

hotty LED

No. 1461-0000 / No. 1461-1000

Bedienungsanleitung
Instruction manual • Mode d'emploi
Istruzioni d'uso • Instrucciones para el servicio
Инструкция по эксплуатации
操作说明书 • 取扱説明書 • 사용 설명서



0210 21-9945 A

Made in Germany

Renfert

Ideas for dental technology

Seriennummer, Herstelldatum und Geräte-Version befinden sich auf dem Geräte-Typenschild.

Serial number and date of manufacturing are shown on the type plate of the unit.

Le numéro de série et la date de fabrication se trouvent sur la plaque signalétique de l'appareil.

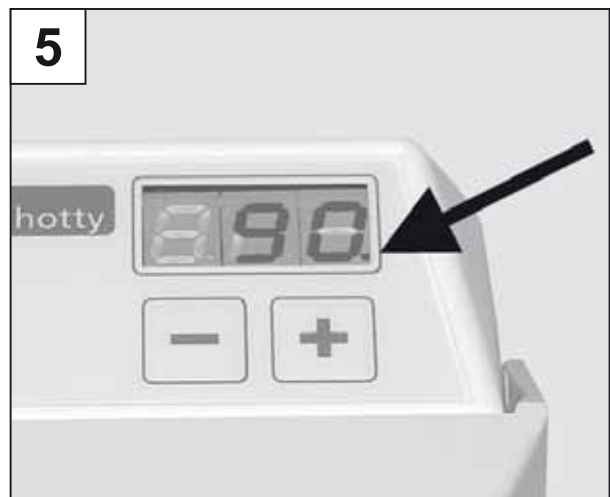
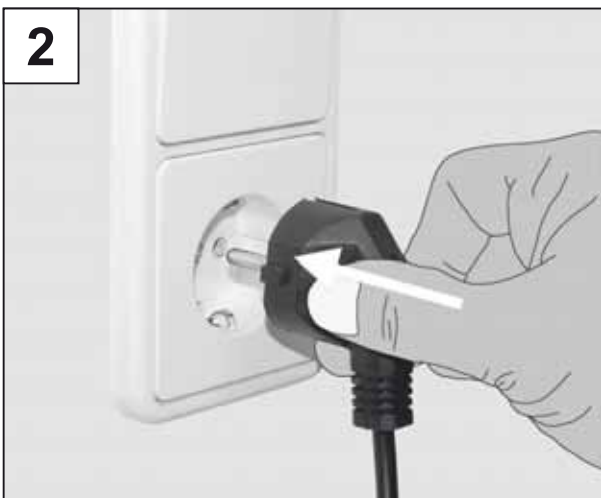
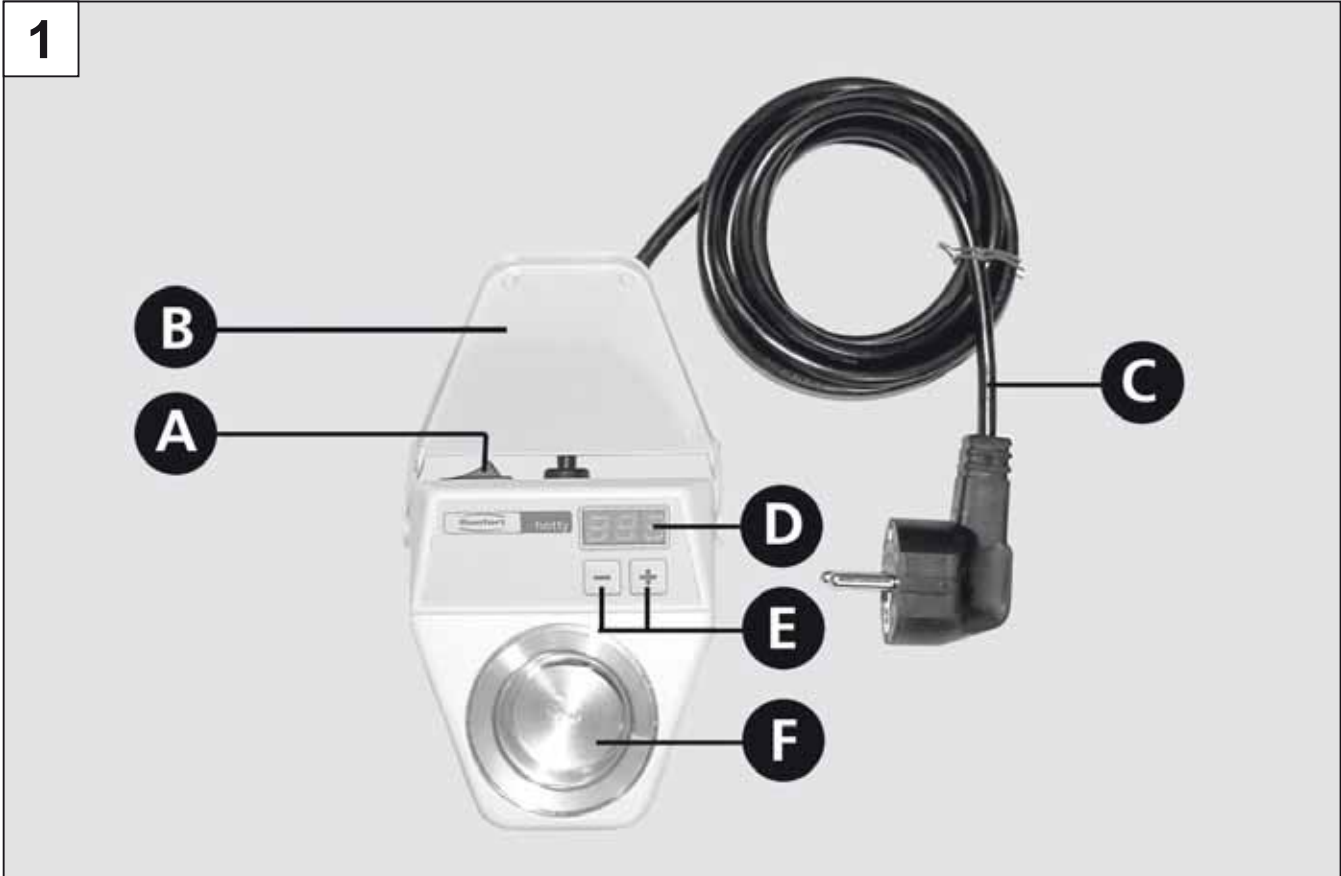
Il numero di serie e la data costruzione si trovano sulla targhetta dell'apparecchio.

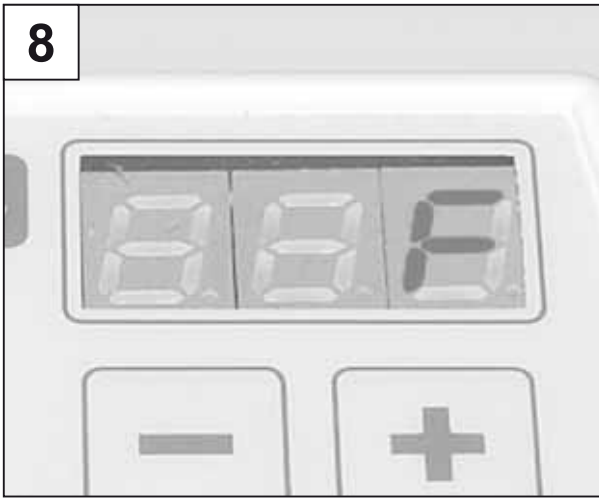
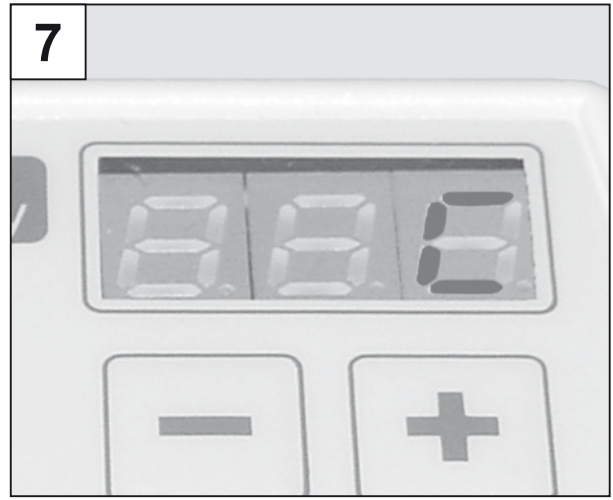
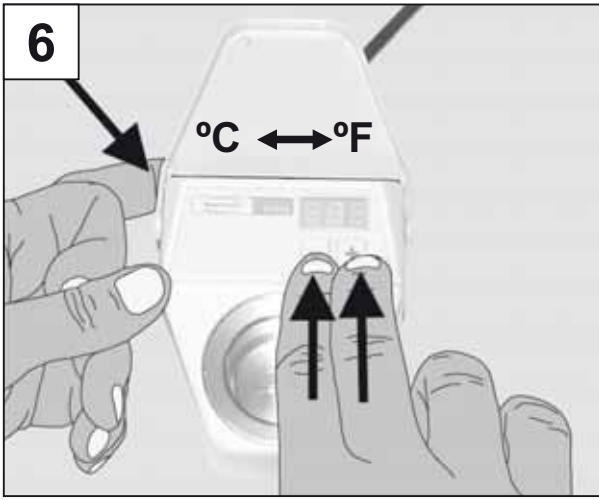
El número de serie y la fecha de fabricación están indicados en la placa identificadora del aparato.

Номер серии и дата изготовления указаны на фирменной табличке прибора.

シリアル番号、製造日および装置のバージョンは装置の型番号ラベルに記載されています。

시리얼번호, 제조일자 및 기기 버전은 기기의 명판에 표시되어 있습니다.





hotty LED

No. 1461-0000 / No. 1461-1000

ENGLISH

1. Introduction

Thank you for purchasing our *hotty LED* wax dipping unit.

Please observe the following notices, they will help provide you a long and problem free lifetime of your wax dipping unit.

2. Application area

The *hotty LED* is an electronically regulated wax dipping pot. It is ideally suited for melting and retaining any conventional dipping wax.

The *hotty LED* shows its quality in use when it comes to the following points:

The precise temperature control (+/- 2°C [3.6°F]) provides you with a very constant quality of copings. Together with the heating unit, which reacts to the environmental temperature, this excludes the possibility of over heating and consequent damage to the dipping wax.

Please be aware that the initial heating process is very gentle to the dipping wax and it may take some time before the wax is fully melted. Thanks to a slow continual increase of the working temperature, there is no chance that the temperature inside the pot will exceed the set point.

The *hotty LED* offers you optimal working conditions. The housing is designed to let both left and right-handed people rest their hand on the working table whilst dipping. In addition, the lid of the wax-dipping unit can be moved completely out of the working area.

2.1 Environmental conditions

(In accordance with EN 61010-1)

The unit may only be operated:

- Indoors;
- Up to an altitude of 2,000 m [6,500 ft] above sea level;

- At an ambient temperature of 5 - 40°C [41 - 104°F] *);
- At a maximum relative humidity of 80% at 31°C [87.8°F], decreasing linearly to 50% relative humidity at 40°C [104°F] *);
- With a mains power supply where current fluctuations do not exceed 10% of the nominal value;
- Under level 2 contamination conditions;
- Under overvoltage category II conditions.

*) Between 5 – 30°C [41 - 86°F], the unit can be operated at a relative humidity of up to 80%. At temperatures between 31 - 40°C [87.8 - 104°F], the humidity must decrease proportionally in order to ensure operational readiness (e.g., at 35°C [95°F] = 65% humidity; at 40°C [104°F] = 50% humidity). The unit may not be operated at temperatures above 40°C [104°F].

3. Safety Information

***hotty LED* is an electrical appliance with a danger potential. This appliance may be connected / used only by authorized and qualified persons after checking its conformity with respect to the national norms.**



Before initial use, check the voltage recommendations on the name plate (rear side of the unit) and compare with the mains supply.



Units with damaged power cables or other defects are not to be used.



Mains supply cable (C) must be unrolled when in use (danger of over heating in the event of short circuit).



Molten wax can cause severe burns to the skin. Do not move the unit once in operation.



The wax melting pot (F) heats up during use right to the rim. Incorrect use can lead to burns, even 30 min. after the unit has been switched off.



The *hotty LED* is only intended for use with conventional dental dipping wax. Under no circumstances should it be filled with other materials.



Please remember: overfilled pots can easily overflow!



Materials with a flash point below 175°C [347°F] are not to be stored in the vicinity of or in contact with the *hotty LED*.



Do not rinse or dip into water! Mains supply can cause electric shock!

3.1 Liability Exclusion

Renfert GmbH shall be absolved from all claims for damages or warranty if:

- The product is employed for any purposes other than those cited in the operating instructions;
- The product is altered in any way other than those alterations described in the operating instructions;
- The product is repaired by other than an authorised facility or if any but Renfert OEM parts are employed;
- The product continues to be employed, despite obvious safety faults;
- The product is subjected to mechanical jarring or is dropped.

4. Operating Elements (fig. 1)

- A) On/Off Switch
- B) Lid
- C) Power Cable
- D) LED Display
- E) Temperature Setting -/+
- F) Heating Pot

5. Commissioning / Operation

1. Connect *hotty LED* to the mains supply (fig. 2).
2. Flip the lid (B) open (fig. 3).
3. Fill the pot with dipping wax (F) (fig. 4).
4. Turn on the *hotty LED* by pressing the button (A). The LED-Display (D) now shows the chosen temperature setting (°C or °F), changes then to show the nominal temperature, then changes finally to show the actual temperature.
5. The LED-Display shows a small indicator in the bottom right hand corner (fig. 5). As soon as the nominal temperature has been reached, this indicator will go out.

5.1 Setting the Temperature scale to °C or °F



Please observe that all 230 V units are pre-set to centigrade (°C) and that all 120 V units are pre-set to Fahrenheit (°F).

1. Steps 1-4 (point 5) must be fulfilled before doing this.
2. Press and hold buttons - and + (fig. 6) and turn on the *hotty LED* by pressing the button (A).
3. The LED-Display (D) now shows **C** = degrees Celsius (fig. 7) or **F** = degrees Fahrenheit (fig. 8).
4. After 5 seconds, the display changes between **C** and **F** or vice versa, then release buttons -/+ . Following this, you will see the nominal temperature displayed shortly, then the actual temperature.

5.2 Setting the nominal temperature

To set the temperature, press buttons -/+ (E) repeatedly until the required value is displayed (fig. 9). This value is saved automatically after 5 seconds even after the unit is switched off.

! **Notice:** The nominal temperature is saved automatically within 5 seconds. After that the *hotty LED* can be turned off using the button (A) or the mains supply. All values will be saved.

5.3 Dipping (fig. 10)

- support the hand well.
- dip your object quickly into the wax, past the preparation margin.
- pull the object back out in a slow movement.
- hold shortly before the tip of the die leaves the wax pot, allowing excess wax to drip off.

6. Cleaning and Maintenance

The *hotty LED* is maintenance free. Wipe off the surface from time to time using a damp soft cloth. Never use detergents or solvents!



Never rinse the *hotty LED* with running water!

Cold wax remnants can be removed by carefully scraping them off.

Lightly warming the surface with a hair-dryer makes it easier to remove any unwanted wax.

7. Spare Parts

For the order numbers of consumables and spare parts please refer to the spare parts list at the end of this manual.

8. Guarantee

Under proper use, Renfert warrants the *hotty LED* for a period of **3 years**. Conditions for the fulfilment of this warranty include the presentation of original buyers receipt from a recognised dealer. Components subject to natural wear and tear are not included in this warranty.

Warranty becomes void in a case of improper use, failure to observe operating, cleaning, maintenance and connection instructions. Also in the case of independent repairs or repairs carried out by

unauthorised personnel, or if unauthorised spare parts are used and when influences unusual or in non-compliance with the instructions for use apply. Services carried out under warranty do not extend the warranty period.

9. Technical Specifications

Maximum power: 23 W (+/- 10%)

Minimum operating temperature:
60°C [140°F]

Maximum operating temperature:
110°C [230°F]

Power Supply: 230 V / 50-60 Hz
100-120 V / 50-60 Hz

Safety Appliances:

Fuse (not changeable)

rating: 230 V = T 500 mA / 250 V
100-120 V = T 250 mA / 250 V

Dimensions (w x d x h):
90 x 98 x 65 mm
[3,55 x 3,86 x 2,56 inch]

Weight: approx. 400 g

10. Scope of Delivery

- 1 *hotty LED* Wax dipping unit
- 1 Operating Instructions
- 1 Spare Parts List

11. Accessories

GEO-Dip Dipping Wax (elastic):

No. 482-3000 *GEO-Dip* yellow, 200 g

No. 482-3200 *GEO-Dip* orange, 200 g

No. 482-3300 *GEO-Dip* green, 200 g

Rewax Dipping Wax (hard, non-elastic):

No. 651-0000 *Rewax* yellow, 210 g

12. Troubleshooting

Error	Possible cause	Corrective action
No display / no operation, although the unit is switched on the main switch (A).	<ul style="list-style-type: none"> • Power supply interrupted. • Faulty overheat fuse. • Faulty unit fuse. 	<ul style="list-style-type: none"> • Check the power supply and power cords. • Have fuse replaced by Service Department. • Have fuse replaced by Service Department.
The unit is operating but there is no increase in temperature.	<ul style="list-style-type: none"> • Faulty thermal sensor. • Faulty heater. 	<ul style="list-style-type: none"> • Have probe replaced by Service Department. • Have heater repaired by Service Department.
Temperature has been changed but is not saved.	<ul style="list-style-type: none"> • Mains supply interrupted before saving values (5 seconds after changing values). 	<ul style="list-style-type: none"> • Change again temperature and turn off unit only after 5 seconds.

13. Disposal instructions for countries in the EU

To conserve and protect the environment, prevent environmental pollution and improve the recycling of raw materials, the European Commission adopted a directive that requires the manufacturer to accept the return of electrical and electronic units for proper disposal or recycling.

Within the European Union units with this symbol should not therefore be disposed of in unsorted domestic waste:



For more information regarding proper disposal please apply at your local authorities.



Bei Ersatzteilbestellungen bitte die ARTIKELNUMMER und die SERIENNUMMER des Gerätes sowie die gewünschte POS-Nr. angeben.

When ordering spare parts please state the ARTICLE NUMBER, the SERIAL NUMBER and the requested POS-NO.

Pour la commande de pieces de rechange indiquer s.v.p. le RÉFÉRENCE-NO, le NUMÉRO DE SERIE et le POS-NO.

Per eventuali ordini dei pezzi di ricambio, Vi preghiamo di aggiungere sempre il CODICE D'ARTICOLO, NUMERO DI SERIE et il POS-NO della posizione da Voi richiesta.

Al pedir piezas de recambio, rogamos indicar: ARTÍCULO-NO., NUMERO DE SERIE al igual que el POS-NO de posición deseado.

При заказе запасных частей просьба указать НОМЕР АРТИКУЛА (КОД) и НОМЕР СЕРИИ аппарата, а также желаемый НОМЕР ПОЗИЦИИ.

Position	DEUTSCH	ENGLISH	FRANÇAIS
1	Deckel HOTTY /Aufdruck blau	Lid HOTTY / Blue print	Couvercle HOTTY / Imprimé en bleu
2	Gummifüsse	Rubber bases	Pieds en caoutchouc

Position	ITALIANO	ESPAÑOL	РУССКИЙ
1	Coperchio HOTTY / Stampato in blu	Tapa HOTTY / Impres. azul	Крышка HOTTY / синий напечатанный текст
2	Piedini di gomma	Pies de goma	Резиновые ножки

CE EG-Konformitätserklärung

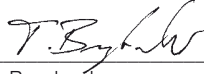
DE

Renfert GmbH, Industriegebiet, 78247 Hilzingen / Germany

Hiermit erklären wir, dass das Produkt
hotty LED

mit folgenden Europäischen Richtlinien übereinstimmt:
2006/95/EG (Niederspannungsrichtlinie)
2004/108/EG (EMV Richtlinie)

Folgende harmonisierte Normen wurden angewendet:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
Leiter Konstruktion und Geräteentwicklung

Hilzingen, 05.02.2004

CE EC Declaration of conformity

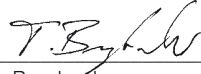
EN

Renfert GmbH, Industriegebiet, 78247 Hilzingen / Germany

We hereby declare that the construction type of product
hotty LED

complies with the following European Directives:
2006/95/EC (Low voltage equipment)
2004/108/EC (Electromagnetic compatibility)

Harmonized specifications applied:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
Engineering Director

Hilzingen, 05.02.2004

CE Déclaration de conformité CE


FR

Renfert GmbH, Industriegebiet, 78247 Hilzingen / Germany

Par la présente, nous certifions que le produit
hotty LED

est conforme aux directives européennes suivantes :
2006/95/CE relative aux basses tensions
2004/108/CE relative à la compatibilité électromagnétique

Normes harmonisées appliquées:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
Chef du bureau d'études

Hilzingen, 05.02.2004

CE Dichiarazione di conformità CE


IT

Renfert GmbH, Industriegebiet, 78247 Hilzingen / Germany

Con la presente dichiariamo che il prodotto
hotty LED

è conforme alle seguenti direttive europee:
2006/95/CE (direttiva bassa tensione)
2004/108/CE (direttiva compatibilità elettromagnetica)

Le seguenti norme armonizzate sono state applicate:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
Capo reparto costruzione e sviluppo apparecchi

Hilzingen, 05.02.2004

CE Declaración de Conformidad CE

ES

**Renfert GmbH, Industriegebiet, 78247 Hilzingen /
Alemania**

Por la presente declaramos que el producto
hotty LED

corresponde a las siguientes Directivas Europeas:
2006/95/CE (Directiva de Baja Tensión)
2004/108/CE (Directiva de Compatibilidad Electromagnética)

Se ha cumplido con las siguientes normas armonizadas:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
Director de Construcción y Desarrollo de Maquinaria

Hilzingen, el 05.02.2004

CE Декларация о соответствии ЕС

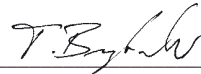
RU

**Renfert GmbH, Industriegebiet, 78247 Hilzingen /
Германия**

Настоящим мы заявляем, что продукт
hotty LED

соответствует следующим Европейским директивам:
2006/95/EC (Директива в отношении электрического оборудования в
пределах определенных границ напряжения)
2004/108/EC (Директива в отношении электромагнитной
совместимости)

Следующие гармонизированные стандарты были
выполнены:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Тило Бургбахер,
Руководитель конструкторского отдела

Хильцинген, 05.02.2004

ZH

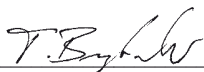
CE EU-符合标准声明

Renfert GmbH, Industriegebiet, 78247 Hilzingen / 德国

我们在此郑重声明, 产品 **hotty LED**

符合下列欧洲标准:
2006/95/EC (低电压指令)
2004/108/EC (电磁兼容性指令)

使用了下列统一标准:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
设计及仪器开发总监

Hilzingen, 2004年02月05日

JA

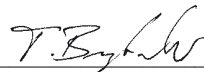
CE EU整合性声明

レンフェルト有限公司、インツツリーゲビート、78247 ヒルツィンゲン/ドイツ

製品 **hotty LED**

は以下の欧州命令を遵守している旨を声明する。
2006/95/EC (低圧命令)
2004/108/EC (電磁気耐性命令)

以下の整合規格が適用された:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



ティロ ブルクバッハー
設計機器開発部長

ヒルツィンゲン、2004年02月05日

KO

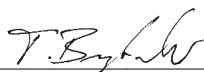
CE EU 규정 적합성 선언

Renfert GmbH, Industriegebiet, 78247 Hilzingen / Germany

본사는 제품 **hotty LED**

이 다음 유럽 제규정에 부응함을 선언합니다:
2006/95/EC (저전압 가이드라인)
2004/108/EC (전자파 적합성 가이드라인)

다음 일원화 규범이 적용되었습니다:
DIN EN 61010-1; DIN EN 61010-2-010; DIN EN 61326



Tilo Burgbacher,
기기설계 개발부장

독일 Hilzingen, 2004년 02월 05일

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Up to date and in detail at ...
Actualisé et détaillé sous ...
Aggiornato e dettagliato su ...
La máxima actualidad y detalle en ...
Актуально и подробно на ...**

www.renfert.com



Ideas for dental technology

Renfert GmbH • Industriegebiet • 78247 Hilzingen/Germany
oder: Postfach 1109 • 78245 Hilzingen/Germany
Tel.: +49 7731 82 08-0 • Fax: +49 7731 82 08-70
www.renfert.com • info@renfert.com

Renfert USA • 3718 Illinois Avenue • St. Charles IL 60174/USA
Tel.: +1 6307 62 18 03 • Fax: +1 6307 62 97 87
www.renfert.com • richardj@renfertusa.com
USA: Free call 800 336 7422