PRODUCT DATASHEET

High-Temperature Research Test Loop

Pressurised water and steam loops for materials and heat-transfer research

Product page





Close-up: instrumented test section

OVERVIEW

The Tech Inc. High-Temperature Research Test Loop circulates water or steam at high temperature and pressure through an instrumented test section.

TYPICAL DESIGN DATA

Materials	316L, Alloy 625, Alloy 800H or to the research need
Design code	ASME B31.3 and ASME VIII
Heater	Electric, a few kW to about 100 kW
Instrumentation	Temperature, pressure, flow, conductivity and dissolved oxygen
Control	PLC with interlocks and data acquisition
Safety	Relief valves, over-temperature trips and remote operation

MODELS AND CAPACITIES

- **TI-RTL-150** – to about 150 °C and 20 bar, flow to about 5 m³/h
- **TI-RTL-350** – to about 350 °C and 200 bar, flow to about 2 m³/h
- **TI-RTL-300** – to about 300 °C and 150 bar, flow to about 5 m³/h
- **TI-RTL-C** – custom conditions and fluids

Indicative design conditions and flow.

ORDERING CODE

Example **TI-RTL-300-C-30**: **300** maximum temperature, °C; **C** loop type: C corrosion, H heat transfer, F flow-accelerated corrosion, X custom; **30** heater power, kW.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** water chemistry system with dosing and sampling; second test section; autoclave for static tests.

KEY ADVANTAGES

- **Built to the test plan** – test section and instruments to suit the study
- **High conditions** – to about 350 °C and 200 bar
- **Data-ready** – logged measurements for every run
- **Safe** – interlocks and relief on every circuit

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

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