

# Inspection class ROV Tortuga<sup>STD</sup>



Up to 4 knot current



Azimuthal thrust 4 x 17kgf



Compact and lightweight



Depth rating 500m



**SUBSEA TECH**  
Marine and Underwater Technologies

## The Tortuga<sup>STD</sup> ROV

is a 500m depth rated underwater inspection robot. Each one of the 4 horizontal thrusters develops a 17 kgf thrust and is fitted with a 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 1.5 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 17kgf 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 (9.5mm) 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

<b>Depth rating</b>	500m
<b>ROV dimensions</b>	L 996mm x W 430mm x H 461mm
<b>ROV weight</b>	45kg in air / neutral in water
<b>ROV max. speed</b>	5 knots (max. operational current. 4 knots)
<b>Payload</b>	15kg

## PROPULSION AND POWER SUPPLY

<b>Thrusters</b>	4 horizontal thrusters manually adjustable (Lite) or with azimuthal control (17kgf per thruster) and 2 vertical thrusters (10 kgf per thruster)
<b>Power supply</b>	External power 400/230 VAC
<b>Surface power requirement</b>	10 kVA

## SYSTEM CONTROL

<b>Piloting</b>	Console integrated in a waterproof case 625mm x 500mm x 218 mm
<b>Display</b>	2 integrated 17" PC screens, switchable for video, sonar, other sensors
<b>Control</b>	2 x multi-function joysticks and touchpad
<b>Recorder</b>	Data saved on integrated PC
<b>Auto functions</b>	Heading, depth, up/down
<b>Video output</b>	HDMI

## INTEGRATED SENSORS

<b>Front/Rear camera</b>	Full HD video cameras 1080p, 0.001 lux
<b>Pan &amp; Tilt</b>	Pan & Tilt unit integrated on front and rear camera
<b>Lighting</b>	Front : 2 x 10,000 lumens, Rear : 2 x 10,000 lumens, intensity control
<b>INS</b>	SBG Ellipse 2 series
<b>Sensors</b>	Compass, depth, temperature, leak detector (internal moisture level)



## TETHER

<b>Standard</b>	300m buoyant (diam. 9.5mm), breaking strength 500kg. Extensions up to 600m
<b>Communication</b>	Power Line Communication (PLC)
<b>Fibre optic option</b>	Lengths up to 3000m

## MAINTENANCE AND WARRANTY

<b>Documentation</b>	Operator manual in soft version
<b>Maintenance</b>	No specific maintenance needed
<b>Warranty</b>	1 year spares and labour


## OPTIONS

<b>Acoustic camera</b>	2D imaging sonars BluePrint Oculus, Teledyne Blueview M900 or equivalent
<b>Scanning sonar</b>	Tritech Super SeaPrince or equivalent
<b>Profiling sonar</b>	Imagenex 831A, Imagenex DT360, Teledyne BlueView T2250
<b>USBL positioning</b>	BluePrint SeaTrac, Applied Acoustics Easytrak, etc
<b>DVL</b>	WaterLinked A50, Teledyne WayFinder
<b>SBP</b>	Tritech SeaKing Split-head
<b>Side Scan Sonar</b>	Starfish 4530EM, EdgeTech 2205, etc.
<b>Thickness meas.</b>	Cygnus WT gauge
<b>CP meas.</b>	Buckleys CP contact probe
<b>FMD</b>	Cygnus FMD probe
<b>3D photogram.</b>	IVM Hydro 300
<b>Phys-chem. meas.</b>	Salinity, pH, turbidity, etc. probes
<b>Manipulator</b>	2 to 5-function manipulator with interchangeable jaws
<b>Cleaning tools</b>	Rotating brush, cavitation lance and rotor
<b>Laser meas.</b>	Laser pointer system with defect sizing software
<b>Auto navigation</b>	Waypoint navigation, Dynamic positioning

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