



# Manifold Vacuum Freeze Dryer

**MVFO Series**



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## Manifold Vacuum Freeze Dryer MVFQ Series

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### Manifold Vacuum Freeze Dryer MVFQ 3730

Manifold Vacuum Freeze Dryer MVFQ 3730 is an electrical heating vacuum unit with a freeze drying area of 0.18 m<sup>2</sup> and condensing temperature of -50 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

### Features

- ➔ LCD touch screen for parameter manipulation and observation
- ➔ Multiple built-in programs ( 36 segments each )
- ➔ Transparent acrylic drying chamber for easy process observation
- ➔ High speed vacuum pump
- ➔ Optimum ice capture condenser function
- ➔ Large capacity ice condenser trap with external coiling tubes
- ➔ Checking, storage and modification of historical curves and records in real time
- ➔ Login facility with multi-level password protection for sample security
- ➔ Alarm system ( elevated temperature, error diagnosis, equipment maintenance)
- ➔ Adjustable Pa or mbar vacuum degree display
- ➔ Over-heating safety control system
- ➔ USB interface to export data

## Manifold Vacuum Freeze Dryer MVFQ Series

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### Manifold Vacuum Freeze Dryer MVFQ 3731

Manifold Vacuum Freeze Dryer MVFQ 3731 is an electrical heating vacuum unit with a freeze drying area of 0.18 m<sup>2</sup> and condensing temperature of -80 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

### Features

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- ➔ Adjustable Pa or mbar vacuum degree display
- ➔ Over-heating safety control system
- ➔ USB interface to export data

### Applications

Used in medicine, pharmacy, biology, pharmaceutical and food industry, research institutes, archaeological conservators, food and beverage industries for long term preservation of sample

## Manifold Vacuum Freeze Dryer MVFQ Series

### Specifications

Model No	MVFQ 3730	MVFQ 3731
Freeze drying area	0.18 m <sup>2</sup>	0.18 m <sup>2</sup>
Product dimensions	630 x 580 x (970 + 480) mm	810 x 580 x (950 + 480) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	- 50 °C	- 80 °C
Trays	4 layers	4 layers
Shelf temperature	RT to 80 °C	RT to 80 °C
Vacuum degree	< 10 Pa	< 10 Pa
Defrosting mode	Off cycle defrosting	Off cycle defrosting
Cooling mode	Air cooling	Air cooling
Refrigerant	CFC free refrigerant	CFC free refrigerant
Bulk loading capacity ( 10 mm thickness )	1.8 L	1.8 L
Vacuum pump flow rate	4 L / S ( 14.4 m <sup>3</sup> / h )	4 L / S ( 14.4 m <sup>3</sup> / h )
Vial capacity (Φ 22 mm)	348	348
Vial capacity (Φ 16 mm)	680	680
Vial capacity (Φ 12 mm)	1220	1220
Round bottom flask capacity	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL
Wide-neck flask capacity	1200 mL, 600 mL	1200 mL, 600 mL
Power consumption	1.8 kW	2.1 kW
Power supply	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz
Product material	SUS304 stainless steel	SUS304 stainless steel

## Manifold Vacuum Freeze Dryer MVFQ Series

Condenser size ( D x H )	Φ 270 x 400 mm	Φ 270 x 400 mm
Drying chamber size	Φ 300 x 480 mm	Φ 300 x 480 mm
Tray size	Φ 240 mm	Φ 240 mm
Tray spacing	70 mm	70 mm
Weight	170 kgs	200 kgs

### Manifold Vacuum Freeze Dryer MVFQ 4930

Manifold Vacuum Freeze Dryer MVFQ 4930 is an electrical heating vacuum unit with a freeze drying area of 0.27 m<sup>2</sup> and condensing temperature of -50 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

#### Features

- ➔ LCD touch screen for parameter manipulation and observation
- ➔ Multiple built-in programs ( 36 segments each )
- ➔ Transparent acrylic drying chamber for easy process observation
- ➔ High speed vacuum pump
- ➔ Optimum ice capture condenser function
- ➔ Large capacity ice condenser trap with external coiling tubes
- ➔ Checking, storage and modification of historical curves and records in real time
- ➔ Login facility with multi-level password protection for sample security
- ➔ Alarm system ( elevated temperature, error diagnosis, equipment maintenance)
- ➔ Adjustable Pa or mbar vacuum degree display
- ➔ Over-heating safety control system
- ➔ USB interface to export data

## Manifold Vacuum Freeze Dryer MVFQ Series

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### Manifold Vacuum Freeze Dryer MVFQ 4931

Manifold Vacuum Freeze Dryer MVFQ 4931 is an electrical heating vacuum unit with a freeze drying area of 0.27 m<sup>2</sup> and condensing temperature of -80 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

### Features

- ➔ LCD touch screen for parameter manipulation and observation
- ➔ Multiple built-in programs ( 36 segments each )
- ➔ Transparent acrylic drying chamber for easy process observation
- ➔ High speed vacuum pump
- ➔ Optimum ice capture condenser function
- ➔ Large capacity ice condenser trap with external coiling tubes
- ➔ Checking, storage and modification of historical curves and records in real time
- ➔ Login facility with multi-level password protection for sample security
- ➔ Alarm system ( elevated temperature, error diagnosis, equipment maintenance)
- ➔ Adjustable Pa or mbar vacuum degree display
- ➔ Over-heating safety control system
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### Applications

Used in medicine, pharmacy, biology, pharmaceutical and food industry, research institutes, archaeological conservators, food and beverage industries for long term preservation of sample

## Manifold Vacuum Freeze Dryer MVFQ Series

### Specifications

Model No	MVFQ 4930	MVFQ 4931
Freeze drying area	0.27 m <sup>2</sup>	0.27 m <sup>2</sup>
Product dimensions	630 x 580 x (970 + 480) mm	810 x 580 x (950 + 480) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	- 50 °C	- 80 °C
Trays	6 layers	6 layers
Shelf temperature	RT to 80 °C	RT to 80 °C
Vacuum degree	< 10 Pa	< 10 Pa
Defrosting mode	Off cycle defrosting	Off cycle defrosting
Cooling mode	Air cooling	Air cooling
Refrigerant	CFC free refrigerant	CFC free refrigerant
Bulk loading capacity ( 10 mm thickness )	2.7 L	2.7 L
Vacuum pump flow rate	4 L / S ( 14.4 m <sup>3</sup> / h )	4 L / S ( 14.4 m <sup>3</sup> / h )
Round bottom flask capacity	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL
Wide-neck flask capacity	1200 mL, 600 mL	1200 mL, 600 mL
Power consumption	1.8 kW	2.1 kW
Power supply	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz
Product material	SUS304 stainless steel	SUS304 stainless steel
Condenser size ( D x H )	Φ 270 x 400 mm	Φ 270 x 400 mm
Drying chamber size	Φ 300 x 480 mm	Φ 300 x 480 mm
Tray size	Φ 240 mm	Φ 240 mm
Tray spacing	50 mm	50 mm
Weight	170 kgs	200 kgs



## Manifold Vacuum Freeze Dryer MVFQ Series

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### Manifold Vacuum Freeze Dryer MVFQ 5830

Manifold Vacuum Freeze Dryer MVFQ 5830 is an electrical heating vacuum unit with a freeze drying area of 0.36 m<sup>2</sup> and condensing temperature of -50 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

### Features

- LCD touch screen for parameter manipulation and observation
- Multiple built-in programs ( 36 segments each )
- Transparent acrylic drying chamber for easy process observation
- High speed vacuum pump
- Optimum ice capture condenser function
- Large capacity ice condenser trap with external coiling tubes
- Checking, storage and modification of historical curves and records in real time
- Login facility with multi-level password protection for sample security
- Alarm system ( elevated temperature, error diagnosis, equipment maintenance)
- Adjustable Pa or mbar vacuum degree display
- Over-heating safety control system
- USB interface to export data



## Manifold Vacuum Freeze Dryer MVFQ Series

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### Manifold Vacuum Freeze Dryer MVFQ 5831

Manifold Vacuum Freeze Dryer MVFQ 5831 is an electrical heating vacuum unit with a freeze drying area of 0.36 m<sup>2</sup> and condensing temperature of -80 °C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Facilitated with eight ports for round bottom or wide neck flask attachment. Transparent drying chamber helps in visualization of drying process.

### Features

- ➔ LCD touch screen for parameter manipulation and observation
- ➔ Multiple built-in programs ( 36 segments each )
- ➔ Transparent acrylic drying chamber for easy process observation
- ➔ High speed vacuum pump
- ➔ Optimum ice capture condenser function
- ➔ Large capacity ice condenser trap with external coiling tubes
- ➔ Checking, storage and modification of historical curves and records in real time
- ➔ Login facility with multi-level password protection for sample security
- ➔ Alarm system ( elevated temperature, error diagnosis, equipment maintenance)
- ➔ Adjustable Pa or mbar vacuum degree display
- ➔ Over-heating safety control system
- ➔ USB interface to export data

### Applications

Used in medicine, pharmacy, biology, pharmaceutical and food industry, research institutes, archaeological conservators, food and beverage industries for long term preservation of sample

## Manifold Vacuum Freeze Dryer MVFQ Series

### Specifications

Model No	MVFQ 5830	MVFQ 5831
Freeze drying area	0.36 m <sup>2</sup>	0.36 m <sup>2</sup>
Product dimensions	630 x 580 x (970 + 480) mm	810 x 580 x (950 + 480) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	- 50 °C	- 80 °C
Trays	8 layers	8 layers
Shelf temperature	RT to 80 °C	RT to 80 °C
Vacuum degree	< 10 Pa	< 10 Pa
Defrosting mode	Off cycle defrosting	Off cycle defrosting
Cooling mode	Air cooling	Air cooling
Refrigerant	CFC free refrigerant	CFC free refrigerant
Bulk loading capacity ( 10 mm thickness )	3.6 L	3.6 L
Vacuum pump flow rate	4 L / S ( 14.4 m <sup>3</sup> / h )	4 L / S ( 14.4 m <sup>3</sup> / h )
Round bottom flask capacity	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL	1000 mL, 500 mL, 250 mL, 100 mL, 50 mL
Wide-neck flask capacity	1200 mL, 600 mL	1200 mL, 600 mL
Power consumption	1.8 kW	2.1 kW
Power supply	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz
Product material	SUS304 stainless steel	SUS304 stainless steel
Condenser size ( D x H )	Φ 270 x 400 mm	Φ 270 x 400 mm
Drying chamber size	Φ 300 x 480 mm	Φ 300 x 480 mm
Tray size	Φ 240 mm	Φ 240 mm
Tray spacing	35 mm	35 mm
Weight	170 kgs	200 kgs

## Manifold Vacuum Freeze Dryer MVFQ Series

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### Optional Accessories

Accessory No	Accessory
1	Vacuum control valve
2	Intake backfilling filter
3	Air inlet pump filter
4	Nitrogen inflation valve
5	Eutectic point tester
6	Electrical heating-defrosting mode
7	Exhaust filter / oil mist pump filter
8	Automated backfilling / drainage system
9	Cascade refrigeration
10	Stainless steel organic solvent sample chamber
11	RS232 software