

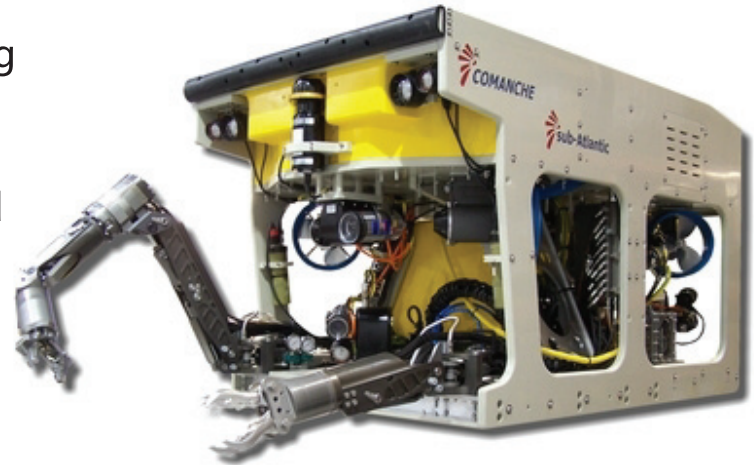
# MRE-ROV



Fully electric Observation Class ROV configured for high thrust and lifting capability.

Great for long tether excursions and deep Free Swimming Operations.

Additional hydraulic power unit for underwater operations using manipulators.



## Technical Specifications for Comanche ROV

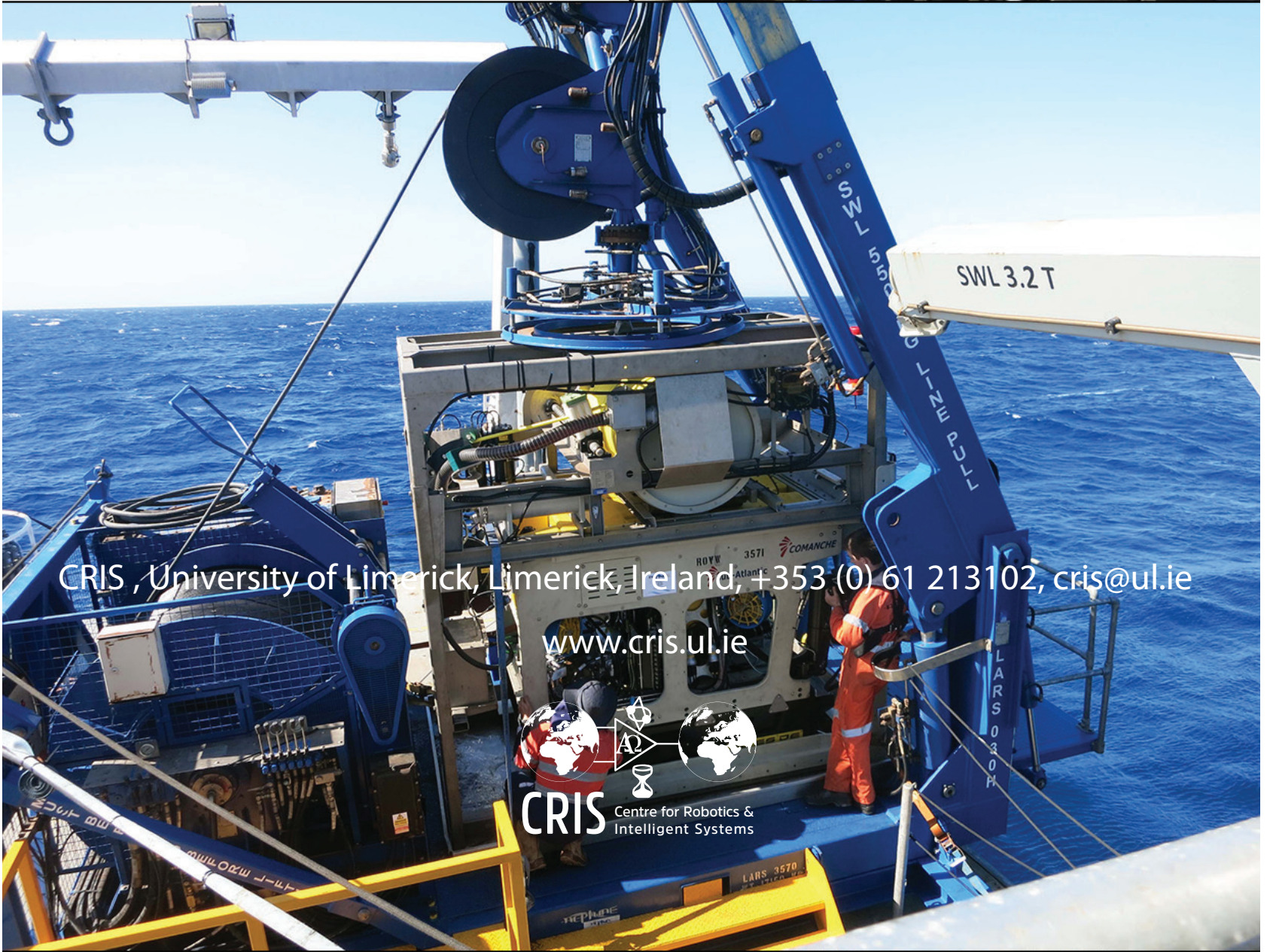
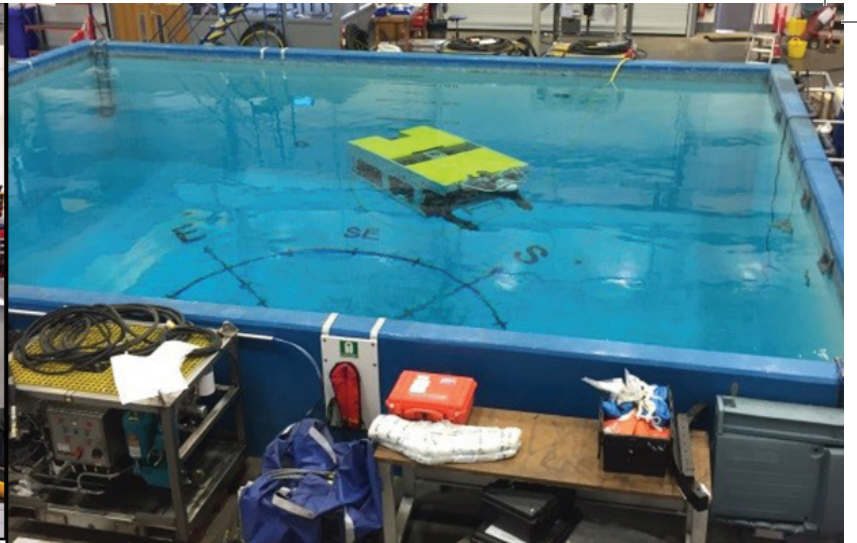
Base Vehicle	
Chassis	Marine grade Aluminium frame with skid expansion
Max Payload	285kg
Max operating depth	2000m depth rating (LARS/TMS operations); 600m Free Swimming
Thrusters	Seven 100 kgf / 220 lbf Brushless DC Thrusters using Statorshield™ Technology (4 horizontal, 3 vertical)
Weight in Air	1130kg
Forward speed (max)	2 m/s / 4 Knots
ROV Power supply	35kW, 3000V 400Hz
Embedded control & acquisition system	SubCAN Control System with MMRRC software OceanRINGS
Fibre/media converters	4 Pass Fibre Optic Connection with Focal CWDM

LARS/TMS Operations & Free Swimming Winch	
Length	2200m LARS Umbilical; 400m TMS tether 600m neutral Free Swimming tether
TMS frame	Type 3B Garage 316L Stainless Steel Frame

Instruments & Payload Sensors	
Multibeam sonar	Reson SeaBat 7125/7128 multibeam echosounder system
Forward Looking Sonar	Tritech SeaKing Dual Frequency Scanning Sonar
Sound velocity probe	Valeport UV-SVP (temperature & SVP)
Depth & altitude	Tritech PA500
Doppler Velocity Log	Nortek DVL 500kHz
GNSS (surface)	Applied Acoustics 106G RTK GNSS
Inertial navigation	iXBlue PHINS 6000 (High precision fibre optic INS)
Cameras	1 x Bowtech Explorer Pro (4000m) - Low Light monochrome Camera 3 x Sub-C 1Cam MK6 UHDF w/LiquidOptics – UHDF Colour Zoom Wide Angle Camera
Lights	4 x Bowtech 3200 LED Dimmable LED Light (3000m) 3 x Sub-C Lights for HD Cameras
Safety Systems	Novatech RF-700AR – VHF Beacon – Battery & Remote Antenna Novatech ST-400AR Xenon Flasher – Battery & Remote Flash Lamp
Manipulators	2 x Schilling Orion 7P
Hydraulic Power Unit	10kW HPU (13.4 HP, 207 BAR), Inc CARDEV filter

ROVs for inspection and intervention in MRE

For more information visit: [www.cris.ul.ie](http://www.cris.ul.ie)



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