

# A FULLY AUTOMATED HYDROCARBON EXTRACTION SOLUTION



MODEL	CAPACITY	SOLVENT	PROCESS TEMPERATURE RANGE	TROUGHPUT	CYCLE TIME	CYCLE/DAY	MATERIAL PROCESSED PER DAY
IO Extractor	28L	Butane	-65°F to 40°F	18 pounds per run <sup>3</sup>	50min <sup>1</sup>	24 <sup>2</sup>	400 pounds
IO Extractor	28L	Propane	-65°F to 40°F	18 pounds per run <sup>3</sup>	40min <sup>1</sup>	29 <sup>2</sup>	520 pounds

1: The 50 minute cycle time includes a 10-minute soak per run  
 2: 24 runs per day considers machine downtime for cleaning, maintenance, and loading new material  
 3: Fresh Frozen Biomass: up to 25lbs per run

The IO is a fully automated BHO extraction system capable of processing 25 lbs of plant material per hour. Its patent-pending dual passive/active solvent recovery technique minimizes cycle times, and built-in automated process controls eliminate manual error. Effortlessly produce consistent top-shelf extracts run after run.



### DESIGNED FOR SAFETY

Our commitment to safety is leading the BHO extraction market to new standards. With emergency stop buttons, intrinsically safe circuits, and smartphone integrations between C1D1 Room and Extractor Control Systems for remote management and operation, IO offers safety features you can't find anywhere else.



### AUTOMATION

The IO Extractor limits weeks or months of apprenticeship training required for manually controlled hydrocarbon systems, saving you on labor costs. More importantly, its pre-programmed recipe-monitoring system checks pressures and temperatures hundreds of times per second to remove the risk of operator error.



### EASE OF OPERATION

At the press of a button, IO allows one lab technician to simultaneously manage multiple IO Extractor units and perform post-processing tasks, streamlining workflow in the lab. Processors can also utilize the Easy Access App to check a cycle's status from outside the lab.



### QUALITY & YIELD

IO processes 18lbs of dried material or 25lbs of fresh-frozen material per cycle. With a 60-minute average cycle time and a 10-minute soak, the cycle-to-cycle changeover time with IO is just 90 seconds. With mechanized precision, the IO Extractor produces consistent and quality extracts that consumers will expect of your brand, cycle after cycle.

# VS

### HYDROCARBON VS. CO2 EXTRACTION

Hydrocarbon-based solvent extraction produces a higher-quality end product rich in cannabinoids and terpenes. It's the only way to extract fresh-frozen material and has a significantly higher throughput than other extraction methods. BHO is the only true full-spectrum solution that can scale.

**INSTALLATION + COMMISSIONING** / After receiving an order, our Service and Support Technicians will walk you through our proven installation process with a full complement of support documentation and scheduled drawing reviews with your technical team and contractors. Luna's proven process culminates in two days of commissioning and training with your staff.

**TRAINING** / After completing our hands-on commissioning process, we continue with Luna's free on-site training after the system is installed and ready for operation. Free on-site training will be scheduled with the customer, covering operation, maintenance, cleaning, and basic troubleshooting.

**WARRANTY** / All Luna Technologies equipment is provided with a 1-year warranty.

**CUSTOMER SUPPORT** / Our white-glove customer care program is designed to support you every step of the way. Minimize downtime when problems arise with real-time support, giving us remote access to your equipment to ensure success. Internet connectivity allows the Luna Tech Support team to connect remotely to each IO or Oberon extractor for real-time troubleshooting.

## END PRODUCT TYPES BY EXTRACTION METHOD



## AUTOMATED CONTROLS

### 01/ STRAIN SPECIFIC RECIPE OPTIMIZATION

Computer control of the entire extraction process allows users to fine-tune extraction recipes to maximize yield and efficiency. Complete with data logging for all process parameters, including temperatures, pressures, fluid levels, valve status, and more.

### 02/ ELIMINATE OPERATOR ERROR

With a pre-programmed recipe monitoring pressures and temperatures hundreds of times per second, you can set it and "forget" it. There's virtually no risk of costly operator errors.

### 03/ CONSISTENT PRODUCT QUALITY

Maintain product quality cycle after cycle with precise temperature control with two chillers featuring industry-leading 12kW cooling.

### 04/ OPERATOR TRAINING

Every operator is a master extraction artist after their first cycle! Automated controls eliminate weeks or months of apprenticeship training required for manually controlled BHO systems, allowing you to reduce training-related downtime.

## MINIMIZE DOWNTIME

### 01/ FILTER SLEEVE SYSTEM

Hot-swap pre-packed plant material columns for 90-second cycle-to-cycle turnaround time.

### 02/ TOOL-FREE OPERATION

No need to unbolt collection pots, material columns, or hoses: IO is operated with two buttons and three hand-turn latches.

## THROUGHPUT

### 01/ PROCESS

Process 18lbs per cycle of dried plant material or 25lbs per cycle of fresh-frozen material. Cycle times average 60mins with a 10min soak.



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