PRODUCT DATASHEET

Bioreactor Gas Panel and Exhaust Condenser

Gas supply and exhaust for bioreactors





DETAIL – FOUR-GAS MASS FLOW PANEL

OVERVIEW

The Tech Inc. Bioreactor Gas Panel and Exhaust Condenser supplies air, oxygen, nitrogen and carbon dioxide to a bioreactor or fermenter at controlled flows, and cools and filters the exhaust gas leaving the vessel. Bioreactor makers fit it as a standard sub-assembly, and plants buy it when they upgrade older vessels.

MODELS AND CONFIGURATIONS

- **Two-gas panel** – air and oxygen for microbial fermentation.
- **Four-gas panel** – air, oxygen, nitrogen and carbon dioxide for cell culture.
- **Panel with exhaust set** – gas panel, exhaust condenser and exhaust filter as one package.
- **Retrofit panel** – built to replace the gas train on an existing vessel.

TYPICAL DESIGN DATA

Gases	Air, O_2, N_2 and CO_2, or to client specification
Flow control	Thermal mass flow controllers ranged to the vessel size
Wetted materials	SS316L tubing and fittings
Exhaust condenser	SS316L shell-and-tube or jacketed design, cooled by chilled water
Control	Analogue or digital signals to the bioreactor controller

APPLICATIONS

Cell culture and microbial bioreactors, fermenters, vaccine and biologics plants, and research and pilot fermentation.

KEY ADVANTAGES

- **Precise gassing** – mass flow control on every gas line
- **Dry exhaust filters** – condenser and heater keep the exhaust filter from blinding
- **Ready to fit** – built to the bioreactor maker's connections and signals
- **Gas know-how** – built by the team that makes our gas panels and pressure-reducing stations

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

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