



CannabisSFE - 3x1

Rapid Liquid CO₂ система экстракции канабиса



- 3 x 1 литр CO₂ экстракционная система
- CO₂ 200 / (176 /)
- 10,000 psi (689 , 69)
- ASME
- GMP
- CO₂

◀ CannabisSFE - 3x1 Экстракционная система

The **CannabisSFE 3x1 Extraction System** offers cascade mode of operation. This design allows the system to process biomass quickly with minimal maintenance and downtime. Built as a midrange system, the **CannabisSFE 3x1** offers processing flexibility for both subcritical and supercritical CO₂ extractions.

High flowrates of liquid CO₂ rapidly extract THC, CBD and Terpenes from Cannabis and Hemp. Within a compact footprint are 3 one 1-liter processing vessels, and a powerful liquid CO₂ pumping system. This system delivers flow rates up to 200mls/min (176 grams/min) of liquid CO₂.

Configured to operate in cascade mode, the **CannabisSFE 3x1** maximizes throughput efficiency by processing through two vessels concurrently, while the third is being prepared.

The net result is 2.5 pounds (1135 grams) of biomass extracted per hour. The cascade process is repeated until stopped by the operator.

The **CannabisSFE 3x1** design is simple, easy to use, and reliable. The system can be run 24/7 with consistent results and minimal downtime.

Our extractors are developed with over 25 years of experience in building supercritical CO₂ extractor systems to serve the pharmaceutical industry, government agencies, and university researchers. We understand the need for quality and safety and performance.

System	Feedstock Processed Per Hour	Feedstock Processed Per Hour	CBD Oil Extracted Per Hour	THC Oil Extracted Per Hour
CannabisSFE 3x1 Liters	2.5lbs/1.13kg	1,135 grams	79 grams	204 grams

Assumes high quality dry Trim and Flowers

Expanded System Specifications

Pump: Efficient CO₂ pumping with pneumatic liquid CO₂ pump and pre-chiller

Liquid CO₂ Flow Rates: Up to 200mls/min (176 grams/min) liquid CO₂

Maximum Operating Pressure: 10,000 psi (689 Bar, 69 MPa).

Pressure Display: Pressure gauges for the processing vessel/Air Supply, and Collection Vessel

Temperature Range: Ambient to 120°C (able to perform supercritical and subcritical extractions).

Temperature Precision: +/- 0.5°C.

Temperature Displays: PID Logic Controllers/Panel mounted. Displays internal vessel temperature, Preheater Temperature, and Back Pressure Regulator Temperature.

Restrictor Valve: Extractor pressure/outflow controlled by Back Pressure Regulator, heated up to 120°C; resistant to blockage (factory set to 80°C).

Integrated Chiller Assembly: The integrated chiller cools the liquid CO₂ from the delivery tank. The chilled CO₂ is then delivered directly to the supercritical fluid pump. Proper cooling of the CO₂ before it arrives at the pump ensures that the CO₂ is pumped in an efficient manner that eliminates cavitation to achieve the pressures and flow rates required for supercritical fluid extraction processes.

Sample Extraction Vessel: Accommodates 3 Process vessels of 1000mls.

Collection Vessel: Externally mounted for ease in extract removal

Preheater and Extractor Temperature Control: High-efficiency electric CO₂ heat exchanger to raise temperature to up to 120 °C +/- 1.0 °C. The extractor actively heated with band heater to accelerate vessel warming at startup.

Over-Pressure Safeguards: Rupture disc assemblies on pump, processing vessels, and collection assembly.

Instrument Control: Vessel and preheater temperature controlled by PID Logic Controllers. Displays Preheater, Processing Vessel and Back Pressure Regulator Temperature.

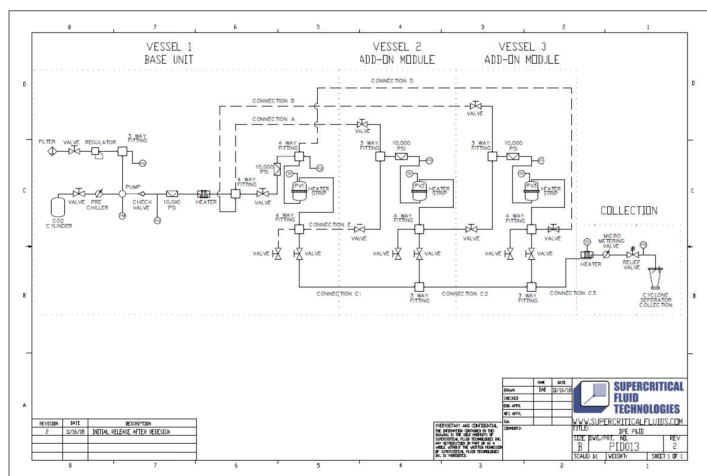
CO₂ Ventilation: CO₂ vented to an outside vent or connected to the Optional Recycle System

Dimensions: Compact Design (73" L x 43" W x 52" H)

Power Requirements: CannabisSFE 3x1 extractor will require 20 Amps of 230V single phase.

ASME Code: compliant design, vessels, and components

GMP: Meets current GMP standards



CannabisSFE 3x1 Liter Extraction System Flow Diagram



CannabisSFE - 3x1 CO₂ Optional Recycle