

## Gas Mixer: iMixone

### Compact gas mixer with integrated high-pressure regulators and diffusion mixing system.

Gas mixer iMixone for the production of mixtures of two gases

#### Highlights

- **Straightforward use due to two integrated high-pressure regulators and high-pressure hose**
- Optimal factory calibration according to customer's requirement (within the permissible range)
- Infinitely variable up to 30 l/min (related to Nitrogen)
- **High accuracy, according to ISO 14175**
- No accidental mixture changes
- Protection against overpressure due to two relief valves
- Mixture production stops automatically when gas supply is interrupted
- **Does not depend on gas withdrawal variations**
- **Does not depend on input pressure differences due to integrated constant pressure regulation**
- Selector switch for selecting up to 3 pre-set mixing ratios
- Gas inlet filters protect the device against contamination
- Sturdy and compact design, low maintenance
- No power supply required
- Optimised for one welding machine



Technical Data:				
<b>Carrier Gas:</b>	Argon (Ar)		Nitrogen(N2)	
<b>Additive Gas:</b>	Carbon dioxide (CO2) Helium (He) Nitrogen (N2)		Carbon Dioxide (CO2) Helium (He)	
<b>Mixing Range:</b>	One to three pre-set gas mixtures: Example 2/8 18 Vol % Carbon Dioxide (CO <sub>2</sub> ) in Argon (Ar)			
<b>Inlet Pressure:</b>	Min 0.5 MPa (5bar) Max 20 /30 MPa (200/300 bar)			
<b>Outlet Pressure:</b>	Max 0.45 MPa (4.5 bar)			
<b>Mixed Gas Capacity:</b>	1.0 MPa (10 Bar)			
<b>Mixing Precision:</b>	± 0,5 % abs: 1-5 Vol. % additive gas ± 10 % of nominal value: >5-20 Vol. % additive gas ± 2 % abs: > 20 Vol. % additive gas			
<b>Temperature:</b>	-10 to + 50°C			
<b>Connection Inlet Outlet</b>	Carrier gas: Flange connection DIN 477-1 / -5 with hose 1000 mm Additive gas: Flange connection DIN 477-1 / -5 G 1/4 M, EN560 variable area flowmeter (optional)			
<b>Material:</b>	Housing: aluminium, anodised: in built parts: Brass , stainless steel, elastomer			
<b>Measure &amp; Weight Without connection:</b>	Height 215mm	Width 150mm	Depth 125mm	Weight Approx. 5kg

Further gas mixer versions for the production of gas mixtures of two gases are available on request

**Type: iMixone****Maintenance:**

Gas mixers are to be tested for leaks at least once a month.

Gas mixers are only to be opened and repaired by the manufacturer.

The flow values set at the flow-scale of the iMixone relate to the flow rates of Nitrogen.

The correct values of the selected gas mixtures are to be calculated by a correction factor.

The following table shows the correction factors as an example for 3 different gas mixtures.

**Application table**

Gas mixture CO <sub>2</sub> /Ar		
Vol.% CO <sub>2</sub>	Vol.% Ar	Conversion factor
18	82	0,8812
8	92	0,8472
2	98	0,8268

**Application example**

Gas mixture setting:	
Gas mixture:	18 % CO <sub>2</sub> in Ar
Conversion factor:	0,8812
Consumption:	18 NI/min
Flow regulator:	18 x 0,8812 = 15,9 NI/min

**Certification/ Technical Standards/ Rules**

TRBS German Technical rules for operation safety, DVS German Association for Welding, Cutting and Allied Processes,

DGUV German Employer's liability insurance association rules and regulations.

**Standards/ Approvals**

Company certified according to

ISO 9001:2015 and ISO 14001:2015,

CE-marking according to: Pressure Equipment Directive 2014/68/EU

(Subject to change without notice)