Prep Series

Degassers

Prep 8A- VACUUM DEGASSER

"Accurate, Accessible, Advanced Gas Sorption"

The **Prep 8A** features two independent working modules, each with four degassing ports, allowing simultaneous preparation of up to eight samples. Each module operates with independent temperature and time controls, enabling flexible and parallel sample degassing.

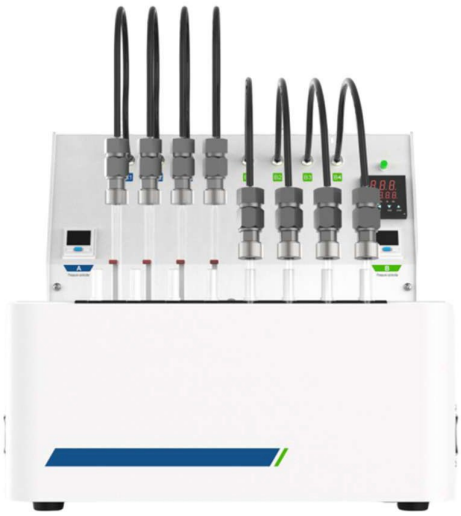
A multi-stage vacuum pumping system, regulated by an internal pressure transducer, prevents sample elutriation, controls switching pressure, regulates nitrogen backfill pressure, and maintains precise pressure control during furnace descent. Programmable temperature ramping and a built-in cooling fan ensure efficient, precise, and controlled thermal treatment.

The system is operated via a 7-inch touchscreen interface with automatic parameter memory, streamlining operation and enhancing usability.

Use-Case:
High-capacity vacuum degasser with vertical configuration; ideal for labs prioritizing throughput, thermal uniformity, and complete automation.

Model	**Prep 8A**
Temperature	RT-400°C
Control accuracy	±1°C
Degassing port	8
Pump	1 mechanical pump (ultimate vacuum 10^{-2} Pa, optional)
Heating method	Programmed temperature ramping (Optional)
Dimensions and weight	L 16.9 in (428 mm) × W 17.4 in (443 mm) × H30.4 in (772 mm), 70.5 lbs (32 kg)

Prep 8M - VACUUM DEGASSER



Model	Prep 8M
Temperature	RT-400°C
Control	±1°C
Degassing port	8
Pump	1 mechanical pump (ultimate vacuum 10^{-2} Pa, optional)
Heating method	Programmed temperature ramping (Optional)
Dimensions and weight	L 16.2 in (412.5 mm) × W 14.7 in (372.5 mm) × H 17.9 in (455mm), 63.8 lbs (29 kg)

The **Prep 8M** vacuum degasser features a single working module with eight degassing ports, enabling the simultaneous preparation of up to eight samples under uniform thermal conditions. All stations operate at the same temperature, making it ideal for processing multiple samples consistently.

Designed for efficiency and ease of use, the **Prep 8M** allows quick disassembly of sample tubes, supports grouped programmed temperature ramping, and features a purge-assisted cooling function for rapid cooldown. Its anti-elutriation design ensures sample integrity throughout the vacuum degassing process.

Temperature is fully programmable to deliver consistent and precise thermal treatment, while vacuum and backfill are manually controlled, giving operators the flexibility to manage timing and sequencing based on specific sample requirements.

Use-Case:

Compact benchtop vacuum degasser with semi-automated functionality suited for space-constrained labs needing 8- port capacity.

Prep 4M – VACUUM DEGASSER

The **Prep 4M** vacuum degasser features four independent degassing stations, each with individually adjustable temperature and time parameters. This allows for the simultaneous preparation of multiple samples under different conditions, making it ideal for laboratories handling diverse materials.

Designed to maintain sample integrity, the system includes an anti-elutriation design to prevent particle loss during evacuation. It also supports optional programmable temperature ramping for controlled and repeatable heating cycles. Vacuum and nitrogen backfill are manually controlled, giving operators the flexibility to manage process timing based on specific sample requirements.

The **Prep 4M** offers a compact and versatile solution for reliable sample pretreatment in surface area and gas adsorption analyses.

Use-Case:

Economical 4-port vacuum degasser for low-to-mid throughput needs; temperature ramping available as an option.

Model	**Prep 4M**
Temperature range	RT-400°C; Optional: RT-500°C
Control accuracy	±1°C
Degassing port	4
Pump	1 mechanical pump (Ultimate vacuum 10^{-2} Pa, Optional)
Heating method	Programmed temperature ramping (Optional)
Dimensions and weight	L 16.9 in (430 mm) × W 14.2 in (360 mm) × H 28.6 in (726.5 mm), 46.2 lbs (21 kg)

Prep 8F –FLOW DEGASSER

Model	Prep 8F
Degassing Principle	Vacuum & Flow
Temperature range	RT-400°C
Control accuracy	±1°C
Degassing port	8
Pump	1 mechanical pump (ultimate vacuum 10^{-2} Pa, Optional)
Heating method	Programmed temperature ramping (Optional)
Dimensions and weight	L 16.8 in (426 mm) × W 17.3 in (440 mm) × H 27.2 in (692 mm), 81.4 lbs (37 kg)

The **Prep 8F** is a versatile, high-throughput degassing system featuring two independent working units, each with four degassing ports, allowing the simultaneous preparation of up to eight samples. Each unit offers independent control of degassing temperature and time, providing flexibility for handling different sample types.

Specifically designed for dynamic (flow) degassing, the system ensures efficient and uniform sample preparation without the use of vacuum. A programmable temperature ramping function enables controlled heating, while a built-in furnace fan facilitates rapid cooling between runs.

Operation is streamlined through a 7-inch integrated touchscreen with an intuitive interface and automatic parameter memory, making the **Prep 8F** an ideal solution for high-throughput sample pretreatment in surface area and gas adsorption analysis.

Use-Case:

Flow-based degasser with 8 ports; designed for applications where vacuum degassing is not preferred or feasible.

Switch-6

Multi-Channel Gas Selector

Switch-6: Multi-Channel Gas Inlet Controller

Figure 1: Automatic Multi-channel Gas Inlet Controller

The automatic multi-channel gas inlet controller, **Switch-6,** features an integrated design, enabling one-button switching among multiple gases and supporting up to six input ports. Users can select any gas path for output as needed, making it ideal for applications requiring frequent gas changes during various testing procedures.

This device is highly compatible, designed to work seamlessly with the full range of AMI instruments and a wide variety of systems from other manufacturers.

Safety

Features a streamlined valve disassembly and assembly when switching between different gases, significantly reducing the risk of leakage from manual operations. Additionally, a corrosion-resistant version is available upon request to accommodate more demanding environments.

Simplicity

Enables automatic gas switching with a single button press. It also performs automatic pipeline purging, preventing residual gases from affecting the accuracy of subsequent experimental results.

Expandability

Supports six input ports and one output port, with the option to cascade multiple units—allowing for 6, 12, 18, or more gas paths as needed.

	Switch-6
Number of ports	6 (12, 18 are optional)
Tubing size	1/8 inch
Pressure	Near atmospheric
Gas types	N_2, H_2, Ar, and other gases (corrosive gases such as H_2S, NH_3, HCl, etc., are available as options)
Dimensions and weight	L 2.9 in(73 mm) × W 9.5 in (240 mm) × H 10.0 in (253 mm), 11 lbs (5 kg)

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