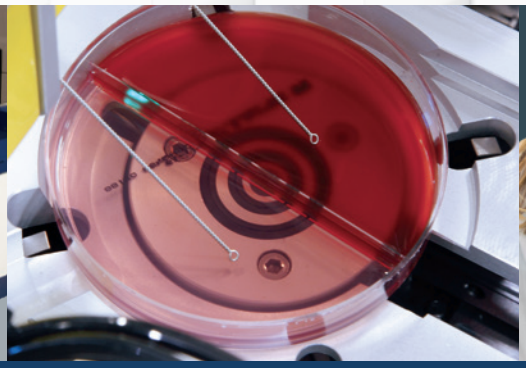
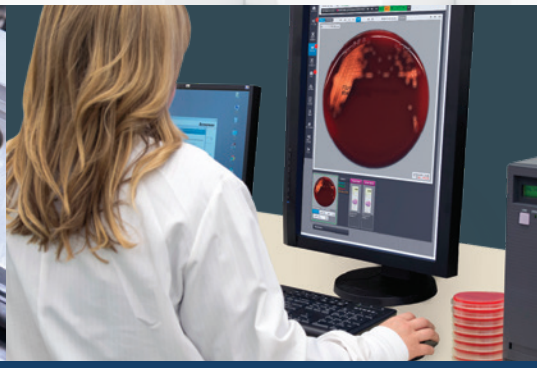
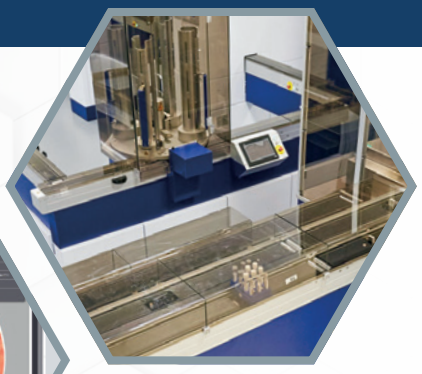
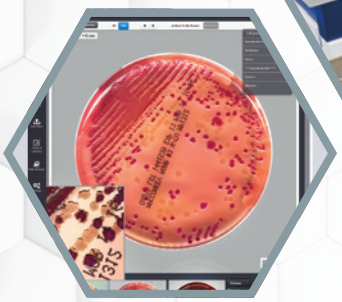
WASP® DT
Daniele Triva

WASPLab™

COPAN FULL LABORATORY AUTOMATION

# SPECIMEN PROCESSING, ALGORITHMS AND DIGITAL MICROBIOLOGY SOLUTIONS


COPAN
Innovating Together™

# INNOVATING TOGETHER, DEFINING THE FUTURE

## THE FUTURE BELONGS TO THOSE WHO ENVISION IT.

Microbiologists today face tough challenges. Increased workloads, labor shortages and the impending retirement boom of Medical Technologists and laboratory professionals have compelled laboratories to look for more efficient, cost-effective ways to process the influx of samples.

With relentless innovation and unsurpassed collaboration, **COPAN** is facing those challenges head on. From the first automated specimen processor prototype to more than 500 instruments later, **COPAN** has solicited input from the Microbiology community. As a result, **COPAN's WASP®DT, WASPLab™, WASP-FLO™** systems, and new modules are designed as open, modular, and forward compatible, to meet the needs of each unique laboratory.

Specimen Processing

Incubation

Analysis

## TABLE OF CONTENTS

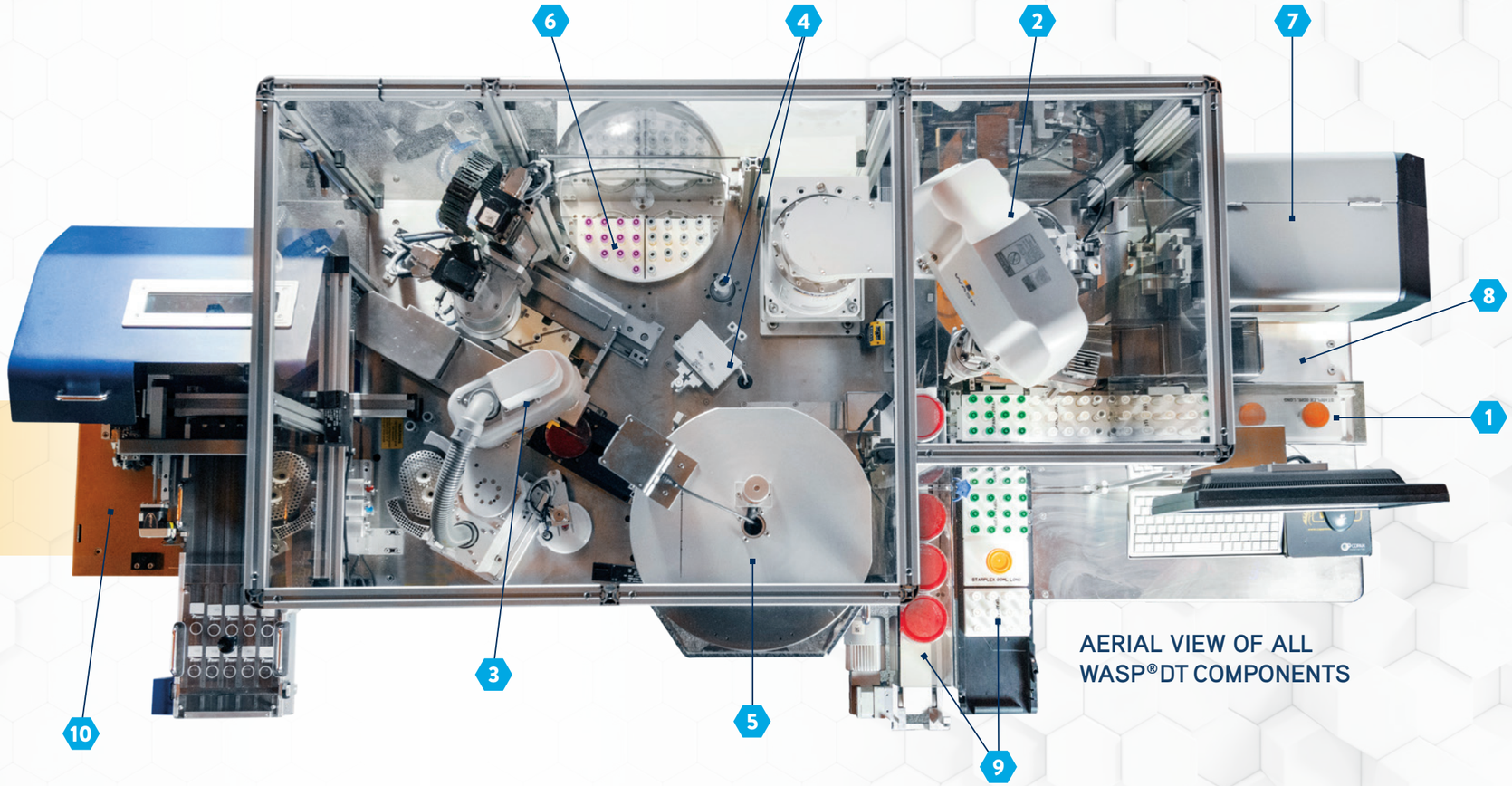
WASP® DT
Daniele Triva

**WASP®DT GIVES LABS THE FREEDOM TO WALK AWAY FROM SPECIMEN SET-UP AND FOCUS ON HIGH LEVEL TASKS**

**WASP®DT is an open platform,**
modular instrument, which fully automates all aspects of upfront Microbiology specimen processing: planting and streaking, Gram slide preparation, disk application and enrichment broth inoculation.

## OVERVIEW OF WASP®DT COMPONENTS

1. **Sample Entry Conveyor**
   Continuous Load with No Need to Pause Instrument or Batch Samples
2. **Robot 1 "Tarzan"**
   Responsible for Specimen Handling
3. **Robot 2 "Jane"**
   Responsible for Specimen Processing
4. **Spinner and Vortex**
   Ensures Homogeneous Sample
5. **Media Carousel**
   Holds Up to 370 Plates, 9 Different Media Silos. Uses Any Manufacturer's Plated Media
6. **Warehouse Carousel (optional)**
   Houses Enrichment Broths and ID and Susceptibility Disk Dispensers
7. **Printer**
   Labels are Automatically Printed and Applied to Plates, Tubes, and Gram Slides
8. **Rejection Bin**
   System Segregates Rejected Samples so that Users Can Easily Find Unprocessed Samples
9. **Sample Exit Conveyors**
   Place Where Processed Samples and Plates are Unloaded
10. **Gram SlidePrep™ (optional)**
    Automatically Prints Labels to Gram Slides




AERIAL VIEW OF ALL WASP®DT COMPONENTS

WASP® DT
Daniele Triva

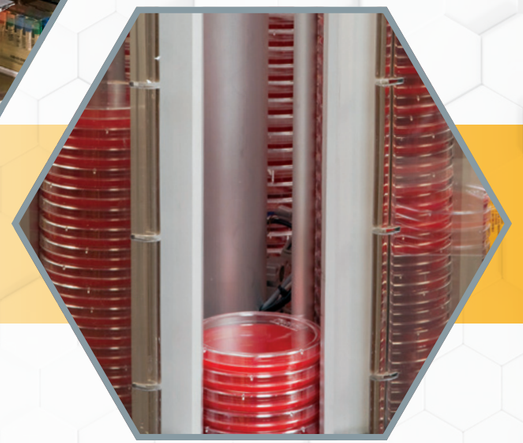

# UPFRONT SPECIMEN PROCESSING

Automate Manual Tasks:

- Planting and Streaking
- Gram Slide Preparation
- Enrichment Broth Inoculation
- Subculture Preparation
- Kirby-Bauer and ID Disk Application

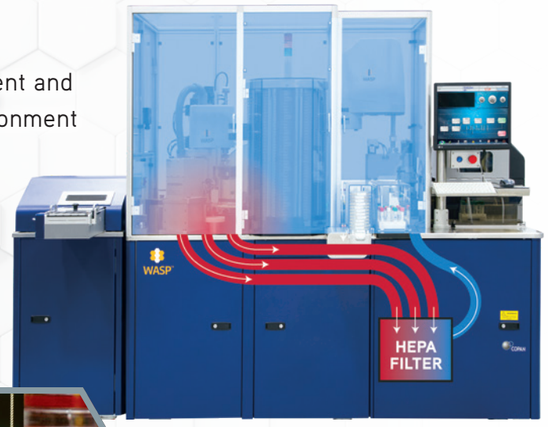

## User-Friendly Experience

- Touch Screen Monitors and Easy to Use Software Interface



## Accuracy, Reproducibility & Quality

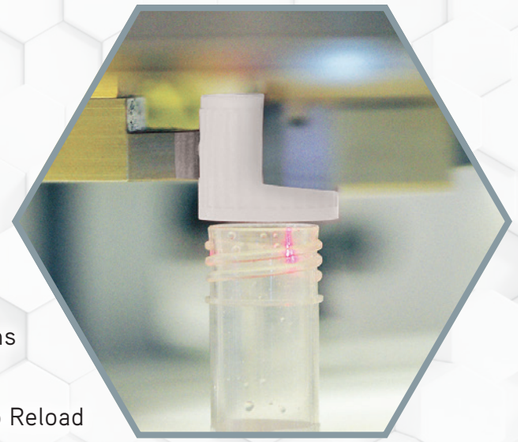
- Individualized Specimen Management, Containment and Confinement Measures Ensure Clean Work Environment
- Versatile Protocol Options Drive Culture Quality, and Improve Sensitivity & Cost Efficiency
- Image Analysis Verification System Ensures Accuracy and Integrity of Loop and Presence of Inoculum
- Touch Screen Monitors and Easy to Use Software Interface for an Intuitive, User-Friendly Experience




**WASP®DT Image Analysis**
Checks for the Presence of Inoculum and Correct Loop Size

## Improve Patient Traceability and Eliminate Barcode Rejections

- Smart 360° Scan Technology Reads Specimen Barcode Labels Regardless of Position
- Labels on Completed Plates, Gram Slides and Inoculation Tubes are Reconciled to Patient Specimen Barcode for Traceability

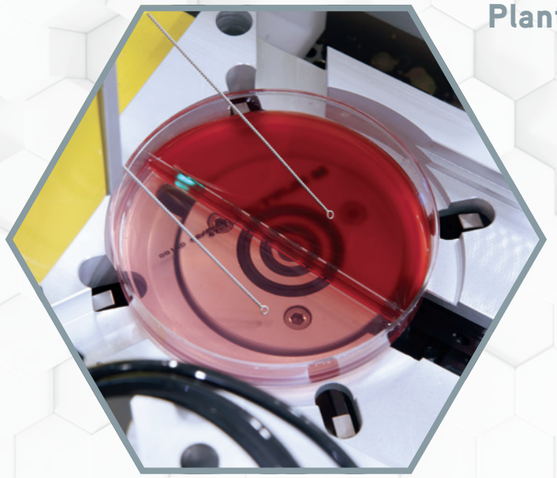


## No Need to Batch

- Universal Decapper Automatically Opens and Recaps Sample Containers
- No Need to Batch or Stop Instrument to Reload

# ADDITIONAL MODULES AND OPTIONS

## FOR A CUSTOMIZED SOLUTION



Dual Streaking with 1µL Reusable Loop

### Planting & Streaking Whole & Bi-Plates!

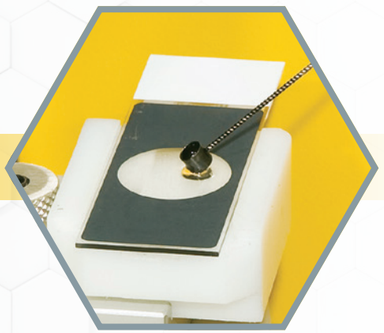
- Library of Classic or Customizable Streak Patterns for Whole Plates and Bi-Plates to Ensure Optimal Isolation
- Reusable Metal Loops Range from **1µL**, 10µL & 30µL to Provide the Precise Volumes Necessary for Quantitative Analysis
- Reusable Metal Loops Keep Operational Costs Low and Allow Users the Option to Change Loop Between Quadrants for Optimal Colony Isolation Necessary High Load Specimens
  - Other Automated Systems Use Disposable Pipet Tips and Streaking Beads, which Increase the Cost of Consumables
  - Pipets Cannot Transfer Volumes Less than 10µl
- Dual Streaker Option for Streaking Bi-Plates for Fastest Throughput and Maximum Productivity

## Optional Gram SlidePrep™ Module or Automatic Enrichment Broth & ID Disk Dispensing Module Increase Instrument Usability

Modular Configuration Allows for Scalability and Flexibility to Adjust Equipment to the Changing Needs of the Lab

### Automatic Enrichment Broth & ID Disk Dispensing Module

Warehouse Carousel Houses Broths for Automatic Inoculation and Subcultures. Without Stopping the **WASP®DT**, it Dispenses the ID Disks (i.e. Optochin and Bacitracin), Completing the Specimen Setup Process



### Gram SlidePrep™ Module

Automatically Prepares the Gram Slides, including Laser Printing the Patient Identification Labels, Eliminating the Need to Manually Pre-Label



# LIQUID BASED MICROBIOLOGY

## Liquid Based Microbiology (LBM™) Makes the Most Challenging Samples Easy to Automate

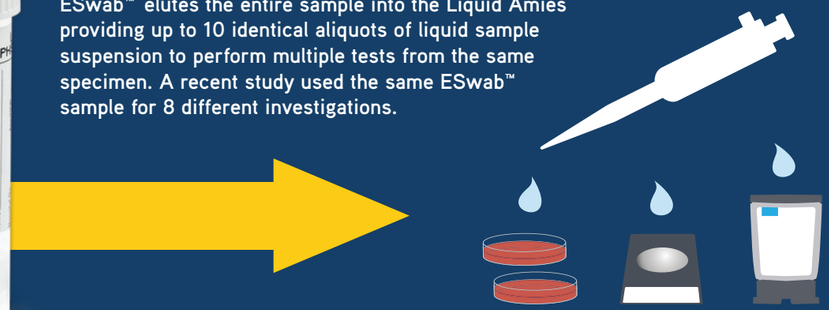
**PRIOR TO AUTOMATION**, **COPAN** recommends transitioning to **Liquid Based Microbiology**. **LBM™** products allow for the highest utilization of **WASP®DT** by liquefying and standardizing sputum, feces, urine and swab samples.

eSwab™ FecalSwab™ SnotBuster™ UriSponge™


Solid samples, such as tissues, or traditional swabs can also be processed on **WASP®DT** using the "Streak Only" mode.

## ESWAB™ CAN BE USED FOR MULTIPLE TESTS

ESwab™ elutes the entire sample into the Liquid Amies providing up to 10 identical aliquots of liquid sample suspension to perform multiple tests from the same specimen. A recent study used the same ESwab™ sample for 8 different investigations.



Van TT et al 2017. Prevalence of Fusobacterium necrophorum in children presenting with pharyngitis. J Clin Microbiol 55:1147–1153.



* Rectal Swab Depth Gauge Stopper

WASPLab™

# IMPROVE QUALITY AND PATIENT CARE

## WITH WASPLAB™

**WASPLab™ is the continuation of automated specimen workup** for Microbiology. **WASPLab™** sets itself apart from other automated systems with its forward compatible and customizable track, incubators and imaging system.

**WASPLab™ is a sophisticated** barcode driven Microbiology specimen processor and work-up system, which connects to **WASP®DT** using a customizable conveyor track. Samples move from front-end processing to full specimen management or **TOTAL LAB AUTOMATION** including:

- Automated Incubation
- Digital Microbiology and Artificial Intelligence

SMALL FOOTPRINT ▪ HIGH EFFICIENCY ▪ MODULAR ▪ SCALABLE



## OVERVIEW OF WASPLAB™ COMPONENTS

**1 WASP®DT**
Automatic Specimen Processing including: Planting & Streaking, Gram Slide Preparation & Enrichment Broth Inoculation

**2 Conveyor Track**
Transports **WASP®DT** Inoculated Plates or Manually Inoculated Plates to **WASPLab™**

**3 Canister System**
Technologists Confirm Growth on a Computer Screen and Plates are Grouped by Growth or Bench Type and Sent to Canisters for Work-up

**4 Loading Carousel**
Place Manually Inoculated Plates into the Loading Carousel to be Transferred to **WASPLab™**

**5 Smart Incubators**
Incubators Create Homogeneous Atmospheric Conditions for Excellent Thermal Conductivity and Faster Colonial Growth as Reported and Validated by **WASPLab™** Users

**6 Image Acquisition**
**Telecentric Linear Camera** takes a **TIME ZERO** Image of the Plate, then Based on User Defined Protocols, at Subsequent Specified Time Intervals Thereafter

**7 Reading Workstation**
Read, Interpret, and Segregate Bacterial Cultures at the Workstation Quickly using Artificial Intelligence and Digital Microbiology

WASPLab™

# GROW YOUR LAB WITH THE FREEDOM AND RELIABILITY OF WASPLAB™ TRACK, CAROUSEL AND CANISTER SYSTEMS

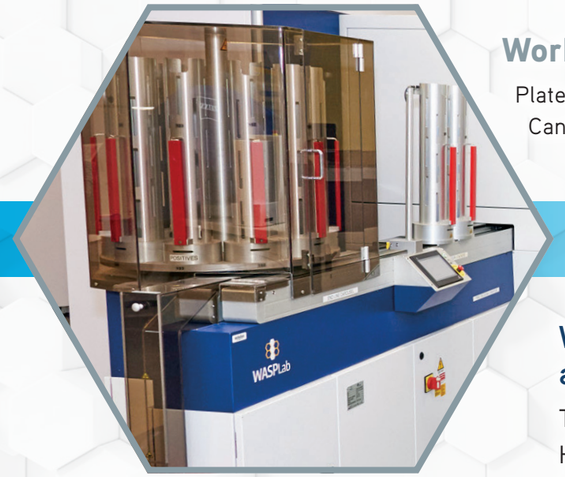
## Conveyor Track

Customizable Conveyor Track Transports **WASP®DT** Inoculated Plates or Manually Inoculated Plates to **WASPLab™**

*Two-Way, Track-to-Bench Solutions are Available Upon Request*

## Manual & Re-Loading Carousel

Place Manually Inoculated Plates, such as Blood Cultures, and Tissues, or Plates that Require Re-Incubation, into the Manual & Re-Loading Carousel to be Transferred to **WASPLab™** Via Conveyor Track, Ensuring Traceability




## Work-Up Canister System

Plates that Need Work-Up are Sent to Canisters for Easy Plate Retrieval

## WASPLab™ Components are Modular and Scalable

The System's Small Footprint and High Efficiency, Leaves Room for Growth Within the Laboratory as Additional Workbenches are Added



# SHORTEN TURNAROUND TIME WITH WASPLAB™ SMART INCUBATORS

## Improve Turnaround Time

Consistent Incubation Environment and Earlier Plate Reading can Result in Improved Turnaround Time* and Delivering Actionable Results within the Therapeutic Window Faster

### Homogeneous Environment and Thermal Conductivity Incubators Bring Plates to Appropriate Temperature Quickly to Speed Up Bacterial Growth

- Each Plate Has a Unique Location for Rapid Retrieval
- Automatic Plate Inversion Based on Protocol to Prevent any Condensation on the Plate Lid Dropping onto the Agar Surface
- Easy to Clean with Removeable and Autoclavable Shelves
- High Capacity
  - Single: 795 Plates
  - Double: 1590 Plates

## Boost Speed and Efficiency with Dual Robot System

**WASPLab™** Smart Incubators House Two Robots for Fast Culture Plate Retrieval

**1 Handling Robot**

Moves the Plates
- From Entrance to Shelf
- Back to Exit When Imaging or Picking is Required

**2 Concierge Robot**

Performs Intermediate Tasks
- Receiving Plates from Imaging
- Receiving New Plates for Incubation
- Holding Plates to Allow the Handling Robot to Prioritize Exit of Plates for Picking

* Based on current user experiences. Varies based on validation and user preference.

WASPLab™

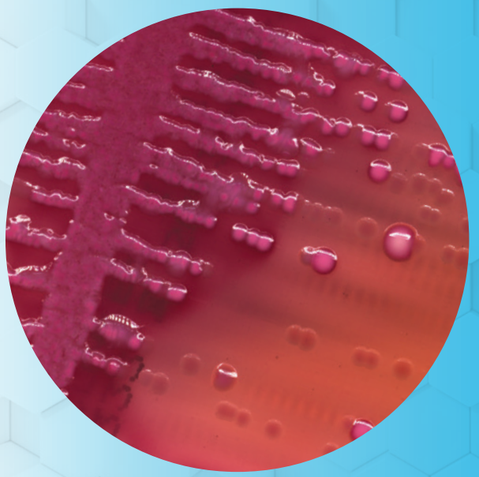
# SEE RESULTS CLEARER THAN EVER BEFORE WITH WASPLAB™ DIGITAL MICROBIOLOGY

**WASPLAB™ IMAGE ACQUISITION TECHNOLOGY** allows labs to make the most accurate work-up decisions by using a highly sophisticated lighting and camera system so that each plate image is clear and focused.

Upon entering the incubator, the **Telecentric Linear Camera** takes a critical **TIME ZERO** image of the plate for comparative differential image analysis - a fundamental step for the **PhenoMATRIX™** algorithms. Then based on user defined software, it will continue to image the plates at their programmed intervals.

0 hours | 16 hours | True Growth

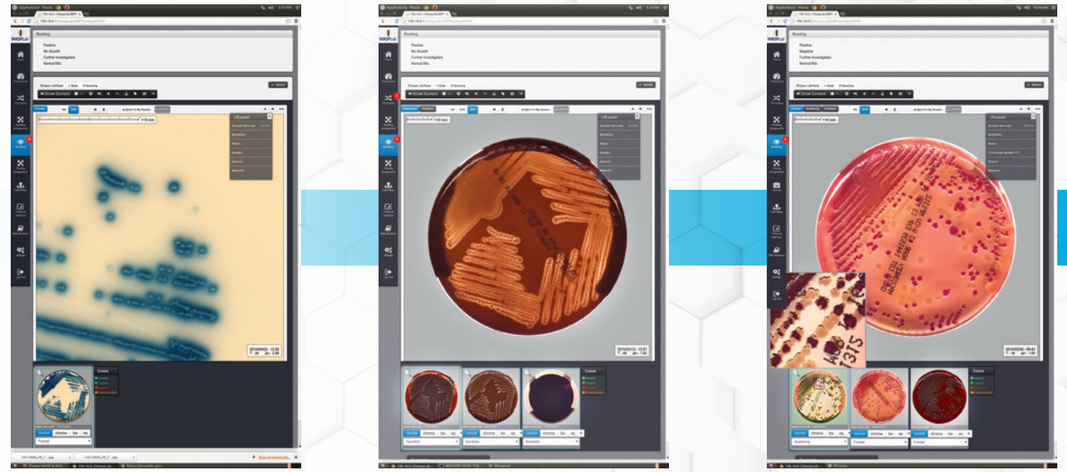
## Stop Eye Straining and Enjoy the Sharpest Images in the Industry with WASPLab™ Telecentric Linear Camera Optics



- Unique 27 MegaPixels for Larger than Life Images
- Enormous 9mm Depth of Field to Focus on Colonies Both Large and High or Small (as 0.1mm) and Low to Ensure No Growth is Missed
- Three Different Lighting Systems to Choose from to Capture Optimal Plate Images
- Constant Magnification, Eliminating Perspective Angle Error so Images are Undistorted for Precise Colony Location and Picking



## Three Different Lighting Systems to Choose from to Capture Optimal Plate Images



# WASPLAB™ DIGITAL MICROBIOLOGY SOFTWARE INTEGRATES WITH THE LIS TO PROVIDE PATIENT DETAILS FOR BETTER CARE

- Comprehensive Snapshot of the Patient's Demographics to Guide Most Effective Treatment
- Images are Stored in the Software to be Used for Training or Traceability
- Monitor Growth in Real Time and Read Plates When They are Ready to be Read, Improving Turnaround Time
- Never Touch a Negative Plate with Built-in Segregation Software for Batch Resulting of No-Growth Samples

WASPLab™

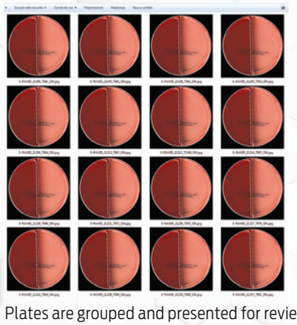
# DIGITAL MICROBIOLOGY:

## WASPLAB™ TOTAL LABORATORY AUTOMATION INCLUDES IMAGE ANALYSIS SOFTWARE, MOVING MICROBIOLOGY TO THE DIGITAL AGE

### SCREEN, READ, PICK AND REPORT IN AN INSTANT

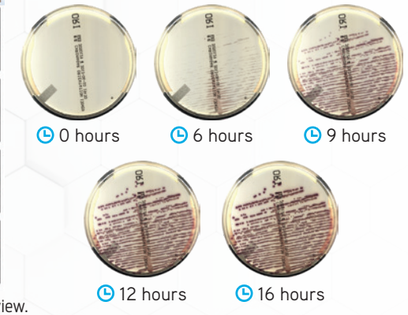
### 1 SCREENING – Discard Negatives Quickly

- All Plate Images are Presented to the User for Review
- PhenoMATRIX™ Software Algorithms Groups Images of Plates Based on User Selected Colony Counts
- Users Send Plates Requiring Further Investigation to Reading and Rapidly Results and Discards Negatives

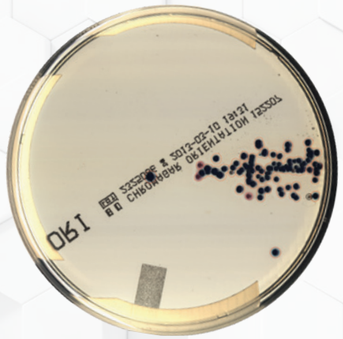


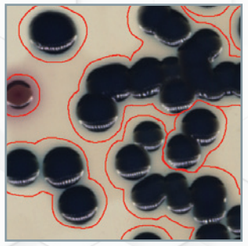
Plates are grouped and presented for review. Cultures with no significant growth or skin contaminants can be rapidly resulted, in the screening process.

**OR** PhenoMATRIX™ will automatically sort out the "no growths" and can result up to 30 negative samples at once.




Toggle quickly to review and compare growth on the same culture plate at different incubation time points.

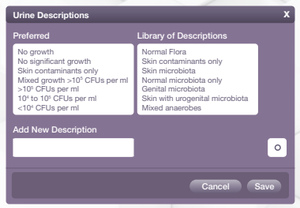


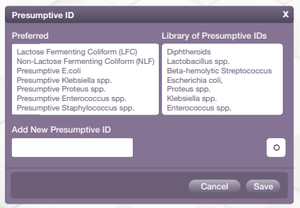


Using differential image analysis, WASPLab™ uses a preliminary colony count to group plates by CFU's, which are then presented to the reader for verification.

### 2 READING – Focus on Plates that Require Investigation and Expertise

- Plates Requiring Further Investigation are Displayed in the Reading Area
- Users Can Zoom and Tag Colonies with Presumptive Identifications
- Work-Up Tickets are Created (MALDI-TOF, AST, Subculture, etc.)



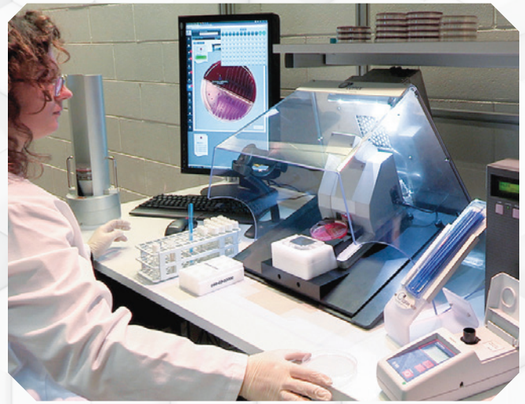




Example of WASPLab™ user defined drop-down menu which allows users to select from a list of reporting descriptions which can match LIS reporting criteria.



### 3 PICKING – Users Obtain Presumptive Positive Plates from Canisters and Bring Them to the Bench for Work-Up

- After Scanning the Plate, Images are Displayed with Digitally Tagged Colonies and Work-Up Instructions
- Upon Completion of the Tasks, the User Acknowledges the Conclusion in the Software and Closes Out the Ticket Before Moving to the Next Sample



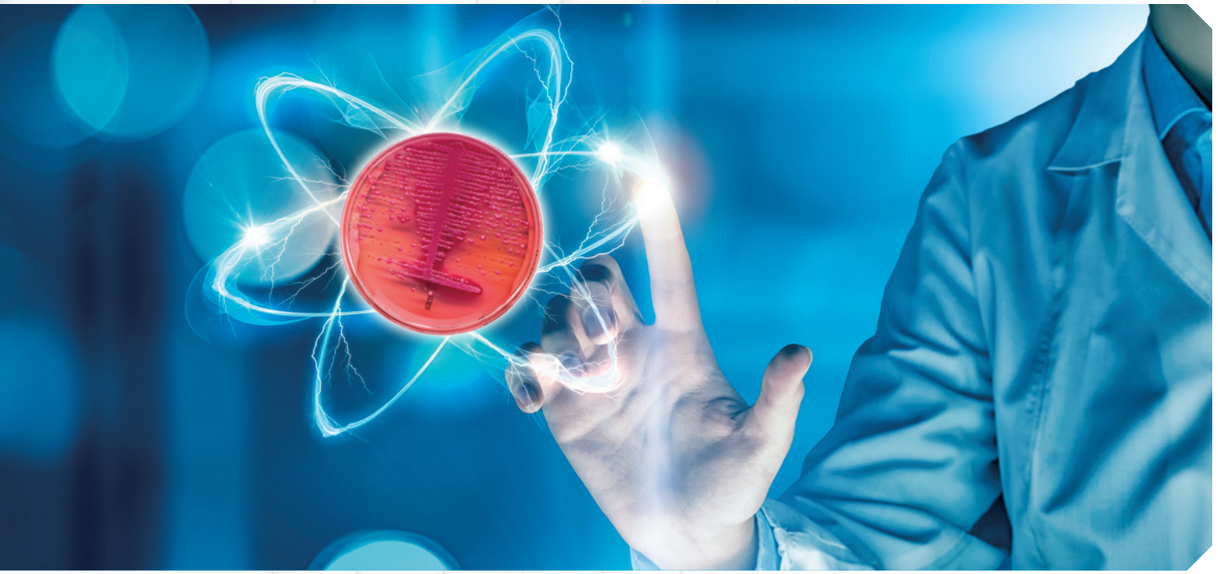
### 4 REPORTING – WASPLab™ Software Sends the Results to the LIS and Archives the Results

**Digital Microbiology Allows Laboratory Professionals to Quickly and Accurately Read and Share Information with Healthcare Providers, Bringing Microbiology Back to the Patient Bedside**

# PhenoMATRIX™ AND DIGITAL MICROBIOLOGY

## NEVER TOUCH A NEGATIVE PLATE AGAIN AND SPEED TIME TO RESULTING WITH PHENOMATRIX™

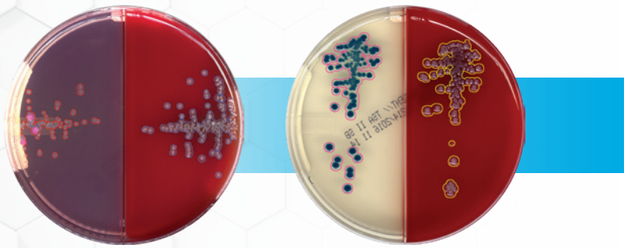
**UNPARALLELED IN THE INDUSTRY, WASPLAB'S PHENOMATRIX™** offers users an exclusive selection of highly sophisticated algorithms. Through advanced Artificial Intelligence (AI), the software automatically recognizes organisms allowing microbiology labs to read, interpret, and segregate bacterial cultures with the click of a button with 100% sensitivity!



## PHENOMATRIX™ ALGORITHM SUITE INCLUDES:

### Urine Culture Segregation Based on Colony Counts with Growth/No Growth Discrimination

Customizable User Defined Thresholds for Growth/No Growth Counts Colonies for Faster Urine Culture Reading



**Colony Counting**

**Sources:**
1) Faron, M. L., Buchan, B. W., Coon, C., Liebregts, T., Bree, A. V., Jansz, A. R., . . . Ledeboer, N. A. (2016). Automatic Digital Analysis of Chromogenic Media for Vancomycin-Resistant-Enterococcus Screens Using Copan WASPLab. Journal of Clinical Microbiology, 54(10), 2464-2469. doi:10.1128/jcm.01040-16.

2) Faron ML, Buchan BW, Vismara C, Lacchini C, Bielli A, Gesu G, Liebregts T, van Bree A, Jansz A, Soucy G, Korver J, Ledeboer NA. 2016. Automated scoring of chromogenic media for detection of methicillin-resistant Staphylococcus aureus by use of WASPLab image analysis software. J Clin Microbiol 54:620 –624. doi:10.1128/JCM.02778-15.

3) Kirn TJ. 2016. Automatic digital plate reading for surveillance cultures. J Clin Microbiol 54:2424-2426. doi:10.1128/JCM.01279-16.

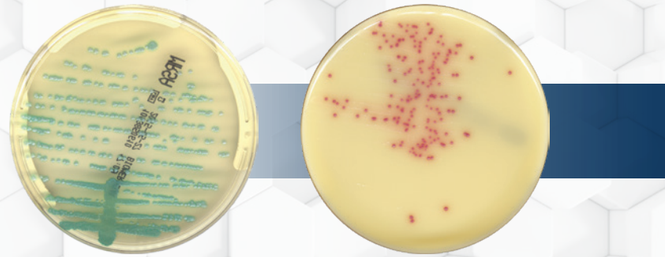


*RUO

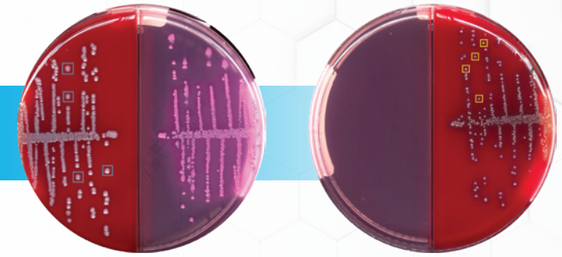
PhenoMATRIX™

### Chromogenic Detection of any Organism of Interest (MRSA, VRE, ESBL, GBS)

Accurately Detects and Differentiates Organisms on Any Manufacturer's Chromogenic Agar for Fast Results



**Automatic Detection of Organisms on any Chromogenic Medium** [1, 2, 3]



**Automatic Colony Recognition**

**Technologist Report to LIS:**
$>10^5$ cfu/ml E.coli
**Colony Recognition Software:**
$>10^5$ cfu/ml E.coli
99% probability

**Technologist Report to LIS:**
$>10^5$ cfu/ml Enterococcus
**Colony Recognition Software:**
$>10^5$ cfu/ml Enterococcus
99% probability

### Automatic Colony Recognition on Standard Medium

Recognizes Bacterial Colonies by Comparison against its Massive Phenotypic Database to Standardize the Interpretation of Bacterial Cultures and Optimize Workflow Efficiency

### Application of User-Defined Expert Rules to Filter Outputs and Reporting

Applies Each Laboratory's Personalized Rules Combined with Demographic Information from a Patient's LIS Record for a Higher Level of Culture Segregation, Providing an Additional Filter for Standard Report Outputs

**Expert Rules Filter**

**Sex:** Female **Age:** 27
**Colony Recognition:** Presumptive Group B Streptococcus
**Recommendation:**
Confirm identification and AST work up

**PhenoMATRIX™ Algorithms** are Optional Additions to the **WASPLab™** Software and can be Purchased Individually.

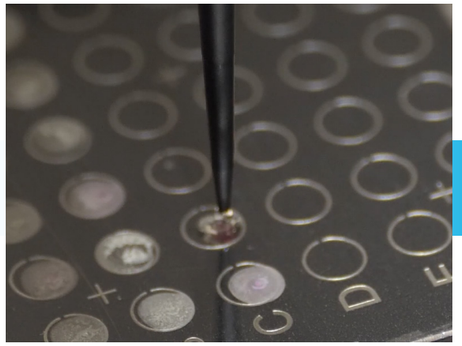
To Learn More or for a Full List of Available Algorithms, Contact Your Local **WASPLab™** Representative Today!

# Colibrí™ Fully Automated Specimen Workup


## DESIGNED TO PREPARE MALDI-TOF ID TARGETS AND CREATE BACTERIAL SUSPENSIONS FOR ANTIBIOTIC SUSCEPTIBILITY TESTING*

The COPAN Colibri™ System is an *in vitro* diagnostic device for use automating rapid identification of isolated colonies of Gram-negative and Gram-positive bacteria grown on solid culture media.

## AUTOMATING CRUCIAL STEPS IN DIAGNOSTIC MICROBIOLOGY TESTING FOR TIME AND LABOR SAVINGS



**COLIBRI™ AUTOMATICALLY PICKS ISOLATED COLONIES** for further workup and investigation.

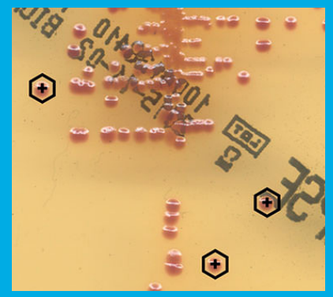
- Chosen colonies are designated by the laboratory technologist or automatically by COPAN's advanced AI, PhenoMATRIX® TAG.
- **Automatically seeds colonies** into various size tubes to **prepare McFarland suspensions for antibiotic susceptibility testing (AST)*,** verifying opacity of suspensions using the onboard nephelometer.
- The system applies barcode labels to tubes and prepares purity check plates from McFarland suspensions.

**AST capability currently IUO (Investigational Use Only) in the USA market. Always consult product inserts and instructions for use for the appropriate use of the products. Product clearance and availability restrictions may apply in some countries.*



## PhenoMATRIX® TAG

**PhenoMATRIX® TAG IS THE NEXT EVOLUTION OF COPAN'S ADVANCED ARTIFICIAL INTELLIGENCE (AI)**, which automatically detects and **"tags" the best colonies to be picked by Colibri™**, a fully automated specimen workup instrument designed to prepare MALDI-TOF ID targets.



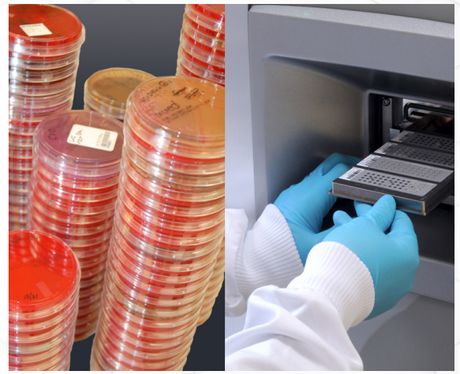
The advanced AI algorithms highlight both isolated colonies as well as aggregated colonies; colonies which are not fully isolated but determined by the software to be pure. After defining the colonies for selection, PhenoMATRIX® TAG communicates the colony coordinates to the Colibri™ for reliable and accurate picking.

The advanced AI used by PhenoMATRIX® and PhenoMATRIX® TAG **interprets growth based on each laboratory's custom rules, presumptively identifies colonial morphology, and pre-selects the best-isolated colonies for work-up.**

## PRECISION AND FULL TRACEABILITY IN SPECIMEN WORKUP

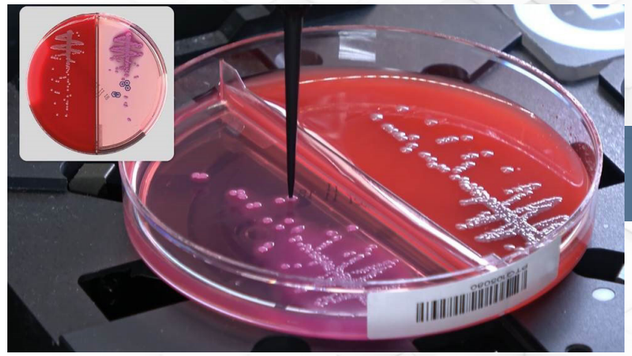
**PhenoMATRIX® DEFINES THE OPTIMAL COLONIES** to be reviewed and picked and then communicates the coordinates to the Colibri™ for picking.

Colibri™ records the source identity of each sample, its position on the target slide and communicates this information electronically to the MALDI-TOF MS analyzers, thereby eliminating any human transcription errors.



## HARNESS THE POWER OF FULL LABORATORY AUTOMATION, ADVANCED ARTIFICIAL INTELLIGENCE AND AUTOMATED COLONY WORKUP

**STREAMLINE WORKFLOW AND ADDRESS THE MOST CHALLENGING DEMANDS IN THE LABORATORY** with Colibri™ and artificial intelligence (AI) software, delivering cutting-edge, intelligence driven solutions for specimen workup.



WASPLab™

# DIGITAL MICROBIOLOGY

## AND WORK-UP STATIONS

**These Ergonomic Stations Afford Labs the Freedom to Grow and Move, while Performing the Important Tasks of Reading, Screening, Picking and Resulting at their Bench**

- Ergonomically Designed Interpretation Workbenches for Maximum Comfort
- Advanced Smart Zoom Technology for Users to Pinpoint Colonies that Could be Missed by the Human Eye
- At the Picking Station, Technologists Scan the Plates' Barcode to Retrieve Images and the Worksheet with the Pre-Selected Colonies Tagged with Presumptive ID's
- Archive Images for Quality Assurance and Teaching Purposes to Create a Unique Library for Unique Organisms




WASPLab™

## WANT MORE FROM YOUR AUTOMATION?

# OPTIONAL MODULES FOR TOTAL LABORATORY AUTOMATION

**AUTOMATION IN MICROBIOLOGY** is not simply bringing a plate to a workbench via track. Instead, it's about maximizing efficiencies anywhere possible, so that Microbiology labs can positively impact patient care. That's why **COPAN OFFERS EXCLUSIVE ADDITIONS THAT ENHANCE YOUR LAB'S CAPABILITIES TO EMPLOY A COMPREHENSIVE COLLECTION OF MODULES FOR TOTAL LABORATORY AUTOMATION.**

WASP-FLO™

OPTIONAL MODULES

# WASP-FLO™ STREAMLINE SAMPLE LOADING

**LABORATORIES WITH MULTIPLE WASPLAB™ LINES** benefit from WASP-FLO™ for streamlining sample loading. WASP-FLO™ bulk loader automatically sorts samples and directs them to the appropriate WASP®DT. By utilizing a barcode reader, WASP-FLO™ automatically places the sample in the corresponding pallet, to be processed on WASP®DT, once the pallet is full.


## Load Samples Indiscriminately and Eliminate Batch Processing

- Randomly Load Samples into WASP-FLO™
- Automatic Sorting and Routing of Samples Increases Efficiency & Throughput

**WASP-FLO™ Productivity is Equivalent to at least 2 FTE's**

## COLLABORATIVE ROBOT MANAGES MANUAL PROCESSES AUTOMATICALLY

**COPAN's Exciting New Collaborative Robot Can Automate Many Processes that were Previously Done Manually, Such as Processing Positive Blood Culture Bottles, Tissues, Wound Aspirates, Sterile Body Fluids or Traditional Swab Samples.** Users simply scan the specimen barcode and the robot will present the precise sequence of pre-labeled plates or tubes. After the plates are manually seeded, the **Collaborative Robot** streaks the plates and places them on the conveyor track to the **WASPLab**™ incubators.

### Collaborative Robot Capabilities:

- Eliminates Transcription and Transposition Errors from Manual Processes
- Presents the Precise Sequence of Plates and Materials for Any Task or Any Specimen Setup
- All Tasks are Performed within HEPA Filtered Environment
- Allows Automation of Many Tasks and Procedures Previously Done Manually
- Modular Work-Pods Expand the Robotic Capabilities to Include Automated AST and ID setup

WASP® DT Daniele Trivia

WASPLab™

## PRODUCT SPECIFICATIONS

### WASP®DT

| | |
|---|---|
| Dimensions: | 3.625 feet wide x 6.79 feet long x 6.33 feet high |
| Weight: | Approximately 1,300 lbs |
| Input Voltage: | 220V, 20Amps |
| Network Ethernet: | 100 MB |
| Interface: | LIS interface available upon request |
| Peripherals: | Touch Screen Monitor, External Barcode Reader, Label Printer |
| Certifications: | CE, UL, CSA |
| Electrical Receptacle Plug: | HBL2321 250V / 20A (for USA and Canada) |

### GRAM SLIDEPREP™

| | |
|---|---|
| Dimensions: | 2.3 feet wide x 1.9 feet long x 4.1 feet high |
| Weight: | Approximately 221 lbs |

### INCUBATORS

| | |
|---|---|
| Dimensions Single: | 3.8 feet wide x 2.8 feet long x 7.6 feet high |
| Dimensions Double: | 5.7 feet wide x 2.8 feet long x 7.6 feet high |
| Weight: | Approximately 1,000 lbs (Single)<br>Approximately 2,000 lbs (Double) |
| Input Voltage: | 220V, 20Amps |
| Atmospheric Conditions: | $CO^2$ and Aerobic |
| Capacity Single: | 854 plates |
| Capacity Double: | 1,708 plates |
| Electrical Receptacle Plug: | HBL2321 250V/20A (for USA and Canada) |

### WASP-FLO™

| | |
|---|---|
| Dimensions: | WASP-FLO™ Hopper Module: 3.4 feet x 4.5 feet x 6.6 feet |
| WASP-FLO™ loading module: | 3.4 feet x 3.2 feet x 5.8 feet |
| WASP-FLO™ conveyor: | According to specific layout |
| Weight: WASP-FLO™ hopper module: | 270 kg |
| WASP-FLO™ loading module: | 745 kg |
| WASP-FLO™ conveyor: | Weight variable according to layout, approx. 100 kg/m per single conveyor |
| Electrical Specifications: | 208-240 VAC, 50/60 Hz, 2000 W max (800 W WASP-FLO Loading Module+ 1200 W WASP-FLO Conveyor) |
| Operating Conditions: | |
| Height: | Up to 2000 m |
| Humidity: | From 0 to 95% |
| Temperature Range: | From 5°C to 40°C |

COPAN

Innovating Together™

WASPLAB 0819

COPANUSA.com | facebook.com/COPAN.USA | @COPANUSA | 800.216.4016

**COPAN Diagnostics, Inc.** • 26055 Jefferson Avenue • Murrieta, CA 92562 USA