

**CREATE,**  
**CALIBRATION GAS STANDARDS**  
**CONTROLLED GAS ATMOSPHERES**  
**CUSTOMIZED GAS MIXTURES**

GAS MIXERS

**GASMIX™**

GAS DILUTERS

by *AlyTech* 



AlyTech is a France-based company founded in 1999 and headquartered in Paris region.

It is a strong team of chemists, electronic and software engineers with long experience in gas systems, chromatography and elementary analysis. We develop, manufacture and sell automated gas preparation systems under GasMix™ brand since 2007.

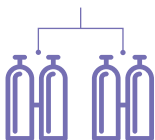
AlyTech offers you high quality instrumentation, comprehensive application expertise, and perfect service, including trainings, remote diagnostics, annual calibration and validation of the equipment.

Our worldwide network of authorized distributors provides you with local support.

## About **GASMIX™**

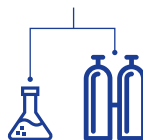
- Significantly reduce your stock of gas standard cylinders and related cost
- Prepare gas standards by controlled liquid vaporization or by permeation technique
- In compliance with ISO 6145-7 prepare Single and Multipoint Calibration Gas Standards by dynamic dilution with high precision, accurate and with full traceability
- Perform perfectly controlled blending of 2 to 16 gases with a dilution up to 10000 times
- By user defined program make binary or multi-component gas mixtures in wide range of concentrations from % levels down to traces level
- Deliver or inject generated gases to an analyzer, reactor or a canister
- Fit to nearly any application thanks to intuitive software and automation
- Handle pure gases, concentrated gas mixtures, most of aggressive and reactive gases

## We help you to create Customized Gas Standards what you need, where you need, when you need



### OUR PRODUCTS GASMIX

Advanced solutions for diluting / mixing up to 16 gases simultaneously with high accuracy, reproducibility and traceability – this is the GasMix™



### OUR PRODUCTS LIQMIX

LiqMix is an automated and cost effective way to generate a standard gas from a liquid or liquid mixture down to ppb levels of concentration



### OUR PRODUCTS PERMIX

The permeation tube technology combined with precise mass flow controllers and dedicated software - PerMix is all-in-one calibration solution for a laboratory of field use

# Products



## AIOLOS II

### The intelligent gas mixer, diluter & injector

The Aiolos II is the latest generation of popular product produced by AlyTech over 10 years. By mixing and / or diluting two to four gases the system generates calibration gas on site at the desired concentration, even to very low levels.



## ZEPHYR

**Compact diluter with a smart software** Due to its small size and embedded software, the Zephyr can be installed where you need it. With its touch screen and intuitive interface, very simple in operation, the Zephyr is widely used for various applications that involve only 2 gases.



## HURRICANE

### Diluting – Blending up to 16 gases simultaneously

The most powerful in GasMix™ family, this gas mixer/diluter can automatically prepare and deliver very complex gas mixtures to virtually all kinds of analytical instruments, reactors, or sensors. Customized systems for up to 20 gases are possible.



## GMRACK

### Enhanced functionalities of GasMix™ in a 19"

This system accommodates up to 4 gas channels to make calibration gas or gas mixtures directly at the production site. Equipped with on-board touch screen computer, embedded software it addresses to the applications outside of the laboratory.



## ATMO

### Calibrate 3 analyzers in a row automatically!

Developed in collaboration with French air monitoring agencies, the ATMO simplifies and automates routine quality procedures: multi-point calibration, repeatability and linearity checks of air quality analyzers like SO<sub>2</sub>, NO-NO<sub>x</sub> and CO.



## AURA II

### Simple, safe & cost-saving LPG vaporizer

Equipped with a heat and pressure regulators the system designed for optimal and safe evaporating of LPG/LNG sample into 100% gas phase and deliver to an analyzer or mixer via heated transfer lines to prevent condensation.



## LIQMIX

### Generate your gas standard from a liquid

Automated, cost effective way for on-site generation of gas standards from a liquid or liquid mixture. Ideal for chemicals that are not commercially available in cylinders, like unstable, reactive compounds in complex multicomponent mixtures.



## LIQMIX CASCADE

### Intelligent multi-stage cascade dilution

This enhanced LixMix system offers very wide dynamic range of concentrations from % to ppb levels. It is a simple and reliable way to perform multi-point calibrations, linearity and hysteresis checks, LOQ / LOD validation with gas standards such as BTEX, other hydrocarbons mix, siloxanes, ethanol and phenol, and others.



## PERMIX ATMO

### Portable Calibration Gas Generator

PerMix ATMO is unique all-in-one calibration solution for laboratory, mobile labs or remote locations. Equipped with dual permeation oven, precise diluter, built-in zero air generator it eliminates a need of multiple cylinders saving space, cost and removing safety hazard.

# GasMix™ benefits

## COST SAVING

Replace constraints of purchasing multiple cylinders with different concentrations of the component. Take one cylinder and make your calibration gas at different concentrations down to traces on-site. Case studies prove, GasMix™ is paid back in about 1 year.

## OPTIMIZING GAS CYLINDERS STOCK

With the GasMix™ from easily available high concentration standard, stable and accurate, you produce on-site low level concentrations at your choice with very little added uncertainty

## UNSTABLE OR RARE STANDARDS

Some mixtures are unstable at storage, some are even not commercially available. GasMix™ solves this problem by making standard just when you need it. LiqMix is the solution for such mixtures as BTX, other VOC, Ethanol, Siloxanes and more.

## SOFTWARE AUTOMATION

Build, save, run complex automated sequences of mixing/diluting adapted to every need. GasMix™ is controlled via dedicated software enabling unattended automatic operation.

## MORE SAFETY, LESS STORAGE

Less cylinders you need, more safer your storage, easier logistics and less space for cylinders and gas plumbing. In addition, GasMix™ software helps to manage your cylinder expiration dates.

## TRACEABILITY & DOCUMENTATION

GasMix™ software calculates and report the final uncertainty of each generated concentration. The Audit Trail function performs complete traceability of all operations carried out.

**Unique diluters on the market capable to deliver a certificate for the produced concentration**

10

YEARS ON  
THE MARKET

10 000 000

DILUTION RATIO FROM INITIAL  
CONCENTRATION

16

GASES MIXING  
SIMULTANEOUSLY

ISO 6145-7

GASMIX COMPLIANT





# CREATE, CALIBRATION GAS STANDARDS CONTROLLED GAS ATMOSPHERES CUSTOMIZED GAS MIXTURES

## MARKETS WE SERVE

- Environmental – Ambient air surveillance, CEMS
- Petrochemical – Process and laboratories analyzers
- Pharmaceutical, Food & Flavour – Quality control
- Automotive – Engine bench and emission testing
- Specialty Gases – Customized secondary standards
- Calibration Laboratories and Inspections
- Renewable Energy – Biogas
- Research – Generation of complex gas mixtures

## KEY APPLICATIONS


- Linearity check and calibration of Gas Chromatographs with FID, TCD, PID, PHID, SCD, MS and other detectors
- Calibration, repeatability and linearity checks of automated measuring systems (AMS) for air and stack gas
- Validation, model building and calibration of FTIR, RAMAN and other spectrometers
- Production control, LOD-LOQ validation and calibration of gas detectors, sensors, gas analyzers
- Creation of customized gas mixtures for research in aging, oxidation, chemical reaction of materials



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