

# It's so simple ...

#### to detect microbial contamination in compressed gas

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









**1edical devices** 

#### **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).









#### **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.



#### **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.

# 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<sub>2</sub>, air and CO<sub>2</sub>) 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

### MAS-100 Atmos **Gas System Pressure Tubing Principles** of operation **Particle** Flow Path



### 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<sup>®</sup> 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<sub>2</sub>, Ar, CO<sub>2</sub>) ensures the right amount of gas is sampled

Easy lid handling

The newly developed, 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.

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.

Optional gas evacuation tube

to prevent gas streaming into

sampling environment



#### **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.

#### 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.

## 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.

#### SigmaAldrich.com/mas-atmos

Ord. No.

1.17328.0001

1.17357.0001

1.17363.0001

1.17340.0001

1.17349.0001

1.17333.0001

1.17334.0001

1.17335.0001

1.17336.0001

1.17278.0001

1.17329.0001

#### Local services

We offer local calibration service and maintenance

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.

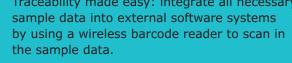


**Future inside:** 

Straight out of the box, the instrument is easy to access and configure via the touchscreen.



Traceability made easy: integrate all necessary





# standards

**Ordering Information** 

MAS-100 Atmos® Microbial Compressed Gas Sampler

MAS-100 Atmos® Dustcover (polypropylene, white)

w. silicone gasket for sampling head connection)

MAS-100 Atmos® Hardware Kev Set (5 Pcs)

Wheeled Transportation Case for MAS-100 Atmos®

Plate Holder for MAS-100 Atmos® (stainless steel)

(including USB-C cable and regional plug adapters)

MAS-100 Atmos® Pressure Tube 2 m

MAS-100 Atmos® Exhaust Tube Set

Battery Charger MAS-100 Atmos®

HEPA H13 Filter 74 mm

including perforated lid (300 x 0.6 mm), dust cover, battery charger with

country-specific plugs, communication/charging cable, pressure tube set

MAS-100 Atmos® Perforated Lid, anodized aluminum, 300 x 0.6 mm

MAS-100 Atmos® Perforated Lid, anodized aluminum, 300 x 0.47 mm

consists of 5 m tubing (Ø 40 mm) with tri-clamp (Ø 50.5 mm) and adapter

Filter Cover for MAS-100 Atmos® with 3 screws (anodized aluminum)

(includes: PTFE tube; female 3/8" gas supply connector; mini tri-clamp Ø 34 mm 1.17354.0001

Adapter Gas Exhaust Tube for MAS-100 Atmos® (for use of alternative tubing) 1.17348.0001

Product description

and documents)

#### 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 new 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.





Freely accessible configuration

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.



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