

VARIO PRESS[®] 300/300.e/ZR



VARIO PRESS® 300/300.e

The ADVANCED PRESS & CERAMIC oven!

- 500 Programs, each individually programmable
- Individually pre-programmed upon request
- Developed as a press oven and outstanding as a ceramic oven

*Patented pressing process
for lithium disilicate**

* also patented in the USA since July 2014.



Touch Glass Display Made of Safety Glass

The innovative and modern touch glass display is made of impact and heat-resistant safety glass. This has proven to be a clean, comfortable and virtually indestructible solution when compared with a membrane keyboard.

We now offer a **LIFETIME WARRANTY** on the glass!



Omni Visible Display

Optimum visibility from all viewing angles – even at greater distances and under difficult lighting conditions such as bright sunshine.



USB Connection

Simple data transfer and program backup.



ADVANCED PRESS™ Process*

The patented ADVANCED PRESS™ process ensures a uniform temperature distribution from the temperature sensor of the press furnace to the inside of the press ring.

Pressing always takes place within the ideal temperature range for pressing lithium disilicate. Thus hardly any reaction layer is created on the surface. This is enhanced by an extremely short press time.

The result is a smooth surface and an enormous time savings!

* Available only in the VARIO PRESS 300.e version.



Z-Dry Mode

Effective 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.



Uniform Ring Heating

This simple insert helps counteract the heat loss experience by conventional press ovens by raising the ring up to evenly expose the entire ring to the heating elements. The ring sits on the tripod inside the firing chamber throughout the entire process.



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 PRESS® 300.e

with patented technology for processing lithium disilicate ceramics!



**ADVANCED
PRESS™**



ADVANCED PRESS™ Process

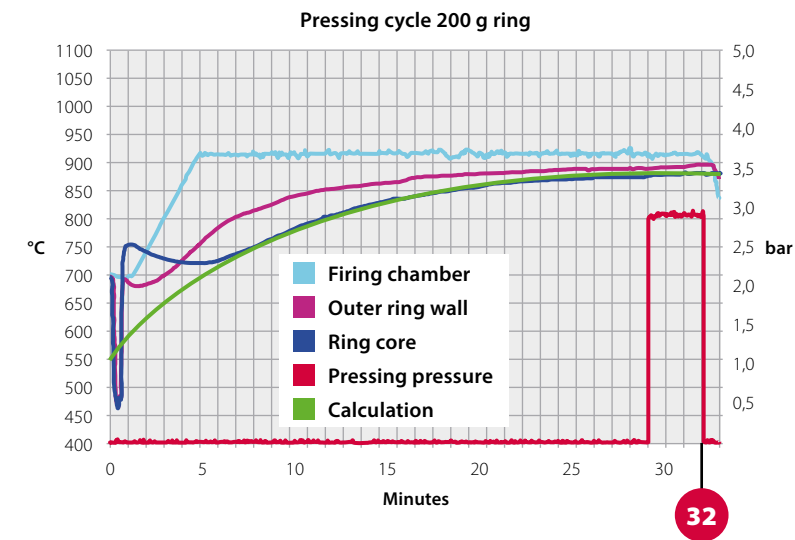
Lithium disilicate ceramics are increasingly used in the dental laboratory for the manufacture of dental prosthesis. This material is characterized by its high strength. While CAD/CAM processing is an option, pressing technology is more efficient and accessible.

Unfortunately, the pressing process has been hindered by the sensitive nature of lithium disilicate and the formation of reactive layers caused by the material's exposure to phosphate bonded investment during the traditional heating and pressing process. This reaction layer adds complexity and increases processing time.

ADVANCED PRESS™ was patented in 2010 and includes an entirely new pressing process. By calculating the thermal behavior between the materials involved in the pressing cycle, a heating curve was developed that vastly improves the result and decreases the process time. The principle is simple and easy to understand.

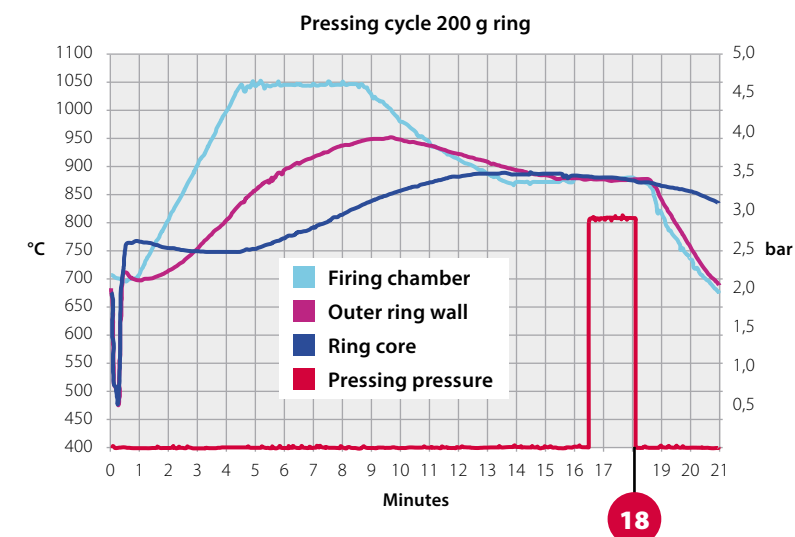
Standard Pressing Process:

The graph depicts the standard temperature difference between the interior of the ring and the chamber during a traditional press cycle, approximately 40°C. The vast temperature difference between the ideal pressing temperature for lithium disilicate in the ring core and the high temperature in outer regions of the ring, where the pressing objects are usually located, leads to a very distinct reaction layer. This effect is exacerbated by a lengthy hold time and a long press time. The result is a rough surface sometimes accompanied by an "orange peel" texture and laborious finishing work.



ADVANCED PRESS™ Process

The graph shows the homogeneous temperature distribution from the temperature sensor of the press furnace to the interior of the ring. The maximum temperature difference is 4°C. This ensures that all objects, irrespective of their position in the ring, are pressed at the ideal pressing temperature. The formation of a reaction layer is reduced to a minimum and the extremely short pressing time further enhances this effect. The results of the ADVANCED PRESS™ are smooth and homogeneous surfaces along with an enormous time savings.



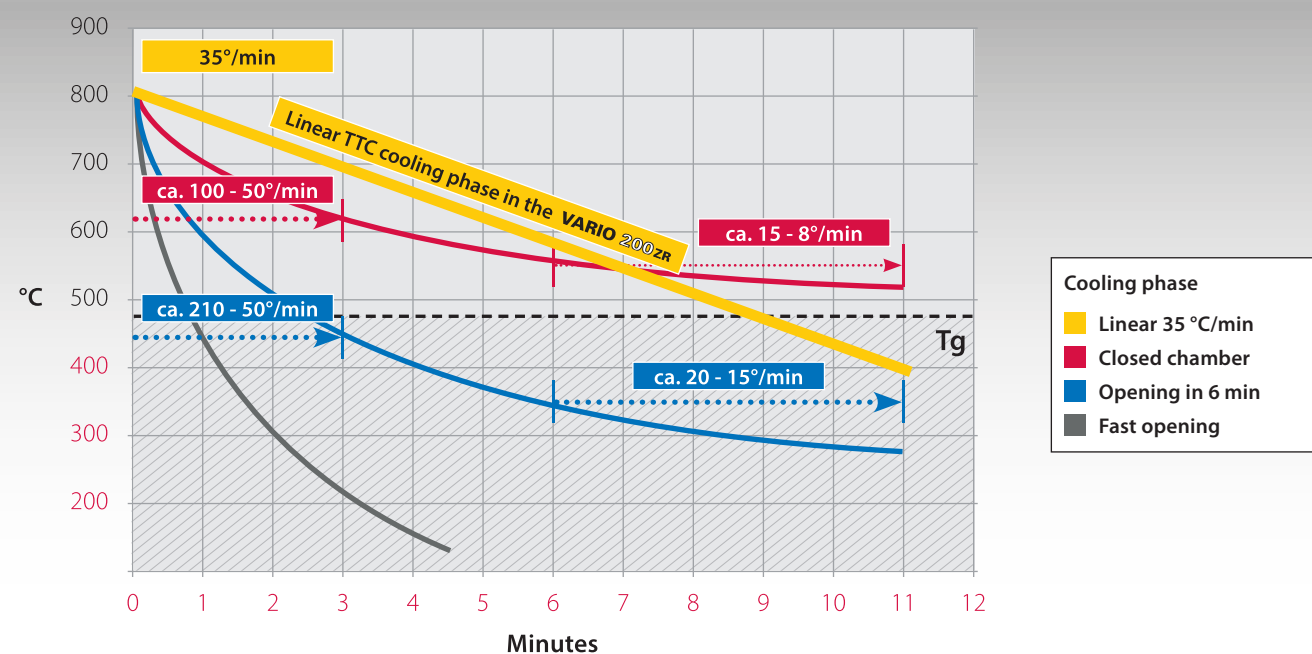
VARIO PRESS® 300.eZR



TTC-Mode

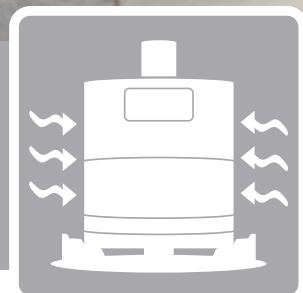
Programmable linear cooling for sensitive ceramics & ceramics on zirconia

The firing of dental ceramics on zirconia sub-structures carries a high risk of crack formation while cooling. With the VARIO 200ZR OR the VARIO PRESS 300.eZR 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 micro-fractures to a minimum.



VARIO PRESS® 300/300.e

*Perfect pressing results
through heat reflection
inside the firing chamber*



Uniform Ring Heating

An efficient heating chamber helps guarantee consistent pressing. To ensure all ring sizes are uniformly heated, the VARIO PRESS 300/300.e are equipped with a larger, high-quality heating element that completely lines the firing chamber with 7 layers of heating coils (see ADVANCED PRESS™ techniques). Zones without direct radiation that cause uneven heating are avoided.

The ring in the VARIO PRESS 300/300.e is positioned on a tripod insert and is raised inside the firing chamber during the entire work process. This ensures the necessary heat reflection inside the firing chamber and thus perfect pressing.



Competitor's oven ring sits flat

Loss of energy due to unfavourable heat distribution – Cooler zones in the lower region of the ring.



VARIO PRESS 300/300.e ring raised on tripod insert

Ideal and even heat distribution in the ring.

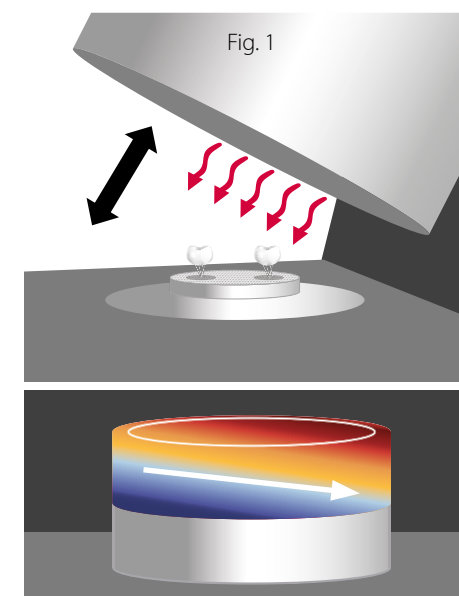
*Effective and
Time-saving*



Z -Dry Mode

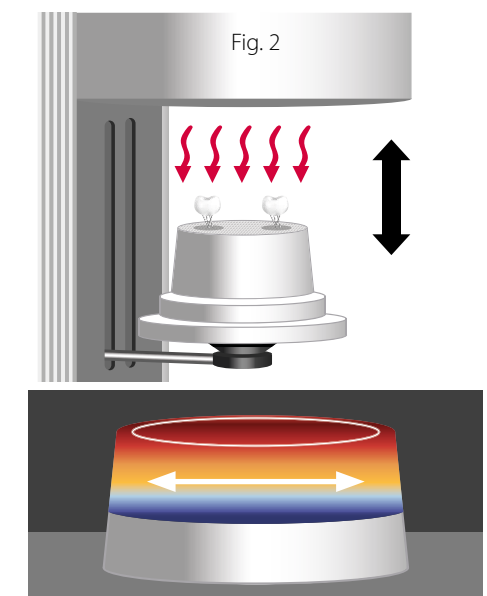
For optimal pre-drying, to avoid cracks and blisters, it is best to pre-dry at a constant temperature of 130°C. Utilizing the symmetrical lift design, chamber temperature and lift position, the VARIO PRESS 300/300.e maintains the optimal pre-dry temperature. By reading the chamber temperature, the VARIO PRESS 300/300.e 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 PRESS®300 VARIO PRESS®300.e VARIO PRESS®300.eZR

Dental Ceramic oven	✓	✓	✓
Dental Press oven	✓	✓	✓
ADVANCED PRESS™ process for lithium disilicate ceramics	○	✓	✓
Intelligent press (i-press)	✓	✓	✓
Z-Dry Mode	✓	✓	✓
500 Programs, each individually programmable	✓	✓	✓
Custom pre-programmed for the client	✓	✓	✓
PFC (Power Fail Control)	✓	✓	✓
Programmable pressing pressure	✓	✓	✓
USB connection	✓	✓	✓
Impact and heat-resistant LCD glass touch display	✓	✓	✓
2-year warranty	✓	✓	✓
TTC PROFESSIONAL - Linear cooling programs for ceramics on zirconia & lithium disilicate	○	○	✓

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Scope of delivery:

- 1 VP300/300.e Press ceramic oven
- 1 Power cable
- 1 Flex-Ring ring system 100 g + 200 g
- 1 Pressing tray with tripod Insert
- 1 Firing tray
- 1 Vacuum hose incl. inline filter
- 1 Compressed air hose 2 m
- 1 Ring tongs
- 1 Tweezers, long
- 1 Spare fuse
- 1 USB flash drive
- 1 User's manual
- 1 Sample of disposable plungers 13mm

Technical data:

Dimensions (B x H x D)	360 mm x 765 mm x 425 mm
Weight	27 kg
Voltage	115 V ~ 50/60Hz
Power	1300 W

Accessories:

- 1 Vacuum pump P3
- 1 Pump connection cable P3



Subject to technical changes.

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