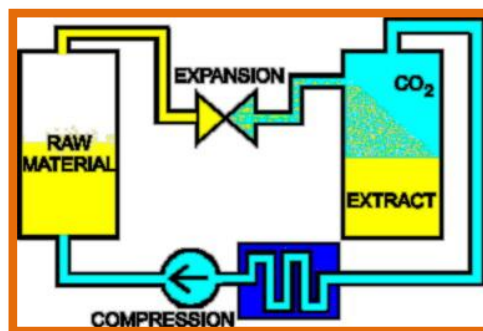


PRINCIPLES OF CO₂ EXTRACTION (SCE)

Extraction by supercritical carbon dioxide is an advanced separation process meeting the strictest ecological and hygienic requirements. Compressed gas passes in an extractor through a bed of extracted material. The gas laden with extract is then fed to a separator via an expansion valve. By reducing the pressure in the expansion valve the solvent power of carbon dioxide is also reduced and the extract precipitates in the separator. The gaseous extract-free carbon dioxide is then liquified in an condenser, compressed in an circulating pump, heated and fed back to the extractor. This



completes the process that operates in a closed circuit consisting of intake-compression-extraction-expansion-condensation-intake. All process side parts are made of stainless steel.

Commercial unit

This unit includes three extractors for a semicontinuous operation and two separators for a complete separation. The volume of one extraction cartridge is 100 l. Maximum operating pressure is 300 bar, operating temperature 40-60 °C (max. 70 °C). The capacity depends on the type of extracted raw material. It varies from 100 to 500 tons of processed material per year.



Laboratory unit

We have our R&D Laboratory unit for research and development of new products. The unit makes it possible to produce small amounts of extracts for tests and for assessing operating and economic feasibility of the process. This compact unit consists of one extractor (extraction cartridge 0.5 l), two separators, circulating pump, heating and cooling circuits. Max. operating pressure is 300 bar, operating temperature 40-60 °C (max. 70 °C).



FLAVEKO Trade is active in the development of new products and technologies in the field of supercritical extraction by carbon dioxide.

Please note that you can find more detailed information on our English website at

www.supercriticalextraction.eu - Feel free to contact us anytime.

www.supercriticalextraction.eu

Thank you

