VESSEL SPECIFICATIONS

Year Built	**1996 (Conversion to Modern Multi-Purpose Vessel in 2026)**
Flag	**Malaysia**
Main Dimensions	
Length Overall	64.4 m
Breadth	15.0 m
Depth	6.5 m
Draught	5.0 m
Capacity	
Gross Tonnage (GT)	2,085 GRT
Work deck	430 m²
Laboratory	90 m²
Performance	
Pull (5 Knots)	41 tonnes
Speed (Max)	14.5 knots
Accommodation	
Single Cabins	6 cabins
Double Cabins	15 cabins
Hospital	1 bed
Manoeuvring / Positioning	
ULSTEIN Poscon Joystick	1 ea
ULSTEIN High Lift Flap Rudders	2 ea
Passive Roll Damping System	1 set
Deck Machinery	
ULSTEIN Combined Windlass/Mooring Winch	6 tonnes
Capstans	6.7 tonnes × 2
Lifesaving Equipment	
MOB-Boat with One-Armed Davit	1 set
Life Rafts	6 × 20 persons
Thrusters	
Bow Thruster (Ulstein)	590 kW × 1
Stern Thruster (Ulstein)	370 kW × 1
Navigation / Communication	
S-band and X-band ARPA Radars	—
Gyro Compass	—
Auto Pilot	Simrad Robertson, AP9 MK2
Echo Sounder	—
GmDSS-A3 (Inmarsat B and C)	—
VHF and UHF Radios	—
ECDIS (Electronic Chart Display System)	PM3D, K-Bridge
Machinery / Propulsion System	
ULSTEIN Main Engines (KRM-8)	1,620 kW × 2
ULSTEIN CP Propulsion System	1,620 kW × 2
ULSTEIN Reduction Gears with Primary PTO...	2 ea
Electric / Power Plant (440V/60Hz)	
Shaft Generators	1,600 kVA × 2
Auxiliary Generators	570 kVA × 1
Emergency Generators	131 kVA × 1
UPS-Clean Power Plant	90 kVA × 2
ULSTEIN Alarm System (UMAS)	1 set



SURVEY SPECIFICATIONS

3D Seismic Equipment	
Sercel Seal Acquisition System	—
ION Spectra Navigation System	—
3D Quality Control System	—
Onboard Seismic Processing System	—
Sercel Sentinel Solid Streamer	480 ch, 6,000 m x 2
Bolt Air Gun	4578 cu. in.
ION Digicourse	—
Streamer Winches	3,000 m × 2
Double Gun Winches	500 m × 2
Streamer Storage Winches	300 m × 2
Compressor for Seismic Exploration	
Hamworthy Marine 3TH90W100B	800 cfm × 2
Hamworthy Marine 4TH565W100	400 cfm × 2
High Resolution Seismic Equipment	
Geometrics	48 ch, group interval 3.125 m
Subbottom Profiling System (3.5 kHz)	10,000 m
K-DAPS	8 ch
Gravity / Magnetic Equipment	
Gradiometer (Gradiometer, Geometrics)	—
Gravimeter (Gravitymeter, LaCoste & Romberg)	—
Marine Geology Equipment	
Precision Echo Sounder (SIMRAD EA500)	12,000 m
Multi-beam Echo Sounder (MBE, Kongsberg EM2040/302)	11,000 m
Sound Velocity Profiling System (XBT)	—
Integrated Navigation System	—
Dark Room	—
Low Temperature Sample Store	—
Piston Corer / Vibrocorer	—
Box Corer	—
Scientific Fish Finder	Simrad EK60
Sea Crane (HMC 1077LK 28-12)	2.8 tonnes at 12.0 m
A-Frame	10 tonnes at 5.2 m
Deep Sea Winch	14Φ × 10,000 m
OBN (OCEAN BOTTOM NODE) READINESS	





RV STAR MARINE

Marine Seismic Multi-Purpose Vessel

The RV Star Marine is a Malaysian-flagged, highly versatile, technically advanced multi-purpose vessel renowned for its pioneering role in marine geophysical exploration and specialized offshore support, having successfully completed CAP certification Rate 2 in September 2026.

The vessel was historically notable as the first research ship designed to combine complex three-dimensional (3D) seismic surveying directly with geotechnical seabed sampling and high-resolution topographic mapping.

Following a distinguished scientific career, the vessel transitioned into commercial offshore operations under her new name, continuing to offer a highly capable multi-role platform for modern maritime infrastructure projects.

Core Multi-Purpose Capabilities

- Seismic & Geophysical Exploration
- Geotechnical & Seabed Sampling
- Hydrographic Seafloor Mapping
- Offshore Survey & Project Support

info@envirosgroup.com

enviros

MAJOR ACHIEVEMENTS & MILESTONES

Major Historical & Operational Achievements

Pioneered Global Survey Design: It was celebrated as the world's first research vessel to combine complex three-dimensional (3D) seismic surveying natively with geotechnical seabed sampling and sonar-driven topographic mapping.

Discovered Strategic Energy Reserves: Conducted extensive 3D subsea mapping campaigns across the Asian continental shelf, playing a decisive role in identifying viable hydrocarbon structures, subsea oil reserves, and extensive gas hydrate deposits in the Ulleung Basin.

Advanced CCS MMV (Measurement, Monitoring, and Verification & 4D Monitoring) : Excels in the deployment of high-resolution 4D subsea monitoring technology, which is integral to the global CO_2 Carbon Capture and Storage.

Legacy of Extreme Operational Reliability and Adaptability to new Geophysical Acquisition Technologies: Logged 27 years of continuous exploration service without critical failures, providing the extensive foundational datasets that directly justified the continuous reliability of the multi-purpose vessel.



3D Seismic Exploration

CCS MMV (Carbon Capture & Storage Measurement, Monitoring and Verification)

Multi-Purpose Seismic, Geophysical & Light Geotechnical Capabilities

HISTORY OF RV STAR MARINE

1996	Constructed at ULSTEIN Shipyard, Norway
1997–Present	Marine geological mapping programs
2004	Marine geophysical surveys for selection of a nuclear waste management facility site
2005–2014	Gas hydrate geophysical exploration research
2006–2012	Petroleum and gas resource exploration around Asia
2006	Development of high-resolution digital marine seismic survey technology
2007–2008	Petroleum and gas reservoir characterization and tight gas field development studies
2009–2011	Shallow marine gas detection and resource assessment research
2010–2011	Deepwater oil and gas field exploration and evaluation technology development

envirosgroup.com

HISTORY OF RV STAR MARINE

2012–2014	Multi-azimuth 3D seismic surveys in the Jeju Basin and reservoir evaluation technology development
2012–2014	Marginal oil and gas field exploration systems and prospect identification technology development
2012–2014	Characterization of modern heterogeneous sedimentary layers and shallow gas field analysis technologies
2015–2016	Development of high-performance offshore seismic exploration technologies
2016–2018	Ulleung Basin gas hydrate research program
2026	Conversion to a Modern Seismic Multi-Purpose Vessel (MPV)
2026	Readiness for OBN (Ocean Bottom Node) Handling



envirosgroup.com

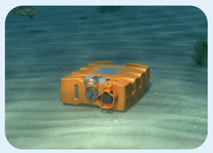
Subsea Geological Resource Exploration Technology

Host Platform for Advanced Seismic Acquisition: The vessel's layout is engineered to handle the complex weight distribution, high-voltage power requirements, and precise deployment tracks required for multi-channel 2D/3D digital seismic streamers and high-volume acoustic airgun arrays.

Its structural design, spacious open aft deck, and stable sea-keeping characteristics provide a seamless pathway to be retrofitted for Ultra-High Resolution (3D UHR) seismic surveys and Ocean Bottom Node (OBN) deployment campaigns.



Equipment Configuration



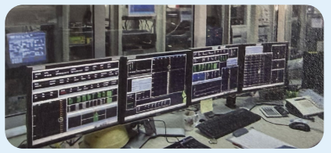
Ocean Bottom Node (OBN)



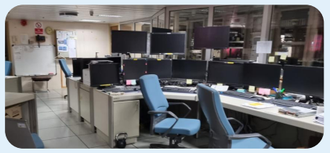
Air Gun



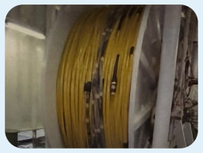
Compressor



Navigation System



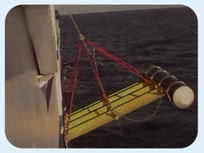
Recording System



Streamer



GPS Buoy



3D Array Device