Programat® EP 5010

The intelligent press and ceramic furnace

Achieving excellent **press results** is now even **easier.**

With fully automatic press function

FPF
IPS e.max® Press

INFRARED TECHNOLOGY

Digital Shade Assistant

ivoclar vivadent®

passion vision innovation

The ideal
## press furnace for
IPS e.max® Press

Proven

The press furnaces from Ivoclar Vivadent are based on long-standing success. The company introduced the press technology to the dental market in 1991. Since then it has established itself as the market leader in this field, continuously satisfying customers with products of the highest quality.

Innovative

The Programat® EP 5010 is an advanced version of the Programat EP 5000, incorporating many innovative features.

System components as a key to success

The resounding success of the Programat press furnaces is based on the fact that the furnace technology is perfectly matched to the materials of Ivoclar Vivadent. Therefore, users can fully rely on their furnaces and benefit from excellent press and firing results.
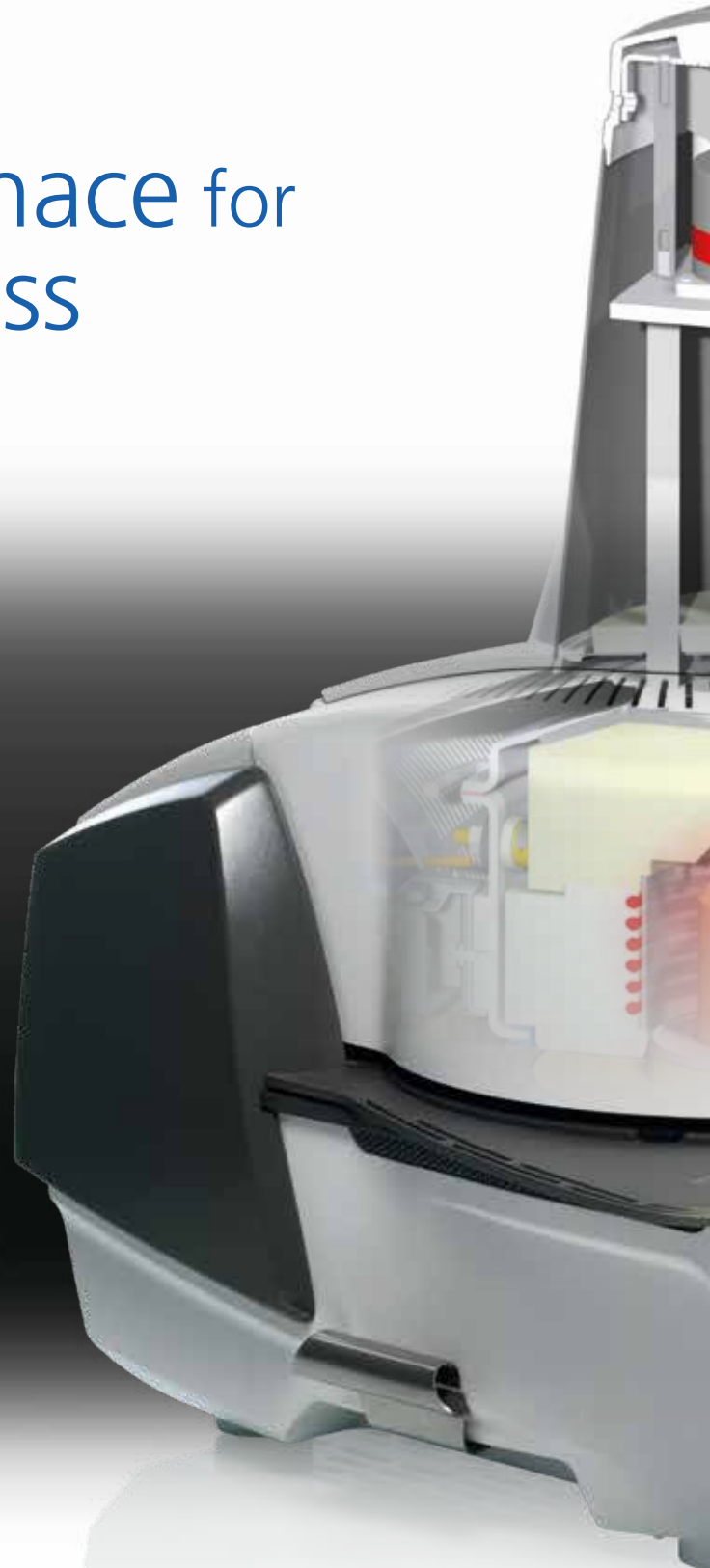
EVEN MORE

- **Multimedia functions (photos, videos, music)**
- **500 individual firing programs and 20 individual press programs**
- **Large cooling tray with separate cooling grid**
- **Integrated firing tong holder**
- **SD card reader for image transfer**

Fully automatic
press function (FPF) –
### at the push of a button

FPF
IPS e.max® Press

Fully automatic press function*

Due to the new patented and fully automatic press function, pressing is now even easier and more economical. All you need to do is put the investment ring into the furnace and press the start button - everything else is performed by the furnace itself. It chooses the press program, automatically heats the press chamber to the appropriate temperature and presses the fluid ceramic into the investment ring at the right time. Even post-pressing and cooling are controlled fully automatically – simply by touching a button.

QTK2 muffle technology with SiC bottom reflector

The new QTK2 muffle together with the SiC bottom reflector ensures optimum temperature distribution. The investment ring warms up more evenly and efficiently, which leads to high-quality press and firing results.

Due to the uniform temperature distribution, even difficult-to-press restorations can be processed.
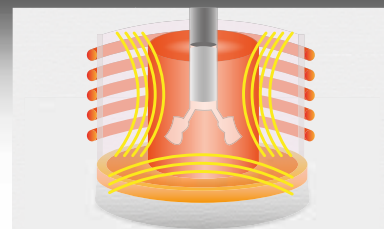
Even heating of the investment ring – also in the bottom area – due to the SiC bottom reflector

*only for IPS e.max® Press

The intelligent
Programat infrared technology

How does infrared technology work?

The innovative integrated thermographic camera measures the exact temperature at the surface of the fired object and the investment ring. This technology opens up a host of new possibilities for controlling the predrying processes in the firing of ceramic objects. In the pressing mode, the temperature and size of the investment ring is measured fully automatically and contact-free. This technology increases the convenience and process reliability of press and firing procedures.
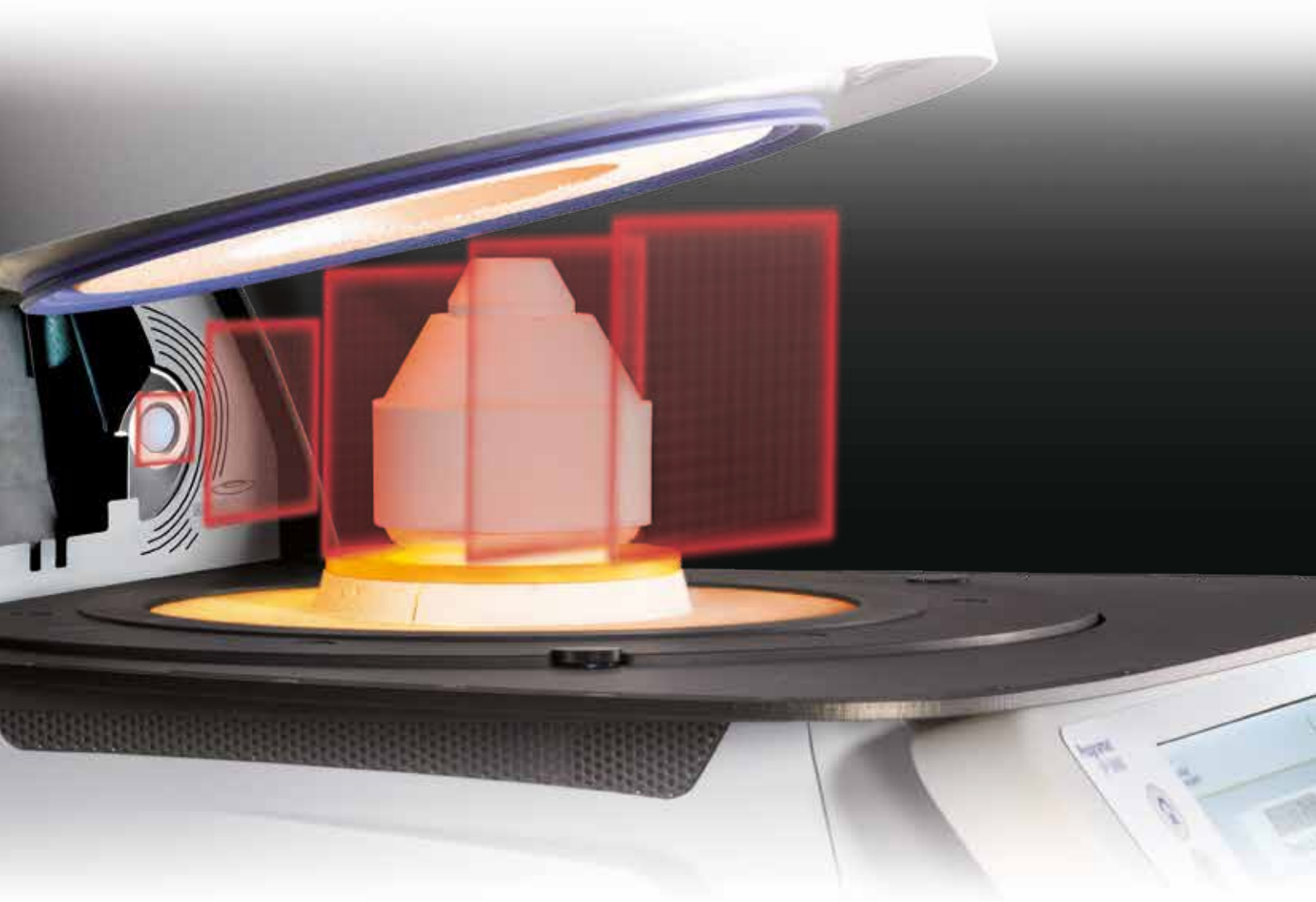
The furnace head and the heater are controlled with the infrared camera. Therefore, the predefined predrying temperature is maintained on the object in the furnace.

INFRARED TECHNOLOGY

Measures the temperature
of the fired object
or the investment ring

Firing

Object-related temperature measurement and predrying process
The infrared camera measures the temperature at the surface of the fired object during the predrying and closing cycles. It calculates and controls the ideal predyring process.

BENEFITS

• **High level of process reliability**

• **High-quality firing results**

• **Up to 20% faster processing**

Pressing

Contact-free temperature measurement of the investment ring
When the objects are loaded in the furnace, the infrared camera checks the temperature of the preheated investment ring and adjusts the press process accordingly or indicates that the investment ring is too cold.

BENEFITS

• **Hardly any faulty results caused by cold investment rings**

• **The preheating furnace can be optimally coordinated with the press furnace**

Automatic recognition of the investment ring size
The thermal imaging system automatically identifies the size of the investment ring used.

BENEFITS

• **Automatic, fast and convenient selection of the investment ring size**

While the objects are loaded, a thermal image of the investment ring is displayed.

DSA – Digital Shade Assistant

Digital shade analysis

Integrated in the new Programat EP 5010 furnace, the patented Digital Shade Assistant allows reliable tooth shade determination in a snap.

Here is how it works: The software compares the shade of the tooth to be analyzed with three pre-selected shade guide teeth on the screen. Special image processing software automatically recognizes which tooth to analyze and which three shade guide teeth to use. The shade guide tooth that comes closest to the tooth that is being analyzed is shown on the tooth. No further devices are required.

1. Pre-select the three closest tooth shades.

2. Take a photograph of the teeth and shade guide and transfer the data to the furnace using an SD card, USB flash drive, Ethernet* or WLAN*.

*by means of the PrograBase X10 software

3. Import the photos and start the digital tooth shade determination. The result (e.g. B1) is displayed.

1. The area of reference can be individually selected.

2. Either incisal edge to incisal edge or tooth neck to incisal edge can be selected.

3. Manual analyses including brightness and shade saturation (Lab values)

4. Zoom function for a detailed view

Further highlights

Electronic press drive with force sensor
The electronic press drive with force sensor records and controls the pressure of the press plunger very precisely and therefore ensures top-quality press results. A compressed air connection is not required.
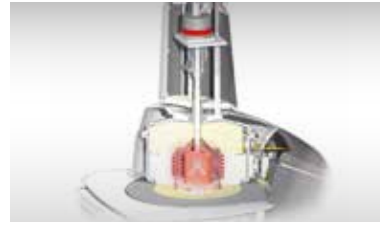
Crack Detection System (CDS)
The Programat EP 5010 features the Crack Detection System (CDS). This system identifies cracks in the investment ring at an early stage and reduces the pressure, if necessary. As a result, the press process ends in time to protect the restorations.

Automatic double-range temperature calibration (ATK2)
The ATK2 temperature checking system calibrates the temperature in the furnace fully automatically and at two different temperature ranges. This ensures high-precision press and firing procedures.

Optical status and progress display
The Optical Status Display (OSD) uses different colours to inform the operator about the actual operating status (red = heating, green = ready, blue = cooling).

Even better

- **Software update via WLAN or USB flash drive**

- **Double-valve vacuum technology**

- **Power Fail Save system to bridge short power interruptions**

- **Variety of maintenance and diagnostic programs**

- **PrograBase software establishes a connection to the PC**

- **Wireless data transfer via WIFI**

- **LAN, USB and audio ports and integrated SD reader**

- **Remote diagnostics via data file or Internet**

Technical data

Power supply	110 – 120 V, 50 – 60 Hz 200 – 240 V, 50 – 60 Hz Admissible voltage fluctuations ±10%
Max. power consumption	12 A at 110 – 120 V 8.0 A at 200 – 240 V
Vacuum pump data	Max. power consumption: 250 W Final vacuum: < 50 mbar Only tested pumps should be used.
Dimensions of closed furnace	Depth: 495 mm Width: 320 mm / 395 mm (with cooling tray) Height: 550 mm
Dimensions of firing chamber	Diameter: 90 mm Height: 80 mm
Max. firing temperature	1,200 °C
Weight	20.5 kg
Safety information	The furnace is built according to the following standards: – IEC 61010 – UL and CAN/CSA
Radio protection / Electromagnetic compatibility	EMC tested
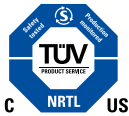
Delivery form

Programat EP 5010

Power cord
Vacuum hose
Programat Firing Tray Kit 2
Automatic Temperature Checking Set ATK2 (test set)
USB download cable
Investment ring cooling grid
Programat WLAN Kit
Various accessories

Recommended accessories
(not contained in the delivery form)

VP5 Vacuum Pump
Programat Accessories Set
Automatic Temperature Checking Set ATK2
Firing tong

VP5

Programat® EP 5010 forms a part of the "Fixed Prosthetics" product category. The products of this category cover the procedure involved in the fabrication of fixed prosthetic restorations – from temporization to restoration care. The products are optimally coordinated with each other and enable successful processing and application.

Telio®	IPS e.max®	Programat®	IPS e.max®	Multilink®	Cervitec®
PREPARE	**RESTORE**	**PROCESS**	**FINISH**	**PLACE**	**MAINTAIN**

THESE ARE FURTHER PRODUCTS OF THIS CATEGORY:

IPS e.max® System
all ceramic – all you need

The comprehensive solution covering all indications

• Highly esthetic, high-strength materials for the press and CAD/CAM technique
• Unique lithium disilicate (LS$_2$) and zirconium oxide (ZrO$_2$) ceramics for restorations ranging from thin veneers to long-span bridges
• Flexibility of cementation: adhesive, self-adhesive and conventional

Variolink® Esthetic
The esthetic luting composite

The luting composite for exceptional esthetics and user-friendly processing

• Balanced and concise Effect shade system
• Excellent shade stability due to amine-free composition
• Easy, controlled excess removal

Would you like to know more about the products of the "Fixed Prosthetics" category? Simply get in touch with your contact person at Ivoclar Vivadent or visit www.ivoclarvivadent.com for more information.

ivoclar vivadent®

passion vision innovation

Programat®
A STORY OF SUCCESS

Economical
Effective
Future-oriented

POWER
SAVING

Technology

Stand-by key saves power

Efficient use of energy and responsible use of valuable resources: Ivoclar Vivadent is committed to this goal. Therefore, the Programat P510 is equipped with the new Power Saving Technology. In the stand-by mode, the energy consumption of the furnace drops by almost 40 percent. As a result, you save on electricity costs and help to protect our environment. Look out for the Power Saving Technology label on the back of your device.

Saving electricity is easy

Simply press the Power Saving key: If the furnace is not being used, briefly press the Power Saving key to activate the power-saving mode.