Multifunctional Processor Offers Walk-Away Convenience for Electron Microscopy Labs

The mPrep™ ASP-1000 Automated Specimen Processor is a compact bench-top system capable of EM tissue processing, grid staining and immunolabeling. Individual capsules are used to contain specimens and grids, thus reducing specimen “touches” and the potential for damage or loss.

Fast processing routines have been demonstrated: kidney tissue from post-fix rinse to 100% resin infiltration in 46 minutes. Or muscle tissue in 133 minutes. No additional messy handling is required for block embedding — it all takes place in the original capsule. The ASP-1000 overcomes the problem of poor infiltration with “basket style” tissue processors. Consistent results are achieved within each run AND across runs.

Grid staining, negative staining and immunolabeling results are repeatable, reproducible and robust. The ASP-1000 can process up to 16 grids in parallel and allows use of variable conditions across specimens within a single run.

Controlled by easy-to-use, PC-based software, the flexible ASP-1000 allows an unlimited number of protocols. Users can easily

(continued)
customize or develop their own methods. The instrument can even provide operator alerts via text message, email, dialog box, audible buzzer or indicator light color change.

Reagents are dispensed from standard microplates and reservoirs. Setup and cleanup are simple. Up to 72 reagents or rinses can be incorporated into a single protocol. This scheme enables precise reagent control and allows programming of variable conditions across eight simultaneously prepared samples.

Specimens or grids are always kept secure in individual mPrep capsules, labeled with barcode or alphanumeric ID for easy sample management.

Fast. Consistent. Easy-to-use. The mPrep ASP-1000 provides busy labs with high-level performance coupled with walk-away convenience.

PC and pre-loaded processing programs are included with instrument. Easily customizable COBRA software allows an unlimited number of processing steps and programs.

Capsule Work-flow

**mPrep/s Capsules**
One-touch processing of specimens in capsules reduces damage and loss.

- Insert specimen
- Secure specimen and label
- Reagent processing
- Resin infiltration
- Polymerize in capsule
- Section with microtome
- Remove grids at the TEM

**mPrep/g Capsules**
Staining and immunolabeling in capsules reduces grid handling.

- Load grids
- Reagent processing
- Store grids
for tissue processing, grid staining & immunolabeling

mPrep™
ASP-1000
Automated Specimen Processor
**ASP-1000 Automated Specimen Processor**

**Product description:**

- Cartesian (XYZ) robotics platform
- 8-channel head fitted to Z-arm
- 8-channel syringe pump
- Tray w/ positions for six ANSI/SLAS format 96-well microplates or 12-column reagent reservoirs (up to 72 reagents on the deck at a time)
- Computer controller (Windows-based computer with all necessary ports and drivers)
- COBRA control software with three-tiered access. Users can easily custom program their own protocols or use the supplied pre-programmed protocols.
- Pre-written programs included: immuno-gold labeling, post-staining, tissue processing, on-grid virus processing and on-grid nanoparticle processing.
- Integrated fume enclosure: to ensure sample integrity and/or vent noxious fumes
- USB communication cable
- 100-240 VAC, 47-63Hz, 1.9A Power Supply
- Standard 12-month warranty and service contract

**Options available:**

- HEPA inlet filter for integrated fume enclosure
- Temperature control: heated and/or cooled (4°C-100°C) plate positions at multiple tray locations

<table>
<thead>
<tr>
<th>Technical Specifications of Robotics Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space requirements ( W x D x H)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Rack/tray capacity</td>
</tr>
<tr>
<td>Z-axis size</td>
</tr>
<tr>
<td>Probe position resolution</td>
</tr>
<tr>
<td>Drive arm capacity</td>
</tr>
<tr>
<td>Vertical punch force</td>
</tr>
<tr>
<td>Maximum axis speed (mm/s)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Communications interface</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Power requirements</td>
</tr>
</tbody>
</table>