

TOP NOTCH DEEP-SEA EQUIPMENT



X22 ROV

Technical Specifications

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1.Product Overview

X22 is independently R&D and manufactured by Shandong Future Robot Co., Ltd. Its core components achieve 100% domestic substitution, making it a compact work-class ROV. Equipped with technologies for high-efficiency operation, precise navigation and positioning, lightweight power matching and flexible scenario adaptation, it enables reliable operation under complex working conditions in medium and shallow waters.



Fig. 1: X22 Axonometric Drawing

2. Technical Specifications

2.1 The ROV System

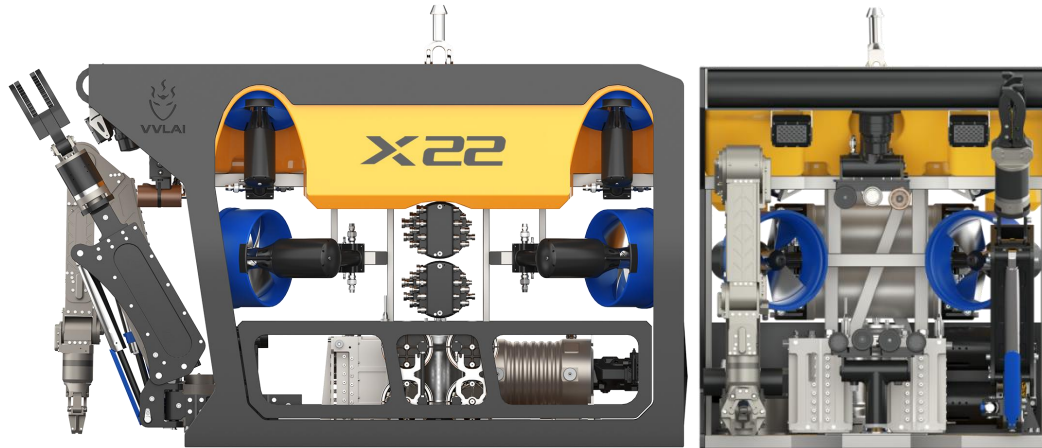


Fig.2:X22Side View / Front View

The ROV System	
Basic Specifications	
Power	75kW
Depth rating	3000msw
Dimensions (L×W×H)	2.2m×1.4m×1.6m
Weight in air	1500kg
Payload	100kg
Mechanical interface	
7-axis manipulator(Right)	Master-Slave Controlled Seven-Axis Manipulator
5-axis manipulator(Left)	Switch Quantity Controlled Five-Axis Manipulator
Electrical interface	
Sensor interface	Customizable interfaces (including Inertial Navigation System (INS), Doppler Velocity Log (DVL), sonar, USBL, depth gauge, altimeter, etc.)

PTZ	Electric PTZ×2 sets Brand: VVLAI Model: VVL.YT10 Accuracy: $\pm 1.5^{\circ}$ Rotation Angle: 0-120° (2 axes: Pan and Tilt) Rotation Speed: 0-30° /s (Stepless Speed Adjustable)
Camera	4× High Definition Color Cameras 1× High Definition Color Zoom Camera 1× Wide-Angle Camera Mini Camera with 1× LED Light
Light	2 × LED light Brand: VVLAI Model: VVL.ZM200 Luminance: 16000 lumens (lm), 0-100% stepless dimmable Thermal Rollback Function: Equipped Power: 200 watts (W) 4×LED light Brand: VVLAI Model: VVL.ZM50 Luminance: 4000 lumens (lm), 0-100% stepless dimmable Thermal Rollback Function: Equipped Power: 50 watts (W)

2.2 TMS

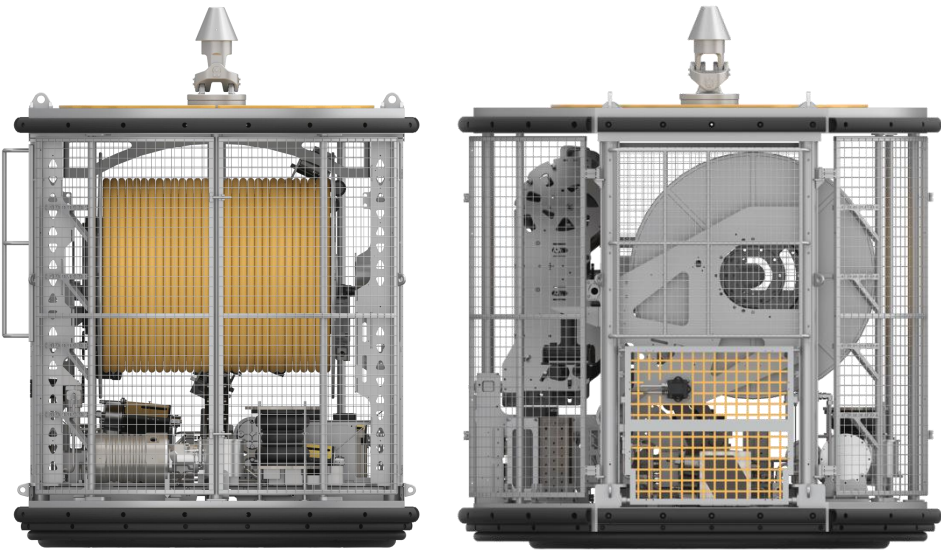


Fig.3: TMS

TMS	
Main technical parameter	
Depth rating	1000msw
Diameter	1.5m
Height	1.5m
Weight in air(Excluding cable)	1500kg
Weight in sea	1100kg
Cable length	500m
Power	10kW
Telemetry/Sensor Capacity and Interface	
Sensor	Depth sensor,can customize other interfaces(including INS and USBL,etc)
PTZ	1 × 2-axis PTZ

Camera	3× Color HD fixed-focus 1080P camera
Light	3 ×LED light,brightness adjustable

2.3 Deck Support Unit

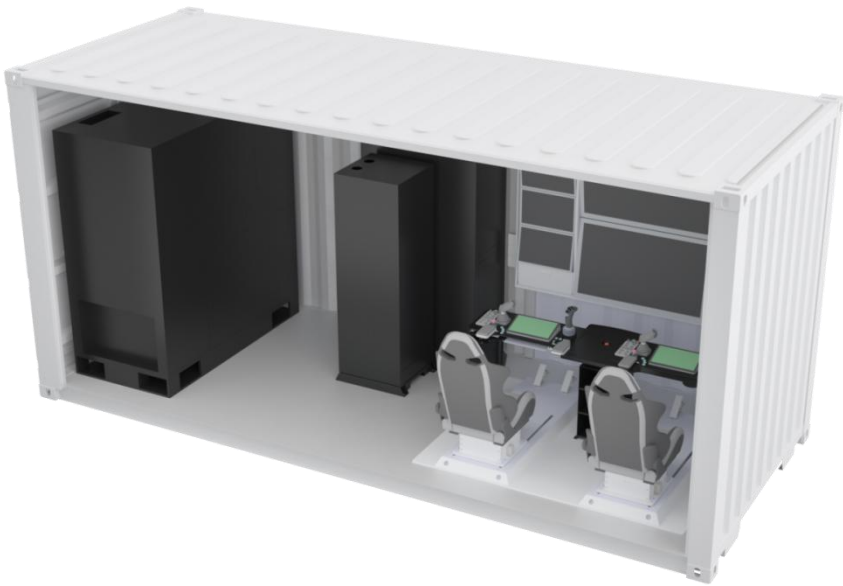


Fig. 4:Deck Support Unit

Control and Power System	
Container	20 foot international standard container
Control container	System composition: Container, ROV integrated control system, ROV power supply system, refrigeration system, dehumidification system, alarm system, emergency escape system, etc.
ROV control system	System composition: Two identical pilot seats, with all necessary control devices for operating ROV and PDU integrated into the console Two sets of touch controllers Six sets of video monitors Operating software: switchable between English and Russian
ROV power supply system	System composition: A set of integrated independent distribution cabinets, including circuit breakers, contactors, overload relays, signal transformers, and terminals and isolation points used for all high-voltage connections Input 380-440VAC, 50/60Hz. (Customers can customize)

2.4 Lars system

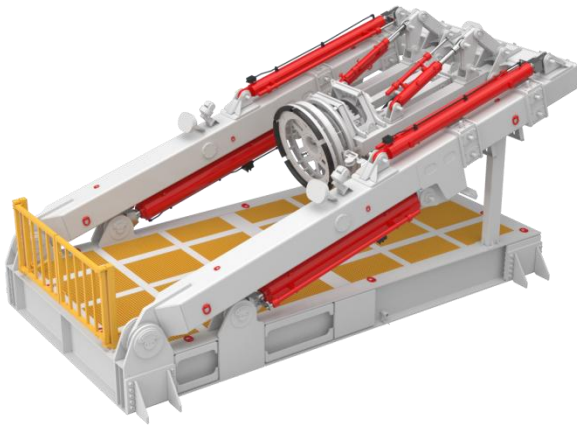


Fig. 5:LARS System

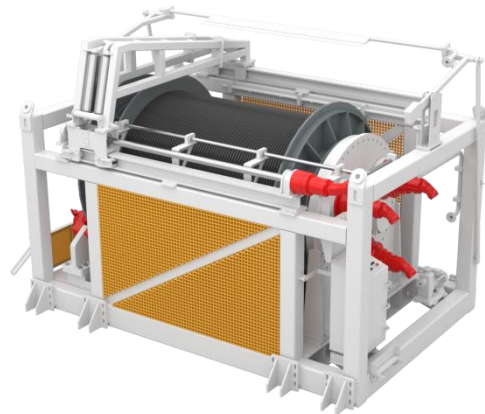


Fig. 6:Cable Winch



Fig.7:HPU Power Station



Fig.8: LARS Control Console

LARS	
A Frame	
SWL	6t
Working sea conditions	Sea condition level 4
Minimum distance between legs	2600mm
Others	The docking head is compatible with the TMS and allows 180° rotational movement. It is equipped with lifting capacity for deck maintenance

	operations.
Winch	
Rated pull	Outer tension: 6t
	Inner tension: 8t
Cable length	500m
Linear velocity	Maximum speed 40m/min
HPU Power Station	
System power	44kW
Motor	2×22kW, 380VAC, 50/60Hz
Hydraulic Connector	Quick-disconnect Connection
Instrumentation and Equipment	- Low Oil Level Indicator Light and Automatic Shutdown Device - Oil Level Sight Glass - System Pressure Gauge - Motor Running Indicator Light - Oil Filter Clogged Indicator Light



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



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