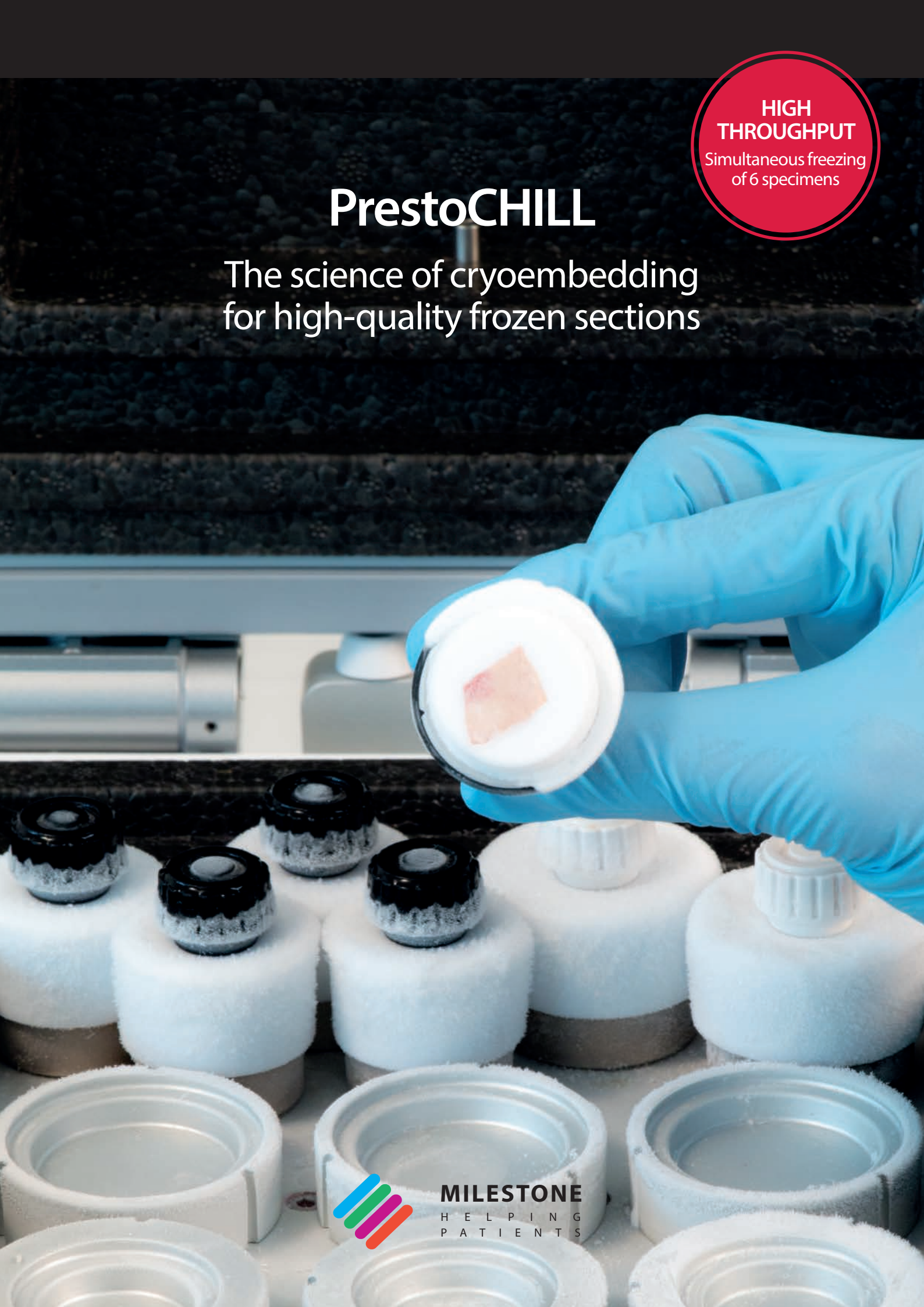

HIGH
THROUGHPUT
Simultaneous freezing
of 6 specimens
PrestoCHILL
The science of cryoembedding
for high-quality frozen sections
MILESTONE
HELPING
PATIENTS

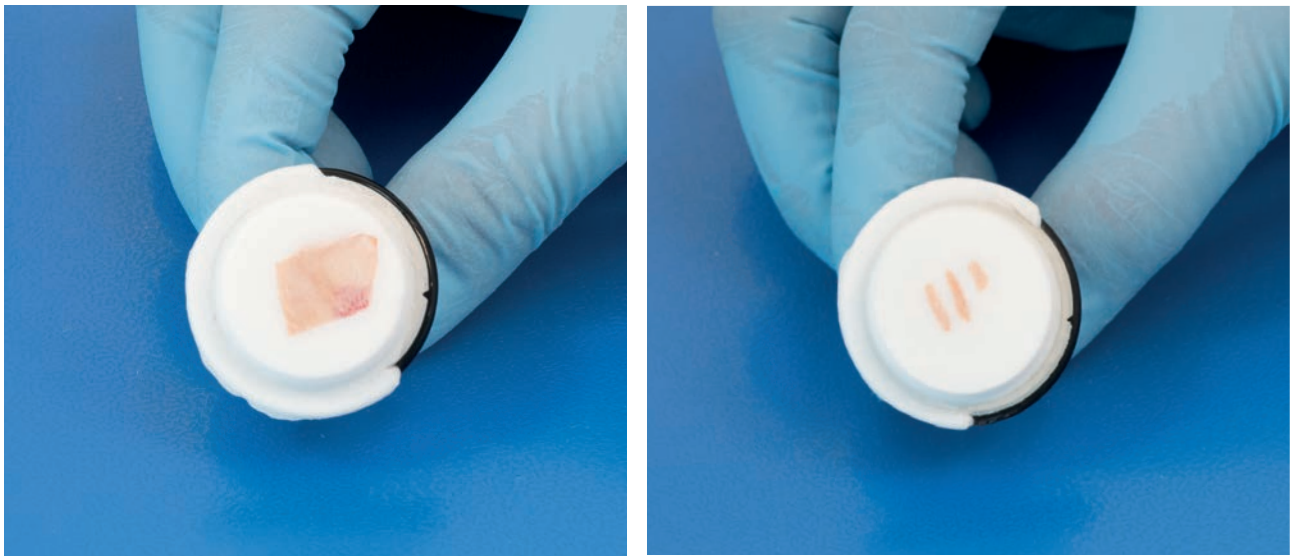
Need good results? Start with a good preparation

The optimal frozen section begins with an evenly and completely frozen tissue block in which the block face that will be sectioned is flat and includes a complete, full faced section of the tissue submitted.
The section should be free of ice crystal artifacts, knife lines, and/or tears.
The speed and simplicity of PrestoCHILL's operations revolutionize the rapid freezing process, keeping the microscopic appearance of tissues "true-to-life".

PrestoCHILL - Benchtop cryoembedding station

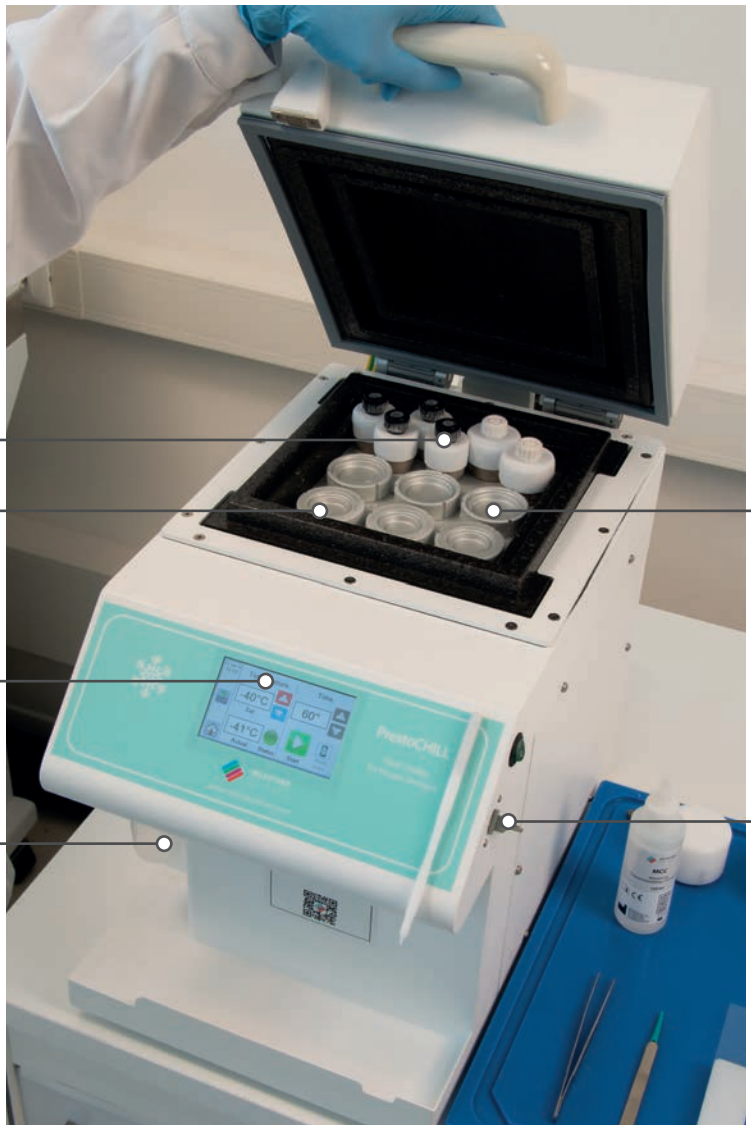
Time to redefine frozen sections

- **Reduce freezing time to 60 seconds.**
- **Eliminate freezing artifacts** through ultrafast freezing, preventing the formation of ice crystals.
- **Cut fatty tissues** like breast or lymph nodes without any sort of difficulty and without the distortion of delicate honeycomb structures.
- **Obtain perfectly "flat plane" surfaces** to reduce trimming time and to cut easily while using the patented* "face down" embedding technique.
- **Eliminate the compression of artifacts** caused by extremely ultra low temperatures.
- **Eliminate the retraction of tissues**; for example, Glomeruli from Bowman's capsule, and vacuolation spaces around nucleated brain cells, related to formalin fixed, paraffin-embedded (FFPE) sections.



Freezing time 60"

PrestoCHILL. The first step towards high-quality frozen sections



This is how cryoembedding should be

NO FREEZING ARTIFACTS

60 SECOND FREEZING TIME

AN ALL-DRY SYSTEM

FULL DOWNLOADABLE DOCUMENTATION

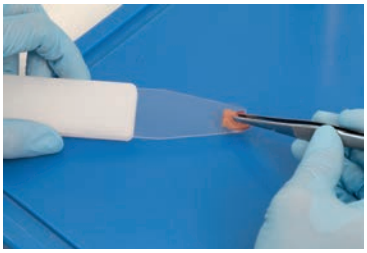
NO LIQUID NITROGEN

NO CO_2 - **NO** ISOPENTANE

Simple. Intuitive operations

1

Place a drop of the cryo-embedding compound on the tip of the spatula.



2

Orient the specimen.

3

Transfer the specimen to the bottom of the mold.

4

Add the cryo-embedding compound to fill the mold.

5

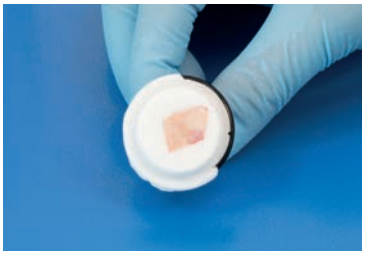
Place the chuck into the mold.

6

Add the extractor and close the cover.

7

Start the timer. After 60 seconds...



8

... A frozen block with a perfectly "flat plane" surface is ready for cutting.

What sets us apart ?

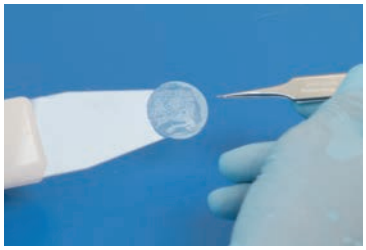
THE UNIQUE COMBINATION OF THE PATENTED* FACE-DOWN EMBEDDING TECHNIQUE, TOGETHER WITH A STATE-OF-THE-ART, RAPID STIRLING COOLING DEVICE AT -40°C.

*US PATENT 6,536,219 B2

Cryoembedding of delicate tissues - small fragments/Mohs surgery

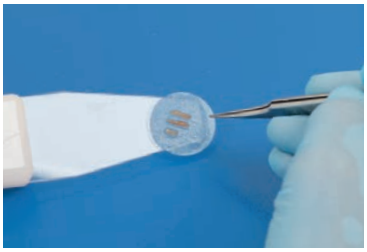
**During the practice of frozen section pathology, pathologists often encounter the task of embedding tissues that are extremely delicate because of the nature of their consistence and structure. This is a situation that occurs daily during Mohs surgery, in which the technologist handles delicate slivers of skin with the goal of accurately embedding these tissues to completely visualize the epidermis and its margin. The PrestoCHILL paper embedding technique offers a safe and rapid solution to these problems.

The science of paper cryoembedding



1

Wet both sides of a small section of lens paper with the cryo-embedding compound.



2

Position the specimen on the lens paper.
Check its orientation.

3

Gently slide the specimen, paper side down, into the mold. Add the cryo-embedding compound, the chuck and the heat extractor.

4

After 60 seconds, the specimen is ready for section cutting.

5

The lens paper is eliminated during the initial trimming of the block.

6

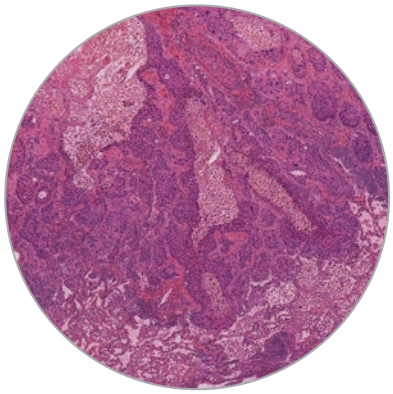
The final result.

Cryoembedding on edge

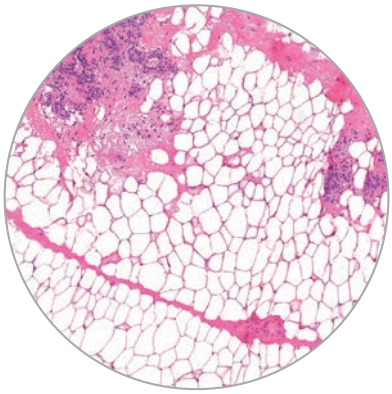
With the help of a strip of cellulose it is possible to freeze the specimen on edge with the standard freezing procedure as paper disk cryoembedding.

Excellent quality with the PRESTO system

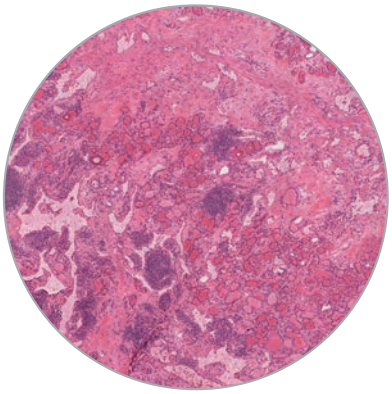
The combination of freezing the specimens with PrestoCHILL and processing/staining the slides with the PRESTO processor allows high-quality results in less than 10 minutes.



Lung
40X

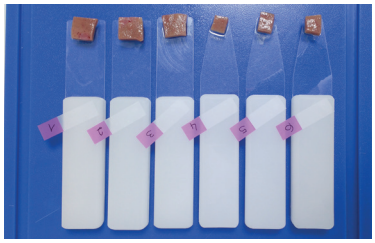


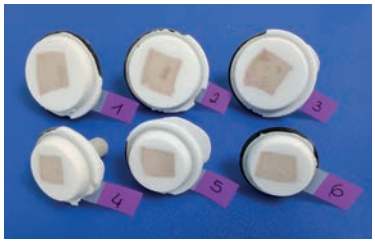
Breast
40X



Thyroid
20X

High throughput operations





Each mold can be separately timed through the built-in control panel.
Up to 6 samples can be frozen in parallel or in sequential order in less than 4 minutes.

24/7 operations with fully automatic defrost feature

To eliminate the potential formation of ice on the freezing platform, an automatic defrost cycle is provided. It consists of an embedded heater in the freezing platform and a vacuum pump to extract water vapors from the chamber. Vapors are condensed and collected in a cold-trap placed in the front of the unit for easy handling. A HEPA filter is provided on the exhaust side of the pump. Integrated software can set the defrost cycle to take place during off hours. Afterwards, the cooling cycle automatically restarts at a preset time to ensure the availability for the first case of the day, removing the need to manually monitor the system.

Accessories for easier operation

MCC an optimized cryoembedding compound

MCC is a proprietary formulation of glycols and resins specifically developed for optimal support during cryotomy of dissected tissues down to -40°C.
Being water soluble, MCC doesn't leave residue on the slides, eliminating non specific background staining. Additionally, MCC will not dull microtome knives.

Lens paper disks for easy mounting

Lens paper disks are an excellent support for freezing small fragments or delicated specimens making the diffucult task simple and rapid. Available in 3 sizes (diameters of 16, 22, 30 mm diameters).

Molds to fit every requirement

A wide variety of molds with different diameter and depth are available to fullfill every freezing requirement. Since the outside diameter is always the same they can be rapidly exchanged to fit every situation.

Best Operating Procedures make everyone an expert

A manual with Best Operating Procedures (BOP) is available with every unit.
The QR code in this page is directly connected to video tutorials to make operations even easier.

1. BOP-101 How to identify frozen specimens
2. BOP-102 How to freeze breast and fatty tissues
3. BOP-103 How to simultaneously freeze small specimens
4. BOP-104 How to freeze long-thin specimens
5. BOP-105 How to freeze muscle tissues
6. BOP-106 How to freeze thin specimens on edge
7. BOP-107 How to freeze multiple thin specimens on edge
8. BOP-108 How to freeze skin for MOHS surgery
9. BOP-109 How to freeze body fluids

The PrestoCHILL's unique features

FLEXIBLE

- Standardized freezing at -40°C for all types of tissues, even for the most difficult to cut at the cryostat (such as breast, lymph nodes).
- Rapidly change out molds with a range of different sizes and designs.

FAST

- Only 40 minutes from room to the operating temperature of -40°C.
- At the set temperature, 6 biospecimens can be frozen simultaneously in only 60 seconds.
- Reduced trimming time at the cryostat state through specimen planarity in the cryo-embedding compound.

SAFE

- No liquid nitrogen, no CO_2, no isopentane.
- No operations inside the cryostat chamber during the freezing step.
- HEPA cap filter.

ENVIRONMENTALLY FRIENDLY

- The technologically advanced Stirling cooler uses Helium gas as a refrigerant in a sealed stainless steel chamber. No standard compressor is used, therefore no CFCs (Chlorofluorocarbons).

FULLY DOCUMENTABLE

- A USB port enables both software update and event log downloads.

SPACE SAVING

- Its reduced dimensions occupy minimum space in restricted lab environments.

Technical specifications

- Stirling cooler freezing module
- Anodized aluminium freezing platform
- 4.3" touch screen terminal. 1 USB port
- Dimensions: *h* 45cm/17,7" (with cover open 73cm/28,7") - *w* 30cm/11,8" - *d* 54cm/21,3"
- Weight: 22Kg
- Power supply: 230V~ 50/60Hz *or* 115V~ 60Hz (250W)

***The Art of Embedding Tissue for Frozen Section. Part I: A System for Precision Face Down Cryoembedding of Tissues Using Freezing Temperature-Embedding Wells. Stephen R. Peters - The Journal of Histology / Vol. 16, No.1 / March 2003*

***Paper Cryoembedding Stephen R. Peters - The Journal of Histology / Vol. 26, No.3 / September 2003*

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HELPING PATIENTS

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