

Freeze Dryer

DC401/801

Trap cooling temp. -45°C DC401 -85°C DC801

Internal capacity 4L



Cooling temp. : -45°C
Dehumidify amount : 0.6L

DC401



Cooling temp. : -85°C
Dehumidify amount : 1.0L

DC801

Flask mounting chamber, manifold, flask cap and glass container are optional for both DC401/801

- A safety mechanism that automatically leaks the vacuum path when the power is turned off or the power goes out prevents the backflow of vacuum oil.
- Ice can be refrozen and removed smoothly from the vessel by Hot Gas Bypass System
- The Pirani vacuum gauge enables high-precision freeze drying.
- A service outlet for the vacuum pump linked to the safety valve is provided.
- The DC801 model uses a non-fluorocarbon refrigerant.

Specifications

Product code	212537	212538
Model	DC401	DC801
Trap cooling temperature	-45°C	-85°C
Dehumidify amount	0.6L	1.0L
Ambient temperature	5~30°C	
Temperature sensor	--	Platinum resistance temperature detector Pt100Ω
Temperature display	--	7 segment LCD *The indicated temp. is the surface temp. of the cooling pipe.
Refrigerator	Air Cooling Type, 400W	Air Cooling Type, 350W
Refrigerant / amount	R404A / 225g	R600a and others, mixed coolant
Compound gauge	--	High pressure / Low pressure monitor
Bath Shape, material	Cylindrical, Stainless steel	
Drain	Vacuum Hose with plug	
Vacuum gauge	Pirani vacuum gauge	
Defrosting mechanism	Hot gas bypass system	
Exhaust port (vacuum pump connection)	Dia. ø17mm	
Service outlet	Max. 6A for vacuum pump / Max. 2A for heater	
Features	Trap defrost : Defrosted by Hot Gas	
Safety device	Electric leakage breaker with over current protection, Refrigerator overload relay, Valve for back flow prevention	
Trap dimensions	Dia. ø153 x H235mm	
External dimensions*1	W300×D450×H720mm	W405×D500×H846mm
Internal capacity	Approx. 4L	
Power source*2 50/60 Hz	AC115V/AC220V Single phase with step-down transformer	
Weight	Approx. 43kg	Approx. 65kg
Accessories	Vacuum silicone grease, Vacuum hose, 10A fuse	Vacuum silicone grease, Vacuum hose, 10A fuse, 4 Caster stop holders

- Pre-freezing device is not included
 - The vacuum pump is not included. Please use a pump with a displacement of 50L/min or more when using it.
- *1 Do not include protrusions. *2 Service outlet capacity: DC401: 8A, DC801: 8A
The length of the power cord is about 2m outside the unit.

Vacuum pump (Option)



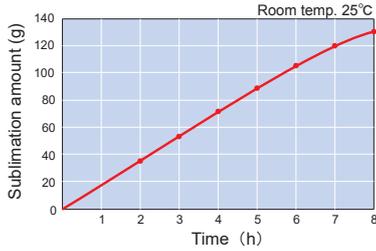
PD-53

Specifications

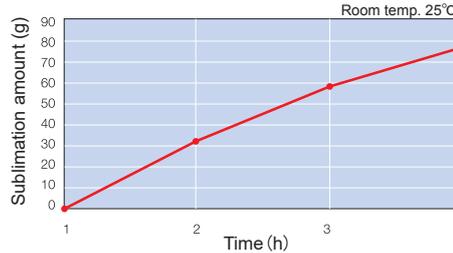
Model	PD53
Ultimate pressure	0.67Pa
Actual pumping speed 50/60 Hz	50 / 60 L/min.

Sublimation Data

DC401 Sublimation data



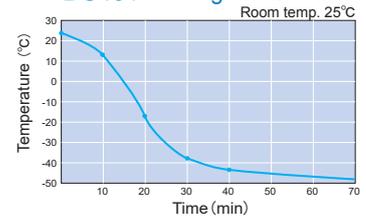
DC801 Sublimation data



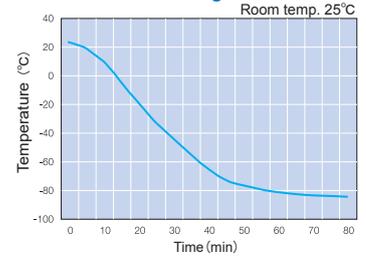
*A 0.5L sample (eggplant type) flask filled with 0.15L of water was placed in a trap, and the sublimation amount was counted backward from the remaining amount of the flask after the passage of time.

Cooling Curve

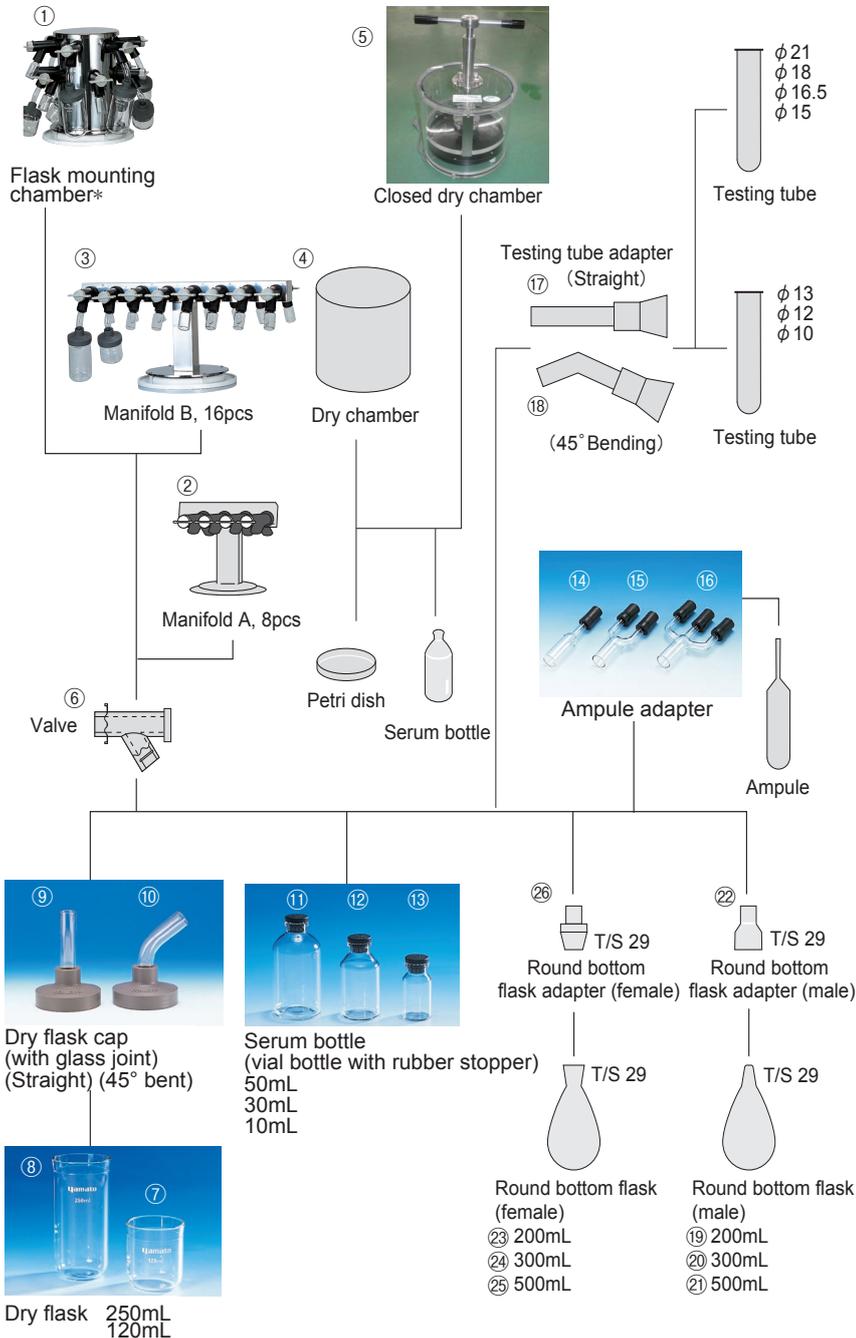
DC401 Cooling curve



DC801 Cooling curve



Accessories



Control Panel (DC401)



Pirani Vacuum Gauge and Control Panel

Product code	212560	212561	212562	212563	212564
Product name	① Flask mounting chamber	② Manifold A	③ Manifold B	④ Dry chamber	⑤ Closed dry chamber
Shelf number	--			1	
Stopper	I.D. ϕ 18.5mm				
Stopper Pitch	96mm	80mm	60mm Dish \times 7		
Port number	12	8	16	Temp. adjustment 30°C \pm 2°C	
Dimension	ϕ 195 \times H303	W304 \times D60 \times H263	W624 \times D60 \times H263	ϕ 252 \times H240	ϕ 252 \times H425

*Flask mounting chambers and manifold A/B are supplied with the same number of valves as the number of ports.

No.	Product name	Product code
⑥	Valve	212565
⑦	Dry Flask	120mL, 5pcs 212820
⑧	Dry Flask	250mL, 5pcs 212821
⑨	Dry Flask Cap (with glass joint)	5pcs. (Straight) 212570
⑩	Dry Flask Cap (with glass joint)	5pcs. (45°C Bent) 212571
⑪	Serum Bottle*1	50mL, 10pcs 212814
⑫	Serum Bottle (vial bottle with rubber plug)	30mL, 10pcs 212815
⑬	Serum Bottle (vial bottle with rubber plug)	10mL, 10pcs 212816
⑭	Ampule Adapter	Single, 5pcs 212572
⑮	Ampule Adapter	Double, 5pcs 212573
⑯	Ampule Adapter	Triple, 5pcs 212574
⑰	Testing Tube Adapter (with glass joint)	Straight 212590
⑱	Testing Tube Adapter (with glass joint)	45° bend 212591
⑲	Round Bottom Flask (Male)	200mL T/S 29 212594
⑳	Round Bottom Flask (Male)	300mL T/S 29 212595
㉑	Round Bottom Flask (Male)	500mL T/S 29 212596
㉒	Round Bottom Flask Adapter (Male)	T/S 29 212597
㉓	Round Bottom Flask (Female)	200mL T/S29 212566
㉔	Round Bottom Flask (Female)	300mL T/S29 212567
㉕	Round Bottom Flask (Female)	500mL T/S29 212568
㉖	Round Bottom Flask Adapter (Female)	T/S 29 212569
㉗	Micro Tube Holder*2	1.5mL, 16pcs 212580
㉘	Glass Joint	Straight 212598
㉙	Glass Joint	45° bend 212599
㉚	Caster stop holder	4pcs set 281440

*1 Use in combination with a dry chamber.

*2 Use in combination with a drying flask (250mL).