

GM-10 series product information

Gas mixer smart series

GAS MIXER GM-10

FOR EVERY APPLICATION:

› FOOD INDUSTRY

GRD TECH provides a gas mixing system for any type of packaging machine in the food industry, whether it is a vacuum, deep drawing, sealed bag or a hand-chamber packaging machine.



› BEVERAGE INDUSTRY

To maintain the freshness of the beer, beverages are commonly processed using inert gases - CO₂, nitrogen, or a mixture of the two. Gas mixers deliver the desired gas mixture at a flexible mixing ratio ranging from 0 to 100%. They also ensure that the required gas pressure is maintained and excess CO₂ is avoided.

› HELIUM LEAK TEST

Helium leak testing is used to ensure that products that are susceptible to leakage are properly sealed.

› METALWORKING

The quality of gas supplied to the metal processing industry is essential for welding, cutting, and smelting processes. The GRD TECH gas mixer is outstanding due to its ease of use, continuous mixing, customizable features, and high flow rate. Precision control technology that is customizable and consistent in its pressure control compensates for pressure fluctuations, ensuring an exact and constant mixing ratio.



› GLASS WORKING

A state-of-the-art control system from GRD TECH is designed to achieve the precise composition of the fuel gas/oxygen mixture, which in glass processing requires accurate and constant supply to the burner system. MFC (MFC = Mass Flow Controller) technology is used to achieve this specific gas mixing and distribution. The electronic control system optimizes the mass flow rate of the fuel gas, compensates for external influences such as pressure fluctuations or temperature effects, and maintains constant parameters throughout the production period, thereby lowering the reject rate.

GAS MIXER GM-10



ANALYZER FOR REAL-TIME MEASUREMENT OF GAS OUTPUT

The gas mixing unit is designed to mix 2 up to 4 gases for ease of use and compactness with intelligent control. Applications; setting standard gas, feeding system for reaction, welding applications, etc.

Capacity range 100 sccm up to 1000 slm.

For the exact pressure and flow capacity ratios, please see the technical data overleaf.

Easy operation

- + More application automation control such as total mass flow rate, total mass capacity, and setting step program for process operating
- + Internal system is the intelligent control and touchscreen monitor
- + Automatically gas purge in case of emergency

Engineering support team

Technical process

- able to analyze and solve problems of the process effectively

Equipment process special part

- able to design process special parts to be applied in conjunction with the process

Engineer Training

- able to teach processes and equipment to users to have knowledge and understanding and to use them correctly and safely.



Technologist support team

Chemical Reaction

- able to analyze chemical reactions and solve problems effectively

Equipment of characteristics special part

- able to design special parts for analysis to be applied in conjunction with the process

Technologist Training

- able to teach reactions to users to be knowledgeable and to use them correctly and safely

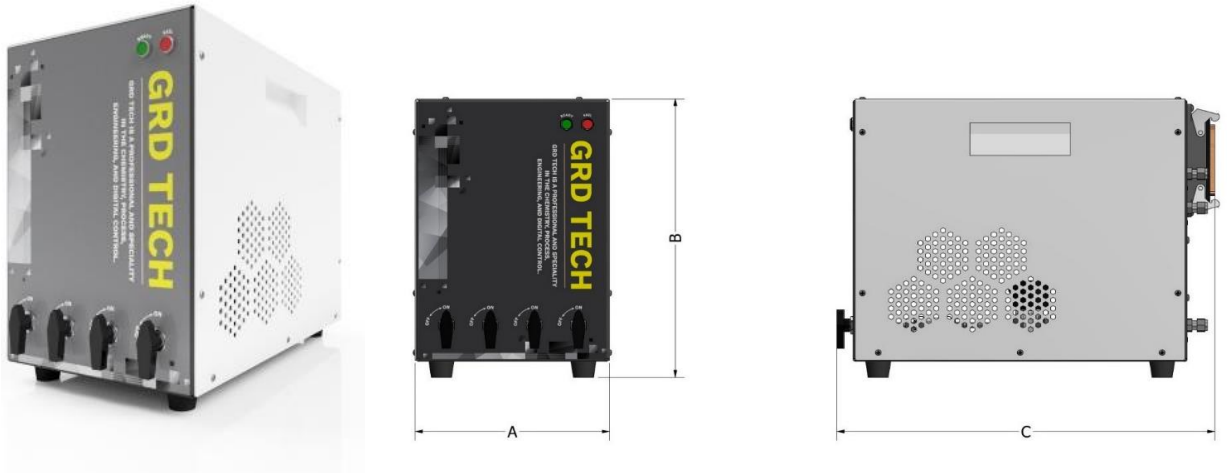


Technical Data <GM-10 series>

Gases	all technical gases (excluding toxic and corrosive gases also mixtures of fuel gas with air, O ₂ or N ₂ O)
Mixing range	0 – 100% by selection of suitable mixing range the accuracy corresponds to ISO 14175
Pressure OP.	Standard max. 8 barg (100 sccm to 350 slm) Highflow max. 8 barg (500 sccm to 1000 slm) Midpressure max. 35 barg (100 sccm to 500 slm) Highpressure max. 300 barg (100 sccm to 20 slm)
Inlet pressure differential	Standard max. 3 bar Highflow max. 3 barg Midpressure max. 8 barg Highpressure max. 10 barg
Setting accuracy	±1% abs. (scale 0 – 25%), ±2% abs. (scale 0 – 100%)
Mixing precision	better than ±1% abs.
Gas connections	1/4" to 1/2" compress tube fitting (upon flow rate)
Housing	stainless steel
Weight	see page 4
Dimensions (HxWxD)	see page 4
Approvals	Company certified according to ISO 9001

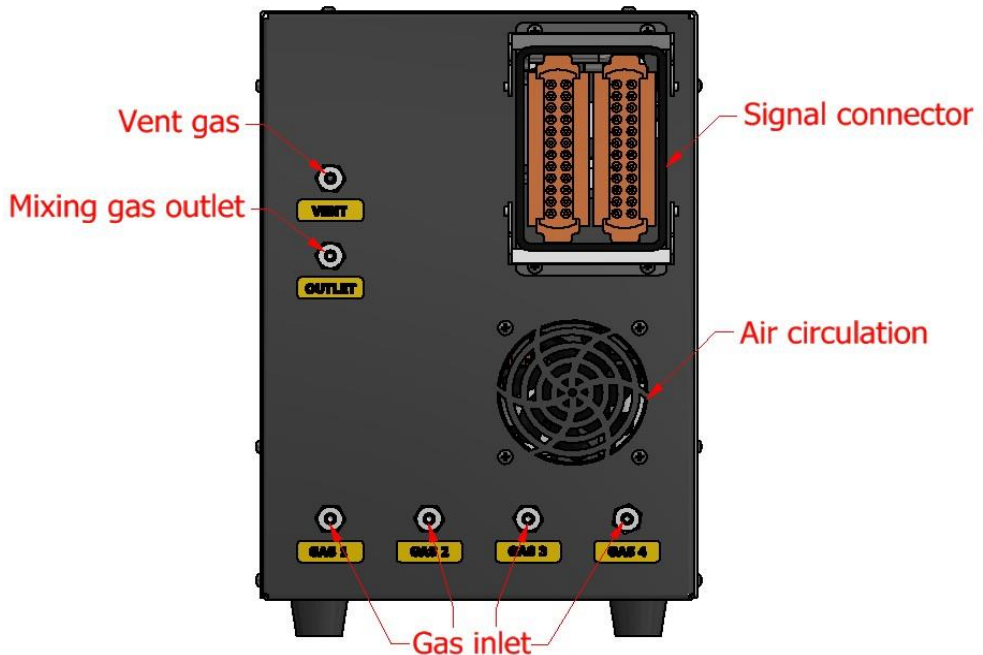


Dimensions <GM-10 series>



Dimension & weight	A (mm.)	B (mm.)	C (mm.)	Weight (approx.)
Standard	235	350	400	17 kg
Mid-pressure / High - pressure				
High - flow				

Back view



GRD TECH IS A PROFESSIONAL AND SPECIALITY IN THE CHEMISTRY, PROCESS, ENGINEERING, AND DIGITAL CONTROL.

WE ACHIEVE OUR GOALS BY DELIVERING AND DEVELOPING THE RIGHT CHEMISTRY, LABORATORY SOLUTIONS, PROCESS, AND DIGITAL CONTROL SYSTEMS. WE PROVIDE THE SPECIAL DESIGNED LABORATORY EQUIPMENTS FOR OUR CLIENT.

