WASP®

Your first step into microbiology lab automation

Copan
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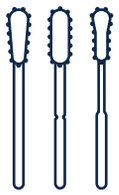
culturing innovation



Collection

Transport

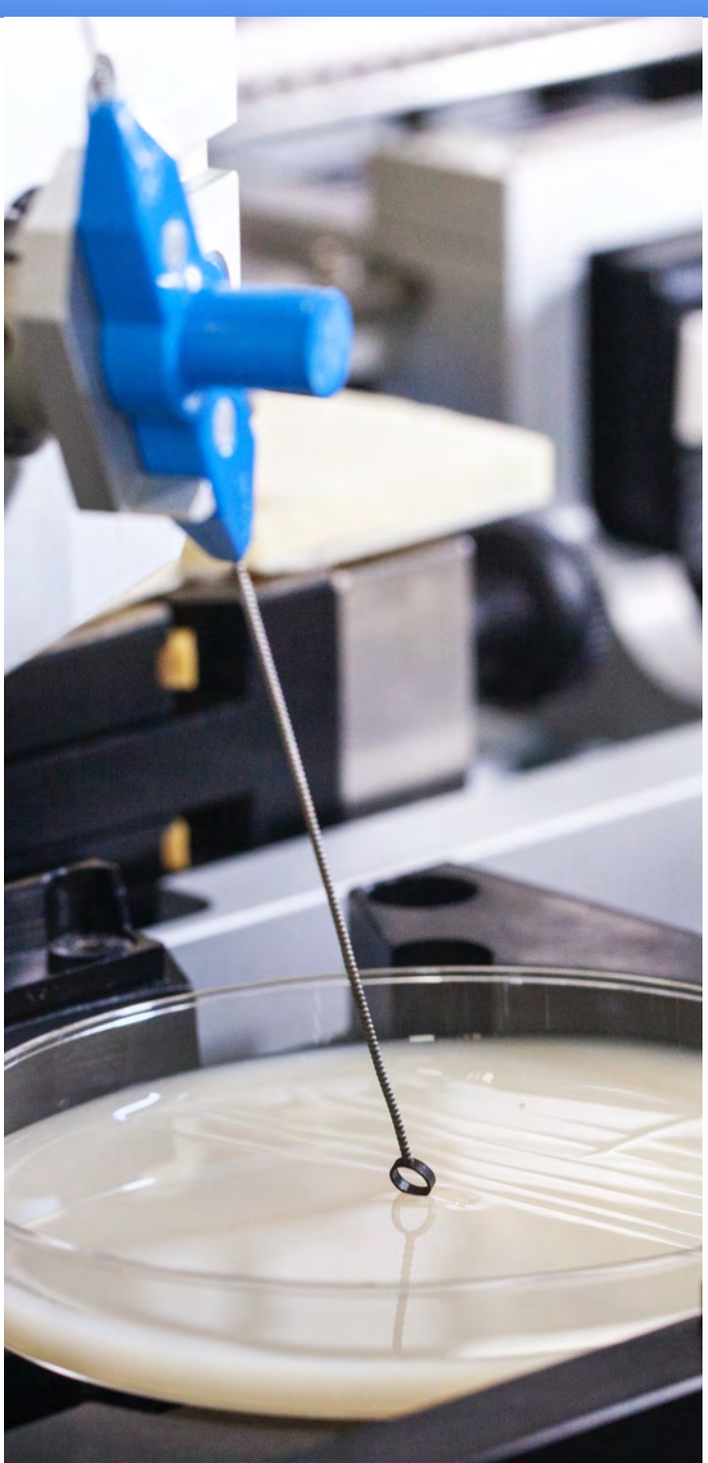
Processing

Artificial Intelligence

Workflow-Integrated System Environment

WASP®

WASP® is Copan's renowned Walk Away Specimen Processor, an instrument that fully automates all aspects of liquid-based bacteriological specimen processing: plate inoculation and streaking, Gram slide preparation, broth inoculation, and AST plate streaking.



This is WASP® in just five simple words:

Automated

WASP® takes care of every step of upfront microbiological specimen processing, automating demanding and repetitive manual tasks traditionally done by lab staff and technologists.

Modular

WASP® is available in different configurations to suit the routine of every laboratory, no matter the volume and type of samples analysed every day: slide staining, broth inoculation, AST disk dispensing, and pipettor modules are available to make a WASP® YOUR WASP®.

User-centric

WASP®'s easy-to-use touch-screen monitors and intuitive software interface are designed to offer a user-friendly experience.

Customisable

To adapt to your laboratory needs, a wide range of options is available to customise the media plate type, streaking pattern, inoculum length, and volume.

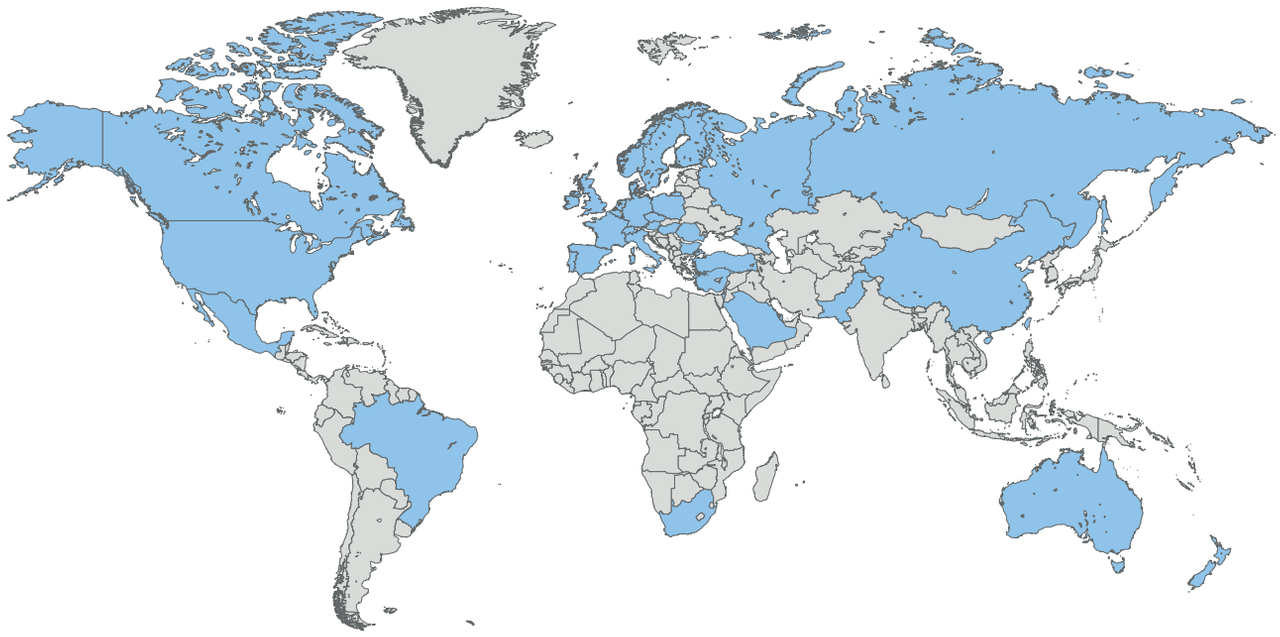
Expandable

WASP® is just the beginning. Our solutions for lab automation include WASPLab® smart incubation and digital imaging, Radian® and Radian® Rapid AST, PhenoMATRIX® AI algorithms, and much more. You start automating manual activities, you end up with a fully digitised lab!

1000+ WASPs worldwide

The world is its nest

From the first 2007 WASP® generation to the most recent installation, a lot has happened: more than fifteen years have passed, over 1000 WASP® have been installed, and hundreds of laboratories put their trust in us.
Wouldn't you like to join this big microbiology community?



Advantages

A flawless assistant

Automating your lab's daily workload offers many benefits to both patients and technologists.
Find out how WASP® elevates your bacteriology sample preparation.

Improved accuracy, reproducibility & quality

The reduction of manual touchpoints increases the accuracy of sample processing, minimizing human errors. Automating repetitive operations ensures that each process is equal to the other for unparalleled standardisation.

Top versatility

WASP® LIS-driven automatic selection between more than 40 streaking patterns available, different and reusable loop sizes, seeding volume, and optional processing steps guarantee your cultures' quality, sensitivity, and cost efficiency

Flexible LIS integration

WASP® can interface with your LIS using standard unidirectional or bidirectional communication.

Cost reduction

Workflow automation reduces consumables, management, and environmental costs. In addition, WASP® flexibility to inoculate and streak two separate patient samples onto the same plate with no risk of transposition errors offers a substantial saving.

Unparalleled safety

WASP® HEPA filtration and anti-droplet technical systems minimize the risk of surface and air contamination.

Cleanness

WASP® processes each specimen individually, ensuring the highest containment and confinement and reduced cross-contamination.

Continuous loading

Avoid workflow disruptions through continuous and random loading: WASP® can be reloaded with any sample without the need to batch or stop.

End-to-end traceability

WASP® 360° scan technology reads specimen barcode labels at the bottom or at the side of the plate, reducing sample rejections to zero. Moreover, the onboard labeling and LIS data integration allow full traceability of samples, plates, Gram slides, and inoculation tubes and their reconciliation to the corresponding patient and analysis protocol.

Seamless maintenance

The onboard Image Analysis Verification System ensures the use of the correct loop size, its integrity and checks the meniscus of the loop to verify the presence of the inoculum.

Universality

WASP® universal decapper automatically opens and recaps sample containers of different size and type.

Easier accreditations

Enhanced standardisation & reproducibility translate into painless and faster laboratory accreditations.

IVDR compliant

Like all our automation modules and software, WASP® is fully compliant with the latest European Union In Vitro Diagnostics Regulation (IVDR).

Empower your staff

Focus on what truly matters!

That automation will take over every human activity in clinical labs is a big misconception. On the contrary, we conceived our automation solutions to work in synergy with lab technologists, helping them to express their real potential.
By taking charge of the most tedious duties, WASP® frees your staff to to focus on high-level tasks – such as data analysis and result interpretation – and protects them from repetitive strain injuries.

Scan the QR Code to discover what lab technicians think about WASP® and the whole ecosystem of Copan's automation!

Liquid-Based Microbiology

Meet automation's best allies

It's only by pairing WASP® with Copan's Liquid-Based Microbiology (LBM™) devices that you can unlock your lab's maximum performance.
Liquid-Based Microbiology (LBM™) transforms solid, semi-solid, and viscous samples – such as sputum, faeces, urine, and swab samples – **into a liquid state, making the most challenging samples easy to automate.**

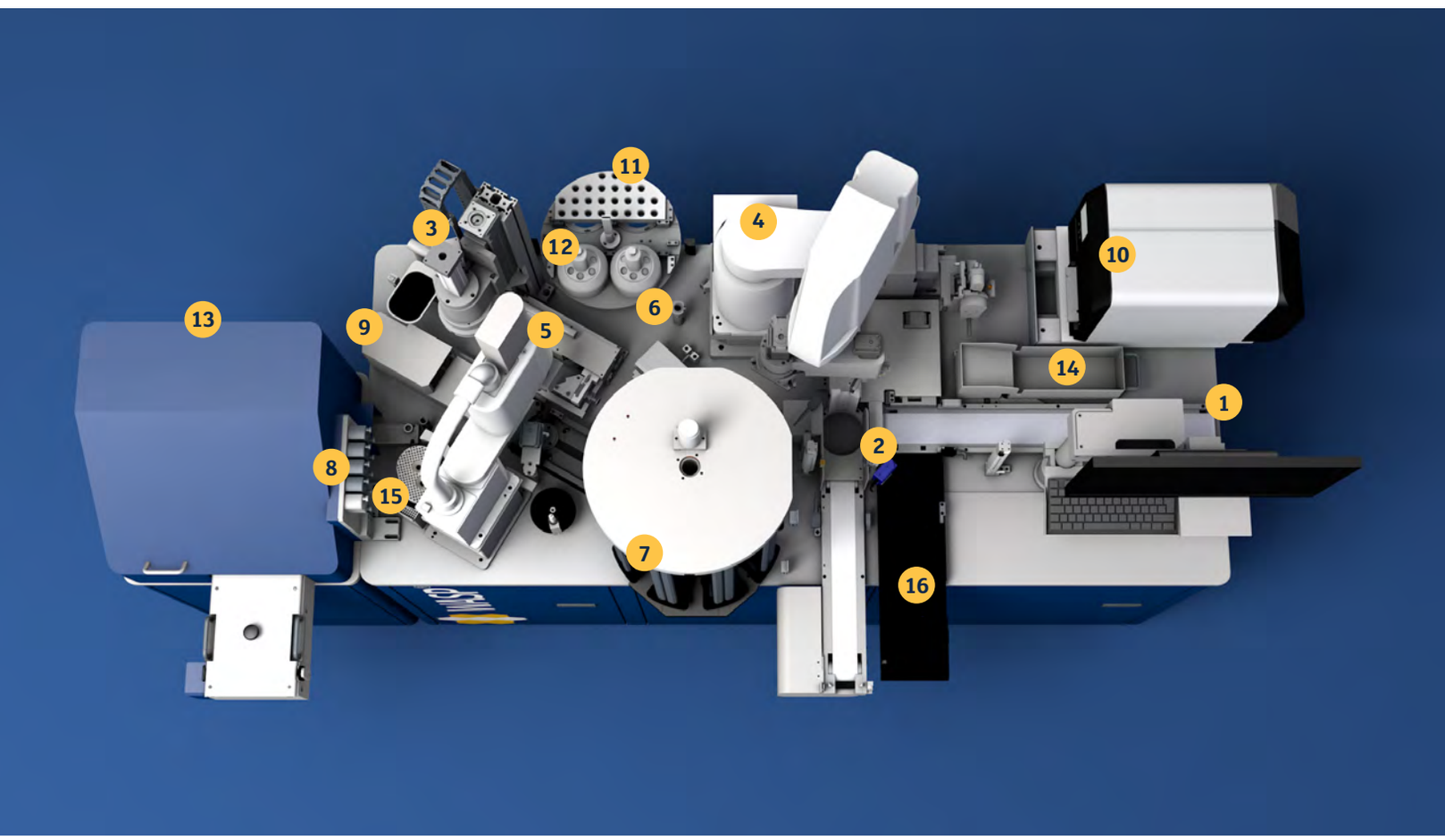
We developed different media for the collection, preservation, pre-treatment, and enrichment of samples, all compatible and validated to provide the best performance on WASP®.
If you are still using gel-based or third-party media, we recommend transitioning to LBM!

eSwab®	UriSponge™
Multipurpose collection and transport system	Innovative sponge system for urine collection
FecalSwab®	LBM® SLsolution™
Collection, Transport & Preservation System for Enteric Pathogens	Sputum-liquefying device
BC+™	LBM®
The positive hemoculture processing device	Liquid-Based Microbiology™ for every application

Specs

WASP® components

1. Sample entry conveyor – Loads samples without interrupting the instrument
2. Smart barcode reader – Communicating with the lab LIS, guarantees full traceability of every sample
3. Universal decapper – Decaps and recaps sample tubes automatically
4. Robot 1 “Tarzan” – Handles the specimen
5. Robot 2 “Jane” – Processes the specimen
6. Centrifuge and Vortex – Ensure the homogeneity of each sample
7. Plate carousel – Stacks up to 378 plates into nine different silos
8. Reusable Metal Loops – Provide the precise volumes (1µL, 10µL & 30µL) necessary for quantitative analysis
9. Inoculation verification camera – Checks the sample presence in the loop
10. Label printers – Automatically print and apply barcodes to plates, broths, etc
11. Broth module (optional) – Store enrichment broths
12. Antibiotic disk dispensing module
13. Gram Slide Prep Evo™ (optional) – Automatically stains and laser prints Grams slides
14. Rejection Bin System – Segregates rejected samples
15. Incinerator and HEPA filter – Avoid cross-contamination and ensure a clean and safe environment
16. Sample Exit Conveyors – Unload processed samples and plates

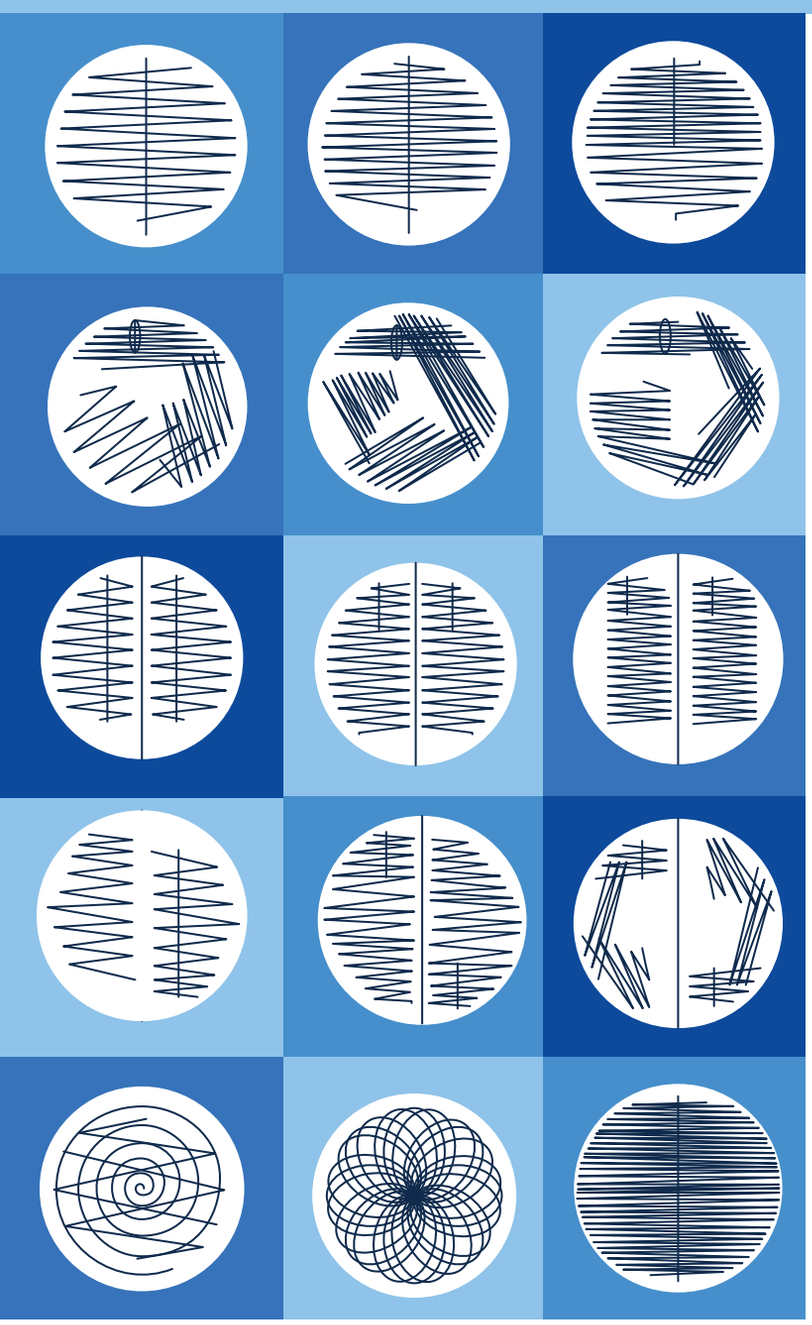


Operating modes

Tailored to your lab workflow

Five operational modes are available to ensure WASP maximum functionality and seamless integration in your lab:

1. Technologist mode – WASP® works with a sample-type batches approach
2. Automatic by barcode label mode – WASP® applies the protocol based on specific rules on the barcode
3. Streak-only mode – WASP® streaks automatically any samples that are manually inoculated by the operator
4. LIS – WASP® processes samples automatically, according to the LIS protocol
5. LIS by technologist – WASP® processes samples according to manual protocol and receives relevant data by the LIS



Streaking patterns

40+ possibilities

WASP® includes a library of more than 40 Standard Streaking Patterns, designed in collaboration with internationally acknowledged laboratories and based on scientific literature. Each WASP® can be upgraded with Optional Streaking Patterns upon request.

- **Single Streak Patterns**
  For specimens that need a quantitative or semi-quantitative analysis
- **Multi-Quadrant Streak Patterns**
  General seeding of clinical specimen
- **Bi-plate streaking patterns**
  For a direct comparison between 2 different media types
- **Duplex Streak patterns (optional)**
  Two samples on the same plate
- **Sensitivity**
  Specific streaking patterns for AST

On top of streaking patterns, WASP® can customise your protocols with additional features such as multi-inoculum, increased streaking speed, increased frequency of loop wash cycles per sample type, multiple plate inoculations, modified length and weight of the primary inoculum, and more.

Contact us for the complete list!

Optional modules

Build your own WASP®

WASP® modular configuration allows unparalleled scalability and flexibility that can be adjusted according to the changing needs of your lab: enhance your workflow by integrating additional modules to automatize broth inoculation, antibiotic disk dispensing, pipetting of high volume samples, and Gram slide preparation.

Slide Prep Evo™

The Slide Prep Evo™ performs automatic specimen smearing on microscope slides which can then be used for Gram coloration and microscope reading. The microscope slide is collected from the Slide Prep Evo™ storage and loaded inside the WASP® for smearing. After smearing, the slides are laser printed with barcode information and dried on the Slide Prep Evo™ tray, heated at 40°C.

- 1µl automatic smearing
- Automatic slide drying
- Anti-solvent laser-printer
- Daily maintenance free

Broth module

The broth inoculation module is designed for the inoculation of broths. The broth table is located at the back of the WASP®, and is composed of 4 sectors that can hold 12 broths each. It is possible to configure up to 4 broth types at a time.

Pipettor Module

The Pipettor Module is a fully automated liquid handling module designed to collect and release liquid specimens on a medium (agar plate, slide, or broth). The pipettor can pipette volumes in the range of 10µl to 900µl using disposable tips, which are automatically placed into a biohazard waste bag under the pipettor after use.

Antibiotic disk dispensing module

The antibiotic disk dispensing module adds antibiotic disks on streaked plates. The antibiotic cartridges must be loaded in the dispenser as outlined in the software settings

Full Lab Automation

The leading microbiology ecosystem

Did you know that WASP® is not only a product?
After WASP®'s enormous success, an entire new company was born with the same name.
From there, we started our microbiology automation journey when it was still far from most people's thoughts.
Over the years, we built a preanalytical automation ecosystem that begins at the streaking phase and – combining hardware modules with integrated image analysis software and Artificial Intelligence – takes care of reading, interpreting, and picking activities: a real Full Lab Automation!

MIcrohub®
Lab-intelligence platform

WASPLab®
Digital microbiology

PhenoMATRIX®
Microbiology brain

Radian®
Automated AST

Colibrí™
Precision microbiology

WASP®
Microbiology core

WASP-FLO™
Moving microbiology

Copan
innovating together

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