FEEL THE ATMOS HERE

MAS-100 Atmos® microbial compressed gas sampler

ALA500000

The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Millipore®

Preparation, Separation, Filtration & Monitoring Products

it's so simple ...

to detect microbial contamination in compressed gas

The instrument manages everything for you, such as measuring of current pressure, regulating the flow rate, and automated decompression after sampling.

All it takes is a few easy steps: Connect the instrument to the gas outlet, insert the appropriate agar plate, open the gas valve, and start sampling.

Pharma

Food

Cosmetics

Medical devices

Convenience & Safety
for your daily work

The portable and battery-operated instrument is easy to carry. The 2 meter sampling hose is simple and easy to connect. The gas outlet can be connected to the room's exhaust pipe to prevent intoxication or contamination of the sampling environment.

A broad range of culture media formulations are available for Total Aerobic Microbial Count and Yeasts and Molds, as well as selective and differential culture media for detection of specified bacteria.

Lockable plates with venting option optimize the detection of anaerobic bacteria.

Everything you need
Discover our comprehensive settle plate portfolio for use with the MAS-100 Atmos®
SigmaAldrich.com/settle-plates

Data Integrity & Connectivity
choose your level of digitalization

The MAS-100 Atmos® compressed gas sampler offers various operational modes for **three different workflow scenarios**: freely accessible configuration (Level 0), software-supported individual user management acc. to 21 CFR Part 11 (Level 1) or wireless options to embed sample data into fully computerized workflows and software programs for compliant environmental monitoring (Level 2).

LEVEL **0**
Non-digital workflow
Freely accessible configuration

LEVEL **1**
Workflow with hardware key
21 CFR Part 11 compliant user management

LEVEL **2**
Workflow with result barcode
Embed into computerized workflows

Compliance & Reliability
for your future challenges

The instrument is designed according to GAMP 5 requirements for precise and accurate sampling of compressed gases in GMP regulated environments and cleanrooms. The software functions fulfill all requirements for data integrity according to 21 CFR Part 11.

Find out more about our latest innovation:
SigmaAldrich.com/mas-atmos

Helping you work smarter

and minimize handling errors

Automatic detection of pressure and a mass flow sensor ensure secure, accurate sampling of compressed gases. Four gas types (Ar, N_2, air and CO_2) are pre-programmed and easily accessible. The instrument is also designed to operate at lower pressure. This new level of automation minimizes risk and makes sampling compressed gas much easier.

Pressure tubing
is autoclaveable and equipped with a universal connector

The MAS-100 Atmos®
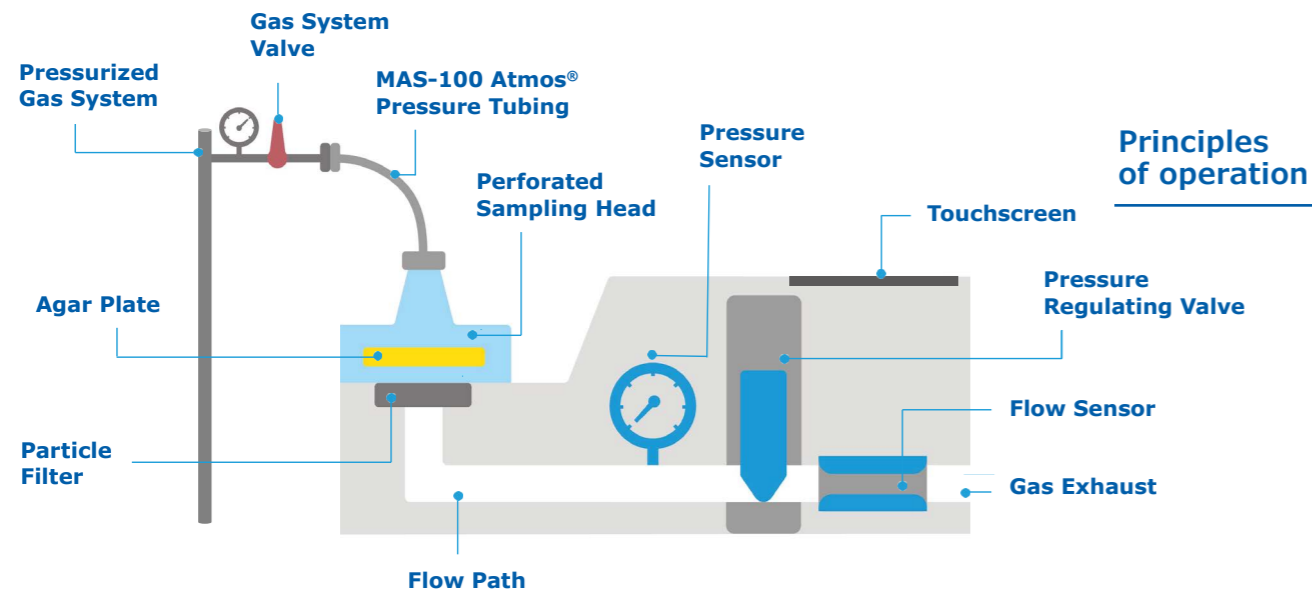
microbial compressed gas sampler

The instrument is designed to collect microorganisms in compressed gases by gentle but direct impaction onto agar. **The impaction is performed under pressure to prevent any harm to microorganisms caused by fast dynamic decompression.** The impaction speed at a default flow rate of 100 LPM is identical to all other MAS-100® air samplers and provides a nominal d50 of 1.1 μm.

Benefit from
- **Automated flow rate regulation**
- **Compensation for pre-defined gas types** (compressed air, N_2, Ar, CO_2) ensures the right amount of gas is sampled
- **Automated decompression**

Full audit trail function
Non-alterable audit trails of full data sets are created and clearly represented by sample and error log files.

Principles of operation

Pressurized Gas System

Gas System Valve

MAS-100 Atmos® Pressure Tubing

Pressure Sensor

Perforated Sampling Head

Touchscreen

Agar Plate

Pressure Regulating Valve

Particle Filter

Flow Sensor

Gas Exhaust

Flow Path

Touchscreen
The touchscreen can be used to display important information, such as the current pressure, battery status, sampling success status and success, also with all sample data as a QR code. A graphical user guide can be selected.

Optional gas evacuation tube to prevent gas streaming into sampling environment

Easy lid handling
The unique lid can be opened and closed to insert and remove standard 90 mm agar plates by an easy turn. There are built-in safety features to prevent opening while the instrument is under pressure.

MINIMIZES RISK ✅

to make your work more secure

No need to worry about handling pressurized gases.
All connections are safe and decompression is controlled by the instrument.
The additional safety features of the lid prevent accidental opening while the instrument is under pressure.

Fully integrated software

There's no need to implement new software: it's fully-integrated in the instrument and can be operated from various web browsers and without an internet connection.

Ordering Information

Product description	Ord. No.
MAS-100 Atmos® Microbial Compressed Gas Sampler including perforated lid (300 x 0.6 mm), dust cover, battery charger with country-specific plugs, communication/charging cable, pressure tube set and documents)	1.17328.0001
MAS-100 Atmos® Perforated Lid, anodized aluminum, 300 x 0.6 mm	1.17357.0001
MAS-100 Atmos® Perforated Lid, anodized aluminum, 300 x 0.47 mm	1.17363.0001
MAS-100 Atmos® Dustcover (polypropylene, white)	1.17340.0001
MAS-100 Atmos® Pressure Tube 2 m (includes: PTFE tube; female 3/8'' gas supply connector; mini tri-clamp Ø 34 mm w. silicone gasket for sampling head connection)	1.17354.0001
MAS-100 Atmos® Exhaust Tube Set consists of 5 m tubing (Ø 40 mm) with tri-clamp (Ø 50.5 mm) and adapter	1.17349.0001
Adapter Gas Exhaust Tube for MAS-100 Atmos® (for use of alternative tubing)	1.17348.0001
MAS-100 Atmos® Hardware Key Set (5 Pcs)	1.17333.0001
Wheeled Transportation Case for MAS-100 Atmos®	1.17334.0001
Plate Holder for MAS-100 Atmos® (stainless steel)	1.17335.0001
Filter Cover for MAS-100 Atmos® with 3 screws (anodized aluminum)	1.17336.0001
HEPA H13 Filter 74 mm	1.17278.0001
Battery Charger MAS-100 Atmos® (including USB-C cable and regional plug adapters)	1.17329.0001

✚ Local services

We offer local calibration service and maintenance

Future inside:
Choose your digitalization level

With its various operation modes, the MAS-100 Atmos® instrument can adapt to different workflows. These modes include a freely accessible configuration, software-supported individual user management acc. to 21 CFR Part 11, and wireless options for embedding sample data into fully computerized workflows and software programs for compliant environmental monitoring.

→ **Freely accessible configuration**	Straight out of the box, the instrument is easy to access and configure via the touchscreen.	LEVEL 0
🔑 **21 CFR Part 11 compliant user management**	The firmware/software has all the features for compliant user management, including defined individual access levels and unique login via hardware key as well as audit trail download.	LEVEL 1
▯ **Embed into computerized workflows**	Traceability made easy: integrate all necessary sample data into external software systems by using a wireless barcode reader to scan in the sample data.	LEVEL 2

setting standards

for ease of use and safety

We've improved the ability of the instrument to sample under pressure by making the lid easier to lock in. We've also added a touchscreen and data integrity options, such as logins and data exporting to meet today's stringent 21 CFR Part 11 requirements. These features make the MAS-100 Atmos® instrument the ideal choice for sampling your compressed gases, now and in the future.

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SigmaAldrich.com

Your first choice for microbial testing expertise

Discover our comprehensive microbial testing portfolio, services and regulatory guidance on our website:
SigmaAldrich.com/ environmentalmonitoring