AIM™ Autosamplers

Front end automation for analytical instruments

Brooks designs and manufactures OEM autosamplers for automating sample introduction for a wide range of analytical instruments employing technologies such as molecular and atomic spectroscopy, wet chemical analysis and liquid phase separations. We specialize in single probe autosamplers for sequentially processing large sample numbers. Sample volumes are typically between 0.1ml - 100ml.

Rather than sell a standard off-the-shelf product, Brooks offers a variety of different autosampler platforms and works with OEM customers to provide a customized solution to meet their individual requirements.

The autosampler models featured in this brochure represent state-of-the-art autosampler design. They embody years of experience and know how invested by Brooks into autosampler design through working with various leading scientific analyzer manufacturers who choose Brooks autosamplers as their preferred autosampler solution.

What makes Brooks autosamplers distinctive in the marketplace is the unique "pirouette" motion to access all sample positions. The "x - theta - z" motion simplifies the engineering design, creating faster and more efficient probe movements and greater overall product reliability.

AIM autosamplers share the following characteristics.

- Compact footprint which maximizes available area for samples and standards.
- Exceptional reliability through proven mechanical design.
- Ideal for low level applications.
- The moving probe arm is designed to minimize any wear particles which could lead to possible sample contamination.
- Probe travel confined within the boundaries of the autosampler.
- Shorter probe line length compared to linear XYZ design for faster wash out and sampling.
- Highly flexible programming capabilities such as probe speed in all directions, probe depth, probe travel limits, wash pump speed, and specialized probe moves.

- Solid robust design.
- The autosampler can be easily transported around the lab.
- High chemical resistance to acids and select solvents.
- Protective transparent sampler cover that takes little or no additional space and is easy to fit.
- No regular on-going user maintenance required.
- Customizable for different application requirements.
- Can be controlled by Brooks' MDS software – a test and diagnostic tool for our OEM customers to assist in developing new applications and for product troubleshooting.
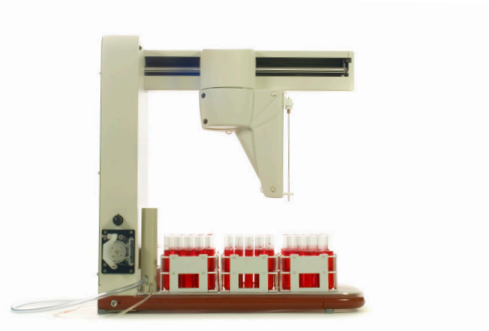
AIM3200 Autosampler
2 sample rack version

The smallest autosampler in the AIM range. The AIM3200 is a compact workhorse for those looking for an autosampler to handle typically 100-150 samples or less in one run. The AIM3200 can be set up to sample from open vials or tubes, septum capped vials or 96 well microtiter plates.

Technical Specifications
Footprint · 415mm x 265mm (16.3" x 10.6")
Height · 435mm (17.1")
Net Weight · 12kg / 26.5lbs
Shipping Weight · ~14kg / ~31lbs (with accessories)
Sample racks · 90 position x 13mm OD · 60 position x 16mm OD · 40 position x 20mm OD · 24 position x 25mm OD · 21 position x 30mm OD · 4 x 96 well microtiter trays
Standard rack location · 1
Standard rack options · 5 position x 30mm OD · 10 position x 17mm OD
Maximum vial height · 125mm
Communication · 1 x RS232, 1 x RS485, 1 x relay contact (USB optional)
Power input · 85 - 264VAC, 49 - 61 Hz, 1.2A
Chassis Color · Off-white (Grau Weiss)

Options	
Sampler cover	X
Wash pump	Variable speed
Septum piercing	X

AIM3300 Autosampler
3 sample rack version

The AIM3300 is the most flexible autosampler in the range. It can accommodate two standards racks and has a number of communication connections. It also has available the most sample probe options along with a range of customized sample racks and rack location mats.

Technical Specifications
Footprint · 490mm x 285mm (19.3" x 11.2")
Height · 510mm (20.1")
Net Weight · 15kg / 33lbs
Shipping Weight · ~18kg / ~39.7lbs (with accessories)
Sample racks · 90 position x 13mm OD · 60 position x 16mm OD · 40 position x 20mm OD · 24 position x 25mm OD · 21 position x 30mm OD
Standard rack location · 2
Standard rack options · 6 position x 30mm OD · 11 position x 17mm OD
Maximum vial height · 150mm
Communication · 1 x RS232, 1 x RS485, 4 x relay contact, 8 digital inputs, (USB optional)
Power input · 85 - 264VAC, 49 - 61 Hz, 1.8A
Chassis Color · Off-white (Grau Weiss) · Light gray (Oyster gray)

Options	
Sampler cover	X
Wash pump	Variable speed
Septum piercing	X

AIM3600 Autosampler
7 sample rack version

The highest capacity autosampler in the range. The AIM3600 Autosampler accommodates 7 sample racks and 2 standards racks - that's up to 630 samples and 22 standards. There is some flexibility where the wash station is located with 4 alternative positions. The AIM3600 is suited for long unattended sample runs.

Technical Specifications
Footprint • 1000mm x 285mm (39.4" x 11.2")
Height • 510mm (20.1")
Net Weight • 22kg / 48.4lbs
Shipping Weight • 30kg / ~66.1lbs (with accessories)
Sample racks • 90 position x 13mm OD • 60 position x 16mm OD • 40 position x 20mm OD • 24 position x 25mm OD • 21 position x 30mm OD
Standard rack location • 2
Standard rack options • 6 position x 30mm OD
Maximum vial height • 150mm
Communication • 1 x RS232, 1 x RS485, 4 x relay contact, 8 digital inputs, (USB optional)
Power input • 85 - 264VAC, 49 - 61 Hz, 1.8A
Chassis Color • Off-white (Grau Weiss)

Options	
Protective cover	X
Wash pump	Variable speed
Septum piercing	X

AIM4000 Autosampler
4 sample rack version

The AIM4000 represents the latest autosampler design from Brooks. The electronics have been moved into the upper gantry away from any fluids optimizing the available bench space for samples. The standards rack and wash station are centrally located to minimize probe travel.

Technical Specifications
Footprint • 600mm x 317mm (23.6" x 12.5")
Height • 510mm (20.1")
Net Weight • 15kg / 33.1lbs
Shipping Weight • ~18.6kg/ ~41.0lbs (with accessories)
Sample racks • 90 position x 13mm OD • 60 position x 16mm OD • 40 position x 20mm OD • 24 position x 25mm OD • 21 position x 30mm OD • 4 x 96 well microtiter tray adapter
Standard rack location • 1
Standard rack options • 5 position x 62mm OD • 34 position (22 x 61mm OD + 12 x 329mm OD)
Maximum vial height • 150mm
Communication • 1 x USB, 1 x RS485, Up to 3 relay contacts, up to 3 digital inputs/ outputs
Power input • 100 - 240V, 47 - 63 Hz, 1.5A
Chassis Color • Cool white

| Options	
Protective cover	X
Wash pump	Variable speed (software controlled)

OEM Partnership

Brooks understands that there is more to just designing and manufacturing a quality product in any on-going successful OEM relationship. To start with, no two OEM customers have the same requirements. We take it on as our responsibility to understand what issues are important to the success of your application. If we understand the chemistry and how you want to use the autosampler, we can call on our experiences in working with multiple OEM customers over the years to assist you getting the right configuration for the job at hand.

Brooks values our OEM relationships as a long term commitment. We aim to provide you with a complete and seamless solution as though we are part of your organization. This means that what is important to you is important to us. We prioritize things such as being responsive to your inquiries, delivering on time, offering flexibility for modifications, providing easy access to our support services when needed, and offering training, among other aspects that are unique to each relationship.

Autosampler Accessories

AIM Autosamplers come with a wide range of accessories including:
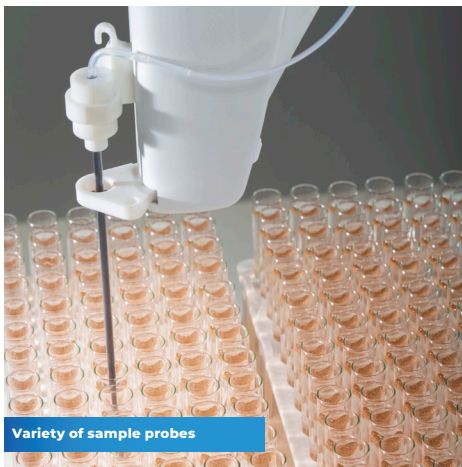
Variety of sample probes

Off the shelf and custom sample racks

Standards racks

Wash pump

Septum piercing

Wash station

Automation Capabilities

As well as liquid autosamplers, Brooks designs and manufactures a range of robotic workstations for automating the processing of specimen tubes in pathology laboratories which are sold globally through distributor arrangements. Automated technologies developed in-house include:

- Sample sorting
- Tube decapping
- Tube recapping
- RFID tracking
- Workcell control
- Foil sealing
- Aliquoting

- Barcode reading
- Level sensing
- Pick and place
- Tube type identification
- Image analysis
- Tube labeling
- Customized rack design