

Freeze Dryer

Freeze Dryer & Cooling Trap



VenFreeze is a lab scale freeze dryer using the lyophilization phenomena. It is designed for safety, robustness and convenience for the successful freeze drying and cold trap. It is suitable for drying of aqueous products, various solvents and products with a low freezing point with stylish, modern and unique design will help you enjoy your daily laboratory work to the fullest!

Two models of 3 kg, 2415 055P and 2415 110P can be selected depending on the ice condensing temperature, -55°C and -110°C. VenFreeze empowers Ven-LITE and Ven-MAX to guarantee high-performance and capacity as a cooling trap as well as the freeze dryer. The digital screen indicated with actual temperature and operating time is simple and intuitive for user-friendly control. Also, AWB (Alarm-Wait-OK), keylock, vacuum, defrost, power indicators of the display provide useful information. 2415 055P, 2415 110P basically has the condenser chamber with Teflon coating. It provides the chemical resistance against aggressive solvents and acids such as HCl, TFA, DMSO, etc. and ensures longevity, easy cleaning and decontamination.

VenFreeze with 8 kg ice capacity, 2415 080P has a very large size cold trap that it can be used for prefreezer and it does not need the exclusive prefreezer system. In addition, It includes a high vacuum rotary vane pump in the body case without necessarily purchasing separate pump. It has the intuitive and easy control as a dial type to turn on cooling and vacuum and adjust the time. LCD display shows the vacuum pressure, trap temperatures and the other processing parameters.

► Control Panel

LED	2415 055P	2415 011P	2415 080P
ON	< -50 °C	< -90 °C	< -70 °C
Flashing (1 sec interval)	-50~-20 °C	-90~-20 °C	-70~-20 °C
Flashing (5 sec interval)			> -20°C

• Display Panel
 Actual Temperature (°C) and Operating Time (H:M)

• LED ON Main Power ON

• KEYLOCK
 Locked : LED ON
 In case of 2415 080P, MODE button

• DEFROST
 Chamber defrosting by hot gas injection

• VACUUM
 Turning on/off the vacuum pump
 -30 °C~RT : VACUUM inactive (LED flashing)
 <-30 °C : VACUUM activated (LED flashing)
 → VACUUM ON (LED ON)
 <-50 °C : automatic pump on (LED ON)

• TIME
 LED ON : TIME setting mode
 Set H:M using the control buttons (◀, ▲, ▼, SET)

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► Features

- Ven-MAX empowered by VenFreeze guarantees capacity and performance at higher level.
- Extended applications for concentrating wider range or larger volume of solvents
- VenFreeze by itself, when equipped with manifolds or chambers, becomes a versatile freeze dryer.
- The compatible vacuum rotary vane pump generates vacuum down inside the chamber.
- Effective for evaporating organic solvents as well as concentrating dissolved nucleic acids
- Up to 12 external bottles can be accommodated by the manifolds of VenFreeze.
- Automatic De-Vac and De-Ice functions installed

► Technical Specifications

Model Name	2415 055P	2415 110P	2415 080P
Ultimate Chamber Temp (at RT) (°C)	-55	-110	-80
Chamber Volume (L)	5		25
Trap (Chamber) Size (Ø x L)	165 x 202		305 x 355
ICE Condensing Capacity (kg)	3		8
ICE Condensing Performance (kg/day)	2.5		
Compressor	1/2 HP	1/2 HP x 2	1 HP x 2
Refrigerant	R507	R507/R1150	R507/R1150
Power supply	230 V, 50 Hz (AC 220-230 V, 50/60 Hz; 110 V optional)		
Power Requirement (Resting, VA)	642	819	1500
Dimension (W x D x H, mm)	400 x 660 x 570		710 x 610 x 960
Weight (kg)	58	72	186
Digital Readout	Temperature, Time		Temperature, Time, Vacuum Pressure
Function	KEYLOCK, DEFROST, VACUUM, TIME		MODE, DEFROST, VACUUM, TIME

► Accessories

Cover Plate



Cat. No.	VC-CPP
Details	2415 055P, 2415 110P, Trap Plate for Connection Vacuum Hose to Vacuum Concentrator



Cat. No.	VC-CPP-A
Details	2415 055P, 2415 110P Trap Plate for Connection Vacuum Hose to Vacuum Concentrator with Table A (GVCT-MA)



Cat. No.	VC-CPB
Details	2415 055P, 2415 110P, Acrylic Base for Manifold or Chamber



Cat. No.	VC-CPP(8)
Details	2415 080P Trap Plate for Connection Vacuum Hose to Vacuum Concentrator



Cat. No.	VC-CPB(8)
Details	2415 080P Acrylic Base for Manifold or Chamber

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Manifold



Cat. No.	TMF4
Details	4-Valve Manifold Basic with four rubber valves on a stainless steel bar, 30 cm



Cat. No.	TMFE4
Details	4-Valve Manifold Extension with four rubber valves on a stainless steel bar, 20 cm



Cat. No.	TMF6
Details	6-Valve Manifold Basic with six rubber valves on a stainless steel bar, 30 cm



Cat. No.	TMFE6
Details	6-Valve Manifold Extension with six rubber valves on a stainless steel bar, 20 cm



Cat. No.	TMF8
Details	8-Valve Manifold Basic with 8 rubber valves on a stainless steel bar, 30 cm

Chamber and Rack



Cat. No.	VFC30P
Details	Acrylic Chamber Trunk and Plain Top, ø30 cm, height 40 cm



Cat. No.	VFCR25
Details	Stainless Steel Rack with 3 Sets of SS Shelves and Trays, ø25cm (Trays can be inserted up to 5)
Cat. No.	VFCR-TS
Details	A Set of a Tray and a Shelve



Cat. No.	VFC30-4V
Details	Acrylic Chamber Trunk and Top with 4 Rubber Valves, ø30 cm, height 40 cm



Cat. No.	VFC30-8V
Details	Acrylic Chamber Trunk and Top with 8 Rubber Valves, ø30 cm, height 40 cm

Flask and others

Cat. No.	Details
FS40	Freeze Drying Glass Flask 40 ml with rubber lid and stainless steel connector
FS80	Freeze Drying Glass Flask 80 ml with rubber lid and stainless steel connector
FS120	Freeze Drying Glass Flask 120 ml with rubber lid and stainless steel connector
FS150	Freeze Drying Glass Flask 150 ml with rubber lid and stainless steel connector
FS300	Freeze Drying Glass Flask 300 ml with rubber lid and stainless steel connector
FS600	Freeze Drying Glass Flask 600 ml with rubber lid and stainless steel connector
FS900	Freeze Drying Glass Flask 900 ml with rubber lid and stainless steel connector
FS1200	Freeze Drying Glass Flask 1200 ml with rubber lid and stainless steel connector

Cat. No.	Details
FST34	Rubber lid for 34 mm diameter Flask (Glass Flask 40 ~ 80 ml)
FST60	Rubber lid for 60 mm diameter Flask (Glass Flask 120 ~ 300 ml)
FST90	Rubber lid for 90 mm diameter Flask (Glass Flask 600 ~ 1200 ml)
CD12250	Stainless Steel connector
V-AA	Acetal Adaptor for the connection Vacuum Hose to Rubber Valve
VF-VH	Vacuum Hose with 2 Clamps, 100 cm
VF-VAC220	High Vacuum Rotary Vane Pump, 0.4 kW(0.5 HP), 200 L/min, 1X10-3 torr
OMT150	Oil Mist Trap

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Packing Information

Freeze Dryer



Cat. No.	Details
2415 055P-M4B	Manifold Type Freeze Drying System -55 °C with 4 Valves Basic incl. a Rotary Vane Pump, Oil Mist Trap & Connections (2415 055P + VC-CPB + TMF4 + VF-VH + VF-VAC220 + OMT150)
2415 110P-M4B	Manifold Type Freeze Drying System -110 °C with 4 Valves Basic incl. a Rotary Vane Pump, Oil Mist Trap & Connections (2415 110P + VC-CPB + TMF4 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 110P-CHR	Chamber Type Freeze Drying System -110 °C with 3 Shelves Rack incl. a Rotary Vane Pump, Oil Mist Trap & Connections (2415 110P + VC-CPB + VFC30P + VFCR25 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 110P-CH4VR	Multi-Type Freeze Drying System -110 °C with 3 Shelves Rack & 4 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap & Connections (2415 110P + VC-CPB + VFC30-4V + VFCR25 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 110P-CH8VR	Multi-Type Freeze Drying System -110 °C with 3 Shelves Rack & 8 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap & Connections (2415 110P + VC-CPB + VFC30-8V + VFCR25 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 110P-M4EC	Multi-Purpose, Vacuum Concentration and Freeze Drying System -110 °C with 8 Valves Manifold incl. a Rotary Vane Pump, Oil Mist Trap, Connections & Table B (VC2200 + VCT-MB + 2415 110P + VC-CPB + TMF4 + TMF4 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 110P-CH8VRC	Multi-Purpose, Vacuum Concentration and Freeze Drying System -110°C with 3 Shelves Rack & 8 Valves Chamber incl. a Rotary Vane Pump, Oil Mist Trap, Connections & a Table B (VC2200 + VCT-MB + 2415 110P + VC-CPB + VFC30-8V + VFCR25 + VF-VH + VF-VAC220 + OMT150)



Cat. No.	Details
2415 080P-M4B	Manifold Type Freeze Drying System -80 °C with 4 Valves Basic (2415 080P + VC-CPB(8) + TMF4)



Cat. No.	Details
2415 080P-M6B	Manifold Type Freeze Drying System -80 °C with 6 Valves Basic (2415 080P + VC-CPB(8) + TMF6)



Cat. No.	Details
2415 080P-M8B	Manifold Type Freeze Drying System -80 °C with 8 Valves Basic (2415 080P + VC-CPM(8) + TMF8)



Cat. No.	Details
2415 080P-CHR	Chamber Type Freeze Drying System -80 °C with 3 Shelves Rack (2415 080P + VC-CPB(8) + VFC30P + VFCR25)



Cat. No.	Details
2415 080P-CH4VR	Multi-Type Freeze Drying System -80 °C with 3 Shelves Rack & 4 Valves Chamber (2415 080P + VC-CPB(8) + VFC30-4V + VFCR25)



Cat. No.	Details
2415 080P-CH8VR	Multi-Type Freeze Drying System -80 °C with 3 Shelves Rack & 8 Valves Chamber (2415 080P + VC-CPB(8) + VFC30-8V + VFCR25)