

ERI-PILOT

Pilot systems for supercritical CO₂ extraction

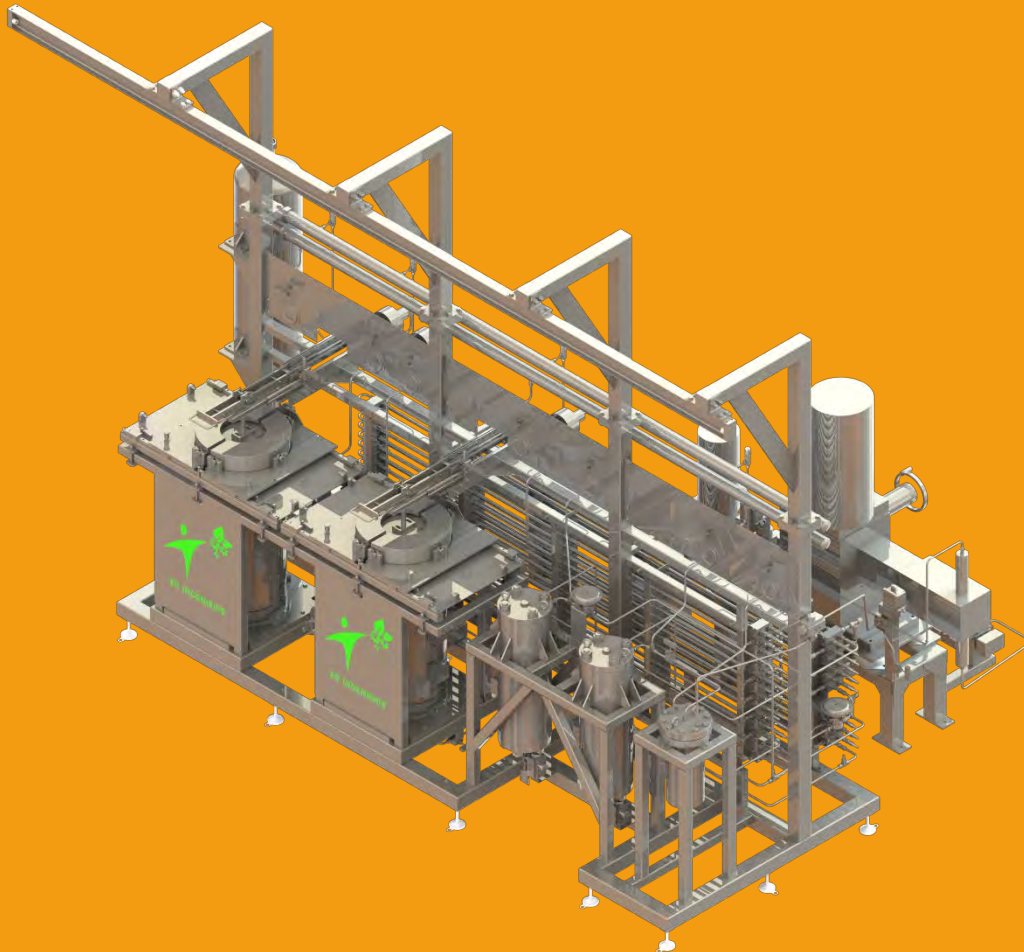


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**ERI-PILOT, OUR INNOVATIVE AND SUSTAINABLE EXTRACTION SYSTEMS,
IDEAL FOR YOUR PRODUCTION AND SCALE-UP ACTIVITIES**



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-PILOT

MAIN CHARACTERISTICS

CE COMPLIANT

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

TEMPERATURE UP TO 200 °C

	ERI-PILOT 10	ERI-PILOT 50	ERI-PILOT 100
EXTRACTOR	2 x 5 L	2 x 25 L	2 x 50 L
CO ₂ PUMP	100 kg/h	400 kg/h	600 kg/h
SEPARATOR	2 x 1 L	2 x 5 L	2 x 10 L
WORK TANK	-	50 L	50 L
DIMENSIONS (mm) length x width x height	2000 x 1000 x 2000	4000 x 2000 x 3000	5000 x 2500 x 3000
PRODUCTION estimation based on CBD	2 T/an	10 T/an	20 T/an

OPTIONS

CO-SOLVENT PUMP

FILTER

FRACTIONATION COLUMN

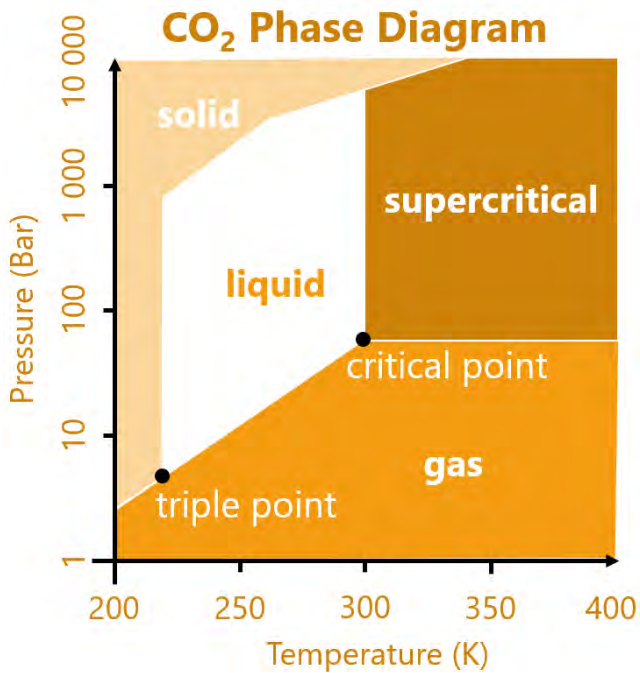
FULLY AUTOMATED

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

CO₂ CASE

Low critical point: 31°C and 74 bar

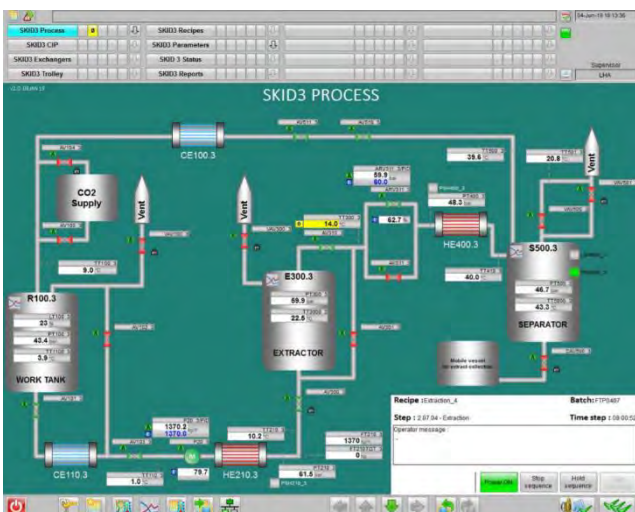
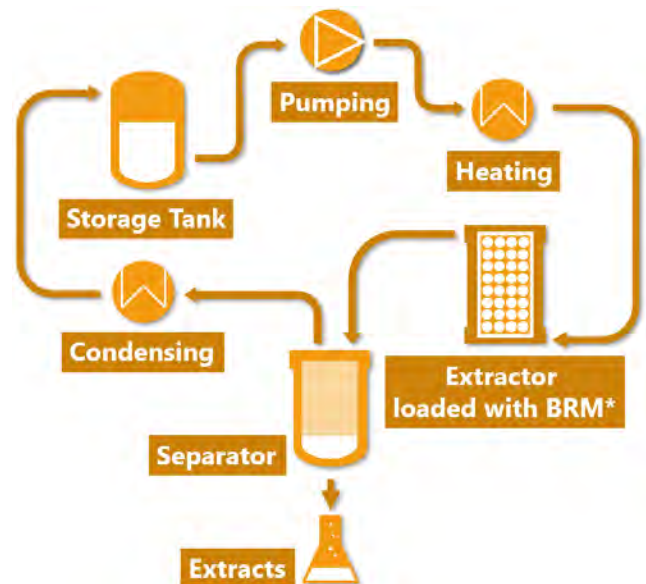
Cheap, chemically inert, non-toxic, non-flammable, free of bacteria

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



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