



Ethos Manufacturing is a solutions provider dedicated to building the next generation of cannabis and hemp businesses with a focus on revenue generation, efficiency, and market domination.

Our standard 5000 lb/day equipment line includes automated systems for ethanol extraction, recovery, and distillation at scale. This proposal outlines the technical specs, processing capacities, and competitive advantages of our equipment.





- Extract 300 lbs/hr
- 300 gallons ethanol/900 lbs of biomass
- Automated extraction process
- Program custom extraction cycles
- Monitor production remotely
- Reduce labor requirements and human error
- UL 508a fabrication facility

The Ethos Closed-Loop Cannabis/Hemp Extraction System is designed as a batch processing system that extracts 250-340 pounds of dried and shredded biomass per hour. 200-micron mesh bags are filled with 85-115 lbs of biomass. The mesh bags are loaded into the basket centrifuge, which is then filled with approximately 230 gallons of cryogenic (-40C) ethanol. Program a custom extraction cycle on the automated control panel and then fill, agitate, dry, and drain with a single touch of a button. When a batch is complete, solution passes through a one-micron filter to remove unwanted compounds and particles, and is sent to another holding tank ready for recovery.

Tanks and centrifuge are jacketed to ensure extraction temperatures between -40°C and -25°C. All components are stainless steel with tri-clamp connections to be compliant with FDA standards. Level sensors, thermocouples, pressure gauges, and sight glasses are integrated throughout the system to monitor fluid, regulate automation, and indicate maintenance.



Hemp processing facility in Springfield, OR



Hemp processing facility in Newburgh, NY



- Recover 150 gallons of ethanol per hour
- Automated temperature regulation and control
- Automated pressure control
- Built-in heat exchanger and air gap tank
- Remove up to 95% of ethanol from solution
- Boosts efficiency of falling film evaporator
- Minimal maintenance required

The Ethos add-on mechanical recovery unit is a revolutionary membrane recovery system that can be added to any equipment line to significantly increase processing capacity. The 150 gph unit is designed as a batch processing system. Solution is warmed to 20°C and pumped into the system at a rate of 2.8 gallons per minute. Recovered ethanol is returned to ethanol storage while solution recirculates until rendered to 5:1 ratio. Final concentrate is pushed into a new holding tank ready for final stage of recovery.

Requiring only 4 kW and minimal heating (via Ethos natural gas hot water skid), this machine is both energy efficient and cost effective compared to industry-standard evaporators. Flow meters, solenoids, and pressure transducers allow automated and regulated operation of the unit directly on the user-friendly HMI of the control panel.

The Bizzy Bee Silver-Serpent Falling Film Evaporator (FFE) can recover remaining ethanol at a consistent rate of 25 gph. After passing through the FFE, crude oil moves to decarboxylation vessels.



Hemp processing facility in Newburgh, NY



Hemp processing facility in Los Angeles, CA



- Produce 10 kilos per hour*
- Decarb and filter out fine particles larger than 0.1 micron
- 3x 0.2m² wiped film distillation units used in sequence
- Remove terpenes and other volatiles
- Maintain a 5-micron vacuum during distillation
- Centralized control panel to monitor and adjust settings on all three stages

Prior to distillation, crude oil must go through the process of decarboxylation in order to release the carboxyl group. The Ethos decarb system heats crude oil to temperatures between 180°F - 290°F and circulates oil between a 50L vessel and a 20L filtration centrifuge to filter out unwanted fine particles and produce 0.1 micron oil.

After decarboxylation, oil is pumped into the first 0.2m² wiped film evaporator and terpenes and other volatiles are removed. In the second and third stage, the 0.2m² wiped film evaporators distill cannabinoids to produce a thick, honey-colored distillate at a rate of approximately 10 kilos/hour. The distillation system includes jacketed lines, vacuum pumps, hot oil circulators, and chillers.

All three stages are monitored on a single HMI, allowing centralized control of temperatures, vacuum levels, pump speeds, and wiper speeds at any stage of the process.



Hemp processing facility in Compton, CA



THC facility in Los Angeles, CA

Qty	Equipment
1	300L Basket Centrifuge
1	Control Panel (manual or automated options available)
1	Pump Skid (manual or automated options available)
1	Filter Skid
4	10 BBL Tank
1	150 GPH Add-on Recovery Unit
1	Hot Water Heater Skid
1	25 GPH Falling Film Evaporator
1	MTA 10 Ton Chiller
1	Decarb-Filtration System
3	0.2m ² Wiped Film Distiller
9	18 kW Delta-T Hot Oil Circulator
2	Fluid Chiller Air 5000ULT
2	Common Parts Kit <i>200 ft of assorted 2" SS304 tri-clamp piping and valves</i>

Delivery Times: 8-12 weeks (US), International dependent on shipping method

Payment Terms: 50% upon order, 40% prior to shipment, 10% prior to installation

Installation and commissioning: approximately 10 days



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(847) 807-6865



ETH-CP-100	Extraction Control Panel
Dimensions (LxWxH)	36 x 24 x 60 in
Weight	215 lbs
Electrical	480/3/40 amp
Compressed Air	120 scfm @ 60 psi
Internet	Stride wireless antenna
NEMA Rating	4X



ETH-C-100	300L Basket Centrifuge
Dimensions (LxWxH)	92 x 67 x 53 (108 open) in
Weight	5512 lbs
Centrifuge Volume	1040 L
Basket Volume	300 L
Jacket Volume	70 L
Maximum Speed	800 RPM
Motor Power	11kW



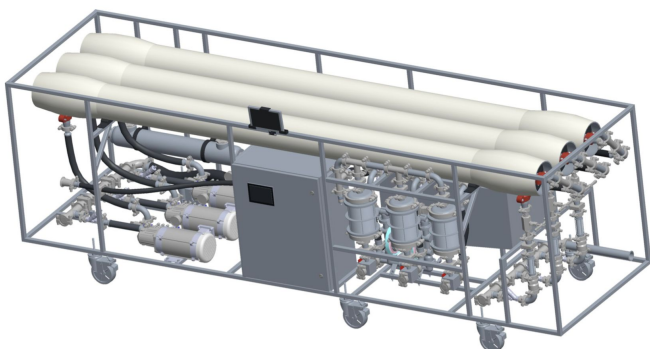
ETH-T-100	10 BBL Tank
Dimensions (LxWxH)	50 x 50 x 91 in
Weight	752 lbs
Working Volume	1192 L
Jacket Volume	35 L



ETH-P-100M	Manual Pump Skid
Dimensions (LxWxH)	60 x 36 x 30 in
Weight	360 lbs
Compressed air avg load	40 scfm
Manifold valves	10



ETH-F-100	Filter Skid
Dimensions (LxWxH)	24 x 24 x 36 in
Weight	90 lbs
Max Flow Rate	100 gpm
Max Pressure	150 psi



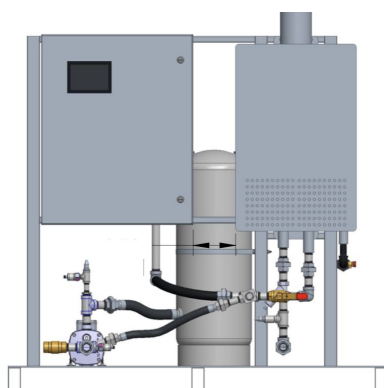
ETH-REC-150	150 GPH Add-On Recovery
Dimensions (LxWxH)	150 x 46 x 55 in
Weight	750 lbs
Electrical	480/3/20 amp
Power Consumption	4 kW
Compressed Air	20 scfm @ 60 psi
Pump Motor	1.5 HP
Max Pump Speed	4.2 gpm
Feed Rate	170 gph



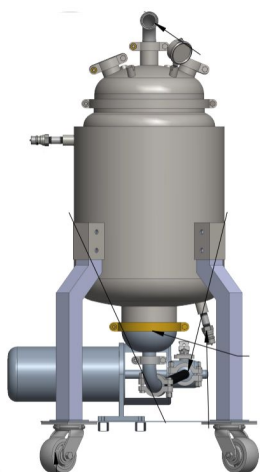
ETH-FFE-25	25 GPH Falling Film Evaporator
Dimensions (LxWxH)	70 x 42 x 90 in
Weight	900 lbs
Electrical	110/1/16 amp
Feed Rate	30 gph



ETH-121-P3UL	MTA 10 Ton Chiller
Dimensions (LxWxH)	70 x 30 x 57 in
Weight	1415 lbs
Electrical	460/3/33 amp
Power Consumption	13.9 kW
Cooling Capacity	10.3 tons/123,600 Btu/hr



ETH-HW-100	Hot Water Heater Skid
Dimensions (LxWxH)	60 x 36 x 61 in
Heat supply	Natural gas
Heater	380 kBTU/hr
Electrical	480/3/20 amp
Pump motor	1.75 HP
Max pump speed	22 gpm
Tank volume	15 gal



ETH-DX-101	Decarb-Filtration System
Dimensions (LxWxH)	48 x 35 x 50 in
Weight	125 lbs
Electrical	460/3/16 amp
Max Pump Speed	5 gpm
Maximum Viscosity	880 cp



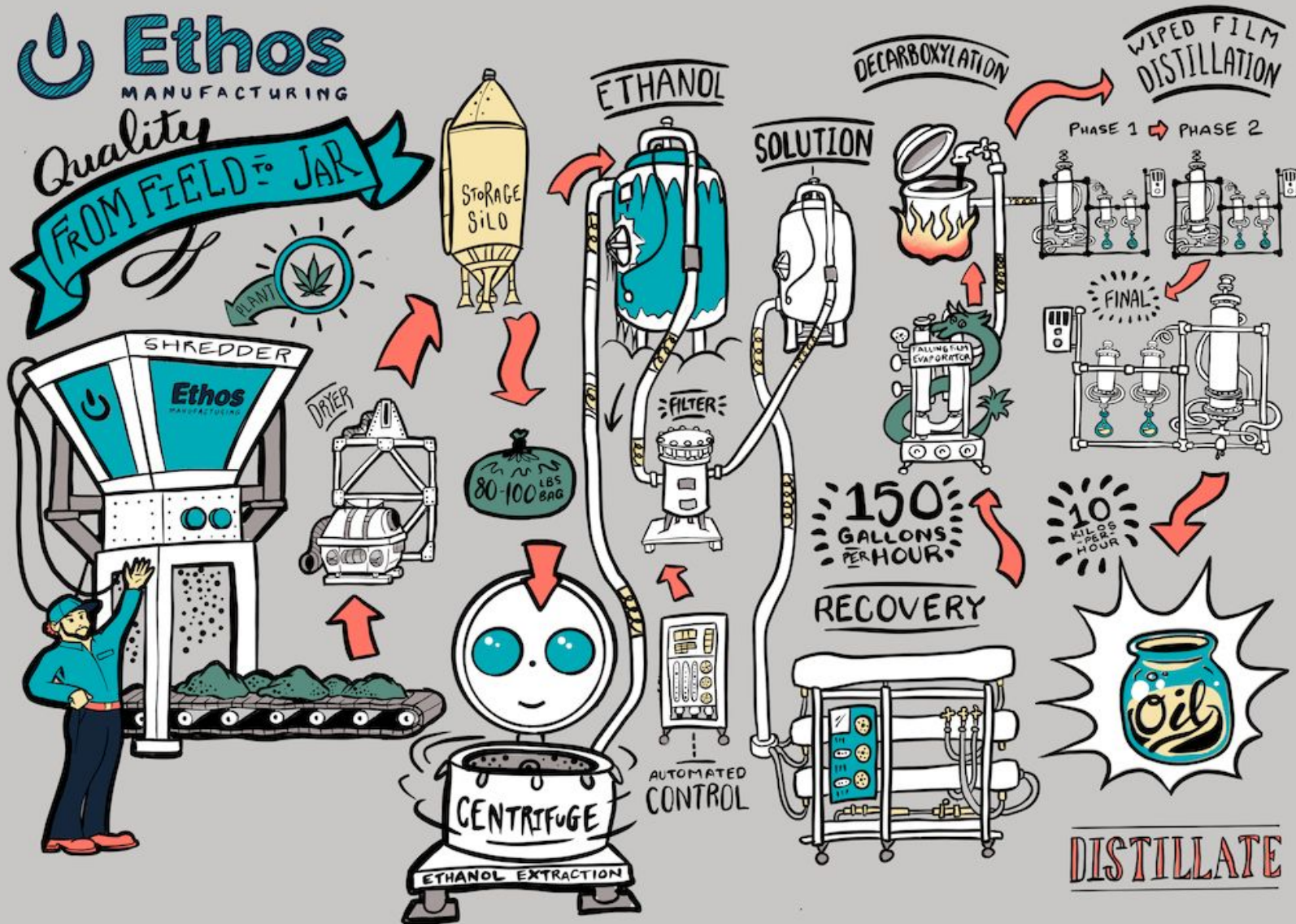
ETH-D-100	10 kg/hr Wiped Film Distillation
Dimensions (LxWxH)	96 x 36 x 96
Weight	1300 lbs
Electrical	480/3/15 amp
Power	2.4 kW
Feed Rate	15 L/hr



ETH-T-1232MS	18 kW Delta-T Hot Oil Circulator
Dimensions (LxWxH)	16 x 30 x 46 in
Weight	320 lbs
Electrical	460/3/22 amp
Max Pump Speed	18 gpm @ 30 psi
Heating Range	50 - 550 F



ETH-AIR-5000	Fluid Chiller Air 5000ULT
Dimensions (LxWxH)	42 x 28 x 66 in
Weight	760 lbs
Electrical	460/3/16 amp
Power	4.8 kW
Cooling Capacity	15,000 Btu/hr



To request a quote or learn more about Ethos equipment and services:



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[ethosmfg](https://www.instagram.com/ethosmfg)



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www.ethosmanufacturing.com



Schedule a meeting



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