

TOP NOTCH DEEP-SEA EQUIPMENT



VY150 ROV

Technical Specifications

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1.Product Overview

Independently developed and manufactured by Shandong Future Robotics, the VY150 achieves 100% localization replacement of its core components. It has pioneered breakthroughs in deep-sea operational-grade ROV technologies, including high pressure resistance, navigation and positioning, power supply, communication transmission, and multi-equipment collaborative operations, thus enabling operation in ultra-deep waters.

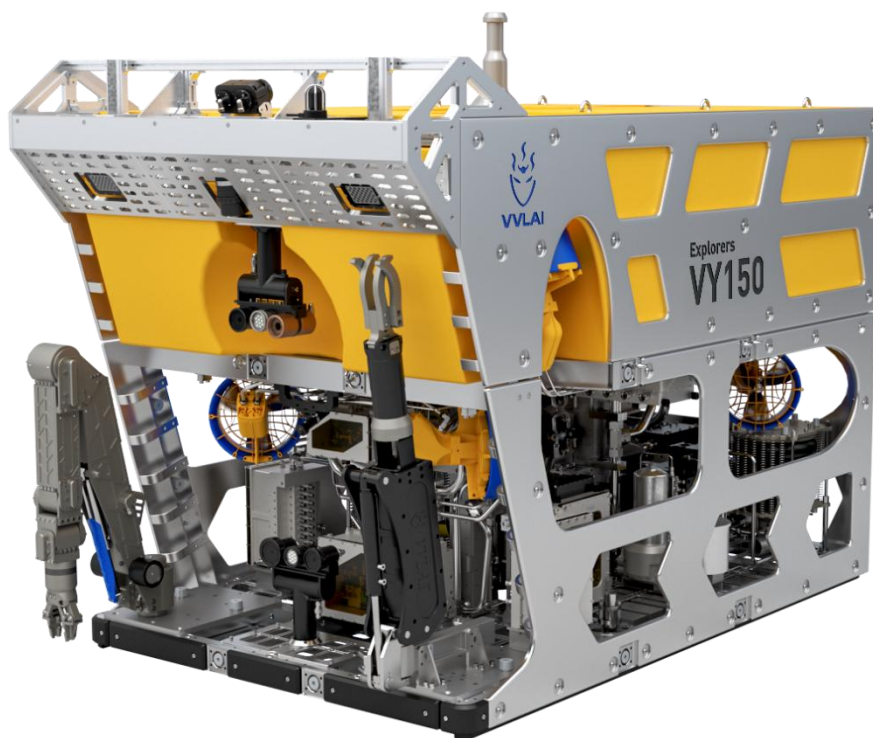


Fig. 1:VY150ROV axonometric drawing

2. Technical Specifications

2.1 The ROV System

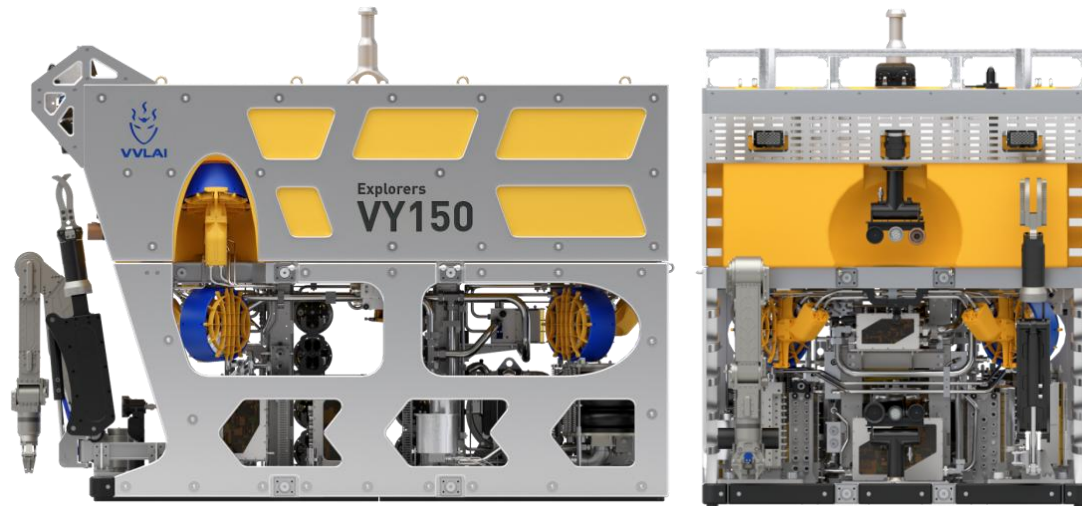


Fig.2:VY150 Side View / Front View

The ROV System

Basic Specifications

Power	150Hp (115kW)
ROV Depth rating	3000msw
Dimensions (L×W×H)	3.25m×1.90m×1.95m
Weight in Air	4.5t (Depending on the depth level and specs)
Thrusters	4× THR.Y300 Horizontal Thrusters + 3× THR.Y300 Vertical Thrusters

Performance

Maximum Forward Speed	3.4 Knots
Maximum Lateral Speed	2.2 Knots
Maximum Vertical Speed	2.2 Knots

Bollard Pull Forward/aft	700kg
Bollard Pull Lateral	600kg
Bollard Pull Vertical	650kg
Mechanical interface	
7-axis manipulator(Right)	On-off control (analog optional); arm span 2m, maximum lifting force 240kg, maximum clamping force 400kg.
5-axis manipulator(Left)	On-off control (analog optional); arm span 2m, maximum lifting force 240kg, maximum clamping force 400kg.
Electrical interface	
PTZ	2× Electric Pan/Tilt/Zoom (PTZ)
Camera	4× High Definition Color Cameras 1× High Definition Color Zoom Camera 1× Professional Low-Light Camera 1× Wide-Angle Camera Mini Camera with 1× LED Light
Light	8× LED Lights
Sonar	1× Sonar
Upgrading option	
Tool Kit	Expansion Tool Kit Suite

2.2 The Compact Top-Cap TMS

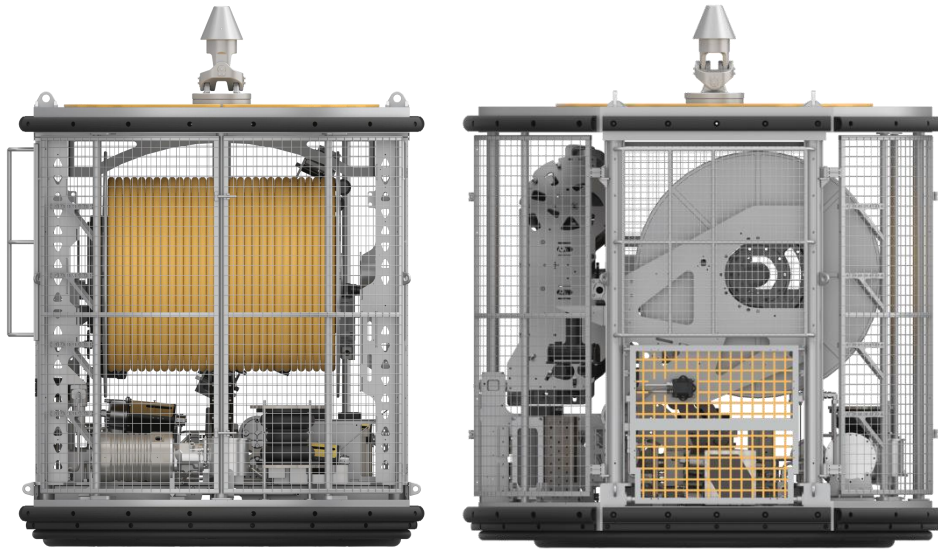


Fig.3: TMS

TMS	
Key Technical Specifications	
Depth rating	3000msw
Diameter	2.40m
Height	2.70m (Including the Joint with LARS)
Weight in Air (Cable included)	3.6t
Weight in Sea Water	2.5t
Cable Capacity	500m
Total Power	17 kW
Telemetry/Sensor Capacity and Interface	
Sensor	Depth Gauge Other interfaces customizable (including Inertial Navigation, USBL, etc.)

PTZ	1× Electric Dual-Axis PTZ
Camera	3× High-Definition Color Cameras
Light	3× LED Lights

2.3 Control and Power System

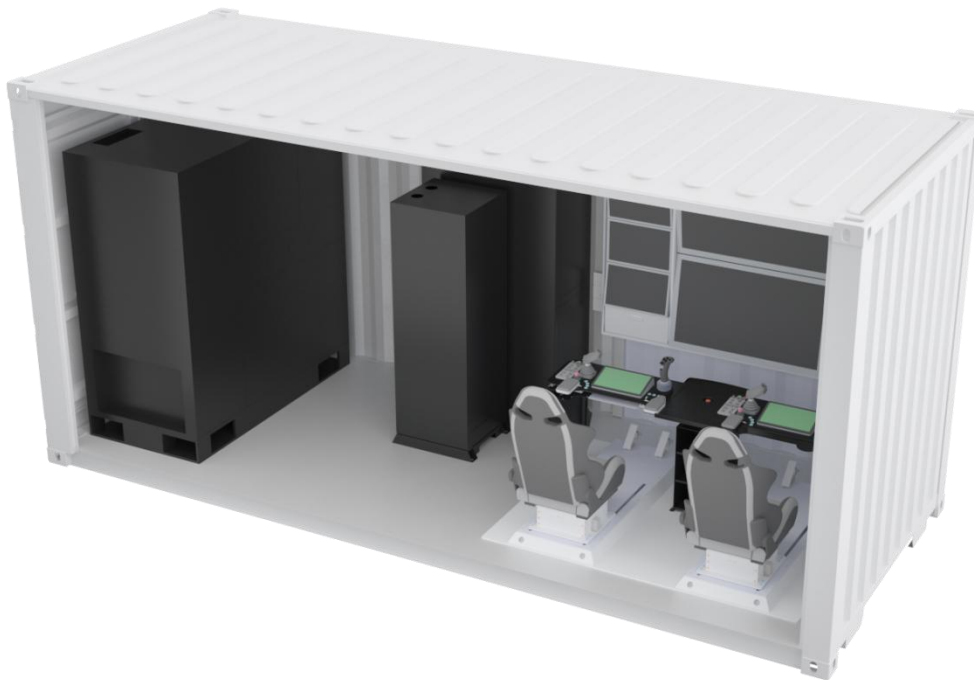


Fig. 4:Deck Support Unit

Control and Power System	
The Container	
The Container	20' A60 International Standard Container The internal components are modularly designed and can be installed independently.
Control container	
Dimensions (L×W×H)	6.1m×2.45m×2.9m
Weight	6t
System composition	The cabin, ROV+TMS control system, ROV+TMS power supply system, refrigeration system, dehumidification system, alarm system, emergency escape system, etc.
ROV+TMS Control System	

System composition	Two pilot seats, in which all the necessary control devices for operating the ROV and PDU are integrated in the console. 2x dual-Touch Controllers 2x 48" Video Monitors 6x 22" Video Monitors Operating Software: English and Russian Available
ROV+TMS Power Supply System	
System composition	An integrated independent distribution cabinet, including circuit breakers, contactors, overload relays, signal transformers, serving as terminals and isolation points for all high-voltage connections. Input: 380-440V AC, 50/60Hz, Customizable

2.4 The 13T LARS



Fig 5:LARS System

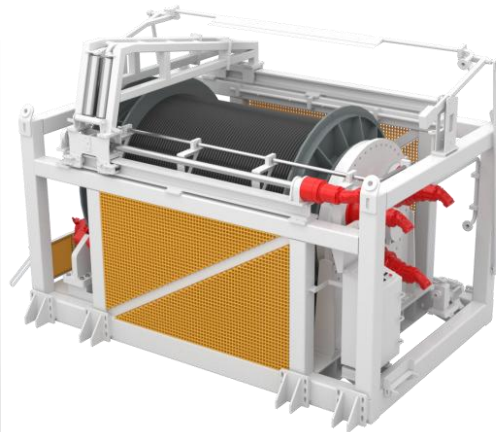


Fig.6:Cable Winch

Lars system	
A Frame	
Rated Working Load	13t
Working Sea Conditions	Normal Operations under LR5 Sea Condition
Minimum Distance between the Legs	3090mm
Operational Dimensions (L×W×H)	7700mm×4640mm×9800mm
Freighting Dimensions (L×W×H)	9024mm×4640mm×3400mm
Dead Weight	19000 kg
Cable winch	
Rated Pulling Force	13t (Exterior Layer)
	17t (Interior Layer)
Type	Hydraulically-Powered Winch
Cable Storage Capacity	3300m

Dimensions (L×W×H)	4795mm × 3520mm × 3500mm
Weight	≤22t without armored cable
Cable Speed	Average Speed 30m/min
Configuration	Includes: Photoelectric slip ring, armored cable

2.5 HPU Power Station



Fig.7: HPU Power Station



Fig.8: LARS Control Console

HPU	
HPU Power Station	
System Power	2 × 110kw, 380V AC, 50/60Hz
Dimensions (L x W x H)	2935mm × 1910mm × 2339mm
Weight (Approx.)	4400kg, not including the hydraulic oil
Hydraulic Joints	Quick Couplings
Key Specs of the Control Cabin	
Control Devices	The Telescopic A Frame - Docking head Device Rotation - Lock Control Device - Docking head Swing - Telescopic Gantry Extension/Retraction The Winch - Cable Retraction/Extension - Automatic/Manual Cable Arrangement - Remote/Local Control The HPU Power Station

	Motor Start/Stop Emergency Stop Button Reset
Monitors	System Pressure Gauge HPU In Operation HPU Failure



Provide World-class
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