



Bringing power and flexibility down to size.

BIOMEK® NX
LABORATORY AUTOMATION WORKSTATION





*The right applications.
The right way.*

The demands of the life science world are changing daily. So at Beckman Coulter, we're continuously delivering new ways to accelerate your valuable research. Our dedicated applications group, for instance, is focused exclusively on creating automated solutions for a variety of commercially available kits. eLabNotebook™ gives you quick access to a wide variety of in-house and customer-developed applications. And our renowned Biomek® Software makes it easy to develop methods to meet your individual needs. Put it all together with our robust new Biomek NX Laboratory Automation Workstation, and it's easy to see we're giving you the tools to do your best science, your way.




Septum piercing and clot detection.

To maintain the sample integrity so important to any application, Biomek NX offers advanced septum piercing abilities. New clot detection circuitry has been added to ensure that samples are consistently and reliably dispensed to their proper location in a non-contaminated form – ideal for applications such as gDNA purification from whole blood.

Detection assays.

Cytokines have been shown to regulate immunologic responses and cell-to-cell communication, as well as dose responses to infectious agents. Their presence at elevated levels can indicate disease progress. Combined with our Biomek NX workstation, the Immunotech Cytokine kits deliver fast and efficient methods to measure the different types of Cytokines present in a cell, while adding to the suite of ProteomeLab™ and Cell Lab solutions available from Beckman Coulter.

PROTEOMELAB™
Characterize 

Use Span 8 device to individually add reagents precisely when needed

Optional integrated storage devices accommodate long incubation times





96 samples
in < one hour

DNA yield
8-10 µg

Expandable
system for
higher
throughput

Sample preparation.

Increased throughput for molecular techniques – particularly DNA/RNA purification methods – has led to a number of purification protocols on automated platforms. These automated methods, however, must generate high-quality results in order to be used by downstream applications such as sequencing, PCR, and transfection. In concert with Biomek NX's advanced abilities, plasmid prep kits such as Promega's SV 96 use proven filter plate technology to deliver high yield and quality.

Automated PCR and sequencing reaction setup.*

Biomek NX's reliable, repeatable pipetting, tube to plate capability, and efficient automation combine to provide the ideal automation solution for this routine process, while fitting seamlessly into any lab's workflow. And its low-volume capability helps miniaturize reaction setups and save on costly reagents.



PCR &
sequencing
applications

Submicroliter
transfers

Reaction setup
in < 30 minutes

PCR and sequencing reaction cleanup.

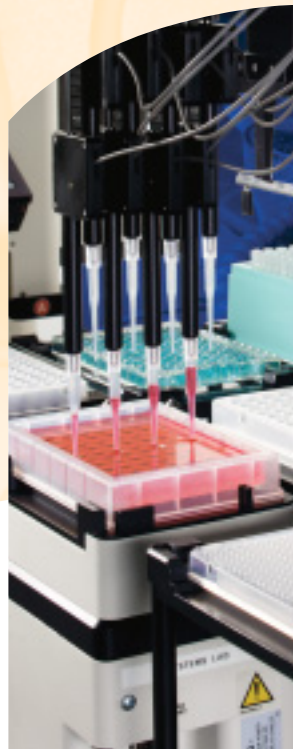
Reaction cleanup is a simple process to remove unwanted nucleotides and primers before running samples on a DNA analyzer, such as our CEQ™ 8000. To accommodate a wide variety of cleanup protocols, the Biomek NX is capable of automating methods that utilize filtration or paramagnetic technology. Using the Promega SV 96 PCR cleanup kit – another important application in our growing list of GenomeLab™ total solutions – you'll get efficient purification of PCR fragments with yields greater than 90% recovery.

Purifies
samples from
100 bp to 10 kb

Assay time
approximately
20 minutes

Product
recovery
over 90%

Uses silica
membrane
technology





Confirmatory barcode reads

No deck space needed for barcode reader

Error handling gives users recovery options

Built-in barcode reader delivers on-the-fly plate tracking.

With the ability to scan plates being held by the gripper, sample integrity is ensured through the comparison of bar codes obtained before and after the run. If inconsistencies are detected, Biomek Software allows a wide range of user-controlled corrective actions, logging and error handling instructions.

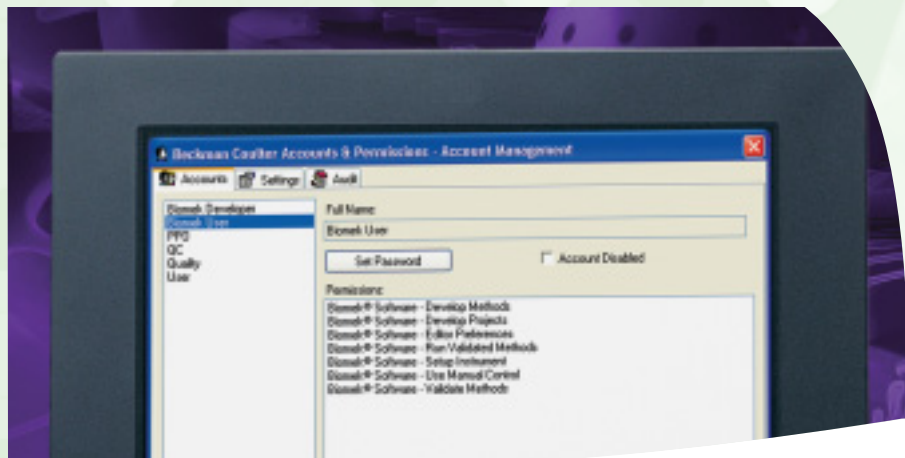


The power of integration.

First-time user of automated liquid handling technology? Experienced specialist? Either way, you'll find that Biomek® Software is packed with easy-to-use features to meet any need. And with a single, consolidated user interface driving all Biomek liquid handlers, it's simple to move between platforms. Since many functions are combined into a single step, setup is fast and effortless. And specialized algorithms speed programming even more by suggesting the best settings for the job at hand. All of which lets any user make the most of everything that Biomek NX has to offer.

21 CFR Part 11 compliance.

To help achieve regulatory compliance with 21 CFR Part 11 – and perform validation assays in a regulated environment – Biomek Software delivers the ability to set different user accounts and permissions, track revision control, and enable electronic signatures. It also requires users to register any change to methods, and stores all versions.



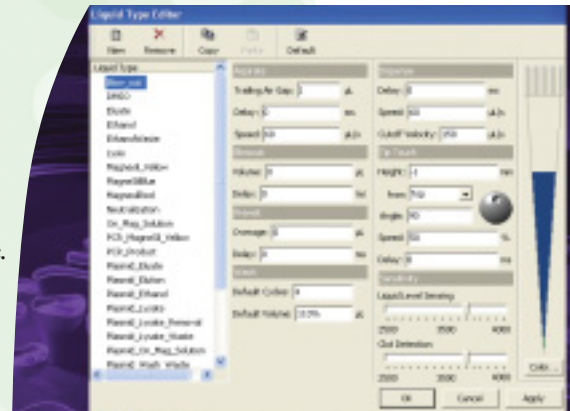


Unified software platform across all Biomek instruments.

With a single, consolidated user interface for all Biomek platforms, operator learning time is drastically reduced. Biomek Software also allows methods to be moved from one instrument platform to another quickly and easily.

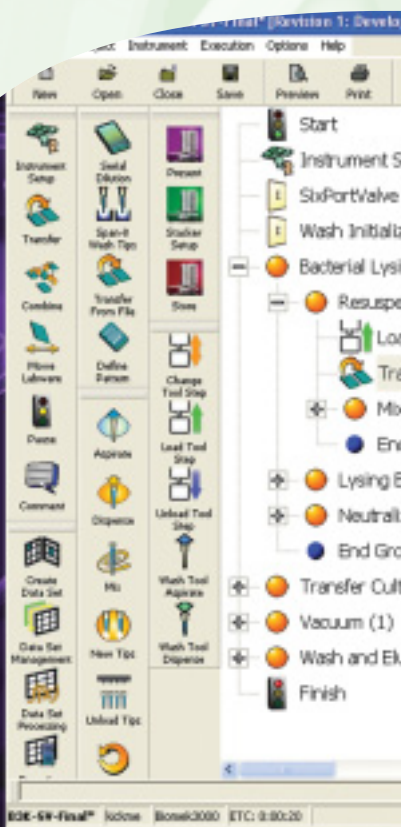
Intuitive interface.

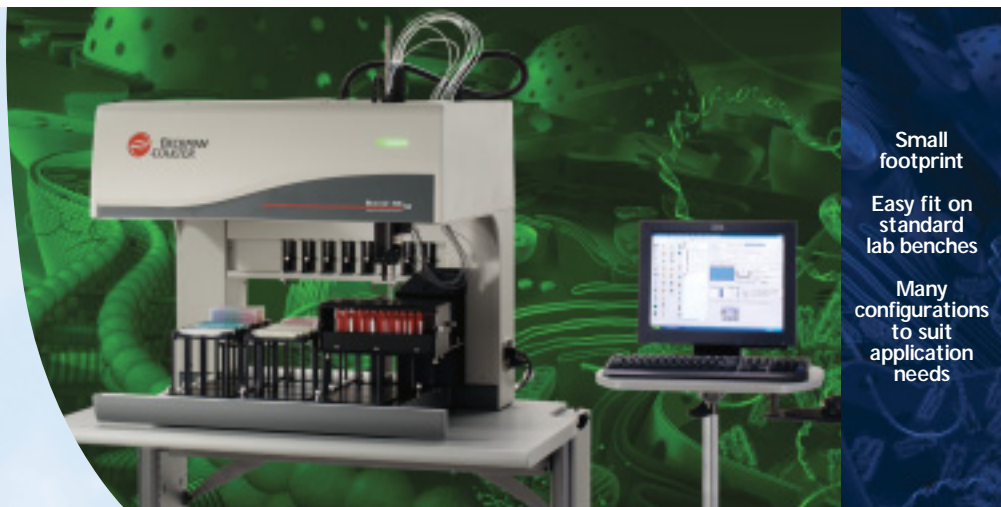
The flexibility built into Biomek's user interface puts the full range of its power into the hands of any user. It provides the ability to customize the interface, import and export methods, use icon-driven Step Palettes to create and configure methods with drag-and-drop ease, define new deck layouts and labware to make changing configurations fast and easy, and much more. As a result, switching between logically similar applications such as MALDI spotting and gDNA purification is particularly easy. And new users get up and running faster than ever before.



Point-and-click methods development.

The mouse-driven simplicity of our unique point-and-click programming avoids the long learning curve so common to other approaches. Alternatives such as pipetting techniques, liquid types, and deck layouts can be chosen from drop-down lists. Method validation features will check your method and find any logical errors. The estimated time completed (ETC) feature will provide you with an accurate run time, enabling you to speed up methods development and efficiently plan your instrument use. Variables, worklists and logicals can be used to vary runs without reprogramming. All of which makes a wide variety of applications – including plasmid purification – extraordinarily efficient and streamlined.





Small footprint
 Easy fit on standard lab benches
 Many configurations to suit application needs

Biomek NX workstation.

By incorporating a wide range of next-generation features into a small-footprint design, Biomek NX sets a new standard for flexible laboratory solutions. It puts every aspect of liquid handling – including pipetting, dilution, dispensing, and integrations – into a single, automated system that’s as powerful and flexible as it is efficient and economical. All while offering unprecedented flexibility for changing needs. Combined with robust Biomek Software and our ongoing applications development, Biomek NX is bringing new possibilities to life.

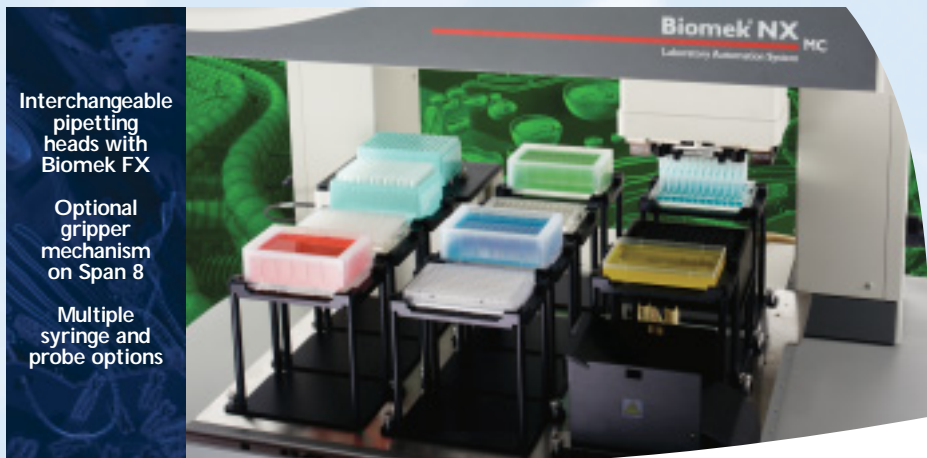


The right features. Right where you need them.

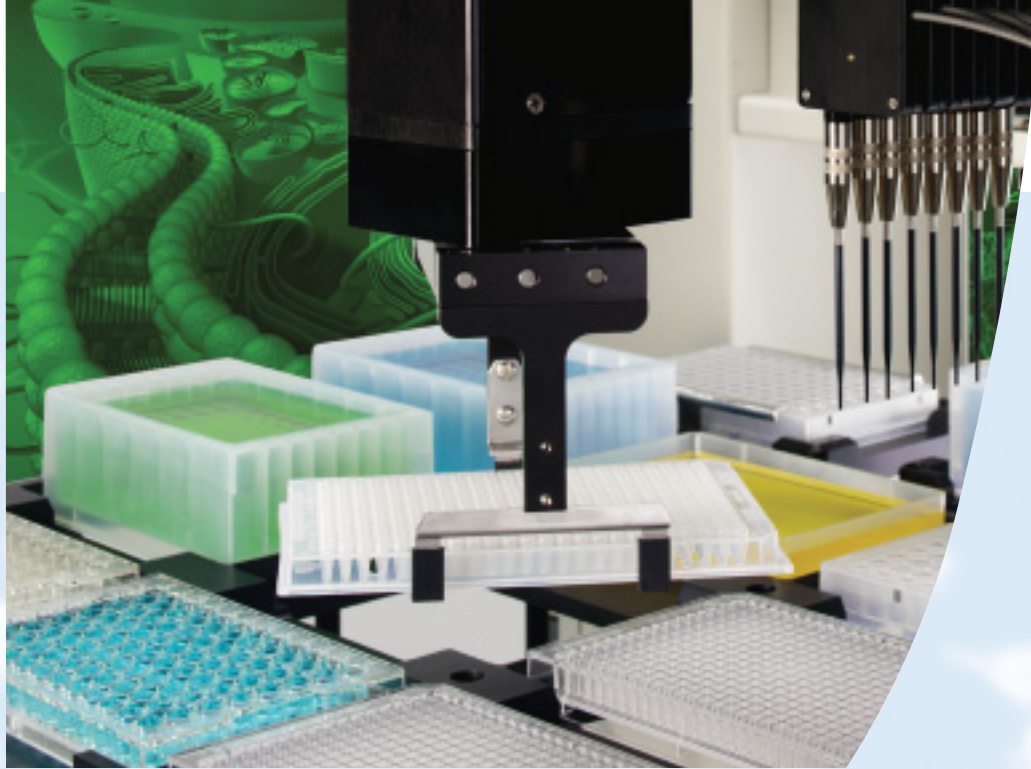
Knowing that the ability to adapt to changing situations is critical for today’s labs, our systems are designed with the flexibility to accommodate whatever your needs may be. Build your Biomek® system to handle today’s requirements, make modifications as necessary, add accessories whenever and wherever extra capability is important, and use our wide variety of modules to manage tomorrow’s needs with specifically targeted solutions. From standalone and partially integrated systems to the fully-integrated SAGIAN™ Core system, it’s no wonder our flexible liquid handling solutions are the foundation of discovery solutions worldwide.

Eight-probe, 96- or 384-channel pipetting.

The NX workstation offers multiple configurations, including multichannel, Span 8, and Span 8 with an optional gripper. The multichannel model is available with 96- and 384-channel pipetting heads for rapid plate-to-plate applications and assay miniaturization, and also comes with an optional HDR tool.



Interchangeable pipetting heads with Biomek FX
 Optional gripper mechanism on Span 8
 Multiple syringe and probe options

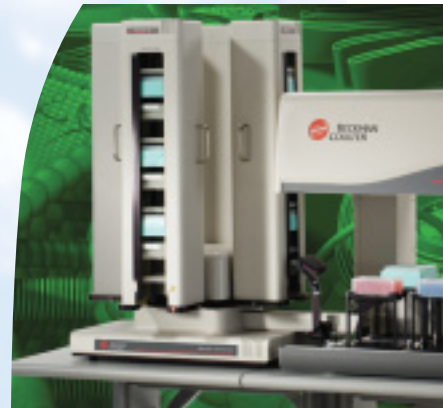


360° rotating gripper for maximum flexibility.

With the ability to rotate a full 360°, the optional gripper handle provides access from the left, right, or from integrated devices on the back of the instrument. It turns to pick up plates in different orientations, enhances on-the-fly barcode reading, and saves deck space by moving titer lids while the Span 8 is pipetting.

Open frame design allows future integration of additional devices.

The flexible, open architecture of Biomek NX simplifies integration as plate readers, washers, and storage devices can be located on the left, right or back of the instrument. The new open frame design allows future vertical workspace integration, for applications where limited lab space is an issue.



Open base for vertical integration

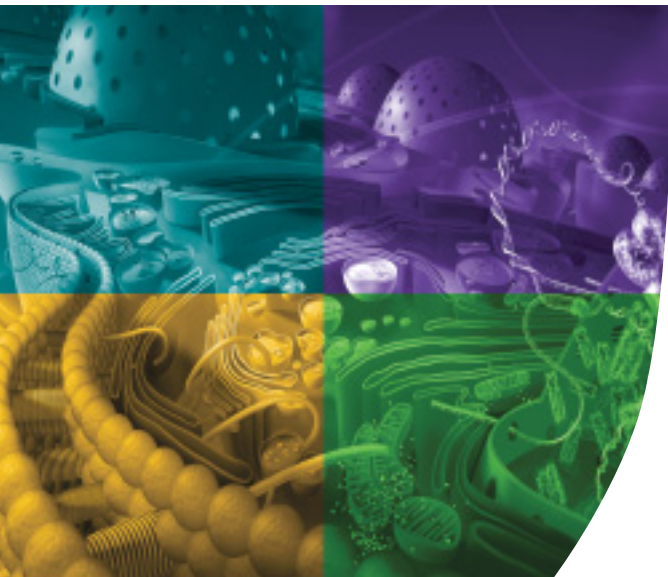
Gripper allows device integration for Span 8 configuration

Open platform for flexible integration

Pipetting performance.

Biomek NX offers proven pipetting performance for low-volume reaction setup and assay miniaturization, as well as accurate and repeatable results extending into the submicroliter range. Different technique files can be used for various volume ranges, to enhance liquid handling capabilities. Improved X, Y, and Z stability delivers reliable results for small volumes, and to ensure optimum pipetting performance an integrated pump purges air from the lines.





The Biomek NX and all our Systems Biology offerings are an important part of a broad continuum of Beckman Coulter products, including automated liquid handling, capillary electrophoresis, centrifugation, ultracentrifugation, DNA sequencing, electrochemistry, flow cytometry, fragment analysis, HPLC, integrated core systems, microarrays, particle characterization, scintillation counting, and spectrophotometry.

Biomek® NX Laboratory Automation Workstation

Specifications

Workstation

Weight	190 lb. (86.18 kg)
Height	44 in. (111.76 cm)
Width	42 in. (106.68 cm)
Depth	32 in. (81.28 cm)
Power Requirements	50/60 Hz, 100-240 VAC

Pipetting Options

- 96-Channel Disposable Tip Pipetting Head
- 384-Channel Disposable Tip Pipetting Head
- Span 8 Fixed 100 Probes
- Span 8 Fixed 60 Probes
- Span 8 P250 Disposable Tips
- Span 8 P250 Liquid Level Sensing Tips
- Span 8 P20 Disposable Tips
- Span 8 P20 Liquid Level Sensing Tips

HDR Tool	Pin Diameter	Nom. Sample Density
96/384-Pin HDRT	0.0015/0.0045	1536/3456

Gripper Tool

Used to move labware and devices around the Biomek worksurface to fully automate filtration-based processes such as nucleic acid purification, and provide access to integrated plate readers.

Minimal Table Requirements

48 in. (121.92 cm) Width x 36 in. (91.44 cm) Depth
Sufficient to support 300 lb. (136.2 kg)

For information about our comprehensive line of Laboratory Automation Workstations, please contact your local Beckman Coulter representative or visit our web site at

www.beckmancoulter.com

*The PCR process is covered by patents owned by Roche Molecular Systems and E. Hoffman-La Roche, Ltd. All other trademarks are the property of their respective owners.

For Research Use Only: Not for use in diagnostic procedures.



Developing innovative solutions in Systems Biology.

Innovate **Automate**
SIMPLIFY

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