

# MAGNETIC PLATES & ACCESSORIES

Advanced Magnetic Separation Products

**ALPAQUA**<sup>®</sup>

*Accelerating Genomic Discovery*<sup>®</sup>

## Maximize Sample Recovery... Protect your Equipment

Smarter magnetic separation for modern genomics and life science workflows

Alpaqua magnet plates are engineered to deliver unmatched bead capture and liquid handling precision. Available in 24-, 48-, 96-, 384-well, and flip tube formats, our plates integrate seamlessly with virtually all liquid handlers thanks to full SBS compliance.

Powered by NdFeB (Neodymium Iron Boron) magnets, Alpaqua magnet plates deliver exceptional strength and consistency for magnetic bead separation. In our Magnum FLX<sup>®</sup> plates we feature patented Solid-Core<sup>™</sup> ring magnets, engineered for superior magnetic field strength and maximum bead capture.

Combined with our spring cushion technology, this design ensures complete aspiration of supernatants and wash solutions, minimizing sample loss, enhancing yields, and improving overall reproducibility across a variety of applications.

### Why Choose Alpaqua

- **Versatility:** Supports a wide range of sample volumes, viscosities, and plate densities
- **Reliability:** Consistent performance across PCR cleanup, DNA purification, and NGS library prep
- **Efficiency:** Faster workflows with cleaner results, reducing hands on time and error risk
- **Compatibility:** Designed for seamless integration into automated platforms

From genomic DNA purification to next generation sequencing library construction, Alpaqua magnet plates empower scientists to achieve higher yields, cleaner samples, and more reliable results - every time.

### Why Spring Cushion Technology Matters

Precision aspiration is critical in high throughput workflows. Alpaqua's spring cushion technology allows magnet plates to give way when pipette tips contact the well bottom, compensating for physical tolerances between labware and pipettors. The result is more consistent liquid handling and fewer workflow interruptions.

### Plate Features & Benefits

- SBS footprint optimized for maximum robotic access and seamless integration with automation platforms
- Strong NdFeB magnets for highly efficient bead capture, even from viscous solutions
- Protocol flexibility with compatibility across common magnetic bead chemistries and workflows
- Integrated spring cushion technology ensures complete liquid removal without tip occlusions
- Trusted performance recommended by leading instrument and reagent suppliers

### Benefits of Spring Cushion Technology

- **Protects instruments & consumables** from mechanical stress
- **Improves pipetting consistency** across plates and runs
- **Maximizes reagent & sample usage** by reducing waste
- **Helps prevent tip vacuum & head contamination** for clean liquid handling operations
- **Accelerates automated method development** by reducing trial and error adjustments



## Alpaqua: Built on Three Pillars

### INNOVATION

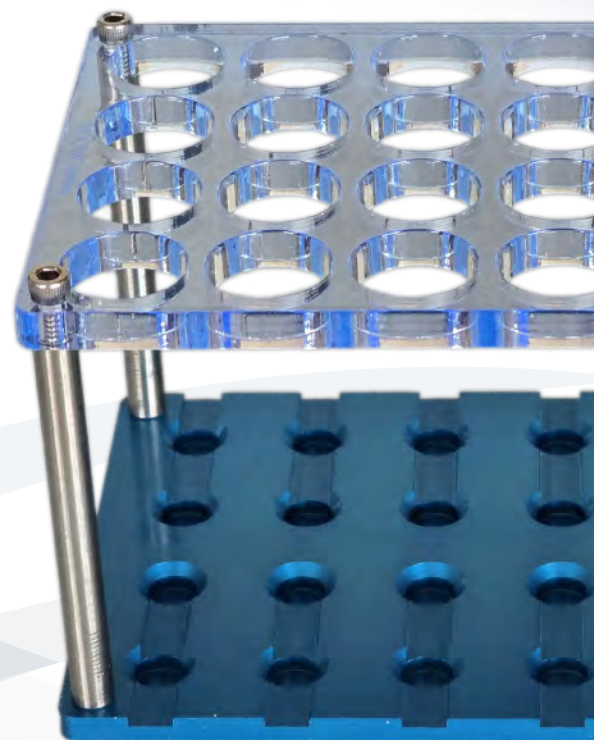
At Alpaqua, innovation drives everything we do. Our magnetic plates are designed to support the critical first step in genomic research - DNA extraction - and beyond. Guided by a philosophy of versatility, our plates work seamlessly across multiple microplate formats, delivering flexibility without compromise. With patented technologies and precision engineering, we are committed to Accelerating Genomic Discovery®.

### QUALITY

We hold an uncompromising view of quality. Every product is built to deliver reliable, consistent performance, empowering researchers with tools they can trust. Precision manufacturing and rigorous testing ensure our solutions meet the highest standards, time after time.

### CUSTOMER SERVICE

Our commitment doesn't end with our products. We strive to provide exceptional customer service, offering guidance, troubleshooting, and custom solutions tailored to unique applications. Our team is dedicated to helping clients achieve success at every stage of their magnetic bead workflow.



# Alpaqua 96-well Magnet Plates

The most comprehensive line of high-performance magnet plates available

## MAGNUM FLX®

ENHANCED UNIVERSAL MAGNET PLATE

2. Generation P/N A000600

1. Generation P/N A000400



Magnum FLX® 2. Generation



Magnum FLX® 1. Generation



Magnum™ EX 2. Generation



Magnum™ EX 1. Generation

Built with patented Solid-Core™ ring magnets, the Magnum FLX *Enhanced* Universal Magnet Plate enables unsurpassed separation speeds of all sample volumes while at the same time allowing low-volume elutions. Universally compatible with most commonly used 96-well microplates and robotic platforms, these are Alpaqua's fastest and most versatile plates. No other single magnet plate enables rapid separation of samples up to 2 ml in volume and elution in as little as 10 µl in PCR plates. Includes our patented PAQLOC® Spring Lock for quick locking and releasing of the spring cushion.

## MAGNUM™ EX

UNIVERSAL MAGNET PLATE

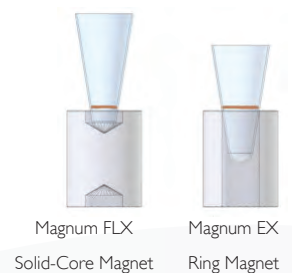
2. Generation P/N A000580

1. Generation P/N A000380

The Magnum EX Universal Magnet Plate contains 96 of our strongest ring-shaped magnets, unique corner brackets and an elevated platform. It is designed for use with all commonly used 96-well microplates including flat-bottom, round-bottom, and V-bottom plates, as well as full-, semi-, and non-skirted PCR plates. Includes PAQLOC® Spring Lock for quick locking and releasing of the spring cushion.

### Magnet Comparison: Magnum FLX vs. Magnum EX

Unlike ordinary ring magnets, Solid-Core™ Ring Magnets (Magnum FLX) feature a solid inner core. The additional magnetic material produces a stronger magnetic field, delivering faster bead separation and improved throughput. In PCR wells (shown), the bead ring forms lower in the well, allowing smaller elution volumes as low as 10 µl. Less unnecessary product dilution means higher product concentration.



### Updated 2. Generation Design

- Same Dimensions and Magnets as 1. Generation | Same labware definitions
- Removable Corner Brackets | Easily replaced should one break or removed if they are in the way
- Solid Aluminum Construction | Allows for heat or cold transfer (up to 80°C)
- Updated PAQLOC® Design for Manual Workflows – now locks in the compressed state

# Alpaqua 96-well Magnet Plates

The most comprehensive line of high-performance magnet plates available

## 96S SUPER MAGNET PLATE

P/N A001322

A trusted workhorse in countless labs, the 96S Super Magnet Plate with spring cushion technology is used for medium volume separations up to 1 ml, or for faster separations in smaller volumes.



## LE MAGNET PLATE

P/N A000350

The Low Elution Magnet Plate contains a unique plate docking structure. It is designed for use with 96-well PCR plates (full-, semi-, or non-skirted) supporting a minimum elution volume of 8  $\mu$ l.

Note that Alpaqua recommends rigid (two-component) PCR plates like the Eppendorf twin.tec<sup>®</sup> plates, Bio-Rad Hard-Shell<sup>®</sup> plates, or others.



## MIDI MAGNET<sup>®</sup> PLATE

P/N A000430

Designed for optimal performance with the 'MIDI Plate' (ABgene AB-0859) specified in many NGS protocols. Automation-friendly, it contains integrated Spring Cushion Technology to enable maximum recovery of samples.



**NOTE:** Alpaqua recommends the use of rigid (two-component) PCR plates. Single component plates tend to warp (especially after thermocycling), resulting in suboptimal magnet contact.

# Alpaqua 24- and 384-well Magnet Plates



## MAGPLATE 24

P/N A000270

24-well magnet plate for magnetic bead separation from large volume samples. Legacy product. Only compatible with GE Whatman Uniplate 7701-5102.



## MAGNUM FLX<sup>®</sup> 24

P/N A000440

Universal 24-well magnet plate for rapid magnetic bead separation from large volumes and viscous samples. Enables low volume elution in as little as 40  $\mu$ l. Compatible with Magnum FLIP<sup>™</sup> for flip cap vials.



## MAGNUM FLX<sup>®</sup> 24HV

P/N A000640

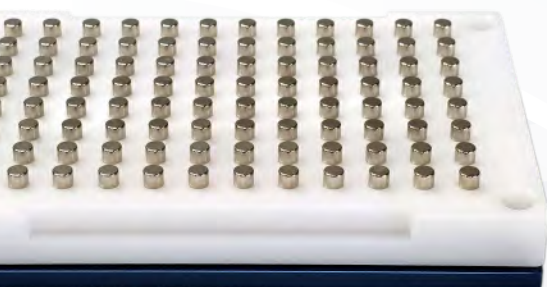
Designed for large volume separations with high bead loads. Compared to the Magnum FLX24 (above), Magnum FLX24HV forms bigger rings in the well bottom for ease of pipetting and minimum elution volumes of  $\sim$ 100  $\mu$ l. Compatible with round-bottom, V-bottom, and pyramid-bottom 24 well deepwell plates. Compatible with Magnum FLIP<sup>™</sup> for flip cap vials.



## 384 POST MAGNET PLATE

P/N A001222

Designed for use with 384-well PCR plates. Contains 96 strong post magnets and integrated Spring Cushion Technology for high throughput magnetic bead separations. For best results we recommend using rigid PCR microplates such as Bio-Rad Hard-Shell<sup>®</sup>, Eppendorf twin.tec<sup>®</sup>, or 4titude<sup>®</sup> FrameStar<sup>®</sup> microplates.



## 384LE POST MAGNET PLATE

P/N A000420

Strong and efficient magnet plate for low elution high-throughput separations in 384 well PCR plates. Elution volume as low as 4  $\mu$ l. Built with Spring Cushion Technology for high throughput automated magnetic bead separations.

# Alpaqua Manual Magnet Plates

## CATALYST™ 48 SLOTTED 48 WELL MAGNET PLATE P/N A000530

Proprietary slotted ring magnets configured for use with NEST Scientific 48-well deepwell plates for sample volume applications up to 3.5 ml. Exceptionally well suited for manual pipetting.



### Pipette with Confidence

Catalyst™ patented “discontinuous wall” (slotted) ring magnets concentrate magnetic beads in opposing arches near the bottom of a microplate well. This enables manual users to track pipet tips down the inside wall of the well to reduce inadvertent bead aspiration and improve consistency while maintaining the ability to elute in as little as 10 µl.



## CATALYST™ 96 SLOTTED 96 WELL MAGNET PLATE P/N A000550

Compatible with most 96-well microplates and PCR plates. Use of PCR strip tubes requires the use of the PCR Strip Adaptor (P/N P000555). Use for volumes up to 1 ml.



## MAGNUM FLIP™ KIT MAGNET PLATE AND RACK P/N K000450

The Magnum FLIP™ 24 Position Magnet Plate (P/N A000450) for flip cap vials, in combination with the Alpaqua FLIP Rack (P/N A000455), is designed for rapid separation of magnetic particles from 1.5 and 2.0 ml flip cap vials. Sold separately or as a kit. *Note: The FLIP Rack is also compatible with the A000440 Magnum FLX®24 and the A000640 Magnum FLX®24HV magnet plates*

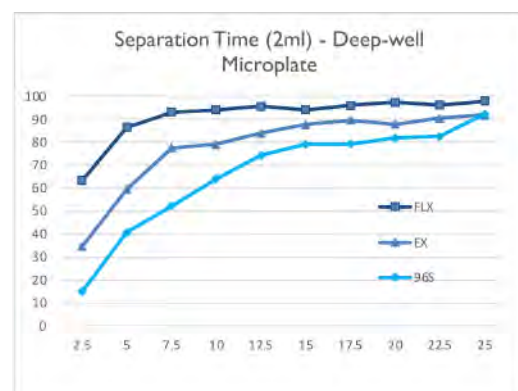
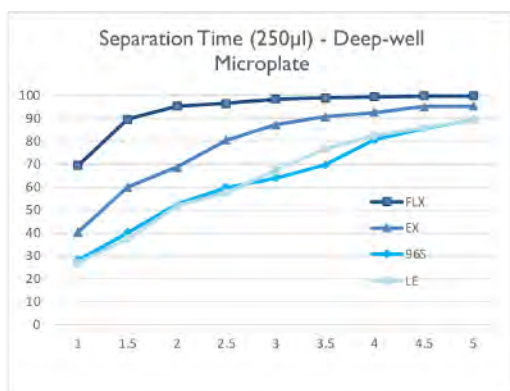
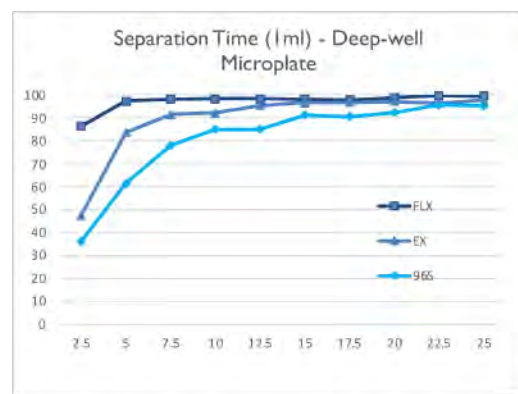
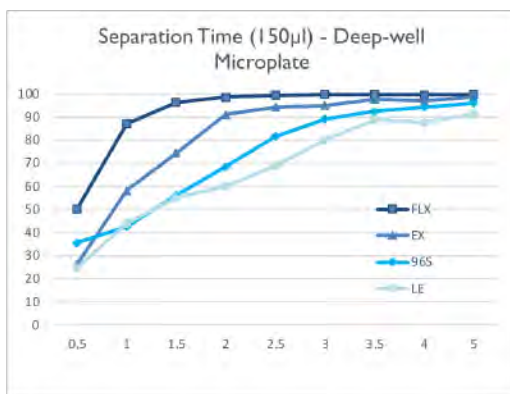
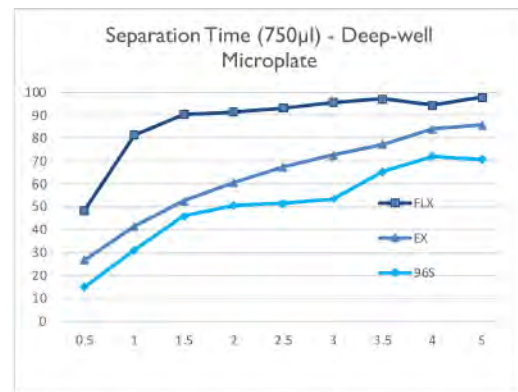
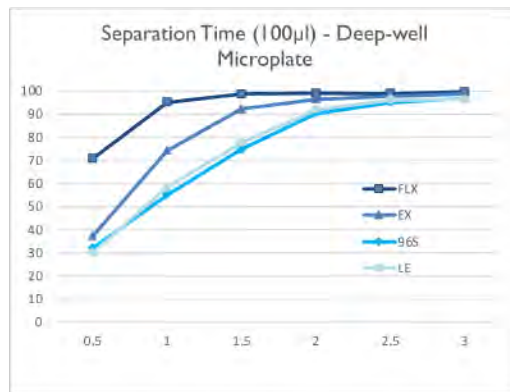
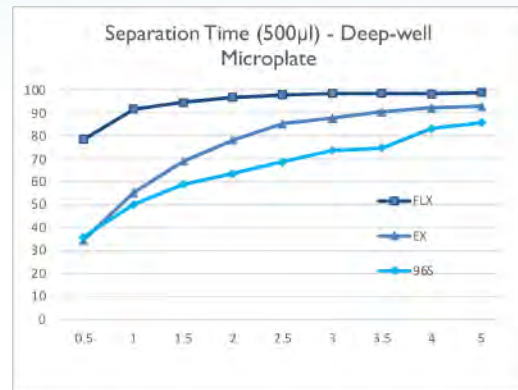
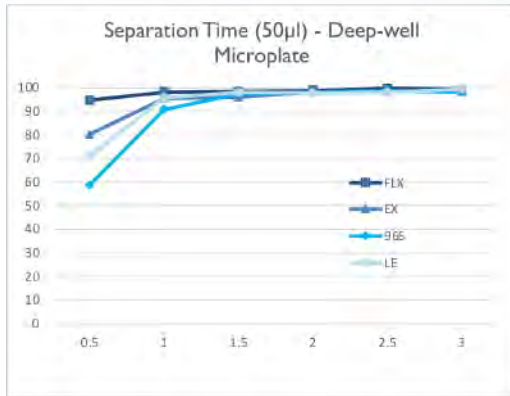


**NOTE: Rigid PCR micro-plates are recommended. Single component plates tend to warp (especially after thermocycling) resulting in suboptimal magnet contact.**

## Separation Speed Comparison: The unique geometry and strength of Solid-Core ring magnets in the Magnum FLX magnet plate enable separations up to 4.5x faster compared to the Alpaqua 96S Super Magnet Plate.

The charts below show percent recovery over time for various reaction volumes. Using a standard 1.8x Ampure/water mix, the reagents were added to 96-well PCR and deep-well microplates, respectively, and placed on the Magnum FLX, Magnum EX, 96S Super Magnet or LE Magnet Plate.

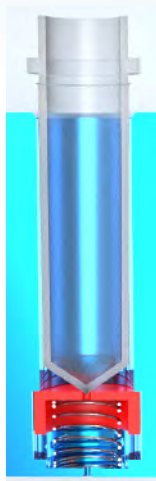
Percent recovery over time was determined using spectrophotometry.



# Alpaqua Magnet Plate Selection Guide

| Plate  | Wells | Magnet Type                                    | Maximal Working Vol.             | Minimum Elution Vol.          | Usage  |
|--|-------|--|----------------------------------|-------------------------------|--|
| MAGNUM FLX® 2. GEN<br>A000600                  | 96    | Solid Core™<br>Ring Magnets                    | 2 ml                             | RB: 20-25 µl<br>PCR: 10-12 µl | Strongest magnet plate with highest microplate compatibility. PAQLOC® allows manual use. Small elutions in PCR plates. |
| MAGNUM FLX® 1. GEN<br>A000400                  |       |  |                                  |                               |  |
| MAGNUM EX® 2. GEN<br>A000580                   | 96    | Ring   | 2 ml                             | 20-25 µl                      | Strong magnet plate with highest microplate compatibility. PAQLOC® allows manual use.                                  |
| MAGNUM EX® 1. GEN<br>A000380                   |       |  |                                  |                               |  |
| 96S SUPER MAGNET<br>A001322                    | 96    | Ring   | 2 ml                             | 20-25 µl                      | Standard magnet plate for automation   |
| LE MAGNET PLATE<br>A000350                     | 96    | Ring   | 300 µl                           | 8 µl                          | Optimized for lower elution volume. PCR plates only.   |
| MIDI MAGNET® PLATE<br>A000430                  | 96    | Post   | AB-0859: 800 µl<br>AB-0932: 2 ml | 20-25 µl                      | Designed for optimal performance with the 'MIDI Plate' (ABgene AB-0859), as specified in many NGS protocols.           |
| MAGPLATE 24<br>A000270                         | 24    | Concentric Rings                               | 10 ml                            | 100 µl                        | Designed for use with Whatman™ UniPlate™ (Cat. No. 7701-5102)  |
| MAGNUM FLX®24<br>A000440                       | 24    | Concentric Rings,<br>Inner Ring<br>Solid Core™ | 10 ml                            | 40 µl                         | Strongest magnet plate with highest microplate compatibility.  |
| MAGNUM FLX®24HV<br>A000640                     | 24    | Concentric Rings                               | 10 ml                            | 100 µl                        | Optimized for high bead volume applications.   |
| MAGNUM FLIP™<br>MAGNET PLATE & RACK<br>K000450 | 24    | Concentric Rings                               | 2 ml                             | NA                            | For manual or automated use (no spring cushion). Strong Magnet.  |
| 384 LE MAGNET PLATE<br>A000420                 | 384   | Post   | 40 µl                            | 4 µl                          | Optimized for lower elution volumes. 384-well PCR plates only.   |
| 384 POST MAGNET PLATE<br>A001222               | 384   | Post   | 40 µl                            | 12-15 µl                      | Standard magnet plate for 384-well PCR plates (only).  |
| CATALYST™ 48<br>A000530                        | 48    | Slotted Ring                                   | 3.5 ml                           | 40 µl                         | Mid-range reaction volume applications up to 3.5 ml. Ideal for manual pipetting.                                       |
| CATALYST™ 96<br>A000550                        | 96    | Slotted Ring                                   | 1 ml                             | RB: 20-25 µl<br>PCR: 10-12 µl | Manual or automated separation   |

\*Certain microplates may require higher elution volumes. For proper elution, beads must be completely covered with buffer.



## POGO®

### 24 POSITION SPRING LOADED THERMAL BLOCK

P/N A000020

Precious reagents often come in screw cap vials with not a single microliter to spare, making it essential to get every last bit out of the vial. Our POGO thermal block offers 24 individually spring-loaded tube positions that make automated precision pipetting so much easier. POGO can be stored in the fridge or freezer until needed, or placed on a Peltier device on the deck for heating or cooling. It works with most common screw cap vials that are at least 35.25 mm tall below the collar and no more than 10.9 mm diameter at the top. See website for details.



## ALPILLO®

### PLATE CUSHION

P/N A000007

In automated liquid handling, precision aspiration and touch-off dispensing critically depend on finding the well bottom without crushing pipet tips. However, liquid handling instruments often struggle with accurate Z-positioning due to labware variations, poor calibration, misalignment, and other factors. The Alpillo® Plate Cushion is a springloaded microplate support that gives way when a tip makes contact, protecting samples and equipment and accelerating automated method development. Use the Alpillo Extension (P/N K000018) for plate nests deeper than 12 mm, and [Get That Last Drop!](#)



## PCR STRIP ADAPTER

P/N P000555

96-well plate adapter for use with PCR strip tubes. Compatible with Alpaqua's Catalyst® 96 and Magnum FLX®.

# Alpaqua Accessories

## Tube Racks

### 12 POSITION RACK

FOR 5 ML SNAP CAP EPPENDORF TUBES®

P/N A000080

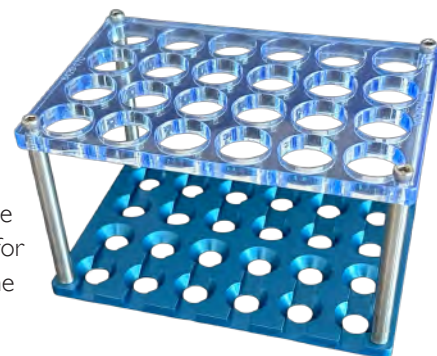
SBS-compliant tube rack for use on liquid handlers to accommodate 5 ml Eppendorf Tubes® with snap cap lids. Tubes are arranged in a 3 by 4 pattern, with 24 mm vertical (Y) and 31 mm horizontal (X) spacing.



### 24 POSITION SBS TUBE RACK (OPEN BOTTOM)

P/N A000260

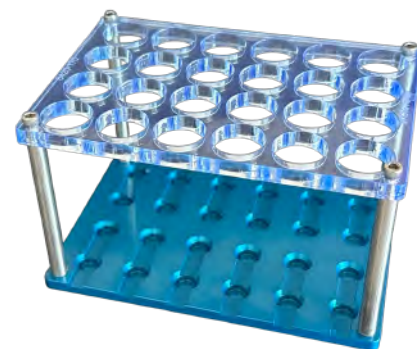
SBS-compliant tube rack for use on liquid handlers to accommodate a range of tube types and lengths from 10-16.6mm in diameter; (please specify), such as 15 ml centrifuge tubes (VWR, Axygen, BD, Corning, etc.), 12 ml KIMAX Culture tubes, Oragene OG-500 tubes and Tyco Monoject Tubes. An open labware holder position is required for use with 15 mL centrifuge tubes to allow the conical tube bottom to project through the base of the rack. This offset is necessary to accommodate 1 mL tips due to height restrictions on some liquid handlers.



### 24 POSITION SBS TUBE RACK (CLOSED BOTTOM)

P/N A000280

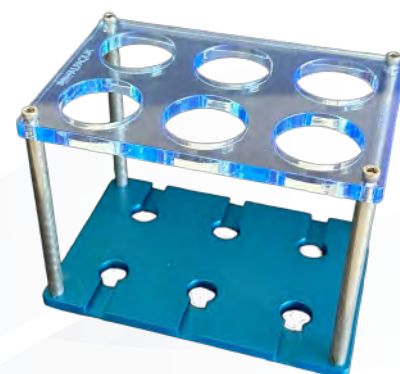
SBS-compliant tube rack for use on liquid handlers to accommodate a range of tube types and lengths from 10-16.6mm in diameter (please specify), such as 15ml centrifuge tubes (VWR, Axygen, BD, Corning, etc.), 12ml KIMAX Culture tubes, Oragene OG-500 tubes and Tyco Monoject Tubes.



### 50ML TUBE RACK

P/N A000290

SBS-compliant tube rack for use on liquid handlers to accommodate tubes up to 30mm in diameter; including 50 mL centrifuge tubes. Available in varying heights, please specify.



CAN'T FIND WHAT YOU'RE LOOKING FOR?  
WE CAN BUILD RACKS FOR JUST ABOUT  
ANY TUBE (OR COMBINATION OF TUBES).



# ALPAQUA<sup>®</sup>

*Accelerating Genomic Discovery<sup>®</sup>*

**Alpaqua Engineering, LLC**

Phone: 1-800-690-1620

Outside US: +1 978-878-9489

[sales@alpaqua.com](mailto:sales@alpaqua.com)

[www.alpaqua.com](http://www.alpaqua.com)

Alpaqua, the wave logo, "Accelerating Genomic Discovery", Magnum, Magnum FLX, MIDI Magnet, Catalyst, POGO, PAQLOC, and Alpillo are registered trademarks of Alpaqua Engineering, LLC in the US and/or other countries. For a full list of Alpaqua patents and trademarks visit <https://www.alpaqua.com/patents/>

©2012 - 2026 Alpaqua Engineering, LLC. All Rights Reserved.

[alpaqua.com](http://alpaqua.com)