

USV CHALLENGER

VESSEL SPECIFICATION SHEET



IMR, SURVEY AND ROV SUPPORT VESSEL

The USV Challenger (Uncrewed Surface Vessel) a light intervention, inspection and survey support vessel owned by USV AS, a partnership between DeepOcean, Østensjø Rederi and Solstad Offshore. This vessel provides a low- to zero-emission alternative, equipped with an advanced on-board sensor system that will allow for efficiently carrying out subsea operations, by launching a WROV capable of submerging up to 1500 meters deep. The USV is a cost-efficient asset aimed at significantly lowering clients' overall operational costs.

An outstanding feature of the USV is its autonomy and autoremove voyages of up to at least 14-30 days at sea between port calls. The USV is controlled from a Remote Operations Center (ROC) operated by Remota AS at Killingøy, Haugesund.

The vessel will be approved and certified for both crewed operation within Trade Area 4 (Fartsområde 4) and uncrewed operations on Norwegian sector (economic zone). The vessel has a high degree of redundancy in multiple layers to increase systemic resilience, thus minimizing the risk of downtime.

KEY VESSEL FEATURES

- FULLY REMOTE OPERATED UNCREWED VESSEL
- MULTI-LAYERED REDUNDANT COMMUNICATION SYSTEM
- HIGH-PERFORMANCE ELECTRIC WORK-CLASS ROV
- ACTIVELY GYRO STABILIZED VESSEL
- 492 KWH OF BATTERY POWER
- 1500M WROV UMBILICAL
- NOVEL LARS DESIGN OPTIMISED FOR HIGH SEA STATE
- CERTIFIED FOR 4X CREW WITHIN TRADE AREA 4
- SEASTATE 7 WMO SURVIVABILITY
- 60+ IP CAMERAS
- HIPAP 502
- 1X WATER JET + 2X AZIMUTH

CLASSIFICATION

DNV	1A EO Battery (Power) ER (SCR) Cyber Secure (Essential)
NMA	Cargo ship less than 24 meters Norwegian Ship Register (NOR) (Crewed) - Fartsområde 1-4 (Uncrewed) - Norwegian Continental Shelf (Trade Area North Sea and Baltic)

POSITIONING

DYNAMIC POSITIONING	Maritime Robotics DP and Joystick system (designed for DP2)
REFERENCE SYSTEM	HIPAP 502 Kongsberg HL 3770 Furuno SC-70 Kongsberg Seapath 130-5 (MRU)

NAVIGATION

SITUATIONAL AWARENESS	Maritime Robotics SeaSight X (8 x day, 8 x thermal cameras) Furuno FAR-1518 radar Furuno DRS4D-NXT radar FLIR M364c 8 x CCTV outside dome cameras 34 x internal CCTV cameras
NAVIGATION EQUIPMENT	2 x Simrad GC-80 Gyro Compass Simrad S-3009 Echosounder Simrad SAL R1A Speed Log 2 x Furuno Coastal ECDIS Tron AIS TR-8000 MKII Class A 2 x Deif WSS 750 wind sensor Sailor 7222 VHF DSC Class A GMDSS IHM Flexible-IP (VHF VoIP)

ROV

	156 kW electrical work class ROV Depth rating 3000m Schilling T4 Rigmaster 5F Autonomous mission capabilities ROVins 9 DVL Station Keeping Auto tracking
LAUNCH & RECOVERY	Evotec control system DeepOcean novel design Evotec 6Te SWL electrical winch Automated L&R 1500m umbilical
TOOLING	Torque Tool Cleaning tool CP Probe Gas leak rate sample tool Survey spread Mini fly-out ROV

DIMENSIONS

LENGTH (LOA)	26,9 m
LENGTH BETWEEN PERPENDICULARS	22,4 m
BREADTH	7,5 m
DRAUGHT	2,3 - 2,4 m
LIGHTWEIGHT	284 Te
DEADWEIGHT	Approx. 60 Te

PROPULSION

PROPULSION SYSTEM	Hybrid Diesel-Electric with batteries
MAIN ENGINE	1 x Volvo Penta D16 MH IMO III, PM Generator – 525 ekW / 588 mkW
AZIMUTHS	2 x 375 kW SRP150 LFP SCHOTTEL
BOW THRUSTER	1 x 190 kW PumpJet SPJ57 RD L SCHOTTEL
AUTOMATION & CONTROL	e-SEAMatic BLUE - IAS / PMS / BMS 1000 VDC 3-split main switchboard Shore power connection
BATTERY	Total 490 kWh (5 x 98 kWh)

PERFORMANCE

SPEED MAX	10 kts
ECO SPEED	8 kts
ENDURANCE	14 - 30 d
L&R	3.0 - 4.0 m
SEASTATE	7 WMO SURVIVABILITY

TANK CAPACITIES

FUEL	40,7 m³
UREA	3 m³
WASH FLUID	0,5 m³
WATER BALLAST	20,5 m³
WATER MIST	14 m³

CONSUMPTION

TRANSIT 8 KTS	2,4 m³/day
DP	0,85 m³/day
SHORE	0 m³/day
RANGE	Approx. 3200 nm (8 kts)

ACCOMMODATION

4 pax
Pantry
WC
Shower
Pullman beds
Day room with Pantry