恒创智能

Hitech Intelligent

# Demolition Robots Products Manual

## Performance in every detail

Anhui Hitech Intelligent Equipment Co., Ltd.


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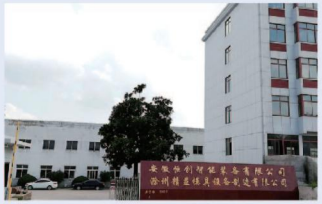
**More about Hitech**

# ABOUT

Anhui Hitech Intelligent Equipment Co., Ltd. is a national high-tech enterprise specializing in the R&D, production, and sales of engineering robots and their key components. It is a large-scale industrial enterprise in Chuzhou City, a high growth small and medium-sized enterprise in Anhui Province, a provincial-level "specialized, refined, special, and new" enterprise, and an AAA level enterprise that "abides by contracts and values credit" in Anhui Province. It is listed on the "Talent Enterprise Special Board" of Anhui Province (Stock Code: 670013). There is a "Anhui Industrial Design Center" and a "Anhui Key Laboratory of Special Heavy Duty Robots" R&D platform in the company. We have a high-level talent team led by a group of renowned scholars such as professors and researchers, with a focus on customer interests, committed to helping customers become winners in their industries. It has established a R&D center in Jiangbei New District, Nanjing, a manufacturing and assembly base in Chuzhou Higher Education Science and Technology Innovation City, and invested in the establishment of a robot application service company in Qiantang New District, Hangzhou, forming a "research, production, and use" Pattern.

The company is committed to the research and industrialization of special robots in high-risk environments and special working conditions. It has formed a series of products and overall solutions in two directions: intelligent demolition and fire emergency. The products mainly include demolition robots, rockbreaker boom system, soil drilling rig, firefighting robots, mulcher robots, and drainage robots. The products are widely used in industrial fields such as metal processing, mining, cement, construction, environmental protection, tunnels, as well as special fields such as fire protection, nuclear industry, emergency rescue, and military. At present, our main clients include well-known domestic and foreign enterprises such as Thyssenkrupp, SINOMA, CGN, and Zijin Mining. And we have exported to multiple countries, forming a good application demonstration and cooperation situation. The company is valued at over 100 million CNY and has received angel round investments from Anhui Provincial High tech Investment, Chuzhou City Urban Investment, and venture capital funds. The equity structure is reasonable and the management is standardized.

## Operational Pattern



Product trial factory in Chuzhou

R&D and sales center in Nanjing

Construction service center in Hangzhou




## Corporate Culture

**Spirit**——Solidarity, Integrity and Pragmatism, Diligent and Dedicated, Loyalty and Gratitude!

**Mission**——Using our wisdom to create brilliant intelligent equipment and make human labor safer and more efficient!

**Business Purpose**——Creating value for customers, creating a platform for staffs, contributing benefits to the society and shareholders!

**Vision**——Being leaders in domestic special engineering robots and backbone enterprises in the global field!

**Policy**——Customer first,quality first;elaborate craftsmanship, green and environmentally friendly!

## Qualifications Honors


# HCR Series Demolition Robots

The HCR series demolition robots are high-power operation equipments with remote control and refined operation capabilities. It is equipped with a flexible hydraulic wrist and multifunctional attachments, and can perform comprehensive remote control of crushing, shearing, dismantling and other operations in hazardous and harsh environments such as toxic (pollution), flammable, explosive, prone to collapse, and strong radiation. It greatly improves working conditions and reduces casualties. The whole machine has the characteristics of high power, multiple degrees of freedom, multidisciplinary integration, and high intelligence. Efficient and safe, a new type of demolition tool.





## Good Energy-saving Performance

- Two power sources are available for customers to choose from: electric driven and diesel driven.
- Hydraulic-driven operation ensures quiet demolition and minimal impact on the surrounding environment.
- The green design concept incorporates advanced hydraulic control technology, resulting in a highly efficient system with minimal heat generation.

## High Efficiency

- The robot is small but powerful, with a robust power output from its tool head. Its demolition capability exceeds three times that of construction machinery of the same weight.
- The three-arm is designed with a humanoid hand, providing a wide operating range and flexible movements.
- The core components are equipped with top imported brands, ensuring excellent quality.

## Intelligence

- The flexible intelligent control of the working arm can achieve precise fixed-point breaking, grasping and handling and other fine operations.
- Remote control combined with video monitoring, the wireless control distance of the device can reach 2km.
- The integration of robot technology can realize the expansion of environment perception, path planning and other functions.

## High Adaptability

- Compact in size, with a tight structure and agile maneuverability, it is suitable for operations in small and confined spaces.
- Suitable for construction operations in harsh environments such as high temperatures, high dust, and strong magnetic fields.
- It is a versatile machine that can be equipped with various tool heads such as hydraulic hammers and hydraulic shears.

## Safe and Reliability

- Human machine separation, equipment can replace people to enter dangerous areas for operations, reducing personnel injuries.
- Low center of gravity design, front and rear hydraulic support legs, stable and reliable operation.
- High protection for core components, professionally customized to meet different application fields.

### Widely Used In:

- Mining scaling and breaking large blocks
- Cement rotary kiln clinker breaking, brick dismantling, and casting material breaking
- Metallurgical cleaning, slag removal, lining, unpacking, and planing of electrolytic cells
- Excavation of tunnels and excavation of connecting passages
- Commercial building and industrial construction demolition and renovation
- Fire emergency, emergency rescue, and disposal of radioactive waste

# Application Industries

MINING

TUNNELING

CEMENT

CONSTRUCTION

METAL PROCESSING

SECURITY AND RESCUE

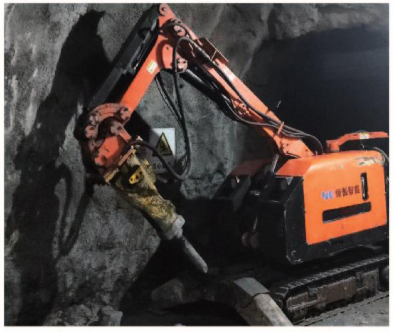
# Application In The Mining Industry

- Mining Application

- Scaling
- Tunnel supporting
- Breaking large blocks
- Drilling anchor holes and blasting holes
- Dig a ditch
- Repair the ramp
- Cut anchor cables
- Repairing deformed tunnels
- Ore recovery
- Fixed crushing station

- Application advantages:

The human-machine separation remote control operation allows workers to choose a safe and well visible position to operate the machine, avoiding the harm of falling rocks to personnel. There are four legs on the demolition robots: the center of gravity is low during operation, and the body is stable regardless of the direction of the boom. There are specialized protective devices on the arms to avoid damage from falling rocks to the arms, hydraulic oil pipes, and joints. The power output of the motor-driven equipment is stable and continuous, with no emission pollution, low noise, and reduced production costs.



- Application of Mining:

There are various uses for demolition robots in underground mines, especially in metal mines with narrow tunnels. They can be used for breaking large blocks, scaling, tunnel supporting, secondary crushing, drilling anchor holes and blasting holes, shearing anchor cables, digging water ditches, repairing inclined slopes, and repairing deformed tunnels. In addition, they can also be used as fixed crushing stations next to the chute grid screen, as well as for ore recovery and mining of narrow veins.

# Application In The Cement Industry

- Cement Application
  - Kiln maintenance
  - Refractory demolition
  - Clean the grate cooler
  - Preheat tower and clinker storage
  - Dismantle the kiln head casting material

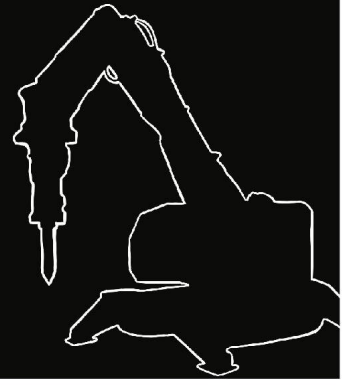

## Application of Cement:

Demolition robots can complete tasks such as cleaning, repairing, and inspecting cement kilns in high temperature and high dust environments. They can replace manual and small excavation maintenance of rotary kilns, greatly reducing downtime. With a three-section arm structure, there are no dead corners in operation, allowing for upward, lateral, or downward drilling, making it easy to remove casting materials and silica bricks. This brings new directions to the maintenance process of rotary kilns. In addition, demolition robots can also be used to clean clinker storage, grate coolers, and preheat towers. In addition to cement kilns, they are widely used in pellet kilns, lime kilns and other rotary kilns. The human-machine separation remote control operation ensures construction safety, improves efficiency, and reduces costs.



## Application Advantages:

The remote-controlled demolition robot is resistant to high temperature dust and can be operated remotely to ensure safety. Three-arm structure: simulates human hands, with no dead corners for operation, allowing for upward, lateral, and downward drilling, making it easy to remove casting materials and silica bricks. In a rotary kiln with a diameter of 4.8 meters, 7-10 meters of kiln skin and about 10 meters of bricks are removed per hour, which is fast and does not damage the cylinder.



# Application In The Metal Processing Industry

- Metal Processing Application
  - Foundry industry
  - Ferroalloy industry
  - Metal processing industry
  - Electrolytic aluminum industry
  - Copper lead zinc smelting industry

## Application of Metal Processing:

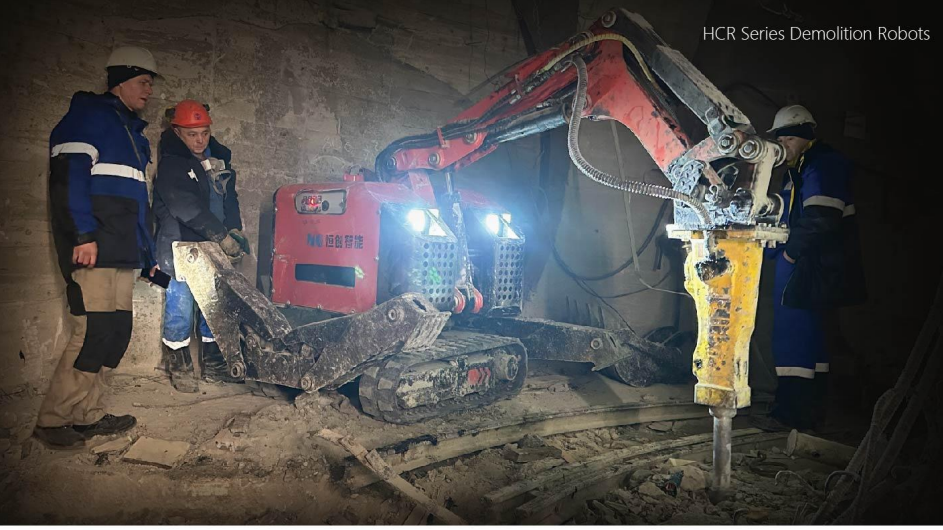
Due to its maneuverability, resistance to high temperature and dust, high reliability, and cost-effectiveness, demolition robots are widely used in the metal process industry for dismantling steel ladles, hot dismantling electric furnaces, hot cleaning furnace ports, hot cleaning package edges, digging iron trenches, cleaning VOD furnace covers, and cleaning torpedo tanks; It can be applied in foundries for unpacking, cleaning sand molds and end caps, and cleaning medium frequency furnace slag. Applied in the casting industry for dismantling iron ladle, pounding furnace, cleaning end caps, cleaning sand mold castings and pouring basins; Applied in the ferroalloy industry for dismantling ore furnaces and dismantling packages in ferroalloy factories; Applied in the copper lead zinc smelting industry for dismantling furnaces, cleaning furnace ports, cleaning bottom blowing slag outlets, cleaning side blowing furnace air holes, flues, and chutes; Used in the electrolytic aluminum industry for cleaning aluminum packages, cleaning anodes and online grooves, planing insulation furnaces, cleaning residual electrolytes, etc.

## Application Advantages:

The biggest advantage of the application of demolition robots in the metal processing industry is that they can significantly reduce the maintenance time of the main machine, improve the operation rate of production equipment, have high cost-effectiveness and low usage costs while ensuring the safety of construction personnel. In addition, demolition robots can also perform multiple tasks and play the role of "one machine, multiple functions".

# Application In The Tunneling Industry

- Tunneling Application
  - Tunnel excavation
  - Demolition of temporary walls
  - Excavate communication passages
  - Excavation of drainage and cable tunnels

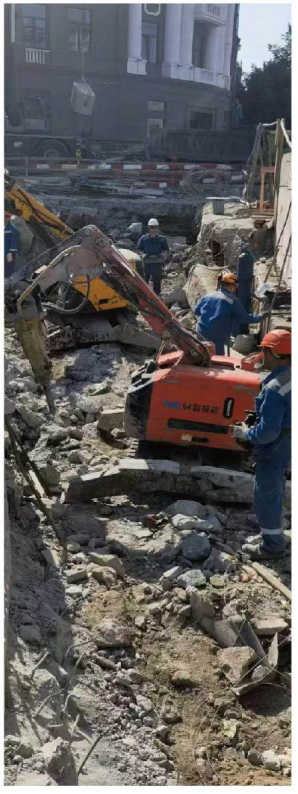


- Application of Tunneling:

Demolition robots have a wide range of applications in tunneling construction, and are ideal equipments for excavating connecting passages, tunnel excavation, and maintenance and renovation. Commonly used for the removal of temporary walls in underground tunnels, tunnel excavation, vertical shaft excavation, auxiliary support of tunnels, drainage, and excavation of cable tunnels. It is widely used in tunnel step method construction and frozen method connecting passage construction, and is suitable for mechanical excavation of various hardness rocks.


- Application Advantages:

The demolition robot has the advantages of a compact body, abundant power, and flexible maneuverability. It can enter narrow working faces and dangerous places for operation, improve efficiency, reduce production costs, and excavate with efficiency equivalent to several times the weight of an excavator. In addition, hydraulic hammers, digging buckets, splitting machines, support beam grippers, hydraulic drills, wet nozzles and other operations can be carried out to play the role of "one machine with multiple capabilities" in tunneling construction.



# Application In The Construction Industry

- Construction Application:
  - Building descent
  - Dismantling stairs
  - Demolition of underground facilities
  - Demolition of dangerous old buildings

- Application Advantages:

The demolition robot has the advantages of a compact body, abundant power, and flexible maneuverability. It can enter narrow working faces and dangerous places for operation, improve efficiency, reduce production costs, and excavate with efficiency equivalent to several times the weight of an excavator. In addition, hydraulic hammers, digging buckets, splitting machines, support beam grippers, hydraulic drills, wet nozzles and other operations can be carried out to play the role of "one machine with multiple capabilities" in construction.

- Application of Construction:

Demolition robots have broad application prospects in the construction industry, and can efficiently complete tasks such as dismantling reinforced concrete structures, lowering building floors, and indoor renovation. Compared to traditional demolition equipments, demolition robots have lower noise and vibration, less interference with the surrounding environment, and lower construction costs. At the same time, its efficient demolition capability and precise operational control have injected new vitality into the modern development of the construction industry.

# Application In The Security And Rescue

- Security And Rescue:
  - Clearing of ruins
  - Disaster site demolition
  - Search and rescue of trapped individuals
  - Work in hazardous and old environments

- Application of Security & Rescue:

Demolition robots play a crucial role in the field of security and rescue and are suitable for quick demolition operations at disaster sites, such as removing debris from collapsed buildings and breaking through barrier walls to rescue trapped individuals. Compared to traditional manual demolition tools, demolition robots have higher operational efficiency and stronger demolition capabilities, which can quickly open up rescue passages, reduce rescue risks, and improve rescue success rates. At the same time, its precise operational control also reduces secondary damage to the surrounding environment, providing strong support for subsequent rescue and reconstruction work.


- Application Advantages:

Specially designed for safety emergency, fire rescue, and military defense applications. Equipped with remote video control, multi-sensor fusion, intelligent demolition, cutting, grabbing, obstacle clearing, fire extinguishing and other functions, greatly enhancing emergency rescue capabilities and ensuring safety and efficiency.


HCR Series Demolition Robots

# Structural Diagram

The HCR series demolition robots have the advantages of high efficiency, precision, safety, reliability, and environmental protection. The body is compact, agile, powerful, and versatile, and can be equipped with multiple tool heads to meet different operational requirements. Multiple models are available for selection.


High reliability demolition robots (performance, quality, reliability, and durability)

Exceptional cooling capability to withstand high-temperature operating environments

Low energy consumption design, maximizing the utilization of hydraulic energy to provide sufficient power for the attachments

Load-balanced hydraulic stabilizer Outriggers

Protection for cylinders and hydraulic hoses

Bionic three-arm system

Optimized matching of attachments to ensure 100% utilization of the tool head's capabilities

The most reliable human-machine ergonomic remote controller

It is practical, resistant to interference, with a remote control(remote control distance can be customized). It features an LCD screen display

# HCR70D

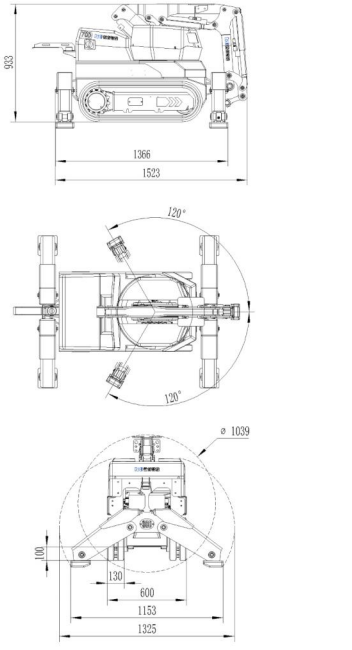
HCR70D is the smallest demolition robot that can pass through narrow doorways and be transported by a universal passenger elevator to enter narrow spaces for demolition work. Electric driven, flexible walking, low noise, and no emissions. It can replace human in hazardous and harsh environments such as toxic (pollution), flammable, explosive, prone to collapse, strong radiation, etc. for comprehensive and remote control of crushing, shearing, demolition and other operations.

## Widely used in:

- Emergency rescue
- Buildings interior renovation and demolition
- Metallurgical furnace maintenance and slag removal
- Nuclear accident rescue and nuclear waste treatment

| TECHNICAL DATA | |
|---|---|
| Slewing speed | 7 s/240° |
| Transport speed, max. | 2.4 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 27 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-27 L/min |
| Electric motor type | YE3-132M-B5 |
| Output | 7.5 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 750 kg |
| Recommended attachment weight | 105 kg |

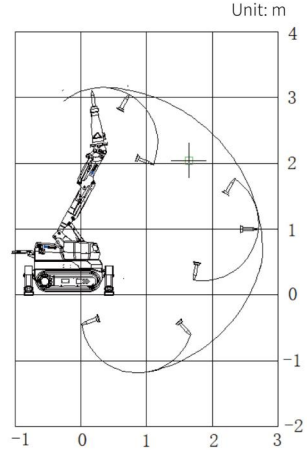
## SIZE




## OPTION

| OPTION |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR120D

HCR120D is an engineering robot driven by a motor, which is energy-saving and environmentally friendly. Its compact design and maneuverability can be applied to many projects. It can be accessed through ordinary porches and narrow passages, with maneuverability, high load-bearing capacity, and strong obstacle crossing ability. It can climb stairs or 30° slopes, suitable for small spaces.

## Widely used in:

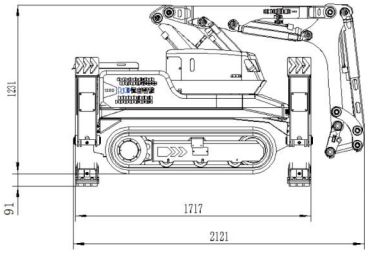
- Metallurgical furnace maintenance and slag removal
- Emergency rescue
- Nuclear accident rescue and nuclear waste treatment
- Demolition and renovation of commercial and industrial buildings

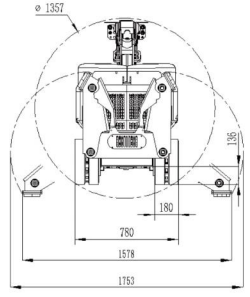




| TECHNICAL DATA | |
|---|---|
| Slewing speed | 12 s/360° |
| Transport speed, max. | 2.5 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 40 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-60 L/min |
| Electric motor type | YYB180M |
| Output | 18.5 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 1300 kg |
| Recommended attachment weight | 160 kg |

## SIZE

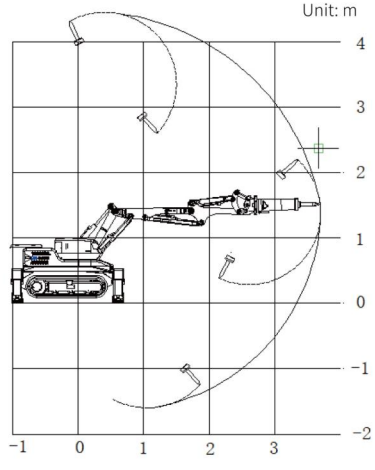



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR120C

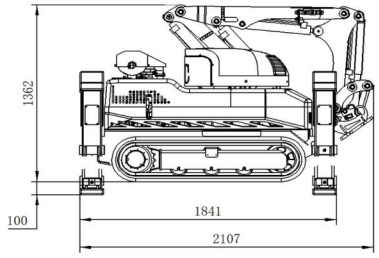
HCR120C is the smallest diesel engine driven demolition robot, and its compact design and maneuverability make it suitable for many projects. It can be accessed through ordinary porches and narrow passages, with maneuverability and flexibility, without dragging cables, and has great load-bearing capacity and strong obstacle crossing ability. It can climb stairs or 30° slopes.

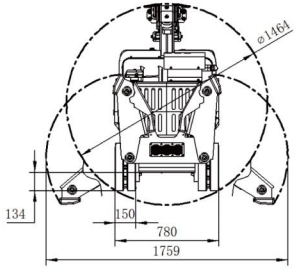
## Widely used in:

- Metallurgical furnace maintenance and slag removal
- Emergency rescue
- Nuclear accident rescue and nuclear waste treatment
- Demolition and renovation of commercial and industrial buildings

| TECHNICAL DATA | |
|---|---|
| Slewing speed | 10 s/360° |
| Transport speed | 2.2/4.0 km/h(Slow/Fast) |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 40 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-50 L/min |
| Engine | Inline 3-cylinder water-cooled four stroke diesel engine |
| Output | 18.7 kW |
| Fuse | 5A/10A/15A According to different routes |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 1500 kg |
| Recommended attachment weight | 160 kg |

## SIZE

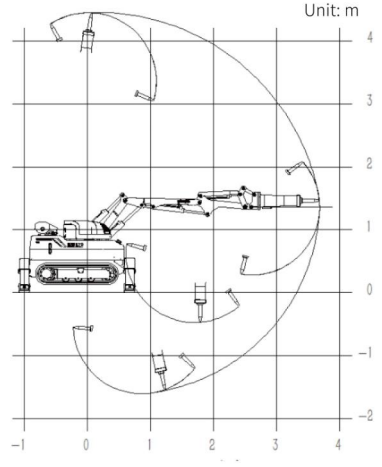



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR170D

HCR170D is compact, small size, lightweight and has excellent crushing ability, widely used in the construction and metal processing industries. It can enter narrow doorways and metallurgical furnace mouth to efficiently complete demolition operations. Its main features are compact machine, high force, and precise demolition. Precise remote control technology keeps operators away from dangerous areas, and robots replace manual work, greatly improving the speed of demolition.

## Widely used in:

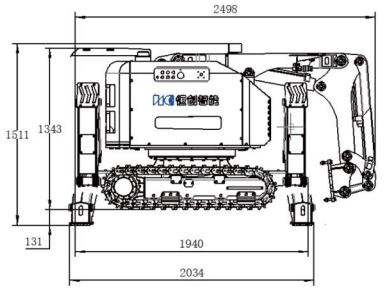
- Nuclear industry
- Construction demolition
- Rotary kilns maintenance
- Metallurgical furnace maintenance
- Mining and tunneling construction

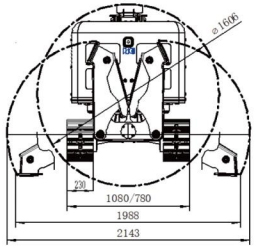




| TECHNICAL DATA | |
|---|---|
| Slewing speed | 12 s/360° |
| Transport speed, max. | 2.5 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 80 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-60 L/min |
| Electric motor type | YE3-180L-4B35 |
| Output | 22 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 150 m |
| Weight of machine excluding attachment | 1850 kg |
| Recommended attachment weight | 270 kg |

## SIZE

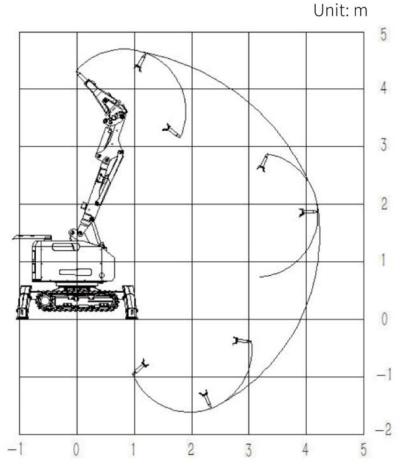



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR200D

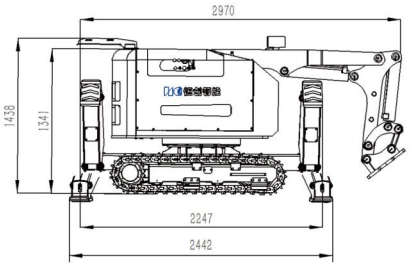
HCR200D has outstanding advantages in the fields of concrete cutting, rotary kiln brick removal, and metal processing. HCR200D has strong crushing ability and is equipped with hydraulic crushers, which can crush thicker beams, columns, and floors. This model of high-performance demolition robot is the first choice for construction and metallurgical furnace maintenance.

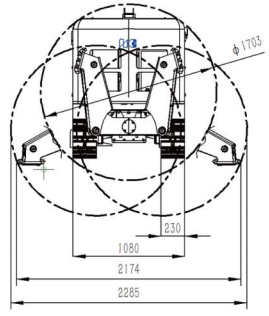
## Widely used in:

- Nuclear industry
- Tunnel excavation
- Metal processing industry
- Construction demolition
- Various rotary kilns (cement, limestone, pellets)

| TECHNICAL DATA | |
|---|---|
| Slewing speed | 12 s/360° |
| Transport speed, max. | 2.5 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 85 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-90 L/min |
| Electric motor type | YE3-200L-4B35 |
| Output | 30 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 150 m |
| Weight of machine excluding attachment | 2600 kg |
| Recommended attachment weight | 350 kg |

## SIZE

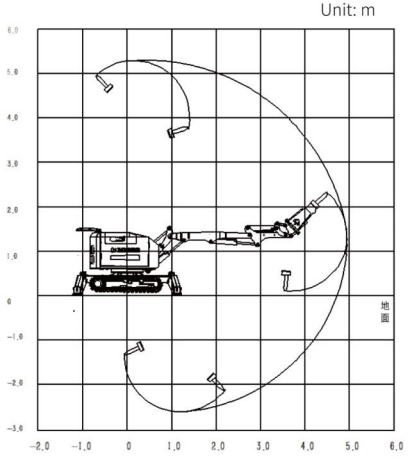



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR260D

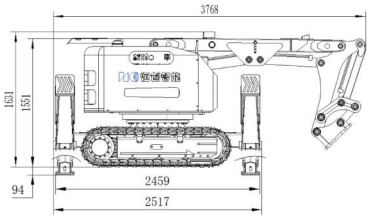
HCR260D has outstanding advantages in the fields of concrete cutting, rotary kiln brick removal, and metal processing. HCR200D has strong crushing ability and is equipped with hydraulic crushers, which can crush thicker beams, columns, and floors. This model of high-performance demolition robot is the first choice for construction and metallurgical furnace maintenance.

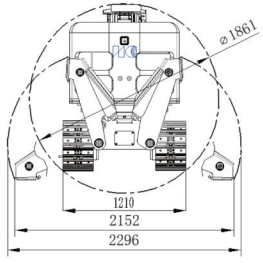
## Widely used in:

- Nuclear industry
- Tunnel excavation
- Metal processing industry
- Construction demolition
- Various rotary kilns (cement, limestone, pellets)

| TECHNICAL DATA | |
|---|---|
| Slewing speed | 16 s/360° |
| Transport speed, max. | 2.5 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 90 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-90 L/min |
| Electric motor type | YE3-200L-4B35 |
| Output | 30 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 2900 kg |
| Recommended attachment weight | 350 kg |

## SIZE

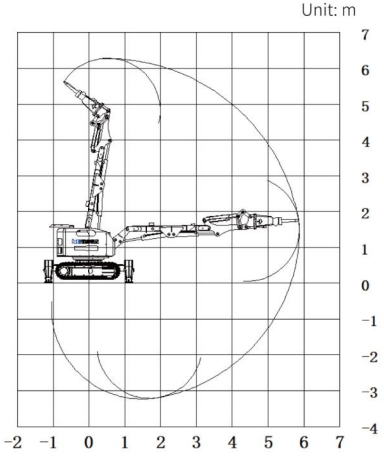



## OPTION

| OPTION |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR300D

HCR300D has the advantages of excellent technical performance and high reliability, and is a product widely used in industries such as cement, metal processing, tunnel excavation, connecting passages excavation, and quick demolition. Its demolition, slag removal, and crushing capabilities are strong, making it a comprehensive, multi-purpose, and multifunctional demolition robot.

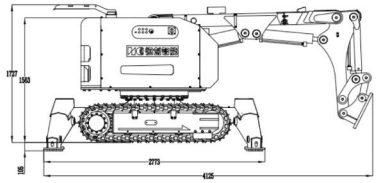
## Widely used in:

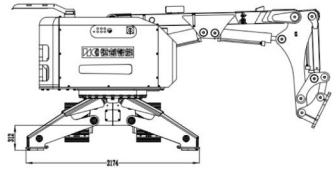
- Nuclear industry
- Tunnel excavation
- Metal processing industry
- Construction demolition
- Various rotary kilns (cement, limestone, pellets)

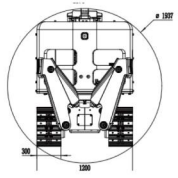
## TECHNICAL DATA

| | |
|---|---|
| Slewing speed | 16 s/360° |
| Transport speed, max. | 2.7 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 124 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-105 L/min |
| Electric motor type | YE3-225S-4-B35 |
| Output | 37 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 4350 kg |
| Recommended attachment weight | 500 kg |

## SIZE





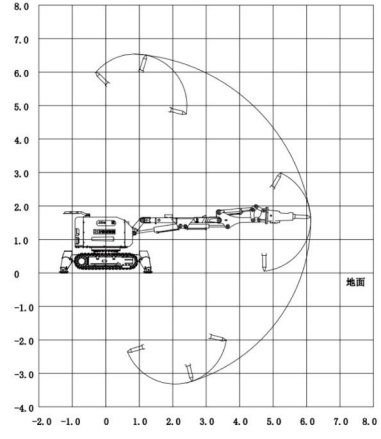


## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE

Unit: m



# HCR500D

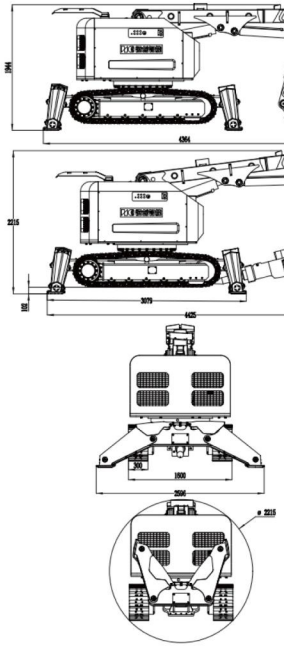
HCR500D has excellent demolition efficiency, high reliability and maintainability. In large-span construction demolition operations, tunnel excavation, metal processing and brick removal, it can further improve work efficiency and save time. With its outstanding power to weight ratio, it can be used for the demolition of large section concrete beams, columns, and high-strength cement floor slabs. In tunnel excavation construction, it has excellent breaking and demolition capabilities.

## Widely used in:

- Nuclear industry
- Tunnel excavation
- Construction demolition
- Metal processing industry

| TECHNICAL DATA | |
|---|---|
| Slewing speed | 16 s/360° |
| Transport speed, max. | 2.5 km/h |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 154 L |
| Pump type | Variable load-sensing |
| System pressure | 19 MPa |
| Pump flow | 0-140 L/min |
| Electric motor type | YE3-225S-4-B35 |
| Output | 45 kW |
| Fuse | / |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 5500 kg |
| Recommended attachment weight | 750 kg |

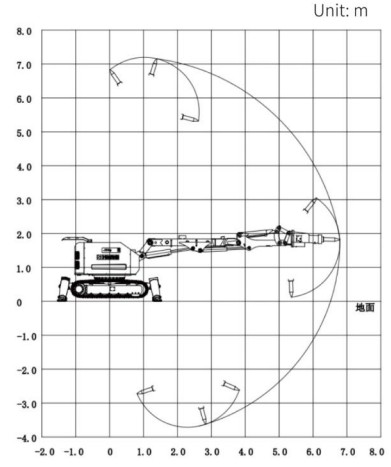
## SIZE



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE



# HCR500C

HCR500C diesel driven robot is suitable for projects with inconvenient power supply, with flexible mobility, easy to be transported and enter complex spaces for operations. It is the first choice for underground mining, tunnel excavation, emergency rescue, and construction industries, and has good working ability in the field of metal processing.

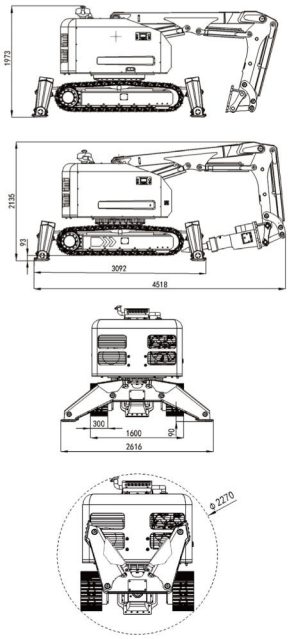
## Widely used in:

- Nuclear accident rescue and nuclear waste treatment
- Mining scaling and break large pieces
- Demolition of subway and buildings
- Metal processing industry

## TECHNICAL DATA

| | |
|---|---|
| Slewing speed | 16 s/360° |
| Transport speed | 2.3/4.0 km/h(Slow/Fast) |
| Incline angle, max. | 30° |
| Hydraulic system capacity | 180 L |
| Pump type | Variable load-sensing |
| System pressure | 25 MPa |
| Pump flow | 0-150 L/min |
| Electric motor type | 4TNV98T-ZCNLYS |
| Output | 61 kW |
| Fuse | 5A/10A/15A According to different routes |
| Starting device | Direct start |
| Control type | Portable control box |
| Signal code | Digital |
| Transfer | Professional radio/Cable |
| Range, radio | 100 m |
| Weight of machine excluding attachment | 6500 kg |
| Recommended attachment weight | 750 kg |

## SIZE

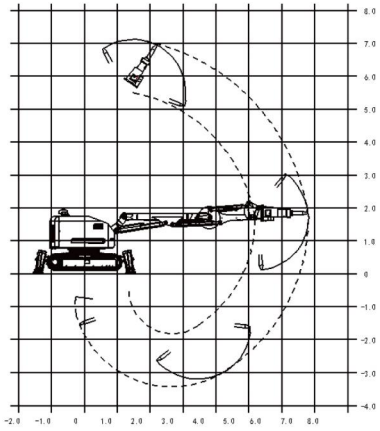



## OPTION

| |
|---|
| Working attachments such as buckets and hydraulic shears |
| Rubber track/steel track |
| Mechanical quick coupling |
| Forced air cooling |
| Oil cylinder special protection |
| Hydraulic hammer water jet function |
| Backup oil circuit (extra hydraulic function) |
| Track steel pads/other chisels |
| High temperature hose/nuclear protection |
| Hydraulic oil circuit automatic conduction quick coupling/hydraulic wrist |
| Remote video system, sensors |
| Fire cannon, booster and bulldozer |

## RANGE

Unit: m



# COMPARISON CHART

| Model | 70D | 120D | 120C | 170D | 200D | 260D | 300D | 500D | 500C |
|---|---|---|---|---|---|---|---|---|---|
| Weight (kg) | 750 | 1300 | 1500 | 1850 | 2600 | 2900 | 4350 | 5500 | 6500 |
| Width min. (mm) | 600 | 780 | 780 | 1080 | 1080 | 1210 | 1200 | 1600 | 1600 |
| Height min. (mm) | 972 | 1500 | 1500 | 1500 | 1450 | 1631 | 1832 | 1944 | 2330 |
| Motor output (kW) | 7.5 | 18.5 | 18.7 | 22 | 30 | 30 | 37 | 45 | 61 |
| Pump flow (L/min) | 0-27 | 0-60 | 0-50 | 0-60 | 0-90 | 0-90 | 0-105 | 0-140 | 0-150 |
| Recommended weight attachment (kg) | 105 | 160 | 160 | 270 | 350 | 350 | 500 | 750 | 750 |
| Vertical reach (including breaker) (mm) | 3300 | 4400 | 4400 | 4800 | 5450 | 6270 | 6541 | 7195 | 7120 |
| Horizontal reach (including breaker) (mm) | 2900 | 3680 | 3685 | 4300 | 5100 | 5896 | 6121 | 6790 | 6790 |

# MULTIPLE ATTACHMENTS OPTIONS AVAILABLE

## Equipped with additional tools to realize multi functionality of one machine

The demolition robot, with its strong adaptability and flexibility, can achieve multiple functions with one machine, easily carry and switch multiple attachments such as hydraulic hammers, hydraulic wrists, hydraulic shears, etc., meeting various complex operational needs and greatly improving work efficiency and scope.

### HYDRAULIC BREAKERS

Equipped with the world-renowned Epiroc SB series hydraulic hammer. It is lightweight, high-frequency, and capable of air strikes, making it the most universal working tool. After system design optimization, it is perfectly combined with the demolition robot, achieving high efficiency and excellence.

### CONCRETE CRUSHERS

Using high-quality materials and lightweight design to achieve the highest crushing force with minimal weight, it is used for construction demolition, processing ultra hard reinforced concrete, and has the characteristics of large opening, low noise, less dust, low vibration, and high efficiency.

### METAL SHEARS

Used for cutting operations of metal pipes, steel beams, plates, anchor cables, and cables in steel structures or waste factories.

### COMBI SHEARS

Adopting a unique structural design, it integrates three functions of shearing, expansion, and crushing with a small volume and high crushing efficiency. It is used for various building facilities, nuclear, fire emergency, military and other occasions such as steel expansion and shearing, door and window breaking, and rapid opening of rescue passages.

### DRUM CUTTERS

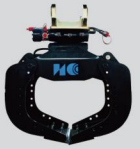
Suitable for open-pit coal mines, tunnel excavation and contour correction, trench milling and excavation, asphalt concrete pavement milling, rock and frozen soil milling, tree root milling and other fields, with two structural forms: horizontal and vertical.

### CUT OFF SAW

Equipped with rotation and pitch functions. It can achieve large space and all-round flexible operation and can quickly replace various specifications of saw blades for precise cutting of metal, concrete, wood, and non-metallic materials, with high efficiency and safety.

### SORTING GRAPPLES

Used for grabbing, sorting, and transporting materials such as round barrels and rods, as well as for dismantling and waste disposal of some scattered soft materials.



### BUCKETS

Using high-strength materials for welding, different shapes of digging buckets can be customized according to work requirements, suitable for small space excavation, loading, and material classification, making the demolition robot a remote-controlled and efficient excavator.

### CLAMSHELL BUCKETS

New lightweight design, used for cleaning bulk materials and debris, and can also be used for loading and sorting soil, sand, etc.

### MULTI PURPOSE GRAPPLES

Using high-strength wear-resistant steel plate welding, it can be used for loading and sorting various materials, as well as dismantling wooden and brick materials. At the same time, it can also quickly install protective plates to form a closed grab bucket, which is used for grabbing and transporting bulk flexible fabrics and debris.

### AUTOMATIC HYDRAULIC QUICK COUPLING

The unique structural design allows for quick replacement of different attachmentes and synchronized automatic opening and closing of hydraulic and control circuits, without the need for manual disassembly and replacement, reducing oil pollution and saving time. It is particularly suitable for remote replacement of different functional attachments in special environments such as strong magnetic fields, nuclear radiation, and military emergencies.

### HYDRAULIC WRIST

Installed at the front end of the robot boom, it is a new type of two degree of freedom mechanism that can quickly replace different attachments such as hydraulic shears and buckets, and achieve 360 ° full rotation in both directions and 45 ° lateral swing function, increasing flexibility and improving work efficiency.

# Throughout the process, without any worries

—— No worries in the whole process-our commitment to all customers. It's also the confidence and pride of "Made in China" from Anhui Hitech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