

ROV Luso



General

Dimensions

Length 2.0m
Width 1.6m
Height 2.2m
Weight 2400kg

Payload

100kg

Frame

Aluminum tube T6062

Pods

Titanium Grade 5

Connectors

SAIV; Seacon, Subcon

Buoyancy

Syntactic foam

Umbilical

6000m Kevlar Armored Umbilical

Deployment method

Free Flying Latch

Launch method

LARS (Launch And Recovery System)

Total Deck weight

35 Tons (ROV, LARS, Workshop, Control room, Generator)



Standard Equipment Fit

Manipulators

1 x 5 function Schilling Rigmaster
1 x 7 function Schilling T4

Cameras

1 x Sony FCBH10 Argus RS Focus Zoom HDTV camera
1 x Sony FCBER8530 Argus RS Focus Zoom 4K camera
1x Kongsberg Still camera 10Mpx+ flashgun
1 x DSPL lowlight B&W camera
5 x DSPL other cameras

Sonar

Mesotech MS1000

Altimeter

Mesotech 1007

Lights

4 x 250W DSPL Halogen
4 x 150W Argus RS HID 1

Pan&Tilt and Tilt

2 x SubAtlantic 24VDC

Depth Sensor

SAIV TD 303

Compass and Gyro

KVH C-100 Fluxgate
KVH DSP 3000 FOG Gyro

Samplers

Up to 9 Push Corers
Suction sampler with 5 chambers
Biologic and geologic sample boxes
4 x 2,5l niskin bottles

Sensors

Teledyne DVL
Contros CH₄ Sensor and CO₂ Sensor
SAIV CTD SD204 with additional sensors: Dissolved Oxygen, UltraViolet Fluormeter (CDOM)
Itronaut CTD with additional sensors: Dissolved Oxygen, Turbidity, pH, Eh, Chlorophyll Fluormeter

Lasers

2 x Imenco green scaling lasers

Auto Functions

Auto Head
Auto Depth
Auto Altitude

Hydraulic Compensators

2 x SubAtlantic 2700cc
4 x SubAtlantic 860cc

Performance

Bollard Pull

Fwd 370kg
Lat 250kg
Vert 300kg

Speed

Fwd 3kn
Vert 1.6knt

Potency

75HP

Thrusters

7 x 5.5kW, 20A, 4 Horizontal, 3 Vertical

Surface Controls

Control Container

1 x 20" feet Control container (5 Tons)

Transformers

1x 440VAC, 60kVA, 400Hz system (needs to be stable)
1x 60kVA 3300VAC
UPS 30kVA

Power panel Inputs

440V (3-phases)
400V (3-phases)
230V (single phase)
230V (single phase)
400V (3-phases)

Outputs

Interface panel

Available connectors

4 serial
6 fiber optics
5 LAN

Control console

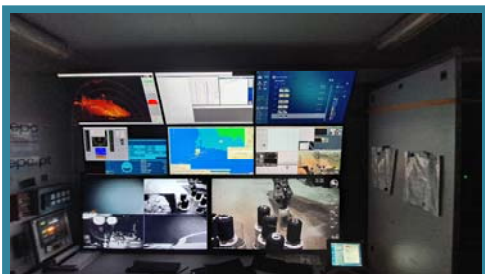
Integrated joysticks and touch screen in pilot chair
6 x 32" 4K HDR10 monitors + 2 x 50" 4K TV's
19" inch rack
Options Video Overlay
FinalCut for Editing (HD or 4K)
Atomos Shogun Studio 2 recording system

Power generator

Manipulator Control Console
4 x 2.435 x 2.571 m (L x W xH) (5 Tons)
150kVA, 120kW, 400V+N (3-phases), 50 Hz
Fire detection system
Remote control
CCTV system

Workshop container

1 x 10" feet Workshop container (4



Positioning system

| | |
|----------------------------|--------------------------------------|
| <u>Type</u> | Hipap 352P |
| <u>Transceiver Model</u> | Hipap352P-H, position accuracy 0.14° |
| <u>Transponder Model</u> | cNode MiniS 37-40V-Ti |
| <u>Input from the Ship</u> | GPS and Heading |

INS system

| | |
|---------------------------|--|
| <u>Type and model</u> | iXblue ROVINS Nano resolution of 0.01degrees |
| <u>Input from the ROV</u> | USBL, DVL |

Multibeam system

| | |
|------------------------------------|---|
| <u>Type and model</u> | Norbit WBMS |
| <u>Swath coverage</u> | 5-210 degrees flexible sector |
| <u>Operating Frequency</u> | nominal frequency 400kHz Frequency agility 200kHz-700kHz |
| <u>Range Resolution</u> | <10mm (Acoustic w. 80kHz bandwidth) |
| <u>Resolution (Across x Along)</u> | Standard: 0.9° x 1.9° @400kHz and 0.5° X 1.0° @700kHz Narrow option: 0.9° X 0.9° @400kHz and 0.5° X 0.5° @700kHz |

Launch And Recovery System

| | |
|---|----------------------------------|
| <u>Winch power input</u> | 440 VAC / 45 kVA - 3 phases |
| <u>Dimensions</u> | 7.00 x 2.90 x 5.53 m (L x W x H) |
| <u>Weight</u> | 21 ton (umbilical included) |
| <u>Capacity</u> | 6100 of 25.7mm umbilical |
| <u>Winch velocity</u> | 75 m/min mid drum 11rpm |
| <u>Water input to cool hydraulic system units</u> | |

Power Requirements

| | |
|-----------------------------|---|
| <u>ROV power unit</u> | 440 VAC, 3-phase, 60kVA, 80A (needs to be stable) |
| <u>Hydraulic Power Unit</u> | 2 x 5.5kW, 15lpm, 180bar |

Umbilical

| | |
|------------------------------|---|
| <u>Type</u> | Nexans Kevlar Armored |
| <u>Length & Diameter</u> | 6 100m x 25.7mm |
| <u>Breaking strain</u> | 125kN |
| <u>SWL</u> | 23kN |
| <u>Cores</u> | 3 x power 8mm ² 12 x SM 9/125µm |

