



Rockbreaker Boom System Products Manual


Performance in every **detail**

Anhui Hitech Intelligent Equipment Co., Ltd.



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More about Hitech 

ABOUT



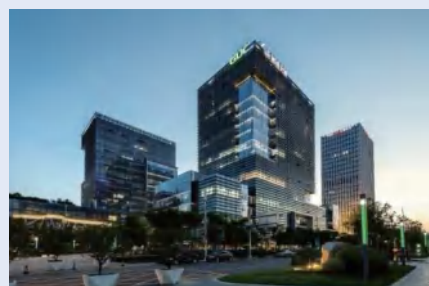
Anhui Hitech Intelligent Equipment Co., Ltd. is a national high-tech enterprise specializing in the R&D, production, and sales of engineering robots and their key components. It is a large-scale industrial enterprise in Chuzhou City, a high growth small and medium-sized enterprise in Anhui Province, 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

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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



Professionalism Forges Quality, Quality Creates Value

HCB series multifunctional rockbreaker boom system

Anhui Hitech Intelligent Multi-functional rockbreaker boom system is a new high-tech device that integrates mechanical, electrical, and hydraulic technologies, and has refined operational capabilities. It can achieve free change of various attachments and has multiple functions such as crushing, pinching, shoveling, grabbing, digging, hooking, picking, and scraping. The characteristics of large crushing range, accurate positioning, and human-machine separation can effectively improve the efficiency of crushing work. Mainly used for secondary crushing and loosening of large ores at the coarse crushing inlet of mines and beneficiation plants, as well as at the screening of ore silos, replacing manual rock drilling and secondary blasting.



① New simulation optimization design to increase load

② One machine is versatile and can be equipped with multiple attachments

③ Equipped with high-performance hydraulic station, environmentally friendly, energy-saving, efficient and reliable

④ Wired, wireless remote control, and visual operation are optional

Good Energy-saving Performance

- Hydraulic-driven operation ensures quiet demolition
- electric driven, environmentally friendly and energy-saving
- Reduce energy consumption costs by over 50% compared to traditional diesel equipment

High Efficiency

- Equipped with high-performance hydraulic hammers, significantly improving work efficiency
- New design with better performance
- High maintainability, capable of year-round non-stop maintenance
- 80% reduction in failure rate compared to traditional diesel equipment

Intelligence

- Flexible control, capable of achieving precise positioning and striking
- Combining video monitor with remote control, diversified operation methods
- Control distance can reach 100-200 m
- Configure a high protection controller to achieve multi-parameter fusion

High Adaptability

- One machine is multifunctional and can be equipped with multiple attachments
- Modular design, quickly adapting to different customer needs
- Long term safe operation in corrosive and explosion-proof environments underground
- Stable operation at high altitude and high/low temperature

Safe and Reliability

- Clearing and crushing of material blockages at the crusher mouth and screening port of various opencast and underground mine crushers
- Secondary crushing of various mines and quarries
- Each metallurgy plant handles the shelling, brick removal, and unpacking of mobile steel ladles and metallurgical furnaces
- Remote operation and processing of various nuclear and special high-risk industries

Widely used in:

- Clearing and crushing of material blockages at the crusher mouth and screening port of various opencast and underground mine crushers
- Secondary crushing of various mines and quarries
- Each metallurgy plant handles the shelling, brick removal, and unpacking of mobile steel ladles and metallurgical furnaces
- Remote operation and processing of various nuclear and special high-risk industries

Application Filed

Stationary hydraulic rockbreaker boom systems are widely used for clearing and crushing material blockages at the crusher mouth and screening ports of various opencast and underground mine crushers; Secondary crushing of various mines and quarries; Each metallurgy plant handles the shelling, brick removal, and unpacking of mobile steel ladles and metallurgical furnaces and remote operation and processing of various nuclear and special high-risk industries

- Application of Jaw Crusher
- Application of Gyratory Crusher
- Application of Grizzly Screen (Grid)
- Other Applications

Application of Jaw Crusher



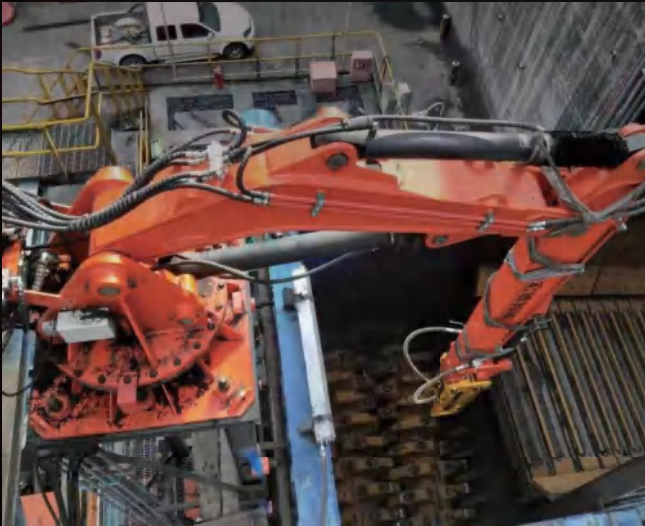
Application of Grizzly Screen (Grid)



Application of Gyratory Crusher



Other Applications



ROCKBREAKER BOOM SYSTEM



Step into the products 

HCBM-2015-D



• Characteristic:

- Compact structure, effective radius coverage, suitable for narrow spaces
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Hydraulic cylinder swing type, achieving 150 ° rotation and equipped with anti-collision mechanism

PERFORMANCE

Boom hoist length (mm)	2000
Dipper stick length (mm)	1500
Max. horizontal working radius (mm)	6045
Max. vertical working radius (mm)	4039
Max. working depth (mm)	4000
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	3400

HYDRAULIC HAMMER

Hydraulic hammer model	HC100
Hydraulic hammer operating pressure	15-17 MPa
Hydraulic hammer oil flow	80-110 L/min
Blow frequency	350-700 bpm
Chisel diameter	φ100 mm
Suitable for hydraulic hammer models	HC75/HC85/HC100/HC125

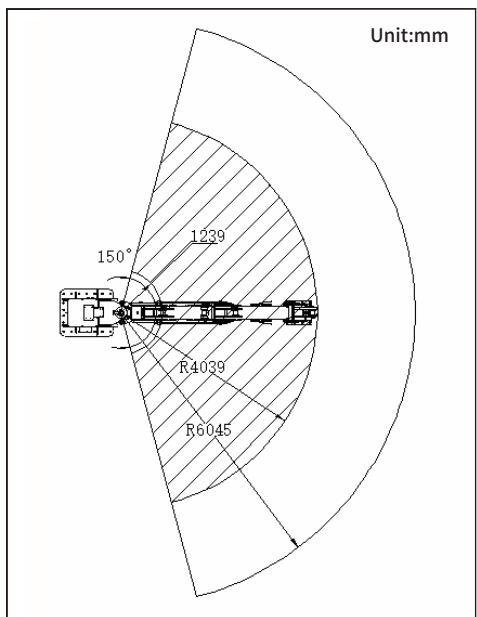
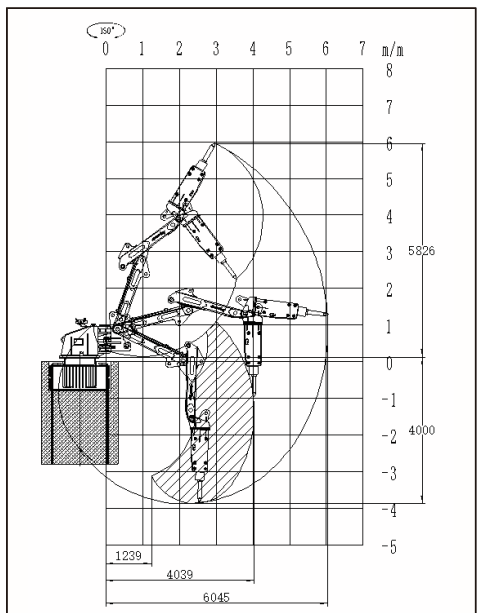
CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

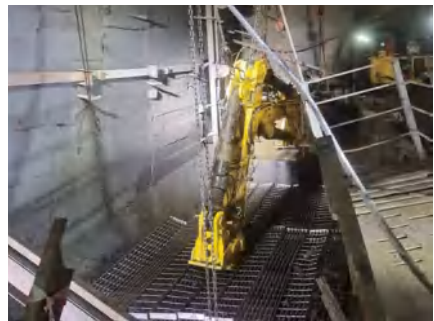
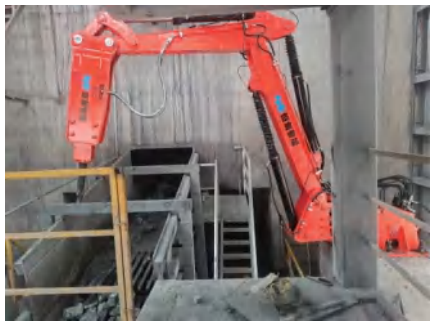
HYDRAULIC POWER UNIT

Motor power	30 kW/37 kW/55 kW
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RANGE



Application:



HCBM-2520-D



● **Characteristic:**

- Compact structure, effective radius coverage, suitable for narrow spaces
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Hydraulic cylinder swing type, achieving 150 ° rotation and equipped with anti-collision mechanism

PERFORMANCE

Boom hoist length (mm)	2500
Dipper stick length (mm)	2000
Max. horizontal working radius (mm)	7030
Max. vertical working radius (mm)	5010
Max. working depth (mm)	4745
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	3600

HYDRAULIC HAMMER

Hydraulic hammer model	HC100
Hydraulic hammer operating pressure	15-17 MPa
Hydraulic hammer oil flow	80-110 L/min
Blow frequency	350-700 bpm
Chisel diameter	φ100 mm
Suitable for hydraulic hammer models	HC75/HC85/HC100/HC125

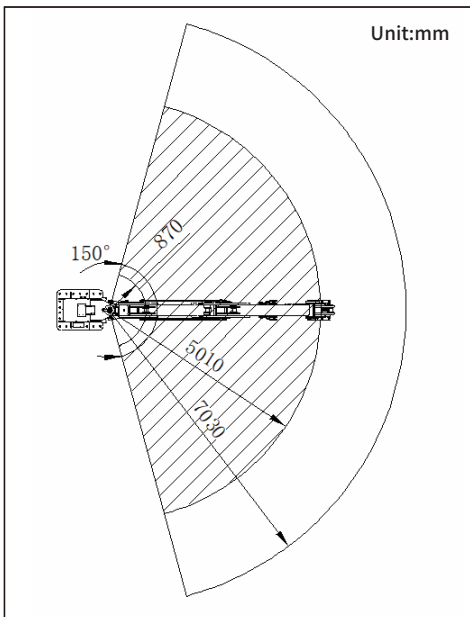
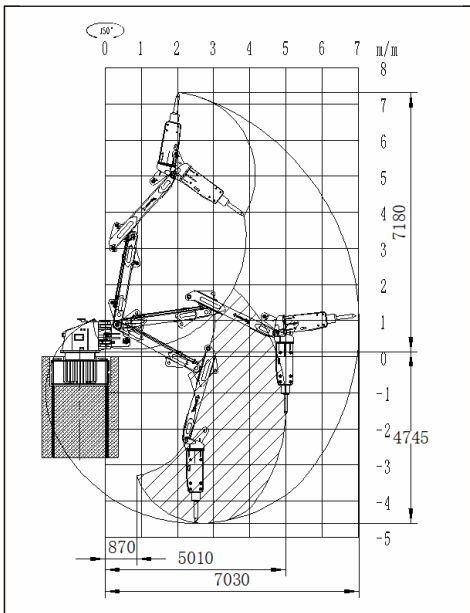
CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

HYDRAULIC POWER UNIT

Motor power	30 kW/37 kW/55 kW
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RANGE



Application:



HCBSR-3525-D



● **Characteristic:**

- Compact structure, effective radius coverage, suitable for narrow spaces
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

PERFORMANCE

Boom hoist length (mm)	3500
Dipper stick length (mm)	2500
Max. horizontal working radius (mm)	8400
Max. vertical working radius (mm)	6300
Max. working depth (mm)	4200
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	4200

HYDRAULIC HAMMER

Hydraulic hammer model	HC100
Hydraulic hammer operating pressure	15-17 MPa
Hydraulic hammer oil flow	80-110 L/min
Blow frequency	350-700 bpm
Chisel diameter	φ100 mm
Suitable for hydraulic hammer models	HC75/HC85/HC100/HC125

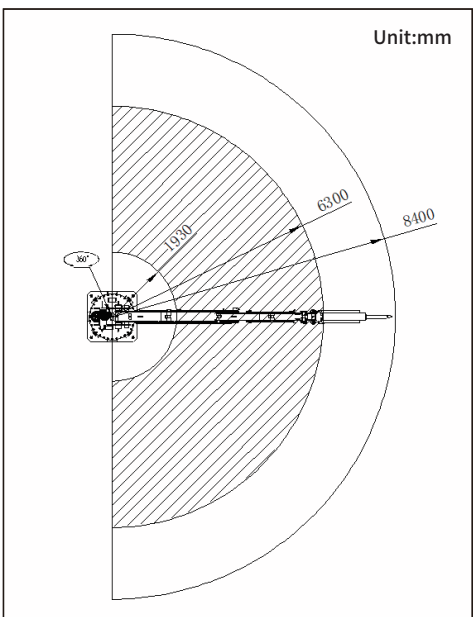
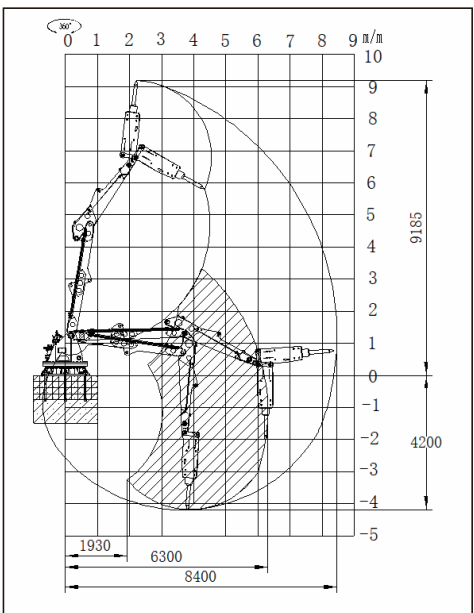
CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

HYDRAULIC POWER UNIT

Motor power	30 kW/37 kW/55 kW
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RANGE



Application:



HCBSR-4625-D



• **Characteristic:**

- Compact structure, effective radius coverage, suitable for narrow spaces
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

PERFORMANCE

Boom hoist length (mm)	4600
Dipper stick length (mm)	2500
Max. horizontal working radius (mm)	9090
Max. vertical working radius (mm)	7145
Max. working depth (mm)	6760
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	3100

HYDRAULIC HAMMER

Hydraulic hammer model	HC100
Hydraulic hammer operating pressure	15-17 MPa
Hydraulic hammer oil flow	80-110 L/min
Blow frequency	350-700 bpm
Chisel diameter	φ100 mm
Suitable for hydraulic hammer models	HC75/HC85/HC100/HC125

CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

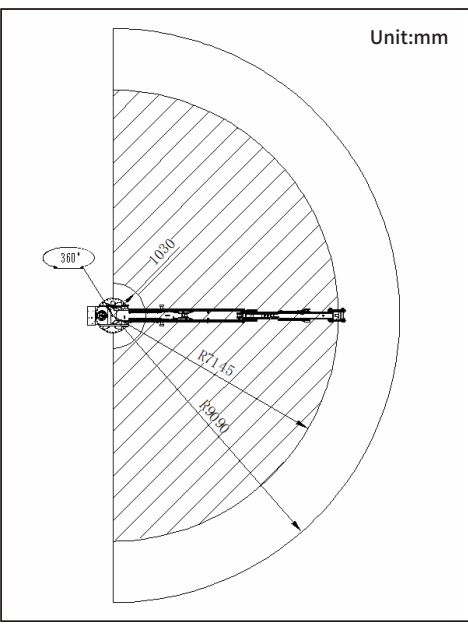
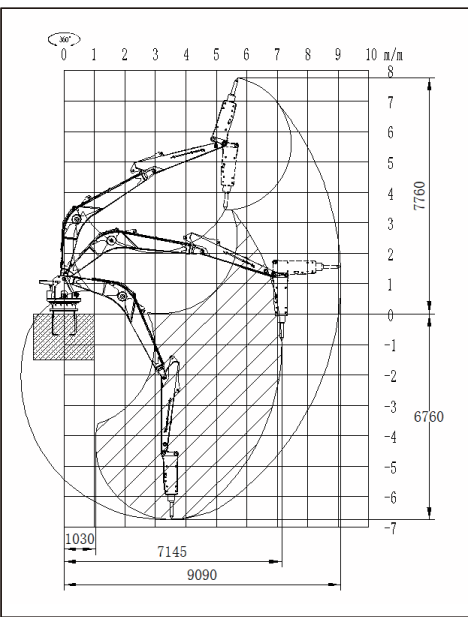
HYDRAULIC POWER UNIT

Motor power	30 kW/37 kW/55 kW
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Application:



RANGE



HCBMR-5540-D



• Characteristic:

- Compact structure, effective radius coverage, suitable for narrow spaces
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

PERFORMANCE

Boom hoist length (mm)	5500
Dipper stick length (mm)	4000
Max. horizontal working radius (mm)	11010
Max. vertical working radius (mm)	8856
Max. working depth (mm)	7608
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	7100

HYDRAULIC HAMMER

Hydraulic hammer model	HC100
Hydraulic hammer operating pressure	15-17 MPa
Hydraulic hammer oil flow	80-110 L/min
Blow frequency	350-700 bpm
Chisel diameter	φ100 mm
Suitable for hydraulic hammer models	HC75/HC85/HC100/HC125

CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

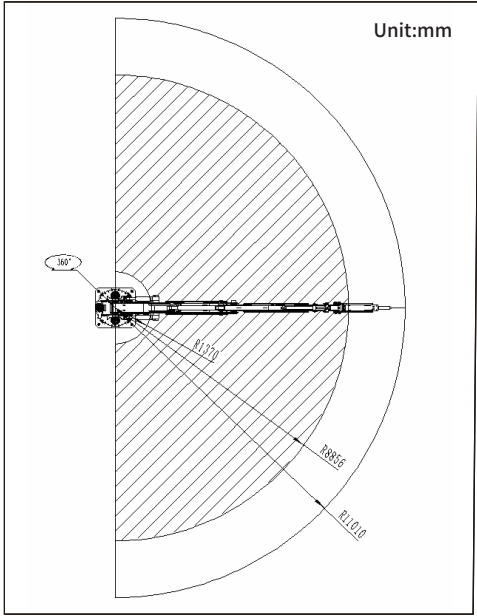
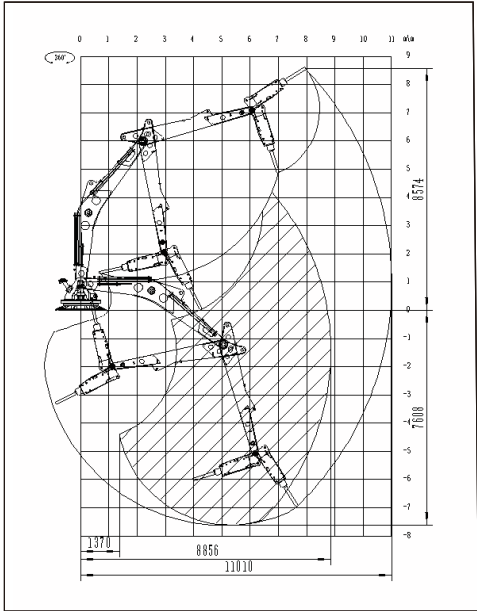
HYDRAULIC POWER UNIT

Motor power	30 kW/37 kW/55 kW
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Application:



RANGE



Unit:mm

HCBMR-6535-D



● **Characteristic:**

- Effective radius coverage, larger range
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

PERFORMANCE

Boom hoist length (mm)	6500
Dipper stick length (mm)	3500
Max. horizontal working radius (mm)	12113
Max. vertical working radius (mm)	9490
Max. working depth (mm)	8882
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	10000

HYDRAULIC HAMMER

Hydraulic hammer model	HC140
Hydraulic hammer operating pressure	16-18 MPa
Hydraulic hammer oil flow	120-180 L/min
Blow frequency	350-450 bpm
Chisel diameter	φ140 mm
Suitable for hydraulic hammer models	HC100/HC125/HC140

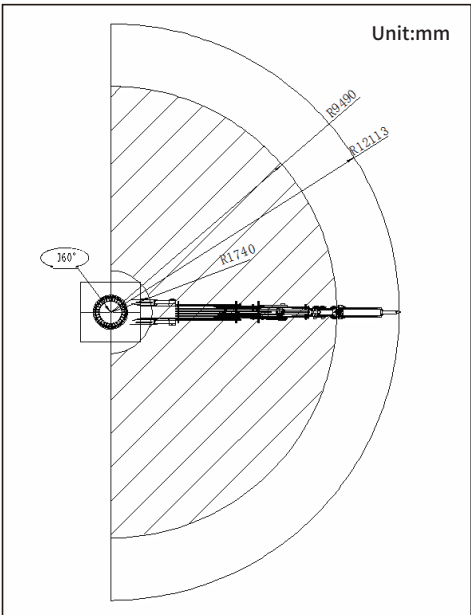
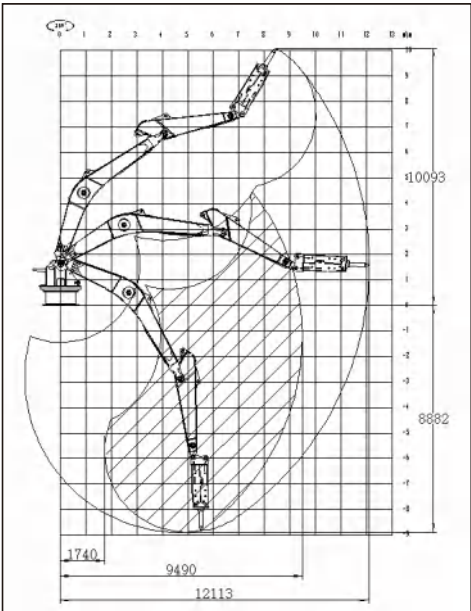
CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

HYDRAULIC POWER UNIT

Motor power	55 kW/75 kW/90 kW
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RANGE



Application:



HCBHR-7567-D



● **Characteristic:**

- Effective radius coverage, larger range
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

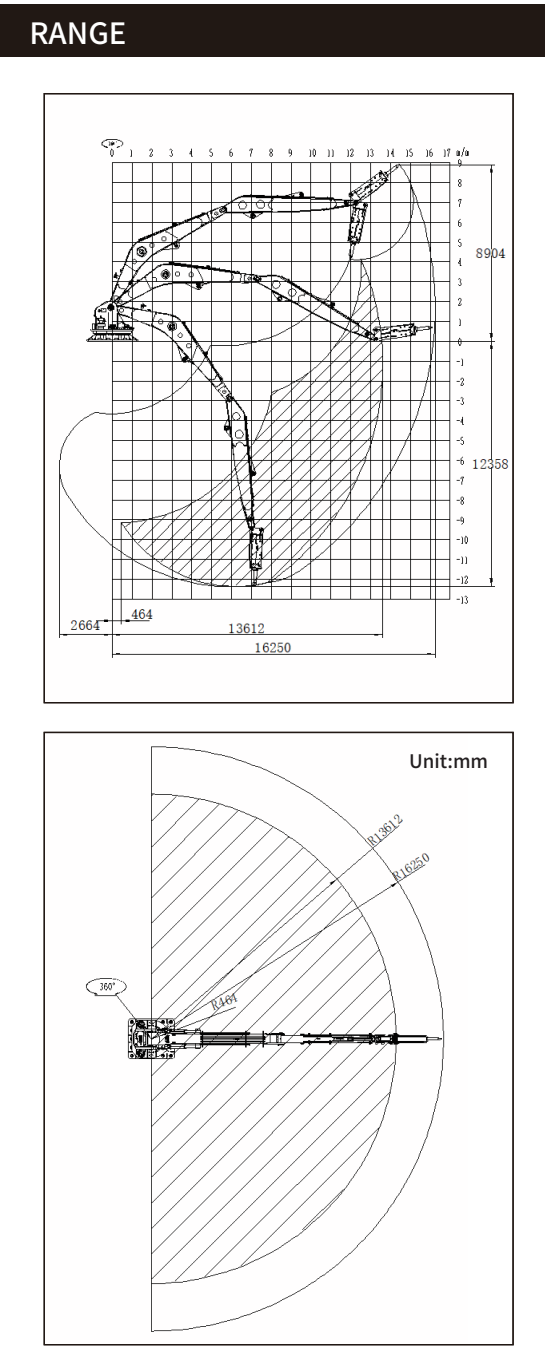
PERFORMANCE	
Boom hoist length (mm)	7500
Dipper stick length (mm)	6700
Max. horizontal working radius (mm)	16250
Max. vertical working radius (mm)	13612
Max. working depth (mm)	12358
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	21000

HYDRAULIC HAMMER	
Hydraulic hammer model	HC140
Hydraulic hammer operating pressure	16-18 MPa
Hydraulic hammer oil flow	120-180 L/min
Blow frequency	350-450 bpm
Chisel diameter	φ140 mm
Suitable for hydraulic hammer models	HC100/HC125/HC140

CONTROL SYSTEM	
Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

HYDRAULIC POWER UNIT	
Motor power	55 kW/75 kW/90 kW

Application:



HCBHR-8595-D



- **Characteristic:**
- Effective radius coverage, larger range
- Integrated design of working device is equipped with heavy duty hydraulic cylinder, high strength and high reliability
- Flexible operation of the arm ensures precise positioning
- Electric proportional control, hydraulic vibration crushing, silent and efficient
- Equipped with a large rotary bearing, 360 ° rotation, and the pipeline is not entangled

PERFORMANCE

Boom hoist length (mm)	8500
Dipper stick length (mm)	9500
Max. horizontal working radius (mm)	18916
Max. vertical working radius (mm)	16307
Max. working depth (mm)	12575
Structural form of working arm main beam	Large box design, welded with high tensile strength carbon steel Q3458B
Weight of machine excluding attachment(kg)	24000

HYDRAULIC HAMMER

Hydraulic hammer model	HC140
Hydraulic hammer operating pressure	16-18 MPa
Hydraulic hammer oil flow	120-180 L/min
Blow frequency	350-450 bpm
Chisel diameter	φ140 mm
Suitable for hydraulic hammer models	HC100/HC125/HC140

CONTROL SYSTEM

Control mode	Operation joystick + emergency mechanical manual + wireless remote control + teleoperation system
IP grade of motor	IP55
IP grade of controller	IP67

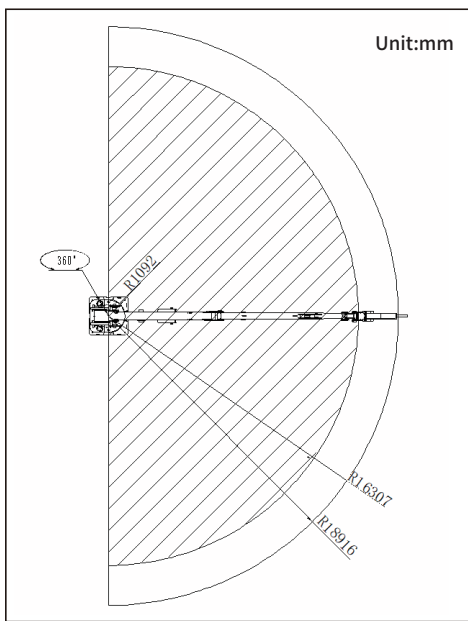
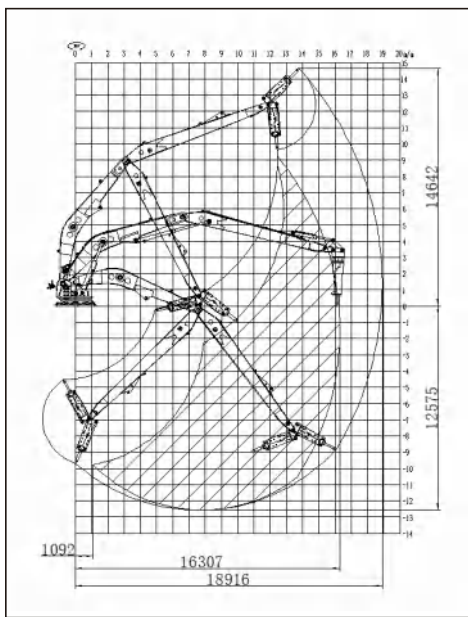
HYDRAULIC POWER UNIT

Motor power	55 kW/75 kW/90 kW
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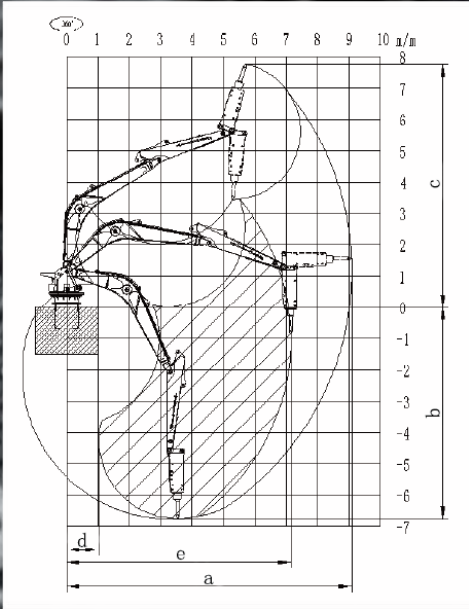
Application:



RANGE



PROFESSIONALISM FORGES
QUALITY,QUALITY CREATES VALUE



MAIN PARAMETERS OF
THE ROCKBREAKER BOOM

Model	Boom hoist length	Dipper stick length	Chisel diameter	Flow	Power
	mm	mm	mm	L/min	kW
HCBM-2015-D	2000	1500	φ75/85/100/125	100/140	30/37/55
HCBM-2520-D	2500	2000	φ75/85/100/125	100/140	30/37/55
HCBSR-3525-D	3500	2500	φ75/85/100/125	100/140	30/37/55
HCBSR-4625-D	4600	2500	φ75/85/100/125	100/140	30/37/55
HCBMR-5540-D	5500	4000	φ75/85/100/125	100/140	30/37/55
HCBMR-6535-D	6500	3500	φ100/125/140	140/250	55/75/90
HCBHR-7567-D	7500	6700	φ100/125/140	140/250	55/75/90
HCBHR-8595-D	8500	9500	φ100/125/140	140/250	55/75/90

MAIN PARAMETERS OF RANGE

Model	Max. horizontal working radius (a)	Max. working depth (b)	Max. Heigh (c)	Machine height	Vertical working radius	
	mm	mm	mm	mm	Min (d) mm	Max (e) mm
HCBM-2015-D	6045	4000	5826	3140	1239	4039
HCBM-2520-D	7030	4745	7180	3940	870	5010
HCBSR-3525-D	8400	4200	9185	5340	1930	6300
HCBSR-4625-D	9090	6760	7760	5200	1030	7145
HCBMR-5540-D	11010	7608	8574	6780	1370	8856
HCBMR-6535-D	12113	8882	10093	7880	1740	9490
HCBHR-7567-D	16250	12358	8904	6800	464	13612
HCBHR-8595-D	18916	12575	14642	9200	1092	16307

HYDRAULIC HAMMER

Stable and Reliable

Strong and powerful

Silent and environmentally friendly


Durable

Chisel diameter	Weight	Flow	Operating pressure	Blow frequency
mm	kg	L/min	MPa	bpm
68	330	40-70	11-14	500-900
75	458	50-90	12-15	400-800
85	591	50-100	13-16	400-800
100	880	80-110	15-17	350-700
125	1472	90-120	15-17	350-650
135	1890	120-180	16-18	350-500
140	2123	120-180	16-18	350-450
155	2935	180-240	16-18	350-450

MULTIPLE ATTACHMENTS OPTIONS AVAILABLE


HYDRAULIC BREAKERS

Equipped with theworld-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




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




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




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




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




AUTOMATIC HYDRAULIC QUICK COUPLING

The unique structural design allows for quick replacement of different attachments 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.



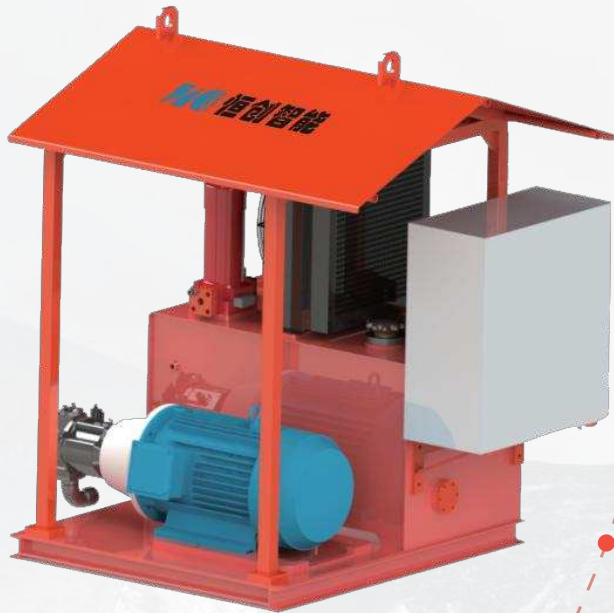
MULTI PURPOSE GRAPPLES

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.





HYDRAULIC POWER UNIT



- Remote start and stop function of main motor
- Power on and working indicator lights
- High specification filtration system
- Heating function for oil (optional)
- Rain cover (optional)
- Portable oil filling mouth
- Visual liquid level
- Simple installation
- Emergency stop switch
- Oil level thermometer
- Air-cooled radiator
- Fire extinguishing (optional)
- Renowned big brand hydraulic and electrical components
- Large opening cleaning cabin for convenient internal cleaning
- Special working conditions or requirements can be customized

MODEL		Y30	Y37	Y45	Y55	Y75	Y90
Motor power	kW	30	37	45	55	75	90
Radiator power	kW	0.252	0.252	0.252	0.252	1.8	1.8
Max. pressure	MPa	22	22	22	25	28	28
Max. flow	L/min	100	100	140	140	250	250
Tank capacity	L	370	370	370	370	500	1000
Weight of hydraulic power unit (without hydraulic oil)	kg	1000	1000	1000	1000	1500	1800

CONTROL SYSTEM

Wireless Remote Control



Teleoperation System



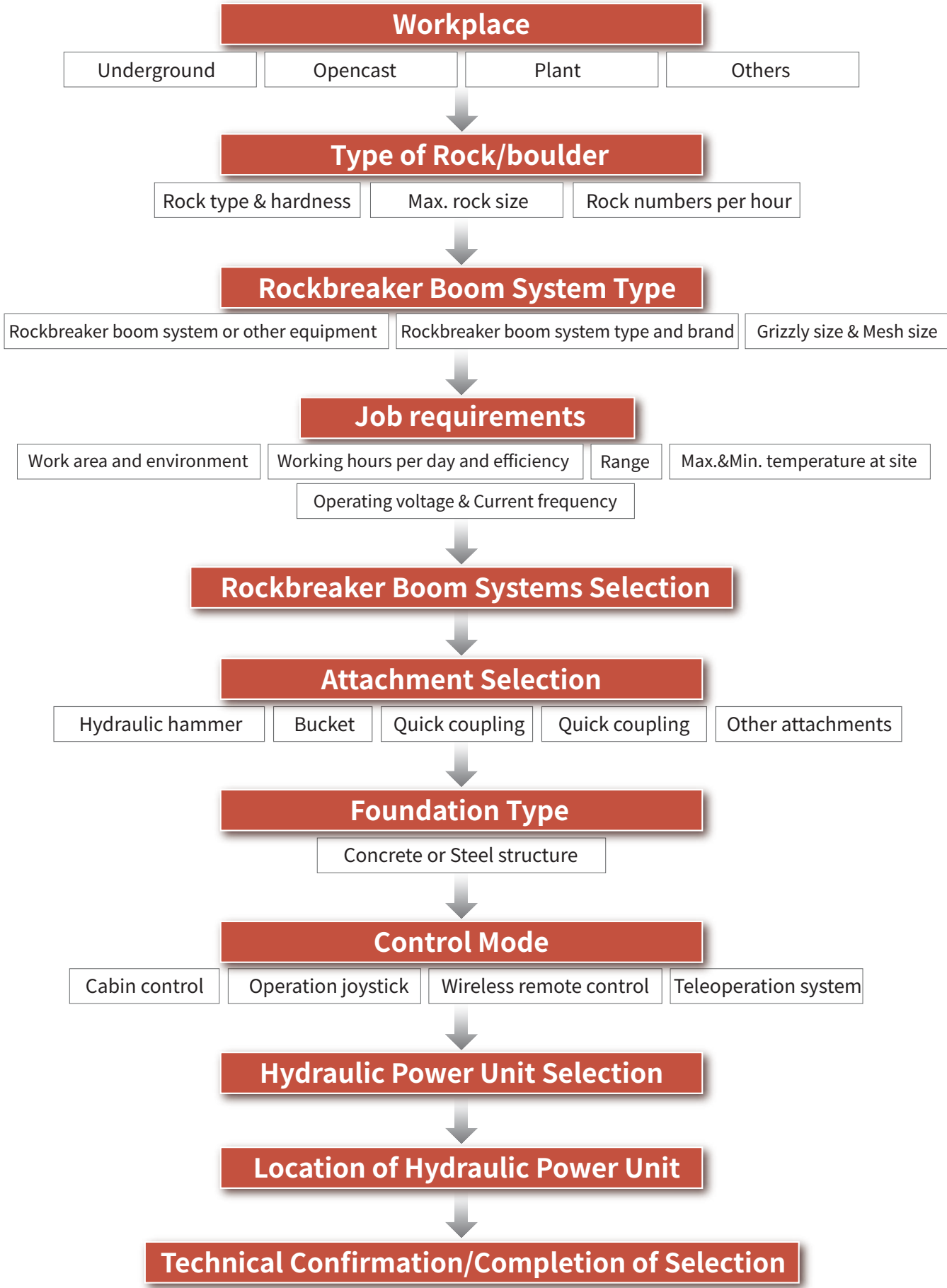
Cabin Control System

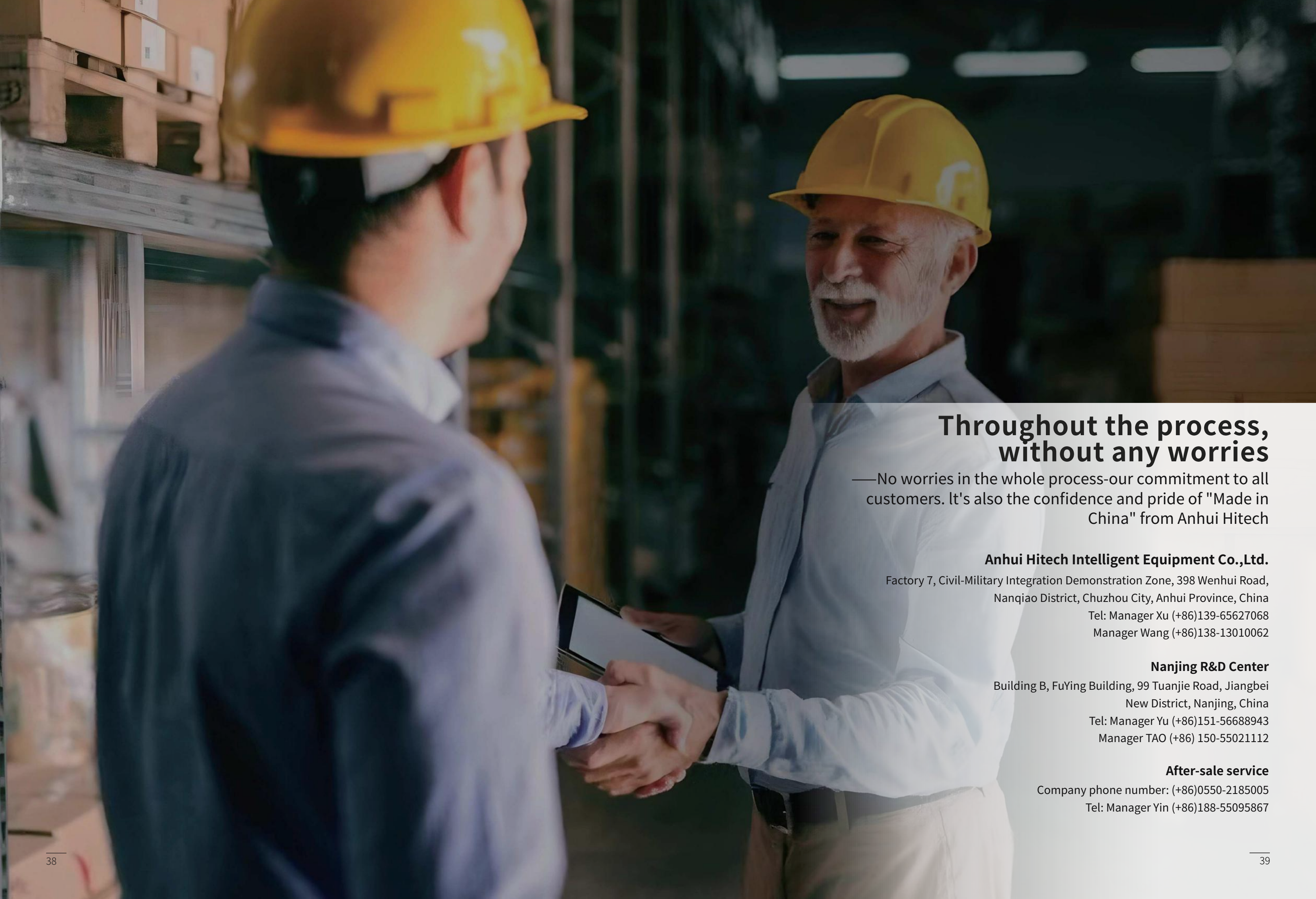


Operation Joystick



HOW TO CHOOSE THE SUITABLE ROCKBREAKER BOOM SYSTEM?





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