PRODUCT DATASHEET

Continuous Flow Reactor Skid

Tubular and coil flow reactors in C-276 and 316L, to 100 bar

Product page





Close-up: reactor coil and outlet

OVERVIEW

The Tech Inc. Continuous Flow Reactor Skid runs chemical reactions continuously in a heated or cooled coil instead of a batch vessel. Precision pumps feed the reagents, the coil in C-276 or 316L holds them at temperature for the set residence time, and a back-pressure regulator keeps solvents liquid above their boiling point.

TYPICAL DESIGN DATA

Wetted materials	C-276 or 316L; PTFE and PFA parts on request
Pressure	To 100 bar
Temperature	About -40 to 250 °C
Codes and standards	ASME B31.3 for piping; electrics to the room classification; PED on request
Residence time	Seconds to about an hour
Control	PLC with touch screen, recipes and data logging
Safety	Pressure relief, over-temperature trips and leak detection

MODELS AND CAPACITIES

- **TI-CFR-10** – about 0.1 to 10 mL/min, reactor 2 to 20 mL
- **TI-CFR-100** – about 1 to 100 mL/min, reactor 20 to 200 mL
- **TI-CFR-1000** – about 10 mL/min to 1 L/min, reactor 0.2 to 2 L
- **TI-CFR-5000** – up to about 5 L/min, reactor 2 to 20 L

Indicative total flow and reactor volume.

ORDERING CODE

Example **TI-CFR-100-276-2-T**: **100** size: maximum total flow, mL/min; **276** reactor material: 276 C-276, 316 316L; **2** number of feed pumps (2 to 4); **T** temperature: T thermostat bath, E electric heating, C cryogenic.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** extra coils for longer residence time; photochemical module; inline analysis connections; ventilated enclosure; thermostat or chiller.

KEY ADVANTAGES

- **Safer chemistry** – small hold-up of reacting material
- **Precise** – residence time and temperature held exactly
- **Corrosion-resistant** – C-276 coils for acids and halogens
- **Scales out** – from lab to production on the same principle

How to cite: Continuous Flow Reactor Skid (model TI-CFR; Tech Inc., Vaughan, Ontario, Canada). www.techincresearch.com/product-page/continuous-flow-reactor-skid

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

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