Sample Preparation Technical Note

PRESSURE+48 and PRESSURE+96

Positive Pressure Manifolds



Biotage® PRESSURE+ manifolds deliver positive pressure, parallel processing for 96 well plates, 1 mL 3 mL and 6 mL column formats. The systems utilize a consistent, uniform flow of positive pressure to move both low and high viscosity liquids through SPE plates and columns. Each port of the PRESSURE+ manifold independently maintains constant pressure, increasing the overall reproducibility of analyte recoveries. This unique design allows for partially populated racks to be used without sacrificing extraction efficiency.

Features and Advantages

- Highly uniform flow from sample to sample for SPE,
 Protein Precipitation and Supported Liquid Extraction
- Improved reproducibility, accuracy and extraction efficiency, even with viscous samples
- Parallel processing for increased sample throughput
- Easy to set-up and use with just a gas source
- Universal designs accommodate all 96 well plates, or 1 mL, 3 mL and 6 mL SPE columns
- Built-in safety features ensure ease of use and safe operation

Uniform Flow

Unlike vacuum manifolds, in which faster flowing wells and columns dry before the processing run is completed, the independent ports of the PRESSURE+ manifolds deliver consistent output. This allows the same motive force to be applied to every cartridge and well, regardless of the contents.

Ideal for Viscous Samples

Biotage PRESSURE+ Positive Pressure manifolds allow for gas pressures of up to 100 psi, enabling greater pressure and force to be used with viscous samples. Smooth and immediate flow responses are achieved by adjusting gas pressure up or down through two regulators and a rotometer.

PRESSURE+ 96 Accommodates all 96 Well Plate Formats

The self-adjusting upper manifold of the PRESSURE+96 manifold is compatible with all 96 well plate formats in addition to the popular 1 mL and 2 mL modular array well formats without the need to purchase supplementary gaskets. Biotage collection plates are recommended for the most consistent and reliable results.

PRESSURE+48 for Cartridges

The same self-adjusting technology utilized in the PRESSURE+ 96 manifold allows the PRESSURE+ 48 to utilize all columns up to 6 mL without the need to purchase supplementary gaskets. In addition, the unique design allows for between 1 and 48 columns to be processed without empty ports affecting flow rates. Tabless or flangeless columns should be used for full population and optimum sealing. The modular rack system accommodates most popular collection vessels to be used with each cartridge size.

Modular Rack System

By using stackable collection racks and extraction racks on the PRESSURE+ 48 manifold, many combinations are possible to accommodate varying methodologies. Racks only fit the system in one direction, ensuring consistent processing throughout.

Ease of Use

The intuitive Biotage PRESSURE+ is easily incorporated into laboratory work flow. Simply stack 96 well plates and collection plates (for PRESSURE+ 96) or column rack and collection racks (for PRESSURE+ 48) on the platform tray using the positioning markers and slide the tray under the gasket until it hits the stop. Rocker switches pressed simultaneously on the side/front of the unit lowers the gasket and compress it onto the plates/columns. This simultaneous depression of the rocker switches is a safety feature that ensures hands are kept clear of moving parts during operation.



Ordering Information

PRESSURE+ 96

Part Number	Description
PPM-96	PRESSURE+ 96 Positive Pressure Manifold 96 Well. Includes 1×1 mL 96 well collection plate, 1×2 mL 96 well collection plate, 1×10 mL 24 well collection plate (waste plate), 96-column sealing gasket, gas supply adapter kit (6' of $1/8$ " i.d. polyethylene tubing and $1/8$ " and $1/4$ " NPT connectors), User Manual CD.
Accessories	
PPM-A96-GSKT	PRESSURE+ 96 Sealing Gasket 96 position
PPM-A96-1024	PRESSURE+ 96 Collection Tray 10 mL 24 well
PPM-GA	PRESSURE+ Gas Supply Adapter for all models
121-5202	96-well collection plate, 1 mL, pack of 50
121-5203	96-well collection plate, 2 mL, pack of 50

PRESSURE+ 48

Part Number	Description
PPM-48	PRESSURE+ 48 Positive Pressure Manifold 48 Well. Includes Sealing gasket 48 position, gas supply adapter kit (6' of 1/8" i.d. polyethylene tubing and 1/8" and 1/4" NPT connectors), waste bin rack, Waste bin inserts, User Manual CD. Racks must be ordered separately.
Racks	
PPM-A48-1RCK	PRESSURE+ 48 SPE Column Rack 1 mL
PPM-A48-3RCK	PRESSURE+ 48 SPE Column Rack 3 mL
PPM-A48-6RCK	PRESSURE+ 48 SPE Column Rack 6 mL
PPM-A48-1275	PRESSURE+ 48 Collection Rack 12 X 75 mm
PPM-A48-13100	PRESSURE+ 48 Collection Rack 13 x 100 mm
PPM-A48-1232	PRESSURE+ 48 Sample Vial Rack 12 x 32 mm
PPM-A48-16100	PRESSURE+ 48 Collection Rack 16 x 100 mm
Accessories	
PPM-A48-GSKT	PRESSURE+ 48 Sealing Gasket 48 position
PPM-A48-WST	PRESSURE+ 48 Waste Bin Inserts
PPM-GA	PRESSURE+ Gas Supply Adapter for all models

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