

TISSUE EMBEDDING SYSTEM (COOLING COMBINATION)



Tissue Embedding System (Cooling Combination) - ToronTES™ 2500

Tissue Embedding System (Cooling Combination) ToronTES™ 2500 is a bench-top Embedding System designed for paraffin embedding with an integrated cooling combination for smoother specimen handling and block preparation. ToronTES™ 2500 have a combined layout with an embedding unit and a freezing part, allowing the heated workstation and cold plate to operate together in one coordinated setup. This configuration is well suited for pathology, histology, and research labs that want a practical paraffin workstation with both heating and cooling support.

ToronTES™ 2500 is built to support stable paraffin handling, consistent temperature control, and a more organized embedding workflow. The system includes a large paraffin bath, individually adjustable heated zones, a dedicated cold plate, programmable timing, and optional illuminated magnification for detailed specimen positioning. These features help make daily embedding more efficient and easier to manage in busy laboratories.

APPLICATIONS

Tissue Embedding System (Cooling Combination) - ToronTES™ 2500

Applications

- Histology and pathology laboratories: this Tissue Embedding System is suitable for routine paraffin embedding in histology and pathology workflows where specimens must be oriented accurately, embedded in wax, and cooled before microtome sectioning. The combined hot-and-cold layout supports a smoother transition from embedding to block stabilization.
- Hospital and clinical laboratory workflows: ToronTES™ 2500 fits hospital and clinical laboratories that need predictable paraffin handling, scheduled operation, and cold-plate support for daily tissue block preparation. The programmable switch-on and switch-off function can help the station be ready before the workday begins.

- Research and teaching laboratories: this Embedding System also works well in research and teaching environments where users need a controlled paraffin workstation with integrated cooling and optional magnified illumination for specimen positioning.



FEATURES

Tissue Embedding System (Cooling Combination) - ToronTES™ 2500 Key Features

- Integrated embedding and cooling design: ToronTES™ 2500 combines an embedding unit and a freezing part in one coordinated workstation. The layout can be arranged flexibly between the embedding machine and the cooling part.
- Fast and even heat-up: the system uses button-panel control, updated heating materials, and nano-heating technology intended to deliver quick and even temperature rise across the heated sections.
- Programmable timing and memory: the control system supports preset start time and temperature settings for any day. It also stores preset temperatures and starts working according to the programmed schedule.
- LCD temperature display: the LCD screen displays the temperatures of the paraffin bath, thermostatic bath, and paraffin nozzle, helping the operator monitor the main working zones more easily.
- Inductive lamp and paraffin control switch: the system includes an inductive head lamp and a metal switch that can be touched with tweezers or knives to control paraffin dispensing. This supports easier operation during embedding.
- Large-capacity paraffin bath: the paraffin bath is designed to hold enough paraffin for routine use in a single fill, helping reduce interruptions during daily embedding work.
- Multilevel safety protection: the heating system includes multilevel safety protection for routine laboratory operation.
- Heated forceps positions: there are three forceps-heating holes on each side of the paraffin nozzle, helping keep tools ready during embedding.
- Paraffin collection drawer: a collection drawer is included to gather paraffin from the working table and support easier cleanup.
- Optional magnifying lamp: a magnifying glass with lamp is available as an optional accessory for more detailed specimen positioning.

THEORY & METHOD

Theory and Method

A Tissue Embedding System works by keeping paraffin at a controlled dispensing temperature while providing a heated work area for specimen orientation in molds. After the tissue is positioned and paraffin is dispensed, the block is moved to a cooler zone so the wax can solidify into a stable block for trimming and sectioning.

ToronTES™ 2500 follows this method through a heated embedding station paired with a dedicated cold plate. The paraffin bath, hot reservoir, work stage, and paraffin spout are individually temperature adjustable, while the freezing section provides cooling down to -20°C. This arrangement helps support a more efficient workflow by bringing embedding and cooling functions together within one Embedding System platform.

TECHNICAL SPECIFICATIONS

Tissue Embedding System (Cooling Combination) - ToronTES™ 2500

Technical Specification

Parameter	ToronTES™ 2500
Product type	Tissue Embedding System / Embedding System
System configuration	Embedding unit plus freezing part
Paraffin bath capacity	6000 mL
Paraffin bath / hot reservoir / work stage / paraffin spout temperature range	0 to 99°C, individually adjustable
Freezing range temperature	0 to -20°C
Total power consumption	Less than 1 kVA

Parameter	ToronTES™ 2500
Control mode	Auto, foot
Hot reservoir capacity	About 120 molds or 140 cassettes for each hot reservoir
Cold plate capacity	About 40 to 60 tissue molds
Ambient operating temperature	0 to 40°C
Time control	24-hour optional switch-on and switch-off setting
Nominal voltage	AC 110 to 220 V ±10%
Rated frequency	50/60 Hz
Power consumption	Dispenser part: 10 A / 1800 W; cold plate part: 5 A / 130 W
Dimensions	Embedding center: 60 × 52 × 36.5 cm; cold plate: 36 × 52 × 36.5 cm
Gross / net weight	110 / 65 kg

Standard Accessories

- Steel structure (1 pc)
- Tissue cassettes (10 pcs)
- Foot switch (1 pc)
- Tissue molds (4 pcs)
- Power wire (1 pc)
- Fuse (2 pcs)

Optional Accessories

- Magnifying glass with lamp
- Paraffin
- Tissue molds



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