

Core | Bench Top Extractor

Our benchtop system is designed for users exploring supercritical fluid processing. Compact enough to fit on a bench or inside a fume cupboard, this system retains all the key features of our larger systems: flexibility, robustness, and precise control. Like our larger SFX systems, the benchtop version utilises the same SFX software and Adaptive Pressure Control (APC™), enabling users to easily scale up and advance in their journey.

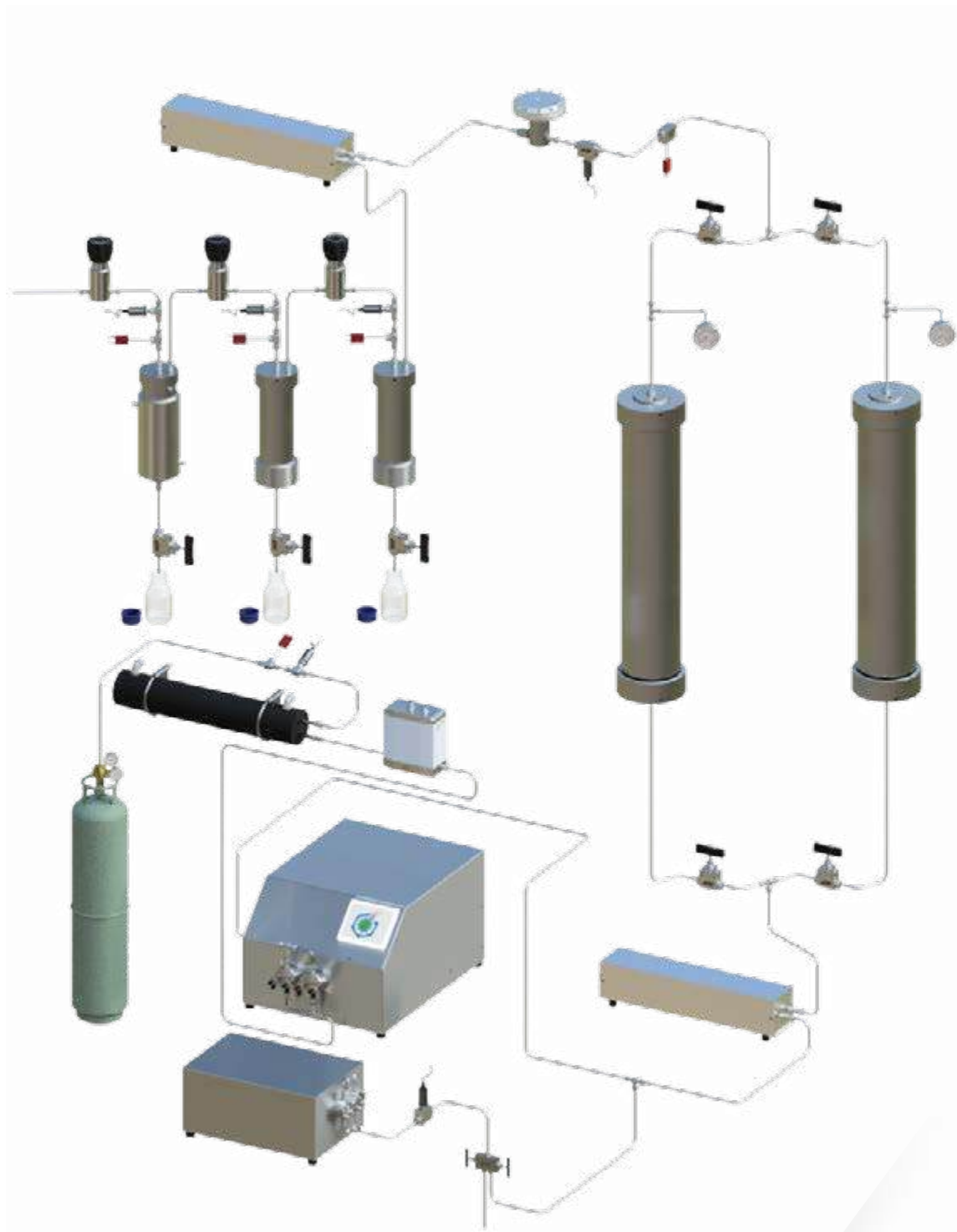
APPLICATIONS

- Natural Products
- Cannabis, THC and CBD
- Terpenes
- Oils and Lipids
- Polyphenols



upto 450 bar

Core | How Extraction works?



For more information: contact@coreseparations.com

Small Scale Processing

The benchtop system is perfect for quick exploratory runs when screening different materials, without compromising extraction quality. It offers a choice of either a 50 mL, 100mL or 500mL extraction vessel, capable of operating up to 450 bar, providing a wide range of extraction conditions to explore. Our P50 pump can handle either CO2 or water as the extracting media, making this an extremely versatile system.

SYSTEM SIZES AVAILABLE

SFX50mL, SFX 100mL, SFX 500mL

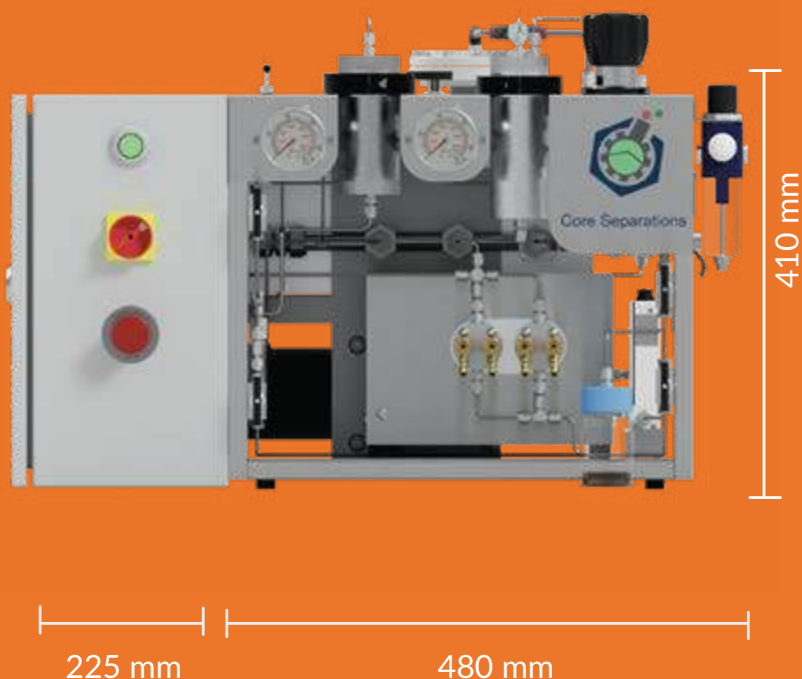
Extraction

Extractor volume	100mL
CO2 flowrate	15g/min
Max pressure	600 bar
Max temperature	150°C

Separation

Capacity	100mL
Max pressure	200 bar
Max temperature	150°C

SINGLE VESSEL SYSTEM



SPECIFICATION



Power requirements

220-240 V (1PH+N+E); upto 13A



Pneumatic Air Pressure (bar/psi)

6.9 bar / 100 psi, 1/4" compression inlet



CO2 Inlet

55 bar, 1/4" compression inlet



Vent Line

3/4" compression inlet



Weight

100/120 kg (depending on options)



Chiller

Required



PC & Monitor

Minimum of 1.5 GHz, 16 GB RAM, 250 GB storage, Ethernet port for control panel, wired or wireless connection for Internet connectivity. Google Chrome browser. Monitor 21" minimum with 1920 x 1080 pixels resolution

SFX Software



Dashboard visualisation of key processing parameters



Manual control of key components within the SFX system in real time using **APC™** to accurately control the pressure



The recipe menu enables you to automate various conditions, including flow rates, temperatures, and pressures, over a specified time limit.



Real time data logging and visualisation via Grafana Dashboard



Programmable warning and alarm limits to alert the user that the system conditions are approaching the cut off safety limits.



SQL database logs all the alarms and user activity to aid in fault detection and diagnosis.



When dealing with high-pressure systems, precise pressure control is essential. Standard control typically uses proportional, integral, and derivative (PID) control. However, Core Separations has gone beyond the standard by developing Advanced Pressure Control (**APC™**). This multilevel PID control provides superior operational management while maintaining rapid pressure build up.



Core | **Co-solvent**

The polarity of CO₂ can be modified by adding a more polar solvent, such as ethanol. Even small amounts of these solvents can significantly impact which components are extracted and help reduce the pressures needed to extract compounds like polyphenols.

CERTIFICATION

