

# Bright

Instruments

OTF7000 CRYOSTAT



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## OTF 7000 CRYOSTAT

### Introduction

Our OTF7000 Cryostat is the latest version of our machines designed to deliver reproduceable 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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Instruments

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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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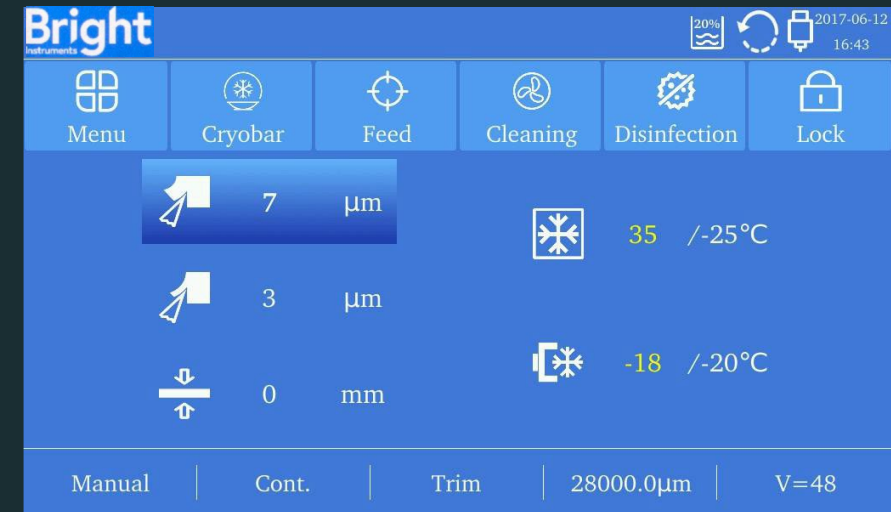
Instruments

## OTF 7000 CRYOSTAT

### 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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Instruments

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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 <sup>2</sup>, 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

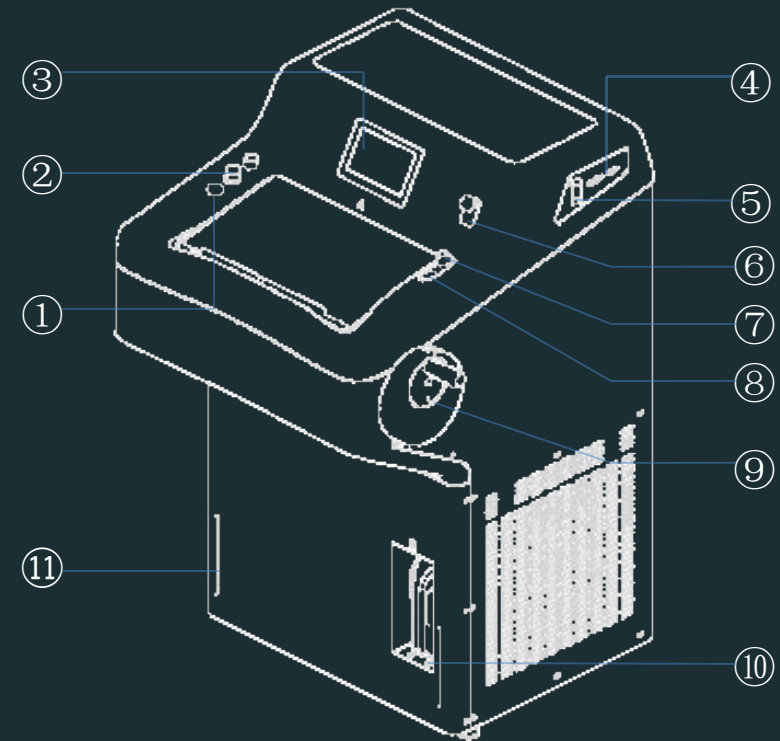
This expertly engineered machine delivers efficiency with:

- 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.



## 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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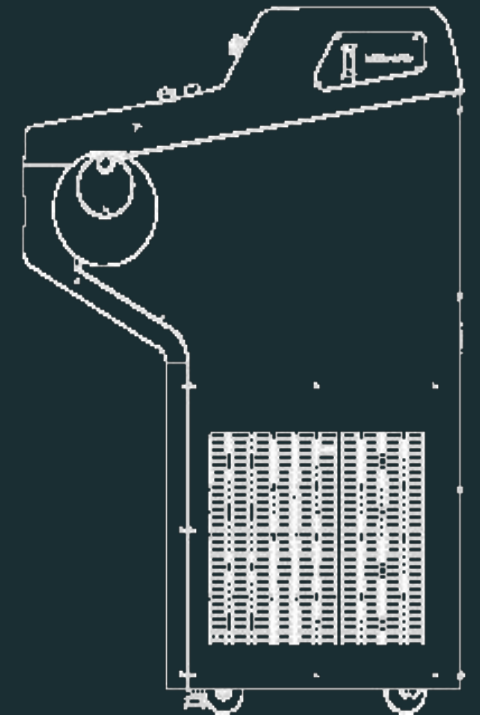
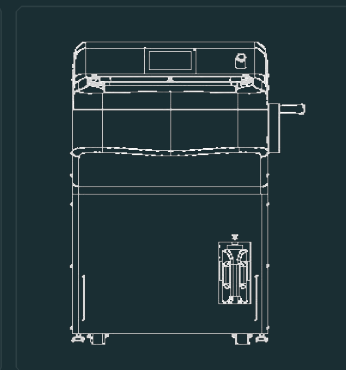
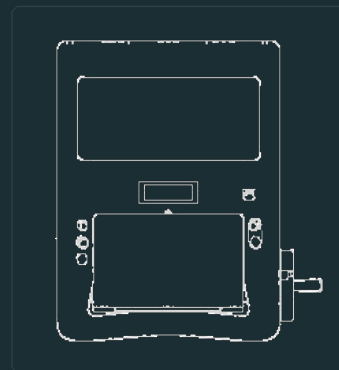
## OTF 7000 CRYOSTAT

### Cryostat Specifications

- Section thickness setting range: 0.50–100 µm
- Trimming section thickness setting range: 1–800 µm
- Electric advance speed: 0-1800µm adjustable
- Specimen retraction: 0-250µm 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 CRYOSTAT

### 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 (φ 30 mm)
- Anti- roll assembly 100 µm (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

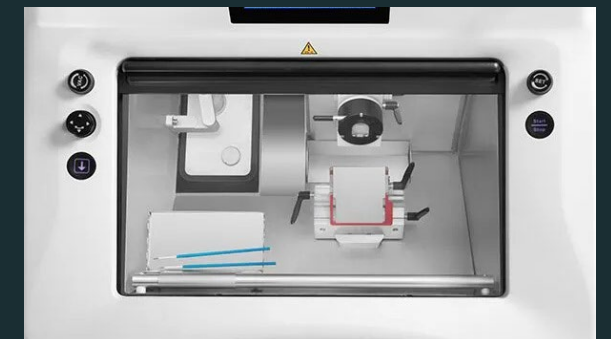
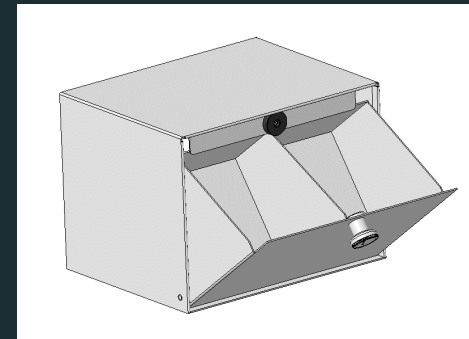
### ACCESSORIES

#### The following accessories are also available

- ◆ FS800- F3: Stationary heat extractor
- ◆ 255-820: Adjustable foot rest
- ◆ 255-824: Foot switch (OTF7000 (A))
- ◆ FS800- F2: Blade holder assembly
- ◆ 255-823: Movable shelf
- ◆ FS800- F21: Storage system
- ◆ 255-900 Anti Roll Plate

#### Specimen discs:

- ◆ 255-901 Specimen disc φ20
- ◆ 255-902 Specimen disc φ30
- ◆ 255-903 Specimen disc φ40
- ◆ 255-904 Specimen disc φ55



#### ◆ 50241 Replacement Microtome Blades

Low profile microtome blade featuring PLASMA technology

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



# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.