

EUROMOT POSITION

REVISION OF EU RULES ON GAS MARKET ACCESS – EUROMOT POSITION ON GAS QUALITY REQUIREMENTS

16 June 2021

EUROMOT has been active over the last 10 years in providing technical arguments for a harmonized gas quality in the European market, which ensures security of supply on the one hand and optimal performance (including safety, energy efficiency and emission performance considerations) of gas appliances on the other hand. EUROMOT believes that such policy objectives can and must be the guiding principles to regulate a more and more decarbonized gas market, too, in keeping with the EU 2030 and 2050 climate objectives.

1. Technical specifications of gas at exit points in the European gas distribution system

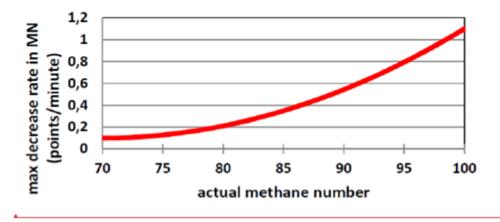
EUROMOT advocates inclusion in European legislation and harmonized standards of the following gas quality requirements at exit points in the gas distribution system. These exit requirements should apply independent of the different types of gas injected into the distribution system.

- Wobbe Index (WI): it should be limited within the following range: 49.0 to 52.7 MJ/m³ (15/15 °C).
- Maximum Rate of Change (RoC) of the WI: it should be limited to 0.5 MJ/m³/min (15/15 °C).
- **Methane Number (MN)**: it should be at least 70 (calculated via the method included in standard EN 16726:2015).
- Maximum RoC of the MN: The acceptable downward swing in MN depends on the initial value of the MN itself. At a maximum, it should be around 1.1 points/minute in the upper range of the MN between 90 and 100, and 0.1 points/minute in the range of the MN between 75 and 70 (see the diagram below, which was included in the Draft Final Report (page 50) of the CEN SFGas GQS: "Recommendations and considerations on Wobbe Index aspects

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related to H-gas").

The acceptable downward swing in MN depends however on the initial value of the methane number (figure A.5).



2. Additional considerations on Hydrogen

Introduction of Hydrogen is one of the main options to decarbonize the EU gas market, but at the same time one of the most distortive in terms of gas quality.

EUROMOT's position on Hydrogen can be summarized in the following key principles:

- General principle: all policies related to the introduction of Hydrogen (either injected in the natural gas grid or in dedicated supply chains) require a clear roadmap to allow technical innovation.
- Most gas engines produced by EUROMOT member companies will be, after some form of upgrade, or are already able to operate on blends composed of up to 20 vol-% Hydrogen. However, some conditions need to be fulfilled:
 - Not all <u>existing</u> engines are already adapted to such a Hydrogen content. The required level of adaptation can significantly vary across the existing engine fleet, therefore case-by-case considerations are needed.
 - Gas suppliers should guarantee that the final blend at exit points complies with the technical gas quality requirements described in paragraph 1: failing this, the performance of gas engines produced by EUROMOT member companies cannot be guaranteed (energy efficiency, emissions performance and safety would be at risk).
 - The Hydrogen content in the blend should remain as stable as possible.
 - Preferably, gas suppliers should provide the end user with a precise real time signal about the Hydrogen content and the calorific value of the final blend. Such a signal facilitates not only safe and efficient operation of gas appliances, but also accurate and transparent billing.
- In parallel, manufacturers are undertaking efforts to provide engines using 100 vol-% Hydrogen in a **dedicated Hydrogen supply chain/grid**.
- Since the combustion behavior of Hydrogen differs considerably from natural gas, **Hydrogen** blends of in between 20 vol-% and 100 vol-% should be precluded.

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For more information please contact:

EUROMOT aisbl - European Association of Internal Combustion Engine Manufacturers Rue Joseph Stevens 7, 1000 Brussels, Belgium Domenico Mininni – Technical and Regulatory Affairs Manager

Phone: +32 (0) 28932140

Email: domenico.mininni@euromot.eu

www.euromot.eu

TVA BE 0599.830.578 RPM Brussels

EU Transparency Register ID number: 6284937371-73

EUROMOT is the European Association of Internal Combustion Engine Manufacturers. It is committed to promoting the central role of the IC engine in modern society, reflects the importance of advanced technologies to sustain economic growth without endangering the global environment and communicates the assets of IC engine power to regulators worldwide. For more than 25 years we have been supporting our members - the leading manufacturers of internal combustion engines in Europe, USA and Japan - by providing expertise and up-to-date information and by campaigning on their behalf for internationally aligned legislation. Taken together, the EUROMOT member companies employ about 200,000 highly skilled and motivated workers. The European market turnover for the business represented exceeds 25 bn euros.

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 $\textbf{EUROMOT aisbl} \cdot \textbf{Rue Joseph Stevens 7} \cdot \textbf{1000 Brussels} \cdot \textbf{Belgium}$

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PRESIDENT

Dr Holger Lochmann

GENERAL MANAGERDr Peter Scherm