

Inspection class ROV

Tortuga^{XP4}



Up to 4 knot current



Azimuthal thrust
4 x 17 kgf



30 kg payload capacity



Depth rating 500 m



SUBSEA TECH

Marine and Underwater Technologies

The Tortuga^{XP4} ROV

is a 500 m 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 4 vertical thrusters, the Tortuga^{XP4} offers a payload capacity of 30 kg allowing the simultaneous integration of numerous sensors and bulky accessories. Its unrivalled thrust to weight ratio and its fully integrated acoustic imaging solution are making Tortuga^{XP4} the ultimate vehicle for underwater inspections in harsh operational conditions (low visibility, strong currents, long range inspections, etc.).



THRUST

Tortuga^{XP4} is powered by 4 horizontal thrusters with azimuthal control and 4 vertical thrusters for pitch and roll control.



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^{XP4} 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 1071 mm x W 568 mm x H 600 mm
ROV weight	50 kg in air / neutral in water)
ROV max. speed	5 knots (max. operational current 4 knots)
Payload	30 kg

PROPULSION AND POWER SUPPLY

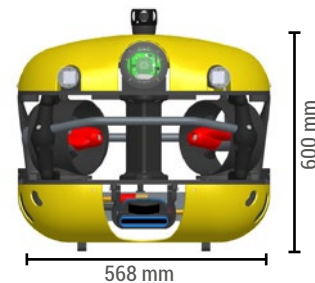
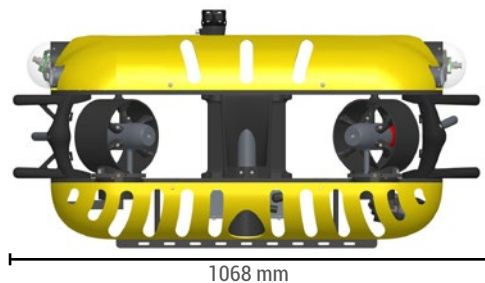
Thrusters	4 horizontal thrusters manually adjustable (17 kgf per thruster) and 2 vertical thrusters (10 kgf per thruster)
Power supply	400 3phases / 230 VAC as an option
Surface power requirement	10 kVA

SYSTEM CONTROL

Piloting	Console integrated in a waterproof case 625mm x 500mm x 218 mm
Display	2 integrated 17" PC screens, switchable 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 0.001lux
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 MTi3
Sensors	Compass, depth, temperature, leak detector (internal moisture level)



TETHER

Standard	300m buoyant (diam. 9.5mm), breaking strength 500kg. Extensions up to 500m
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 interchangeable jaws
Cleaning tools	Rotating brush, cavitation lance and rotor
Laser meas.	Laser pointer system with defect sizing software
Auto navigation	Waypoint navigation, Dynamic positioning

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