

AMP-6000[®]

AUTOMATED
MICROBIOLOGICAL
PLATFORM



Precise Enumeration



rapid results



earlier product release



simple testing



simple documentation



reduced workload



rapid process intervention

AMP-6000[®] AUTOMATED MPN PLATFORM

More than 80% of routine examinations in microbiological laboratories involve enumeration of hygiene indicators. These include e.g. determination of the total mesophilic aerobic germ count and the quantification of Enterobacteriaceae as well as E. coli.

The conventional or standard methods used to date are laborious to perform, time-intensive in terms of testing and documentation, and require sufficient expertise in result interpretation.

The innovative AMP-6000[®] system permits these tasks to be automated and thus enables sample throughput in the laboratory to be significantly increased. This automated, miniaturized platform combines the well-known MPN technique for determining the number of microbes (*MPN = Most Probable Number*) on microtiter plates. The precision of this statistical method is comparable with that of direct plate counting, thanks to the automated preparation of a series of serial dilutions and the simultaneous examination of up to 32 replicates per dilution.

AMP-6000[®] APS – HIGH-PRECISION WORKSTATION WITH FULL VARIABILITY

With the AMP-6000[®] APS pipetting robot, AmpMedia special nutrient media are placed in sterile 96-well microtiter plates and samples are automatically applied and diluted. Up to 8 samples can be processed per test for 1 parameter, or up to 4 samples for the combined test for 2 parameters for each. The throughput times are coordinated so that additional samples can be prepared in parallel for the next pass.

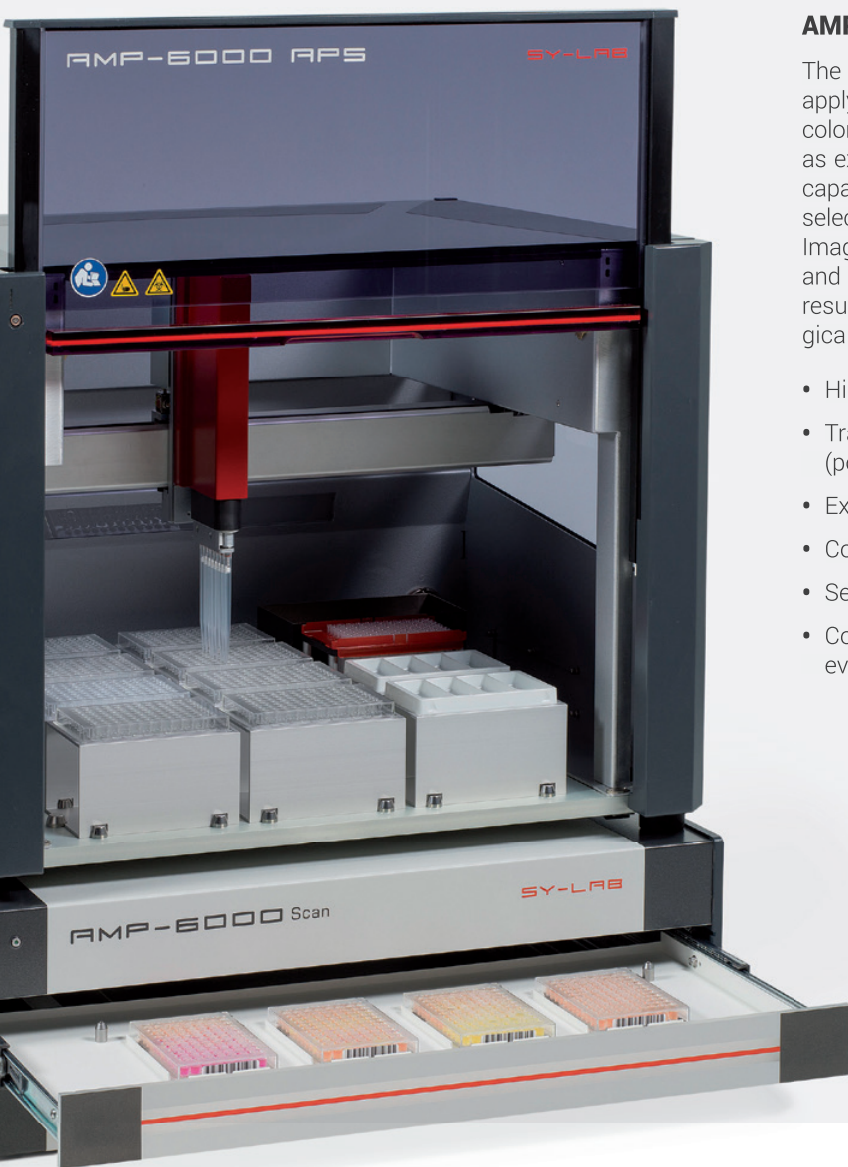
All protocols for the various applications are stored in the software and are easily assignable. Following sample application, the microtiter plates are sealed with a sterile lid and incubated in standard incubators for 24 to 48 hours.

Samples and microtiter plates are linked with each other via a barcode system that prevents mixups.

SPECIFICATION AMP-6000[®] APS

- Highly flexible and compact liquid handling benchtop system
- Closed, sturdy Plexiglas housing with front sliding door
- Processing of up to 8 samples in parallel possible
- 8 channel pipette volume up to 1000 µl
- Fast and quiet operation thanks to the use of modern servomotors
- Reproducibility and high-precision pipetting and dispensing results
- If needed, highly effective decontamination by optionally available UV lamp
- Footprint 650 x 610 mm (L x D)
- Weight ~ 40 kg





AMP-6000® uv-imager

The uv-Imager is used for fluorescence detection when applying fluorescent substrates. It can be used in addition to color and turbidity detection in the AMP-6000® Scan, as well as exclusively just for fluorescence detection. This offers the capability to employ various fluorescence substrates for the selective detection of microorganisms. This makes the UV Imager an optional detection system for special applications and consequently broadens the application spectrum. As a result, the simultaneous examination of up to 2 microbiological parameters in just one sample run can be performed.

- Highly sensitive, camera-based UV detection system
- Transilluminator with 4 UV tubes for excitation (power: 6W)
- Excitation wavelength 312nm
- Contrast-optimized filter plate
- Service display
- Compatible with LabImage evaluation software



HOW YOU BENEFIT

• RELIABLE

- Proven MPN technology with up to 32 replicates per dilution
- Robust and reliable robotics system

• SIMPLE

- Predefined analysis protocols
- Ready-to-use reagents
- Optimized workflow
- Automated data entry
- Germ count without calibration
- Short introductory training

• FAST

- Shortened product release times
- Shorter reaction times
- Barcode system
- LIMS integration

• SAFE

- Complete data traceability
- Highly accurate and comparable results
- Internationally validated detection system

AMP-6000® Scan AND AMP-6000® Scan IFT EVALUATION SOFTWARE

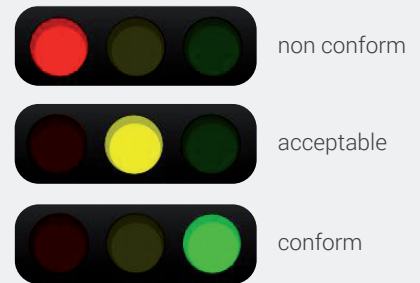
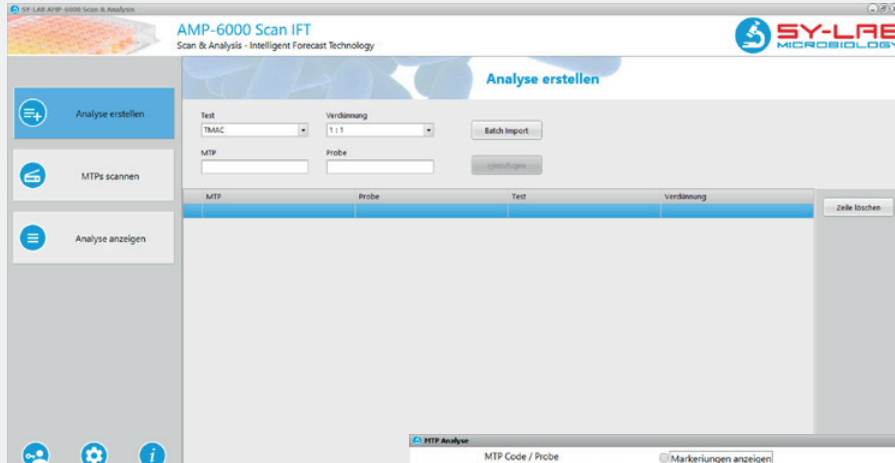
Together with AMP-6000® Scan evaluation software, the AMP-6000® Scan evaluation unit forms the core of the AMP-6000® platform.

Using a modern scanner system, the AMP-6000® Scan detects the bidirectional change of any color. Both pH-indicator systems as well as all chromogenic substrates can thus be used for the selective detection of individual microbial groups. In addition, the system can also be combined with turbidity detection, which can further increase detection efficiency.

The range of capabilities for detecting color changes, in combination with the unique evaluation software, permits the system to benefit from additional application development, as well new applications in the area of microbiological diagnostics.

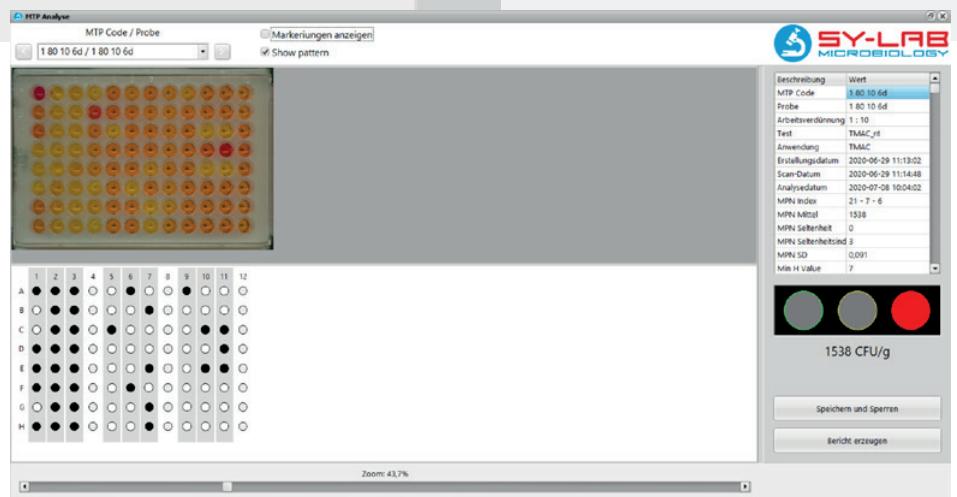
SPECIFICATION AMP-6000® Scan AND AMP-6000® Scan IFT EVALUATION SOFTWARE

- Scanner system for the detection of color changes
- Option for combination with turbidity detection
- Simultaneous analysis of up to 4 samples
- Artificial Intelligence based projection tool for faster results by shortening incubation time
- Calibration tool for self-calibration
- Barcode system with automated detection
- LIMS integration
- Automated diagnosis and result qualification with traffic light system
- Ability to visually inspect results
- Automated photo-documentation of original results



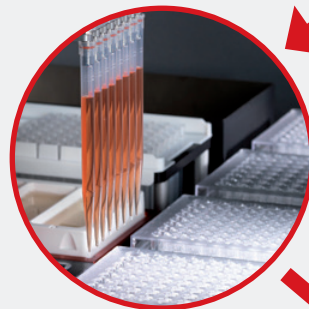
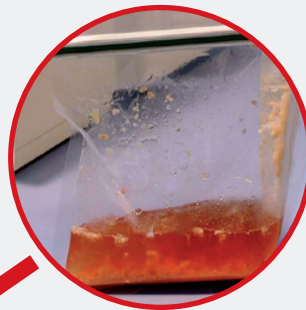
MICROBES DETECTABLE

- Total Mesophilic Aerobic Counts
- Enterobacteriaceae
- Cheese spoiling Clostridia (*patented technology*)
- Bacillus cereus
- Escherichia coli
- Staphylococcus aureus
- Enterococci
- Yeast and Moulds (*coming soon*)



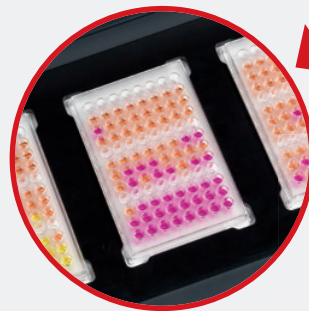
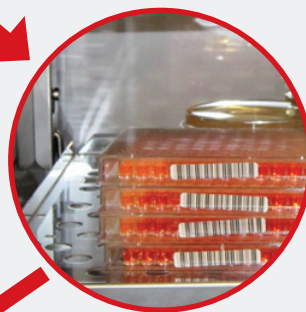
AMP-6000® WORKFLOW

1 SAMPLE PREPARATION



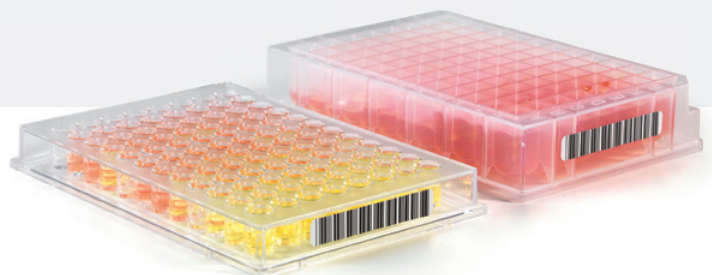
2 AUTOMATIC MEDIA DISPENSING AND SAMPLE DILUTION WITH THE AMP-6000® APS PIPETTING ROBOT

3 INCUBATION IN STANDARD INCUBATORS



4 AUTOMATIC EVALUATION AND DIAGNOSIS USING THE AMP-6000® SCAN OR AMP uv-imager AND AMP-6000® SCAN EVALUATION SOFTWARE

ready to AMP up microbial safety



VALIDATION AND STANDARDIZATION

In cooperation with national and international standardization bodies, we are working on the standardization of alternative microbiological test systems. Our methods are validated according to the specifications of ISO 16140. In addition, we provide support for specific in-house validation requirements and also will cooperate with lab service providers of your choice for product specific validations.

AmpMedia

A wide range of AmpMedia products are available for the detection and quantification of various microorganisms. All AmpMedia products are available ready to use in liquid form. Various indicator systems are used, depending on the application. The formulas have been optimized to meet the requirements of the AMP-6000® technology, and their composition is appropriately protected. AmpMedia is exclusively available from SY-LAB or the listed international distributors. Currently available AmpMedia products are listed in the media catalog or on the website.

SUPPORT

Future-proof research and development guarantee our customers permanent advances in micro- and molecular biology detection methods. Our application lab supports customers in their daily routine as well as in the creation of new applications and in the execution of method validations. By testing your specific samples, you can personally verify the suitability of the method for your application in advance and with no obligation.

Our service package includes on-site service, as well as the possibility of remote training and remote maintenance.

HELPDESK, EQUIPMENT INSPECTION, TRAINING

We offer a comprehensive service package in order to meet the regular inspection requirements for measuring instruments. The package includes periodic testing and, if necessary, recalibration of devices by means of calibrated measuring instruments according to ISO and IFS standards, including the preparation of the required documentation. Verification of the databases and the performance of required software updates are also included. A training package tailored to your company's needs enables efficient initial training of staff or refresher training during personnel changes.



SY-LAB

WE DEVELOP **SOLUTIONS**
FOR A **SAFER FUTURE**

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