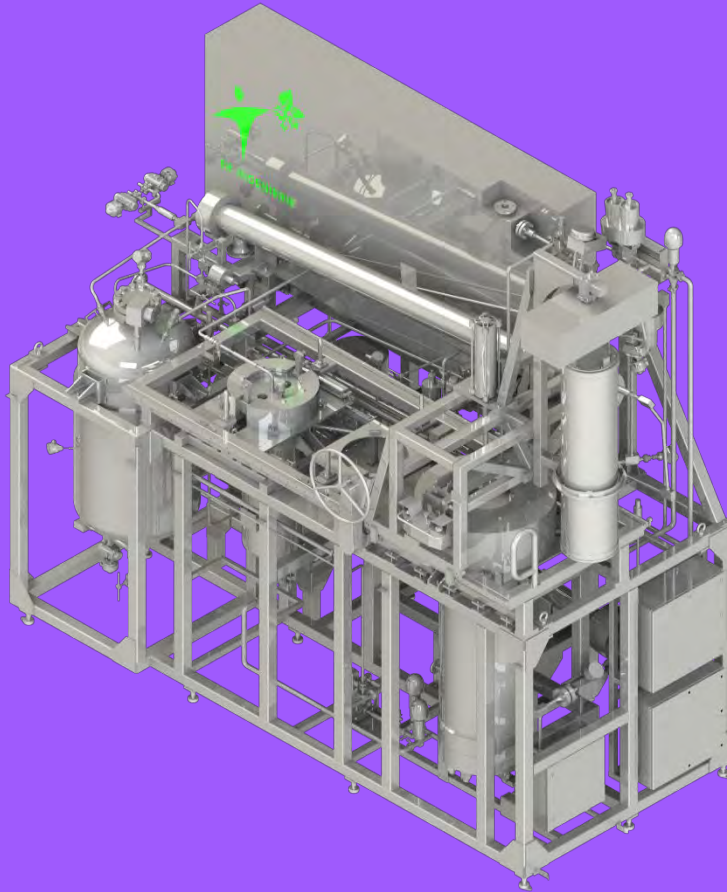


# ERI-PROD

Production systems for supercritical CO<sub>2</sub> extraction



*Image not contractual*



**ERI-PROD, OUR INNOVATIVE AND SUSTAINABLE EXTRACTION SYSTEMS,  
IDEAL FOR YOUR PRODUCTION 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-PROD

## MAIN CHARACTERISTICS

CE COMPLIANT

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

TEMPERATURE UP TO 200 °C

	ERI-PROD 200	ERI-PROD 440	ERI-PROD 700	ERI-PROD 2000
EXTRACTOR	2 x 100 L	2 x 220 L	2 x 350 L	2 x 1 000 L
CO <sub>2</sub> PUMP	1 T/h	2 T/h	3 T/h	10 T/h
SEPARATOR	2 x 20 L	2 x 40 L	2 x 70 L	2 x 200 L
WORK TANK	300 L	500 L	700 L	1 500 L
DIMENSIONS (mm) length x width x height	6500 x 3000 x 4000	7000 x 4000 x 5500	8000 x 4500 x 5500	10000 x 5000 x 8000
PRODUCTION estimation based on CBD	35 T/an	80 T/an	200 T/an	600 T/an

## OPTIONS

CO-SOLVENT PUMP

FILTER

FRACTIONATION COLUMN

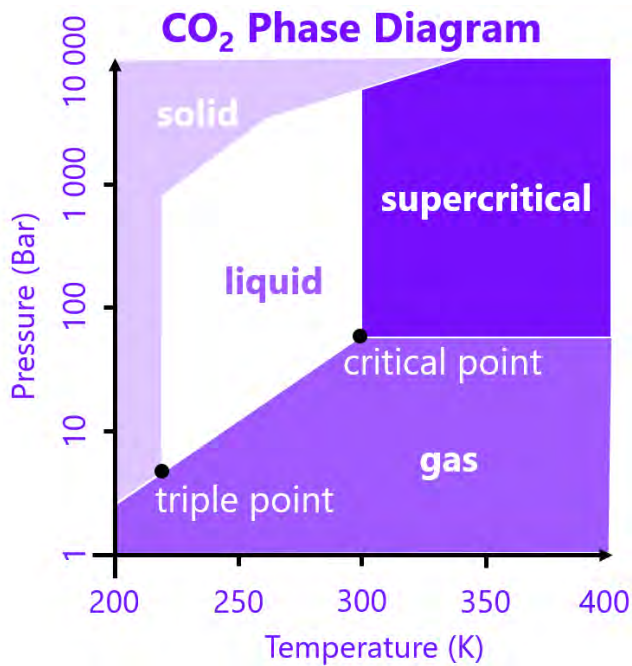
FULLY AUTOMATED

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

## CO<sub>2</sub> CASE

**Low critical point:** 31°C and 74 bar

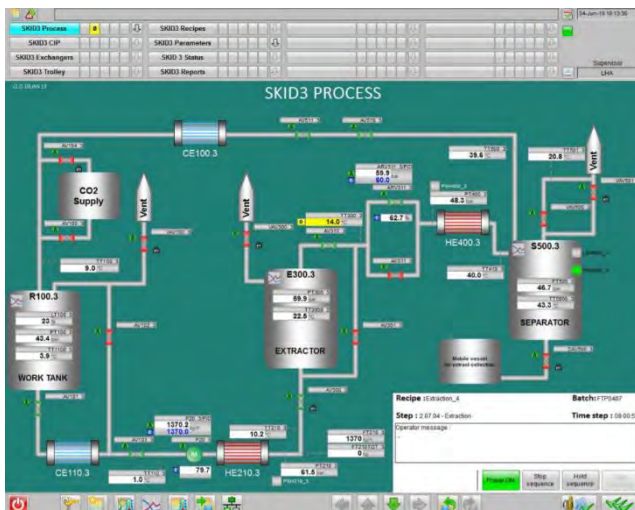
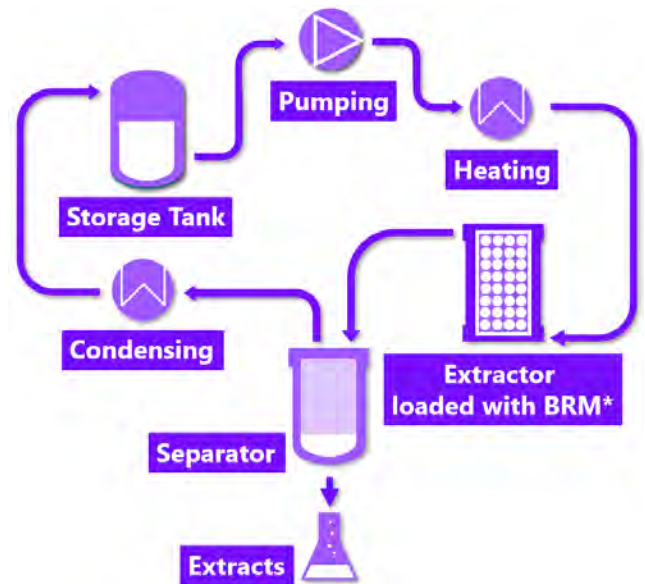
Cheap, chemically inert, non-toxic, non-flammable, free of bacteria

**Selective** molecules extraction with pressure variation

Products and residues are **solvent free**

## DIAGRAM OF NATURAL PRODUCT EXTRACTION USING SUPERCritical CO<sub>2</sub>

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](http://www.eringenierie.com)  
[eringenierie@eringenierie.com](mailto:eringenierie@eringenierie.com)