



The Circle of Protection

Feature Note

Advanced Frost Control and EZlatch:
The key to an integrated access and frost mitigation system.

The EZlatch applies to the following PHCbi ultra-low temperature freezers:
VIP ECO Models MDF-DU502VH, MDF-DU702VH, and MDF-DU901VH, TwinGuard Models MDF-DU302VX, MDF-DU502VX and MDF-DU702VX

Opening the door of an ultra-low temperature freezer is not an insignificant event.

Because extreme inside/outside temperature differentials often exceed 116°C, careful planning is encouraged before accessing the interior. To minimize duration of the door opening, users should know the location of stored product inside the freezer. Such best practices lead to better chamber uniformity, faster recovery of setpoint temperature and longer freezer life.



Model MDF-DU702VH/MDF-DU702VHL shown with one additional shelf to create five levels. Three shelves supplied standard. Additional shelves available.



The Advanced Frost Control, a combination of nine individually engineered components, is designed to work together to minimize frost, protect contents and extend freezer life.

1 Outer Door The outer door is insulated and mounted on heavy duty oval fastened hinges to permit adjustment throughout the life of the freezer. The door incorporates a gentle, unobtrusive lift mechanism to resist sagging over time.

When opening, the handle gently pushes the door away from the face of the cabinet. When closing, it evenly draws the door to the cabinet face against the multi-point gaskets. Excess air trapped between the inner doors and outer door is displaced for enhanced frost reduction.

2 EZlatch The patent pending door handle spans an arc of 45 degrees in total movement for easy operation. Ergonomically designed for minimal effort and one-handed operation, the latch includes a roller engage trigger with motion stopper to eliminate a false catch or over-torque.

3 Security The EZlatch includes an integral key lock, as well as a provision for a secondary padlock to restrict access.

4 Mullion Heater Refrigeration system heat output is diverted to the non-temperature conduction extrusion to resist moisture accumulation which can cause frost and ice buildup.

5 Air Space When closed, the outer door design minimizes space between the outer door and inner doors which diminishes trapped ambient air volume. This reduces ice buildup and nuisance vacuum which can complicate a quick additional door opening.

6 Inner Doors Insulated inner doors with gaskets minimize cold air loss during door openings and include positive latches to hold firmly against the two main compartments.

Additional inner door configurations are available.

7 Heat Breaks To minimize frost and protect the cabinet seal, all materials at the door/cabinet interface are engineered to reduce passive heat transmission from the outside to the inside and to diminish cold surfaces in contact with moist, ambient air.

8 Gaskets Multi-point door gaskets create micro air breaks around the face of the cabinet, restricting moisture migration into the cabinet and minimizing frost. Gasket composition withstands extreme relative temperature differentials while remaining flexible, ensuring a full peripheral door seal. The outer door gasket can be easily removed and replaced without tools while the freezer can remain in operation with no downtime.

9 Vacuum Relief The automatic vacuum relief port equalizes pressure and permits the outer door to be opened easily for quick re-entry.



Model MDF-DU702VX shown with one additional shelf to create five levels. Three shelves supplied standard. Additional shelves available.