

QUALITY FORWARD  
CONSISTENCY FORWARD  
**LAB FORWARD**

UniCel DxI Access Immunoassay Systems



**BECKMAN  
COULTER**

When it comes to immunoassay testing, mid- to high-volume laboratories have specific needs:

- » Exceptional productivity
- » Ease-of-use
- » Broad menu availability
- » Expandability

The UniCel DxI Family of Immunoassay System is the Solution. ➤



UniCel DxI 600

UniCel DxI 800

### THROUGHPUT AND CONSISTENCY

The UniCel DxI family of analyzers are designed to meet the throughput needs of any mid- or high-volume laboratory. Whether it is the DxI 600, that can run 200 tests per hour, or the high-speed DxI 800, with a maximum throughput of 400 tests per hour. Each DxI analyzer uses the same proven chemiluminescent technology, the same assay cartridges and similar assay protocols. So, your laboratory can deliver consistent patient results, no matter which UniCel immunoassay system performs the test. Equivalent patient results simplify interpretation by physicians, which helps improve patient care.

For the laboratory, consistency between analyzers adds more benefits:

- » Operator training is simplified and reduced.
- » Inventory management is less time-consuming.
- » Reliable system operation is achieved through proven technology.

# AUTOMATION FOR PEAK PRODUCTIVITY >

## Proven Analytical Performance

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The core of the UniCel DxI is Beckman Coulter's proven chemiluminescent detection and magnetic particle-separation technology. Unlike many other immunoassay systems, the DxI uses multiple assay protocols so that assay performance is not compromised.

- » Excellent precision and sensitivity through chemiluminescence technology.
- » Chemiluminescent detection helps eliminate reaction noise and delivers a more accurate result.
- » Rapid assay kinetics improve the turnaround time for many assays.

## Ingenious System Design

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Under the sleek covers of the UniCel DxI systems are a system of multiple, auto-matched pipettors working in parallel to deliver sample and reagent into the reaction vessels – achieving a peak throughput of up to 400 immunoassay tests per hour. Each independent pipettor utilizes assay protocols similar to other systems in the family.

- » Multiple pipettors offer built-in redundancy for maximum system uptime.
- » Process monitoring provides confidence in the integrity of results.
- » Patented probe wash tower efficiently cleans sample probes, eliminating the need for disposable tips.
- » Pick-and-place vessel transport technology works with the process scheduler to make sure throughput and assay performance are optimized.



# THE UniCel DxI

## DESIGNED WITH YOUR NEEDS IN MIND >

### ON-BOARD ALIQUOT CAPABILITY

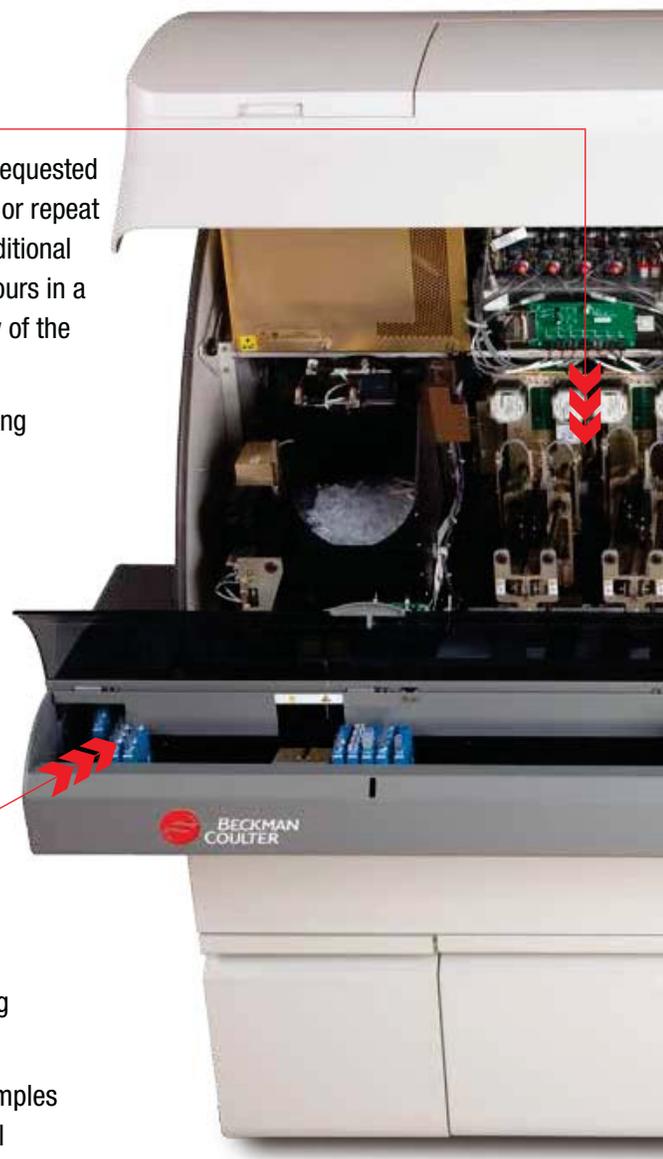
The UniCel DxI system creates aliquots based on the volume of requested tests plus any additional volume required for user-defined reflex or repeat test scenarios. To maintain sample stability and facilitate any additional testing required, the system stores the aliquots for up to three hours in a patented refrigerated storage area. This unique aliquot capability of the UniCel DxI helps improve your laboratory workflow.

- » The automatic reflex capability eliminates the task of tracking down sample tubes and reloading them.
- » The same vessel type is used for aliquots and reactions.
- » Automated on-board dilution.
- » Allows on-system user-defined reflex conditions and repeat testing for automatic dilutions.

### STREAMLINED SAMPLE HANDLING

With the UniCel DxI, operators can load racks consistently, up to 30 racks (120 samples).

- » The system automatically creates aliquots of the sample, so each rack is released in less than five minutes for testing in other areas of the laboratory.
- » Routine sample loading can be interrupted to load STAT samples quickly — your lab can take advantage of the system's full menu without impacting the throughput of STAT assays.
- » Radio frequency sensors on the sample probe alert operators to short samples.
- » Obstruction detection on the sample and reagent probes helps ensure sample integrity and accurate results.
- » Advanced washing protocols for probes.
- » By releasing the primary tube quickly, the system allows for continuous loading of routine samples, virtually eliminating bottlenecks.



## SIMPLICITY IN MOTION

The UniCel DxI systems deliver high throughput with minimal operator intervention. Although extremely powerful, the UniCel DxI systems are amazingly simple to use.

- » Operators can load all reagents and consumables 'on-the-fly' without using the console computer.
- » Operators can still access the system from the front for STATs, calibrators and other sample exceptions.
- » Indicator lights alert operators to system status and a pictogram shows which supplies need replenishment.
- » The system delivers up to three hours of walkaway operation.

## EFFICIENT REAGENT SYSTEM

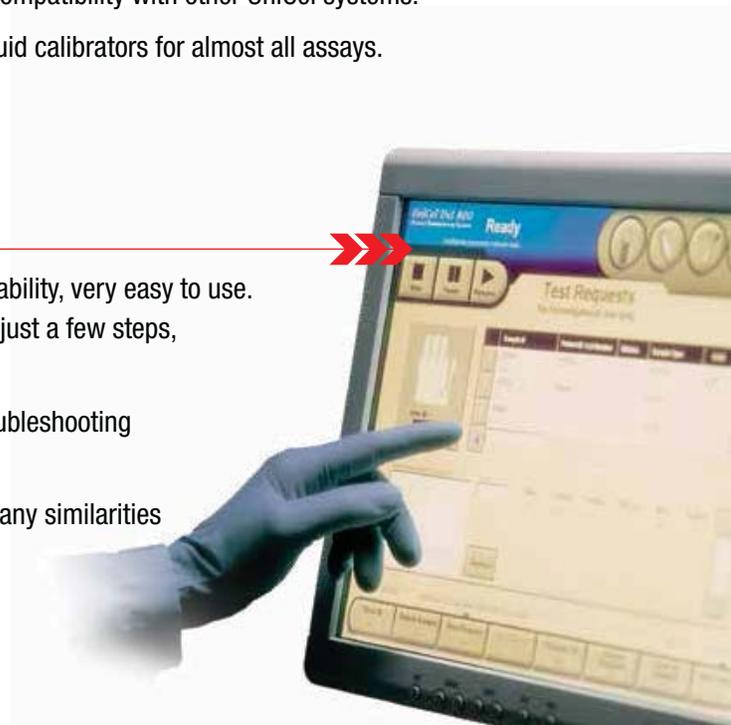
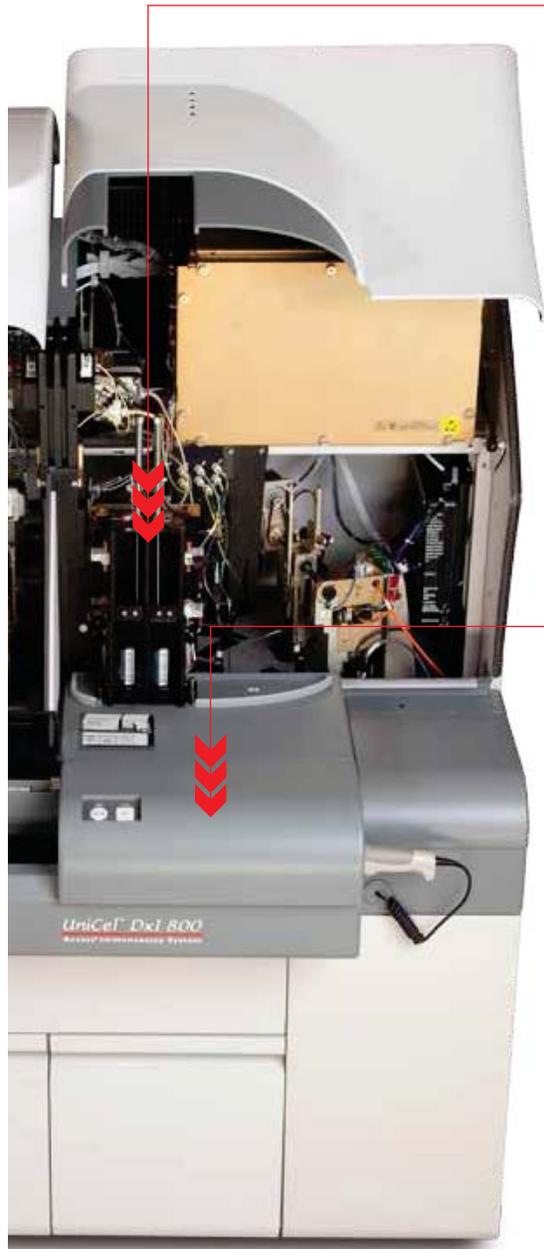
Bar-coded, liquid, ready-to-use reagents can be loaded on the system quickly and easily. The system holds 50 self-resealing reagent packs, which gives you the flexibility to configure the system menu to match your testing requirements.

- » Load up to four reagent packs at a time without touching the system console.
- » Each reagent pack contains everything needed to run an assay in one single convenient container.
- » System maintains stored reagents in an on-board refrigerator, maintaining reagent stability up to labelled expiration dates.
- » Reagent pack compatibility with other UniCel systems.
- » Easy-to-use liquid calibrators for almost all assays.

## INTUITIVE USER INTERFACE

Operators find the graphical user interface with touch screen capability, very easy to use. Manual test requests, calibration and QC can be accomplished in just a few steps, reducing operator time.

- » The software includes context-sensitive help to facilitate troubleshooting and operator training.
- » Laboratories equipped with other UniCel systems will find many similarities in the user interface screens and system operation, which expedites operator training.

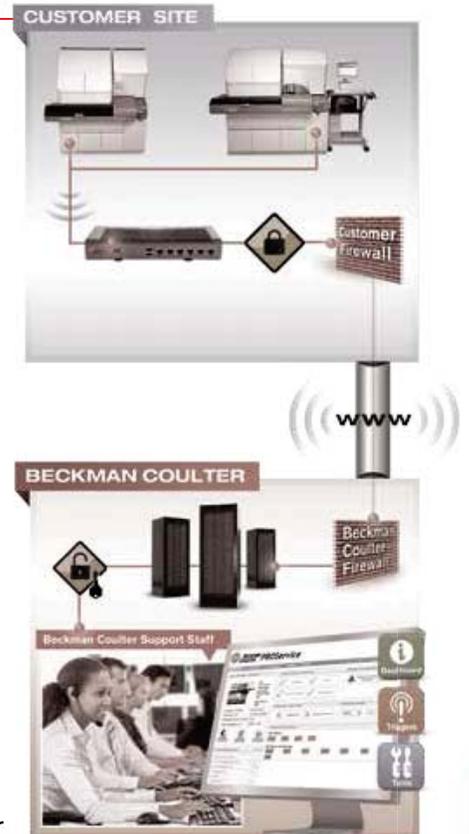


## INNOVATION DELIVERS POWERFUL EFFICIENCY >

### Remote Monitoring

PROService is an optional, remote management system that continuously monitors Beckman Coulter instruments to identify problems before they become evident in the laboratory. If a parameter goes out of normal range (e.g., temperature, power or vacuum pressure) PROService automatically alerts the Beckman Coulter Support Center. A Call Center agent may then contact your lab and, with permission, perform further diagnosis or actual system correction. If a service visit is necessary, your Field Service Engineer is able to bring exactly the right parts and supplies needed to correct the problem. So what is the value to the customer?

- » Decrease in workflow disruptions that may be caused by an onsite FTE presence.
- » Increased uptime: Beckman Coulter's PROService Alert Triggers communicate predictive failures to Support teams for review before an unexpected downtime scenario.
- » Time-to-resolution is greatly reduced with immediate remote triage and repair. Dispatch and travel time of service engineers in the field increases the average time-to-repair, helping to ensure a higher level of business continuity – sustained testing, less downtime.
- » Immediate and accurate diagnosis. Help is only a mouse click away for instant remote support from trained Beckman Coulter personnel. The toolsets they will have access to will ensure timeliness and accuracy. If parts are required, they can be shipped and meet the FTE (if needed) onsite.



## BROAD MENU >

Several of the available tests, such as Hybritech PSA and free PSA, provide gold-standard performance for sensitivity and specificity.

With a broad menu across a wide variety of disease states, the UniCel DxI immunoassay system enables your laboratory to consolidate workstations.

An aggressive menu development program means that the system menu will grow as your lab and testing requirements grow.

## Minimal Maintenance

- » Minimal 'hands-on' daily maintenance and no weekly maintenance increases instrument uptime, enhancing productivity.
- » More than 130 sensors monitor system status and test processing to ensure result integrity.
- » Automated 'behind the scene' cleaning procedures ensure optimal instrument performance.

## Integration with Automation

'Point-in-space' pipetting technology aligned with CLSI guidelines allows for integration with laboratory automation systems, including Beckman Coulter's Progressive Automation Solutions.



### ADRENAL/PITUITARY

Cortisol (Serum/Plasma/Urine)

### ALLERGY

Total IgE

### ANEMIA

EPO  
Ferritin  
Folate  
Folate (RBC)  
Intrinsic Factor Ab  
sTfR  
Vitamin B12

### BONE METABOLISM

Intact PTH  
Ostase  
Ultrasensitive hGH

### CARDIAC

AccuTnl+3 troponin I  
CK-MB  
Digoxin  
Myoglobin  
Triage BNP\*

### DIABETES

Ultrasensitive Insulin

### INFECTIOUS DISEASE

Rubella IgG  
Toxo IgG  
Toxo IgM II

### REPRODUCTIVE

AFP  
βhCG, Total  
DHEA-S  
Estradiol  
hFSH  
hLH  
Inhibin A  
Progesterone  
Prolactin  
SHBG  
Testosterone  
Unconjugated Estriol

### THYROID

Fast hTSH  
HYPERsensitive hTSH  
T3 (Free and Total)  
T4 (Free and Total)  
Thyroglobulin  
Thyroglobulin Ab II  
Thyroid Uptake  
TPOAb

### TUMOR MARKERS

AFP  
CEA  
Hybritech PSA  
Hybritech free PSA  
Prostate Health Index (*phi*)\*\*  
BR Monitor (CA 15-3 Antigen)  
GI Monitor (CA 19-9 Antigen)  
OV Monitor (CA 125 Antigen)

\* Triage BNP is available exclusively from Alere San Diego, Inc. d/b/a Biosite Incorporated, an Alere Company, or its authorized distributors for use on Beckman Coulter immunoassay systems. Alere and Triage are trademarks of the Alere group of companies.

\*\* *phi* is a combination of Hybritech PSA, free PSA and p2PSA.

## THE UniCel FAMILY OF INTEGRATED SYSTEMS ➤

### The Growing UniCel Family Continues to Offer More

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The UniCel immunoassay family has grown from one instrument into an entire family, including the wide range of UniCel integrated systems.

The UniCel integrated systems help illustrate the key UniCel concept: transforming your laboratory's daily operations into the perfect blend of peak performance, outstanding capacity and simplicity of operation.

Count on UniCel immunoassay and integrated systems to deliver:

- » Consistent system software across all testing platforms.
- » Consolidation of testing to improve turnaround times.
- » Equivalent test results across the UniCel family of immunoassay instruments.
- » Common data management to organize and track vital information.

### UniCel Dxl 600 and 800 Access Immunoassay Systems

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200 Immunoassay tests/hr. (Dxl 600)

400 Immunoassay tests/hr. (Dxl 800)

Chemiluminescent detection

Magnetic particle-separation technology

Continuous loading

- » STAT samples
- » Routine samples

No-downtime loading of reagents/consumables

Integrated system upgradable

Progressive Automation Solutions integration available



UniCel Dxl 600



UniCel DxI 800

## UniCel DxC 660i Synchron Access Clinical System

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990 Chemistry tests/hr.  
200 Immunoassay tests/hr.  
On-board capacity of 115 reagents  
» 65 Clinical Chemistries  
» 50 Immunoassays  
ClozCap technology  
Closed-tube sampling  
200 aliquots/hr.  
Single-point sample entry  
No-downtime loading of reagents/consumables



## UniCel DxC 680i Synchron Access Clinical System

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990 Chemistry tests/hr.  
400 Immunoassay tests/hr.  
On-board capacity of 115 reagents  
» 65 Clinical Chemistries  
» 50 Immunoassays  
ClozCap technology  
Closed-tube sampling  
200 aliquots/hr.  
Single-point sample entry  
No-downtime loading of reagents/consumables



## UniCel DxC 860i Synchron Access Clinical System

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1440 Chemistry tests/hr.  
200 Immunoassay tests/hr.  
On-board capacity of 120 reagents  
» 70 Clinical Chemistries  
» 50 Immunoassays  
ClozCap technology  
Closed-tube sampling  
200 aliquots/hr.  
Single-point sample entry  
No-downtime loading of reagents/consumables



## UniCel DxC 880i Synchron Access Clinical System

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1440 Chemistry tests/hr.  
400 immunoassay tests/hr.  
On-board capacity of 120 reagents  
» 70 Clinical Chemistries  
» 50 Immunoassays  
ClozCap technology  
Closed-tube sampling  
200 aliquots/hr.  
Single-point sample entry  
No-downtime loading of reagents/consumables





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