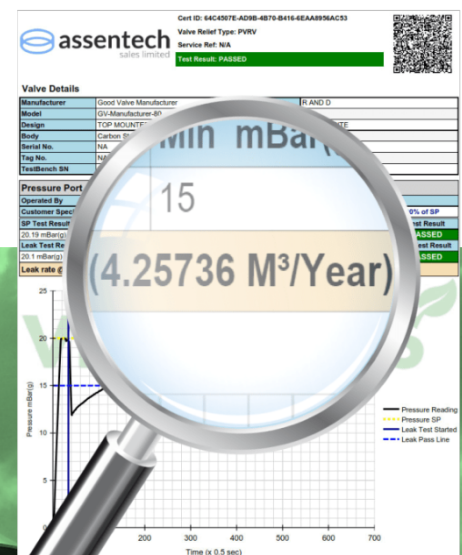


VENT-LESS®

assentech
sales limited

DO YOU KNOW YOUR BREATHER VALVES' LEAK RATES FOR ACCURATE ENVIRONMENTAL REPORTING?



European Regulations and Reporting Requirements for Emissions

1

Industrial Emissions Directive (IED) Directive 2010/75/EU

The IED aims to reduce industrial emissions by requiring companies to use Best Available Techniques (BAT). It covers large industrial installations, including chemical plants.

Key Requirements:

- Obtain integrated permits.
- Implement BAT to limit emissions.
- Regular monitoring and reporting of emissions.
- Compliance with specific emission limit values (ELVs).

2

European Pollutant Release and Transfer Register (E-PRTR) Regulation (EC) No 166/2006

Establishes a Europe-wide register of pollutant releases and transfers.

Key Requirements:

- Annual reporting of emissions to air, water, and land.
- Covers a wide range of pollutants and industrial activities.
- Publicly accessible database.

3

The EU Methane Regulation (EU 2024/1787)

The EU Methane Regulation (EU 2024/1787) aims to significantly reduce methane emissions. It mandates regular monitoring, reporting, and repairing of methane leaks, restricts methane venting and flaring, and requires transparency through public reporting of emissions data. Failure to comply by May 2025 will result in substantial penalties.

Key Requirements:

- **Mandatory Monitoring and Reporting:** Regular monitoring of methane emissions and public reporting.
- **Leak Detection and Repair (LDAR):** Companies must implement programs to detect and repair methane leaks promptly.
- **Limits on Venting and Flaring:** Strict controls on methane venting and flaring, only allowed under specific conditions.
- **Enforcement and Penalties:** **Penalties** for non-compliance, with oversight by national authorities.

4 National Emission Ceilings (NEC) Directive (EU) 2016/228

Sets national emission reduction commitments for certain pollutants.

Key Requirements:

- National plans to limit emissions of SO₂, NO_x, VOCs, NH₃, and PM_{2.5}.
- Reporting of emissions inventories and projections.

5 European Union Emissions Trading System (EU ETS) Directive 2003/87/EC

A cap-and-trade system for greenhouse gas emissions.

Key Requirements:

- Cap on total emissions from covered installations.
- Monitoring, reporting, and verification (MRV) of emissions.
- Annual surrender of allowances equal to verified emissions.

6 Monitoring and Reporting Regulation (MRR) Regulation (EU) No 601/2012:

Details the requirements for monitoring and reporting GHG emissions under the EU ETS.

Key Requirements:

- Accurate monitoring of emissions.
- Submission of verified annual emissions reports.
- Specific methods and standards for emissions calculations.

7 Energy Efficiency Directive 2012/27/EU

Promotes energy efficiency improvements across the EU.

Key Requirements:

- Energy audits for large enterprises.
- Reporting on energy consumption and efficiency measures.

8 Environmental Impact Assessment (EIA) Directive 2011/92/EU

Requires assessment of environmental effects of certain public and private projects.

Key Requirements:

- Detailed environmental assessments.
 - Public participation and consultation.

US Regulations and Reporting Requirements for Emissions

Environmental Protection Agency (EPA) Rules

- **Clean Air Act (CAA):** The primary federal law governing air pollution.
- **EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP):** Sets standards for hazardous air pollutants (HAPs).
- **EPA's Leak Detection and Repair (LDAR) Program:** Require facilities to identify and repair leaks of hazardous air pollutants.

Key Requirements:

- Implementation of LDAR programs.
- Regular inspections and repairs of leaks.
- Accurate record-keeping and reporting of emissions.

Policies and Guidelines

1. **Best Available Techniques Reference Documents (BREFs):** Provide detailed guidance on BAT for various industrial sectors.
2. **European Commission's Communication on Resource Efficiency:** Promotes the efficient use of resources in production and consumption.
3. **The European Green Deal:** Sets the framework for EU policies aiming to make Europe climate-neutral by 2050.



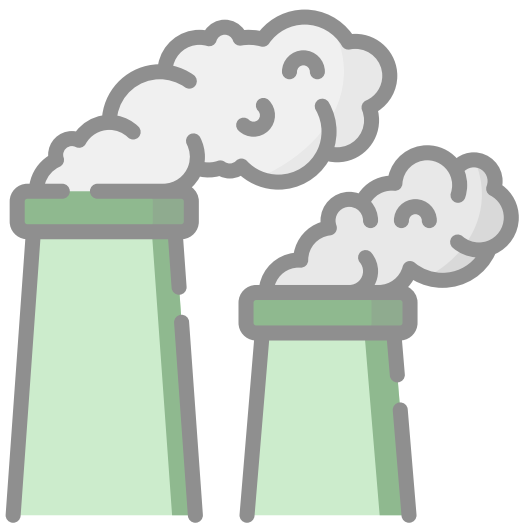
Mandatory Reporting Requirements

Scope 1 Emissions (Direct Emissions)

- Includes emissions from digester valves, which are part of the company's direct operational control.
- Mandatory under the EU ETS and national GHG reporting schemes.
- Requires accurate monitoring, data recording, and annual reporting.

Scope 3 Emissions (Indirect Emissions)

- Includes emissions from sources not owned or directly controlled by the company, such as tank breather valves within the supply chain.
- Although not always mandatory, reporting Scope 3 emissions is increasingly expected under corporate sustainability frameworks like the GHG Protocol and the Carbon Disclosure Project (CDP).
- Involves comprehensive data collection across the value chain.



Vent-Less Test Bench: A Revolutionary Solution for Emission Monitoring and Net Zero Reporting

In the rapidly evolving landscape of environmental regulations and net zero commitments, the Vent-Less Test Bench emerges as a groundbreaking solution for the chemical industry. This innovative technology provides an unmatched capability to measure pre- and post-service leak rates from breather valves, delivering precise and reliable quantification data essential for regulatory compliance and sustainability goals.

Key Features and Benefits

Accurate Leak Detection and Measurement

- **Pre and Post Service Leak Rate Measurement:** Uniquely designed to measure leak rates before and after maintenance, ensuring accurate quantification of emissions at all stages.
- **Precision and Reliability:** Provides highly accurate data, crucial for environmental reporting and compliance with stringent emission standards.

Comprehensive Data Recording for Environmental Reporting

- **Net Zero Reporting:** Enables companies to collect detailed emissions data, essential for net zero reporting and demonstrating progress towards sustainability targets.
- **Regulatory Compliance:** Facilitates adherence to the EU Industrial Emissions Directive (IED), Polish Environmental Protection Law, EPA regulations, and other regulatory frameworks by providing the required emission quantification data.

Best Available Technique (BAT) Recognition

- **Industry Standard:** Recognized as a Best Available Technique, the Vent-Less Test Bench sets the standard for emission measurement technology, aligning with the latest regulatory requirements.
- **Unique and Exclusive Technology:** The only method available that accurately measures leak rates from breather valves, offering a competitive edge in environmental compliance.

Scope 1 and Scope 3 Emissions Management

- **Scope 1 Emissions (Digester Valves):** Direct emissions are monitored and reported with unparalleled accuracy, ensuring compliance with mandatory reporting requirements.
- **Scope 3 Emissions (Tank Breather Valves):** Indirect emissions within the supply chain are quantified, providing a comprehensive view of a company's environmental impact.

Strategic Advantages

- **Defense Against Scrutiny and Legal Actions:** With precise emission data, companies can defend against environmental enforcement, criminal investigations, and litigation claims, reducing the risk of fines and operational disruptions.
- **Enhanced Environmental Performance:** By adopting the Vent-Less Test Bench, companies demonstrate their commitment to reducing emissions and improving their overall environmental footprint.
- **Future-Proofing Operations:** Staying ahead of regulatory changes and market expectations, the Vent-Less Test Bench ensures that companies are prepared for future environmental challenges.

Real-World Impact

For chemical companies striving to meet stringent regulatory demands and achieve net zero targets, the Vent-Less Test Bench offers an indispensable tool. It supports compliance, enhances operational transparency, and improves sustainability reporting, positioning companies as leaders in environmental stewardship.

Conclusion

The Vent-Less Test Bench is more than just a tool; it is a comprehensive solution that empowers the chemical industry to meet and exceed emission standards, fulfill net zero commitments, and lead in environmental sustainability. Embrace this innovative technology to ensure your company is at the forefront of regulatory compliance and environmental responsibility.



**Read More about the
Vent-Less Test Bench**

