PRODUCT DATASHEET

High-Pressure Back Pressure Regulators

Stable upstream pressure for floods and reactors





DETAIL – DOME-LOADED REGULATOR

OVERVIEW

The Tech Inc. High-Pressure Back Pressure Regulators hold the pressure upstream of them constant while fluid flows through. Dome-loaded models use gas pressure on a diaphragm to set the control point precisely, so core floods, reactors and pilot plants run at steady pressure even with changing flow and two-phase fluids.

MODELS AND CONFIGURATIONS

- **Low-flow dome-loaded** – core floods and micro-reactors.
- **Spring-loaded** – simple pressure holding.
- **Electronic dome control** – computer set point.

TYPICAL DESIGN DATA

Model	TI-BPR-400 series
Pressure	Up to about 700 bar (10,000 psi)
Temperature	Up to about 200 °C, by seat material
Flow	Microlitres per minute to pilot scale
Connections	1/16 to 1/2 inch compression fittings

APPLICATIONS

Core flooding, catalyst test units, high-pressure reactors, supercritical CO_2 systems, membrane test rigs and sample systems.

KEY ADVANTAGES

- **Stable** – dome loading gives fine control
- **Two-phase capable** – handles gas and liquid together
- **Material choice** – for corrosive fluids
- **Integrated** – fits our rigs

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

Offices: Chennai · Toronto · Tallinn · Al Khobar

mail@techincresearch.com · +1 (289) 622-1032 · www.techincresearch.com

Disclaimer: All products, designs and content are the property of Tech Inc. Tech Inc. reserves the right to change specifications and details without notice. Images are for representation only; the supplied equipment may differ in appearance. Data are typical; final design to client specification.