

Practical - Efficient - Economical TOPTION Rotary Evaporation Sets

Rotary Evaporator

Scraped Film Evaporator / Short Path (Molecular) Distillation System

Chemical Glass Reactor

High Shear Homogeneous Emulsification Reactor

Pilot Ultrasonic Emulsification Reactor

Vacuum Filter / Glass Liquid Separator

Photochemical Glass Reactor

Hydrothermal Synthesis Reactor

High Pressure Reactor

2L laboratory evaporation set


LX-0250
RE-52AA
VC100C
SHB-III

TOPTION also provide pilot 20L * Evaporation Set: LX-0400 + RE-5220A + VC100C+ SHB95.

20L evaporation set


LX-0400
RE-5220A
VC100C
SHB95
Cooling Circulator
Rotary Evaporator
Vacuum Controller
Water Circulation Vacuum Pump

- With big cooling power.
- Increase receiving rate.
- Save water resource.

- Strong in sealing and anti-corrosion performance.
- Has display on rotation speed, temperature, and pressure.

- Improve efficiency of evaporating and receiving.
- Decrease bumping risk.
- Reduce vapor escaping.
- Protect vacuum pump.

- Easy Maintenance.
- Resist Certain Corrosion.

Practical - Efficient - Economical TOPTION Rotary Evaporation Sets

Practice Using TOPTION "1-2L Rotary Evaporator " to deal with solvents of low boiling point Receiving Rate 99% under below settings, evaporation process were quick and stable. System vacuum is well controlled by Vacuum Controller, which enables either heating (evaporation) or cooling (receiving) efficiency going to max.

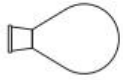
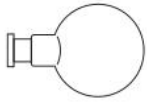
Experimental Data	Working Parameters			Working Efficiency	
	Cooling Temp.	Bath Temp.	Vacuum	Evaporating Speed	Receiving Rate
Ethanol-C ₂ H ₆ O	<5°C	70°C	10.2kpa	2.2L/hr	98.70%
Acetone-C ₃ H ₆ O	<-2°C	54°C	37.7kpa	5.2L/hr	99.40%
Chloroform-CHCl ₃	<-2°C	58°C	32.8kpa	6.0L/hr	99.00%

- The data is collected in test of 1-2L TOPTION Rotary Evaporator. Condition: RT22°C, Rotation flask 1000ml, Charging volume 500ml.

- To get max vaporization speed, heating temperature shall be 40°C higher than that of boiling temperature of solvent.

Parts & Accessories

Evaporating Flask

	Description	Types	Note
	Taper Joint-Pear	100ml/29(24)	For RE52A
		250ml/29(24)	For RE52AA
		500ml/29(24)	For RE2000A
		1L/29(24)	
		2L/29(24)	
	Flange Joint-Round	3L/F50,3L/29;	For RE3000A, RE5203A
		5L/F50;	For RE5210A, RE5220A
		10L/F95	For RE5230A, RE5250A
		20L/F125;	
		30L/F125;	
		50L/F125	



Rotary Evaporator

Parts & Accessories
Receiving Flask

Scraped Film Evaporator / Short Path (Molecular) Distillation System


Description

Taper Joint

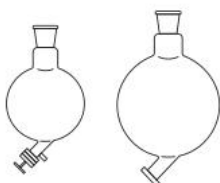
Types

 250ML/24
 500ml/24
 1L/24
 2L/24

Note

For RE52A, RE52AA

Chemical Glass Reactor


Description
 Taper Joint, w/discharge neck

Types
 1L, V6/29, Ø9
 3L/F40, ST40
 optional

Note
 Optional

High Shear Homogeneous Emulsification Reactor


Description
 Spherical Joint

Types
 1L/S35;
 2L/S35;
 3L/S35;
 5L/S35.

Note
 For RE-2000A, RE-3000A
 RE-5000, RE-5205

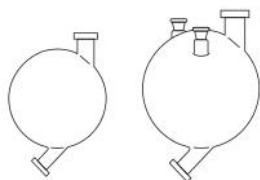
Pilot Ultrasonic Emulsification Reactor


Description
 Spherical joint, w/discharge neck

Types
 3L/F40, S35
 5L/F40,535
 optional

Note
 For RE5000, RE5205
 optional

Vacuum Filter / Glass Liquid Separator


Description
 Flange Joint, w/discharge neck

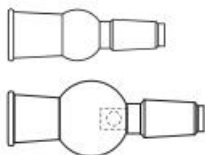
Types
 5L/F50, F40
 10L /F50, F40
 10L /F60, F40x3
 20L/F60, F40x3

Note
 For RE5210A
 For RE5220A
 For RE5230A
 For RE5250A

Photochemical Glass Reactor

Joint Adaptor

Hydrothermal Synthesis Reactor


Description

Taper to Taper

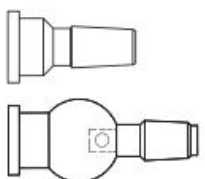
Types

 29 → 29
 29 → 24
 29 → 19

Note

 For RE52A,
 For RE52AA,
 For RE2000A

High Pressure Reactor


Description
 Flange to Taper

Types
 F50 → 29
 F50 → 24

Note
 For RE5203A,
 For RE5205,
 For RE5000

Parts & Accessories
Others


Vapor Shaft	Ø25/29, Ø25/24	For 52A,52AA,2000A
	25	For 5203A,5205,5000
	Ø50/F60	For 10L and above model use

Charging Valves Order according to model

Discharge Valve V10/F40 For 5-50L model use

Shaft Seal 25x35x7 For 5L and below model use

50x70x10 For 10L and above model use

O-rings Order according to model

Vacuum Pipe Ø8/Ø15 For vacuum connection use

Flask Unload Handler Optional

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Reactor

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eous Emulsification
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Emulsification Reactor

 Vacuum Filter / Glass
Liquid Separator

 Photochemical
Glass Reactor

 Hydrothermal
Synthesis Reactor

 High Pressure
Reactor

Complementary Products

Except for rotary evaporator, TOPTION also offers **relevant products to meet users' needs at one-stop.**
Our value: Sharing & win-win, **customer success**, be thankful, keep growing, innovation and responsible.



Accurate
& Efficient



You may often meet the below problems when operate rotary evaporator:

1. Low receiving rate while evaporating is good.
2. Vacuum pump being corroded.
3. Harmful gas escaping.
4. Sudden solvent bumping.

Rotary evaporator system vacuum degree is higher than normal is the possible reason. If vacuum degree is too high, will cause solvent steam temperature is too low so couldn't be collected efficiently. Release vacuum is need, but other problems will happen if vacuum degree is too low.

To avoid these problems, you need to equip vacuum controller and low temperature cooling circulator for your rotary evaporators, so as to be able to hold at a proper vacuum rate and condensing temperature for an efficient, stable and safe operation.

Vacuum Pump



SHB-III



2XZ



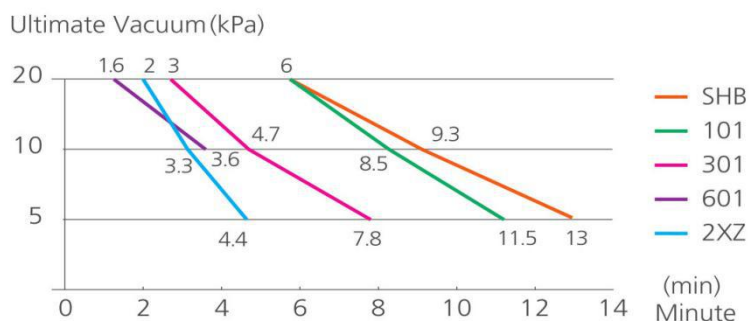
SHB-B95



MPC301z

Complementary Products - Vacuum Pump

Pump Performances on 20L Rotary Evaporator



Note:

Vacuum pressure unit conversion:
1 hPa = 1 mbar = 0.75 Torr / 0.75 mmHg.

Model	SHB-III	SHB-B95	2XZ-2	MPC101z	MPC301z	MPC601e
Type	Water Circulation Vacuum Pump	Water Jet Vacuum Pump	Vane Pump	Diaphragm Pump		
Fit For Rotary Evaporator	2L-10L	20L-50L	20L-50L	2L-10L	20L-50L	20L-50L
Ultimate Vacuum Rate	2.6kPa (26mbar /20torr)	0.098MPa	6.7 * 10 ⁻² Pa	800Pa (8mbar / 6 torr)	800Pa (8mbar / 6 torr)	7.5kPa (75mbar / 52 torr)
Flow Rate	10L/min * 2	80L/min	120L/min	16L/min	38L/min	63L/min
Power	220V 180W	220V 370W	220V 370W	220V 60W	220V 180W	220V 180W
Dimensions	39 * 32 * 45H	450*350*820H	49 * 15 * 28H	28 * 42 * 24H	48 * 33 * 30H	49 * 33 * 30H
Features	Simple maintenance, can resist certain corrosion, no use in explosive/flammable air	Be suitable for the research experiment, small scale test and small scale production process.	High vacuum rate, fast pumping speed, not for pumping of corrosive gas or quantity of steam.	High vacuum rate, anti-corrosion, little maintenance job, not for pumping of gas with powder or grain.		
Remarks	S.S pump, two pump nozzles with vacuum meters	Static electricity spray and SS304 materials Of machine casing.	The model is made by TOPTION.	The models are dealt by TOPTION, made in Germany.		

Vacuum Controller

Used for set, display and control vacuum rate in target system, esp. in processes of separating, condensing of low boiling temperature solution. Solvent receiving rate raise to 99% even for low boiling temperature solvent.

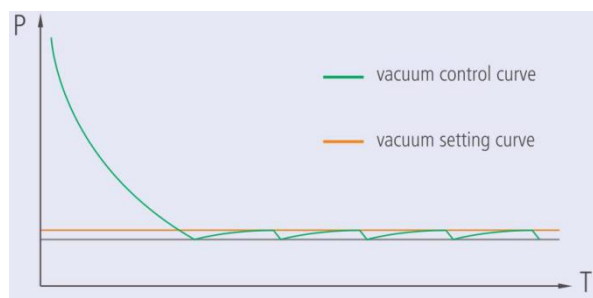
- Built-in electromagnetic valve.
- Equips in control power port for vacuum pump.
- With buffer bottle and filter bottle for protection.



Complementary Products - Vacuum Controller

Model	VC100B
Measure Range	0-105kPa
Set Range	2.0~90kPa
Resolution	0.1kPa
Load Capacity	220V, 370W
Power	220V, 50/60Hz
Dimensions (cm)	34*16*39H
Note: not for pumping of gas with powder or grain.	

Control Characteristic



Cooling Circulator

Providing cooling circulation liquid for Rotary Evaporators and Reactors. Has big cooling capacity customization and is compatible with TOPTION instruments.


DL-2005

LX-0250

LX-0400
LX-0700
LX-1450

Model	DL-2005	LX-0250	LX-0400	LX-0700	LX-1450
Temp. Set Range (°C)	-20°C~RT	-20°C~RT	-20°C~RT	-25°C~RT	-25°C~RT
Cooling Capacity (W)	200-1000 (700W @ 10°C)	350-2300 (1500W @ 10°C)	600-4500 (3500W @ 10°C)	1500-4000	5000-10000
Flow Rate (L/min)	10	10	20	35	50
Bath Capacity (L)	4	15	25	30	45
Lift Head (m)	3	6	10	15	15
Power	220V, 50Hz	220V, 50Hz	220V, 50Hz	220V, 50Hz	380V, 50HZ
Fit For Rotary Evaporator	≤ 5L	10L 20L	20L 30L 50L	20L 30L 50L	20L 30L 50L
Safety Features					
Over-current Protection	Have				
Compressor over-temp. protection	Have				
Note: Cooling capacity is measured under room temperature 25°C.					