

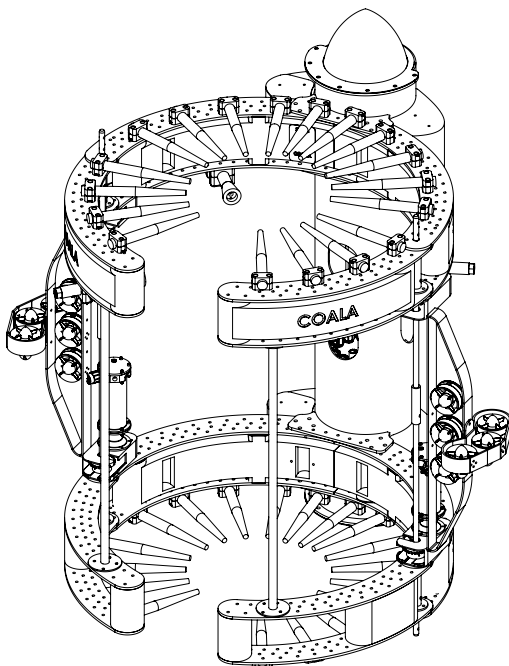


The Robotic COALA

Developed to remove marine growth on deep-water risers and other tubulars.

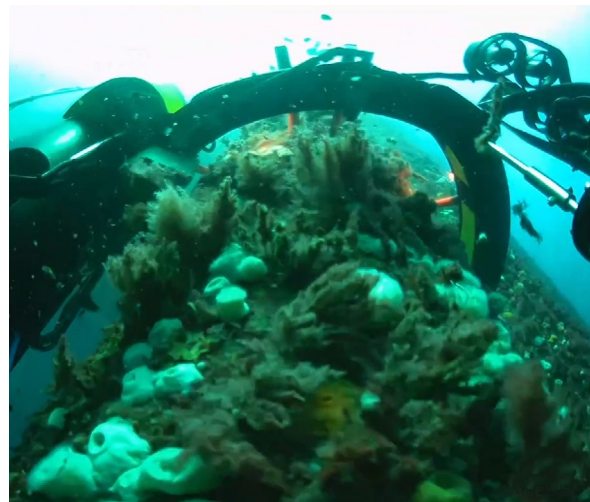
The COALA is not a typical ROV but a specialized tool for cleaning and inspecting tubular structures. With its ability to "fly" in the water like a standard ROV and then grab around the tubular structure, it revolutionizes ROV cleaning compared to existing solutions on the market.

The COALA can tackle obstacles such as fairings and strakes while cleaning.



The COALA is able to move over obstacles as the flex fingers ensure centralization around the member. This centralized effect ensures much more efficient cleaning. As the robot is self-propelled and remotely operated from a specially designed control container, where advanced control algorithms assist the operator during operation, the COALA is equipped with BlueView sonar and cameras for an excellent overview.

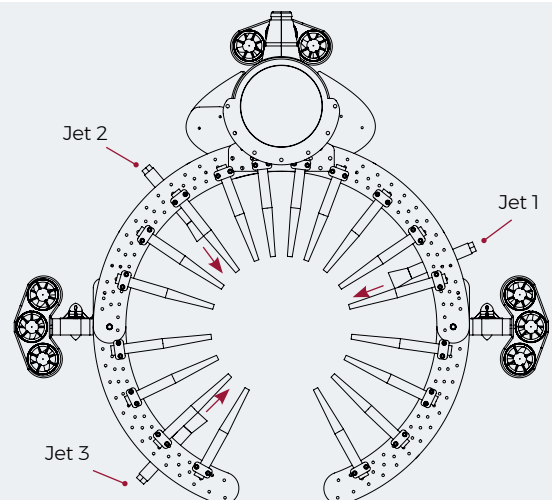
 See COALA video



Marine Growth

Marine growth in the offshore sectors has been a significant challenge since the offshore structures were constructed. However, the standard solution for cleaning off the marine growth is vastly time-consuming, manpower heavy, and costly as they require an ROV vessel.

SubC has therefore developed a new and innovative solution to inspect and clean subsea tubulars offshore. This development process has resulted in the underwater robot the COALA.



Product features

- Agile tool for all types of member cleaning and inspection
- Up to 6 cameras for an excellent overview
- Highly modular design opens for any tool to be attached
- The centralized effect always ensures efficient cleaning
- Only one small electric tether is needed to drive the COALA
- Advanced control algorithms assist the operator during operation



Technical specifications

General	
Depth rating	550 m (1650 ft)
Height	1,700 mm (66.9 in)
Width	1,500 mm (59 in)
Volume	165 L (625 gal)
Weight in air	165 kg (467 lbs)
Weight in water	Slightly positive
Operational diameter	Ø254-711,2 mm (10-28 in)

LARS	
Height	2,520 mm (99.2 in)
Diameter	Ø508 mm (20 in)
Footprint	2,15 m ² (23.14 ft ²)
Weight	353,6 kg (803.6 lbs)
Pendant	15-20 m (450-600 ft)
Deployment	Platform/Vessel
LARS criteria HS	≤ 2,5 m (8.3 ft)
LARS criteria Wind	≤ 20 knots

Cameras / Lights / Sensors	
Camera	2K SubCam
Lens type & FOV	1.68 mm @ F2.0 Horizontal FOV 180 deg, vertical FOV 101 deg diagonal FOV 180 deg
Camera tilt	Manual adjustable 180 deg
Sensitivity	.028 Lux @ F2.0
Format	Ethernet
Lightning	1,500 lumens pr. light, 135 deg - 5,700K
Intensity	0-100%
Depth sensor	±30 mm (1.18 in)
Sonar	Multibeam 3 kHz - 1.3 kHz
IMU	Pitch, yaw and roll data

Options	
DVL	Accurate track plot
Other	CP gun, MG thickness measurement etc.

Thusters /Performance	
Configuration	4 horizontal, 6 vertical
Vector Angle	Fixed 90 deg
Motor type	BLDC
Prop diameter	141,2 mm (5.56 in)
Speed at surface	1 m/s
Full throttle FWD/REV	16,1/10,5 kgf (35.5/23.2 lbf)
Operational diameter	Ø254-711,2 mm (10-28 in)

Control System	
Configuration	2 x 10 ft. Containers
Footprint	13,38 m ² (144 ft ²)
Monitor	2 x 43" led monitor
Power requirments	43,6 kW - 400 VAC
Water supply pressure	≥ 4 bar (58 psi)
Safety	Isolated power, circuit breaker, OCP
Auto functions	Heave, Yaw
Video overlay	Depth, Location, Comment, Time, Date

Umbilical / Winch	
Diameter	Ø35,8 mm (1.4 in)
Length	170 m (510 ft) & 600 m (1,800 ft)
Working load	
Breaking strenght	1,134 kg
Buoyancy	Seawater -91 kg/km Freshwater -65 kg/km
Cable config	Power, twisted pair and waterhose
Reel	Heavy duty with slipping

Cleaning	
Nozzles	3x
Nozzletype	Rotary/Cavitation
Pressure	350 bar (5,075 psi)
Cleaning speed	20 m per. 60 min (Ø660,4/26 in)