

# Borg



*Deep Freezer*  
DF, MDF, ULF Series



Preservation Cabinets

**DF - Deep Freezer -20°C,**

**MDF - Medical Deep Freezer -40°C,**

**ULF - Ultra Low Freezer - 86°C**

## Feature

- ☺ Ideal -20° C, -40° C, -86° C freezing environment by means of PUF insulation
- ☺ Specially Designed compressors for Ultra Low temperature applications
- ☺ Microprocessor temperature control unit with digital input for precise setting and control
- ☺ Optional Touch Screen HMI display based control system also offered
- ☺ Built-in temperature and power failure alarms (audible / visual)

## Technology

- ☼ Microprocessor Temperature control
- ☼ Temperature & Power Failure Alarms
- ☼ Digital Display

**DF Series :** Deep Freezers maintain internal temperature low as -26°C. Manufactured with foamed-in-place insulation, ideally suited for any laboratory.

**MDF Series :** Medical deep freezers maintain internal temperature as low as -40°C. Manufactured with foamed-in-place insulation, ideally suited for any hospital, laboratory specimen storage.

**ULF Series :** Ultra-low temperature freezers maintain internal temperature as low as -86°C. All models use uniquely designed compressors for ultra-low temperature applications. Manufactured with foamed-in-place insulation, they are ideally suited for use in laboratories and hospitals for long-term preservation and storage of blood, specimens and components, as well as material testing.

Advanced feature include a microprocessor temperature control system with digital LED temperature display, a Platinum resistance sensor for extra precision and reliability, a power failure warning system with built-in audible and visual indicators, double insulation polyurethane walls and easy open/easy close hinged outer door latch.

## Accessibility

- ☼ Rugged inner door latch tightly closes the inner door - accessing chamber contents easier.
- ☼ Condenser filter located on the right side of the front panel - Filter removal and cleaning easier.
- ☼ Alarm lamp and buzzer offer secure warning of power failure or abnormal temperature increase.
- ☼ New rugged, one-handed outer door latch has a hasp to allow padlock for additional security.

## Safety

- ☼ High and low temperature warning provides an audible and visual alarm when the temperature deviates more than  $\pm 5^{\circ}\text{C}$  from the set point.



DF 0 to -26°C

MDF -20°C to -40°C

ULF -40°C to -86°C

## Specifications for Upright Model

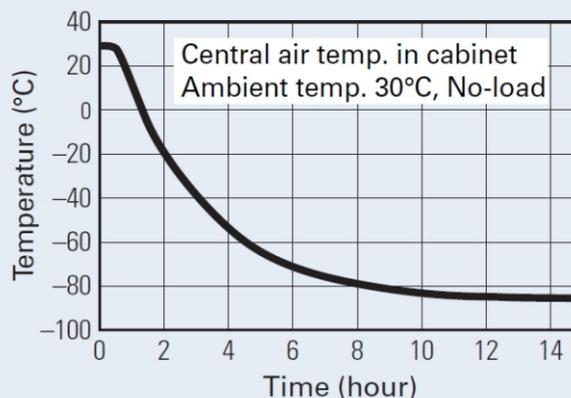
Description	Technical Data					
Chamber Capacity (in Liters)	100	170	280	325	395	460
Temperature resolution	0.1° C					
Temperature control precision	± 3°C					
Controller type	Microprocessor based Digital PID Controller (Touch Screen HMI control - optional)					
Sensor	PT 100					
Refrigeration System	Cascade System with Hermetically Sealed Danfoss compressors					
Condenser type	Fin and Tube type air cooled Condenser					
Insulation	Polyurethane (PUF)					
Chamber Interior	Stainless Steel (SUS 304)					
Chamber Exterior	Powder coated CRCA Sheet					
Door	Double Walled Solid Main door					
Gasket	Triple Magnetic Gasket system for effective sealing					
Shelf	Stainless Steel, Height Adjustable					
Access Port	Optional (17mm dia.)					
Refrigerant	CFC Free					
Alarm	High/Low Temperature, Power Failure, Filter Clean, Low Battery, Door Open					
Chamber Dimensions (WxDxH)mm	350x400x700	400x400x1100	500x500x1100	550x550x1100	600x600x1100	650x650x1100
Power	220V, 50Hz AC Supply					
Backup	Battery for Display & LN2 / LCO2 available Optionally					

## Additional Features

- ✿ Touch Screen HMI control system displays the entire temperature pull down curve on realtime basis.
- ✿ The logged Trend data on a Pendrive can be exported to Microsoft Excel for further processing in PC, Control software can be also provided.

## Performance Data

### Pull-down characteristics



## Specifications for Chest Model

Description	Technical Data				
Chamber Capacity (in Liters)	95	195	255	349	380
Temperature resolution	0.1° C				
Temperature control precision	± 3° C				
Controller type	Microprocessor based Digital PID Controller (Touch Screen HMI control - optional)				
Sensor	PT 100				
Refrigeration System	Cascade System with Hermetically Sealed Danfoss compressors				
Condenser type	Fin and Tube type air cooled Condenser				
Insulation	Polyurethane (PUF)				
Chamber Interior	Stainless Steel (SUS 304)				
Chamber Exterior	Powder coated CRCA Sheet				
Door	Double Walled Solid Main door				
Gasket	Triple Magnetic Gasket system for effective sealing				
Basket	Powder Coated				
Access Port	Optional (17mm dia.)				
Refrigerant	CFC Free				
Alarm	High/Low Temperature, Power Failure, Filter Clean, Low Battery, Door Open				
Chamber Dimensions (WxDxH)mm	510x430x430	610x480x660	810x480x660	1100x480x660	1200x480x660
Power	220V, 50Hz AC Supply				
Backup	Battery for Display & LN2 / LCO2 available Optionally				

# Borg Scientific

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