

# Freeze Trap VA-250F/500R/800R

**Retrieves solvent evaporated by a centrifugal concentrator. Other than Concentrating promotion it enables to prevent release into the atmosphere and inflow to the vacuum pump.**

Centrifugal Concentrator "Spin Dryer VC-36R/96R" --> P.148



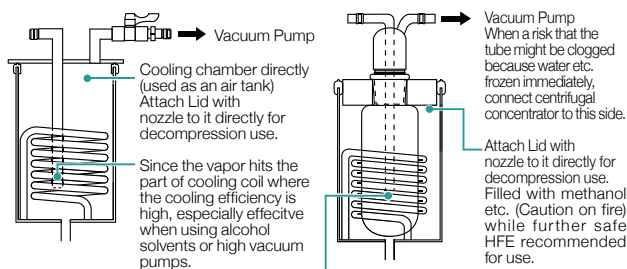
VA-250F

VA-500R

VA-800R

## Traps vapor into Cooling chamber directly or Glass condenser by solvents

Attach Lid with nozzle (sold separately) to Cooling chamber when trapping vapor directly (See left figure below). The advantage of directly trapping is the capacity gets more and the cooling temp almost the same as the trap temp. However, the solvents are limited to water and alcohol as the solvent directly contact the unit. In other solvents, trap by placing it into Glass condenser (sold separately) in the chamber (See right figure).



Cooling chamber inside (VA-800R)

Model	VA-250F	VA-500R	VA-800R
Cooling temp./range	-45°C	-75°C	-70°C
Trapping volume (*1)	Approx. 200mL/time		Approx. 1000mL/time
Cooling chamber inside dimensions	Innerφ135 x H215mm (Volume: Approx. 3L)		Innerφ210 x H250mm (Volume: Approx. 8.6L)
Cooling coil inner dia.	φ90mm		φ160mm
Compressor	250W	2 x 250W	2 x 400W
Dimensions (W x D x H)	325 x 435 x 540mm	330 x 470 x 835mm	420 x 490 x 810mm
Weight	Approx. 35kg	Approx. 75kg	Approx. 82kg
Power supply	AC100V/6A	AC100V/10A	AC100V/13A

(\*1) The value when Glass condenser used.

● Ask us when used as a preliminary freezing tank or a cool circulating water bath.

## Features

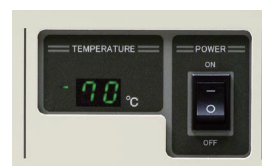
- Three models with the different cooling temp. and trapping volume.
- Traps vapor into Cooling chamber directly or Glass condenser.
- Equipped with Monitor of temp. inside Cooling chamber [VA-800]

## Applications

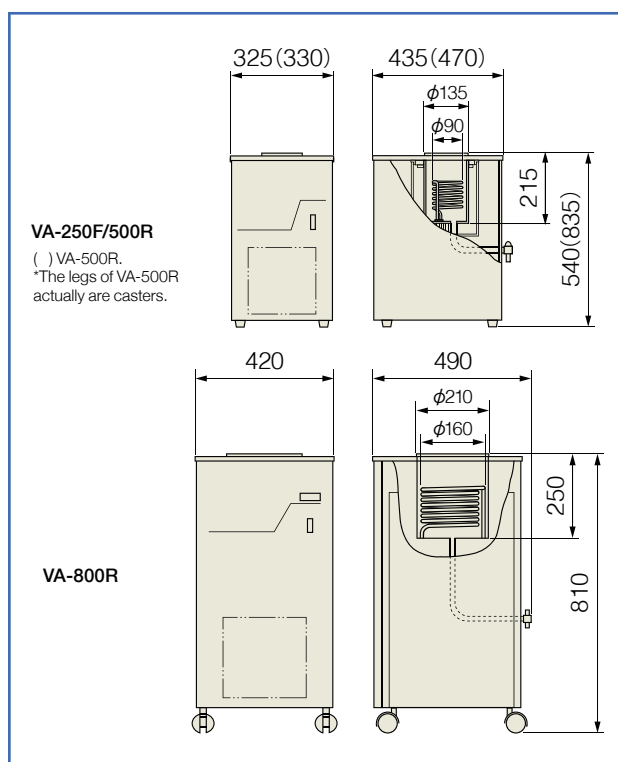
- As a Cold Trap for Centrifugal Concentrator

## Digital Temperature Monitor [VA-800R]

The temp. inside Cooling chamber can be checked in VA-800R (Slight deviations might occur in the displayed temp. depending the usage conditions.).



## Dimensions (Common)



# Introduction on Options/Optional parts

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## Lid with nozzles / Glass condenser



NF-025/040  
(mounted on VA series)



GC-035



GC-070

Model	Applicable models and Trapping volume etc.
NF-025	Lid with nozzles for VA-250F/500R (*) Made of stainless steel, Nozzle outer dia.φ13.8mm, Trapping volume Approx. 300mL
NF-040	Lid with nozzles for VA-800R (*) Stainless steel made, Nozzle outer dia.φ13.8mm, Trapping volume Approx.1000mL
GC-035	Glass condenser for VA-250F/500R Nozzle outer dia.φ13.8mm, Trapping volume Approx. 200mL
GC-070	Glass condenser for VA-800R Nozzle outer dia.φ13.8mm, Trapping volume Approx. 1000mL

(\*)Adapter required when the vapor exceeds 50°C. Ask us for details.

## System Stand



System Stand  
D-type

Product / Model	Remarks	Applicable models
System Stand C-type	405×500×655Hmm	VA-500R/800R
System Stand D-type	800×580×600Hmm,with Outlet	VA-250F
System Stand E-type	450×580×600Hmm,with Outlet	VA-500R/800R
System Stand G-type	750×500×623Hmm	VA-250F

●Select it according to the applicable model. Each comes with castors.

# Vacuum pump

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## Diaphragm / Dry scroll type Vacuum pumps

(Accessories : Vacuum hose and nozzle port)

Model	Chemical resistance (*)	Displacement	Ultimate pressure
DTU-20	Water, Weak acid, Organic solvent etc.	20L/min	up to 200Pa (Adjustable by valve)
DTC-60	Water, Weak acid, Organic solvent etc.	60L/min	up to 1000Pa (Adjustable by valve)
VU-100	Water, Alcohols	100L/min	up to 50Pa (Adjustable by valve)
VU-100HC	Water, Weak acid, Organic solvent etc.	100L/min	up to 70Pa (Adjustable by valve)

(\*)Pump resistance and Solvent release to the environment are irrelevant. In particular, recommended to use Cold Trap or Chemical filter in order to avoid emissions.

●Vacuum hose as consumable (for connection to VC-36R/96R, inner dia. φ12mm) sold per metric units. Ask us if necessary.

## Oil-sealed Rotary Vacuum pumps

(Comes with Vacuum hose, Nozzle port and Oil mist trap)

Model	Chemical resistance (*1)	Displacement	Ultimate pressure (*2)
GLD-051	Water	50L/min	0.067Pa
GLD-137CC	Water	135L/min	0.067Pa
GCD-051XA	Water, Organic solvent	50L/min	0.067Pa
GCD-136XA	Water, Organic solvent	135L/min	0.067Pa

(\*1)Pump resistance and either Solvent release to the environment and Oil deterioration are irrelevant. recommended to use Cold Trap or Chemical filter in order to avoid emissions. Oil change required if solvent inhaled.

(\*2)The value when the pump with no load. Decreases due to piping resistance when use.

●Vacuum hose as consumable (for connection to VC-36R/96R/96W, inner dia. φ12mm) sold per metric units. Ask us if necessary.

## Disposable Chemical filters

(Comes with Connection hose and Fixture for Oil-sealed Rotary vacuum pump). Ask us when fixing to DTC-60 or VU-100/100HC.)

Model	Adsorbent	Main Adsorb-able substances	Remarks
CT-301SE	Activated carbon	Ketones, Alcohols, Esters, Organic solvent vapor, Organic acids, Aromatic, Oxides of Hydrocarbons, Chlorinated organic substances, Organochloride	comes with Connection hose and Fixture for Oil-sealed Rotary vacuum pump
CT-302SE	Anhydrous calcium sulfate	Water, Acids in Aeration	

● The lead time might takes long depending on timing of receipt of order.

● Filters (model: CT-301, CT-302, CT-303) sold singly.

● Replace 1 to 2 months when used frequently. Replace CT-302 when its color changes from Blue to Pink. The appearance of CT-301/303 not change.

● Protuberances not included in Dimensions. ● Vessels of photo not included.



DTU-20  
(Diaphragm type)



DTC-60  
(Diaphragm type)



VU-100  
(Dry scroll type)



VU-100HC  
(Dry scroll type)

※Oil-sealed Rotary types required when Lyophilization with VC-36R/96R.

Optiona chemical filters  
installation example



GLD-051  
(Oil-sealed Rotary)



GCD-136XA  
(Oil-sealed Rotary)