

Related Product

Closed Cooling Water Circulator CF302L-A

Temperature Range : -20 to 30°C
Cooling Capacity : Approx. 420W at 10°C/ approx. 280W at -10°C



Features

- Easy to clean intake air filter
- Easy to use new controller
- Stress-free circulating line connection
- It is safe for drainage of condensation water



Diaphragm Vacuum Pump N820

Exhaust speed : 9 to 20L/min
Hose nipple size : $\phi 10.6 / \phi 9$ (Two-stage type)

Product Code	255161	
Model	N820	
Pumping speed	9 to 20L/min (With manual variable volume)	
Wetted material	PTFE/FFPM	
External input	Remote operation by external signal	
Ultimate pressure	at Min. speed	Gas ballast closed ≤ 600 Pa (Open ≤ 1700 Pa)
	at Max. speed	Gas ballast closed ≤ 1500 Pa (Open ≤ 800 Pa)
Vacuum port	Hose nipple outer diameter	$\phi 10.6\text{mm} / \phi 9\text{mm}$ (2 stage type)
Standards	Power supply	Single phase 100V to 240V 50/60Hz
	Overall dim.	163(W) \times 259(D) \times 220(H)mm
	Weight	8.8kg

Features

- Manual flow adjustment with variable volume
- Gas ballast system effective for solvent vapor
- Remote operation by external signal



SINCE 1889



Rotary Evaporator RE202-A/212-A series



RE202BW-A



RE202AW-A



RE202BW-A

SINCE 1889



For the development of scientific technologies

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Yamato Scientific Co., Ltd.



Everything is New!

Rotary Evaporator RE202-A/212-A series



Diagonal Glassware set A

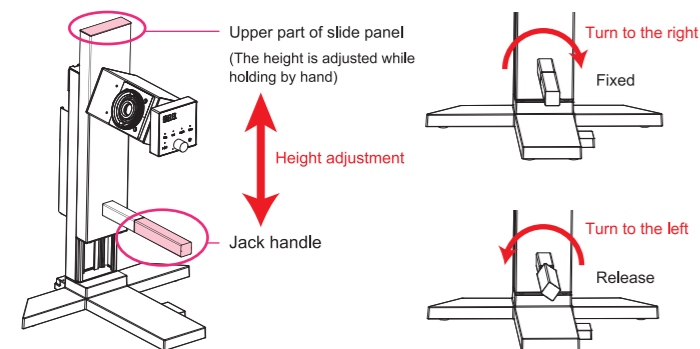
RE202AW-A

RE202A-A Main unit + Glassware set A RE202AW-A Main unit + Glassware set A Water Bath RE202AO-A Main unit + Glassware set A Oil Bath RE212A-A Overall dimensions: 719(W)×324(D)×534(H)mm RE212AW-A Overall dimensions: 744(W)×365(D)×534(H)mm RE212AO-A Overall dimensions: 744(W)×365(D)×534(H)mm

Easy height adjustment with the jack handle

The height adjustment of the body is realized by the jack handle activated by a spring. The spring is adjusted to balance the force with glass and piping connected, and can be raised and lowered with a light force. To fix/release the jack, just twist the handle. A height stroke of up to 200mm is possible, enabling easy to installation and removal of the distillation flask.

* When releasing the jack handle, be sure to hold the top of the slide panel with your hand for safety.



Glass set and bath can be recombined left and right

The position of the glassware/bath can be installed on either side of the main unit. It can be reversed by rotating the motor box at the back of the operation panel. This way it is possible to use the layout freely according to the limited space inside a fume hood or on a lab bench. Vertical glassware B type can be arranged three in the fume hood.

* When changing the vertical glassware B type, change the orientation of the condenser holder.



Vertical Glassware set B

RE202BW-A

RE202B-A Main unit + Glassware set B RE202BW-A Main unit + Glassware set B Water Bath RE202BO-A Main unit + Glassware set B Oil Bath RE212B-A Overall dimensions: 529(W)×324(D)×745(H)mm RE212BW-A Overall dimensions: 554(W)×365(D)×745(H)mm RE212BO-A Overall dimensions: 554(W)×365(D)×745(H)mm

Intuitive operability, wide rotation speed range

The device is operated by the control panel located in the center. Turning the encoder (knob) slowly adjusts the number of revolutions display by one rpm, and turning it fast by ten rpm. The rotational speed can be set within the wide range of 5 to 315 rpm. After confirming the rpm value, press the ▶|■ keys to rotate the distillation flask. The rotation mode can be selected from forwards rotation, reverse rotation, and automatic reverse that repeats normal rotation and reverse rotation at a set interval.

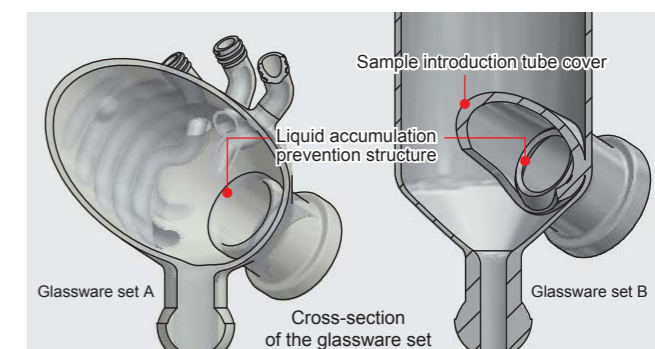
* The current measurement rotational speed, setting rotational speed, parameters, etc. are displayed on the rotational speed display (LED). The speed can be set even during the operation. The brightness of the LED can be adjusted in 8 levels.



Improved durability of vacuum seal with liquid accumulation prevention structure

In order to prevent the condensate accumulated in the condenser from intruding into the vacuum seal along the inside, a liquid drip prevention structure is added in front of the vacuum seal inside the condenser. Dew condensation inside the sample introduction tube cover is also assumed and the liquid collected prevention structure is set up by glassware set B. The durability of the vacuum seal is improved by preventing an invasion of liquid to the vacuum seal part.

* When using ketone or ether solvents, the standard vacuum seal swells. Please use the optional PTFE vacuum seal.



AC adapter is stored neatly

An AC adapter holder is provided on the back of the main unit, and you can store the AC adapter and excess cables in a neat manner. Furthermore, if you use the included back cover to cover the back, it can be placed inside the bench or fume hood with a clean wiring to reduce dust and liquid intrusion.



Two easy-to-care baths

There are two kinds of baths available: water and oil bath (water/oil combined use). They have a capacity of 5L, inner diameter of ϕ 240mm. The flat shape with no heater or sensor inside the bus makes cleaning easy. A bath is equipped with safety functions such as automatic overheat prevention, upper temperature limit abnormality, and independent overheat prevention (temperature fixed type).



Specifications

Set Selection Chart

Power source: AC115V Single phase

Composition Items	Model	Product cord	RE202A-A	RE202AW-A	RE202AO-A	RE202B-A	RE202BW-A	RE202BO-A
			255657	255658	255659	255660	255661	255662
Main body	RE202-A	255654	●	●	●	●	●	●
Glassware set A	RG202A-A	255655	●	●	●			
Glassware set B	RG202B-A	255656				●	●	●
Water bath	BM302-A	255408		●			●	
Oil bath	BO302-A	255413			●			●

Set Selection Chart

Power source: AC230V Single phase

Composition Items	Model	Product cord	RE212A-A	RE212AW-A	RE212AO-A	RE212B-A	RE212BW-A	RE212BO-A
			255664	255665	255666	255667	255668	255669
Main body	RE212-A	255663	●	●	●	●	●	●
Glassware set A	RG202A-A	255655	●	●	●			
Glassware set B	RG202B-A	255656				●	●	●
Water bath	BM312-A	255409		●			●	
Oil bath	BO312-A	255414			●			●

Specifications (RE202A-A/B-A, RE212A-A/B-A)

Model	RE202A-A	RE212A-A	RE202B-A	RE212B-A	
Product Code	255657	255664	255660	255667	
Condenser	Type A (diagonal)		Type B (vertical)		
Configuration	Glass condenser	Double-wound coil (cooling surface area: approx. 0.143mm ² , with heat insulation) Vacuum seal (FKM, single-sided PTFE finish)		Vertical double-wound coil (cooling surface area: approx. 0.143mm ² , with heat insulation) vacuum seal (FKM, single-sided PTFE finish)	
	Rotary joint	ϕ 29/38 inner diameter ϕ 18mm x L284mm		ϕ 29/38 inner diameter ϕ 18 x L208mm	
	Standard flasks	Evaporative flask (TS29/38, 1L) and clip (POM), receiving flask (S35, 1L), and clamp (SUS)			
	Motor	DC brushless motor			
Performance	Connection nozzle dia.	Outer diameter ϕ 10mm (cooling water/vacuum)			
	Rotation speed range	5 to 315rpm encoder type digital setting and display			
	Jack	Manual balance type (200mm stepless adjustment, fixed/released by 90° rotation)			
	Evaporation capacity	Approx. 23 mL/min (water evaporation)			
Safety features	Motor stop function at overload, Over current protection, Over voltage protection				
Other features	Automatic reverse switching by forward/reverse/timer, Power failure recovery (mode selection type)				
Standard	Applicable distillation flask	ϕ 29 50 to 2000mL (JIS standard)			
	Applicable receiving flask	100 to 2000mL			
	Power source	AC115V Single phase	AC230V Single phase	AC115V Single phase	AC230V Single phase
	Current	1A			
	External dimensions (W x D x H mm)	529 x 324 x 534 (jack maximum position : H734mm)		529 x 324 x 745 (jack maximum position : H945mm)	
Weight	9kg (Rotary evaporator body: approx. 7kg + glass set: approx. 2kg)				
Accessories	RE202	Instruction manual, Warranty card, AC adapter, Power cord (approx. 2 m), Bath guide, back cover, Velcro (one side and both sides), Condenser holder, Hex. wrench			
	Glassware	Warranty card, Flask clip, Receiver flask clip, Vacuum seal, Flask pusher, Thermal insulation for condenser			

Specifications (Water Bath/Oil Bath)

Bath type	Water Bath	Oil Bath
Product Code	255408	255414
Model	BM302-A	BO302-A
Performance	Temperature range	Room Temp. +10 to 90°C
	Temp. adjustment accuracy	\pm 1.0°C
Configuration	Exterior material	PBT (Glass fiber is entered)
	Bath internal material	Stainless steel
Safety features	Automatic overheat prevention, Upper temperature limit abnormality, Independent overheat prevention (fixed temperature type), Power supply cut off by power supply fuse, Sensor disconnection detection	
Other features	Calibration offset, overshoot notification, Power failure recovery function (mode selection type), 2A service outlet	
Standard	Power source	AC115V 9A, Single phase
	Bath internal dimensions and capacity	ϕ 240 x 119mm / Approx. 5L
	External dimensions *2	ϕ 262 (Up to 286 mm in depth) x H 240mm
Weight	Approx. 4.5kg	
Accessories	Instruction manual, Warranty card, Power cord (approx. 3m), Fuse 15A (large), Fuse 2A (small)	

*1 Please use water by less than 90°C. *2 Do not include protrusions.

A sample introduction tube cover prevents backflow of condensate (Glassware set B)

A sample introduction tube cover is installed in the condenser to prevent the condensate in the condenser from flowing back through the sample introduction tube to the distillation flask. It is shaped to cover the sample introduction tube from the top, realizing an extremely complex structure in which the glass shape to be the cover is mounted inside the condenser.



Space saving model with high cooling capacity

The cooling surface area of approx. 0.143m² for both A and B type condensers enable high cooling capacity for optimal condensation. The dimensions including the condenser B and the bath has been downsized compared to the conventional product in both width and height. Therefore it requires less space and multiple units can be installed in a limited space such as in a fume hood.

B type condenser without cooling insulation

RE202B-A



3 vertical type evaporators installed in a fume hood

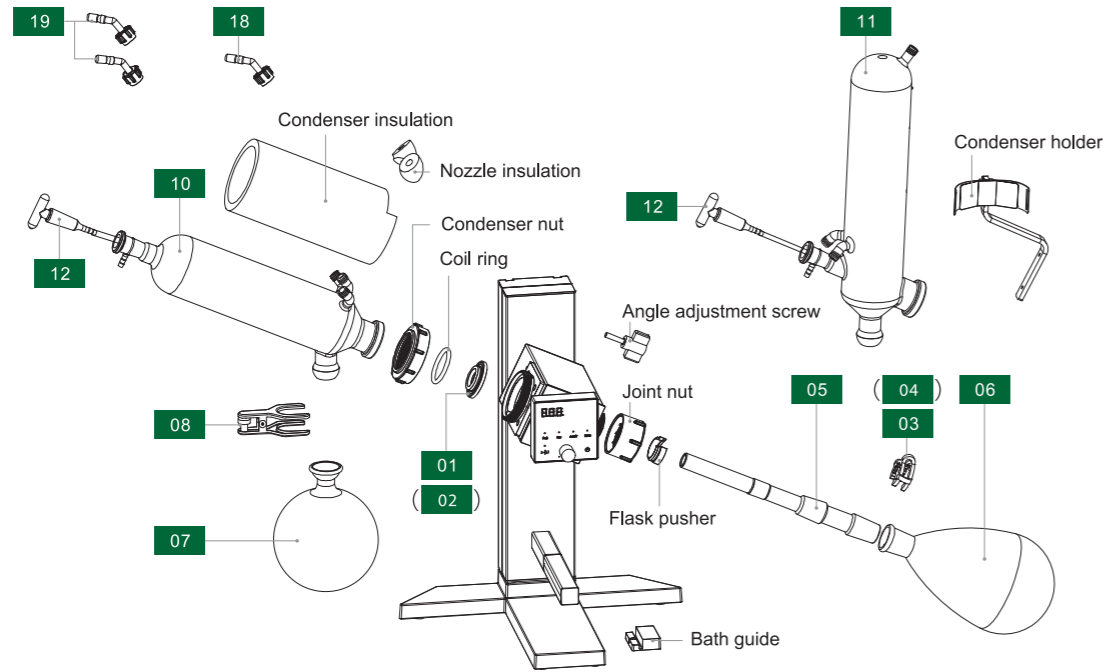
Examples of standard systems

Product name	Model	Product cord
Rotary evaporator	RE202B-A	255660
Water bath	BM302-A	255408
Externally closed cooling water circulator	CF302L-A	221626
Circulating insulation hose (soft) ID 9mm x OD 13mm x 2m, 2pcs	OCF12	221581
Vacuum hose ID 6mm x OD 15mm x 5m	—	255297
Diaphragm vacuum pump	N820	255161

Number of outlets required: 3 (when using a water bath service outlet)



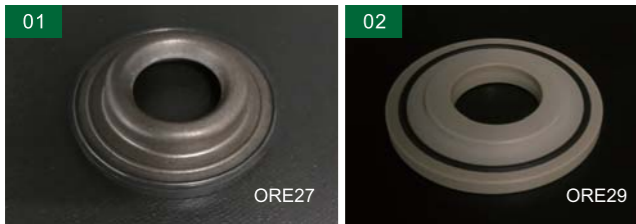
Optional Items



Component and optional items

A
Glassware set A
(standard accessories)

B
Glassware set B
(standard accessories)



01 Vacuum seal
ORE27 <255740> **A B**
Material : FKM (Single sided PTFE), 2pcs.

02 PTFE Vacuum seal
ORE29 <255741>
Material : PTFE, Chemical resistant, 1pc.

03 Clip
ORE41 <255747> **A B**
Material : POM, ¥29, 2pcs.

04 Clip
ORE43 <255748>
Material : POM, ¥24, 2pcs.

05 Rotary joints

For	Ground glass joint	Size	Model	Product code	
Glassware set A (for RG202A) (for RG212A)	Standard	¥29/38 L284mm	ORE72	255720	A B
		¥24/40 L286mm	ORE76	255722	
	Transparent	¥29/38 L284mm	ORE82	255724	
		¥24/40 L286mm	ORE86	255726	
Glassware set B (for RG202B) (for RG212B)	Standard	¥29/38 L208mm	ORE74	255721	B
		¥24/40 L210mm	ORE78	255723	
	Transparent	¥29/38 L208mm	ORE84	255725	
		¥24/40 L210mm	ORE88	255727	

Transparent Ground glass joint : The sample does not easily get into the gap of the slide and is easy to clean.

06 Evaporating flasks

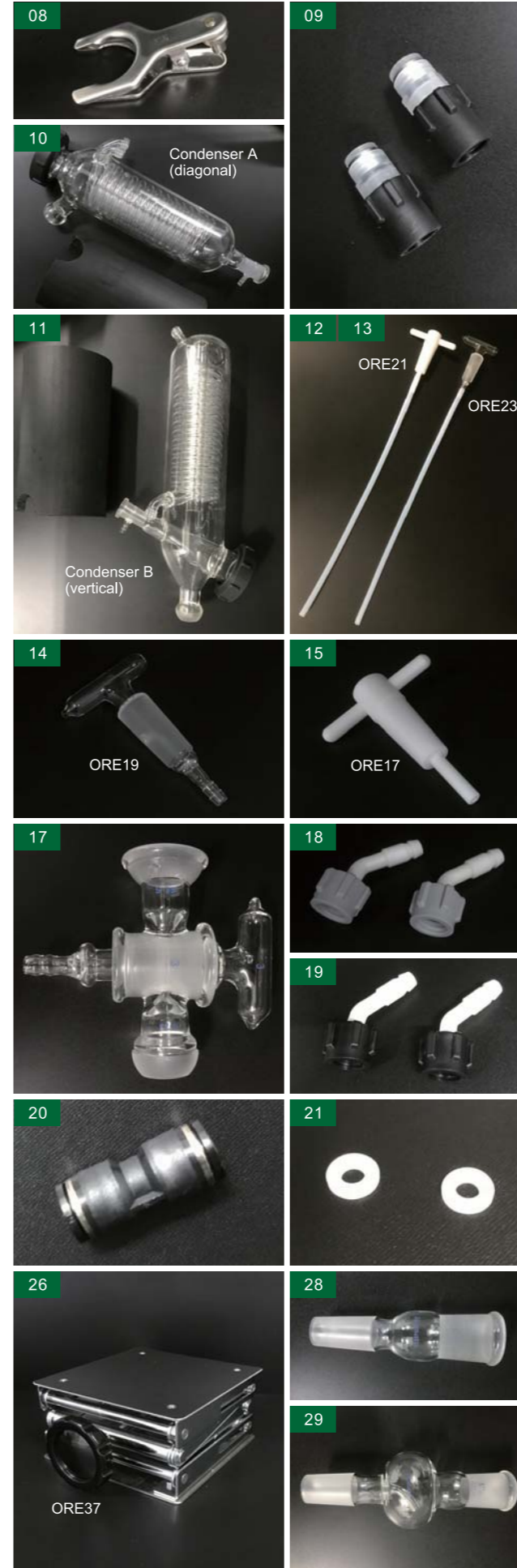
Size	Capacity	Model	Product code	
¥29/38	100mL	ORE24	255701	A B
	200mL	ORE26	255702	
	300mL	ORE28	255703	
	500mL	ORE32	255704	
	1000mL	ORE34	255705	
	2000mL	ORE36	255706	
¥24/40	100mL	ORE42	255708	A B
	200mL	ORE44	255709	
	300mL	ORE46	255710	
	500mL	ORE48	255711	
	1000mL	ORE52	255712	
	2000mL	ORE54	255713	

Low rotational shake type

07 Receiving flasks

Capacity	Model	Product code	
100mL	ORE56	255714	A B
200mL	ORE58	255715	
300mL	ORE62	255716	
500mL	ORE64	255717	
1000mL	ORE66	255718	
2000mL	ORE68	255719	

S35/20 is JIS standard



08 Spherical joint clip
ORE45 <255749>
Stainless steel, S35/20 is JIS standard, 1pc.

09 One-touch connector^{*1}
ORE33 <255743>
GL14, OD 10mm, 2pcs.,
for circulating insulation hose (hard)

10 Condenser A (diagonal)
ORE47 <255750>
Includes : Condenser insulation, Condenser nut
and Coil ring

11 Condenser B (vertical)
ORE49 <255751>
Includes : Condenser insulation, Condenser nut
and Coil ring

12 Sample induction cock (glass)
ORE23 <255738> Set of **14** + **16**

13 Sample induction cock (PTFE)
ORE21 <255737> Set of **15** + **16**

14 Cock (glass)
ORE19 <255736>
Material : Glass, ¥19/38

15 Cock (PTFE)
ORE17 <255735>
Material : PTFE, ¥19/38

16 Sample induction tube
ORE25 <255739>
Material : PTFE
Length 520mm (cut to L345mm for condenser B)

17 Three-way cock
ORG50 <255363>
Used for switching the receiving flasks during
operation S35/20 male/female, Length114mm

18 Vacuum nozzle (gray)
ORG80 <255512>
GL14, OD 10mm, 2pcs.

19 Vacuum nozzle (black)
ORE31 <255742>
OD 10mm, 2pcs.

20 Relay connector^{*1}
ORE35 <255744>
OD 10mm, 1pc.
for circulation insulation hose (hard)

21 Nozzle packing
OCF40 <281494>
Silicon, 12 pcs., for vacuum/cooling nozzle

22 Vacuum hose
<255297>
ID 6mm × OD 15mm × 5m, 1pc.

23 Circulating insulation hose (hard)^{*1}
OCF78 <281475>
ID 6.5mm × OD 10mm × 2m,
(Insulatin outside diameter 22mm)
Hard (polyurethane), 2pcs.

24 Circulating insulation hose (soft)
OCF12 <221581>
ID 9mm × OD 13mm × 2m (heat insulation OD 28mm),
(ethylene propylene), 2pcs., with 4 clamps,
for cooling water

25 Circulating insulation hose (soft)
OCF62 <221599>
ID 9mm × OD 14mm × 2m (heat insulation OD 41mm),
(silicon), 2pcs., with 4 clamps,
for cooling water

26 Laboratory jack
ORE37 <255745>
150 × 150mm, Height : 75 to 245mm

27 Laboratory jack
ORE39 <255746>
200 × 200mm, Height : 75 to 245mm

28 Equal/Different diameter joints

Standards (female→male)	Model	Product code
¥24/40 → ¥24/40 L105mm	ORE11	255732
¥24/40 → ¥19/38 L103mm	ORE13	255733
¥24/40 → ¥15/25 L90mm	ORE15	255734
¥29/38 → ¥29/38 L106mm	ORE92	255728
¥29/38 → ¥24/40 L108mm	ORE94	255729
¥29/38 → ¥15/25 L105mm	ORE98	255731
¥29/38 → ¥19/38 L105mm	ORE96	255730

29 Trap bulbs (Round shape, 100mL)

Standards (female→male)	Product code
¥29/42 → ¥19/38 L173mm	RE200GT001
¥29/42 → ¥29/42 L183mm	RE200GT002
¥29/42 → ¥19/38 L173mm	RE200GT003
¥29/38 → ¥15/25 L160mm	RE200GT004

^{*1} When using a circulation insulation hose (hard), change the cooling nozzle (black) to one-touch connector before use. Also, when extending, relay connectors are required.