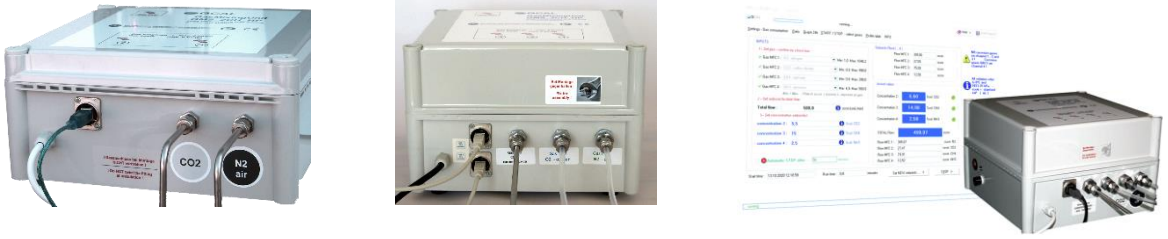
QCAL Messtechnik GmbH
Gas Mixing and Gas Dosing for Laboratory Applications

➢ Automatic High Performance Gas Mixing units GMS



GMS gas mixers for 2, 3 and 4 channels

The **high-performance** gas mixers from QCAL Messtechnik automatically blend and dilute gases to generate ***precise*** gas mixtures – operated by a Windows® software (Notebook or PC). They are applicable to nearly every requirement for gas mixtures through the wide flow range of the mass flow controllers (1 : 1000). Gas mixtures in the ppm – range can be achieved from pure gases. They provide outstanding accuracy by special calibration procedures – see our **WhitePaper**.
Versions for gas mixtures with corrosive gases are also available.
Gas mixers that are operated with flammable and toxic gases can be equipped with an alarm module to detect leaks in time and prevent the release of these gases.

Application examples :

- calibration standards for sensor calibration and testing.
- gaseous atmospheres for analytical research or production purposes.
- gas mixtures for life science applications as cell culture (aerobic or anaerobic conditions / variable CO2 contents …)
- applications with corrosive gases as SO_2 , NH_3 , NOx , H2S …
- gas mixtures with **Hydrogen** – equipped with an alarm module for leak detection

Target prices :

GMS_2CH_HP	:	6100 Euros
GMS_3CH_HP	:	8500 Euros
GMS_4CH_HP	:	9800 Euros

➢ Multi - component Gas mixers

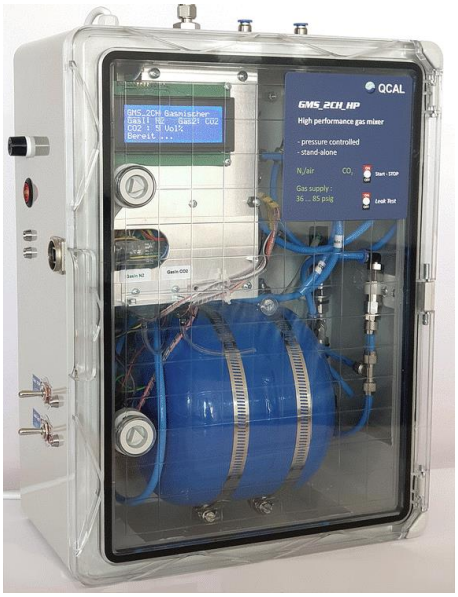
They dynamically produce complex mixtures containing up to twelve (12) individual component gases in a balance gas. Each component concentration may be independently varied. They can produce gas concentrations from percent levels to ppm for single or multi-point calibration of gas sensors, gas chromagraphs, process gas analyzers, mass spectrometers, FTIR's and other gas analytical devices.

Please ask for a special quotation - tailored to your application

➢ Gas mixers for pressurized gas mixtures

The GMS_P gas blender provides gas mixtures in a tank under pressure. It is a stand-alone version - the use of a computer is not necessary, but the unit can be connected to a PC for data storage and configuration.
Example :

- N2 – O2 – CO2 mixtures for cell culture growing.



GMS_P gas mixer with gas tank

Target prices :
GMS_P_2CH : 6500 Euros
GMS_P_3CH : 8500 Euros

➢ Gas Dosing Units GDX_SO2 and MGU mixed flow gas unit

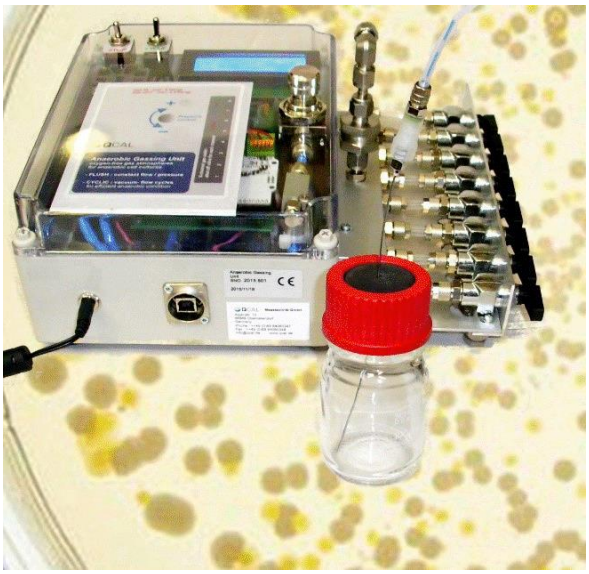
Testing of corrosive effects is performed worldwide in corrosion laboratories by almost every manufacturer in the electronics, automotive, coating, aerospace or machinery industries. The GDX gas dosing units dose fixed quantities of corrosive gases into special test chambers. The procedures are specified in corresponding international standards (see International standard overview).

Price :
GDX_SO2 : 2600 Euros

QCAL Messtechnik can also provide complete gas dosing units for the mixed flowing gas test (IEC 60068-2-60).

➢ AGU Anaerobic Gassing Unit

This device provides anaerobic gas atmospheres for growing anaerobic bacteria, for example in Hungate tubes, injection flasks or jars with 8 parallel gas outlets, which can be shut off individually.



Price :

GDX_SO2 : 2500 Euros

For more information visit our website :

https://www.qcal.de/english/

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