

**LAB1ST**

# Glass Wiped Film Evaporator

/ LAB1ST Scientific Instruments



**LAB1ST**

/ Laboratory and Processing Equipment

Labfirst Scientific Instruments (Shanghai) Co., Ltd

☎ +86-13524020331 (China)

+1-844-452-2178 (USA)

✉ sales@lab1st.com

🌐 www.lab1st.com

📘 lab1st

📷 lab1st\_extraction

## Glass Wiped ( thin) Film Evaporator

Wiped film evaporator is widely used for concentration, distilling, stripping, dehydration and deodorisation of products which are heat sensitive or viscous.

There is a rotating wiper with 45 degree chute on the strip to distribute the crude product to a thin film on the inner surface of a heated column. The wiping system speeds up the evaporation process by keeping the product film turbulent so that the heat transfer and mass transfer are optimized.

The unit are equipped with heating/cooling circulators and vacuum pumps to make its function perfect.

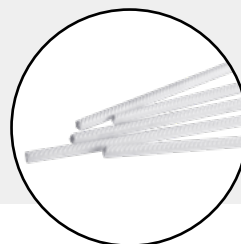
### Application

#### Under Low vacuum

It can remove solvent  
(alcohol)

#### Under high vacuum

It can remove essential oil  
(terpenes)



45 Degree  
Chute

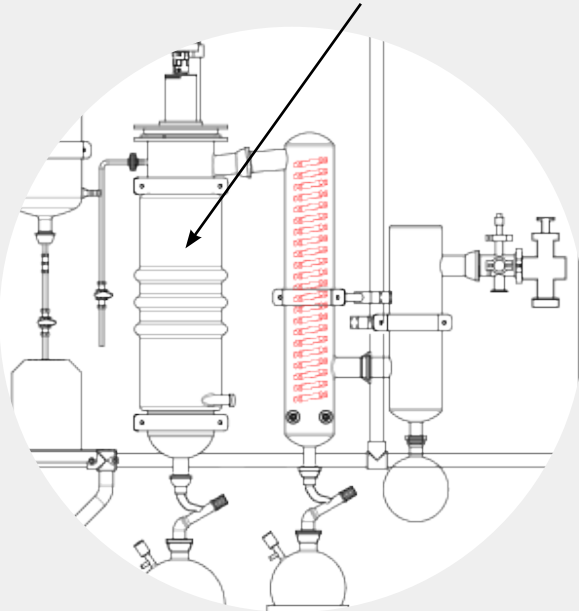


External  
Condenser



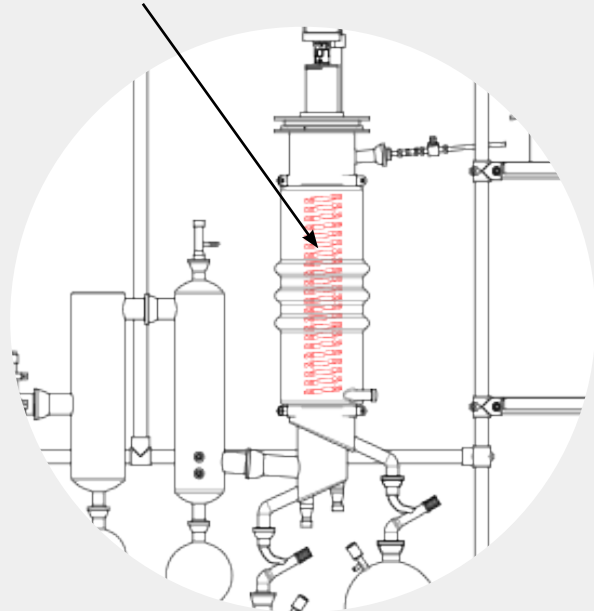
## What are the differences between GWF and GMD?

Without internal condenser



Wiped (thin) Film Evaporator  
(GWF)

With internal condenser



Molecular Distillation Machine  
(GMD)

Differences	Wiped ( thin ) film evaporator	Molecular distillation machine
Main Function	Evaporation (remove alcohol)	Distillation (purification)
Achievable Pressure	> 1m bar	> 0.01m bar
Heat Sensitivity	Wiped ( thin ) film evaporator < Molecular distillation machine	
Condenser Position	See above images	

## FEATURES

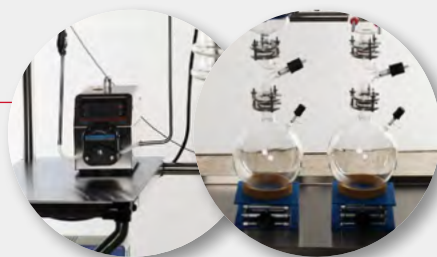
### *Well-designed Evaporator Body*

- Grease-less Magnetic Sealed Bearing :  
Gas & vacuum tight  
Consistent torque throughout entire temperature range
- Precisely designed wiper structure for high stability in long-term operation
- 45 degree chute on the strip controls short residence time



### *Continuous Feeding and Discharging*

- A peristaltic pump helps continuous feeding
- Receiving flasks with valves realizes continuous discharging
- Optional gear pump for continuous discharging without breaking vacuum



### *More Details*

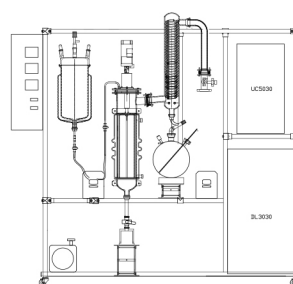
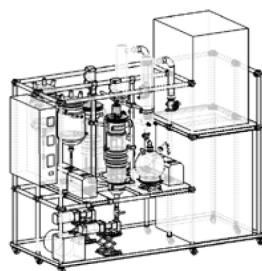
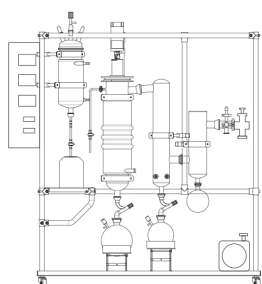
- All-in-one control panel design (vacuum display, heating tape control, motor control)
- High borosilicate glass to observe evaporation process
- Grease free high vacuum joints capable of as low as 0.1 Pa
- Equipped with coil cooling and Dewar cold trap for more versatile application
- UL Standard (Optional)



## TECHNICAL DATA

Model	GWF-100	GWF-150	GWF-200
<b>Technical Data</b>			
Design Temperature   Pressure	≤250°C   <10Pa		
Ethanol Evaporation Rate [L/h]	6	10	14
<b>Feeding Tank</b>			
Volume [L]	2	3	5
Feeding Pump	Peristaltic pump   Gear pump		
Feeding Speed [L/h]	0.75~15	1.25~25	1.75~35
<b>Evaporator</b>			
Film Forming Type	Scraper	Scraper	Scraper
Material	High borosilicate glass		
Evaporation Area [m <sup>2</sup> ]	0.1	0.25	0.35
Seal Type	Magnetic seal	Magnetic seal	Magnetic seal
Agitation Motor [Kw]	0.12	0.12	0.12
Motor Type	Frequency control		
<b>Condenser</b>			
Condenser Type	Cold Trap+Stainless steel cooling coil		
<b>Collection</b>			
Type	Glass flask	Glass flask	Glass flask
Flask Volume [L]	2	3	5
<b>Weight   Dimension</b>			
Unit Weight [Kg]	360	400	800
Unit Dimension [mm]	2120x1740x628	2270x1940x628	2420x2040x628

*Multiple Options, Flexible Customization...*



... ..

# TURNKEY SOLUTION



Heating Circulator  
for Evaporator Body



Cooling Circulator  
for Condenser



Heating Circulator  
for Feeding Flask



Vacuum Pump



Peristaltic Pump



/ Laboratory and Processing Equipment

Labfirst Scientific Instruments (Shanghai) Co., Ltd

+86-13524020331 (China)

www.lab1st.com

+1-844-452-2178 (USA)

lab1st

sales@lab1st.com

lab1st\_extraction