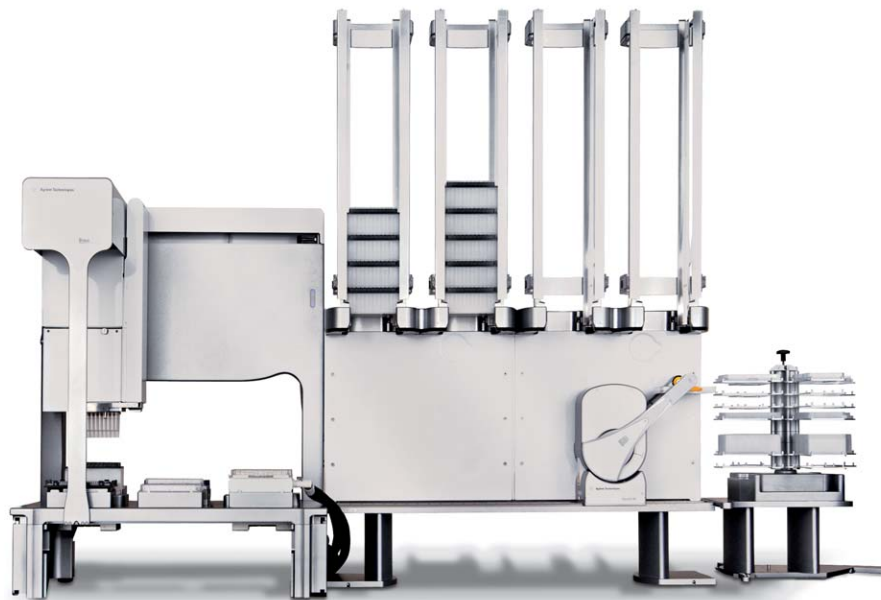


Agilent Automation New Product Highlight

Automation of SureSelect XT Library Preparation & SureSelect Target Enrichment



System Description:

Agilent Automation Solutions now offers an Automated Next Generation Sequencing Sample Preparation Workstation designed specifically for SureSelect products from Agilent. This automated solution has been designed for automating the repetitive liquid handling steps associated with Next Generation Sequencing (NGS) library preparation and capture protocols. Including validated protocols for SureSelect workflows, Agilent is the only provider of a total solution designed to automate both the library preparation and target enrichment portions of NGS sample preparation.

Instruments Highlighted by NGS Workstation:

- **G5409A Bravo Automated Liquid Handler**
 - On Deck Gripper Upgrade (Option 102)
 - 96LT Disposable Pipette Head (Option 178)
 - Peltier Heating/Cooling (Option 161)
 - Orbital Shaking Station (Option 159)
- **G5400A BenchCel Microplate Handling Workstation**
 - Standard Four Rack Configuration (Option 052)
 - Front Loading Racks for BenchCel (Option 066)
- **G5402A PlateLoc Microplate Sealer**
 - Small Hot Plate (Option 226)
- **G5472A Labware MiniHub**
- **Desktop PC with VWorks Software**
 - Validated Protocols for running Agilent SureSelect workflows



Agilent Automation Benefits:

- **Productivity:** Provides significant walkaway time for Next Generation Sequencing library preparation and target capture processes typically performed by lab personnel, increasing productivity and throughput. Agilent VWorks Automation Control software allows for complete control of the Agilent Bravo Liquid Handling Platform, Agilent BenchCel, and Agilent MiniHub. The NGS workstation reduces hands-on time in the lab by greater than 80% and can automate preparation for up to 192 samples per work week.
- **Quality:** Assay results produced by the NGS workstation will show a significant reduction in day-to-day and operator-to-operator variability.

• Unique Features:

- Tested as a complete automated solution for SureSelect library preparation and target enrichment
- Validated protocols allow anywhere from 8 to 96 samples to be processed without any programming changes
- Can be easily integrated with other automation devices to provide an expandable solution for the future
- All disposable tip heads are capable of picking up a single row, single column, or single tip as needed without changing heads
- Pipetting deck configured for optimal NGS library preparation efficiency including: Plate Gripper, Peltier Heating/Cooling, and Orbital Shaking
- Instrument control and scheduling provided by VWorks software
- Installation, training, and on-site service is provided as standard with purchase
- Professional Services are available to adapt protocols to any current workflow

Time Savings and Throughput Comparison of Automated vs Manually Run Sample Preparation

	Hands-On Time for Manual Prep	Maximum Number of Samples Processed/Day ¹	Hands-On Time for Automated Prep	Maximum Number of Samples Processed/Day
Library Prep	375	20	25 ²	96
Pre-Capture PCR	90	20	13	96
Hybridization Preparation	60	20	7	96
Capture	210	20	20	96
Post-Capture PCR	90	20	40	96
Total Minutes	825	20 - 40 per week	105	192 per week
Total Hours	13.75		1.75	

¹Assumes individual tube preps with an experienced user staggering sample processing

²Library prep master mixes done once

Operating Requirements

- Electrical: 110–240 VAC, 50/60Hz, 4A for 96-or 384-channel head, 5A for 8-channel head
- Operating temperature: 5–40°C, 10–90% RH, non-condensing
- Software: VWorks Automation Control software, ActiveX Control
- Controller: Windows 2000 and Windows XP
- Interface: 10Base T Ethernet port, RS-232 serial
- Certification: CE certified

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Budgeting Cost

Ask your local Agilent Automation Solutions Product Specialist for a quotation.

Email: customerservice.automation@agilent.com



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