

# GB IVF

## 3 Channels GAS Mixer

Max Flow Rate: Up to 3000 mL/min  
Custom Firmware and Software with Auto-Purge  
No Buffer Needed  
No Specific Skills are required  
Low Maintenance

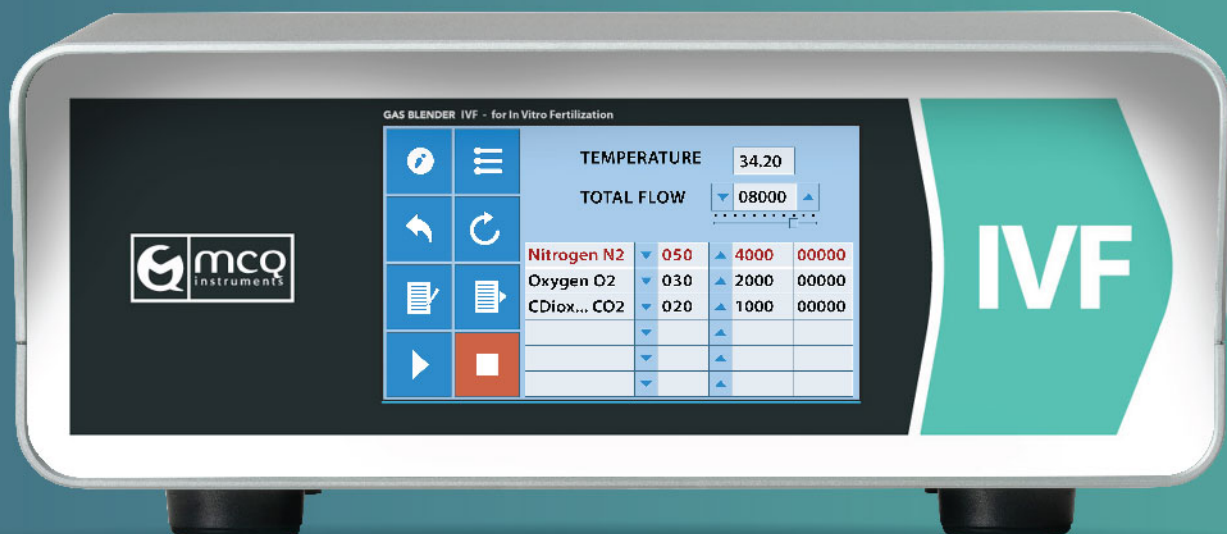
®



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## For IN VITRO FERTILIZATION

Manage the flow of N<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub> or Dilute Air.



## A SMART AND COMPACT GAS MIXER FOR LABORATORY

This gas mixer utilizes a novel gas-mixing technology based on unique physicochemical properties. This innovative approach eliminates the need for frequent calibrations, streamlining your workflow. Additionally, the mixer is a self-contained unit, eliminating the requirement for a separate buffer – simply plug and play for immediate use in your lab.

# No More Premixed Gas Cylinders

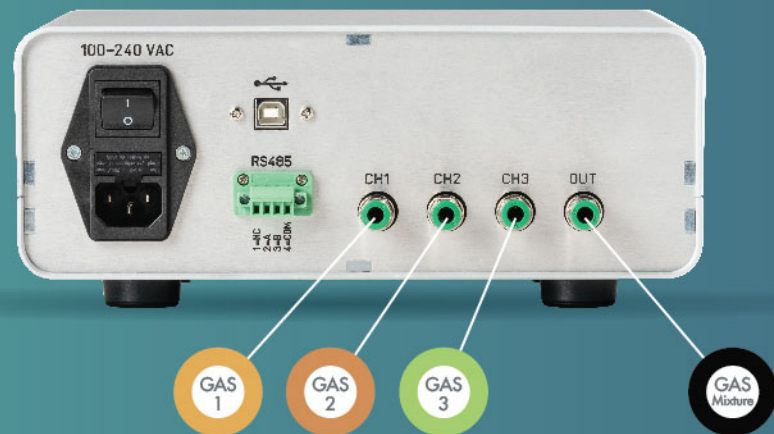
MCQ Instruments offers the best, cheapest and fastest solutions to manage, control, measure the flow of pure cylinders of N<sub>2</sub>, O<sub>2</sub>, and CO<sub>2</sub> in order to create specific conditions such as Hypoxia, Anoxia, or any other. Additionally, the Gas Mixer enables the dilution of Air to attain the desired gas composition.

GB IVF is a Gas Mixer designed specifically for IVF – In Vitro Fertilization processes. It offers automation and an Auto-Purge mode for added convenience.

## Gases:

N<sub>2</sub>,  
O<sub>2</sub>,  
CO<sub>2</sub>,

(additional gases  
supported on request)



## Auto-Purge

- Set your desired gas mixture composition (example 5% O<sub>2</sub>, 6% CO<sub>2</sub>)
- Did someone open the chamber's incubator? The system detects this and automatically initiates a purge.
- No incubator access detected? The gas flow remains constant, minimizing disruptions.

## Ready-to-Use System - No Buffer Required.

- Forget the need for external buffers! Our innovative system delivers precise gas flow directly, ensuring optimal conditions for your embryos.
- Say goodbye to frequent recalibrations. Our advanced technology utilizes highly precise flow controllers, requiring only annual calibration.
- Simply connect pure gas cylinders (N<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub>) or utilize your existing air supply. The Gas Mixer comes pre-configured with software and tubing, eliminating the need for complex integration with other devices.

## Touch Display & PC Software Included.

The GB IVF is a standalone device that allows you to control all parameters and access all main features through its touch display.

For Advanced functionality or to control the instrument via PC, we also provide MCQ Mixture Creator.



## Certified Products.



Type Approved  
Safety  
Regular Production  
Surveillance  
[www.tuv.com](http://www.tuv.com)  
ID 1111218183



## No Specific Skills Required

It is an easy to use and FULLY AUTOMATED Gas Mixer.

You don't need any additional hardware or IT specialist to configure our system. Simply connect the gas outlet of the blender to the inlet of the IVF incubator and our algorithm will handle the rest.

## A New Gas Mixing Technology.

At the heart of our IVF gas mixer lies a revolutionary technology that sets it apart from conventional systems. Unlike traditional mixers that rely on gas sensors in each channel, requiring frequent and complex calibrations, our system utilizes an engineered flow control system based on mass flow principles.

This innovative approach eliminates the need for calibration and ensures precise gas mixtures with unmatched simplicity. Simply connect your pure gas sources and let our intelligent system handle the rest, ensuring optimal gas conditions for your IVF procedures.



# Accurate. Compact. Reliable.

*"The MCQ Gas Blender IVF is the ultimate solution specifically designed for laboratories, for non - corrosive gas mixings and dilutions. It is an innovative all - in - one replacement for traditional pre-mixed cylinders solution."*

## Specifications.

**Accuracy:**  
(for each channel)

N<sub>2</sub>, 20 °C, 101.325 kPa (1 atm):  
5-100% FS: 1% of SP  
< 5% FS: 0,2% of FS

**Repeatability:**

0,10% of reading

**Response time:**  
(for each channel)

100 ms

**Operation Pressure:**

Max 3 barG

**Working Temperature:**

15 - 35 °C

**Mass Flow Rates:**  
(for each channel - Standard Rates)

Ch1: 0 - 3000 mL/min on N<sub>2</sub>  
Ch2: 0 - 200 mL/min on O<sub>2</sub>  
Ch3: 0 - 150 mL/min on CO<sub>2</sub>

**Total Mixture Flow Rate:**

Up to 3000 mL/min

**Gases:**

N<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub>  
(additional gases supported on request)

**Compatibility:**

Profibus, Modbus, Simulink, Python

**Communication:**

USB PC Interface RS485 with open proprietary protocol

**Fittings:**

Push-to-Connect fittings for 6 mm tubes. Other on request.

**Inlet Gas Channel:**

3 Inputs

**Outlet Gas Channel:**

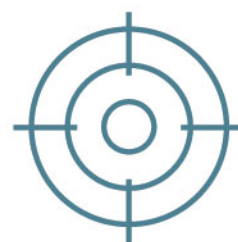
1 Output of mixed gases

**User Interface:**

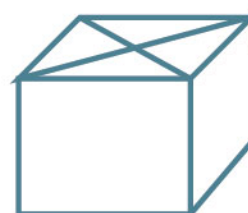
Gas mixing software. Touch Display.

**Certifications:**

CE, TUV, cTUVUS, Made in Italy



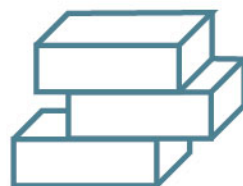
**High Accuracy**  
Native calibration on available gas with 1% of accuracy for each channel



**Lab in a Box**  
All the tools in a single, compact and easy to transport box.



**Software Bundle**  
Mixture Creator is an user friendly interface, with which you can easily manage any gas mixing process.



**GB Family**  
We have as many solutions as many are your needs.