

The Future of Lab Automation... Today

KIESTRA Lab Automation introduced the concept of Total Lab Automation for the clinical microbiology lab in 2006. Since then, many laboratories have chosen to implement this modular, scalable and open architecture solution. With the recent acquisition of Kiestra Lab Automation B.V., BD now offers this proven technology solution, which is designed to increase efficiency, streamline processes and provide a new way to deliver high quality, consistent results with a fast turn-around time.

Building on the experience and expertise developed over many years, BD is committed to becoming your thinking partner and delivering the right automated solution for your lab. We offer complementary solutions that include small bench top units, all the way to fully automated track-based automation systems. As the BD Kiestra Total Lab Automation solution is customizable and forward compatible, we are able to tailor the system according to your needs—taking into account your lab's space, specimen volumes, workflow and future ambitions.

Choose Your Optimal Solution with Confidence

The first Total Lab Automation system was installed in 2006, so we understand what is required to complete such a complex yet rewarding project. Total Lab Automation projects require complete focus and dedication on the unique situation of your lab. BD has an established team of lab automation professionals who have experience in designing, developing, manufacturing, implementing and servicing complete microbiology automation solutions, which are relied on every single day.

Technology is an integral part of a successful implementation, but so too is how you manage the human aspect as well as processes and procedures. Our customer projects team ensures not only that

the project is executed on time and according to specification but that the proper attention is spent on change management and training. This focus ensures that lab staff are not only well-trained experts on how to use their system, but that they have the skills required to continually improve quality and productivity in the lab.

BD is here to assist you in better understanding how our automation solutions can have an impact on your lab. We are committed to not only increasing efficiency through automating time consuming and manual processes, but ensuring results are accurate and delivered as quickly as possible using advanced and proven technology.



Please contact your BD sales representative for information about product availability.



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BD Kiestra™ Total Lab Automation Proven Systems, Proven Results



Helping all people live healthy lives

Total Lab Automation – The essence of time

Today's microbiology labs face many challenges – including increasing volumes, cost containment pressures, staff shortages and the introduction of new testing techniques. All of these factors are driving the need to do more with less. BD Kiestra™ solutions are designed to help address these challenges today, while also preparing your lab for the future. We know your lab is different, which is why we offer a broad range of automated solutions to meet your needs. Our solutions work together to streamline the entire testing process and are designed to not only increase efficiency, but also to help produce more reliable and timely results.

INOCULATION

- Automated processing of both liquid and non-liquid bacteriology specimens using the BD Kiestra™ Inoqula™ system
- Liquid samples, such as urines, eSwab® and Σ-Transwab® are processed automatically, including decapping and recapping of specimen containers
- Non-liquid samples can be processed using the Manual Interactive module for additional productivity improvements
- Plates, slides and broth tubes are inoculated according to the appropriate protocol as defined by the LIS
- Customized media plate storage system to accommodate your workflow by determining the appropriate capacity and number of different media types
- All plates are automatically barcoded on the side of the dish to enable digital plate reading



*High amount of separated bacterial colonies with Inoqula.
Jenny Rydback, Ingela Tjernberg and Mats Walder. 2010.

DESIGNED FOR SPEED

- Each BD Kiestra Inoqula system can inoculate and streak up to 5 plates at the same time, enabling high throughput
- Total system throughput depends on the mode of operation, specimen protocol and number of inoculation systems
- High throughput supports increased capacity and accommodates high volume workloads



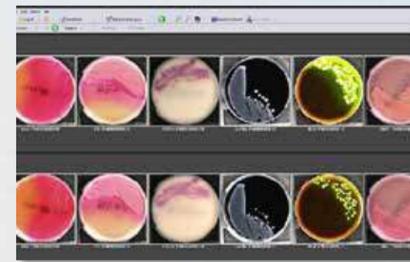
INCUBATION

- An integrated track system transports plates to and from the incubators
- To create a 24/7 laboratory, plate incubation and digital imaging is performed continuously
- Each plate is given its own unique location for rapid plate imaging, delivery and traceability
- Laminar flow technology ensures optimal incubation conditions



PLATE READING

- Technologists review high quality digital images on high resolution monitors
- The BD Kiestra Reading Room enables plates to be read in a separate room, which provides ideal working conditions and maximizes productivity
- E-Learning and continuous staff training is possible with plate images that can be saved and reviewed at a later date
- TeleBacteriology™ enables work to be done remotely, including in a manager's office, satellite lab or even at home



Some of the **Experts** who helped us create our solutions



Dr. Anton Buiting, Consultant Sint Elisabeth Ziekenhuis, Tilburg:

"We automated/mechanized our bacteriology laboratory on our demands with the "It's the Sample that Moves!"® system from Kiestra. This Frisian company is very professional and is very much involved with our organization."



Dr. Ian Fry, Director of Pathology, Frimley Park NHS Trust in Frimley:

"Kiestra offers the opportunity for quicker results by the nature of how plates are read more frequently. There is an opportunity to utilize consultants more effectively because of the IT links in the system, so there are benefits for the Trust and patients as a whole."