

# Molecular Distillation

Effective evaporation area (m<sup>2</sup>) : 0.06 – 6.5  
Customized Services Are Available



**Glass Molecular Distillation**

Effective evaporation area (m<sup>2</sup>)  
: 0.06 – 0.5



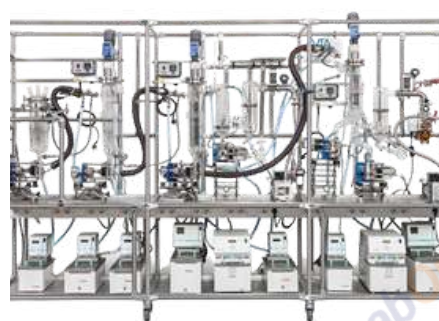
**Stainless Steel Molecular Distillation**

Effective evaporation area (m<sup>2</sup>)  
: 0.17 – 6.5



**Hybrid Molecular Distillation**

Effective evaporation area (m<sup>2</sup>)  
: 0.25 – 0.35



**Multi-stage Molecular Distillation**

Customized Services Available

## Glass Molecular Distillation



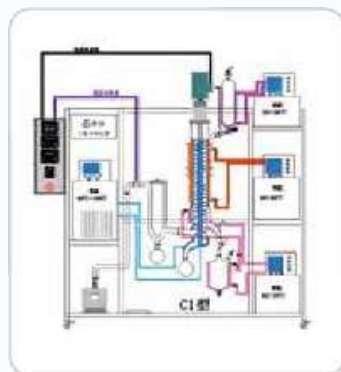
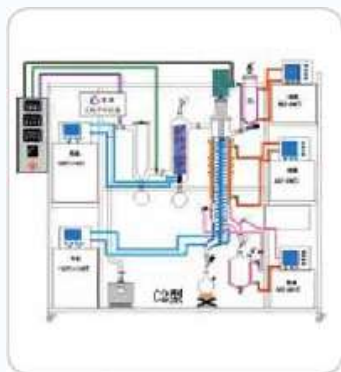
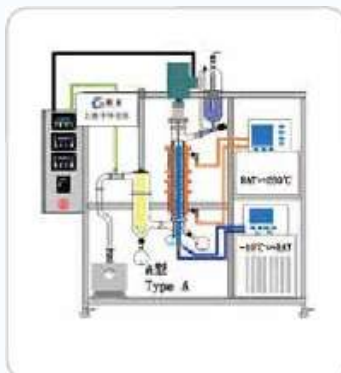
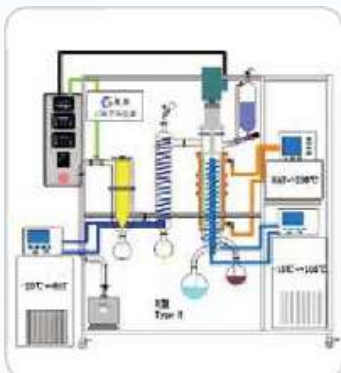
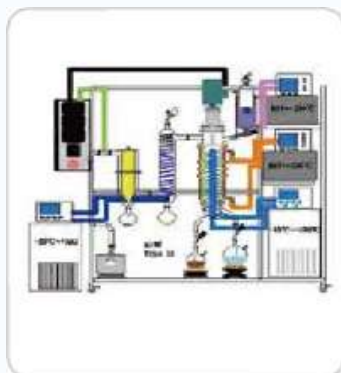
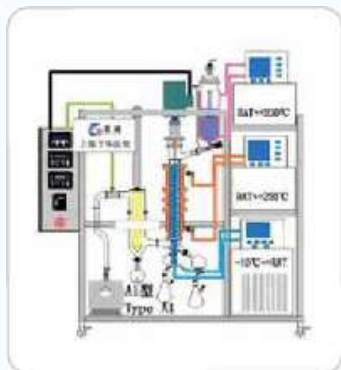
### Features

- ★ High evaporation efficiency, can reduce retention time, with minimum time delay
- ★ Molecular distillation system is composed of high borosilicate glass 3.3, 316L stainless steel and PTFE, with good heat resistance and corrosion resistance
- ★ The main body of molecular distillation system is made of high borosilicate glass 3.3, which can well observe the operation process of the whole process
- ★ High precision distillation cylinder body, so that the liquid on the heating surface to form a complete integrated film. The inner wall of the barrel body is smooth and clean, not easy to stick and scale
- ★ German brand frequency conversion deceleration motor, safe and reliable operation; With self-cooling fan, can work continuously for a long time
- ★ The drive rod of the driving motor does not need to pass through the sealing surface of the main distiller, and the magnetic drive system makes the whole machine sealed. The whole molecular distillation system has good sealing performance and the lowest vacuum pressure can reach 0.001mbar
- ★ The highest temperature of the system can reach 230°C/300°C, which can achieve accurate temperature control
- ★ Maximum theoretical vacuum up to 0.05mbar or E0.001mbar(with secondary diffusion pump)
- ★ There are scraper film forming system and self-cleaning roller film forming system to choose

## Technical Parameters

Glass series	GMD-0.06	GMD-0.1	GMD-0.15	GMD-0.25	GMD-0.35	GMD-0.5
Main evaporator diameter (mm)	60	80	100	150	200	230
Effective evaporation area (m <sup>2</sup> )	0.06	0.1	0.15	0.25	0.35	0.5
Feed speed (kg/h)	0.5-3.0	1.0-5.0	2.0-8.0	3.0-15.0	5.0-20.0	8.0-30.0
Jacketed feeding Tank Size (L)	2	2	2	2	5	5
Maximum speed (r/min)	300					
Volume of light component collection bottle(L)	1	1	2	3	5	5
Volume of heavy fraction collection bottle(L)	1	1	2	3	5	5
Motor power (w)	90	120	120	120	200	200
Operating temperature	-9 °C to 220 °C					
Voltage	220V / 50Hz voltage, it also can be customized according to customer needs					

# Common Combination Device



## Stainless Steel Distillation



### Features

- ★ Modular design enables versatile configurations
- ★ Continuous feeding & collection modules save labor and time
- ★ Fully jacketed design suits various materials
- ★ Built with SUS316L stainless steel for safety
- ★ Sight glass and quick-connect design for easy cleaning
- ★ Plate heating method protects materials from oxidation
- ★ Gear pump ensures stable, long-lasting performance without air leakage

## Technical Parameters

Stainless Steel Series	SSMD -0.1	SSMD -0.15	SSMD-0.25	SSMD -0.35	SSMD -0.5	SSMD -1	SSMD -1.5	SSMD -2	SSMD-3
Condenser pipe area (m <sup>2</sup> )	0.17	0.3	0.4	0.7	1.7	2.7	3.5	4.9	6.5
Effective evaporation area (m <sup>2</sup> )	0.1	0.15	0.25	0.35	0.5	1	1.5	2	3
Feed speed (L/h)	5~12	6~15	10~25	15~30	20~60	50~120	60~180	100~200	100~300
Speed (r/min)	30~350								
Stainless steel	316/304								
Feeding mode	Automatic continuous discharge of gear pump								
Discharge mode	Gear pump can automatically feed continuously								
Operating temperature	≤350°C								
Voltage	220V / 50Hz voltage, it also can be customized according to customer needs								

## Hybrid Distillation



Hybrid molecular distillation is a specialized distillation technique that combines the advantages of both glass and stainless steel materials. This hybrid approach aims to optimize the separation and purification of substances with high boiling points, low volatility, or thermal sensitivity, while leveraging the unique properties of both materials.

## Features

- ★ All-in-one control panel enhances operational efficiency
- ★ Grease-free high vacuum joints achieve pressures as low as 0.1 Pa
- ★ A 45-degree chute controls the residence time precisely
- ★ Precision-designed wiper structure ensures long-term stability
- ★ Customized Services Are Available

## Technical Parameters

Hybrid Series	HMD-150	HMD-200
General Feeding Rate (kg/h)	1.25~12.5	1.75-17.5
Throughput – Crude Herb Oil (kg/h)	2.5~5	3.5~7
Material	Boro Glass 3.3(evaporator)/SS316L(other wet parts)/PTFE(wiper)/SS304(frame)	
Effective Evaporation Area (m <sup>2</sup> /sqft)	0.25/2.7	0.35/3.8
Evaporator Internal Diameter(mm/inch)	150/6.0	200/7.9
Feeding Funnel Volume (L)	3	5
Internal Condenser Area(m <sup>2</sup> )	0.4	0.5
Distillate Receiving Vessel Volume (L)	5	3
Residue Receiving Vessel Volume (L)	3	5
Motor Power (W)	120	
Maximum Speed (rpm)	400	
Stirrer Seal	Oil-less Magnetic, High Vacuum	
Wiper Type	Scraper	
Vacuum Gauge	Pirani Style	
Operation Temperature	Up to 250°C	
Vacuum Degree	Better than 10Pa	
Voltage	220V-Single Phase /Customizable	
Dimension (L*W*H mm)	2270*1940*628	2420*2040*628