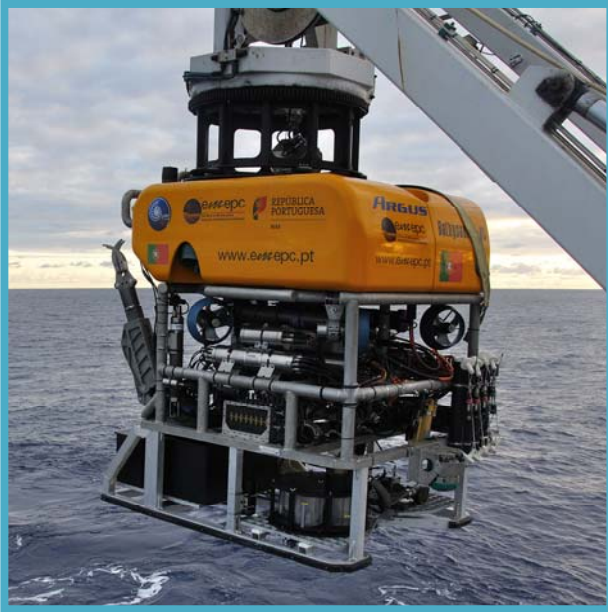


# ROV Luso



## General

### Dimensions

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

### Payload

100kg

### Frame

Aluminum tube T6062

### Pods

Titanium Grade 5

### Connectors

Titanium Grade 5

### 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 CH<sub>4</sub> Sensor and CO<sub>2</sub> Sensor  
SAIV CTD SD204 with additional sensors: Dissolved Oxygen, Fluorescence, Turbidity  
Idronaut CTD with additional sensors: Dissolved Oxygen, Turbidity, pH, Redox Potential

### 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  
Apple Computer Recording System (HD or 4K)

#### 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 Tons)

## Positioning system

<u>Type</u>	LinkQuest USBL
<u>Transceiver Model</u>	TrackLink 10000HA, accuracy of 0.25degrees
<u>Transponder Model</u>	TN10010C and TN10015C
<u>Input from the Ship</u>	VRU, GPS and Compass

## 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 &amp; Diameter</u>	6 100m x 25.7mm
<u>Breaking strain</u>	125kN
<u>SWL</u>	23kN
<u>Cores</u>	3 x power 8mm <sup>2</sup> 12 x SM 9/125µm

