



Vacuum Freeze Dryer

MTVQ Series

Vacuum Freeze Dryer MTVQ Series

Manifold Top Press Vacuum Freeze Dryer MTVQ 3140

Manifold Top Press Vacuum Freeze Dryer MTVQ 3140 is an electrical heating vacuum unit with a freeze drying area of 0.09 m² 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
- PLC controller with 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

Vacuum Freeze Dryer MTVQ Series

Manifold Top Press Vacuum Freeze Dryer MTVQ 3141

Manifold Top Press Vacuum Freeze Dryer MTVQ 3141 is an electrical heating vacuum unit with a freeze drying area of 0.09 m² 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
- PLC controller with 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

Vacuum Freeze Dryer MTVQ Series

Specifications

Model No.	MTVQ 3140	MTVQ 3141
Freeze drying area	0.09 m ²	0.09 m ²
Product dimensions	630 x 580 x (970 + 540) mm	810 x 580 x (950 + 540) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	- 50 °C	- 80 °C
Trays	3 layers	3 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)	0.9 L	0.9 L
Vacuum pump flow rate	4 L / S (14.4 m ³ / h)	4 L / S (14.4 m ³ / h)
Vial capacity (Φ 22 mm)	183	183
Vial capacity(Φ 16 mm)	345	345
Vial capacity(Φ 12 mm)	615	615
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

Vacuum Freeze Dryer MTVQ Series

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 540 mm	Φ 300 x 540 mm
Tray size	Φ 200 mm	Φ 200 mm
Tray spacing	70 mm	70 mm
Weight	175 kg	205 kg

Vacuum Freeze Dryer MTVQ Series

Manifold Top Press Vacuum Freeze Dryer MTVQ 4740

Manifold Top Press Vacuum Freeze Dryer MTVQ 4740 is an electrical heating vacuum unit with a freeze drying area of 0.12m² 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
- PLC controller with 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

Vacuum Freeze Dryer MTVQ Series

Manifold Top Press Vacuum Freeze Dryer MTVQ 4741

Manifold Top Press Vacuum Freeze Dryer MTVQ 4741 is an electrical heating vacuum unit with a freeze drying area of 0.12m² 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
- PLC controller with 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

Vacuum Freeze Dryer MTVQ Series

Specifications

Model No.	MTVQ 4740	MTVQ 4741
Freeze drying area	0.12 m ²	0.12 m ²
Product dimensions	630 x 580 x (970 + 540) mm	810 x 580 x (950 + 540) 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)	1.2 L	1.2 L
Vacuum pump flow rate	4 L / S (14.4 m ³ / h)	4 L / S (14.4 m ³ / h)
Vial capacity (Φ 22 mm)	244	244
Vial capacity(Φ 16 mm)	460	460
Vial capacity(Φ 12 mm)	820	820
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

Vacuum Freeze Dryer MTVQ Series

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 540 mm	Φ 300 x 540 mm
Tray size	Φ 200 mm	Φ 200 mm
Tray spacing	50 mm	50 mm
Weight	175 kgs	205 kgs

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