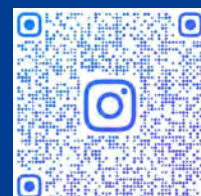


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GREEN WORLD SAFE WORK

GREEN WORLD SAFE WORK



CONTENTS

01

COMPANY OVERVIEW

02

SOLUTION SUMMARY

03

PRODUCTS

04

CULTURE

05

CUSTOMER SERVICE

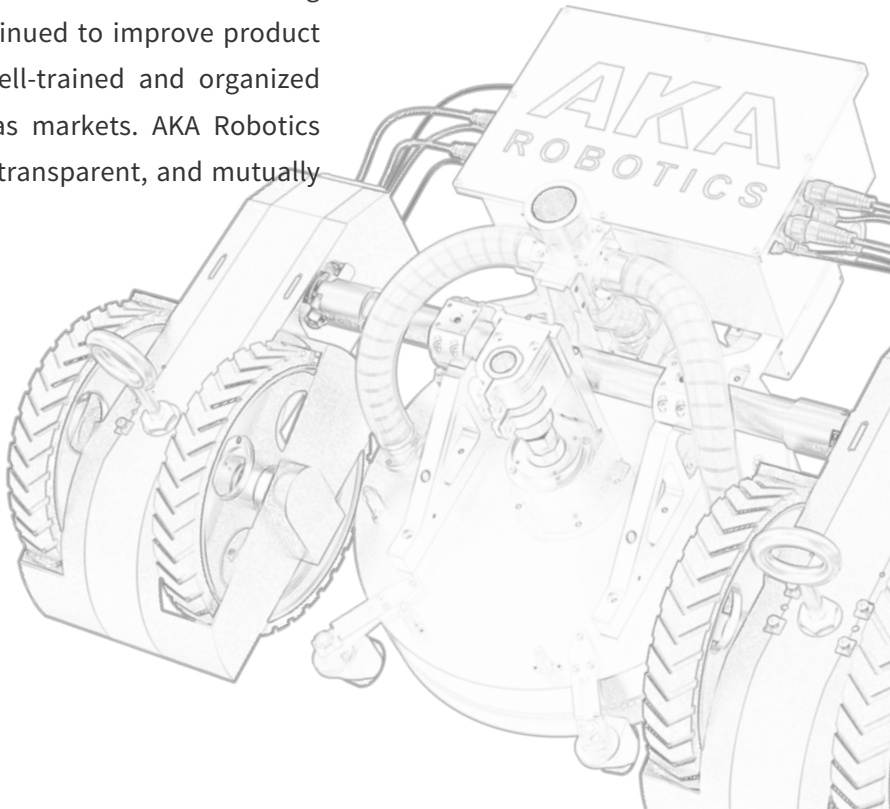
ABOUT US

AKA Robotics was established in 2017 with a founding team of senior engineers in robotics of the Chinese Academy of Sciences, and is a Special Robot R&D and Original Manufacturer. We are committed to using robotic technology to address the inevitable threats and hardship that arise when humans have to work at height, underwater, in confined spaces or other hazardous environments.

The Wallhiker series derives from AKA Robotics's sustained R&D investment and numerous project successes. It integrates permanent magnets, AI, control algorithms, and machine vision into a single platform, while also being compatible with existing techniques such as high-pressure water jetting, sandblasting, and flap-wheel sanding, which make the robot more functional for industrial applications and massively clear up the customer's barrier to transforming to the robotic era.

Through Sci-Tech enabling, AKA Robotics has valued the industries of ship repair, oil&gas, and renewables, in particular performing derusting, decoating, cleaning, sanding, inspection, and painting, and providing systematic maintenance solutions for ship hulls, storage tanks, wind turbine towers, and offshore platforms.

Originating in China, AKA Robotics stays with global customers. After taking leadership in the Chinese market, we have continued to improve product reliability, efficiency, and effectiveness. Our well-trained and organized technical team is prepared to support overseas markets. AKA Robotics creates value for customers and maintains fair, transparent, and mutually beneficial partnerships.



AWARDS & QUALIFICATIONS





200+

APPLIED FIELDS



SHIPS



WIND POWER



STORAGE TANKS



BRIDGES



OFFSHORE PLATFORM



THERMAL POWER



NUCLEAR POWER



HYDROPOWER

CUSTOMER



SHIP HULL UHP WATER BLASTING ROBOTIC SOLUTION

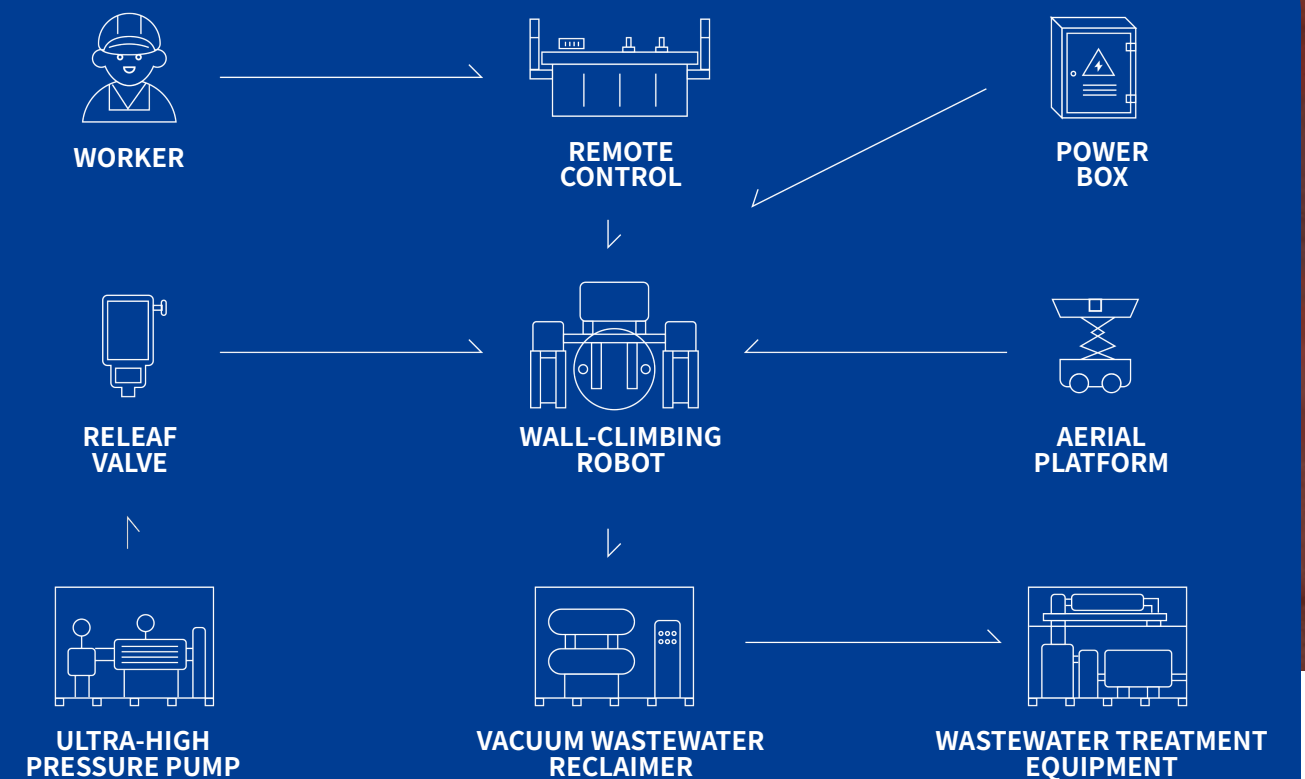
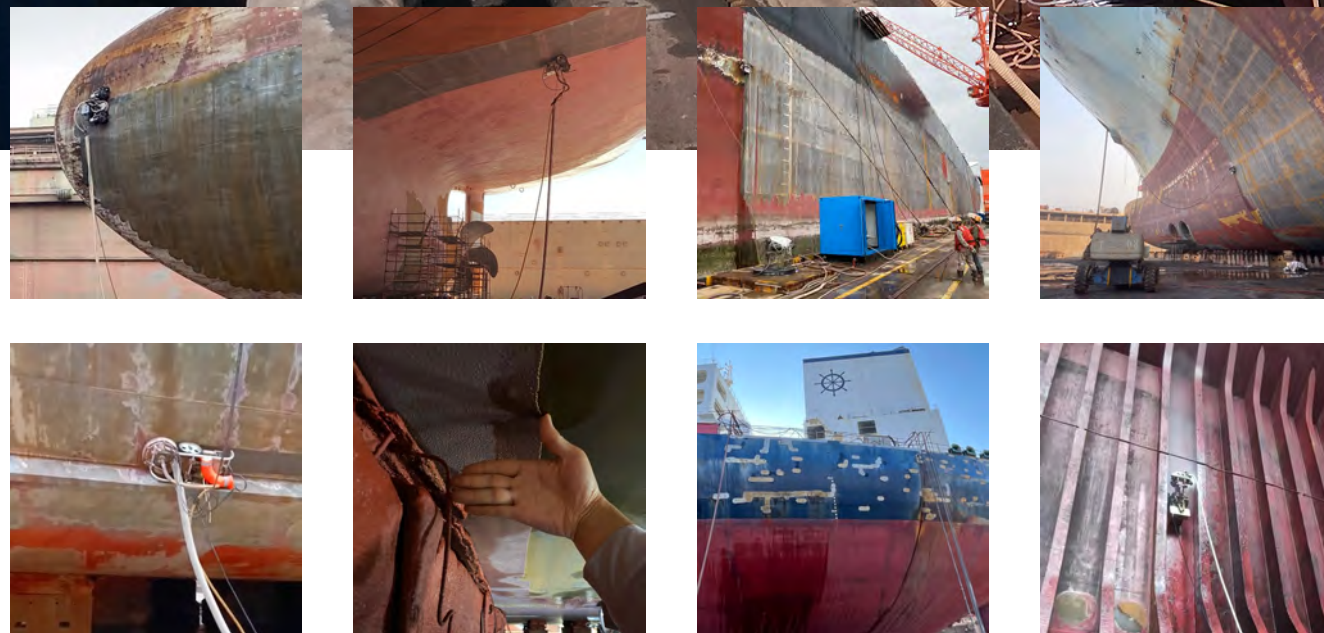
5000+

VESSELS

50+

CUSTOMERS

PROVIDE E2E SURFACE PREPARATION SOLUTION FOR ENTIRE SHIP



It integrates UHP water blasting technology, wastewater reclaiming and treatment technology, and a wall-climbing robot. Ship hull surface preparation can be completed efficiently using the wall-climbing robot or a semi-automatic cleaning device on an aerial platform. The solution can cover up to 98% hull areas, such as bow, stern, keel, bilge keel, side shell, bottom, sideport, and bulbous bow.

STORAGE TANK BLASTING AND COATING ROBOTIC SOLUTION

EX IIB T4

EXPLOSION PROTECTION RATING

150 kg

LOAD CAPACITY

50 m²/h

DERUSTING EFFICIENCY



WORKER



REMOTE
CONTROL



POWER
BOX



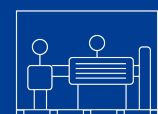
RELEAF
VALVE



WALL-CLIMBING
ROBOT



VIABLE TRUSS
(OPTIONAL)



ULTRA-HIGH
PRESSURE
PUMP

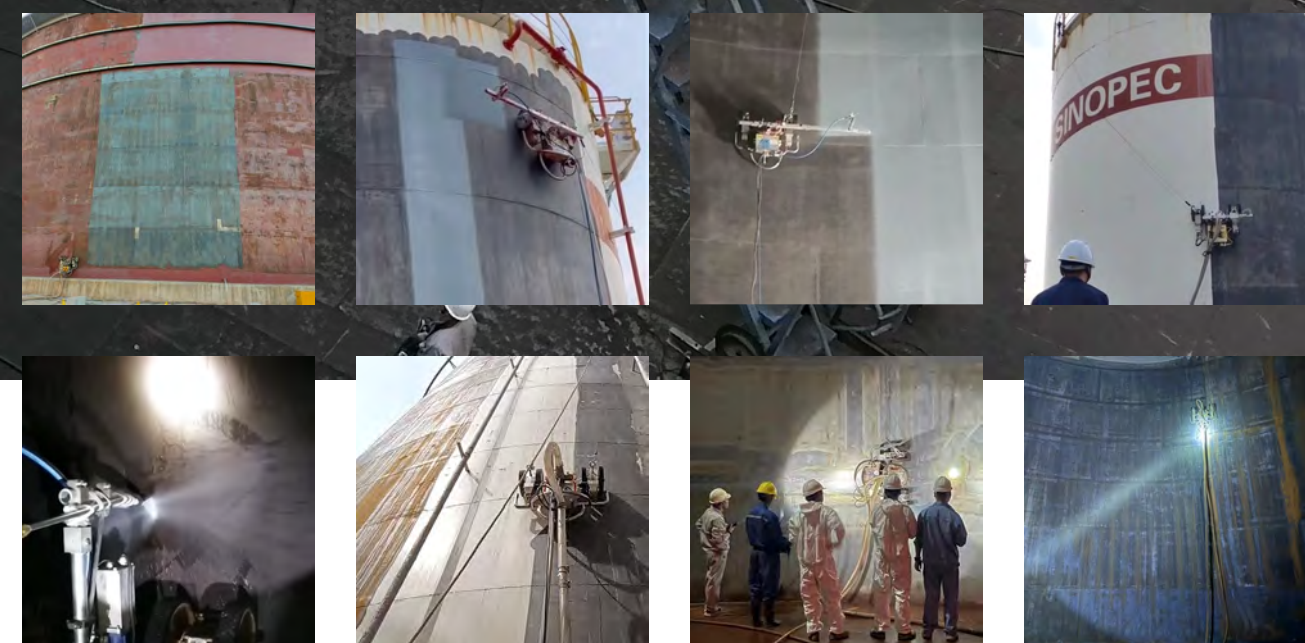


VACUUM
WASTEWATER
RECLAIMER

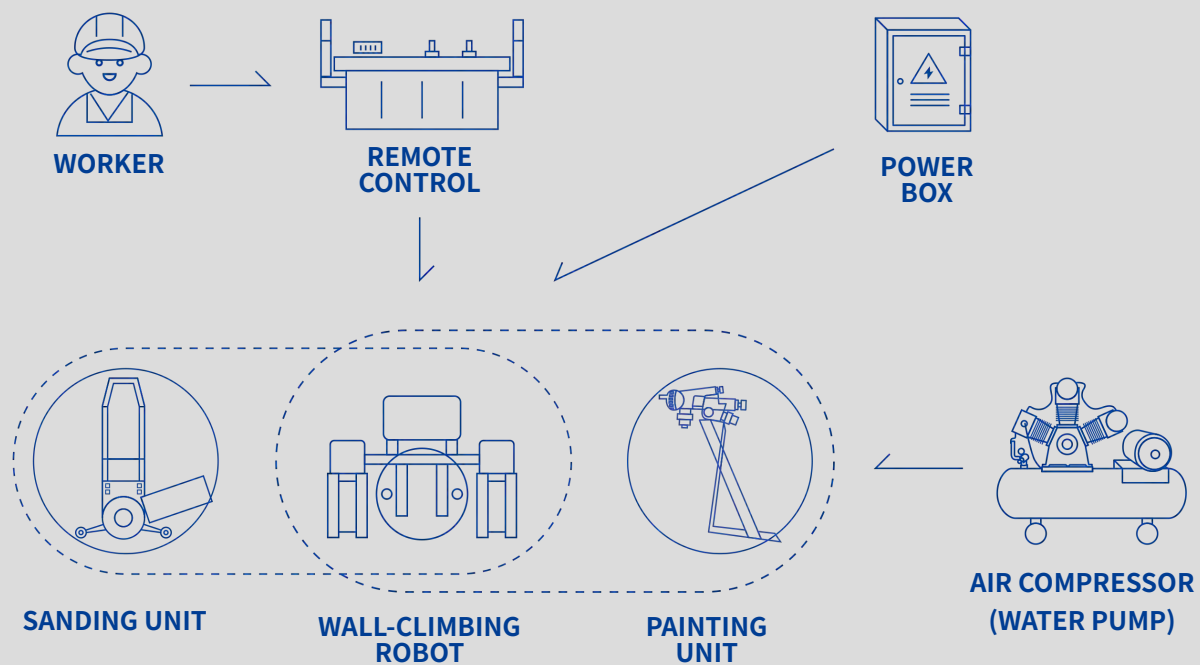


WASTEWATER
TREATMENT
EQUIPMENT

It integrates UHP water blasting technology, wastewater reclaiming and treatment technology, airless painting technology and a wall-climbing robot. The robot can work in scenarios of tank cleaning, blasting and coating. In addition, the robot can wash the tank by configuring a proper water pressure or chemical liquid.



WIND TURBINE TOWER CLEANING AND RESTORATION ROBOTIC SOLUTION



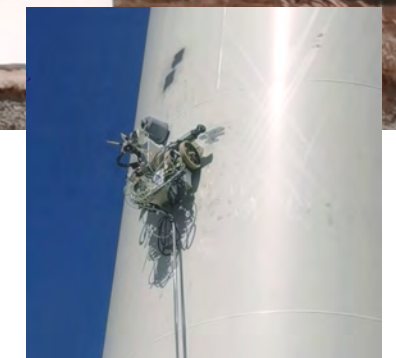
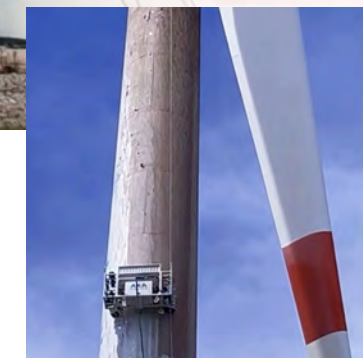
Without rope-access technician intervention,

- The wind turbine tower cleaning robot, equipped with a self-cleaning brush roller, brushes and washes tower dust and nacelle spillage, and traverses the structure automatically along the yaw axis.
- The wind turbine tower restoration robot, attached with a sanding and painting module, provides automatic anti-corrosion treatment, monitors any corroded surface repair quality remotely



01
CLEANING

02
RESTORATION

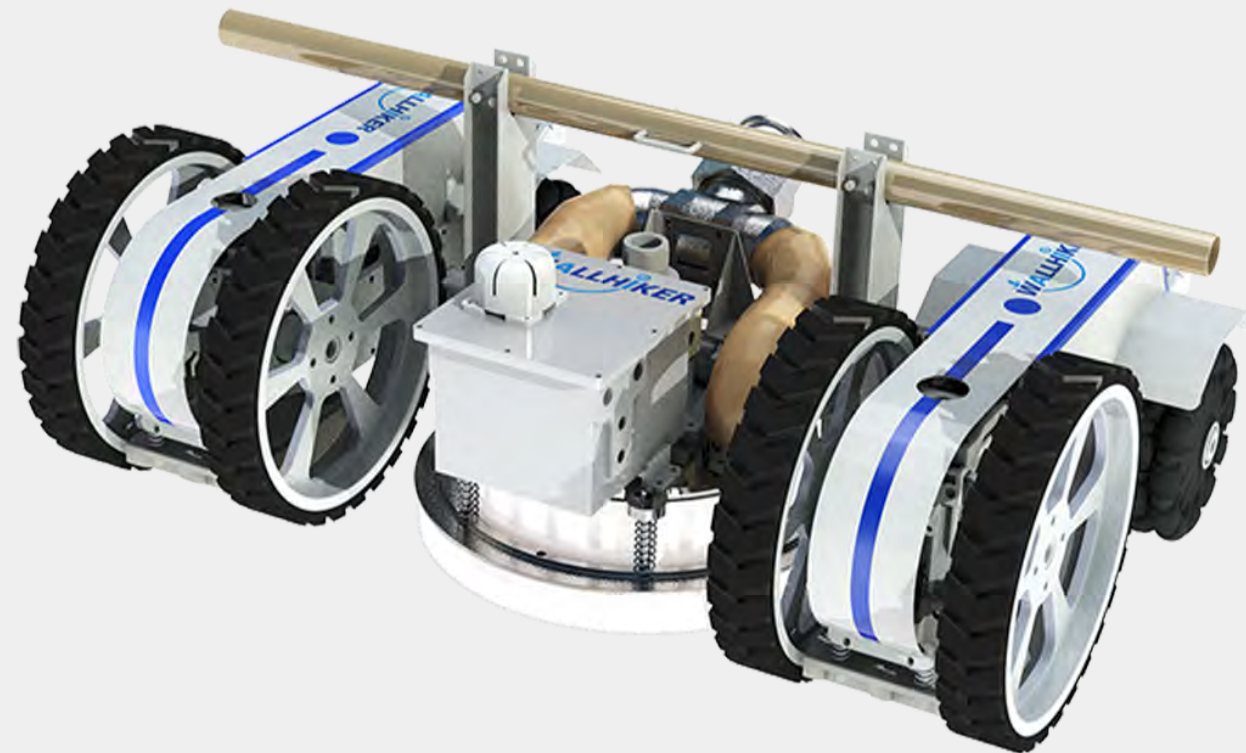


WALLHIKER W-06

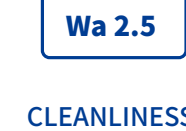
UHP HYDROBLASTING

MAGNETIC CRAWLER

ROBOT



PRODUCT HIGHLIGHTS



APPLICATION SCENARIOS

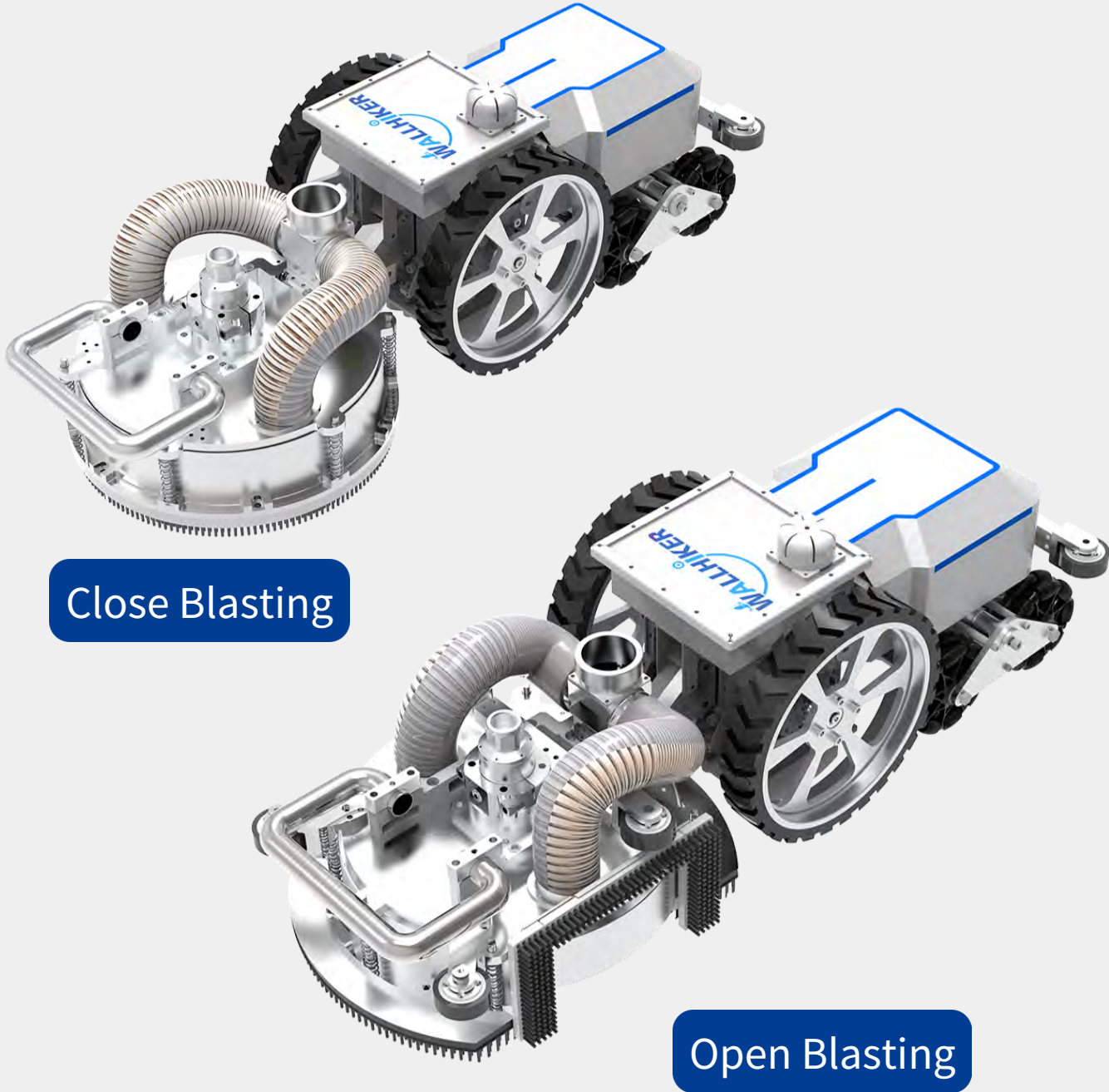
WallHiker W-06 is an ultra-high-pressure (UHP) hydroblasting robot, specifically designed for the preparation of large steel surfaces in industries such as maritime and storage tanks. This hydroblasting robotic system can be equipped with a vacuum reclaimer to collect wastewater, ensuring an eco-friendly blasting process.

- 1 Cover up to 98% of ship outer hull surfaces and adapt to a minimum curvature of 0.5m. Overcome complex curves and meet the requirements of various challenging operation scenarios.
- 2 With outstanding obstacle surmounting capabilities, the robot can effortlessly surmount 25mm weld seams, dents, and other obstacles. This greatly enhances operational efficiency and stability.
- 3 Enhanced magnet adhesion modules significantly increase load capacity, effectively eliminating the risk of falling. This ensures the robot's safety and continuous operation in complex environments.
- 4 Special design rubber wheels greatly improves their performance and extends their service life.

MAIN PARAMETERS

Max operation pressure	3000Bar
Power	1.5kW
Working width	250/300mm
Efficiency	30~50m ² /h
Size	940x655x365mm
Weight	83kg
Load	150kg
Cleanliness	Wa2.5

WALLHIKER W-03 PRO UHP HYDROBLASTING MAGNETIC CRAWLER ROBOT



PRODUCT HIGHLIGHTS



BOTTOM
DERUSTING

Wa 2.5

CLEANLINESS

2800
BAR

MAX OPERATING
PRESSURE



WASTEWATER
RECLAIMING



IP66



CURVED SURFACE
ADAPTATION



AUTOMATIC
OPERATION
MODE



MODULAR
DESIGN

APPLICATION SCENARIOS

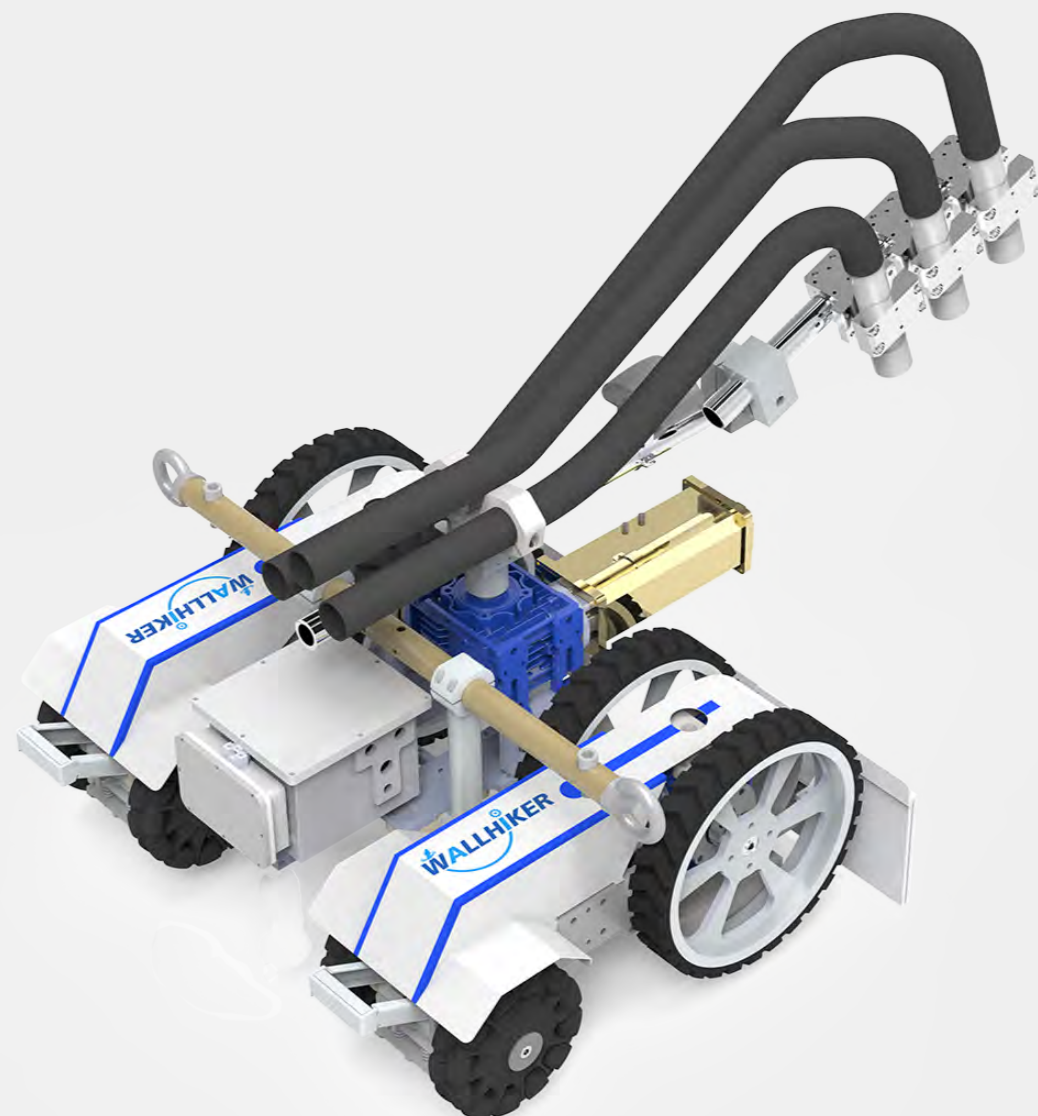
The robot is dedicated to ship-bottom hydroblasting and narrow-lane hydroblasting. As a companion to the Wallhiker W-06 robot, together they form a flawless pattern that ushers in a new era of robotic hydroblasting on vessel

Blasting Type	Centimeter to dociking block
Open Blasting	0
Close Blasting	3-5cm

MAIN PARAMETERS

Max pressure	2800Bar
Power	1.5kW
Working width	380mm
Efficiency	30~50 m ² /h
Size	1000x430x320mm
Weight	73kg
Load	80kg
Cleanliness	WJ-2.0/WJ-2.5

WALLHIKER W-04 SWING ARM SANDBLASTING MAGNETIC CRAWLER ROBOT



PRODUCT HIGHLIGHTS



APPLICATION SCENARIOS

WallHiker W-04, built on AKA's high-performance magnetic chassis, supports a variety of swing-arm applications, including sandblasting, hydroblasting. It is specifically engineered for vertical flat-surface preparation, such as ship hulls and storage tanks, ensuring that steel substrates are ready for painting.

- 1 The robot can be easily integrated with existing sandblasting or water blasting nozzles and systems, requiring minimal additional investment.
- 2 Hydroblasting module: It is engineered for removing dirt, seaweed and marine growth from the ship's hull.
- 3 Close Sandblasting module: It is engineered to achieve dust free through an additional vacuum setup, a customized attachment and selective abrasive material.

MAIN PARAMETERS

Blasting width	50~150mm
Efficiency	15~60m ² /h
Nozzle	1~3pcs
Load capacity	150kg
Weight	85kg
Size	1175x840x500mm
Power	2kW
Cleanliness	Sa2.5
IP rating	IP66

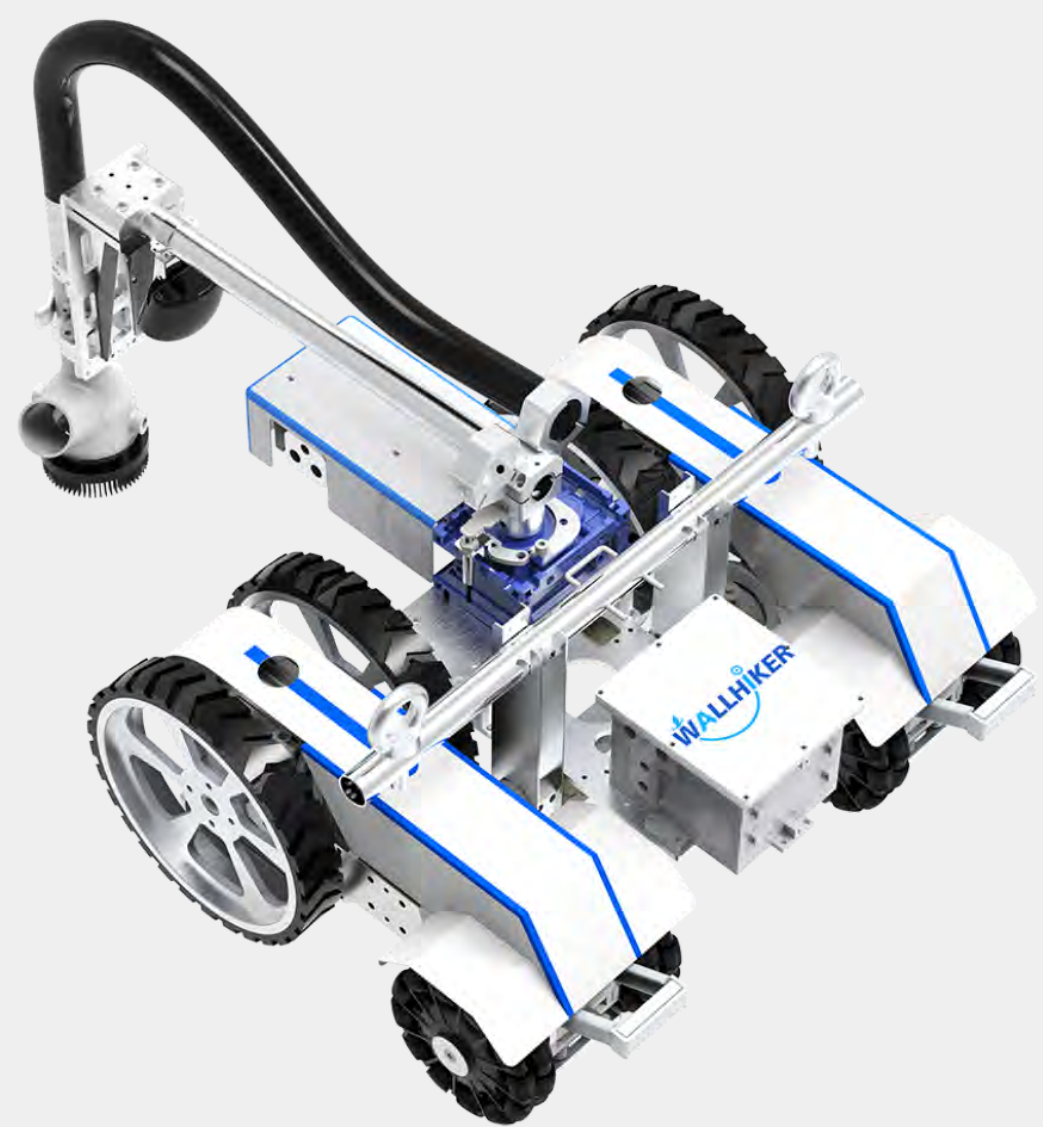
WALLHIKER

W-04-R

VACUUM RECOVERY

SANDBLASTING

MAGNETIC ROBOT



PRODUCT HIGHLIGHTS

 NO SCAFFOLDING	 LEVEL OF DERUSTING	 CURVED SURFACE ADAPTATION	 PERMANENT MAGNETIC ADHESION	 HIGH CONSISTENCY
 RECOVERY & RECYCLE	 DUST FREE	 OPERATION CYCLE	 INDOOR	

APPLICATION SCENARIOS

The robot is capable of recovering the dust generated by sandblasting, and recycling the abrasive material when in operation. In shipbuilding, it can be applied to weld seam grinding following hull erection, and deliver a high quality surface treatment.

- 1 Curved surface adaptive for effortlessly navigate curve surfaces and weld seams, significantly enhancing its obstacle-crossing capabilities.

3 Permanent magnetic adsorption, the equipment ensures stable operation on various surfaces, providing excellent safety and reliability.
- 2 Media Recycling: The system separates abrasive from contaminants, allowing the media to be recycled back into the blast gun, saving on material costs.

MAIN PARAMETERS

Surface Roughness	Ra 50-80μm (ISO 8503)
Work Width	100mm
Grinding Speed (on weld seam)	25-50 m/h
Nozzle	1pcs
Weight	83kg
Load capacity	60kg
Size	1020x730x500mm
Power	1.5kW
Surface Cleanliness	Sa2.5 (ISO 8501-1)
IP Rating	IP66
Max Operating Cable Length	35m

WALLHIKER W-05

AUTOMATE GRINDING & SANDING ROBOT



HIGHLIGHTS



NO
SCAFFOLDING



PERMANENT
MAGNETS



CURVED SURFACE
ADAPTATION



HIGH
CONSISTENCY

UP TO 60M

WORK HEIGHT



MULTI
FUNCTIONAL

APPLICATION SENARIO

The robot is capable of mechanically abrading the existing coating, grinding weld seams, and handling other surface preparation work on large magnetic metal structures, such as in **shipbuilding**, **storage tank construction**.

- 1 Adaptive to different types of brushes, rollers, bristles, flap wheels and other process heads to suit various working scenarios
- 2 Moving speed and working pressure are adjustable and can be controlled precisely, capable of performing light & heavy duty surface preparation process.
- 3 Compact design is good for confined spaces and access to limited areas. The mounted camera enables clear observation.

MAIN PARAMETERS

Max Move Speed	25m/m
Work Efficiency (surface roughening)	60 - 300 m ² / h
Work Width (surface roughening)	25-50 m/h
Work Efficiency (grinding)	30- 70 m ² / h
Work Width (grinding)	150 mm
Dimensions	960x520x530 mm
Weight	70 kg
Payload	60 kg
Power	3.2 - 4.5 kW
Max Operating Cable Length	60 m
IP rating	IP65

WALLHIKER CH-02 CARGO HOLD CLEANING ROBOT

UP TO 300% MORE EFFICIENCY
UP TO 95% COVERAGE



PRODUCT HIGHLIGHTS

100-180°
ACCESSIBLE
INTERNAL CORNER

180-250°
ACCESSIBLE
EXTERNAL CORNER

500
BAR
MAX OPERATING
PRESSURE

PERMANENT
MAGNETIC ADHESION

IP66

COMPLEX SURFACE
ADAPTATION

MODULAR
DESIGN

APPLICATION SCENARIOS

CH-02 robot's core function is to operate in complex, confined, and high-risk enclosed spaces, enable the sailor to achieve safe, efficient, and comprehensive automated cleaning

- ① Up to 95% cleaning coverage, breaking through the limitations of traditional cleaning blind spots.
- ② Cleaning efficiency up to 810-1000 m²/h, up to 300% more efficiency. Robot can work even while the ship is sailing further boosts operational efficiency. Quick set up, simple to use by the vessel's crew, requiring minimal training.
- ③ Safely remote operation on the ground, completely avoiding risks associated with high-altitude and hazardous work. Standardized procedures ensure faster, safer and cleaner results.

MAIN PARAMETERS

Cleaning Width	900mm
Water flow rate	≥30L/min
Efficiency	810-1000m ² /hour
Nozzle quantity	5pcs
Dimensions	450(L)×460(W)×410(H)mm
Weight	60kg
Load weight	60kg
Obstacle clearance	≤25mm
Power	1500w
Remote control distance	100meter
Power supply	AC 220/110V、DC 48V
IP rate	IP66

WALLHIKER PR-EX-03 EXPLOSION-PROOF UHP WATER BLASTING MAGNETIC CRAWLER ROBOT



PRODUCT HIGHLIGHTS



ZONE II



PERMANENT
MAGNETIC
ADHESION

Wa 2.5

CLEANLINESS

2800
BAR

MAX OPERATING
PRESSURE



WASTEWATER
RECLAIMING



CURVED SURFACE
ADAPTATION



AUTOMATIC
OPERATION
MODE



MODULAR
DESIGN



EXPLOSION-
PROOF DESIGN



NO
SCAFFOLDING

APPLICATION SCENARIOS

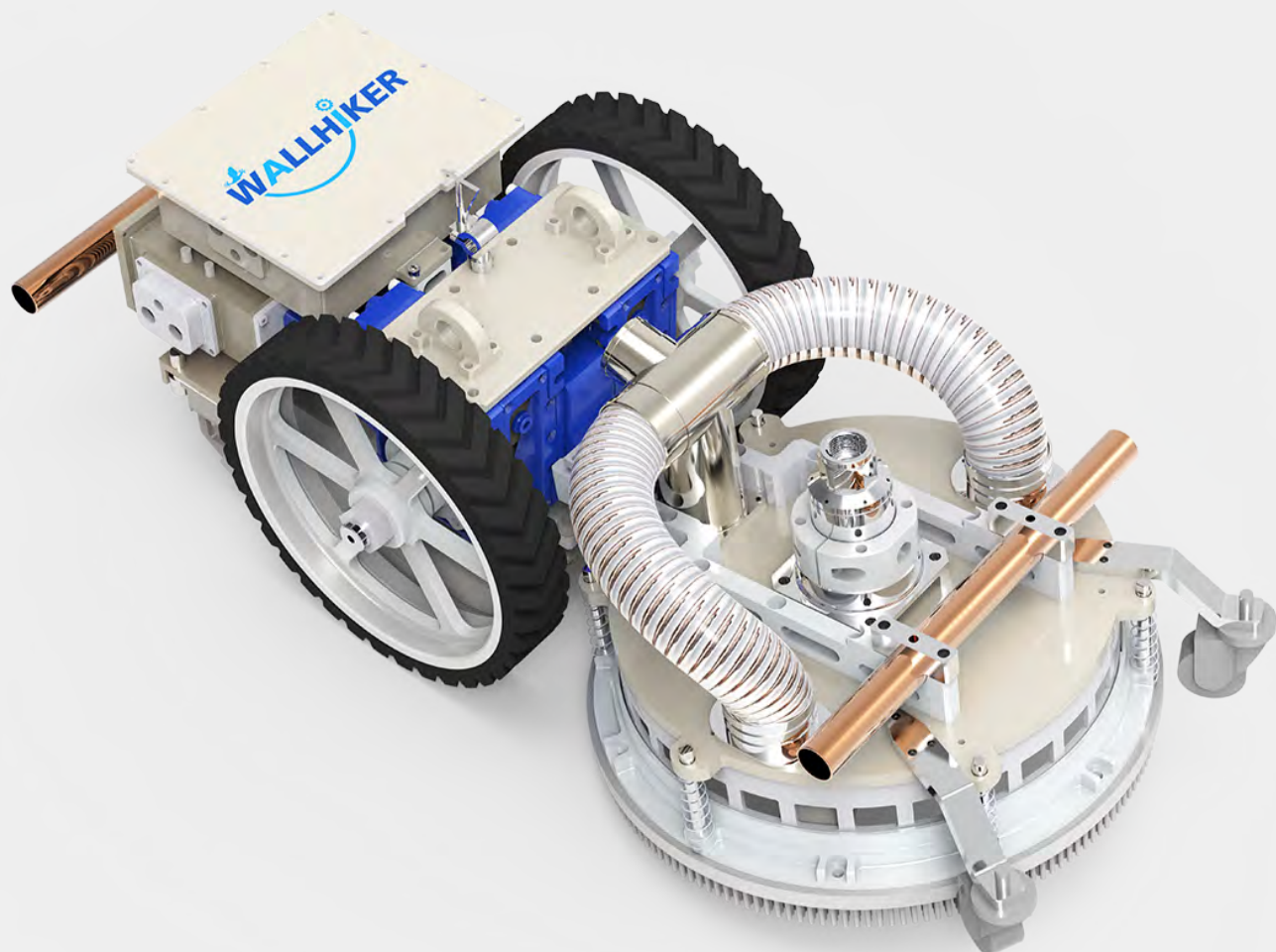
WallHiker EX-02 is a explosion-proof ultra high pressure (UHP) hydroblasting robot, specially designed for cleaning, removing rust and paint for storage tanks with explosion proof certi cation. It is particularly suitable for treating rusty areas, paint stripping and surface preparation. The explosion-proof design allows the robot to work in Zone II of the hazardous area.

- ❶ The explosion-proof design allows the robot to work in Zone II of the hazardous area.
- ❷ No scaffolding required.
- ❸ Suitable for tanks of 500 CBM and above.

MAIN PARAMETERS

Max operating pressure	2800Bar
Max moving speed	16m/min
Working width	250mm
Efficiency	30~50 m ² /h
Size	1000x990x560mm
Weight	100kg
Load Capacity	60kg
Cleanliness	Wa2.5

WALLHIKER PR-03 UHP WATER BLASTING MAGNETIC CRAWLER ROBOT



PRODUCT HIGHLIGHTS



NO
SCAFFOLDING

Wa 2.5

CLEANLINESS

2800
BAR

MAX OPERATING
PRESSURE



WASTEWATER
RECLAIMING



IP66



CURVED SURFACE
ADAPTATION



AUTOMATIC
OPERATION
MODE



MODULAR
DESIGN

APPLICATION SCENARIOS

The WallHiker PR-03 robot is designed for water blasting on storage tank surfaces. It is easier to reach the edge area or narrow space, or other ther scenarios that require a compact, miniaturized unit.

MAIN PARAMETERS

Max moving speed	12m/min
Working width	320mm
Efficiency	30~50 m ² /h
Power	1kW
Size	950x430x335mm
Weight	65kg
Load capacity	60kg
Cleanliness	Wa2.5
IP rating	IP66

WALLHIKER

PR-04

SWING ARM

SANDBLASTING

ROBOT



PRODUCT HIGHLIGHTS



NO
SCAFFOLDING

Sa 2.5

LEVEL OF
DERUSTING



AUTOMATIC
LANE CHANGE



PERMANENT
MAGNETIC
ADHESION



MODULAR
DESIGN



CURVED SURFACE
ADAPTATION

APPLICATION SCENARIOS

The WallHiker PR-04 robot is designed for sandblasting on storage tank surfaces. It is easier to reach the edge area or narrow space, or other scenarios that require a compact, miniaturized unit.

MAIN PARAMETERS

Max moving speed	12m/min
Derusting width	50~100mm
Derusting efficiency	30~50m ² /h
Nozzle	1pcs
Load capacity	65kg
Weight	50kg
Size	400x490x700mm
Power	1kW
Level of derusting	Sa2.5
IP Rating	IP66

WALLHIKER TSSR100 EXPLOSION-PROOF SLUDGE EXTRACTION ROBOT



PRODUCT HIGHLIGHTS



ZONE 0



PARAMETERIZED
CONTROL



OBSTRACLE
CROSSING



OIL SLUDGE
RECLAIMING



VISUALIZED
OPERATION



MODULAR
DESIGN

APPLICATION SCENARIOS

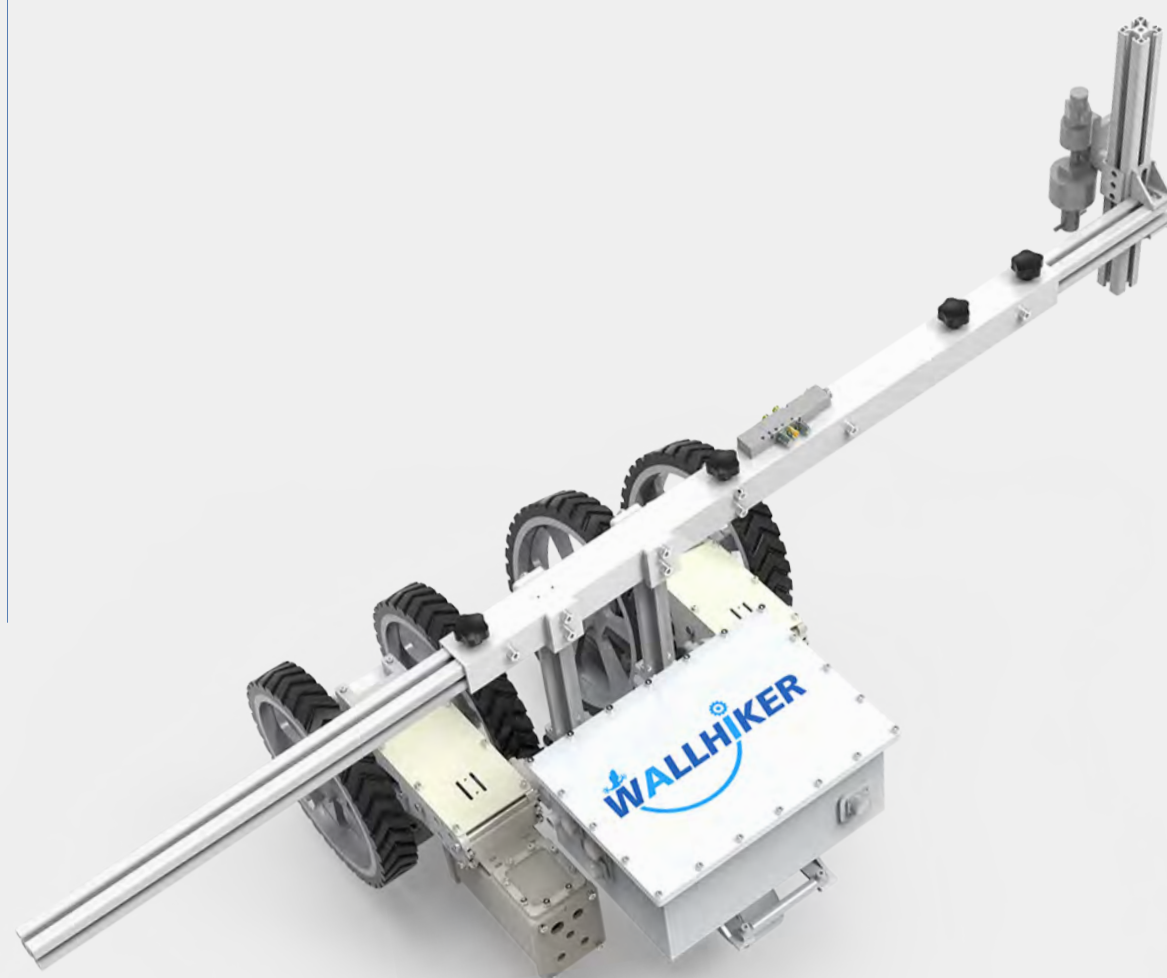
This TSSR100 is designed specifically for the petrochemical industry. It has strong explosion-proof performance and high vacuum operation capabilities, and can perform sludge extraction operations safely and efficiently under complex and dangerous working conditions.

- 1 The explosion-proof design ensures safe operation in flammable and explosive environments.
- 2 Crawler hydraulic drive has strong load capacity and obstacle-crossing ability and can adapt to complex working conditions.
- 3 The vacuum pump is used to generate negative pressure, which has high recovery efficiency and is suitable for the extraction of viscous sludge.
- 4 Remote monitoring and operation, the robot drags the pipeline into the tank, the camera conducts real-time remote monitoring, and the operation is safer.

MAIN PARAMETERS

Max moving speed	12m/min
Max climbing ability	30°
Max obstacle clearance height	100mm
Pollution suction capacity	5m ³ /h
Size	1100x420x400mm
Weight	160kg
Max vacuum	-0.09Mpa

WALLHIKER TSW-02 MAGNETIC CRAWLER PAINTING ROBOT



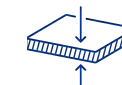
PRODUCT HIGHLIGHTS



PAINTING



PARAMETERIZED
CONTROL



THICKNESS
CONTROL



REDUCE
OVERSPRAY



PERMANENT
MAGNETIC
ADHESION



THICKNESS
MEASUREMENT

APPLICATION SCENARIOS

WallHiker TSW-02 is an painting robot, specially designed for the inner and outer surfaces of the tank with an paint sprayer.

- ① Adjust the thickness by setting up the speed and flow rate
- ② Reduce the overspray and mitigate the air polution
- ③ Measure the thickness of paint

MAIN PARAMETERS

Max moving speed	16m/min
Diameter of painting	300~800mm
Efficiency of painting	100~300m ² /h
Size	1050x970x420mm
Weight	80kg
Load Capacity	60kg

WALLHIKER SR-04 VACUUM WASTEWATER RECLAIMER



PRODUCT HIGHLIGHTS



WASTEWATER
RECLAIMING



1 FOR 1 ROBOTS

APPLICATION SCENARIOS

WallHiker SR-04 is vacuum reclaim system, specially designed for collecting rust, paint, residues and wastewater, ensuring environmentally friendly cleaning process.

- ① The sewage tank is equipped with a filter designed to recover mixed solid-particle wastewater generated by high-pressure water impacting the wall surface.
- ② A high vacuum level provides strong lifting capability, while pressurized drainage enhances conveyance capacity.
- ③ Safe, reliable, and with a low failure rate, the system operates with limited on-site staffing

MAIN PARAMETERS

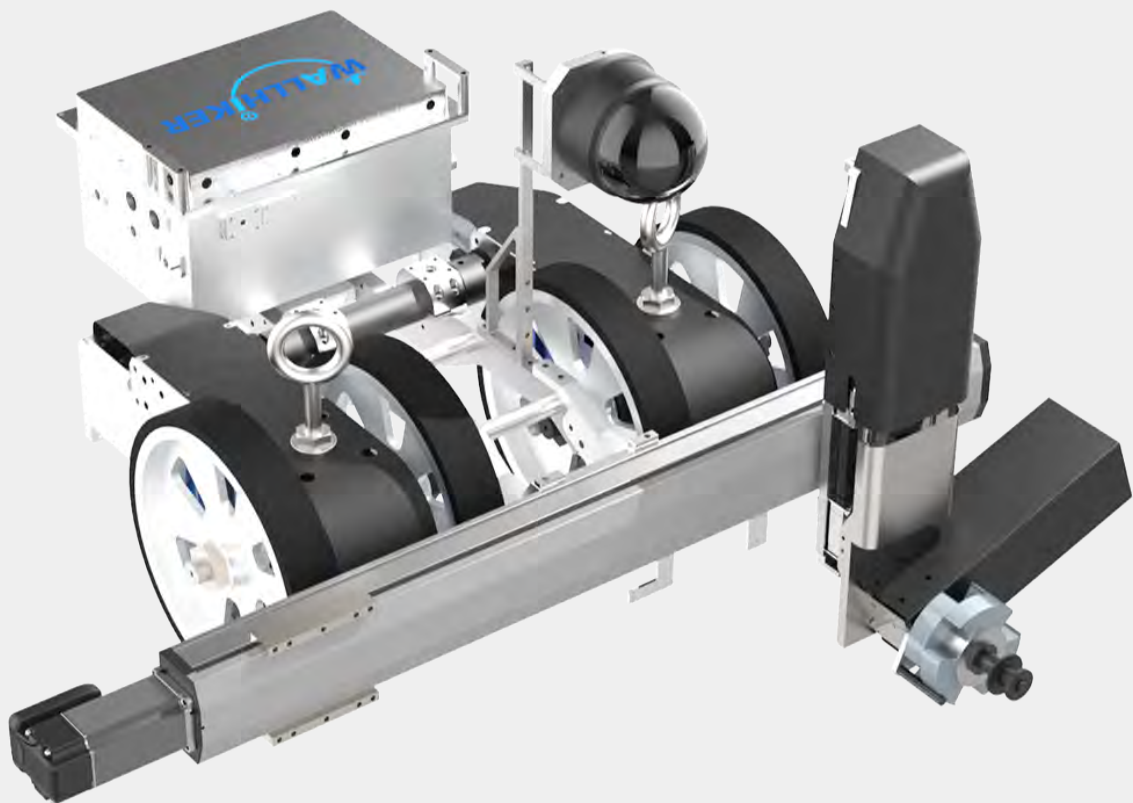
Max flow	2.5T/h
Max attached machine	1
High-Lift	15m
Max vaccum	-0.085Mpa
Size	2400x1400x1950mm
Weight	1.2T
Power	11kW
Interval of cleaning	4-6 hours
Built-in tank size	0.9 CBM
Filter methodology	A separate filter basket

WALLHIKER

WP-02

WIND TURBINE TOWER

REPAIR ROBOT



PRODUCT HIGHLIGHTS



PERMANENT
MAGNETIC
ADHESION



MECHANICAL
SANDING



PAINTING



WIND-RESISTANT



AUTOMATIC
LANE CHANGE



CURVED SURFACE
ADAPTATION



MONITOR



MODULAR
DESIGN



NO
SHUTDOWN

APPLICATION SCENARIOS

WallHiker WP-02 is a repairing robot, specially designed for the restoration of wind turbine tower surface .

- ① With a high level of wind resistance, it can work under the wind speed of Grade 6.
- ② Easy preparation, simplified operation, and friendly human-machine interaction.
- ③ It can operate without shutdown of the wind turbine, increasing the power generation efficiency and reducing the maintenance cost of the wind farm.
- ④ Enable digitization and data visualization by connecting the control centre of the wind farm.

MAIN PARAMETERS

Max moving speed	16m/min
Height of operation	150m+
Level of working environment	13m/s
Size	1070x1070x530mm
Weight	105kg
Load	60kg
Efficiency of painting	80~100m ² /h
Efficiency of sanding	2~6m ² /h

WALLHIKER

WP-05

WIND TURBINE TOWER

CLEANING ROBOT



PRODUCT HIGHLIGHTS



MECHANICAL
CLEANING



PERMANENT
MAGNETIC
ADHESION



MODULAR
DESIGN



WIND-RESISTANT



CURVED SURFACE
ADAPTATION

APPLICATION SCENARIOS

WallHiker WP-05 is a wind turbine tower cleaning robot, specially designed for cleaning dirt and oil stain on the outer surface of wind turbine towers by strong brush system.

- 1 The robot can climb stably on the tower's outer wall through a double sling setup and permanent magnet adsorption.
- 2 Self-developed hardware platform and open-source operating system support seamless and timely updates and upgrades.
- 3 The advanced automation control and cleaning technology removes stubborn dirt and grease.
- 4 The robot has excellent conical adaptability and obstacle-surmounting capabilities; it can steadily climb and operate on conical tower cylinders of different specifications.

MAIN PARAMETERS

Max moving speed	15m/min
Level of working environment	15m/s
Size	2200x1100x1600mm
Weight	320kg
Efficiency of cleaning	500~600m ² /h
Tower diameter	2~7m

WALLHIKER

H-01 PRO

SEMI-AUTOMATIC

UHP WATER BLASTING

EQUIPMENT



PRODUCT HIGHLIGHTS



CONSTANT FORCE
ADAPTATION

Wa 2.5

CLEANLINESS

2800
BAR

MAX OPERATING
PRESSURE



WASTEWATER
RECLAIMING



SPOT
BLASTING



CURVED SURFACE
ADAPTATION

APPLICATION SCENARIOS

WallHiker H-01 pro is a surface preparation equipment specially developed for cleaning and stripping vertical or inclined surfaces in the marine industry, suitable for mounting on aerial work platforms. It is particularly suitable for treating rusty areas, paint stripping and surface preparation.

- ① As a result of adopting a large-stroke constant force telescopic mechanism, the equipment is safe and reliable.
- ② Good at working on the vertical part of the side shell plate and accurately perform local derusting operations.
- ③ The width of jetting can be configured flexibly, supporting different cleaning scenarios.
- ④ Cooperate with Vacuum Wastewater Reclaimer to achieve reasonable environmental protection.

MAIN PARAMETERS

Max operating pressure	2800Bar
Telescopic stroke	340mm
Working width	300mm
Efficiency	30~40m ² /h
Size	2300x490x530mm
Weight	65kg
Cleanliness	Wa2.5

WALLHIKER

H-03

SEMI-AUTOMATIC ROBOT FOR DECK- CLEANING



PRODUCT HIGHLIGHTS

Wa 2.5

CLEANLINESS

2800
BAR

MAX OPERATING
PRESSURE



WASTEWATER
RECLAIMING



SPOT
BLASTING



HEIGHT
ADJUSTABILITY

APPLICATION SCENARIOS

WallHiker H-03 is a handheld surface preparation equipment specially developed for cleaning and stripping ship deck surface. It is particularly suitable for treating rusty areas, paint stripping and surface preparation.

- 1 Manual mode is used for the adjustment of the height of the handrail, and the washing tray is moved by push-pull to conduct the cleaning operation of the deck edges.
- 2 The robot is configured with a pressure relief valve for instantaneous pressurization and depressurization, suitable for local derusting scenarios.
- 3 The modularized design allows quick disassembly and easy carrying.

MAIN PARAMETERS

Adjusting scope of the handrail	370-1170mm
Min operation height	400mm
Working width	300mm
Efficiency	30~40m ² /h
Size	1500x500x1050mm
Weight	20kg
Cleanliness	Wa2.5

CULTURE

Action **k**nowledge Action



MISSION

Green world Safe work



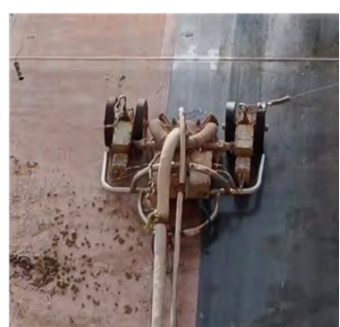
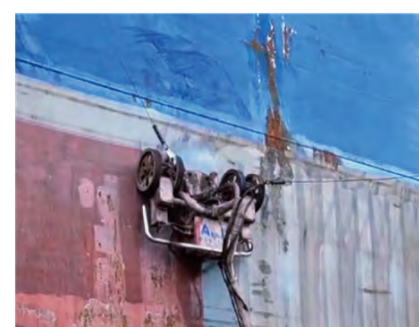
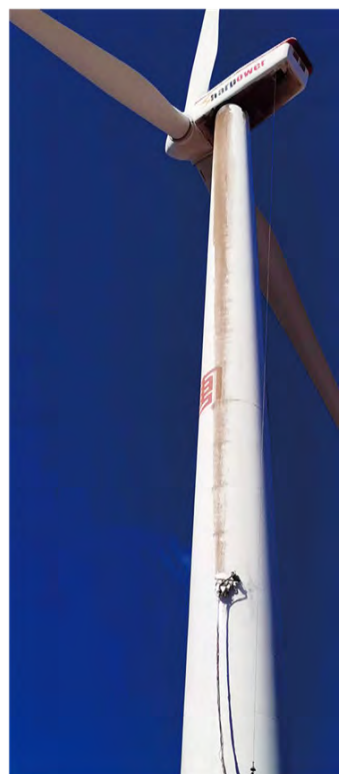
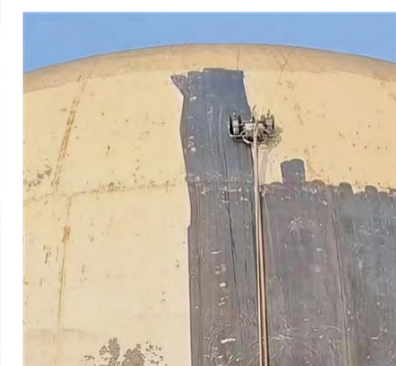
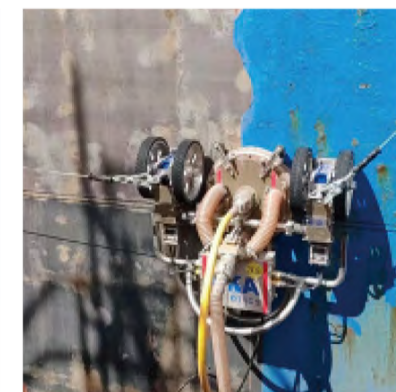
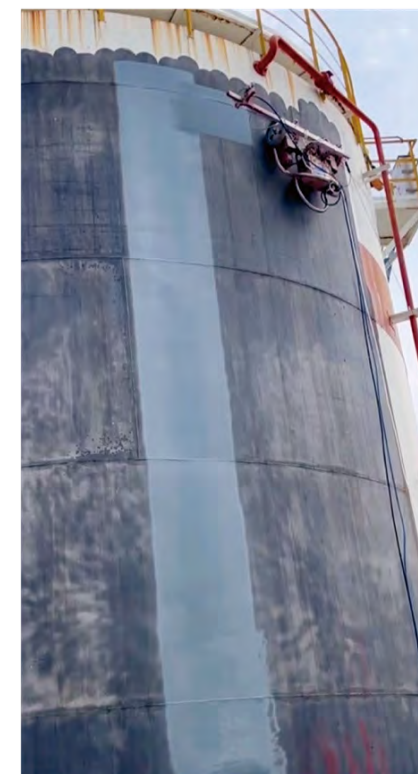
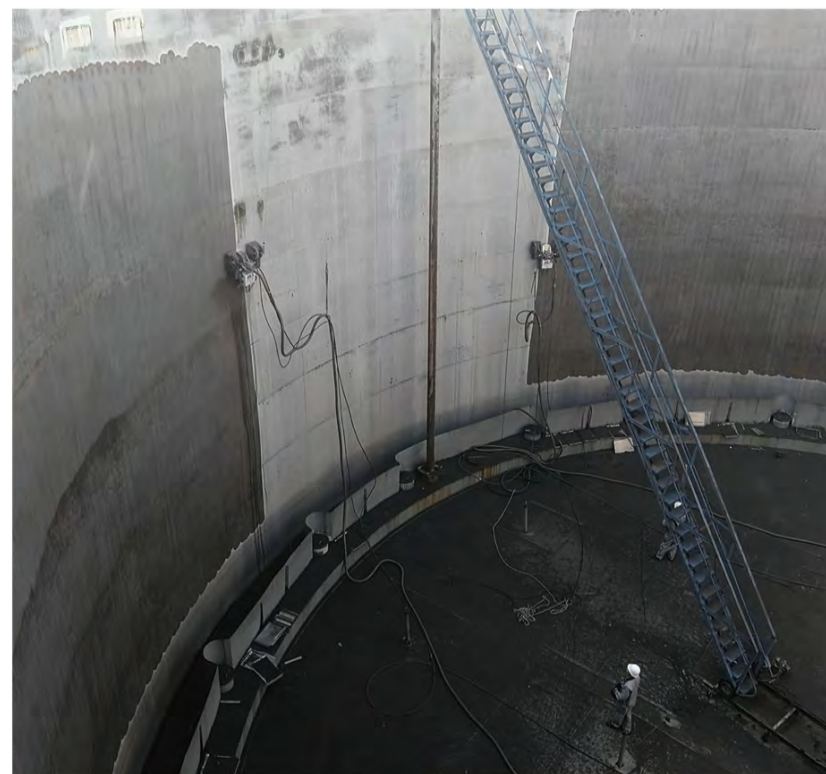
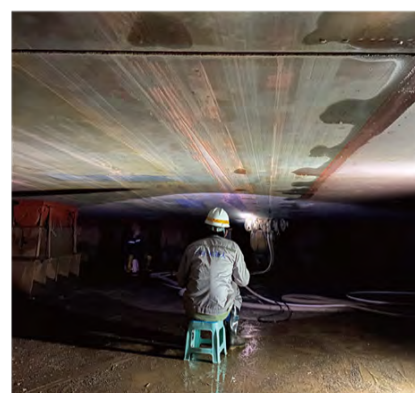
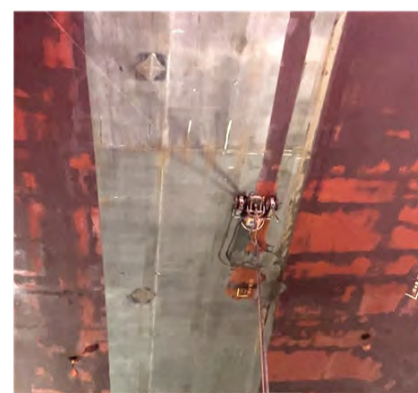
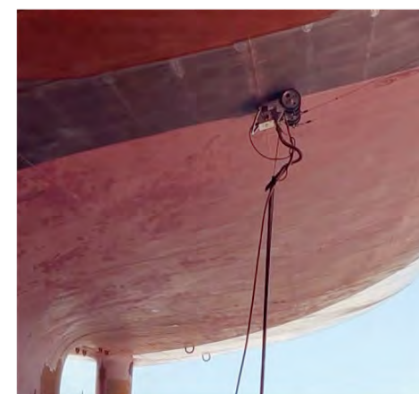
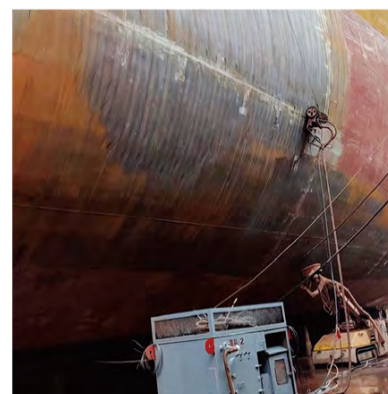
VISION

Specialist and leader of special robots



VALUE

To honor commitment and take practical actions



CUSTOMER SERVICE



 **TEAM**
A Well trained engineers team and after-sales service team

 **RESPONDING SPEED**
24/7 response, remote or on-site technical services and spare parts shipment

 **WARRANTY**
One year free warranty , and full life-cycle service contract