

## ALPAQUA<sup>®</sup> MAGNUM™ EX Universal Magnet Plate

This Technical Data Sheet provides product information for the ALPAQUA<sup>®</sup> MAGNUM EX<sup>®</sup> Universal Magnet Plate, product number A000380.



### Precautions

**This magnet plate contains extremely strong neodymium magnets.** Individuals with pacemakers or implantable cardioverter-defibrillators (ICD) should avoid contact with this product. Studies have shown the potential for interference between strong neodymium magnets and these medical devices

(<http://www.ncbi.nlm.nih.gov/pubmed/17198980>, full text: <http://cdn4.vol.at/2007/03/Magnet-Studie.pdf>).



**Pinch Hazard.** Never allow the magnets to come into contact with other magnetic plates, magnets, or metal objects. The resulting strong and rapid attraction may cause personal injury.

### Product Description

The Magnum EX Universal Magnet Plate is designed for rapid and efficient magnetic particle separations from a wide range of sample volumes (30 $\mu$ L\* to 2mL), liquid viscosities, and labware types. The unique universal adapter brackets ensure compatibility with virtually all commonly used 96 well microplates including Flat-Bottom, Round-Bottom, V-Bottom, Deep-Well, and PCR plates (full, semi, or non-skirted). The SBS footprint and elevated base of the Magnum EX plate also ensures compatibility with virtually all automated liquid handling decks, including those with deep plate nests up to 20 mm in depth.

\*Some microplate types may require larger elution volumes. To achieve efficient recoveries the magnetic bead ring must be completely covered by elution buffer.

### Product Applications and Use

The Magnum EX Universal Magnet Plate is compatible with all molecular biology, cell biology, proteomics or other workflows requiring highly efficient and rapid separation of magnetic particles from solutions in a 96 well SBS compliant footprint.

*Do not use* microplates that became warped after heating (i.e. thermocycling). The use of warped microplates may result in magnetic particle carryover or loss of magnetic particles.

### Product Maintenance

#### Cleaning

Cleaning of the Magnum EX Universal Magnet Plate before and after each use is recommended to ensure that the plate is clear of any residual solutions or buffers that may contain salts or other corrosive agents. Buildup of these agents may over time result in damage to the plate components and interfere with proper seating of labware onto the magnets. Small amounts of surface debris can be cleaned by lightly wiping with 70% ethanol and drying with a towel or, if available, compressed air can be used to remove liquid from the magnets and springs. If larger salt deposits are found within the ring magnets a Q-tip dampened with ethanol may be used to gently remove bound material. *Always* thoroughly dry all surfaces including the spring cushion mechanism after cleaning.

#### Decontamination

If Alpaqua magnet plates are used in protocols where biohazard contamination has occurred, special care must be taken during decontamination steps to avoid damage to both the magnets and the carrier plate. Cleaning solvents specifically designed for medical devices, such as CIDEX (<http://www.aspj.com/emea/emea/products/manual-solutions/cidex>) or other ortho-Phthalaldehyde based solutions, are the **ONLY** biohazard decontamination solutions to be used on Alpaqua products. Follow the manufacturer's instructions for product dilution and application time and rinsing. Following biohazard decontamination, a standard 70% ethanol cleaning (above) is required.

**Important Note: DO NOT** decontaminate or disinfect the magnetic plate with any solution containing bleach or any type of organic oxidizer. Doing so will severely damage the magnets and carrier pieces resulting in irreparable damage and possible device failure. Treatment of Alpaqua magnet plates with non-recommended disinfectants will void all warranties.

**Warranty / Liability**

For research use only. Not for use in diagnostic procedures.

Alpaqua Engineering, LLC is committed to delivering superior product quality and performance. Warranty information for the accompanying product is available at <http://www.alpaqua.com/How-to-Order/Terms-Conditions> in "8. LIMITED WARRANTY". Please contact Alpaqua if you have any questions about our warranties or would like information about post-warranty support. The information in this document is subject to change without notice. Alpaqua assumes no responsibility for any errors that may appear in this document and disclaims all warranties with respect to this document, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. In no event shall Alpaqua be liable, whether in contract, tort, warranty, or under any statute or on any other basis for special, incidental, indirect, punitive, multiple or consequential damages in connection with or arising from this document, including but not limited to the use thereof.

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\*This product is protected under US Patent 6,755,384.

