



# TOP INDUSTRIE

## High Pressure Engineering

**Leader in the world of high pressure,**

Top Industrie has been designing and producing for 35 years a complete range of high pressure equipments (high pressure cells, autoclaves and reactors, injection and metering pumps), testing and analysis tools, and innovative accessories for systems. These equipments are delivered all over the world with commercial partners in 9 countries.

Our aim: satisfy our customers by providing them with the most performing analyses' means using pressure and temperature.

### **SUPERCRITICAL FLUID TECHNOLOGY**

We can provide you either custom-made equipments or turn-key solutions from R&D units for process and product development, by pilot plants, to large production units. Our systems are designed for supercritical CO<sub>2</sub>, super- and subcritical water, and other solvents.

### **R&D units**

- For applications where small quantities of products are available
- Complete equipment supply : Extractor autoclave, pumps, condenser, heaters and separators
- Working with CO<sub>2</sub>, water and other SCF solvents
- Up to 600 bar, 150°C
- Extraction cell volume: from 25 to 500 mL



Educo 2

### **Production development and pilot plants**

- For semi-industrial uses and process development
- Condenser and chiller provided, co-solvent pump
- Working with CO<sub>2</sub>, water or other SCF solvents
- Operating pressure from 50 bar to 1000 bar, 150°C
- CO<sub>2</sub> pump flow rate between 0,5 and 5 L/h
- From 1 liter to 50 liters (standard 1, 2, 5, 10, 25, 50 liters units)
- 2 to 6 meters fractionation column



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Hydrothermal synthesis pilot plant



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CO<sub>2</sub> extraction unit

### **Production units**

- From engineering to manufacturing
- For supercritical fluid extraction in a single or dual configuration
- Includes one or two separator vessels, a pneumatic CO<sub>2</sub> pump and a co-solvent pump, and all associated valves and pipings
- Working with CO<sub>2</sub>, water or other SCF solvents
- Pumps, vessels, columns, up to 600 bar and 70°C
- Extraction cell volume above 20 L to 400 L



Production unit



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