Inspection class ROV Tortuga STD



Up to 4 knot current





Compact and lightweight

4

Depth rating 500m

SUBSEATECH Marine and Underwater Technologies

The Tortuga^{STD} 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 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 1.5 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

Depth rating	500m
ROV dimensions	L 996mm x W 430mm x H 461mm
ROV weight	37.5 kg in air / neutral in water
ROV max. speed	5 knots (max. operational current. 4 knots)
Payload	15kg

PROPULSION AND POWER SUPPLY

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

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	Heading, depth, up/down
Video output	HDMI

INTEGRATED SENSORS

Front/Rear camera	Full HD video cameras 1080p, 0.001 lux
Pan & Tilt	Pan & Tilt unit integrated on front and rear camera
Lighting	Front : 2 x 10,000 lumens, Rear : 2 x 10,000 lumens, intensity control
INS	Xsens MTi-3
Sensors	Compass, depth, temperature, leak detector (internal moisture level)

TETHER		
Standard	300m buoyant (diam. 9.5mm), breaking strenght 500kg. Extensions up to 600m	
Communication	Power Line Communication (PLC)	
Fibre optic option	Lengths up to 3000m	
MAINTENANCE AND WARRANTY		
Documentation	Operator manual in soft version	
Maintenance	No specific maintenance needed	
Warranty	1 year spares and labour	
OPTIONS		
Acoustic camera	2D imaging sonars BluePrint Oculus, Teledyne Blueview M900 or equivalent	
Scanning sonar	Tritech Super SeaPrince or equivalent	
Profiling sonar	Imagenex 831A, Imagenex DT360, Teledyne BlueView T2250	
USBL positioning	BluePrint SeaTrac, Applied Acoustics Easytrak, etc	
DVL	WaterLinked A50, Teledyne WayFinder	
SBP	Tritech SeaKing Split-head	
Side Scan Sonar	Starfish 4530EM, EdgeTech 2205, etc.	
Thickness meas.	Cygnus WT gauge	
CP meas.	Buckleys CP contact probe	
FMD	Cygnus FMD probe	
3D photogram.	IVM Hydro 300	
Phys-chem. meas.	Salinity, pH, turbidity, etc. probes	
Manipulator	2 to 5-function manipulator with inter- changeable jaws	
Cleaning tools	Rotating brush, cavitation lance and rotor	
Laser meas.	Laser pointer system with defect sizing software	
Auto navigation	Waypoint navigation, Dynamic posi- tioning	





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