

Energy Saving, Less Fuel Consumption, GHG (CO<sub>2</sub>) Reduction

# Economizers, Steam Turbines, Auxiliary Boiler Heat Recovery Systems

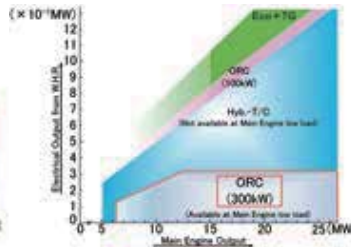
 **MITSUBISHI HEAVY INDUSTRIES MARINE MACHINERY & ENGINE CO., LTD.**

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## WHRS (Waste Heat Recovery System)



## ORC (Organic Ranking Cycle)



Selection chart of Waste heat Recovery (W.H.R.) System

## WHRS (Waste Heat Recovery System)

WHRS is a marine waste heat recovery system that carries out highly efficient power generation onboard ships through effective utilization of energy harnessed from the marine engines' exhaust gas. Exhaust gas energy is effectively recovered through the optimal control of the combination of exhaust gas and steam turbines lowering a ship's fuel costs.

## ORC (Organic Ranking Cycle)

Presently, engine cooling water below 100°C was dumped into the ocean. ORC is compact power generation systems that enable electrical power recovery and power generation using a heat transfer medium with a boiling point lower than that of water, like those used in air conditioners.

Available heat source

100kW···Jacket cooling water with 85°C

300kW···High energy source with Main Engine exhaust gas and or Air Cooler are also utilized to the ORC.

## INQUIRIES

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