

SAMPLING
SOLUTIONS

MEGA SYSTEM

CALIBRATION
& METROLOGY

Master Catalog

Advanced Solutions for Environmental
and Industrial Monitoring



Our History

Founded in 1994, Mega System S.r.l. specializes in the design and manufacture of systems for environmental control and pollution monitoring.

Drawing on more than 30 years of experience and supported by a team of highly qualified professionals, the company develops and manufactures Made in Italy instruments distinguished by high standards of quality, reliability, and accuracy.

The entire production process is managed in-house, from hardware and software design to after-sales support. This approach enables Mega System to provide tailored solutions that meet the specific needs of each customer, while ensuring comprehensive support throughout every stage of the project.

As further proof of its commitment to quality, Mega System obtained Quality Management System certification in 2007, which has been continuously maintained and is now compliant with the UNI EN ISO 9001:2015 standard.



SCAN ME



Mission

"Care for the environment"

Mega System's mission is to develop technological solutions for environmental monitoring and pollution control, providing laboratories, industries, and environmental professionals with instruments designed to deliver accurate and reliable data. Precision and metrological rigor are at the core of the design process, ensuring measurements that are consistent with applicable methods and technical standards.

Innovation is driven by the continuous improvement of the performance and usability of sampling systems, achieved through the integrated development of hardware and software. The goal is to simplify monitoring activities and provide objective data that support the assessment of human impact on the atmosphere and the control of emissions.



Accredited Calibration Laboratory

Mega System S.r.l. Laboratory has been a LAT Calibration Center since July 2017, accredited by ACCREDIA for the calibration of gas volume, flow rate, pressure, and temperature instruments.

Accreditation demonstrates compliance with the UNI CEI EN ISO/IEC 17025 standard, certifying that the laboratory operates a quality management system and possesses the technical competence required to perform accredited calibrations and issue calibration certificates.

LAT Calibration Center No. 01317 is qualified to certify calibrations related to gas measurement and analysis equipment used by LAB laboratories (Accredited Testing Laboratories). These activities support both internal company requirements and services provided to customers at national and international levels.

Mega System S.r.l. Laboratory issues calibration certificates for:

- Gas Meters
- Mass Flow Controllers
- Mass Flow Meters
- Digital Volumetric Flow Meters
- Capillary Gas Dividers
- Gas Dividers with Mass Flow Controllers
- Digital Gauge Pressure Indicators
- Digital Absolute Pressure Indicators
- Digital Indicators with Base-Metal Thermocouples (K Type)
- Digital Indicators with Resistance Thermometers (PT 100/1000)



SCAN ME



If the bee disappeared from the surface of the Earth, man would have no more than four years to live.



UNIT OF MEASURE	INSTRUMENT IN CALIBRATION	MEASURING RANGE	UNCERTAINTY (*)	
VOLUME OF GAS	Gas meters for flow rates from 0,25 L/min to 1 L/min	From 19 to 75 L	0,90%	
	Gas meters for flow rates from 1,1 L/min to 50 L/min	150 L	0,60%	
	Gas meters for flow rates from 50 L/min to 100 L/min	150 L	0,70%	
VOLUME CAPACITY OF GAS	Mass flow controller	From 0,051 to 0,250 L/min and From 0,040 to 100 L/min	0,33%/0,35%	
	Mass flow meter		0,45%/0,40%	
	Flussimetri volumetrici digitali		0,45%/0,40%	
PRESSURE	Absolute pressure meter with digital output (in gas medium)	From 40000 to 60000 Pa	4,1 Pa	
		From 60001 to 80000 Pa	4,7 Pa	
		From 80001 to 100000 Pa	5,3 Pa	
		From 100001 to 120000 Pa	5,7 Pa	
		From 120001 to 140000 Pa	6,3 Pa	
	Relative pressure meter with digital output (in gas medium)	Negative relative pression 0 to (-)2000 Pa	1,1 Pa	
		Negative relative pression (-)2001 to (-)6000 Pa	1,2 Pa	
		Positive relative pression 0 to (+)2000 Pa	1,1 Pa	
		Positive relative pression (+)2001 Pa to (+)6000 Pa	1,2 Pa	
TEMPERATURE	Digital indicators with base metal thermocouples	0 °C From 5 °C to 70 °C From 70 °C to 160 °C From 160 °C to 230 °C From 260 °C to 400 °C From 400 °C to 500 °C From 500 °C to 600 °C From 600 °C to 700 °C From 700 °C to 800 °C From 800 °C to 1068 °C	u1	u2**
			0,05 °C	Uris
			0,07 °C	Uris
			0,08 °C	Uris
			0,12 °C	Uris
			0,33 °C	Uris
			0,46 °C	Uris
			0,63 °C	Uris
			0,85 °C	Uris
			0,88 °C	Uris
			0,89 °C	Uris
	Digital indicators with resistance thermometers	0 °C From 5 °C to 70 °C From 70 °C to 160 °C From 160 °C to 230 °C From 260 °C to 400 °C	0,02 °C	Uris
			0,05 °C	Uris
			0,06 °C	Uris
			0,07 °C	Uris
			0,32 °C	Uris

(*) The measurements uncertainty is expressed at the trust level of 95%

(**) The expanded measurement uncertainty value is obtained by summing the values of the two components in quadrature with the formula $(2\sqrt{u1^2 + u2^2})$ and is expressed with 2 significant digits, where Uris indicates the standard uncertainty due to the resolution of the instrument in calibration expressed in °C

Flos

FLOS is a personal sampling pump designed to ensure reliability and accuracy in workplace monitoring activities and the sampling of various types of pollutants. Compliant with UNI EN ISO 13137, it incorporates an advanced Mass Flow Controller system that automatically regulates the flow rate, ensuring constant flow and compensating for any pressure drops. The instrument features permanent memory and a USB connection for data transfer, enabling simple and efficient management of sampling activities.

Operating Range: 0.02 – 5 L/min

Power Supply: rechargeable lithium batteries

Dimensions: 129 × 82 × 49 mm

Weight: 460 g



Life Series

LIFE SERIES personal sampling pumps represent the ideal solution for monitoring occupational exposure to airborne contaminants. Thanks to ATEX certification, compliance with UNI EN ISO 13137, and advanced flow control features, the LIFE Series ensures consistent performance even under the most demanding operating conditions. Available in LIFE LT and LIFE XP versions, it offers maximum flexibility to meet any personal monitoring requirement.

Operating Range: 0.02 – 6 L/min

Power Supply: rechargeable batteries

Dimensions: 155 × 80 × 57 mm

Weight: 650 g



Life One

LIFE ONE is a sampling pump designed for the collection of dust, gases, and asbestos fibres, combining accuracy, reliability, and ease of use to meet the needs of professionals involved in environmental monitoring activities.

Equipped with an advanced control system that maintains a constant flow rate even in the presence of pressure drop variations, it ensures stable and controlled sampling throughout every stage of operation, while providing operational continuity and complete sampling traceability.

Operating Range: 1 – 25 L/min

Power Supply: 230 VAC – 50 Hz or external 24 VDC battery (optional)

Dimensions: 335 × 265 × 240 mm

Weight: 7 kg



Aither PMS

AITHER PMS is the ideal solution for the sampling of dust, gases, and asbestos fibres. Compliant with EN 12341 and featuring TÜV certification valid through 2026, it represents a state-of-the-art solution for regulatory authorities, laboratories, and environmental professionals.

Compact, reliable, and easy to transport, it ensures consistent performance and accurate results thanks to its automatic flow control system and advanced programming and data storage functions, with remote management capabilities via router connection.

Operating Range: 12 L/min – 70 L/min

Power Supply: 230 VAC – 50 Hz

Control Unit Weight: 20 kg

Pump Weight: 21 kg



Serie Hornet

Designed for large-scale atmospheric pollutant monitoring, the **HORNET** High-Volume Air Sampler, available in both SUPER and LIGHT versions, enables the sampling of Total Suspended Particulates (TSP), PM₁₀, PM_{2.5}, and micropollutants, meeting the requirements of international standards ISO 12884, ISO 16362, US EPA TO-9, and US EPA TO-13A.

It ensures reliable sampling performance thanks to its Venturi flow meter compliant with ISO 5167 and features advanced data management and transfer capabilities through USB and Ethernet connectivity.

Operating Range: LIGHT (100 – 600 L/min); SUPER (100 – 1000 L/min)

Power Supply: 230 VAC- 50 Hz

Dimensions: LIGHT (674 × 502 × 502 mm); SUPER (1050 × 400 × 400 mm)

Weight: LIGHT (15 kg); SUPER (23 kg)



A1 Aircal

A1 AIRCAL is a digital flow calibrator developed for the verification of pressure, flow rate, and temperature in environmental sampling systems.

Available with different measuring cells to suit a wide range of applications, it allows flow measurements to be performed under both operating and standard reference conditions, ensuring accuracy, reliability, and ease of use.

Medium-Flow Cell: 10 – 50 L/min

High-Flow Cell: 100 – 600 L/min

Power SUPPLY: rechargeable batteries

Dimensions: 195 × 100 × 40 mm

Weight: 550 g



Lotus

LOTUS is an automatic control unit designed for the management of isokinetic sampling operations in combination with the LIFETEK and ASTER series samplers. Compact and user-friendly, it enables automatic sampler control, including remote operation, simplifying field activities during stack sampling campaigns.

By automatically maintaining isokinetic conditions throughout the sampling process, LOTUS enhances sampling efficiency and minimizes the need for operator intervention during flow adjustment and control procedures.

Equipped with three independent pressure sensors, a graphical display, and high-capacity rechargeable internal batteries, LOTUS is engineered for practical field use. The system allows users to store and organize information related to clients, ducts, sampling runs, and inspections, while the integrated USB interface enables easy data export to a USB flash drive.

Power Supply: rechargeable lithium batteries

Dimensions: 220 × 105 × 45 mm

Weight: 500 g



Aster Series

ASTER Series includes the ASTER 33 and ASTER 55 environmental samplers, specifically designed for stack emission sampling. When connected to LOTUS, they enable fully automatic isokinetic sampling in compliance with UNI EN ISO 16911-1 and UNI EN 13284-1 standards.

The integrated 7-inch touchscreen display provides simple and intuitive management of sampling data. The system automatically regulates the sampling flow rate, compensates for pressure losses, and alerts the operator to any abnormal operating conditions. Compact and portable, the ASTER Series can be powered either from the mains supply or through an optional Battery Box.

Combining accuracy, portability, and continuous control of operating conditions, the ASTER Series delivers a reliable solution for field applications and demanding stack testing campaigns.

Operating Range: ASTER 33 (0.3 - 25 L/min);
ASTER 55 (1 - 50 L/min)

Power Supply: 230 VAC 50 Hz

Dimensions: 338 × 310 × 288 mm

Weight: ASTER 33 (7 kg);
ASTER 55 (12.5 kg)



Apis Plus

APIS PLUS is an automatic isokinetic sampler designed for velocity and flow rate measurements as well as stack emission sampling. It complies with UNI EN ISO 16911-1, UNI EN 13284-1, UNI EN 15259, ISO 9096, and the relevant US EPA reference methods. The instrument incorporates independent pressure and temperature sensors and automatically manages sampling parameters.

Its automatic flow control system compensates for pressure losses, maintaining the correct sampling conditions throughout the test. The touchscreen interface provides intuitive operation, as well as data storage and export capabilities. APIS PLUS offers high operational reliability and reduced maintenance requirements. The integrated management of control and data acquisition functions simplifies field activities, helping to improve the overall efficiency of measurement operations.

Operating Range: APIS PLUS 4 m³/h (4 - 50 L/min);
APIS PLUS 6 m³/h (4 - 70 L/min)

Power Supply: APIS PLUS 4 m³/h (110-230 VAC - 50 Hz);
APIS PLUS 6 m³/h (230 VAC - 50 Hz)

Dimensions: 490 × 370 × 285 mm

Weight: APIS PLUS 4 m³/h (16 kg);
APIS PLUS 6 m³/h (21 kg)



Lifetek 100

LIFETEK 100 is an ambient air sampler developed for workplace air quality monitoring, industrial hygiene, and emission sampling applications. Designed for constant-flow operation, it enables the collection of total suspended particulates (TSP), PM₁₀, PM_{2.5}, PM₁ fractions, and asbestos fibers with high accuracy and reliability.

The sampler automatically regulates the flow rate throughout the sampling period, compensating for pressure drops and filter loading effects while continuously monitoring operating conditions and signaling any anomalies. Advanced programming functions, combined with USB-based data management and export capabilities, ensure simplified field operations and reliable sample traceability.

Operating Range: 5 - 70 L/min

Power Supply: 230 VAC - 50 Hz

Dimensions: 340 × 375 × 360 mm

Weight: 20 kg



Emissions

Life Duo Dil

LIFE DUO DIL is a portable dual independent-line sampler designed for gas sampling and dynamic dilution, compliant with UNI EN 13649. The two sampling lines can be managed independently and ensure a constant flow rate through the automatic compensation of pressure losses. Dedicated displays and controls simplify sample collection and data management, while the internal batteries allow the instrument to operate even without mains power.

Designed for applications requiring high reliability in both sampling and dynamic dilution processes, LIFE DUO DIL enables independent control of the two operating lines and continuous monitoring of the main sampling parameters. Data and alarm logging, combined with the stability of the dilution ratio, helps ensure measurement repeatability and more effective management of field activities.

Operating Range: 0.2 - 6 L/min

Power Supply: rechargeable batteries

Dimensions: 340 × 370 × 305 mm

Weight: 11 kg



Life Gas

LIFE GAS is a sampler specifically designed for low-flow stack gas sampling using adsorbent tubes or impinger trains. Compliant with UNI EN 14791, UNI EN 14385, UNI EN 13211, and UNI EN 1911, it is suitable for a wide range of source emission sampling applications.

The system automatically regulates the sampling flow rate, compensating for pressure losses while managing and storing sampling data and alarm conditions. Compact and easily portable, it can operate either from the mains supply or using its internal rechargeable batteries. LIFE GAS can also be connected to APIS PLUS for automatic management of the auxiliary sampling line during isokinetic sampling operations.

Operating Range: 0.2 - 3 L/min

Power Supply: rechargeable batteries or 230 VAC, 50 Hz

Dimensions: 240 × 288 × 305 mm

Weight: 5.5 kg



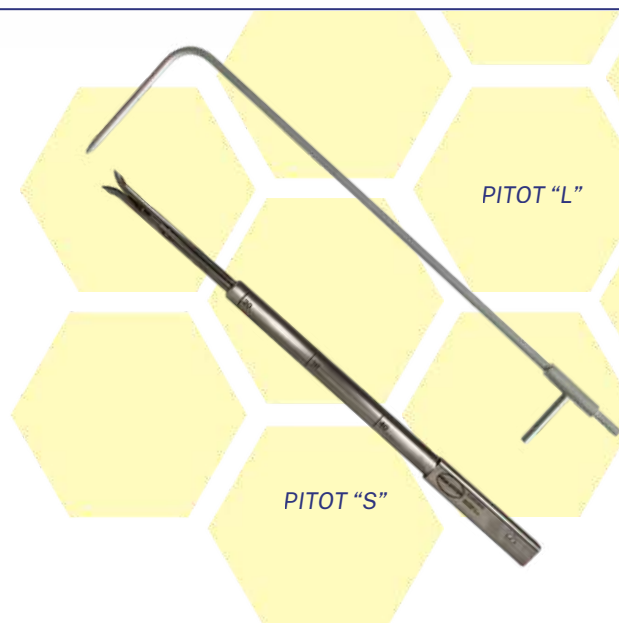
Pitot Tubes

"S" and "L" PITOT TUBES are designed for measuring air velocity and volumetric flow rate in ducts and stacks and, when used in combination with sampling systems, enable isokinetic particulate sampling from stationary source emissions.

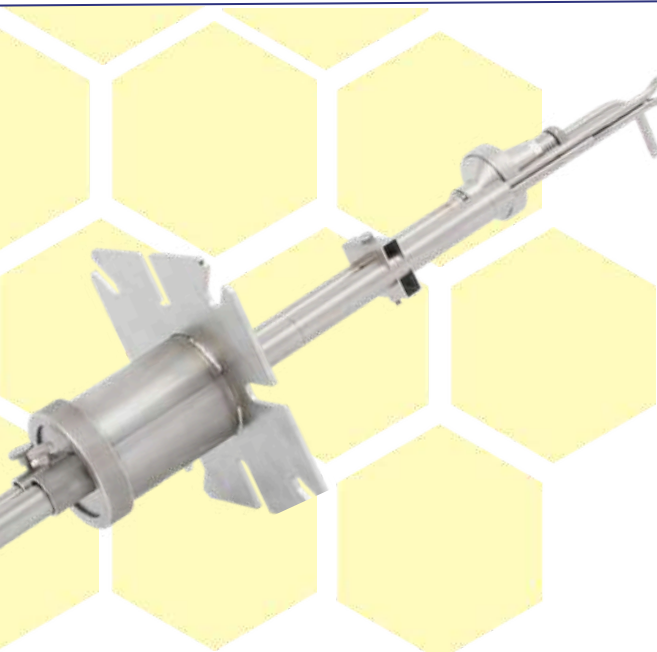
Manufactured from stainless steel and available in a variety of configurations and lengths, they ensure high accuracy and versatility for field measurement applications. "S" Pitot Tubes comply with UNI EN ISO 16911-1, while "L" Pitot Tubes are manufactured in accordance with AMCA and ASHRAE specifications.

"L" Pitot Tube: Available lengths: 300; 600; 900; 1200; 1500 mm

"S" Pitot Tube: Available lengths: 500; 1000; 1500; 2000; 2500; 3000 mm



Standard Probe



STANDARD PROBE is designed for isokinetic particulate sampling in stack emissions from test chimneys with little or no condensate, in compliance with UNI EN ISO 16911-1 and UNI EN 13284-1 standards. It combines, within a single assembly, a measurement tube equipped with a thermocouple and a sampling tube fitted with interchangeable nozzles and a filter holder.

Manufactured entirely from stainless steel, the probe features a sliding and locking mechanism for secure positioning on the test chimney, allowing simultaneous movement of both tubes during sampling operations. Its fully modular design facilitates transport and, when required, enables the independent use of the measurement tube and the sampling tube.

Available Lengths: 500 mm, 1000 mm, 1500 mm, 2000 mm, 2500 mm, 3000 mm

Monotube Probe

The **MONOTUBE PROBE**, compliant with UNI EN ISO 16911-1 and UNI EN 13284-1, integrates a Darcy tube and a sampling tube with nozzles and filter holder into a single system, enabling isokinetic particulate sampling from stacks with little or no condensate.

Manufactured entirely from stainless steel, it is easy to transport and fully disassemblable. Additional gas sampling lines also allow its use in combination with gas analyzers and FID systems.

Available Lengths: 500 mm, 1000 mm, 1500 mm, 2000 mm, 2500 mm, 3000 mm



X1-Probe

X1-PROBE is a heated sampling probe designed for the collection of particulate matter, trace pollutants, metals, and acid gases from stationary source emissions, including applications involving condensable compounds. It integrates a sampling tube, a Darcy velocity measurement tube, and dedicated gas sampling lines, providing a versatile and configurable solution for a wide range of emission sampling applications.

Developed to meet the needs of environmental laboratories and field sampling professionals, X1-PROBE combines robust construction with ease of operation, ensuring reliable sampling performance even under demanding field conditions.

Its modular design allows integration with impinger trains, micro-pollutant condensers, and FID analyzers, while supporting both heated and unheated sampling configurations to accommodate different testing requirements.

Power Supply: 230 VAC, 50 Hz

Available Lengths: 500 mm, 1000 mm, 1500 mm, 2000 mm, 2500 mm, 3000 mm



X1-Condenser

X1 CONDENSER is a device designed to be connected to the X1-PROBE control box for the sampling of dioxins and PAHs (Polycyclic Aromatic Hydrocarbons). The system integrates all the components required for condensate management and sample line handling, while also providing a practical solution for the transport and protection of sampling glassware.

Equipped with a high-efficiency heat exchanger and a PUF/XAD-2 resin cartridge holder, X1 CONDENSER complies with UNI EN 1948-1, providing a complete solution for stack emission sampling applications.

The provision for monitoring the temperature at the condenser outlet enables improved control of sampling conditions, helping maintain the correct sampling train configuration during applications dedicated to the monitoring of persistent organic pollutants (POPs). In addition, compatibility with the ARTIK XP cooler enhances system versatility across a wide range of operating configurations.

Dimensions: 370 × 165 × 777 mm

Weight: 3.70 kg



X1-Impingers

X1-IMPINGERS is a collection vessel designed for direct connection to the X1-PROBE external control box and for housing the impingers used in the sampling of metals and auxiliary sampling lines from stationary source emissions. Its configuration allows the sampling glassware to be integrated into the sampling train in a practical and compact manner.

Thanks to its dedicated design and seamless integration with the sampling system, X1-IMPINGERS simplifies the installation, handling, and management of sampling glassware in the field. The organized arrangement of components improves operational ergonomics and helps reduce the risk of accidental impacts or movement during sampling activities.

The vessel is configured for water recirculation and can be used in a modular configuration, allowing two units to be connected when a greater number of impingers is required. Impinger kits can also be supplied in a dedicated carrying case with custom-shaped foam inserts, designed to facilitate transportation and provide effective protection for the glassware.

Dimensions: 256 × 220 × 350 mm

Weight: 3.60 kg



X1-Pfas

X1 PFAS is a glassware sampling kit specifically designed for PFAS sampling from stationary source emissions, in compliance with EPA OTM-45. The sampling train utilizes ground-glass joints and is configured to ensure leak-tightness, compactness, and flexibility during field sampling operations.

The system is engineered to minimize the risk of contamination by eliminating the use of plastic seals within the sampling train and incorporating dedicated components for sample condensation, cooling, and collection. A dedicated support structure provides stability and protects the glassware during operation.

The sampling train configuration is designed to ensure a clearly defined and easily inspectable sample path, simplifying inspection, cleaning, and maintenance procedures. The arrangement of components also promotes efficient field sampling activities and facilitates subsequent laboratory analysis.

Dimensions: 513 × 215 × 344 mm

Weight: 5 kg



Firefly

FIREFLY is a heated sampling probe designed for stack gas sampling in accordance with UNI EN 13649, UNI EN 14790, and UNI EN 12619 standards. It is particularly suited for VOC sampling and condensate determination, while the temperature-controlled probe body and heated sampling line ensure effective temperature management throughout the sampling process.

Equipped with an integrated micro-filter and digital temperature control, FIREFLY can also be used in combination with combustion analyzers and FID analyzers.

Thanks to the ability to perform calibration procedures and sample management directly on the probe, FIREFLY simplifies field operations and helps optimize intervention times, improving overall efficiency during emission monitoring activities.

Power Supply: 230 VAC, 50 Hz

Dimensions: 206 × 115 × 305 mm

Weight: 5 kg

Probe Tip Lengths: 350 mm, 750 mm, 1500 mm



Thyris

THYRIS is a portable gas analyzer designed for the real-time measurement of gaseous emissions and flue gases from industrial plants.

Utilizing advanced analytical technologies, it enables the determination of O₂, CO, CO₂, and NO_x, while incorporating an efficient sample filtration and cooling system that protects the sensors and ensures accurate results even in demanding applications.

Measurements are performed in accordance with the Standard Reference Methods specified by UNI EN 14789, UNI EN 15058, and UNI EN 14792.

Developed for field emission monitoring, THYRIS combines analytical accuracy, ease of use, and operational reliability. Its integrated sample conditioning system ensures long-term measurement stability by minimizing the effects of moisture and maintaining high analytical performance during extended monitoring activities.

Power Supply: 230 VAC, 50 Hz

Dimensions: 535 × 324 × 310 mm

Weight: 20 kg



Artik XP

ARTIK XP is a high-efficiency cooling system designed to ensure constant temperature control during sampling operations. Equipped with an 18-liter tank, it is ideal for cooling condensate collectors, glass condensers, and other sampling accessories.

The automatic temperature regulation and recirculation pump ensure efficient performance even under high ambient temperature conditions, maintaining stable operating parameters throughout the sampling process. Compact and easy to transport, ARTIK XP simplifies field operations and supports the use of compatible accessories such as the X1 Impingers and X1-Condenser.

Designed for applications requiring reliable and continuous cooling, ARTIK XP combines high refrigeration performance, ease of use, and portability, helping to ensure the efficiency of the entire sampling system during field sampling activities.

Power Supply: 230 VAC - 50 Hz

Dimensions: 530 × 340 × 310 mm

Weight: 18 kg



Artik Air

ARTIK AIR is a gas conditioning system designed for the treatment of flue gas samples extracted from emission sources and intended for use with combustion gas analyzers. The system combines compressor-based and Peltier cooling technologies with a borosilicate glass heat exchanger, minimizing contact between the gas sample and condensate while reducing the loss of volatile components.

Compact and ergonomically designed, it features an external display that provides continuous monitoring of gas temperature and automatic condensate management. The outlet gas temperature complies with the requirements of UNI EN 15058. Thanks to its pump, specifically designed to withstand corrosive gases, and the continuous monitoring of operating parameters, ARTIK AIR ensures effective sample conditioning even in the presence of high humidity levels. The system is engineered to promote measurement stability and simplify field sampling activities.

Delivered Flow Rate: approx. 3 L/min

Power Supply: 230 VAC, 50 Hz

Dimensions: 340 × 370 × 305 mm

Weight: 18 kg



Test chimney

The **TEST CHIMNEY** is a system designed for the verification of pressure measurement instruments and the determination of the K coefficient of Pitot tubes, intended for laboratories operating in accordance with the requirements of UNI EN ISO 16911-1.

It enables testing under different velocity conditions through adjustment of the airflow generated by the turbine. The integrated flow straightener ensures a uniform velocity profile while reducing turbulence, and the measurement ports are designed in accordance with UNI EN 15259 to ensure correct positioning of measurement instruments.

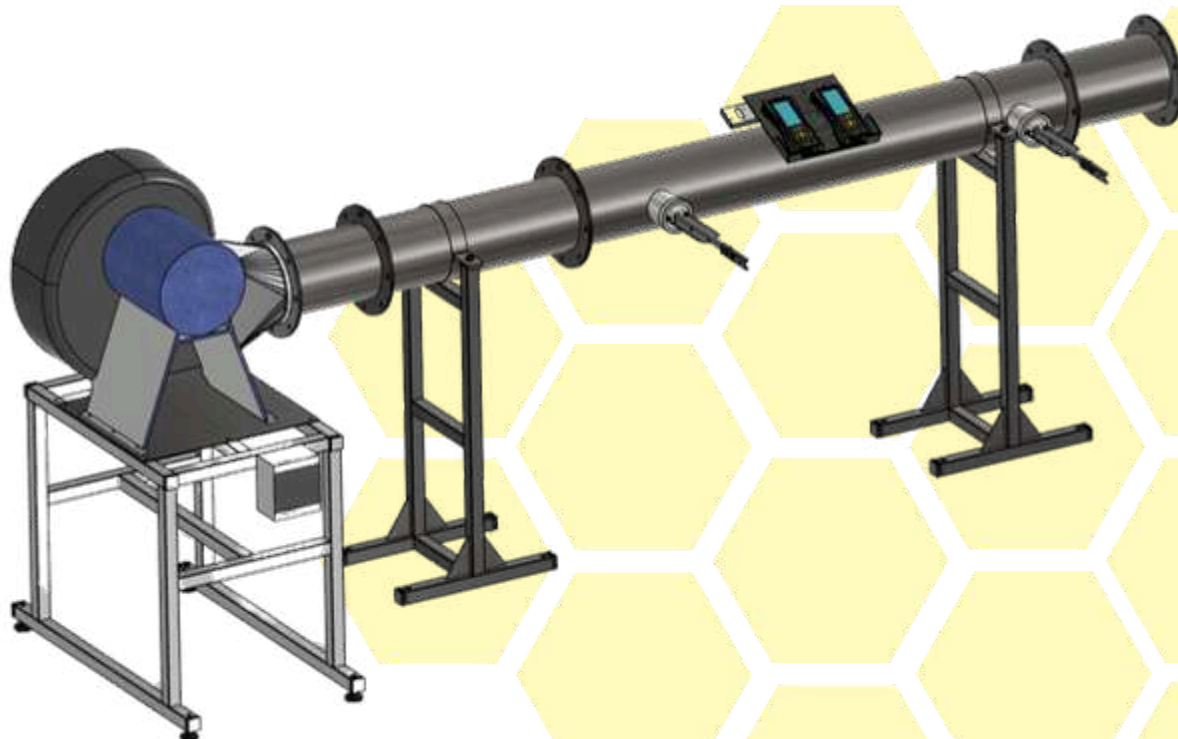
Thanks to its controlled and repeatable operating conditions, the Test Chimney allows accurate characterization of Pitot tube performance, reliable metrological comparisons, and the documentation of verification activities in accordance with laboratory quality procedures.

Dimensions: 3156 × 380 × 1578 mm

Stand Height: 1380 mm

Internal Diameter: 220 mm

Material: Stainless Steel



Spiritus

SPIRITUS is a continuous-flow adiabatic respirometer, compliant with UNI 11184 and UNI EN 15590 standards, designed to assess the biological stability of biomass through the determination of the Dynamic Respiration Index. It is suitable for the analysis of solid waste, biostabilized materials, biodried materials, and compost, and is available in 10 L and 30 L reactor versions.

It automates the main analytical operations and integrates an optical oxygen sensor together with dedicated software for data acquisition and management, allowing the simultaneous control of multiple reactors.

The dedicated software enables multi-reactor management, data acquisition, and full traceability of analyses, helping streamline laboratory operations while ensuring reliable and reproducible results.

Operating Range: 30 - 500 L/h

Power Supply: 230 VAC, 50 Hz

Dimensions: SPIRITUS 10 L (323 × 461 × 549 mm);
SPIRITUS 30 L (467 × 580 × 840 mm)

Weight: SPIRITUS 10 L: (20 kg);
SPIRITUS 30 L: (45.6 kg)



Hydra

HYDRA is a respirometer designed for the assessment of the aerobic biodegradability of materials through the continuous monitoring of gases generated during the degradation process. Dedicated software enables complete management and monitoring of the test, with automatic data processing, graph generation, and analytical reporting.

The calculation method complies with UNI EN ISO 14855-1 and UNI EN ISO 14046 standards. The system also supports biodegradability testing in aqueous media and the evaluation of compostable packaging in accordance with UNI EN ISO 14852 and UNI EN 13432, making it suitable for research activities in the biological, environmental, and pharmaceutical fields.

With the ability to manage up to 12 independent channels and automatically control key test parameters, HYDRA enables efficient and highly reproducible parallel analyses.

Standard Range: 0.1 - 1 L/min

Power Supply: 230 VAC, 50 Hz

Dimensions: 600 × 590 × 1542 mm

Weight: 60 kg (Control Unit) + 60 kg (Climatic Chamber)



Life Spiro

LIFE SPIRO is a vacuum air sampler compliant with UNI EN 13725, designed for the collection of odorous substances and subsequent olfactometric analysis. Its lung principle sampling system prevents contact between the sample, the pump, and potentially odor-generating materials, preserving sample integrity throughout the sampling process.

Compatible with Nalophan and Tedlar sampling bags, the instrument enables fully automatic sampling through an integrated pump equipped with a vacuum sensor. Robust and easy to operate, LIFE SPIRO can be used in both horizontal and vertical positions and features a programmable delayed-start function, providing greater flexibility during field sampling activities.

Filling time: approx. 2 min

Maximum Vacuum: 350 mbar

Power Supply: rechargeable batteries

Dimensions: 905 × 180 mm (L × Ø)

Pump Weight: 6.8 kg



Static Hood

The **STATIC HOOD** is a device designed to capture and convey air from active area sources, such as biofilters, enabling subsequent sample collection and analysis.

Manufactured from passivated stainless steel, an odor-neutral material, it features an accelerating stack with a defined outlet section and dedicated sampling ports for the verification of environmental parameters and sample collection.

The system is designed to provide reliability and ease of use during odor emission sampling from active area sources.

Developed specifically for odor monitoring applications, the Static Hood offers a robust and easy-to-install solution that helps standardize sampling conditions and improve the repeatability of field measurements.

Dimensions: Hood: 1 m²; Stack: 0.0145 m²

Weight: 40 kg

Height: 2.4 m

Material: Passivated stainless steel

Fluxbox

FLUXBOX is a system designed for the monitoring of diffuse gaseous emissions, particularly suited for applications at contaminated sites and in environments where the presence of biogas, toxic gases, and volatile organic compounds (VOCs) must be assessed.

The variable-volume sampling chamber enables practical and versatile monitoring operations. The system also incorporates manual switching valves that simplify zeroing and calibration procedures for detectors connected to the sampling probe. Manufactured in accordance with the UK LFTGN 07 guidelines for diffuse emission monitoring, FLUXBOX provides a dedicated solution for the assessment, monitoring, and characterization of surface gaseous emissions.

Dimensions: 324 × 414 mm

Weight: 2.8 kg

Volume: 21 L

Contact Surface Area: 784 cm²



Low Speed Tunnel

LOW SPEED TUNNEL is a system designed for the sampling and analysis of odor emissions from passive sources, including both liquid and solid surfaces. By simulating the natural action of wind across the emitting surface, it allows odors to be captured and conveyed for subsequent analysis.

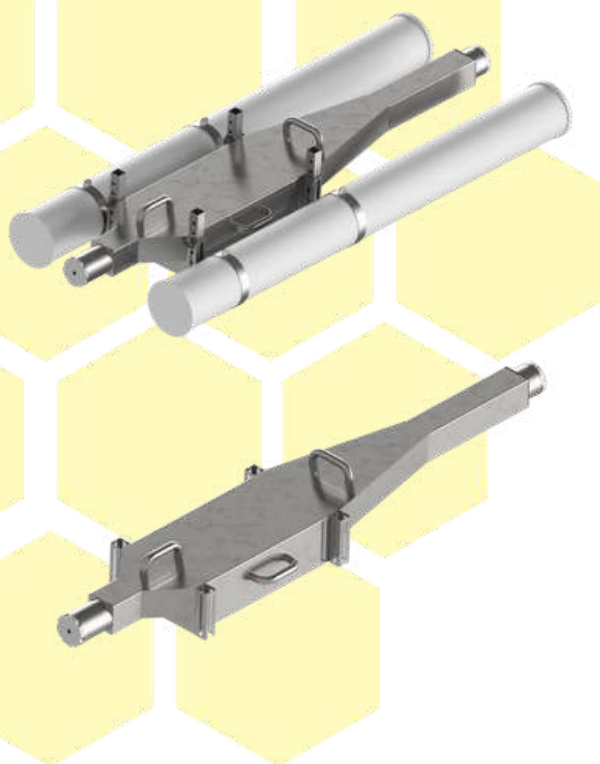
It is particularly suitable for environmental applications such as landfills, wastewater treatment plant tanks, and sludge treatment facilities. The adjustable float configuration also allows operation on liquid emission sources, while quick-connect fittings facilitate the connection of inlet and sampling lines.

The system complies with DGR 3018/2012 and is manufactured in accordance with UNI EN 13725, providing a dedicated solution for the monitoring and characterization of odor emissions in environmental applications.

Dimensions: 253 × 150 × 1600 mm (without floats)

Weight: 18 kg

Air Velocity: 10 - 100 mm/s



Technical Assistance

Mega System's experience gained through more than thirty years of designing and manufacturing air quality monitoring solutions is reflected in a highly qualified technical support, maintenance, and calibration service provided at its operational headquarters in Bareggio (Milan), Via Don Fracassi 41/43.

Here, a team of highly specialized technicians ensures rapid interventions and the exclusive use of original spare parts. In addition, Mega System offers customized preventive maintenance programs designed to optimize instrument lifecycle performance and minimize unplanned downtime.

A comprehensive service that supports customers at every stage, from technical assistance and system upgrades to specialized technical consulting.



SCAN ME



Training

Thanks to its collaboration with qualified industry experts, Mega System organizes training courses and technical update sessions for operators, sampling technicians, and laboratory professionals, with the aim of promoting skills that remain aligned with the latest regulatory and application developments.

This training activity stems from the desire to share the knowledge and experience gained through years of fieldwork, providing customers with qualified support to confidently address the challenges of environmental monitoring and optimize the use of technologies across different operational applications.

Training programs combine theoretical content with practical exercises, equipping participants with the knowledge and tools needed to deepen their understanding of sampling methodologies, instrumentation operation, and quality control procedures, through an approach focused on operational effectiveness and reliable results.



SCAN ME



Research and Development

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Consumables

The selection of products distributed by Mega System includes instrumentation, sensors, and specialized solutions from leading international manufacturers for environmental monitoring, emissions control, industrial hygiene, and laboratory applications, providing professionals with reliable and state-of-the-art technologies for every operational need.



Useful Contact

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SAMPLING
SOLUTIONS

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CALIBRATION
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