

Our Gas Measurement Solutions for Alternative Fuel Combustion

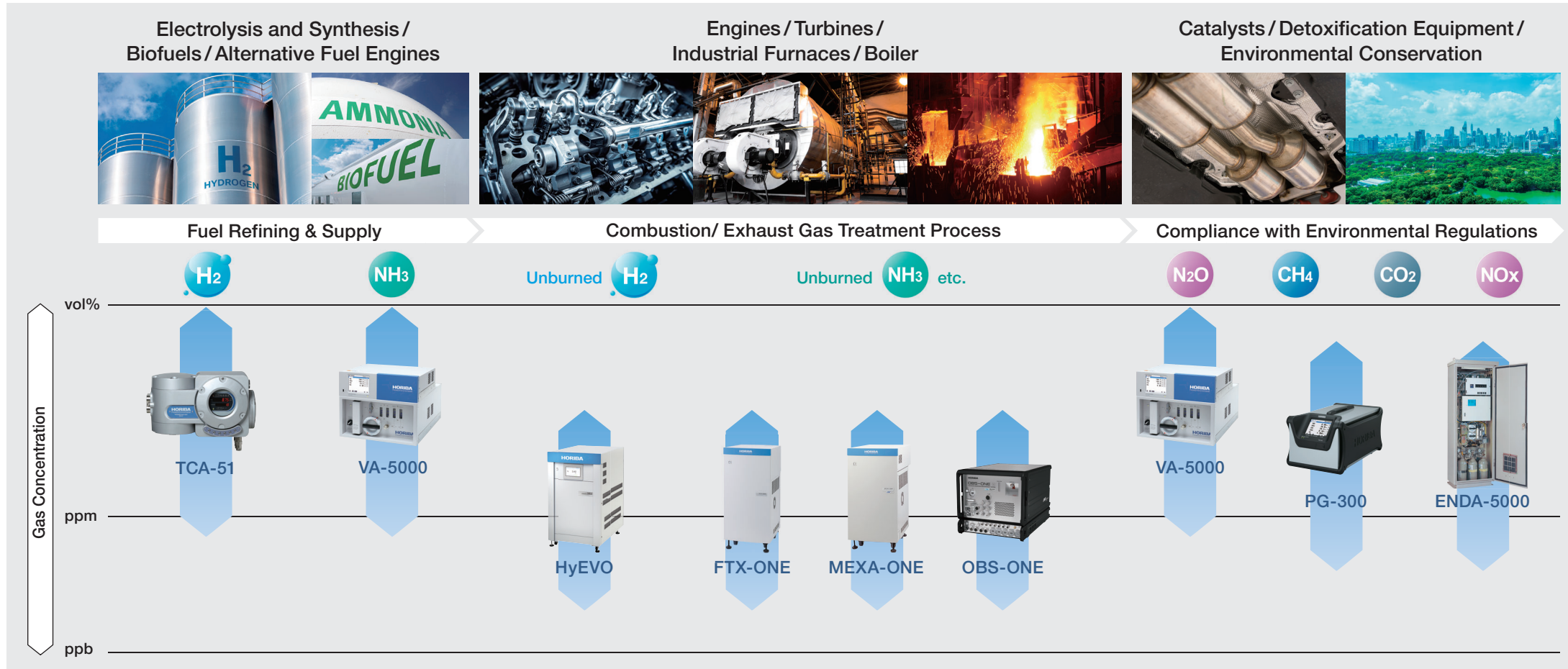
(Mono-fuel combustion, mixed combustion / H₂, NH₃, etc.)

Hydrogen and ammonia are essential energy sources to decarbonization in various fields such as transportation, power generation, and various industries.

Therefore, the implementation of alternative energies is accelerating to achieve carbon neutrality toward 2050.

HORIBA is contributing to the "Carbon Neutrality" effort through our leading-edge measurement solutions.

HORIBA



Highly-sensitive Measurement of Nitrogen Compound Gases

MEXA-ONE IRLAM* Absorption Method Exhaust Gas Measurement System

[WET] [High-Speed Response]

New "IRLAM" technology developed by HORIBA improves robustness, fast response (on the order of msec), and high sensitivity measurement (minimum range: 10 to 20 ppm) for understanding the combustion process.

*IRLAM is the measurement principle of NH₃ and N₂O.

NH₃ NO NO₂ N₂O etc.



Continuous Measurement up to 28 Gases

FTX-ONE-CS/RS FTIR Exhaust Gas Analyzer

[WET] [High-Speed Response]

Continuous and high-speed measurement of concentrations of up to 28 components such as NO, NO₂, N₂O and other nitrogen oxides, NH₃, and H₂O contained in exhaust gas.

NH₃ NO NO₂ N₂O CH₄ CO₂ etc.



FTIR

High-precision, High-resolution Hydrogen Gas Analysis

HyEVO Hydrogen Gas Analyzer

[WET] [Fast Response]

Hydrogen gas analyzer capable of measuring gases containing high humidity with high accuracy and resolution without moisture removal. Response time of less than 1 second is realized, enabling measurement of even transient concentration changes.

NEW



Mass spectrometry

Hydrogen Gas Measurement in the 100% Range

TCA-51 Explosion-proof Gas Analyzer

[Explosion-proof] [DRY]

Continuous measurement of hydrogen gas in various plants with a measurement range up to 100%.



Thermal conduction method

Various Gas Components

VA-5000 Series Multi-component Gas Analyzer

[DRY] [General Purpose]

This gas analyzer meets diverse needs from various types of combustion exhaust gas analysis to support new energy development, and is applicable to various gas component measurement such as NH₃, N₂O, etc.

NH₃ NO_x N₂O CH₄ CO₂ etc.



NDIR

Lightweight, Portable and Compact

PG-300 Series Portable Gas Analyzer

[DRY] [Continuous Measurement]

Portable gas analyzer capable of measuring each component in combustion exhaust gas with high accuracy, also applicable to N₂O and CH₄ measurement.

NO_x N₂O CH₄ CO₂ etc.



NDIR

Continuous Measurement

ENDA-5000 Series Stack Gas Analysis System

[DRY] [Continuous Measurement]

Ideal for monitoring of stationary installations for stable measurement of gases after separation and treatment. We also offer the ENDA-C9000 series for power plants which supports continuous monitoring of NH₃.

NO_x N₂O CH₄ CO₂ etc.



NDIR

Measuring Exhaust Gas during Real Road Driving

OBS-ONE GS/IRLAM Portable Emission Measurement System (PEMS)

[WET] [High-speed Response]

Portable Emission Measurement System (PEMS) for real-driving emissions which measures the gases such as NH₃ and N₂O in the exhaust gas.

NH₃ NO NO₂ N₂O CH₄ CO₂ etc.



IRLAM

For Gas Flow Measurement

EXFM-ONE Ultrasonic Exhaust Flow Meter

Directly measures exhaust gas flow from vehicles and engines using an ultrasonic method. Combined with exhaust gas concentration measurement, the weight of each gas component in the exhaust gas can be calculated in real time.





IRLAM
by HORIBA

IRLAM™ (Infrared Laser Absorption Modulation) is a next-generation infrared gas analysis technology originally developed by HORIBA.



www.horiba.com/en_en/irlam/

IRLAM is a registered trademark or trademark of HORIBA Ltd. in Japan and other countries.

Bulletin: HRE-3783A