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Instruments

OTF7000 CRYOSTAT



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Introduction

Our OTF7000 Cryostat is the latest version of our machines designed to deliver reproducible tissue sections with precise temperature control. This cryostat can handle a large number of specimens and is available in two models, with the OTF7000/A benefitting from motorised sectioning.

This high quality and versatile cryostat is expertly engineered for a wide range of applications, including

- Biological research
- Pathological diagnosis
- Pharmaceutical research
- Neuroanatomical research
- Clinical cryo-sectioning needs

The OTF7000 Cryostat is available as the OTF7000 (semi-automated) or the OTF7000/ A (fully- automated).

FEATURES AND BENEFITS

- Highly stable temperature control
- Reproducible section quality
- Energy efficient and cost saving
- Integrated safety features
- UV decontamination – to handle varying biological specimen types with UVC for increased user safety
- Individually controlled temperature settings on both the cryochamber and the specimen holder

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High Precision Temperature Control

Our cryostat is extremely consistent, both in terms of temperature control and sectioning quality. Temperatures are regulated in the cryochamber between 0 to -35°C.

- Intelligent temperature control system
- Variable speed compressor
- Sample cooling system that includes an adjustable temperature range of between -10°C and -50°C, via a cooled Peltier system offering faster temperature
- A 'Cryobar' sample preparation station which rapidly cools to -60°C

Stable Section Quality

Stable sectioning is maintained by:

- Precision cross roller guide rails that guarantee section smoothness and accuracy
- Precise screw rods that meet 0.5µm sample section requirements
- Five phase, high resolution stepping motor with higher positioning accuracy and lower motor vibration
- Horizontal sampling slide crafted from ultra-high strength and corrosion resistant aviation grade aluminium



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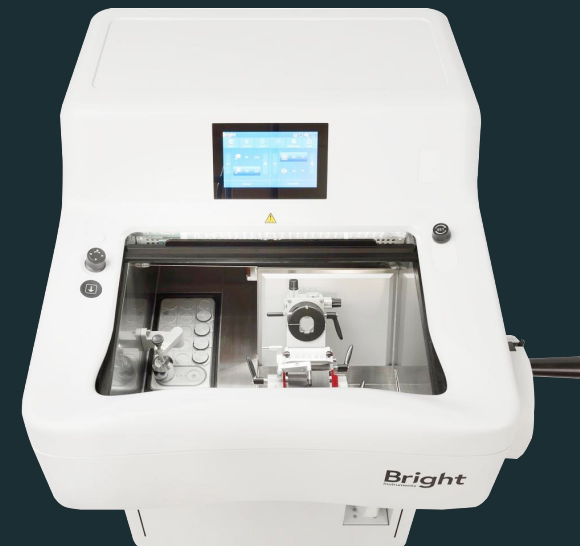
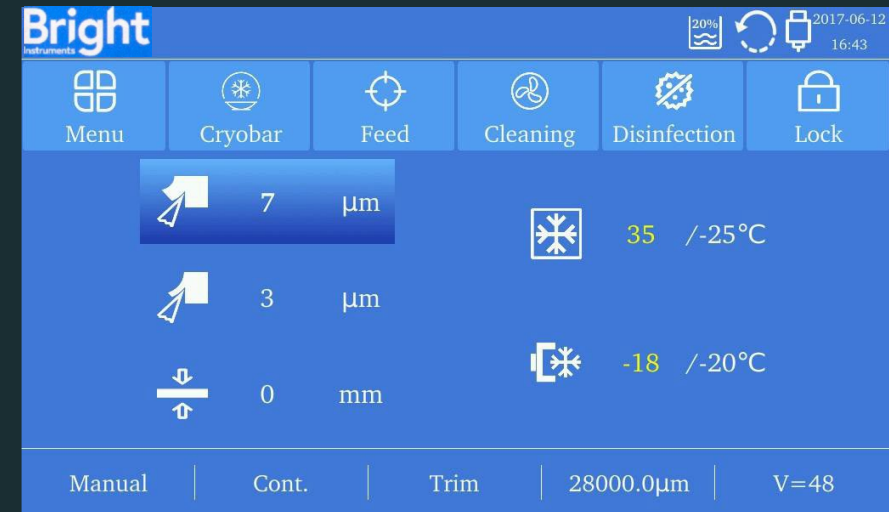
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Touchscreen

The 7-inch touchscreen makes any adjustment clear at a glance:

- The adjustment of temperature settings (Chamber & Specimen)
- The adjustment of thickness settings (Trim & Section)
- Manage and schedule the UVC disinfection and the defrost cycles
- Rapid sample positioning (Position memory & “Go to” function)
- Access historical logs
- Easily manage energy saving sleep mode
- Create temperature pre-sets for optimal sample sectioning.



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Integrated Safety Features

The OTF7000 Cryostat includes a range of important safety features:

- High-tech, low-temperature UVC disinfection technology that kills bacteria and viruses at an intensity of above 340 uw/ cm ², within both the inner surface and the air inside the cabinet.
- Ergonomic exterior cabinet with a circular arc design. This is available with an optional height-adjustable foot rest for seated operation.
- Integrated waste management system that displays waste liquid volume on the touch screen.
- An alarm to notify the user when the waste management bottle is full.

Efficient and Energy Saving

This expertly engineered machine delivers efficiency with:

- A visually appealing 7 inch touch- sensitive screen.
- A joystick that controls coarse sampling, trimming and section switching, as well as section parameter adjustment
- Rapid and precise positioning with $\pm 8^\circ$ visual pointer facilitating adjustment of the specimen clamp to the target angle. This reduces trimming and sample waste.
- Efficient hot-gas defrosting with a variety of options.
- Auto-sectioning option available for ease of use and consistent sectioning of all specimen types.
- Automatic sleep and wake-up feature that saves up to 40% annual energy consumption.
- Specimen loading via a single lever operation.
- Specimen marking to easily record and identify each sample.



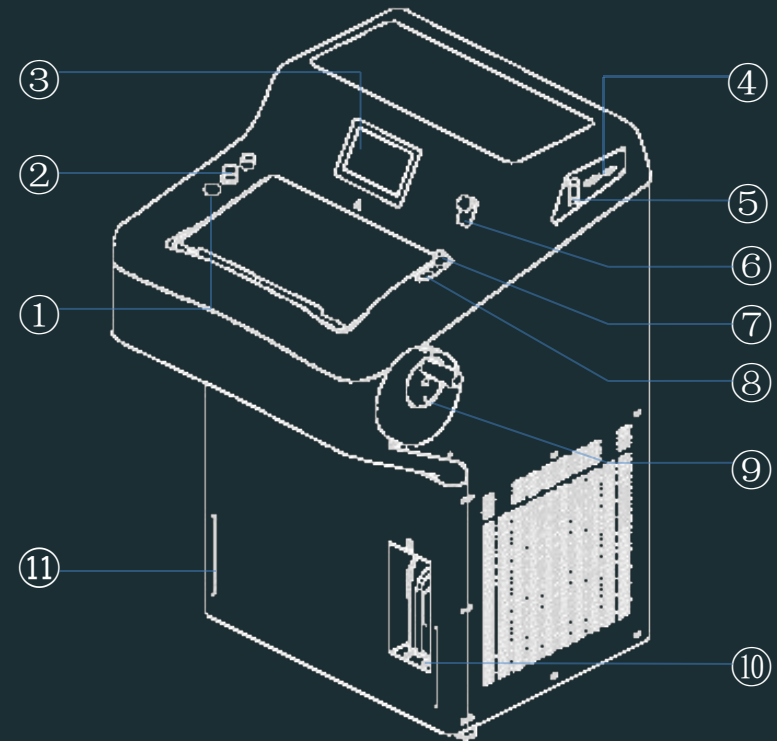
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Cabinet Controls

- 1 --- Feed advance button
- 2 --- Joystick
- 3 --- 7-inch touch screen
- 4 --- Foot pedal port
(Optional for OTF7000A)
- 5 --- Power switch
- 6 --- Emergency stop knob (OTF7000A)
- 7 --- Parameter adjustment knob
- 8 --- Automatic section control button
(Optional for OTF7000A)
- 9 --- Handwheel
- 10 --- Condensate collector
- 11 --- Adjustable foot rest (Optional)



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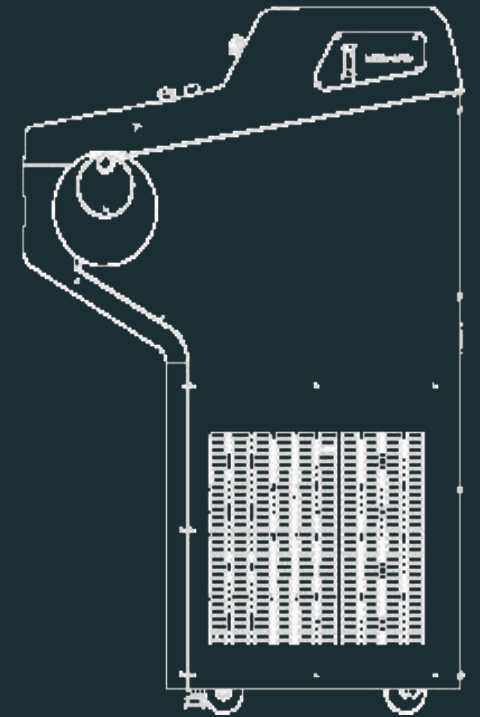
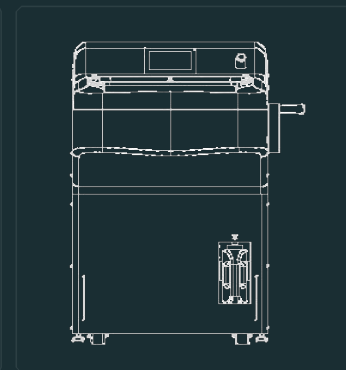
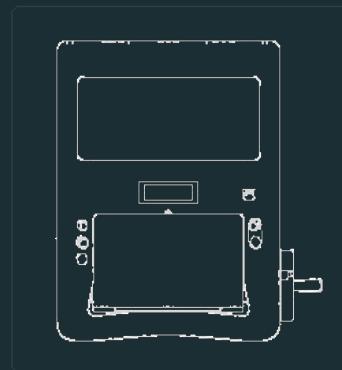
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Cryostat Specifications

- Section thickness setting range: 0.50–100 μm
- Trimming section thickness setting range: 1–800 μm
- Electric advance speed: 0-1800 μm adjustable
- Specimen retraction: 0-250 μm adjustable
- Specimen feed: 28mm
- Vertical stroke: 70mm
- Working Height 1025mm
- Specimen horizontal & vertical rotation: X/ Y axis 8°
- Number of refrigerated sample sites: 15
- Number of fast cooling sample sites: 2
- Cabinet refrigeration temperature: 0°C to -35°C
- Sample head minimum cooling temperature: -50°C
- Accepts high and low profile microtome blades
- 230v~ 50Hz 1350VA
- Weight ~ 183kg
- Width/depth/height 853mm × 863mm ×1210mm

OTF7000/ A : Additional information

- ◆ Fully automated and semi-automated mode switch
- ◆ Emergency stop button
- ◆ Cut window function
- ◆ Electric sectioning speed 0.5-450 mm/s
- ◆ Multiple sectioning modes
- ◆ Optional foot pedal for motor control
- ◆ 230v~ 50Hz 1450VA
- ◆ Weight ~185kg



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OTF 7000/A Supplied with...

- Blade holder “E” (Compatible with low and high profile blades)
- Specimen cooling system
- UVC disinfection
- Specimen holder
- Handwheel
- Fast freeze system
- 5 Specimen discs (\varnothing 30 mm)
- Anti- roll assembly 100 μ m (includes anti-roll glass)
- Waste liquid collector (2.5L capacity)
- Power cable
- Dummy Plug Connector (only for OTF7000A)
- User manual
- Tool set

OTF 7000/A

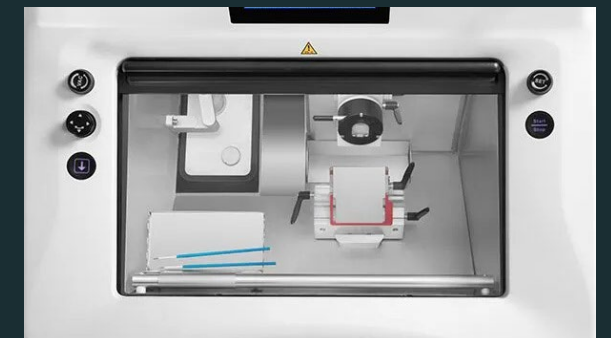
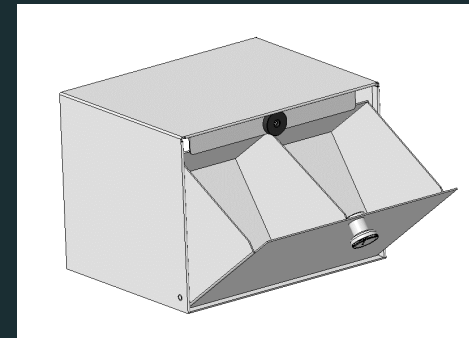
ACCESSORIES

The following accessories are also available

- FS800- F3: Stationary heat extractor
- 255-820: Adjustable foot rest
- S700A- F3: Foot switch (OTF7000 (A))
- FS800- F2: Blade holder assembly
- FS800- F14: Movable shelf
- FS800- F21: Storage system

Specimen discs:

- 255-901 Specimen disc \varnothing 20
- 255-902 Specimen disc \varnothing 30
- 255-903 Specimen disc \varnothing 40
- 255-904 Specimen disc \varnothing 55



- **50241 Replacement Microtome Blades**

Low profile microtome blade featuring PLASMA technology

Dimensions: 0.010" x 3.15" / 254m m x 80m m, 35° angle, 50 pcs

AGENT AND DISTRIBUTOR INFO

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