



## Aleron Subsea TRACKROV

The Aleron Subsea multipurpose intelligent TRACKROV System was designed for operating at the seabed in high current environments. Providing a stable platform in potentially zero visibility locations the TRACKROV can be guided with the use of multiple survey sensors. It can perform vast array of operations including; obtaining survey and inspection data, operating high powered dredgers, manipulator operations, cutting operations and more.

The system has a depth capability of 3000m with optional deployment methods such as armoured umbilical for deeper water and soft umbilical for shallow excursions.

### TRACKROV Vehicle

#### **Mechanical**

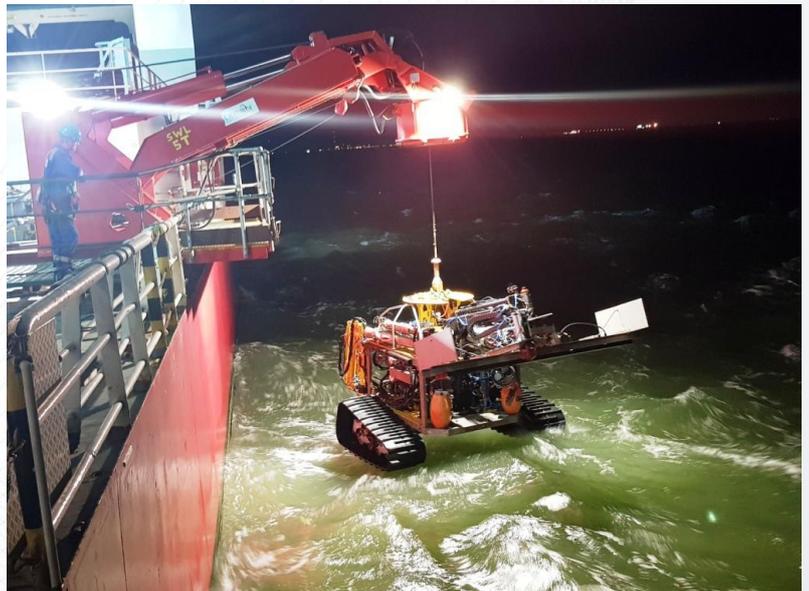
- Docking Bullet
- Weight 2.5 te
- Dimensions (L x W x H) 3.7m x 2.7m x 2.2m stowed or 3m with boom raised
- 300 and 600mm Track Options
- Track Speed 0-8km/h
- Tracktive effort 1500kg

#### **Hydraulic**

- 100 HP, HPU
- Max Flow 198 L/min
- Max Pressure 210bar
- Fully proportional flow and pressure

#### **Electronic**

- Fibre optic control system
- Altimeter
- Depth sensor
- Gyro – Tritech IGC (IFG upgrade available)
- Depth Rated to 3000 MSW
- 4 x LED Lights
- Cameras (3)
- Thruster Control Unit
- 10 Station Valve Pack
- Power/Control Can
- Main J/B
- MUX System; c/w, 12 x RS232, 12 x RS485 serial channels, 3 x 1 gig Ethernet and 6 video channels



## Control Van

- 15-foot Control Van
- Control Station with Joystick and Touch Screen Control Page
- Media Wall; c/w 6 x monitors
- HVTU
- Transformers
- A/C Unit
- Power Distribution Unit
- Lighting
- Power Cable Storage at Front of Control Van
- Forklift Pockets
- Sling Lift Points



## Aleron Subsea Control System

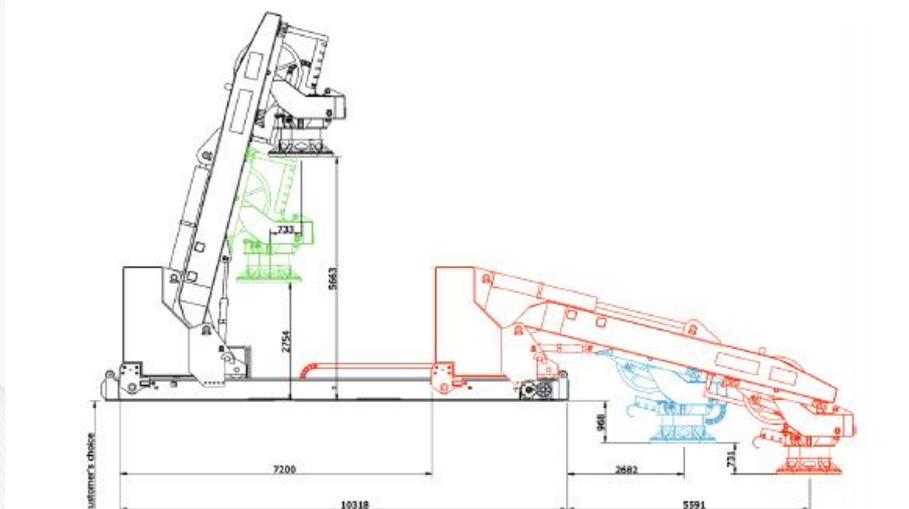
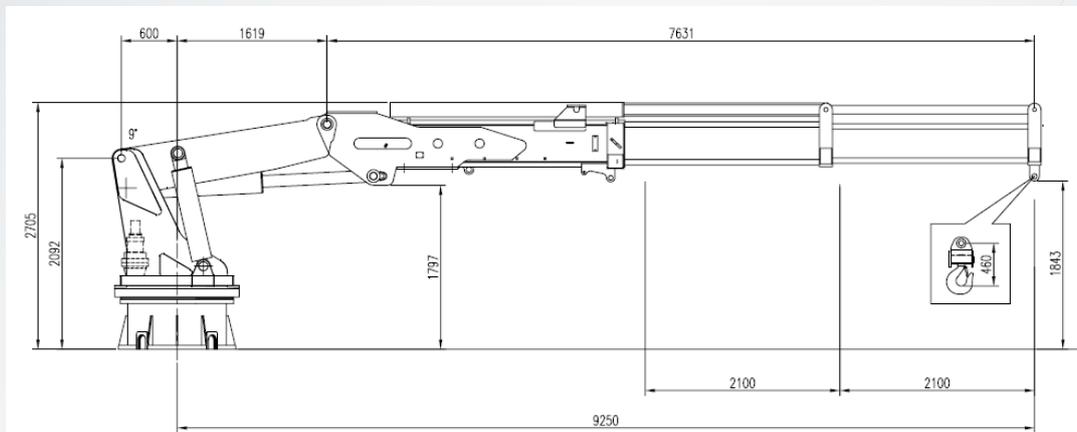
The Aleron subsea control system has been tailored specifically for the TRACKROV application. It can be modified to suit different applications and can be used to control full ROV systems. The system has the following key features:

- Control Console; the console gives the operator full system control through the main control system screen displayed on a touch screen monitor and a build in custom joystick all within a comfortable operating position.
- Custom Joystick; the control joystick is used to power the AUXROV thrusters, a second joystick is used to proportionally control the tracks.
- Aleron Subsea control software. Our software was developed specifically for controlling full work class ROV systems. It is flexible and reliable and utilises the same main control PCB throughout allowing for easy cost effective spares.
- Flying Screen as shown below; complete with full sensor feedback information displayed visually for the pilot to review all key system information



## Deployment

The TRACKROV can be deployed either via the vessel crane or if it's a small vessel a hydraulic marine crane such as an Effer 65000s can be provided for full system independence:



## ROV Winch

An umbilical winch would also be supplied with a sheave for managing the umbilical.

- Weight (excluding umbilical) 6.4te
- Width 2440mm
- Length 3200mm
- Height 2440mm
- Drum Diameter 1070mm
- Drum Flange 1830mm
- SWL Top layer 4.5te
- Max Line Speed 36m/min
- Drive Motor 45Kw
- Current at max load 80A
- Soft or armoured umbilical options



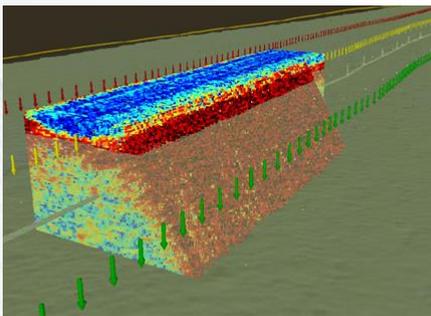
**Applications:**

One of the key applications which led to the development of the TRACKROV was to operate the Pangeo Subsea Sub Bottom Imager (SBI). The Pangeo SBI system has proved itself as a leading tool for target identification. With the rise in renewables UXO identification and removal has become a key operation prior to subsea construction.

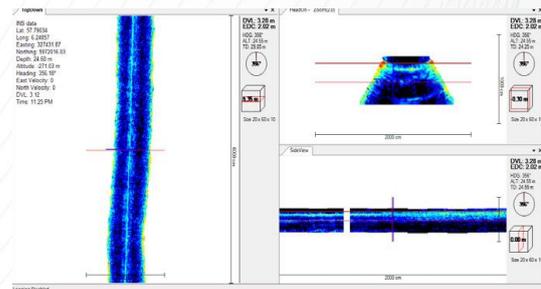
With these sites often being in low tide high current environments one of the challenges is finding an ROV capable of maximising its operational time in these waters. The TRACKROV solves this issue but can also add value by being equipped with large hydraulic dredge pumps for target verification/removal, imaging sonars, manometers and more.

**SBI Features:**

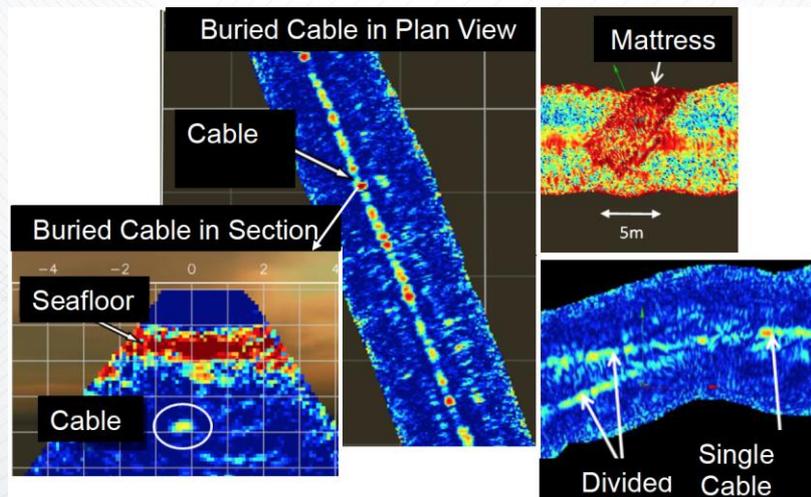
- Acquires continuous 3D Acoustic Volumetric Swath: 5m wide to depths of 5 – 8m
- Applications: Shallow Geohazard Pre-Route Surveys (UXO and Boulders), Depth of Burial, Out of Straightness, Debris and Decommissioning Surveys
- Identifies size, shape, and orientation of buried hazard with 10cm resolution
- Images AC/DC Cables: No Tone or Power required
- Depth of Burial repeatability better than 10 cm accuracy
- Images beyond the 1.5m limitation of other systems
- Verification of Mag. Targets: Reducing required UXO investigations up to 80%



3D Volumetric Swath



Real Time On-Line Viewer



HVDC Cable  
Depth Burial

## Applications;

Once targets are identified the TRACKROV can operate high flow dredge pumps to clear the area around unknown targets to establish whether they are a “real” target or a “ghost” target. This offers a huge time saving in the overall project.

An example of the dredge pumps that can be used is the Subsea Tooling Services 8” MKI Predator Dredger.  
(Note: 4” to 12” options available)

Operational specifications:

Hydraulic Flow	80– 100 Litres per minute
Optimal Hydraulic Pressure	180 – 210 Bar
Gross Water Flow	8500 Litres per minute (Through Ejector)
Removal Capacity Sand m3/h (Tons per hour)	78.2 m3/h (100 tons per hour)
Removal Capacity Rocks m3/h (Tons per hour)	53.2 m3/h (85 tons per hour)
Unrestricted Diameter	200mm
Dimensions of Dredger L x W x H + Weight in Kg	3100mm x 350mm x 670mm 130 Kg
Dimensions of Transit Case L x W x H	2200mm x 850mm x 1000mm
Hydraulic Hoses Supplied	3 x Certified Hose’s 3000mm Long c/w 8 JIC Female Swivel (6 JIC Case)



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*Engineered Subsea Solutions*



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