PRODUCT DATASHEET

High-Pressure CO2/CH4 Membrane Test Skid

Mixed-gas CO2/CH4 testing at pressure for natural gas and biogas membranes

Product page





Close-up: heated high-pressure housings inside the guarded enclosure

OVERVIEW

The Tech Inc. High-Pressure CO2/CH4 Membrane Test Skid tests membranes and modules for removing CO_2 from natural gas and biogas at the pressures they run at. CO_2, methane and nitrogen are blended and boosted to the test pressure; heated housings hold flat-sheet cells or hollow-fibre modules; back-pressure regulators set the feed pressure and stage cut; and a gas chromatograph analyses feed, residue and permeate.

TYPICAL DESIGN DATA

Feed gas	CO_2, CH_4 and N_2 blended and boosted; H_2S option with materials and safety measures to suit
Pressure	Test pressure to order, set by back-pressure regulators
Temperature	Heated housings; range to order
Codes and standards	PED 2014/68/EU or ASME B31.3 for pressure parts as required; CE marking
Analysis	Gas chromatograph on feed, residue and permeate
Results	CO_2 and CH_4 permeance, selectivity, stage cut and plasticisation curves, with report

MODELS AND CAPACITIES

- **TI-HPC-C** – skid for flat-sheet cells
- **TI-HPC-M** – skid for hollow-fibre modules
- **TI-HPC-S** – sour-gas version with H_2S

Skids are built to the pressures, gases and membrane formats you test.

ORDERING CODE

Example **TI-HPC-M**: **M** format: C flat-sheet cells, M modules, S sour-gas version.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** H_2S package; humidified feed; additional housings; ex build; installation, commissioning and operator training.

KEY ADVANTAGES

- **Real pressure** – mixed gas at the operating pressure
- **Modules or cells** – one skid for both formats
- **Plasticisation curves** – pressure steps at fixed composition
- **Sour gas option** – H_2S testing with the right materials

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

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