



CLEVER CULTURE
SYSTEMS

Automated environmental monitoring culture plate reading powered by AI

ΔPAS INDEPENDENCE

Validated. Scalable. Reliable.



AI-powered automation by microbiologists for microbiologists.

Automated Plate Assessment System (APAS) Independence

The APAS® Independence is an automated instrument for imaging, analysis and interpretation of microbiology culture plates used in environmental monitoring. The system utilises advanced imaging and sophisticated, locked artificial intelligence algorithms to identify and count microbial growth on culture media.

APAS technology supports your contamination control strategy and upholds regulatory compliance, providing a greater level of consistency, traceability and data integrity across your environmental monitoring workflow.



Cutting-edge technology.

Built on over 15 years of AI expertise in clinical and pharmaceutical microbiology, APAS Independence combines cutting-edge machine learning with proven scientific and regulatory rigor. The technology has regulatory clearance as a medical device for clinical applications in the US, EU, UK and Australia (FDA, CE Mark, TGA), is extensively validated for environmental monitoring applications, and is trusted in commercial use by numerous global pharmaceutical manufacturers.

- ✓ Uniform lighting produces images with plate-in-hand perspective
- ✓ Plate handling to minimise external interferences from image acquisition
- ✓ Every image checked for integrity enables consistent analysis for each plate
- ✓ Simple daily calibration ensures system image chain remains within specification
- ✓ AI developed by microbiologists following proven machine learning processes
- ✓ Per-pixel microbial growth analysis to deliver highly accurate colony detection



What does APAS Independence do for your environmental monitoring program?

Automation that works within your existing processes. The APAS Independence integrates with your laboratory processes to increase efficiency and quality of microbiology plate reading.



Simple validation

Integrates with existing processes for environmental monitoring. No proprietary media, supports common incubation practices.

Flexible, high-throughput system

Minimal user interaction to read 200 plates/hour. One instrument supports both 90mm (settle) and 55mm (contact) plates.



Integrated automation

Detailed per plate reports. Results available to be sent directly to LIMS to eliminate transcription errors.

Reduce staff turnover

Allows staff to focus on greater value-add tasks within the laboratory, improving satisfaction.





Greater standardisation of results

Decreases analyst variability and subjectivity of results.

Increased data integrity

Digital audit trail, record of results and plate images available for review.



Streamline your workflow with AI-powered automation.



Cost effective

>95% of plates have no growth, but manual method requires two microbiologists to verify. APAS Independence efficiently removes negative plates from the workflow.

Scalable manufacturing

Ensures environmental monitoring processes can be scaled alongside manufacturing demands.



Implementation and validation support you can trust.



Installation

Simple on-site installation including IQ and OQ. Instrument has a small footprint, is on wheels and only requires a standard power and ethernet connection to run.



Training

User training performed in half a day, with detailed advanced user training available for supervisors.



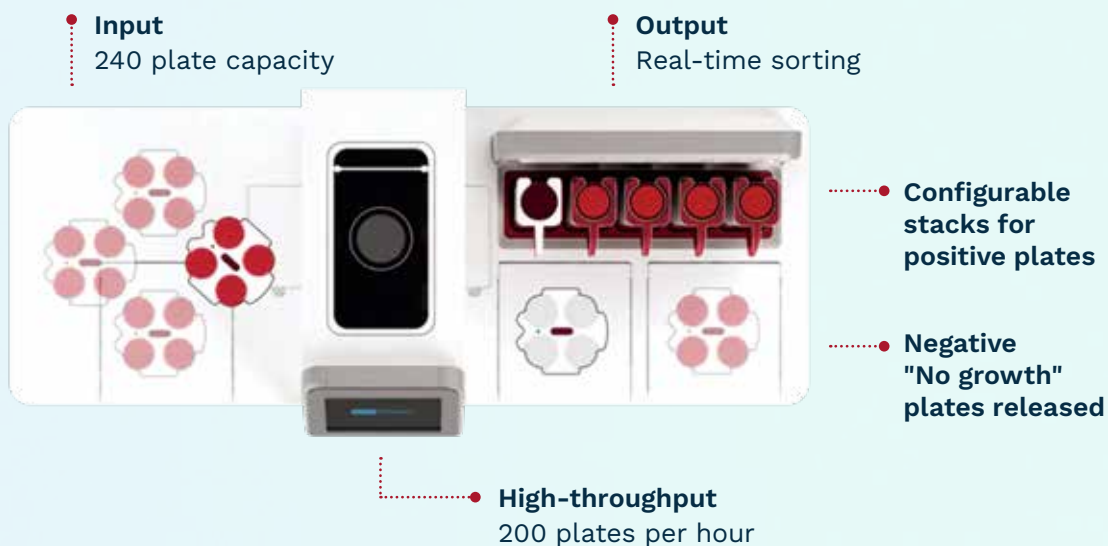
Validation packages

Primary validation methodology, data and support services available to streamline your validation processes.



Maintenance

Minimal daily and weekly maintenance schedule. One preventative maintenance visit required per year.



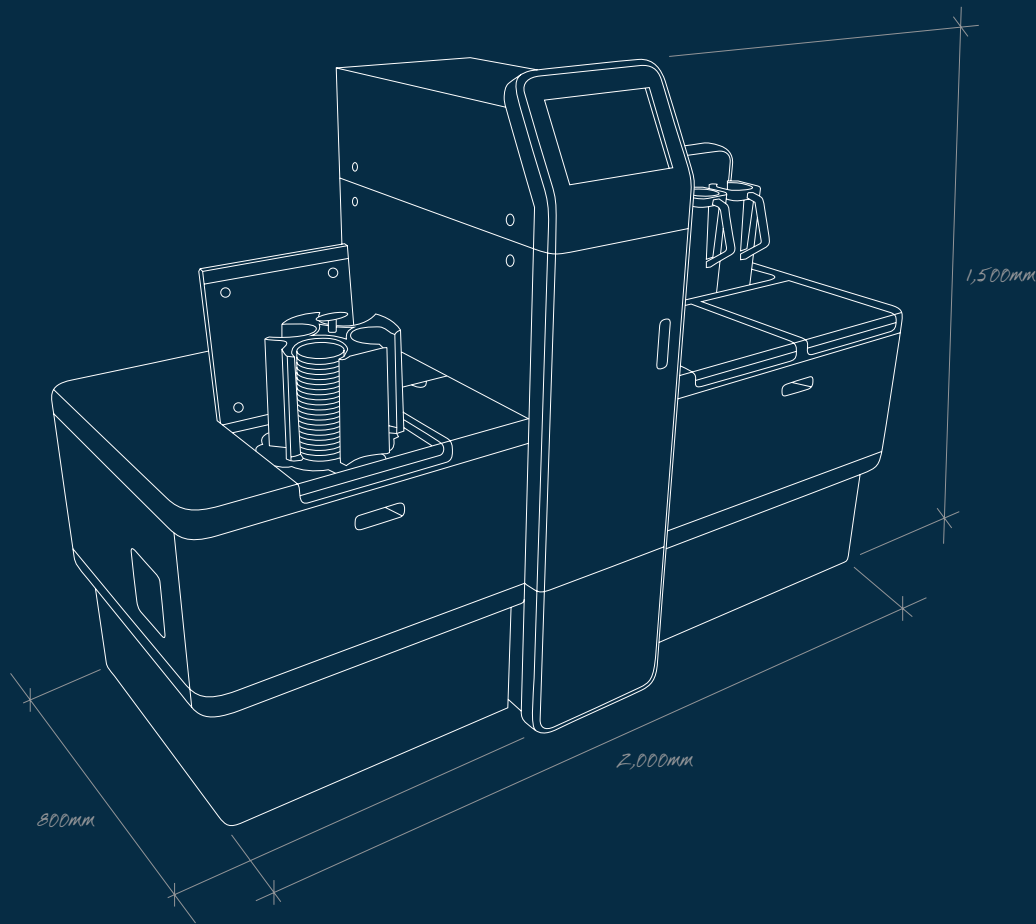
Field support

Clever Culture Systems has developed a network of experienced and customer focused support engineers on both the software and the hardware aspects of the APAS Independence instrument to ensure quick, reliable, and effective field support.

Physical Specification

General Description	APAS Independence is an automated culture plate reader		
Throughput	Up to 200 plates per hour		
Input Capacity	240 plates (4 carriers / 60 plates per carrier)		
Plate Compatibility	Full plates/bi-plates		
Dimensions (L x W x H)	2000mm x 800mm x 1500mm	78.74" x 31.5" x 59.06"	
Configuration	Freestanding		
LIMS Interface	APAS Insight (LIMS Middleware), HL7 Version 2		
Weight	330kg	727.5lb	
Operating Environment	Ambient temperature range	15°C–27°C	59°F–81°F
	Humidity: 20%-80% (non-condensing indoor use)		
	Altitude: Sea level to 2000m	6562ft	
Noise Specifications	Continuous: 58dBA at 1m	3.3ft	
Noise level shall not exceed:	Peaks: 70dBA at 1m	3.3ft	
Electrical Input	90-240V AC, 50-60Hz, 6 Amps		
Warranty	12 months from date of commissioning		

Compliant with the following standards ISO 13485:2003, IEC 62304: 2006, UL 61010-1: 2004; 3rd edition, 2002/96/EC, 2011/65/EU.



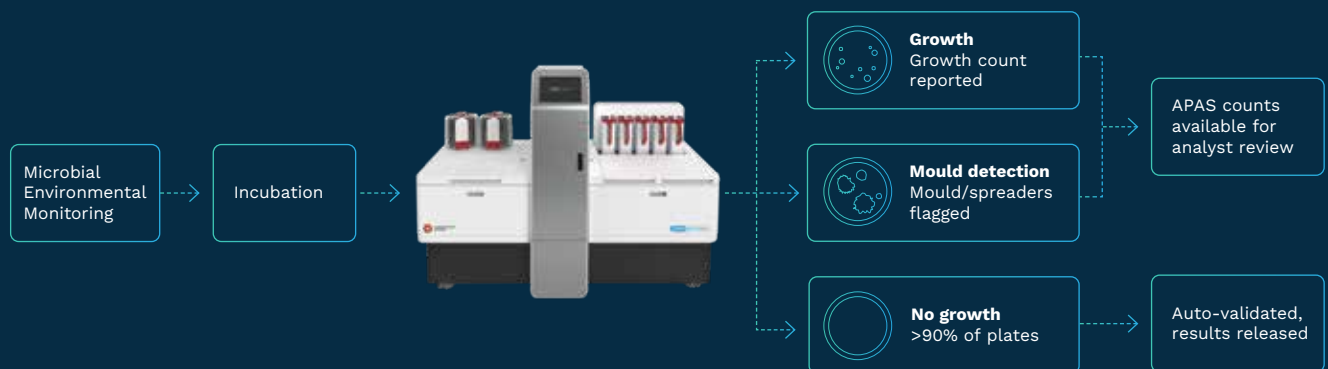
Automate with confidence.

Clever Culture Systems is a leader in microbiology technology driven by artificial intelligence, delivering modular automation solutions that maximise laboratory efficiency.

Leveraging our history in clinical microbiology—where we have multiple global regulatory clearances (FDA, CE Mark, TGA) and more than 25 publications in leading academic journals—we have adopted the same robust scientific approach for environmental monitoring plate reading.

Our technologies are designed by microbiologists for microbiologists to ensure our products not only meet the needs of the microbiology laboratory but also seamlessly integrate within our customer's workflow while maintaining regulatory compliance.

APAS® Independence workflow



Scan to visit our scientific library for validation data, webinars, case studies and additional published resources on APAS technology.



Contact us to learn more.

sales@cleverculturesystems.com
cleverculturesystems.com

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