning.
- ▶ Functional reliability based on high-quality processing.
- ▶ Easy, intuitive operation ensures process reliability.

### The needles are the key factor

A rotary magnetic field sets the needles in motion, which causes gentle, mechanical removal of the surface accretion.

The rotating needles heat up the cleaning solution to approx. 45°C (113°F), which accelerates the chemical reaction. The needles are made of an acid-resistant alloy. They are cut at precisely right angles and also designed for maximum efficiency and durability.

This has the effect of increasing efficiency while at the same time protecting the surface of the object.

### We have the ideal chemistry!

Suitable cleaning fluids for this denture cleaning technology are:

#### **SYMPROfluid Universal**

Is used for cleaning in combination with the device. This fluid is used for removing "standard" accretion such as plaque, calculus, discoloration and adhesive denture creams.

#### **SYMPROfluid Nicoclean**

Also removes heavy nicotine stains from dentures. It is used in the form of follow-up treatment without the use of the device.





# Easyclean



## The simplest method for perfect cleaning

Power supply	220–240 V, 50/60 Hz	100–120 V, 50/60 Hz
Total power consumption	280 W	280 W
Ultrasonic frequency	37 kHz	37 kHz
Ultrasonic effective power	80 W	80 W
Ultrasonic peak power	320 W	320 W
Heating power	200 W	200 W
Tank, max. volume / operating volume	≈ 2,75 l (0.73 gal) / 1,90 l (0.50 gal)	≈ 2,75 l (0.73 gal) / 1,90 l (0.50 gal)
Tank, inner dimensions (WxDxH)	≈ 240 x 137 x 100 mm (9.46 x 5.40 x 3.94")	≈ 240 x 137 x 100 mm (9.46 x 5.40 x 3.94")
Size (W x H x D)	≈ 300 x 179 x 214 mm (11.82 x 7.05 x 8.43")	≈ 300 x 179 x 214 mm (11.82 x 7.05 x 8.43")
Weight	≈ 3,3 kg (7.29 lbs.)	≈ 3,3 kg (7.29 lbs.)

### Description

Easyclean, 220–240 V  
Easyclean, 100–120 V

### Art. No.

18500000  
18501000

### Function & Performance

Easyclean lives up to its name. It stands for easy, intensive and gentle ultrasonic cleaning using the latest state-of-the-art technology.

### Advantages

- ▶ Very good cleaning results using the optimally coordinated ultrasonic high-performance transducer system (37 kHz).
- ▶ Quick, optimal cleaning capacity due to degassing of the cleaning fluid (degas function).
- ▶ Uniform cleaning intensity on large items based on permanent displacement of the pressure wave maximum zones (sweep function).

### Details

- ▶ Efficient cleaning capacity due to optimal heat distribution with the aid of specially arranged heating elements.
- ▶ Adjustable heating in 5°C increments (heat range 30°C to 80°C/ 86–176°F).
- ▶ Long service life due to a highly cavitation-resistant stainless steel ultrasonic tank.
- ▶ Drip-proof control unit integrated in a durable stainless steel housing.



**Oliver Bothe, Product management:**  
"Never place items to be cleaned directly on the floor of the ultrasonic tank, as this could cause damage. Use the basket or a similar aid."



Ultrasonic cleaning agents – the perfect partner for optimum cleaning on page 154

## Easyclean Accessories



### Description

Description	Art. No.
Plastic lid, grey, piece	18500001
Stainless steel cover, piece	18500002
Stainless steel basket, piece	18500003
Stainless steel immersion basket 59 mm, piece	18500004
Plastic acid bath insert, piece	18500005
Cleaning jar 600 ml with lid and rubber band, piece	18500006
Plastic container with lid, piece	18500007

### 1. Plastic lid

- ▶ Quicker heating.
- ▶ Protects against evaporation and dust infiltration.

### 2. Stainless steel cover

- ▶ Cover for use with the cleaning jar or plastic container with lid.

### 3. Stainless steel basket

- ▶ For storage of cleaning items.
- ▶ To protect the floor of the oscillating tank.

### 4. Stainless steel immersion basket

- ▶ For cleaning small and very delicate items.
- ▶ For use with the stainless steel cover or with the cleaning jar.

### 5. Acid bath insert

- ▶ For acids and fluids not suitable for use in the stainless steel tank.

### 6. Cleaning jar

- ▶ For the use of additional cleaning fluids.
- ▶ For use in the stainless steel cover.

### 7. Plastic container with lid

- ▶ Ideal for cleaning smaller items and working with acids.
- ▶ Can be also used in conjunction with the stainless steel cover.



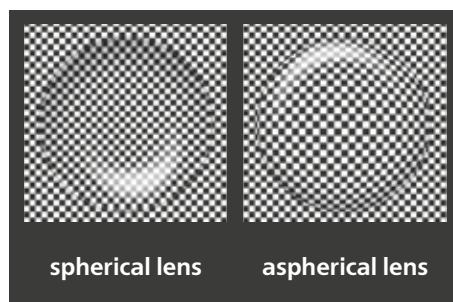
## Mobiloskop S



### Clear view for delicate work

Light beam (angled)	45°
Field of vision diameter	5x: 44 mm (1.73") / 10x: 22 mm (0.87")
Focussing depth	5x: 22 mm (0.87") / 10x: 10 mm (0.39")
Working distance	150 mm (5.91")
max. table top thickness with universal clamp	18–74 mm (0.71–2.92")
max. table top thickness with screw clamp	26 mm (1.02")
Weight	1.830 g (64.05 oz.)

Description	Presentation	Art. No.
Mobiloskop S with support arm	Mobiloskop head (without lighting), support arm	22000400
Stand with universal clamp		22000410
Stand with screw clamp		22000420



### Function & Performance

One microscope for up to 4 workplaces! The 360° swivel-mounted support arm allows a single microscope to be utilized from several workplaces for detail control and precision work.

### Advantages

- ▶ 5 and 10 times magnification provides maximum precision.
- ▶ Distortion-free coupled with uniform sharpness in the entire viewing field.
- ▶ Large viewing field with a high depth of focus and marginal detail.

### Details

- ▶ Ergonomic and relaxed seating position thanks to the high working position of 150 mm.
- ▶ Dioptic compensation enables a three-dimensional view.
- ▶ Optional: LED-illumination with 9,000 Lux/18 white light LEDs.

### Oliver Bothe, Product Management:

"Did you know that aspherical lenses in combination with good illumination in a dental microscope reduce the stress for the eyes to a minimum? Aspherical lenses ensure a distortion-free image with high marginal detail (see Figure). Quality counts and spares you headaches and stresses."

## LED illumination



Description	Art. No.	Power supply	100–240 VAC, 50/60 Hz
LED illumination for Mobiloskop, 100–240 VAC	22005000	Rated voltage	12 VDC
		Power consumption	37 VA (Level 1) / 23 VA (Level 2)
		Lamp rated output	14 W (Level 1) / 12 W (Level 2)
		Weight	250 g (8.75 oz.)
		Dimensions (W x H x D)	162 x 34 x 82 mm (6.38 x 1.34 x 3.23")

### Function & Performance

There is a choice of two light intensities for optimal adaptation to each object. This makes working with the Mobiloskop fatigue-free.

### Advantages

- ▶ Perfect illumination of the viewing field and maximum control of detail using 9,000 Lux.
- ▶ Optimum light tone ensures color fidelity observation of all objects using 18 long-life white light LEDs.
- ▶ Shadow-free, contrast-rich illumination via a 15° lighting angle.

## Support arm



### Everything under control

Description	Art. No.
Support arm with universal clamp	22000401

### Function & Performance

The optimized and timeless support arm for the Mobiloskop S has three hinges, which can be adjusted and fixed to any position.

### Advantages

- ▶ Can be used for several workstations, as it can be freely swiveled in a 360°, radius of action 850 mm (33.49 inch).
- ▶ Integrated power cable for the LED lighting.
- ▶ Retained using a screw clamp for bench tops of 18–74 mm (0.71–2.92 inch), can also be screw retained.

## Remberti



### Everything at a glance

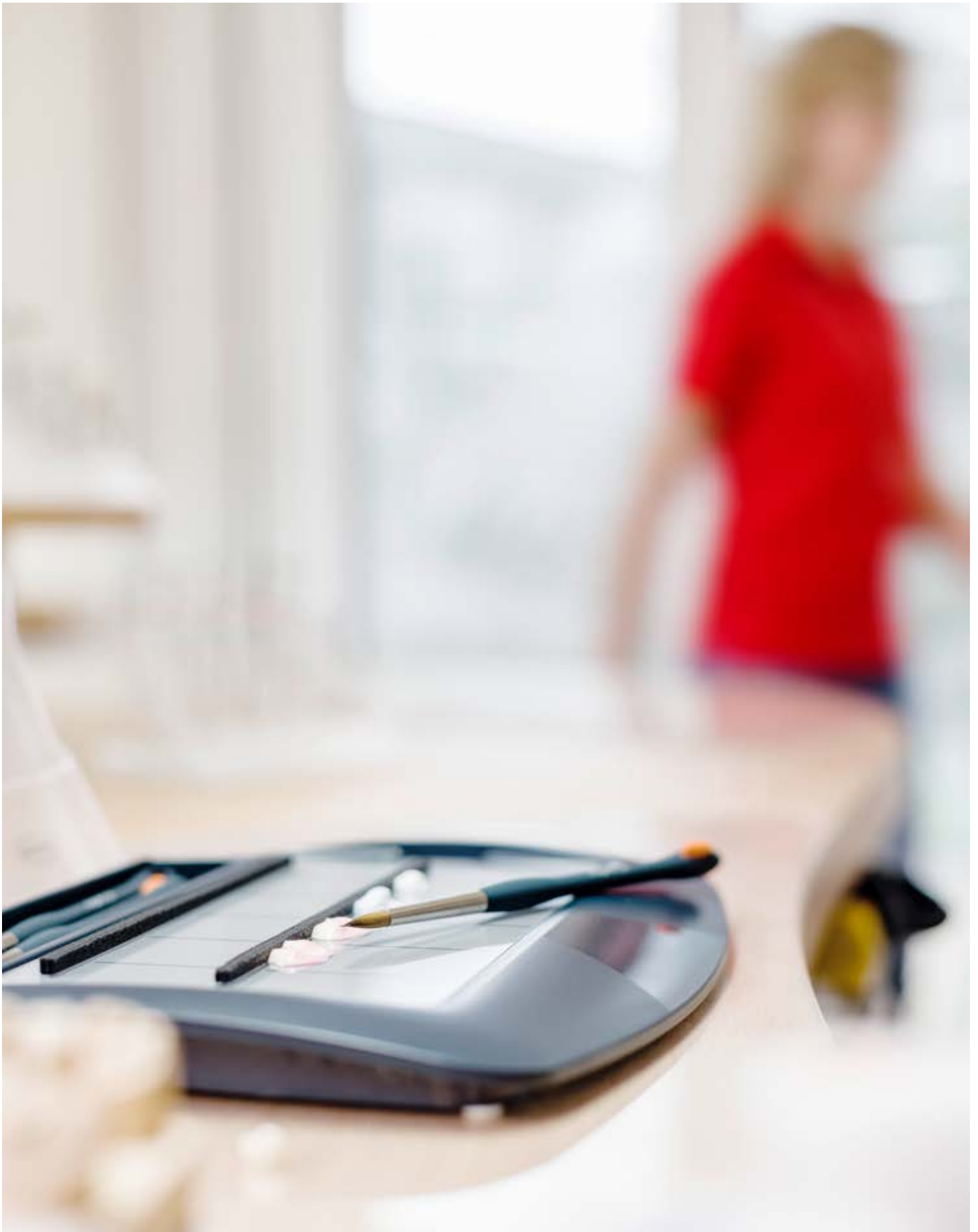
Description	Art. No.
Remberti magnifying glasses silver	12620001

### Function & Performance

1.5 times enlarging magnifying spectacles with foldable magnifying section.

### Advantages

- ▶ Non-reflecting due to tempered mineral glasses.
- ▶ Low weight of only 38 g (1.38 oz.) ensures interference-free working.
- ▶ Also suitable for spectacle wearers.





## Content Mixing trays & Brushes

### Overview Mixing trays

Description	Dimensions (LxW) mm/inch	Page
lay:art crystal aqua xl	220 x 120 mm / 8.67 x 4.73 "	74
lay:art crystal aqua s	159 x 90 mm / 6.26 x 3.55 "	74
lay:art tropic pro xl	220 x 120 mm / 8.67 x 4.73 "	74
lay:art crystal	220 x 120 mm / 8.67 x 4.73 "	74
lay:art tropic pro s	159 x 90 mm / 6.26 x 3.55 "	74
lay:art tropic xl	220 x 120 mm / 8.67 x 4.73 "	75
lay:art tropic s	159 x 90 mm / 6.26 x 3.55 "	75
lay:art natural	159 x 90 mm / 6.26 x 3.55 "	75
lay:art color	159 x 90 mm / 6.26 x 3.5 "	75
Rainbow	183 x 105 mm / 7.21 x 4.14 "	79
Porcelain Mixing Palette	155 x 95 mm / 6.11 x 3.74 "	79
Stain-Mix black lid	155 x 95 mm / 6.11 x 3.74 "	79
Melody	143 x 85 mm / 5.63 x 3.35 "	79

### Overview Brushes

Description	Natural hair	Synthetic hairs	Page
lay:art style	■		76-77
Genius	■		80
Profi	■		80
Kolinsky	■		81
Basic line	■		81
Ceramicus		■	82
Takanishi		■	82
Squirrel hair brush	■		83
Combi wax brush	■	■	83

## Renfert lay:art system. The perfection of individuality.



### Renfert lay:art system. As unique as your working style.

The Renfert lay:art system gives you unlimited artistic freedom. This is because it has been created to adapt perfectly to your individual working style. Regardless of whether you work with a mixing tray with moisture retention function or prefer a conventional mixing tray. Or with one or several brushes, e.g. for delicate building up. Or whether you like to use your brushes with more or less water storage. Or how you prefer to form the brush tip. Renfert lay:art always adapts to your working style. The optical and technical advantages of the lay:art system are as varied as the possibilities it offers you.

Choose from nine mixing trays with or without moistening function and ten shapes of brushes and find your individual combination of mixing tray and brush. Only a special type of Kolinsky hair is processed for the lay:art style range. Only the longest and finest tips from the tail of the male Mustela Sibirica (Siberian weasel) are used. This hair is particularly resistant, elastic and durable. The brush tip is formed from very many fine tapering, uniformly long hairs. This reduces the stress on the individual hairs and the force applied is deflected to the side. This significantly increases the tension and service life.

**Cim Özyurt, Product Management:**  
 "The brush hairs must always be allowed to dry after use. If a hair always stays moist, the moisture penetrates too deeply between the scale armor and medulla and the memory effect is lost. The scales do not return to their position any more and the tension is lost."

## Hone your skills

### Always individual, always perfect

We have developed this ergonomic system in close collaboration with numerous experts from the porcelain sector: for more efficiency, reliability and pleasure while building up porcelain.

### Housing

- ▶ 270° accessibility of all materials using ergonomic wrist support.
- ▶ The well-designed housing lid protects against drying out and contamination, provides an optimal view of the labeling foil and is easily removable.
- ▶ The ingenious ventilation system inhibits mould forming and ensures hygienic working.
- ▶ The large filling opening guarantees comfortable refilling of water without removing the tray.

### Foil

The rewritable label in the lid ensures organized management of the porcelains and structured working.

### Natural hair brush lay:art style

lay:art style sets new standards in three areas of the brush technique.

- ▶ Hair quality
- ▶ manufacturing technique
- ▶ shape concept

## The lay:art system

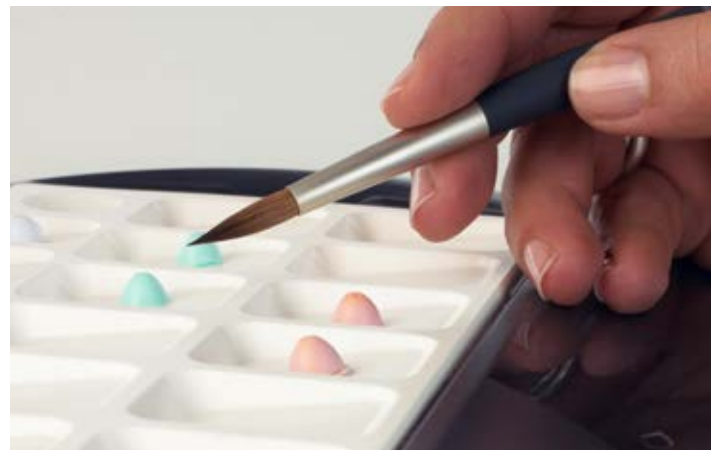
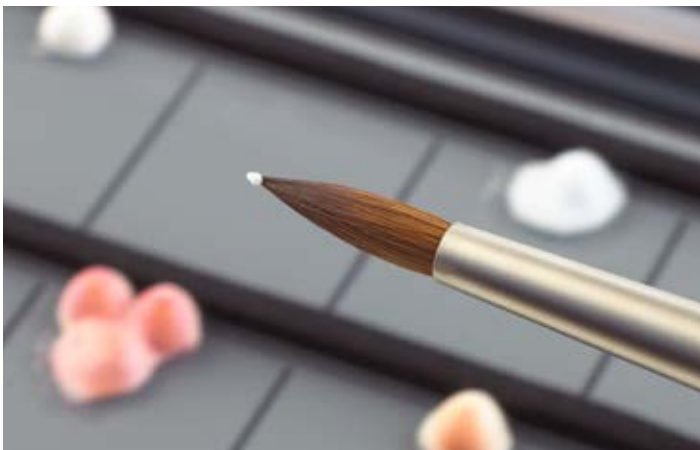


reddot design award  
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With the lay:art style Premium quality is produced by an additional selection process using only the absolutely best hair. The result is an extremely stable brush tip, which becomes more pointed rather than blunt due to wear. And a strong hair bond, which significantly reduces the build-up of porcelain particles.

### Design with intelligence

The ergonomic handle form with Soft Touch is very light and balanced for improved handling. The integrated rollaway protection (in four colors) allows for customization.



## lay:art crystal aqua xl/s



lay:art

Description	Dimensions Tray	Housing size	Art. No.
lay:art crystal aqua xl	220 x 4 x 120 mm (8.67 x 0.16 x 4.73")	291 x 36 x 223 mm (11.47 x 1.42 x 8.79")	10431000
lay:art crystal aqua s	159 x 4 x 90 mm (6.26 x 0.16 x 3.55")	211 x 28 x 147 mm (8.31 x 1.10 x 5.79")	10432000
Labeling foil crystal (aqua) xl, 3 pcs.			10430100
Labeling foil crystal (aqua) s, 3 pcs.			10430200
Moistening strip crystal aqua xl, 12 pcs.			10431010
Moistening strip crystal aqua s, 12 pcs.			10432020

### Function & Performance

Partially self-moistening glass mixing tray with two moistening strips.

### Advantages

- ▶ Gentle for the brush and completely abrasion free using hardened float glass.
- ▶ Homogeneous moistening and consistency of the porcelain thanks to dimensionally stable and durable moistening strips.
- ▶ Optimal moisture transport ensures there is no formation of microbubbles or porosity.

## lay:art tropic pro xl/s



lay:art

Description	Dimensions Tray	Housing size	Art. No.
lay:art tropic pro xl	220 x 11 x 120 mm (8.67 x 0.43 x 4.73")	291 x 36 x 223 mm (11.47 x 1.42 x 8.79")	10450000
lay:art tropic pro s	159 x 11 x 90 mm (6.26 x 0.43 x 3.55")	211 x 28 x 147 mm (8.31 x 1.10 x 5.79")	10451000
Labeling foil natural + tropic (pro) xl, 3 pcs.			10440100
Labeling foil natural + tropic (pro) s, 3 pcs.			10460100

### Function & Performance

Homogeneous, diffusible high-tech porcelain tray with wells and continuous moistening.

### Advantages

- ▶ Ideal porcelain consistency due to uniform, continuous moistening of the porcelain.
- ▶ Individual control of the optimum porcelain consistency thanks to well-designed mixing well geometry.
- ▶ 12/ 4 large and 5/ 4 small mixing wells provide space for structured working.

## lay:art tropic xl/s



lay:art

Description	Dimensions Tray	Housing size	Art. No.
lay:art tropic xl	220 x 11 x 120 mm (8.67 x 0.43 x 4.73")	291 x 36 x 223 mm (11.47 x 1.42 x 8.79")	10440000
lay:art tropic s	159 x 11 x 90 mm (6.26 x 0.43 x 3.55")	211 x 28 x 147 mm (8.31 x 1.10 x 5.79")	10441000
Labeling foil natural + tropic (pro) xl, 3 pcs.			10440100
Labeling foil natural + tropic (pro) s, 3 pcs.			10460100

### Function & Performance

Diffusible high-tech porcelain tray with homogeneous, full-surface moistening.

### Advantages

- ▶ Diffusible plate material ensures optimally moistened porcelain.
- ▶ Savings in material and costs without loss because of drying out.
- ▶ Savings in time, since continuous humidification of porcelain powders is not necessary.

## lay:art crystal



Description	Dimensions Tray	Housing size	Art. No.
lay:art crystal Labeling foil crystal (aqua) xl, 3 pcs.	220 x 4 x 120 mm (8.67 x 0.16 x 4.73")	291 x 36 x 223 mm (11.47 x 1.42 x 8.79")	10430000 10430100

### Function & Performance

Glass mixing tray in a modern design.

### Advantages

- ▶ Optimized plate color provides optimum contrast to the material.
- ▶ Gentle for the brush and completely abrasion free using hardened float glass with a high-quality, extremely smooth surface.
- ▶ Perfect overview and structured working thanks to optical subdivision in segments.

## lay:art natural



Description	Dimensions Tray	Housing size	Art. No.
lay:art natural Labeling foil natural + tropic (pro) s, 3 pcs.	159 x 6,5 x 90 mm (6.26 x 0.43 x 3.55")	211 x 28 x 147 mm (8.31 x 1.1 x 5.79")	10460000 10460100

### Function & Performance

Exclusive mixing tray made from natural agate stone.

### Advantages

- ▶ The outstanding material hardness and highly polished surface guarantee abrasion-free, reliable working.
- ▶ Individuality, each tray is uniquely hand-crafted.

## lay:art color



Description	Dimensions Tray	Housing size	Art. No.
lay:art color Labeling foil color, 3 pcs.	159 x 11 x 90 mm (6.26 x 0.43 x 3.55")	211 x 28 x 147 mm (8.31 x 1.10 x 5.79")	10470000 10470100

### Function & Performance

Glazed ceramic tray for preparing and storing stains.

### Advantages

- ▶ Balanced distribution of 13 drop-shaped, 2 large and 4 small round mixing wells as well as a smooth mixing surface.
- ▶ Newly developed drop shape: sharp-edged at the back for wiping the brush, tapering at the front to allow controlled dispensing of the stain on the brush surface.



## lay:art style



## Made for artists

Description	Art. No.
lay:art style set with 1 piece each of opaque, color, brush 2	17251000
lay:art style size 2, 2 pieces	17250002
lay:art style size 4 slim, piece	17250004
lay:art style size 4 bold, piece	17250014
lay:art style size 4 cone, piece	17250040
lay:art style size 6 slim, piece	17250006
lay:art style size 6 bold, piece	17250016
lay:art style size 8 slim, piece	17250008
lay:art style size 8 bold, piece	17250018
lay:art style color, 2 pieces	17250000
lay:art style opaque, 2 pieces	17250001

### Function & Performance

lay:art style natural hair brushes provide premium quality for the highest demands. An innovative manufacturing technique achieves maximum values in terms of tension, dimensional stability and durability of the brush tip. The ergonomic handle design with Soft Touch is optimally balanced and fits very well in the hand.

### Advantages

- ▶ Top quality with natural hair for consistent working comfort at the highest level.
- ▶ 10 sizes with different shape concepts, perfectly coordinated to individual requirements.
- ▶ The Big Brush technique with sizes 8, 6 and 4 increases the moisture reserve and tension.

## lay:art style



lay:art mixing tray  
on Page 73–75

## Details



### Diverse selection for individualists

The different sizes reflect the required amounts of water and porcelain per work cycle. Two or three shapes of brushes can be selected in the sizes 8, 6 and 4.

**Slim:** Slim shape of brush in the upper third provides minimal moisture release and aids delicate building up.

**Bold:** Bold shape of brush in the upper third provides higher moisture release and aids the uptake of large amounts of porcelain.

**Cone (4):** Short conical brush shape enables precise building up and targeted reduction thanks to maximum firmness.

### The optimal addition

Size 2 for small amounts, opaque brush for uniform application and staining brush for subtle shade accents – available as a practical set or individually.

**2:** Size 2 is ideal for the exact application of small amounts.

**Opaque:** The perfect combination of thick and long hairs (7.5 mm /0.29"). It nestles on the framework surface and ensures an effective, uniform opaque and liner application.

**Color:** The staining brush: High strength right into the tip for targeted application of perfect shade accents and specific details.



# Made for artists



 lay:art

## lay:art mixing trays and brushes with system



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With our lay:art system you can develop your art in the correct framework: style, aesthetics, quality and functionality – the best system for you in every detail. You will find your perfect individual solution among 9 different mixing trays and 10 different, high-quality brush shapes made from the finest Kolinsky hairs.

 Renfert

## Rainbow



### Function & Performance

Glazed palette material with perforated wells prevents the porcelain from drying-out during the working process.

### Advantages

- ▶ Capillary effect to the wells (2 holes each) moistens the porcelain.
- ▶ Very smooth palette surface increases the service-life of the porcelain brush.
- ▶ Continuous use of porcelain due to air-tight lid.

#### Description

Rainbow incl. lid and acrylic tray

#### Dimensions Tray

≈ 183 x 105 mm (7.20 x 4.13")

#### Art. No.

10580000

## Porcelain Mixing Palette



### Function & Performance

Porcelain mixing palette for porcelain and stains.

### Advantages

- ▶ Fully glazed palette with tapered wells.
- ▶ Various well sizes for individual portions of porcelain.
- ▶ 6 round wells for stains.

#### Description

Porcelain Mixing Palette incl. lid

#### Dimensions Tray

≈ 155 x 95 mm (6.10 x 3.74")

#### Art. No.

10510000

## Stain-Mix



### Function & Performance

Stain mixing tray for porcelain and acrylic stains.

### Advantages

- ▶ With black lid for light curing stains.
- ▶ 30 small wells with sharp edges for wiping the brush.
- ▶ 1 large well for glaze liquid.

#### Description

Stain-Mix incl. black lid

#### Dimensions Tray

≈ 155 x 95 mm (6.10 x 3.74")

#### Art. No.

10650100

## Melody



### Function & Performance

The mixing tray for porcelain stains.

### Advantages

- ▶ 16 sloped wells for stains.
- ▶ 4 flat wells for individual mixing of stains.
- ▶ Separate well for mixing liquid.

#### Description

Melody incl. lid and acrylic tray

#### Dimensions Tray

≈ 143 x 85 mm (5.63 x 3.35")

#### Art. No.

10580100

## Genius



### Porcelain brush with unique grip concept

#### Description

Genius set with 4 brush sizes (2, 4, 6, 8)
Genius size 2, piece
Genius size 4, piece
Genius size 6, piece
Genius size 8, piece

#### Art. No.

17150000
17150002
17150004
17150006
17150008

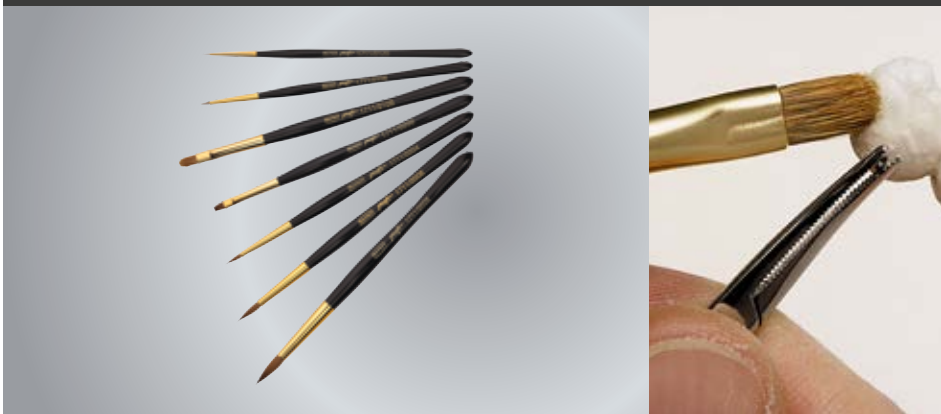
#### Function & Performance

High-quality porcelain brush with a multi-functional handle. The benefits, function and design set new standards. The natural hair consists of 1A Kolinsky quality, which means an ideal combination of stability and elasticity for porcelain processing. A fine brush tip is formed due to thick hair.

#### Advantages

- ▶ The multifunction handle protects the brush tip.
- ▶ Optimum storage position.
- ▶ Non-slip texture.
- ▶ Comfortable handling

## Profi



### High-end natural bristle brushes

#### Description

Profi set with 6 brush sizes (without opaquing brush)
Profi cleaning brush, 2 pieces
Profi size 4, 2 pieces
Profi size 6, piece
Profi size 8, piece
Profi glazing brush, 2 pieces
Profi staining brush Size 2/0, 2 pieces
Profi opaquing brush, 2 pieces

#### Art. No.

17110100
17110105
17110004
17110006
17110008
17110106
17110120
17110200

#### Function & Performance

High quality porcelain brush made from 1A quality Kolinsky natural bristles.

#### Advantages

- ▶ Weight incorporated in shaft gives optimum balance.
- ▶ Comfortable to hold due to ergonomic handle.



## Red sable Kolinsky brush



### Function & Performance

Natural bristle brush made from Kolinsky red sable bristles – quality and aesthetics combined.

### Advantages

- ▶ Fine, flexible brush tip.
- ▶ Optimum liquid reservoir.
- ▶ 6 different sizes for individual uses.

## Natural bristle brush for porcelain

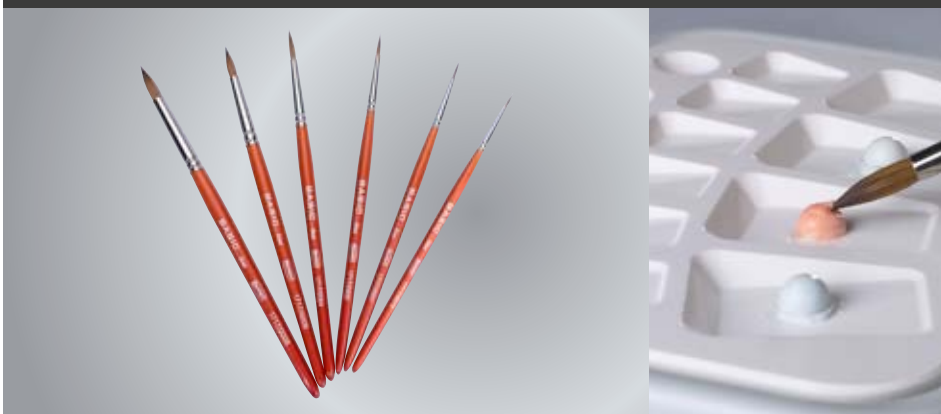
### Description

Kolinsky set with 6 brushes (1, 2, 4, 6, 8, 1/0)  
 Kolinsky size 1, 2 pieces  
 Kolinsky size 2, 2 pieces  
 Kolinsky size 4, 2 pieces  
 Kolinsky size 6, 2 pieces  
 Kolinsky size 8, 2 pieces  
 Kolinsky size 1/0, 2 pieces

### Art. No.

17131000  
 17131001  
 17131002  
 17131004  
 17131006  
 17131008  
 17131110

## Basic line



### Function & Performance

The main difference between Basic line and other low cost dental brushes is the choice of material and manufacturing method.

### Advantages

- ▶ Best quality selection of red sable natural bristles.
- ▶ A high degree of elasticity enables either large or small amounts of porcelain to be lifted.
- ▶ Large water reservoir with even moisture dispensing.

## Top of the class

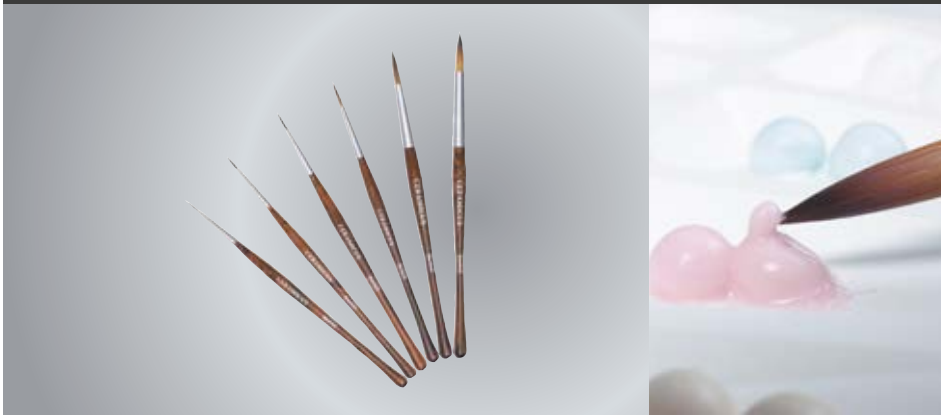
### Description

Basic line set with 6 brush sizes (1, 2, 4, 6, 8, 1/0)  
 Basic line size 1, 2 pieces  
 Basic line size 2, 2 pieces  
 Basic line size 4, 2 pieces  
 Basic line size 6, 2 pieces  
 Basic line size 7, 2 pieces  
 Basic line size 8, 2 pieces  
 Basic line size 1/0, 2 pieces

### Art. No.

17170000  
 17170001  
 17170002  
 17170004  
 17170006  
 17170007  
 17170008  
 17170010

## Ceramicus



### Top performance through innovation

Description	Art. No.
Ceramicus set with 6 brush sizes (1, 2, 4, 6, 8, 1/0)	17160000
Ceramicus staining brush set size 00 and 000, 2 pieces each	17030000
Ceramicus size 1, 2 pieces	17160001
Ceramicus size 2, 2 pieces	17160002
Ceramicus size 4, 2 pieces	17160004
Ceramicus size 6, piece	17160006
Ceramicus size 8, piece	17160008
Ceramicus Big Brush, piece	17160088
Ceramicus size 1/0, 2 pieces	17160110
Ceramicus size 2/0, 2 pieces	17160120
Ceramicus opaquing brush, 2 pieces	17160200

### Function & Performance

Porcelain brush made from a special, synthetic microhair structure.

### Advantages

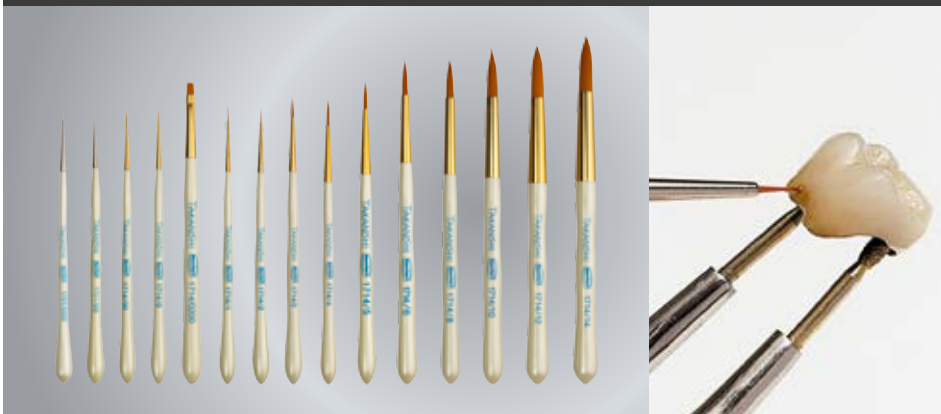
- ▶ Great resilience of the bristles.
- ▶ Very densely packed bristles.
- ▶ No bothersome splaying of the bristles after every porcelain build-up.



### Video

The surprising improvement for use with porcelain  
[www.renfert.com/P726](http://www.renfert.com/P726)

## Takanishi



### The classic acrylic bristle brush

Description	Art. No.	Description	Art. No.
Takanishi set with 12 brush sizes (without staining and opaquing brush)	17140000	Takanishi size 6, 2 pieces	17140006
Takanishi staining brush set size 00 and 000, 2 pieces each	17010000	Takanishi size 8, 2 pieces	17140008
Takanishi size 1, 2 pieces	17140001	Takanishi size 10, piece	17140010
Takanishi size 2, 2 pieces	17140002	Takanishi size 12, piece	17140012
Takanishi size 3, 2 pieces	17140003	Takanishi size 14, piece	17140014
Takanishi size 4, 2 pieces	17140004	Takanishi size 1/0, 2 pieces	17140110
Takanishi size 5, 2 pieces	17140005	Takanishi size 2/0, 2 pieces	17140120
		Takanishi opaquing brush, 2 pieces	17140200

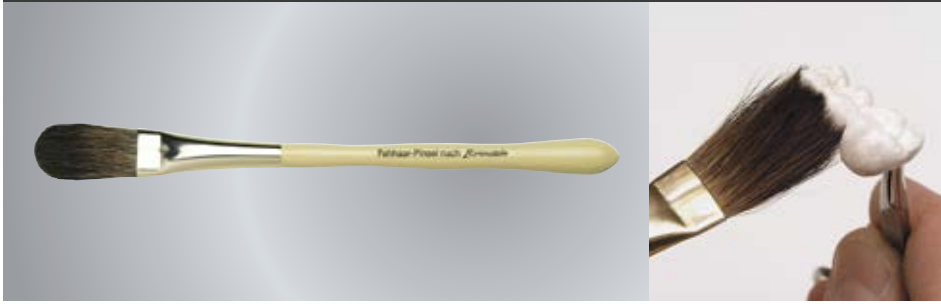
### Function & Performance

Very high quality synthetic bristle brush which has been well proven for many years for the optimal porcelain build-up.

### Advantages

- ▶ The brush tip remains stable.
- ▶ Highly flexible brush bristles.
- ▶ Ideal for reducing porcelain.

## Squirrel hair brush according to Stefan Borenstein



### Special brush

#### Description

Squirrel hair brush, 1 piece

#### Art. No.

17120000

#### Function & Performance

Fine, wide surface brush for smoothing and cleaning the porcelain model.

#### Advantages

- ▶ Very soft brush bristles.
- ▶ Large surface brush.
- ▶ Comfortable access to interdental spaces using narrow edge.

## Combi wax brush



### Practical all purpose instrument

#### Description

Combi wax brush, piece

#### Art. No.

17050000

#### Function & Performance

The dual purpose brush for the most common uses within crown and bridge and partial denture technique.

#### Advantages

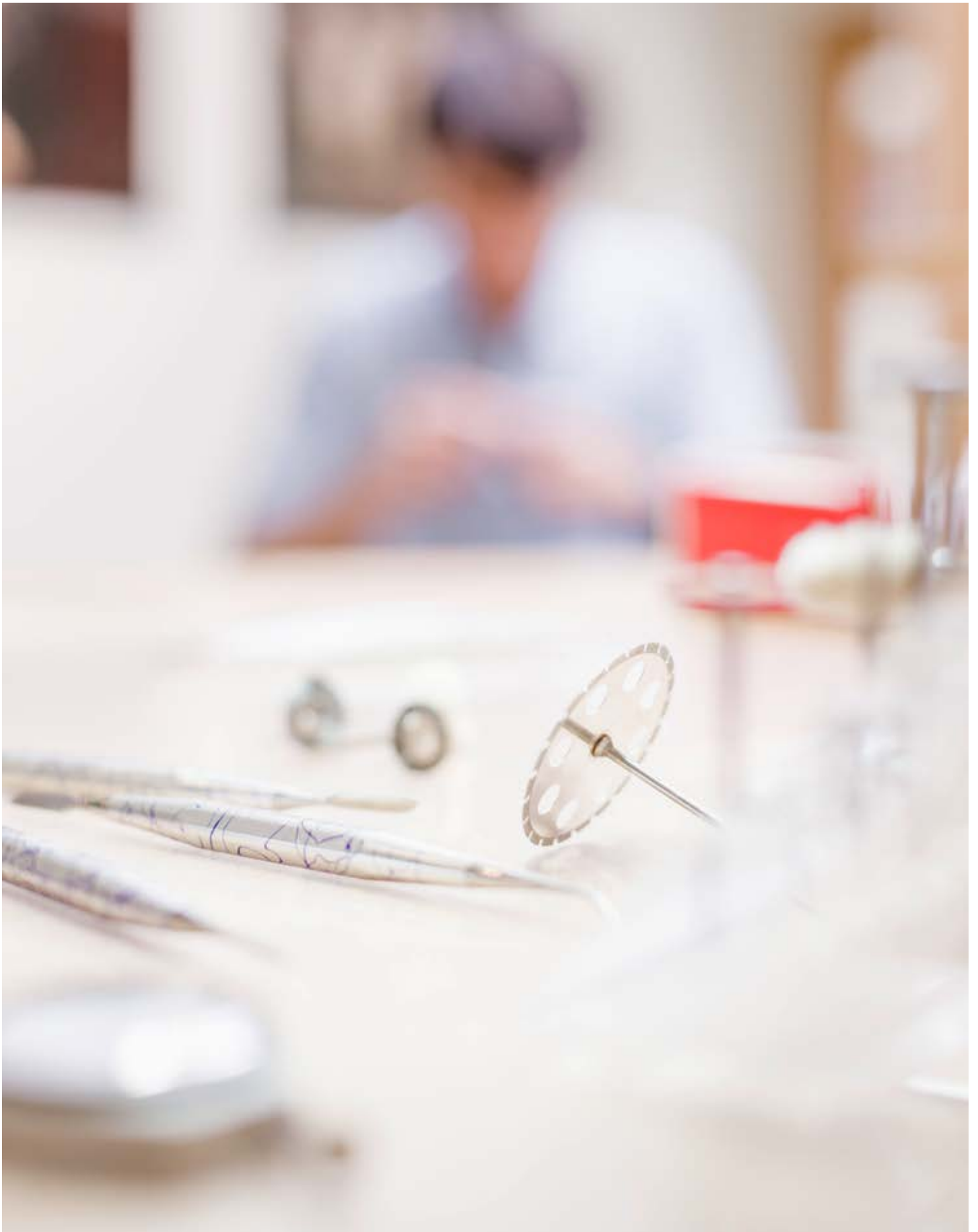
- ▶ Large brush: for smoothing and cleaning wax models.
- ▶ Small brush: for isolating dies or plaster models.



#### Tips on brush care:

We recommend the regular care with curd soap. This soap has lipid replenishing qualities which help keep natural hair, bristles and synthetic fibres elastic and smooth. Carefully wash the brush head in warm water until the soap begins to bubble slightly, then shape the hairs back into their original form. A little droplet of Proform-12 will additionally enhance the brush hair.

Never use a degreasing soap – natural hairs in particular tend to break if their natural protective lipid layer is removed.



# Content Instruments

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## Overview Hand instruments

Description	Porcelain	Wax	Acrylics	Page
ERGO Ceramic	■			86
ERGO Acryl			■	87
ERGO Wax		■		87
Metrical scoops	■			88
Agate spatula	■			88
Universal instrument	■	■	■	88
Instrument set Deluxe	■	■	■	89
Instrument set Standard		■		89
Keramogrip	■			90
Jacketgrip	■			90

## ERGO Ceramic



## The precision instruments

## Description

Description	Art. No.
ERGO Ceramic Set with 2 instruments	11611000
ERGO Ceramic Instrument, No. 1, piece	11611100
ERGO Ceramic Instrument, No. 2, piece	11611200
Spring tip „large blade“, 2 pieces	11611110
Spring tip „small blade“, 2 pieces	11611210
Spring tip „fine nerve needle“, 2 pieces	11611220

## Function &amp; Performance

Double-sided special instruments for modelling porcelain with three replaceable instrument tips.

## Instrument No. 1

- ▶ Large blade for separating and reducing (replaceable).
- ▶ A large claw scraper for precise resection when modelling the tooth shape.

## Instrument No. 2

- ▶ Fine nerve needle for creating fissures and enamel cracks (replaceable).
- ▶ Small blade for working on areas which are difficult to reach (replaceable).

## ERGO Acryl



### Precise facings

#### Description

Description	Art. No.
ERGO Acryl Instrument, No. 1, piece	10521100
ERGO Acryl Instrument, No. 2, piece	10521200
ERGO Acryl Instrument, No. 3, piece	10521300
Flexible blade tip, No. 1, 2 pieces	10521110
Flexible blade tip, No. 2, 2 pieces	10521210
Flexible blade tip, No. 3, 2 pieces	10521310

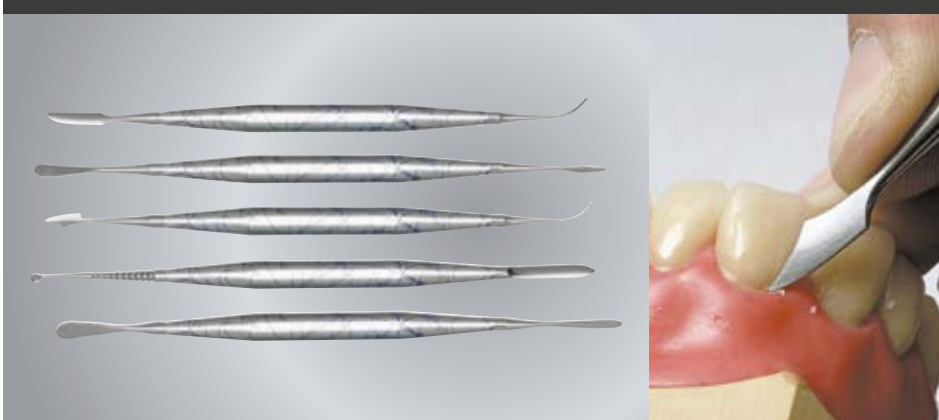
#### Function & Performance

Double-sided modelling instruments ideal for acrylic facings.

#### Advantages

- ▶ Three individual flexible blades, 0.2 mm thick.
- ▶ Flexible blades are secured to the instrument handle by a threaded connection and can be easily exchanged, as required.
- ▶ Ideal for applying and modelling modern facing acrylics.

## ERGO Wax



### The all-purpose instrument

#### Description

Description	Art. No.
ERGO Wax Instrument No. 1, piece	10342001
ERGO Wax Instrument No. 2, piece	10342002
ERGO Wax Instrument No. 3, piece	10342003
ERGO Wax Instrument No. 4, piece	10342004
ERGO Wax Instrument No. 5, piece	10342005

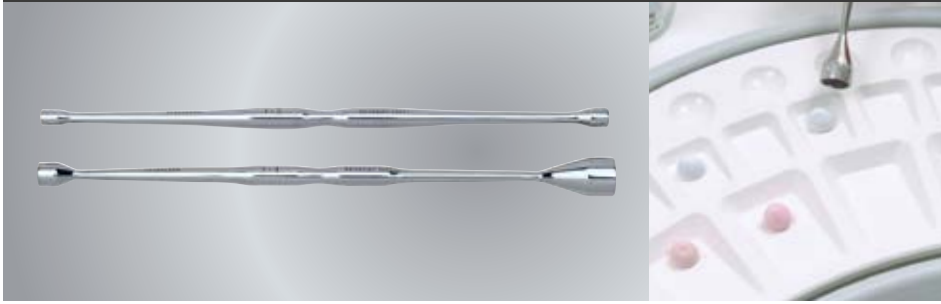
#### Function & Performance

ERGO wax instruments are characterised by the wide variety of applications for which they can be employed and by their individual adaptability. The modern handle design is different for each instrument, thus making them unique.

#### Advantages

- ▶ Instruments can be ground according to individual needs.
- ▶ Probes, blades and scrapers made from handground stainless steel.
- ▶ Fine, anodised handles, comfortable to hold, heat-resistant and insulated.

## Metrical scoops



### Indispensable assistant

#### Function & Performance

Stainless steel metrical scoops for precise measuring of porcelain powders.

#### Advantages

- ▶ slim shape for easy access to small bottles of porcelain.
- ▶ for reproducible, individual porcelain mixtures.
- ▶ 4 different scoop sizes.
- ▶ 0.02 g; 0.05 g; 0.10 g; 0.40 g

#### Description

Metrical scoops, 2 pieces with 4 different scoop sizes

#### Art. No.

10530000

## Agate spatula



### Correct mixing

#### Function & Performance

Agate instrument for mixing porcelain masses.

#### Advantages

- ▶ The porcelain cannot be contaminated by metal flaking off instruments.
- ▶ Both ends can be used.
- ▶ Ideal if used in combination with the lay:art mixing trays series.

#### Description

Agate spatula, piece

#### Art. No.

11570000

## Multipurpose instrument



#### Function & Performance

High quality instrument with tension adjustor and 5 different inserts for use within various dental technology applications.

#### Advantages

- ▶ Blade change within seconds.
- ▶ Super-thin blades for separating porcelain.
- ▶ Light instrument with non-slip grip.

#### Description

Multipurpose instrument with 1 handle and each 1 blade no. 10300100, 10500100 and 10500600

Blades broad, 10 pieces

Chisel, 6 pieces

#### Art. No.

10301000

10300100

10320100

#### Description

Blades narrow, 10 pieces

Blades smooth, 8 pieces

Blades serrated, 8 pieces

#### Art. No.

10310100

10500100

10500600

## Instrument set Deluxe



### To encompass all dental technology tasks

#### Description

Instrument set Deluxe with contents as indicated

#### Art. No.

11540000

#### Function & Performance

High quality set for every dental technician including instruments, brushes and pliers for all areas of use within dental technology.

#### Contents

Tweezers rust-proof, 15.5 cm, Sakura marking pen, Combi wax brush, Wax knife small, ERGO Wax instrument No. 1, ERGO Wax instrument No. 3, ERGO Wax instrument No. 4, Multipurpose instrument with blades, ERGO Acryl instrument kit, 3 pieces, Takanishi brush size 4, Takanishi brush size 6, Wax knife large, Soldering tweezers, 16 cm, Aderer clasp bending pliers slender, Curved haemostats, Plaster knife, 13 cm, Standard callipers, Pointed pliers grooved, Foil scissors.

## Instrument set Standard



### The optimal basic equipment

#### Description

Instrument set Standard with contents as indicated

#### Art. No.

11510000

#### Function & Performance

The standard set contains everything necessary for the novice dental technician.

#### Contents

ERGO Wax instrument No. 1, ERGO Wax instrument No. 3, ERGO Wax instrument No. 4, Tweezers, rust-proof, 15.5 cm, Combi wax brush, Multi-purpose instrument with blades, Plaster knife, 13 cm, Wax knife, large, Wax knife, small, Aderer clasp bending pliers, slender, Pointed pliers, grooved, Foil scissors, Soldering tweezers, 16 cm, Standard callipers.

## Keramogrip



### Function & Performance

Holders for crowns and bridges during porcelain or acrylic work.

### Advantages

- ▶ Replaceable, fine diamond tips.
- ▶ Elliptical shaped tips suitable for small crowns.
- ▶ Finely graduated gripping ratchet.

## The secure hold

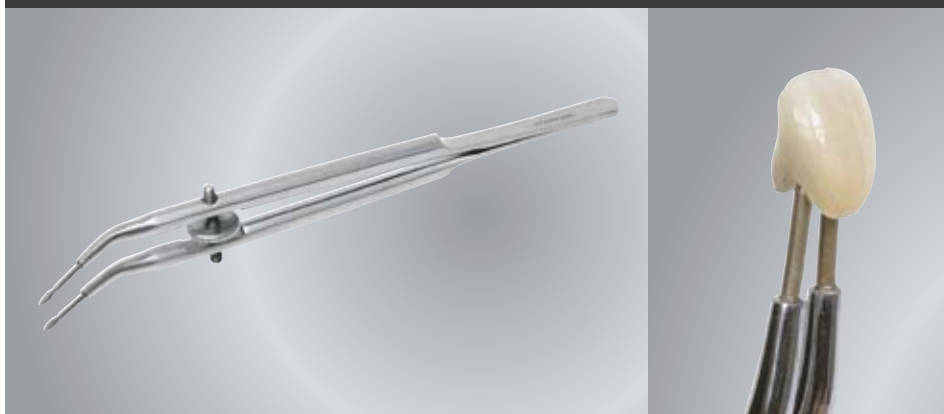
### Description

Keramogrip, curved  
Replacement tips, 2 pieces

### Art. No.

11090300  
11090100

## Jacketgrip



### Function & Performance

Tweezers for a secure hold on crowns and bridges.

### Advantages

- ▶ Replaceable, fine diamond tips.
- ▶ Elliptical shaped tips suitable for small crowns.
- ▶ Infinitely adjustable with the thumb screw.

## The classical holding instrument

### Description

Jacketgrip, curved  
Replacement tips, 2 pieces

### Art. No.

11050300  
11090100



## Calipretto S



### Precision measuring instrument

#### Function & Performance

Measuring system for precise wall thickness of dental objects.

#### Advantages

- ▶ Interchangeable special tips.
- ▶ Standard tips: all-purpose use within normal space conditions.
- ▶ Modified tips: specifically for use in slender anterior crowns.

#### Description

Calipretto S incl. 3 pairs of tips, adjusting sleeve and Allen key  
 Measuring tips, standard, 1 pair  
 Measuring tips, modified, 1 pair  
 Measuring discs for casting wax, 1 pair  
 Protective glass for Calipretto S

#### Art. No.

11221000  
 11221001  
 11221002  
 11221003  
 11221004

## Calipers



### The daily supporter

#### Function & Performance

Precision instrument which can be read from both sides.

#### Advantages

- ▶ Rust-proof special steel.
- ▶ Slender measuring tips.
- ▶ Reading accuracy of up to 0.1 mm and measuring range of 0 to 10 mm.

#### Description

Calliper, 1 piece

#### Art. No.

11190000

## Overview Separating Discs

Description	Max. revolutions	2x Glass-fibre reinforced	Diamond - coated (zirconium oxide)	Precious metals	Modell casting/ NPM	Porcelain	Plaster	Page
Dynex Brillant	50 000 1/min	■	■			■		93
Dynex 22 x 0,5 mm	50 000 1/min	■			■			93-94
Dynex 26 x 0,25 mm	50 000 1/min	■		■	■			93-94
Dynex 40 x 0,7 mm	38 000 1/min	■			■			93-95
Dynex 22 x 0,3 mm	50 000 1/min	■		■	■			93-94
Dynex 40 x 0,5 mm	38 000 1/min	■			■			93-94
Dynex 40 x 1,0 mm	38 000 1/min	■			■			93-95
Dynex 22 x 1,0 mm	50 000 1/min	■			■			93-95
Glass-fibre reinforced separating discs	25 000 1/min	■			■			95
Bi-Flex	15 000 1/min		■			■		96
Turboflex S	15 000 1/min		■			■		96
Ultracut	15 000 1/min		■			■		96
Separating disc for porcelain	20 000 1/min					■		97
Separating disc precious metal/ porcelain	20 000 1/min			■		■		97
Separating disc for porcelain	20 000 1/min					■		97
Ultra-Fine	20 000 1/min			■				98
Separating disc PM	24 000 1/min			■				98
Standard separating disc 38 mm	25 000 1/min				■			98
Standard separating disc 37 mm	25 000 1/min				■			98
Standard separating disc 32 mm	25 000 1/min				■			98
Standard separating disc 24 mm	25 000 1/min				■			98
Grinding discs	25 000 1/min				■			99
Plastercut 30 mm	10 000 1/min		■				■	99
Plastercut 38 mm	10 000 1/min		■				■	99
Plastercut 45 mm	10 000 1/min		■				■	99

## Dynex separating discs. Here everything involves the highest quality.



### Separating, trimming, finishing

Dynex separating discs from Renfert are highly precise tools, of which we are very proud. 40 years of experience and permanent, intensive development work are incorporated in the discs.

Our separating discs attain a cutting speed of up to 300 km/h (186,4 miles per h). They separate powerfully, safely and highly precisely at high speed. To achieve this type

of high performance, a careful combination of selected raw materials and a high degree of dimensional accuracy is decisive. In addition to the very high-quality abrasives, such as the finely coordinated diamond particle sizes, as well as aluminum oxide with a very high degree of purity, the binding agents are also consistently tailored to their respective area of application. All Dynex separat-

ing and trimming discs, including the ultra-thin versions, are reinforced with double glass-fiber. The reinforcement is a component of the disc core and is fused completely with the carrier material. In a nutshell this means for you: outstanding durability, flexibility and reliability.

## Dynex Brillant separating discs



### Experts for porcelain, zircon oxide and lithium disilicate

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex Brillant 0,25 x 20 mm, 20 pieces	50.000	20 mm (0.79")	0,25 mm (0.01")	562520

### Function & Performance

Extremely robust separating discs with double, cross-linked, high-tech glass fiber reinforcing. Created for separating and trimming porcelain, zirconia and lithium disilicate.

### Advantages

- ▶ Extremely thin for precise separation of interdental spaces
- ▶ High degree of flexibility, excellent for gently rounding off enamel marginal ridges.
- ▶ Low vibration and heat build-up, no cracks or splitting off with all high-performance ceramics, ideal for separating press ceramics.

**Dynex 0,25 x 26 mm****Function & Performance**

The all-in-one solution for metals, acrylic and plaster – Ultra thin with double reinforcement.

**Advantages**

- ▶ Separation and grinding without tool change.
- ▶ Minimal heat and vibration generation for gentle material removal.
- ▶ High durability.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 0,25 x 26 mm, 20 pieces	50.000	26 mm (1.02")	0,25 mm (0.01")	572526

**Dynex 0,3 x 22 mm****Function & Performance**

Extremely robust separating discs due to double, cross linked, high-tec fibreglass reinforcement. For all non-precious and precious metal alloys in the crown + bridge technique.

**Advantages**

- ▶ Even at speed of up to 50000 U/min very flexible, highly efficient and reliable.
- ▶ Gentle on material due to low heat generation.
- ▶ Almost unbreakable, even under extreme pressure (e.g. tilting).

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 0,3 x 22 mm, 20 pieces	50.000	22 mm (0.87")	0,3 mm (0.01")	570322

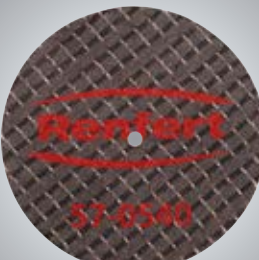
**Dynex 0,5 x 22 mm****Function & Performance**

This separating disc is suitable for cost effective work with metal, acrylic edges, shape correction and cutting and grinding sprues.

**Advantages**

- ▶ Very high cutting performance with all metals.
- ▶ Low heat generation and high durability.
- ▶ Very high breaking strength even with lateral pressure.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 0,5 x 22 mm, 20 pieces	50.000	22 mm (0.87")	0,5 mm (0.02")	570522

**Dynex 0,5 x 40 mm****Function & Performance**

Suitable for cutting and grinding all conventional alloys and press ceramic casting rings.

**Advantages**

- ▶ Maximum cutting performance at very low consumption.
- ▶ Only gentle pressure required.
- ▶ Low heat generation.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 0,5 x 40 mm, 20 pieces	38.000	40 mm (1.57")	0,5 mm (0.02")	570540

**Dynex 0,7 x 40 mm****Function & Performance**

The most durable special solution for chrome cobalt.

**Advantages**

- ▶ Extremely high cutting speed at low material consumption.
- ▶ Easy grinding of large, solid sprues.
- ▶ Safe working due to high breaking strength even with strong lateral pressure.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 0,7 x 40 mm, 20 pieces	38.000	40 mm (1.57")	0,7 mm (0.03")	570740

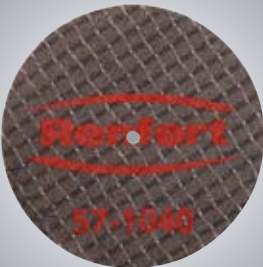
**Dynex 1,0 x 22 mm****Function & Performance**

Quick and efficient with chrome cobalt.

**Advantages**

- ▶ Compact measurements enable controlled and safe working.
- ▶ High strength even at very high speed.
- ▶ For all chrome cobalt and non-precious alloys.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 1,0 x 22 mm, 25 pieces	50.000	22 mm (0.87")	1,0 mm (0.04")	571022

**Dynex 1,0 x 40 mm****Function & Performance**

Suitable for cutting and grinding all conventional alloys and press ceramic casting rings.

**Advantages**

- ▶ Extremely strong even at very high speeds.
- ▶ Separating and cutting of sprues in one working step.
- ▶ Low consumption at maximum cutting performance.

Description	Max. rpm	Diameter	Thickness	Art. No.
Dynex 1,0 x 40 mm, 20 pieces	38.000	40 mm (1.57")	1,0 mm (0.04")	571040

**Glass-fibre reinforced separating discs****Function & Performance**

This separating disc is suitable for finishing CoCr and non-precious metal alloys.

**Advantages**

- ▶ Especially strong cutting performance at extreme break resistance.
- ▶ Suitable for separating and cutting sprues.

Description	Max. rpm	Diameter	Thickness	Art. No.
Separating disc, 25 pieces	25.000	40 mm (1.57")	1,0 mm (0.04")	581040



## Bi-Flex



### Flexible separation

Description	Max. rpm	Diameter	Thickness	Art. No.
Bi-Flex, mounted, piece	15.000	22 mm (0.87")	0,15 mm (0.01")	271000

### Function & Performance

Diamond coated separating disc for porcelain.

### Advantages

- ▶ Highly flexible separating disc for porcelain with coating on both sides.
- ▶ Fine diamond coating for fine separation and contouring.

## Turbo-Flex S



### Double-sided separations

Description	Max. rpm	Diameter	Thickness	Art. No.
Turbo-Flex S mounted, piece	15.000	19 mm (0.75")	0,15 mm (0.01")	290100

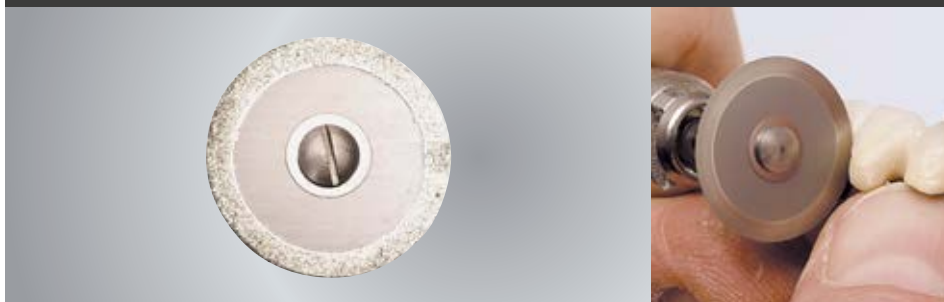
### Function & Performance

A serrated separating disc with double-sided diamond coating for separating porcelain.

### Advantages

- ▶ Notches ensure cooling effect and dissipation of grinding dust.
- ▶ High flexibility ideal for creating interdental spaces.

## Ultracut sintered diamond separating disc



### Finest grinding pattern

Description	Max. rpm	Diameter	Thickness	Art. No.
Ultracut mounted, piece	15.000	20 mm (0.79")	0,15 mm (0.01")	730000

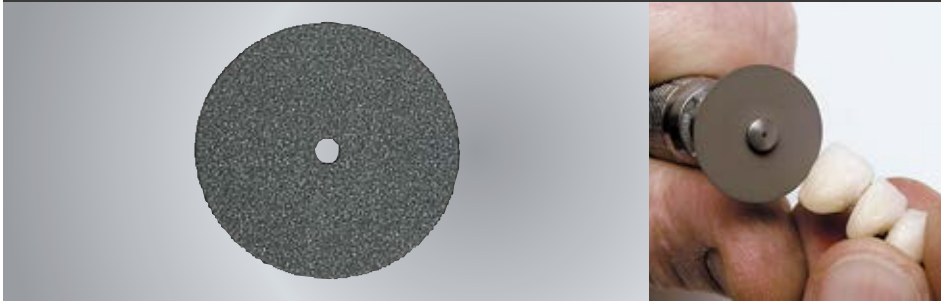
### Function & Performance

Especially suitable for separating porcelain.

### Advantages

- ▶ Highest service life due to diamond sintered layer.
- ▶ Best possible separations thanks to maximum flexibility.
- ▶ Fine grinding pattern due to dense diamond distribution.

## Separating discs for porcelain



### Separating porcelain

Description	Max. rpm	Diameter	Thickness	Art. No.
Separating discs for porcelain, 50 pcs.	20.000	22 mm (0.87")	0,38 mm (0.01")	692000

#### Function & Performance

Separating discs for separating and finalizing porcelain bridges.

#### Advantages

- ▶ Extremely durable and minimal heat production.

## Separating discs for porcelain



### Extra thin – for finely detailed work

Description	Max. rpm	Diameter	Thickness	Art. No.
Separating discs for porcelain, 50 pcs.	20.000	22 mm (0.87")	0,2 mm (0.01")	702000

#### Function & Performance

For separating and finishing porcelain bridges.

#### Advantages

- ▶ For fine separation work.
- ▶ Low heat generation.

## Separating discs for precious metals and porcelain



### Cuts, separates and grinds all materials

Description	Max. rpm	Diameter	Thickness	Art. No.
Separating discs precious metal/porcelain, 100 pcs.	20.000	22 mm (0.87")	0,3 mm (0.01")	740000

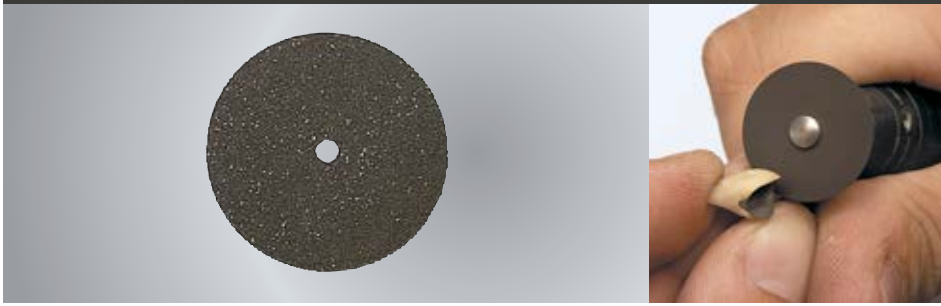
#### Function & Performance

For grinding the transitions between metal and porcelain.

#### Advantages

- ▶ Suitable for the finest separation work.
- ▶ Leaves no dark cutting marks on the porcelain.
- ▶ Low consumption.

## Separating discs Ultra-Fine



Ultra fine – Ultra good!

Description	Max. rpm	Diameter	Thickness	Art. No.
Ultra-Fine, 50 pcs.	20.000	22 mm (0.87")	0,17 mm (0.01")	710000

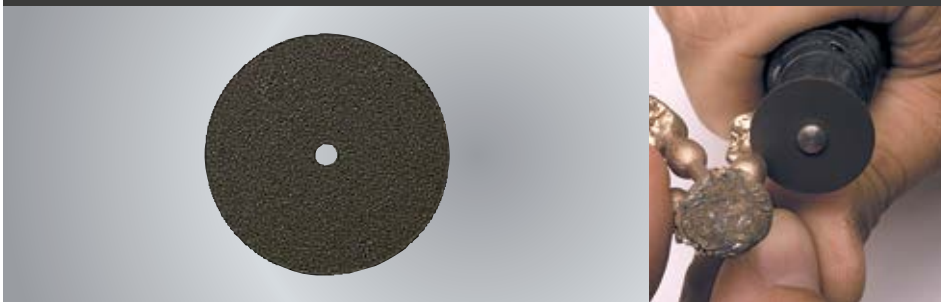
### Function & Performance

Extremely thin, non-flexible separating discs for precious metals.

### Advantages

- ▶ Extremely thin and non-flexible.
- ▶ Suitable for the finest separating work.
- ▶ Universal use for all precious metals.

## Separating disc for precious metals



Thin and flexible

Description	Max. rpm	Diameter	Thickness	Art. No.
Separating discs PM, 100 pcs.	24.000	22 mm (0.87")	0,3 mm (0.01")	720000

### Function & Performance

Universal use for all precious metals.

### Advantages

- ▶ Fine separation work.
- ▶ For grinding the transitions between metal and porcelain.

## Standard separating discs



Description	Max. rpm	Diameter	Art. No.
Separating disc, 100 pcs.	25.000	38 mm (1.49")	652000
Separating disc, 100 pcs.	25.000	37 mm (1.46")	662000
Separating disc, 100 pcs.	25.000	32 mm (1.26")	682000
Separating disc, 100 pcs.	25.000	24 mm (0.94")	672000

### Function & Performance

For separating sprues on chrome cobalt alloys.

### Advantages

- ▶ Especially recommended for cutting sprues and processing cast metal frame-works.
- ▶ Long service life at heavy duty performance.

## Plastercut



### Separating dental arches – quick and precise

Description	Max. rpm	Diameter	Thickness	Art. No.
Plastercut mounted, piece	10.000	30 mm (1.18")	0,3 mm (0.01")	331300
Plastercut mounted, piece	10.000	38 mm (1.5")	0,3 mm (0.01")	331380
Plastercut mounted, piece	10.000	45 mm (1.77")	0,35 mm (0.01")	331450

### Function & Performance

Diamond coated separating disc for cutting out dies from the plaster arch.

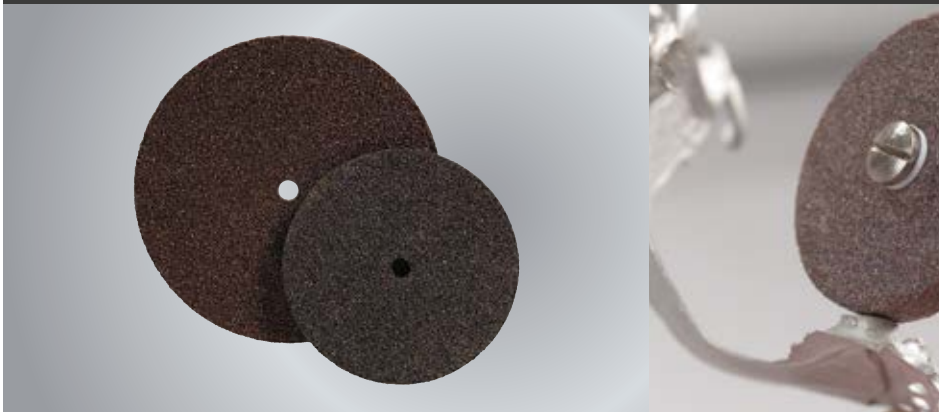
### Advantages

- ▶ Quick and precise cut without destroying the edges.
- ▶ Stable carrier material ensures reduced noise level.
- ▶ Perforations within the disc ensure transparency while cutting.



Discover more in our  
Renfert Report 2/2013.  
[www.renfert.com/P47](http://www.renfert.com/P47)

## Grinding discs



### For use with a speed grinder

Description	Max. rpm	Diameter	Thickness	Art. No.
Grinding discs, 100 pcs.	25.000	25 mm (0.99")	3 mm (0.12")	6122000
Grinding discs, 100 pcs.	25.000	35 mm (1.38")	3 mm (0.12")	6152000

### Function & Performance

Optimum processing of chrome cobalt frames via very aggressive grinding properties.

### Advantages

- ▶ Effective use of the discs with the grinder.



## As strong as a diamond



### Separate without compromise

The diamond impregnated separating disc. The go-to disc for all porcelain working. Precise separation of interdental spaces is no longer a problem. In a nutshell for you this means: exceptional durability, flexibility and precision.





## Overview Polishers

Description	Precious metals		Model casting/ non precious alloys		Veneering acrylic		Denture resin		Porcelain		Page
	Prep.	HL	Prep.	HL	Prep.	HL	Prep.	HL	Prep.	HL	
Bison brushes		■		■		■				■	102
Cotton buff, mounted		■		■		■					102
Dia-Finish L						■				■	102
Goat hair brush	■	■			■						103
Polisoft A	□	□									103
Polisoft	■		■								103
Silver wire brush	■										104
Silicon polishers	■									■	104
Pleated buff nettle-cloth		■		■/□					■/□		105
Linen buff, silicone coated		■		■			■				105
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Chungking brush		□									106
Silver wire brush		□									106
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Prep. = Prepolishing | HL = High luster polishing | □ = Smoothing | ■ = Polishing



## Cotton buff



### Rapidly achieved high luster

Description	Max. rpm	Diameter	Art. No.
Cotton buff mounted, 12 pcs.	15.000	22 mm (0.87")	2051000

### Function & Performance

For high-luster polish on acrylic teeth and facings using the handpiece.

### Advantages

- ▶ Optimum take-up of polishing paste, no sticking.
- ▶ Long service life.

## Bison



### Unique mixture of bristles

Description	Max. rpm	Diameter	Ø shaft	Art. No.
Bison mounted, 25 pcs.	20.000	14 mm (0.55")	2,35 mm (0.09")	7631000
Bison mounted, 100 pcs.	20.000	14 mm (0.55")	2,35 mm (0.09")	7631100
Bison mounted, 25 pcs.	15.000	18 mm (0.71")	2,35 mm (0.09")	7661000
Bison mounted, 100 pcs.	15.000	18 mm (0.71")	2,35 mm (0.09")	7661100

### Function & Performance

This unique mixture of bristles ensures a powerful and quick high-lustre polish on alloys, porcelain and acrylic facings.

### Advantages

- ▶ Particularly suitable for polishing occlusal surfaces and interdental spaces.
- ▶ Excellent take-up of polishing pastes.

## Dia-Finish L



### 2 in 1

Description	Max. rpm	Diameter	Art. No.
Dia-Finish L wheel, medium-hard, 12 pcs.	15.000	12 mm (0.47")	400001
Dia-Finish L wheel, hard, 12 pcs.	15.000	12 mm (0.47")	400101
Dia-Finish L knife-egde, hard, 12 pcs.	15.000	12 mm (0.47")	400201

### Function & Performance

High-quality felt discs impregnated with fine diamond particles for polishing porcelain and facing acrylics.

### Advantages

- ▶ Optimum combination of polishing felt and diamond paste.
- ▶ For high lustre polishing of porcelain.
- ▶ Polish without firing after occlusal grinding (Time-Saving!).

## Goat hair brush



### Pre- and high-lustre polishing

Description	Max. rpm	Diameter	Art. No.
Goat hair brush mounted, 12 pcs.	15.000	19 mm (0.75")	2040000

#### Function & Performance

For polishing precious metal and acrylic surfaces.

#### Advantages

- ▶ Good take-up of polishing paste for an excellent polishing result.

## Polisoft A



### Pre-polish

Description	Max. rpm	Diameter	Thickness	Art. No.
Polisoft A, 50 pcs.	15.000	22 mm (0.87")	3 mm (0.12")	900000

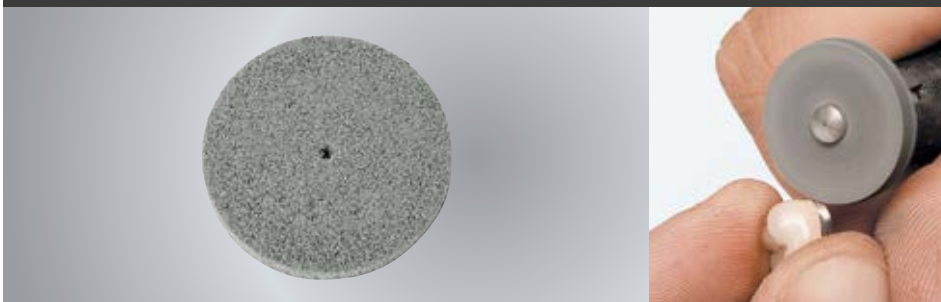
#### Function & Performance

For gentle polishing and powerful smoothing of hard alloys.

#### Advantages

- ▶ Low emission of dust and noise.
- ▶ Produces matt polish and a dense surface.

## Polisoft



### Quick and easy pre-polishing

Description	Max. rpm	Diameter	Thickness	Art. No.
Polisoft, 50 pcs.	15.000	22 mm (0.87")	3 mm (0.12")	910000

#### Function & Performance

Effective polishing of precious and non-precious metal alloys.

#### Advantages

- ▶ Optimum alternative to rubber or silicone polishers.
- ▶ Quickly smooths all metal surfaces.
- ▶ Virtually no dust or odor produced.

## Silver wire brushes



Perfect for occlusal surfaces

Description	Max. rpm	Diameter	Ø shaft	Art. No.
Silver wire brushes mounted, 12 pcs.	5.000	19 mm (0.75")	2,35 mm (0.09")	1660000

### Function & Performance

Abrasion-free pre-polishing of metal occlusal surfaces.

### Advantages

- ▶ Occlusal and approximal contact points are maintained.
- ▶ Produces a silk-matt finish.
- ▶ Ideal preparation for the high-lustre polish.

## Silicone polishers



Heavy abrasion – fine ground surface

Description	Max. rpm	Diameter	Thickness	Art. No.
Silicone polishing wheels, 100 pcs.	15.000	22 mm (0.87")	3,2 mm (0.13")	860000

### Function & Performance

For pre-polishing porcelain and metal.

### Advantages

- ▶ No smear build-up on porcelain.
- ▶ Ideal for the transition between metal and porcelain.



**Oliver Dreher, Laboratory owner:**  
 "No problems polishing the edges – despite the good cutting capacity the silicone polishers can be introduced very softly to the margins and slide smoothly along the margins without them becoming frayed or chipped. In my opinion the silicone polisher from Renfert is No. 1 for pre-polishing IPS e.max Press@!"

## Pleated buff nettle cloth



### High-lustre polish in seconds

Description	Max. rpm	Diameter	Thickness	Art. No.
Pleated buff nettlecloth, 4 pcs.	4.000	100 mm (3.94")	14 mm (0.55")	2100002

#### Function & Performance

For large surface high-lustre polish on acrylic dentures.

#### Advantages

- ▶ Will not fray due to diagonal cut of material.
- ▶ Material folds cause cooling effect leading to speedier shine.

## Linen buff siliconised



### For the perfect pre-polish

Description	Max. rpm	Diameter	Thickness	Art. No.
Linen buff, siliconised, 4 pcs.	4.000	80 mm (3.15")	10 mm (0.39")	2090000

#### Function & Performance

For pre-polishing acrylic dentures with damp pumice.

#### Advantages

- ▶ Produces a silky matt surface.
- ▶ No fraying due to rubber coating.
- ▶ Optimum polishing even in deep gum areas.

## Slender brushes



### Ideal for narrow places

Description	Max. rpm	Diameter	Art. No.
Slender brushes, 12 pcs.	4.000	≈ 36 mm (1.42")	7871000

#### Function & Performance

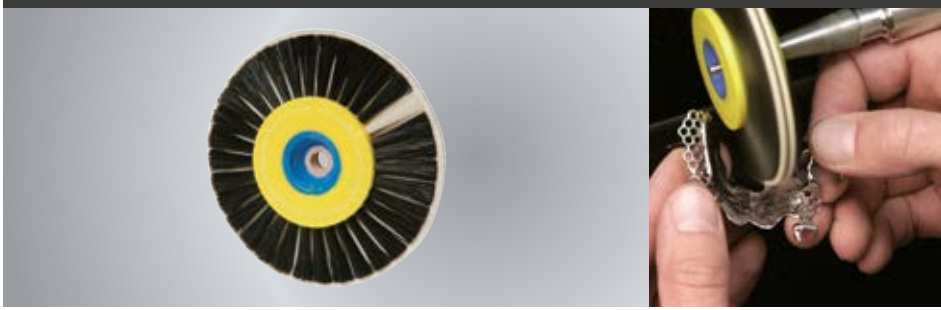
The classic brush for polishing chrome cobalt or hard precious metals using a polishing unit.

#### Advantages

- ▶ Precise polishing via pointed brushes.
- ▶ Ideal for narrow places on frames.
- ▶ Highly resistant bristles under heavy duty use.



## Chungking brushes



### Dual action polishing performance for perfect pre-polishing

Description	Max. rpm	Diameter	Art. No.
Chungking brushes, 12 pcs.	4.000	≈ 80 mm (3.15")	7672000

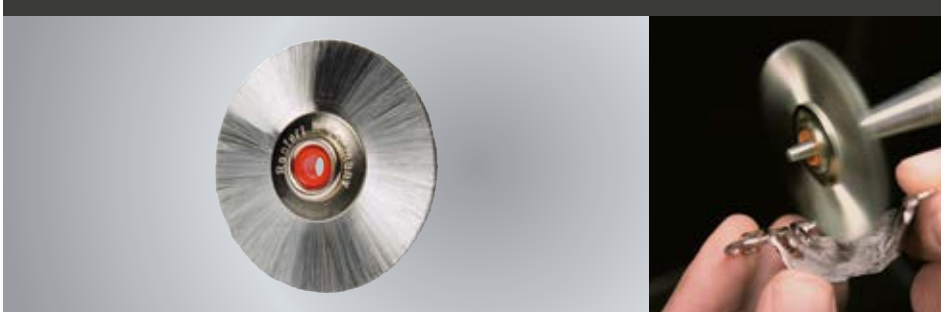
#### Function & Performance

Polishing buff for pre-polishing CoCr alloys.

#### Advantages

- ▶ Saves time due to dual action polishing effect thanks to the linen inserts and Chungking bristles.
- ▶ Pre-polishing and condensing in one working step.

## Silver wire brushes



### Perfect pre-polishing of chrome cobalt

Description	Max. rpm	Diameter	Art. No.
Silver wire brushes, 2 pcs.	3.000	≈ 51 mm (2.01")	1960000

#### Function & Performance

For pre-polishing cast metal frameworks and palatal surfaces.

#### Advantages

- ▶ Does not remove surface – stippled effect remains intact.
- ▶ Silky matt shine of frames.
- ▶ Optimum handling due to 51 mm diameter.



#### Tip:

Pre-polish the surface using polishers which are not too hard (Polisoft A). Then polish the surface at the polishing lathe using a hard polishing brush or silver wire brush no. 196 0000. For the final luster, use the thin brush and siliconized buff at the polishing lathe.

## Special brushes for chrome cobalt



### Strong and heavy duty – top-class bristles

Description	Max. rpm	Diameter	Art. No.
Special brushes for chrome cobalt, 12 pcs.	6.000	≈ 65 mm (2.56")	1991000
Special brushes for chrome cobalt, 100 pcs.	6.000	≈ 65 mm (2.56")	1992000

### Function & Performance

Particularly good for polishing chrome cobalt frames using polishing paste.

### Advantages

- ▶ Narrow brushes, easy access to all areas.
- ▶ 2 rows of grade 1 Chungking bristles.
- ▶ Powerful, short brushes (10 mm), extremely durable.

## Slim



### Perfect for pre-polishing in interdental areas

Description	Max. rpm	Diameter	Art. No.
Slim polishing brushes, 12 pcs.	4.000	44 mm (1.73")	7881000
Slim polishing brushes, 100 pcs.	4.000	44 mm (1.73")	7882000

### Function & Performance

The Slim polishing brush is particularly suitable for polishing interdental spaces on acrylic dentures.

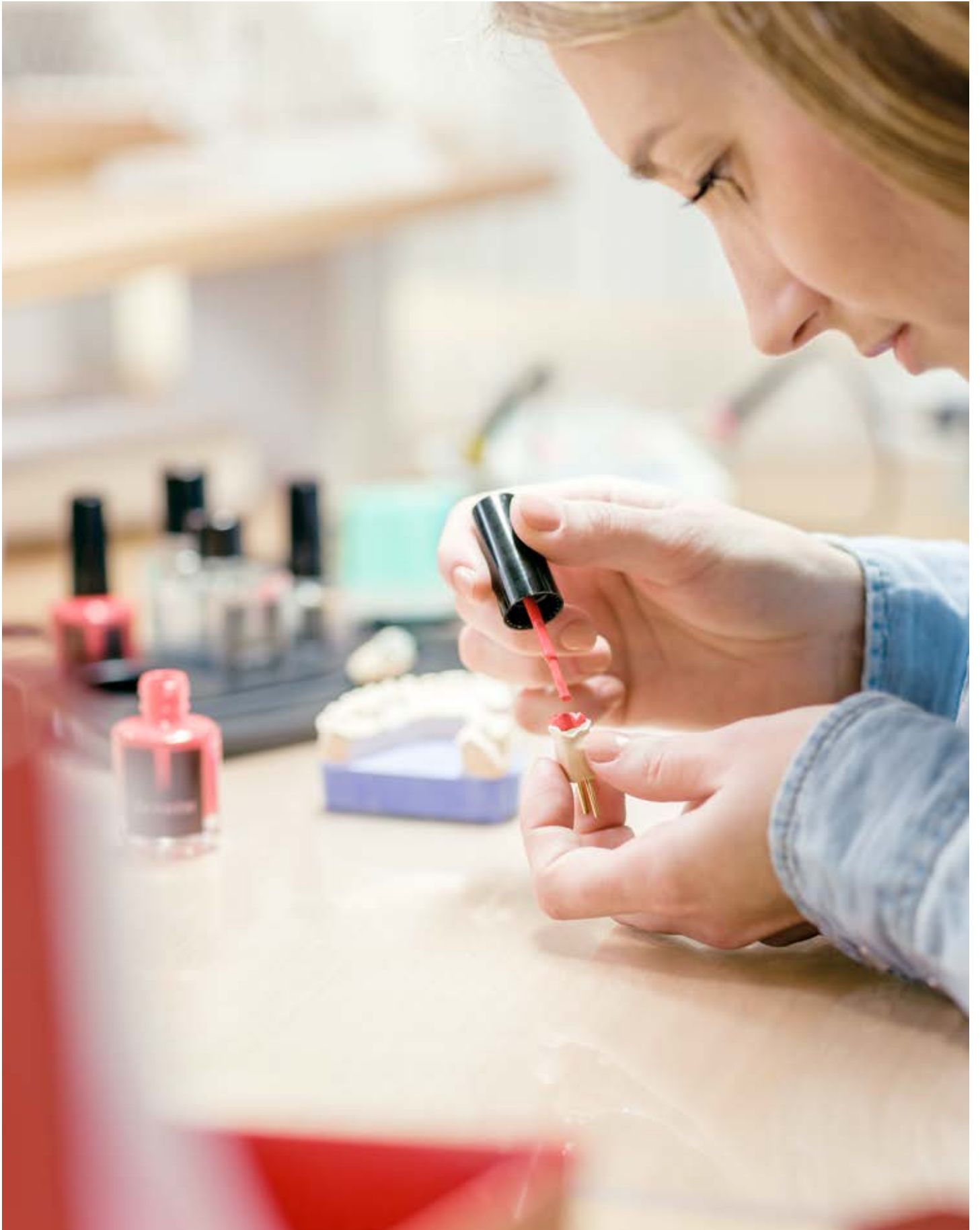
### Advantages

- ▶ Slender brushes for working on the polisher.
- ▶ Soft bristles prevent abrasion.
- ▶ The spaces between bristles produce a cooling effect.



### Tip:

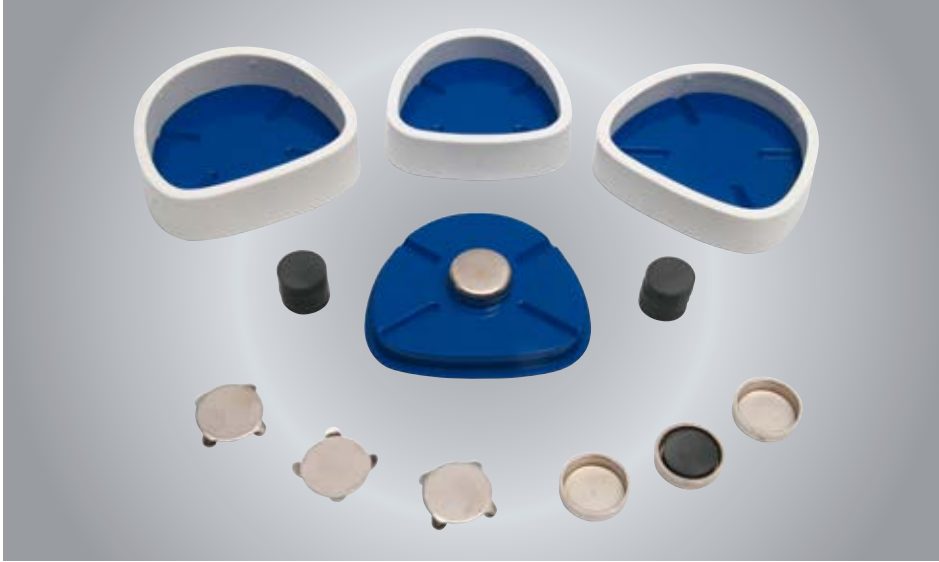
The cone shaped silicone polishers are very good for finishing whilst maintaining an anatomical shape and pre-polishing surfaces. The prosthesis surface is then smoothed at the polishing lathe using pumice stone and either a goat hair polishing brush or slim polishing brush.



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## Pin-Cast model base former set



## Systematic model base production

### Description of Set

Description	Base height	Art. No.
Set for Bi-Pin short with sleeve (No. 326)	13,5 mm (0.53")	4100326
Set for Bi-Pin long with sleeve (No. 346)	17,5 mm (0.69")	4100346
Set for Smart-Pin (No. 366), Bi-V-Pin (No. 328) with sleeve and Pro-Fix (No. 367)	12,5 mm (0.49")	4100366

### Presentation

2 model base former set large, 1 model base former set small, 2 rubber rings large, 1 rubber ring small, 10 magnets, 10 magnet holders, 40 retention discs

### Description

Description	Base height	Art. No.
Magnets and magnet holders, 30 pcs. each		4130000
Retention discs, 120 pcs.		4140000
Rubber rings (23.5 mm / 0.93") for Bi-Pin short, large, 5 pcs.	13.5 mm (0.53")	4120326
Rubber rings (23.5 mm / 0.93") for Bi-Pin short, small, 5 pcs.	13.5 mm (0.53")	4121326
Rubber rings (27 mm / 1.06") for Bi-Pin long, large, 5 pcs.	17.5 mm (0.69")	4120346
Rubber rings (27 mm / 1.06") for Bi-Pin long, small, 5 pcs.	17.5 mm (0.69")	4121346
Rubber rings (21.7 mm / 0.85") for Smart-Pin and Bi-V-Pin, large, 5 pcs.	12.5 mm (0.49")	4120366
Rubber rings (21.7 mm / 0.85") for Smart-Pin and Bi-V-Pin, small, 5 pcs.	12.5 mm (0.49")	4121366
Base former large, 3 pcs.		4110000
Base former small, 3 pcs.		4111000

### Function & Performance

Model base production kit for effective formation of model bases for plaster arches.

### Advantages

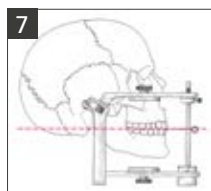
- ▶ Saves time and material.
- ▶ Straight forward base system with reusable parts.
- ▶ Variable base height and size.

### Details

- ▶ Accurately fitting primary and secondary bases.
- ▶ Easy removal and precise relocation of the models.
- ▶ Corrosion resistant discs and magnet holders.
- ▶ Strong magnets for secure hold.

### Use

1. Separating dental arches: Plaster against plaster.
2. For the dental arch base with pins.
3. Removal of the base plate.
4. Isolation of the model base: Plaster against plaster.
5. Filling out the split cast form with base plaster.
6. Removal of the rubber ring after the plaster has set.
7. Articulating the models in the articulator or occludator parallel to the table level.



For further information,  
please see the model  
production manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)



## Overview Pins

Description	Sleeve	Shaft length	Head length	Base height Pin-Cast	Page
Bi-V-Pin	Plastic	12,5 mm / 0.492"	5,5 mm / 0.216"	12,5 mm / 0.492"	112–113
Bi-V-Pin	Metal	12,5 mm / 0.492"	5,5 mm / 0.216"	12,5 mm / 0.492"	112–113
Bi-Pin long	Metal	17,5 mm / 0.688"	5,5 mm / 0.216"	17,5 mm / 0.688"	114
Bi-Pin short	Metal	13,5 mm / 0.531"	5,5 mm / 0.216"	13,5 mm / 0.531"	114
Bi-Pin long with spike	Metal	17,5 mm / 0.688"	4,0 mm / 0.157"	17,5 mm / 0.688"	114
Bi-Pin short with spike	Metal	13,5 mm / 0.531"	4,0 mm / 0.157"	13,5 mm / 0.531"	114
Bi-Pin long	No sleeve	17,5 mm / 0.688"	5,5 mm / 0.216"	17,5 mm / 0.688"	116
Bi-Pin short	No sleeve	13,5 mm / 0.531"	5,5 mm / 0.216"	13,5 mm / 0.531"	116
Bi-Pin with spike	No sleeve	17,5 mm / 0.688"	4,0 mm / 0.157"	17,5 mm / 0.688"	116
Pro-Fix	Plastic	11,6 mm / 0.456"	5,5 mm / 0.216"	12,5 mm / 0.492"	115
Smart-Pin	Metal	12,5 mm / 0.492"	5,5 mm / 0.216"	12,5 mm / 0.492"	115
Bi-Fix-Pin	No sleeve	17,5 mm / 0.688"	5,5 mm / 0.216"	17,5 mm / 0.688"	116
Brass arched pins	No sleeve	17,0 mm / 0.669"	5,0 mm / 0.196"	17,5 mm / 0.688"	117

## Overview Pins Accessories

Description	Diameter	Page
Retention rings	–	117
Rubber caps	–	117
Stepped pin drill bit small	1,98 mm / 0.078"	118
Stepped pin drill bit medium	2,00 mm / 0.079"	118
Stepped pin drill bit large	2,02 mm / 0.080"	118
Smart-Pin drill bit small	1,57 mm / 0.062"	118
Smart-Pin drill bit medium	1,59 mm / 0.063"	118
Smart-Pin drill bit large	1,61 mm / 0.063"	118
Bi-Pin drill bit	2,00 mm / 0.079"	118

## Something you can rely on: Renfert Pins



### Our entire experience ensures your process reliability

There are many requirements, which a dental technician expects of a pin system. Individual habits, wishes and situations have therefore always required individual solutions.

You are in exactly the right place with us, with these high demands: for 50 years Renfert has developed pin systems, which have set new standards in dental technology and will continue to do so in the future. For example our Bi-Pins are manufactured in a special process. In addition, every pin/sleeve combination is coordinated in an elaborate manufacturing process.

With our special plastic sleeves for Bi-V-Pin and Pro-Fix, we have successfully produced easy gliding and completely uniform friction behavior.

#### **Cim Özyurt, Product Manager:**

“It is very important for dental technicians that they can rely on the products they use. Special manufacturing processes, highest quality material and extensive quality controls enable uncompromising precision in the  $\mu$  range. This allows us to guarantee the maximum degree of process reliability.”



Video  
Dental technician  
know-how: Superglues  
[www.renfert.com/P862](http://www.renfert.com/P862)

## Bi-V-Pin with plastic sleeve



## Removal with system

Description	Pin length	Head length	Ø head	Sleeve width max.	Art. No.
Bi-V-Pin with plastic sleeve, 100 pcs.	12,5 mm (0.49")	5,5 mm (0.21")	2,0 mm (0.07")	3,8 mm (0.15")	3291000
Bi-V-Pin with plastic sleeve, 1.000 pcs.	12,5 mm (0.49")	5,5 mm (0.21")	2,0 mm (0.07")	3,8 mm (0.15")	3292000

### Function & Performance

No more deformation of your intricate bridge copings through sudden, erratic loosening of pins thanks to Easy Glide function.

### Advantages

- ▶ V-shaped profile also ideal when limited space is available.
- ▶ Short friction path of 1 mm for safe removal of diverging dies.
- ▶ Even friction thickness for all dies due to the relief gap.

## Bi-V-Pin with metal sleeve



## The V-Profil

Description	Pin length	Head length	Ø head	Sleeve width max.	Art. No.
Bi-V-Pin with metal sleeve, 100 pcs.	12,5 mm (0.49")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3281000
Bi-V-Pin with metal sleeve, 1.000 pcs.	12,5 mm (0.49")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3282000

### Function & Performance

Narrow model pin with two dowel pins, ideal for positioning in limited space.

### Advantages

- ▶ V-shaped profile also ideal when limited space is available.
- ▶ Only one hole drilled per die.
- ▶ Reduced production time of the model.



For further information,  
please see the model  
production manual.  
[www.renfert.com/P48](http://www.renfert.com/P48)

## Bi-Pin long / short with sleeve



### On the safe side

Description	Pin length	Head length	Ø head	Sleeve width max.	Art. No.
Bi-Pin long with sleeve, 100 pcs.	17,5 mm (0.68")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3461000
Bi-Pin long with sleeve, 1.000 pcs.	17,5 mm (0.68")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3462000
Bi-Pin short with sleeve, 100 pcs.	13,5 mm (0.53")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3261000
Bi-Pin short with sleeve, 1.000 pcs.	13,5 mm (0.53")	5,5 mm (0.21")	2,0 mm (0.07")	3,6 mm (0.14")	3262000

### Function & Performance

Model pin with dual guidance for precise, rotation-free positioning of the die.

### Advantages

- ▶ Exact and rotation safe positioning of the die.
- ▶ Only one hole drilled per die.
- ▶ Reduced production time of the model.

## Bi-Pin long / short with sleeve and spike



### When it has to be fast

Description	Pin length	Head length	Ø head	Sleeve width max.	Spike length	Art. No.
Bi-Pin long with sleeve and spike, 100 pcs.	17,5 mm (0.68")	4,0 mm (0.15")	1,9 mm (0.07")	3,6 mm (0.14")	8,0 mm (0.31")	3431000
Bi-Pin long with sleeve and spike, 1.000 pcs.	17,5 mm (0.68")	4,0 mm (0.15")	1,9 mm (0.07")	3,6 mm (0.14")	8,0 mm (0.31")	3432000
Bi-Pin short with sleeve and spike, 100 pcs.	13,5 mm (0.53")	4,0 mm (0.15")	1,9 mm (0.07")	3,6 mm (0.14")	8,0 mm (0.31")	3231000
Bi-Pin short with sleeve and spike, 1.000 pcs.	13,5 mm (0.53")	4,0 mm (0.15")	1,9 mm (0.07")	3,6 mm (0.14")	8,0 mm (0.31")	3232000

### Function & Performance

High-luster nickel plated model pin with dual guidance. A special spike for fixation in the impression shortens the production time of the model.

### Advantages

- ▶ No drilling required.
- ▶ Two guidance pins to prevent rotation.
- ▶ Even friction of all pins due to special coating technology.

## Pro-Fix Precision pin with plastic sleeve



Ultimately accurate ...

Description	Pin length	Head length	Ø head	Shaft length + sleeve	Ø sleeve	Ø pin max.	Art. No.
Pro-Fix with plastic sleeve, 100 pcs.	11,6 mm (0.45")	5,5 mm (0.21")	1,6 mm (0.06")	12,0 mm (0.47")	3,0 mm (0.12")	2,5 mm (0.09")	3671000
Pro-Fix with plastic sleeve, 1.000 pcs.	11,6 mm (0.45")	5,5 mm (0.21")	1,6 mm (0.06")	12,0 mm (0.47")	3,0 mm (0.12")	2,5 mm (0.09")	3672000

### Function & Performance

Model pin with Easy-Glide-Function and a guidance pin.

### Advantages

- ▶ Stress-free removal through gentle die removal without jolting movements.
- ▶ Short friction path of 1 mm for safe removal of diverging dies.
- ▶ Guarantees even friction strength with all dies.

## Smart-Pin with sleeve



The minimalist

Description	Pin length	Head length	Ø head	Ø sleeve	Ø pin max.	Art. No.
Smart-Pin, 1.000 pcs.	12,5 mm (0.49")	5,5 mm (0.21")	1,6 mm (0.06")	-	2,0 mm (0.07")	3662000
Sleeves for Smart-Pin, 1.000 pcs.	-	-	-	2,5 mm (0.09")	-	3662100

### Function & Performance

Narrow, short model pin with optimum insertion into metal sleeve.

### Advantages

- ▶ Extremely narrow pin and sleeve combination.
- ▶ For particularly narrow spaces.
- ▶ Pin height for low model bases saves plaster.



## Bi-Pin long / short



### The classic pin

Description	Pin length	Head length	Ø head	Max. pin width	Art. No.
Bi-Pin long, 1.000 pcs.	17,5 mm (0.68")	5,5 mm (0.21")	2,0 mm (0.07")	2,9 mm (0.11")	3533000
Bi-Pin short, 1.000 pcs.	13,5 mm (0.53")	5,5 mm (0.21")	2,0 mm (0.07")	2,9 mm (0.11")	3362000

#### Function & Performance

High-luster nickel plated model pin with dual guidance.

#### Advantages

- ▶ Only one drill-hole per die necessary.
- ▶ Dual guidance prevents rotation.
- ▶ Precision fit with gentle friction between pin and sleeve.

## Bi-Pin with spike



Description	Pin length	Head length	Ø head	Spike length	Max. pin width	Art. No.
Bi-Pin with spike, 100 pcs.	17,5 mm (0.68")	4,0 mm (0.15")	1,9 mm (0.07")	8,0 mm (0.31")	2,9 mm (0.11")	3521000
Bi-Pin with spike, 1.000 pcs.	17,5 mm (0.68")	4,0 mm (0.15")	1,9 mm (0.07")	8,0 mm (0.31")	2,9 mm (0.11")	3523000

#### Function & Performance

High-luster nickel plated model pin with dual guidance and a special spike for positioning in the impression.

#### Advantages

- ▶ No drilling required.
- ▶ Long spike for optimal retention in the impression.
- ▶ Conical pin shape for direct removal of the pins.

## Bi-Fix-Pin



Description	Pin length	Head length	Ø head	Max. pin width	Needle length	Art. No.
Bi-Fix-Pin, 100 pcs.	17,5 mm (0.68")	5,5 mm (0.21")	2,0 mm (0.07")	2,9 mm (0.11")	43,0 mm (1.69")	3451000
Bi-Fix-Pin, 1.000 pcs.	17,5 mm (0.68")	5,5 mm (0.21")	2,0 mm (0.07")	2,9 mm (0.11")	43,0 mm (1.69")	3453000

#### Function & Performance

Dual guidance model pin with fixing wire for exact positioning in the impression.

#### Advantages

- ▶ No drilling required.
- ▶ Reduces the production time of the model.
- ▶ Two guidance pins to prevent rotation.

## Brass arched pins



Description	Pin length	Head length	Ø head	Ø pin max.	Needle length	Art. No.
Arched pin pointed, 100 pcs.	17,0 mm (0.66")	5,0 mm (0.19")	2,0 mm (0.07")	3,2 mm (0.12")	43,0 mm (1.69")	3551001
Arched pin pointed, 1.000 pcs.	17,0 mm (0.66")	5,0 mm (0.19")	2,0 mm (0.07")	3,2 mm (0.12")	43,0 mm (1.69")	3553001
Arched pin flat/ pointed, 100 pcs.	17,0 mm (0.66")	5,0 mm (0.19")	2,0 mm (0.07")	3,2 mm (0.12")	43,0 mm (1.69")	3551002
Arched pin flat/ pointed, 1.000 pcs.	17,0 mm (0.66")	5,0 mm (0.19")	2,0 mm (0.07")	3,2 mm (0.12")	43,0 mm (1.69")	3553002

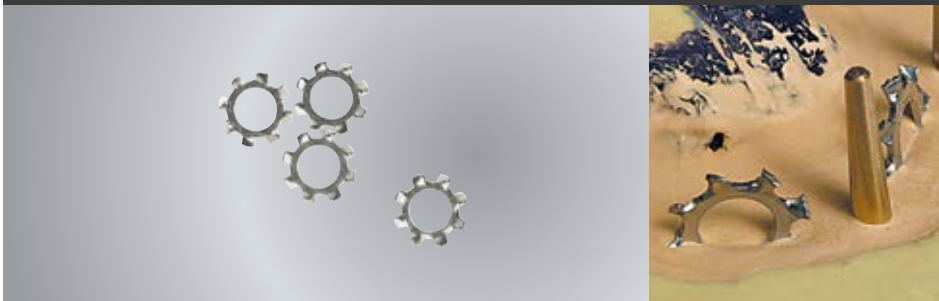
### Function & Performance

Model pin for fixation in complicated impressions.

### Advantages

- ▶ No drilling required.
- ▶ Reduces the production time of the model.
- ▶ Flattened shape of the pin prevents rotation.

## Retention rings, zinc plated



### Function & Performance

Retention rings for secure fixation of non-removable sections of the plaster arch.

### Advantages

- ▶ Individual use for fixing various sizes of model areas.
- ▶ Simple placement at commencement of the plaster arch binding phase.

## For individual retention

Description	Art. No.
Retention rings, 1.000 pcs.	3930000

## Rubber caps



### Function & Performance

Prevent pins and sleeves from being damaged during model trimming.

### Advantages

- ▶ Time saving, easy and safe handling.
- ▶ Prevents interference with the friction due to plaster penetration.

## The clean option

Description	Art. No.
Rubber caps for Bi-Pins, 500 pcs.	3220000

## Pin step drill / Smart-Pin drill



## Precision drills from Renfert

Description	Drilling depth	Ø drill head	Ø shaft	Art. No.
Stepped pin drill bit small, 3 pcs.	5,8 mm (0.23")	1,98 mm (0.078")	3,0 mm (0.12")	50100198
Stepped pin drill bit medium, 3 pcs.	5,8 mm (0.23")	2,0 mm (0.079")	3,0 mm (0.12")	50100200
Stepped pin drill bit large, 3 pcs.	5,8 mm (0.23")	2,02 mm (0.08")	3,0 mm (0.12")	50100202
Smart-Pin drill bit small, 3 pcs.	10,5 mm (0.41")	1,57 mm (0.061")	3,0 mm (0.12")	3670157
Smart-Pin drill bit medium, 3 pcs.	10,5 mm (0.41")	1,59 mm (0.062")	3,0 mm (0.12")	3670159
Smart-Pin drill bit large, 3 pcs.	10,5 mm (0.41")	1,61 mm (0.063")	3,0 mm (0.12")	3670161

Smart-Pin drill	Art. No.	Pin step drill
1,57 mm / 0.0618" small	1835 0000	1,98 mm / 0.0779" small
1,59 mm / 0.0625" medium ■	1835 4000	2,00 mm / 0.0787" medium ■
1,61 mm / 0.0633" large	■ recommended by Renfert	2,02 mm / 0.0795" large

Smart-Pin drill	Art. No.	Pin step drill
1,57 mm / 0.0618" small	1840 0000	1,98 mm / 0.0779" small
1,59 mm / 0.0625" medium ■	1840 1000	2,00 mm / 0.0787" medium
1,61 mm / 0.0633" large	■ recommended by Renfert	2,02 mm / 0.0795" large ■

### Function & Performance

The pin step drill is suitable for use with all pins with a pin head Ø of 2 mm, in particular for our Bi/ Bi-V pins. The Smart-Pin drill is suitable for use with all pins with a pin head Ø of 1.6 mm, especially for our Smart-Pin/ Profix. Both drills are suitable for all pin drilling units with a 3 mm shank chuck.

### Advantages

- ▶ Very high service life.
- ▶ Special blade geometry ensures very low drill resistance.
- ▶ Pin drill with maximum rotational symmetry.



**Tip:** To coordinate the drilling accuracy even more finely to your system, our drills are each supplied in three versions (small/ medium/ large).

## Bi-Pin drill bit



## The handpiece drill

Description	Drilling depth	Ø drill head	Ø shaft	Art. No.
Bi-Pin drill bit, 3 pcs.	6,5 mm (0.26")	2,0 mm (0.08")	2,35 mm (0.09")	3470000

### Function & Performance

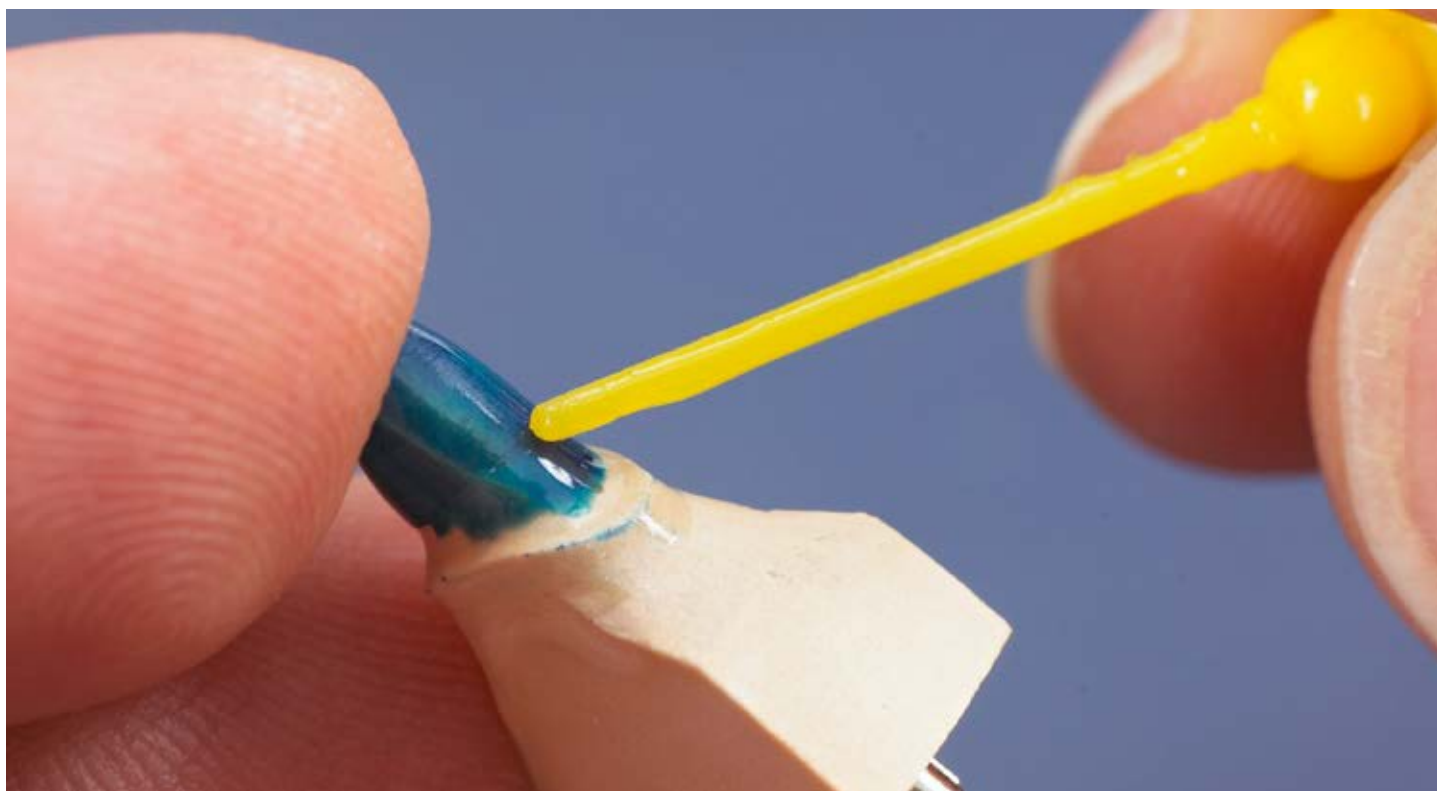
For use with a handpiece for drilling pin holes.

### Advantages

- ▶ For Bi-Pin and Bi-V-Pin.
- ▶ Optimum drill depth on impact.

## Overview Adhesion &amp; Sealing

Description	Contents	Viscosity	Area of application	Page
Instant glue "Universal"	6x 10 g (0.35 oz.) / 6x 5 g (0.18 oz.)	~15	Specially for bonding "recently set" stone (approx. 5–6 hrs after pouring the impression). Ideal for sealing. Bonds stone, resin, metal and porcelain.	120
Instant glue "Strong"	6x 10 g (0.35 oz.)/ 6x 5 g (0.18 oz.)	~18	Specially for bonding "dry" stone (more than 1–2 days old). For rapid bonding of stone, resin, metal and porcelain.	120
1733 G "Odourless"	6x 10 g (0.35 oz.)	~11	Odourless special glue for bonding „recently set“ stone (approx. 5–6 hrs after pouring the impression) as well as resin, metal and porcelain. Ideal for sealing. No irritation of the respiratory tract.	121
Concret "High viscosity"	2x 10 g (0.35 oz.)	~100	High viscosity special glue for closing glued joints with stone, metal, resin and porcelain.	121
die:master duo	15 ml (0.51 fl.oz.)	–	Special, 0 µm die hardener for die:master varnish, alveolar ridges and antagonists and all areas where precision is required.	125–126
Liquicol "Low viscosity"	2x 20 g (0,70 oz.)	~1,3	Very low viscosity special glue for sealing dies and stone models. Hardens the surfaces of dies, alveolar ridges and opposing dentitions.	123
Surface hardener	125 ml (4.25 fl.oz.)	–	Ideal also for sealing the complete model or wide surfaces.	123
Surface hardener thinner	125 ml (4.25 fl.oz.)	–	For individual control over viscosity.	123
Model spray	300 ml (10.20 fl.oz.)	–	Surface sealing of investment models.	123



## The multi-purpose one



### Fulfills its promises

Description	Quantity	Viscosity	Art. No.
Super glue	6 x 5 g (6 x ≈ 0.17 fl.oz.)	approx. 15 mPa s	17330050
Super glue	6 x 10 g (6 x ≈ 0.33 fl.oz.)	approx. 15 mPa s	17330100

#### Function & Performance

All-round super glue for use with plaster, metal, acrylics and porcelain.

#### Advantages

- ▶ Specially for gluing fresh plaster.
- ▶ Also suitable for sealing.
- ▶ Thin flowing: viscosity 15 mPa s.

## The powerful one



### Strong Support

Description	Quantity	Viscosity	Art. No.
Super glue	6 x 10 g (6 x ≈ 0.33 fl.oz.)	approx. 18 mPa s	17332000
Super glue	6 x 5 g (6 x ≈ 0.17 fl.oz.)	approx. 18 mPa s	17332050

#### Function & Performance

All-round instant glue with quick bonding time, for use with plaster, metal, acrylic and porcelain.

#### Advantages

- ▶ Specially for gluing dry plaster.
- ▶ Very quick setting characteristics.
- ▶ Viscosity 18 mPa s.



#### Tip:

Before using the glue for the first time remove it from the refrigerator 15–20 minutes before use and allow it to come to room temperature. This will prevent condensation of water.



## The odourless one



## For even more comfort

Description	Quantity	Viscosity	Art. No.
Super glue, odourless	6 x 10 g (6 x ≈ 0.33 fl.oz.)	approx. 11 mPa s	17332500

### Function & Performance

Odourless special glue for gluing and sealing plaster, metal, acrylic and porcelain.

### Advantages

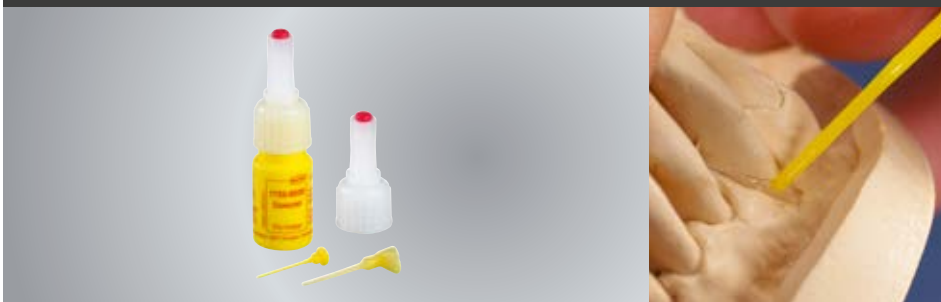
- ▶ Odourless glue prevents respiratory irritation.
- ▶ Specially suitable for gluing fresh plaster or for sealing.
- ▶ Thin flowing: viscosity 11 mPa s.



### Tip:

Having opened the glue for the first time, it should not be placed back into the refrigerator as every opening attracts humidity because of the cold bottles; this affects the glue in the long term. In case the glue is closed and stored at room temperature this problem is reduced to a minimum.

## Concret



## The viscous one

Description	Quantity	Viscosity	Art. No.
Concret	2 x 10 g (2 x ≈ 0.33 fl.oz.)	approx. 100 mPa s	17220020

### Function & Performance

Viscous special glue for closing up large gaps in plaster, metal, acrylic and porcelain.

### Advantages

- ▶ Secure hold when gluing pins.
- ▶ Delayed setting time so the parts to be glued can be comfortably positioned.
- ▶ Thick flowing: Viscosity 100 mPa s.

## Stabiloplast



### Function & Performance

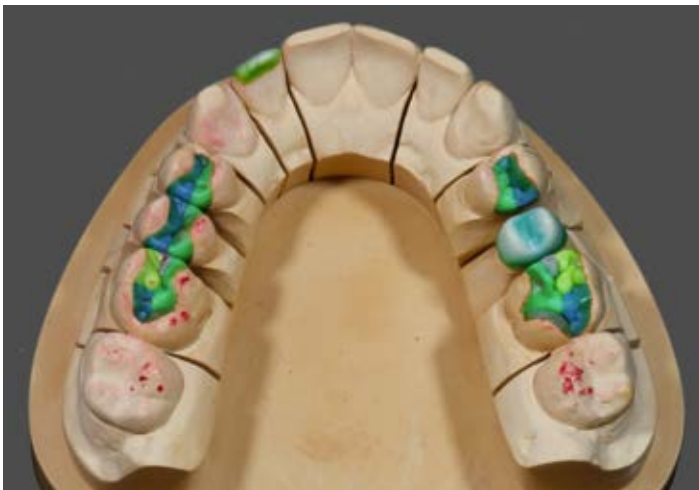
General purpose resin for fixing, stabilising, connecting and blocking out.

### Advantages

- ▶ May be applied straight from the bottle.
- ▶ Will adhere to wax.
- ▶ Has excellent adhesive properties, even to metal.

## The general purpose resin

Description	Quantity	Art. No.
Stabiloplast set	2 x 10 g (2 x ≈ 0.33 fl.oz.) resin, 30 ml (1.02 fl.oz.) accelerator and 1 acrylic spatula	4480004
Stabiloplast resin	2 x 10 g (2 x ≈ 0.33 fl.oz.)	4480003
Stabiloplast accelerator	30 ml (1.02 fl.oz.)	4480002



### Tip:

Wax inlays can be removed from the die without distortion if the wax base is stabilised with a thin layer of Stabiloplast. The occlusal surface can then be waxed upon this layer. Tension-free bridge joints can be achieved by connecting crowns and pontics with Stabiloplast rather than joining with wax.



### Nadine Eble, Product Management:

"Always store the resin and the accelerator separately! Apply Stabiloplast with the enclosed plastic instrument (metal instruments are not suitable)."

## Liquicol



### The thin liquid one

Description	Quantity	Viscosity	Art. No.
Liquicol	2 x 20 g (2 x ≈ 0.66 fl.oz.)	approx. 1,3 mPas	17320020

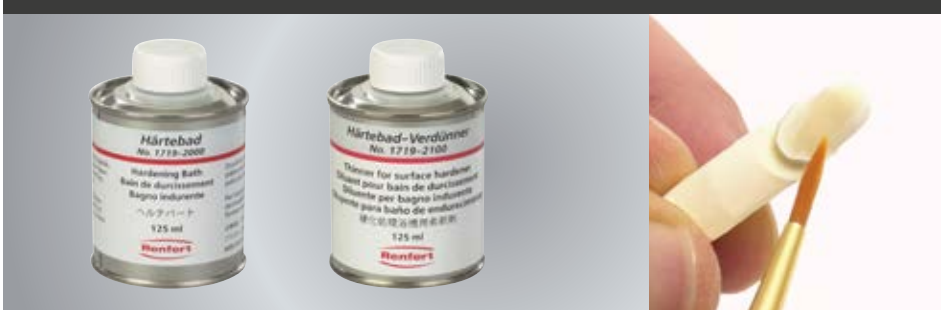
### Function & Performance

Extreme low viscosity special glue for sealing plaster models.

### Advantages

- ▶ Minimal layer build-up.
- ▶ For strengthening the surfaces of dies, alveolar ridges or opposing dentition.
- ▶ For smoothing rough areas of models.

## Surface hardener



### Self-hardening acrylic solution

Description	Quantity	Art. No.
Surface hardener	125 ml (4.25 fl.oz.)	17192000
Surface hardener thinner	125 ml (4.25 fl.oz.)	17192100

### Function & Performance

Self-hardening acrylic solution for hardening and sealing plaster models.

### Advantages

- ▶ Requires only one application or dip.
- ▶ Seals surface without layer build-up.
- ▶ Surface becomes very hard and water-resistant.

## Model spray



### The correct basis

Description	Quantity	Art. No.
Model spray	300 ml (10.20 fl.oz.)	17360000

### Function & Performance

Smooths and hardens the surface of investment models of chrome cobalt frames.

### Advantages

- ▶ Fine spray onto cold investment models.
- ▶ Seals the surface of investment material.
- ▶ Optimum base for secure modelling and adaptation of wax profiles.

## Overview Lacquering

Description	Color	Contents (ml / fl. oz.)	Layer thickness	Page
die:master blue	blue	15 / 0.51	20 µm	125–126
die:master red	red	15 / 0.51	15 µm	125–126
die:master gold	gold	15 / 0.51	13 µm	125–126
die:master silver	silver	15 / 0.51	13 µm	125–126
die:master gray	gray	15 / 0.51	20 µm	125–126
die:master thinner	–	30 / 1.02	–	125–126
Pico-Fit	gold	15 / 0.51	14–20 µm	127
Pico-Fit	silver	15 / 0.51	14–20 µm	127
Pico-Fit	red	15 / 0.51	12–15 µm	127
Pico-Fit	blue	15 / 0.51	12–15 µm	127
Pico-Fit thinner	–	30 / 1.02	–	127

## Overview Separating

Description	Area of application	Contents (ml / fl. oz.)	Properties	Page
Picosep	Wax / Plaster Porcelain / Plaster	30 / 1.02	No layer build-up	128
Iso-Stift	Wax / Plaster Porcelain / Plaster	4,5 / 0.15	No layer build-up, very sparingly application	128
Isofix 2000	Plaster / Plaster	1 000 / 34	No layer build-up	128



## die:master – The good features from the past, with the quality of today



### Uncompromising quality

#### **Makes customer wishes become reality**

In our opinion there is virtually no more important market insight than the good old customer wish. This is why we take customer wishes very seriously. So seriously that we often make a product from them. In this case it was the demand for a „varnish as it used to be.“ A customer survey indicated that these changes in the perception of quality was mainly due to two reasons. Firstly, varnish manufactures have changed their formula for health legislation reasons. Secondly, interactions with the undercoat or separating agent resulted in changes to the functional properties. In particular the stability, the chemical reaction with the under-

coat, can be impaired by such influences. We are providing you with a new, harmonious product concept with the die:master system. The properties of the individual components ensure a harmonious reaction and guarantee your process flow. Discover how each individual component itself and in the system uncompromisingly aids handling, stability and precision. A varnish as it used to be. Only more up to date. And naturally from Renfert.

#### **Reiner Semsch, Master Dental Technician:**

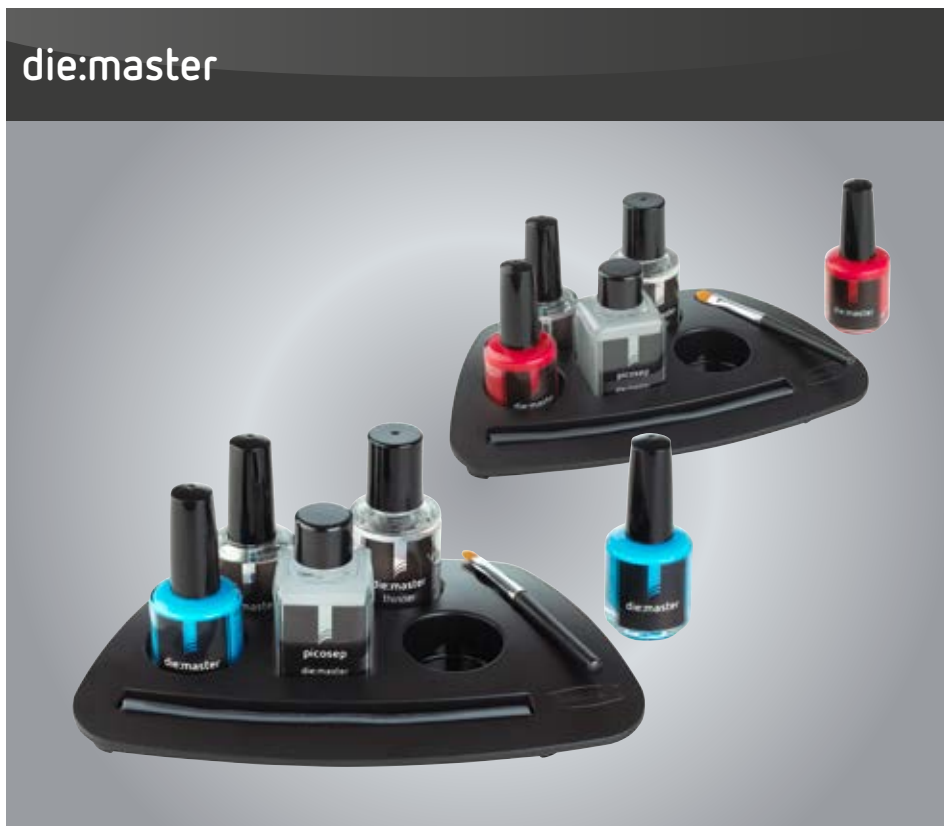
“My favorite new material is called: ‘die:master’. The die hardener ‘die:master duo’ is absorbed very quickly, does not form an application layer and bonds with the colored spacer. The spacer forms a smooth, homogeneous surface. The well-known separating agent ‘picosep’ optimally completes the range.”



Discover more in our  
Renfert Report 2/2013:  
[www.renfert.com/P47](http://www.renfert.com/P47)



## die:master



## Systematic die preparation

Description	Quantity	Layer thickness	Art. No.
die:master set silver/gold	1 x stand, 1 x silver + 1 x gold, 1 x die:master thinner, 1 x die:master duo, 1 x picosep, 1 x brush		19561000
die:master set red	1 x stand, 2 x die:master red, 1 x die:master thinner, 1 x die:master duo, 1 x picosep, 1 x brush		19560800
die:master set blue	1 x stand, 2 x die:master blue, 1 x die:master thinner, 1 x die:master duo, 1 x picosep, 1 x brush		19560900
die:master silver	15 ml (0.51 fl.oz.)	13 µm	19560400
die:master gold	15 ml (0.51 fl.oz.)	13 µm	19560500
die:master red	15 ml (0.51 fl.oz.)	15 µm	19560200
die:master blue	15 ml (0.51 fl.oz.)	20 µm	19560300
die:master gray	15 ml (0.51 fl.oz.)	20 µm	19560100
die:master duo	30 ml (1.02 fl.oz.)	0 µm	19560600
die:master thinner	30 ml (1.02 fl.oz.)		19560700



**Tip:** For applications whereby the varnish must later be removed, (press ceramic) the die:master thinner is an excellent solvent when used together with the die:master silver or blue.

### Function & Performance

With the die:master system, Renfert offers air-drying die varnish in three layer thicknesses (13, 15 and 20 µm) and five opaque colors.

#### die:master die spacers

- ▶ Extremely steam-proof and scratch-resistant thanks to high density, glass-like die spacer layer.
- ▶ Generates maximum bond strength between hardener and die spacer due to primer technology.
- ▶ Die spacer will not puddle on the brush or die, yet it sticks well to line angles due to its extremely thixotropic flowability.

#### die:master duo

- ▶ Cross links the die stone structure for in-depth hardness and high edge-strength.
- ▶ Maximum bond strength thanks to chemical bond to die spacer layer.
- ▶ 0 µm thickness for a 100% dimensionally-stable die.

#### die:master thinner

- ▶ Long-term, sustainable varnish quality, even after frequent use.
- ▶ Controlled regulation of the viscosity because it can be dispensed accurately drop-by-drop.

#### picosep

- ▶ Silicone based separator completes the die:master system components in an optimal way.

#### die:master set

- ▶ Faster and clearer access to all components of the system thanks to the stand.
- ▶ Practical, firm base for drying all types of die.
- ▶ Quick and clean storage with supplied high quality separating brush with magnetic holder.

## Pico-Fit



### The right lacquer for every situation

Description	Quantity	Layer thickness	Art. No.
Pico-Fit set	15 ml (0.51 fl.oz.) each of gold and silver varnish, 30 ml (1.02 fl.oz.) thinner		19540400
Pico-Fit silver	15 ml (0.51 fl.oz.)	approx. 14–20 µm	19540600
Pico-Fit gold	15 ml (0.51 fl.oz.)	approx. 14–20 µm	19540500
Pico-Fit red	15 ml (0.51 fl.oz.)	approx. 12–15 µm	19540200
Pico-Fit blue	15 ml (0.51 fl.oz.)	approx. 12–15 µm	19540300
Pico-Fit thinner	30 ml (1.02 fl.oz.)		19540700

#### Function & Performance

High quality die spacer varnish with good contrast on the most popular plasters.

#### Advantages

- ▶ Short drying period.
- ▶ Flow property individually controlled using the thinner.
- ▶ Builds an even layer thickness and a smooth surface.

#### Pico-Fit, gold / silver

- ▶ Colors should be used in combination with each other.
- ▶ Purpose: trouble spots will be visible by the wear-off of the gold layer without damaging the model.
- ▶ Layer thickness of undiluted varnish approx. 14–20 µm.

#### Pico-Fit, red

- ▶ Good contrast against all popular plaster colors.
- ▶ Layer thickness of undiluted varnish approx. 12–15 µm.

#### Pico-Fit, blue

- ▶ Strong contrast against most model plasters.
- ▶ Layer thickness of undiluted varnish approx. 12–15 µm.



#### Tip:

Before applying the varnish the preparation border can be hardened using Liquicol. This will make the surface resistant against mechanical and thermal loads. Even delicate dies can be maintained.



#### Tip:

Combined use of two different varnish colors is helpful in determining contact points when fitting a cast metal framework.

## picosep



### It's magic – It's picosep

Description	Quantity	Art. No.
Capitalize Picosep	30 ml (1.02 fl.oz.)	15520030

#### Function & Performance

Thin, silicone based isolating agent – specially developed for wax-dipping techniques.

#### Advantages

- ▶ Microfilm isolates plaster from wax or porcelain.
- ▶ A thin layer is effective for days; no reapplication required.
- ▶ Isolates the plaster, acrylic and metal surfaces to permit wax application.

## Iso-Stift



### Practical isolating stick

Description	Art. No.
Iso-Stift, piece	17093000

#### Function & Performance

A practical, double-sided isolating stick for isolating plaster against porcelain and wax.

#### Advantages

- ▶ Soft and hard tip for individual applications.
- ▶ Economical and precise application of isolating material.
- ▶ Comfortable and easy handling.

## Isofix 2000



### Professional isolation for master models

Description	Quantity	Art. No.
Isofix 2000 + 500 ml spray bottle (17 fl.oz.)	1 l (34 fl.oz.)	17200000
Isofix 2000 refill packs	2 x 1 l (2 x 34 fl.oz.)	17202000

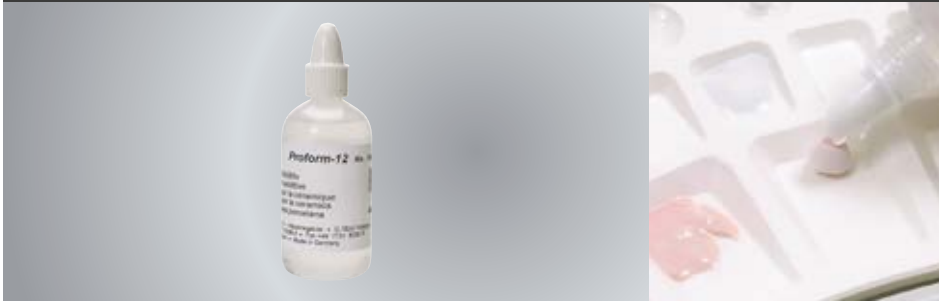
#### Function & Performance

Film-free isolation of plaster against plaster from a practical spray bottle. Ideal for producing saw cut models.

#### Advantages

- ▶ Soaks into the plaster surface.
- ▶ Seals the open pores of the plaster model.
- ▶ No layer build-up.

## Proform-12



... For stable porcelain!

Description	Quantity	Art. No.
Proform-12	60 ml (2.04 fl.oz.)	14620000

### Function & Performance

Proform-12 is a porcelain additive which lends plasticity to the porcelain mass.

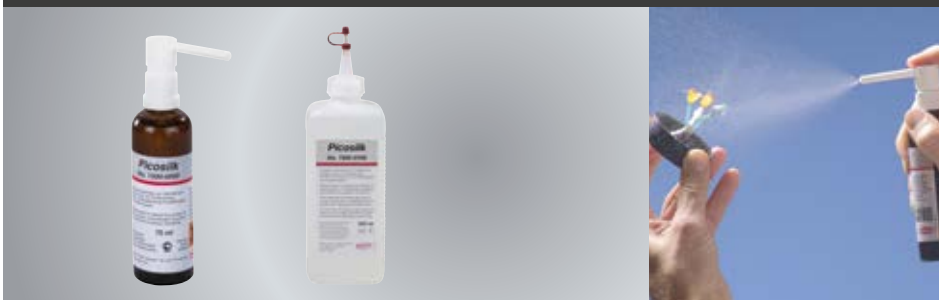
### Advantages

- ▶ The porcelain takes on a wax-like consistency.
- ▶ Improves stability of porcelain when modeling.
- ▶ Considerably less evaporation just by adding a few drops (remains moist over a longer period).



**Tip:**  
We recommend to use Proform-12 with High-Fusing porcelains at high temperatures. Low Fusing porcelains might turn opaque as a result.

## Picosilk



For tension-free wax patterns

Description	Quantity	Art. No.
Picosilk spray bottle	75 ml (2.55 fl.oz.)	15500000
Picosilk refill bottle	500 ml (17 fl.oz.)	15500100

### Function & Performance

Picosilk is a wetting agent for wax models within crown, bridge and model casting technique.

### Advantages

- ▶ Spray on finely using the atomizer before investing.
- ▶ Wax does not take on water-repellent characteristics after use.
- ▶ Improves the flow of investment material.

## Renfert-Scanspray



### Instantly-adhering color layer

Description	Quantity	Art. No.
Renfert-Scanspray	200 ml (6.80 fl.oz.)	17310000

#### Function & Performance

Maximum precision thanks to very thin layer application and homogenous grain size.

#### Advantages

- ▶ Accurate edge representation.
- ▶ Undistorted surfaces.
- ▶ Optimal polygon count in the 3D model.

## Occlutec



### Fine, homogeneous and masking

Description	Quantity	Art. No.
Occlutec green	75 ml (2.55 fl.oz.)	19350000
Occlutec red	75 ml (2.55 fl.oz.)	19351000

#### Function & Performance

Occlutec provides very clear and detailed marking of high spots on CrCo dentures, crowns and bridges.

#### Advantages

- ▶ Distinct sharp contours.
- ▶ Optimal dosage due to micro-powder spray layer.
- ▶ Homogenous spraying characteristics regardless of fill level of the can.

## Pico-Mark



Description	Quantity	Art. No.
Pico-Mark set	1 each 12 ml (0.41 fl.oz.) red and white varnish, 30 ml (1.02 fl.oz.) thinner	19340000
Pico-Mark varnish red	12 ml (0.41 fl.oz.)	19340100
Pico-Mark varnish white	12 ml (0.41 fl.oz.)	19340200
Pico-Mark thinner	30 ml (1.02 fl.oz.)	19340300

#### Function & Performance

Washable articulating liquid for identification of trouble spots in crowns and secondary parts as well as systematic occlusion grinding.

#### Advantages

- ▶ Easily applied via brush inset in bottle.
- ▶ Can be thinned as required.
- ▶ Average layer thickness of 5 µm.



## Overview Waxes

Description	Crown & Bridge	Model casting	Diagnostic wax-up	Burns without residue	Page
<b>Modeling waxes</b>					
GEO Classic	■		■ tooth color-opaque	■ transparent	134
GEO Avantgarde	■				134
Crowax Crowax DUR	■			■ transparent	135
GEO Natural	■		■	■ transparent	135
GEO Snow-white L	■		■	■ transparent	135
GEO Model casting modeling wax		■		■ transparent	145
<b>Dipping waxes</b>					
GEO Dip	■			■	133
rewax	■			■	133
<b>Special waxes and sheet waxes</b>					
GEO Cervical wax	■			■	136
GEO Undercut wax	■			■	136
GEO Milling wax		■			137
GEO Block-out wax		■			137
GEO Sticking wax	■	■		■	137
GEO Casting wax		■		■	144
GEO Casting wax		■		■	145
<b>Preformed waxes</b>					
GEO Pontics	■			■	138
GEO Clasps		■		■	142
GEO Retention meshes		■		■	143
GEO Perforated wax retainers		■		■	143
GEO L-jaw bar		■		■	146
<b>Sprueing</b>					
GEO Wax wire	■	■		■	138
GEO Casting sprues, triangle	■			■	139
GEO Pear-shapedwax	■	■		■	139

## Overview of melting ranges

Description	transparent / opaque	Color	Suitable for ACS*	Page	60°C 140°F	65°C 149°F	70°C 158°F	75°C 167°F	80°C 176°F	85°C 185°F	90°C 194°F	
<b>Modeling waxes</b>												
GEO Classic	transparent / opaque	beige, blue, mint, tooth color	■ transparent	134	Yellow	Orange	Orange	Orange	Orange	Red		
GEO Avantgarde occlusal	opaque	beige, grey, mint		134	Yellow	Orange	Red					
GEO Avantgarde universal	opaque	beige, grey, mint		134	Orange	Red						
Crowax	transparent / opaque	green, blue, red, beige, grey	■ transparent	135		Yellow	Orange	Red				
Crowax DUR	transparent	green, blue, red	■	135	Yellow	Orange	Orange	Orange	Orange	Red		
GEO Natural	transparent / opaque	beige	■ transparent	135	Yellow	Orange	Orange	Orange	Orange	Red		
GEO Snow-white L	transparent / opaque	white	■ transparent	135			Yellow	Orange	Red			
<b>Special waxes</b>												
GEO Cervical wax	transparent	red	■	136	Yellow	Orange	Orange	Orange	Red			
GEO Undercut wax	transparent	red	■	136	Yellow	Orange	Red					
GEO Milling wax	opaque	blue		137		Yellow	Orange	Red				
GEO Block-out wax	opaque	pink		137				Yellow	Orange	Orange	Red	
GEO Sticking wax	transparent	fuchsia	■	137						Orange	Orange	
<b>Dipping waxes</b>												
GEO Dip	opaque	yellow, orange, green	■	133				Yellow	Orange	Red	Grey	
rewax	opaque	yellow	■	133				Yellow	Orange	Red	Grey	

\* All ceramic systems

■ Solid

■ Melting range (creamy)

■ Liquid

■ Recommended working temperature

## GEO Dip



### Precise wax copings

Description	Color	Art. No.
GEO Dip, approx. 200 g (7 oz.)	yellow	4823000
GEO Dip, approx. 200 g (7 oz.)	orange	4823200
GEO Dip, approx. 200 g (7 oz.)	green	4823300

#### Function & Performance

Special waxes for processing within an electronic wax die pot.

#### Advantages

- ▶ Precise wax copings with low shrinkage.
- ▶ High tear-resistance and elasticity prevents deformation during removal.
- ▶ Reproducible, accurately fitting copings with uniform wall thickness.

## Rewax Dipping wax



### Precise Wax Moldings

Description	Color	Art. No.
Rewax, approx. 210 g (7.35 oz.)	yellow	6510000

#### Function & Performance

Harder, less elastic dipping wax with excellent shaping properties in an easy to pour container.

#### Advantages

- ▶ Exact reproduction of the die with low contraction.
- ▶ Very good carving characteristics.
- ▶ Guarantees best possible accuracy and surface smoothness in metal.



#### Tip – perfect wax copings:

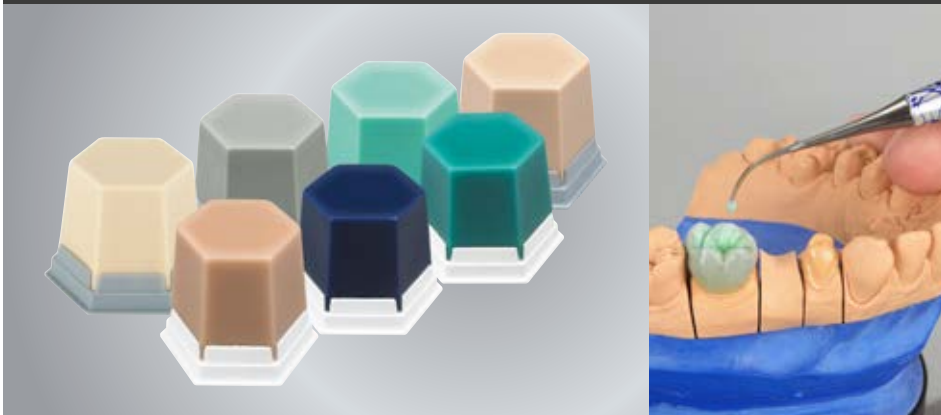
##### Preparation:

- ▶ Place a thin isolating layer on the die surface using picosep.
- ▶ Build-up of bubbles and streaks are thus prevented.

##### Dipping:

- ▶ Support your hand comfortably.
- ▶ Do a quick dip to just beyond the preparation border.
- ▶ Slowly and evenly remove the die from the wax.
- ▶ Just before the tip comes out hold it steady in the pot for a short time so that any excess wax can drip down.

## GEO Classic modeling waxes



### Special wax for use with the Bunsen burner

Description	Color	Art. No.
GEO Classic, 75 g (2.63 oz.)	beige-opaque	4970100
GEO Classic, 75 g (2.63 oz.)	grey-opaque	4970200
GEO Classic, 75 g (2.63 oz.)	mint-opaque	4970300
GEO Classic, 75 g (2.63 oz.)	tooth color-opaque	4970400
GEO Classic, 75 g (2.63 oz.)	beige-transparent	4971100
GEO Classic, 75 g (2.63 oz.)	blue-transparent	4971200
GEO Classic, 75 g (2.63 oz.)	mint-transparent	4971300

### Function & Performance

GEO Classic modeling waxes are ideally suited for building up wax technique.

### Advantages

- ▶ Wax characteristics are optimally suited to working with the Bunsen flame.
- ▶ The wide melting interval range allows quick application and stress-free cooling.
- ▶ Very low shrinkage means high fitting accuracy and precision.

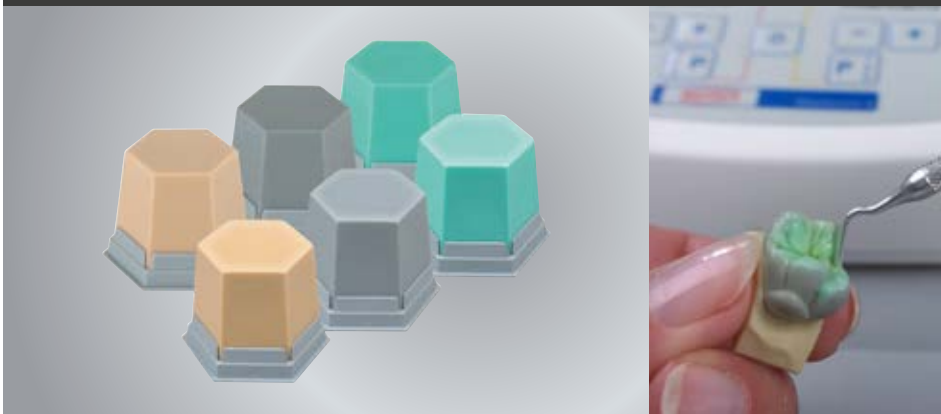
### GEO Classic transparent

- ▶ Burns out without leaving a residue.
- ▶ Specially for full porcelain restorations and press ceramic.

### GEO Classic opaque

- ▶ Offers sharp contour details even in a liquid state due to opacity.
- ▶ Ideal for forming occlusal surfaces.

## GEO Avantgarde modeling waxes



### Special wax for electric waxing-up

Description	Color	Art. No.
GEO Avantgarde occlusal, 75 g (2.63 oz.)	beige-opaque	4920100
GEO Avantgarde occlusal, 75 g (2.63 oz.)	grey-opaque	4920200
GEO Avantgarde occlusal, 75 g (2.63 oz.)	mint-opaque	4920300
GEO Avantgarde universal, 75 g (2.63 oz.)	beige-opaque	4950100
GEO Avantgarde universal, 75 g (2.63 oz.)	grey-opaque	4950200
GEO Avantgarde universal, 75 g (2.63 oz.)	mint-opaque	4950300

### Function & Performance

There are special requirements when using the electrical wax up method. These are fulfilled by GEO Avantgarde waxes. The ideal modeling characteristics are maintained and provide precise results.

### GEO Avantgarde universal

- ▶ Excellent flow properties for quick waxing of the exterior tooth shape.
- ▶ Low setting contraction due to the low melting point.

### GEO Avantgarde occlusal

- ▶ good rigidity.
- ▶ high strength – no abrading of contact points.

## Crowax / Crowax Dur



Description	Color	Art. No.
Crowax, 100 g (3.50 oz.)	green-transparent	4740100
Crowax, 100 g (3.50oz.)	blue-transparent	4740200
Crowax, 100 g (3.50 oz.)	red-transparent	4740300
Crowax, 100 g (3.50 oz.)	beige-opaque	4740400
Crowax, 100 g (3.50 oz.)	grey-opaque	4740500
Crowax Dur, 100 g (3.50 oz.)	green-transparent	6740100
Crowax Dur, 100 g (3.50 oz.)	blue-transparent	6740200

### Function & Performance

Crowax and Crowax Dur stand out for very low shrinkage values.

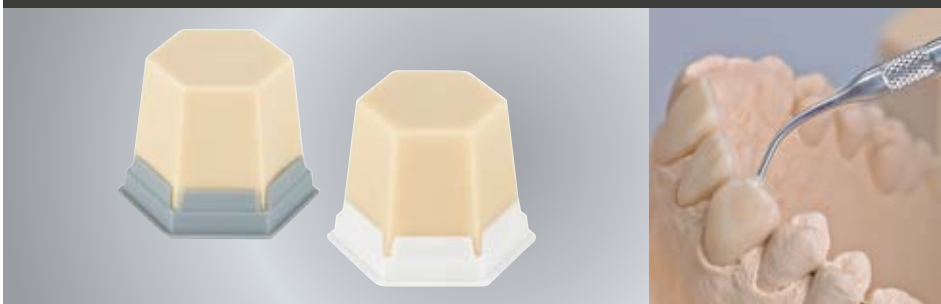
### Advantages Crowax

- ▶ The material characteristics cover a wide spectrum of uses.

### Advantages Crowax Dur

- ▶ Ideal for precise work such as partial crowns, inlays, onlays and large spanned bridges.
- ▶ Ideal for use in summer/higher temperature surroundings.

## GEO Natural



### Aesthetical competence

Description	Color	Art. No.
GEO Natural, 75 g (2.63 oz.)	opaque	4990300
GEO Natural, 75 g (2.63 oz.)	transparent	4990400

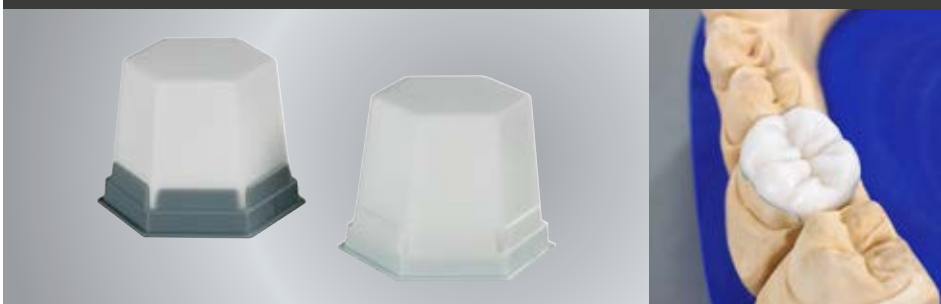
### Function & Performance

Tooth-colored wax for fabricating wax-ups on situation models or on master models in the articulator, on various framework types. Available in transparent and opaque.

### Advantages

- ▶ Tooth-colored to resemble the final porcelain build-up.
- ▶ Quick, precise fabrication of wax-ups for aesthetic and functional planning.
- ▶ Good carving and modeling characteristics.

## GEO Snow-white L



### For exact planning

Description	Color	Art. No.
GEO Snow-white L, 75 g (2.63 oz.)	opaque	4990101
GEO Snow-white L, 75 g (2.63 oz.)	transparent	4990201

### Function & Performance

White wax-up wax suitable for situation models or articulated master models and various types of frameworks. Available in transparent and opaque.

### Advantages

- ▶ White wax color, resembles the final porcelain build-up.
- ▶ Quick, precise fabrication of wax-ups for aesthetic and functional planning.
- ▶ Good carving and modeling characteristics.



## GEO Basis-Set



### The perfect wax combination

Description	Content	Art. No.
GEO Basis-Set	GEO Avantgarde universal grey-opaque, GEO Classic tooth color-opaque, GEO milling wax blue-opaque, GEO Classic mint-transparent, GEO undercut wax red-transparent, GEO Avantgarde occlusal beige-opaque, each 20 g (0.7 oz.)	4930004

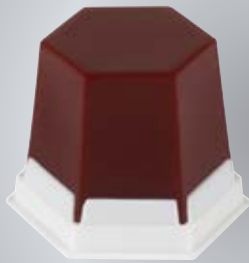
### Function & Performance

Combination of selected GEO, Classic and Avantgarde special waxes.

### Advantages

- ▶ Ideal as an introduction to the Renfert wax line.
- ▶ Covers a wide range of applications.

## GEO cervical wax



### Stable preparation margins

Description	Features	Art. No.
GEO Cervical wax, 75 g (2.63 oz.)	red-transparent	4861000

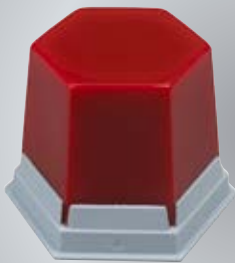
### Function & Performance

Non-rebounding wax for forming crown margin.

### Advantages

- ▶ Exactly adaptable to the preparation margin.
- ▶ Precise and accurately fitting marginal edges.
- ▶ Low shrinkage.

## GEO undercut wax



### Stable preparation margins

Description	Features	Art. No.
GEO undercut wax, 75 g (2.63 oz.)	red-transparent	4891000

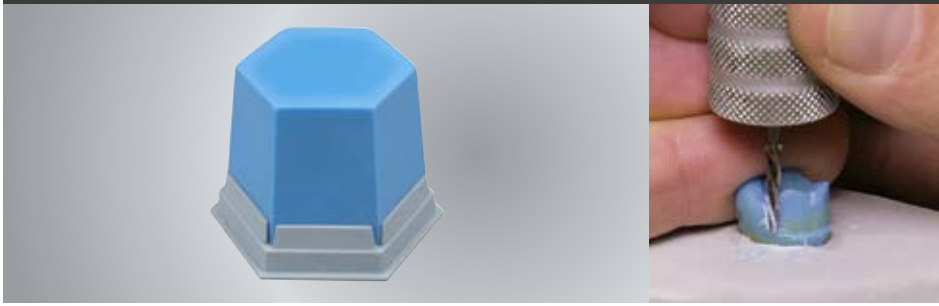
### Function & Performance

Inert wax for small undercuts and cavity coverage before inlay modeling. Excellent for flooding when forming secondary parts made of wax.

### Advantages

- ▶ Non-rebounding quality – even softer and more elastic.
- ▶ Ideal for slightly undercut areas or for covering cavities for inlays.
- ▶ Low contraction.

## GEO milling wax



### Exact milling without smearing

Description	Features	Art. No.
GEO milling wax, 75 g (2.63 oz.)	blue-opaque	4851000

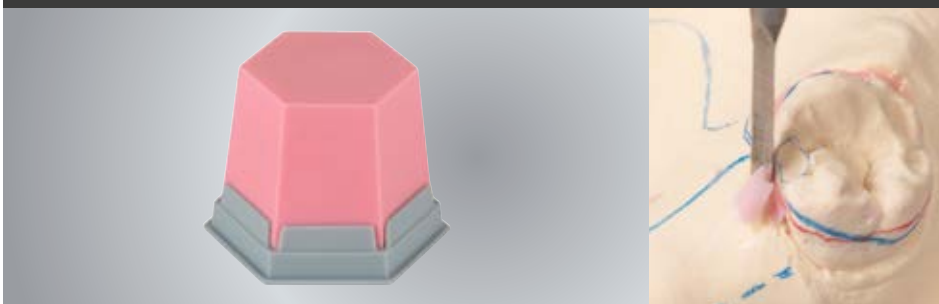
#### Function & Performance

Milling wax for telescope and attachment techniques.

#### Advantages

- ▶ Exactly suited for mechanical processing with milling and carving instruments.
- ▶ Small wax copings.
- ▶ No smearing or sticking with tungsten carbide or wax burs.

## GEO Block-out wax



### Blocking out made easy

Description	Features	Art. No.
GEO undercut wax, 75 g (2.63 oz.)	pink, opaque	6500000

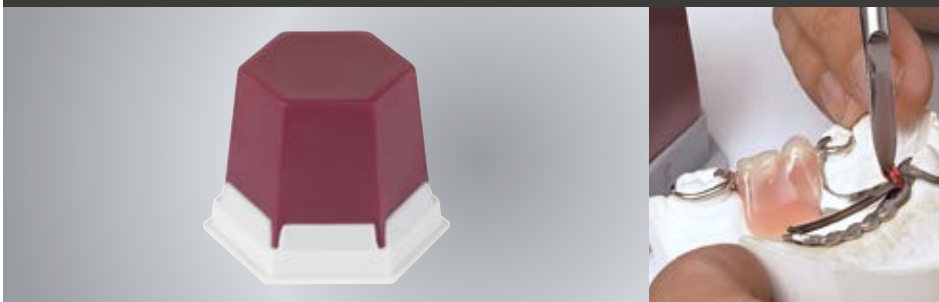
#### Function & Performance

This wax is suitable for blocking undercuts, cavities or errors on plaster models for both model casting and crown and bridge techniques.

#### Advantages

- ▶ No dimensional changes during processes involving heat.
- ▶ Ideal for duplication with duplicating gels or agar-agar.
- ▶ Very high adhesive qualities even on a damp model.

## GEO sticking wax



### Maximum fixation

Description	Features	Art. No.
GEO sticking wax, 75 g (2.63 oz.)	pink-transparent	4881000

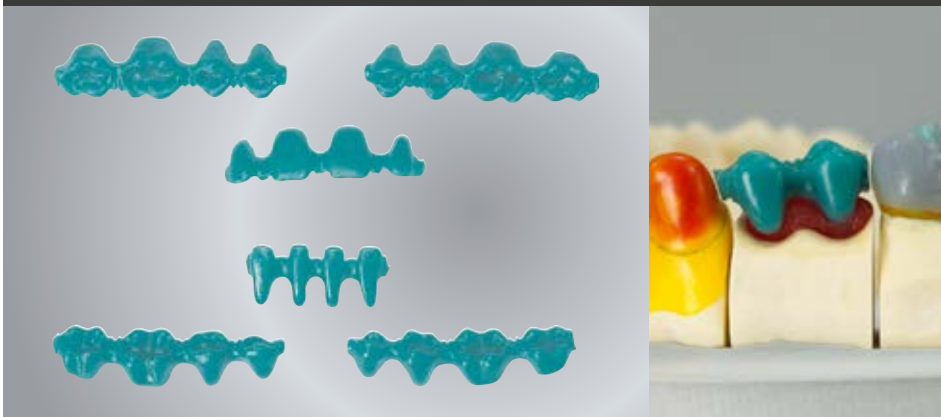
#### Function & Performance

Special wax for fixing denture parts and for preparing repair or welding work.

#### Advantages

- ▶ Optimal sticking characteristics on all dental materials.
- ▶ Precise preparation of repairs and soldering work.
- ▶ Ideal for fixing and positioning wax sprues and pre-fabricated wax patterns.

## GEO Pontics wax pontics



### Function & Performance

A set of pontics for modeling anterior and posterior bridges for veneer technique with acrylic or porcelain.

### Advantages

- ▶ Universal sizes compatible for all applications – time saving!
- ▶ No distortion during removal due to the high stability.
- ▶ Tooth shapes are proportionally reduced.

## The reliable connection

Description	Features	Art. No.
GEO Pontics Set	10 pieces each of 6 sizes	5000000
GEO Pontics, 20 pieces	UJ right, posterior teeth 14–17	5000100
GEO Pontics, 20 pieces	UJ, anterior 12–22	5000200
GEO Pontics, 20 pieces	UJ left, posterior teeth 24–27	5000300
GEO Pontics, 20 pieces	LJ left, posterior teeth 34–37	5000400
GEO Pontics, 20 pieces	LJ, anterior teeth 32–42	5000500
GEO Pontics, 20 pieces	LJ right, posterior teeth 44–47	5000600

## GEO Wax wire



### Function & Performance

An optimal wax mixture makes the GEO wax wire tension-free, thus limiting elastic recovery.

### Advantages

- ▶ Dimensionally stable patterns.
- ▶ Stress-free working.
- ▶ Easily adaptable, but dimensionally stable.

## For individual fitting

Features	Art. No. turquoise/hard	Art. No. blue/medium-hard	Art. No. light-blue/extra-hard
2,0 mm / approx. 250 g (12 ga. / 0.55 lbs.)	6762020	6783020	6751020
2,5 mm / approx. 250 g (10 ga. / 0.55 lbs.)	6762025	6783025	6751025
3,0 mm / approx. 250 g (9 ga. / 0.55 lbs.)	6762030	6783030	6751030
3,5 mm / approx. 250 g (7 ga. / 0.55 lbs.)	6762035	6783035	6751035
4,0 mm / approx. 250 g (6 ga. / 0.55 lbs.)	6762040	6783040	6751040
5,0 mm / approx. 250 g (4 ga. / 0.55 lbs.)	6762050	6783050	6751050



For further information, please see the Model casting manual.  
www.renfert.com/P48

## GEO Triangular casting sprues



For distortion free bridges

### Description

GEO Triangular casting sprues, approx. 100 pcs.

### Art. No.

6803000

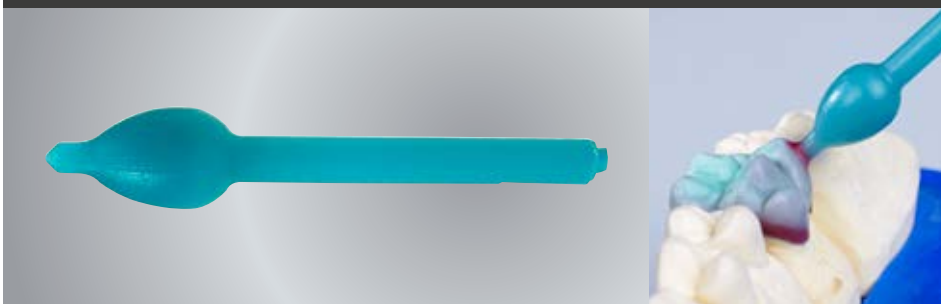
### Function & Performance

Set of casting sprues for effective attachment of the wax model.

### Advantages

- ▶ Shape stable, extra-hard casting system.
- ▶ No distortion of the bridge during sprue attachment.
- ▶ Optimal flow of metal.

## GEO Pear-shaped wax casting sprues



Prevents shrink-holes in the cast metal

### Description

GEO wax casting pears, approx. 200 pcs.

### Features

Length: 35 mm (1.38") / Ø pear head: 6,6 mm (0.26")

### Art. No.

5011100

### Function & Performance

Casting sprue with pear-shaped melting reservoir.

### Advantages

- ▶ Pear-shape for an optimal flow of molten metal.
- ▶ The melting reservoir ensures controlled cooling.
- ▶ Cavity-free and accurately fitting cast objects.



### Tip:

The pear shape of the casting sprue is ideal as a melting reservoir. The large surface area of the attachment allows controlled cooling. The molten liquid in the casting object solidifies first, contracting and drawing the still molten metal out of the pear. This prevents bottlenecks from forming and blocking the flow. Shrinkholes and imprecise fits are thus prevented (burns without residue).



## GEO Model casting system



### Simply practical!

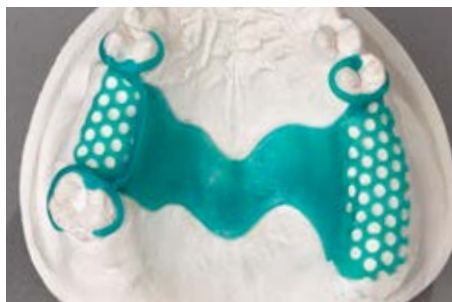
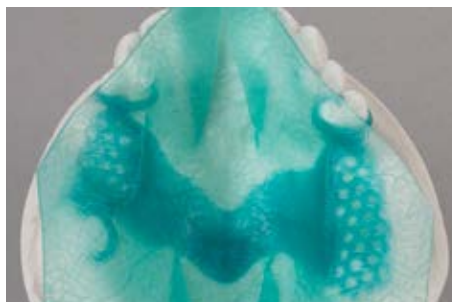
Description	Content	Art. No.
GEO model casting assortment	4 sheets of casting wax smooth, 0.3 mm (28 ga.); 4 sheets of casting wax, fine stippled, 0.35 mm (27 ga.); 4 sheets of casting wax, fine stippled, 0.5 mm (24 ga.); 4 sheets of casting wax, coarse stippled, 0.5 mm (24 ga.); 5 sheets of casting wax, 0.6 mm (22 ga.); 3 sheets of Bonyhard clasps; 3 sheets of molar clasps; 3 sheets of premolar clasps; 3 sheets of ring clasps; 3 sheets of grid meshes; 10 pcs. of lingual bars; 10 pcs. of perforated retainers; 10 pcs. of wax rods, 0.8 mm (20 ga.); 30 g of sculpturing wax for model casting; 30 g of undercut wax	6330000

### Function & Performance

The most important pre-fabricated wax parts for efficient working are included in the clearly designed assortment.

### Advantages

- ▶ Practical assortment box for an organised and clean work bench.
- ▶ All contents can be ordered individually.
- ▶ No distractions or eyestrain due to a variety of different colors.



For further information, please see the Model casting manual. [www.renfert.com/P48](http://www.renfert.com/P48)



**Cim Özyurt, Product Management:**

"All wax parts of the GEO model casting waxes are colored in turquoise. This has the advantage, that the wax model corresponds to the appearances of the casted partial.

The light turquoise of the GEO model casting sheets has a high translucency, which allows optimal showing through of the marked lines."



## Stress-free working

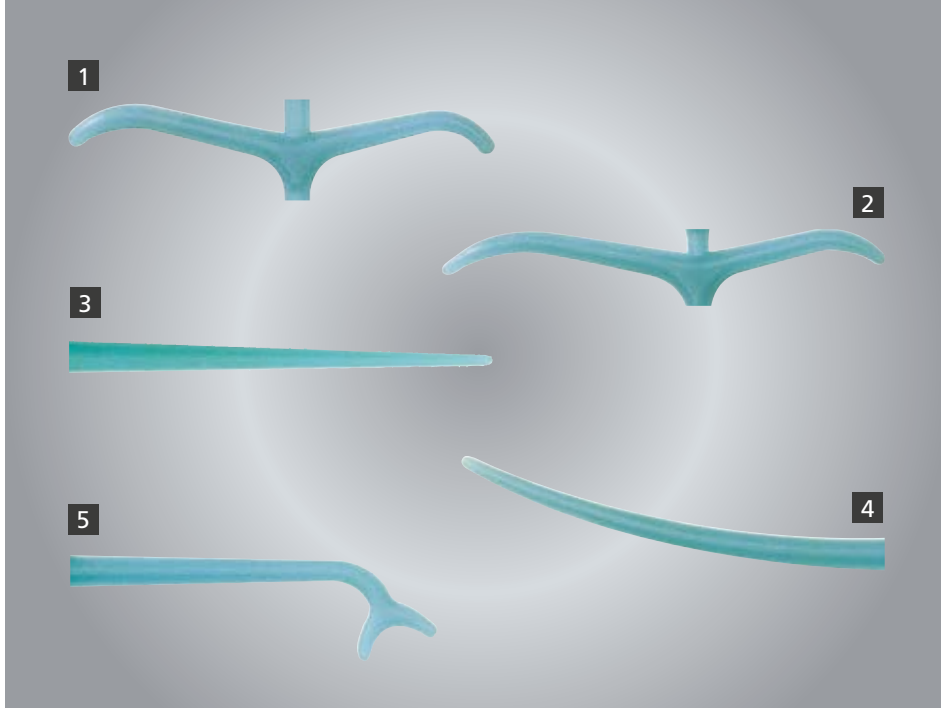


### Save time with a concept



Take advantage of easy waxing up using our wax technology equipment. Time-saving and ideal temperatures lead to your perfect results. This greatly facilitates waxing up for you.

## GEO Preformed clasps



### Function & Performance

Anatomically shaped clasp profiles that run conically, made of easily adaptable wax. Also available with self-adhesive coating.

### Advantages

- ▶ High pressure stability prevents the shape and structure from becoming crushed.
- ▶ Stress-free application and adaptation.
- ▶ Extremely smooth surface without pores and cavities.

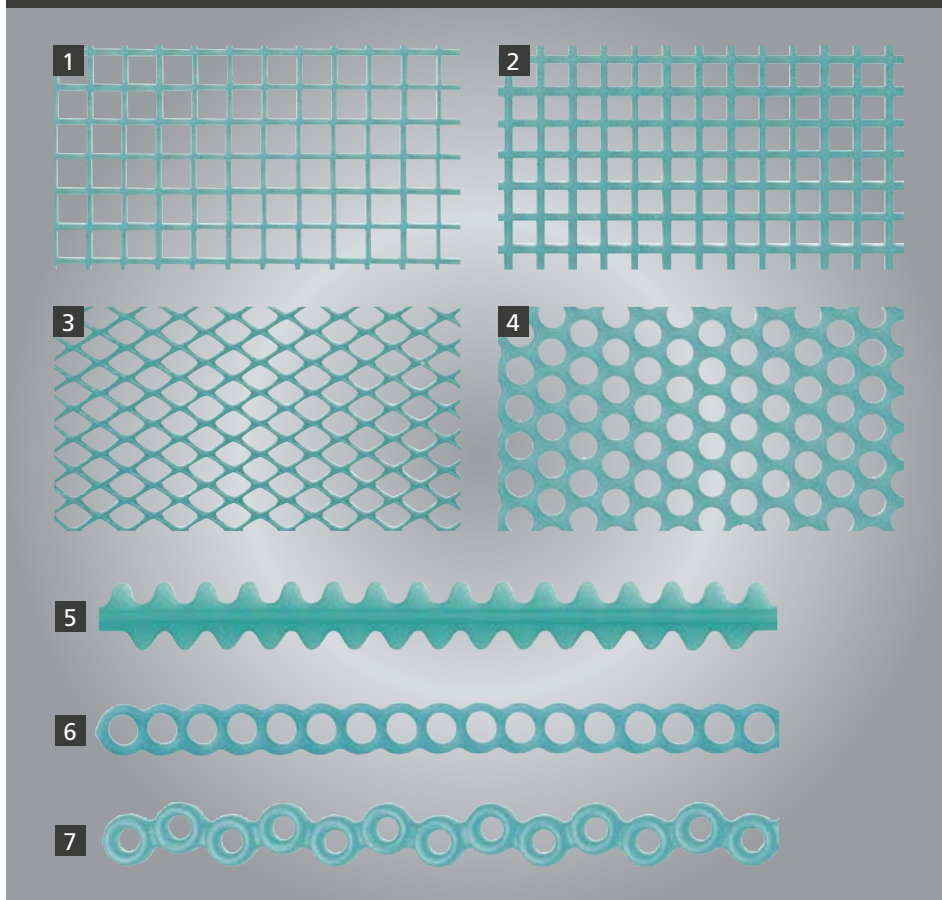
1. GEO Premolar clasps
2. GEO Molar clasps
3. GEO Ring clasps straight
4. GEO Ring clasps
5. GEO Bonyhard clasps

## The secure hold

Description	Features	Art. No.
Premolar clasps, 200 pcs.	normal	6883002
Premolar clasps, 200 pcs.	self-adhesive	6383002
Molar clasps, 200 pcs.	normal	6883003
Molar clasps, 200 pcs.	self-adhesive	6383003
Ring clasps straight, 200 pcs.	normal	6883004
Ring clasps straight, 200 pcs.	self-adhesive	6383004
Ring clasps, 200 pcs.	normal	6883005
Ring clasps, 200 pcs.	self-adhesive	6383005
Bonyhard clasps, 200 pcs.	normal	6883010
Bonyhard clasps, 200 pcs.	self-adhesive	6383010



## GEO Wax retainers



### For maximum retention

Description	Features	Art. No.
Retention grid, large, 20 sheets	normal	6883007
Retention grid, large, 20 sheets	self-adhesive	6383007
Retention grid, fine, 20 sheets	normal	6883008
Retention grid, fine, 20 sheets	self-adhesive	6383008
Retention grid, diagonal, 20 sheets	normal	6883011
Retention grids, diagonal, 20 sheets	selfadhesive	6383011
Circular retainer, 20 sheets	normal	6883009
Circular retainer, 20 sheets	self-adhesive	6383009
Bar retainer, 10 sheets	normal	6883006
Bar retainer, 10 sheets	self-adhesive	6383006
Perforated retainers, 40 strips	straight	6643000
Perforated retainers, 40 strips	staggered	6623000



### Function & Performance

Wax retention for model casting techniques.

### Advantages

- ▶ Easy, stress-free adaption due to the best wax quality.
- ▶ High pressure stability prevents distortion to shape or structure.
- ▶ High-quality surface structure for optimal casting results.

#### 1. GEO retention meshes, coarse

- ▶ Large grid structure of 2.2 x 2.2 mm.
- ▶ Sheet size 70 x 70 mm.
- ▶ Sheet thickness 0.75 mm.

#### 2. GEO retention meshes, fine

- ▶ Fine grid structure of 1.8 x 1.8 mm.
- ▶ Sheet size 70 x 70 mm.
- ▶ Sheet thickness 0.7 mm.

#### 3. GEO retention mesh, diagonal

- ▶ Excellent retention effect due to special structure.
- ▶ Sheet size 70 x 70 mm.
- ▶ Sheet thickness 0.95 mm.

#### 4. GEO grid meshes

- ▶ Circle diameter 2.0 mm.
- ▶ Sheet size 70 x 70 mm.
- ▶ Sheet thickness 0.8 mm.

#### 5. GEO bar retainers

- ▶ Ideal for narrow lower jaw ridges.
- ▶ Sheet size 70 x 70 mm.
- ▶ Sheet thickness 1.3 mm.

#### 6. GEO perforated retention, straight

- ▶ Ideal for lingual retention, even where space is limited.

#### 7. GEO perforated retention, staggered

- ▶ Compact retention.
- ▶ The staggered arrangement provides optimum space for tooth arrangement.

### GEO Casting wax smooth

#### Function & Performance

Turquoise, transparent sheet wax with smooth surface.

- ▶ Sheet size 75 x 150 mm (2.96 x 5.91 inch).
- ▶ Sheet thickness 0.3–0.6 mm (28 ga. – 22 ga.).
- ▶ Quantity 15 sheets.

Description	Features	Art. No.
GEO casting wax smooth	0,30 mm (28 ga.)	6403030
GEO casting wax smooth	0,35 mm (27 ga.)	6403035
GEO casting wax smooth	0,40 mm (26 ga.)	6403040
GEO casting wax smooth	0,50 mm (24 ga.)	6403050
GEO casting wax smooth	0,60 mm (22 ga.)	6403060

### GEO Casting wax fine stippled

#### Function & Performance

Turquoise, transparent sheet wax with fine surface pattern.

- ▶ Sheet size 75 x 150 mm (2.96 x 5.91 inch).
- ▶ Sheet thickness 0.3–0.6 mm (28 ga. – 22 ga.).
- ▶ Quantity 15 sheets.

Description	Features	Art. No.
GEO casting wax fine stippled	0,30 mm (28 ga.)	6413030
GEO casting wax fine stippled	0,35 mm (27 ga.)	6413035
GEO casting wax fine stippled	0,40 mm (26 ga.)	6413040
GEO casting wax fine stippled	0,50 mm (24 ga.)	6413050
GEO casting wax fine stippled	0,60 mm (22 ga.)	6413060

### GEO Casting wax coarse stippled

#### Function & Performance

Turquoise, transparent sheet wax with prominent surface pattern.

- ▶ Sheet size 75 x 150 mm (2.96 x 5.91 inch).
- ▶ Sheet thickness 0.3–0.6 mm (28 ga. – 22 ga.).
- ▶ Quantity 15 sheets.

Description	Features	Art. No.
GEO casting wax coarse stippled	0,30 mm (28 ga.)	6433030
GEO casting wax coarse stippled	0,35 mm (27 ga.)	6433035
GEO casting wax coarse stippled	0,40 mm (26 ga.)	6433040
GEO casting wax coarse stippled	0,50 mm (24 ga.)	6433050
GEO casting wax coarse stippled	0,60 mm (22 ga.)	6433060

### GEO Casting wax veined

#### Function & Performance

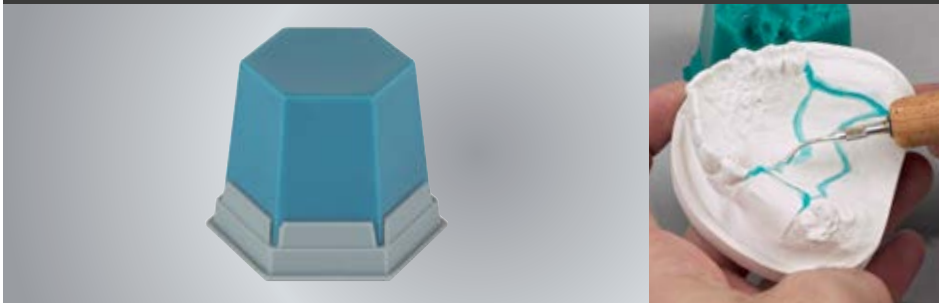
Turquoise, transparent sheet wax with distinct surface pattern.

- ▶ Sheet size 75 x 150 mm (2.96 x 5.91 inch).
- ▶ Sheet thickness 0.3–0.6 mm (28 ga. – 22 ga.).
- ▶ Quantity 15 sheets.

Description	Features	Art. No.
GEO casting wax veined	0,30 mm (28 ga.)	6443030
GEO casting wax veined	0,35 mm (27 ga.)	6443035
GEO casting wax veined	0,40 mm (26 ga.)	6443040
GEO casting wax veined	0,50 mm (24 ga.)	6443050
GEO casting wax veined	0,60 mm (22 ga.)	6443060



## GEO Cast Model Modeling wax



### The ideal complement

Description	Features	Art. No.
GEO cast modeling wax, 75 g (2.63 oz.)	hard, turquoise opaque	6491000

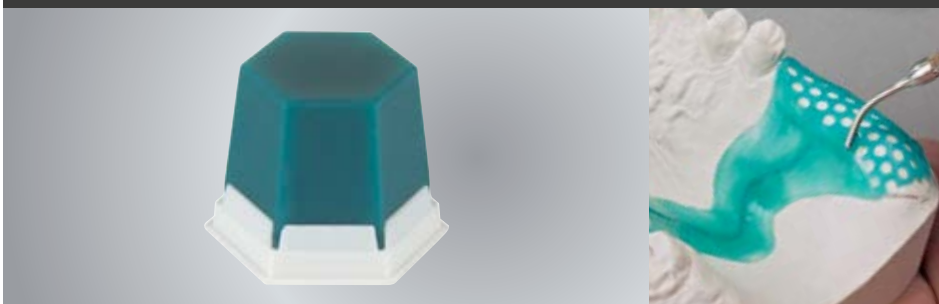
### Function & Performance

For modeling cast model sections on the investment model.

### Advantages

- ▶ Wax composition is precisely matched to preformed wax clasps.
- ▶ High depth of vision for max. contour definition.
- ▶ Optimum modeling of occlusal surfaces or sharp edges.

## GEO Cast Model Modeling wax transparent



### Light transparent Help

Description	Features	Art. No.
GEO cast modeling wax, 75 g (2.63 oz.)	standard, turquoise transparent	6490000

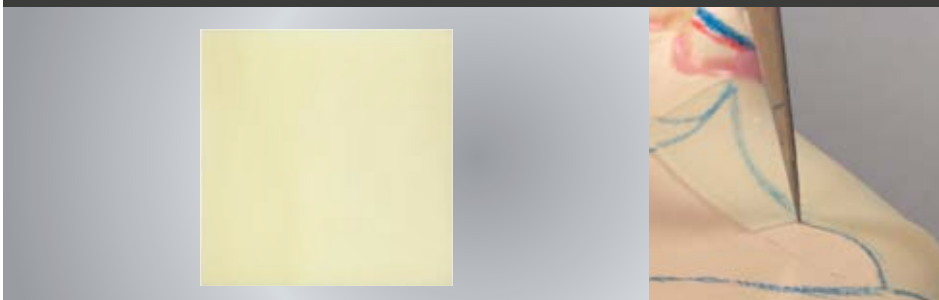
### Function & Performance

For modeling cast model sections on the investment model.

### Advantages

- ▶ Wax precisely matched to preformed wax clasps.
- ▶ Ideal for recognising markings.
- ▶ Burns out without leaving a residue.

## GEO Casting wax



Description	Features	Art. No.
GEO Casting wax, 32 sheets	0.3 mm (28 ga.)	4453003
GEO Casting wax, 32 sheets	0.4 mm (26 ga.)	4453004
GEO Casting wax, 32 sheets	0.5 mm (24 ga.)	4453005
GEO Casting wax, 32 sheets	0.6 mm (22 ga.)	4453006

### Function & Performance

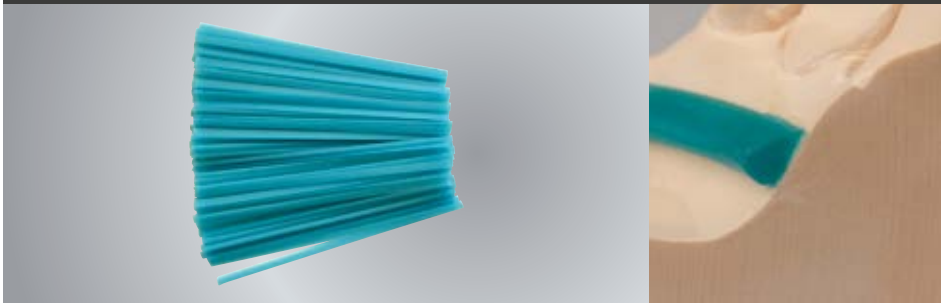
Self-adhesive preparation wax for laying under saddles.

### Advantages

- ▶ Optimal adhesion even on damp models.
- ▶ Defined undercut in metal.
- ▶ No penetration of duplicating material under wax.



## GEO Lingual bars



### The secure hold

Description	Features	Art. No.
GEO Lingual bars, approx. 65 g (2.28 oz.)	4 x 2 mm (0.16 x 0.08")	6673042

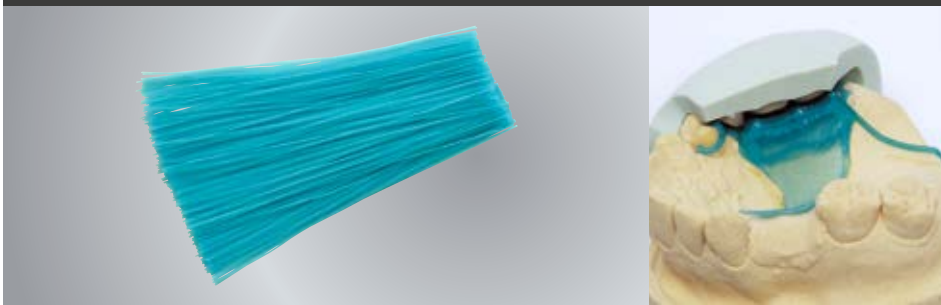
### Function & Performance

Profile sections for forming lower jaw bars.

### Advantages

- ▶ High pressure stability prevents the shape and structure from becoming crushed.
- ▶ Stress-free application and adaptation.
- ▶ Extremely smooth surface without pores and cavities.

## GEO Wax wire in bars



### For individual fitting

Description	Features	Art. No.
GEO Wax wire in bars, approx. 12 g (0.42 oz.)	0,6 mm (22 ga.)	6683006
GEO Wax wire in bars, approx. 25 g (0.88 oz.)	0,8 mm (20 ga.)	6683008
GEO Wax wire in bars, approx. 37 g (1.30 oz.)	1,0 mm (18 ga.)	6683010
GEO Wax wire in bars, approx. 50 g (1.75 oz.)	1,2 mm (16 ga.)	6683012

### Function & Performance

Wax profiles for forming edges or individual retainers.

### Advantages

- ▶ Dimensionally stable patterns.
- ▶ Stress-free working.
- ▶ Easily adaptable.



### Cim Özyurt, Product Management:

"Do you need more information about model fabrication? Have a look at our model casting manual. Here, you will find a variety of step-by-step explanations from analysis to planning and manufacture of a model. Valuable tips complete the manual. Just scan the QR code and get started!"

## Mesh inserts



### For strong support

Description	Thickness	Dimensions (W x H x D)	Art. No.
Mesh inserts, gold-plated, 5 pcs.	0,45 mm (0.02")	68 x 40 x 12,5 mm (2.68 x 1.58 x 0.49")	2321100

### Function & Performance

Used to reinforce acrylic dentures for more stability.

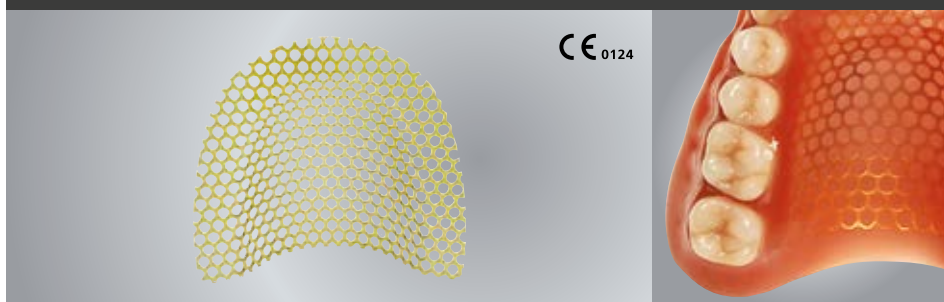
### Advantages

- ▶ Strong gold-plated mesh.
- ▶ Easy, individual adaptation.
- ▶ Guaranteed high stability of the acrylic denture.

### Note

Not available in U.S./Canada.

## Strengthening grid



### Reinforcement for more stability

Description	Thickness	Dimensions (W x H x D)	Art. No.
Strengthening grid, plain, 5 pcs.	0,4 mm (0.02")	59 x 54 x 14 mm (2.32 x 2.13 x 0.55")	2350004
Strengthening grid, gold-plated, 5 pcs.	0,4 mm (0.02")	59 x 54 x 14 mm (2.32 x 2.13 x 0.55")	2350104

### Function & Performance

Insertion grid with increased stability for complete or partial upper dentures.

### Advantages

- ▶ The denture will stay in position even if breaks or cracks should occur in the acrylic.
- ▶ In gold-plated or plain version.
- ▶ Improves the strength of an acrylic denture considerably.

### Note

Not available in U.S./Canada.

## Mesh strengtheners



Description	Thickness	Dimensions	Art. No.
Mesh strengthener, medium, gold-plated, 1 roll	0,4 mm (0.02")	50 x 10 cm (19.70 x 3.94")	2232100
Mesh strengthener, fine, gold-plated, 3 sheets	0,4 mm (0.02")	10 x 10 cm (3.94 x 3.94")	2221100
Mesh strengthener, medium, gold-plated, 3 sheets	0,4 mm (0.02")	10 x 10 cm (3.94 x 3.94")	2231100
Mesh strengthener, fine, gold-plated, 1 roll	0,4 mm (0.02")	50 x 10 cm (19.70 x 3.94")	2222100

### Function & Performance

Fine mesh for individual reinforcement of acrylic dentures.

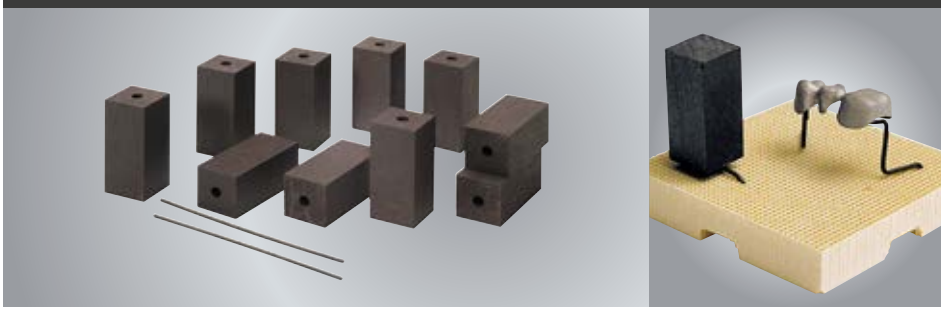
### Advantages

- ▶ Easily adaptable.
- ▶ Simple to match by cutting individual shapes.

### Note

Not available in U.S./Canada.

## Active Carbon



The ideal accessory for the porcelain technician

### Function & Performance

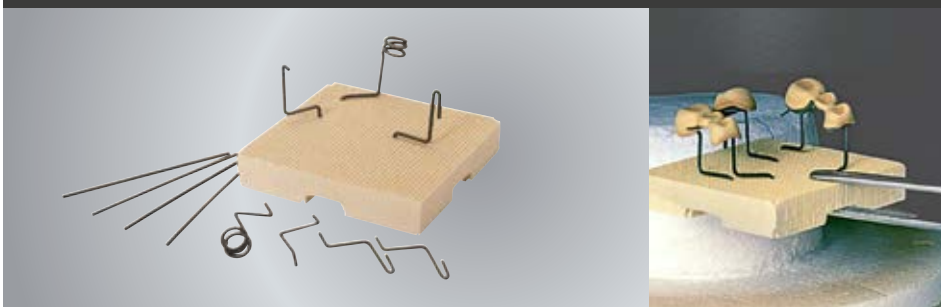
For regularly cleaning the porcelain furnace by absorbing the oxide deposits during the firing process.

### Advantages

- ▶ Ideal for firing non-precious metals, low gold content and bonding alloys as well as oven solderers.
- ▶ Prevents contaminative deposits.
- ▶ Does not affect the porcelain quality.

Description	Quantity	Art. No.
Active Carbon	10 pieces, incl. 2 supports	20650000

## Mesh-Tray



### Function & Performance

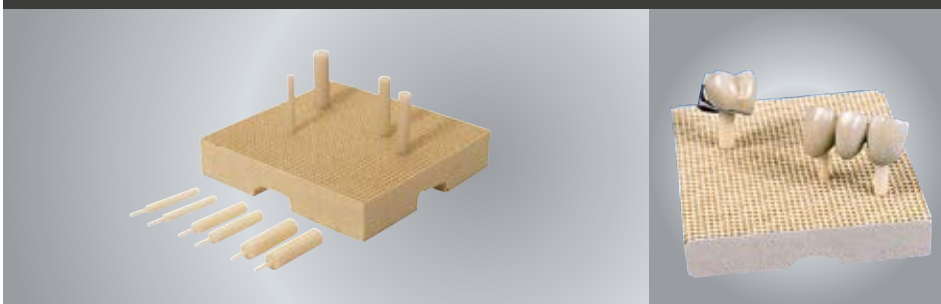
Honeycomb shaped, lightweight firing tray for individual positioning of crowns and bridges in the porcelain oven.

### Advantages

- ▶ Firing tray absorbs minimal heat.
- ▶ No transfer of tension onto the model.
- ▶ Supports made from a high temperature-resistant special alloy – can be individually shaped.

Description	Quantity	Ø supports	Dimensions of base plate (W x D x H)	Art. No.
Mesh-Tray	2 base plates, 6 shaped and 4 straight supports	1 mm (0.04")	approx. 55 x 53 x 10 mm (2.17 x 2.09 x 0.39")	19220000
Support wires	6 x shaped, 4 x straight	1 mm (0.04")		919220001
Support wires	20 x straight	1 mm (0.04")		919220003

## Mesh-Tray K



### Function & Performance

Firing tray with porcelain supports for individual positioning of crowns and bridges in the porcelain oven.

### Advantages

- ▶ Construction ensures a similar expansion / contraction like the object.
- ▶ No transfer of tension to the model.
- ▶ Porcelain supports.

Description	Quantity	Ø supports	Dimensions of base plate (W x D x H)	Art. No.
Mesh-Tray K	2 base plates, 10 porcelain supports	2 / 3 / 4 mm (0.04 / 0.08 / 0.12")	approx. 55 x 53 x 10 mm (2.17 x 2.09 x 0.39")	19220100
10 porcelain supports	(3 x Ø 2 mm, 4 x Ø 3 mm, 3 x Ø 4 mm)	2 / 3 / 4 mm (0.04 / 0.08 / 0.12")		919220002

## Fibertray



### The soft tray

Description	Quantity	Ø Fibertray	Art. No.
Fibertray	10 pieces	50 mm (1.97")	19190000

#### Function & Performance

Textile firing tray for stable positioning of porcelain models during firing in the oven.

#### Advantages

- ▶ Remove minimal heat from object to be fired.
- ▶ Ideal for full porcelain restorations or large span bridge constructions.
- ▶ More stable than wool firing pads.

## Ceramex



### Porcelain removal made easy

Description	Quantity	Art. No.
Ceramex	1 l (0.26 gal)	21871000

#### Function & Performance

Stripping agent for removing porcelain, investment material and metal oxides.

#### Advantages

- ▶ Effective removal of fired porcelain in an ultrasound bath.
- ▶ Removal of oxides on bonding metals.
- ▶ Etching full porcelain inlays and crowns before final fixation.
- ▶ Loosening investment material from cast objects without sandblasting.

#### Note

Not available in U.S./Canada.



**Oliver Bothe, Product management:**  
 "Ceramex is a very effective pickling agent. In order to ensure it is compatible with the framework material, test the product on a sample of each different material first. Please always use a polyethylene container."



## Abrasives from the experts in blasting techniques



Renfert abrasives are supplied in acrylic canisters or buckets to preserve their high quality. The hermetic seals on these containers prevent any humidity entering. The 5 kg canisters are easy to handle. The abrasive can be comfortably poured into the module.

### Cobra

This abrasive contains one of the hardest materials: aluminium oxide ( $\text{Al}_2\text{O}_3$ ).

### Advantages

- ▶ Extremely sharp-edged.
- ▶ Low to very high abrasive effect dependant on size.
- ▶ Extremely pure – approx. 99.7%  $\text{Al}_2\text{O}_3$ .



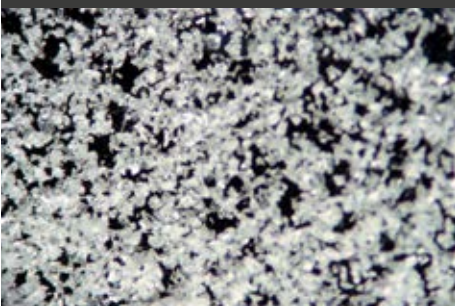
### Rolloblast

Non-abrasive glass beads for smoothing and condensing of surfaces.

### Advantages

- ▶ Guarantees silky matt surface with no light reflection.
- ▶ For the finest surface treatment of precious and non-precious metal alloys.
- ▶ Does not cause silicosis.

### Cobra 25 $\mu\text{m}$ (450 mesh)

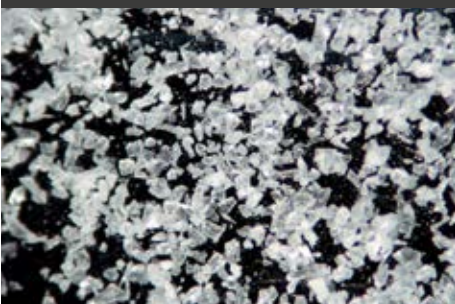


### Function & Performance

- ▶ Fissure blasting.
- ▶ Devesting pressed porcelain/inlays.

Description	Quantity	Art. No.
Cobra 25 $\mu\text{m}$ , white	5 kg canister (11.04 lbs.)	15941105

### Cobra 50 $\mu\text{m}$ (270 mesh)



### Function & Performance

- ▶ Gently abrasive.
- ▶ Gentle oxide removal / deflasking.
- ▶ Frame preparation (precious metals).

Description	Quantity	Art. No.
Cobra 50 $\mu\text{m}$ , white	5 kg canister (11.04 lbs.)	15941205
Cobra 50 $\mu\text{m}$ , white	20 kg bucket (44.16 lbs.)	15942220



**Cobra 90–125 µm  
(200–115 mesh)**



#### Function & Performance

- ▶ Mildly abrasive.
- ▶ Oxide removal/deflasking.
- ▶ Frame preparation (precious/non-precious metals).

Description	Quantity	Art. No.
Cobra 90 µm, white	5 kg canister (11.04 lbs.)	15841005
Cobra 110 µm, white	5 kg canister (11.04 lbs.)	15831005
Cobra 110 µm, white	20 kg bucket (44.16 lbs.)	15831020
Cobra 125 µm, pink	5 kg canister (11.04 lbs.)	15871005
Cobra 125 µm, pink	20 kg bucket (44.16 lbs.)	15871020

**Cobra 250 µm  
(60 mesh)**

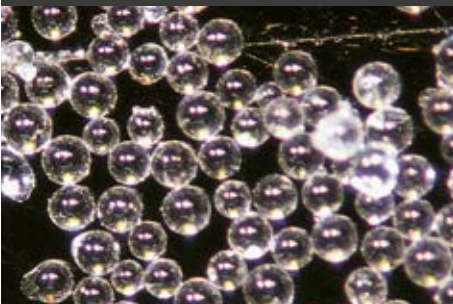


#### Function & Performance

- ▶ Highly abrasive.
- ▶ Removal of heavy oxide layers/deflasking (non-precious metals).

Description	Quantity	Art. No.
Cobra 250 µm, white	5 kg canister (11.04 lbs.)	15851005
Cobra 250 µm, white	20 kg bucket (44.16 lbs.)	15851020

**Rolloblast 50 µm  
(400–200 mesh)**



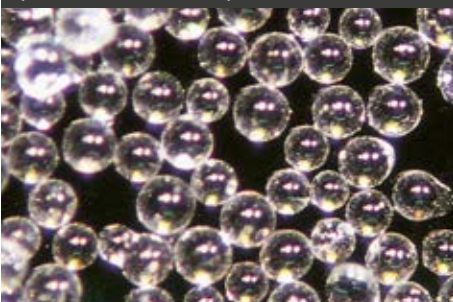
#### Function & Performance

- ▶ Surface condensing and silky matte high-luster finish on occlusal surfaces, in secondary components or crown interiors.

- ▶ Denture cleaning (plaster/tooth tartar).
- ▶ Devesting (pressed porcelain/inlays).

Description	Quantity	Art. No.
Rolloblast 50 µm	5 kg canister (11.04 lbs.)	15941305
Rolloblast 50 µm	12.5 kg canister (27.6 lbs.)	15942312

**Rolloblast 100 µm  
(170–100 mesh)**



#### Function & Performance

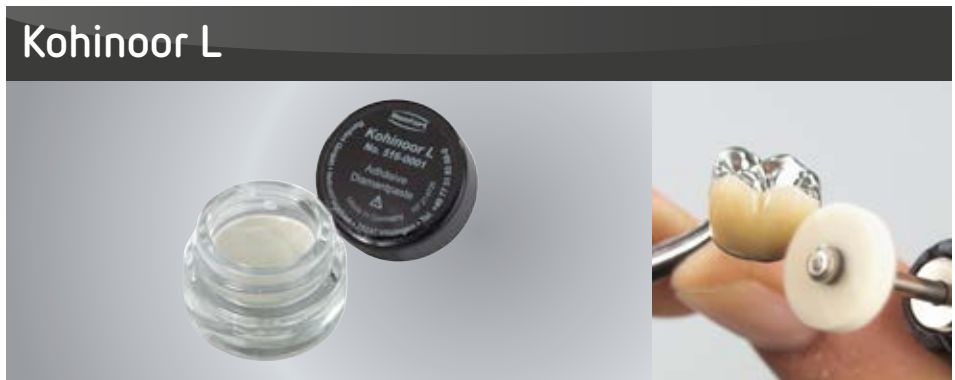
- ▶ Surface condensing, matting and luster polish of non-precious metals.
- ▶ Removal of residue from dentures (plaster/tooth tartar/etc.).

Description	Quantity	Art. No.
Rolloblast 100 µm	5 kg canister (11.04 lbs.)	15891005

Overview Polishing agents

Description	Precious metals		Model casting/ npm		Ceramics		Acrylics for veneer		Denture resin		Page
	Prepol.	HL	Prepol.	HL	Prepol.	HG	Prepol.	HL	Prepol.	HL	
Kohinoor L						■					152
Brinell L		■		■		■					152
Saphir	■	■	■	■							153
Universal polishing paste beige										■	153
Opal L							■	■		■	153
Dia-Finish L						■		■			102

Prepol. = Prepolishing | HL = High-luster



Kohinoor L

**Function & Performance**

Fine, adhesive diamond polishing paste for high-luster polish on porcelain.

**Advantages**

- ▶ Optimum uptake with rotating polishing brush.
- ▶ Very economical in its use.
- ▶ Ideal for "hand polishing" porcelain work.

Perfect high-gloss shine in seconds

Description	Quantity	Art. No.
Kohinoor L	5 g (0.18 oz.)	5160001



Brinell L

**Function & Performance**

Brinell L is a high-luster polishing paste impregnated with diamond powder for precious metal bonding alloys and porcelain.

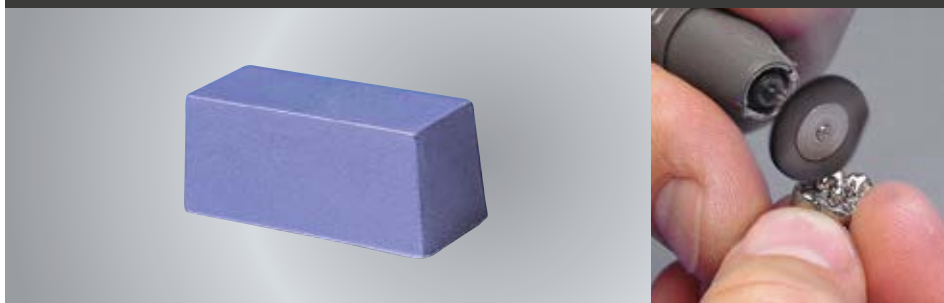
**Advantages**

- ▶ The finest diamond particles achieve the optimum high-luster shine.
- ▶ Sparing application via the measuring syringe.
- ▶ Efficient take-up using felt wheels.

Brilliant shine in seconds

Description	Quantity	Art. No.
Brinell L	5 ml (0.17 fl.oz.) with 1 cotton buff (No. 205 1000), 1 felt wheel and 1 mandrel	5190001

## Saphir



### One for all

Description	Quantity	Art. No.
Saphir	approx. 250 g (8.75 oz.)	5150000

#### Function & Performance

High-luster polishing paste for precious metal and chrome-cobalt alloy crowns and bridges.

#### Advantages

- ▶ Special formula of high quality raw materials.
- ▶ For general use on all alloys.
- ▶ Optimum polishing effect with Polisoft pre-polishers and Bison brushes.

## Universal polishing paste beige



### For mirror-like polished surfaces

Description	Quantity	Art. No.
Universal polishing paste, beige	6 x ca. 200 g (7.0 oz.)	5131000

#### Function & Performance

Paste for high-luster polish on all prosthetic acrylics.

#### Advantages

- ▶ Hard polishing paste for mirror-like surface.
- ▶ Long-lasting.
- ▶ Fine grained consistency.

## Opal L



### The classic amongst polishing pastes

Description	Quantity	Art. No.
Opal L	35 g (1.23 oz.)	5200001

#### Function & Performance

White high-luster polishing paste for all facing acrylics using a handpiece.

#### Advantages

- ▶ Particularly suitable for light-curing acrylics.
- ▶ Quick polishing effect.
- ▶ Quickly smooths the surface without altering the structure.

## Overview Cleaning, etching and polishing agents

Description	Suitable for	Removal of	Page
SYMPROfluid Universal	Dentures, orthodontic appliances and splints	Plaque, tartar and adhesive creme	65
SYMPROfluid Nicoclean	Dentures and splints	Nicotine stains	65
Ceramex	Etching of porcelain, metal-ceramic alloys	Porcelain, investment material and metal oxides	149
GO-2011	Mixing bowls, acrylic dentures, impression trays, castings, instruments, utilities	Dental stones, alginates	154
Electrolyte	Electrolytic polishing of chrome cobalt frames		154

## GO-2011



## One for all

**Function & Performance**

The most effective all-in-one cleaner for alginate and gypsum contamination. Only one solvent for both applications.

**Advantages**

- ▶ Ready to use: Simple and fast.
- ▶ Quick reacting (bubble forming).
- ▶ Does not etch acrylics, metals, or glass.

Description	Quantity	Art. No.
GO-2011	2 l (0.53 gal)	20110000

## Electrolyte



## Shine through strength

**Function & Performance**

For electrolytic high-luster polishing of chrome cobalt frames in special units.

**Advantages**

- ▶ Special additives ensure time-saving and high efficiency during electrolytic polishing.
- ▶ For all units with copper, precious metal or titanium electrodes.

Description	Quantity	Art. No.
Electrolyte	2 l (0.53 gal)	15241000
Electrolyte	10 l (2.64 gal)	15242000





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GEO Model casting wax standard/transparent	145	Investment models, model spray	123	Micro-fiber brushes for porcelain, Ceramicus	82
GEO Molar clasps	142	Isofix 2000, plaster/plaster isolation	128	Micro-sandblasters	22–29
GEO Natural, wax-up wax	135	Isolating pen for porcelain	128	Microscope, accessories	69
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GEO Perforated wax retainers	143	Iso-Stift, porcelain isolation	128	Microscope, Mobiloskop S	68–69
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GEO Premolar clasps	142	Jacket-Grip, fixation pliers	90	Mixing bowls, Twister	38
GEO Retention grids	143			Mixing palettes	72–75, 79
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GEO Undercut wax	136			Model casting system, GEO	140
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## Renfert. Always there for you.



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The product you purchased is no longer as efficient or you would like to order a replacement part?

We will help you. Our Customer Service and After Sales Service department can be contacted quickly if there are any questions or problems.

Search for your contact partner according to your country and a friendly Renfert employee will help you further.

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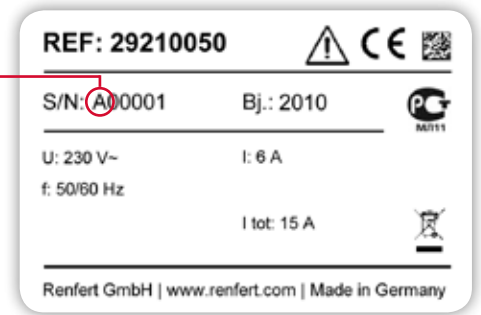
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## Replacement parts very quickly. But how?

As soon as you require a replacement part, first provide us with information about the article number and status of the unit as follows: newer units have a type plate on which you will see the valid status for your unit. With older units refer to the purchase date of your unit. Using this information either call your Renfert dealer or find the replacement part you require on the Renfert homepage.

Status of the replacement parts list



## Imprint

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Date 4/2014

### Warranty

Renfert provides a 3-year guarantee for all units provided they are used properly. The warranty excludes parts which are subject

to natural wear and tear. The warranty is void with improper use, disregard of the operating, maintenance, cleaning and connection instructions, self-repair or repair by unauthorized personnel, use of replacement parts from other manufacturers and with unusual influences or influences not permitted according to the instructions for use. Warranty services do not extend the warranty.

WEEE-Reg. No.: 54602389

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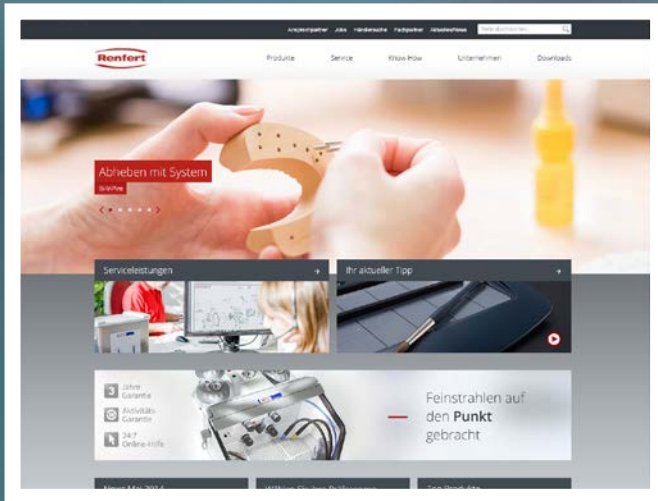
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