



# MOVING MICROBIOLOGY FORWARD

**VITEK<sup>®</sup> SOLUTIONS**

**Vitek MS<sup>™</sup> Vitek 2<sup>™</sup>**



**PIONEERING DIAGNOSTICS**



## MICROBIOLOGY EFFICIENCY THROUGH AUTOMATION

VITEK® Solutions combines the optimised workflow and operational efficiency of VITEK® MS ID and VITEK® 2 AST to provide real time reporting of results that support quicker treatment decisions.<sup>2,10,11,14</sup>

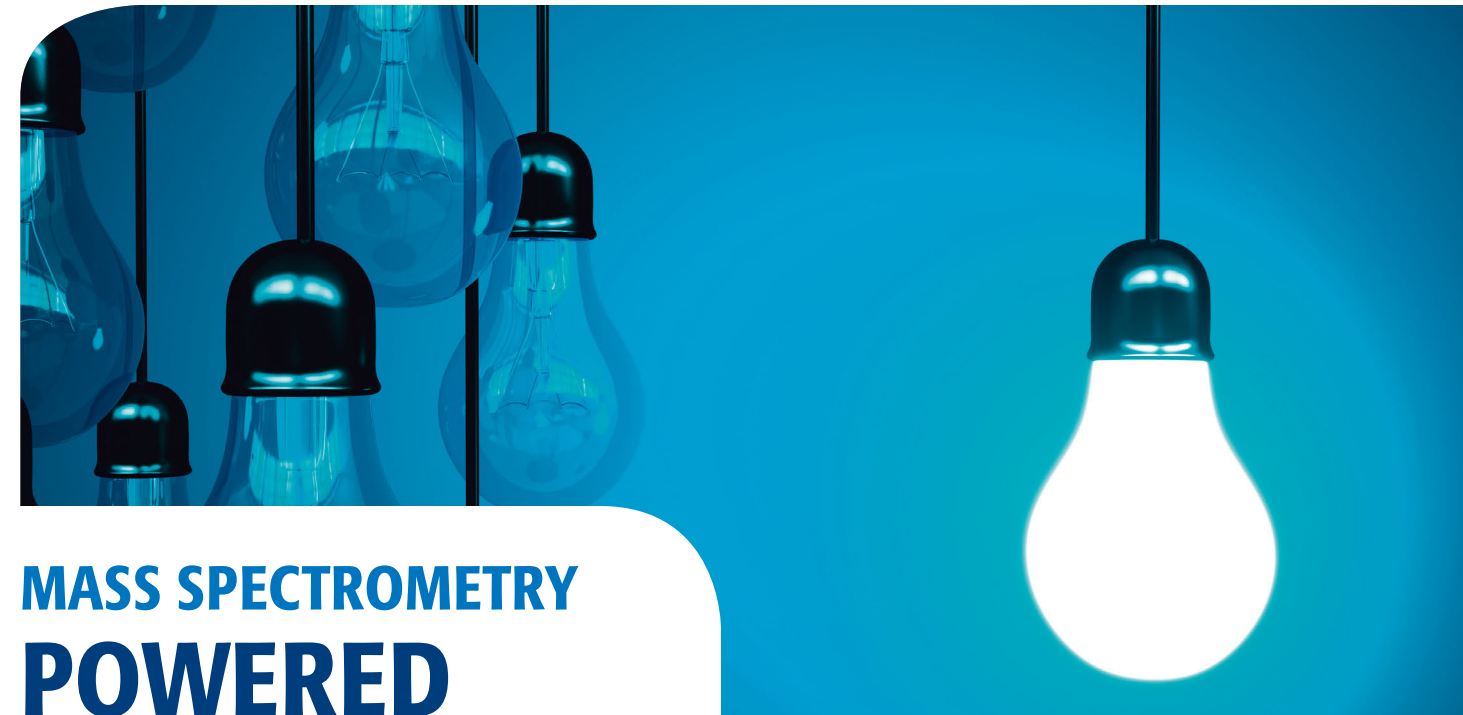
- The only ID/AST solution with complete and seamless integration resulting in same day ID/AST results
- Less manual data entry - Automated transfer of ID results for AST result interpretation
- Fewer reagents and personnel time make results available sooner for the clinician and positively impact outcomes<sup>1,4,8,9,12,13,15</sup>

VITEK® Solutions' complete traceability and flexibility contribute to overall lab efficiency and confidence.

- Barcodes on reagents and disposables automatically link ID with AST results of each isolate
- Patient and sample information are linked from sample setup through final reporting
- Results and system information easily accessed remotely
- Parallel sample preparation by multiple microbiologists at different locations or benches

MYLA® software simplifies lab operations by allowing you to follow sample processing, obtain data in real-time and monitor your lab from a single dashboard.

- Results accessible from any device, any location
- Real-time cumulative statistical functions
- Enables virtual workstations and real-time connectivity to an existing LIS



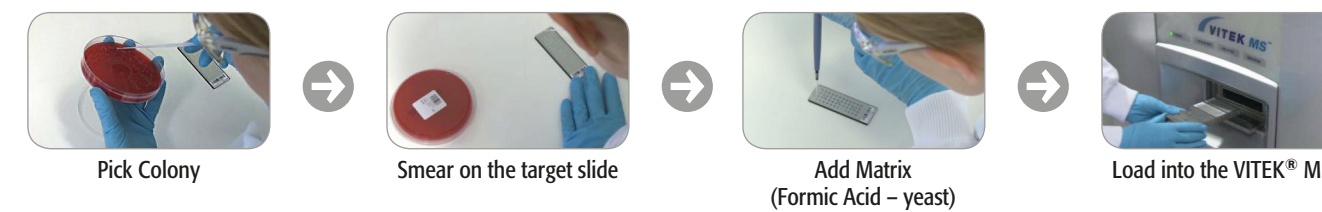
## MASS SPECTROMETRY POWERED BY MICROBIOLOGY

The VITEK® MS is a MALDI-TOF Mass Spectrometry system with embedded microbiology expertise. Its unique proprietary algorithm, the Advanced Spectra Classifier (ASC), provides **better discrimination** of results as every peak is considered in the determination of the identification result<sup>20</sup>. VITEK® MS is robust, efficient and accurate, and **has been shown to reduce time to guided therapy** by providing ID results in minutes compared to hours or days with other methods<sup>7,17</sup>.

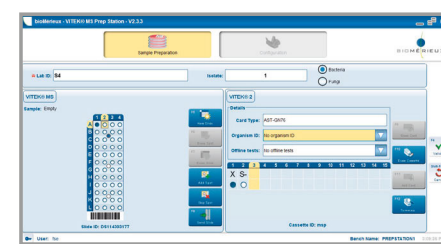
### COMPREHENSIVE DATABASE DEVELOPED BY MICROBIOLOGY EXPERTS

The VITEK® MS contains a population built database that takes into account strain diversity. Strains for each species are collected from different regions of the world, from different sources, and are tested using various media and incubation times.

- Single choice results for bacteria, yeast, Mycobacterium, Nocardia and moulds<sup>18,†</sup>
- All strains are fully characterised using rDNA sequencing, VITEK® 2 and API®
- There is no manipulation of result scores to obtain species identification<sup>18</sup>



### MAXIMISED THROUGHPUT WITH FLEXIBLE WORKFLOW



Easy guided ID and AST preparation can be performed simultaneously on the VITEK® MS Prep Station. The **flexibility** offered by the VITEK® MS Prep Station at each bench allows for multiple slides to be prepared and run on the system at the same time **eliminating bottlenecks**.

- Variable throughput for large and small labs (1 – 192 samples/run)
- Easy sample preparation directly on the target slide that doesn't require additional extractions or lysate preparation except for Mycobacterium, Nocardia and moulds.
- Use of disposable slides helps eliminate the potential for contamination leading to erroneous results, and does not require cleaning with hazardous chemicals.

† Availability pending local registration for Mycobacterium, Nocardia and moulds. Contact your local representative for availability.



## MICROBIOLOGY WITH CONFIDENCE

VITEK® 2 and its unique Advanced Expert System™ allows you to focus only on results that require your expertise.

Unlike comparable systems, each validated result has a specific color indicator to specify the level of confidence in each finding.

### Advanced Expert System is like having an expert advisor by your side<sup>3,16,21</sup>

The Advanced Expert System software automatically validates each result and halts unusual results for review. The majority of results match a known phenotype in the database and can be quickly and confidently reported to clinicians.<sup>14</sup>

- Improve patient outcomes with faster, more accurate results<sup>1,2,10,11,14</sup>
- Minimise human error associated with manual reading of results through standardised result interpretation<sup>3,21</sup>
- Accurate MICs<sup>1,3,4,5,6,13</sup>

### Standardised and Customised Reporting

Create tailored reports based on your specific needs with the rules-based advanced reporting tool (bioART).

- Eliminates manual report modification
- Automatically adds customised comments and alerts when reporting critical results

### The most streamlined workflow in the industry<sup>1,4,9,12,13,19</sup>

VITEK® Solutions (VITEK® MS and VITEK® 2) simplifies your ID and AST workflow.

- Decreases hands-on time with up to 50% fewer steps<sup>12,15,19</sup>
- Quick and easy reviewing and reporting of results

OPTIMISED  
WORKFLOW

COMPLETE  
TRACEABILITY  
AND  
FLEXIBILITY

RUN  
YOUR LAB FROM  
A SINGLE  
SCREEN

1. Ayats J, et al. ASM 2007; Poster C-158. 2. Barentanger J, et al. J Clin Microbiol, 1999; 37(5): 1415. 3. Barry J, et al. J Antimicrob Chemother, 2003; 51: 1191. 4. Blondel-Hill E, et al. ICAAC 2006; Poster D-691. 5. Bobenchik AM, et al. J Clin Microbiol, 2014; 53(5): 816. 6. Bobenchik AM, et al. J Clin Microbiol, 2014; 52(2): 392. 7. Branda JA, et al. Diagn Microbiol Infect Dis, 2014; 78(2): 129. 8. Doat V, et al. ECCMID 2007; Poster P-1727. 9. Eigner U, et al. J Clin Microbiol, 2005; 43(8): 3829. 10. Galar A, et al. J Infect, 2012; 65(4): 302. 11. Galar A, et al. Eur J Clin Microbiol Infect Dis, 2012; 31 (9): 2445. 12. Heller-Ono A. bioMérieux White Paper, 2008. 13. Hooper M, et al. ECCMID 2015; Poster P-1536. 14. LaBombardi VJ. bioMérieux White Paper, 2011. 15. Larone D.H, et al. ASM 2000; Poster C-279. 16. Livemore DM, et al. J Antimicrob Chemother, 2002; 49 (2): 289. 17. Mitchell J.E. ASM 2015; Poster 1510. 18. Pence M.A, et al. Eur J Clin Microbiol Infect Dis, 2014; 33(10): 1703. 19. Römmeler W, et al. ASM 2006; Poster C-123. 20. Rychert J, et al. J Clin Microbiol, 2013; 51(7): 2225. 21. Sanders CC, et al. J Clin Microbiol, 2001; 39 (7): 2379.

## MICROBIOLOGY SOLUTIONS FOR EVOLVING NEEDS

Bacterial resistance is constantly evolving, making early and appropriate antibiotic therapy essential to improve overall patient care and reduce healthcare costs.

### RAPID BACTERIAL IDENTIFICATION FOR BETTER TREATMENT DECISIONS

VITEK® Solutions is the only complete identification and antimicrobial susceptibility testing (ID/AST) platform designed by microbiologists for microbiologists. Seamless integration of VITEK® MS IDs with VITEK® 2 ASTs provides you with same day accurate results, allowing clinicians to quickly optimise patient therapy, reduce hospital length of stay, improve antibiotic stewardship and reduce healthcare costs. <sup>1,2,4,10,11,14,19</sup>

### A COMPLETE SOLUTION

With VITEK® Solutions, labs have an automated system and software from a single source, who knows you and can provide continual support. Service is provided by a team of highly trained microbiologists and engineers. VITEK® Solutions is designed for microbiologists and clinicians who desire seamless, efficient and accurate ID/AST results.

## MICROBIOLOGY SOLUTIONS FOR AN EVOLVING WORLD

Vitek MS™



### SPECIFICATIONS

#### DIMENSIONS

- Size (w h d) – 0.7 m x 1.92 m x 0.85 m minimum distance to wall at back is 100 mm
- Weight – 330 kg excluding data system

#### INSTALLATION REQUIREMENTS

- Electrical – 200 VAC, 50/60 Hz, 1000 VA single phase OR 230 VAC, 50/60 Hz, 1000 VA single phase
- A “clean”, stable and continuous mains supply is required for reliable operation
- Temperature – ambient 18°C to 26°C
- Relative humidity – less than 70% non-condensing
- Vibration free, firm, level floor, at least 330 kg supported at four points

#### LASER

- 337 nm nitrogen laser, fixed focus
- 3 ns pulse rate – 50Hz (50 laser shots per second)
- Near normal (on-axis) incidence of the laser beam to the sample

- Laser power and laser aim under software control

#### ANALYZER

- Linear flight tube of 1.2 m drift length
- Vacuum maintained by two turbomolecular pumps (nominal 250 l/s) with rotary backing
- Beam blanking to deflect unwanted high intensity signals e.g. matrix ions

#### MASS RANGE

- 1 to 500 kDa

### VITEK® MS Plus: Complete Coverage integrating IVD and RUO databases

With only one sample preparation, users can simply switch between the VITEK® MS IVD and VITEK® MS RUO database for maximum data generation from each sample while meeting compliance and IVD regulations.

Vitek 2™  
Vitek 2™ XL



Capacity for VITEK® 2 and VITEK® 2 XL is 60 and 120 cards per instrument, respectively (4 instruments can be connected to the same PC)

#### DIMENSIONS:

- VITEK® 2: 100 x 71 x 67 cm
- VITEK® 2 XL: 140 x 71 x 67 cm

#### WEIGHT:

- VITEK® 2: 110 kg ■ VITEK 2 XL: 145kg

#### ENVIRONMENTAL REQUIREMENTS:

- Temperature - ambient 20°C to 30°C
- Relative humidity - between 20% to 80% non-condensing
- Altitude: up to 2,000 m

#### ELECTRICAL REQUIREMENTS:

- 100/120 VAC (50-60 Hz)
- or 220/240 VAC (50-60 Hz)

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