ecodyst

Accelerating the path to Discovery®

EcoChyll X1

Hydrogen

Some of our valued customers

Pfizer	J&J	GSK
AstraZeneca	Genentech	Eli Lilly
Panasonic	National Institutes of Health	Curia
UNC Chapel Hill	UC Berkeley	University of Oxford
NC State University	Princeton University	University of Michigan
U.S. Department of Energy	Purdue University	Bristol Myers Squibb
BP	Vanderbilt University	Nurix Therapeutics

The modern high performance rotary evaporators with direct self-cooling condenser technology and zero consumables.

Smart Self-cooling

Fast Evaporation

Small Footprint

Energy Efficient

Eco-friendly

NO Water

NO Dry Ice

NO Glycol

NO Chiller

For many years, rotary evaporators (rotovaps) have been a 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 chiller equipment.

Using a proprietary and innovative self-cooling technology, Ecodyst has revolutionized the rotovap to be more efficient, to have a smaller footprint, to have greater output, and to be less expensive to operate. The modern smart self-cooling technology from Ecodyst boosts productivity and prevents productivity downtime. The technology offers a paradigm shift and sets a new benchmark for rotovaps without the use of glycol, dry ice, or water, thus eliminating the major sources of material waste associated with conventional rotovaps.

Upgrades any existing rotovap

EcoChyll X1 Benchtop Rotovap

EcoChyll X1 is a powerful, small footprint smart self-cooling condenser with a large cooling surface area, and it is extremely quiet, efficient and fast. It is ready within 60 seconds of powering it on.

Available in two models

- **With built-in vacuum**
- **Without built-in vacuum**

All-in-one modern rotovap

Hydrogen Rotary Evaporator

The multipurpose hydrogen from Ecodyst is eco-friendly, energy efficient, reliable, and sustainable. This contemporary rotovap also delivers excellent performance, has a smaller footprint, features an extremely efficient always-available built-in condenser, is more economical to operate and decreases evaporation time, which enables researchers to pay attention to more difficult tasks.

Our devices are more than twice as fast as traditional rotovaps.

EcoChyll X1 Benchtop Rotovap

Key Features

- Does not require dry ice or glycol
- Always available on-demand condenser
- Faster rates of evaporation
- Ready in 60 secs
- Only action required is to turn it ON

Hydrogen Rotary Evaporator

Key Features

- Built-in condenser offers required cooling temp
- Built-in vacuum pump controller
- 5L heating bath, room temp to 180°C
- Touchscreen display
- Motorized evaporating flask lift
- Speed 20–280 rpm, timer, interval operation
- Up to 3000mL evaporator flask size
- Chemical-resistant stainless steel spring PTFE vapor tub

Device Specifications

Evaporation Temperature		Cooling Capacity		
°F	°C	BTU/h (+/-5%)	W (+/-5%)	Power Consumption (W) +/-5%
-40	-40	620	182	220
-30	-35	835	245	259
-20	-30	1116	327	300
-15	-25	1458	427	343
-10	-20	1857	544	388
5	-15	2322	680	434
10	-12	2844	833	482

Voltage: 100–120 V or 200–240 V, 50/60 Hz **Operating Temp Range:** Ambient .... -40°C

Traditional rotary evaporators require coolants, which also results in material waste. Ecodyst rotovaps use innovative direct self-cooling technology, reducing cost and eliminating material waste.

Praise for Ecodyst

"As you know, I am a strong proponent of green chemistry and industrial processes. Thus, Ecodyst's unique solution is appealing to me, and I appreciate that the technology does not require a source of water or dry ice, eliminating the major sources of material waste associated with rotovaps. My students are also thrilled that the system is always available and has the ability to achieve temperature in less than five minutes (vs. more than 30 minutes for other technologies). This frees up time for students to focus on their science."

Professor Joseph DeSimone, Stanford University

"My laboratory in the Department of Chemistry at UC Berkeley has been happy to acquire three the EcoChyll and we have been thoroughly impressed with the system's performance. We have found the EcoChyll system to provide superior performance in terms of cooling. Our ability to control the temperature of the cold finger is critical. This has prevented the freezing of condensing solvents, which reduces efficiency. An aspect that we especially like is that the EcoChyll can be used during holidays/weekends when dry ice (for cooling purposes) is not delivered to our department."

Professor Richmond Sarpong, University of California, Berkeley

"My laboratory at NC State University purchased two EcoChyll units, and we have been thoroughly impressed with the system's performance. There is no doubt that the EcoChyll in our lab has significantly simplified our workflow and provided both cost savings and significant convenience as to not have to deal with dry ice. Compared to other chiller systems used previously this product is superior in every way and allows for constant, on-demand cooling at any time of day or night."

Professor Joshua Pierce, North Carolina State University

"The EcoChyll X1 has really accelerated our research because we don't have to wait for dry ice to arrive, it cools really quickly, and it evaporates really quickly. Since we constantly evaporate solvents in this type of research, overall we save a lot of time."

Dr. Vincent Lindsay, Assistant Professor, North Carolina State University

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