



CEMS :  
HAVE YOU THOUGHT TO  
CALIBRATE THEM WITH  
LNI GAS CALIBRATION  
SYSTEMS ?



**R** Evolution  
in Gas Generators  
and Calibrators

# CEMS...

What are CEMS?

Continuous Emission Monitoring Systems (CEMS) are systems used to measure gas or particulate matter emissions. They are necessary for all plants, power stations and other industrial sites to ensure they comply with international air monitoring standards.

Why is the calibration of CEMS important?

The calibration of CEMS is necessary to link them to the national standards and evaluate the accuracy of the gas detection. Calibration is thus needed to prove CEMS are performing properly.

How often should CEMS be calibrated?

According to the EPA, a CEMS user should perform quarterly calibration audits.



# CEMS and calibration

How is CEMS calibration done?

Calibration of CEMS can be done in 2 ways: with only gas cylinders or with gas calibration systems that require a limited number of cylinders.

What is a gas calibration system?

Gas calibration systems can mix two or more gases from gas cylinders to give the correct specifications to the detectors, monitors, analyzers and sensors for the best accuracy of results. The gas mixture produced allows to avoid to use expensive premixed gas cylinders.

LNI Gas calibration systems

Unlike many others calibration systems or gas cylinders calibration, LNI premium technology provides a clean, accurate, simple standard for calibrating your Continuous Emission Monitoring System (CEMS).



# LNI and CEMS

When you choose to work with a LNI gas calibration system to calibrate your CEMS instrument, you're also working with over 40 years of combined expertise and innovation that provide reliability and accuracy for your calibration results.

LNI and the unique Sonic Nozzles technology

ISO 17025 certification



For more than 40 years LNI has developed premium gas mixers and calibrators for analytical, industrial and environmental purposes.

LNI has been using a unique precise technology for years. Our "Sonic Nozzles" technology utilizes a pure mechanical process to generate the gas mixture for linearity check and calibration. Best accuracy for the lowest uncertainty.

LNI ISO 17025 calibration certificate is unique because we not only give in the certificate the value of the flow rate and dilution ratio, but also the related uncertainty. The ISO 17025 calibration certificates are recognized worldwide through the Ilac/MRA agreement.



# Gas calibration systems benefits over cylinders.

Our premium gas calibration systems have big advantages compared with low concentration gas cylinders. One calibration system is enough to calibrate a complete analysis bench.

Lowest uncertainty for the best accuracy



Our SONIMIX 2106 gas mixer is the most accurate gas mixer in the market with a global uncertainty of 0.6% relative.

Safety



Less dangerous manual cylinder handling.

Time-savings



Higher user tool availability by eliminating auto-calibration gas cabinet. Less transport, less material handling, less cylinders changeover operations, etc



# Gas calibration systems are green.

Gas calibration systems are definitely a green choice.

Carbon footprint.



LNI gas calibration systems reduce significantly the overall carbon footprint. One LNI system replaces thousands of hazardous gas cylinders and their multiple deliveries.

Consumption.



Considerable reduction of gas cylinder usage. One calibration system is enough to calibrate a complete analysis bench reducing gas cylinders from 50 to 10.



You can save up to 60% of calibration costs with a LNI gas calibration systems reducing the gas cylinders usage.

# GAS CALIBRATION SYSTEMS ARE CONVENIENT.

Gas cylinders may seem to be cheaper but when comparing the yearly expenses with the one of a gas calibration systems, gas calibration systems clearly appear to be more convenient than the calibration with only gas cylinders.

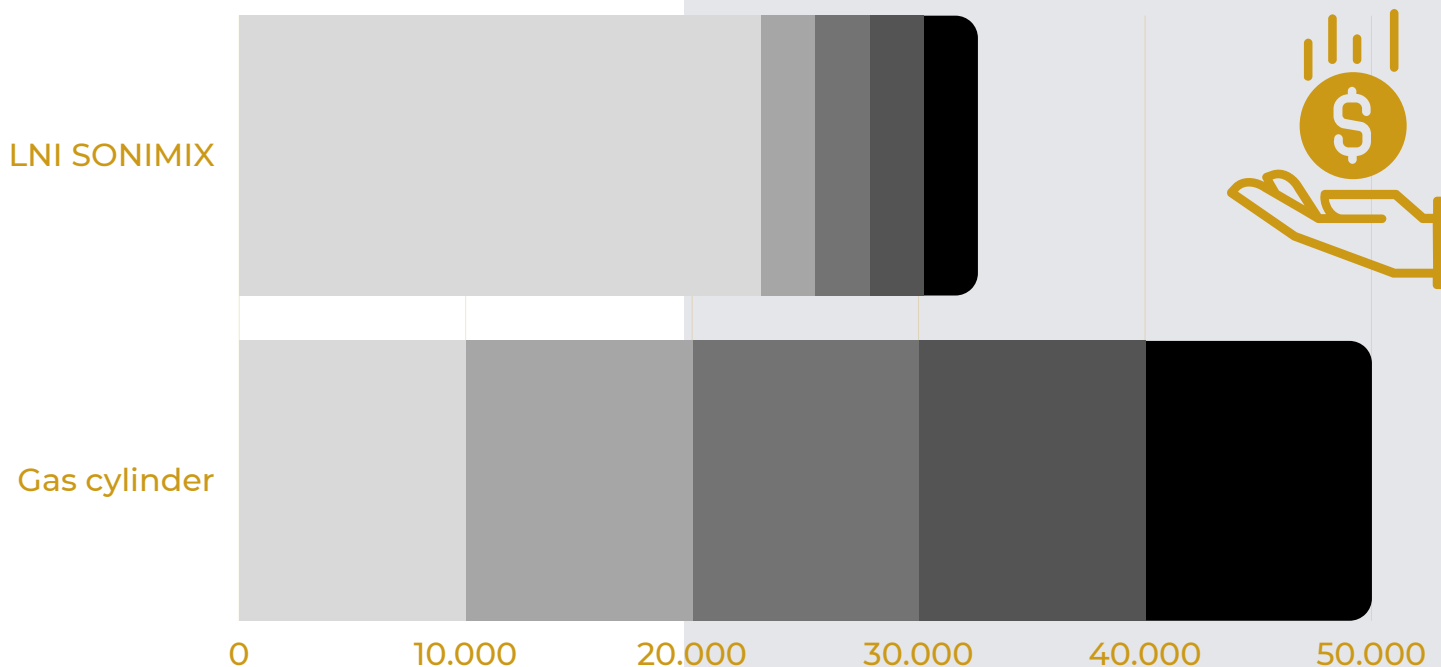


A gas calibration system from LNI has a higher longevity when compared to competing systems.

Let's compare considering :

- 5 years time
- Gas cylinder cost (inclusive rental and delivery)  
**200€ each**
- 25 cylinders consumption every 6 months
- 3 cylinders consumption every 3 months with a gas calibration system.

ROI appears clearly from year 3. A SONIMIX is an investment , it has a higher cost at the purchase but results cheaper at the end of the second year already.



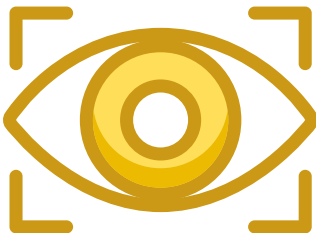
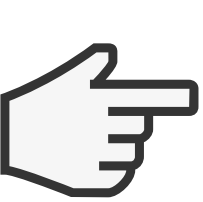
# LNI GAS CALIBRATION SYSTEMS

Discover...

## SONIMIX 2106

Gas mixer.

Product focus



The Sonimix 2106 is a gas mixer mainly used to calibrate and linearize gas monitors and to generate specific gas mixtures. Based on the principle of gas flow through sonic nozzles, it is built according to the ISO 6145/6 standard. The sonic nozzle principle makes it the most accurate and stable device on the market. It generates binary mixtures from 0 to 100% in fixed steps in a pure mechanical process without electronic regulation and without any influence from ambient pressure or temperature.



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