

Quality in your hands - 15 years



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**ONE STOP MOLECULAR DISTILLATION SOLUTION**

- Quality Manufacturing 15 Years -



## TOPTION INSTRUMENT CO.,LTD

The origin of short path molecular distillation of TOPTION INSTRUMENT Co., Ltd., traced back to China weapons industry 204 research institute in 1995, who introduced 3 sets wiped film evaporators & molecular distillation equipments from abroad.

In 2004, a group of professional & powerful chemical engineers, combining their more than 20 years practical experience of famous foreign brand equipment, design & develop TOPTION brand stainless steel molecular distillation equipment. After nearly 15 years of use and technical exchanges with domestic research institute users, TOPTION this engineers team not only makes TOPTION have mature equipment R&D production process, also obtained a number of patents.

In 2012, TOPTION finally opened the door of world, stainless steel molecular distillation equipment rapidly wide used & praised in USA, Canada, Germany, Poland, Spain, etc. Nearly years accumulation & development, TOPTION brand stainless steel molecular distillation equipment has occupied more than 85% of the market share in the cannabis industry.

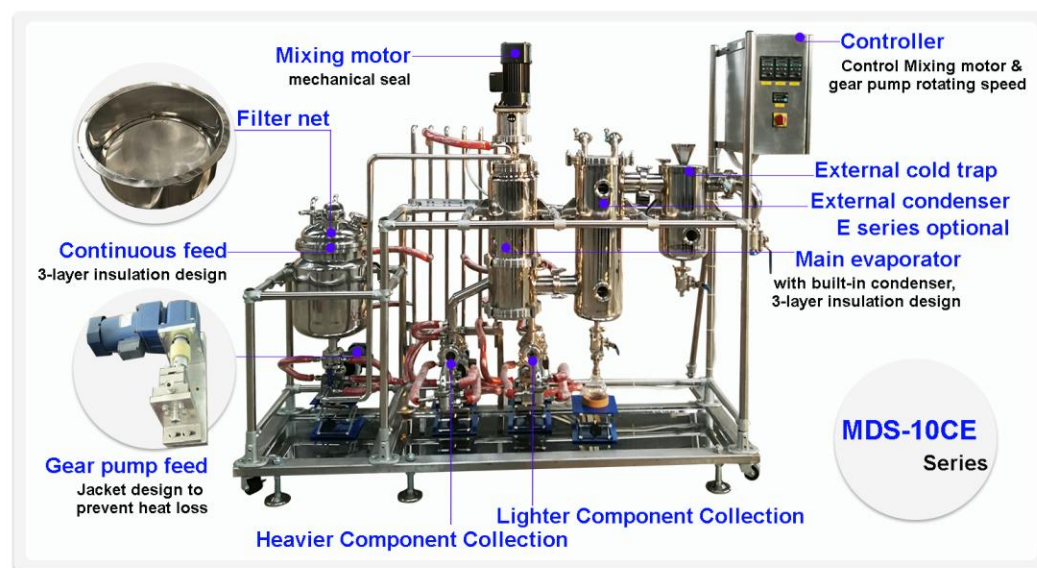


## Molecular Distillation Equipment

Short path (molecular) distillation system is considered as the safest mode of separation and to purify the thermally unstable molecules & related compounds with low volatility & elevated boiling point. In the high vacuum environment, molecular distillation has the advantages of low distillation temperature, short heating time and rapid separation.

**A complete molecular distillation plant should include:**

Short path evaporator	Heating system (RT-200°C or RT-300°C)
Material charging system	Cooling system ( -20°C or 180°C)
Material collection unit	Vacuum system (0.05pa / 1pa / 10pa)



• Heating System & Cooling System





## Molecular Distillation Equipment

- Vacuum System - ultimate vacuum 10Pa, 1Pa, 0.05Pa



Oil Pump - ultimate vacuum 10Pa



Roots Pump Set - ultimate vacuum 1Pa



High Vacuum Molecular Pump  
- ultimate vacuum 0.05Pa



Model	Evaporator Area(m <sup>2</sup> )	Internal Condenser Area (m <sup>2</sup> )	Capacity (L/h)	Mixing Power (W)	Motor (W)	Liquid Nitrogen Cold Trap
MDS-6	0.06	0.10	1-3	200W		1L
MDS-10	0.10	0.15	5-12	370W		3L
MDS-20	0.20	0.40	10-25	370W		3L
MDS-30	0.30	0.50	18-30	550W		3L
MDS-50	0.50	2.00	20-60	1500W		5L
MDS-100	1.00	3.00	50-100	3000W		5L
MDS-150	1.50	4.00	75-150	3000W		5L
MDS-200	2.00	5.00	100-200	3000W		5L

## Technical Parameters

- “A” Series – Pressure differential feeding method.
- “B” Series – High precision gear pump feeding mode.
- “C” Series – High precision gear pump feeding & discharging.
- “E” Series Optional – External condenser.



“A” Series

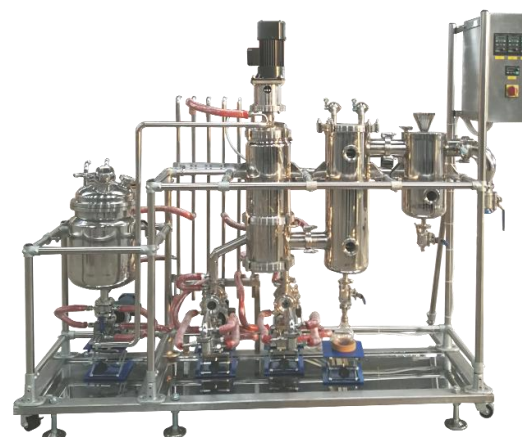
- Jacketed Material Feeding Tank.
- Feeding Type: Differential Pressure PTFE Valve.
- Collection Type: Glass Flask

“B” Series

- Jacketed Stainless Steel Material Feeding Tank.
- Gear Pump Material Feeding Type.
- Glass Flask Collection Type.



“C” (E) Series



- Jacketed Stainless Steel Material Feeding Tank.
- Gear Pump Material Feeding Type.
- Gear Pump Collection Type.

## Molecular Distillation Equipment



**MDS-10CE**



**MDS-20CE**  
(1pa vacuum system)



**2-stages 20C**  
(customized system)



**2-stages 200C system**



**2-stages 300C system**

### Application of molecular distillation equipment

Molecular distillation is applied for creating a high value clear distillate from Plant Oil Concentrates, such as refine cannabis and hemp concentrates into a golden clear distillate that can be infused into a variety of edible products or fine oils to be used in vape cartridges or other products.



## ONE STOP SOLUTION

Choose TOPTION to maximize your results. We believe, TOPTION will be your TOP OPTION.

**15 Years**

Quality Manufacturing

**24 Years**

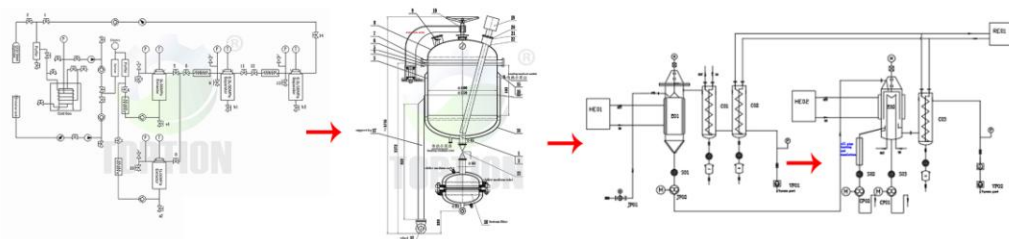
Experience Chemical  
Engineers Team

**85%**

Market Share  
In Cannabis Industry

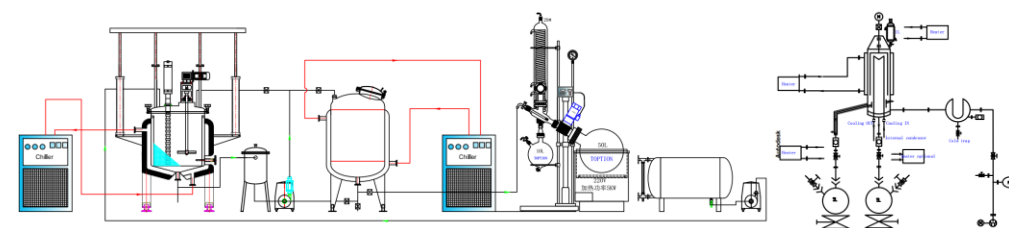
### 1. Supercritical Extraction

Supercritical extraction – dewaxing filtration system – concentration ( suggest use scraped film equipment / rotary evaporator ) – molecular distillation system



### 2. Solvent Extraction Method – Ultrasonic Extraction

Ultrasonic extraction – Multi union bag-type filter - Alcohol recovery – Scraper concentration / rotary evaporator concentration – molecular distillation system





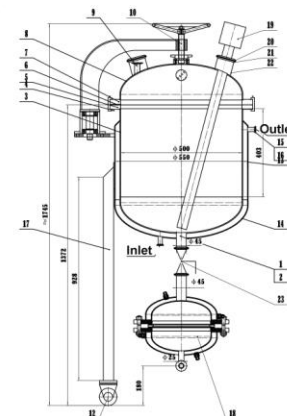
## Wiped Film Evaporator – Solvent Removing High Efficient Type



Model	Evaporator Area(m²)	Height (mm)	Capacity (L/H)
PWFS -0.1	0.1	1200	2-10
PWFS -0.2	0.2	1580	10-20
PWFS -0.3	0.3	1980	15-30
PWFS -0.5	0.5	2750	20-50
PWFS -1.0	1.0	3350	50-100
PWFS -2.0	2.0	4320	100-200
PWFS -3.0	3.0	5100	100-300
PWFS -4.0	4.0	5600	120-350
PWFS -5.0	5.0	6000	150-405
PWFS -6.0	6.0	6500	180-550
PWFS -8.0	8.0	7230	250-750
PWFS -10	10	7350	300-950

## Dewaxing Filtration Apparatus

Add reagents to melt CBD extract under high temperature, switch to low-temperature condition by temp. control equipment, to make a large amount of wax crystal precipitation. CBD oil is clear liquid oil, and then the CBD mixed cannabis oil is obtained through "pressure filtration".



### Advantages

- Integrated design of dissolution, crystallization and filtration, save space & convenient operation.
- Use "insert pump", mix more evenly and extract CBD cleaner liquid more thoroughly.
- Pressure filtration is more thorough and does not waste CBD mixture.
- Provide good sample source to improve the production efficiency of back-end equipment.

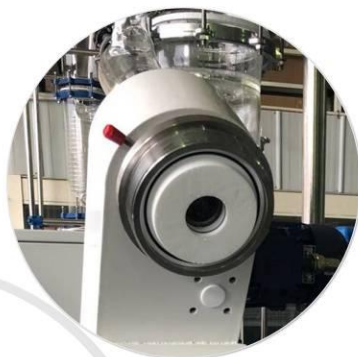
## Rotary Evaporator - Solvent Removing Economical Type



## ONE STOP SOLUTION

**Rotary evaporator** is mainly used in pharmaceutical, chemistry and bio-pharmaceuticals industries, for concentration, crystallization, drying, separation and solvent recovery. Especially suitable for the biological products concentration and purification which is easy to decompose deformation under high temperature.

100L



100L Evaporation Flask  
Hydraulic Lifting



50L glass collection flask \* 1pcs

10L glass collection flask \* 1pcs



## ONE STOP SOLUTION

Model	Rotating bottle capacity (L)	Collecting bottle capacity (L)	Temp. range (°C)	Lifting method	Heating power
RE-52AA	0.5L	0.5L	RT-99±0.2	Electric lift	1.1KW
RE-2000A	2L	1L	RT-99±0.2	Electric lift	1.5KW
RE-5000A	5L	3L	RT-99±0.2	Electric lift	2.2KW
RE-5210A	10L	5L	RT-99 (170) ±0.2	Electric lift	3KW
RE-5220A	20L	10L + 3L	RT-99 (170) ±0.2	Electric lift	5KW
RE-5230A	30L	10L + 10L	RT-99 (170) ±0.2	Electric lift	5KW
RE-5250A	50L	20L + 10L	RT-99(170) ±0.2	Electric lift	7KW
RE-52100A	100L	50L+10L	RT-99 (170)±0.2	Electric lift	16KW



Believe TOPTION will be your TOP OPTION.

- Professional Customize.
- Global OEM.
- Welcome visit factory to negotiate.