



HYBRID PORT PATROL VESSEL

VESSEL DETAILS

Owner	Mokpo Port Company - KOREA
Year Built	2019
Length (LOA)	26.10m - 85.60ft
Beam	5.0m - 16.40ft
Construction	Aluminium
Ship Designer	Shinwoo Industry, KO
Shipyard	Shinwoo Industry, KO
Engines	Diesel 1193kW @ 2300rpm e-Motor 75kW
Class	n/a

HAMILTONJET SUPPLY

Propulsion	2 x HTX52 waterjets
Control System	AVX propulsion control system with Hybrid Interface
Hybrid System	Integration support with Transfluid Hybrid system

PARALLEL HYBRID SYSTEM

The vessel is a 26m patrol vessel driven by twin HTX52 waterjets powered by a hybrid system supplied by Transfluid. Each hybrid powertrain comprised a diesel engine (1193 kW) and an electric machine (75kW) powered by a bank of batteries.

The vessel can operate in the following modes:

- Electric Mode: Vessel powered by electric machine only
- Diesel Mode: Vessel powered by diesel engine only
- Boost Mode: Vessel powered by electric and diesel
- Generate Mode: Vessel powered by diesel engine and uses spare energy to charge the batteries

The Transfluid system was integrated into the AVX control system to allow seamless control of the hybrid system. This has been a cornerstone project in South Korea, as all new government boats built are required to be green vessels due to recent government policy changes.