

1

Rotary Evaporator

Index	P. 3
Rotary Evaporator N-1200•N-1110 series System Examples	P. 4
Other System Examples	
Rotary Evaporator N-1200•N-1110 Combination Guide	P. 6
Rotary Evaporator N-1200BV series	P. 8
Rotary Evaporator N-1200BS•BT series	P.10
Rotary Evaporator N-1110V•VF series	P.11
Rotary Evaporator N-1110S•SF series	
Rotary Evaporator N-1110AN•N-1110N	
Rotary Evaporator N-1110E•WE	P.12
Condensation Unit ECC-1000A Vapor Catcher	
Rotary Evaporator with 2 or 5L sample flask N-2100 series	P.13
Rotary Evaporator with 10L sample flask N-3010 series	P.14
Desktop Rotary Evaporator with 20L sample flask N-4000 series	P.15
Rotary Evaporator with 20•50•100L sample flask N-21•51•101 series	P.16
Component parts or EYELA Evaporators	P.17
EYELA Genuine glass & parts	P.19
EYELACOAT GLASS SERIES	P.22
Vacuum Controller NVC-2300A•B•2200L	P.23
Solvent Recovery Unit DPE-1000 series	P.24
Centrifugal Evaporator CVE-2100	P.26
Centrifugal Evaporator CVE-3000•3110	P.27
Test Tube Evaporator TVE-1100A•1100B	P.28
Thin Film Evaporator MF-1000	P.30
Thin Film Evaporator MF-10 series	P.31
Thin Film Evaporator F-70•150•200	
Vortex Evaporator VTX-2000•2500	P.32
Pressured Gas Blowing Concentrator MGS-2200	P.33
Solvent Recycler SR-2000N	P.34



Rotary Evaporator N-1200·1110 series System Examples

Small volume, multiple solvents evaporation



Product name	Model	Cat. No.
Rotary evaporator	N-1200BV-W	243200
Low temp. circulator	CCA-1112	259910
Vacuum control unit	NVC-2300B	257260
Diaphragm vacuum pump	NVP-1000	261800

Low and high boiling point solvents



Product name	Model	Cat. No.
Rotary evaporator	N-1110S-W	243730
Low temp. circulator	CCA-1112	259910
Solvent recovery unit	DPE-1400	229720
Diaphragm vacuum pump	NVP-1000	261800

Two evaporators in small space.



Product name	Model	Cat. No.
Rotary evaporator	N-1200BV-W x 2	243200
Low temp. circulator	CA-1115A	249120
Solvent recovery unit	DPE-2130	245170
Diaphragm vacuum pump	NVP-2000	261810

System installed in fume hood
System control feasible through narrow open space



Product name	Model	Cat. No.
Rotary evaporator	N-1200BV-W	243200
Low temp. circulator	NCA-1000	261580
Solvent recovery unit	DPE-1130	245160
Diaphragm vacuum pump	NVP-1000	261800

Rotary Evaporator

Other series System Examples

10L Standard System



Product name	Model	Cat. No.
Rotary evaporator	N-3010	248100
Low temp. circulator	CA-2600	197110
Cold trap	UT-3000L	216160
Diaphragm vacuum pump	N950	251170

Small volume, high speed centrifugal evaporation



Product name	Model	Cat. No.
Centrifugal evaporator	CVE-2200	260570
Rotor	R 2000A	188830
Cold trap	UT-1000	189200

Small volume, high speed evaporation with test tube



Product name	Model	Cat. No.
Test tube evaporator	TVE-1100A	248970
Low temp. circulator	CCA-1112	259910
Vacuum control unit	NVC-2300B	257260
Solvent recovery unit	DPE-1400	229720
Diaphragm vacuum pump	NVP-1000	261800

Thermally sensitive, foamy and high viscosity solvent



Product name	Model	Cat. No.
Thin film evaporator	MF-1000	248980
Hot water circulator	HS-1000	248990
Vacuum control unit	DTC30-NVCB	258220
Low temp. circulator	CA-1115A	249120

Rotary Evaporator	1
Vacuum Pump & Aspirator	2
Organic Synthesizer	3
Freeze Dryer - Spray Dryer	4
Shaker	5
Stirrer	6
Tube Pump	7
Low Temperature Circulator	8
Cold Trap	9
Constant Temperature Bath	10
Incubator	11
Oven	12
Fermentor	13

Rotary Evaporator N-1200·N-1110 Combination Guide

Main Units

Condenser
Driving unit
Water bath
Oil bath

- Main unit
- Condenser
- Bath

■ Condenser

V type condenser
Vertical double helix

T type condenser
Dewer type

S type condenser
Diagonal double helix

E type condenser
Vertical, compact double helix

■ Driving part

N-1200B

N-1110

Performance
High performance
Standard type

Jack
Auto jack
Manual jack

■ Bath

SB-1200

OSB-2100

Type
Water bath
Water & oil bath

Rotary evaporator N-1110 series

	Condenser		V type vertical condenser		S type diagonal condenser		E type vertical condenser	
	Model		VG	VGf EYELA COAT®	SG	SGf EYELA COAT®	EG	EGf EYELA COAT®
	Cat. No.		243600	243620	241270	243030	252480	252490
Main unit (Driving part)								
	N-1110		N-1110V	N-1110VF	N-1110S	N-1110SF	N-1110E	N-1110EF
	Cat. No.	243630	243640	243680	243720	243760	252460	255460
Water bath SB-1200								
	N-1110V-W		N-1110VF-W		N-1110S-W	N-1110SF-W	N-1110WE	N-1110WEF
	Cat. No.	245410	243650	243690	243730	243770	252470	255470
Water & oil bath OSB-2100								
	N-1110V-WD		N-1110VF-WD		N-1110S-WD	N-1110SF-WD		
	Cat. No.	226700	243660	243700	243740	243780		

■ Rotary evaporator N-1200B series

		Condenser		S type diagonal condenser		T type dewer condenser	
		Vertical condenser		S type diagonal condenser		T type dewer condenser	
		Model	VG	VG EYELA COAT®	SG	SG EYELA COAT®	TG
Cat. No.		241280	243010	241270	243030	242990	243050
Main unit (Driving part)							
N-1200B		N-1200BV	N-1200BVF	N-1200BS	N-1200BSF	N-1200BT	N-1200BTF
Cat. No.		245390	243190	243230	243470	243270	243510
Water bath SB-1200		N-1200BV-W	N-1200BVF-W	N-1200BS-W	N-1200BSF-W	N-1200BT-W	N-1200BTF-W
Cat. No.		245410	243200	243240	243480	243280	243520
Water & oil bath OSB-2100		N-1200BV-WD	N-1200BVF-WD	N-1200BS-WD	N-1200BSF-WD	N-1200BT-WD	N-1200BTF-WD
Cat. No.		226700	243210	243250	243490	243290	243530

■ N-1110 • 1200B Model classification

Type	N-1110			N-1200B		
	w/o water bath	With water bath	With water • oil bath	w/o water bath	With water bath	With water • oil bath
Vertical condenser						
Diagonal condenser						
Vertical trap condenser						
Vertical condenser with Eyla glass						
Diagonal condenser with Eyla glass						
Vertical trap condenser with Eyla glass						

- 1 Rotary Evaporator
- 2 Vacuum Pump & Aspirator
- 3 Organic Synthesizer
- 4 Freeze Dryer, Spray Dryer
- 5 Shaker
- 6 Stirrer
- 7 Tube Pump
- 8 Low Temperature Cooler
- 9 Cold Trap
- 10 Constant Temperature Bath
- 11 Incubator
- 12 Oven
- 13 Fermentor

Rotary Evaporator N-1200BV series

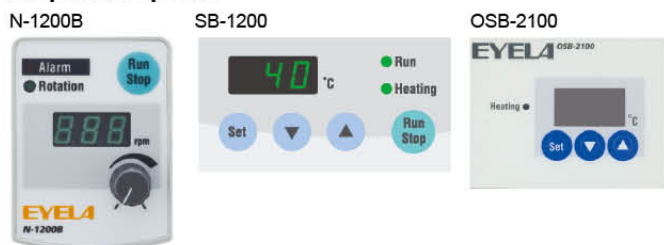
Newly designed, highly functional evaporator for improved laboratory safety and security featuring solid and stable operation. Auto jack type with vertical double helix condenser



Features

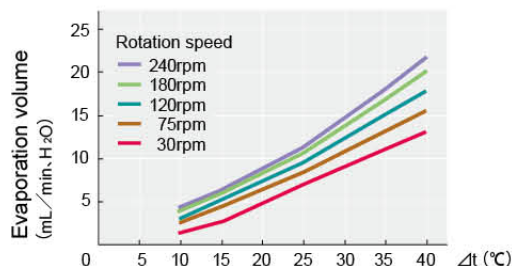
- Auto jack system provides driving unit up/down movement by key switch operation.
- Vertical condenser is designed to prevent evaporated solvents to back flow into flask by spilling down capillary. It is effective for evaporating samples abhorrent of contamination such as samples for analytical process.
- Driving unit is automatically lifted up in case of power failure.
- Up/down switch is located at front base of the main unit; requiring only small open space to operate the switch even in case evaporator is placed inside a fume hood. Solvent dispersion risk can be decreased.
- Manual slide mechanism (130mm) is provided in addition to jack mechanism. Regardless of the size of a trap ball or flask, height of main unit driving part is adjustable.
- F model features shatter proof EYELA COAT GLASS for condenser, receiving flask and adapter. Coating material used is environmentally friendly polyurethane. It is hard to break and prevents glass and solvent dispersion even in case of glass projection. The coating has excellent chemical physicality and features high transparency.
- Newly developed Teflon vacuum seal realizes long life and strong chemical resistance allowing for long time operation with high speed rotation.
- One touch connector nozzle and one touch cooling hose make it easy to detach cooling water circulation hose.
- Accommodates a newly developed vacuum controller NVC-2300 to realize most appropriate vacuum ratio fit for a sample.

Operation panel



Data

Evaporation capacity N-1200B



Specifications

Product name	Auto jack type Rotary Evaporator		
	N-1200BV/N-1200BVF	N-1200BV-W/N-1200BVF-W	N-1200BV-WD/N-1200BVF-WD
Model	N-1200BV/N-1200BVF	N-1200BV-W/N-1200BVF-W	N-1200BV-WD/N-1200BVF-WD
Cat. No.	243199·243198/243439·243438	243209·243208/243449·243448	243219·243218/243459·243458
Bath	w/o bath	Water bath	Water/oil bath
Rotation speed	5~280rpm		
Evaporation capacity	Max. 23mL/min (1L flask, water vapor volume)		
Bath temp. control & accuracy	-	RT+5~90°C ±1°C	RT+5~180°C ±1.5°C (oil ±3°C)
Rotation speed setting/display	Volume setting·digital display		
Jack function	Motorized lift (100mm) + Manual slide (130mm)		
Rotation motor	Stepping motor		
Heater	-	1.05kW	1kW
Condenser	Vertical double helix condenser with built-in adapter, cooling area 0.146m ² Sample flask 1L Ts29/38, Receiving flask 1L S35/20, Rotary joint ID18xL178mm Ts29/38		
Vacuum seal	Teflon seal		
Bath	-	ID220x120H SUS 304 4.3L	ID240x120H Aluminum (Teflon coating) 5.4L
Connection diameter	One touch connector OD 10mm, nozzle OD 10mm		
Ambient temperature	5~35°C		
Dimensions (mm) & weight	520W x 355D x 740H 13.5kg	605W x 435D x 740H 17kg	595W x 445D x 740H 17.5kg
Power supply	230VA AC115V/460VA AC230V	1.43kVA AC115V/2.87kVA AC230V	1.4kVA AC115V/2.8kVA AC230V

Point! Additional features

Large capacity water bath (SB-1200)



Bath without heater inside.
2 L flask can be placed inside the bath.

Puddle preventive design



To minimize puddle due to inclined condenser, groove is designed to incline to receiving flask.

One touch connection of cooling hose



One touch connection of condenser and cooling hose.

Reverse flow preventive design



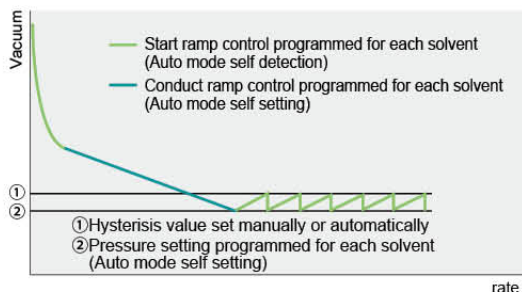
Evaporated solvents will not splash to capillary thanks to reverse flow preventive design.

Hose holder

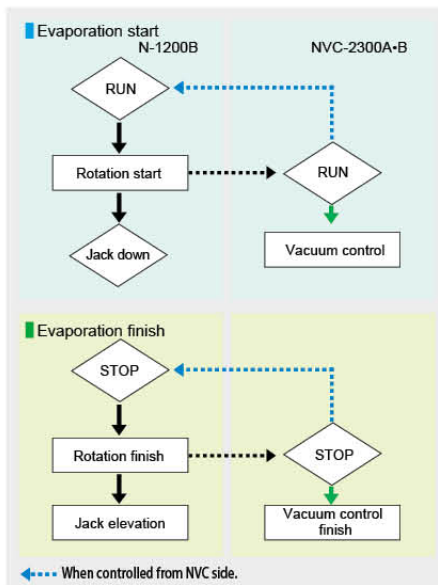


Bundles cables between main unit and related accessories; saving work space.

Vacuum ramp program control function



Synchronous operation of evaporator and vacuum control unit



By attaching vacuum control unit NVC-2300A·B, optimum vacuum value can be programmed. When evaporator starts rotation, vacuum control automatically starts. Automatic control can be started from vacuum controller side.

Optional accessories

Power source inlet for bath.



Inlet



Power cord



Woulfe bottle

Woulfe bottle can be attached to main unit to trap evaporated liquid in piping.
Cat. No. 235460

Connection cord

Cat. No. 245370

Wolf bottle holder

Cat. No. 246300

Rotary Evaporator 1

Vacuum Pump & Aspirator 2

Organic Synthesizer 3

Freeze Dryer - Spray Dryer 4

Shaker 5

Stirrer 6

Tube Pump 7

Low Temperature Controller 8

Cold Trap 9

Control Temperature Bath 10

Incubator 11

Oven 12

Fermentor 13

Rotary Evaporator N-1200BS series

Auto jack type with diagonal double helix type condenser.



N-1200BS-W
Water bath SB-1200

Features

- Auto jack system provides driving unit up/down movement by key switch operation.
- Diagonal double helix condenser covers samples from low boiling point to high boiling point with highly efficient vapor recovery.
- In case of power failure, driving part is automatically jacked up from bath.
- Newly developed teflon seal ensures strong chemical resistance and long life.
- Additional features same as N-1200BV series are provided.
- F model provides EYELA coat glass.

Specifications

Product name	Auto jack type Rotary Evaporator		
	N-1200BS/N-1200BSF	N-1200BS-W/N-1200BSF-W	N-1200BS-WD/N-1200BSF-WD
Model	N-1200BS/N-1200BSF	N-1200BS-W/N-1200BSF-W	N-1200BS-WD/N-1200BSF-WD
Cat. No.	243239·243238/243479·243478	243249·243248/243489·243488	243259·243258/243499·243498
Bath	w/o bath	Water bath	Water/oil bath
Rotation speed	5~280rpm		
Evaporation capacity	Max. 23mL/min (1L flask, water vapor volume)		
Bath temp. control & accuracy	-	RT+5~90°C ±1°C	RT+5~180°C ±1.5°C
Rotation speed setting/display	Volume setting·digital display		
Jack function	Motorized lift (100mm) + Manual slide (130mm)		
Rotation motor	Stepping motor		
Heater	-	1.05kW	1kW
Condenser	Horizontal double helix condenser with built-in adapter, cooling area 0.146m ² Sample flask 1L Ts29/38, Receiving flask 1L S35/20, Rotary joint ID18xL178mm Ts29/38		
Vacuum seal	Teflon seal		
Bath	-	ID220x120H SUS 304 4.3L	ID240x120H Aluminum (Teflon coating) 5.4L
Connection diameter	One touch connector OD 10mm, nozzle OD 10mm		
Dimensions (mm) & weight	665W x 355D x 520H 13kg	755W x 435D x 520H 16.5kg	754W x 445D x 520H 17kg
Power supply	230VA AC115V/460VA AC230V	1.43kVA AC115V/2.87kVA AC230V	1.4kVA AC115V/2.8kVA AC230V

Rotary Evaporator N-1200BT series

Auto jack type with dewar type condenser.



N-1200BT-W
Water bath SB-1200

Features

- Auto jack system provides driving unit up/down movement by key switch operation.
- Dewar type condenser is suitable for low boiling point sample recovery using ice, dry ice or acetone.
- In case of power failure, driving part is automatically jacked up from bath. Newly developed teflon seal ensures strong chemical resistance and long life.
- Additional features same as N-1200BV series are provided.
- F model provides EYELA coat glass.

Specifications

Product name	Auto jack type Rotary Evaporator		
	N-1200BT/N-1200BTF	N-1200BT-W/N-1200BTF-W	N-1200BT-WD/N-1200BTF-WD
Model	N-1200BT/N-1200BTF	N-1200BT-W/N-1200BTF-W	N-1200BT-WD/N-1200BTF-WD
Cat. No.	243279·243278/243519·243518	243289·243288/243529·243528	243299·243298/243539·243538
Bath	w/o bath	Water bath	Water/oil bath
Rotation speed	5~280rpm		
Evaporation capacity	Max. 23mL/min (1L flask, water vapor volume)		
Bath temp. control & accuracy	-	RT+5~90°C ±1°C	RT+5~180°C ±1.5°C
Rotation speed setting/display	Volume setting·digital display		
Jack function	Motorized lift (100mm) + Manual slide (130mm)		
Rotation motor	Stepping motor		
Heater	-	1.05kW	1kW
Condenser	Dewar type condenser, OD 110 x 340Hmm Sample flask 1L Ts29/38, Receiving flask 1L S35/20, Rotary joint ID18xL178mm Ts29/38		
Vacuum seal	Teflon seal		
Bath	-	ID220x120H SUS 304 4.3L	ID240x120H Aluminum (Teflon coating) 5.4L
Connection diameter	One touch connector OD 10mm, nozzle OD 10mm		
Dimensions (mm) & weight	510W x 355D x 740H 14kg	590W x 435D x 740H 17.5kg	580W x 445D x 740H 18kg
Power supply	230VA AC115V/460VA AC230V	1.43kVA AC115V/2.89kVA AC230V	1.4kVA AC115V/2.8kVA AC230V

Rotary Evaporator N-1110V·VF series

Manual jack type evaporator with 100mm weight balancing slide plus 150mm manual slide.



N-1110V-W
Water bath SB-1200

Features

- Manual jack system with weight balancing slide mechanism provides stable movement and easy positioning of driving unit.
- Manual slide mechanism (150mm) is provided in addition to weight balancing slide (100mm). Thanks to 250mm wide stroke, height of main unit driving part is adjustable to avoid crashing to trap ball or flask.
- Vertical condenser is designed to prevent evaporated solvents to flow back into flask by spilling down capillary.
- VF model features Eyela coating glass which protects condenser, receiving flask and adapter from glass projection.
- One touch connector nozzle and one touch cooling hose make it easy to detach cooling water circulation hose.

Specifications

Product name	Manual Jack Type Rotary Evaporator		
Model	N-1110V/N-1110VF	N-1110V-W/N-N-1110VF-W	N-1110V-WD/N-1110VF-WD
Cat. No.	243649·243648/243689·243688	243659·243658/243699·243698	243669·243668/243669·243668
Bath	w/o bath	Water bath SB-1200	Water/oil bath OSB-2100
Rotation speed	20 ~ 180rpm		
Evaporation capacity	Max. 20mL/min (1L flask, water vapor volume)		
Bath temp. control & accuracy	-	RT+5 ~ 90°C ±1°C	RT+5 ~ 180°C ±1.5°C (oil ±3°C)
Rotation speed setting/display	Volume setting·analog scale		
Jack function	Weight balancing slide (100mm) + Manual slide (150mm)		
Condenser	Vertical double helix condenser with built-in adapter, cooling area 0.146m ² Sample flask 1L Ts29/38, Receiving flask 1L S35/20, Rotary joint ID18xL178mm Ts29/38		
Vacuum seal	Teflon seal		
Dimensions (mm) & weight	530W x 320D x 740H 8.5kg	600W x 370D x 740H 12kg	595W x 380D x 740H 12.5kg
Power supply	40VA AC115V/80VA AC230V	1.24kVA AC115V/2.5kVA AC230V	119VA AC115V/238VA 230V

Rotary Evaporator N-1110S·SF series

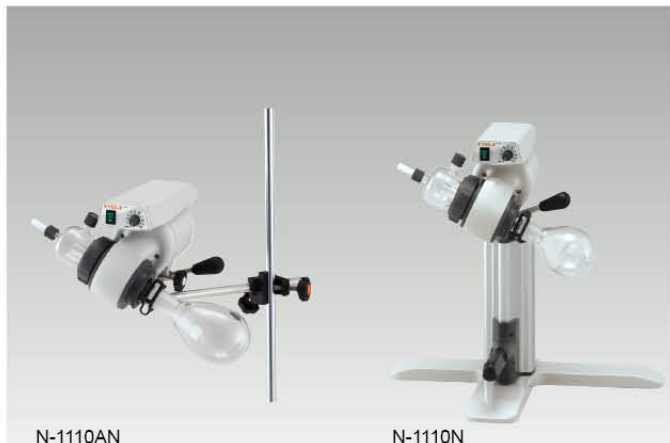
With diagonal double helix condenser featuring wide cooling area of 0.146m².

Specifications

Product name	Manual Jack Type Rotary Evaporator		
Model	N-1110S/N-1110SF	N-1110S-W/N-N-1110SF-W	N-1110S-WD/N-1110SF-WD
Cat. No.	243729·243728/243769·243768	243739·243738/243779·243778	243749·243748/243789·243788
Bath	w/o bath	Water bath SB-1200	Water/oil bath OSB-2100
Rotation speed	20 ~ 180rpm		
Evaporation capacity	Max. 20mL/min (1L flask, water vapor volume)		

Simple Rotary Evaporator without condenser N-1110AN·N-1110N

Basic and compact rotary evaporator without condenser.



N-1110AN

N-1110N

Features

- N-1110AN: Without jack and can be connected directly to angle.
- N-1110N: Manual jack type.
- It is a compact, space saving type without condenser. It is recommendable for limited space or in the laboratory where multiple evaporators are required such as for educational purposes.
- Rotation driving unit is common with standard type N-1110V·S.
- In combination with evaporation unit ECC-1000A, compact and environment friendly evaporation system is feasible.
- Water bath SB-350 or water/oil bath OSB-2100 can be used.

Specifications

Product name	Simple Rotary Evaporator without condenser	
Model	N-1110AN	N-1110N
Cat. No.	243810	243809·243808
Jack	w/o jack	Manual jack
Rotation speed	20 ~ 180rpm	
Dimensions (mm)	335W x 240D x 220H	450W x 320D x 430H
Power supply	35VA AC100V	40VA AC115/80VA AC230

Rotary Evaporator N-1110E·WE

Basic and compact rotary evaporator which can be installed in fume hood.



N-1110E

N-1110WE
Water bath

Features

- Compact design for use in a fume hood without losing performance.
- N-1110E without bath
N-1110WE with water bath
- Can be used with newly developed vacuum control unit NVC or solvent recovery unit DPE series.
- Water bath SB-350 or water/oil bath OSB-2100 can be used (N-1110E Option).
- Cooling hose can be connected to condenser by one touch.

Specifications

Product name	Compact Rotary Evaporator	
	N-1110E	N-1110WE
Model	N-1110E	N-1110WE
Cat. No.	252460	252470
Bath	Option	Water bath SB-350
Rotation speed	20~180rpm	
Evaporation capacity	Max. 20mL/min	
Bath temperature	-	RT + 5~80°C
Rotation speed setting/display	Volume setting • analog scale	
Jack function	Weight balancing slide 100mm + manual slide 150mm	
Rotation motor	Induction motor 25W	
Condenser	Vertical double helix condenser, cooling area 0.117m ²	
Sample flask	500mL	
Receiving flask	1L	
Connection diameter	One touch connector OD 10mm, nozzle OD 10mm	
Dimensions (mm)	50W x 320D x 655H	450W x 320D x 655H
Weight	8kg	10kg
Power supply	35VA AC100V	800VA AC100V

Condensation Unit ECC-1000A Vapor Catcher



ECC-1000A

Features

- Condenser function for N-1110 evaporator is incorporated. As condenser is not used, there will be no dew formation and cooling water is not required.
- Re-vapor can be minimized as solvent vapor is cooled, devolatilized and trapped in evaporation bath.
- Bath inner surface is coated with special teflon coating to accommodate different organic solvents. Flat bath design makes cleaning work easy.
- Bath draining stop cock is placed in front of main unit and by using connection set D, draining can be completed in closed circuit.

Specifications

Product name	Condensation Unit	
	ECC-1000A	
Model	ECC-1000A	
Cat. No.	227480	
Trap system	Direct trap by bath cooling	
Bath material	SUS 304 Teflon coating	
Dehumidifying capacity	Max. 500mL	
Lowest temperature	-40°C	
Refrigerator • coolant	Air cooling 450W R404A	
Bath dimensions (mm) & capacity	Φ90 x 225H 1.4L	
Dimensions (mm) & weight	200W x 450D x 600H 31kg	
Power supply	500VA AC100V	

Rotary Evaporator N-2100R•2100RF•2100U•2100UF•2100•2100F

Desktop evaporator with 2 or 5 liter flask.



N-2100

Features

- Desktop type evaporator to accept 2L or 5L flask. Motorized auto jack ensures smooth up/down movement.
- Main unit is common to all models.
- N-2100R: 2L reflux type condenser which is suitable for refining/reaction of condensed solvents.
- N-2100U: 2L lower part cooling type condenser which is suitable for samples easy to bump or disperse.
- N-2100: 5L type condenser.
- RF•UF•F: Eyela glass coating type
- Setting of rotation speed and temperature can be done by control panel attached to base of main unit. Even when the unit is placed inside fume hood, minimum open space is required for setting.
- By using joint adapter and vacuum seal (option), Ts 29/38 sample flask can be used.

Specifications

Product name	Rotary Evaporator		
	N-2100R/N-2100RF	N-2100U/N-2100UF	N-2100/N-2100F
Model	N-2100R/N-2100RF	N-2100U/N-2100UF	N-2100/N-2100F
Cat. No.	243840/243850	243860/243870	243820/243830
Rotation speed	5~160rpm		
Evaporation capacity	Max. 23mL/min (water vapor volume)		Max. 33mL/min (water vapor volume)
Bath temp. control range	RT+5~90°C		
Jack	Motorized jack		
Condenser	Vertical double helix Cooling area 0.146m ²	Lower part vertical double helix Cooling area 0.163m ²	Vertical tripple helix Cooling area 0.25m ²
Sample flask	Egg plant shape 2L	Egg plant shape 2L	Round flask 5L
Receiving flask	Round flask 1L	Round flask 1L	Round flask 3L
Jack stroke	160mm		
Dimensions (mm) & weight	690W x 473D x 900H 27kg	690W x 473D x 900H 28kg	644W x 473D x 1020H 29kg
Power supply	2.6kVA AC200V		

Data

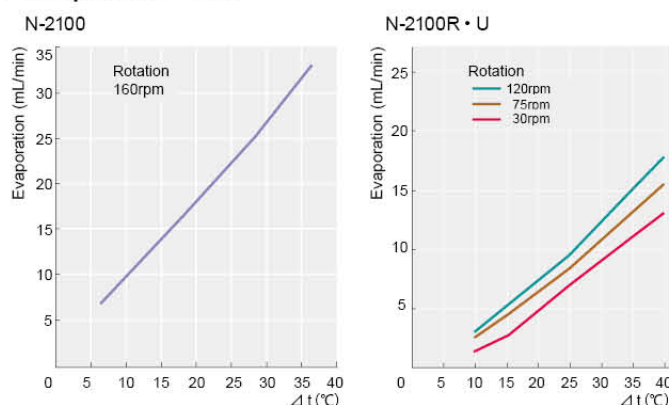
■ Vacuum seal



■ Condenser

- For N-2100R: Cat. No. 243910
- For N-2100RF: Cat. No. 243920
- For N-2100U: Cat. No. 243930
- For N-2100UF: Cat. No. 243940
- For N-2100: Cat. No. 243890
- For N-2100F: Cat. No. 243900

■ Evaporation chart



Rotary Evaporator N-3010•3010M•3010d

Large scale, 10L evaporator for use in laboratory as well as in manufacturing plant. Although the N-3010 evaporator is a large scale unit, it fits for one-man operation.



N-3010



N-3010d

Features

- Built-in vacuum controller with four control programs ensures high solvent recovery ratio.
- One touch clamp is equipped as standard to make sample flask mounting/dismounting simple and easy.
- Mechanical vacuum seal secures high level sealing.
- Stable up/down movement of the bath is implemented by motorized auto jack.
- As drain valve is incorporated in receiving flask, evaporated solvents can be collected under reduced pressure.
- Explosion proof type available (N-3010d).

Point!



One touch clamp
(N-3010•3010M)



Teflon seal
(N-3010)



Mechanical seal
(N-3010M)

Specifications

Product name	Rotary Evaporator		
	N-3010	N-3010M	N-3010d
Model	N-3010	N-3010M	N-3010d
Cat. No.	248100	248950	248210
Rotation speed	10 ~ 120rpm stepless		
Evaporation capacity	Max. 3.5L/h (water vapor volume)		Depends on operation mode
Ultimate vacuum	2.6hPa (2Torr) or less	6.5hPa (4.9Torr) or less	2.6hPa (2 Torr) or less
Temperature control range	RT+10 ~ 180°C		RT+10 ~ 80°C
Sample flask	Round flask 10L		
Receiving flask	Round flask 5L with drain valve		
Vacuum seal	Teflon seal	Mechanical seal	Teflon seal
Dimensions (mm) & Weight	930W x 450D x 1890H 96kg		930W x 472D x 1890H 93kg
Power supply	3.8kVA AC200V		

Rotary Evaporator with 20L sample flask N-4000 · 4000H · 4000W

Space saving 20L evaporator.



N-4000

N-4000W

Features

- Compact evaporator accomodating 20L sample flask as standard.
 - * Sample flask: 20L
 - * Receiving flask 10L (N-4000W: 10Lx2)
- Space saving: 1060W x 550D mm (N-4000·4000H)
- In case of small sample volume, sample flask can be changed to 10L (Option).
- Oil & water bath ensures evaporation of high boiling point solvents. (Temp. control range RT+10~180°C).
- Vacuum pump automatically operates synchronizing to evaporator operation by connecting N-4000 to diaphragm vacuum pump N950.

Point!



Long life teflon seal
Newly designed teflon seal ensures long life and less maintenance cost.



Two receiving flasks (N-4000W)
Continuous evaporation is possible under stable vacuum condition.



Exclusive stand base (except N-4000H)
Vacuum pump and consumables can be stored. Can be fixed to floor by anchor bolt.



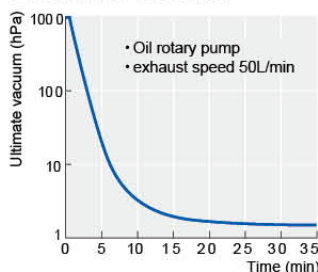
Easy to handle bath height
Sample flask mounting and dismounting is easy thanks to one touch clamp and flask base connection. Bath height is set for 800mm and 10L flask mounting is easy.

Specifications

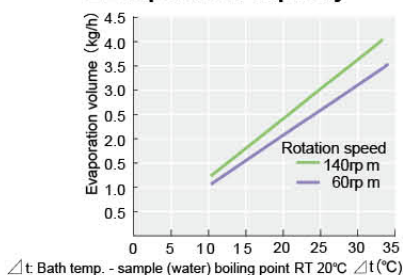
Product name	Rotary Evaporator	
	N-4000/4000H	N-4000W
Model	N-4000/4000H	N-4000W
Cat. No.	256330/256350	256370
Rotation speed	10 ~ 140rpm stepless	
Evaporation capacity	Max. 3.5L/h (water vapor volume)	
Ultimate vacuum	Less 2.7hPa	Less 4.6hPa
Temperature control range	RT+10~180°C (Water·oil bath)	
Temperature control method	Micro processor PID control	
Safety functions	Over current protector, independent over heating protector, Jack overload protector, Empty heating protector	
Bath jack function	Electrical auto jack (Powe stop protector: Option)	
Condenser	Vertical triple helix condenser, cooling area 0.5m ²	
Sample flask	Round flask 20L	
Receiving flask	Round flask 10L with drain valve	Round flask 10L x 2
Bath dimensions (mm)	ID430 x 250 H, 40L SUS304	
Dimensions (mm) & weight	1060W x 550D x 1910H 138/116kg	1170W x 700D x 1910H 149kg
Power supply	3.8~4.4kVA AC200~220V	

Data

■ Ultimate vacuum



■ Evaporation capacity



Rotary Evaporator 1

Vacuum Pump & Aspirator 2

Organic Synthesizer 3

Freeze Dryer · Spray Dryer 4

Shaker 5

Stirrer 6

Tube Pump 7

Low Temperature Cooler 8

Cold Trap 9

Control Temperature Bath 10

Incubator 11

Oven 12

Fermentor 13

Large scale Rotary Evaporator N-21·51·101 series

20·50·100L standard type suitable for large volume solvent condensing, evaporation, drying and recovery.



N-21



Sub-cooler

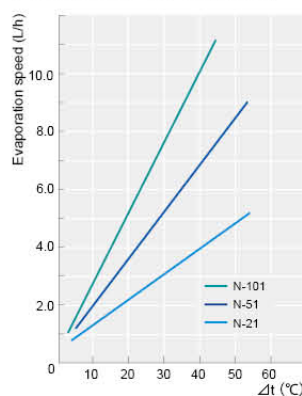
Cone cooler

Features

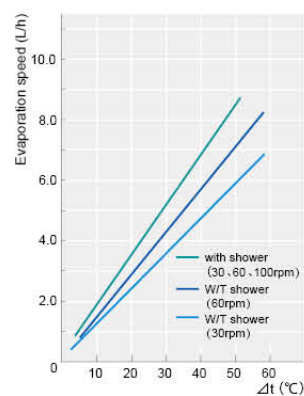
- Full line of large capacity evaporators 20L, 50L & 100L.
- Large volume samples can be condensed, evaporated, dried and recovered quickly at low temperature.
- Features continuous sample injection and recovery of eluted solvents from drain pipe during operation (Option for N-21·51).
- Explosion proof model is available (d model).
- High recovery ratio cone cooler is used for condenser and sub-cooler is provided to prevent re-evaporation.

Data

Evaporation capacity



Shower effect (N-51)



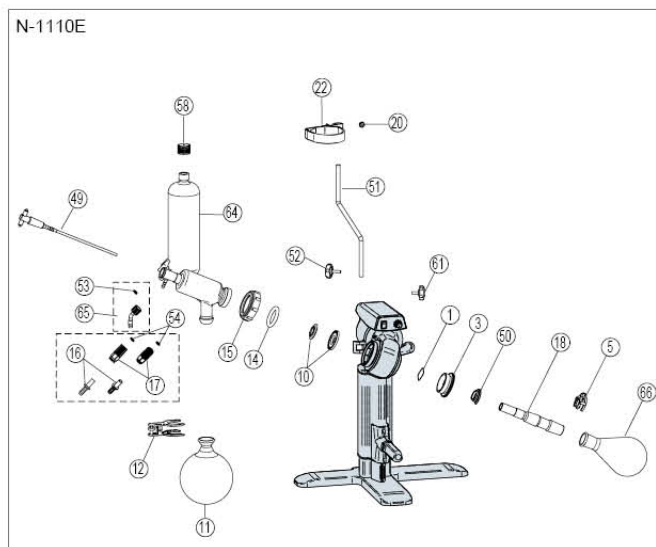
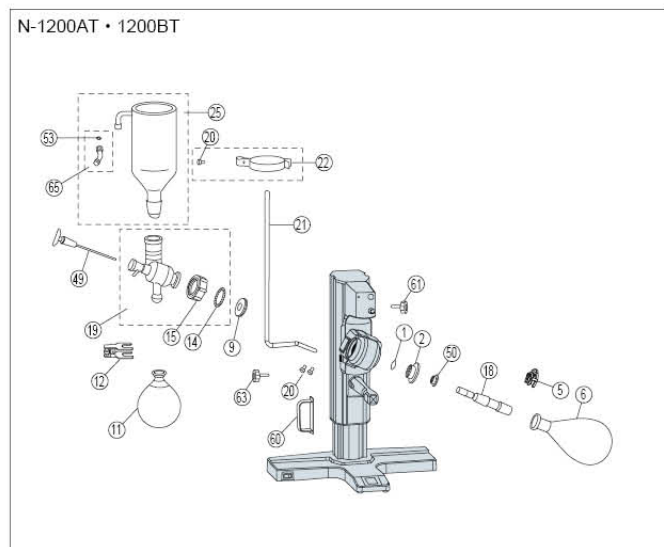
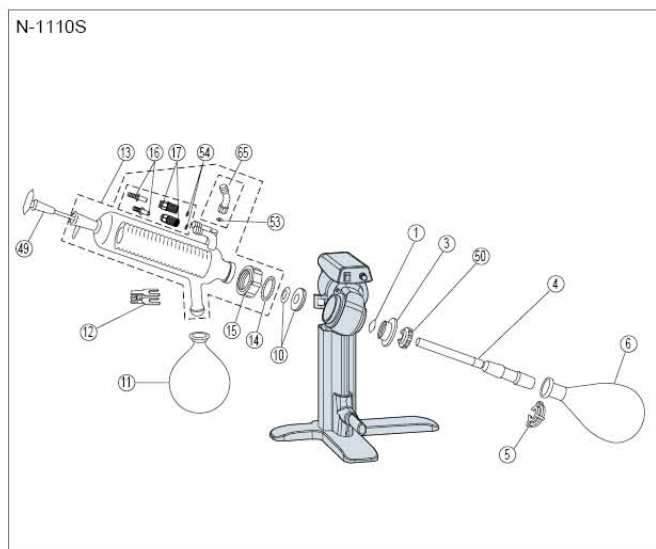
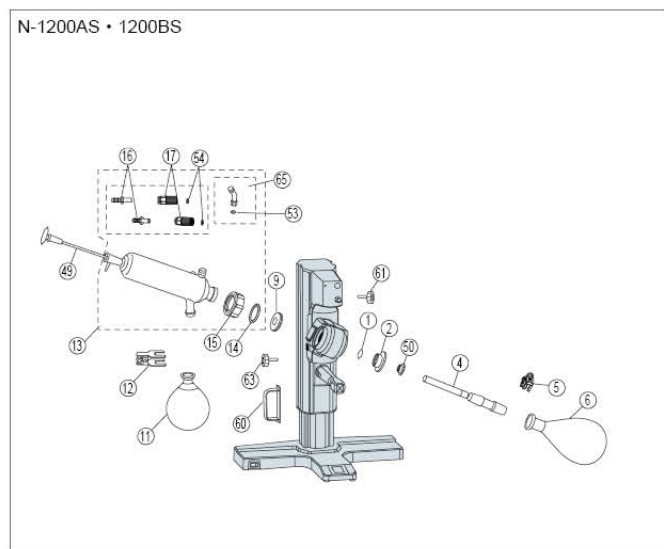
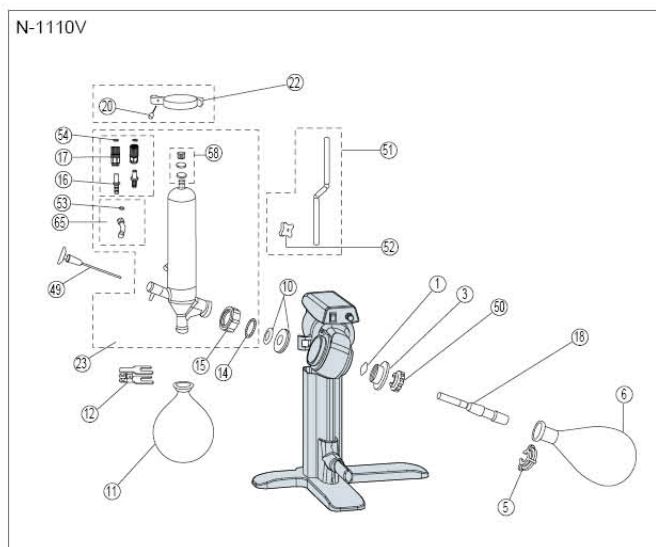
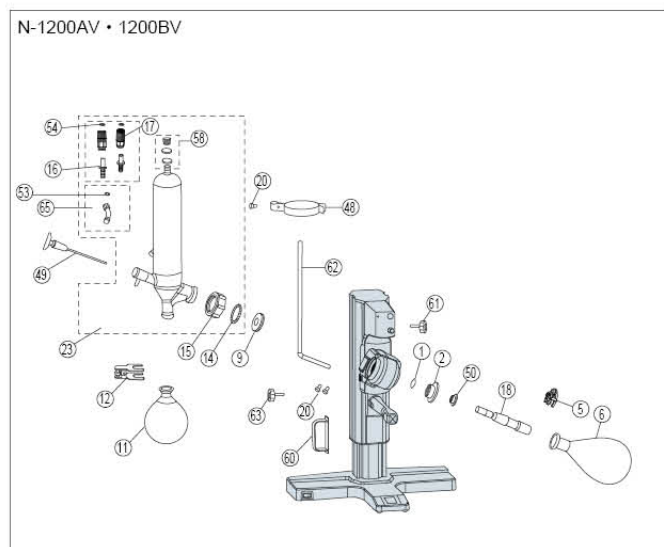
Specifications

	Rotary Evaporator		
	N-21	N-51	N-101
Product name	Rotary Evaporator		
Model	N-21	N-51	N-101
Cat. No.	117131	117140	117150
Rotation speed	20 ~ 120rpm stepless	10 ~ 80rpm stepless	
Circulation pump (Shower)	7L/min, Motor output 10/15W (50/60Hz)		
Ultimate vacuum	2.6hPa (2Torr) or less		
Heater (Temp. control)	2kW	3kW	4kW
Motor	400W		
Bath temp. control range	RT+5 ~ 80°C		
Bath jack function	Electro hydraulic auto jack		
Condenser	Vertical quadruple helix Cooling area 1.0m ²	Vertical quadruple cone	
Sample flask	Round flask 20L	Round flask 50L	Round flask 100L
Receiving flask	Round flask 10L	Round flask 20L	Round flask 50L
Vacuum seal	Teflon seal		
Bath dimensions (mm)	ID430 x 250Hmm 25L	ID560 x 300Hmm 50L	ID700 x 350Hmm 90L
Bath jack stroke	180mm	200mm	280mm
Dimensions (mm)	1250W x 745D x 2130H	1500W x 750D x 2300H	1700W x 850D x 2620H
Weight	220kg	280kg	330kg
Power supply	6.8kVA AC200V 3Φ	9.8kVA AC200V 3Φ	12.8kVA AC200V 3Φ

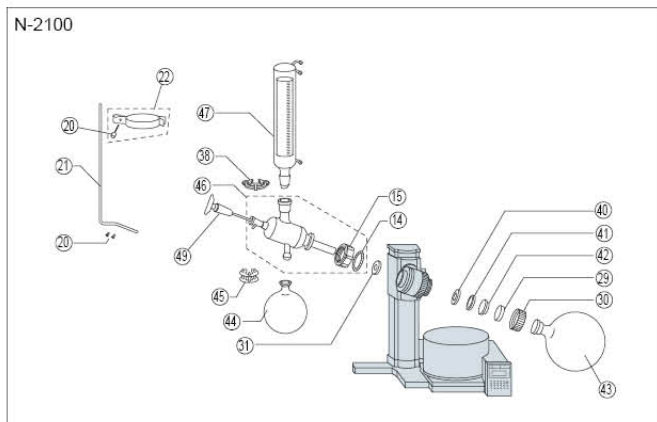
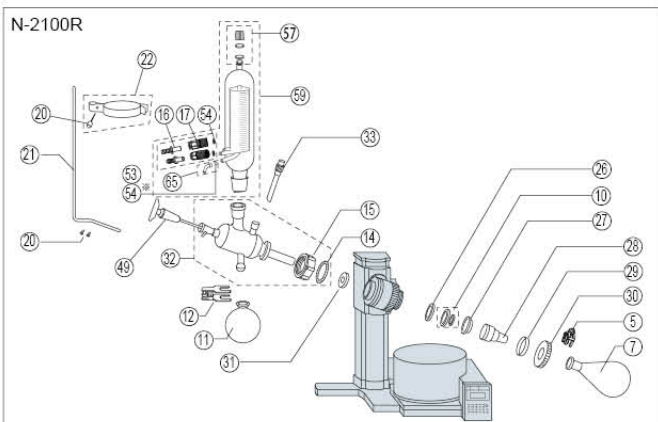
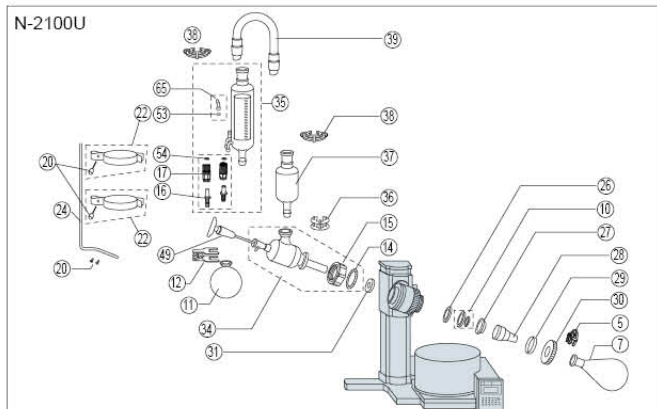
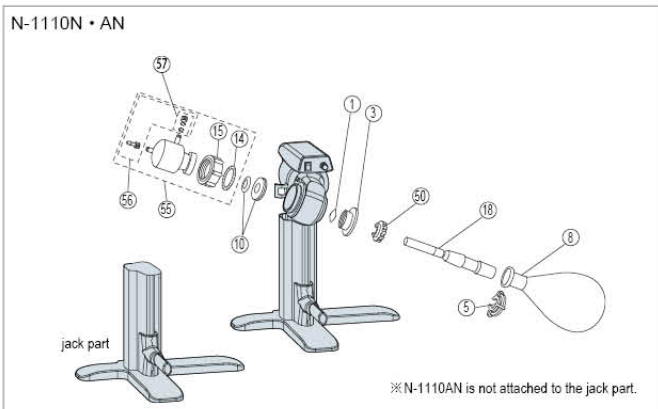
- * N-21N: Without shower; Cat. No. 117130
- * N-21NS: With 1 ~ 6 kW heater, Cat. No. 195580
- * N-21d Explosion proof type; Cat. No. 117220
- N-51d Explosion proof type; Cat. No. 117230
- N-101d Explosion proof type; Cat. No. 117240
- * N-21B Temp. range RT+5 ~ 170°C Cat. No. 117190
- N-51B Temp. range RT+5 ~ 170°C Cat. No. 117200
- N-101B Temp. range RT+5 ~ 170°C Cat. No. 117210

Component Parts of EYELA Evaporators

EYELA original parts will fully enhance and maintain the performance of EYELA evaporators. All the parts are manufactured under strict EYELA quality standards. It is highly recommended to use these genuine original parts for EYELA products. Parts name and Cat. No. are referred in the tables.



Rotary Evaporator	1
Vacuum Pump & Aspirator	2
Organic Synthesizer	3
Freeze Dryer - Spray Dryer	4
Shaker	5
Stirrer	6
Tube Pump	7
Low Temperature Controller	8
Cold Trap	9
Constant Temperature Bath	10
Incubator	11
Oven	12
Fermentor	13



■ Standard parts list for Eylea Rotary Evaporators

No.	Parts Name	Descriptions	Quantity	Cat. No.
1	Sleeve pin	N-1200•1110	2	142650
2	Screw for removing flask	N-1200	1	245540
3	Screw for removing flask	N-1110	1	192610
4	Rotary joint	272mm Φ 29/38	1	142500
5	Eylea clip	Φ 29	2	142540
5	Eylea clip (metal)	Φ 29	1	187890
6	Sample flask	1000mL Φ 29/38	1	116190
7	Sample flask	2000mL Φ 29/38	1	116200
8	Sample flask	300mL Φ 29/38	1	116170
9	Teflon seal	N-1200	1	244980
10	Vacuum seal	N-1110	2 sets	142610
11	Receiving flask	1000mL S35/20	1	116340
12	Ball joint clamp	S35	1	202790
13	Condenser	Diagonal double helix	1	187780
14	Ring spring	N-1200•1110•2100	1	142710
15	Cap screw	N-1200•1110•2100	1	142700
16	Nozzle set (white)	N-1200•1110	2 sets	247210
17	One touch connector for glass screw	N-1200•1110	1	244930
18	Rotary joint	178mm Φ 29/38	1	142520
19	Adapter	T type evaporator	1	911160
20	Set screw	N-1200•1110•2100	2	187910
21	Cooler support	N-1200T•2100R•2100	1	185210
22	Cooler holder	N-1110•2100	1	185240
23	Condenser	Vertical double helix with adapter	1	244960
24	Cooler support	N-2100U	1	185220
25	Condenser	Vertical trap	1	187920
26	Teflon packing	N-2100R•U	1	185200
27	Seal defenser	N-2100R•U	1	185250
28	Joint adapter	Φ 29/38	1	142840
29	Soft packing	N-2100R•U	1	142990
30	Cap screw for sample flask	N-2100R•U	1	913690
31	Rubber packing	N-2100R•U	2	143010
32	Adapter (built-in in rotary joint)	N-2100R	1	234310
33	Stop valve	N-2100R	1	234320
34	Adapter (built-in in rotary joint)	N-2100U	1	185160

No.	Parts Name	Descriptions	Quantity	Cat. No.
35	Condenser	Vertical lower part double helix	1	187810
36	Ball joint clamp	N-2100U	1	143160
37	Dispersion vessel	N-2100U	1	142930
38	Eylea clip	Φ 45	1	142860
39	Connection tube	N-2100U	1	142940
40	Teflon packing	N-2100	1	143000
41	Vacuum seal	N-2100	1	143940
42	Seal defenser	N-2100	1	142950
43	Sample flask	5000mL	1	142820
44	Receiving flask	3000mL S35/20	1	116360
45	Ball joint clamp	N-2100	1	143020
46	Adapter (built-in in rotary joint)	N-2100	1	142980
47	Condenser	Vertical tripple helix	1	142880
48	Cooler holder	N-1200V	1	245550
49	Capillary	Φ 19/40 teflon tube	1	116540
50	Cap screw	N-1200•1110 Φ 29	2	192600
51	Rotary joint ring	N-1110V•E	1	192620
52	Cooler support bar	M6-25L	1	245580
53	Nozzle packing	N-1200•1110•2100	12	142691
54	Viton o ring for nozzle set	N-1200•1110	12	260960
55	Glass set	N-1110N•AN	1	231960
56	Straight nozzle set	N-1110N•AN	1	231970
57	Seal cock	GL14	1	232840
58	Packing set	GL25	1	255830
59	Condenser	Vertical double helix	1	187790
60	Hose holder	N-1200	1	245570
61	Knob bolt for angle adjustment	M6-20L	1	240840
62	Cooler support	N-1200V	1	245560
63	Knob bolt for manual slide	N-1200	1	245590
64	Condenser	With adapter	1	255840
65	Nozzle set (white)	N-1200•1110•2100	3	142690
66	Sample flask	500mL Φ 29/38	1	116180

EYELA Genuine glass & parts

Rotary joint



Standard			Thick type			Transparent type		
Cat. No.	Length(mm)	Ts	Cat. No.	Length(mm)	Ts	Cat. No.	Length(mm)	Ts
142500※	272	φ29/38	116560	272	φ29/38	116600	272	φ29/38
142510	272	φ24/40	116570	272	φ24/40	116610	272	φ24/40
142520※	178	φ29/38	116580	178	φ29/38	116620	178	φ29/38
142530	178	φ24/40	116590	178	φ24/40	116630	178	φ24/40

※Included as standard setup of evaporators

Sample flask



Sample flask (Egg plant shape JIS)

Product name	Sample flask (Egg plant shape)			
Ts/NS	Ts 29/38	Ts 24/40	NS 29/32	NS 24/40
Capacity	Cat. No.	Cat. No.	Cat. No.	Cat. No.
50mL	116140	116220	216700	216800
100mL	116150	116230	216710	216810
200mL	116160	116240	—	—
250mL	—	—	216720	216820
300mL	116170	116250	—	—
500mL	116180	116260	216730	216830
1L	116190	116270	216740	216840
2L	116200	116280	216750	216850

Product name	Sample flask (Egg plant shape)	
Ts/NS	Ts19/38	Ts15/25
Capacity	Cat. No.	Cat. No.
10mL	234460	234520
20mL	234470	234530
30mL	234480	234540
50mL	234490	234550
100mL	234500	234560
200mL	234510	234570

Receiving flask



Receiving flask (S35/20 JIS)

Product name	Sample flask (Egg plant shape)	
Ts/NS	JIS S35	ISO S35
Capacity	Cat. No.	Cat. No.
100mL	116300	216860
200mL	116310	—
250mL	—	216870
300mL	116320	—
500mL	116330	216880
1L	116340	216890
2L	116350	216900
Product name	Receiving flask with drain cock	
500mL	116370	—
1L	116380	233870
Product name	Receiving flask jacket type	
1L	116390	—

Trap ball



Capacity	Ts	Cat. No.
100mL	φ29/38×29/38	116700
100mL	φ29/38×24/40	116710
100mL	φ29/38×19/38	156700
100mL	φ29/38×15/25	116720
100mL	φ24/40×24/40	116730
100mL	φ24/40×19/38	156710
100mL	φ24/40×15/25	116740
200mL	φ29/38×29/38	116750
200mL	φ29/38×24/40	116760
200mL	φ29/38×19/38	156680
200mL	φ29/38×15/25	116770
200mL	φ24/40×24/40	116780
200mL	φ24/40×19/38	156690
200mL	φ24/40×15/25	116790

Capacity	Ts	Cat. No.
300mL	φ29/38×29/38	116800
300mL	φ29/38×24/40	116810
300mL	φ29/38×19/38	156650
300mL	φ29/38×15/25	116820
300mL	φ24/40×24/40	116830
300mL	φ24/40×19/38	156660
300mL	φ24/40×15/25	116840
500mL	φ29/38×29/38	116850
500mL	φ29/38×24/40	116860
500mL	φ29/38×19/38	156610
500mL	φ24/40×24/40	156630
500mL	φ24/40×19/38	156640

1 Rotary Evaporator

2 Vacuum Pump & Aspirator

3 Organic Synthesizer

4 Freeze Dryer, Spray Dryer

5 Shaker

6 Stirrer

7 Tube Pump

8 Low Temperature Circulator

9 Cold Trap

10 Constant Temperature Bath

11 Incubator

12 Oven

13 Fermentor

Test tube adapter



Cat. No.	Ts	
116550	φ15/25	φ29/42
143870	φ15/25	φ24/40

Test tube

Cat. No.	Ts
201450	φ15/25 (6 pcs)

Adapter for different diameters



Application	Cat. No.	Ts
Safety cap	116930	φ29/38×24/40
	116940	φ29/38×19/33
	116950	φ29/38×15/30
Rotary joint	116870	φ29/38×24/40
	116880	φ29/38×19/38
	116890	φ29/38×15/25
	116900	φ24/40×29/38
	116910	φ24/40×19/38
	116920	φ24/40×15/25

Separable cover & flask



Name	Ts	IDxH (mm)	Cat. No.
Separable cover	φ29/38	50×82	116460
	φ24/40	50×82	116470
	φ29/38	75×82	116480
	φ24/40	75×82	116490
Separable sample flask	50mL	50×60	116400
	100mL	50×100	116410
	200mL	50×110	116420
	300mL	50×125	116430
	500mL	75×152	116440
	1L	75×185	116450

Separable clamp



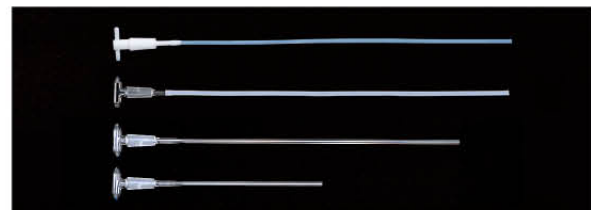
Applicable flask	Diam.	Cat. No.
50~300mL	50mm	116500
500 - 1000mL	75mm	116510

Separable seal packing



Applicable flask	Diam.	Cat. No.
50~300mL	50mm	116520
500 - 1000mL	75mm	116530

Capillary



Applicable evaporator	Cat. No.	Ts
N-1200 Series, N-1110S, N-1110V	245000	φ19/40Teflon+teflon tube (565mm)
N-1200 Series, N-1110S, N-1110V	116540 ※	φ19/40Teflon+teflon tube (565mm)
N-1200S, N-1110S	142590	φ19/40Glass (510mm)
N-1200V, N-1200T, N-1110V	142600	φ19/40Glass (297mm)

※Included as standard setup of evaporators

Glass stopper



Cat. No.
116970

3 way cock



Cat. No.
116960

■ One touch cooling hose set



Tube diam.	Length	Cat. No.
OD 10mm	2m	244940
	5m	244950

No need of fixing belt. Just insert into nozzle. Prevents liquid leak caused from loose fixing.

■ Vacuum seal



Cat. No.	Qty.
142610	2 sets

Provided as standard for N-1110 series evaporators. Also applicable to N-1200 series evaporators.

■ Cooling hose set



Tube diam.	Length	Cat. No.
ID 9.0mm	2m	112700
ID 15.0mm	2m	143340
ID 9.0mm	5m	174420
ID 15.0mm	5m	174460

Prevents dew formation during cooling water circulation and realizes efficient cooling capacity.

■ Teflon seal



Cat. No.
244980

Provided as standard for N-1200 series evaporators. Long life and strong chemical resistance. Also applicable to N-1110 series evaporators.

■ Vacuum hose



Tube diam.	Length	Cat. No.
ID6xOD15mm	5m	119170
ID12xOD30mm	5m	119210

Suitable for use with small evaporator and small volume condensation unit.

■ EYELA Jack EJ



A	150 x 150mm, Up/down 70~250mm	116120
B	200 x 200mm, Up/down 90~320mm	116130

■ Connection set for DPE-1400 to drain solvents in receiving flask



Connection set A
Cat. No. 229730



Connection set B
Cat. No. 229740



Connection set C
Cat. No. 234440

Absorption cartridge
Cat. No. 234890

■ Bumping protector (Safety cap) (PAT)

By simply attaching to rotary joint, innovative bumping prevention is attained. Teflon made cap can be used for all sorts of solvents.

C-1 (Standard type)



Cat. No. 116010

C-2 (Roket type)



Cat. No. 116020

C-3 (Filter type)



Cat. No. 116030

Rotary Evaporator 1

Vacuum Pump & Aspirator 2

Organic Synthesizer 3

Freeze Drier, Spray Drier 4

Shaker 5

Stirrer 6

Tube Pump 7

Low Temperature Controller 8

Cold Trap 9

Constant Temperature Bath 10

Incubator 11

Oven 12

Fermentor 13

EYELACOAT GLASS SERIES

Laboratory glassware has inherent risk of breakage and consequent glass projection.

EYELACOAT glass is coated with special coating material to eliminate such risk.

It's transparency and high heat resistiveness make the glass ideal for laboratory glassware, especially for evaporators which are under continuous heating.

Environmentally friendly polyurethane is used instead of environmentally stress causing material like PVC.

EYELACOAT glass features strong heat resistance from -80 ~ 120°C and has strong chemical resistance making it applicable to variety of solvents.



Sample flask (Eggplant shape)



Receiving flask

Coating glass breakage test



Flask drop test

Chemical resistance

10% sulfuric acid	◎	dichloroethane	◎	acetone	○
10% hydrochloric acid	◎	acetonitrile	◎	O-xylene	○
10% acetic acid	◎	10% sodium hydroxide	◎	cyclohexane	○
acetic ether	◎	chloroform	◎	trichlorethylene	○
toluene	◎	DMF	◎	nitrobenzene	△

EYELACOAT condenser & adapter



Vertical double helix with adapter

Cat. No. 244970



Diagonal double helix

Cat. No. 228460



Condense + adapter

Cat. No. 255850



Dewer type

Cat. No. 228480



Adapter

Cat. No. 228490

Trap ball



Refer P.19

Test tube adaptor



Refer P.20

Separable flask



Refer P.20

Vacuum Controller NVC-2300A·B·2200L

Vacuum controller with excellent control functions. Connecting this unit to evaporator significantly improves the recovery rate of general solvents such as dichloromethane, benzene or trichloroethylene etc.



NVC-2300A

NVC-2300B

NVC-2200L

Features

- 3 models available:
NVC-2300A; All-in-one type.
NVC-2300B; Separate type
NVC-2200L; For large-sized evaporator/vacuum unit.
- 2 kinds of digital display: numerical display of pressure and graphic display to show ongoing control status.
- Auto-leak function and Auto-cleaning function can be set independently. ON-OFF selection and time selection is available for auto-cleaning.
- Set pressure value can be changed anytime. Regardless of the operation status (run/stop), pressure value can be set at desired value while checking the concentration situation (**MANUAL mode**).
- Most appropriate vacuum value of the 10 typical regulated solvents (such as siethyl ether, hexane, dichloromethane, acetone, benzene, toluene...) are stored in memory and the unit is automatically adjusted to most proper vacuum value of the selected solvent (**PROGRAM mode**).
- Automatic operation under proper vacuum rate is possible by just pressing start key. Temperature control by vapor senser is also possible (**AUTO mode**).
- Step program function also works as pressure controller. 10 steps setting is possible for descending/elevating ramp control, fixed value control, depressure and open air release (**STEP mode**).

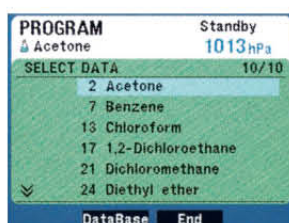
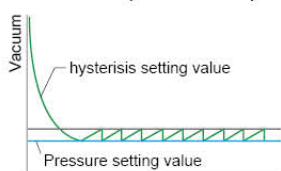
Specifications

Product name	Vacuum Controller		
	NVC-2300A	NVC-2300B	NVC-2200L
Model	NVC-2300A	NVC-2300B	NVC-2200L
Cat. No.	257240	257260	242530
Pressure measurement range	0~800mmHg (Torr) 0~1066hPa (mbar)		
Pressure control & setting range	MANUAL	Vac. 1~760mmHg (Torr) Vac. 1~1013hPa (mbar)	
	AUTO	Automatic sensing, automatic setting	
	PROGRAM	Presettled for typical solvents	
	STEP	Fixed value: Vac. 1~760mmHg (Torr)	Vac. 1~1013hPa (mbar) Ramp: 1~760mmHg (Torr) 1~1013hPa (mbar)
Dimensions (mm)	122W x 130D x 87H	Operation: 122W x 38D x 87H Control: 122W x 116D x 87H	122(180)W x 150D x 239H
Power source	100VA~240VA	AC100~240V 100VA	300VA AC100V

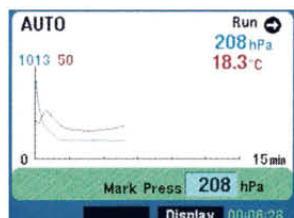
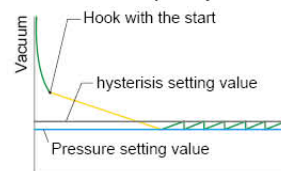
Program



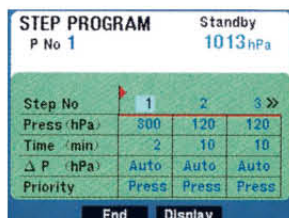
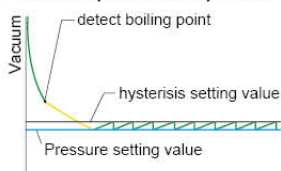
■ **MANUAL (Fixed value) mode**



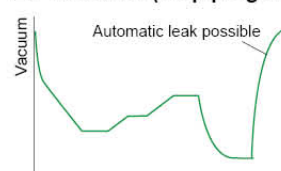
■ **PROGRAM (Ramp control) mode**



■ **AUTO (Automatic) mode**



■ **PROGRAM (Step program) mode**



Solvent Recovery Unit DPE-1130·2130

Solvent recovery cycle provided by automatic control unit satisfies requirements of air pollution control.



DPE-1130

DPE-2130

Features

- DPE-1130: All-in-one type
DPE-2130: Controls two evaporators
- Vacuum controller, condenser, waste liquid collection bottle, recovery flask and exhaust gas absorbing cartridge are compactly integrated into one unit (DPE-1130).
- Closed refresh function is provided to realize longer vacuum pump life and to decrease exhaust gas discharge to open air. Exhaust gas absorbing cartridge contributes to safe working environment in the laboratory.
- Two display screens are provided; Numerical display of set pressure and measured pressure and graphic display to check control status. Large LC display enhances visibility.
- Synchronized operation with evaporator is possible by using connection cable between N-1200A · B evaporator and DPE solvent recovery unit.

Specifications

Product name	Solvent Recovery Unit	
	DPE-1130	DPE-2130
Model	245160	245170
Cat. No.	245160	245170
Recovery method	Condenser+Trap bottle at vacuum exhaust side+Absorption cartridge	
Pressure measuring range	0 ~ 800mmHg (Torr), 0 ~ 1066 hPa (mbar)	
Pressure control	Manual: Vac, 1~760mmHg (Torr) Vac, 1~1013hPa (mbar)	
	Auto: Auto detection, auto setting	
	Program: Pre-programmed for 55 solvents	
Step program:	Fixed value control: Vac, 1~760mmHg(Torr) Vac, 1~1013hPa(mbar)	
	Gradient control: 1~760mmHg(Torr), 1~1013hPa(mbar)	
Condenser	Exhaust trap + Receiving flask (500mL)	
Waste liquid trap bottle	1	2
Dimensions(mm)	198W x 380D x 592H	280W x 380D x 852H
Power source	100VA~240VA AC100~240V	

Solvent Recovery Unit DPE-1240A·1240B·1240C

Selectable configuration and upgrade possibility.



DPE-1240A

DPE-1240B

DPE-1240C

Features

- Variety of configurations of vacuum controller, condenser, waste liquid trap bottle and absorption cartridge are feasible with grade-up flexibility.
- Two display screens are provided; Numerical display of set pressure and measured pressure and graphic display to check control status. Large LC display enhances visibility.
- One touch connection of exhaust trap and cooling hose.

Specifications

Product name	Solvent Recovery Unit		
	DPE-1240A	DPE-1240B	DPE-1240C
Model	261400	261410	261420
Cat. No.	261400	261410	261420
Recovery method	Condenser	-	Condenser
	-	-	Vacuum controller
	-	-	Waste liquid bottle
	Waste liquid trap bottle (open air side)		
Pressure measuring range	-	0~800mmHg (Torr) 0~1066hPa (mbar)	
Condenser	Exhaust trap+Receiving flask(500mL)	-	Exhaust trap·Receiving flask(500mL)
Waste liquid bottle	1	2	

Solvent Recovery Unit DPE-1300

Solvents can be recovered continuously in a small space.



DPE-1300

Features

- Compact solvent recovery unit which can be placed on top of low temperature circulator (CA-1113). Piping to cooling water is not required; saving desktop space.
- Solvents are recovered at exhaust side of vacuum pump. Solvents collected in recovery flask can be drained to waste liquid bottle without dismounting the flask. Exposure to solvents is prevented.
- Solvents can be drained continuously even when evaporator is in operation.

Specifications

Product name	Solvent Recovery Unit
Model	DPE-1300
Cat. No.	220990
Recovery method	Condenser
Collection	Receiving flask

Option		
Product name	Model	Cat. No.
Vacuum control unit	NVC-2300B	257260
Magnetic valve	CV-1	196910
Adaptor for vacuum	control unit (N-1200)	NVC-N12 245040
	control unit (N-1110)	NVC-N11 245070
	control unit (Pump EVP)	NVC-EVP 245090
	control unit (Pump NVC)	NVC•A-NVP
NVC•B-NVP		261840
Absorption cartridge		197000
Absorption cartridge (2pcs)		245270
Absorption cartridge (3pcs)		245280
Additional unit	DPE-W	221000

Solvent Recovery Unit DPE-1400

Provides laboratory safety environment at low cost.



DPE-1400

Features

- By combination of receiving flask(1L) with drain cock and cooling bath for receiving flask, high recovery ration is attainable and solvents can be safely drained into a waste liquid bottle.
- Waste liquid trap bottle is provided at both ends of vacuum pump (suction/exhaust) and prevents accumulation of liquid at pump head.
- Condenser ((exhaust trap) can be placed at either side (left or right) of vacuum pump. Minimum length of connection tube decreases condensation in the piping.

Specifications

Product name	Solvent Recovery Unit
Model	DPE-1400
Cat. No.	229720
Recovery method	Condenser
Recovery vessel	Waste liquid trap bottle (400mLx2)
	Collection flask with drain cock (500mL)

Option	
Product name	Cat. No.
Condenser	230960
Woulfe bottle	171630
Absorption cartridge	197000
Absorption cartridge 2pcs	245270
Absorption cartridge 3pcs	245280
Cartridge holder	232670
Receiving flask (1L)	233870
Receiving flask (500mL)	232410

Centrifugal Evaporator CVE-2100

Compact centrifugal evaporator suitable for micro tube and test tube.



CVE-2100

Operation panel



Leak valve Filter Chamber

Features

- Compact evaporator 240W x 260D x 230Hmm.
- The unit is equipped with heater to allow RT+5~80°C temp range. Temperature setting/display by digital system.
- Four rotors are available: For 1.5mL microtube (max. 24) and for test tubes of three different length (Max. 16).
- Rotor is easy to mount/dismount to allow easy cleaning of chamber.

Specifications

Product name	Rotary Evaporator
Model	CVE-2100
Cat. No.	260560
Evaporation method	Depressured evaporation by centrifugal force
Rotation speed	1400/1700rpm (50/60Hz)
Ultimate vacuum	13.3hPa
Rotor	Option (for micro tube and test tube)
Vacuum seal	Magnet drive system (sealless)
Vacuum pump	Option
Chamber ID (mm)	Φ160 x 105H
Chamber material	SUS 304
Dimensions(mm) & weight	240W x 260D x 230H 8kg
Power source	150VA AC100V

Centrifugal Evaporator CVE-2200

Compact centrifugal evaporator suitable for small volume DNA•RNA evaporation and trapping.



CVE-2200

Features

- Compact evaporator 240Wx260Dx260Hmm.
- The unit is equipped with heater to allow RT+5~80°C temp range. Temperature setting/display by digital system.
- The unit is equipped with built-in vacuum pump to obtain 40hPa ultimate vacuum.
- Four rotors are available: For 1.5mL microtube (max. 24) and for test tubes of three different length (Max. 16).
- Rotor is easy to mount/dismount to allow easy cleaning of chamber.
- Cat.No. 260570

Options for CVE-2100 & 2200



■Rotor (Aluminum, alumite treated)

Model	Applicable tube	Number	Cat. No.
R-2000A	OD10.8mm (1.5mL) micro tube	24	188830
R-2000B	OD10~13mm test tube (L80~100mm)	16	188840
R-2000C	OD10~13mm test tube (L65~75mm)	16	188850
R-2000D	OD10~13mm test tube (L32~50mm)	16	188860

■Cold Trap

Model	Min. temp.	Dehumidifying capacity	Cat. No.
UT-1000	-50°C	Max.500g (water)	189200

■Diaphragm Vacuum Pump

Model	Evacuation	Ultimate vacuum	Cat. No.
NVP-1000	20L/min	10hPa (7.5Torr)	261800
EVP-1000	10L/min	8hPa (6Torr)	241940

■Vacuum Hose

ID6xOD15mm,
length 5m
Cat. No. 119170



NVP-1000

UT-1000

EVP-1000

Centrifugal Evaporator CVE-3000

Centrifugal evaporator with a built-in cooling coil for concentration of samples sensitive to heat.



CVE-3000

Features

- Built-in cooling coil enables cooling from 4°C; providing low temperature concentration of heat sensitive samples.
- 15•50mL rotor are available.
- Slow up start and slow down stop mechanism protect tubes from damage due to sudden rotation shock.
- Glass (inner) and resin (exterior) double construction cover. To avoid distortion by organic solvents, gas contact part is made of glass.

Centrifugal Evaporator CVE-3110

Centrifugal evaporator with Teflon coated chamber for combinatorial chemistry of TFA, DMF, DMSO.



CVE-3110

Features

- Chamber is made of SUS 304 and coated with teflon; providing strong resistance against acid and organic solvents.
- Glass (inner) and resin (exterior) double construction cover. To avoid distortion by organic solvents, gas contact part is made of glass.
- Variety of rotors are available such as for deep well plate, centrifugal tube for combinatory chemistry.
- Temperature control range RT+5~80°C with digital setting and display.

Specifications

Product name	Centrifugal Evaporator	
	CVE-3000	CVE-3110
Model	CVE-3000	CVE-3110
Cat. No.	252170	260580
Evaporation method	Depressed evaporation by centrifugal force	
Rotation speed	100~2000rpm (50/60Hz)	
Temp. control range	4~80°C	OFF•RT+5~80°C
Ultimate vacuum	0.13hPa	
Heater	140W+25W	100W
Rotor, vacuum pump	Option	
Vacuum seal	Magnet drive system (sealless)	
Chamber ID (mm)	Φ260 x 180H	
Chamber material	SUS 304 Teflon coated	
Dimensions(mm) & weight	368W x 348D x 425H 29kg	326W x 349D x 397H 22kg
Power source	300VA AC100V	400VA AC100V

Options for CVE-3000 & 3110



■ Rotor (SUS Teflon coated)

Model	Applicable tube	Number	Cat. No.
R-3100A	Micro tube (OD10.8mm, 1.5mL)	96	192440
R-3100B	Test tube (OD10~12, L90~120mm)	48	192450
R-3100C	Test tube (OD16.5~18mm, L90~120mm)	48	192460
R-3100D	Test tube (OD17.5~18mm, L130~165mm)	48	192470
R-3100E	Vial bottle (OD40.5x78.5mm, 50mL)	10	192480
R-3100F	Deep well plate	2	192490
R-3100G	Test tube, Centrifugal tube (OD35x105mm)	12	192500
R-3100I	Centrifugal tube (15mL)	48	252180
R-3100J	Centrifugal tube (50mL)	18	252190
R-3100K	Test tube (OD13~15mm, L90~150mm)	48	253990

■ Cold Trap

Model	Min. temp.	Cat. No.
UT-1000	-50°C	189200
UT-2000	-100°C	189210

■ Diaphragm Vacuum Pump

Model	Cat. No.
NVP-2100	261820
EVP-1100	241950
DTC-22	230290
DTU-20	209380
MD-1C	198530

■ Oil Rotary Vacuum pump CVE-3000

Model	Cat. No.
GLD-051	190840
GCD-051X	190850
GCD-051XF	191080

CVE-3110

Model	Cat. No.
GCD-051X	190840
GCD-051XF	190850

Test Tube Evaporator TVE-1100A • 1100B

For quick condensing of solvents and water samples.



TVE-1100A



TVE-1100B

Features

- Hood type small concentration unit accommodates various vessel mouth sizes.
- Evaporation area is increased by shaking solvents in spiral form.
- Rapid mixing of samples prevents bumping and realizes effective evaporation.
- Up to eight vessels can be mounted and evaporated

independently. Mounting of the vessels adopts simple screw fixing system.

- Evaporating part is covered by heating hood. Sample re-evaporation and contamination can be prevented. It also provides short time evaporation (PAT.).
- Together with Vacuum Control Unit NVC-2300, bumping can be prevented and stable, short time evaporation is feasible.

■ Operation panel



■ A type for different size vessels



■ B type for 50mL centrifugal tube

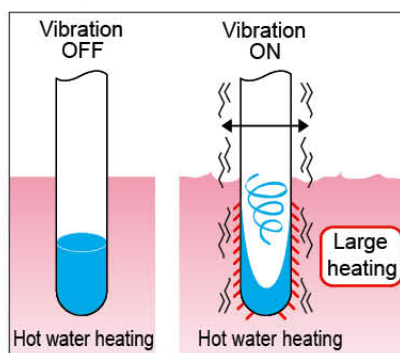


■ Vacuum control fit to solvents



Vacuum control is feasible either by orifice nozzle (standard) or by vacuum control unit NVC-2300A • B(option).

■ Sample vibration and hot water heating

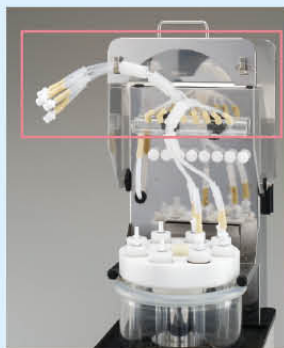


Efficient evaporation by combination of wider evaporation area by sample vibration and hot water heating.

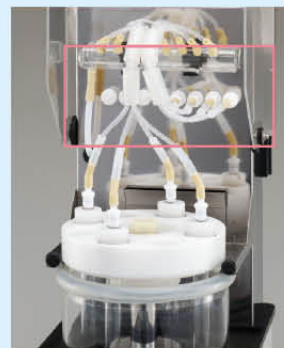
■ Hot air hood prevents re-evaporation



■ Easy setting of vessels



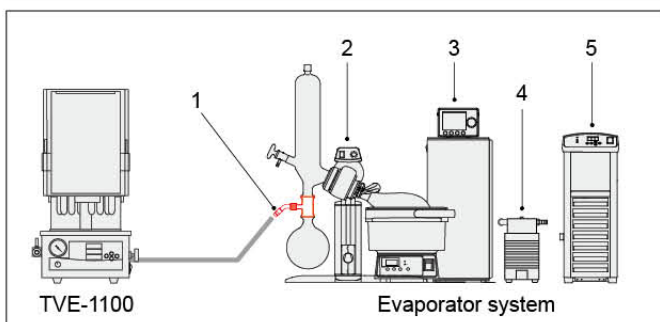
■ Up to eight vessels can be mounted.



Specifications

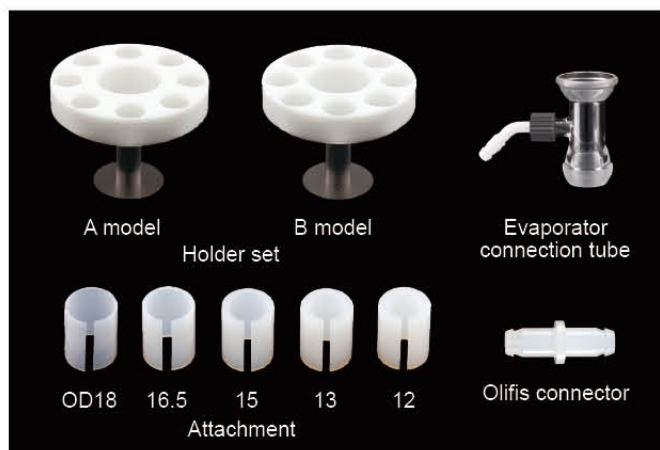
Product name	Test Tube Evaporator	
	Model	Model
Model	TVE-1100A	TVE-1100B
Cat. No.	248970	249050
Evaporation method	Spiral, depressured evaporation by vibration method	
Mountable vessel number	8	
Shaking speed range	100~1100rpm	
Hood temp. control range	30~60°C	
Bath temp. control range	RT + 5~60°C	RT + 5~40°C
Mountable vessel	Test tube・Centrifugal tube	
	OD12・13・15・16.5・18 x 100~180mm	Centrifugal tube OD29 x 115mm
Timer	0~99h59min (minimum setting 1min)	
Bath capacity	3L	
Dimensions (mm) & weight	250W x 420D x 560H 22kg	
Power source	900VA AC100V	

Flow sheet



1. Evaporator connecting tube
2. Rotary evaporator
3. Solvent recovery unit
4. Diaphragm vacuum pump
5. Cooling water circulator

Option



Product name	Cat. No.
A model holder set TVE-A	249030
B model holder set TVE-B	249040
OD12mm attachment 8 pcs	249290
OD12mm attachment 2 pcs	249490
OD13mm attachment 8 pcs	249300
OD13mm attachment 2 pcs	249500
OD15mm attachment 8 pcs	249310
OD15mm attachment 2 pcs	249510
OD16.5mm attachment 8 pcs	249320
OD16.5mm attachment 2 pcs	249520
OD18mm attachment 8 pcs	240330
OD18mm attachment 2 pcs	249530
Evaporator connection tube	249390
Olifis connector	249400
Flxible tube	249410
Centrifugal tube attachment 8 pcs	261040
Centrifugal tube attachment 2 pcs	261030
Liquid surface sheet for centrifugal tube	249420

Thin Film Evaporator MF-1000

Easy to use and compact flash evaporator



MF-1000

Features

- Compact design allows exclusive use in laboratory for research and experiment. Installation space is as small as 490W x 350D x 930Hmm allowing the use in fume hood.
- High speed rotation of impeller forms thin film to allow evaporation without bumping or foaming.
- Non seal magnetic coupling is adopted for motor to prevent contamination caused by stirring pole.
- Stirring impeller is made of teflon. Impeller and shaft can be separated for easy cleaning.
- Can be connected to hot water circulator HS-1000 by one touch.

■ Non seal magnetic coupling



■ Teflon impeller Ceramic coupling



■ One touch connection to HS-1000



Specifications

Product name	Thin Film Evaporator
Model	MF-1000
Cat. No.	248980
Rotation speed	100 ~ 1200rpm
Evaporation capacity	Max. 760mL/h (water)
Ultimate vacuum	Less than 399.9Pa (3Torr)
Rotation setting & display	Volume setting & digital display
Motor	DC brushless motor 60W
Evaporation tube	Jacket type, evaporation area 0.025m ²
Condenser	Vertical double helix condenser cooling area 0.14m ²
Receiving flask	Condensation side 1L
	Evaporation side 2L
Heating	By hot water circulator (option)
Dimensions(mm) & weight	490W x 350D x 930H 17kg
Power source	200VA AC100V

System example



Product name	Model	Cat. No.
Flash evaporator	MF-1000	248980
Hot water circulator	HS-1000	248990
Automatic sample injector	AFB-1000	261380
Vacuum control unit	NVC-2300B	257260
Diaphragm vacuum pump	NVP-1000	261800
Cold water circulator	NCA-1000	261580

Option

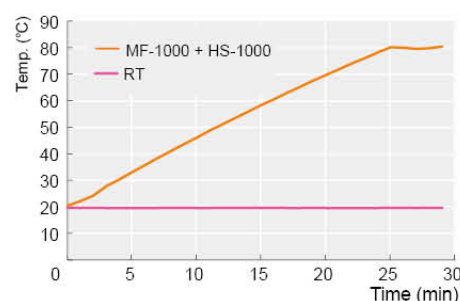
■ Heating Bath Circulator HS-1000



Specifications

Product name	Heating Bath Circulator
Model	HS-1000
Cat. No.	248990
Circulating system	Closed loop system
Temperature range	RT+15 ~ 90°C
Temp. control accuracy	±1.5°C
Flow volume	Max. 9/10L/min
Heater	1.1kW
Dimensions(mm)	210W x 310D x 430H

■ Heating curve MF-1000 + HS-1000



Thin Film Evaporator MF-10A·10B·10C

For concentrating thermal denature, foamy and highly viscous materials.



MF-10A

MF-10C

Features

- Designed for the concentration or purification of thermally sensitive materials or viscous, high boiling point samples.
- The double-walled evaporator jacket is made of borosilicate glass and this makes it possible to visually observe the evaporation process.
- MF-10B with liquid surface level sensor.
MF-10C for Max. 180°C high temperature.

Specifications

Product name	Thin Film Evaporator		
Model	MF-10A	MF-10B	MF-10C
Cat. No.	117440	117450	117460
Rotation speed	140 ~ 1200rpm (stepless)		
Evaporation capacity	1140mL/h (water)		
Ultimate vacuum	Vacuum pump capacity + 13.3hPa (1Torr)		
Temp. setting range	RT+5 ~ 90°C		RT+5 ~ 180°C
Rotation setting & display	Volume setting & digital display		
Liquid surface monitor	-	Liquid surface sensor	-
Motor	DC brushless motor 60W		
Evaporation tube	Jacket type, evaporation area 0.04m ²		SUS 304
Condenser	Vertical double helix condenser cooling area 0.3 m ²		
Receiving flask	Condensation side 1L, evaporation side 1L with drain cock		
Heating	By hot water circulator (option)		Quartz mantle heater 800W
Liquid contacting part	Borosilicate glass, Teflon or SUS 304		
Dimensions(mm) & weight	625W x 400D x 1416H 40kg		
Power source	150VA AC100V		800VA AC100V

Thin Film Evaporator F-70·150·200

Large scale thin film evaporator with max. capacity 40L/h



F-70

F-150

F-200

Features

- Continuous evaporation and collection is possible by drain cocks attached to collection vessels.
- Heating by hot water circulation in glass jacket evaporation tube realizes accurate temperature control and easy check of concentration status.
- Heating by steam is also possible (F-150·200).
- Heating time is controlled by unique control ring (PAT) to realize precise control of rotation speed and sample feeding; making the system suitable for evaporation of heat sensitive samples.

Specifications

Product name	Thin Film Evaporator			
Model	F-70	F-150		F-200
Cat. No.	117590	117700		117710
Rotation speed	140 ~ 1300rpm (stepless)	180 ~ 1800rpm (stepless)		
Evaporation capacity	1.5L/h	5.28L/h	20L/h	12L/h
Operating vacuum	2.5kPa	3.3kPa	8.0kPa	2.7kPa
Rotation axis seal	Non seal by magnetic coupling		Mechanical seal	
Evaporation tube	Glass jacket		SUS jacket	
Condenser	Vertical triple helix condenser cooling area 0.5m ²	Vertical triple helix condenser cooling area 1.33m ²		SUS multiple tube cooling area 3.0m ²
Receiving flask	3L x 2 (with drain cock)	10L x 2 (with drain cock)		20L x 2 (with drain cock)
Heating	Hot water	Hot water	Steam	Hot water
Liquid contacting part	Borosilicate glass, Teflon or SUS 304			
Dimensions(mm)	620W x 500D x 1970H	1150W x 600D x 2760H		1400W x 900D x 3050H
Power source	200VA AC100V		3.2kVA 3Φ AC200V	

Vortex Evaporator VTX-2000 • 2500

For effectively pre-treating large volume samples and many tubes.



VTX-2000

Features

- Up to six 250mL samples can be evaporated to 1 mL simultaneously without drying. (VTX-2000)
- Up to six 250mL samples can be dried simultaneously using round bottom evaporation vessel. (VTX-2500)
- Solvent and gas contact part is made of glass and teflon; enabling evaporation of acid samples as TFA, alkali and organic solvents.
- Short time evaporation is realized by dry heating of aluminum block and vortex stirring which expand evaporation area.
- Through the slit of aluminum block, evaporation condition in vessel can be observed.
- As manifold part is transparent, vapor condition can also be observed.
- OFF timer function is incorporated. Temp. control, stirring and depressure can be automatically stopped when evaporation or drying is finished.
- Thanks to large capacity condenser, solvents can be effectively collected.

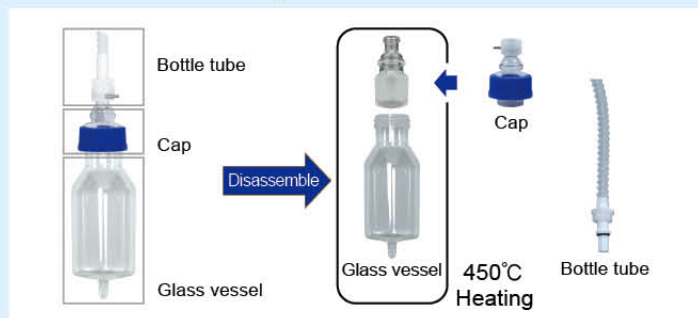
Point!

Glass vessels are easy to disassemble and cleaning



Easy and sure vessel cleaning

Glass vessel, cap, bottle tube can be disassembled and cleaned easily. Contaminated samples adhered to glass vessel which affects high sensitivity analysis like GC-MS can be washed out completely. Cap can be heated and it is effective for dioxine analysis.

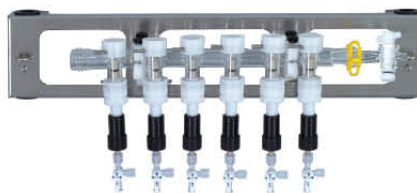


Specifications

Product name	Vortex Evaporator	
Model	VTX-2000	VTX-2500
Cat. No.	213250	213260
Evaporation method	Depressed evaporation by vortex stirring	
Rotation speed	20~350rpm	
Temp. control range	RT + 10~80°C	
Temp. control accuracy	±1°C	
Ultimate vacuum	7hPa (5mmHg)	
Liquid volume	250mL x 6 vessels	
Temp. setting & display	Digital setting & digital display	
Temperature control	Micro processor P.I.D control	
Glass vessel	250mL x 6 (round bottom) VTX-S20VP6	250mL x 6 (analytical) VTX-S25VF6
Condenser	Glass condenser, 2L Receiving flask	
Dimensions(mm) & weight	670W x 570D x 710H 35kg	
Power supply	550VA AC100V	

Option

Manifold for independent flow control VTX-20MP



Independent flow line prevents contamination. Each line can be air purged independently.

Cat. No. 215960

Condensation vessel, Cap, Tube



Product name	Model	Cat. No.
Condensation bottle (Analytical)	VTX-20VP	215970
Condensation bottle (Round bottom)	VTX-25VF	215980
Bottle cap	—	215990
Bottle tube	—	216000

Pressured Gas Blowing Concentrator MGS-2200

Independent gas blower prevents loss of inert gas.



MGS-2200

■ Individual gas blowing system (PAT. P)
By lifting up needle, gas blow can be stopped.



Option

■ Nozzle set to fix chip, pipsett



Cat. No. 213160

■ Heating unit MGS-HEAT

Introduce hot air (RT+5~80°C) into manifold.
Contributes to reducing concentration time.

Cat. No. 206740



MGS-2200 + MGS-HEAT

Features

- Independent gas blower (PAT.) prevents loss of inert gas.
- 0.2µm filter is provided at air inlet port to prevent dust interfusion.
- High heat-conductance characteristic of aluminum block provides prompt and uniform heating and precise temperature control.
- The unit can work with a large number of samples simultaneously.
- The amount of air flow is adjustable.

Specifications

Product name	Pressured Gas Blowing Concentrator
Model	MGS-2200
Cat. No.	Refer product composition
Temp. control range	RT + 5~200°C
Temp. accuracy	±0.1~0.2°C
Temp. control	P.I.D. control
Temp. setting & display	Sheet key input, digital display
Function	Temp. display compensation, Auto start/stop 2 step programm, Auto tuning
Heater/temp. sensor	Heater 235W, P1100 Ω
Aluminum block	Jacket type, evaporation area 0.04m ²
Aluminum block dimensions & material	170W x 135D x 22H (mm) SUS 304
Blowing nozzle	ID1.6 x 180Hmm SUS 304
Filter	0.2µm disposable type
Dimensions (mm) & weight	240W x 310D x 600H 7.5kg
Power source	345VA AC115V/690VA AC230V

Product Composition

Model	Cat. No.	Manifold		Aluminum block		
		Model	Needle	Model	Applicable container	No. of holes
MGS-2200A	209430	S-048	48	MGB-0548	8mm micro tube 0.5mL	48
MGS-2200B	209440			MGB-1540	11m micro tube 1.5mL	40
MGS-2200C	209450	S-040	40	MGB-1240	12mm test tube	40
MGS-2200D	209460			MGB-1524	15mm test tube	24
MGS-2200E	209470	S-024	24	MGB-1624	16.5mm test tube	24
MGS-2200F	209480			MGB-1822	18mm test tube	22
MGS-2200G	209490	S-016	16	MGB-2116	21mm test tube	16
MGS-2200H	209500			MGB-2412	24mm test tube	12
MGS-2200I	209510	S-012	12	MGB-2512	25mm test tube	12

■ Exclusive Rack MGS-H



MGS-HEAT + Manifold + Rack

Solvent Recycler SR-2000N

For reusing organic solvents in the laboratory.



SR-2000N

Features

- Refining equipment for organic solvents recovery or sample purification.
- Glass raschig ring is packed in standard column to increase separable effect.
- Sample flask heating is by dry heating system and does not require oil. The unit is composed of magnetic stirrer with hot plate and thermally high conductive aluminum block.
- Uniform and quick heating is realized by specially designed aluminum block.
- Aluminum block receptacle diameter changes automatically to adjust to flask size.

Specifications

Product name	Solvent Recycler
Model	SR-2000N
Cat. No.	254000
Evaporation capacity	500mL/h for total reflux flow
Aluminum block temp. setting	RT + 5 ~ Max. 200°C
Sample flask	3L (separable flask)
Stirring	Magnetic stirrer
Column	ID30x400mm, jacket type
Packing material	Raschig ring (glass) OD5x4Hmm
Reflux/recovery distribution	By three way cock
Condenser	Double helix condenser, cooling area 0.08m ²
Heating	Aluminum block and hot plate
Dimensions (mm)	600W x 450D x 1650H
Power source	630VA AC100V

Point!

Three way cock for reflux



Reflux ratio adjustment can be done by three way cock. Adjustment according to sample, reflux condition and mixing ratio is possible.

Glass raschig ring



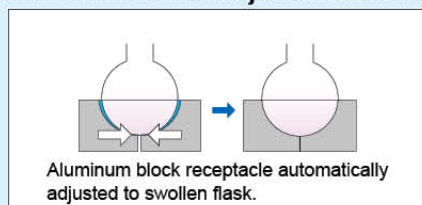
Glass raschig ring (OD5x4Hmm) is packed in the column. The ring can be taken out and washed. Air/liquid contact condition in glass column can be observed clearly.

Uniform heating



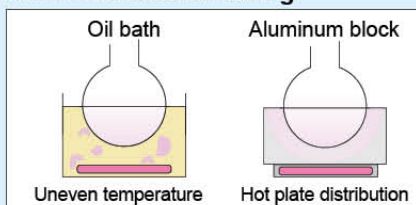
Dry heating system without use of oil provides uniform and quick heating; preventing bumping.

Aluminum block to adjust to flask size



Aluminum block receptacle automatically adjusted to swollen flask.

Uniform and safe heating



Exempt from risk by using oil bath

