



Understanding the U-2D Micro Sample Management System - Tech Information

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More than a 96-well plate — it's a smarter way to manage your low volume HPLC or GC samples.

Modular Micro-Sample Management

Feature: U-2D™ fits into a 96-well plate format but functions as a modular sample system.

Benefit: Offers flexibility to use as a plate or remove inserts for vial-based workflows—ideal for labs needing both.

Cost-Efficient Upgrade

Feature: Comparable in price to certified precision point inserts and more than 30% less than fused insert vials.

Benefit: Delivers premium performance without premium pricing—maximize your lab's budget.

High-Precision LCMS-Grade Glass Inserts

Feature: Bubble-resistant, silanized glass with tight dimensional tolerances.

Benefit: Improves sample stability, reduces interaction with sensitive compounds, and eliminates the need for extra prep steps like vortexing or centrifuging.

Autosampler Compatibility

Feature: Compatible with most modern HPLC/LCMS autosamplers and trays.

Benefit: Seamlessly integrates into existing workflows—no need to overhaul your equipment.

Increased Sample Throughput

Feature: Up to 92 more samples per bay vs. 2mL vial trays (e.g., Agilent 1200).

Benefit: Boosts efficiency and reduces downtime in high-throughput environments.

Centrifuge-Ready Design

Feature: Rack and base tested up to 2,500 x g.

Benefit: Confidently use in demanding prep workflows without compromising structural integrity.

Cryo-Compatible

Feature: Performs like a standard glass insert plate under cryogenic conditions.
Benefit: Reliable for cold storage and sensitive sample preservation.

Sensor-Friendly Construction

Feature: Rack and base ensure full contact with no air gaps—ideal for capacitance sensors.
Benefit: Accurate liquid level detection across a wide range of instruments.

Superior Thermal Transfer

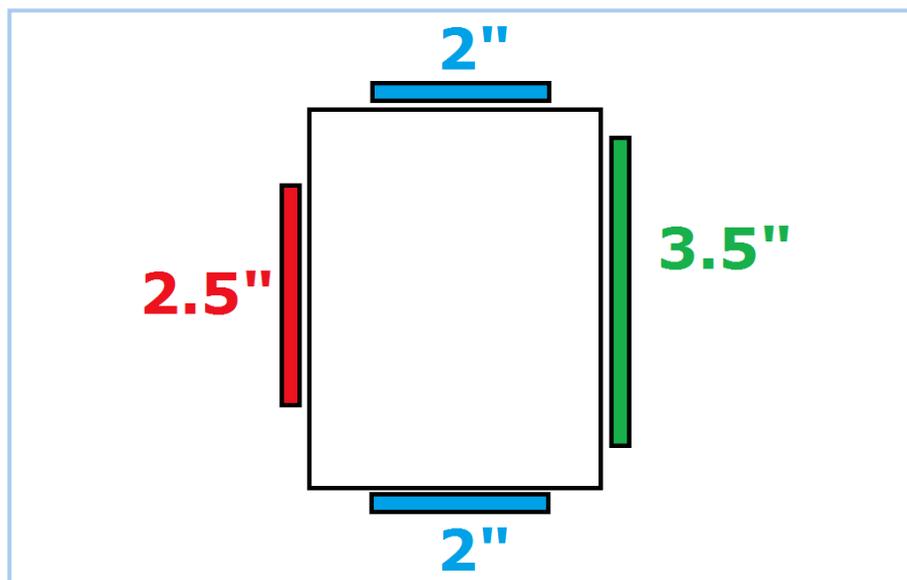
Feature: In rack-only mode, all inserts are exposed directly to heat transfer media.
Benefit: Faster, more uniform solvent reduction and improved analyte recovery.

Reusable, Stackable Base

Feature: ANSI/SLAS-compliant base with interlocking design.
Benefit: Saves space, supports automation, and enhances lab organization.

Secure Labeling Options

Feature: Low-energy polypropylene tabs resist smearing; compatible with custom markers.
Benefit: Maintain clear, durable sample ID and chain of custody.



Solvent-Resistant Sealing Options

Feature: Silicone mats and zone-free films available; chemical-resistant options for HPLC solvents.
Benefit: Protects volatile samples and minimizes evaporation loss.

Glass vs. Plastic Advantage

Feature: Wells made of glass resists leachables, supports more solvents, and offers better clarity.
Benefit: Cleaner results, broader method compatibility, and reduced MS contamination.

Enhanced Visual Inspection

Feature: Clear, glass-bottom inserts allow full visibility of each sample.

Benefit: Quickly detect:

- Precipitation
- Air bubbles
- Color changes
- Missed fills
- Dirt or debris

This level of clarity is unmatched by conventional plastic or glass-lined plates, improving quality control and reducing rework.

Stackability & Nesting

Feature: Racks with inserts can be stacked securely with only one base at the bottom.

Benefit: Saves space and improves workflow efficiency. Interlocking design ensures stability during storage or transport. (Note: Bases should not be stacked on top of holders.)

Eco-Friendly Design

Feature: The reusable base is not discarded after use.

Benefit: Reduces plastic waste and environmental impact—making U-2D™ a greener choice compared to disposable plate systems.

ANSI Compliance

Feature: Fully meets all ANSI/SLAS standards for 96-well plates, including footprint and well spacing.

Benefit: Ensures compatibility with most lab automation systems. While plate height may differ from others (as ANSI does not standardize height), most autosamplers can be easily adjusted to accommodate it.



Click [HERE](#) for U-2D™ ordering information and pictures

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