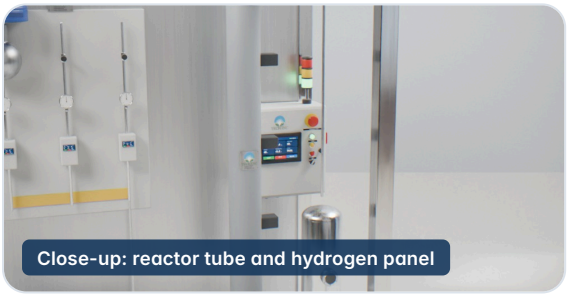
PRODUCT DATASHEET

Continuous Hydrogenation Skid

Packed-bed and trickle-bed hydrogenation with hydrogen gas panel

Product page





Close-up: reactor tube and hydrogen panel

OVERVIEW

The Tech Inc. Continuous Hydrogenation Skid hydrogenates a liquid feed continuously over a fixed catalyst bed. A liquid pump and a hydrogen mass-flow controller feed the heated reactor tube, a separator splits gas from product, and a back-pressure regulator holds the reaction pressure.

TYPICAL DESIGN DATA

Wetted materials	316L; C-276 or Alloy 625 on request
Pressure	To 100 bar
Temperature	To about 300 °C
Codes and standards	ASME B31.3 for piping; components for the hazardous-area classification; PED on request
Hydrogen flow	Thermal mass-flow controller sized to the stoichiometry
Hazardous area	Components for the room classification; ventilated enclosure on request
Control	PLC with interlocks, recipes and data logging

MODELS AND CAPACITIES

- **TI-CHS-5** – about 5 mL catalyst, 0.1 to 5 mL/min liquid
- **TI-CHS-25** – about 25 mL catalyst, 0.5 to 25 mL/min
- **TI-CHS-250** – about 250 mL catalyst, up to about 0.25 L/min
- **TI-CHS-1000** – about 1 L catalyst, up to about 1 L/min

Indicative catalyst volume and liquid flow.

ORDERING CODE

Example **TI-CHS-25-P-100**: **25** size: catalyst volume, mL; **P** reactor: P packed bed, T trickle bed, M multi-tube; **100** design pressure, bar.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** ventilated enclosure with gas detection; laboratory hydrogen generator; multi-tube screening reactor; trickle-bed design; inline analysis.

KEY ADVANTAGES

- **Safer** – small hydrogen inventory, no catalyst filtration
- **Flexible** – swap reactor tubes for different catalysts
- **Consistent** – steady conditions across the bed
- **Complete** – gas panel, reactor, separator and controls on one frame

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

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