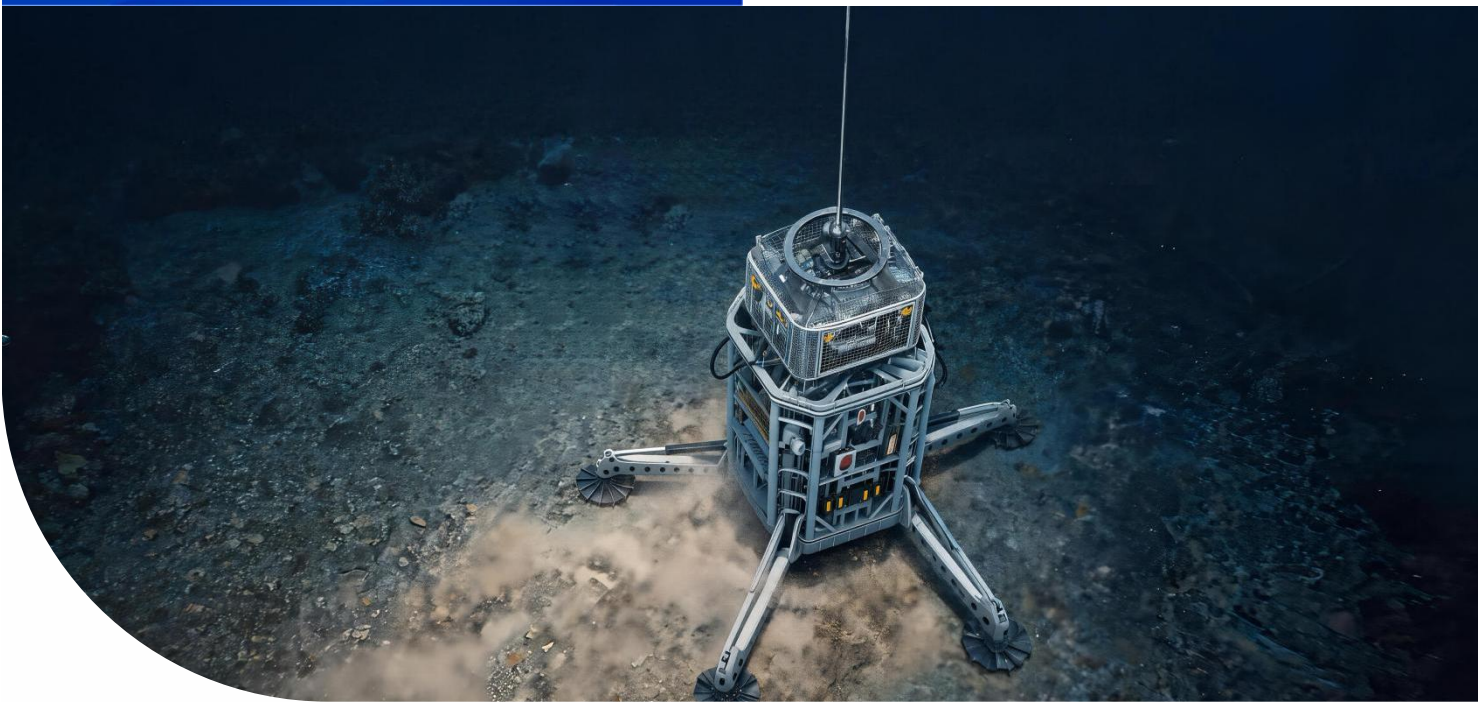


TOP NOTCH DEEP-SEA EQUIPMENT



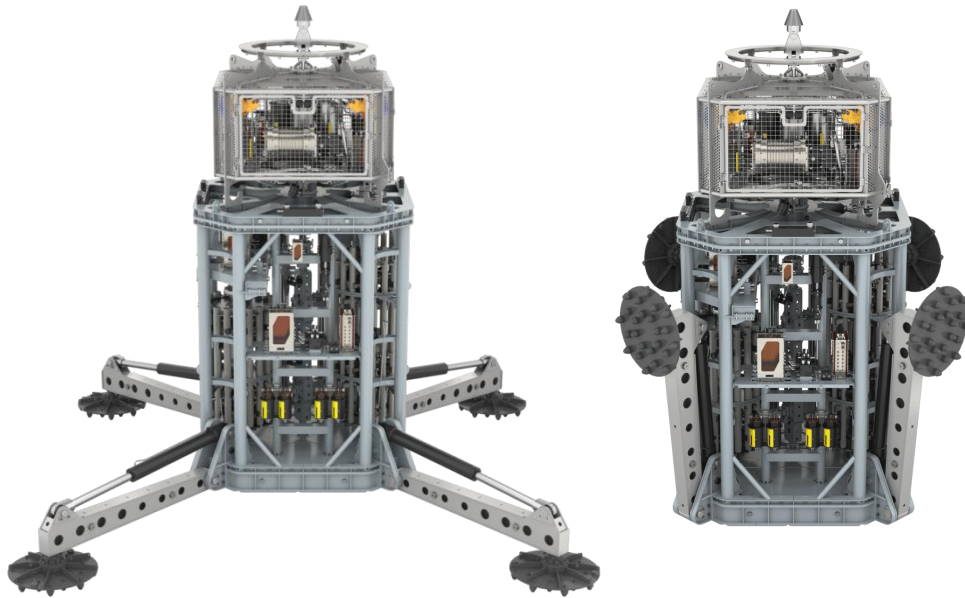
VZT150 Drilling sampling platform

Technical Specifications

Technical Specifications

1. Technical Parameters

1.1 Robot System



Robot System

Basic Parameters

Total power	150Hp
Depth rating	2000msw
Dimensions (L×W×H)	4m×4m×5.2m
Weight	≤9t
Thruster	4×THR.Y300
Max drilling depth	32m
Drilling Sample Diameter	64mm
Dredging Sample Length	1.5m

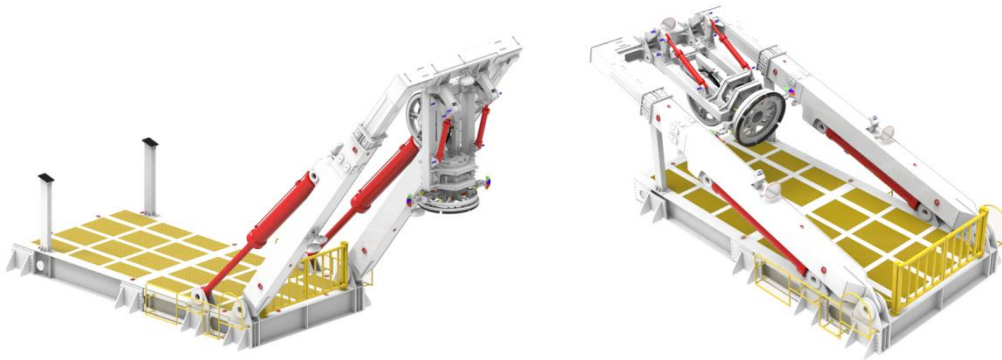
Number of Support Legs	4 x independent adjustable support legs
Rotary Drilling Sampling Power	120Hp
Telemetry Sensor capacity	
Power Distribution	The total available power allocated to external users is 30A 220VAC, with output voltages including 220VAC, 110VAC, 24VDC, and 12VDC. The lights, cameras, and sensors can all be turned on/off via the upper computer.
Sensor Interface	Customizable interfaces (including INS, DVL, sonar, baseline, depth sounder, altimeter, etc.).
Pan/Tilt	1 xDual-axis Pan/Tilt, with horizontal adjustment range of $\pm 60^\circ$ and vertical adjustment range of $\pm 60^\circ$
Camera	16 x camera interface. Connector Brand:VVLAI
Light	16 xadjustable light capacity
Others	
Depth gauge	1 Set
INS	1 Set

1.2 Control and power system



Deck Support Unit	
container	20ft A60 standard container.The internal components adopt a modular design and can be installed independently
Control Cabin	System Composition: Shelter, Robot Integrated Control System, Robot Power Supply System, Refrigeration System, Dehumidification System, Alarm System, Emergency Escape System, etc.
Robot control system	System Composition: Two pilot seats, with all necessary controls for robot operation and PDU integrated into the console. 2 touch controllers 4 units of 43-inch video monitors Operating software: English switchable
Robot Power Supply System	System Composition: One set of integrated independent power distribution cabinet, equipped with circuit breakers, contactors, overload relays, signal transformers, as well as terminals and isolation points for all high-voltage connections. Input: 380–440VAC, 50/60Hz, customizable according to customer requirements.

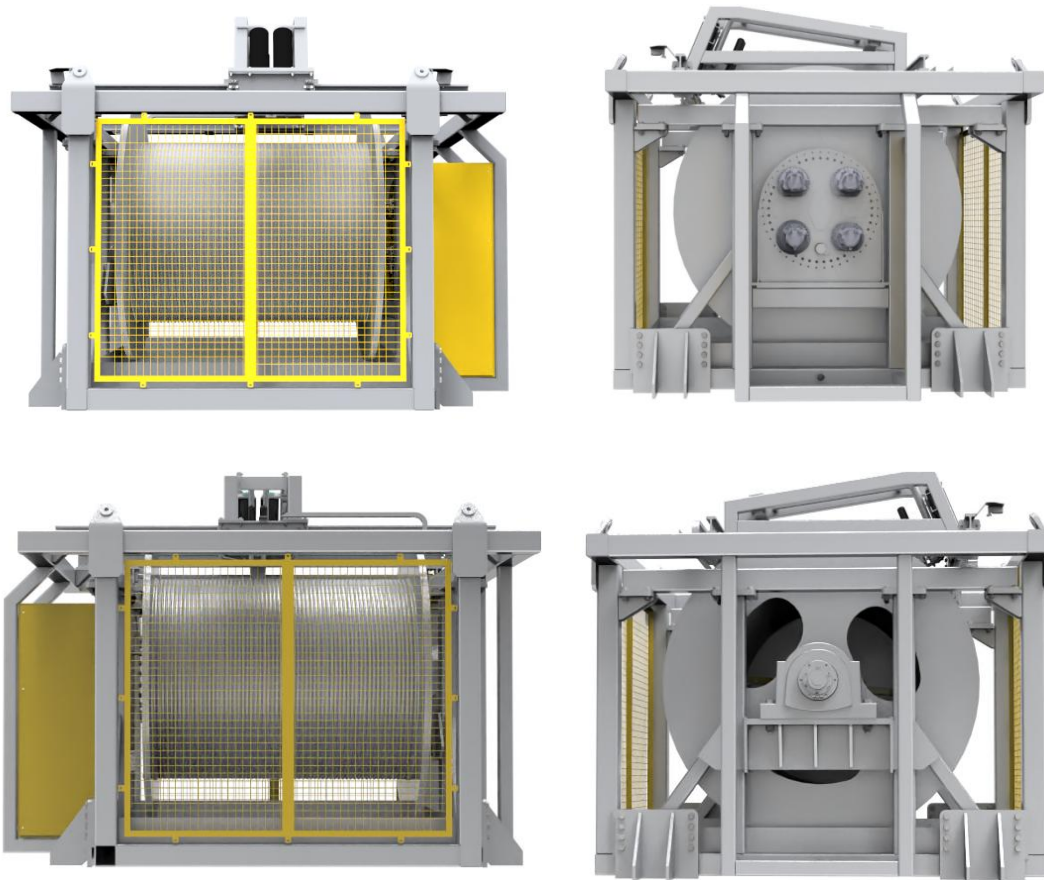
1.3 160kN A-Frame



160kN A-Frame	
Type	Hydraulically driven A-type gantry, equipped with umbilical sheave, telescopic mechanism, shock absorber and rotatable stabilizer.
Design Basis	Designed in accordance with Chapter 3 of Lloyd's Register (LR) <i>Lifting Appliances in Marine Environment</i> .
Configuration	The A-type frame adopts an integral structure; Luffing inside/outside the A-type frame, matched with stabilizers for underwater vehicles; The stabilizer is rotatable; Grease boxes for all rotating parts are included; Latch position indicator flag mechanism is equipped to ensure clear visibility of the latch position from the deck; Self-erecting design (no external lifting equipment required for erection), fitted with safety lifting lugs.
Safe Working Load (SWL)	160kN
Sea State	LR Sea State 4
Operating Dimension (L×W×H)	9000mm×5000mm×12000mm
Transport Dimension (L×W×H)	11000mm×5500mm×4500mm
Weight	25000 kg
Operating Temperature	-20℃ ~ +45℃
Maximum Extended Horizontal Reach	5000mm horizontally outward from the base

Appearance	The external surface shall be coated with high-quality marine paint suitable for long-term offshore operation. Color: White, RAL 9016.
Transportation & Lifting	Transportable by standard flatbed truck. A set of four-point lifting system shall be provided, including integrated lifting points, with shackles and slings supplied.
Deck Anchorage	Sacrificial welding plates (3-piece welded design) shall be provided, which are bolted to dedicated structural load-bearing points for offshore fixing.

1.4 Winch

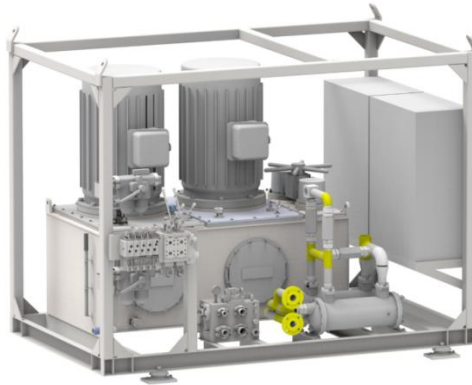


Hydraulically Driven Winch

Design Basis	Designed in accordance with Chapter 3 of Lloyd's Register Lifting Appliances in Marine Environment.
Design Factor	Compliant with Lloyd's Register (LR) design specifications and the design code for lifting appliances in marine environments.
Rated Pulling Force	Outer Layer Pull: 160 kN Inner Layer Pull: 200 kN
Dimensions	5000mm×4000mm×4000mm
Weight	Air weight without umbilical cable: ≤ 30T (subject to final design weight)
Operating Temperature	-20°C to +45°C
Rope Capacity	2300m
Drive / Braking	Hydraulic drive with hydraulic disc brake.
Line Speed	Average speed: 30 m/min

Control Device	Local control cabin + remote control.Remote control is limited to winch rope paying-out / hauling-in (selected via local control console).Manual / automatic rope payout override button.Start and stop buttons for the Hydraulic Power Unit (HPU) are equipped on the winch control console.
Rope Length Counter	Displayed on both local and remote control monitors.
Slip Ring Assembly	Adopt optoelectronic slip ring with temperature measurement function.
Appearance	The external surface shall be coated with high-grade marine paint suitable for long-term offshore service.Color: White, Colour Code: RAL9016.
Lifting & Transportation	Transportable by standard flatbed truck.Equipped with a four-point lifting system with integrated lifting points.
Deck Anchorage	Sacrificial welding plates shall be provided, which are bolted to dedicated structural load-bearing points for offshore securing.

1.5 HPU



HPU	
Motor	2 × 120kW, 380VAC, 50/60Hz
Dimensions	3000mm × 2000mm × 2500mm
Weight	4500kg, weight without oil
Operating Temperature	-10°C ~ +45°C
Instrumentation & Equipment	Low oil level indicator lamp and automatic shutdown device Oil level sight window High oil temperature indicator lamp Low oil temperature indicator lamp System pressure gauge Motor running indicator lamp Filter clogging indicator lamp
Painting & Coating	The external surface shall be coated with high-quality marine paint suitable for long-term offshore operation. Color can be specified by the customer.
Transportation & Lifting	Equipped with a set of four-point lifting system with integrated lifting points Shackles and lifting slings (with carbon steel thimbles) shall be provided No sling hanging interference points on the frame
Fasteners & Deck Fixing	Sacrificial anode welding plates shall be provided, which are bolted to dedicated structural load-bearing points for offshore fixation.

1.5 Control Room



Control Room	
Control Devices	A-Frame -Snubber Rotation -Latch Control -Snubber Swing -Gantry retraction & deployment Umbilical Winch -Pay In / Pay Out -Auto Spooling / Manual Spooling -Remote / Local Control HPU -Motor Start / Stop -Emergency Stop -Reset
Display Indicators	System pressure gauge HPU running HPU HPU fault HPU Main color – Customer specified System logo – VVLAI standard version or customer specified



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