

Kawasaki Gas Turbine Europe GmbH

Company Overview

Kawasaki Gas Turbine Europe GmbH (KGE) is the European headquarters of Kawasaki Heavy Industries Ltd., a global engineering and technology group with a long history in energy systems. Based in Bad Homburg, Germany, KGE has been serving the European market since 1998 with gas turbines, gas engines, and integrated energy solutions.

KGE's mission is to provide reliable and efficient power generation while driving the transition toward low-carbon and hydrogen-based energy systems across Europe.

Focus on Hydrogen Technology

KGE is at the forefront of developing and deploying hydrogen-capable gas turbines. The company has already demonstrated safe and efficient operation of turbines running on hydrogen blends. A notable project in Belgium involved converting a GPB17D gas turbine to operate with a 30 percent hydrogen mix while maintaining ultra-low NOx emissions of under 15 ppm.

This achievement marks a significant step toward the company's long-term goal of enabling 100 percent hydrogen-fueled turbines. By investing in hydrogen-ready combustion systems and micro-mix technology, KGE is positioning itself as a leading partner in Europe's decarbonisation journey.

Products and Capabilities

Hydrogen-Capable Gas Turbines

- Output range from 1.7 MW to 34 MW
- Dry Low Emission combustor systems designed for hydrogen blends
- Demonstrated operation with 30 percent hydrogen, progressing toward 100 percent capability
- Suitable for industrial cogeneration, district heating, and base-load energy generation

High-Efficiency Gas Engines

- Models including KG-18-V and KG-12-V with electrical efficiency approaching 50 percent
- Ideal for distributed power generation and facilities with high efficiency requirements

Lifecycle Services

- Turnkey project management, including planning, engineering, and commissioning
- Maintenance, spare parts, and performance upgrades
- Hydrogen retrofits to extend the lifetime and environmental performance of installed assets

Key Strengths

- Proven expertise in hydrogen combustion systems and practical project experience in Europe
- Strong commitment to decarbonisation and energy transition, aligning with EU energy and climate goals
- Extensive global installed base of over 7,800 units, demonstrating trust and long-term reliability
- One-stop solutions provider covering the full lifecycle from design to service
- Local presence in Germany and across Europe with the backing of Kawasaki Heavy Industries' global R&D network

Markets Served

KGE supports customers across diverse industries and sectors:

- Industrial cogeneration for manufacturers seeking sustainable heat and power solutions
- District heating and utilities transitioning to low-carbon operations
- Chemical and processing industries requiring stable, low-emission energy supply
- Energy transition pioneers adopting hydrogen-based solutions