

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 autoremote 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
- 42 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

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|----------------------------|--|
| 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

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|------------------------------|--|
| 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

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|------------------------------|---|
| | 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

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|---------------------------------|--|
| PROPULSION SYSTEM | Hybrid Diesel-Electric with batteries |
| MAIN ENGINE | 2 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

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|------------------|---------------------|
| 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

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|----------------------|---------------------|
| FUEL | 32 m ³ |
| UREA | 3 m ³ |
| WASH FLUID | 0,5 m ³ |
| WATER BALLAST | 17,3 m ³ |
| WATER MIST | 13 m ³ |

CONSUMPTION

| | |
|----------------------|---------------------------------|
| TRANSIT 8 KTS | 2,65 m ³ /day |
| DP | 1,20 - 1,92 m ³ /day |
| SHORE | 0 m ³ /day |
| RANGE | Approx. 3200 nm (8 kts) |

ACCOMMODATION

4 pax
Pantry
WC
Shower
Pullman beds
Day room with Pantry