

Dual-fuel conversions: Everllence B&W ME-GI

A Everllence B&W ME-GI retrofit allows your vessel to operate on both traditional fuel oils and LNG, providing significant benefits in terms of fuel flexibility, emissions reduction, and regulatory compliance.

For shipowners and operators to stay competitive, it's vital to find the optimal balance between operational cost savings, environmental compliance, and the ability to adopt cleaner fuels without the need to invest in an entirely new fleet.

An Everllence B&W ME-GI retrofit is the process of upgrading an Everllence B&W ME-C series engine to an Everllence B&W ME-GI dual-fuel engine. The process involves a one-time capital investment. Balancing this with the competitiveness of LNG as a bunker fuel makes it a practical and cost-effective way to maximize asset value.

The retrofit process converts your engine to dual-fuel functionality, allowing it to switch between LNG and traditional fuel oils. This gives you the ability to optimize fuel selection based on availability, cost, and regulatory requirements.

The modular, 'dual-fuel ready' design of Everllence B&W engines allows for future retrofits to operate on ammonia or other e-fuels. This adaptability provides an ideal pathway to meet environmental targets, such as achieving net-zero carbon emissions by 2050.

Everllence B&W ME-GI engines maintain their high power output and low fuel consumption across both LNG and fuel oil operations. Your engine rating will remain unchanged and will not trigger a MARPOL Annex VI Tier upgrade. If needed, however, derating and/or power limitations can be included.

Everllence PrimeServ handles everything, including:

- Research & development
- Engineering
- Procurement
- Delivery
- Installation consultancy
- Test & commissioning consultancy
- Engine recertification
- Project management

We issue full installation documentation during the process, which only requires a minimal drydock period and operational downtime.

LNG fuel

Natural gas is a hydrocarbon gas mixture consisting primarily of methane and higher hydrocarbons like ethane and propane. Transforming natural gas into LNG gives it a significantly smaller volume for export and storage making it an effective, cleaner-burning fuel that can be used for marine propulsion.



ME-GI retrofit

Get greater fuel flexibility with lower emissions

Key benefits

- Refined Everllence B&W engine design with over 4 million running hours
- Flexible operation using fuel oils or LNG/methane
- Significant improvement in overall emission reduction
- Proven concept with several conversions completed successfully
- Compatible with digital connectivity services, such as PrimeServ Assist
- Approx. 190 LNG bunkering ports exist worldwide, with 80 in development

Scope of supply

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Applicable to

The Everllence B&W ME-GI two-stroke retrofit solution is available for most ME-C engines. This solution is typically installed on LNG carriers, PCTCs, VLCCs, tankers, container vessels, bulk carriers, and car carriers.

Main modifications

- Cylinder covers with exhaust valves, fuel and GI injectors
- GI control blocks and adaptor blocks
- GI chain pipes (double-wall pipes)
- Sealing oil system
- New Everllence B&W ME-GI control system
- Fuel valve and exhaust valve actuators
- Updated pipe and cable arrangements
- Gas valve train (GVT)
- PVU (Pump Vaporiser Unit)

More information

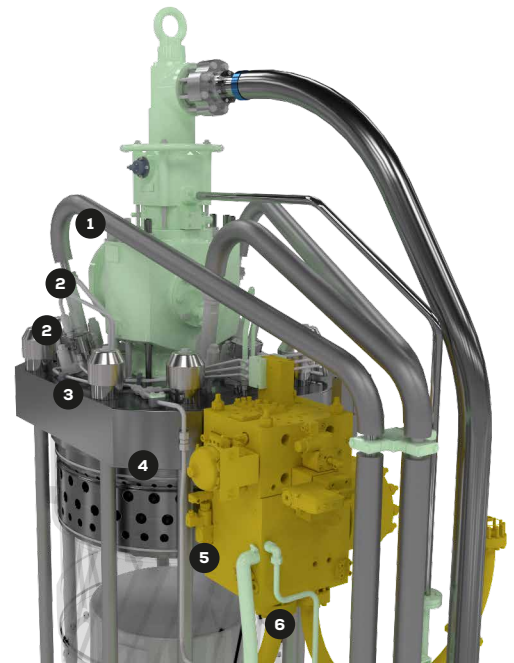
If you would like to know more about how a Everllence B&W ME-GI engine upgrade can improve your operational efficiency and ROI, our experts are on hand to help. Contact your local Everllence PrimeServ office today.

Everllence PrimeServ

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Everllence B&W ME-GI basic principles

- 1 High pressure pipe to pilot injection valve
- 2 Control & sealing oil pipes
- 3 Gas injection valve
- 4 Gas channel in cylinder head
- 5 Gas block
- 6 Double-walled bi-directional pipe



Installation process



MAN Energy Solutions SE has been renamed to Everllence SE and its products are being rebranded from "MAN" and/or "MAN Energy Solutions" to "Everllence". As this is an ongoing process, any reference to "MAN" and/or "MAN Energy Solutions" is actually a reference to "Everllence". All data provided in this document is non-binding. This data serves informational purposes only and is not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions. Copyright © Everllence. EVR 000224EN-250600, GKM CPH