

BIOMÉRIEUX

# BACT/ALERT® VIRTUO®

FAST FULLY AUTOMATED BLOOD CULTURE SOLUTION



PIONEERING DIAGNOSTICS

# BACT/ALERT® VIRTUO®

INTELLIGENT INNOVATION IN BLOOD CULTURE.  
BUILT ON 10 YEARS OF PROVEN PERFORMANCE.

## Maximize efficiency while providing clinically impactful results.

Experience matters. Over 60 years of serving laboratories provide the foundation for our unshakable commitment to diagnostic innovation, quality, and reliability.

BACT/ALERT® VIRTUO® brings a decade of real-world performance, trusted by labs worldwide to deliver fast, accurate and fully automated blood culture results. With proven expertise in system integration and customer support, **BACT/ALERT® VIRTUO® adapts to your lab's unique needs, offering peace of mind and operational excellence.**

BACT/ALERT® VIRTUO® can help gain valuable time for high-risk patients and support antimicrobial stewardship, with fast detection of microorganisms responsible for bloodstream infections.

## Empower Your Lab with Comprehensive Blood Culture Solutions.

Our integrated approach – from blood sample collection, to blood culture detection and data management – positions your lab to optimize workflow and improve patient management.

### FROM 4 TO 9 HOURS FASTER TIME TO DETECTION IN PATIENTS ON ANTIMICROBIALS<sup>1,2</sup>

- ✓ Enhanced speed through thermal stability and ultra-sensitive algorithmic detection
- ✓ Significantly shorter time to detection in 72.7% of the tested organisms<sup>3</sup>
- ✓ Save up to 10 hours in sample reception area, compared to conventional blood culture workflow during the night shift<sup>4</sup>
- ✓ Move on more quickly to identification and antimicrobial susceptibility testing<sup>5</sup>

### LEVERAGE RESOURCES WHERE MOST VALUABLE

- ✓ Unique Drop & Go technology with fully automated loading—easy for anyone, anytime, 24/7
- ✓ Reduced steps and hands-on time by 63%<sup>1</sup>
- ✓ Up to 6x faster bottle loading and 14x faster negative bottle unloading<sup>6</sup>
- ✓ Automated negative bottle unloading allows staff to focus on added-value samples

### EFFICIENT & ADAPTABLE WORKFLOW

- ✓ Unsurpassed 24-hour delayed entry: flexible bottle transport and loading<sup>7-10</sup>
- ✓ Scalable to meet your needs: from 428 to 1712 bottles
- ✓ Space-efficient: best capacity/footprint ratio<sup>11</sup>
- ✓ Modular design: fits core labs and decentralized workflows



### IN CONTROL, IN REAL TIME

- ✓ Remote alarms and alert notifications on LED signal tower for flexible lab organization
- ✓ Real-time notifications:
  - Blood fill level measurement per bottle
  - Non-conforming blood culture samples after loading, based on personalized thresholds
- ✓ Built for simplicity: real-time access to blood culture KPIs with MAESTRIA™
- ✓ Optimized quality: cell quality control check, calibration, and bottle scanning for traceability

### TRUSTED CHOICE FOR ENHANCED PATIENT CARE

- ✓ BACT/ALERT® FAN® PLUS bottles offer superior antimicrobial binding kinetics and better antibiotic neutralization<sup>12-15</sup>
- ✓ Increased recovery by 44%, and up to 71% more with antibiotics<sup>14,16</sup>
- ✓ Safe handling in transit: colorimetric technology offers stable results and up to 50% fewer false negatives due to delayed entry than fluorometry<sup>7</sup>
- ✓ Designed and validated for sterile body fluids and blood bank sterility control<sup>13,17</sup>



BACT/ALERT® CULTURE MEDIA BOTTLES



SECURE HOLDERS



BACT/ALERT® VIRTUO®

Pre-Analytical



MAESTRIA™ MICROBIOLOGY MIDDLEWARE



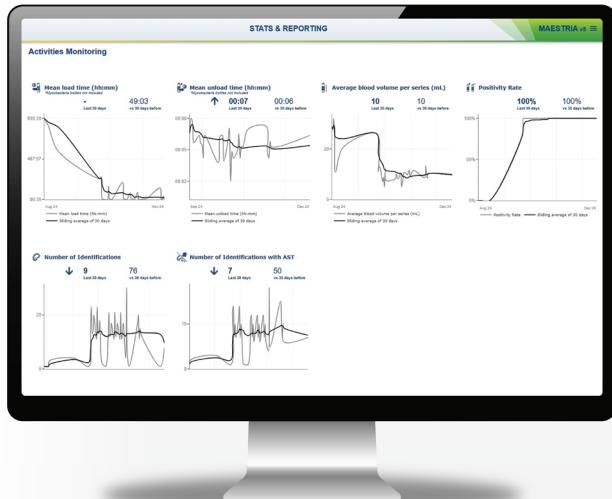
SUBCULTURE DEVICES

Post-Analytical

# Transform Data into Actionable Insights.



MAESTRIA™ is the next generation microbiology middleware to help you increase visibility over your laboratory operations, integrate continuous improvement processes, and reduce time spent on non-value-added tasks.



## KEY PERFORMANCE DATA

Monitor lab performance KPIs with MAESTRIA™ and target areas for improvement in your blood culture process.

- Contamination associated with blood collection
- Blood volume collected
- Positive vs. negative analysis
- Time-to-detection for blood culture isolates
- Blood culture utilization: number of bottles per set, per patient and/or ward



## EASY ACCESS

- Blood culture data analytics and results consolidation
- Remote access, including bottle status remote notification

### EVEN MORE WITH MAESTRIA™

- ✓ Monitor lab activities and KPIs
- ✓ Infection control and AMS statistical reporting
- ✓ Lab efficiency reporting

## Leverage Our Support & Expertise to Streamline Your Lab Operations.

Our **lab consultancy** experts can help your lab optimize workflows and enhance productivity, while our **blood culture medical education** experts support better quality management and optimized practices.

In addition, our **highly responsive service team** is here to help keep your lab operations running continuously, via our hotline or on-site intervention.

## NEED HELP? JUST ASK. CONNECT WITH YOUR BIOMÉRIEUX REPRESENTATIVE TODAY.

1. **Halperin A.V. et al.** (2022). Impact of automated blood culture systems: crossover clinical trial. *Microbiol Spectr.*
2. **Mazulli et al.** (2023). Impact of Implementation of BacT/Alert Virtuo on Blood Culture Time to Positivity in Sepsis Patients. *Microbiol Spectr.*
3. **Somily AM. et al.** (2018). Time-to-detection of bacteria and yeast with the BACTEC FX versus BacT/Alert Virtuo blood culture systems. *Ann Saudi Med.*
4. **Pean de Ponfify G. et al.** (2021). Impact of 24/7 bottle loading in an automated incubator. *Eur J Clin Microbiol Infect Dis.*
5. **Dai Y. et al.** (2024). Clinical and economic evaluation of blood culture whole process optimization in critically ill adult patients with positive blood culture. *Int J Antimicrob Agents.*
6. **Internal R&D study data:** BACT/ALERT VIRTUO vs. BACT/ALERT 3D
7. **Akan O.A., Yildiz E.** (2006). Effect of delayed entry in two blood culture systems. *Diagn Microbiol Infect Dis.*
8. **Wilms M.C. et al.** (2009). Effect of preincubation temperature on fastidious organism detection. *J Microbiol Methods.*
9. **Adamik et al.** (2021). Effect of delayed entry on performance of the BACT/ALERT FAN PLUS bottles in the BACT/ALERT VIRTUO blood culture system. *Eur J Clin Microbiol Infect Dis.*
10. **Deslandes et al.** (2022). Effect of delayed entry of blood culture bottles in BACTEC automated blood culture system in the context of laboratory consolidation. *Sci Rep.*
11. **Internal data:** BACT/ALERT VIRTUO vs BD BACTEC FX systems comparison.
12. **Hang Y. et al.** (2024). Comparison of antimicrobial neutralization across three culture media. *Microbiol Spectr.*
13. **BACT/ALERT FAN Plus Package Insert** (Ref. 410851/410852).
14. **Lovern D. et al.** (2016). Antimicrobial binding and growth kinetics in FA Plus vs. BACTEC Aerobic/F Plus media. *Eur J Clin Microbiol Infect Dis.*
15. **Katzin B.** (2019). A Controlled Study Comparing Anaerobic Blood Culture Bottles Tested Using Automated Blood Culture Systems. *29th ECCMID Amsterdam.*
16. **Qin et al.** (2024). Comparative evaluation of BacT/ALERT VIRTUO and BACTEC FX400 blood culture systems for the detection of bloodstream infections. *Microbiol Spectr.*
17. **She R.C. et al.** (2018). Performance of the BacT/ALERT Virtuo for sterile body fluid cultures: multicenter study. *Clin Microbiol Infect.*