

Yamato Rotary Evaporators

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ROTARY EVAPORATOR OVERVIEW



RE201/211

- Manual lift with analog control
- Option for 3 different types of glassware
- Option for either a 4L or 7L capacity water bath
- Option for 7L capacity oil bath
- Optional arm jack permits setting flexibility



RE202-A/212-A

- Market leader in rotation speed range at 5~315 rpm
- Designed with set inversion function
- Standard equipped with condenser insulation kit
- Convenient height adjustment
- Integration of servo type motor with strong high torque
- Cables stored neatly, simply and smartly
- Option for 2 types of bath: water bath and oil bath



RE301

- Easy manual operation
- Digitally set and displayed motor speed (rpm)
- Equipped with motorized lift to easily raise or lower unit
- Option for 3 different types of glassware
- Universal power supply for main unit: works with 100~240VAC
- Option for 4L water or oil bath at 115~240VAC



RE601

- Programmable
- Digital setting and display for motor speed (rpm), vacuum control and vapor temperature
- Equipped with vacuum regulator and vapor temperature indicator
- Equipped with motorized lift to easily raise or lower unit
- Option for 3 different types of glassware
- Universal power supply for main unit: works with 100~240VAC
- Option for 4L water or oil bath at 115~240VAC

ROTARY EVAPORATOR OVERVIEW



RE801

- Programmable
- Bath synchronized control
- Automatic distillation and 53 solvent presets
- Digital setting and display for motor speed (rpm), vacuum control and vapor temperature
- Equipped with vacuum regulator and vapor temperature indicator
- Equipped with motorized lift to easily raise or lower unit
- Option for 3 different types of glassware
- Universal power supply for main unit: works with 100~240VAC
- Option for 4L water or oil bath at 115~240VAC

Rotary Evaporator

Manual lift with analog control

RE201/211

Evaporating / receiving flask

1L (Standard)

Rotation speed control range

20~180rpm

Water bath temp. range

Room Temperature+5 to 95°C



RE-201-200A with optional arm jack (Glassware A)

RE-201-200B with optional arm jack (Glassware B)

RE-201-200C with optional arm jack (Glassware C)

Features

- Speed can be changed freely with the control knob
- Option for either a 4L or 7L capacity water bath
- Adjustable locking position of rotary joint (patent # 3220033)
- Evaporation flasks are easily removable with built in flask remover
- Optional arm jack permits setting flexibility



Specifications

Model	RE201	RE211
Rotational number control range	20~180rpm	
Drive system	Worm gear system	
Motor	Induction motor, 25W	
Ambient temperature range	5~35°C	
External dimensions(W×D×Hmm)	420×290×837	
Weight	~ 11 kg	
Power source 50/60Hz	AC 115V 50/60Hz 0.6A	AC 220V 50/60Hz 0.3A

Set Selection Chart

Model	Glassware			Water Bath		
	A	B	C	BM100	BM200	BM401
RE-201-100A	●			●		
RE-201-100B		●		●		
RE-201-100C			●	●		
RE-201-200A	●				●	
RE-201-200B		●			●	
RE-201-200C			●		●	
RE-201-401A	●					●
RE-201-401B		●				●
RE-201-401C			●			●

Set Guide

RE - **201** - **100** **A**

Main unit		Water bath				Glassware set		
Model	Voltage	Model	Voltage	Capacity	Controller	A	B	C
201	115V	100	115V	4L	Analog	●		
211	220V	110	220V	4L	Analog		●	
		200	115V	7L	Analog			●
		210	220V	7L	Analog			●
		401	115V	7L	Digital	●		
		410	220V	7L	Digital		●	

A For standard use (diagonal)
 B For high boiling point (vertical)
 C For low boiling point (vertical)

Model	Glassware			Water Bath		
	A	B	C	BM110	BM210	BM410
RE-211-110A	●			●		
RE-211-110B		●		●		
RE-211-110C			●	●		
RE-211-210A	●				●	
RE-211-210B		●			●	
RE-211-210C			●		●	
RE-211-410A	●					●
RE-211-410B		●				●
RE-211-410C			●			●

Operational Accessories

Glassware Set

Product code	Set
RE-200-183	Set A (use with cooling water) The Standard glass set where condenser is tilted diagonally, suitable for standard distillation
RE-200-184	Set B (use with cooling water) The condenser is set vertical, suitable for distillation of solvent with higher boiling points. When space is limited, the use of a vertical condenser set up is recommended
RE-200-185	Set C (use with dry ice) The cold finger glass condenser is set vertically, suitable for distillation of volatile or low boiling point solvents. When space is limited, the use of a vertical condenser set up is recommended

Bath Specifications



Model	BM100	BM110	BM200	BM210	BM401	BM410	BO601
Type	Water bath						Oil bath
Temp. control range during operation	RT +5°C~95°C						RT+5°C~180°C
Temp. setting range	0°C~100°C						0°C~200°C
Temp. display method	Glass thermometer				Digital display shows measured / set temperature		
Set up system	Analog setting				Digital setting by ▲/▼ keys		
Bath capacity	4L		7L				
Bath dimension	ø200 x Depth120 mm		ø250 x Depth150 mm				
Weight	~3.5kg		~6.0kg		~7.0kg		~8.0kg
Power source 50/60Hz	115V 4.5A	220V 2.3A	115V 9A	220V 4.5A	115V 11A	220V 5.2A	115V/220V

Optional Accessories

Glassware



Evaporating flask

Product code	Size	Capacity
25527324	24/40	2L
25527334	24/40	500ml
25527344	24/40	300ml
25527354	24/40	200ml
25527364	24/40	100ml



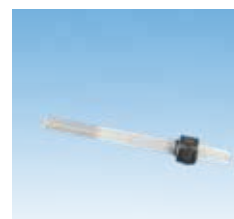
Receiving flask

Product code	Size	Capacity
LT00016210	35/20	2L
LT00016180	35/20	500ml
LT00016209	35/20	300ml
LT00016208	35/20	200ml
LT00016207	35/20	100ml



Trap ball

Product code	Description
LG1910270055	TS 24/40-24/40



Steam duct / Rotary joint

Product code	Description
RE-200-401 (24/40)	With o-ring and nut

Armjack



Product code	Rod O.D.
255080	21.7mm

Water Circulator (Chiller)



Model	CF302L-A / CF312L-A
Operating temp. range	-20°C~30°C
Temp. control accuracy	±1.0°C (≥ 0°C) ±1.5°C (< 0°C)
Cooling capacity	~420W at liquid temp10°C ~280W at liquid temp-10°C
Temp. control	Refrigerator On/Off
Refrigerator, coolant	Air cooling 450W, R404A
External dimension (including protrusions)	205 x 396 x 535 mm (225 x 434 x 564 mm)
Water capacity	~3.9L (Liquid volume 3.5L)
Power source 60Hz	115V 7.5A / 220V 4A
Weight	~31kg

Vacuum Pump



Model	DTC-22A	DTC-22B
Discharge rate	50Hz 60Hz	20L/min 24L/min
Ultimate pressure	1.0x10 ³ Pa (7.5 Torr)	
Motor	AC115, Single phase 50W, 4P, with condenser-run thermal protection relay (automatic reset)	AC220, Single phase 1275/1570rpm
Rated current	1.20/1.32A (50/60Hz)	0.60/0.72A (50/60Hz)
Speed	1260/1580rpm	1275/1570rpm
Inlet and outlet piping	O.D.ø10 x I.D.Φ6 (G1/4)	
Weight	7.1kg	
Air temperature	0~40°C	
Overall dimensions	W142 x L272 x H202 mm	
Product code	DTC22A115RERKIT	DTC22B220RERKIT
Components	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp

Organic Solvent Recovery Unit



Model	RT200
Condenser	Hard glass
Solvent collecting flask	500mL hard glass S35/20
Flask clamp	For 35mm
Outer covering	Print coating finish made from cold rolling steel sheet
Door	Acrylic door
IN/OUT nipple connected to a cooling water hose	Outer diameter: 9mm
IN/OUT nipple connected to a vacuum water hose	Outer diameter: 6mm
External diameter	W260*D400*H428mm

RT200 extracts organic solvent substances from gas generated by the rotary evaporator during concentration work, and prevents the discharge of dangerous substances

Vacuum Regulator



Model	VR100
Setting range of vacuum	1~1,013hPa
Grading pressure setting range	66~600 hPa
Grading time setting range	1~99hrs.59mins.
Display	Digital setting by ▲/▼ keys
Control mode	Fixed value control, ramp control
Output	For vacuum, leak valve
Hose connector	Nozzle O.D.ø9.5mm
Dimension, weight	W155*D190*H145mm, ~3.5kg
Power supply	AC100V 50/60Hz 1A External transformer required

Rotary Evaporator

Highly efficient standard rotary evaporator with manual lift

RE202-A/212-A

Evaporating /
receiving flask

1L (Standard)

Rotation speed
control range

5~315 rpm

Water bath / oil bath
temp. range

RT +10~90°C / RT +10~180°C



Features

● 5~315 rpm rotation speed range

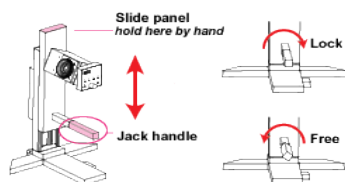
Turning the encoder dial slowly increases or decreases the value by 1, turning it quickly changes the value by 10. Selectable rotation mode (forward, reverse, auto reverse) RPM display brightness can be adjusted in 8 levels.



● Convenient height adjustment

Slide panel employs a spring-loaded jack to lift up. Easily twist the handle counterclockwise, adjust, lock and release. Maximum height is 200mm.

Panel jumps up when releasing jack's lock without glassware mounted. Be sure to hold top of the slide panel by hand whenever releasing the lock.



● Set inversion function

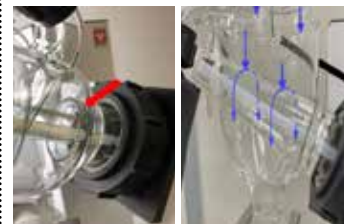
Glassware and bath can be set in either side, left or right, depending on user's dominant hand and installation location. Three units of Glassware B (with vertical condenser) can be installed in a standard fume hood.



● Uniquely designed glass condenser

This prevents liquid stagnation and backflow improving durability of vacuum seal

When using ketone or other solvents, standard vacuum seal swells. It is recommended to use PTFE vacuum seal.



● Condenser is fastened tightly

Yamato adopts a condenser bracket screwed firmly to the motor box. It does not loosen or rattle even when jack moves up and down.

Vertical condenser (Glassware B) is used in conjunction with the condenser bracket.



● Cables are stored neatly, simply and smartly

The AC adapter holder at the back of the main unit helps to keep in place the AC adapter and excess cables. Rear cover keeps dust and liquid off the cables and organized wiring is achieved when unit is placed inside a laboratory bench and fume hood.



● Two types of baths

Option for water and oil bath. Large capacity 5L bath with 240mm I.D. and a full complement of safety functions such as automatic overheat prevention and temp. upper limit difference.



● Condenser insulation kit

This insulating material is used to suppress condensation on the surface of the condenser. Standard attached to Glassware A and B.



Specifications

Model		RE202-A/212-A (Main Unit)	RE202A-A/212A-A (Glassware A)	RE202B-A/212B-A (Glassware B)
Performance *1	Operating ambient temp. range	5~35°C		
	Speed range	5~315 rpm *3		
	Evaporation capacity	---	Up to 23 ml/min	
Functions	RPM display	Digital display / Encoder dial setting		
	Rotation mode	Forward/Reverse/Auto reverse		
	Spring-loaded jack	Manual balance (Max. height 200 mm, stepless regulation, one-touch lock)		
Configuration	Rotary motor	DC brushless (simple servo)		
	Condenser retention	Retaining bracket for vertical condenser (condenser type B)		
Safety functions		DC motor: Motor overload protection, overvoltage, low voltage, rotation speed sensor error AC adapter: Short circuit in internal circuit, overcurrent protection, overvoltage protection		
Standard	Cooling condenser	---	Double corrugated tube (cooling surface: 0.143 m ²)	Double corrugated tube (cooling surface: 0.143 m ²)
		---	Suction port: GL-14 (lower), Φ10 nozzle	Suction Port: GL-14 (upper), Φ10 nozzle
		---	Cooling port: GL14 (two places in lower part), two Φ10 nozzles	
	Compatible evaporation flask	0-2000ml for TS24. Use optional reducer to attach small flasks.		
	Compatible receiving flask	100-2000 ml		
	External dimensions *2 (W x D x H)	375 x 324 x 445	719 x 324 x 534	529 x 324 x 745
	Overall dimensions *2 (including bath) (W x D x H)	---	744 x 365 x 534	554 x 365 x 745
	Power rating	RE202: 100-115 VAC single phase 1A RE212: 200-230 VAC single phase 1A		
Power cable	Approx. 2.0 m with inlet plug			
Weight	Approx. 7.0 kg	Approx. 9.0 kg (including RE unit)		
Accessories		Main unit: AC adapter (1), power cable (1), bath guide (1), rear cover (1), single-sided tape fastener roll (1), double-sided tape, fastener roll (1), condenser bracket (1), hex wrench (1), Instruction manual (1), warranty card (1) Glass set: Cooling condenser (type A/B)(1), rotary joint (1), evaporation flask (1), receiving flask (1), ball joint clamp (1), flask clip (1), vacuum seal (1), condenser insulation kit (1), flask removal tool		

*1 Performance data above based on 23 ±5 °C room temperature, 65%RH ±20% humidity, and no process load.

*2 Dimensions excludes protrusions.

*3 Applicable rotation speed range and sample volume depend on the capacity of evaporation flask.

Operational Accessories

Glassware Set

Product code	Set
RG202A	Set A (use with chiller) Traditional glass set where condenser is tilted diagonally
RG202B	Set B (use with chiller) Standard glass set where condenser is set vertically, suitable for limited space

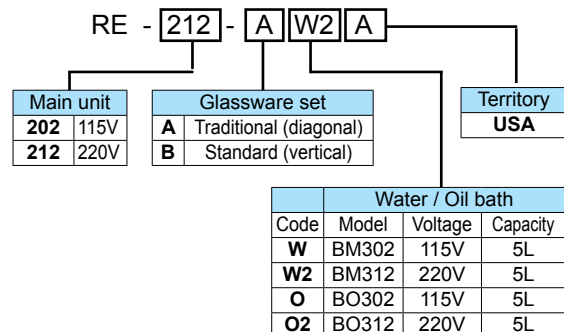
Bath Specifications

Product name	Water bath		Oil bath	
	Model	BM302-A	BM312-A	BO302-A
Temp. control range *1	RT +10°C~90°C		RT +10°C~180°C	
Temp. control accuracy *1	±1.0°C		±1.5°C (water), ±2°C (oil)	
Safety features	Automatic overheat prevention, independent overheat prevention (fixed temp.), temperature upper limit error, overcurrent protection fuse			
Other features	Calibration offset, overshoot alert, auto resume (selectable), 2A service outlet (for AC100~115V)			
Bath capacity	~5L			
Internal dimensions	Φ240 x H119 mm			
External dimensions *2	Φ262(max depth 286mm) x H240 mm			
Weight	~4.5kg			
Power supply (fuse capacity)	AC100~115V 10~12A (15A)	AC200~230V 5~6A (10A)	AC100~115V 10~12A (15A)	AC200~230V 5~6A (10A)

*1 Performance data above based on 220 VAC ±5% supplied power, 23 ±5 °C ambient, 65%RH. ±20% humidity, and no process load. Temp accuracy measured in JTM K05.

*2 Dimensions excludes protrusions.

Set Guide



Set Selection Chart

Model	Glassware		Water Bath		Oil Bath	
	A	B	BM302	BM312	BO302	BO312
RE-202-AWA	●		●			
RE-202-BWA		●	●			
RE-202-AOA	●				●	
RE-202-BOA		●			●	
RE-212-AW2A	●			●		
RE-212-BW2A		●		●		
RE-212-AO2A	●					●
RE-212-BO2A		●				●

Optional Accessories

Glassware



Evaporating flask
Size: 24/40

Product code	Capacity
255713	2L
255712	1L*
255711	500ml
255710	300ml
255709	200ml
255708	100ml

Size: 29/38

Product code	Capacity
255706	2L
255705	1L
255704	500ml
255703	300ml
255702	200ml
255701	100ml



Receiving flask
Size 35/20

Product code	Capacity
255719	2L
255718	1L*
255717	500ml
255716	300ml
255715	200ml
255714	100ml

*Standard



Rotary joint
RG202A

Product code	Size	Type
255720	29/38 L284mm	Standard
255722	24/40 L286mm	Standard*
255724	29/38 L284mm	Transparent
255726	24/40 L286mm	Transparent

RG202B

Product code	Size	Type
255721	29/38 L208mm	Standard
255723	24/40 L210mm	Standard*
255725	29/38 L208mm	Transparent
255727	24/40 L210mm	Transparent



Rotary joint different diameter

Product code	Description
255732	24/40 → 24/40 L105mm
255733	24/40 → 19/38 L103mm
255734	24/40 → 15/25 L90mm
255728	29/38 → 29/38 L106mm
255729	29/38 → 24/40 L108mm
255731	29/38 → 15/25 L105mm
255730	29/38 → 19/38 L105mm



FKM vacuum seal

Product code	Description
255740	Standard



PTFE vacuum seal

Product code	Description
255741	Recommended for ketone and other solvents

Water Circulator (Chiller)



Model	CF302L-A / CF312L-A
Operating temp. range	-20°C~30°C
Temp. control accuracy	±1.0°C (≥ 0°C) ±1.5°C (< 0°C)
Cooling capacity	~420W at liquid temp 10°C ~280W at liquid temp -10°C
Temp. control	Refrigerator On/Off
Refrigerator, coolant	Air cooling 450W, R404A
External dimension (including protrusions)	205 x 396 x 535 mm (225 x 434 x 564 mm)
Water capacity	~3.9L (Liquid volume 3.5L)
Power source	60Hz 115V 7.5A / 220V 4A
Weight	~31kg

CF302L keeps water in the condenser at a stable low temp. which increases evaporation rate and maximizes solvent collection.

Easy maintenance of air intake filter
User-friendly controller
Convenient drainage of waste water
Compact



Vacuum Pump



Model	DTC-22A	DTC-22B
Discharge rate	50Hz: 20L/min, 60Hz: 24L/min	
Ultimate pressure	1.0x10 ⁻² Pa	
Motor	AC115, Single phase	AC220, Single phase
	50W, 4P, with condenser-run thermal protection relay (automatic reset)	
Rated current	1.20/1.32A (50/60Hz)	0.60/0.72A (50/60Hz)
Speed	1260/1580rpm	1275/1570rpm
Inlet and outlet piping	O.D.Φ10 x I.D.Φ6 (G1/4)	
Weight	7.1kg	
Air temperature	0~40°C	
Dimensions	W142 x L272 x H202 mm	
Product code	DTC22A115RERKIT	DTC22B220RERKIT
Components	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp

Complete set with optional accessories



Rotary Evaporator RE-202-BWA
Vacuum pump DTC22A
Water circulator (chiller) CF302L-A

Space Saving Design



Compact rotary evaporator which can be neatly installed in a fume hood.
Vertical condenser (Glassware B) does not take up much space.

Rotary Evaporator

Basic with motorized lift and digital setting

RE301

Evaporating/Receiving flask 1L (Standard)

Rotation speed 20~250rpm

Temperature range Water Bath Room temperature +5~90°C Oil Bath Room temperature +10~180°C



- One touch electric lift for easy up and down movement
- The evaporator's motor speed (rpm) is digitally set and displayed
- Unique durable vacuum seal suitable up to 2L flasks
- Stable rotation at low and high speeds
- Equipped with lift up switch in case of power outage
- Removable bath for easy cleaning and water replacement, with the option for water or oil bath
- Compact design fits into any fume hood
- Universal power supply: works with 100-240VAC

Features



● **Adjustable Rotary Joint**
The rotary joint's locking position feature is adjustable up to 80 mm. Useful when using evaporating flasks with varying capacities or when there is a need to shift the vacuum seal's contact position. (Patent No. 3220033)



● **Quick Release of Evaporating Flask**
The evaporating flask can be released easily and quickly by turning the flask release nut.



● **Motorized Lift**
Standard for all models and can be easily raised or lowered by a simple switch operation



● **Glass Condenser**
Unique designed glass condenser to prevent liquid stagnation and backflow and increase cooling capacity with a 20% larger surface area to enable faster distillation. (Patent No. 4597021)

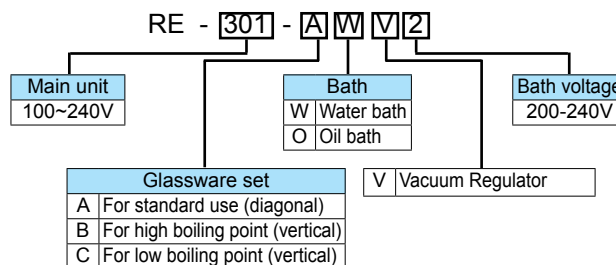


● **Control Panel**
Rotation speed knob with digital display indication

Specifications

Model	RE301	
Motor	DC brushless motor	
Rotation speed	20~250 (rpm)	
Lift stroke	130mm	
Rotational speed setting	Control knob (digital indication)	
Safety function (main unit)	Manual-setting lower limit, motor overload	
Lifting feature	Motorized lifting system	
External dimension	With Glassware A (mm)	828(W)× 400(D)×586(H) (716 when raised)
	With Glassware B/C (mm)	643(W)× 400(D)×727(H) (857 when raised)
Weight	~14.1kg (excluding glassware and water/oil bath)	
Power supply Main unit(50/60Hz)	AC100~240V 1.5A(excluding water/oil bath)	

Set Guide



Set Selection Chart

Model	Glassware			Bath (100-120V AC)		Bath (200-240V AC)		Vacuum regulator
	A	B	C	Water bath	Oil bath	Water bath	Oil bath	
RE-301-AW	●			●				
RE-301-AW2	●					●		
RE-301-AO	●				●			
RE-301-AO2	●						●	
RE-301-AWV	●			●				●
RE-301-AWV2	●					●		●
RE-301-AOV	●				●			●
RE-301-AOV2	●						●	●
RE-301-BW		●		●				
RE-301-BW2		●				●		
RE-301-BO		●			●			
RE-301-BO2		●					●	
RE-301-BWV	●			●				●
RE-301-BWV2	●					●		●
RE-301-BOV	●				●			●
RE-301-BOV2	●						●	●
RE-301-CW		●		●				
RE-301-CW2		●				●		
RE-301-CO		●			●			
RE-301-CO2		●					●	
RE-301-CWV	●			●				●
RE-301-CWV2	●					●		●
RE-301-COV	●				●			●
RE-301-COV2	●						●	●

Operational Accessories

Glassware Set

Product code	Set
255291	Set A (use with cooling water) Standard glass set where condenser is set diagonally, suitable for standard distillation.
255292	Set B (use with cooling water) The condenser is set vertically, suitable for distillation of solvent with higher boiling points. When space is limited, the use of a vertical condenser set up is recommended.
255293	Set C (use with dry ice) The cold finger glass condenser is set vertically, suitable for distillation of volatile or low boiling point solvents. When space is limited, the use of a vertical condenser set up is recommended.

Bath Specifications



BM500
The electric kettle style tank can be removed freely

Product name	Water bath		Oil bath	
Model	BM500	BM510	BO400	BO410
Temp. control range	RT +5°C~90°C		RT +10°C~180°C	
Temp. setting range	0~100°C		0~180°C	
Temp. adjustment accuracy	±1.5°C (at agitation)		±2°C (at agitation)	
Temp. control system	PID control with microprocessor			
Temp. setting / display system	Digital setting by ▲/▼ keys			
Bath capacity	~4L			
External dimensions	W340 x D349 x H231 mm			
Weight	~5.5kg			
Power supply	AC100~120V 12.5~10.5A	AC200~240V 6.5~5.5A	AC100~120V 12.5~10.5A	AC200~240V 6.5~5.5A

Optional Accessories

Glassware



Evaporating flask

Product code	Size	Capacity
LT00016206	29/42	2L
LT00016205	29/42	500ml
LT00016204	29/42	300ml
LT00016203	29/42	200ml
LT00016202	29/42	100ml



Receiving flask

Product code	Size	Capacity
LT00016210	35/20	2L
LT00016180	35/20	500ml
LT00016209	35/20	300ml
LT00016208	35/20	200ml
LT00016207	35/20	100ml



Joint

Product code	Description
RE200GT010	TS 29/42- 24/40
RE200GT012	TS 29/42- 29/42



Trap ball

Product code	Description
RE200GT002	TS 29/42- 29/42
RE200GT003	TS 29/42- 24/40



Steam Duct / Rotary Joint

Product code	Description
LT00016211ASSY (29/42)	with o-ring and nut

Water Circulator (Chiller)



Model	CF302L-A / CF312L-A
Operating temp. range	-20°C~30°C
Temp. control accuracy	±1.0°C (≥ 0°C) ±1.5°C (< 0°C)
Cooling capacity	~420W at liquid temp 10°C ~280W at liquid temp -10°C
Temp. control	Refrigerator On/Off
Refrigerator, coolant	Air cooling 450W, R404A
External dimension (including protrusions)	205 x 396 x 535 mm (225 x 434 x 564 mm)
Water capacity	~3.9L (Liquid volume 3.5L)
Power source 60Hz	115V 7.5A / 220V 4A
Weight	~31kg

Vacuum Pump



Model	DTC-22A	DTC-22B
Discharge rate	50Hz: 20L/min, 60Hz: 24L/min	
Ultimate pressure	1.0x10 ⁻³ Pa	
Motor	AC115, Single phase 50W, 4P, with condenser-run thermal protection relay (automatic reset)	AC220, Single phase
Rated current	1.20/1.32A (50/60Hz)	0.60/0.72A (50/60Hz)
Speed	1260/1580rpm	1275/1570rpm
Inlet and outlet piping	O.D. Φ10 x I.D. Φ6 (G1/4)	
Weight	7.1kg	
Air temperature	0~40°C	
Overall dimensions	W142 x L272 x H202 mm	
Product code	DTC22A115RERKIT	DTC22B220RERKIT
Components	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp

Organic Solvent Recovery Unit



Model	RT200
Condenser	Hard glass
Solvent collecting flask	500mL hard glass S35/20
Flask clamp	For 35mm
Outer covering	Print coating finish made from cold rolling steel sheet
Door	Acrylic door
IN/OUT nipple connected to a cooling water hose	Outer diameter: 9mm
IN/OUT nipple connected to a vacuum water hose	Outer diameter: 6mm
External diameter	W260*D400*H428mm

RT200 extracts organic solvent substances from gas generated by the rotary evaporator during concentration work, and prevents the discharge of dangerous substances

Vacuum Regulator



Model	VR300
Setting range of vacuum	0~981hPa
Measurable range of vacuum	0~1033hPa
Resolution of vacuum	1hPa
Setting range of hysteresis	1~50hPa
Operation modes	Free, fixed temperature, fixed temperature timer, descending and descending timer
Setting range of timer	Fixed operation 1~999min Descending operation 1~99min
Safety features	Self-diagnosis, alarm

Rotary Evaporator

Highly Functional & Programmable

RE601 / 801

Evaporating/
receiving flask

1L(Standard)

Rotation speed

20~250rpm

Water / Oil bath temp. range

Water Bath
Room temperature +5~90°C

Oil Bath
Room temperature +10~180°C

Highly functional type

Standard equipped with motorized lift, vacuum regulator, vapor temperature display functions



RE-601-AW (Glassware A)

RE-601-BW (Glassware B)

RE-601-CW (Glassware C)

Highly functional type with automatic distillation

Standard equipped with motorized lift, vacuum regulator, vapor temperature display and automatic distillation function



RE-801-AW (Glassware A)

RE-801-BW (Glassware B)

RE-801-CW (Glassware C)

Common features of RE601 and RE801

- One touch electric lift for easy up and down movement
- Digital setting and display for motor speed (rpm), vacuum and vapor temperature
- Stable rotation at low and high speeds
- Unique durable vacuum seal suitable up to 2L flasks
- One touch operation for displaying and saving operating conditions
- Equipped with lift-up switch in the event of power outage
- Compact, fits into any fume hood
- Universal power supply: works with 100-240VAC

Unique features of RE801

- Automatic distillation
- Continuous bath control
- Data on 53 solvents installed as default

Features

● Adjustable Rotary Joint



The rotary joint's locking position feature is adjustable up to 80 mm: useful when using evaporating flasks with varying capacities or when there is a need to shift the vacuum seal's contact position. (Patent No. 3220033)

● Quick Release of Evaporating Flask



The evaporating flask can be released easily and quickly by turning the flask release nut.

● Glass Condenser (prevents liquid stagnation)



The vertical condenser prevents liquid from stagnating. New condenser tubes (type A&B) are designed to increase cooling capacity with a 20% larger surface area. (Patent No. 4597021)

● Control Panel



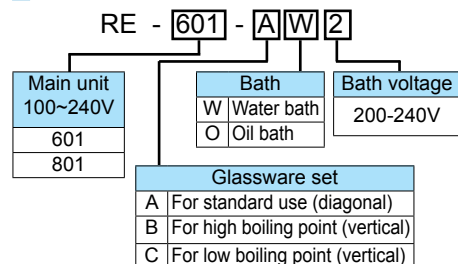
Rotation speed knob with digital display and a programmable vacuum regulator.

Specifications

Model	RE-601	RE801
Motor	DC brushless motor (for rotation)	
Controller	Vacuum regulator VR600	Vacuum regulator VR800
Rotation speed	20~250 (rpm)	
Lift stroke	130mm	
Setting range of vacuum	0~981hPa	
Measurable range of vacuum	0~1033hPa	
Resolution of vacuum	1hPa	
Setting range of hysteresis	1~50hPa	
Resolution of vapor temperature indicator	Selectable (either 1°C or 0.1°C)	
Readout of cooling water temperature	Depending on indicator (option)	
Resolution of cooling water temperature indicator	1°C or 0.1°C	
Operation modes	Free, fixed temperature, fixed temperature timer, descending, and descending timer	Free, fixed temperature, fixed temperature timer, descending, and descending timer, auto I (auto operation with continuous drying), and auto II (auto operation for distillation of single solvent)
Setting range of timer	1-999 minutes in increments/decrements of 1 minute for preset operations, 1-99 minutes for descending timer operations	
Memory	10 programs for each operation	
Data operation	N/A	53 kinds of solvent data
Speed (rpm) setting	Rotation: Control knob Vacuum adjustment: Key pad	
Safety measures (drive unit)	Circuit breaker, rotor for overload protection, manual adjustment of lift's lower limit, lift-up switch during power outage	
Safety measures (vacuum regulator)	Self-diagnostic functions, main unit / bath synchronized stop at malfunction, error display	
Synchronized control feature	Selection of automatic bath stop or automatic insulation	
Lifting feature	One-touch motorized lift system	
External dimension*	With Glassware A (mm)	828(W)× 400(D)×727(H) (857(H)when raised)
	With Glassware B/C (mm)	643(W)× 400(D)×727(H) (857(H)when raised)
Weight	~15.1kg (excluding the glassware and the water/oil bath)	
Power supply	Main unit (50/60Hz)	AC100~240V 1.5A

*External dimensions (excluding protrusions).

Set Guide



Set Selection Chart

Model	Glass-ware			Bath (100-120V)		Bath (200-240V)	
	A	B	C	Water bath	Oil bath	Water bath	Oil bath
				BM500	BO400	BM510	BO410
RE-601-AW	●			●			
RE-601-AW2						●	
RE-601-AO	●				●		
RE-601-AO2	●						●
RE-601-BW	●			●			
RE-601-BW2	●					●	
RE-601-BO	●				●		
RE-601-BO2	●						●
RE-601-CW		●		●			
RE-601-CW2		●				●	
RE-601-CO		●			●		
RE-601-CO2		●					●
RE-801-AW	●			●			
RE-801-AW2	●					●	
RE-801-AO	●				●		
RE-801-AO2	●						●
RE-801-BW	●			●			
RE-801-BW2	●					●	
RE-801-BO	●				●		
RE-801-BO2	●						●
RE-801-CW		●		●			
RE-801-CW2		●				●	
RE-801-CO		●			●		
RE-801-CO2		●					●

Operational Accessories

Glassware Set

Product code	Set
255291	Set A (use with cooling water) The Standard glass set where condenser is tilted, suitable for standard distillation.
255292	Set B (use with cooling water) The condenser is set vertical, suitable for distillation of solvent with higher boiling points. When space is limited, the use of a vertical condenser set up is recommended
255293	Set C (use with dry ice) The cold finger glass condenser is set vertically, suitable for distillation of volatile or low boiling point solvents. When space is limited, the use of a vertical condenser set up is recommended

Bath Specifications

Product name	Water bath		Oil bath	
	Model	BM500	BM510	BO400
Temp. control range	RT +5°C~90°C		RT +10°C~180°C	
Temp. setting range	0~100°C		0~180°C	
Temp. adjustment accuracy	±1.5°C (at agitation)		±2°C (at agitation)	
Temp. control system	PID control with microprocessor			
Temp. setting / display system	Digital setting by ▲/▼ keys			
Bath capacity	~4L			
External dimensions	W340 x D349 x H231 mm			
Weight	~5.5kg			
Power supply	AC100~120V 12.5~10.5A	AC200~240V 6.5~5.5A	AC100~120V 12.5~10.5A	AC200~240V 6.5~5.5A



BM500
The electric kettle style tank can be removed freely

Optional Accessories

Glassware



Evaporating flask

Product code	Size	Capacity
LT00016206	29/42	2L
LT00016205	29/42	500ml
LT00016204	29/42	300ml
LT00016203	29/42	200ml
LT00016202	29/42	100ml



Receiving flask

Product code	Size	Capacity
LT00016210	35/20	2L
LT00016180	35/20	500ml
LT00016209	35/20	300ml
LT00016208	35/20	200ml
LT00016207	35/20	100ml



Joint

Product code	Description
RE200GT010	TS 29/42- 24/40
RE200GT012	TS 29/42- 29/42



Trap ball

Product code	Description
RE200GT002	TS 29/42- 29/42
RE200GT003	TS 29/42- 24/40



Steam Duct / Rotary Joint

Product code	Description
LT00016211ASSY (29/42)	with o-ring and nut

Connection method



Teflon seal

Vacuum seal

Product code	Description
RE50040090 (standard)	Silicone rubber vacuum seal
ORE7042000	Teflon vacuum seal ORE70



Hose connection parts and trap

Product code	Description
255284	Hose connection parts ORE30
255285	Trap with nozzle ORE40

Vacuum Pump



Model	DTC-22A	DTC-22B
Discharge rate	50Hz: 20L/min, 60Hz: 24L/min	
Ultimate pressure	1.0x10 ³ Pa	
Motor	AC115V, Single phase	AC220V, Single phase
	50W, 4P, with condenser-run thermal protection relay (automatic reset)	
Rated current	1.20/1.32A (50/60Hz)	0.60/0.72A (50/60Hz)
Speed	1260 / 1580rpm	1275 / 1570rpm
Inlet and outlet piping	O.D.ø10 x I.D.ø6 (G1/4)	
Weight	7.1kg	
Air temperature	0~40°C	
Overall dimensions	W142 x L272 x H202 mm	
Product code	DTC22A115RERKIT	DTC22B220RERKIT
Components	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp	DTC-22A Dry Vacuum Pump, 5' of 8mm ID Rubber Hose, Hose Clamp

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Condenser	Hard glass
Solvent collecting flask	500mL hard glass S35/20
Flask clamp	For 35mm
Outer covering	Print coating finish made from cold rolling steel sheet
Door	Acrylic door
IN/OUT nipple connected to a cooling water hose	Outer diameter: 9mm
IN/OUT nipple connected to a vacuum water hose	Outer diameter: 6mm
External diameter	W260 x D400 x H428mm

RT200 extracts organic solvent substances from gas generated by the rotary evaporator during concentration work, and prevents the discharge of dangerous substances

Water Circulator (Chiller)



Model	CF302L-A / CF312L-A
Operating temp. range	-20°C~30°C
Temp. control accuracy	±1.0°C (≥ 0°C) ±1.5°C (< 0°C)
Cooling capacity	~420W at liquid temp 10°C ~280W at liquid temp -10°C
Temp. control	Refrigerator On/Off
Refrigerator, coolant	Air cooling 450W, R404A
External dimension (including protrusions)	205 x 396 x 535 mm (225 x 434 x 564 mm)
Water capacity	~3.9L (Liquid volume 3.5L)
Power source	115V 7.5A / 220V 4A
Weight	~31kg

Complete set with optional accessories



Rotary Evaporator RE601BW
Vacuum pump DTC22
Organic solvent recovery unit RT200
Cooling water circulator CF302L-A
Stand with caster wheel 255282

Space Saving Design



Compact Rotary Evaporator, which can be neatly installed in a Fume Hood. The vertical condenser does not take up much space

Diaphragm Type Dry Vacuum Pumps

DTC-22A/DTC-22B



Anti-Corrosion Type, DTC Series

■ Features

- All contacted parts of the gas are made of PTFE and FPM
- Suitable for pumping out corrosive gas or organic solvent
- High vacuum down to 1000Pa
- Compact

■ Applications

- Rotary evaporator
- Evaporating system
- Vacuum concentrator
- Vacuum filtration
- Exhaust of gas-transfer tube
- Vacuum drying systems
- Laser-gas circulation
- Centrifuge
- Medical/Pharmaceutical equipment
- Analysis/scientific equipment

■ Specifications

Model	Unit	DTC-22A		DTC-22B	
		50Hz	60Hz	50Hz	60Hz
Actual pumping speed	L/min	20		24	
	M ³ H	1.2		1.44	
	CFM	0.71		0.85	
Ultimate pressure	Pa (kPa)	1.0 × 10 ³ (-100.3)			
	Torr	7.50			
	mbar	10.0			
Motor	AC	115V		220V	
		Single phase, 50W, 4P, Capacitor run			
Noise value	dB(A)	54			
Full load current	A	1.2	1.32	0.6	0.72
Weight	kg	7.1			
Inlet port diameter	mm	O.D. dia. 10 × I.D. dia. 6 (G1/4)			
Ambient temperature	°C	0-40			
	°F	32-104			
Overall dimensions	mm	142(W) × 288.5(L) × 202(H)			

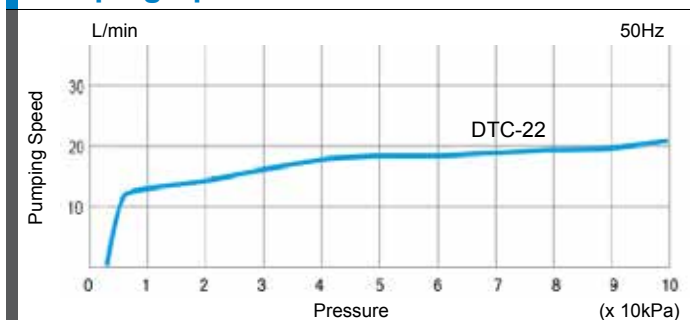
■ Vacuum Pump Guide

Assembly No.	Components	Applicable products
DTC22A115RERKIT (115V)	DTC-22A Dry Vacuum Pump 115V 5' of 8mm ID Rubber Hose Hose Clamp	RE-200/210/301/601/801 Rotary Evaporator
DTC22B220RERKIT (220V)	DTC-22B Dry Vacuum Pump 220V 5' of 8mm ID Rubber Hose Hose Clamp	

■ Corresponding Voltage and Certificate

Model	Voltage	CE Marked	TUV Marked	cTUVus Marked
DTC-22A	Single phase, 115V	●	●	●
DTC-22B	Single phase, 220V	●	●	●

Pumping Speed Curves



Outline Drawings

