BEST PRACTICES GUIDE FOR SELECTING PLASMA FREEZERS

Important guidelines to consider when purchasing a freezer for plasma storage.

BY HELMER SCIENTIFIC

IMPORTANT GUIDELINES TO CONSIDER

In order to meet AABB Standards and to implement best practices for plasma storage, there are important considerations for the design and features of a Plasma Freezer. The following checklist can help ensure all critical aspects are considered when selecting a unit for storing frozen plasma.

Storage devices shall have the capacity and design to ensure that the proper temperature is maintained. (AABB Standard 3.6.1) Plasma components should be stored ≤ -18ºC (AABB Reference Standard 5.1.8A).

- ☐ The freezer is designed with a heavy-duty, forced-air refrigeration system
- ☐ The freezer automatically defrosts the refrigeration system with only a minimal temperature increase
- ☐ The freezer is designed to support a set point of -30ºC (enabling plasma components to be kept below -18ºC during normal operation and defrost cycles).

Storage temperatures of refrigerators, freezers, and platelet incubators shall be monitored. (AABB Standard 3.6.2)

- ☐ The freezer monitors the temperature inside the cabinet, and high or low temperature alarms activate if the temperature exceeds or falls below the alarm limits
- ☐ The freezer monitors and activates alarms for other factors that could impact the temperature, such as door openings and power failure

For storage of blood or blood components, the temperature shall be monitored continuously and recorded at least every 4 hours. (AABB Standard 5.1.8.1.3)

- ☐ The freezer constantly monitors the temperature inside the cabinet
- ☐ The freezer has a chart recorder that records the temperature inside the cabinet
- ☐ The freezer should be designed with remote alarm contacts and a probe port to enable monitoring and recording with 3rd party systems

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Additional Considerations for Best Practices

- ☐ The freezer is designed with self-closing doors
- ☐ The evaporator fans shut off during door openings to maintain stable temperatures
- ☐ The defrost cycle can be programmed to run during low use periods
- ☐ The drawer slides should be designed so that the drawers operate smoothly at low temperatures

Plasma Freezers from Helmer Scientific are designed for the critical demands of plasma component storage. The use of Helmer freezers supports hospitals and blood centers in their efforts to meet regulatory requirements. They are also designed to facilitate best practices for plasma storage.

Need a freezer for plasma storage?

Whether it's an undercounter or upright freezer, Helmer Scientific is ready to provide you with the right solution for your blood bank.

Contact a Sales Representative

Reference: AABB, Standards for Blood Banks and Transfusion Services, 31st edition
AABB, Technical Manual, 19th Edition

About the Author:

Helmer designs, manufactures, and markets specialized medical and laboratory equipment to customers in more than 125 countries. With an extensive background in Helmer products, Colleen’s focus is on the Clinical Laboratory and Blood Bank segments.