BLOOD PLASMA
Walk-in Freezers
Reliable Storage for a Vital Product

With blood plasma, creating the proper environment for rapid freezing and storage is absolutely critical. Maintaining the exact temperature range required takes a reliable storage enclosure plus a heavy-duty refrigeration system.

As a provider of dependable blood plasma freezers for over 30 years, Master-Bilt supplies a complete package of walk-in panels and refrigeration systems. Our panels are 6" thick and insulated with CFC-free foamed-in-place polyurethane – the most efficient insulation material. The panels also feature tongue and groove construction and dual gaskets for a secure seal.

Custom designed refrigeration systems feature Energy-conserving pass-thru doors allow personnel to conveniently place product into the freezer without being exposed to the extreme cold.

Pressure relief ports disperse moisture in the air to reduce frost accumulation as well as equalize air pressure throughout the walk-in to make it easier to open doors.

Plasma and storage freezers maintain a consistent -40°F.

6" thick panels, featuring a standard 26 ga. acrylic-coated stucco galvanized finish, provide maximum energy efficiency with an R-value of 48.0. Optional finishes available.
two stage compressors to ensure a consistent -40°F.
To maximize efficiency, all Master-Bilt® blood plasma walk-in systems are equipped with the Master Controller Reverse Cycle Defrost system. This features boosts energy efficiency by as much as 27% over traditional refrigeration systems. Additionally, Reverse Cycle Defrost ensures proper oil return, critical for extremely low temperature applications, to the compressor after each defrost.
Customer support is essential to the successful operation of blood plasma walk-ins and Master-Bilt® representatives are ready to assist during all points of the design stage. Additional product training is available at our factory.

The ante-room reduces ice formation in plasma and storage freezers by providing a barrier between ambient air and -40°F conditions in the freezers.

An optional remote interface for the Master Controller system allows monitoring of the refrigeration system without entering the walk-in.

The typical layout of a blood plasma walk-in consists of an ante-room in the middle with a plasma freezer on one side and storage freezer on the other.
**Additional Walk-In Features**

Master-Bilt’s unique fully **adjustable hinge backing plate**:
- Ensures a proper fit of the door during installation
- Allows for any necessary future adjustments without removal of the door or frame

**Heavy-duty door** featuring:
- A heavy-gauge Z-shaped structural inner frame with a full length quarter-inch steel hinge backing plate
- Inner heater wires lining the perimeter
- A pre-wired spare heater wire

Master-Bilt’s **standard floor finish**:
- NSF listed .080 inch aluminum
- Textured for added safety and coved to meet sanitation guidelines
- Optional finishes, a heavy-duty floor and a structural floor capable of supporting 5000 lbs. are available

**Cam-locking panels**:
- Require only a factory-supplied hex wrench to operate
- Locking process is easily reversed for expansion or relocation
Refrigeration Systems

Refrigeration systems for blood plasma walk-ins consist of remote condensing units with matching evaporator coils.

Built-up condensing units with two stage compressors are used to provide the -40°F environment of the plasma and storage freezers. A separate unit cools the ante-room.

Condensing units feature factory pre-wired and mounted operating components for worry-free installation while E-Series evaporator coils, specially designed for ultra low temp environments, are ready to mount in position.

Back-up refrigeration systems to secure against service interruption are optionally available for each compartment.

Product Safety
- The reverse cycle defrost function helps prevent product loss because it completely and rapidly removes ice build-up in evaporator coils. Ice build-up can result in higher interior temperatures and product loss.
- Error codes and data are provided through online Web2Walk-In software.

Energy Savings
- Patented design saves up to 27% more energy than an all-mechanical system
- Reverse cycle technology reduces defrost energy usage by up to 80% over traditional electric heaters.
- Demand Defrost technology initiates reverse cycle defrosts only as needed, allowing further energy savings.
- Save 2-4% more energy with the fan cycle option which saves electricity by cycling the evaporator fans during the compressor’s off cycle.

Connectivity
- Web2Walk-In software loaded on each controller allows remote monitoring and programming using any device with a wireless internet or cabled (cat 5) connection.
- No need for a service tech to climb onto a roof or enter the walk-in to monitor or adjust the refrigeration system.
- Constant access to data allows users to improve refrigeration system performance and avoid service issues.