

# Molecular Distillation Equipment



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## Rotary Evaporator(Lab scale)



YRE-201D



YRE-301D



YRE-501D

Item No.	YRE-201D	YRE-301D	YRE-501D
Rotary flask(L)	2	3	5
Rotating speed(rpm)	0~90	0~90	0~90
Heating power(W)	1.5KW	2KW	2KW
Evaporating Rate(L/hr)	1.2L/hr	1.8L/hr	1.8L/hr
Lift method	Manual	Manual	Manual
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V	110V/220V	110V/220V

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## Rotary Evaporator(Lab scale)



YRE-2000E



YRE-3000E



YRE-5000E

Item No.	YRE-2000E	YRE-3000E	YRE-5000E
Rotary flask(L)	2	3	5
Rotating speed(rpm)	0~200	0~200	0~200
Heating power(W)	1.2KW	1.5KW	1.5KW
Evaporating Rate(L/hr)	1.2L/hr	1.8L/hr	1.8L/hr
Lift method	Automatic	Automatic	Automatic
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V	110V/220V	110V/220V

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## Rotary Evaporator(Pilot scale 10~100L) Optional: explosion proof



Electric lift



Turnkey Solution;  
set(Chiller+vacuum pump+rotary evaporator)

Item No.	YRE-2010Z	YRE-2020Z	YRE-2050Z
Rotary flask(L)	10	20	10
Rotating motor(rpm&W)	0~120RPM/120W	0~120RPM/120W	0~120RPM/370W
Heating power(W)	5KW	5KW	8KW
Evaporating Rate(L/hr)	7L/hr	7L/hr	9L/hr
Lift method	Electric lift	Electric lift	Electric lift
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V/380V customized	110V/220V/380V customized	110V/220V/380V customized

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## Rotary Evaporator(Pilot scale 10~100L) Optional: explosion proof



Manual  
lifting



Turnkey Solution;  
set(Chiller+vacuum  
pump+rotary  
evaporator)

Item No.	YRE-2010A	YRE-2020A	YRE-2050A
Rotary flask(L)	10	20	50
Rotating motor(rpm&W)	0~120RPM/90W	0~120RPM/120W	0~120RPM/180W
Heating power(W)	3KW	5KW	8KW
Evaporating Rate(L/hr)	6L/hr	6.5L/hr	8L/hr
Lift method	Manual	Manual	Manual
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V/380V customized	110V/220V/380V customized	110V/220V/380V customized

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## Glass Reactor(Lab scale)Optional:explosion proof



YYSFT-1-5L



YSF-1-5L

Item No.	YYSFT1-5	YSF-1-5	YSF-1-5
Vessel Capacity(L)	1,2,3,5L	1,2,3,5L	1,2,3,5L
Rotating speed(rpm)	0~600	0~600	0~650
Temp.range(°C)	-80°C~+250°C	-80°C~+250°C	-80°C~+250°C
Heating power(W)	40/90	40/90	40/90
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V	110V/220V	110V/220V



YSF series

Item No.	YSF-10L	YSF-20L	YSF-50L
Vessel Capacity(L)	10L	20L	50L
Jacketed layer capacity	3L	6L	16L
Rotating speed(rpm)	0~800	0~800	0~800
Temp.range(°C)	-80°C~+250°C	-80°C~+250°C	-80°C~+250°C
Rated power(w)	300	300	300
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V	110V/220V	110V/220V
Item No.	YSF-100L	YSF-150L	YSF-200L
Vessel Capacity(L)	100L	150L	200L
Jacketed layer capacity	30L	50L	60L
Rotating speed(rpm)	0~800	0~650	0~650
Temp.range(°C)	-80°C~+250°C	-80°C~+250°C	-80°C~+250°C
Rated power(w)	300	400	400
Vacuum degree	0.098Mpa	0.098Mpa	0.098Mpa
Power supply	110V/220V	110V/220V	110V/220V

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## Stainless Steel Reactor (Optional:explosion proof)



YH series



Item No.	YHSS-50L	YHSS- 100L	YHSS-200L
Vessel Capacity(L)	50L	100L	200L
Item No.	YHSS-300L	YHSS- 500L	YHSS-1000L
Vessel Capacity(L)	300L	500L	1000L



Short-path  
distillation

Thin Film  
Evaporator

Wiped film  
distillation

Distillation  
columns

# Short-path distillation



Short-path distillation can be widely used in all aspects of the national economy, especially suitable for the separation of high boiling point, heat sensitive and easily oxidized materials. Nowadays, the short path distillation has been applied in the following fields successfully.

## Technical Data

Product name		Short path distillation kits			
Model		DCZ-2	DCZ-5	DCZ-10	DCZ-20
Material		Borosilicate Glass 3.3			
Heating Temperature		Ambient to 350°C			
Working Pressure		Around 5 Pa			
Distillation Vessel	Capacity(L)	2	5	10	20
Receiving Flask	Volume(L)(customized)	2*1L	2*1L	1*2L+1*1L	1*2L+1*1L
Cold Trap	Dry Ice Volume(L)	1 L			
Heating Mantle	Heating Power (w)	730	1100	2100	3000
	Stir Speed (RPM)	50-1800rpm,digital display			
	Motor Power (w)	40W			
Vacuum pump	Pumping Type	2XZ-2		2XZ-4	
Cooling Circulator	Cooling Temperature	-20°C~99°C			
General	Voltage	220V 50/60HZ or 110V 60HZ, Single Phase			

## Product Structure



1. Micro vertical spine distiller 2. Flask clamp 3. SS304 Bracket  
4. Distillation vessel 5. Heating mantle/ time/ heating/ stirrer  
6. Lifting platform 7. Receiving flask 8. Code trap

# Thin Film Evaporator



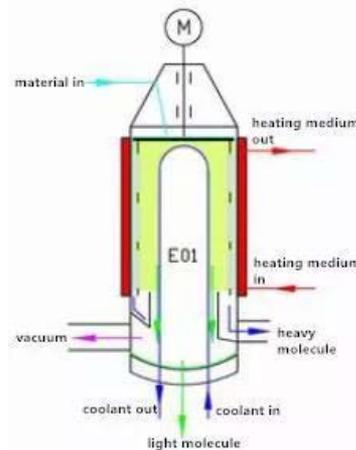
YHMD

Thin film evaporator is a new style molecular distillation equipment that made by glass and stainless steel. It combines the advantages of glass wiped film evaporator and stainless steel molecular distillation, such as process visibility, durable in use, high evaporator rate and so forth

## Principle of molecular distillation process



YHSS



## Available Glassware Design Units

<b>A</b> Basic Extra Cold Trap, dry ice and liquid nitrogen are available. A		<b>B</b> Efficient Extra condenser, well worked with chiller, to realize the wide temperature range.	
<b>C</b> Luxury Extra cold trap and condenser combination. Achieve to many more materials demand.		<b>D</b> Best Luxury Double extra condenser, to realize the wide temperature range.	

# Wiped film distillation



## A

Basic

Extra Cold Trap, dry ice and liquid nitrogen are available A



## B

Efficient

Extra condenser, will worked with chiller, to realize the wide temper-ature range



## C

Luxury

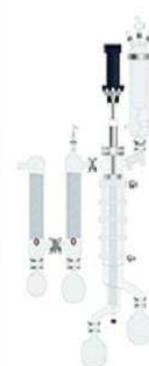
Extra cold trap and condenser combination; Achieve to many more materials demand.



## D

Best Luxury

Double extra condenser, to realize the wide temperature range.



**Wiped film distillation/molecular distillation** is a special liquid-liquid separation technology, which is different from the traditional distillation based on the separation principle of material boiling point difference, but based on the difference in the mean free path of molecular motion of each material in the mixture to achieve separation. According to the principle of the mean free path of molecular motion.

# Distillation columns



A distillation column is an essential item used in the distillation of liquid mixtures to separate the mixture into its component parts, or fractions, based on the differences in volatilities. Fractionating columns are used in small scale laboratory distillations as well as large scale industrial distillations

There are many types of distillation columns, each designed to perform specific types of separations, and each design differs in terms of complexity

## Batch Columns

In batch operation, the feed to the column is introduced batch-wise. That is, the column is charged with a 'batch' and then the distillation process is carried out. When the desired task is achieved, a next batch of feed is introduced

## Continuous Columns

In contrast, continuous columns process a continuous feed stream. No interruptions occur unless there is a problem with the column or surrounding process units. They are capable of handling high throughputs and are the most common of the two types. We shall concentrate only on this class of columns



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## Recirculating Heater



Recirculating Heater is a hermetic heating circulation pump, a type of multifunctional device which own heating function to provide constant temperature for chemical experiment. The integrated heating circulator has been widely used in medical, chemical and biological industries. It usually be combine with jacketed glass reactor, Centrifuge extraction,fermentation tank, crystallizing tank,synthetic vessel etc

GDZ series

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## Cooling and Heating Machine

### Hermetic Refrigerated Heating Circulator

- LCD Display
- Cooling
- Heating
- Circulation



Temperature control Cooling and Heating Machine is a hermetic refrigerated heating circulation pump, a type of multifunctional device which own heating and cooling function to provide constant temperature for chemical experiment. The integrated refrigerating and heating circulator has been widely used in medical, chemical and biological industries. The refrigerating and heating circulator has two systems: cooling system and heating system. These two systems can work together or independently. It usually be combine with jacketed glass reactor, Centrifuge extraction,fermentation tank, crystallizing tank,synthetic vessel etc

GDSZ series



**Recirculating Chiller**, as a cryogenic liquid circulating device, energized by mechanical cooling, is mainly used for providing cryogenic liquid and low temperature water bath.

**Combined with rotary evaporator**, circulating water vacuum pump, vacuum freeze drying box, magnetic stirrer and other instruments, multi-functional chemical reaction operation and drug storage at low temperature were carried out.

### parameters

Model		DLSB-200/80	DLSB-300/80	
Technical data	Temperature range	-80~RT;±1 °C		
	Ambient temperature(°C)	≤30°C		
	Ambient humidity	60%		
	Voltage(V)	220/380/460		
	Phase(P)	10	13.3	
	Frequency(Hz)	50/60 universal		
	Power(Kw)	16	20	
	Cooling capacity(w)	25°C	N/A	N/A
		5°C	29610	32479
		0°C	24950	27232
		-10°C	N/A	N/A
		-30°C	N/A	N/A
		-40°C	10565	13549
-60°C		7623	7663	
	-80°C	1701	2678	
Temperature sensor	PT100			
Protection	Over voltage, time delay, over current, overheating, leakage, protector			
	*PLC for optional PLC part data, it is not applicable if there is no PLC			