KGM12300
ARCH INSTALLATION ROBOT
拱架安装台车

POTENTIAL

国内外首台能进行隧道三种台阶立拱和一次性安装多榀拱架的设备。

The first unit of arch-install equipment as home and abroad can install multiple arches at one time regardless of full section excavation, two steps excavation or three steps excavation.

刚性工程底盘/Rigid Chassis

自制刚性底盘，前桥浮动底盘，内燃－静液压传动，四轮驱动、转向，四轮蟹行；整机高度低，转弯半径小，能适用于狭窄、复杂路况通行。

POTENTIAL made rigid chassis with floating front axle, internal combustion hydrostatic transmission, 4-wheel drive, with functions of 4-wheel steering and crabbing. Lower height and steering radius, suitable for space limited and complex.

无线遥控器/Wireless Remote Control

采用先进的智能人机交互界面，实时监测整机工作状态，记录、储存并显示即时运转工况和运转数据，异常报警并显示故障信息。

Computerized man-machine communication module, could set working parameters and background system will monitor,record, memorize and display the data of working states in real time. Once it failed to run normal, there will be an alarm and failure information display.

Optional Features
选配功能

◀ 微欠挖/Micro underexcavation

激光装置/Laser device ▶

科达智能 KEDA INTELLIGENCE

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Model Classification
型号分类

型号 Model	差异项 Difference items
C	平原纯柴动力 Plain pure diesel power
CG	高原纯柴动力 Plateau pure diesel power
CSG	高原双动力 Plateau dual power

高适用性/High Applicability

设备采用工程底盘，四轮驱动、四轮转向，爬坡能力强，转弯半径小，更适合于隧道施工的工况；设备采用三组臂架的结构，每组臂架均具有折叠+伸缩的功能，可兼顾三台阶、半断面和全断面的立拱；设备采用柴油动力，可选配适合高海拔使用的柴油动力。

The equipment adopts an engineering chassis, four-wheel drive, four-wheel steering, strong climbing ability, small turning radius, and is more suitable for tunnel construction conditions; The equipment adopts a structure of three sets of arm frames, each with folding and telescopic functions, which can accommodate three steps, half section, and full section arches; The equipment is powered by diesel and can be optionally equipped with diesel engines suitable for high-altitude use.

高经济性/Cost-effective

设备可以每作业循环节约1-2h，极大地提高工作效率；设备只需最低3人，不超过5人进行操作及施工作业，节约大量人工成本；设备还可以根据实际工况，减少每榀拱架的连接节点，节省连接板和连接螺栓的数量，从而节约材料成本；同时设备具有良好的移动性，可兼顾两个掌子的工作。

The equipment can save 1-2 hours per work cycle, greatly improving work efficiency; The equipment only requires a minimum of 3 people and no more than 5 people for operation and construction work, saving a lot of labor costs; The equipment can also reduce the connection nodes of each arch frame according to actual working conditions, saving the number of connection plates and bolts, thereby saving material costs; At the same time, the device has good mobility and can accommodate the work of both hands.

高安全性/High Safety

产品需要的施工人员少，且采用遥控操作；施工人员可以站立初喷面下，尽量远离高危区域，安全性高。

The product requires fewer construction personnel and is operated remotely; Construction personnel can stand under the initial spraying surface and try to stay away from high-risk areas for high safety.

高可控性/High Controllability

臂架采用无线遥控作业，搭载多工况臂架操控智能辅助控制系统，实现臂架的快速就位和精准定位作业；大大提升设备设备的可控性；从而提高设备的施工效率和作业安全。

The boom adopts wireless remote control operation and is equipped with a multi working condition boom control intelligent auxiliary control system to achieve fast positioning and precise positioning operation of the boom; Greatly improve the controllability of equipment; Thus improving the construction efficiency and operational safety of the equipment.

序号No.	项目名称 Items			技术参数 Parameters
01	整机参数 Whole unit	整机质量	Weight	25000kg
		驱动方式	Driven mode	四轮驱动 4-wheels driven
		转向方式	Steering mode	四轮转向 4-wheels steering
		最小转弯半径	Minimum turning radius	内侧/Inner side2.3m 外侧/Outer side7.5m
		离地间隙	Ground clearance	450 mm
		爬坡能力	Grade ability	16° （29%）
		最大作业高度	Max. Operating height	12m
		最大作业宽度	Max. Operating width	15m
		行驶外形尺寸	Transportation dimension	9200×2600×3500(mm)
02	发动机 Diesel Engine	类型	Type	六缸水冷柴油发动机 6-Cylinder liquid-cooled diesel engine
		额定功率	Rated power	125kw/2200rpm
		排放标准	Emission standard	国Ⅲ China Phase Ⅲ
		加热系统（高原机型）	Heating system (highland type)	选配 Optional
03	臂架 Boom Assembly	臂架数量	Number of boom	3架
		主臂最大伸出长度	Max. Extended length of main boom	12m
		左、右副臂最大伸出长度	Max. Extended length of auxiliary boom	13m
		托盘承载	Pallet payload	3000kg
		平台最大承载	Platform payload	200kg
		拖曳机构最大承载	Towing mechanism payload	1200kg

POTENTIAL

KGM12300Z
ARCH & EXPLOSIVES INSTALLATION ROBOT
立拱装药台车

集拱架安装与装药功能于一体
Integrating arch installation and charging functions

装药平台便携式折叠携带
Portable and foldable loading platform

平台展开可承载5-6人
Platform expansion can accommodate 5-6 people

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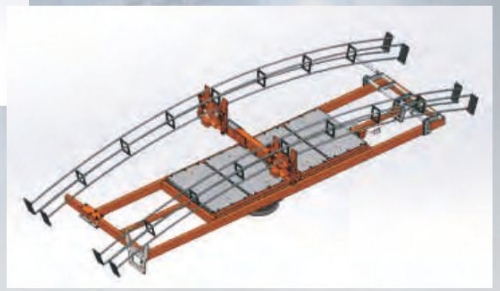
KGM12300Z
ARCH & EXPLOSIVES INSTALLATION ROBOT
立拱装药台车

WORKING ON SITE
工程案例

POTENTIAL

拱架间距可通过抓手螺孔调整
The spacing between the arches can be adjusted through the gripping screw holes



可适应多种类型拱架
Can adapt to various types of arches

序号No.	项目名称 Items			技术参数 Parameters
01	整机参数 Whole unit	整机质量	Weight	25000kg
		驱动方式	Driven mode	四轮驱动 4-wheels driven
		转向方式	Steering mode	四轮转向 4-wheels steering
		最小转弯半径	Minimum turning radius	内侧/Inner side2.3m 外侧/Outer side7.5m
		离地间隙	Ground clearance	450 mm
		爬坡能力	Grade ability	16° （29%）
		最大作业高度	Max. Operating height	12m
		最大作业宽度	Max. Operating width	15m
		行驶外形尺寸	Transportation dimension	9200×2600×3500(mm)
02	发动机 Diesel Engine	类型	Type	六缸水冷柴油发动机 6-Cylinder liquid-cooled diesel engine
		额定功率	Rated power	125kw/2200rpm
		排放标准	Emission standard	国Ⅲ China Phase Ⅲ
		加热系统（高原机型）	Heating system (highland type)	选配 Optional
03	臂架 Boom Assembly	臂架数量	Number of boom	3架
		主臂最大伸出长度	Max. Extended length of main boom	12m
		左、右副臂最大伸出长度	Max. Extended length of auxiliary boom	13m
		托盘承载	Pallet payload	3000kg
		平台最大承载	Platform payload	200kg
		拖曳机构最大承载	Towing mechanism payload	1200kg

KGZ9300
ARCH INSTALLATION & ANCHOR DRILLING INTEGRATED ROBOT
拱锚一体台车

高适应性、高安全性、高效益的
全球首台多功能拱锚一体台车
High adaptability, safely and efficiency
The world's first multifunctional arch installation & anchor drilling integrated robot

Structural Characteristics
结构特点

- 采用工程底盘，四轮驱动，爬坡能力强;四轮转向，转弯半径小;
- 采用柴、电双动力，柴动完成行走并能独立完成立拱支护;
- 三工作臂架，臂架形式:折叠+伸缩结构（大臂+中臂+小臂，中臂可伸缩）；运输状态可整体折折叠收回到车架上；
- 双工作平台、平台带有拱架拖曳夹持装置；且左臂带有随车吊功能；
- 双液压凿岩机构，可满足锁脚、超前及系统锚杆的钻孔支护；
- 主臂具有自运输成型多榀拱架装置；
- 带空调驾驶室，配倒车影像；
- 控制器控制，参数大屏显示，可实时监控系统运行状态；
- 臂架操控智能辅助系统，可实现拱架的快速就位，提高效率。

- Adopting engineering chassis, four-wheel drive, strong climbing ability; Four wheel steering with a small turning radius;
- Adopting dual power of diesel and electric, diesel can complete walking and independently complete arch support;
- Three working arm frame, arm frame form: folding+telescopic structure (upper arm+middle arm+lower arm, middle arm extendable); The transportation status can be folded and returned to the frame as a whole;
- Dual work platform with arch dragging and clamping device on the platform; And the left arm has a crane function for accompanying the vehicle;
- Dual hydraulic rock drilling mechanism, capable of providing drilling support for locking feet, advance and system anchor rods;
- The main arm has a self transporting and forming multi arch device;
- Equipped with an air-conditioned cab and a reversing camera;
- Controller control, large screen display of parameters, real-time monitoring of system operation status;
- The arm frame control intelligent assistance system can achieve rapid positioning of the arch frame and improve efficiency.

科达智能
KEDA INTELLIGENCE

KGZ9300
ARCH INSTALLATION & ANCHOR DRILLING INTEGRATED ROBOT
拱锚一体台车

集一次性多榀拱架安装及凿岩功能于一体，满足隧道立拱作业过程中全工序作业。
Integrated multiple arch installation and rock drilling functions, to meet the whole process operation in tunnel arch erection.

序号No.	项目名称 Items		技术参数 Parameters
01	主臂的最大负荷	Max. Load of main boom	3000kg
02	应用钢拱架的范围	Application scope of steel arch	I 12～I 25a、花拱 Fancy arch frame
03	凿岩机功率	Power of rock drill	13KW
04	凿岩机钻孔直径	Drilling diameter of rock drill	Φ33～Φ64mm
05	凿岩机钻孔深度（单杆）	Drilling depth of rock drill (single rod)	4.5m
06	凿岩机钻孔速度	Drilling speed of rock drill	1~1.5m/min
07	台车的行走速度	Travelling speed	低速档/Low gear:0～8　高速档/High gear:8～18km/h
08	台车的最小转弯半径	Mini. Turning radius	内侧/Inner side≤3m；外侧/Outer side≤6m
09	最大爬坡能力	Max. Grade ability	22°
10	随车吊的最大负荷	Max. Load of truck mounted crane	2000kg
10	高空作业平台的最大负荷	Max. Load of working platform	400kg
12	最大作业高度	Max. Working height	13m
13	最大作业宽度	Max. Working width	15m
14	运输状态下的外形尺寸（长×宽×高）	Transportation dimension (l×w×h)	99200×2800（3526）×3650mm
15	自重	Net weight	35000kg

Construction process
施工流程

01
多榀拱架成型制作
Multiple arch frame forming and manufacturing



02
多榀拱架运输
Multiple arch frame transportation

03
拱架安装到位
Arch frame installed in place

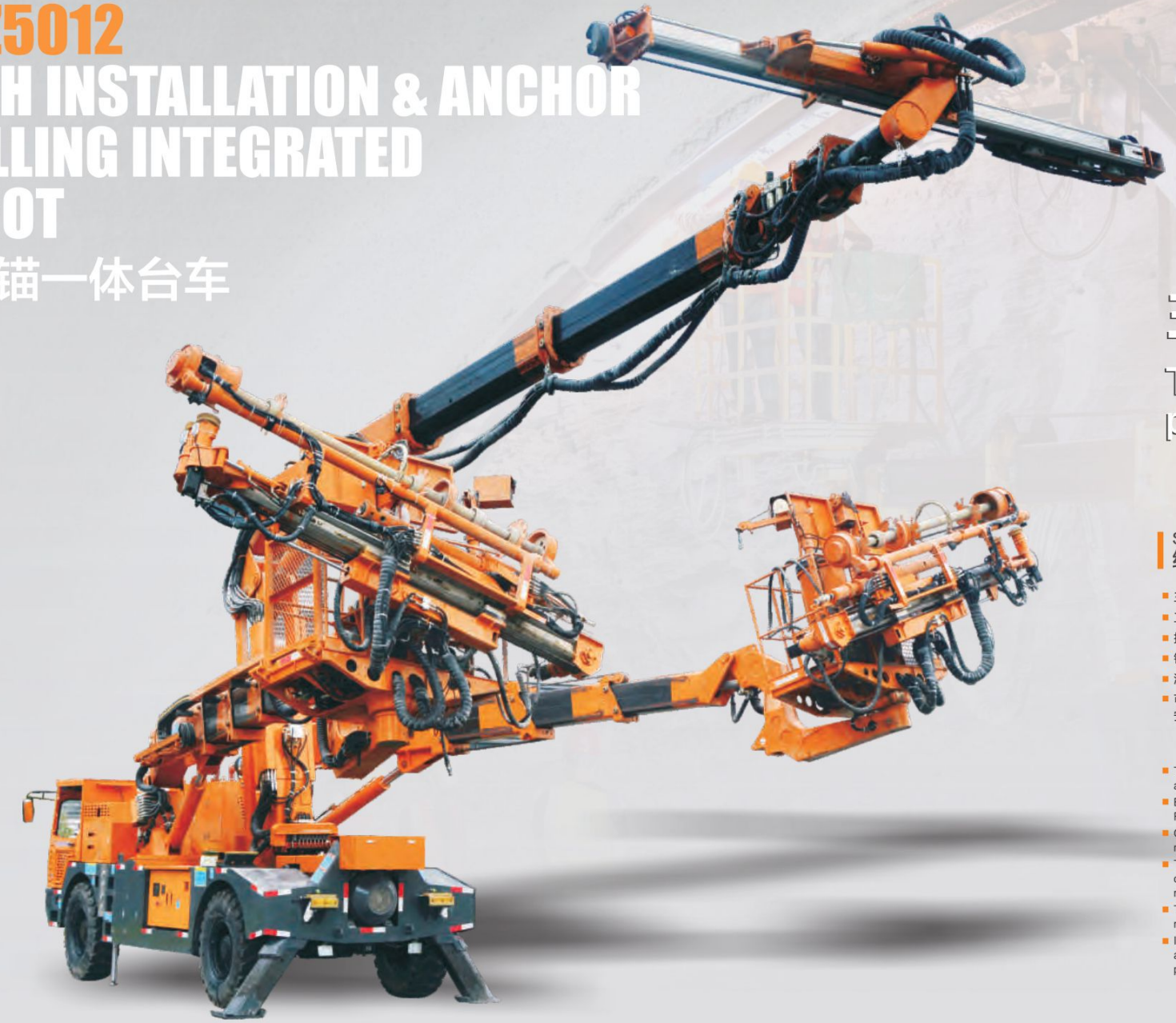


04
焊接网片、连接筋
Welding mesh and connecting bars

05
锁脚及超前锚杆
Locking feet and advanced anchor rods


KMZ5012
ARCH INSTALLATION & ANCHOR DRILLING INTEGRATED ROBOT
钻注锚一体台车

POTENTIAL



三臂平行作业
Three arm parallel operation

Structural Characteristics
结构特点

- 三工作臂架；中臂为凿岩臂，左、右臂为锚杆安装臂；
- 工程底盘，四轮驱动，爬坡能力强；四轮转向，转弯半径小；
- 控制器控制，参数大屏显示，可实时监控系统运行状态；
- 钻机推进梁侧向布置，有利于实时监控凿岩机工作情况；
- 注浆系统设置在作业平台上，大大降低了堵管几率；
- 可适应树脂锚杆、涨壳式锚杆、预应力锚杆等多种类型锚杆的安装。

- Three working arm frame; The middle arm is a rock drilling arm, and the left and right arms are anchor rod installation arms;
- Engineering chassis, four-wheel drive, strong climbing ability; Four wheel steering with a small turning radius;
- Controller control, large screen display of parameters, real-time monitoring of system operation status;
- The lateral arrangement of the drilling rig propulsion beam is conducive to real-time monitoring of the working condition of the rock drill;
- The grouting system is installed on the work platform, greatly reducing the probability of pipe blockage;
- It can adapt to the installation of various types of anchor rods such as resin anchor rods, expansion shell anchor rods, and prestressed anchor rods.

科达智能 KEDA INTELLIGENCE

KMZ5012

ARCH INSTALLATION & ANCHOR DRILLING INTEGRATED ROBOT

钻注锚一体台车

POTENTIAL

序号No.	项目名称 Items			单位 Unit	设计值 Design Value
01	整机参数 Whole unit	整机参数	Whole machine parameters	t	29.5
		最小转弯半径	Minimum turning radius	m	内侧 2.5/外侧8.5 Inner 2.5/Outer 8.5
		离地间隙	Ground clearance	mm	480
		爬坡能力	Climbing ability	°	20
		最大作业高度	Maximum homework height	m	12
		最大作业宽度	Maximum homework width	m	15
		外形尺寸（长×宽×高）	Dimensions (length x width x height)	m	11600*3200(2600)*3450
02	发动机 Diesel Engine	类型	Type	/	水冷柴油发动机 Water-cooled diesel engine
		额定功率	Rated power	KW	129KW/2200rpm
03	臂架 Boom Assembly	臂架数量	Number of arm brackets	/	3架(Aircraft)
		臂架形式	Arm frame form	/	中间臂架：曲臂左、右副臂：直臂 Middle arm: curved arm, left and right auxiliary arms: straight arm
04	凿岩系统 Rock drilling system	凿岩机功率	Rock drill power	kw	22
		凿岩机最大钻孔直径	Maximum drilling diameter of rock drill	mm	Φ115
		凿岩机钻孔深度	Drilling depth of rock drill	m	5（Single Pole）
		凿岩机钻孔速度	Drilling speed of rock drill	m/min	1-1.2
05	水系统 Water system	电机功率	Motor power	kw	3
		扬程	Lift	m	175
		流量	Flow	m³/h	3
06	注浆系统 Grouting system	理论最大流量	Theoretical maximum flow rate	L/H	1200
		理论最大罐浆压力	Theoretical maximum tank slurry pressure	MPa	1.2
		功率	Power	kw	1.5
07	空压机 Air compressor	功率	Power	kw	7
		排量	Displacement	L/min	600
		压力	Pressure	MPa	0.8

KC系列
CONCRETE SHOTCRETE ROBOT
混凝土湿喷台车

POTENTIAL

6 自由度臂架
6-PRS Spraying Boom

3 自由度喷射头
3-PRS Spray Nozzle

KC2515W

KC2512W

KC3017

KC3019

科达智能
KEDA INTELLIGENCE

KC系列
CONCRETE SHOTCRETE ROBOT
混凝土湿喷台车

WORKING ON SITE
工程案例

POTENTIAL

超长距离无线遥控，操作灵活，臂架动作全覆盖，喷射无盲区；
密实度高、平整度高、回弹率小、粉尘浓度低。
High accuracy, minimum blind spot, low rate of rebound.
Long distance wireless control.
integrated with all movements, easier in operating.

项目名称 Items				单位 Unit	KC3015W	KC3017W	KC3019
整机 Camplete Machine	重量	Weight		kg	15000	17000	17000
	行走速度	Walking speed		km/h	0~20	0~18	0~18
	爬坡能力	Climbing ability		°	25	25	25
	离地间隙	Ask for clearance from the ground		mm	305	400	400
	传动、转向	Transmission and steering		/	四轮驱动、四轮转向 4-wheel driving/steering	四轮驱动、四轮转向 4-wheel driving/steering	四轮驱动、四轮转向 4-wheel driving/steering
	行走方式	Walking style		/	轮式 Wheels	轮式 Wheels	轮式 Wheels
	运输尺寸(长x宽x高)	Transportation dimensions (L x W x H)		mm	7410x2200x3200	8265x2500x3200	8265x2500x3200
混凝土泵 Pumpng System	理论泵送能力	Theoretical pumping capacity		m^3/h	7~ 30	4~ 30	4~ 30
	最大输送压力	Maximum conveying pressure		bar	75	75	75
发动机 Engine	类型	Type		/	4 缸水冷柴油发动机 4-cylinder liquid-cooleddiesel engine	4 缸水冷柴油发动机 4-cylinder liquid-cooleddiesel engine	4 缸水冷柴油发动机 4-cylinder liquid-cooleddiesel engine
	额定功率	Rated power		KW/rpm	82/2200	82/2200	82/2200
电机 Motor	功率	Power		KW/rpm	45+22/1480	55/1480	55/1480
喷射臂 Sholcnete System	臂架形式	Arm frame form		/	折叠+伸缩 Tilt+telescopic	折叠+伸缩 Tilt+telescopic	折叠+伸缩 Tilt+telescopic
	有效喷射范围 Effective spraying range	向上	Up	/	15	17(KC3017)	19(KC3019)
		向前	Forward	/	13	15(KC3017)	17(KC3019)
		向下	Down	/	7	8(KC3017)	9(KC3019)
		宽度	Width	/	26	30(KC3017)	34(KC3019)
	大臂回转角度	Arm rotation angle		°	270	270	270
	大臂俯仰范围	Boom pitch range		°	83(向上 60° /向下 23°)	83(向上 60° /向下 23°)	83(向上 60° /向下 23°)
	大臂伸缩范围	Telescopic range of the boom		mm	1300	2000	2000
	小臂回转角度	Small arm rotation angle		°	左180° /右 60°	左180° /右 60°	左180° /右 60°
	小臂俯仰范围	Arm pitch range		°	92° (向上 30° /向下 62°)	92° (向上 30° /向下 62°)	92° (向上 30° /向下 62°)
	臂伸缩范围	Arm extension range		mm	1700	2000	2000
	喷射头回转	Jet head rotation		°	360°	360°	360°
	喷嘴摆动	Nozzle swing		°	240°	240°	240°
	喷嘴刷动	Spray nozzle brushing		/	8° x360~无限连续 Infinite continuity	8° x360~无限连续 Infinite continuity	8° x360~无限连续 Infinite continuity
	喷射管径	Spray pipe diameter		mm	Φ80	Φ80	Φ80
空压机 Air Compresso	类型	Type		/	/	螺杆式 Screw type	螺杆式 Screw type
	排气量	Exhaust volume		m^3/min	/	13.5	13.5
	排气压力	Gas capture pressure		Mpa	/	0~0.7	0~0.7
速凝剂系统 Additirve System	流量	Flow		L/h	60~ 720	0~ 1200	0~ 1200
	工作压力	Working pressure		MPa	1.2	1.2	1.2
	容积	Volume		L	500	1000	1000
清洗机 Cleaner	工作压力	Working pressure		MPa	14	14	14
	流量	Traffic volume		L/min	14	14	14
电气系统 Electrical System	操作方式	Operation method		/	无线遥控 Wireless	无线遥控 Wireless	无线遥控 Wireless
	控制方式	Control method		/	控制器+触摸屏显示 Controller + touch screen	控制器+触摸屏显示 Controller + touch screen	控制器+触摸屏显示 Controller + touch screen
电缆卷筒 Cable Reel	长度	Length		m	100	100	100
	外接电源	External power supply		V/50HZ	380	380	380
	电流负荷	Current load		A	400	400	400

KS80+KP25
CONCRETE SHOTCRETE ROBOT COMBINATION
混凝土湿喷机组

POTENTIAL

6 自由度混凝土喷射臂系统
-PRS SPRAYING BOOM SYSTEM

Applications
适用范围

铁路、公路隧道、边坡、矿山巷道、水利水电隧洞和涵洞、地铁及各种地下军用和民用工程等；小断面隧道、分层开挖隧道。

Railway tunnel, road tunnel, subway, mining roadway,water conservancy and hydro power tunnel.Suitable for small working section tunnel by layer.

序号No.		项目名称 Items		单位 Unit	设计值 Design Value
机械手	01 整机 Camplete Machine	行走速度（低速/高速）	Walking speed (low/high speed)	Km/h	2.0/3.0
		爬坡能力	Climbing ability	°	30
		离地间隙	Ground clearance	mm	205
		运输尺寸（L×W×H）	Transportation dimensions	mm	3400×1600×2500
		机械手自重	Self weight of robotic arm	kg	4600
		行走方式	Walking style	/	橡胶履带(可配钢制履带) Rubber track (can be equipped with steel track)
	02 发动机 Engine	类型	Type	/	4缸水冷柴油发动机 4-Cylinder water-cooled diesel engine
		额定功率/转速	Rated power/speed	Kw/rpm	33/2200
	03 喷射臂 Sholcnete System	臂架形式	Arm frame form	/	四节臂（其中三节液压伸缩） Four section arm (including three hydraulic telescopic sections)
		喷射头回转角度	Jet head rotation angle	°	360
		喷嘴摆动角度	Nozzle swing angle	°	240
		喷嘴刷动	Spray nozzle brushing	°	360° 无限连续 Infinite continuity
		最大喷高	Maximum spray height	m	8.5
		最大喷宽	Maximum spray width	m	14
		最小可作业隧道高度	Minimum operable tunnel height	m	3
	04 速凝剂系统 Additirve System	流量	Flow	L/h	60~600
		工作压力	Working pressure	bar	12
		容积	Volume	L	200
喷射泵	05 泵送系统 Pumping system	混凝土理论输送能力	Theoretical conveying capacity of concrete	m3/h	25
		最大理论出口压力	Maximum theoretical export pressure	MPa	9.8
		最大理论水平输送距离	Maximum theoretical horizontal conveying distance	m	450
		最大理论垂直输送距离	Maximum theoretical vertical conveying distance	m	160
		最大骨料粒径	Maximum aggregate particle size	mm	16
		上料高度	Loading height	mm	1200
		喷射管直径	Spray tube diameter	mm	Φ80
	06 泵送电机 Pumping motor	功率	Power	kw	45
	07 整机 Camplete Machine	外形尺寸（L×W×H）	Dimensions (l×w×h)	mm	3800×1500×1600
		喷射泵自重	Self weight of jet pump	kg	2150

Performance Characteristics
性能特点

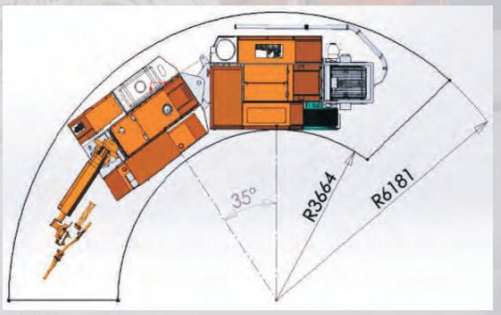
- 液压伸缩喷射臂：含大臂回转、大臂俯仰、三节小臂液压伸缩、喷射头回转、喷嘴摆动、喷嘴刷动共计六个自由度工作，各部分尺寸适合分层开挖的施工工况；
- 柴油机动力系统：柴油机动力供行走或臂架动作；
- 电液动力组：为喷射臂工作提供动力；
- 活塞式泵送系统，喷射量25 m^3/h，较转子式泵送系统工作效率高三倍以上；
  无线遥控臂架动作；
- 喷射范围（含1m喷射距离）最大高度：约8.5m、最大宽度：约14m；
- 喷射头运动范围：喷嘴绕臂纵轴回转360° 、喷嘴对臂纵轴摆动240° 、喷嘴绕动360° 无限连续。
- 履带底盘：装有两个能收缩展开的液压伸缩支腿，爬坡时或坡地工作时车架能俯仰以保持车身水平；
- 机械手外形尺寸（行驶状态）L×W×H3.4×1.6×2.5m，最小可作业隧道高度：约3m；

- Hydraulic telescopic spray arm: including six degrees of freedom including boom rotation, boom pitch, three section hydraulic telescopic boom, spray head rotation, nozzle swing, and nozzle brushing. The dimensions of each part are suitable for the construction conditions of layered excavation;
- Diesel engine power system: Diesel engine power is used for walking or arm movement;
- Electro hydraulic power unit: provides power for the operation of the spray arm;
- The piston pumping system has an injection rate of 25 m^3/h, which is more than three times more efficient than the rotor pumping system;
- Wireless remote control arm movement;
- Spray range (including 1m spray distance) maximum height: about 8.5m, maximum width: about 14m;
- Spray head movement range: nozzle rotates 360° around the arm's longitudinal axis, nozzle swings 240° towards the arm's longitudinal axis, nozzle rotates 360° infinitely continuously.
- Track chassis: equipped with two hydraulic telescopic legs that can retract and expand, the frame can pitch to maintain the vehicle's level when climbing or working on slopes;
- The external dimensions of the robotic arm (driving state) are L × W × H3.4 × 1.6 × 2.5m, and the minimum operable tunnel height is about 3m;

科达智能 KEDA INTELLIGENCE

KC2008J
MINING SHOTCRETE ROBOT
矿用湿喷机

POTENTIAL



Structural Characteristics
结构特点

- 采用自制工程底盘、轮式行走、车桥带摆动架；
- 采用铰接式转向、四轮驱动；
- 采用全液压控制的四节三级伸缩臂架，先进的喷头结构；
- 采用活塞式混凝土泵，保证喷射力度，降低堵管几率，维护成本低；
- 采用柴油机和电动机双动力，紧急状态时可用柴油机动力进行臂架动作；
- 整机配置有一体式空压机、高压清洗机等。

- Adopting self-made engineering chassis, wheeled walking, and axle belt swing frame;
- Adopting articulated steering and four-wheel drive;
- Adopting a four section three-level telescopic arm frame with full hydraulic control and advanced nozzle structure;
- Adopting a piston type concrete pump to ensure spraying force, reduce the probability of pipe blockage, and have low maintenance costs;
- Adopting dual power of diesel engine and electric motor, the boom can be operated with diesel engine power in emergency situations;
- The whole machine is equipped with an integrated air compressor, high-pressure cleaning machine, etc;

序号No.	项目名称 Items			单位 Unit	设计值 Design Value
01	整机 Camplete Machine	重量	Weight	kg	约11000
		行走速度	Walking speed	km/h	0~20
		爬坡能力	Climbing ability	°	20
		离地间隙	Ground clearance	mm	385
		传动、转向	Transmission and steering	/	四轮驱动、铰接式转向 Four wheel drive, articulated steering
		行走方式	Walking style	/	轮胎 Tyre
		尺寸（长x宽x高）	Dimensions (length x width x height)	mm	7500x2000x2400
		转弯半径	Turning radius	mm	内侧/Inner3665mm、外侧/Outer 6180mm
		上料高度	Loading height	mm	1250
02	混凝土泵 Pumpng System	理论最大泵送能力	Theoretical maximum pumping capacity	m^3/h	20
		最大输送压力	Maximum conveying pressure	bar	75
03	发动机 Engine	类型	Type	/	4 缸水冷柴油发动机 4-Cylinder liquid-cooleddiesel engine
		额定功率	Rated power	KW/rpm	82/2200
04	电机 Motor	功率	Power	KW/rpm	37/1480
05	喷射臂 Sholcnete System	臂架形式	Arm frame form	/	四节三级伸缩 Four sections and three levels of scalability
		最大喷高	Maximum spray height	m	8.5
		最大喷宽	Maximum spray width	m	14
		前方最远喷射距离	The farthest spraying distance ahead	m	7
		喷射头回转	Jet head rotation	°	360
		喷嘴摆动	Nozzle swing	°	240
		喷嘴刷动	Spray nozzle brushing	°	8° x360° 无限连续 Infinite continuity
		喷射管径	Spray pipe diameter	mm	Φ80
06	速凝剂系统 Additirve System	流量	Flow	L/h	40~1000L/h
		工作压力	Working pressure	Mpa	1.2
		容积	Volume	L	200
07	空压机 AirCompresso	功率	Power	KW	45
		流量	Flow	m^3/min	8
		压力	Pressure	bar	7
08	清洗机 Cleaner	工作压力	Working pressure	MPa	14
09	电气系统 Electrical System	操作方式	Operation method	/	无线遥控 Wireless remote control
		控制方式	Control mode	/	控制器+触摸屏显示 Controller + touch screen
10	电缆卷筒 Cable Reel	长度	Length	m	80
		外接电源	External power supply	V/50HZ	380
		电流负荷	Current load	A	200

铰链式结构，灵活转向
Articulated structure, flexible steering

KMZ611
DRILLING & ANCHORING AND GROUTING INTEGRATED ROBOT
钻注锚一体台车

Equipment Introduction
设备介绍

科达KMZ611钻注锚一体台车，是针对水电地下工程定向开发的，集成了液压凿岩机造孔、锚杆安装、注浆、网片安装等功能。可用于引水工程的隧道支护，铁路、公路等隧道及边坡，高层建筑深基坑，水电地下厂房支护作业等。填补了目前在水利水电领域无机械化施工设备的空白。

The Keda KMZ611 drilling & anchoring and grouting integrated robot is developed specifically for underground hydropower engineering, integrating functions such as hydraulic rock drilling, anchor rod installation, grouting, and mesh installation,whichis used for tunnel support in water diversion projects, tunnels and slopes in railways, highways, deep foundation pits in high-rise buildings, and support operations in underground hydropower plants. It fills the gap in the current field of water conservancy and hydropower where there is no mechanized construction equipment.

Structural Characteristics
结构特点

- 底盘形式：工程底盘，四轮驱动，四轮转向；
- 动力：柴、电双动力；
- 控制系统：控制器控制，参数大屏显示，臂架操控智能辅助系统；
- 作业装置：主臂，其集成有液压凿岩机造孔系统、注浆系统、锚杆安装系统；副臂，其集成有高空作业平台、全液压多自由度机械手；

- Chassis form: Engineering chassis, four-wheel drive, four-wheel steering;
- Power: Dual power of diesel and electric;
- Control system: Controller control, large screen display of parameters, intelligent assistance system for arm control;
- Working device: Main arm, which integrates hydraulic rock drilling system, grouting system, and anchor rod installation system; The auxiliary arm integrates a high-altitude work platform and a fully hydraulic multi degree of freedom robotic arm;

POTENTIAL

KMZ611

序号No.	项目名称 Items			单位 Unit	设计值 Design Value
01	整机参数 Whole machine Parameters	整机质量	Whole machine weight	kg	25500kg
		行走速度	Walking speed	km/h	0~15km/h
		行走方式	Walking style	/	轮胎 Tyre
		驱动方式	Drive mode	/	四轮驱动 Four wheel drive
		转向方式	Steering method	/	四轮转向 Four wheel steering
		最小转弯半径	Minimum turning radius	m	内侧 3.4m /外侧8.5m Inner side 3.4m/outer side 8.5m
		离地间隙	Ground clearance	mm	350
		爬坡能力	Climbing ability	°	15°
		行驶状态下外形尺寸（长×宽×高）	Dimensions (length x width x height)	m	13200*2500*3450
02	发动机 Diesel Engine	类型	Type	/	水冷柴油发动机 Water-cooled diesel engine
		额定功率	Rated power	Kw/rpm	119KW/2200rpm
03	电机 Electric machinery	功率	Power	KW/rpm	55KW/1480rpm
04	臂架 Boom Assembly	臂架形式	Arm frame form	/	摆动+变幅+伸缩 Swing+amplitude+expansion
		最大工作高度	Maximum working height	m	11
		最大工作宽度	Maximum working width	m	11
05	凿岩系统 Rock drilling system	凿岩机功率	Rock drill power	kw	16.5
		凿岩机钻孔直径	Drilling diameter of rock drill	mm	Φ43~Φ76
		凿岩机钻孔深度	Drilling depth of rock drill	m	6
		凿岩机钻孔速度	Drilling speed of rock drill	m/min	1-1.2
06	电气系统 Electrical system	操作方式	Operation method	/	无线遥控 Wireless remote control
		控制方式	Control mode	/	控制器 Controller
07	电缆卷筒 Cable reel	外接电源	External power supply	V/Hz	380V/50Hz
		电流负荷	Current load	A	100A
08	水系统 Water system	电机功率	Motor power	KW	1.1
		扬程	Lift	m	50
		流量	Flow	m³/h	4
09	注浆系统 Grouting system	理论最大流量	Theoretical maximum flow rate	L/H	2500
		理论最大罐浆压力	Theoretical maximum tank slurry pressure	MPa	4
		功率	Power	KW	3+4
10	空压机 Air compressor	功率	Power	KW	3.6
		排量	Displacement	L/min	300
		压力	Pressure	MPa	0.8

科达智能 KEDA INTELLIGENCE

KTD5032
TELESCOPIC BELT CONVEYOR TRUCK
伸缩式皮带输送车

Equipment Introduction
设备介绍

伸缩式皮带输送车是一种具有多用途、移动式、可连续输送物料的物料输送设备，动作灵活、作业范围大、适应性强，广泛应用于水利水电、码头等大型混凝土浇筑工程中。

大方量、大骨料、小塌落度混凝土工程的最优选择，还可输送砂、砾石、谷物、矿石、煤炭、水泥、粮食、防洪材料等等。

The telescopic belt conveyor truck is a material conveying equipment that is versatile, mobile, and capable of continuously conveying materials. It has flexible movements, a large operating range, and strong adaptability, and is widely used in large-scale concrete pouring projects such as water conservancy, hydropower, and docks.

The optimal choice for large volume, large aggregate, and low slump concrete engineering, as well as for transporting sand, gravel, cereals, ores, coal, cement, grains, flood control materials, and more.

Main Advantages
主要优势

- 该产品具有输送量大，且对混凝土的坍落度要求低的特点；
- 布料臂是不用像泵车那样折叠的，可直线伸缩，可大大节省时间，提高效率；
- 皮带采用液压马达驱动，运行平稳，噪音小，清洗和维护也是非常的简单。

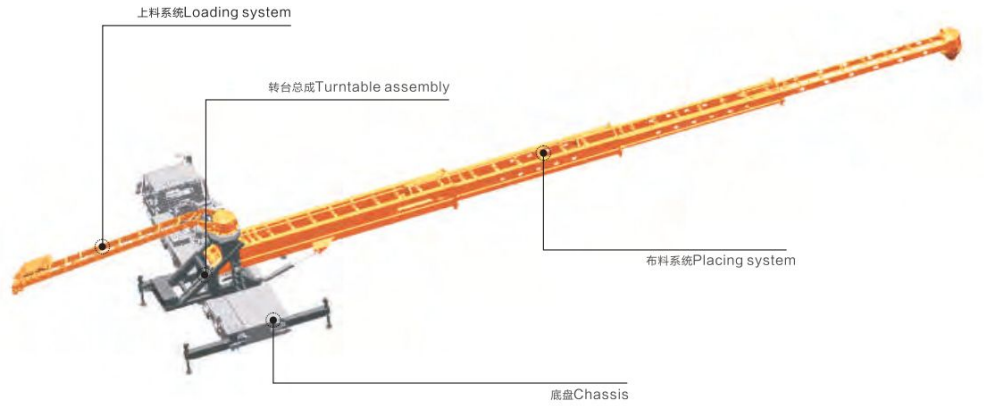
- This product has the characteristics of large conveying capacity and low requirements for the slump of concrete;
- The placing arm does not need to be folded like a pump truck, it can stretch and retract in a straight line, which can greatly save time and improve efficiency;
- The belt is driven by a hydraulic motor, running smoothly with low noise, and cleaning and maintenance are also very simple.

KTD5032

POTENTIAL

伸缩式皮带输送车主要由布料系统、上料系统、上车系统、底盘系统、液压系统及电控系统等组成。底盘选用8×4汽车底盘/自制工程轮式底盘。

The telescopic belt conveyor vehicle is mainly composed of a fabric system, a placing system, an upper system, a chassis system, a hydraulic system, and an electronic control system. The chassis is selected as 8 × 4 automotive chassis/self-made engineering wheel chassis.



项目名称 Items		单位 Unit	设计值 Design Value
最大布料半径	Maximum placing radius	m	32
输送带宽度	Belt width	mm	500
臂架俯仰角度	Arm pitch angle	°	−15° ~30°
上料臂俯仰角度	Pitch angle of feeding arm	°	−30° ~7°
皮带速度	Belt speed	m/s	2~5
最大输送能力	Maximum conveying capacity	m3/h	275
臂架	Arm frame	/	4节，360旋转 4 sections, 360 rotations
前支腿伸展	Front leg extension	m	≥7
后支腿伸展	Rear leg extension	m	≥8
操作净空高度	Operating clearance height	m	4.8
最大输送的混凝土粒径	Maximum conveying concrete particle size	mm	100
输送的混凝土塌落度	Slump of transported concrete	mm	0~305
底盘型式	Chassis type	/	8×4
底盘自重	Chassis weight	kg	≤10000
动力	Power	kW	≈300
整机重量	Whole machine weight	kg	≈32000

科达智能 KEDA INTELLIGENCE

KJC-3
UNDERGROUND CONCRETE MIXER TRUCK
混凝土搅拌运输车

Applications
应用范围

KJC-3是一种以柴油机为动力、机械传动、后轮驱动的非煤矿山井下无轨式运输机械，主要用于巷道断面不小于4×3m、坡度不大于14°的非煤矿山井下运输作业。

KJC-3 is a non coal mine underground trackless transportation machinery powered by a diesel engine, mechanical transmission, and rear wheel drive. It is mainly used for non coal mine underground transportation operations with a tunnel section of not less than 4 × 3m and a slope of not more than 14°.

Main Advantages
主要优势

- 该车为整体式车架、正向驾驶、转向半径小。
- 该车采用行驻一体制动器,轮边湿式多盘制动器（液压制动、弹簧制动二合一）采用双回路液压制动系统（在其中一条液压回路出现故障时，另一条液压回路可以正常实施制动），提高制动安全性能！设置行车、驻车、紧急三套制动系统，驻车制动与紧急制动合二为一，行车制动采用轮边湿式多盘液压制动器，能够适应长距离下坡工况。驻车、紧急制动采用轮边湿式多盘弹簧制动器，为失效安全性（即在车辆行车制动系统失效、或发动机突然停机时，制动器失去油压，内部制动弹簧回位，制动器锁死，从而实现自动制动停车，进一步提高了安全性能）。设有手动解除制动系统，方便维修及拖车。
- 该车采用洛拖非道路国三柴油机、后轮驱动、液压助力转向、爬坡能力强、转向灵活。

- The truck has an integral frame, forward driving, and a small turning radius.
- The truck adopts a combination of driving and parking brakes, and a wet multi disc brake system (hydraulic brake and spring brake combined) with dual circuit hydraulic brake system (when one hydraulic circuit fails, the other hydraulic circuit can apply the brake normally), which improves the braking safety performance! Set up three sets of braking systems: driving, parking, and emergency. The parking brake and emergency brake are combined into one, and the driving brake uses wet multi disc hydraulic brakes on the wheels, which can adapt to long-distance downhill conditions. Parking and emergency braking use wet multi disc spring brakes with wheel edges, which ensure failure safety (i.e. when the vehicle's service brake system fails or the engine suddenly stops, the brake loses oil pressure, the internal brake spring returns, the brake locks, and thus achieves automatic braking and parking, further improving safety performance). Equipped with a manual brake release system for easy maintenance and towing.
- The truck is equipped with a Luotuo non road National III diesel engine, rear wheel drive, hydraulic power steering, strong climbing ability, and flexible steering.

KJC-3

POTENTIAL
科达智能

项目名称 Items		单位 Unit	技术参数 Technical parameter
整备质量	Whole machine weight	kg	7500
额定容积	Rated capacity	L	3
额定载重	Rated load capacity	kg	7200
外形尺寸(长×宽×高)	Dimensions (length x width x height)	mm	6800X2000X2600
爬坡能力	Climbing ability	°	14
最大行驶速度	Maximum driving speed	km/h	35
最小通过能力半径	Minimum passing capacity radius	mm	外侧/Outer side7500 内侧/Inner side5500
传动方式	Transmission mode	/	机械传动 Mechanical drive
驱动形式	Drive form	/	后轮驱动 Rear wheel drive
制动形式-行车制动	Braking form - service brake	/	轮边湿式多盘液压制动器 Wheel edge wet multi disc hydraulic brake
制动形式-停车/紧急制动	Braking form - parking/emergency braking	/	轮边湿式多盘弹簧制动器 Wheel edge wet multi disc spring brake
转向形式	Turning form	/	液压助力转向 Hydraulic Power Steering
柴油机型号	Diesel engine model	/	6105
柴油机功率	Diesel engine power	kW	92
柴油机额定转速	Rated speed of diesel engine	r/min	2200
排放标准	Emission standard	/	非道路国三阶段 Non road country Phase III
变速箱	Transmission case	/	653HF
前桥	The front axle	/	1090
后桥	Rear axle	/	1092
轮胎	Tyre	/	8.25-16
车架	Frame	/	双层铆接大梁 Double layer riveted beam
搅拌罐驱动方式	Mixing tank driving method	/	液压驱动 Hydraulic Drive
搅拌罐材料	Mixing tank material	/	双螺旋槽/高强度板 Double helix groove/high-strength plate
搅拌罐旋转速度	Mixing tank rotation speed	r/min	12~18
其他配置	Other configurations	/	座椅、空调、倒车影像、灭火器 Seat, air conditioning, reversing camera, fire extinguisher

科达智能
KEDA INTELLIGENCE

KJC-5
UNDERGROUND CONCRETE MIXER TRUCK
混凝土搅拌运输车

Applications
应用范围

KJC5(B)混凝土搅拌运输车是一种以柴油机为动力、机械传动、后轮驱动的矿山井下运输机械，主要用于巷道断面不小于4m × 3m、坡度不大于14° 的矿山井下运输作业。

KJC5 (B) concrete mixer truck is a mining underground transportation machinery powered by diesel engines, mechanical transmission, and rear wheel drive. It is mainly used for underground transportation operations in mines with tunnel sections not less than 4m × 3m and slopes not greater than 14° .

Structural Characteristics
结构特点

- 发动机：型号:玉柴YCK08330-T400,功率:242KW（330马力）,最大扭矩:转速（Nm/r/min）:1350/1600,排放标准:非道路国四
- 离合器：离合器单片ϕ430，间隙自动调节
- 变速箱：10JDS160陕西法士特，单箱双中间轴结构形式，陕西法士特10档箱，变速箱机油冷却，齿面强制润滑
- 取力器：型号QH-60双取力器，陕西法士特
- 前桥：单桥承载:6.5吨
- 搅拌罐：直径1700mm，壁厚8mm高强度锰板，搅拌罐旋转速度12r/min。
- 液压系统：海特克45柱塞泵马达闭式系统，额定压力25Mpa。

- Engine: Model: Yuchai YCK08330-T400, Power: 242KW (330 horsepower), Maximum Torque: RPM (Nm/r/min): 1350/1600, Emission Standard: Non road National IV
- Clutch: Clutch single plate # 430, automatic clearance adjustment
- Transmission: 10JDS160 Shaanxi Fast, single box dual intermediate shaft structure, Shan Xi Fast 10 speed gearbox, gearbox oil cooling, forced lubrication of tooth surface
- Power take-off: Model QH-60 dual power take-off, Shan Xi Fast
- Front axle: Single axle bearing capacity: 6.5 tons
- Mixing tank: diameter 1700mm, wall thickness 8mm high-strength manganese plate, mixing tank rotation speed 12r/min.
- Hydraulic system: Hytek 45 plunger pump motor closed system, rated pressure 25Mpa.

KJC-5

POTENTIAL

项目名称 Items		单位 Unit	技术参数 Technical parameter
整备质量	Whole machine weight	kg	12000
额定载重	Rated load capacity	kg	5方
长×宽×高	Length x width x height	mm	7600×2500×2800
轴距	Wheelbase	mm	3650
最小离地间隙	Minimum ground clearance	mm	260
爬坡能力	Climbing ability	%	25%（14°）
最大行驶速度	Maximum driving speed	km/h	25
最小通过能力半径-外侧	Minimum passing capacity radius – outer side	mm	9000
最小通过能力半径-内侧	Minimum passing radius – inner side	mm	6500
内侧大梁	Inner beam	mm	280（8+8）
驱动形式	Drive form	/	4X2
制动形式-行车制动	Braking form – service brake	/	轮边湿式多盘弹簧制动器Wheel edge wet multi disc hydraulic brake
制动形式-停车/紧急制动	Braking form – parking/emergency braking	mm	轮边湿式多盘弹簧制动器Wheel edge wet multi disc hydraulic brake
转向形式	Turning form	/	液压助力转向 Hydraulic Power Steering
柴油机型号	Diesel engine model	/	YCK08330-T400
柴油机功率	Diesel engine power	kW	242
柴油机额定转速	Rated speed of diesel engine	r/min	2100
最大扭矩	Maximum torque	N.m/rpm	1350/1300-1600
排放标准	Emission standard	/	非道路国四 Non road country Phase IV
变速箱	Transmission case	/	法士特10档10JSD160 Fast 10 gear 10JSD160
前桥	The front axle	/	6.5T
后桥	Rear axle	/	并联后桥32T承载力，双级减速，总减速比6.72 Parallel rear axle 32T bearing capacity, dual stage deceleration, total reduction ratio 6.72
轮胎	Tyre	/	10.00-20钢丝胎 Steel wire tire
搅拌罐直径/壁厚	Mixing tank diameter/wall thickness	mm	1700/8
搅拌罐驱动方式	Mixing tank driving method	/	液压驱动 Hydraulic Drive
搅拌罐材料	Mixing tank material	/	双螺旋槽/高强度板 Double helix groove/high-strength plate
搅拌罐旋转速度	Mixing tank rotation speed	r/min	12~18
其他配置	Other configurations	/	座椅、空调、倒车影像 Seat, air conditioning, reversing camera

科达智能 KEDA INTELLIGENCE

KD45A-1BCDL
SINGLE ARM ROCK DRILLING JUMBO
单臂凿岩台车

Equipment Introduction
设备介绍

KD45A-1BCDL单臂胶轮凿岩台车为高配车型。18KW的大功率凿岩机使凿岩效率大大提高:12km/h的胶轮式行走速度可使设备快速转场;自动平行伸缩钻臂在实现了简单快速定位的基础上增大了工作的覆盖面积与操作人员的安全距离。电缆卷筒，免去人工辅助拖拽电缆，提高安全系数；风清孔可有效提高爆破效果；

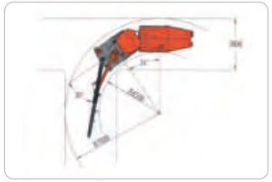
本车主要适用于矿山、水电、公路、铁路等领域中型巷道、隧道掘进工作。

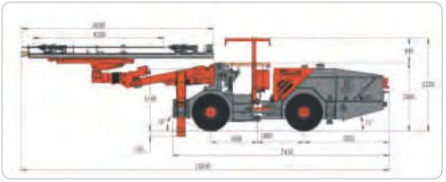
KD45A-1BCDLSingle-arm Wheel Driling Jumbo is high configuration type. 18kW's high power drill greatly improves driling eficiency; 12km/h's rubber wheels speed enables quick transfer.the automatic parallel telescopic arm can rapid position the drilingholes, at the same time, increase the coverage working area and the safe distance; cable drum, without artificial auxiliary draggingcables, can improve safety factor;

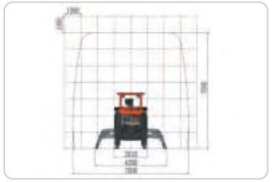
Wind hole cleaning can efectively improve the blasting efect, which is mainly suitable for middle-sized tunneling in mines, hydropower, railways, roads and other fields.

KD45A-1BCDL

POTENTIAL







序号No.	项目名称 Items		单位 Unit	设计值 Design Value
01	整机 Complete machine	运输尺寸(长×宽×高)Transportation dimensions (length X width X height)	m	12.85x2.03x2.38(3.22带顶棚Wih ceiling)
		凿孔直径 Drilling diameter	mm	Φ43~Φ102
		凿孔速度 Drilling speed	m/min	0.8-2.5
		适用断面(宽×高 Applicable cross-section (width X height)	m	4.5x4~7x7
		凿岩功率 Rock drilling power	kw	18
		供电电压 Supply voltage	/	380VAC 50Hz
		电机总功率 Total power of motor	kw	68.2
		总重 Total weight	kg	~17500
02	底盘 Chassis	结构形式 structural style	/	铰接车体Articulated
		行走方式 Walking style	°	胶轮行走 Rubber wheel
		行驶速度 Driving speed	km/h	0-12
		柴油机功率 Diesel engine power	kw	97
		离地间隙 Clearance from the ground	mm	245
		爬坡能力(平整路面) Climbing ability (flat road surface)	°	14°
		最小转弯半径 Minimum turning radius	m	4.5(内侧 Inner side)/7.0 (外侧 Out side)
03	钻臂 Drilling arm	钻臂数量 Number of drilling arms	PCS	1
		平行功能 Parallel function	/	有 YES
		伸缩功能 Scalable function	/	有 YES
04	推进器 Propeller	推进器总长 Total length of thruster	m	6.68
		钎杆长度 Drill rod length	m	4.915
		凿孔深度 Drilling depth	m	4.50
05	供气系统 Gas supply system	供气流量 Gas supply flow rate	m^3/min	2
		工作气压 Working pressure	Mpa	0.2-0.7
06	供水系统 Water supply system	水管卷盘 Water pipe reel	/	无 NO
		供水流量 Water supply flow rate	m^3/h	4
		冲洗水压 Rinse water pressure	Mpa	0.8-1.5
		入口水压 Inlet water pressure	Mpa	0.3-0.6
07	其他配置 Other configurations	电缆卷盘 Cable reel	/	有YES
		吊篮数量 Number of hanging baskets	/	无 NO
		升降顶棚 Lift the ceiling	/	有 YES
		照明系统 lighting	/	5盏高亮度LED照明灯 5 High brightness LED lights
		灭火器 Fire Extinguisher	/	手持式干粉灭火器(4kg装2支)Hand-held dry powder fire extinguisher 4kg x 2

科达智能 KEDA INTELLIGENCE

KD100A-2BCDL
DUAL ARM ROCK DRILLING JUMBO
双臂凿岩台车

Equipment Introduction
设备介绍

KD100A-2BCDL双臂胶轮凿岩台车为双臂凿岩加装装药框的大型凿岩台车，配置了大功率凿岩机、平动伸缩钻臂、柴电双动力、电缆卷筒、风清孔等功能。

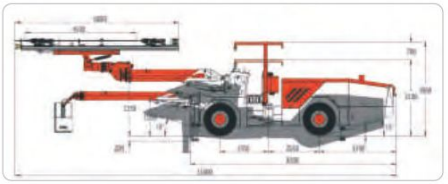
可以在快速实现掘进的基础上有效的控制超挖欠挖作业。主要适用于公路、铁路等大型隧道工程。

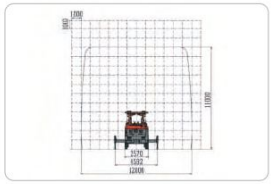
The KD100A-2BCDL double arm rubber wheel rock drilling jumbo is a large rock drilling rig equipped with a charging frame for double arm rock drilling. It is equipped with high-power rock drilling machine, translational telescopic drilling arm, diesel electric dual power, cable reel, air cleaning hole and other functions. Effective control of over excavation and under excavation operations can be achieved on the basis of rapid excavation.

Mainly suitable for large-scale tunnel projects such as highways and railways.

KD100A-2BCDL

POTENTIAL





序号No.	项目名称 Items		单位 Unit	设计值 Design Value
01	整机 Complete machine	运输尺寸(长×宽×高)Transportation dimensions (length X width X height)	m	12.85x2.03x2.38(3.22带顶棚Wih ceiling)
		凿孔直径 Drilling diameter	mm	Φ43~Φ102
		凿孔速度 Drilling speed	m/min	0.8-2.5
		适用断面(宽×高 Applicable cross-section (width X height)	m	4.5x4~7x7
		凿岩功率 Rock drilling power	kw	18
		供电电压 Supply voltage	/	380VAC 50Hz
		电机总功率 Total power of motor	kw	68.2
		总重 Total weight	kg	~17500
02	底盘 Chassis	结构形式 structural style	/	铰接车体Articulated
		行走方式 Walking style	°	胶轮行走 Rubber wheel
		行驶速度 Driving speed	km/h	0-12
		柴油机功率 Diesel engine power	kw	97
		离地间隙 Clearance from the ground	mm	245
		爬坡能力(平整路面) Climbing ability (flat road surface)	°	14°
		最小转弯半径 Minimum turning radius	m	4.5(内侧 Inner side)/7.0 (外侧 Out side)
03	钻臂 Drilling arm	钻臂数量 Number of drilling arms	PCS	1
		平行功能 Parallel function	/	有 YES
		伸缩功能 Scalable function	/	有 YES
04	推进器 Propeller	推进器总长 Total length of thruster	m	6.68
		钎杆长度 Drill rod length	m	4.915
		凿孔深度 Drilling depth	m	4.50
05	供气系统 Gas supply system	供气流量 Gas supply flow rate	m^3/min	2
		工作气压 Working pressure	Mpa	0.2-0.7
06	供水系统 Water supply system	水管卷盘 Water pipe reel	/	无 NO
		供水流量 Water supply flow rate	m^3/h	4
		冲洗水压 Rinse water pressure	Mpa	0.8-1.5
		入口水压 Inlet water pressure	Mpa	0.3-0.6
07	其他配置 Other configurations	电缆卷盘 Cable reel	/	有YES
		吊篮数量 Number of hanging baskets	/	无 NO
		升降顶棚 Lift the ceiling	/	有 YES
		照明系统 lighting	/	5盏高亮度LED照明灯 5 High brightness LED lights
		灭火器 Fire Extinguisher	/	手持式干粉灭火器(4kg装2支)Hand-held dry powder fire extinguisher 4kg x 2

科达智能 KEDA INTELLIGENCE

HBMD50 POTENTIAL
MINING CONCRETE MIXER
矿用混凝土搅拌机

Equipment Introduction
设备介绍

巷道混凝土泵送、沿空留巷、巷道支护混凝土喷射、柔模混凝土泵送、煤泥、油泥以及注浆与尾砂充填。

This mining pump is mainly applied for pumping concrete in tunnels, retaining tunnels, and tunnelssupporting concrete spraying, flexible formwork concrete pumping, coal slurry, oil slurry, as well as grouting and tailings filling.

Technical Parameter
技术参数

项目名称 Items		单位 Unit	HBMD50/12-75SF	HBMD60/13-110SF
电机功率	Motor Power	kw	75	110
驱动方式	Drive Mode	/	电机驱动 Motor Drive	电机驱动 Motor Drive
油缸内径×行程	Oil Cylinder ID x Stroke	mm	φ110×φ80×1000	φ140×φ100×1400
输送缸径×行程	Conveyor Cylinder Diameter x Stroke	mm	φ200×1000	φ200×1400
高低压切换	High and Low Voltage Switching	/	有 Yes	有 Yes
燃油箱容积	Fuel Tank Capacity	L	400	500
液压冷却方式	Hydraulic Cooling Method	/	水冷 Water-cooling	水冷 Water-cooling
混凝土理论排量	Theoretical Displacement of Concrete	m^3/h	50	60
最大输送压力	Maximum Conveying Pressure	Mpa	12	13
理论水平距离	Theoretical Horizontal Distance	m	400	800
理论垂直高度	Theoretical Vertical Height	m	100	150
塌落度	Slump	cm	8~23	8~23
额定电压	Rated Voltage	V	660/1140	660/1140
最大骨料尺寸	Maximum Aggregate Size	mm	碎石 Crushed Stone 1~40 卵石 Pebble 1~50	碎石 Crushed Stone 1~40 卵石 Pebble 1~50
搅拌生产率	Mixing Productivity	m^3/h	50	60
全长×总宽×总高	Length x Width x Height	mm	4500×1200×2000	5000×1200×2000
满载质量	Full Load Weight	Kg	4750	5860

MJD5000G POTENTIAL
MINING CONCRETE MIXER
矿用混凝土搅拌机

Equipment Introduction
设备介绍

- 该连续性搅拌机由机架、电机、液压系统、减速机传动系统以及搅拌系统和隔爆启动开关所组成。传动机构是由液压系统、液压马达、减速机所组成。加水系统采用外部水源接到流量计上，通过阀门大小控制需水的用量，卸料门控制同样采用液压系统控制卸料门的开启。
- The continuous mining mixer consists of a frame, motor, hydraulic system, gearbox transmission system, mixing system, and explosion-proof start switch. The transmission mechanism is composed of the hydraulic system, hydraulic motor, and reducer. The water addition system is connected to the flow meter through an external water source, and the amount of water required is controlled by the size of the valve. The discharge door is also controlled by hydraulic system to open the discharge door.

Technical Parameter
技术参数

项目名称 Items		单位 Unit	JDY-2000G	MJD-5000G
生产能力	Throughput	m^3/h	80	250
主轴转速	Spindle Speed	r/min	10~35	10~35
搅拌叶片角度	Mixing Blade Angle	/	30°	30°
搅拌叶片回转直径	Rotating Diameter of Mixing Blade	mm	960	2×650
搅拌槽长度	Mixing Tank Length	mm	2960	4000
搅拌槽内直径	Diameter Inside Mixing Tank	mm	φ1000	φ1300
减速机型号	Gearbox Model	/	WSJS2000	2×WSJS2000
电动机型号及功率	Motor Model and Power	/	YBK3-225S-4、8(660/1140)	2×YBK3-225S-55(660/1140)
全长x总宽x总高	Length x Width x Height	mm	4100×1200×2200	5000×1200×2200
总重量	Full Load Weight	Kg	6500	8500

科达智能 KEDA INTELLIGENCE

HBMD50

POTENTIAL

UNDERGROUND MINING FILLING PUMP

矿用井下填充泵

Equipment Introduction
设备介绍

该矿用填充泵主要应用于：巷道混凝土泵送、沿空留巷、柔模混凝土泵送以及注浆与尾砂充填。

This mining filling pump is mainly used for pumping concrete in tunnels,retaining tunnels,pumping flexible formwork concrete,as well as grouting and tailings filling.

Technical Parameter
技术参数

项目名称 Items		单位 Unit	HBMG50/12-75SF	HBMG60/13-140SF	HBMG80/16-160SF
电机功率	Motor Power	kw	75	140	160
油缸内径x行程	Oil Cylinder ID x Stroke	mm	ϕ110× ϕ75×1000	ϕ140× ϕ100×1400	ϕ160× ϕ110×1400
输送缸径x行程	Conveyor Cylinder Diameter x Stroke	mm	ϕ200×1000	ϕ 200×1400	ϕ 230×1400
高低压切换	High and Low Voltage Switching	/	有 Yes	有 Yes	有 Yes
夜压油箱容积	Fuel Tank Capacity	L	400	500	500
液压冷却方式	Hydraulic Cooling Method	/	水冷 Water-cooling	水冷 Water-cooling	水冷 Water-cooling
混凝土理论排量	Theoretical Displacement of Concrete	m³/h	50	60	80
最大输送压力	Maximum Conveying Pressure	Mpa	12	13	16
理论水平距离	Theoretical Horizontal Distance	m	400	1000	1500
理论垂直高度	Theoretical Vertical Height	m	100	130	200
塌落度	Slump	cm	8~23	8~23	8~23
最大骨料尺寸	Maximum Aggregate Size	mm	碎石 Crushed Stone 1~30 卵石 Pebble 1~40	碎石 Crushed Stone 1~40 卵石 Pebble 1~50	碎石 Crushed Stone 1~40 卵石 Pebble 1~50
润滑方式	Lubrication Method	/	自动 Automatic	自动 Automatic	自动 Automatic
全长x总宽x总高	Length x Width x Height	mm	(泵送部分 Pumping Section) 4700×1200×1600 (液压部分 Hydraulic Section) 4500×1200×1600	(泵送部分 Pumping Section) 5000×1200×1600 (液压部分 Hydraulic Section) 4800×1200×1600	(泵送部分 Pumping Section) 5000×1200×1600 (液压部分 Hydraulic Section) 4800×1200×1600
满载质量	Full Load Weight	Kg	4600	5800	6500

HBMD300

POTENTIAL

MINING CONCRETE MIXING PUMP

矿用混凝土搅拌泵

Equipment Introduction
设备介绍

- 该充填泵主要用于煤矿采空区和巷道的混凝土充填，黑色金属、有色金属、黄金等矿山的采空区充填，污水处理厂污泥的长距离、高扬程输送以及江河、湖泊的清淤等领域。
- 适用范为广泛：糕体材料泵送，可泵送尾矿砂、粉煤灰、煤矸石、建筑垃圾、细石等多种混合物料，最大浓度可达85%。
- This filling pump is mainly applied for the concrete filling of coal mine goafs and roadways, the filling of mined out areas of ferrous metal, non-ferrous metal, gold and other mines, the long-distance and high lift transportation of sewage treatment plant sludge, and the dredging of rivers and lakes.
- Widely applicable: pumping of cake materials, capable of pumping various mixed materials such as tailings, fly ash, coal gangue, construction waste, fine stones, etc., with a maximum concentration of up to 85%.

Technical Parameter
技术参数

项目名称 Items		单位 Unit	HBMD150/15	HBMD200/1	HBMD300/18
电机功率	Motor Power	kw	264	500	930
电压	Rated Voltage	V	380/660/1140	380/660/1140	380/660/1140
油缸内径x行程	Oil Cylinder ID x Stroke	mm	ϕ190x1800	ϕ230x2500	ϕ230x3000
输送缸径x行程	Conveyor Cylinder Diameter x Stroke	mm	ϕ260x1800	ϕ300x2500	ϕ360x3000
高低压切换自动切换	High and Low Voltage Switching	/	有 Yes	有 Yes	有 Yes
燃油箱容积	Fuel Tank Capacity	L	1100	1800	2200
液压冷却方式	Hydraulic Cooling Method	/	水冷 Water-cooling	风冷+水冷 Air+Water-cooling	风冷+水冷 Air+Water-cooling
混凝土理论排量	Theoretical Displacement of Concrete	m³/h	150	200	300
最大输送压力	Maximum Conveying Pressure	Mpa	15	16	18
理论水平距离	Theoretical Horizontal Distance	m	5000	10000	16000
理论垂直高度	Theoretical Vertical Height	m	400	500	600
塌落度	Slump	mm	8~320	8~320	8~320
最大骨料尺寸	Maximum Aggregate Size	mm	碎石 Crushed Stone 1~40	碎石 Crushed Stone 1~40 卵石 Pebble 1~50	碎石 Crushed Stone 1~40 卵石 Pebble 1~50
润滑方式	Lubrication Method	/	自动 Automatic	自动 Automatic	自动 Automatic
分配阀	Distribution Valve	/	S管(锥阀) S-tube (cone valve)	S管(锥阀) S-tube (cone valve)	S管(锥阀) S-tube (cone valve)
满载质量	Full Load Weight	Kg	9800	12300	16360

科达智能 KEDA INTELLIGENCE

KDTJ-4000L
Raise Borer
(Crawler Self-propelled)
履带自行式天井钻机

POTENTIAL

Mainly used
主要应用

- 主要应用于：矿山、水利水电、隧道交通等领域井下钻孔、通风井、溜矿井、充填井、管道井工程施工。
- Mainly used in: mining, water conservancy and hydropower, tunnel traffic and other fields of underground drilling and ventilation wells, skidding wells, filling wells, pipeline well construction.

Technical Parameter
技术参数

部件 Component	名称 Name	单位 Unit	KDTJ-4000L天井钻机 Raise Borer	KDTJ-3000L天井钻机 Raise Borer	KDTJ-2000L天井钻机 Raise Borer	KDCS-1000L 盲天井钻机/切割槽钻机 Blind Patio Drilling Rigs/ Cutting Slot Drilling Rigs
主机 Host	额定转速 Rated Speed	r/min	导孔 Guide Hole：28 扩孔 Reaming：6	导孔 Guide Hole：24 扩孔 Reaming：10	导孔 Guide Hole：28 扩孔 Reaming：28	导孔 Guide Hole: 30 扩孔 Reaming: 15
	额定扭矩 Rated Torque	kN.m	258	172	86	80
	导孔最大推力 Maximum Thrust of Guide Hole	kN	4300	1400	890	1000
	扩孔最大拉力 Maximum Reaming Tension	kN	4300	2740	1750	1700
	公称扩孔直径 Nominal Reaming Diameter	mm	4000	3000	2000	导孔 Guide Hole 280;正扩 Forward Reaming 670/700;反扩 Reverse Reaming 1000～1800
	钻井深度 Depth of Drilling	m	400	500	250	导孔 Guide Hole 200;正扩 Forward Reaming 60;反扩 Reverse Reaming 200
	钻井角度 Drilling Angle	°	60～90	60～90	60～90	60～90
	质量 Weights	t	23	17	14.5	21
液压电气 Hydraulic and Electrical	额定压力 Rated Pressure	Mpa	副泵 Auxiliary Pump：35 主泵 Main Pump：35	副泵 Auxiliary Pump: 28 主泵 Main Pump: 28	副泵 Auxiliary Pump: 28 主泵 Main Pump: 25	35
	电动机总功率 Total Motor Power	kW	200	75+75+11	121	75+22
	额定电压 Rated Voltage	V	380/660	380/660	380/660	380/660
行走系统 Walking System	行走方式 Travelling Pattern	–	柴油机履带自行 Diesel Crawler Self-propelled			
	行走速度 Travelling Speed	km/h	1.2/2.4	1.5/3	1.5/3	1.4/2.8
	最大爬坡能力 Maximum Climbing Capacity	°	14	14	14	18
	最小转弯半径 Minimum Turning Radius	mm	4500	4600	4600	4000
	离地间隙 Ground Clearance	mm	260	200	200	260
	柴油机额定功率 Diesel Engine Rated Power	kW	96	73.5	58	96
	柴油机额定转速 Rated Speed of Diesel Engine	r/min	2200	2200	2200	2200
设备外形尺寸（运输状态） Equipment Dimensions (Transportation Status)		mm	6080×1960×2200	6910×1750×2020	7200×1600×2075	5450×1650×2300
设备外形尺寸（工作状态） Equipment External Dimensions (Working Status)		mm	7150×2775×3900	7500×2800×3800	7400×3080×3360	7070×2355×(3550–5325)

KD-KQG150
MINING DOWN-THE-HOLE DRILLING RIG
矿用潜孔钻机

POTENTIAL

Mainly used
主要应用

- 主要应用于：地下中深孔落矿采矿工艺。
- Mainly used in: underground deep hole mining technology.

Technical Parameter
技术参数

部件 Component	名称 Name	单位 Unit	参数 Parameter
钻孔参数 Drilling Parameters	钻孔直径 Drilling Diameter	mm	76–203
	钻孔深度 Drill Depth	m	0–100
	钻孔俯仰角度 Drilling Elevation Angle	°	–5～90
	钻杆直径 Drill Pipe Diameter	mm	60/76/89/114
	钻杆长度 Drill Pipe Length	mm	1000/1250/1500
	钻臂回转角度 Drilling Arm Rotation Angle	°	–180～+180
推进参数 Advance Parameters	推进行程 Advance the Itinerary	mm	1200/1450/1700
	最大推进力 Maximum Propulsion Force	N	≥45000
	最大提升力 Maximum Lifting Force	N	≥45000
	最大推进速度 Maximum Propulsion Speed	m/min	≥10
	补偿行程 Compensation Itinerary	mm	830
行走参数 Walking Parameters	行走方式 Walking Style	–	轮胎式 tyre–type
	转弯半径 Turning Radius	mm	2000
	行走速度 Walking Speed	km/h	1.2
	爬坡能力 Gradeability	°	14
回转参数 Rotation Parameters	回转速度 Rotation Speed	r/min	0～34
	回转扭矩 Rotating Torque	N.m	≥3000
整机参数 Machine Parameters	电机功率 Motor Power	kW	11+11
	控制方式 Control Method	–	无线遥控 Wireless Remote Control
	压缩空气使用压力 Compressed Air Pressure	MPa	0.7～2.1
	最小离地间隙 Minimum Ground Clearance	mm	210
	整机重量 Weight	kg	4100
设备外形尺寸（运输状态）External Dimensions of the Equipment (in Transport Condition)			3650×1200×1870(±50)

科达智能 KEDA INTELLIGENCE