

# ecodyst

## EcoChyll X Series Hi-Speed Evaporator Systems



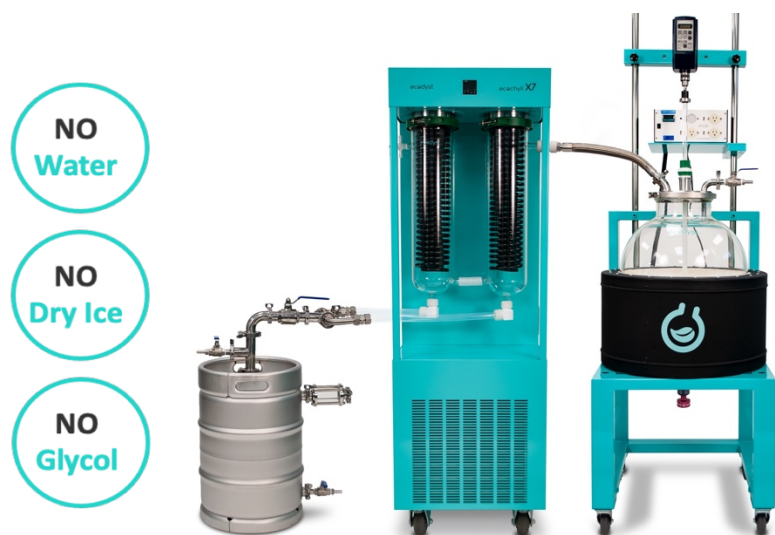
Smart  
Self-Cooling  
Technology

Ecodyst's Industrial Scale Solvent Recovery Turnkey Systems that solve the bottleneck associated with extraction

For many years, rotary evaporators (rotovaps) have been standard in laboratories and industries that perform chemistry such as laboratories in the pharmaceutical, academic, government, chemical, life sciences, food & beverage, cleantech, materials, environmental and cannabis sectors. Rotovaps consist of a heating fluid bath, rotating motor, evaporating flask, receiving flask, vacuum source and condenser. The conventional rotovap condenser requires an external source of cooling material such as dry ice, liquid nitrogen, water or glycol. Glycol requires additional recirculating equipment.

Engineered for high-speed solvent recovery and evaporation in small to medium-sized laboratories, the **12-litre EcoChyll® X3** is our most robust benchtop cooling system for botanical extractions. The **EcoChyll® X5** which comes in sizes of **22 liters and 50 liters** is an extremely efficient alternative to all existing evaporative technologies and automates the vapor cooling process to free-up user time for other operations. Based on the same metallic condenser coil technology that elevates each instrument in the EcoChyll line, the **EcoChyll® X5** features a single coil in a robust, space-friendly unit.

Built for industrial-scale evaporation, the **EcoChyll® X7** high speed evaporator from Ecodyst which comes in sizes of **22liters, 50 liters, 72 liters and 100 liters**, combines high loading capacities with rapid continuous cooling for efficient and fast solvent recovery. The **EcoChyll® X7** high cooling capacity and large surface area condensers can reliably condense large volume of solvents. The **200-litre EcoChyll® X9** evaporation unit was engineered to address the bottleneck in botanical extraction laboratories servicing the booming hemp industry. The **EcoChyll® X9** comprehensively exceeds the performance of up to eight 50-liter traditional rotovaps.



Smart self-cooling



Fast rates of evaporation



High levels of productivity



Energy efficient



Eco-friendly, Reliable & Sustainable

90°F Ambient Air Temp		EcoChyll® Cooling Capacity					
Evap Temp (°F)	Evap Temp (°C)	X5		X7		X9	
		Btu/hr	Watts	Btu/hr	Watts	Btu/hr	Watts
-40	-40	2,650	777	4,570	1,339	13,200	3,869
-35	-37	2,970	870	5,240	1,539	15,000	4,396
-30	-34	3,360	985	5,930	1,738	16,800	4,924
-25	-32	3,810	1,117	6,660	1,952	18,700	5,480
-20	-29	4,330	1,269	7,440	2,180	20,700	6,067
-15	-26	4,910	1,439	8,250	2,418	22,700	6,653
-10	-23	5,560	1,629	9,100	2,667	24,900	7,297
-5	-21	6,260	1,835	10,000	2,931	27,100	7,942
0	-18	7,010	2,054	11,000	3,224	29,400	8,616
5	-15	7,830	2,295	ND	ND	ND	ND
10	-12	8,690	2,547	ND	ND	ND	ND

## Key Value Propositions

- Larger load volumes for maximum capacity utilization.
- Bottom oil drain for efficient oil collection and disposal
- Stationary glassware ensuring convenience during use
- Scalable modular system
- Highest ROI



## EcoChyll X Product Pipeline

### 12L EcoChyll X3 Hi-Speed Evaporator System



**Engineered for high-speed solvent recovery in small to medium-sized laboratories. It bridges the gap between small-footprint and the full-scale, high throughput alternatives**

#### Key Advantages

- Cost-effective by eliminating expensive rotary motor with overhead stirring
- Continuous sample feed valve ensures uninterrupted operation
- Best-in-class evaporation rates

### 22L EcoChyll X5 Hi-Speed Evaporator System

Other size  
50L



**Features a single coil in a robust, space-friendly unit. With a 22L capacity and a small footprint, it is a premium compromise between cost and convenience.**

#### Key Advantages

- Best-in-class evaporation rates
- Continuous sample feed valve ensures constant operation
- Cost-effective compromise for mid-volume extractions (22L)
- Easy-to-use, with simple product drainage
- Exceptional energy efficiency
- Low-cost of ownership – pays for itself within three years
- Stationary glassware for guaranteed safety

## 100L EcoChyll X7 Hi - Speed Evaporator System



## Other sizes

72L, 50L & 22L

## 75L System



## 50L System



**Built for industrial-scale evaporation with high load capacities and rapid continuous cooling for efficient solvent recovery**

### Key Advantages

- Cost-effective by eliminating expensive rotary motor with overhead stirring
- Easy-to-use, with simple product drainage not requiring removal of large evaporation vessels
- High-speed stirring for increased surface area and vapor generation
- Modularity of the system enables easy upgrades from 22L to 50L capacities
- Twice the loading capacity of traditional rotovaps (<100 liters)
- Chemical resistant dual condenser with over 9000 cm<sup>2</sup> cooling surface area

## 200L EcoChyll X9 Hi-Speed Evaporator System



**Exceeds the performance  
of up to Eight 50-liter  
traditional rotovaps.**

**Engineered to satisfy the highest volume  
requirements for decarboxylation and solvent  
recovery providing high-speed and ultra-efficient  
system for demanding botanical extractions**

### **Key Advantages**

- Extremely high evaporation rates at a fraction of the falling film evaporator energy usage
- No special infrastructure modification required
- Multifunctional evaporation unit enabling both solvent recovery and decarboxylation
- One-man operation with minimal interference required
- Continuous inlet feed valve for uninterrupted operation