



TORONTECH



DENTAL SINTERING LIFTING FURNACE TT- LF-120-1800

Dental Sintering Lifting Furnace TT-LF-120-1800 (also known as a denture crystallization furnace) features high-purity silicon molybdenum rods rated for 1800°C as heating elements, ensuring clean, contaminant-free crystallization and sintering of zirconia dental crowns. It delivers a highly uniform temperature distribution and is designed with a convenient bottom-loading automatic lift system for easy loading and unloading. Ideal for use in dental laboratories and clinics, this furnace is specialized for the sintering and crystallization of zirconia crowns.

APPLICATIONS

- **Zirconia Dental Applications** – Purpose-built for the crystallization and sintering of zirconia crowns, bridges, and dental prosthetics. The 1800°C MoSi₂ heating system ensures contaminant-free firing, delivering crowns with superior translucency, density, and long-term durability.
- **Dental Laboratories & Clinics** – Optimized for both clinical and laboratory use, featuring an automatic bottom-lifting mechanism that simplifies daily operations. Supports up to 50 crowns per cycle, making it ideal for high-throughput dental workflows.
- **Restorative Dentistry & Prosthetics** – Provides consistent sintering conditions to achieve precise crystallization, strength, and aesthetic quality in zirconia-based dental restorations. Ensures reproducibility across batches for premium prosthetic outcomes.
- **High-Volume Dental Production** – Accommodates dual sintering trays for batch processing, allowing efficient large-scale output without compromising accuracy or performance. Suitable for labs seeking both speed and precision in production.

- **Research & Development in Dentistry** – Advanced programmable control (up to 30 segments per cycle) supports specialized studies in zirconia processing. Ideal for universities, dental schools, and R&D labs exploring next-generation dental materials.
- **Certified Dental Manufacturing** – Built to meet ISO, CE, SGS, and TÜV standards, ensuring compliance with international quality and safety requirements. Trusted for regulated dental production environments where consistency and certification are critical.

FEATURES

- Equipped with a 7-inch integrated touchscreen control panel that displays real-time process curves. Data can be exported, and up to 15 sintering programs from different zirconia block brands can be preloaded and accessed as needed. Each program supports up to 30 customizable segments.
- The furnace lining is made from high-purity alumina ceramic fiber, ensuring a clean, contaminant-free environment with iron content ≤ 440 ppm.
- Uses a pure U-shaped silicon-molybdenum heating rod that prevents contamination during crown processing and supports rapid single-crown firing cycles.
- Features a cylindrical structure with annular heating for a uniform temperature field, delivering excellent consistency and crown density.
- Designed with a bottom-loading mechanism, supported by a precision screw and high-accuracy linear guide for stable, smooth lifting and easy operation.
- Accommodates two $\phi 100$ mm sintering trays per cycle, allowing for the processing of approximately 25–50 zirconia crowns—ideal for high-volume output.
- Built with a modular safety system that includes visual and audible alarms for over-temperature, overload, and thermocouple failure, along with automatic protective shutdowns.

TECHNICAL SPECIFICATIONS

Model	TT-LF-120-1800
Chamber Size	Φ120×120mm
Appreance Size	400×550×866mm
Weight	55KG
Max Temp	1700℃
Work Temp	1600℃
Power/Voltage	220V/2KW (110V is also available)
Heating Element	MoSi2
Chamber Material	Polycrystalline inorganic alumina ceramic fiber material prepared by wet vacuum filtration
Temp Control Precision	±1℃
Thermocouple	Type B platinum rhodium thermocouple
Temperature Controller	7-inch intelligent microcomputer PID touch instrument, SCR voltage regulation control, PID parameter self-tuning function; programmable 15 groups of 30 program segments, program heating, program heat preservation, program cooling
Heating Rate	1-15℃/min freely setting
Body Structure	Furnace temperature control integrated structure
Protection	Modular control, sound and light alarm signal will be sent out for over temperature and broken coupler in the working process, and the protection action will be completed automatically
Safety Protection	The equipment is equipped with a circuit breaker, which will automatically pop open in case of short circuit leakage, which can protect the safety of equipment and operators

Outshell	High-quality cold-rolled steel plate CNC machine tool blanking processing, after welding, grinding, polishing, phosphating, pickling, surface electrostatic spraying plastic powder
Certificate	ISO9001 CE SGS TUV
Standard Accessories	1. Furnace body 1 set 2. Power cord 3 meters 3. Thermocouple 1 piece 4. Manual 1 copy 5. Crucible tongs 1 set 6. One pair of high-temperature gloves 7. Two spare silicon-molybdenum rods
Optional Accessories	1. Sintering tray 2. Zirconia block 3. Furnace bottom plate
OEM	Customization of special product specifications can be realized according to user requirements



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