



The Tortuga ROV

is a 500m depth rated underwater inspection robot. Each one of the 4 horizontal thrusters develops a 20 kgf thrust and is fitted with an unique azimuthal control system that allows operating the ROV in strong current conditions up to 4 knots, regardless of the direction.

Thanks to its unrivalled 1,8 thrust to weight ratio and its fully integrated acoustic imaging solution, Tortuga is the ultimate vehicle for underwater inspections in harsh operational conditions (low visibility, strong currents, long range inspections, etc.).





THRUST

Tortuga is powered by 4 horizontal thrusters with azimuthal control developing each a 20kgf thrust. It offers the highest thrust to weight ratio on the inspection class ROV market.



COMMUNICATION

Thanks to an innovative communication protocol, the ROV tether has a reduced diameter (10mm) to minimize drag and optimize inspection range.



HYDRODYNAMIC DESIGN Tortuga's innovative form factor inspired from AUV design allows enhanced navigation capabilities and increased inspection range.

TECHNICAL SPECIFICATIONS

GENERAL ROV

Depth rating	500m
ROV dimensions	L 926mm x W 469mm x H 461mm
ROV weight	40kg in air / neutral in water
ROV max. speed	5 knots (max. operational current. 4 knots)

PROPULSION AND POWER SUPPLY

Thrusters	4 horizontal thrusters with azimuthal control (20 kgf per thruster) and 2 ver- tical thrusters (8,5 kgf per thruster)
Power supply	External power 220 VAC (110 VAC on demand). Transformer 660 VAC
Power requirement	6500 W

SYSTEM CONTROL

Piloting	Console integrated in a waterproof case 625mm x 500mm x 218 mm
Display	2 integrated 17" PC screens, swit- chable for video, sonar, other sensors
Control	2 x multi-function joysticks and touchpad
Recorder	Data saved on integrated PC
Auto functions	Dynamic positioning, heading, depth, speed
Video output	HDMI

INTEGRATED SENSORS

Front/Rear camera	Full HD video cameras 1080p, 0,1 lux
Pan & Tilt	Pan & Tilt unit integrated on front camera, optional on rear camera
Rangefinder	Laser rangefinder system integrated on rear camera
Lighting	Front : 2 x 1500 lumens, Rear : 2 x 1500 lumens, intensity control
INS	SBG Ellipse 2 series
Sensors	Compass, depth, temperature, leak detector (internal moisture level)

TETHER

Standard	300m buoyant (diam. 10mm), breaking strenght 250kg. Extensions up to 6000m
Communication	Broadband over Power Line (BPL)
Optic fiber option	Lengths up to 6000m

PACKAGING

Case 1	ROV
Case 2	Control consol + power supply
Case 3	Umbilical tether + winch

MAINTENANCE AND WARRANTY

Documentation	Operator manual in soft and hard version
Maintenance	No specific maintenance needed
Warranty	1 year spares and labour

OPTIONS

Option interface	Quick fastening system and ancillary plug for easy sensor integration (300W max.)
Imaging sonar	2D Teledyne Blueview M900 or Blue- Print Oculus multibeam sonars
Mechanical sonar	Tritech Micron DST or equivalent
Acoustic posit.	BluePrint SeaTrac USBL
Thickness meas.	Cygnus US gauges
CP meas.	Buckleys CP probes
Phys-chem meas.	Salinity, pH, turbidity probes, etc.
Manipulator	2 functions manipulator arm
Samplers	Water and sediments
Defect meas.	Laser pointer tool with software
Video enhancement	LYYN Hawk Board
Wifi link	Video transmission on external screen
Support contract	Annual maintenance contract

