



SOLUTIONS FOR GASES



IBEDA GAS MIXERS

PRECISE GAS MIXTURES FOR YOUR PROCESSES

IBEDA GAS MIXERS

FOR MANY AREAS OF APPLICATION

IBEDA offers an innovative product portfolio of gas mixers for various applications.

Furthermore, IBEDA supplies a wide range of additional components, such as gas analysers, dome pressure regulators, pressure regulation stations and gas filters for efficient delivery of media to the downstream processes.

BENEFITS AT A GLANCE

- High precision for homogeneous mixing quality
- Flexible change of mixtures and fast adaptation to the requirements
- Lower costs of mixed gases due to the use of widely available standard gases
- Possible reduction of storage costs compared to ready-to-use mixtures



IBEDA gas mixers are used in the production of mixed gases for protective gas welding and covers the most frequently used gas mixtures for the MIG, MAG, TIG welding. Due to the mixing principle, the IBEDA gas mixers also ensure a constant gas mixture without buffer vessel even if the volume of gas withdrawal changes.



Whether in the steel industry, in shipbuilding, in the glass industry or in another industry, IBEDA gas mixers with diffusion mixing system always produce gas mixtures with homogeneous mixing ratio and with the flow capacity adapted to the requirements of the respective application. The pre-set gas mixers are precisely calibrated according to customer's needs by means of gas analysis.



When serving beer and also to keep beer fresh for a longer time, the beverage is often processed with protective gas. IBEDA offers suitable gas mixers for CO₂/nitrogen mixtures that are typically used. Among other things, a precise gas mixture avoids an undesired over-carbonation of the beer and thus prevents loss of quality during production, transport or serving.



In the food industry it is indispensable to have precisely produced and reliably controlled gas mixtures for Modified Atmosphere Packaging (MAP). IBEDA gas mixers with integrated gas analysis always ensure the exact gas quality required for these processes.

iMixcompact - iMixclassic

GAS MIXERS WITH INTEGRATED CONSTANT PRESSURE REGULATORS AND AUTO-STOP FUNCTION

The **iMixcompact** and **iMixclassic** gas mixers operate according to the diffusion mixing principle. They feature an auto-stop function stopping the production of the gas mixture when the gas supply is interrupted.

Thanks to the pre-set and fixed gas mixtures calibrated to the respective requirements, an accidental change of the mixtures is impossible. This makes these gas mixers perfect for applications where a constant mixing ratio is absolutely necessary.

Due to the diffusion mixing principle no additional buffer vessel is required. A constant gas mixture is guaranteed without additional power supply even in case of gas withdrawal variations.



BENEFITS AT A GLANCE

- Withdrawal of mixed gas from 5 l/min up to 800 l/min (depending on product version and pressure ratio)
- Up to two (iMixcompact) or four (iMixclassic) gas mixtures calibrated according to customer's requirements
- High mixing accuracy even in case of gas withdrawal variations
- Cost savings due to the avoidance of storage of different premixes
- Diffusion mixing principle, no power supply or additional buffer vessel required
- Sturdy, compact design
- Low maintenance

EASY HANDLING

- No adjustment of the gas mixture necessary at the mixer before operation

HIGH PROCESS RELIABILITY

- Does not depend on input pressure differences due to integrated constant pressure regulation
- Does not depend on gas withdrawal variations
- Mixture production stops automatically when gas supply is interrupted

iMixcompact

iMixclassic

iMixpro

GAS MIXER WITH INTEGRATED CONSTANT PRESSURE REGULATORS AND AUTO-STOP FUNCTION

The **iMixpro** gas mixer operates according to the diffusion mixing principle. It has an integrated constant pressure regulation and features an auto-stop function stopping the production of the gas mixture when the gas supply is interrupted.

The **iMixpro** gas mixer can be used for the simultaneous production of up to two pre-defined and pre-adjusted gas mixtures of two gases. Additionally, there is an **iMixpro** version available allowing the production of a pre-defined and pre-set gas mixture of three gases. The inlet pressures of the gases to be mixed and the outlet pressure of the gas mixture are indicated by the integrated pressure gauges.

Due to the diffusion mixing principle, the **iMixpro** guarantees a constant gas mixture even in case of gas withdrawal variations and without additional buffer vessel.

Optionally, the **iMixpro** can be equipped with inlet and outlet pressure regulators for setting the required mixture pressure. In addition, a gas analysis for process control can be integrated in the mixer housing on request.

Thanks to the pre-set and fixed gas mixtures calibrated to the respective requirements, an accidental change of the mixtures is impossible. This makes the **iMixpro** gas mixer perfect for applications where a constant mixing ratio is absolutely necessary.



BENEFITS AT A GLANCE

- Withdrawal of mixed gas up to maximum capacity of 50 m³/h, 100 m³/h or 130 m³/h (depending on product version and pressure ratio)
- Up to two gas mixtures (2-gases version) calibrated according to customer's requirements
- Version available for a pre-set mixture of three gases
- High mixing accuracy even in case of gas withdrawal variations and without additional power supply
- Cost savings due to the avoidance of storage of different premixes
- Diffusion-mixing principle, no power supply or additional buffer vessel required
- Prepared for wall mounting

EASY HANDLING

- No adjustment of the gas mixture necessary at the mixer before operation

HIGH PROCESS RELIABILITY

- Does not depend on input pressure differences due to integrated constant pressure regulation
- Does not depend on gas withdrawal variations
- Mixture production stops automatically when gas supply is interrupted

iMixpro

iMixproVario

GAS MIXER WITH INTEGRATED GAS ANALYSIS AND INDIVIDUALLY ADJUSTABLE GAS MIXTURE OF TWO GASES

The **iMixproVario** gas mixer operates according to the diffusion mixing principle. It has an integrated constant pressure regulation and features an auto-stop function stopping the production of the gas mixture when the gas supply is interrupted. The **iMixproVario** gas mixer is equipped with inlet and outlet pressure regulators for setting the required inlet pressure of the gas mixture. The adjusted pressures are indicated by the integrated pressure gauges.

Due to the diffusion mixing principle, the **iMixproVario** guarantees a constant gas mixture even in case of gas withdrawal variations and without additional buffer vessel.

The variable adjustment of the gas mixture in combination with the integrated gas analysis makes the **iMixproVario** gas mixer perfect for applications where flexible and reliably reproducible mixing ratios are required at constantly high flow rates.



BENEFITS AT A GLANCE

- For one individually adjustable gas mixture (within the technical limits)
- Integrated gas analysis for adjusting the mixing ratio and for process control
- Withdrawal of mixed gas up to maximum capacity of 50 m³/h, 100 m³/h or 130 m³/h (depending on product version and pressure ratio)
- High mixing accuracy even in case of gas withdrawal variations
- Integrated inlet pressure regulator and mixture outlet pressure regulator
- Cost savings due to the avoidance of storage of different premixes
- Diffusion-mixing principle, no additional buffer vessel required
- Prepared for wall mounting

EASY HANDLING

- Direct display of the set gas mixture by integrated gas analysis
- Adjustment of the inlet pressures and the gas mixture outlet pressure and their indication by pressure gauge.

HIGH PROCESS RELIABILITY

- Does not depend on input pressure differences due to integrated constant pressure regulation
- Does not depend on gas withdrawal variations
- Mixture production stops automatically when gas supply is interrupted

iMixproVario

iMixone

WITH INTEGRATED HIGH-PRESSURE REGULATORS AND FLOW CONTROL

Gas mixer with diffusion-mixing system for two gases with up to three pre-set mixing ratios, especially for welding processes. The IBEDA **iMixone** is used, for example, in the production of mixed gases for protective gas welding and covers the most frequently used gas mixtures for the MIG, MAG, TIG welding.



BENEFITS AT A GLANCE

- Infinitely variable withdrawal of gas mixture up to 30 l/min
- High mixing precision even if the volume of gas withdrawal changes
- Up to 3 mixing ratios can be pre-set according to customer's requirement
- Cost savings due to the avoidance of storage of different premixes
- Gas inlet filters protect the device against contamination
- Diffusion-mixing principle, no power supply required
- Withdrawal of mixed gas from 5 l/min up to maximum capacity
- Direct connection to gas cylinders.
- Low maintenance
- Easy handling
- High process reliability

varioMix

GAS MIXER WITH INFINITELY ADJUSTABLE MIXING VALVE AND FLOW CONTROL

Compact gas mixer for the production of mixtures of two gases, such as argon and CO₂

This gives you flexibility and the possibility to reduce your consumption by the exact dosage and to avoid the use of premixed gases!



HIGHLIGHTS

- Infinitely variable withdrawal of gas mixture from 12 to 205 l/min
- Individual adjustment of mixture and flow rate
- Does not depend on variable input pressures
- Easy handling and assembly
- Compact, space-saving, sturdy design
- No power supply required

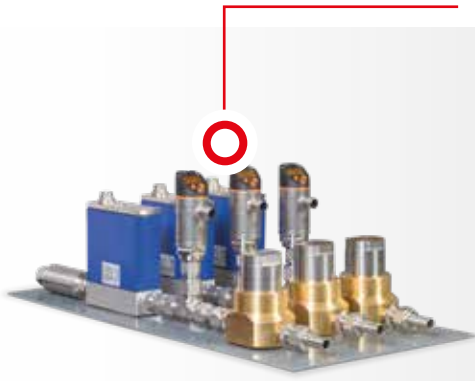
IBEDA GAS MIXERS

GAS ANALYSIS AND ADDITIONAL COMPONENTS

In addition to the gas mixers, IBEDA offers a wide range of additional components and devices which are indispensable for the high-quality, uninterrupted and efficient gas supply.

GAS MIXERS WITH MASS FLOW CONTROLLERS (MFC)

Mass flow (MFC) regulated gas mixers for the production of exact gas mixtures. This type of mixer is used where very precise gas mixtures are required, e.g. in the glass industry. The mass flow regulation technology allows to control disturbance variables such as temperature and pressure variations and to keep the previously defined mixing ratio at a constant level. A mass flow (MFC) controlled gas mixer can be used to minimise the set-up times during a product change, thanks to the possibility to access previously recorded product-specific flow parameters. The mixing ratio adjustment occurs electronically and reproducibly and can be done locally via touchscreen or data transmission.



CENTRAL GAS SUPPLY AND PRESSURE REGULATION

Many processes require pressure-regulating valves for gas tapping from gas cylinders or bundles. IBEDA offers a wide range of central gas supply systems and tapping points as well as dome pressure regulators for the constant pressure regulation in gas mixing processes. Automatic switch-over manifolds with corresponding monitoring and alarm devices can be adapted to the respective processes.



GAS FILTERS

IBEDA gas filters make it possible to separate gaseous media (technical gases) and thus, protect downstream installations and equipment. Mechanical contaminations are removed from the gas flow with great reliability. Therefore, the gas filters do not only increase the service life of the connected equipment, but also increase the dependability of the processes. Filter cartridges can be changed easily and quickly without the necessity of disassembling parts.



GAS NON-RETURN VALVES AND FLASHBACK ARRESTORS

To ensure that all processes run safely and smoothly, non-return valves are used for the respective applications to prevent undesirable backflows of gases and dangerous gas mixtures. In applications with combustible gases, IBEDA safety devices protect against dangerous flashback or burnback.



IBEDA PRODUCTS – WORLDWIDE IN USE

PERSONAL SAFETY

IS OUR TOP PRIORITY!

We are committed to the ongoing development of new products as well as continuing to improve our existing products. We are able to provide well-engineered and reliable safety solutions for every industrial application, all this with certification!



SOLUTIONS FOR GASES

IBEDA Sicherheitsgeräte und Gastechnik GmbH & Co. KG

Bahnhofstraße 27 · 53577 Neustadt (Wied)

Tel. +49(0)2683.306-0 · Fax +49(0)2683.306-31

www.ibeda.com · info@ibeda.de