

**TOP NOTCH
DEEP-SEA
EQUIPMENT**



CLM100 SHIP HULL CLEANING ROV

Technical Specifications

Technical Specifications

1. Product Overview

It adopts a composite technology combining permanent magnetic adsorption and thrusters. The permanent magnetic adsorption module ensures the robot can firmly attach to the hull surface, while the integrated thrusters form a floating movement or auxiliary adjustment system. This achieves a hybrid locomotion mode of "floating + crawling".



Fig. 1:CLM100 SHIP HULL CLEANING ROV

2. Technical Parameters

2.1 Robot System

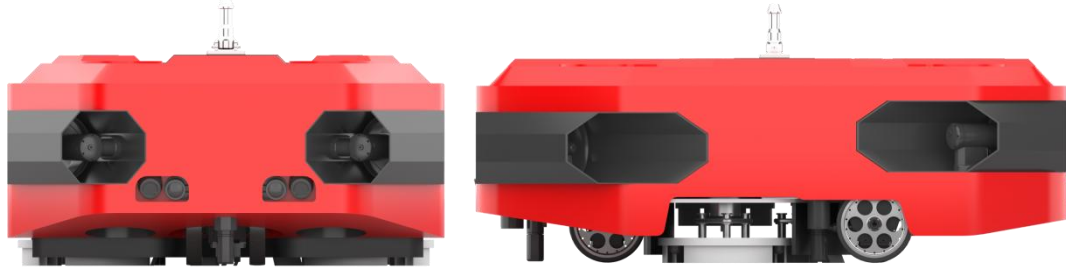


Fig.2:CLM100 Side View / Front View

Robot System	
Dimensions (L×W×H)	1500mm x 1100mm x 550mm
Weight	275kg
Working speed	0-15m/min
Depth rating	100m
Cleaning efficiency	400-600m ² /h
Cameras and lights	4 x 2.0MP (color wide-angle) , 4 x 100W LED Lights
Thruster	8 x THR.D150 ,With adjustable rotation speeds
Walking driven	3 x Driving wheels , Adsorption: Permanent Magnets + Vertical Thrusters
Cleaning mechanism	3 x Brush cleaning discs, Rotation speed 400r / min
Release Mechanism	Equipped with a release mechanism with 3 sets of power wheels, enabling the robot to achieve emergency release.
Reserved Function	A recycling pipeline interface is reserved, with a diameter of ≤ DN60. The water surface recovery system consists of a dewatering screen, collection hopper, slurry pump and other components, with a processing capacity of ≥ 20 m³/h (solid-liquid mixture). Voltage / PowerVoltage: 380–440 VAC; Power: ≤ 30 kW.
Cable & Winch	Length 200m

2.2 Robot System



Fig.2:CLM100 Side View / Front View

Integrated Cable Winch	
Winch	Cable capacity ≥ 200 m, slip ring reel, weight ≤ 150 kg (including umbilical cable)
Cable	Length: 200 m; breaking strength ≥ 800 kg; diameter ≥ 16 mm; neutrally buoyant (fresh water)
Power Distribution Cabinet	Marine Power Distribution Cabinet; protection class IP65

2.3 Control System



Console	
Dimensions (L×W×H)	517mm x 433mm x 230mm
Weight	16.2kg
Main Control Unit	Embedded controller with Intel i7 processor, 16 GB RAM, 1TB , HDD.19-inch monitor with resolution of 1920 × 1080. Functions include ROV motion control, depth hold, lighting brightness adjustment, and operating mode switching. Equipped with a control steering wheel and linear control buttons, dimensions 270mm × 280mm × 250 mm.Powered by AC 220 V.
Handheld Controller	Dimensions: 380 mm × 200 mm × 150 mm Power supply: 12 V lithium battery, 9000 mAh Functions: 2 three- axis joysticks with self- reset buttons, 4 two- axis joysticks, 4 single- axis joysticks, and multiple control buttons.
Control Software	Supports configurable operating modes for different environmental conditions. During cleaning operations, the robot can move forward, backward, turn left and turn right as required. When detached from the hull, the thrusters enable ascent, descent, pitch, roll, attitude hold, and automatic depth control. Speed is adjustable across multiple levels. Supports one- click video recording and photo capture, with adjustable image brightness, contrast and lighting intensity. Features video overlay for displaying date, time, depth, temperature, heading, leak indication and other parameters. Supports automatic data logging, which stores task data in real time to the hard disk.The software displays fault feedback for each component and

	monitors real- time data including temperature, humidity, voltage, current and water ingress. The software features a full Chinese interface (English interface available upon customization).
--	--



Provide World-class
Integrated Solutions for Deep-sea Equipment

山东未来机器人股份有限公司
SHANDONG FUTURE ROBOT CO., LTD

Add: No.52,Chuangye Rd,Hi-tech Zone,Weihai,China
Tel: 0631-5326187 Mob: 13082680120 Fax: 0631-5326187
Email: robot2@vvlai.com www.vvlai.cn www.vvlai.com



WeChat



WeChat Channels