Adaptive Cooling
Everllence Engineering+

Adaptive Cooling is an optimized cooling system for Everllence B&W two-stroke engines with exhaust gas recirculation (EGR). Its piping and valve arrangement controls the amount of cooling water flowing to the scavenge air cooler (SAC) and the exhaust gas recirculation cooler (EGRC), depending on the engine operating mode. It reduces power consumption for coolant circulation, leading to lower fuel consumption and an improved Carbon Intensity Indicator (CII) rating.

Reduces power consumption for coolant circulation

Standard cooling systems use the same amount of freshwater for cooling irrespective of the engine running mode, and thus always consume the same amount of energy. Adaptive Cooling saves energy by adapting coolant water flow to the engine operating mode. This Everllence Engineering+ solution is available for Everllence B&W EGRBP and EGRTC engines.

Adaptive Cooling is one of many Everllence Engineering+ solutions helping you to keep your equipment state-of-the-art, comply with environmental regulations, and advance the decarbonization of your operations.

Less energy needed for coolant circulation

The system adapts coolant flow to the engine running mode, which reduces energy consumption when running in Tier II or turbocharger (TC) cut-out mode.

Reduced fuel consumption

Less electricity is used for cooling purposes, resulting in lower fuel consumption.

Improved CII rating

Reduced energy consumption also has a positive impact on the CII rating.

Everllence

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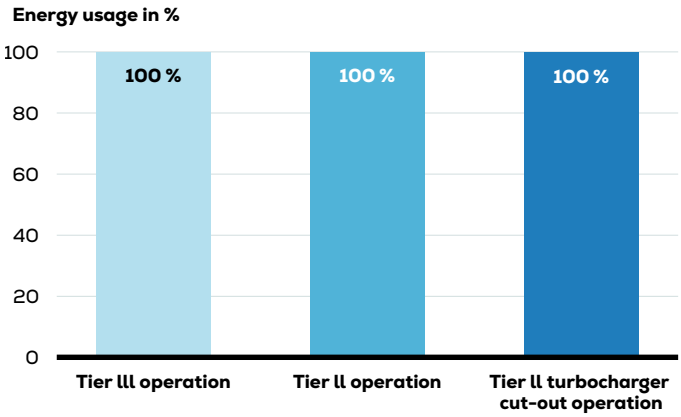
This optimized cooling system for Everllence B&W two-stroke engines with exhaust gas recirculation (EGR) can be added as an Engineering+ solution for all new EGRBP and EGRTC engines.

Adaptive Cooling
helps make your plant more ...

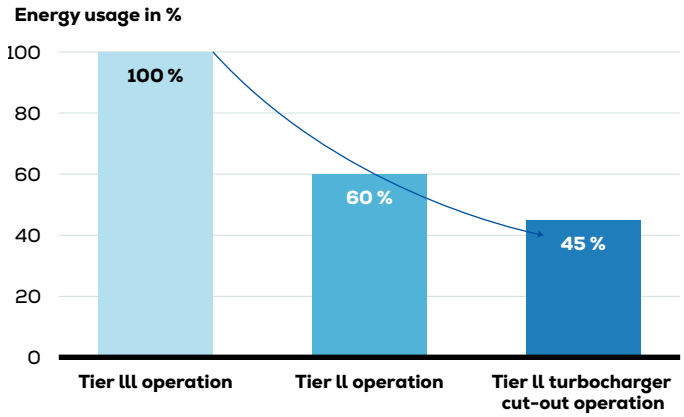
Efficient

Relative energy savings for an EGRTC cut-out type engine

Standard cooling system



Adaptive Cooling



Upgrade your cooling system

Adaptive Cooling uses a specially designed piping and valve arrangement that controls the amount of cooling water flowing to the scavenge air cooler and the exhaust gas recirculation cooler, depending on the engine operating mode (Tier II, Tier III, or turbocharger cut-out mode).

The amount of energy saved when running the engine in Tier II or turbocharger cut-out mode depends on the engine type and size.

As a guiding example, the graphic above compares the relative energy consumption for an EGRTC cut-out type engine.

Application and ordering

Adaptive Cooling is a feature in our Everllence Engineering+ product range and is therefore delivered as an additional selection to the standard engine design. The selection must be specified in the design specification order.

More information

Contact your local Everllence office for more information about the product and how it can improve your specific engine.

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