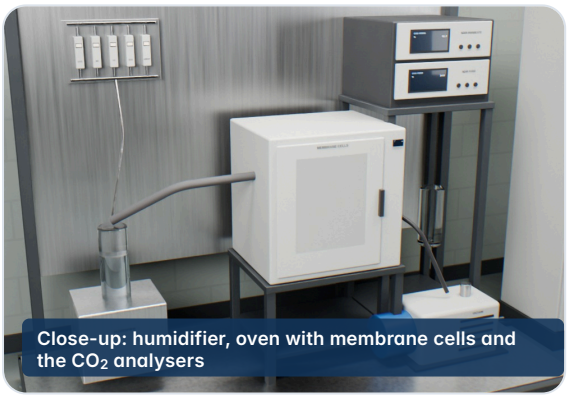
PRODUCT DATASHEET

Flue-Gas CO_2 Membrane Test System (Humidified Mixed Gas)

Humidified CO2/N2 mixed-gas testing of membranes for post-combustion capture

Product page





Close-up: humidifier, oven with membrane cells and the CO_2 analysers

OVERVIEW

The Tech Inc. Flue-Gas CO_2 Membrane Test System (Humidified Mixed Gas) tests CO_2 capture membranes under the conditions they will meet behind a boiler, furnace or kiln: a mixture of CO_2 and nitrogen with oxygen, water vapour and traces of sulphur dioxide.

TYPICAL DESIGN DATA

Feed gas	CO_2, N_2 and O_2 blended by mass flow controllers; SO_2 option; water content set by the humidifier
Permeate	Vacuum with pressure control, or sweep gas by mass flow controller
Membranes	Flat-sheet coupons in cells; cell size to order
Codes and standards	CE marking
Analysis	NDIR CO_2 analysers, or gas chromatograph for multicomponent mixtures
Results	CO_2 permeance (GPU), CO2/N2 selectivity, stage cut and trends over time, with report
Wetted parts	Stainless steel; materials for SO_2 service where it is used

MODELS AND CAPACITIES

- **TI-FGM-1** – single-cell system
- **TI-FGM-GC** – system with gas chromatograph for multicomponent analysis
- **TI-FGM-3** – three cells for side-by-side comparison

Systems are built to the number of cells, gases and conditions you test.

ORDERING CODE

Example **TI-FGM-3**: **3** number of cells; GC for the version with a gas chromatograph.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** SO_2 and NOx dosing; gas chromatograph; additional cells.

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

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How to cite: Flue-Gas CO2 Membrane Test System (Humidified Mixed Gas) (Tech Inc., Vaughan, Ontario, Canada). www.techincresearch.com/product-page/flue-gas-co2-membrane-test-system

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