PRODUCT DATASHEET

Botanical Extract R&D Pilot Line

Extract, concentrate, purify and dry on one frame for nutraceutical R&D and small batches

Product page





Close-up: extraction vessel and vacuum evaporator

OVERVIEW

The Tech Inc. Botanical Extract R&D Pilot Line puts a whole extract process on one frame so a development team can make kilogram batches the way the plant will. Plant material is extracted with hot water or ethanol in a jacketed vessel, the extract is filtered and concentrated under vacuum, purified on a resin column and dried in a vacuum dryer, with the solvent recovered for reuse.

TYPICAL DESIGN DATA

Extraction vessel	About 20 to 200 L, jacketed
Solvents	Water and ethanol
Evaporation	Vacuum, with solvent recovery
Codes and standards	Pressure parts to the client's specification; electrical to IEC 60204-1; flameproof build for ethanol
Purification	Optional resin column
Drying	Vacuum tray or paddle dryer
Materials	316L stainless wetted parts

MODELS AND CAPACITIES

- **TI-BPL-20** – about 20 L extraction vessel
- **TI-BPL-50** – about 50 L
- **TI-BPL-200** – about 200 L

Indicative extraction vessel volume.

ORDERING CODE

Example **TI-BPL-50-E-R**: **50** extraction vessel, L; **E** solvent: W water, E ethanol; **R** resin step: R with, N without.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual.
Options: flameproof (Ex) build; membrane concentration step; lab spray dryer; CIP package.

KEY ADVANTAGES

- **Whole process** – on one frame
- **Solvent recovered** – for reuse
- **Plant-like** – same unit operations
- **Records** – batch data for scale-up

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