



MESTRA[®]



Microwave furnace for zirconia



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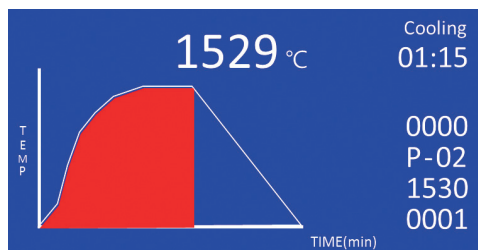
MESTRA[®] Ref. 080114

SIMPLICITY



The control of the MESTRA microwave furnace has been designed for intuitive and easy operation. Although it allows a detailed adjustment of parameters (time, sintering temperatures, etc.), the device is supplied with several predetermined programs included in the memory, so in most cases it is enough just to press the start button to start and end a click. Operating a dental zirconia oven has never been so easy.

The synoptic display shows at all times the parameters and steps of the cycle so that the user has an exact knowledge of what happens inside the home. The temperature and time graph shows in real time the state of the cycle. The remaining minutes to the end are also shown.



RELIABILITY



Comfort, simplicity, versatility, economy, quality, capacity and above all reliability, are the characteristics that define the MESTRA sintering furnace and demonstrate that microwave zirconia sintering technology is mature and is here to stay.

As it is a novel product, perhaps reliability is the point that most worries the potential user. In this regard, we must send a reassuring message: microwave heating technology has been known for many decades and is successfully applied to all kinds of industrial processes. Our was subjected to exhaustive tests during its design and development, which culminated with total success. This gives guarantee of confidence and reliability.

CAPACITY



Despite its small dimensions, the MESTRA sintering furnace is capable of making daily productions similar - or even superior - to other ovens that far exceed it in size. Due to its extraordinarily short duty cycle (about 2.5 hours plus cooling), it can perform two to three complete cycles in one day.

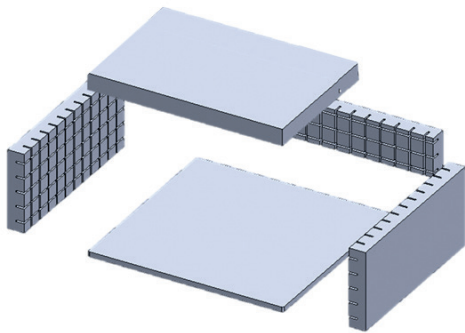
It is possible to program it early morning and finish a cycle at noon. Later, program another second cycle and have it ready at the end of the afternoon. In a hurry, you can continue sintering overnight to complete a third cycle in just 24 hours. No other zirconia sintering technology currently offers such versatility.

SAVING

QUALITY

CHARACTERISTICS

Summary:



The savings obtained with microwave sintering zirconia technology is interesting in several aspects: on the one hand, the energy consumption is much lower than in conventional ovens (approximately 800/1000 W). The savings in the electricity bill is substantial. Of course, we must also emphasize caring for the environment.

Furthermore, this technology does not use expensive molybdenum silicate (SiO_2) resistors that have a marked tendency to break down and their maintenance cost is very high. With proper maintenance, the life of the microwave resonator and other elements is virtually unlimited.

Finally, it must be considered that time is another value appreciated by any professional in the dental sector. The time savings per cycle achieved with the MESTRA furnace, are easily convertible into money.

Zirconium is known to be one of the best known thermal insulators. This feature is a major drawback in the sintering process. If the heat comes from the outside of the piece being synthesized, the thermal reactance prevents a rapid advance of the heat towards the center, lengthening considerably processing time.

However, microwave technology produces a homogeneous heating of the piece and, consequently, the heat is dispersed equally at all points, significantly reducing the time required to reach the final temperature.

This fact is also noticeable in the crystalline structure of the zirconium once sintered: due to the uniformity of the heating, surprisingly homogeneous results are achieved, providing higher quality to the final product.

- The total sintering time in the fastest program is approximately 4 hours (sintering time 110 min up to 1550 °C, cooling 130 min).

- Contrary to conventional furnaces—in which the heat advances from the outside of the structure to the inside—, in the microwave furnace, heat is generated at all points of the structure, so that the temperature is reached much more uniformly. The resulting sintered structure is cleaner and stronger.

- Excellent maintenance savings due to lower power, fewer components, and smaller size. Without the fragile and expensive resistances of molybdenum silicate.

- Very low consumption: approximately 800/1100 W during practically the entire cycle.

- Possibility of carrying out several production cycles on the same day. Production capacity greatly increases.

- Extremely easy to operate: press one button and it's done.

- Much smaller than conventional furnaces: it can be located in any corner of the laboratory.

- It practically does not emit heat, which is appreciated during the summer in closed rooms.

TECHNICAL CHARACTERISTICS

Height	547 mm
Width	440 mm
Depth	385 mm
Weight	31 kg
Tension	AC 230 V, 50 Hz
Power	1800 W
Max. Temp.	1550 °C

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*The manufacturer reserves the right to make modifications without prior notice.



MESTRA[®]
The brand you can trust



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