

VARIO 230/230 ZR



VARIO 230 Series

The only firing chamber in the world with temperature homogeneity across the entire firing tray!

- 500 Programs, each individually programmable
- Individually pre-programmed upon request
- Designed for new dental ceramic materials

A technological leap forward!



Full touch display and intuitive menu navigation

The VARIO 230 presents itself with a large and well-arranged full touch display. The modern and contemporary menu navigation represents more efficiency and operating comfort. Whether editing for one-time a running programme or permanently changing the programme parameters - working with the VARIO 230 proves to be child's play.



USB Port Download Service Centre

After successful registration of your VARIO 230 furnace in the service area of our Zubler homepage you have access to our huge database. To download various programmes for all dental ceramics on the market and the current software version for your furnace - simply log in and download.

In addition to the extended warranty, you will receive all services in the download centre and you will always be technically up-to-date.



TTC Modus Enables linear cooling*

The ingenious software and the firing chamber design enable a linear cooling process when in TTC mode: this prevents chipping, microfractures and cracks in zirconia ceramics.

* Available only in the VARIO 230ZR version.



Z-120 Technology

The VARIO 230 series ceramic ovens feature a firing chamber with an inner diameter of 120mm and heating coil height of approx. 60mm. This unique size configuration allows for temperature homogeneity across the entire firing tray unattained until now. This new configuration in conjunction with Zubler's legendary temperature control systems, guarantee the utmost precision and highest quality firings no matter where on the tray you put your work!



Z-Dry Mode Accurate and time-saving

A virtual sensor adjusts the lift position based on the temperature in the firing chamber and automatically ensures an ideal and constant pre-drying temperature. This feature saves time from the traditional methodology and is much more accurate.

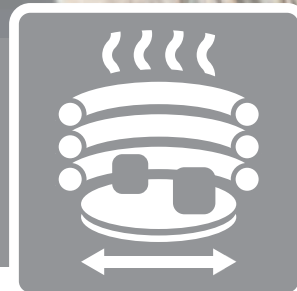
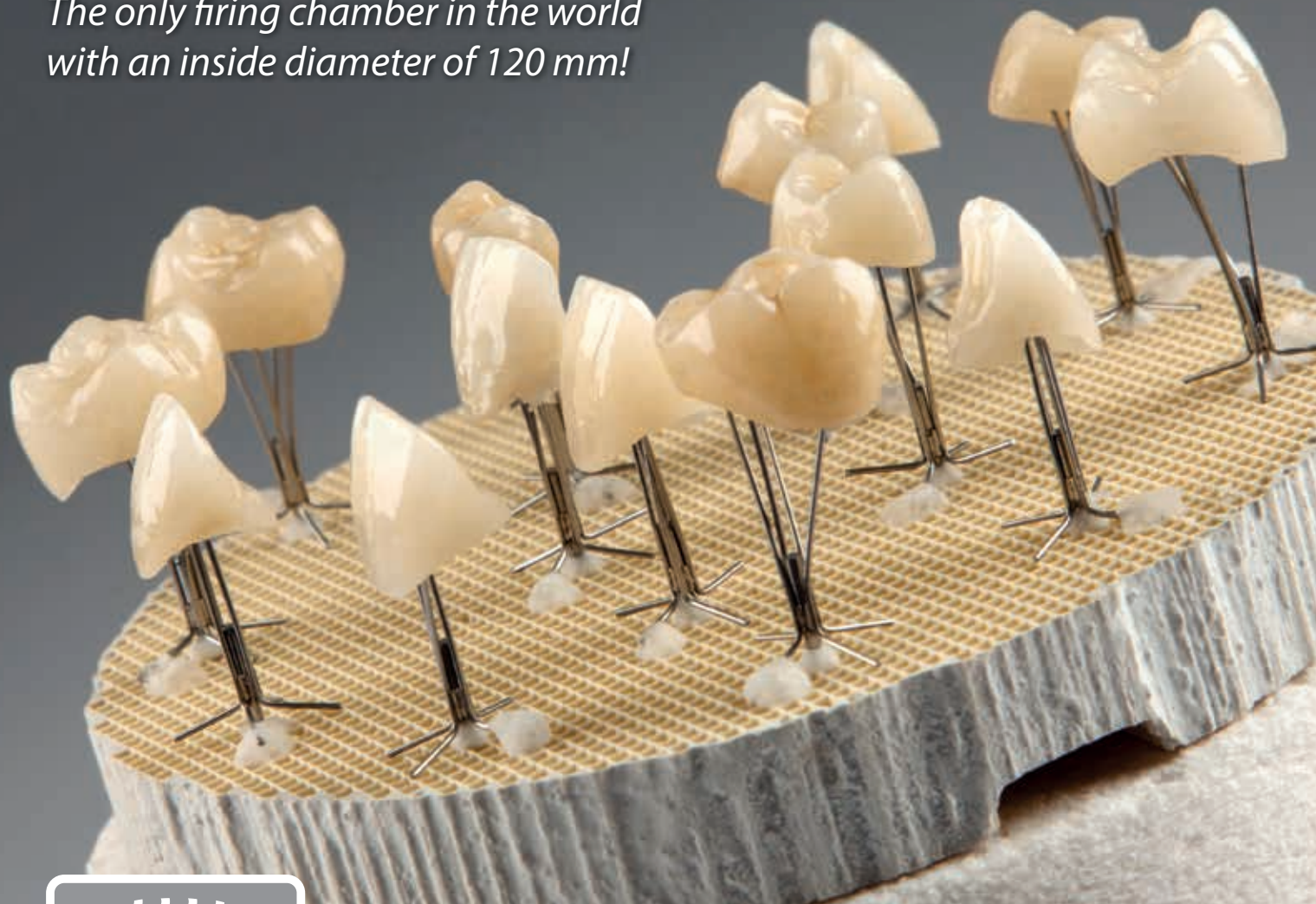


Safety Through PFC (Power-Fail-Control)

If the power goes out, PFC is activated! Once power is restored the oven operation is returned to the point of interruption.

VARIO 230/230ZR

The only firing chamber in the world with an inside diameter of 120 mm!



Z-120 Technology

There is a considerable difference between the available and usable space inside a ceramic oven. The available space is generally considered to be the diameter of the firing tray plus the working height. The usable space, conversely, includes the thermal conditions of a firing chamber.

The heating coils used in ceramic ovens radiate at temperatures far above 1000°C during the sintering phase. Consequently, temperatures in direct proximity to the heating coil are 'useless' for consistent results when processing dental ceramics.

Zubler is the only ceramic oven manufacturer in the world to address this problem and develop a firing chamber with a larger inner diameter.

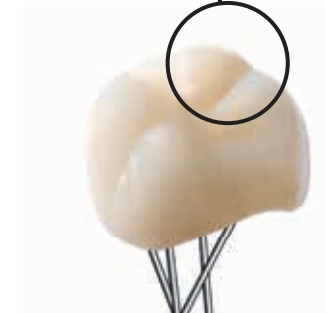
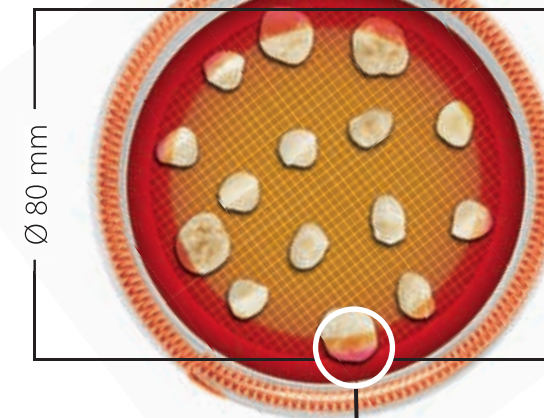
The VARIO 230 series ceramic oven's 120mm inside diameter ensures temperature homogeneity across the entire 80mm-diameter firing tray, irrespective of the position or number of objects.

Even when firing a full tray of objects at the same time, you will be amazed at the identical firing results, even without increasing the final temperature or extending the holding time of the program.

VARIO 230/230ZR

FIRING CHAMBER

Ø 90 mm

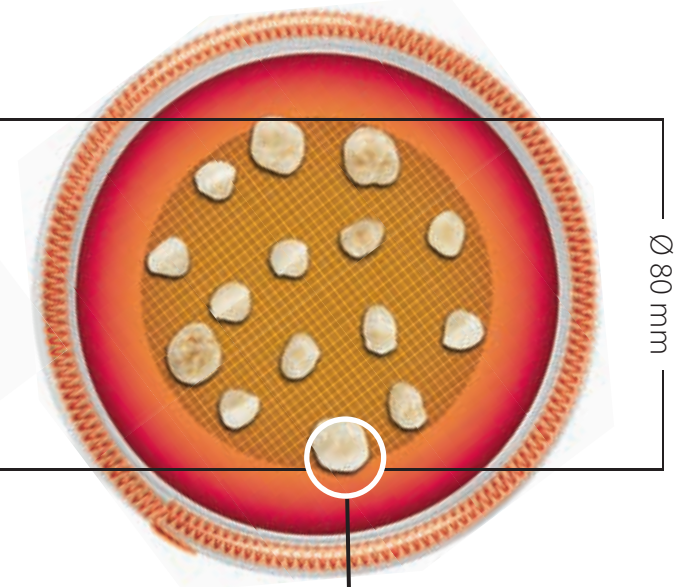


In the outer region of the firing tray the dental ceramic is positioned too close to the heating coil.

Consequence:
Temperature too high at the object
→ "Over-fired"

FIRING CHAMBER

Ø 120 mm



In the outer region of the firing tray the dental ceramic is positioned more than 20mm away from the heating coil.

Consequence:
Optimum temperature at the object
→ Perfect firing result

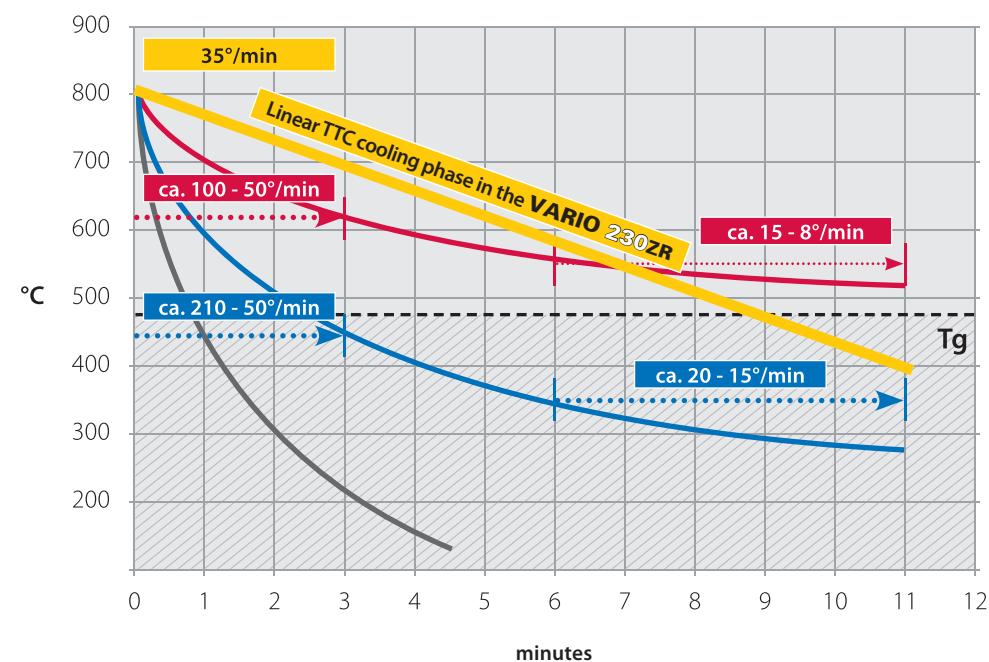
VARIO 230ZR

Linear cooling process
from an innovative firing chamber design
and intelligent software!



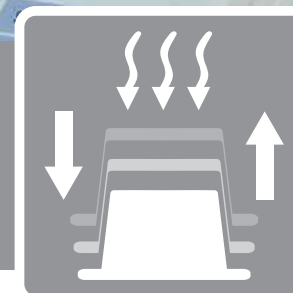
TTC-Mode

The firing of dental ceramics on zirconia substructures carries a high risk of crack formation while cooling. With the VARIO 230ZR the new TTC technology is at your disposal. When engaged, this feature controls the rate of temperature descent, linearly dropping the temperature by a user defined degree per minute to evenly cool the objects and avoid sudden changes in temperatures. This feature allows for cool rates between 5 °C/min and 45 °C/min. Thanks to the innovative design of the firing chamber and intelligent software, the actively controlled temperature descent of the ceramic below the temperature of transition is ensured. This process will help keep the occurrence of chipping, cracking and microfractures to a minimum.



Cooling phase	
Linear 35 °C/min	Yellow
Closed chamber	Red
Opening in 6 min	Blue
Fast opening	Grey

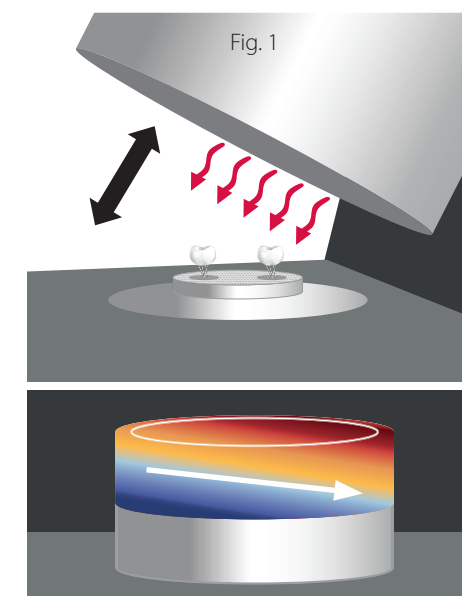
Effective and
Time-saving



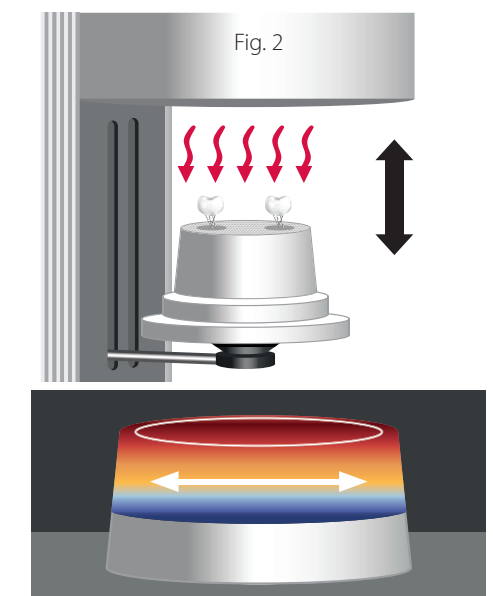
Z-Dry Mode

For optimal pre-drying, to avoid cracks and blisters, it is best to pre-dry at a constant temperature of 150°C. Utilizing the symmetrical lift design, chamber temperature and lift position, the VARIO 230/230ZR maintains the optimal pre-dry temperature. By reading the chamber temperature, the VARIO 230/230ZR will adjust the lift to compensate for any changes in the radiant temperature. **The advantages:**

- Cracks or blisters are prevented by controlled drying with the Z-Dry Mode.
- In subsequent firings you save wait-time thanks to the Z-Dry Mode. The work can be placed on the firing tray well before the programmed start temperature has been attained.



"Shell-like" asymmetrical closing mechanism:
Uneven heat distribution to the objects
- Uneven temperature distribution on the firing tray.



Vertical, symmetrical closing mechanism:
Even heat distribution to the objects
- Even temperature distribution on the firing tray.



VARIO
230



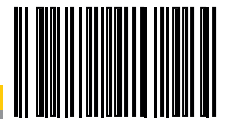
VARIO
230ZR

Product overview:

Dental Ceramic oven		
TTC program for active, linear cooling of ceramics on zirconia (5 - 45 °C/min)		
Z-Dry Mode		
500 Programs, each individually programmable		
PFC (Power Fail Control)		
USB connection		
Impact and heat-resistant LCD glass touch display		
Custom pre-programmed for the client		
Accessory set (honeycomb carrier, pins)		
2-year warranty		

* optional extra.

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Scope of delivery:

- 1 V230/230ZR ceramic oven
- 1 Power cable
- 1 Firing tray
- 1 Vacuum hose incl. inline filter
- 1 Spare fuse
- 1 USB flash drive
- 1 Tweezers, long
- 1 User`s manual

Technical data:

Dimensions (B x H x D)	320 mm x 540 mm x 460 mm
Weight	23 kg
Voltage	100 V/115 V/230 V/240V ~ 50/60Hz
Power	1250 W

Accessories:

- 1 Vacuum pump P3
- 1 Pump connection cable P3



Subject to technical changes.

Distributed by:



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