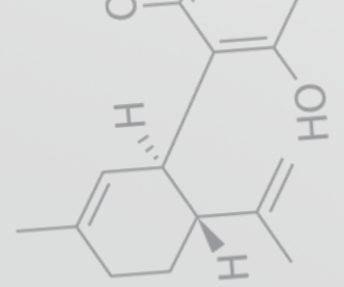
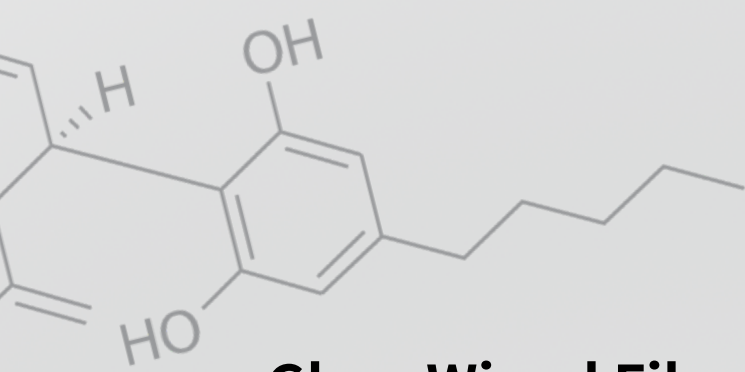




CANNABIS DISTILLATION EQUIPMENT [/SCIENTIFIC INSTRUMENTS](#)

**TAKE YOUR PROCESS TO THE
NEXT LEVEL**



Glass Wiped Film Still-CBD Distillation

Molecular (short-path) distillation is the best thermal separation method for heat-sensitive material because it is the gentlest type, causing the least amount of thermal degradation of product. Our wiped film evaporator system are widely used for cannabis/hemp, garlic oil, cod liver oil and chemical and pharmaceutical industries. Shorter residence time, lower separation temperature, capability of continuous and unattended operation makes LAB1ST molecular (short-path) distillation system standing out.





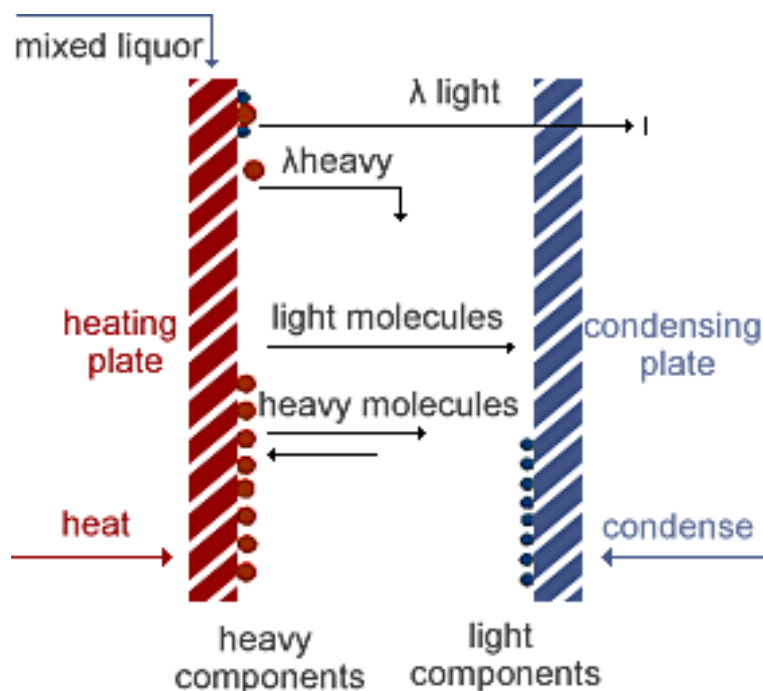
« How it works

Material is delivered from a feed flask into a cylindrical evaporation section, having heating, on the outside, (either electric resistance or circulating hot fluid jacket type), and a diagonally slotted wiper mechanism forcing liquid around and downward in a thin film on the inside.

In the center of the body is a closely positioned internal condenser, providing a short path for vapor molecules traveling from the heated surface to the condenser surface. For cannabinoids, the internal condenser fluid must be kept elevated ($\sim 70^{\circ}\text{C}$) to prevent high viscosity or freeze up of THC, CBD and related components.

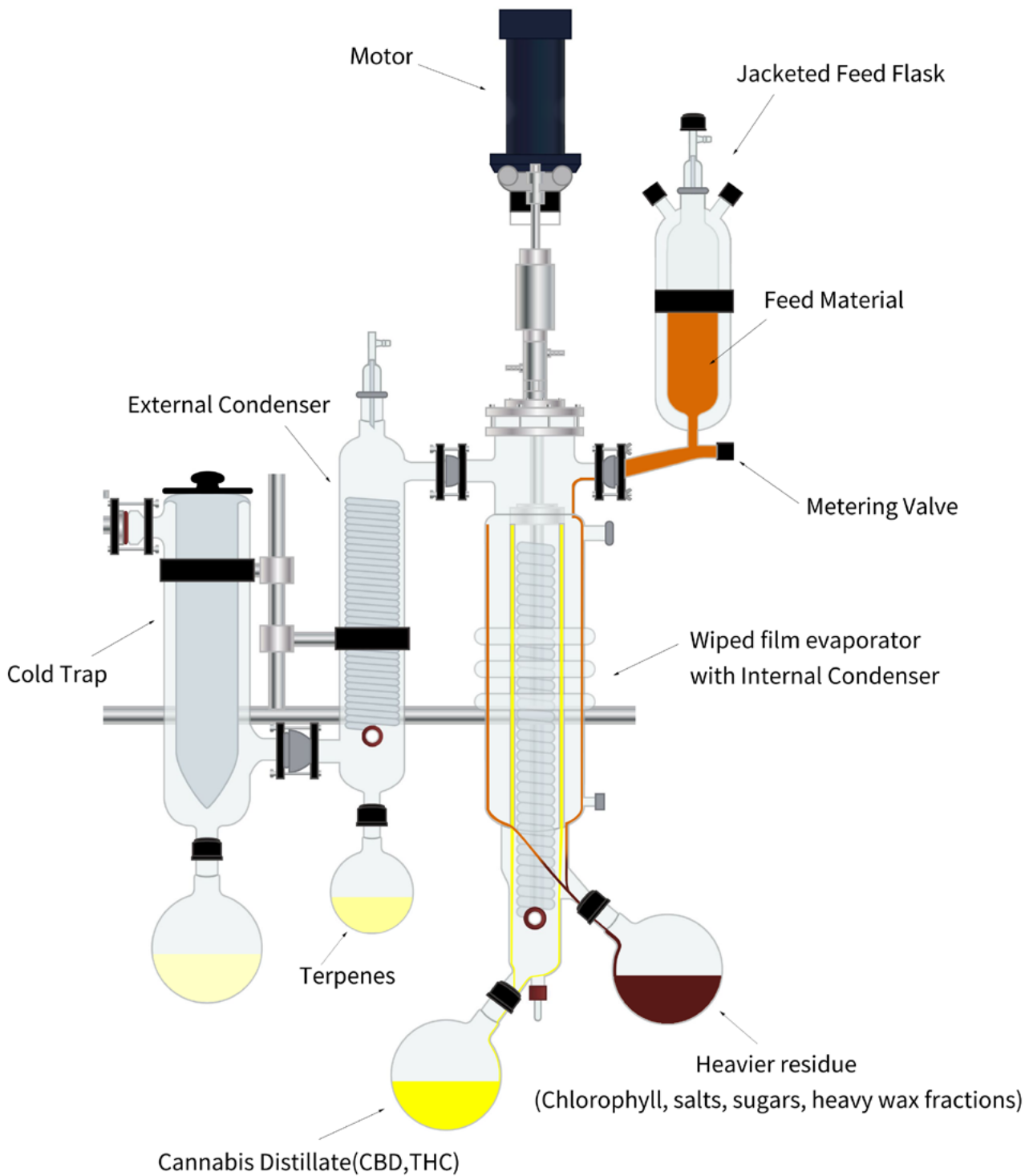
During the journey downward, lighter (lower boiling point) fractions of the liquid begin to vaporize, move to the internal condenser and condense, falling down as a liquid into a well that captures and separates the distilled liquid (cannabinoid) which flows into a receiver flask.

Heavier residue material (Chlorophyll, salts, sugars, heavy wax fractions) does not evaporate and instead travels the length of the still body and flows into a different receiver flask.



Principle Diagram of the Molecular Distillation

Technical Structure >>





Technical Data

Model	GMD-100	GMD-150	GMD-200
Feeding Rate (L/h)	0.75~7.5	1.25~12.5	1.75~17.5
*CBD Throughput (L/h)	0.5~3	2.5~5	3.5~7
Evaporation Area (m ²)	0.1	0.25	0.35
System Vacuum (Pa)	≤0.1Pa (No Load)		
Agitate Motor Speed (rpm)	≤400		
Material (Wet Part)	High Borosilicate Glass, PTFE, SUS316L		
Seal Gasket Standard	Food grade fluororubber (options: PTFE)		
Certification	CE (option: UL, ATEX...)		
Wiper Type	Centrifugal scraper (PTFE)		
Agitator Drive	Magnetically coupled drive		
External Condenser	Optional		
External Cold Trap	√		
Feeding Tank (L)	2	3	5
Feeding Pump	Peristaltic pump (options: gear pump)		
Heat Preservation	Feeding and discharging: Heating tape +PT100		
Holding Temperature (C°)	RT~100°C		
Receiving Flask	1L、2L	3L、5L	3L、5L
*Vacuum Pump Type	Air cooled diffusion pump,80L/s		
Power	220,1P (customizable)		

- *1. Due to different material properties, the throughput will fluctuate, please subject to test results;
*2. Diffusion pump can only be used as a second stage vacuum pump with a first-stage pump.





« Technical Data

Specific Model	GMD-100A	GMD-150A	GMD-200A
Installation Dimension (mm)	1500*628*1750	1730*628*2000	1980*628*2050
Package Dimension (mm)	1900*720*2100	1980*720*2140	2040*710*2160
Package Weight (Kg)	300	340	360

Specific Model	GMD-100C	GMD-150C	GMD-200C
Installation Dimension (mm)	1600*628*1750	1950*628*2000	1980*628*2050
Package Dimension (mm)	2150*750*1960	2450*760*2200	2250*760*2200
Package Weight (Kg)	310	410	450



● GMD-150A



● GMD-150C



Making Your Own Units with 5 Options



Together we can work to design the viable unit to suit your application requirements. Besides the basic configuration the following options can be selected:

Option ① : Using a Terpenes condenser with the chiller, you can collect terpenes separately

Option ② : With one peristaltic pump, you can achieve continuous feeding

Option ③ : There are two choices for continuous collection

a. With Glass/PTFE valve for continuous collection

b. With two gear pumps to be efficient and automatic for continuous collection

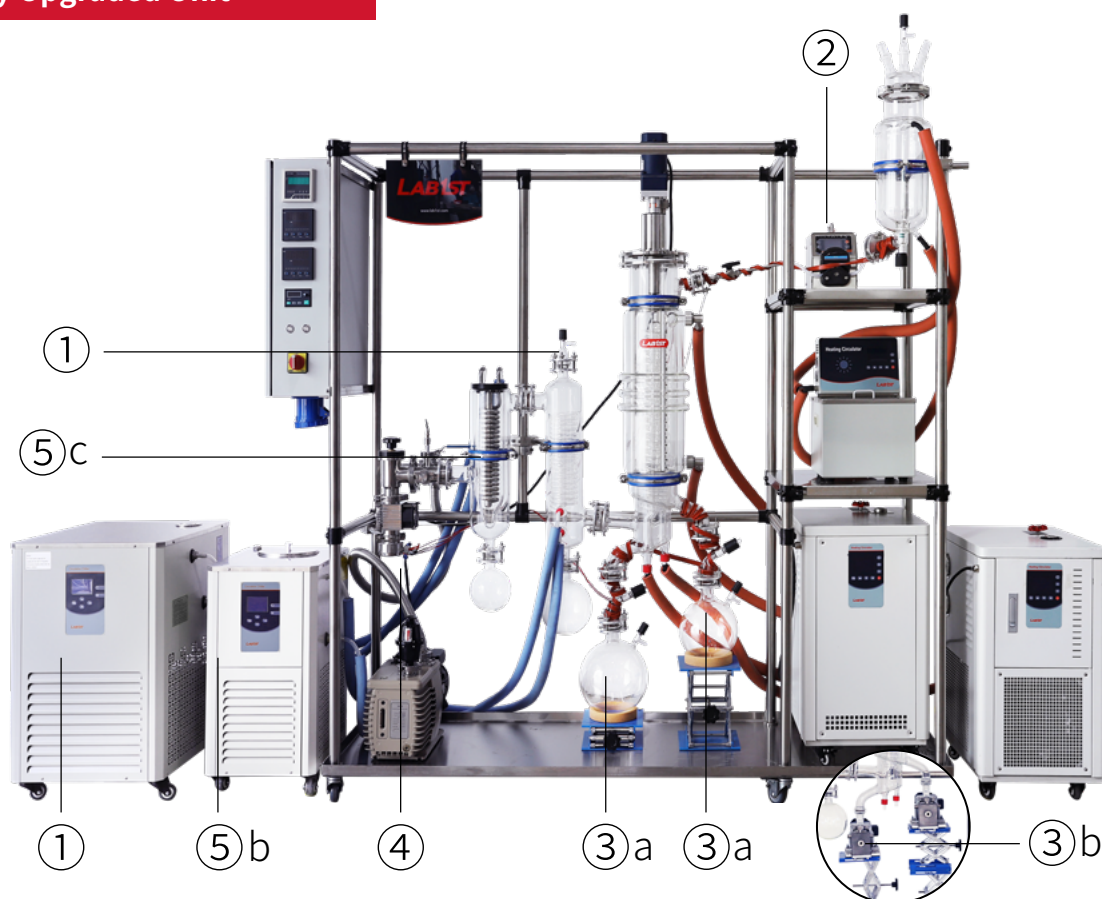
Option ④ : With a diffusion pump , system vacuum will be better

Option ⑤ : a. With a Dewar style cold trap

b. With a cooling coil cold trap and one chiller, no need to add dry ice

c. With a stainless steel cooling coil cold trap and a Dewar style cold trap

Fully Upgraded Unit





Options are flexible You can select the options based on your own need

Type A



Type C

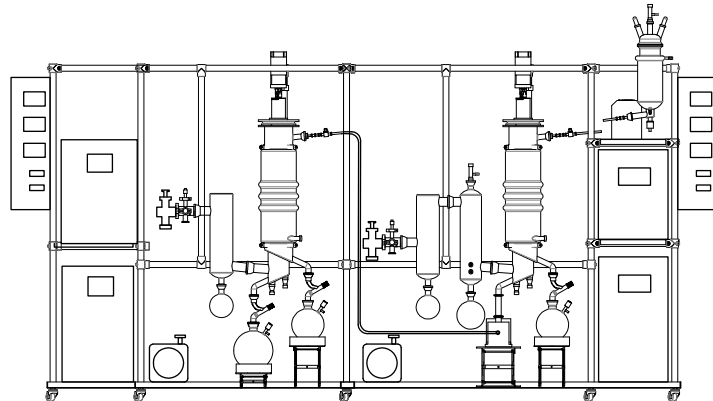


Case 1

Case 2

Case 3

Cascade Design Available



We Have A Turnkey Solution For You!



Lab1st is committed to continually meet and exceed your needs and requirements. **We offer you turnkey solution, including heating circulators, cooling circulators, vacuum pump and diffusion pump. Training is available as well.**

GX Series Heating Circulators

Function: Heating the feeding vessel

Temperature Range: RT-300°C

Heating power: 1.6kW

Electricity: 220V single phase



GX Series Heating Circulators

Function: Heating the Jacketed glass barrel

Temperature Range: RT-300°C

Heating power: 3.5kW

Electricity: 220V single phase



XT-180-10P-F Heating/cooling Circulator

Function: Heating /cooling the internal condenser

Temperature Range: -25-180°C

Power: 2.5kW

Electricity: 220V, single-phase



We Have A Turnkey Solution For You!



DL Series Cooling Circulator

Function: Cooling the Terpenes condenser

Temperature Range: -20°C -RT

Electrical Power: 800W

Electricity: 220V single phase



DL Series Cooling Circulator

Function: Cooling cold trap condenser

Temperature Range: -80°C -RT

Electrical Power: 1.6kW

Electricity: 220V, single phase



UltraVac Series Vacuum Pump +Diffusion Pump

Function: Supporting high level vacuum

Pump Rate: 15CFM

Motor Power: 0.75kW

Electricity: 220V, single phase



Peristaltic Pump

Function: Making Continuous Feeding

Pump rate: 1-720ml/min

Power: 40W

Electricity: 220V



Newly Upgraded Unit

UPGRADED
UNIT

NEW ARRIVAL

Hybrid Wiped Film Still-CBD Distillation (Glass and Stainless Steel Combined)



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