

**TOP NOTCH
DEEP-SEA
EQUIPMENT**



VYL600 ROV

Technical Specifications

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1. Technical Specifications

1.1 The ROV System

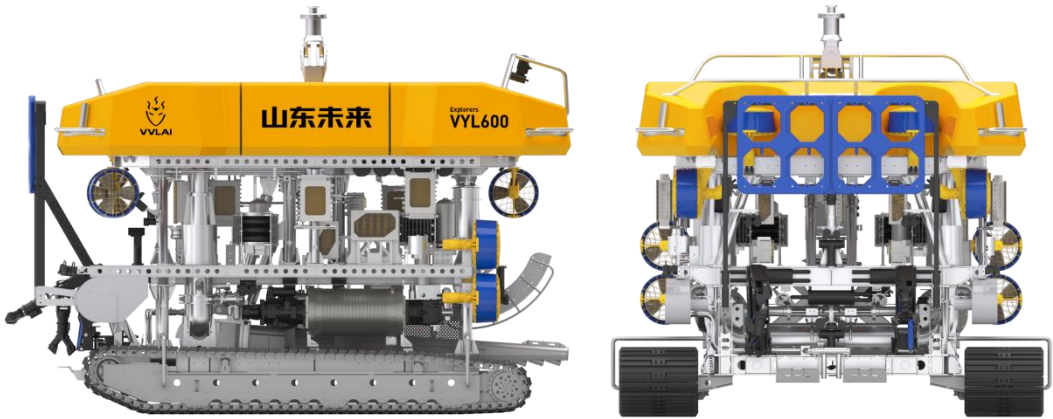


Fig. 1:VYL600 Side View / Front View

ROV System	
Basic parameter	
Power	600Hp/220kW×2
Power supply voltage	4160V
Dimensions（L×W×H）	5580×4450x3300mm
Weight	16.0t(in air) / 1.8t (in water)
Hydraulic Oil	Hydraulic oil No. 32
Depth rating	2000msw（option up to 3000msw）
Speed	0-2.2km/h
Performance	

Trenching Width	100-600mm
Trenching Depth	0-3m
Water Pump Flow Rate	900m ³ /h x2 (at 5 bar pressure)- low-pressure pump unit 350m ³ /h x2 (at 15bar pressure) - high-pressure pump unit
Water Pump Pressure	5bar (at 900m ³ /h x2 flow rate) - low-pressure pump unit 15bar (at 350m ³ /h x2 flow rate) - high-pressure pump unit
Thruster	10 ×THR.Y420
Bollard Pull Forward/aft	≥2.0t
Bollard Pull Lateral	≥0.7t
Bollard Pull Vertical	≥1.4t
Mechanical interface	
7-axis manipulator (right)	On-off control (analog optional); arm span 2m, maximum lifting capacity 240kg, maximum clamping force 400kg.
7-axis manipulator (left)	On-off control (analog optional); arm span 2m, maximum lifting capacity 240kg, maximum clamping force 400kg.
Jetting at the front	DN40 jet nozzle
Slipper (Optional)	2xEqual width Slipper
Armored cable cutter (Optional)	Cable cutting: diameter armored cable from 0mm to 100mm Working pressure: 20mpa (external booster)
Flexible cable cutter (Optional)	Cable cutting: diameter flexible cable from 0mm to 100mm Working pressure: 20mpa
Electrical interface	
Sensor interface	Sensor interfaces can be customized (Including sensors such as INS, Doppler log, sonar, ultra-short baseline (USBL), depth gauge, altimeter, etc.)
PTZ	4 x 2-axis Pan&Tilt, with horizontal adjustment ±60°, vertical adjustment ±60°.

Cameras	Equipped with 12 camera input interfaces (connectors) Connector type: VVLJXT Series.
Light	16 lights, with brightness adjustment. Maximum total power 1500 W. Connector type: VVLJXT Series
OEM	
Cable Tracking System	1 set (optional)
USBL	1 set (optional)
Altimeter	1 set
Depth gauge	1 set
Inertial navigation system	1 set
Obstacle avoidance sonar	1 set
Forward looking sonar	1 set

1.2 Deck Support Unit



Fig. 2:Control System



Fig.3:Power supply system

Control System	
Control container	
Dimensions (L×W×H)	6058mm×2438mm×2591mm
Weight	6t
System composition	two identical pilot seats, network switch, cooling system, dehumidification system, alarm system, emergency evacuation

	system, etc.
Control system	
System composition	all the necessary elements for controlling the ROV and the PDU are integrated into the operator's console. •2 All-in-one touch screen computers •4 monitors 43 inches.
ROV control software	Chinese/English
Power supply system	
Dimensions (L×W×H)	6058mm×2438mm×2591mm
Weight	14t
System composition	Integrated independent power distribution unit (PDU), which includes circuit breakers, contactors, overload relays and transformers, terminals and isolation points for all high voltage connections.

1.3 LARS—Launch and Recover System



Fig.4:LARS System



Fig.5:Cable Winch



Fig.6:Hydraulic power unit



Fig.7:LARS Control Room

LARS System

A-Frame

Safe working load	16 t (in air)
Working sea state	Level 5

Dynamic load factor	2.3
A-Frame footprint (LxW)	9560mm*7900mm
Inner width of A-Frame	5480mm
Total height of A-Frame	13000mm
Maximum working distance outside the hull	8460mm
Maximum working distance inside the hull	5824mm
Swing speed of A-Frame	1°/s
Snubber extension distance	2000mm
Snubber extension speed	30s
Snubber Rotation Angle	±120°
pulley swing angle	±15°
Caliper extension speed	≤2s
Snubber Clamping Force	20KN (single vertical)
Clamping Speed	≤5s
Cable Winch (PHC)	
Dimensions (LxWxH)	6750mm×2600mm×4490mm
Safe Working Load	16t
Deployment and Retrieval Speed (outer Layer)	16t@25m/min
Deployment and Retrieval Speed (Inner Layer)	24t@20m/min
Cable Storage Capacity	1500m

Weight	26t (cable not included)
Operational Sea State	Under LV5
HPU Hydraulic power unit	
Dimensions (L×W×H)	3700mm×2600mm×3100mm
HPU Power	2×132kW
System load	250bar
System pressure	2×375L/min
Hydraulic oil type	L-HM46 (can be replaced with No.22 depending on the environment)
Weight	7000kg (without hydraulic oil)
LARS	
Dimensions (L×W×H)	2200mm×1600mm×2600mm
Weight	2t
Control device	A-Frame -Snubber Rotation -Latch Control -Snubber Swing -A-Frame Extension Umbilical Winch -Pay In / Pay Out -Auto Spooling / Manual Spooling -Remote / Local Control HPU -Motor Start / Stop -Emergency Stop -Reset

2. Technology Application



ROV Operation Fig. 1



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