

Unitron Group

Product

► Obturator Oven

Dentsply Endodontics

DENTSPLY
TULSA DENTAL
SPECIALTIES
Endodontics & Implants

Dentsply about Unitron

“Unitron has been a strong development partner; working hard to understand our requirements, responding timely, and in the end, providing a product well received by our clinicians” – Scott Williams Brand Manager, Warm Obturation Products. DENTSPLY Tulsa Dental Specialties.



Dentsply develops, manufactures and markets a broad range of products for the dental market. The company is the world's leading manufacturer and distributor of dental instruments and accessories under some of the most well-established brand names in the industry. Dentsply is committed to the development of innovative, high quality, cost-effective new products for the dental market.

Unitron has been producing the Thermanep Plus for more than ten years: a compact oven in which the sealing material for root canal treatments is heated. After disinfection and other root canal treatments, the dentist has to seal this space immediately with a sterile and waterproof protection. This is done with little rods of 'gutta percha', some sort of hard rubber that is softened through heating. It is then placed in the root canal to seal it shut.

About ten years ago, a Dutch dental trading company noticed that the existing ovens did not meet the end user's requirements. The heating rate had to be reduced, while user friendliness and durability had to be increased. That's why Unitron developed a new oven for the European market.

In course of time Dentsply took over the product. It complemented the existing range of products, including the rods of gutta percha. The interior – especially the heating principle – was adjusted for certification for the American market, and the oven was named Thermanep Plus Obturator Oven.

Value engineering - Lean manufacturing

Specifications

General

- Three heating characteristics;
20 - 49 sec.
- Option to heat both units simultaneously.
- Cleaning mode; medium temperature heating cycle to ease the cleaning process.

Technical

- Mains voltage:
automatic detection 115V – 230V.
- Overall size of the equipment
(W x D x H)
155 x 178 x 81 mm / 6.1" x 7" x 3.2".
- Mass of the equipment: 560 gram.

Dentsply Tulsa Dental Specialties

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Unitron about the Obturator Oven

The technical fulfillment of dentists' wishes turned out to be very profitable. Large quantities of ovens had to be built. In the mean time there are many different versions. The thoughtful design allows us to be efficient in manufacturing fast and flexible: lean manufacturing. We deliver thousands at once to two distribution centres of Dentsply. Meanwhile we have delivered more than 150.000 Obturator Ovens.



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The design of the Thermaprep Plus is fully focused on the solid technical demands and on user-friendliness and hygiene. Two rods can be heated simultaneously, which makes the oven very efficient. Depending on the thickness, the rod should be brought up to the correct processing temperature gradually, but within twenty to maximum forty seconds. There are three different heating scenarios. Inside the oven, temperature can go up to 180 °C. The Thermaprep Plus gives predictable results and uses a timer to indicate that the rod is ready. If the dentist is still busy at that time, the Thermaprep will keep its temperature for ninety seconds and give a sound signal every fifteen seconds. Then the oven will turn off.

Of course, all electronic parts and synthetic casings must be heat-proof. The design is a remarkable example of mechanical simplicity, with six different versions, depending on user intensity and sales area. To ensure a fast production, Unitron opted for a relatively simple system, with minimal components. Dentsply orders several thousand pieces at a time and Unitron manufactures them according to the one-piece-flow principle in a mix of versions. It is Unitron's longest running product, which still suffices excellently. Nevertheless, there has been some discussion with the client to introduce some new design ideas, particularly in the area of mechanical construction and heating.

Unitron develops and manufactures complete products, such as medical equipment and specific industrial products. This may involve the realisation of a completely new concept, but also the modification and optimisation of existing products. This, in combination with our experience and business strength, will result in a complete business concept. Unitron is active in several markets throughout the world.