

ERI-LAB

Lab systems for supercritical CO₂ extraction

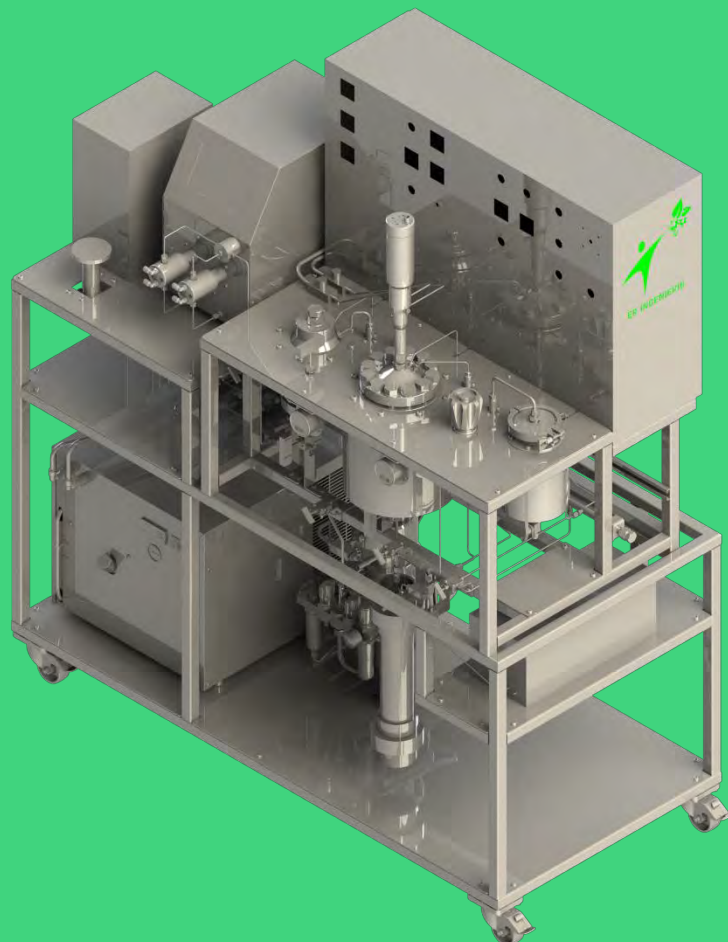


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ERI-LAB, OUR INNOVATIVE AND SUSTAINABLE EXTRACTION SYSTEMS, IDEAL FOR YOUR R&D ACTIVITIES



GREEN PROCESS
NEUTRAL CARBON
BALANCE
NON-FLAMMABLE,
NON-TOXIC, NON-
ORGANIC SOLVENT



cGMP CONCEPTION
MECHANICAL AND
AUTOMATION
DESIGNS ARE
COMPLIANT WITH
PHARMACEUTICAL
INDUSTRY



**OPTIMIZED
DESIGN**
OPERATING COSTS
ARE REDUCED



ER INGENIERIE

ERI-LAB

MAIN CHARACTERISTICS

CE COMPLIANT

MAX. PRESSURE 300 bar (700 bar OR 1 000 bar ON REQUEST)

TEMPERATURE UP TO 200 °C

	ERI-LAB 20	ERI-LAB 50	ERI-LAB 100	ERI-LAB 1000
EXTRACTOR	20 mL	50 mL	100 mL	1 000 mL
CO ₂ PUMP	5 mL/min	10 mL/min	20 mL/min	200 mL/min
SEPARATOR	20 mL	50 mL	100 mL	250 mL
DIMENSIONS (mm) length x width x height	800 x 500 x 600	850 x 500 x 600	1000 x 600 x 800	1500 x 700 x 1800

OPTIONS

CO-SOLVENT PUMP

FILTER

FRACTIONATION COLUMN

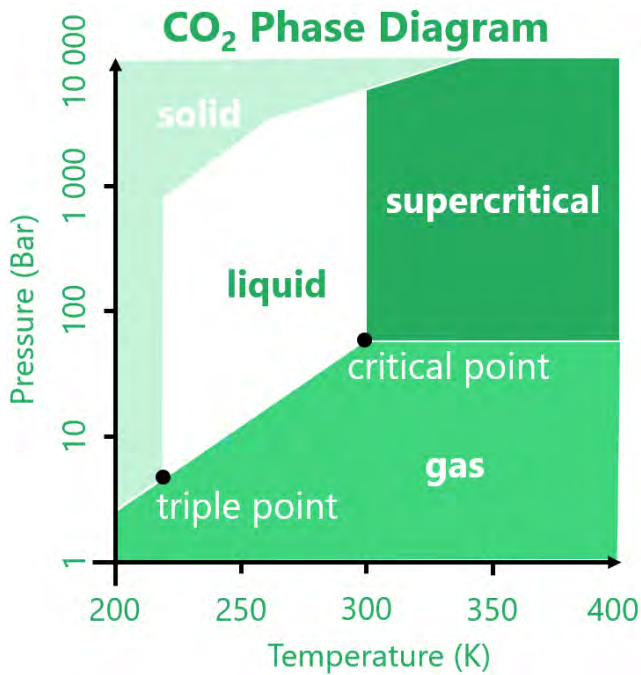
FULLY AUTOMATED

ATEX DESIGN

SAPPHIRE

USABLE WITH SUBCRITICAL WATER

... FOR MORE POSSIBILITIES, CONSULT US



SUPERCritical FLUIDS

Any fluid can become supercritical depending on **pressure** and **temperature** conditions. Placed into the **supercritical** domain, the fluid has particular physicochemical properties:

- **high** density (like liquids)
- **low** viscosity (like gases)
- diffusivity coefficient **intermediate** between gases and liquids

CO₂ CASE

Low critical point: 31°C and 74 bar

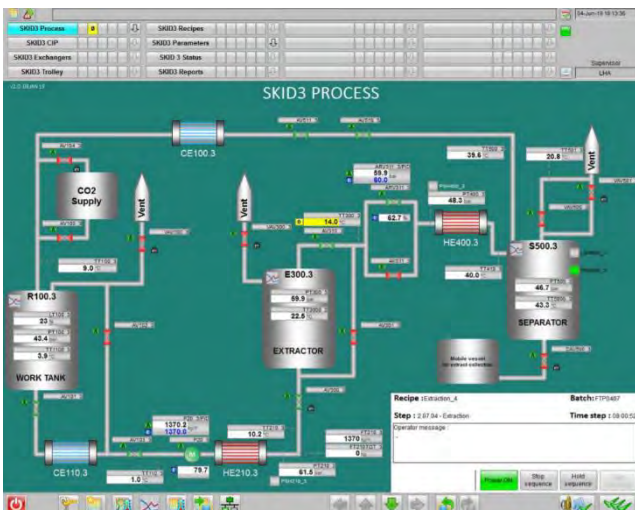
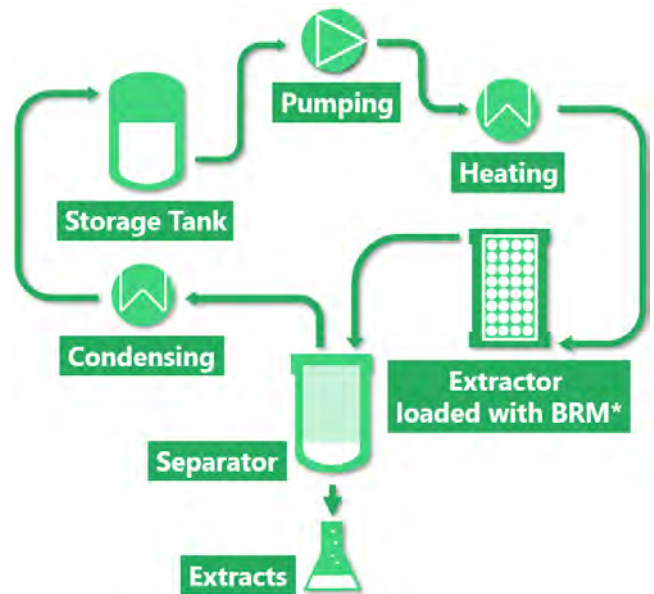
Cheap, chemically inert, non-toxic, non-flammable, free of bacteria

Selective molecules extraction with pressure variation

Products and residues are **solvent free**

DIAGRAM OF NATURAL PRODUCT EXTRACTION USING SUPERCritical CO₂

BRM: Botanical Raw Material



FULL AUTO UNIT

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA):

- ACCESS CONTROL (LOG IN/LOG OUT)
- AUDIT TRAIL
- RECIPE MANAGEMENT
- BATCH REPORT
- DATA LOGGING
- REAL TIME PROCESS PARAMETERS DISPLAY
- ALARM MANAGEMENT

GAMP5 & 21 CFR PART 11 COMPLIANT



CONTACT US

ER INGENIERIE S.A.S

Site technologique Saint Jacques 1
18 rue Blaise Pascal
54320 MAXEVILLE FRANCE

+33 (0) 3 83 98 23 23
eringenierie@eringenierie.com

ER INGENIERIE T.F.Z

Centre d'affaires Nordami
Bureau n°103 1er étage
Lot 43 a zone franche d'exportation
90 100 TANGER FREE ZONE MAROC

00212 649 919 162
ertfz@eringenierie.com

ER INGENIERIE MAROC

Lot 398, Zone Industrielle de Gzenaya
90 100 TANGER MAROC

00212 649 919 162
ermaroc@eringenierie.com

ER INGENIERIE A.O

Résidence AZIZ, 1ère étage
(Lot 2313 ilot 170a)
Rue des Jardins, ABIDJAN
CÔTE D'IVOIRE

erao@eringenierie.com

www.eringenierie.com
eringenierie@eringenierie.com