

DriX

Best-in-class Unmanned Surface Vessel with outstanding sea keeping capabilities and a proven track record in enhancing sea operations efficiency.

The DriX USV has been designed to be operated under the remote supervision of an operator while conducting missions with a high level of autonomy. In its class, DriX provides the best compromise between performance and minimal environmental footprint. The USV has a proven track record in supporting hydrographic, geophysics as well as scientific monitoring or subsea positioning (AUV/ROV operations). It is a highly versatile open platform, accommodating a wide range of payloads inside its underwater gondola, and supporting Line of Sight or Over The Horizon operations through its multi-channel communication infrastructure.



FEATURES

- Best-in-class seakeeping capability and stability up to sea state 5
- Autonomous operation under human remote supervision
- Highly versatile payload conveyance capability. Easy to swap and configure payloads.
- Ultra low fuel consumption and CO2 footprint due to an highly efficient hull design
- Multi-channels communication infrastructure to support Line Of Sight (LOS) or Over The Horizon (OTH) operations
- Underwater gondola for payloads deployment with CFD optimized design ensuring reduced acoustic noise signature and bubble-free environment
- Launch and Recovery System
- Robust composite construction (vacuum infusion) / Kevlar reinforced

ADVANCED AUTONOMOUS

- Advanced autonomy functions based on the CortiX software framework
- User-friendly web-based interface for mission planning and supervision / Highly versatile software deployment method (Cloud or Edge)
- Remote operation supervision
- API provided for interface with third-party SW packages. ROS driven architecture
- Obstacle Avoidance System for enhanced user situational awareness and safer autonomous operation. OAS designed for COLREG compliance

BENEFITS

- Enhanced operating envelop / Reduced down time linked to weather conditions
- Environmental footprint divided by 100 compared to traditional survey launch vessels
- Minimized on-site footprint
- Efficient transportation and field logistic
- Reduced on-site operation crew / Multi-vehicles remote supervision

UNIQUE CAPABILITIES FOR SURVEY AND SCIENTIFIC OPERATIONS

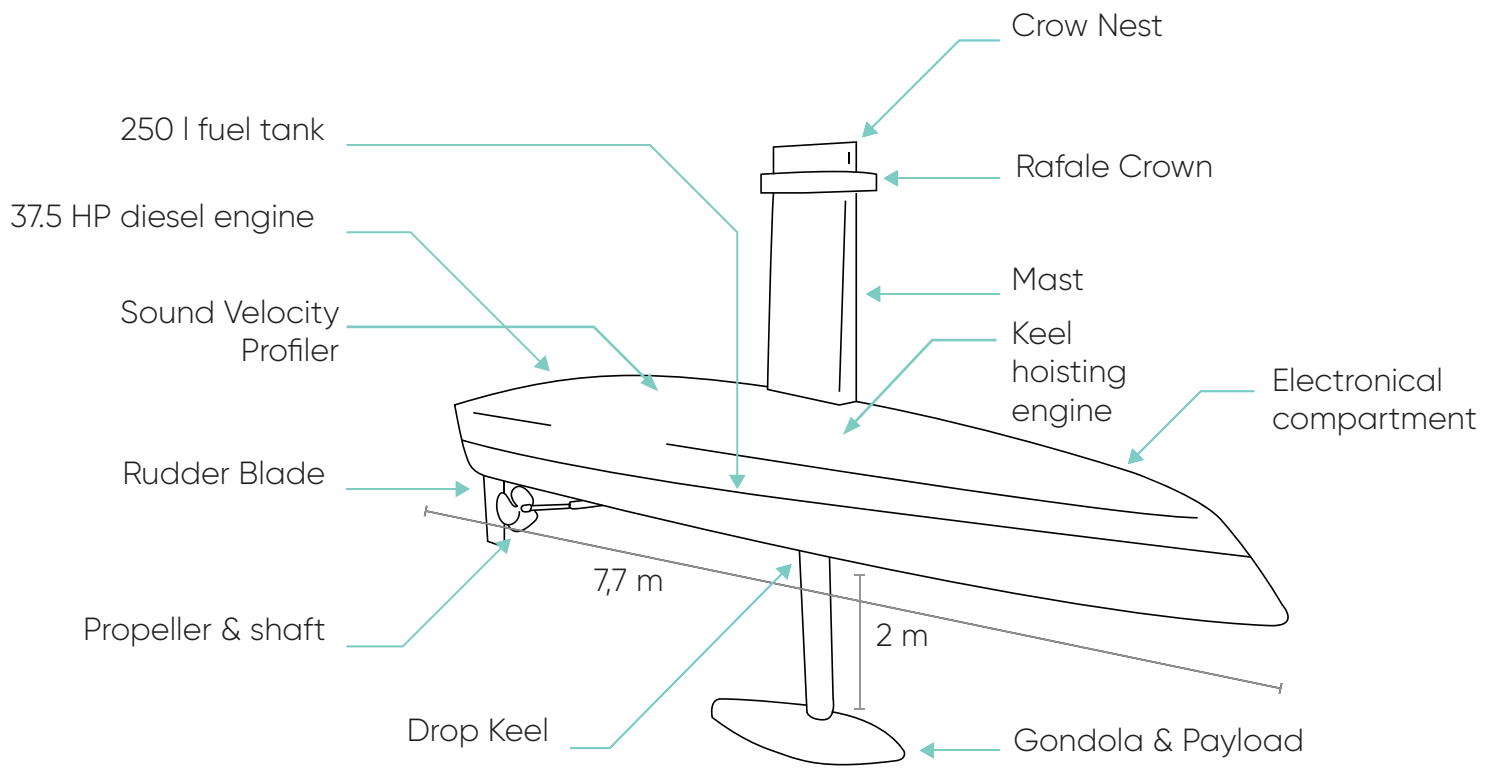
- Survey-grade data quality at high speed (up to 10 knots) / within IHO Exclusive Order standard up to sea state 5
- Highly versatile concept of operation whether as a force multiplier of a traditional vessel or as a standalone vector
- Market leading survey equipment and software interfacing as per user requirements

MULTI-VEHICLES COLLABORATIVE AUTONOMY

- Established track-record in supporting AUV/ROV operations for acoustic communication and positioning. Advanced AUV tracking capability.
- Autonomous ROTV operation (combined with Exail's FlipiX ROTV)
- Multi-DriX collaborative operations

COMPLIANCE AND CERTIFICATION

- First Unmanned Surface Vessel to be certified by both BV and Lloyds
- Vessel construction surveyed by BV / Maltese Cross
- Extensive support provided by Exail's team for authorization process
- Dedicated training course for DriX USV operator certification



SPECIFICATIONS

Displacement	1.7 tons
Beam	0.8 meters
Length	7.7 meters
Speed	14 knots (payload configuration dependent)
Endurance	Up to 10 days (operation speed dependent)
Control	Autonomous operation under human supervision, direct remote control
Communications	Redundant LOS (Wifi and Broadband Radio), OTH (4G, Iridium Certus), smart traffic management
Power for payload	750W (contact us for higher requirements)

PAYLOADS CONFIGURATION

Leading survey or scientific payloads as per customer requirement including:

- MBES
- SBP
- FlipiX ROTV for Side Scan Sonars and magnetometers operations
- SBES
- USBL, LBL
- Acoustic modems
- ADCP, SVP, CTD, turbidimeter, fathometer, hydrophones...
- Lidar
- Radar
- Cameras and optical sensors