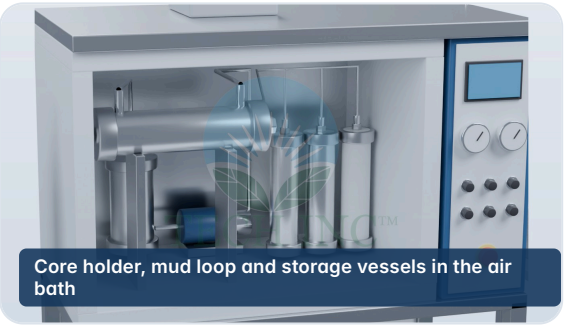
PRODUCT DATASHEET

Return Permeability Test Apparatus

High-pressure, high-temperature dynamic filtration system that measures formation damage by drilling fluids and the permeability recovered after acid treatment

Product page





Core holder, mud loop and storage vessels in the air bath

OVERVIEW

The Tech Inc. Return Permeability Test Apparatus circulates drilling mud across one face of a reservoir core held at confining pressure and temperature, collects and weighs the filtrate, and measures liquid permeability through the core before and after the exposure.

TYPICAL DESIGN DATA

Core size	1.5 in and 1 in diameter; up to 6 in long, spacers down to 0.5 in
Confining pressure	7,500 psi (517 bar) working
Mud flow pressure	6,000 psi (414 bar) working
Temperature	Ambient to 350 °F (177 °C), forced-convection air bath, ±2 °F at set point
Mud flow channel	0.25 in deep × 1.125 in wide across the core face
Drilling fluid loop	1,000 cc heated reservoir cell with magnetically coupled recirculation pump
Fluid storage	Three 1,000 cc floating-piston vessels, 6,000 psi; one PTFE-lined for acid

MODELS AND CAPACITIES

- **TI-RPTA-350** – return permeability test apparatus, 7,500 psi (517 bar) confining, 6,000 psi (414 bar) mud flow, to 350 °F (177 °C), with acid service wetted path

Part number TI-RPTA-350-75.

ORDERING CODE

Example **TI-RPTA-350-75**: **350** maximum temperature, °F; **75** confining pressure, 7,500 psi.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual.
Options: 400 V three-phase or 230 V single-phase supply; acid service liner and seal sets; sleeves in fluoroelastomer or TFE/P.

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