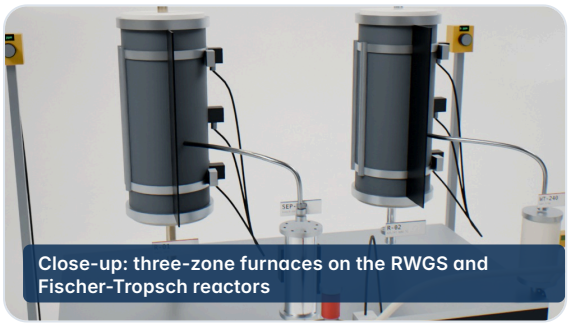
PRODUCT DATASHEET

Integrated RWGS, GTL and Upgrading Reactor Unit

Reverse water gas shift and Fischer-Tropsch reactors, run alone or in series, to 900 °C and 40 barg with on-line GC

Product page





Close-up: three-zone furnaces on the RWGS and Fischer-Tropsch reactors

OVERVIEW

The Tech Inc. Integrated RWGS, GTL and Upgrading Reactor Unit evaluates catalysts for the whole route from captured carbon dioxide to liquid hydrocarbons.

TYPICAL DESIGN DATA

Process routes	Reverse water gas shift and Fischer-Tropsch synthesis
Operating modes	Reactor 1 alone, reactor 2 alone, or the two in series
Temperature	RWGS reactor to 900 °C; Fischer-Tropsch reactor to 600 °C
Codes and standards	Instrument identification to ISA 5.1; pressure parts to the client's code; electrical to IEC 60204-1
Pressure	40 barg maximum operating, both reactors; design pressure 44 to 45 barg
Materials	RWGS reactor alloy 625; Fischer-Tropsch reactor 316L stainless
Catalyst bed	13 mm nominal internal diameter; 250 to 500 µm sieved catalyst

MODELS AND CAPACITIES

- **TI-RGF-2S** – two reactors, independent or in series, on-line GC
- **TI-RGF-F** – Fischer-Tropsch reactor only, to 600 °C and 40 barg
- **TI-RGF-R** – RWGS reactor only, to 900 °C and 40 barg
- **TI-RGF-C** – custom gases, pressure and analysis

Configurations of the reference design.

ORDERING CODE

Example **TI-RGF-2S-40-GC**: **2S** configuration: 2S two reactors, R RWGS only, F Fischer-Tropsch only; **40** maximum operating pressure, barg; **GC** analysis: GC on-line chromatograph, N none.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual.
Options: higher-pressure reactors; additional gas services; liquid hydrocarbon feed.

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

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