PRODUCT DATASHEET

Lithium Direct-Extraction Pilot Skid for Oilfield Brines

Super-duplex pilot skids for sorbent extraction of lithium from hot, salty brines

Product page





Close-up: sorbent columns and valve manifold

OVERVIEW

The Tech Inc. Lithium Direct-Extraction Pilot Skid for Oilfield Brines tests direct lithium extraction on hot, salty oilfield and geothermal brines. Brine is filtered and cooled, then passed through columns of a lithium-selective sorbent supplied by the technology owner; the loaded sorbent is eluted with water or dilute acid, and the eluate is polished and concentrated for conversion to lithium carbonate or hydroxide.

TYPICAL DESIGN DATA

Brine	Oilfield and geothermal brines, hot and chloride-rich
Materials	Super duplex, FRP and lined pipework
Columns	Two to four columns in lead–lag or merry-go-round
Codes and standards	Pressure parts to ASME B31.3; electrical to IEC 60079 where classified
Sorbent	Supplied or specified by the technology owner
Eluate	Polished by ion exchange; concentrated by membranes or evaporation
Control	Automatic cycles with logging

MODELS AND CAPACITIES

- **TI-DLE-L** – laboratory rig
- **TI-DLE-1** – about 1 m³/h
- **TI-DLE-5** – about 5 m³/h
- **TI-DLE-C** – containerised pilot

Indicative brine flow.

ORDERING CODE

Example **TI-DLE-1-C**: **1** brine flow: L, 1, 5; **C** options: C containerised, N none.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** container; concentration step; online lithium analysis; remote monitoring.

KEY ADVANTAGES

- **Brine-proof** – super duplex and lined
- **Site-ready** – containerised option
- **Automatic cycles** – load, wash and elute
- **Data** – every cycle logged

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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How to cite: Lithium Direct-Extraction Pilot Skid for Oilfield Brines (model TI-DLE-1-C). Tech Inc., Vaughan, Ontario, Canada. www.techincresearch.com/product-page/lithium-direct-extraction-pilot-skid

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