河南矿山
HENANMINE

河南省矿山起重机有限公司

HENAN PROVINCE MINE CRANE CO., LTD.

工业企业质量标杆企业
Industrial enterprise quality benchmark enterprise

省长质量奖获奖企业
Provincial governor quality award winning enterprises

国家级绿色工厂
National green factory

河南矿山
HENANMINE

质量铸就品牌
QUALITY CREATES BRAND
诚信编织未来
INTEGRITY WEAVES THE FUTURE

河南矿山智能制造产业园

Henan mine intelligent manufacturing Industrial Park

河南矿山智能制造产业园，创建于2019年3月，项目总投资26亿元，总占地面积74万平方米，实现单双梁等各类智能起重机年产量5万余台（套）。

Henan mine intelligent manufacturing industrial park, founded in March 2019, has a total investment of 2.6 billion yuan and a total floor area of 740000 square meters. It has realized an annual output of more than 50000 sets of intelligent cranes such as single and double beams.

智能
INTELLIGENCE

绿色
GREEN

全产业链
WHOLE INDUSTRY

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HENANMINE

河南矿山
HENANMINE

“一握矿源手，终生是朋友”，
河南矿山党委书记崔培军竭诚与
各界朋友携手并进、共创辉煌。

Hold hands of Kuangyuan, being friends for ever. Cui Peijun, Party secretary of the Henan mine, will sincerely seek for common progress and resplendence cooperating with all friends.friends and establish brilliance.

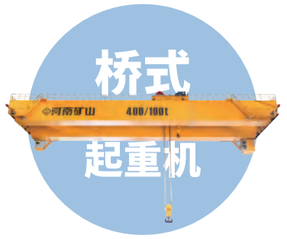
质量铸就品牌　诚信编织未来

QUALITY CASTS BRAND
INTEGRITY WEAVES THE FUTURE

河南省矿山起重机有限公司是专业的起重机及物料搬运产品制造商和服务供应商，集研发、设计、制造、安装、服务于一体，通过为客户提供整体解决方案和全生命周期服务，引领着起重机产业创新驱动、智能制造的发展方向。

Henan Province Mine Crane Co., Ltd. is a professional manufacturer and service provider of cranes and material handling products, integrating R & D, design, manufacturing, installation and service. By providing customers with overall solutions and full life cycle services, it leads the development direction of innovation driven and intelligent manufacturing in the crane industry.

3 大系列 110 多个品种



企业简介
ENTERPRISE INTRODUCTION

河南省矿山起重机有限公司（以下简称“河南矿山”）成立于2002年，占地面积162万平方米，现有员工4700余人。公司成立二十年来，一直倡导改革创新、追求卓越，智能制造、绿色高效的发展理念，坚持技术、工艺、装备、产品及服务不断改革，推动产业向自动化、智能化、信息化升级转型，为客户提供全方位服务。目前公司产品已在航空航天、军工科技、汽车船舶、食品化工、金属加工、钢铁冶炼、机械制造以及垃圾焚烧处理等50多个专业领域取得骄人成果。产品覆盖80多个国家和地区，服务全球超过7000家中高端客户。

公司是中国重型机械工业协会副理事长单位、全国起重机械标准化技术委员会委员单位，建有国家认定企业技术中心，先后获得“中国工业大奖提名奖”、“中国工业企业质量标杆企业”、“国家级绿色工厂”、全国“守合同重信用企业”、“国家制造业单项冠军产品”、“河南省省长质量奖”、“河南省智能工厂”、河南省第一批“两化融合示范企业”等各项荣誉500余项。

Henan Province Mine Crane Co., Ltd. (hereinafter referred to as "Henan mine") was established in 2002, covering an area of 1.62 million square meters, with more than 4700 employees. Since its establishment 20 years ago, the company has been advocating the development concept of reform and innovation, pursuing excellence, intelligent manufacturing, green and efficient, adhering to the continuous reform of technology, process, equipment, products and services, promoting the upgrading and transformation of the industry to automation, intelligence and informatization, and providing customers with all-round services. At present, the company's products have achieved remarkable results in more than 50 professional fields, such as aerospace, military science and technology, automobiles and ships, food and chemical industry, metal processing, steel smelting, machinery manufacturing and waste incineration treatment. The products cover more than 80 countries and regions and serve more than 7000 medium and high-end customers worldwide.

The company is the vice chairman unit of China Heavy Machinery Industry Association and the member unit of the national Lifting Machinery Standardization Technical Committee. It has established a national recognized enterprise technology center and has won the "Nomination award of China Industrial Award", "quality benchmarking enterprise of China Industrial Enterprises", "national green factory", the national "contract abiding and trustworthy enterprise", "national single champion product of manufacturing industry", "Henan provincial governor Quality Award" There are more than 500 honors, such as "Henan smart factory" and the first batch of "demonstration enterprises for the integration of industrialization and industrialization" in Henan Province.

河南矿山智能制造产业园
Henan mine intelligent manufacturing Industrial Park

智能/INTELLIGENCE

公司以“创新驱动、智能制造”发展为主线，将传统的起重机赋予智能功能，将其打造成具备自动化、信息化和智能化功能，能够自动抓取和搬运物料的空中搬运机器人，与用户的整个智能制造系统相融合。

公司的起重机生产过程也实现了自动化和智能化，公司安装有智能装备600余台（套），数字化率和联网率分别达到95%和85%。将公司逐步打造为起重装备智能制造基地，同时，我们还将对起重机制造工艺进行数字化革新，打造具有世界一流水平的起重机数字化工厂。

Taking the development of "innovation driven and intelligent manufacturing" as the main line, the company endows the traditional crane with intelligent functions, and makes it an air handling robot with automation, informatization and intelligent functions, which can automatically grasp and handle materials, and integrates with the user's entire intelligent manufacturing system.

The crane production process of the company has also been automated and intelligent. The company has installed more than 600 sets of intelligent equipment, and the digitization rate and networking rate have reached 95% and 85% respectively. We will gradually build the company into an intelligent manufacturing base for lifting equipment. At the same time, we will also carry out digital innovation on the crane manufacturing process and build a world-class Crane Digital chemical plant.

智能仓储起重机
Intelligent storage crane

智能精加工车间
Intelligent finishing workshop

绿色/GREEN

将传统起重机赋予绿色与轻量化理念，将其打造成外观精巧美观、性能好、运行平稳、噪音低、整机自重轻、控制方式灵活可靠、环保节能的新型起重机，为用户提供更多更好的选择。

同时，我们还通过对起重机生产过程的工艺创新、绿色环保节能装备的安装使用，来降低原材料消耗、能源节约，从而达到节能减排、低碳排放的目标。

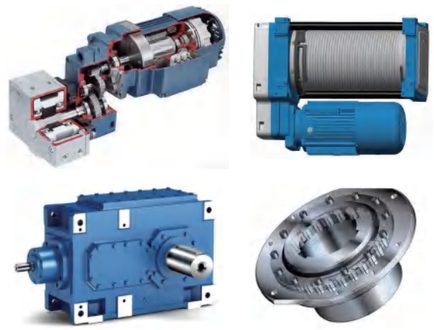
轻量化新型起重机
Lightweight new crane

The traditional crane will be endowed with the concept of green and lightweight, and will be built into a new crane with exquisite and beautiful appearance, good performance, stable operation, low noise, light weight of the whole machine, flexible and reliable control mode, environmental protection and energy conservation, providing users with more and better choices.

At the same time, we also reduce raw material consumption and energy conservation through the process innovation of crane production process and the installation and use of green environmental protection and energy-saving equipment, so as to achieve the goals of energy conservation, emission reduction and low carbon emission.

全产业链/WHOLE INDUSTRY CHAIN

我公司作为同行业最大的桥、门式起重机生产企业，将对产业链和供应链的资源进行整合，对起重机的核心部件和控制系统技术进行研发制造、推广应用，填补我国具有自主核心技术和智造能力的起重机高端配套件产业链，逐步达到起重机核心技术自产化。



As the largest manufacturer of bridge and gantry cranes in the same industry, our company will integrate the resources of the industrial chain and supply chain, develop, manufacture, promote and apply the core components and control system technology of cranes, fill the industrial chain of high-end crane accessories with independent core technology and intelligent manufacturing capacity in China, and gradually achieve the self-production of core technology of cranes.

誉满天下 成果累累

WORLD FAMOUS AND FRUITFUL

公司先后通过了质量、环境、职业健康安全、武器装备质量、商品售后服务、知识产权、两化融合、能源、测量等多项管理体系认证，规范化的管理助力公司卓越发展；累计获得“中国工业大奖提名奖”、“中国工业企业质量标杆企业”、“国家级绿色工厂”、全国“守合同重信用企业”、“国家制造业单项冠军产品”、“河南省省长质量奖”、“河南省智能工厂”、河南省第一批“两化融合示范企业”等各项荣誉500余项。

The company has successively passed the quality, environment, occupational health and safety, weapons and equipment quality, commodity after-sales service, intellectual property, integration of industrialization and industrialization, energy, measurement and other management system certification, and standardized management helps the company's excellent development; It has won more than 500 honors, including "Nomination award of China Industrial Award", "quality benchmarking enterprise of China Industrial Enterprises", "national green factory", national "contract abiding and trustworthy enterprise", "national single champion product of manufacturing industry", "Henan provincial governor Quality Award", "Henan intelligent factory", and the first batch of "two chemical integration demonstration enterprises" in Henan Province.

- ★ “中国工业大奖提名奖”
  "Nomination award of China Industrial Awards"
- ★ “国家级企业技术中心”
  "National enterprise technology center"
- ★ “全国制造业单项冠军产品”
  “National manufacturing single champion product”
- ★ “全国工业企业质量标杆”
  "National industrial enterprise quality benchmark"
- ★ “国家级绿色工厂”
  "National green factory"
- ★ “国家级知识产权优势企业”
  "National intellectual property advantage enterprise"
- ★ “国家级守合同重信用企业”
  "National contract abiding and trustworthy enterprise"
- ★ 国家制造业“双创”平台试点示范企业
  National manufacturing "mass entrepreneurship and innovation" platform pilot demonstration enterprise
- ★ 河南省第一批“两化融合示范企业”
  The first batch of "industrialization and industrialization integration demonstration enterprises" in Henan Province
- ★ “高新技术企业”
  “Hi-tech Enterprise”
- ★ “河南省省长质量奖”
  "Quality award of governor of Henan Province"
- ★ “河南省头雁企业”
  "Henan Touyan enterprise"
- ★ “河南省智能工厂”
  "Henan intelligent factory"
- ★ “河南省创新龙头企业”
  "Innovation leading enterprise of Henan Province"
- ★ “河南省服务型制造示范企业”
  "Henan service-oriented manufacturing demonstration enterprise"
- ★ “河南省技术创新示范企业”
  "Henan technological innovation demonstration enterprise"
- ★ “全国模范职工之家”
  "home of national model workers"
- ★ “全国敬老文明号”
  "National respect for the elderly civilization"

统一社会信用代码
91410728742545261 2

营业执照

(副本) 1-20

扫描二维码登录“国家企业信用信息公示系统”了解更多登记、备案、许可、监管信息。

名　　称　河南省矿山起重机有限公司
注册资本　壹拾壹亿柒仟柒佰万圆整
类　　型　有限责任公司(自然人投资或控股)
成立日期　2002年09月30日
法定代表人　崔培军
营业期限　长期
经营范围　一般项目：物料搬运装备制造；特种设备销售；特种设备出租；智能物料搬运装备销售；物料搬运装备销售；智能港口装卸设备销售；电机制造；齿轮及齿轮减、变速箱制造；齿轮及齿轮减、变速箱销售；轴承、齿轮和传动部件制造；轴承、齿轮和传动部件销售；电线、电缆经营；锻件及粉末冶金制品制造；锻件及粉末冶金制品销售；技术服务、技术开发、技术咨询、技术交流、技术转让、技术推广；软件开发；软件销售（除依法须经批准的项目外，凭营业执照依法自主开展经营活动）许可项目：特种设备制造；特种设备设计；特种设备安装改造修理；电线、电缆制造；技术进出口；货物进出口（依法须经批准的项目，经相关部门批准后方可开展经营活动，具体经营项目以相关部门批准文件或许可证件为准）
住　　所　长垣市长恼工业区矿山路与纬三路交汇处

登记机关　2021 08 11 年 月 日

国家企业信用信息公示系统网址：http://www.gsxt.gov.cn

国家市场监督管理总局监制

副本

中华人民共和国
特种设备生产许可证
Production License of Special Equipment
People's Republic of China

编号：TS2410461-2024

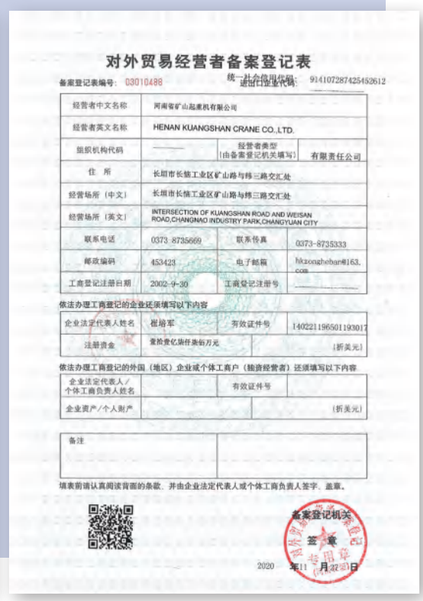
单位名称：河南省矿山起重机有限公司
住　　所：河南省长垣市长恼工业区矿山路与纬三路交汇处
制造地址：河南省长垣市长恼工业区矿山路与纬三路交汇处

经审查，获准从事以下特种设备的生产活动：

许可项目	子项目	许可参数	备注
起重机械制造（含安装、修理、改造）	桥式、门式起重机(A)	—	覆盖B级：具体产品范围见型式试验证书

发证机关：国家市场监督管理总局
有效期至：2024年6月19日

发证日期：2020年2月21日
变更日期：2020年10月29日



对外贸易经营者备案登记表

备案登记表编号：03010488　统一社会信用代码：91410728742545261 2

经营者中文名称	河南省矿山起重机有限公司		
经营者英文名称	HENAN KUANGSHAN CRANE CO.,LTD.		
组织机构代码		经营者类型（由备案登记机关填写）	有限责任公司
住　所	长垣市长恼工业区矿山路与纬三路交汇处		
经营场所（中文）	长垣市长恼工业区矿山路与纬三路交汇处		
经营场所（英文）	INTERSECTION OF KUANGSHAN ROAD AND WEISAN ROAD,CHANGNAO INDUSTRY PARK,CHANGYUAN CITY		
联系电话	0373-8735669	联系传真	0373-8735333
邮政编码	453423	电子邮箱	hkzcnaibeibar@163.com
工商登记注册日期	2002-9-30	工商登记注册号	

依法办理工商登记的企业还须填写以下内容

企业法定代表人姓名	崔培军	有效证件号	140221196501193017
注册资金	壹拾壹亿柒仟柒佰万元		（折美元）

依法办理工商登记的外国（地区）企业或个体工商户（驻资经营者）还须填写以下内容

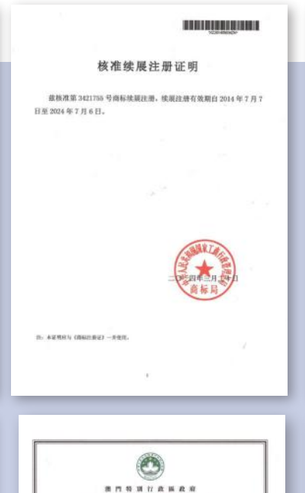
企业法定代表人/个体工商负责人姓名		有效证件号	
企业资产/个人财产			（折美元）

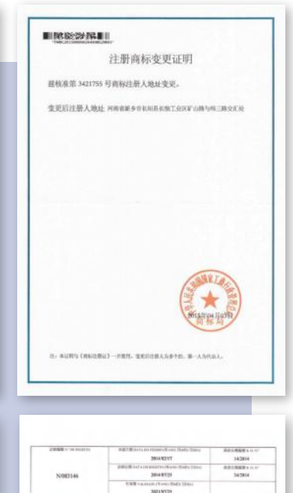
备注	

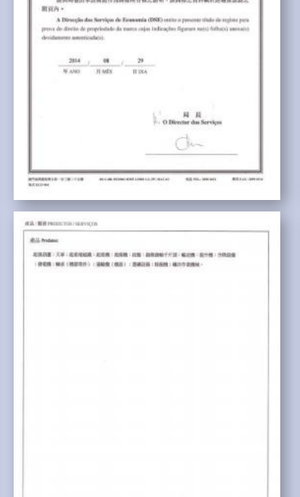
填表前请认真阅读背面的条款，并由企业法定代表人或个体工商负责人签字、盖章。

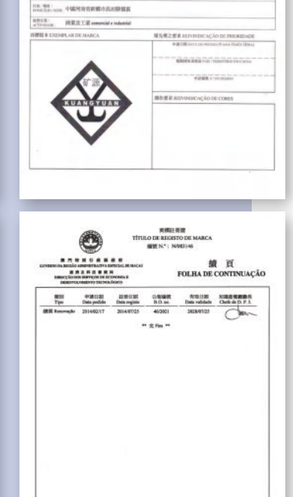
备案登记机关　签章　2020 年 11 月 2 日

资质荣誉 QUALIFICATION HONOR










CERTIFICATE

质量管理体系认证证书

证书编号：00222Q23484R5L

兹证明

河南省矿山起重机有限公司

统一社会信用代码：91410728742542612

住所：河南省长垣市长恒三北至矿山路与特三路交汇处

认证地址：河南省长垣市长恒三北至矿山路与特三路交汇处

管理体系符合

GB/T 19001-2016/ISO 9001:2015

覆盖的范围

桥式起重机、门式起重机、钢丝绳电动葫芦的设计、开发、制造和售后服务

生效日期：2022 年 06 月 30 日

有效期至：2025 年 07 月 04 日

方圆标志认证集团有限公司

AA 0069421


CERTIFICATE

环境管理体系认证证书

证书编号：00222E32135R5L

兹证明

河南省矿山起重机有限公司

统一社会信用代码：91410728742542612

住所：河南省长垣市长恒三北至矿山路与特三路交汇处

认证地址：河南省长垣市长恒三北至矿山路与特三路交汇处

管理体系符合

GB/T 24001-2016/ISO 14001:2015

覆盖的范围

桥式起重机、门式起重机、钢丝绳电动葫芦的设计、开发、制造和售后服务及相关管理活动

生效日期：2022 年 06 月 30 日

有效期至：2025 年 07 月 04 日

方圆标志认证集团有限公司

AA 0069419


CERTIFICATE

职业健康安全管理体系认证证书

证书编号：00222S21947R5L

兹证明

河南省矿山起重机有限公司

统一社会信用代码：91410728742542612

住所：河南省长垣市长恒三北至矿山路与特三路交汇处

认证地址：河南省长垣市长恒三北至矿山路与特三路交汇处

管理体系符合

GB/T 45001-2020/ISO 45001:2018

覆盖的范围

桥式起重机、门式起重机、钢丝绳电动葫芦的设计、开发、制造和售后服务及相关管理活动

生效日期：2022 年 06 月 30 日

有效期至：2025 年 07 月 04 日

方圆标志认证集团有限公司

AA 0069423


CERTIFICATE

企业诚信管理体系认证证书

证书编号：CQM22EIMS0011R0L

兹证明

河南省矿山起重机有限公司

统一社会信用代码/91410728742542612

住所/河南省新乡市长垣市长恒三北至矿山路与特三路交汇处

认证地址/河南省新乡市长垣市长恒三北至矿山路与特三路交汇处

管理体系符合

GB/T 31950-2015

覆盖的范围

桥式起重机、门式起重机、钢丝绳电动葫芦的设计、开发、制造、销售和售后服务过程相关的诚信管理活动

生效日期：2022 年 10 月 14 日

有效期至：2025 年 10 月 13 日

方圆标志认证集团有限公司

AC 0009584


IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CQM has issued an IQNet recognized certificate that the organization:

Henan Kuangshan Crane Co.,Ltd.

Certification Add: Intersection of Weisan Road and Kuangshan Road, Changnao Industrial Zone, Changyuan City, Henan, P.R.China

for the following scope:

Design, development, manufacture and after-sale service of bridge crane, door crane and electric wire rope hoists

has implemented and maintains a

Quality Management System

which fulfils the requirements of the following standard:

ISO 9001:2015

Issued on:2022-06-30

Expires on: 2025-07-04

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number: CN-00222Q23484R5L

Alex Stoichitoiu
President of IQNet

Ji XiaoDong
General Manager of CQM

IQNet Partners*:

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com


IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CQM has issued an IQNet recognized certificate that the organization:

Henan Kuangshan Crane Co.,Ltd.

Certification Add: Intersection of Weisan Road and Kuangshan Road, Changnao Industrial Zone, Changyuan City, Henan, P.R.China

for the following scope:

Design, development, manufacture and after-sale service of bridge crane, door crane and electric wire rope hoists and relevant management activities

has implemented and maintains a

Environmental Management System

which fulfils the requirements of the following standard:

ISO 14001:2015

Issued on:2022-06-30

Expires on: 2025-07-04

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number: CN-00222E32135R5L

Alex Stoichitoiu
President of IQNet

Ji XiaoDong
General Manager of CQM

IQNet Partners*:

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com


IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CQM has issued an IQNet recognized certificate that the organization:

Henan Kuangshan Crane Co.,Ltd.

Certification Add: Intersection of Weisan Road and Kuangshan Road, Changnao Industrial Zone, Changyuan City, Henan, P.R.China

for the following scope:

Design, development, manufacture and after-sale service of bridge crane, door crane and electric wire rope hoists and relevant management activities

has implemented and maintains a

Occupational Health and Safety Management System

which fulfils the requirements of the following standard:

ISO 45001:2018

Issued on:2022-06-30

Expires on: 2025-07-04

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number: CN-00222S21947R5L

Alex Stoichitoiu
President of IQNet

Ji XiaoDong
General Manager of CQM

IQNet Partners*:

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany FCAV Brazil
FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com


CERTIFICATE

Enterprise Integrity Management System Certificate

Certificate Number:CQM22EIMS0011R0L

CQM hereby certifies that

Henan Kuangshan Crane Co.,Ltd.

Unified Social Credit Identifier: 91410728742542612

Domicile:Intersection of Weisan Road and Kuangshan Road, Changnao Industrial Zone, Changyuan City, Xinxiang City, Henan, P.R.China

Certification Add: Intersection of Weisan Road and Kuangshan Road, Changnao Industrial Zone, Changyuan City, Xinxiang City, Henan, P.R.China

the management system conform to

GB/T 31950-2015

This certificate is valid to the following scope:

Integrity management activities related to design, development, manufacturing, sales and after-sales service processes of bridge crane, gantry crane and steel wire rope electric hoist

(The information of this certificate can be inquired on www.cnca.gov.cn or website of CQM. The continual validity of the certificate can be checked by Certificate Confirmation of surveillance.)

Issued on: 2022-10-14

Expires on: 2025-10-13

方圆标志认证集团有限公司

AC 0009583

服务认证证书

证书编号：CQM21FWSH0025ROM

兹证明

河南省矿山起重机有限公司

统一社会信用代码：91410728742545261Z

住所：河南省长垣市长恒工业区矿山路与纬三路交汇处

服务提供地址：河南省长垣市长恒工业区矿山路与纬三路交汇处(453400)

覆盖的服务认证范围

桥式起重机、门式起重机、钢丝绳电动葫芦的售后服务

服务等级达到

GB/T 27922-2011《商品售后服务评价体系》

CQM/F-RZ-ZY-06-001《商品售后服务认证评价规范》

★ ★ ★ ★ ★

生效日期：2021 年 06 月 22 日　　有效期至：2024 年 06 月 21 日

注册号：CQM-41-2007-0092-0004

（本证书信息可在国家认证认可监督管理委员会官方网站 www.cnca.gov.cn 或全国标准信息公共服务平台网站上查询）

二零二一年六月二十二日

方圆标志认证集团

中经认证

注册号：04421Ea0058R1M

能源管理体系认证证书

兹证明

河南省矿山起重机有限公司

统一社会信用代码：91410728742545261Z

注册/审核地址：长垣市长恒工业区矿山路与纬三路交汇处

能源管理体系符合

GB/T 23331-2020/ISO 50001:2018；

RB/T 119-2015 标准

该体系覆盖范围

起重机及配件生产过程所涉及的能源管理活动（能源管理活动包括能源采购、储存、加工转换、输送分配、最终使用）

（获证组织审核统计期内的能源种类、能源绩效、能源绩效核算边界见标有相同证书注册号的证书附件，证书附件是本证书组成部分，有关本证书多场所范围的细节见附件，本证书与附件一并使用方为有效）

（本附件认证范围的多场所不得使用认证证书和认证标志）

有效期至：2024 年 09 月 07 日

发证日期：2021 年 09 月 07 日

北京中经科环质量认证有限公司　　总经理：

日　期：2021 年 09 月 23 日

公众号　证书查询

CNAS 中国认可 国际互认 MANAGEMENT SYSTEM CNAS C044-M

测量管理体系认证（AAA）证书 附件

MEASUREMENT MANAGEMENT SYSTEM(AAA) CERTIFICATE ATTACHMENT

证书号：ISC-2022-1319

认证范围：桥式起重机、门式起重机、钢丝绳电动葫芦的设计、开发、制造、销售和售后服务。

签发人：

认证机构：北京国标联合认证有限公司

测量管理体系认证（AAA）证书

MEASUREMENT MANAGEMENT SYSTEM(AAA) CERTIFICATE

证书号：ISC-2022-1319

兹证明

河南省矿山起重机有限公司

符合 GB/T 19022-2003/ISO10012-2003《测量管理体系-测量过程和测量设备的要求》标准的全部要求，对产品质量、经营管理、环境监测、安全防护、能源管理等方面起到计量保障作用，特发此证（认证范围见证书附件）。

This is to certify your measurement management system conforms to all the requirements of ISO10012:2003 " Measurement management system-Requirements for measurement process and measurement equipment".

发证日期：2022 年 05 月 19 日　　有效日期：2027 年 05 月 18 日

签发人：

认证机构：北京国标联合认证有限公司

知识产权管理体系认证证书

证书号码：1651P211435ROM

兹证明

河南省矿山起重机有限公司

注册地址：长垣市长恒工业区矿山路与纬三路交汇处

经营地址：河南省新乡市长垣市长恒工业区矿山路与纬三路交汇处

知识产权管理体系符合标准：

GB/T29490-2013

通过认证的范围如下：

桥式起重机、门式起重机、钢丝绳电动葫芦的研发、生产、销售的知识产权管理

注：认证注册范围不包括未获得有效的国家颁发的相关行政许可、资质许可的产品/服务范围

初次发证日期：2021 年 09 月 30 日　　有效期至：2024 年 09 月 29 日

本证书持有者的管理体系持续符合上述标准的运行条件下，证书有效期为三年，证书有效性通过年度监督确认获得，证书有效信息可查验国家认证认可监督委员会官方网站 www.cnca.gov.cn 或中知（北京）认证有限公司官方网站查询。

签发：

中知（北京）认证有限公司

地址：北京市海淀区花园路5号133幢3层302室（100088）

http://www.zzhjrz.com

CERTIFICATE

ATTESTATION

CERTIFICATE OF MACHINERY DIRECTIVE

Technical file of the company mentioned below has been observed 2006/42/EC Machinery Directive has been taken as references for these processes

Company Name	: Henan Mine Crane Im&Ex Co., Ltd.
Company Address	: Weier Road of Hoisting Industry Zone, Changyuan, Henan Province, China
Manufacturer Name	: Henan Mine (Kuangshan) Crane Co., Ltd.
Manufacturer Address	: Intersection of Kuangshan Road and Weisan Road, Changnao Industrial Zone, Changyuan City, Henan Province, China
Related Directives and Annex	: Machinery Directive 2006/42/EC
Related Standards	: EN 60204-32:2008, EN ISO 12100:2010, EN 14492-2:2019
Product Name	: Overhead Crane
Report No and Date	: MN-2022-04-06
Product Brand/Model/Type	: Kuangyuan // QD, LDA, LDC, LH, KSSL, KSQ, LDE, YZD, YZ, LDP, QC, QL, QZ, LX, LDY, LDZ, LB, LXB, LHB, KSLX, LHE, LHY, QE, QB, QY, QN, QP, YC, YH, YZS, BDQ, SDXQ
Certificate Number	: M.2022.206.C73025
Initial Assessment Date	: 21.04.2022
Registration Date	: 22.04.2022
Reissue Date/No	: -
Expiry Date	: 21.04.2027

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the left can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. The certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 10 years from the registration of certificate. The certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s).

Address: Mutlukent, Mahalleri 2073 Sokak (Eski 10 Sokak) No:10 Çankaya - Ankara - TURKEY

Phone: +90 (0312 443 03 90) Fax: +90 (0312 443 03 76

E-mail: info@udemltd.com.tr www.udem.com.tr

UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co.

CERTIFICATE

ATTESTATION

CERTIFICATE OF MACHINERY DIRECTIVE

Technical file of the company mentioned below has been observed 2006/42/EC Machinery Directive has been taken as references for these processes

Company Name	: Henan Mine Crane Im&Ex Co., Ltd.
Company Address	: Weier Road of Hoisting Industry Zone, Changyuan, Henan Province, China
Manufacturer Name	: Henan Mine (Kuangshan) Crane Co., Ltd.
Manufacturer Address	: Intersection of Kuangshan Road and Weisan Road, Changnao Industrial Zone, Changyuan City, Henan Province, China
Related Directives and Annex	: Machinery Directive 2006/42/EC
Related Standards	: EN 60204-32:2008, EN ISO 12100:2010, EN 15011:2020
Product Name	: Gantry Crane
Report No and Date	: MN-2022-04-07
Product Brand/Model/Type	: Kuangyuan // MH, MG, MHB, MHE, MHL, MHL, CM,L RMG, RTG, MHZE, MHLE, MGB, MGG, U, MDE, MZ, MC, MB1
Certificate Number	: M.2022.206.C73028
Initial Assessment Date	: 21.04.2022
Registration Date	: 22.04.2022
Reissue Date/No	: -
Expiry Date	: 21.04.2027

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the left can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. The certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 10 years from the registration of certificate. The certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s).

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Phone: +90 (0312 443 03 90) Fax: +90 (0312 443 03 76

E-mail: info@udemltd.com.tr www.udem.com.tr

UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co.

CERTIFICATE

ATTESTATION

CERTIFICATE OF MACHINERY DIRECTIVE

Technical file of the company mentioned below has been observed 2006/42/EC Machinery Directive has been taken as references for these processes

Company Name	: Henan Mine Crane Im&Ex Co., Ltd.
Company Address	: Weier Road of Hoisting Industry Zone, Changyuan, Henan Province, China
Manufacturer Name	: Henan Mine (Kuangshan) Crane Co., Ltd.
Manufacturer Address	: Intersection of Kuangshan Road and Weisan Road, Changnao Industrial Zone, Changyuan City, Henan Province, China
Related Directives and Annex	: Machinery Directive 2006/42/EC
Related Standards	: EN 60204-32:2008, EN ISO 12100:2010, EN 14492-2:2019
Product Name	: Hoist/Winch
Report No and Date	: MN-2022-04-05
Product Brand/Model/Type	: Kuangyuan // CD1, MD1, HC, HB, HY, BCD, BMD, KS, JM, JK, JKL, JMM
Certificate Number	: M.2022.206.C73043
Initial Assessment Date	: 21.04.2022
Registration Date	: 22.04.2022
Reissue Date/No	: -
Expiry Date	: 21.04.2027

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the left can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. The certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 10 years from the registration of certificate. The certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s).

Address: Mutlukent, Mahalleri 2073 Sokak (Eski 10 Sokak) No:10 Çankaya - Ankara - TURKEY

Phone: +90 (0312 443 03 90) Fax: +90 (0312 443 03 76

E-mail: info@udemltd.com.tr www.udem.com.tr

UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co.


国家认定
企业技术中心
国家发展和改革委员会 科学技术部
财政部 海关总署 国家税务总局

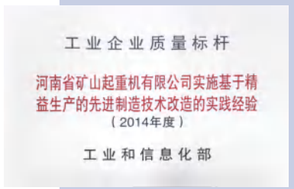

授予：河南省矿山起重机有限公司
省级工业设计中心
(2018—2019)
河南省工业和信息化委员会
二零一七年十一月


河南省新型研发机构
河南省科学技术厅
二〇二〇年九月

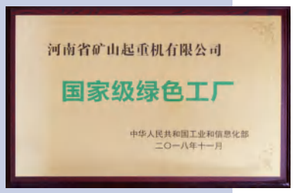

河南省矿山起重机有限公司
中原学者工作站
河南省科学技术厅
二零二零年十月


起重机关键技术
合作共建实验室
二〇二〇年七月

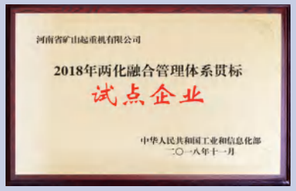

授予：河南省矿山起重机有限公司
中国工业大奖提名奖
中国工业经济联合会
二〇二〇年十二月

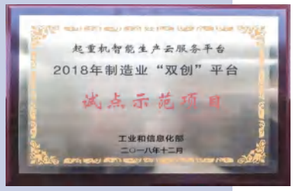

工业企业质量标杆
河南省矿山起重机有限公司实施基于精益生产的先进制造技术改造的实践经验
（2014年度）
工业和信息化部


国家知识产权优势企业
国家知识产权局
2018.08-2021.07


河南省矿山起重机有限公司
国家级绿色工厂
中华人民共和国工业和信息化部
二〇一八年十一月


企业信用评价AAA级信用企业
ENTERPRISE CREDIT EVALUATION
中国重型机械工业协会
北京国富泰信用管理有限公司


河南省矿山起重机有限公司
2018年两化融合管理体系贯标
试点企业
中华人民共和国工业和信息化部
二〇一八年十一月


起重机智能生产云服务平台
2018年制造业“双创”平台
试点示范项目
工业和信息化部
二〇一八年十二月

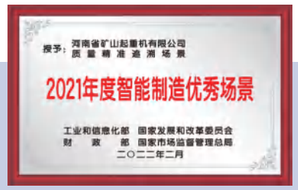

“守合同重信用”企业公示证明
河南省矿山起重机有限公司


证书
制造业单项冠军产品
（2021年 — 2023年）


河南省省长质量奖证书
授予：河南省矿山起重机有限公司
2016-2017 年度河南省省长质量奖


河南省质量诚信体系建设
AAA级企业
有效期：2020年12月至2023年12月
河南省质量协会
二〇二〇年十二月


授予：河南省矿山起重机有限公司
起重机全生命周期服务平台
服务型制造示范平台
工业和信息化部
二〇二一年十月


授予：河南省矿山起重机有限公司
质量精准追溯场景
2021年度智能制造优秀场景
工业和信息化部 国家发展和改革委员会
财政部 国家市场监督管理总局
二〇二二年二月


敬老文明号
全国老龄工作委员会
二〇一三年


模范职工之家
中华全国总工会
二〇一三年八月


全国厂务公开民主管理
先进单位
全国厂务公开协调小组
二〇一七年

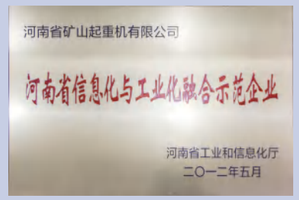

河南省矿山起重机有限公司
中国重型机械工业协会
副理事长单位


CMAB
中国机械工业名牌产品
桥式起重机


CHMIA
河南省矿山起重机有限公司
自主创新领军企业
中国重型机械工业协会
二〇一八年四月


CHMIA
河南省矿山起重机有限公司
卓越企业
中国重型机械工业协会
二〇二〇年七月


高新技术企业
证书


河南省矿山起重机有限公司
河南省信息化与工业化融合示范企业
河南省工业和信息化厅
二〇一二年五月

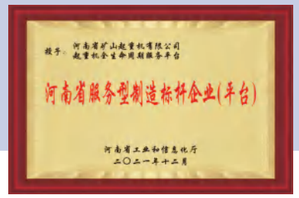

2017年度河南省创新龙头企业
河南省科学技术厅
河南省发展和改革委员会
河南省工业和信息化委员会
2017年12月

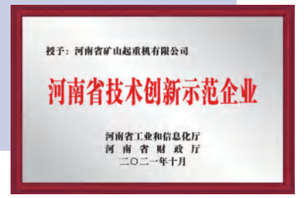

河南省矿山起重机有限公司
服务型制造
示范企业
河南省工业和信息化委员会
二〇一八年七月


五一劳动奖状
河南省总工会
2016 年 4 月


河南省矿山起重机有限公司
2019年智能工厂
河南省工业和信息化厅
河南省财政厅
二〇一九年十一月


授予：河南省矿山起重机有限公司
河南省节能减排科技创新示范企业


授予：河南省矿山起重机有限公司
起重机全生命周期服务平台
河南省服务型制造标杆企业(平台)
河南省工业和信息化厅
二〇二一年十二月


授予：河南省矿山起重机有限公司
河南省技术创新示范企业
河南省工业和信息化厅
河南省财政厅
二〇二一年十月

第十一届全国人大常委会副委员长周铁农（左二）、第九届全国政协委员会副主席王文元（左三）、第九届全国人大常委会副委员长布赫（右一）接见河南矿山党委书记崔培军（后右五）

Zhou Tienong, vice chairman of the Standing Committee of the Eleventh National People's Congress (second from the left), Wang Wenyuan, vice chairman of the Ninth National Committee of the Chinese people's Political Consultative Conference (third from the left), and Buhe, vice chairman of the Standing Committee of the Ninth National People's Congress (first from the right), received cuipeijun, Secretary of the Henan mine Party committee (second from the right)

国家外经贸部原副部长龙永图与河南矿山党委书记崔培军合影

Long Yongtu, former Vice Minister of the Ministry of foreign trade and economic cooperation, took a group photo with cuipeijun, Secretary of the Henan mine Party committee

公司党委书记崔培军被评为第六届（2015）“河南经济年度人物”，颁奖现场与河南省委原书记徐光春合影留念

Cuipeijun, Secretary of the Party committee of the company, was selected as the "person of the year of Henan economy" of the sixth (2015), and took a group photo with xuguangchun, former Secretary of Henan provincial Party committee at the award ceremony

河南省委原书记王国生一行莅临河南矿山考察调研

Wang Guosheng, former Secretary of Henan provincial Party committee, and his delegation visited Henan mine for investigation and research

河南省委原书记谢伏瞻一行莅临河南矿山考察调研

Xiefuzhan, former Secretary of Henan provincial Party committee, and his delegation visited Henan mine for investigation and research

河南省政协主席刘伟一行莅临河南矿山考察调研

Liu Wei, chairman of the CPPCC Henan Provincial Committee, and his delegation visited Henan mine for investigation and research

山西省委原常委、大同市委原书记张吉福一行莅临河南矿山考察调研

Zhang Jifu, former member of the Standing Committee of Shanxi provincial Party committee and former Secretary of Datong Municipal Party committee, and his delegation visited Henan mine for investigation and research

河南省人大常委会党组副书记、副主任马懿一行莅临河南矿山考察调研

Ma Yi, deputy secretary of the Party group and deputy director of the Standing Committee of Henan Provincial People's Congress, and his delegation visited Henan mine for investigation and research

河南省政府原副省长戴伯华一行莅临河南矿山考察调研

Dai Bohua, former vice governor of Henan provincial government, and his delegation visited Henan mine for investigation and research

河南省政府原副省长费东斌一行莅临河南矿山考察调研

Fei Dongbin, former vice governor of Henan provincial government, and his delegation visited Henan mine for investigation and research

国家市场监管总局特种设备局局长崔钢(中)、国家市场监管总局特种设备局二级巡视员尚洪(右)行莅临河南矿山调研。

Cui Gang (middle), director of the special equipment Bureau of the State Administration of market supervision, and Shang Hong (right), a second-class inspector of the special equipment Bureau of the State Administration of market supervision, visited Henan mine for investigation.

中国重型机械工业协会常务副理事长景晓波、副理事长兼秘书长王继生一行莅临河南矿山调研。

Jingxiaobo, executive vice president of China Heavy Machinery Industry Association, Wang Jisheng, vice president and secretary general, and his delegation visited Henan mine for investigation.

河南省出入境检验检疫局原副局长谢书升一行莅临河南矿山考察调研

Xie Shusheng, former deputy director of Henan entry exit inspection and Quarantine Bureau, and his delegation visited Henan mine for investigation and research

河南省特种设备安全检测研究院党委书记刘勇一行莅临河南矿山考察调研

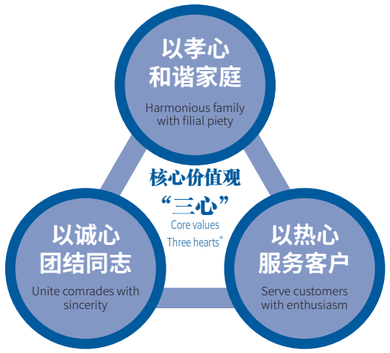
Liu Yong, Secretary of the Party committee of Henan Institute of special equipment safety testing, and his delegation visited Henan mine for investigation and research

长垣市市委书记范文卿携市四大领导班子莅临河南矿山考察调研

Fan Wenqing, Secretary of Changyuan municipal Party committee, and the four leading groups of Changyuan visited Henan mine for investigation and research

河南矿山创建以来，以公司创始人、党委书记崔培军为核心的高层团队充分发挥“领航者”的作用，引领河南矿山实现了高速发展。依靠领导团队和全员智慧，建立了独具特色的河南矿山孝文化体系，确立公司的使命、愿景和核心价值观，营造出以人为本、诚信经营的良好氛围，完善公司治理，履行社会责任，打造出追求卓越和健康发展的企业。

Since the establishment of Henan mine, the high-level team with the founder and party secretary cuipeijun as the core has given full play to the role of "Navigator" and led the rapid development of Henan mine. Relying on the leadership team and the wisdom of all staff, we have established a unique Henan mine filial piety culture system, established the company's mission, vision and core values, created a good atmosphere of people-oriented and honest management, improved corporate governance, fulfilled social responsibilities, and created an enterprise pursuing excellence and healthy development.



第十届孝文化感恩旅游节
The 10th filial piety culture Thanksgiving Tourism Festival

>> 孝善活动 Filial piety and kindness activities

公司注重以文化引领企业发展，发挥“孝善文化”的引导功能，用最朴实的行善积德、尽孝报恩来启迪员工追求真、善、美的热情。公司提出了“三心”核心价值观，以孝心和谐家庭，以诚心团结同志，以热心服务客户。孝善文化使员工团结互助精神和服务意识不断增强，拉近了企业和员工、客户之间的距离，促进了企业间文化交流和全方位合作，树立了良好的市场形象。形成了以使命、愿景、价值观为核心，独具特色的企业文化。

The company pays attention to leading the development of the enterprise with culture, giving play to the guiding function of "filial piety and kindness culture", and inspires the enthusiasm of the employees to pursue truth, kindness and beauty with the most simple way of doing good and accumulating morality and doing filial piety and repaying kindness. The company has put forward the core values of "three hearts", which are filial piety, harmonious family, sincere solidarity with comrades and enthusiastic service to customers. Filial piety and kindness culture constantly strengthens the spirit of solidarity and mutual assistance and service awareness of employees, shortens the distance between enterprises, employees and customers, promotes cultural exchanges and all-round cooperation among enterprises, and establishes a good market image. It has formed a unique corporate culture with mission, vision and values as the core.

公司党委书记崔培军在孝文化节上为员工父母鲜花、敬酒、发放慰问金和礼品
Cuipeijun, Secretary of the Party committee of the company, presented flowers, toasts, condolence funds and gifts to the employees' parents at the filial piety culture festival

第九届中秋孝文化节
The 9th Mid Autumn Festival of filial piety culture

孝文化节系列活动——“矿山孝星”评选
Filial piety culture festival series activities - "mine filial piety star" selection

每年春节前公司党委书记崔培军慰问老人
Before the Spring Festival every year, Cui Peijun, the Secretary of the Party committee of the company, visited the elderly

>> 公益活动 Public benefit activities

公司秉承“造福桑梓、服务社会”的奉献精神，积极发挥企业在履行社会责任方面的表率作用，塑造了优秀企业的良好形象，实现了企业与家庭、社会的和谐发展。

Adhering to the dedication of "benefiting Sangzi and serving the society", the company has actively played an exemplary role in fulfilling its social responsibilities, created a good image of an excellent enterprise, and achieved the harmonious development of the enterprise, family and society.

第十八届捐资助学大会

The 18th student donation Conference

抗击疫情捐款捐物390万元

3.9 million yuan in donations to fight the epidemic

支持平安长垣建设

Support the construction of Ping'an placanticline

支持美丽乡村建设

Support the construction of beautiful villages

连续举办了九届中秋孝文化节，每年宴请员工父母6000余人；连续举办十届孝文化旅游节，每届组织员工父母千余人到全国各地观光旅游；连续开展了十八届捐助贫困大学生活动，累计3700余人。捐献扶贫济困、教育养老、平安建设、新农村建设等慈善公益事业，累计捐资突破1亿元。

The ninth Mid Autumn Festival of filial piety was held continuously, and more than 6000 employees' parents were entertained every year; The filial piety culture tourism festival has been held for ten consecutive times, and more than a thousand parents of employees are organized to travel around the country for sightseeing each time; Eighteen consecutive activities of donating poverty-stricken college students have been carried out, with a total of more than 3700 people. We donated more than 100million yuan to charity and public welfare undertakings such as poverty alleviation, education and elderly care, safe construction and new rural construction.

>> 企业活动 Enterprise activities

庆祝中国共产党建党101周年

Celebrate the 101st anniversary of the founding of the Communist Party of China

听党话，跟党走，企业兴。党员学习红旗渠精神

Listen to the party, follow the party, and the enterprise will prosper. Party members learn the spirit of the red flag canal

公司年度销售工作表彰大会

Annual sales commendation meeting of the company

公司年度最佳供应商颁奖

Award of the company's best supplier of the year

公司年度工作总结表彰大会

Annual work summary and commendation meeting of the company

开展团队建设活动

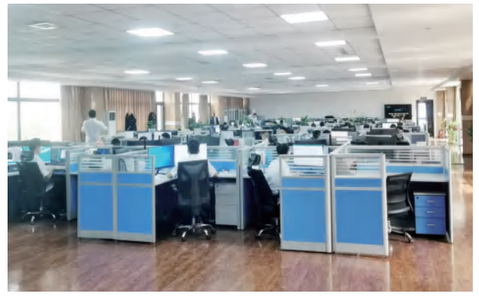
The 9th Mid Autumn Festival of filial piety culture

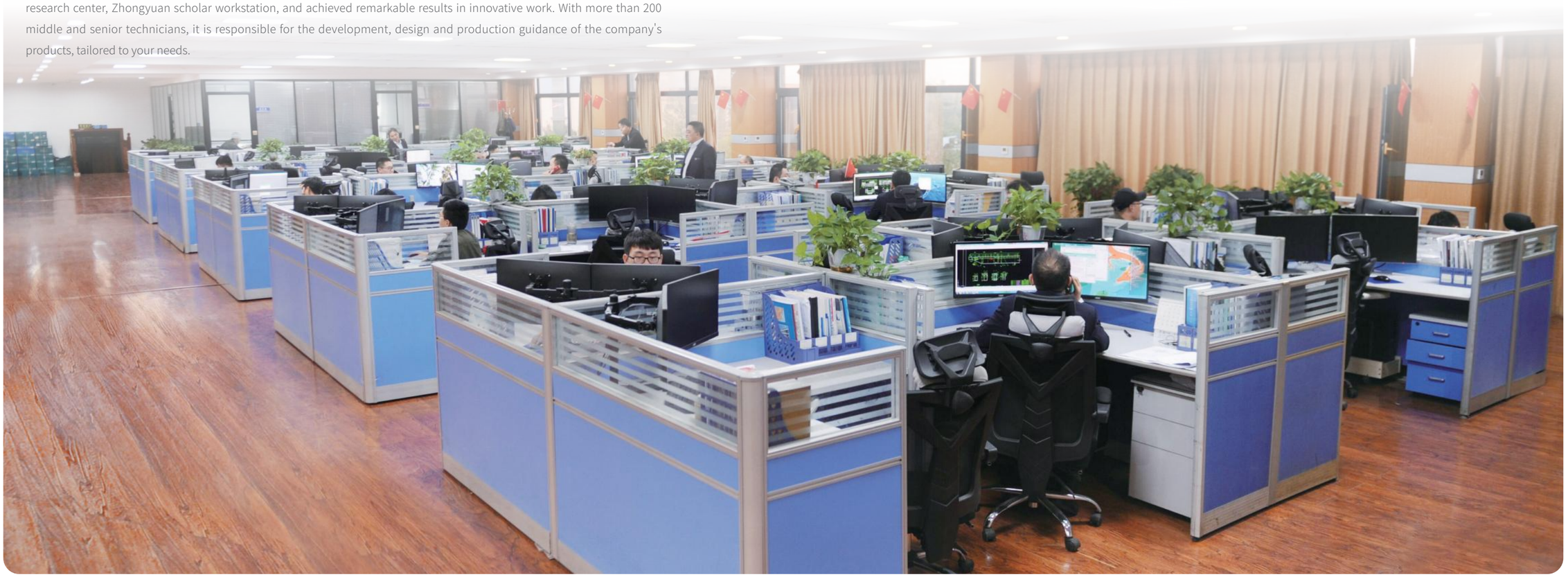
自主研发　科技创新

INDEPENDENT RESEARCH AND DEVELOPMENT TECHNOLOGICAL INNOVATION

河南矿山立足于起重机械领域，自主研发、科技创新，培育具有强大竞争力的核心技术。建有国家认定企业技术中心、省级工业设计中心、省级工程技术研究中心、中原学者工作站等研发平台，创新工作成果斐然。拥有中、高级技术人员200余人，担负着公司产品的开发设计与生产指导工作，为您的需求量身打造。

Henan mine is based on the field of hoisting machinery, independent research and development, scientific and technological innovation, and cultivate core technologies with strong competitiveness. It has established R & D platforms such as national recognized enterprise technology center, provincial industrial design center, provincial engineering technology research center, Zhongyuan scholar workstation, and achieved remarkable results in innovative work. With more than 200 middle and senior technicians, it is responsible for the development, design and production guidance of the company's products, tailored to your needs.





为进一步增强技术科研创新能力，提高管理水平，持续推进新型起重机技术的研发与应用，我公司多年来坚持科技引领，招才引智，持续招聘行业高级人才加盟河南矿山。

In order to further enhance the ability of technological research and innovation, improve the management level, and continue to promote the research, development and application of new crane technology, our company has adhered to the guidance of science and technology for many years, recruited talents and continued to recruit senior talents from the industry to join Henan mine.

王继生 Wang Jisheng

——中国重型机械工业协会副理事长兼秘书长，教授级高工，河南矿山中原学者工作站学者。

曾任洛阳矿山机械设计研究院院长、中信重工副总经理、矿山重型装备国家重点实验室主任。担任“十二五”期间“国家863”计划“先进制造领域重大技术装备及工艺”方向的主题专家、国家“十三五”“煤炭清洁高效利用与新型节能技术”重点专项的总体专家等。获得国家技术发明奖、科技进步奖、省部级奖多项，获评国务院特贴专家、全国优秀科技工作者、河南省中原学者等。

——Vice president and Secretary General of China Heavy Machinery Industry Association, professor level senior engineer, scholar of Henan mine Zhongyuan scholar workstation.
He used to be the president of Luoyang mine machinery design and Research Institute, the deputy general manager of CITIC Heavy Industry, and the director of the State Key Laboratory of mine heavy equipment. During the "12th Five Year Plan" period, he served as the subject expert in the direction of "major technical equipment and processes in the advanced manufacturing field" of the "National 863" plan, and the overall expert in the key special projects of the "13th five year plan" and "clean and efficient utilization of coal and new energy-saving technologies". It has won a number of national technological invention awards, scientific and technological progress awards, provincial and ministerial awards, and has been rated as a special expert of the State Council, a national excellent scientific and technological worker, and a central plains scholar in Henan Province.

陆念力 Lu Nianli

——哈尔滨工业大学二级教授、博士生导师，河南矿山技术专家，国家特种设备安全与节能技术委员会委员，中国起重机标委会委员，中国塔式起重机标委会副主任。

长期致力于机械结构力学研究，是我国起重机设计规范（GB3811）和塔式起重机设计规范（GB/T 13752）中结构强度与稳定计算方法的主要制定者之一。发表科技论文三百余篇/部，主持完成国家重大项目及省部级项目二十余项。作为起重机结构分析专家，先后多次受国务院和有关部委的委托，承担我国重大起重机结构事故分析鉴定任务；所创立的一系列计算理论和方法，为我国起重机设计规范的制定和完善作出了重要贡献。

——He is a second-class professor and doctoral supervisor of Harbin University of technology, a mine technology expert in Henan Province, a member of the national special equipment safety and energy saving technical committee, a member of the China crane Standardization Committee, and a deputy director of the China Tower Crane Standardization Committee.
He has been committed to the study of mechanical structure mechanics for a long time, and is one of the main developers of structural strength and stability calculation methods in China's crane design code (gb3811) and tower crane design code (gb/t 13752). He has published more than 300 scientific and technological papers, presided over and completed more than 20 national major projects and provincial and ministerial projects. As an expert in crane structure analysis, he has been entrusted by the State Council and relevant ministries and commissions for many times to undertake the analysis and appraisal of major crane structure accidents in China; A series of calculation theories and methods have made important contributions to the formulation and improvement of crane design specifications in China.

须雷 Xu Lei

——工学博士，教授级高工，全国起重机械标准化技术委员会委员，国家市场监管总局起重机械安全与节能分技术委员会委员，河南矿山高级经理、矿源矿山研究院院长。

曾任北京起重运输机械研究所副所长兼总工程师，国家起重运输机械质量监督检验中心主任，全国起重机械标准化技术委员会主任，德马格起重机械(上海)有限公司高级经理。曾参加《起重机设计规范》、《起重机设计手册》和《机械工程手册》的主要编写工作。

——He is a doctor of engineering, a professor level senior engineer, a member of the National Technical Committee for the standardization of hoisting machinery, a member of the sub Technical Committee for the safety and energy conservation of hoisting machinery of the State Administration of market supervision, a senior manager of Henan mine and the president of the Institute of mineral resources and mines.
He used to be the deputy director and chief engineer of Beijing lifting and Transportation Machinery Research Institute, the director of the national lifting and transportation machinery quality supervision and inspection center, the director of the national Lifting Machinery Standardization Technical Committee, and the senior manager of DEMAG lifting machinery (Shanghai) Co., Ltd. He has participated in the main compilation of crane design code, crane design manual and mechanical engineering manual.

程文明 Cheng Wenming

——教授，博士生导师，西南交通大学机械工程学院工程机械系主任，轨道交通运维技术与装备四川省重点实验室常务副主任，中国机械工程学会物流工程分会副主任委员，四川省物流工程专委会主任委员，河南矿山高级顾问。

长期从事起重运输机械与工业工程的基础理论、设计方法、安全寿命与新产品开发等方面的科研和教学工作。主持了国家自然科学基金项目、四川省科技支撑计划和应用基础研究等纵向项目20余项，主编了《起重机设计手册》（330余万字）等大型工具书。

——Professor, doctoral supervisor, director of the Department of engineering machinery, School of mechanical engineering, southwestjiaotonguniversity, executive deputy director of the Sichuan Provincial Key Laboratory of rail transit operation and maintenance technology and equipment, vice chairman of the logistics engineering branch of the Chinese society of mechanical engineering, chairman of the Sichuan provincial logistics engineering special committee, and senior consultant of Henan mine.
He has been engaged in scientific research and teaching of basic theory, design method, safe life and new product development of lifting and transportation machinery and industrial engineering for a long time. He presided over more than 20 vertical projects such as National Natural Science Foundation projects, Sichuan Provincial Science and technology support plan and applied basic research, and edited large reference books such as crane design manual (more than 3.3 million words).

兰朋 Lan Peng

——博士，西安建筑科技大学，教授，博士生导师，河南矿山技术专家。

长期从事机械结构分析、机械动力学、工程与起重运输机械的设计开发等领域的研究。先后主持国家自然科学基金项目，国家重大专项。参与完成国家重大专项、国家“九五”、“十一五”、“十二五”科技支撑以及863等多个项目。参与起草《塔式起重机设计规范（GB13752-2017）》，以及《起重机设计规范(GB3811-2008)》英文版、《起重机安全规程》（英文版）、《架桥机通用技术条件》（英文版）、《集装箱正面吊运起重机 技术条件》（英文版）等国家标准的翻译、审查工作。

——Doctor, Professor of Xi'an University of architecture and technology, doctoral supervisor, Henan mine technology expert.
He has been engaged in the research of mechanical structure analysis, mechanical dynamics, engineering and the design and development of lifting and transportation machinery for a long time. He has presided over National Natural Science Foundation projects and major national projects. Participated in the completion of national major projects, national "Ninth Five Year Plan", "Eleventh Five Year Plan", "Twelfth Five Year Plan" scientific and technological support, as well as 863 and other projects. Participated in the drafting of the code for design of tower cranes (gb13752-2017), as well as the translation and review of the English version of the code for design of cranes (gb3811-2008), the safety regulations for cranes (English version), the general technical conditions for bridge erecting machines (English version), and the technical conditions for container frontal cranes (English version).

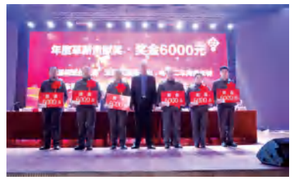
创新活动 INNOVATIVE ACTIVITIES

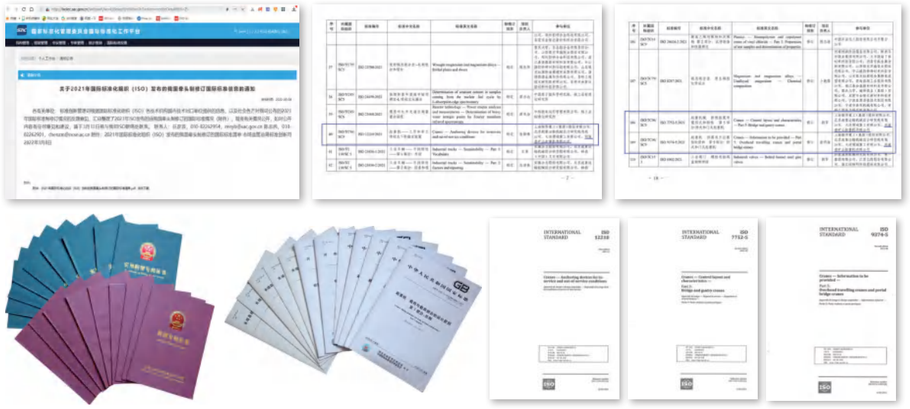
创新是企业转型升级、提质增效的灵魂。公司被评定为自主创新领军企业、科技创新标兵企业、河南省技术创新示范企业等多项荣誉。每年安排充裕资金用于技术创新工作，实施“千人创新计划”，设立“公司创始人质量奖”、“董事长质量奖”、“总经理质量奖”、“工匠精神奖”等奖项，鼓励自主创新、重奖技术创新。

河南矿山是全国起重机械标准化技术委员会委员单位，公司紧跟国家标准化战略部署，运用标准化规范企业管理，采用先进标准提升产品质量和服务水平、增强企业核心竞争力。累计参与制修订国际、国家、行业标准50余项，其中国际标准6项。

Innovation is the soul of enterprise transformation and upgrading, improving quality and efficiency. The company has been rated as a leading enterprise in independent innovation, a model enterprise in scientific and technological innovation, and a demonstration enterprise in technological innovation in Henan Province. Every year, sufficient funds are allocated for technological innovation, the "thousand person innovation plan" is implemented, and "founder Quality Award", "Chairman Quality Award", "General Manager Quality Award", "craftsman Spirit Award" and other awards are established to encourage independent innovation and reward technological innovation.

Henan mine is a member unit of the national Lifting Machinery Standardization Technical Committee. The company closely follows the national standardization strategic deployment, uses standardization to standardize enterprise management, adopts advanced standards to improve product quality and service level, and enhances the core competitiveness of enterprises. It has participated in the formulation and revision of more than 50 international, national and industrial standards, including 6 international standards.





累计获得授权专利500余项，其他科技成果、科技奖项100余项。

It has obtained more than 500 authorized patents and more than 100 other scientific and technological achievements and awards.

河南矿山通过与科研院所、高等院校、国内外知名企业等开展战略合作，不断提升企业的创新能力，实现了技术上的持续创新，保持了核心竞争优势。

Through strategic cooperation with scientific research institutes, colleges and universities, well-known enterprises at home and abroad, Henan mine has continuously improved the innovation ability of enterprises, achieved continuous technological innovation, and maintained its core competitive advantage.

承办第15届中日韩亚洲起重机安全论坛

Hosted the 15th China Japan South Korea Asia Crane Safety Forum

承办“矿源杯”第三届中国大学生起重机创意大赛

Undertake the third China University Student crane creative competition of "mineral source Cup"

承办第五届、第七届中国•长垣国际起重装备博览交易会

Undertake the 5th and 7th China Changyuan international Lifting Equipment Expo and trade fair

每年举办河南矿山起重机发展高峰论坛

Henan mine Crane Development Summit Forum is held every year

起重机柔性化生产线

Crane flexible production line

公司建有50余条智能柔性生产线，涵盖起重机主梁、端梁、筋板、小车等生产环节，全面实现3大类110余种起重机的柔性化生产，根据客户需求应用模块化、成组和产线重构等技术，实现生产资源快速调整，满足日益增长的定制化产品需求。改变传统单件分散式工作方法，将起重机生产制造发展方向引向智能化、柔性化生产模式。

其中，主梁成型生产线采用连续滚碾工艺，建设多条连续滚碾生产线及纵剪开平线，实现不同规格起重机主梁连续成形；焊接生产线采用焊接机器人、高端焊机、精密位移检测装置等多项智能装备，确保产品一致性的同时极大的提高的了产品质量和效率。

The company has built more than 50 intelligent flexible production lines, covering the production links such as crane main beam, end beam, rib plate and trolley. It has fully realized the flexible production of more than 110 kinds of cranes in three categories. According to customer needs, it has applied modularization, grouping and production line reconstruction technologies to achieve rapid adjustment of production resources and meet the growing demand for customized products. It changes the traditional one-piece decentralized working method and leads the development direction of crane manufacturing to intelligent and flexible production mode.

Among them, the main beam forming production line adopts the continuous rolling process, and multiple continuous rolling production lines and longitudinal cutting and leveling lines are built to realize the continuous forming of main beams of cranes of different specifications; The welding production line adopts welding robots, high-end welding machines, precision displacement detection devices and other intelligent equipment to ensure product consistency and greatly improve product quality and efficiency.

车轮锻造碾压复合工艺流水线

Wheel forging and rolling compound process line

车轮锻造碾压复合工艺流水线，开创了国内普通电动单梁桥式起重机使用此工艺车轮的先河。该工艺开发了铸造初次毛坯、二次锻压、三次碾压成型的创新性复合技术，实现了高致密性车轮的高精度、绿色化、流水线式生产，推动传统铸造、锻造生产模式创新发展。

锻造碾压车轮材料密度大、硬度高、耐磨性好，增加了起重机使用寿命，不仅提高了生产效率，更使产品的质量和外观均得到很大提升，相比铸造工艺，热能损耗减少50%，能源利用率提高了40%，实现了节能减排生产，对于减低碳排放，保护环境也具有重要意义。

The wheel forging and rolling compound process line has created a precedent for the domestic ordinary electric single beam bridge crane to use this process wheel. This process develops innovative composite technology of casting primary blank, secondary forging and tertiary rolling, realizes high-precision, green and assembly line production of high-density wheels, and promotes the innovative development of traditional casting and forging production modes.

Forged and rolled wheels have high density, high hardness and good wear resistance, which increases the service life of the crane, not only improves the production efficiency, but also greatly improves the quality and appearance of the products. Compared with the casting process, the heat loss is reduced by 50%, and the energy utilization rate is increased by 40%. Energy conservation and emission reduction production are realized, which is also of great significance for reducing carbon emissions and protecting the environment.

车轮锻造碾压复合工艺智能化流水线

Intelligent assembly line of wheel forging and rolling composite process

起重机远程运维云平台

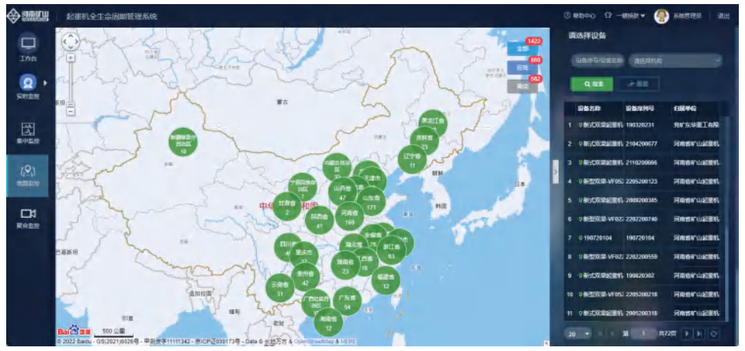
Crane remote operation and maintenance cloud platform

起重机远程运维是基于云服务及物联网模块开发的新功能，其建立在产品远程运维管理平台集成智能传感、大数据和5G等技术。通过该系统可以实现基于运行数据的产品远程调试、运维、预测性维护和产品设计的持续改进。另外随着变频器、PLC在起重机上的广泛应用，起重机远程调试、运维越来越成为可能，尤其是在环境恶劣的场合通过起重机远程运维功能可以快速处理现场问题，使技术人员在办公室就如“亲临现场”，极大提升了工作效率并能提供持续设计改进点。

智能云服务实现了起重机的远程监测、健康评估、安全诊断、智能维护的全生命周期管理，全面推动公司从“生产型制造”向“智能服务型制造”的转型升级。

Crane remote operation and maintenance is a new function developed based on cloud services and the Internet of things module. It is built on the product remote operation and maintenance management platform to integrate smart sensing, big data, 5g and other technologies. The system can realize the remote debugging, operation and maintenance, predictive maintenance and continuous improvement of product design based on operation data. In addition, with the wide application of frequency converter and PLC in cranes, remote commissioning, operation and maintenance of cranes are becoming more and more possible, especially in harsh environments. The remote operation and maintenance function of cranes can quickly deal with on-site problems, so that technicians can "visit the site" in the office, greatly improving work efficiency and providing continuous design improvement points.

Intelligent cloud service realizes the full life cycle management of crane remote monitoring, health assessment, safety diagnosis and intelligent maintenance, and comprehensively promotes the transformation and upgrading of the company from "production-oriented manufacturing" to "intelligent service-oriented manufacturing".



基于大数据和云平台的智能制造生产管理系统

Intelligent manufacturing production management system based on big data and cloud platform

该系统基于大数据和云平台，将公司高端数控机床、工业机器人、视觉识别装置和精密检测装置、数据服务器和网络服务器、客户端、手机端和大屏相连，构建成生产管理系统，主要包括信息监控模块、数据管理模块、效能分析模块和零件统计模块，包括实现了联网设备的实时状态和信息监控、远程数据查看和设定、远程故障诊断和维护、实时运行效率和效能分析、零件数量统计和质量分析等智能应用。

该系统设备全部互联互通，真正实现关键零件生产的智能化、信息化和自动化。打破了传统生产模式，突破了老旧思想束缚，具有理念创新、技术先进、节能增效和绿色生产等显著特征。使生产效率提升200%，产能提升80%，每年创造4亿元经济效益，大幅地提升了企业竞争力，有力地推动了起重机行业的快速发展。

Based on big data and cloud platform, the system connects the company's high-end CNC machine tools, industrial robots, visual recognition devices and precision detection devices, data servers and network servers, clients, mobile phones and large screens to build a production management system, which mainly includes information monitoring module, data management module, efficiency analysis module and parts statistics module, including the realization of real-time status and information monitoring of networked devices Intelligent applications such as remote data viewing and setting, remote fault diagnosis and maintenance, real-time operation efficiency and efficiency analysis, part quantity statistics and quality analysis.

All the equipment of the system are interconnected, which truly realizes the intellectualization, informatization and automation of the production of key parts. It breaks the traditional production mode, breaks through the shackles of old ideas, and has the remarkable characteristics of conceptual innovation, advanced technology, energy conservation and efficiency increase, and green production. The production efficiency is increased by 200%, the production capacity is increased by 80%, and the annual economic benefit is 400million yuan, which greatly improves the competitiveness of enterprises and effectively promotes the rapid development of the crane industry.

智能制造大数据管理平台系统

Intelligent manufacturing big data management platform system

起重机箱型梁机器人焊接生产线

Robot welding production line for lifting chassis beam

起重机箱型梁机器人焊接生产线，对包括盖板、腹板、隔板、筋板在内的所有结构件实施机器人焊接，整个生产过程有数字化和智能化联网控制，实现了基于数字化的起重机箱型梁智能制造。目前公司安装起重机箱型梁机器人焊接生产线共计50条，产品全流水线自动化率达到85%。

The robot welding production line of crane girder implements robot welding for all structural parts including cover plate, web plate, clapboard and rib plate. The whole production process has digital and intelligent networked control, realizing the intelligent manufacturing of heavy box girder based on digitization. At present, the company has installed a total of 50 robot welding production lines for lifting chassis beams, and the automation rate of the whole production line has reached 85%.

双梁主梁内缝机机器人焊接生产线

Robot welding production line of double beam main beam inner seam machine

单梁筋板组装机器人焊接生产线

Single beam rib plate assembly robot welding production line

单梁端梁机器人焊接生产线

Single beam end beam robot welding production line

单梁主梁内缝机器人焊接生产线

Single beam main beam inner seam robot welding production line

定梁龙门移动式加工中心

Fixed beam gantry mobile machining center

数控落地镗铣床

CNC Floor Boring and milling machine

密封箱式多用气体渗碳氮化炉

Sealed box type multipurpose gas carburizing and nitriding furnace

智能机器人涂装生产线

Intelligent robot coating production line

600吨桥式起重机试验台

600t bridge crane test bench

电动葫芦试验台

Electric hoist test bench

NEW TYPES OF CRANES

新型桥式起重机

KSQ型桥式起重机

本起重机的设计、制造及检验均执行最新颁布的国家有关标准，等效采用部分FEM、DIN、IEC等国外标准，与原有通用QD型桥吊产品相比，自重减轻约15～30%，最大轮压减小约10～35%，可以降低起重机对厂房结构的要求，节约厂房制造成本。传动机构的核心部件减速器全部采用硬齿面、高精度齿轮组，加上钢制卷筒、锻造车轮以及变频调速系统的应用，使得该型号起重机成为传统通用桥式起重机的更新换代产品，适用于机械制造、装配、石油化工、仓储物流、电力建设、造纸、铁路等行业。

KSQ Bridge Crane

Design, production and inspection carry out the last issued relevant national standard, equivalently adopts some foreign criteria including FEM, DIN and IEC. Compared with the general QD bridge crane, its weight is reduced by about 15～30%, the maximum wheel pressure is reduced by about 10～35%, which can the requirements of crane for factory building structure and reduce production cost. As the core component of driving mechanism, reducer gear pair with hard tooth surface and high precision gear set, forged wheel and variable-frequency speed regulating system, which makes this type of crane become renewal product of traditional general bridge crane and applied in industry of machinery production, assembling, petrochemicals, warehouse logistics, electric power construction, papermaking and railways.

KSSL型电动葫芦桥式起重机

KSSL型电动葫芦桥式起重机采用新型电动葫芦作为起升机构，大、小车运行采用三合一驱动形式，整体外形尺寸小，自重轻。

新型电动葫芦采用C型结构，减速器。起升电机，减速器、卷筒和起升限位开关的一体化紧凑型设计节约了用户的使用空间。标准的导绳器采用耐磨性强和自润滑性能好的工程塑料加工而成。

KSSL Electric Hoist Bridge Crane

KSSL Electric Hoist Bridge Crane uses new electric hoist as hoisting mechanism. Crane and trolley use three-in-one form and the overall boundary dimension is small and it also is light.

New electric hoist uses reducer with C-type structure. The integration compact design of lifting motor, reducer, coiling block and lifting limit switch saves space for user. Standard rope guide is made by using engineering plastics with strong abrasive resistance and good self-lubricating property.and enhancing safety of operation. Low speed with heavy load and high speed with light load improves production efficiency.

RAIL TYPE CONTAINER GANTRY CRANE

轨道式集装箱门式起重机

适用于国际标准集装箱的搬运及装卸，该集箱采用牵引小车形式，使整机结构轻便，性能先进，生产效率高，机动性好，对地面不平度敏感性小。整机采用电缆卷筒供电。

applicable to remove, load and unload international standard containers. Form of drawing trolley is adopted to achieve light structure, advanced performance, high production efficiency, fine maneuverability and small sensibility to unflatness of the ground. The crane is powered by cable drum.

高精度集装箱吊具
High precision container spreader

50吨集装箱门式起重机
50 t container gantry crane

MG DOUBLE-BEAM GANTRY CRANE WITH HOOK

MG型双梁吊钩门式起重机

MG型双梁吊钩门式起重机主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为箱形结构，主梁采用双梁偏轨形式，支腿根据用户要求分A形和U形两种。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

MG double-beam gantry crane with hook is composed of gantry, crane crab, trolley traveling mechanism, cab and electric control system.

The gantry is of a box-shape structure, the girder is bias track double girder and the leg is divided into Type A and Type U according to user’s requirements.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.

双梁门式起重机
Double-beam Gantry Crane

MG GANTRY CRANE FOR SUBWAY CONSTRUCTION

MG型地铁施工门式起重机

MG型地铁施工用门式起重机是根据地下施工的使用要求及工况，在通用门式起重机的基础上研制出来的专用门吊，专用于地下施工时翻转倒土及吊运物品。

起重机由小车、门架、大车运行机构、液压翻转机构、司机室及电气设备组成。小车上设有液压翻转机构，该机构由液压工作站和翻渣钩组成。挂梁中间设有吊钩，用于吊运一般物件。

大车运行机构采用8轮4驱动形式。固定在台车上的电机通过立式减速器驱动车轮，并设有防风用夹轨器，起重机正常工作时，夹轨器的夹钳离开轨道，当起重机停止工作时，操作人员将夹钳放下，夹住轨道，防止起重机滑动。

MG gantry crane for subway construction is a special gantry crane which is developed on the basis of general gantry crane according to the operating requirements and working conditions of underground construction.

The crane consists of crab, gantry, trolley travelling mechanism, hydraulic turnover mechanism, cab and electric equipment. On the crab is furnished a hydraulic turnover mechanism, which is composed of a hydraulic work station and a slag-turning hook. At the middle of the carrier-beam is a hook, which is used to lift common articles.

The trolley travelling mechanism is 4-wheel drive in 8 wheels. The motor fixed on the trolley drives wheels by vertical speed reducer. A windproof rail clamp is equipped. It is detached from the rail when the crane is in normal operation, and when the crane stops working, the operator will put down the clamp to catch the rail so as to avoid the crane sliding.

MG DOUBLE-BEAM TRUSS GANTRY CRANE

MG型双梁桁架门式起重机

MG型双梁桁架门式起重机其主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为桁架结构，具有结构轻、抗风力强等优点。包括主梁、上端梁、支腿、下端梁、走行台车及走台栏杆等。主梁采用三角桁架结构，上面铺设有轨道，供起重小车沿主梁方向作横向移动。支腿为桁架结构，由型钢组焊。走台用来放置电气设备及作检修用，外侧设有防护栏杆。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

MG Double-beam truss gantry crane is comprised of gantry, crane crab, trolley travelling mechanism, cab and electric control system.

The gantry, of a truss structure and having advantages of light structure, strong wind resistance and so on, is composed of girder, upper end girder, leg, lower end girder, travelling trolley and platform railing. The girder is of a triangular truss structure, on which laid rails for crane crab to transversely move along the girder. The legs, of a truss structure, are weld by section steel. The platform, which is used to place electric equipment and used for repair, is furnished with protection railing outside.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.

ENGINEERING GANTRY CRANE

工程门式起重机

工程门式起重机主要用于桥梁建设，工作速度慢，由门架、卷扬机小车、大车运行机构、司机室和电气控制系统组成。

门架为桁架结构，具有结构轻、抗风力强等优点。包括主梁、上端梁、支腿、下端梁、走行台车及走台栏杆等。主梁采用三角桁架结构，上面铺设有轨道，供小车沿主梁方向作横向移动。支腿采用箱形或钢管两种形式。

Engineering gantry crane is mainly used for bridge construction which is worked at a low rate. It is composed of gantry, windlass crab, trolley travelling mechanism, cab and electric control system.

The gantry, of a truss structure and having advantages of light structure, strong wind resistance and so on, is composed of girder, upper end girder, leg, lower end girder, travelling trolley and platform railing. The girder is of a triangular truss structure, on which laid rails for crane crab to transversely move along the main girder. The legs are of a box structure or steel tube structure.

ME SHIPBUILDING GANTRY CRANE

ME型造船门式起重机

ME型造船门式起重机是一种大起重量、大跨度、大起升高度的门式起重机，专用于船坞进行大型船体分段运输、对接及翻转作业。

主要技术特点：·具有单吊、抬吊、空中翻转、空中水平微转等多种功能；·门架有单主梁型和双主梁型两种，为合理使用材料，主梁采用变截面优化设计；·上小车设有双主钩，分别置于主梁两外侧；·下小车设有主、副两钩，置于两主梁中心；·上、下小车可以相互穿越作业；·所有工作机构均采用变频调速；·刚性支腿侧主梁顶面设有旋臂起重机，以完成上、下小车的维修作业；·为防止暴风袭击，设有安全可靠的夹轨器、地锚等防风装置。

ME shipbuilding gantry crane, a type of gantry crane of heavy lifting load, large span and high lifting altitude, is special for fragmented transport, end-to-end joint and turning operation of large ship hulls.

Main technical characteristics:

It have multiple functions of single hanging, hoisting, turnover in the air, slight horizontal turnover in the air and so on;

The gantry falls into two categories: single girder and double girder. To rationally utilize materials, the girder adopts optimum design of variable section;

The upper crab has two main hooks, which are separately fixed at the outside of the girder.

The lower crab has a main hook and a secondary hook, which are fixed at the center of the two girders;

Both the upper crab and the lower crab can cross each other for operation.

All operating mechanisms employ frequency control;

On the top of the girder at the side of rigid leg is equipped a jib crane to accomplish maintenance of upper and lower crabs.

To prevent storm attack, such safe and reliable anti-wind devices as rail clamp and ground anchor are furnished.

L GANTRY CRANE

L型门式起重机

L型门式起重机主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为箱形结构，起重量20t以下时小车采用垂直反滚轮式，大于20t时小车采用水平反滚轮式，在主梁一侧运行。主梁采用单梁偏轨形式，支腿为L形，吊运空间大，过跨能力强，便于将物件从跨内转运到悬臂下。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

L gantry crane is mainly composed of gantry, crane crab, trolley travelling mechanism, cab and electric control system.

The gantry is of a box-shape structure. The crab adopts vertical reaction wheel when the lifting load is below 20t, and horizontal reaction wheel when above 20t to run at the girder side. The girder is of single-girder bias track and the leg is L-shaped, so that the lifting space is large and the spanning ability is strong, making it easy to covey articles from the span to under the jib.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.

MH GANTRY CRANE WITH ELECTRIC HOIST

MH型电动葫芦门式起重机

MH型电动葫芦门式起重机是有轨运行的中小型起重设备，主要由门架（主梁、支腿、下横梁等）、起升机构、运行机构及电控部分组成，以电动葫芦作为起升机构，工作时沿主梁工字钢下翼缘运行。门架结构分箱形和桁架两种，箱形工艺好，制作方便；桁架自重轻，抗风能力强。整机具有自重轻、结构简单、安装维修方便等特点，适用于中小起重量范围内的厂矿、货场及仓库等室外场所作一般装卸吊运工作，禁止在有易燃、易爆及充满腐蚀性气体的环境中工作。

操作方式设有地面手柄、无线遥控和司机室等三种操作形式。

MH gantry crane with electric hoist is middle- and small-size lifting equipment which runs at rails. It is mainly composed of gantry (girder, leg, lower cross beam, etc.), hoisting mechanism, travelling mechanism and electric control part. With the electric hoist as hoisting mechanism, it runs along the lower flange of the I-steel of the girder. The girder is of box-shape structure and truss structure. The former boasts good techniques and easy fabrication, and the latter is light in dead weight and strong in wind resistance. The complete machine features light dead weight, simple structure and easy installation and maintenance, so that it is applicable to outdoor operational sites of medium and small lifting load for general handling such as factories and mines, freight yards and warehouses. It is prohibited to operate in the environment with inflammable, explosive and corrosive gas.

It has three operation modes: ground handle, wireless remote control and cab.

MGB, MB SEMI-GANTRY CRANE

MGB、MB型半门式起重机

MGB型双主梁吊钩半门式起重机

双主梁吊钩半门式起重机主要由门架、起重小车、大车运行机构和电气控制系统组成。门架为箱形结构，一侧设有支腿，沿地面轨道上运行，另一侧无支腿，沿厂房上部轨道运行。操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等物品。其余结构和配置与MG型双主梁门式起重机一致。

MGB double-girder semi-gantry crane with hook

The double-girder semi-gantry crane with hook is mainly composed of gantry, crane crab, trolley travelling mechanism and electric control system. The gantry, of a box-shape structure, has a leg at its one side and runs along the ground rails, and has no leg at the other side and runs along the rails on the factory workshop. The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users. The rest structure and configuration are the same as the MG double-girder gantry crane.

MB型电动葫芦半门式起重机

电动葫芦半门式起重机是有轨运行的中小型起重设备，主要由门架（主梁、支腿、下横梁等）、起升机构、运行机构及电控部分组成，以电动葫芦作为起升机构，工作时沿主梁工字钢下翼缘运行。门架一侧设有支腿，沿地面轨道上运行，另一侧无支腿，沿厂房上部轨道运行，其余结构和配置与MH型电动葫芦门式起重机一致。

MB semi-gantry crane with electric hoist

The semi-gantry crane with electric block, a type of middle- and small-size lifting equipment which runs along rails, is mainly composed of gantry (girder, leg, lower cross beam etc.), hoisting mechanism, travelling mechanism and electric control part. With the electric hoist as hoisting mechanism, it runs along the lower flange of the I-steel of the girder. The gantry has a leg at its one side and runs along the ground rails, and has no leg at the other side and runs along the rails on the factory workshop. The rest structure and configuration are the same as the MH gantry crane with electric block.

YZS CASTING BRIDGE CRANE

YZS型铸造桥式起重机

铸造桥式起重机是钢厂冶炼车间的主要起重运输设备，用于冶炼过程中液态金属的转运、浇注及兑铁水等作业，YZS型采用主副双小车、四梁四轨结构，由桥架、主小车、副小车、吊钩梁、大车运行及电气部分组成，主小车在桥架外侧的主梁轨道上运行，副小车在桥架内侧的副梁轨道上运行，主小车取物装置为固定间距的吊钩梁，用来吊运钢水包，副小车取物装置为吊钩，在主小车下穿越运行，与主钩配合以完成倾倒钢水、钢渣及其它辅助性吊运作业。

大车运行机构和主要电气设备均安装在主梁内，主梁电气室采用岩棉保温，内装有冷风机。为了减轻钢水对金属结构件的热辐射，在主梁底部沿跨度方向设有隔热板。

大车运行机构采用四角驱动形式。

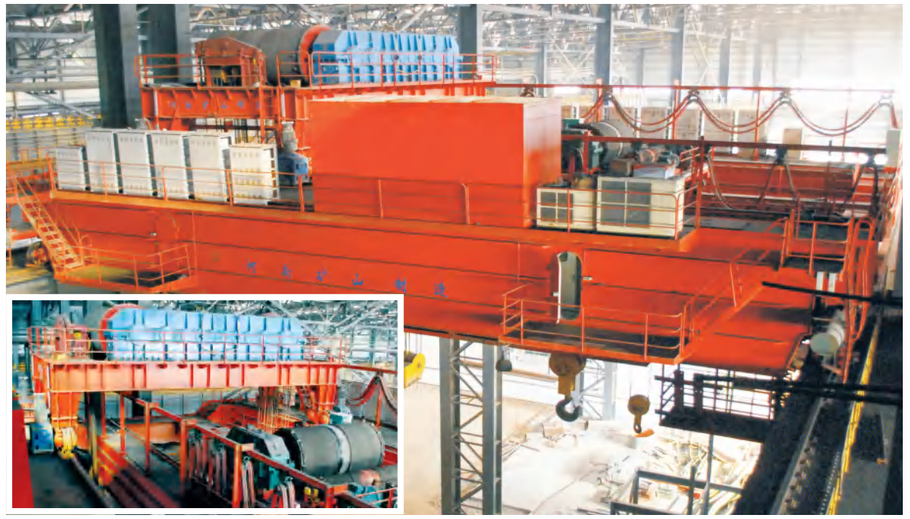
起重机配有专用电子秤，在司机室内和桥架上均有明显的显示装置。主起升机构设有超速开关。

Casting bridge cranes are the main handling equipment for smelting workshop of steel works. They are used for conveying, pouring and hot metal charging of liquid metal in smelting process. YZS casting bridge crane, adopting main crab and auxiliary crab, and four-girder and four-rail structure, is composed of bridge, main crab, auxiliary crab, connecting traverse, trolley traveling mechanism and electric part. The main crab runs at the rails outside the bridge, and the auxiliary crab runs at the rails inside the bridge. The main crab employs the connecting transverse as the load handling device to hoist steel ladle, and the auxiliary crab, employing the hook as the load handling device, runs across under the main crab to accomplish pouring of molten steel and steel slag, and other auxiliary hoisting in coordination with the main hook.

The trolley travelling mechanism and main electric equipment are installed in the girder. The girder’s electric panel room employs rock wool for heat insulation, and has an air cooler inside. To reduce heat radiation of molten steel to metal structural members, a thermal baffle is set along the span direction at the bottom of the girder.

The trolley travelling mechanism adopts four-corner drive.

The crane is equipped with a special electronic scale, and there are display devices in the cab and on the bridge. The main hoisting mechanism is furnished with an overspeed switch.



九江焦化智能焦罐起重机

Jiujiang coking intelligent coke tank crane

俄罗斯克拉斯诺达MGA636T-25M+10／11MU型集装箱门机

集装箱门机

Russia krasnoda mga636t-25m+10 / 11mu container gantry crane container gantry crane

智能全自动起重机

Intelligent fully automatic crane

宝钢湛江项目承制的自动化起重机

Automatic crane manufactured by Baosteel Zhanjiang project

洁净防爆全自动起重机

Clean explosion-proof full-automatic crane

水上救援模拟训练起重机

Simulated training crane for water rescue

YZ CASTING BRIDGE CRANE

YZ型铸造桥式起重机

YZ型铸造桥式起重机采用双梁单小车结构，主要由桥架、小车、吊钩梁、大车运行及电气部分组成，主钩取物装置为固定间距的吊钩梁，用来吊运钢水包，副钩用来与主钩配合以完成倾倒钢水、钢渣及其它辅助性吊运作业。

大车运行机构和主要电气设备均安装在主梁内，主梁电气室采用岩棉保温，内装有冷风机。为了减轻钢水对金属结构件的热辐射，在主梁底部沿跨度方向设有隔热板。

大车运行机构采用四角驱动形式。

起重机配有专用电子秤，在司机室内和桥架上均有明显的显示装置。主起升机构设有超速开关。

YZ casting bridge crane

YZ casting bridge crane, of a double-girder single-crab structure, is mainly composed of bridge, crab, connecting traverse, trolley travelling mechanism and electric part. The main hook employs the constant-spacing connecting traverse as the load handling device to hoist steel ladle and the auxiliary hook acts in concert with the main hook to accomplish pouring of molten steel and steel slag, and other auxiliary hoisting.

The trolley travelling mechanism and main electric equipment are installed in the girder. The girder’s electric panel room employs rock wool for heat insulation, and has an air cooler inside. To reduce heat radiation of molten steel to metal structural members, a thermal baffle is set along the span direction at the bottom of the girder.

The trolley travelling mechanism adopts four-corner drive.

The crane is equipped with a special electronic scale, and there are display devices in the cab and on the bridge. The main hoisting mechanism is furnished with an overspeed switch.

QD ELECTRIC DOUBLE-GIRDER BRIDGE CRANE WITH HOOK

QD型电动双梁吊钩桥式起重机

QD型电动双梁吊钩桥式起重机是目前应用较为广泛的起重机械，其主要由箱形桥架、起重小车、大车运行机构和电气控制系统组成。主梁上面铺设有轨道，供起重小车沿主梁方向作横向移动。主梁与箱型端梁焊接而成，端梁中间布置有接头，螺栓连接，供桥架分拆运输。走台用来放置大车运行机构、电气设备及作检修用。起重机可配挂马达抓斗、电磁吸盘等取物装置，满足吊运多种类型物料的需求。

本起重机工作级别A3~A7，常用起重量为3~250t。适宜在环境温度-10℃~40℃，相对湿度不大于85%的工厂、仓库及货场等处作装卸吊运工作，禁止在易燃、易爆以及充满腐蚀性气体的环境中工作。

QD electric double-girder bridge crane with hook is the widely used hoisting machinery currently. It is mainly comprised of box-shape bridge, crane crab, trolley travelling mechanism and electric control system. On the girder laid rails for crane crab to transversely move. The girder is weld with the box-shaped end girder. At the middle of the end girder are joints which are fastened with bolts for fragmented transportation of bridges. The platform is used to place trolley travelling mechanism, electric equipment and used for repair. The crane can be furnished with load handling devices such as motor grab, electromagnetic chuck to meet the requirements of hoisting varied types of materials.

The crane, of a classification group of A3~A7, has a commonly used lifting load of 3-250t, so that it is suitable to work in factories, warehouses and freight yards where the ambient temperature is -10℃~40℃ and the relative humidity is not more than 85%. It is prohibited to work in the environment with inflammable, explosive and corrosive gas.

YC UPPER ROTARY BRIDGE CRANE

YC型上旋转桥式起重机

本起重机主要采用挂梁吊运钢坯等长件物品，配置电磁吸盘进行吊装，由箱形桥架、起重小车、大车运行机构、司机室和电气控制系统组成，配有停电保磁系统。

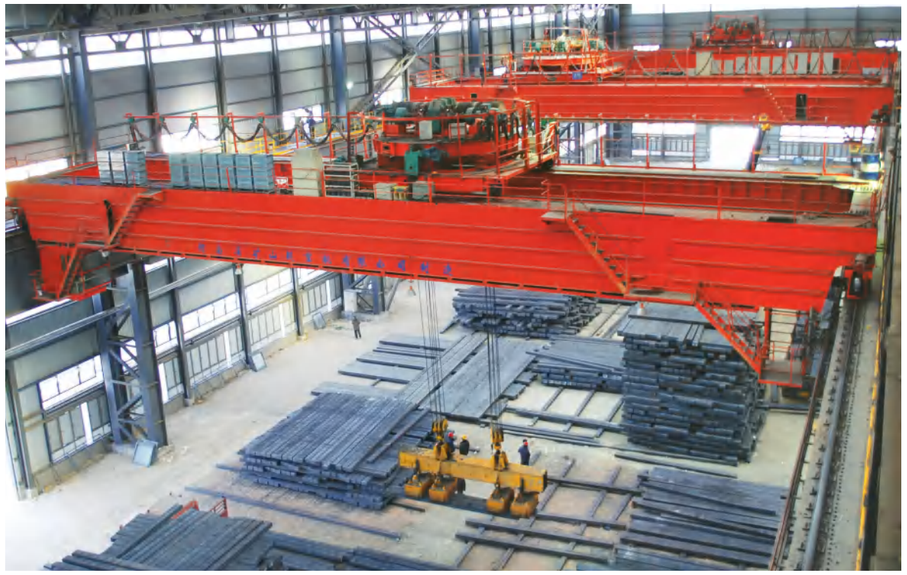
主梁采用正轨箱型结构，上面铺设有轨道，供起重小车沿主梁方向作横向移动。主梁与箱型端梁焊接而成，端梁中间布置有接头，螺栓连接，供桥架分拆运输。走台用来放置大车运行机构及作检修用，外侧设有防护栏杆。

起重小车由上、下小车组成，下小车为运行小车。上小车为旋转小车，布置有起升机构和旋转机构。上小车上设有回转用的环形轨道，配合水平轮，达到旋转长件物品的目的。

The crane mainly employs hung girder to hoist long objects like billets, and is equipped with electromagnetic chuck to hoist. It is composed of box-shaped bridge, crane crab, trolley travelling mechanism, cab and electric control system. It is also equipped with blackout magnetic system.

The girder is a middle-rail box girder, on which laid rails for crane crab to transversely move. The girder is weld with the box-shaped end girder. At the middle of the end girder are joints which are fastened with bolts for fragmented transportation of bridges. The platform is used to place trolley travelling mechanism, electric equipment and for repair. It is furnished with protection railing outside.

The crane crab consists of upper crab and lower crab. The latter is travelling crab and the former is rotating crab. They are equipped with hoisting mechanism and rotary mechanism, respectively. The upper crab is furnished with a circular orbit for rotating, which acts in concert with horizontal wheels to fulfill the purpose of rotating long articles.



QZ ELECTRIC GRAB BRIDGE CRANE

QZ型电动抓斗桥式起重机

QZ型电动抓斗桥式起重机主要由箱形桥架、抓斗小车、大车运行机构、司机室和电气控制系统组成。取物装置为能抓取散装物料的抓斗。

抓斗小车上有开闭机构和起升机构，抓斗以四根钢丝绳分别悬挂在开闭机构和起升机构上。开闭机构驱动抓斗闭合，抓取物料，当斗口闭合后，立即开动起升机构，使四根钢丝绳平均受载进行起升工作。卸料时只开动开闭机构，斗口随即张开，倾斜物料。

本起重机除起升机构不同外，其余结构部分与吊钩桥式起重机基本相同。

QZ electric grab bridge crane is mainly comprised of box-shaped bridge, grab crab, trolley travelling mechanism, cab and electric control system. The load handling device is the grab which is able to capture bulk materials.

The grab crab has switching mechanism and lifting mechanism. The grabs are separately hung over the switching mechanism and lifting mechanism with four steel wire ropes. The switching mechanism drives the grab to close to grab materials. When the grab is closed, the lifting mechanism shall be started immediately to hoist the four evenly loaded steel wire ropes. Discharging only needs to start the switching mechanism, which opens the grab to pour materials.

Except the lifting mechanism, the crane is basically the same as the bridge crane with hook.

QL ELECTRIC BRIDGE CRANE WITH CARRIER-BEAM

QL型电动挂梁桥式起重机

QL型挂梁桥式起重机适用于吊运较长的型钢、棒料、板材、废钢、盘圆等，吊钩和挂梁可拆连接，下面配置电磁吸盘或夹钳或特殊群钩进行吊装，挂梁布置形式分垂直于主梁或平行于主梁两种。

QL bridge crane with carrier-beam is applicable to hoisting long section steel, bars, plates, scrap steel, mill coil and so on. The hook and carrier-beam are releasable connection. They are furnished with electromagnetic chuck or clincher or special group hook underneath to hoist things. There two layout forms of carrier-beam: perpendicular to the girder or parallel to the girder.

LH DOUBLE-GIRDER CRANE WITH ELECTRIC HOIST

LH型电动葫芦双梁起重机

LH型电动葫芦双梁起重机由箱形桥架、大车运行机构、小车、电气设备四部分组成，采用固定式电动葫芦安装在小车架上作起升机构，小车运行采用LD型传动，大车运行分LD型传动和QD型传动两种。结构简便轻巧，具有整体高度小，自重轻等特点，适用于中小起重量范围内的厂矿、车间及仓库等工作场所。

操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种。

LH double-girder crane with electric hoist consists of box-shaped bridge, trolley travelling mechanism, crab and electric equipment. It employs fixed electric hoist which is fitted on crab frame as hoisting mechanism. The crab uses LD drive to run, while the trolley adopts LD drive or QD drive. The structure, simple and convenient, features low entire height and light dead weight, so that it is applicable to operational sites of medium and small lifting load such as factories and mines, workshops and warehouses.
It has three operation modes: ground handle, wireless remote control and cab. The cab has two types: open cab and closed cab.

QY OVERHEAD ISOLATION CRANE

QY型绝缘桥式起重机

QY型绝缘桥式起重机的结构形式与吊钩桥式起重机基本相同，只是为了防止在工作过程中，带电设备有可能通过被吊运的物件传到起重机上，危及司机的生命安全，故在吊钩组、小车架、小车轮（或者在小车轨道下）三个部位，设置了三道绝缘装置。绝缘材料多采用环氧酚醛玻璃布板。适用在冶炼铝、镁的工厂。

QY overhead isolation crane is basically the same as bridge crane with hook in terms of structural style. To avoid the charged equipment which may conduct electricity to the crane by hoisted articles from endangering the driver’s life, insulation equipment is set on the hook group, crab frame, crab wheel (or under the crab rails). The insulation material is usually epoxy phenol aldehyde glass cloth laminated board. The crane is applicable to aluminum and magnesium smelting factories.

COAL BLOCK STACKING CRANE

炭块堆垛起重机

炭块堆垛起重机是炭素厂炭块仓库的专用转运设备，该设备主要有桥架、大车运行机构、起升机构、导向装置、夹钳装置、控制系统、电动葫芦等部分组成。其用于阳极炭块库中抓运生、熟炭块，及其它零星吊运。该机大车采用双驱动，整机采用变频加PLC控制，起重机全部动作均在操纵室内操作，在操纵室内配有可调节冷热的空调装置。

The carbon block stacking crane is a specialized transportation equipment for the carbon block warehouse in a carbon plant. The equipment mainly consists of a bridge, a crane operating mechanism, a lifting mechanism, a guiding device, a clamp device, a control system, an electric hoist, and other parts. It is used for grabbing and transporting raw and cooked carbon blocks in the anode carbon block storage, as well as other sporadic lifting. The crane adopts dual drive, and the whole machine is controlled by frequency conversion and PLC. All movements of the crane are operated in the control room, which is equipped with adjustable cold and hot air conditioning devices.

LDA, LDC, LX ELECTRIC SINGLE-GIRDER CRANE

LDA、LDC、LX型电动单梁起重机

LDA型电动单梁起重机由钢板与工字钢组焊成的主梁、端梁、电动葫芦及运行机构组成，电动葫芦沿主梁工字钢下翼缘运行，完成物品的吊运工作，具有结构轻巧、安装维护方便等特点，广泛应用于工厂、仓库、料场等不同场合吊运货物。操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种。运行电机可根据用户要求选用软启动电机和变频调速，起重机启动平稳，运行安全可靠。

LDA electric single beam crane is composed of main beam, end beam, electric hoist and operating mechanism welded by steel plate and I-steel. The electric hoist runs along the lower flange of the main beam I-steel to complete the lifting of goods. It has the characteristics of light structure and convenient installation and maintenance. It is widely used in factories, warehouses, stockyards and other different occasions to lift goods. There are three operation modes: ground handle, wireless remote control and cab. There are two types of cabs, open and closed. The soft start motor and variable frequency speed regulation can be selected for the running motor according to the user's requirements. The crane starts smoothly and operates safely and reliably.

LDC型电动单梁起重机由钢板组焊成的箱型主梁、端梁、电动葫芦及运行机构组成，主梁下翼缘板（材质16Mn）作为电动葫芦运行轨道，完成物品的吊运工作。电动葫芦为低净空结构，可有效提升起升高度，适用于厂房低、起升高度要求高的场所。

LDC electric single-girder crane is composed of box-shaped girder weld by steel plates, end girder, electric hoist and travelling mechanism. The lower flange (material 16Mn) of the girder is the travelling orbit of electric hoist to accomplish article hoisting. The electric block, of low headroom structure, can effectively increase the lifting height, so that it is applicable to the places where the workshop is low and the requirement of lifting height is high.

LX型电动单梁悬挂起重机由钢板与工字钢组焊成的主梁、端梁、电动葫芦及电动跑车组成，悬挂在厂房上部的工字梁轨道上，悬臂长度0.5~1m，电动葫芦沿主梁工字钢下翼缘运行，完成物品的吊运工作，具有结构轻巧、安装维护方便等特点，广泛应用于生产车间、仓库及货场等场所。

LX electric single beam suspension crane is composed of main beam, end beam, electric hoist and electric sports car welded by steel plate and I-steel. It is suspended on the I-beam track on the upper part of the plant. The cantilever length is 0.5~1m. The electric hoist runs along the lower flange of the main beam I-steel to complete the lifting of goods. It has the characteristics of light structure and convenient installation and maintenance. It is widely used in production workshops, warehouses, freight yards and other places.

LDP ELECTRIC SINGLE-GIRDER CRANE

LDP型电动单梁起重机

LDP型电动单梁起重机属于超低净空轻小型起重机，电动葫芦位于主梁的一侧，增加了吊钩的工作空间，可以降低厂房高度和造价。适用于车间厂房净空高度较低的场所。

本产品由钢板组焊成的箱形主梁、端梁、小车及运行机构组成，小车由运行端梁、小车架及固定式电动葫芦组成，采用偏挂形式，在主梁一侧运行，葫芦位置由传统的主梁下提升到主梁上侧，有效提高了起升高度。小车运行为锥型电机制动，开式齿轮传动。主梁为箱型结构，偏轨，上、下设水平轮，安全可靠，并可防止啃轨。大车运行采用分别驱动形式，锥型电机制动，开式齿轮传动。运行电机可根据用户要求选用软启动电机和变频调速，起重机启动平稳，运行安全可靠。

LDP electric single-girder crane is a small-size low headroom crane. The electric hoist is at one side of the girder, which increases the work space of the hook and reduces the workshop height and cost. It is applicable to the places where the workshop's headroom is low.
The crane is composed of box-shaped girder weld by steel plates, end girder, crab and travelling mechanism. The crab consists of traveling end girder, crab frame and fixed electric block. The crab is partially hung and runs at one side of the g rider. The electric hoist is raised to the upside of the girder from under the girder, which effectively increasing the lifting altitude. The crab is braked by conical motor and driven by exposed gear. The girder, of box-shaped structure and bias rails, has horizontal wheels at the upper and the lower, so that it is safe and reliable and can avoid rail gnawing. The trolley adopts separate drive, conical motor brake and exposed gear drive. The travelling motor can be soft start motor and variable-frequency adjustable-speed motor according to user requirements. The crane can start steadily and runs safely and reliably.

NEW TYPES OF ELECTRIC HOIST

新型电动葫芦

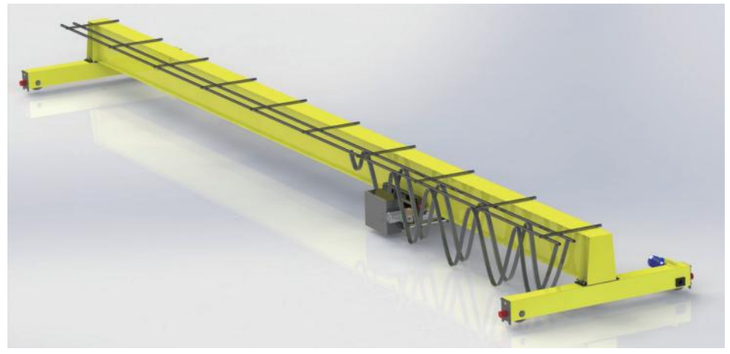
采用德国进口的起升电机，减速器。起升电机，减速器、卷筒和起升限位开关的一体化紧凑型设计节约了用户的使用空间。模块化设计在增强了机构的可靠性的同时有效降低了维护时间和成本。

具有更快更多的起吊速度和多种滑轮倍率可供选择。标准小车运行机构采用变频器控制，速度达到20米/分，使小车行走时吊运物品摆动小、定位精确，可安全可靠地吊运精密贵重物品。

It employs motor of hoisting mechanism and reducer imported from Germany. The integrated and compact design of hoisting motor, reducer, reel and limit switch saves space for the user. Modular design increases the reliability of mechanism meanwhile reduces the time and cost for maintaining.

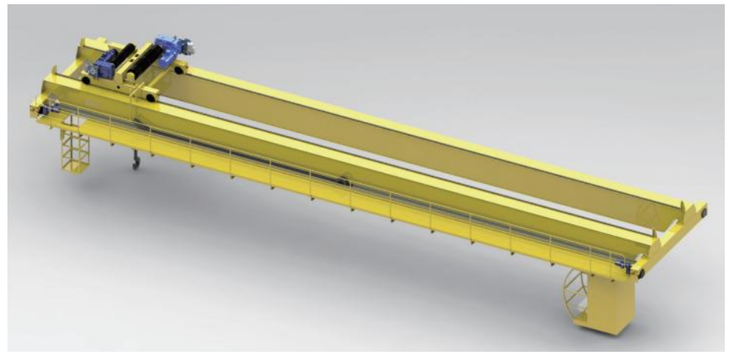
It has more and faster hoist speed and various pulley ratio which can be selected. The standard traveling mechanism of trolley is controlled by converter, with speed of 20m/min, which makes a little swing and accurate position if hoisting items while trolley traveling as well as lifts precision and valuable items reliably.

新型单梁电动葫芦
New single beam electric hoist



新型双梁电动葫芦
New double beam electric hoist

新型卷扬小车
New type winch trolley



新型起重机概述
Introduction to New Types of Cranes

该型号起重机是在引进和消化国外先进技术的基础上，以模块化设计理论为指导，以现代计算机技术为手段，引入优化设计及可靠性设计方法，采用进口配置、新材料、新工艺完成的具有轻量化、通用化、节能环保、免维护及高技术含量的新型起重机。

本起重机的设计、制造及检验均执行最新颁布的国家有关标准，等效采用部分FEM、DIN、IEC等国外标准，与原有通用QD型桥吊产品相比，自重减轻约15～30%，最大轮压减小约10～35%，可以降低起重机对厂房结构的要求，节约厂房制造成本。传动机构的核心部件减速器全部采用硬齿面、高精度齿轮副，加上钢制卷筒、锻造车轮以及变频调速系统的应用，使得该型号起重机成为传统通用桥式起重机的更新换代产品，适用于机械制造、装配、石油化工、仓储物流、电力建设、造纸、铁路等行业。

Based on bringing in and assimilating foreign advanced technology, this type of crane takes modular design theories as guidance, uses modern computer technology as means, introduces optimized and reliable design methods, which is new type of crane made by employing import configuration, new material and technology and has features in light-weight, generalizing, energy-conservation and environmental protection, maintenance free and high technology content.

Design, production and inspection carry out the last issued relevant national standard, equivalently adopts some foreign criteria including FEM, DIN and IEC. Compared with the general QD bridge crane, its weight is reduced by about 15～30%, the maximum wheel pressure is reduced by about 10～35%, which can the requirements of crane for factory building structure and reduce production cost. As the core component of driving mechanism, reducer gear pair with hard tooth surface and high accuracy, together with steel reel, forged wheel and variable-frequency speed regulating system, which makes this type of crane become renewal product of traditional general bridge crane and applied in industry of machinery production, assembling, petrochemicals, warehouse logistics, electric power construction, papermaking and railways.

▶ 主梁采用偏轨箱型结构，与端梁采用高强度螺栓连接，便于运输。专业化加工设备确保主端梁联接精度，使起重机运行平稳。

The main beam employs bias-rail box-type structure and connects with end beam by high-strength bolt ensuring easy transportation. The professional processing equipments ensure the connection accuracy of main end beam, making crane run steadily.

▶ 起重小车为开放式紧凑型卷扬结构，中小吨位也可采用新型葫芦小车。

Trolley of crane uses open compact winching structure, of which with medium and small tonnage also can use new hoist trolley.

▶ 大、小车运行机构采用欧洲技术三合一驱动形式，硬齿面减速器，结构紧凑，噪声小，不漏油，使用寿命长。

Traveling mechanisms of crane and trolley adopt Europe three-in-one drive form, the harden gear face reducer has good performances in compact structure, low noise, no oil leakage and long service life.

▶ 因采用新型紧凑型小车及高强度材料，整机外形尺寸小，重量轻，相对传统起重机，在相同起升高度条件下，厂房高度均可降低，有效减少厂房造价。

As using new compact trolley and high-strength material, it has small overall dimension and light weight, compared with traditional crane, which can decrease the height of factory building and reduce the cost.

▶ 模块化设计，设计周期短，通用化程度高，提高零部件的利用率。

Modular design has short design period and high generalization, which can improve the utilization of components.

▶ 结构紧凑，低净空，外形尺寸小，工作范围大，有效提高生产效率。

With compact structure, low clearance, small dimension and large application scope, it can improve production efficiency.

▶ 全变频控制，运行平稳，无冲击，重载慢速，轻载快速，节能减耗。

Full variable-frequency control runs steadily without any impaction. Run with heavy load at low speed and light load at high speed, it can save energy and reduce consumption.

新型起重机特点 Features

自重轻

公司自己开发的设计软件，结合三维造型及有限元分析，从起升机构、钢结构到附件均采用最合理的结构，再加上高强度材料的大范围应用，提高了承载能力，降低了自身重量，较传统起重机自重轻、轮压小。

Light self–weight

Design software developed by the company combines with three-dimensional modeling and finite-element analysis, apply the reasonable structure to lifting mechanism, steel construction and accessories, together with wide use of high-strength material, it increases load capacity, decreases self-weight and has lower weight and wheel pressure than that of traditional crane.

占用空间小

吊钩至两侧的极限距离小，工作范围大，轨道面以上高度尺寸小，有效利用厂房空间。

Small space use

Limit distance from hook to both sides is short but has large working arrange. With lower height above the rail, it makes full use of space of factory building.

运行维护成本低

由于轮压小、外形尺寸小，可降低厂房等前期工程投资，同时照明、取暖等设施也能节省一部分费用。且产品性能可靠，经久耐用，使后期产品在使用过程中所需的附加费用降至最低。选配的高质量、高性能零部件使维护、维修的工作量大为减小，总装机功率有所降低，使用成本得以节约。

Low cost of running and maintaining

As with low wheel pressure and small dimension, it reduces investment of previous construction including factory building, and also reduces illumination and heating expense. The reliable performance and durability also minimizes the additional charges for the use of product at the later stage. Selected components with high quality and performance lower the maintenance and repair. The total power consumption is reduced, which achieves cost savings.

工作性能高

采用变频技术，重载慢速，轻载快速，调速范围1:10，起重机运行平稳，减小对厂房的冲击。结合防摇摆技术，可实现吊运物品的高精度定位。

High performance

Use variable-frequency technology, run with heavy load at low and light load at high speed. The adjustable speed ranges in 1: 10, which ensures crane run steadily and reduces impact on factory building. Combination of swing-proof technology achieves a high accuracy position of lifting items.

新型起重机特点 Features

操作简便

采用多种符合人体工程学的悬挂式控制器，用于控制起重机的运行。带有液晶显示的悬挂式控制器可与安全与性能控制系统进行交互式通讯，在提升重物时，持续显示重量信息。

也可选配无线遥控系统（分按钮式和摇杆式），为在苛刻复杂的环境下使用起重机，提供了最佳的控制解决方案。

Easy to operate

It applies many ergonomic hanging controllers to run crane. The hanging controller with liquid crystal display conducts interactive communication with safety and performance control system and continuously displays weight while lifting item.

It also can use wireless remote control system (including buttons and rocker), which provides the best solution of control for running crane under a demanding and complex environment.

安全可靠

具有联锁、超载保护、零位保护、限位保护等多项保护措施，保证起重机安全可靠的运行。

起升卷筒为钢制卷筒，钢丝绳偏角小，有效避免磨损。

起升电机带有独立的风冷系统，含有热敏保护功能，防护等级IP54。

带有独立的制动系统，具有自动磨损补偿功能。如有特殊要求，可配备两个制动系统。

具有先进的PLC自动检测和友好的人机界面，对起重机的性能、安全性和作业状况进行测量、计算和监控，使物品输送更安全可靠。

Safety and reliable

It′s provided with many protections including linkage, overload protection, zero protection and limit protection in order to ensure reliable running of crane.

Hoisting reel uses steel reel, steel rope has small deflection, which prevents from abrasion.

Motor of hoisting mechanism has separate air-cooling system containing thermal protection function, with protection level IP54.

It has separate brake system which has the function of automatic abrasion compensation. If any special requirements, it can be supplied with two brake systems.

It′s provided with advanced PLC automatic detection and friendly man-machine interface, which can perform measurement, calculation and monitoring to the performance, safety and working condition in order to ensure more safe and reliable transportation of items.

绿色制造技术

采用绿色设计理念，高强度材料的大范围应用，主梁无接缝下料、自动化焊接技术以及激光切割技术，实现了生产过程中的节能环保，减低了对环境的污染破坏。

Green production technology

It applies green design ideas, widely uses high-strength material. The main beam employs seamless blanking, automatic welding technology and laser cutting technology, by which accomplishes energy conservation and environmental protection in the process of production and reduces pollution and destruction to environment.

定位快捷

变频系统的引入，解决了以往实际操作中，速度可控性差，以及单速机构运行中，大车或小车开过或不到的情况，从而提高了物品的吊运周期，频繁作业时，效果尤为明显。防摇摆技术的采用，更是提高了吊运物品的定位精度。

Fast and easy positioning

Introduction of variable-frequency system resolves the problems including bad speed controllability and traveling crane or trolley excessively or insufficiently during traveling of single-speed mechanism occurred in the past actual operation, and then improve the circle of lifting items especially in while frequent working. Application of swing-proof technology greatly improves the accuracy of positioning lifting items.

PLC可编程控制器+人机界面（选配）

每个应用过传统起重机的用户都曾经在发生一些常见故障后，爬上爬下排查各种原因，工作繁琐效率低下。采用PLC+人机界面后，简化了复杂的电控系统，提高了系统稳定性，降低了设备故障率，对于出现的设备故障可以自我诊断，通过显示屏提示给操作或维修人员，以最快速度解决问题。

PLC + man–machine interface (Optional)

Users who ever used traditional crane always climb up and down for troubleshooting various faults after the common failure occurred, they do trivial works and has low efficiency. After using PLC+man-machine interface, it simplifies the complicated electric control system, improves the stability of system and reduces the faults. As to the happened defaults, it will perform self-diagnosis and present them to operator or maintenance personnel through the display for the purpose to solve problems.

安全监控系统（选配）

PLC与触摸屏结合使用，利用触摸屏强大的人机交互功能，可以对起重机的实时运行情况进行监控和故障显示，及时显示起重机的状态

Safety monitoring system (optional)

If combining PLC with touch screen, use powerful man-machine interaction function of touch screen to monitor the instant working of crane and present the defaults so as to provide timely condition of crane.

小车（卷扬式）Trolley (windlass)

▶独立小车结构

采用轻量化设计，起升载荷直接作用在小车架两侧的运行端梁上，小车受力清晰，紧凑型布置，传动效率高，低噪音，整机高度和自重均有所降低。

Trolley mechanism

It applies lightweight design, direct acts the lifting load on traveling end beam on both sides of trolley frame. With clear force and compact layout, it has high drive efficiency and low noise. The height and self-weight are both reduced.

▶小车运行机构

电机、减速器、制动器三合一紧凑型结构，电机绝缘等级F级，防护等级IP55，负载持续率40%，带热保护，配电磁盘式制动器，减速器硬齿面，并经过磨削或者剃齿，齿轮箱在使用寿命内不须换油。

锻造车轮，轮缘和踏面硬度HB330～380。

变频调速，重载慢速，轻载快速，调速范围1:10，运行平稳无冲击。

小车限位开关采用十字行程限位开关，在小车缓冲器与小车轨道末端挡块碰撞之前将小车运行速度减为零。

Traveling mechanism of trolley

It employs compact three-in-one structure of motor, reducer and brake, with motor insulation level of F, protection level IP55, and load continuity of 40%, it’s provided with thermal protection, power-distribution magnetic disk brake and reducer with hard gear surface which has been grinded or gear shaved. It’s not necessary to conduct oil replacement in the service period of gearbox.

It has forged wheels, wheel rim and the hardness of tread surface of HB330-380.

It applies the speed control by frequency variation, run with heavy load at low speed and light load at high speed, the speed regulating ranges in 1:10, with stable running and no impacting.

Limit switch of trolley uses cross travel limit switch, which can reduce the traveling speed to zero before the collision of buffer with blocks placed at the end of rail.

▶起升机构

起升机构采用三支点安装形式，卷筒两端直接支撑在小车架两侧的端梁上，滑轮梁通过螺栓将两侧的端梁连接在一起形成纵梁。减速器的输出轴套装联接在伸出的卷筒轴上，起升电机与减速器采用弹性体联轴器。

1. 焊接卷筒：卷筒为短轴式钢板卷制，两端带轴承座，一侧伸出套装轴，结构简单，调整安装方便。

2. 起升电机：标配为变频电机，优化风冷式，绝缘等级F级，防护等级IP55，通电持续率40%。

3. 起升减速器：齿面渗碳硬化处理，硬度HRC60，并经过磨削或者剃齿，自重轻，密封良好不漏油。

4. 起升制动器：常闭式制动器，带磨损自动补偿，可通过单独的手动操作进行应急状态时的手动开释。必要时可设置双制动器。

5. 吊钩组：吊钩组由吊钩和滑轮等组成。吊钩材料为DG34CrMo。滑轮材料为Q235热轧，采用抗磨滚子轴承，吊钩可以 360° 旋转，配备弹簧压紧的安全扣可以防止滑脱。所有滑轮均采用免维护轴承，滑轮设计能有效防止钢丝绳与滑轮外壳的磨损，整体结构体积精巧，外形美观。

6. 起升限位：凸轮旋转式，4级可调，上下均可限位，自动复位，安全可靠。上升预限位减少冲击，极限限位防止吊钩冲顶。

7. 小车电控箱：防护等级IP55，航空插头，快速安装。

Hoisting mechanism

Hoisting mechanism employs three-pivot installation form, both ends of reel support on end beam of two sides of trolley frame, pulley beam connects end beams on both sides through bolts to form longitudinal beam. Output shaft of reducer should be coordinately connected to outstretched reel shaft. The elastic coupling can be applied to hoisting motor and reducer.

1. Welding reel: Reel should be made of short shaft steel plate rolling, with bearing bases on both ends, one of them outstretches set shaft, of which structure is simple and easy for adjustment and installation.

2. Motor of hoisting mechanism: The standard equipment employs frequency conversion motor, which is optimized air-cooling type, with insulation level F and protection level IP55, and power continuity of 40%.

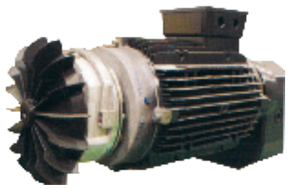
3. Reducer of hoisting mechanism: it gets the tooth surface carburized and hardened, with hardness of HRC60, and also has been grinded or gear shaved, with light self-weight, good sealing and no leakage.

4. Brake of hoisting mechanism: the regular closed brake has automatic abrasion compensation function which can manual release under emergency station through separate manual operation. If necessary, two brakes should be allowed to install.

5. Hook group: Hook group consists of hook and pulley. The hook material should be DG34CrMo. The pulley material should be Q235 hot-rolling. It employs anti-friction roller bearing, the hook can be 360° rotated, the supplied spring-pressed safe lock can prevent from slipping off. All pulleys use maintenance-free bearing, the design can efficiently prevent abrasion between steel rope and pulley shell. It has delicate overall structure and volume as well as nice appearance.

6. Hoisting limit: cam rotary type, with 4-step and up-down limit as well as self re-setting, which is reliable. The lifting pre-limit can reduce impact and maximum limit can avoid hook over-hoisting.

7. Electric control box of trolley: With protection level IP55 and air plug, it can be quickly installed.



钢结构设计 Steel construction design

主梁结构

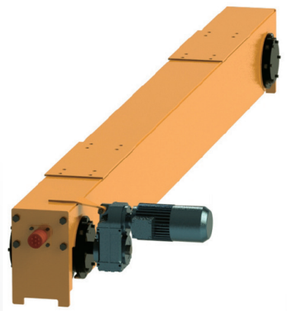
1.主梁采用偏轨箱型结构，优化设计，自重轻。
2.钢板材质Q235-B。
3.主梁盖板及腹板在施焊前均由辊道通过式抛丸机进行表面除锈，该抛丸机可进行上料、抛丸、喷漆、烘干等程序，处理后达到Sa2$\frac{1}{2}$级。
4.主梁腹板下料预制上拱度按二次抛物线原理，利用计算机辅助设计，计算各相应高点，由等离子数控切割机切割下料。
5.主梁拼焊在专用工作平台上进行，为防止主梁扭曲，我公司采用具有国家专利的U型液压主梁组装成形机，保证筋板与腹板的结合边与上盖板的垂直偏斜度≤H/200，并可有效减小腹板的局部波浪度。
6.主梁上下盖板的对接焊缝采用埋弧自动焊，筋板与腹板和盖板的焊接采用CO_2气体保护焊，主梁的四条纵向角焊缝使用船形位置埋弧自动焊，即使用45°垫架将箱型主梁摆放成船形位置，然后采用埋弧自动焊进行焊接。
7.受拉翼缘板对接焊缝按规定实施超声波探伤。
8.桥架翻转采用特制工装，定位、起吊翻转，保证加工尺寸精度，控制箱体变形。
9.小车轨道采用方钢（16Mn），无接头，避免小车运行时对主梁的冲击。
10. 沿主梁方向在大车传动侧布置维修走台。

Main beam structure

1. Main beam uses bias-rail box-type structure, with optimized design and light self-weight.
2. Steel plate material Q235-B.
3. The cover and web of main beam should get surface rust removal by roller-way conveyor blasting machine before welding , this blasting machine can perform blanking, sandblasting, painting and drying, after that they get to Sa2$\frac{1}{2}$ level.
4. Prepared deflection upwards for feeding of main beam web complies with principles of quadric parabolic, use CAD to compute the corresponding high point and CNC plasma cutting machine to conduct cutting and blanking.
5. The welding of main beam should be performed on working platform. In order to avoid distortion of main beam, our company adopts U-shaped main beam assembly machine with hydraulic forming which has won national patent ensuring that vertical deflection degree between joint edge of stiffened and web plate and upper cover should not more than H/200, and also efficiently reduce the partial wave of web plate.
6. Butt welds of upper and lower cover of main beam adopt submerged arc welding, the welding of stiffened and web plate with cover adopts CO_2 gas protection welding. The welding of four vertical angle of main beam employs boat-shaped submerged arc welding which refers to set box-type main beam as boat-shaped position with 45° pads and then perform submerged arc welding.
7. Butt welds of tensile flange plate should get ultrasonic inspection by rules.
8. Bridge flipping employs special tooling, by which position, lift and flip and ensures precision of process dimension as well as control box deformation.
9. Trolley rail employs square steel (16Mn) without joints in order to prevent main beam from impact while trolley traveling
10. Layout repair walkway on the drive sides of crane along the direction of main beam.

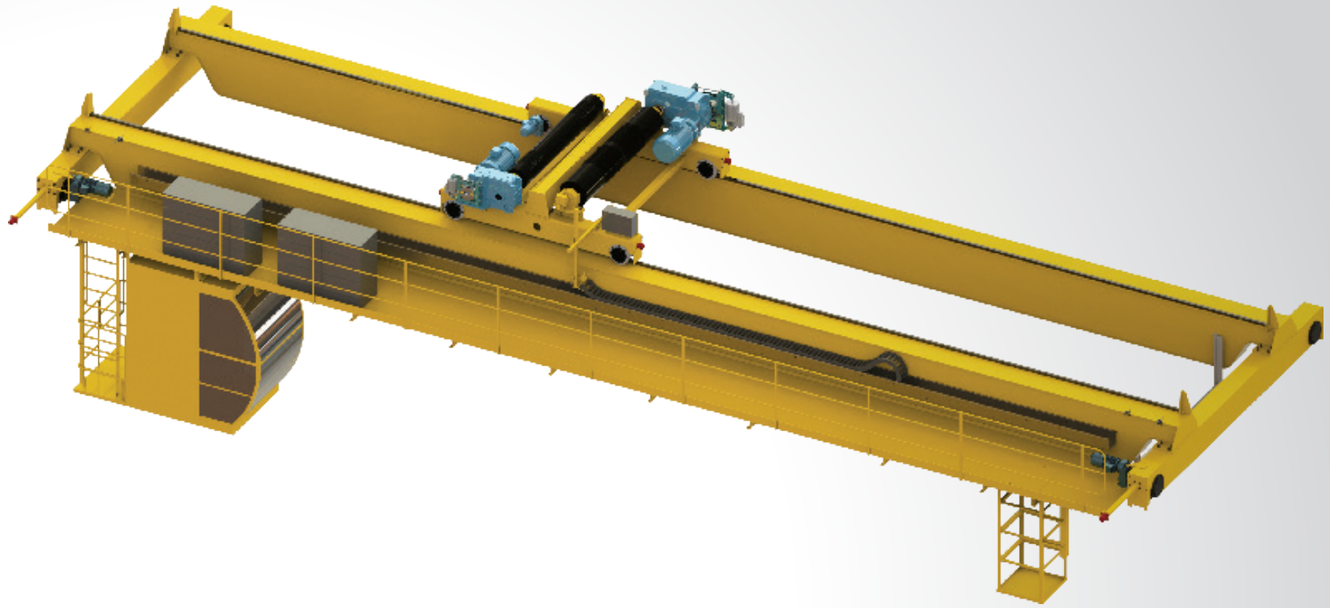
端梁部分

1.端梁材质Q235-B。
2.端梁为矩形钢管或钢板焊接成型，成型后的端梁在数控机床上一次定位加工，确保尺寸精度和配合公差。
3.每个端梁配有双轮缘车轮、缓冲器和防脱轨保护装置。



End beams

1. Material of end beam uses Q235-B.
2. End beam is made of rectangular steel-pipe or steel plate by welding, the finished end beam get once positioning processed on numeral control machine in order to ensure dimension accuracy and fit tolerance.
3. Each end beam is supplied with wheels with double-wheel rim, buffer and anti-derailing protection device.



大、小车导电架： 导电架采用模块化设计，由U型螺栓、连接板和矩形管组成，长度和高度可自由调整，安装方便。

Conductive frame of crane and trolley: Conductive frame employs modular design and which consists of U-shaped bolt, connecting plate and rectangle pipes, the length and height can be arbitrarily regulated as well as easy installation.

主端梁的连接： 主梁与端梁采用高强度螺栓连接，确保整机精度和平稳运行。

Connection of main end beam: Connect main beam with end beam through bolts with high-strength ensuring precision and smooth running of crane.

大车导电挡架： 在大车滑线侧设有挡架，避免吊钩或钢丝绳与滑线的意外接触。

Conduction block frame of crane: Install the block frame on the sides of slide line of crane for the purpose of preventing the accidental contact between hook or steel rope and slide line.

小车拖缆系统： 小车导电采用柔性扁电缆C型钢电缆滑车方式，也可根据需要采用拖链导电，避免电缆弯折，提高电缆寿命。

Towed cable system of trolley: Electric conduction of trolley is accomplished through C-profile steel cable trolley with flexible flat cable, and also uses towing chain conduction in order that avoid cable bending and prolong service life.

检修防滑走台： 为了电气的安装和机构的检修，在大车传动侧设有检修走台，走台跨度不小于600mm,铺设有防滑花纹板，走台设有防护栏杆，高度1100mm。

Repair anti-slipping walkway: For the purpose to ensure electric installation and mechanism repair, provide the repair walkway on driving sides of crane. The span of walkway should not less than 600mm. It’s paved with anti-slipping floor and equipped with protection railing with height of 1,100mm.

小车（新型葫芦）Trolley (New hoist)

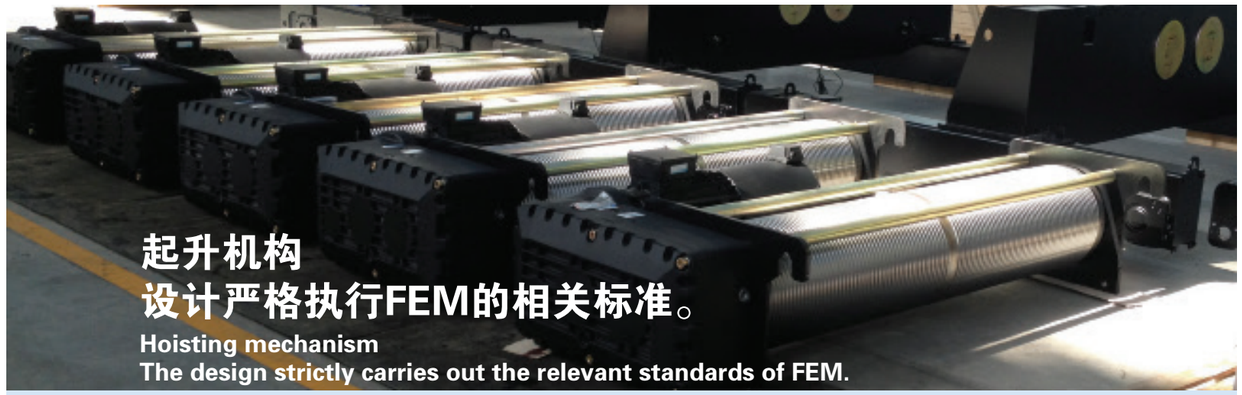
采用德国进口的起升电机，减速器。起升电机，减速器、卷筒和起升限位开关的一体化紧凑型设计节约了用户的使用空间。模块化设计在增强了机构的可靠性的同时有效降低了维护时间和成本。

具有更快更多的起吊速度和多种滑轮倍率可供选择。标准小车运行机构采用变频器控制，速度达到20米/分，使小车行走时吊运物品摆动小、定位精确，可安全可靠地吊运精密贵重物品。

It employs motor of hoisting mechanism and reducer imported from Germany. The integrated and compact design of hoisting motor, reducer, reel and limit switch saves space for the user. Modular design increases the reliability of mechanism meanwhile reduces the time and cost for maintaining.

It has more and faster hoist speed and various pulley ratio which can be selected. The standard traveling mechanism of trolley is controlled by converter, with speed of 20m/min, which makes a little swing and accurate position if hoisting items while trolley traveling as well as lifts precision and valuable items reliably.

小车（新型葫芦）Trolley (New hoist)



起升机构
设计严格执行FEM的相关标准。
Hoisting mechanism
The design strictly carries out the relevant standards of FEM.

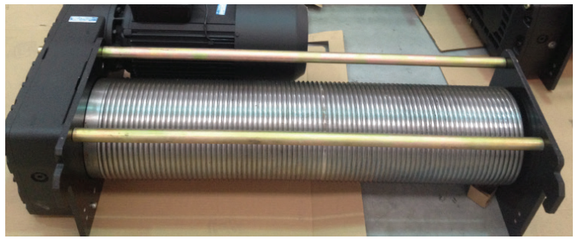
铝合金减速器壳体	运行平稳，噪音低	终生润滑（安全使用周期内）	双碟电磁盘式制动器
With aluminum alloy shell of reducer	Steady running and low noise	Lifetime lubricating (within safety service circle)	Double-disk electromagnetic brake

1. 卷筒

卷筒由高品质无缝钢管通过数控机床加工而成，精加工后卷筒上的绳槽配合导绳器可有效防止松绳和乱绳现象的发生。

1. Reel

The reel is made of high-quality seamless pipes and processed by numeral control machine, after the special finishing, the rope groove on reel works coordinately with rope guide to efficiently prevent rope loose and tangling.



2. 钢丝绳

钢丝绳采用公称抗拉强度为2160kN/mm^{2}的高强度进口钢丝绳，安全性好，使用寿命长。

2. Steel rope

Employ import steel rope with high strength which has tensile strength of 2,160 kN/mm^2, with good safety performance and long service life.

3. 导绳器

标准的导绳器由耐磨性强和自润滑性能好的工程塑料加工而成，大幅降低了钢丝绳这一主要受力安全部件的磨损，从而增强了起升机构的安全性。同时，针对不同的使用状况，也可提供由球墨铸铁生产制造的重级制导绳器。

3. Rope guide

Standard rope guide is made and processed by engineering plastics with strong abrasion resistance and good self-lubricating performance, which greatly reduces the wear of steel rope as main force safety components and then enhances safety of hoisting mechanism. Meanwhile, direct to different use condition, the heavy-grade rope guide made of nodular cast iron is also allowed.

4. 起升电机

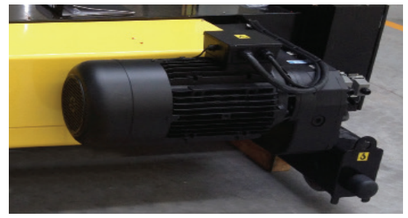
起升采用双绕组鼠笼式变极电机，实现1:6的快慢速比。电机外壳由铝合金拉制而成，散热性能好，起升电机末端安装有风扇以增强冷却效果。所有起升电机的绕组中都嵌入了热敏电阻(或热敏开关)来防止可能发生的电机过热。

电机绝缘等级为F级，防护等级为IP54。

对于变频起升电机可加装编码器，编码器通常直接安装在电机的风扇轴端。

技术特性：

- 启动电流小，扭矩大
- 软启动，加速性能好
- 设计使用寿命长
- 技术参数符合FEM及HMI标准
- 高转速，低噪音



4. Motor of hoisting mechanism

The hoisting mechanism employs double-winding squirrel-cage pole-changing motor to achieve speed ratio of 1:6. Shell of motor is made of aluminum alloy by extruding, which has good dissipation. The fan is installed to the end of motor in order to enhance cooling effects. Thermal resistor (or thermal switch) is embedded into winding group of motor to prevent probable motor overheating.

The motor has F insulation level and protection level IP54.

As to the variable -frequency motor of hoisting mechanism, encoder is allowed to install, which is ordinarily installed to fan shaft end of motor.

Technical features:

- It has low current for start and large torque.
- With soft starting and good performance in speed up
- Have long service life
- The technical parameters comply with standards of FEM and HMI.
- With high rotational speed and low noise

5. 制动器

起升电机配备了双碟电磁盘式制动器。制动器集成在电机的末端，当电机断电时制动器会自动闭合，防止负载滑落。制动器的刹车间隙在首次设定好后无需人工调节（间隙可通过刹车弹簧自行调节），当刹车片厚度低于设定值时通过附加的监控开关可以自动报警，提示用户进行更换。双碟电磁盘式制动器安全可靠，制动力矩不小于电机额定扭矩的1.8倍，制动次数可达100万，在安全使用周期内无需维护。

技术特性：

- 动作快，可靠性高
- 免维护，自调节
- 防尘设计，使用寿命长

5. Brake

The motor of hoisting mechanism is provided with double-disc electromagnetic brake. Brake integration locates at the end of motor. The brake will automatically close if the motor powers off in order that avoid load slipping off. The brake clearance does not need to be manually regulated (which can be regulated automatically by brake spring) after being initially set; if the thickness of brake pad is lower than the setting, it will automatic alarm through additional monitor switch in order to remind user to replace it. Double-disc electromagnetic brake is safe and reliable, the brake torque is higher than 1.8 times of rated torque, the number of braking gets to 1,000,000 times and it does not need maintenance in the safety service circle.

Technical features:

- Have fast movement and high reliability.
- It’s maintenance-free and self-regulated.
- Employ dustproof design and long service life.

6. 减速器

减速器壳体采用铝合金材料，重量轻，耐腐蚀。全密封的箱体内半油脂状的润滑剂使得所有齿轮能得到充分的润滑，在设计安全使用周期内无需更换润滑油。

每一个经过表面硬化及高精度研磨处理的齿轮确保减速器平稳的运行。

技术特性：

- 体积小，重量轻
- 运行平稳，噪音低
- 防腐蚀，免维护

6. Reducer

Shell of reducer uses aluminum alloy material, with light weight and corrosion resistance. Semi-grease lubricant in full sealed box gets all gears lubricated fully and should not be changed within the design circle for safety service.

Every gear which gets the process of surface hardening and high-precision grinding ensures stable running of reducer.

Technical features:

- It has small size and light weight.
- Run smoothly and steadily and have low noise.
- Have corrosion resistance and maintenance-free.

7. 安全保护

★钢丝绳电动葫芦上下限位采用精确的齿轮传动式限位器，当吊钩处在上（或下）极限位置时可以可靠地切断电力回路使电动机停转。

★过载保护器：钢丝绳电动葫芦采用电子式过载保护器（带安全监控器），保证起升总吊重不会超过桥架额定起重量；当钢丝绳拉力大于105%额定值时，该过载保护装置会自动切断起升回路。

★安全监控器：可根据用户的要求实现多种功能：

计算起升机构剩余的安全工作周期
累计起升工作时间
累计超载次数
累计起升电机启动次数
起升电机过热保护及报警
过载保护及报警
刹车片厚度报警
显示故障信息及检修提示

7. Safety protection

★The accurate gear drive limiter is applied to upper and lower limit of electric wire rope hoist, which can cut off power circuit reliably if hook moves to the upper(or lower) limit so as to stop motor.

★Overload protector: The electric wire rope hoist employs electronic overload protector(with safety monitor) in order that the total lifting weight will not exceed the rated lifting weight of bridge; the overload protector device would automatic cut off lifting loop if the pulling force of steel rope is more than 105% of the rated.

★Safety monitor: It can implement many functions according to the demand of users:

Compute the rest circle of safety work of hoisting mechanism
Accumulated working time for lifting
Accumulated overload times
Accumulated startup times of motor of hoisting mechanism
Over-heat protection of hoisting motor and alarm
Overload protection and alarm
Brake pad thickness alarm
Display fault information and maintenance tips

应用范围 Application scope

工作级别可达A6，噪音低
Working level gets to A6 and has low noise.

单梁钢丝绳电动葫芦选型表

Selection table of single girder wire rope hoist

额定载荷 S.W.L (Kg)	工作级别 FEM	工作级别 ISO	起升高度 Hoisting height (m)	起升速度 Hoisting speed (m/min)	运行速度 Travelling speed (m/min)	H尺寸 Size H (mm)	C尺寸 Size C (mm)
1000	4M	M7	6/9/12/18	0.8/5.0	5~20	232	500
1250	3M	M6	6/9/12/18	0.8/5.0	5~20	232	500
1600	3M	M6	6/9/12/18	0.8/5.0	5~20	232	500
1600	2M	M5	6/9/12/18	1.6/10	5~20	232	500
2000	2M	M5	6/9/12/18	0.8/5.0	5~20	232	500
2000	3M	M6	6/9/12/18	1.3/8.0	5~20	232	500
2500	3M	M6	6/9/12/18	0.8/5.0	5~20	232	500
2500	3M	M6	6/9/12/18	1.0/6.3	5~20	232	500
2500	2M	M5	6/9/12/18	1.3/8.0	5~20	232	500
3200	2M	M5	6/9/12/18	0.8/5.0	5~20	232	500
3200	2M	M5	6/9/12/18	1.0/6.3	5~20	232	500
3200	1AM	M4	6/9/12/18	1.6/10	5~20	254	590
5000	2M	M5	6/9/12/18	0.8/5.0	5~20	254	590
5000	3M	M6	6/9/12/18	1/6.3	5~20	321	740
5000	2M	M5	6/9/12/18	1.6/10	5~20	321	740
6300	1AM	M4	6/9/12/18	0.8/5.0	5~20	254	590
6300	4M	M7	6/9/12/18	0.8/5.0	5~20	321	740
6300	2M	M5	6/9/12/18	1.3/8.0	5~20	321	740
8000	3M	M6	6/9/12/18	0.8/5.0	5~20	321	740
10000	1AM	M4	6/9/12/18	1.0/6.3	5~20	321	740
10000	2M	M5	6/9/12/18	0.8/5.0	5~20	321	740
10000	3M	M6	6/9/12/18	0.66/4.0	5~20	321	740
12500	1AM	M4	6/9/12/18	0.8/5.0	5~20	321	740
12500	2M	M5	6/9/12/18	0.6/4.0	5~20	321	740
12500	1AM	M4	6/9/12/18	1.0/6.3	5~20	321	740
12500	3M	M3	6/9/12/18	0.6/4.0	5~20	411	850
16000	2M	M5	6/9/12/18	0.6/4.0	5~20	411	850
20000	1AM	M4	6/9/12/18	0.6/4.0	5~20	411	850

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

双梁钢丝绳电动葫芦选型表

Selection table of double girder wire rope hoist

额定载荷 S.W.L (Kg)	工作级别 FEM	工作级别 ISO	起升高度 Hoisting height (m)	起升速度 Hoisting speed (m/min)	运行速度 Travelling speed (m/min)	H尺寸 Size H (mm)	C尺寸 Size C (mm)
2000	3M	M6	6/9/12/18	0.8/5.0	5~20	463	350
3200	2M	M5	6/9/12/18	0.8/5.0	5~20	463	350
5000	2M	M5	6/9/12/18	0.8/5.0	5~20	463	350
6300	1AM	M4	6/9/12/18	0.8/5.0	5~20	463	350
8000	3M	M6	6/9/12/18	0.8/5.0	5~20	580	563
10000	1AM	M4	6/9/12/18	1.0/6.3	5~20	580	563
10000	2M	M5	6/9/12/18	0.8/5.0	5~20	580	563
10000	3M	M6	6/9/12/18	0.66/4.0	5~20	580	563
12500	1AM	M4	6/9/12/18	0.8/5.0	5~20	580	563
12500	1AM	M4	6/9/12/18	1.0/6.3	5~20	679	700
12500	2M	M5	6/9/12/18	0.6/4.0	5~20	679	700
16000	2M	M5	6/9/12/18	0.66/4.0	5~20	679	700
20000	1AM	M4	6/9/12/18	0.66/4.0	5~20	679	700
20000	2M	M5	6/9/12/18	0.53/3.4	5~20	679	700
20000	3M	M6	6/9/12/18	1.0/4.2	5~20	864	1000
25000	1AM	M4	6/9/12/18	0.53/3.4	5~20	864	1000
25000	3M	M6	6/9/12/18	0.8/3.3	5~20	864	1000
25000	2M	M5	6/9/12/18	1.0/4.2	5~20	864	1000
32000	2M	M5	6/9/12/18	0.8/3.3	5~20	864	1000
32000	2M	M5	6/9/12/18	0~4.9	5~20	1023	950
40000	1AM	M4	6/9/12/18	0~4.9	5~20	1023	950
50000	2M	M5	6/9/12/18	0~3.2	5~20	1023	950
50000	1AM	M4	6/9/12/18	0~4.1	5~20	1023	950
63000	1AM	M4	6/9/12/18	0~3.2	5~20	1023	950
63000	2M	M5	6/9/12/18	0~2.4	5~20	1023	1110
80000	1AM	M4	6/9/12/18	0~2.4	5~20	1023	1110

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

新型电动单梁起重机说明

New types electric single girder crane instructions

新型电动单梁起重机

S—起重机跨度　Crane span

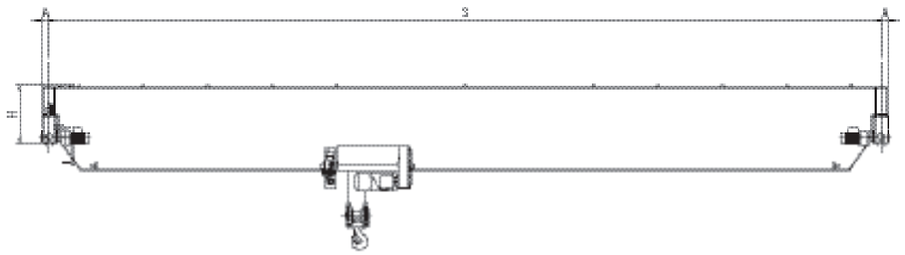
H—起重机运行轨道顶部距起重机最高点的距离　The distance from the crane travel rail top to the crane highest point.

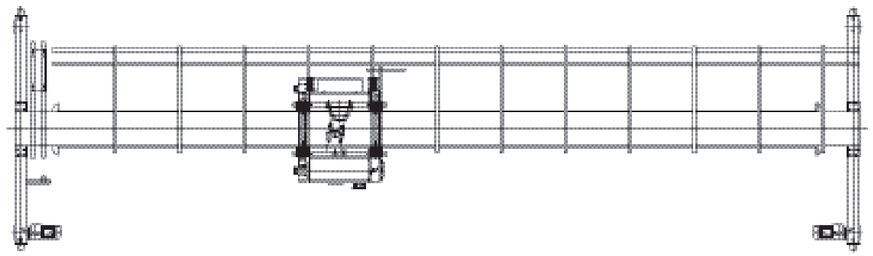
h—起重机吊钩升到最高点时距起重机运行轨道顶部的距离　The distance to the crane travel rail top when the hook moves to the top point.

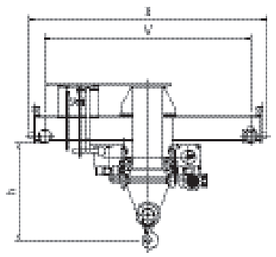
A—大车轨道中心到端梁外侧的距离　The distance from the crane rail center to the end girder outside.

W—大车端梁轮距　Crane end girder wheel distance.

B—大车端梁（含缓冲器）的长度　The length of the crane end girder including the buffer.







注notes：

1、 大车运行标准速度为2-20m/min（变频调速）；
The standard travelling speed of crane is 3-30m/min (frequency conversion)
小车运行标准速度为2-20m/min（变频调速）；
The standard travelling speed of trolley is 2-20m/min (frequency conversion)

2、 除了标准起升速度外，还有多种速度可供选择，也可选用变频控制起升。
There are many optional speed levels and frequency control lifting except the standard speed.

3、 控制方式有多种：地操操作、遥控器操作及两者的组合。
Control methods: ground control, remote control and the combination control of the two.

4、 表格中数据仅供参考，如有变更，恕不另作通知。
The data listed in the form is only for reference. Please forgive the non-informing if the date changed.

5、具体事宜或特殊请求请与我公司协商。
Please contact us for more details and special requirements.

电动单梁技术参数 Technical Data of electric single girder crane

起重量 Capacity (t)	跨度 Span (m)	起升高度 Lifting height (m)	工作级别 Working group	起升速度 Lifting speed (m/min)	质量 weight		大车轨道 track (推荐)	总功率 Power rate (kW)	最大轮压Max wheel load (kN)	H	h	A	W	B
					小车（kg）	整机（kg）								
1	9.5	6 9 12 18	A5（2m）	0.8/5	376	958	P24	4.58	8.76	710	260	183	1500	1928
	11					1599			9.51					
	12.5					1723			10.45					
	16					2220			11.58	693	447		2000	2428
	19.5					2835			13.06	570	497		2500	2928
	22.5					3532			14.62	652	497		3000	3764
	24					3774			16.1	652	508			
2	9.5	6 9 12 15 18	A5（2m）	0.8/5	376	1625	P24	4.58	13.5	755	260	183	1500	1928
	11					1784			14.46					
	12.5					1970			15.54					
	16					2371			17.47	575	447		2000	2428
	19.5					3175			18.93	655	497		2500	2928
	22.5					3726			20.39	735	497		3000	3764
	24					4016			22.38	735	508			
3	9.5	6 9 12 15 18	A5（2m）	0.8/5	376	1802	P24	4.58	18.96	755	260	183	1500	1928
	11					2168			20.11					
	12.5					2350			21.85					
	16					2872			23.51	625	452		2000	2428
	19.5					3854		4.94	25.45	675	492		2500	2928
	22.5					4549			27.06	755	512		3000	3464
	24					4855			30.6	755	541			

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

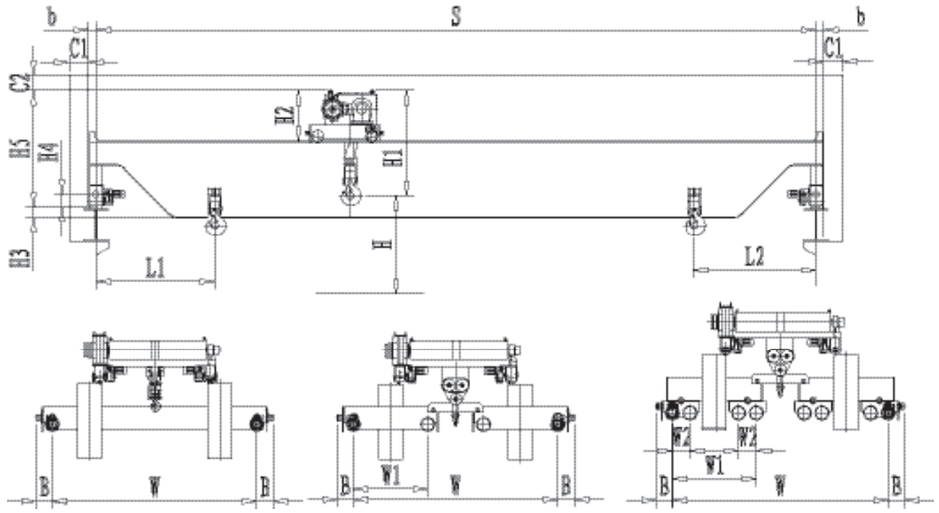
电动单梁技术参数 Technical Data of electric single girder crane

起重量 Capacity (t)	跨度 Span (m)	起升高度 Lifting height (m)	工作级别 Working group	起升速度 Lifting speed (m/min)	质量 weight		大车轨道 track (推荐)	总功率 Power rate (kW)	最大轮压 Max wheel load (kN)	H	h	A	W	B
					小车 (kg)	整机 (kg)								
5	9.5	6 9 12 15 18	A5(2m)	0.8/5	531	2318	P24	7.84	28.2	666	505	183	1500	2674
	11					2566			29.76					
	12.5					2816			31.8	666	565			
	16					3673			33.84	776	665		2000	2500
	19.5					4364		8.24	35.62	776	665		2500	3000
	22.5					5392			39.78	896			3000	3500
	24					5754			42.62	946				
10	9.5	6 9 12 15 18	A5(2m)	0.8/5	928	3260	P38	12.66	51.85	762	762	183	1700	2238
	11					3596			54.44		842			
	12.5					3896			57.7		892			
	16					4889			60.83	878	876		2000	2538
	19.5					5913			64	948	976		2500	3038
	22.5					7527			67.26	980	1006		3000	3538
	24					7975			71.36	1020	1006			
16	9.5	6 9 12 15 18	A5(2m)	0.66/4	1420	4284	P43	19.48	83.1	820	862	183	1700	2238
	11					4846			86.1		912			
	12.5					5336			88.5		982			
	16					6305			93	980	990		2000	2538
	19.5					8111		20.28	98.4	1040	1080		2500	3038
	22.5					9416			102.3	1110	1100		3000	3538
	24					10065			104.2	1175	1100			
20	9.5	6 9 12 15 18	A5(2m)	0.66/4	1420	4944	P43	19.48	101.1	870	862	183	1800	2338
	11					5441			105.3		912			
	12.5					5906			107.1		982			
	16					6756	P43		111.6	1025	990		2000	2538
	19.5					8307		20.28	117.1	1135	1080		2500	3038
	20					8500			118	1260	1100			

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

新型葫芦双梁外形尺寸及参数

New types dimensions and parameters of European gourd double beam



H-起升高度
Hoisting height
V1-起升速度
Hoisting speed
V2-小车运行速度
Traveling speed of trolley
V3-大车运行速度
Traveling speed of crane
L1-起重机左极限
Left limit of crane
L2-起重机右极限
Right limit of crane
C1-起重机两端最小极限
Minimum limit of both ends
C2-起重机顶部最小极限
Minimum limit of top of crane
S-起重机跨度
Crane span
H1-起重机小车钩心到顶部的距离
Distance between core of hook and its top

H2-起重机小车的高度 Height of trolley
H3-起重机底部到大车轨道面的距离
Distance between the bottom of crane and crane rail plane
H4-起重机缓冲器到大车轨道面的距离
Distance between buffer of crane and crane rail plane
H5-起重机顶部到大车轨道面的距离
Distance between the top of crane and crane rail plane
W-起重机最外两个车轮之间的距离
Distance between two outmost wheels of crane
W1-起重机一角最外两个车轮之间的距离
Distance between two outmost wheels of one corner of crane
W2-起重机台车两个车轮之间的距离
Distance between two wheels of trolley
B-起重机最外车轮距离缓冲器端部之间的距离
Distance from the outmost wheel to ends of buffer
b-起重机最端部距离大车轨道之间的距离
Distance from ends to rail of crane
G-起重机整车的重量 Overall weight of crane
K-起重机最大轮压 Maximum wheel pressure of crane
P-起重机总的功率 Total power of crane

选型说明

1、本产品系列表仅列出了常用的基本的规格起重机，工作级别为A5(FEM 2m)时的标准跨度，没有副钩的室内用起重机。客户根据需要可以提出相应的要求。

2、本系列也可以增加副起重机构，也可以增加轻载时速度加倍的设置，一般主副的设置为4:1，也可以根据客户的要求设定。因设置副钩则起重机的总重及轮压会有所增加。

3、表中的尺寸，重量，轮压供客户订货时参考，如果客户的需要条件发生变化，如工作级别，速度，起升高度有变化时，相应的参数，尺寸，重量，轮压等都会发生变化，实际的参数，质量，轮压以合同的要求为准。

4、表中列出的起升速度，大小车速度为标准值，可以根据客户的需求做相应的调整。

5、技术参数及尺寸会因为技术的改进或者升级有所变化，如有疑问的话可以和公司技术部联系。

Instructions for selecting type

1. This series tables of product only list the general crane with basic specifications, including the standard span at working level A5 (FEM 2m) and indoor crane without auxiliary hook. Customers can make relevant requirements according to their demands.
2. This series can add to auxiliary hoisting mechanism, and also the speed doubler if run with light load. Ordinarily, the setting of the main and auxiliary should be 4:1, which also be set in accordance with requirements of customers. It will increase the total weight and wheel pressure if adding to auxiliary hook.
3. Dimensions, weight and wheel pressure in table will be reference for ordering of customers. If requirements of customers get changed, such as some changes occurred to working level, speed and lifting height, the relevant parameters, dimensions, weight and wheel pressure will also get changed. The actual parameters, quality and wheel pressure should subject to the requirements in contract.
4. Lifting speed, speed of crane and trolley traveling listed in table are standard values, which can be correspondingly regulated according to demands of users.
5. Technical parameters and dimensions would be changed as with improvement or upgrade of technology. Please contact with technology department in our company if any questions.

葫芦双梁技术参数 Technical Data of gourd double beam

	H	(m)	22	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
5t A5 FEM 2m	V1	m/min	10.5	10.5	1500	700	-150	250	1490	3150			260	135	4.7	43	38kg/m	8.24
	V2		20	13.5			-150								5.4	44		
	V3		32	16.5			-50								6.9	48		
	L1	(mm)	560	19.5			50			4000					8.9	53		
	L2		960	22.5			150								10.6	57		
	C1		＞80	25.5			250			5000					12.1	61		
	C2		＞300	28.5			350								14.1	66		
				31.5			500								17.6	74		

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

葫芦双梁技术参数 Technical Data of gourd double beam

	H	(m)	10.5	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
10t A5 FEM 2m	V1	m/min	5.3	10.5	1500	700	-150	250	1490	3150			260	135	4.9	69	38kg/m	11.88
	V2		20	13.5			-100								6.6	73		
	V3		32	16.5			0								11.5	85		12.58
	L1	(mm)	560	19.5			150								12.8	89		
	L2		960	22.5			250			4000					15.3	95		
	C1		＞80	25.5			350								17.3	100		
	C2		＞300	28.5			500	350	1590	5000			325	170	19	105		
				31.5			550								22.4	11.3		

	H	(m)	13	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
16t A5 FEM 2m	V1	m/min	3.9	10.5	1600	750	-150	350	1650	3150			325	170	7.4	110	38kg/m	20.1
	V2		20	13.5			-100								8.9	113		
	V3		32	16.5			-0								11.1	119		
	L1	(mm)	650	19.5			150			4000					13.2	124		
	L2		1050	22.5			150	450	1750				370	220	16.6	133		21.5
	C1		＞80	25.5			300			5000					19.7	140		
	C2		＞300	28.5			400								21.6	148		
				31.5			500								24.6	154		

	H	(m)	13	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
20t A5 FEM 2m	V1	m/min	3.8	10.5	1890	750	-150	350	1750	3150			325	170	8	130	38kg/m	20.1
	V2		20	13.5			-50								9.5	134		
	V3		32	16.5			80								11.4	138		
	L1	(mm)	900	19.5			180								13.3	143		
	L2		1100	22.5			230	450	1850	4000			370	220	16.9	152		21.5
	C1		＞80	25.5			230								20.1	160		
	C2		＞300	28.5			480			5000					24.6	171		
				31.5			480								28.3	180		

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

葫芦双梁技术参数 Technical Data of gourd double beam

	H	(m)	13	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
25t A5 FEM 2m	V1	m/min	3.9	10.5	1900	750	-200	450	1850	4000			370	220	9.4	158	38kg/m	24.4
	V2		20	13.5			-50								10	160		
	V3		32	16.5			200								13.8	169		
	L1	(mm)	950	19.5			350								16.1	175		
	L2		1150	22.5			500	500	1900				495	230	19	183		26
	C1		＞80	25.5			600								22	190		
	C2		＞300	28.5			600			500					26.5	201		28
				31.5			600								32.2	215		

	H	(m)	13	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
32t A5 FEM 2m	V1	m/min	3.8	10.5	2100	950	-200	500	2150	4000			495	230	10.4	201	QU70	28.2
	V2		20	13.5			-50								11.5	204		
	V3		32	16.5			200								15.1	212		
	L1	(mm)	950	19.5			350								17.4	219		
	L2		1150	22.5			500								20.4	226		
	C1		＞80	25.5			600								23.6	234		
	C2		＞300	28.5			600			5000					28.3	246		
				31.5			600								34.5	261		

	H	(m)	14.5	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
40t A5 FEM 2m	V1	m/min	3.25	10.5	2350	950	-150	500	2150	5100			495	230	13.6	254	QU70	39
	V2		20	13.5			-100								15.6	260		
	V3		32	16.5			250								19.6	269		
	L1	(mm)	950	19.5			450								21.6	273		
	L2		1150	22.5			550								25.6	283		41
	C1		＞80	25.5			550								29.1	292		
	C2		＞300	28.5			550								33.1	303		
				31.5			550								38.1	315		

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

葫芦双梁技术参数 Technical Data of gourd double beam

	H	(m)	12.5	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
50t A5 FEM 2m	V1	m/min	2.9	10.5	2550	1000	-200	500	2250	5100			495	230	14.6	311	QU70	47
	V2		20	13.5			50								16.6	317		
	V3		32	16.5			200								20.6	326		
	L1	(mm)	1000	19.5			400								22.7	332		49
	L2		1150	22.5			500								26.6	341		
	C1		＞80	25.5			500								31.6	354		
	C2		＞300	28.5			500								34.6	361		
				31.5			500								40.1	375		

	H	(m)	17	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
63t A5 FEM 2m	V1	m/min	3.3	13.5	2750	1050	300	450	2330	5800	2200		370	220	23.2	205	QU80	53.4
	V2		20	16.5			300								26.4	209		
	V3		32	19.5			550								30.8	215		
	L1	(mm)	1000	22.5			550	500	2380						35.7	220		
	L2		1150	25.5			550						495	230	40.7	227		
	C1		＞80	28.5			550								52.7	241		
	C2		＞300	31.5			550								63.2	255		

	H	(m)	15	S	H1	H2	H3	H4	H5	W	W1	W2	B	b	G整车重量 Vehicle weight(t)	K角轮压 Wheel pressure angle(kN)	轨道型号 Track Model	P总功率 Total power (kW)
80t A5 FEM 2m	V1	m/min	3.3	13.5	2850	1150	300	450	2330	5800	2200		480	230	18.5	255	QU80	73
	V2		20	16.5			300								34	264		
	V3		32	19.5			550								38	270		
	L1	(mm)	1000	22.5			550	500	2380						42.5	275		77
	L2		1150	25.5			550								50.5	285		
	C1		＞80	28.5			550								60	297		
	C2		＞300	31.5			550								69	308		

* 本样本数据仅供选型参考，具体数据请咨询矿山集团技术部。

售后服务承诺 After-sales Service Promises

凡由本公司生产销售的各种产品所出现的质量问题，本公司均按规定实行“三包”服务，并由售后服务三包队承担此项工作。

Quality problems of products sold by our company will be solved as per the “Three Guarantees” system of our company by the “Three Guarantees” service team;

在接到用户关于产品质量的信息(来电、信函或口头通知)后，立即派出有关人员赶赴现场处理解决问题。

Related personnel will be sent to the site immediately after receiving quality complaints (by call, letter or oral notice) from clients;

售后服务人员要认真、周到、彻底处理好有关质量问题，保证用户及时使用，无后顾之忧。

Personnel involved in after-sales service shall be serious and considerate in handling the problem to make clients care-free;

在及时解决好售出产品的质量问题的同时，售后服务人员有义务无偿地向用户提供技术咨询技术培训以及解答其它产品相关联的问题。

In addition to solve quality problems, personnel involved in after-sales service shall train clients, answer their technical inquiries and related questions free of charge.

凡确属本公司产品质量问题的产品，一切费用均由本公司承担。对因用户方所造成的产品质量问题(或超出质保期的产品质量问题)本公司酌情收费，但不高于总支出的费用(或成本费)。

Related cost for products with quality problem will be shouldered by our company. Our company charges for quality problems caused by clients (or problems after the warranty term), but the charge will not be higher than the expense (or cost);

牢固树立用户就是上帝，一切为用户着想的思想，及时、认真、善始善终处理好有关质量问题，讲究信誉，处处维护矿源产品的形象，做到公司放心，用户满意。

Establish the client-orient concept to offer timely, serious, considerate and complete service, and value the image of the all the time to serve the company and clients.

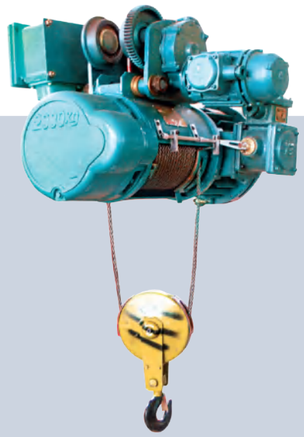
ELECTRIC HOIST

电动葫芦

电动葫芦是一种轻小型起重设备，具有体积小，自重轻，操作简单，使用方便等特点，用于工矿企业，仓储码头等场所。

Electric hoist is small lifting equipment, featuring small volume, light dead weight, easy operation and convenient use. It is used for such places as industrial and mine establishments and warehouses and wharfs.

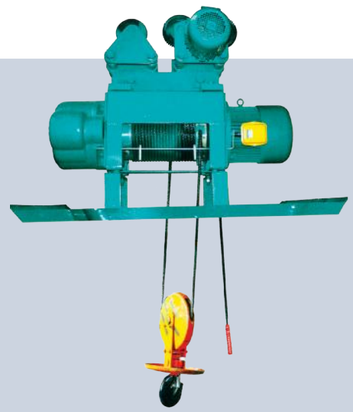
CD_1MD_1型电动葫芦
CD1MD1 electric hoist



BCD型防爆电动葫芦
BCD explosion proof electric hoist

低净空电动葫芦
Low clearance electric hoist

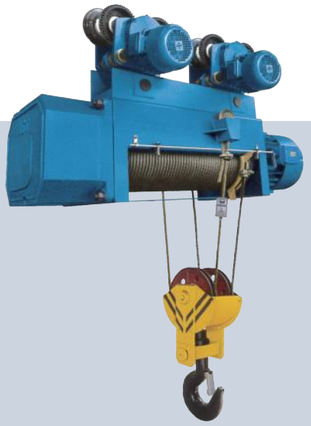
HFS系列增强PVC多极滑触线
HFS-series reinforced PVC multipolar trolley line



冶金电动葫芦
Metallurgical electric hoist

MD型电动葫芦
MD electric hoist

双梁一体式小车
Double beam integrated trolley



HC型电动葫芦
HC electric hoist

电气 Electric

安全滑触线

- 安全滑触线供电
- 防腐蚀、绝缘外壳封闭的紧凑型复合滑触线
- 导电率高、压降小
- 自重轻、安装便利、无须维护
- 使用温度范围：-30℃到+60℃
- 集电器滑行速度高，确保持续供电

Safety slide wire

- Power supply with safety slide wire
- Compact and compound slide wire with anti-corrosion and enclosed with insulated shell
- High conductivity and low pressure drop
- With light self-weight, easy installation and maintenance-free
- Used temperature range: -30℃-+60℃
- Current collector has high slipping speed ensuring continuous power supply.

电控箱与电缆

控制箱体表面经喷塑防腐处理，布局合理，便于维修，防护等级IP55，环境温度：<45℃，湿度<90%，主电源为三相四线380V(+/-10%)，50Hz(+/-5%)，所有电线都有颜色、数字或线号标记，易于识别。固定电缆布置在线槽内或有保护套管(镀锌钢管)。插头采用标准编码，减少错误连接。

所有连接采用重载航空插头插座，接插牢固，装配简单快捷；

控制箱内布局合理，便于维修；

插头连接部位采用塑料套管绝缘保护；

所有线缆都有线号，便于识别；

小车移动供电系统采用起重机专用的PVC扁电缆，耐压等级达到450/750V

小车移动供电系统由扁电缆、镀锌滑轨和电缆小滑车，滑动平稳；

线路部分，采用线框线槽保护，保障电路安全，延长使用寿命，线槽安装维修方便，对于线缆易于观察。

Electric control cabinet and cable

Surface of electric cabinet is dealt with through antisepsis plastic spraying, reasonable layout, easy maintenance, with protection level IP55, the temperature of working environment should be lower than 45℃ and the humidity should be less than 90%. The main power supply employs three-phase four-wire with 380V(+/-10%), 50Hz (+/-5%). All wires have color, number or wire size marks, by which can be easy identified. The fixed cable is arranged at groove or has protective cased pipe (galvanized steel pipe). The plug uses standard code in order to avoid incorrect connection.

All connection employs overloaded air plugs and sockets, which can be solid connected and have simple installation and assemble;

Layout in electric cabinet is reasonable in order to ensure easy reparation;

The plastic insulation protection is applied to the connection of plugs;

All cables have their own wire size in order that they can be recognized;

PVC flat cable specially used for crane is employed in power supply system of trolley traveling, of which voltage-endurance gets to 450/750V.

The power supply system of trolley traveling consists of flat cable, galvanized sliding rail and cable trolley, which has stable sliding;

As to circuits, wire frame and wire groove are used to protect them for the purpose to ensure safety of circuits and prolong service life. Installation of wire groove is easy to repair and maintain, which contributes to observe cable.

防撞装置

同一轨道有多台起重机运行时，常规解决方案下均设置有接触式防互撞装置，避免误操作引起相互间剧烈撞击。繁忙运行或特别重要的工作环境可加装红外非接触感应式防撞装置实现双重安全保护措施， 声光报警。

Anti-collision device

If several cranes travel on the same rail, the common resolutions refer to install contact anti-collision device so as to avoid sharp impact due to incorrect operation. Non-contact infrared sensor anti-collision device will be additionally installed to take double safety protection measure- sound and light alarm if running busily or under an important working environment.

超载保护装置

对于超载作业，有防护作用的安全装置，包括自动停止型起重量限制器和重量显示仪，在设定点误差范围3%内（自动识别实际超载和正常作业时吊物起升、制动、运行时的动载影响）按照取力传感器的信号，自动停止向不安全方向动作，同时允许向安全方向动作，并发出声光预警信号，并可根据要求在桥架上设置大屏幕重量显示仪。

Overload protection device

If work with over load, it has safety devices with protection function including auto-stop lifting-capacity limiter and weight display. Within error limit of 3% of the set point (auto-recognize actual effects of moving-load while lifting, braking and movement of items at overload and ordinary working condition), it auto-stops moving to the unsafe location according to signals of power take sensor, meanwhile, allows to move to safety position and sends sound and light warning signals, and the large weight display can be installed on the bridge in accordance with demand.

电气保护

主隔离开关，紧急断电开关，短路、失压、零位、失磁、过流和超速保护等措施完备，充分落实安全第一的理念。

Electric protection

It has complete equipments including main isolation switch, emergency disconnect switch, protection for short circuit, pressure loss, zero position, excitation loss, over current and over speed, which sufficiently implements conception of safety first.

安全监控功单元(选配)

◆计算起升机构剩余安全工作周期

◆累计起升工作时间、超载次数、电机启动次数

◆起升电机过热保护及报警

◆过载保护及报警

Safety monitoring power unit (optional)

◆Compute the rest safety working circle of hoisting mechanism

◆Accumulated working time for lifting, overload and motor starting times

◆Over-heat protection of hoisting motor and alarm

◆Overload protection and alarm

起重机控制模式 Control patterns of crane

◆地操

操作简便，无需设置专业驾驶员

◆双挡按钮

跟随式或独立滑道非跟随式悬挂

防护等级为IP65

寿命50万次

◆遥控

操作简便，无需设置专业驾驶员，操作者在地面自由度大

几万组频点，互不干涉

双挡按钮或摇杆式操纵杆

防护等级为IP65

寿命50万次

◆空操

航空仓司机室，大视野，钢化玻璃，方便开启便于擦拭，符合人体工程学的座椅，操作灵活的联动台，需设置专业驾驶员。

◆Ground control

Easy to operate and without assigning professional driver

◆Double buttons

Following-type or separate slide non-following hanging

Protection level IP65

Service life 500,000 times

◆Remote control

It’s easy to operate, without assigning professional driver. The operator has more freedom on the ground.

There is no any interaction between tens thousands of group frequency.

Double buttons or rocker lever

Protection level IP65

Service life 500,000 times

◆Aerial control

Air warehouse cab has a large view and toughened glass, which is easy to open for wiping. It has Ergonomic chair and flexible linkage control console. The professional driver should be assigned.

安全防护功能 Safety protection function

◆无线防撞限位：红外感应限位，灵敏、可靠

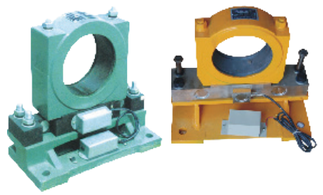
◆wireless anti-collision limiter: with infrared sensor limiter, it’s sensible and reliable;

◆制动安全保护：电气制动+机械制动

◆Braking security protection: electric brake and mechanical brake;

◆大车，小车运行机构设置有可以吸收运动能量减缓硬冲击的聚氨酯缓冲器，其安装和维护方便，同时重要工作场合下,液压式缓冲器也可作为选配方案达到更好的性能。

◆The traveling mechanism of crane and trolley has polyurethane buffer which relieves impact by absorbing motion energy and is easy to install and maintain, meanwhile, under important working condition, the hydraulic buffer also be selected to achieve the better performance;



◆防撞扫轨板，端部止挡块

在大车和小车的车轮前均安装扫轨板，清除轨道上的异物，保证起重机运行安全。

在大车和小车运行的极限位置均安装有端部止挡块，作为电气限位失灵情况下的强制停止措施，防止起重机脱轨。

◆Anti-collision sweep-rail plate, end stop blocks;

Install sweep-rail plate before the wheels of crane and trolley in order to remove foreign bodies on the rail and ensure the safety of traveling;

Install end stop blocks at the traveling limit of crane and trolley, which is considered as force stopping methods if electric limit does not work in order that avoid derailing of crane.

质 量 承 诺

Quality Promises

河南省矿山起重机有限公司具备桥式、门式起重机械制造、安装、修理、改造A级资质，公司已顺利通过ISO9001：2015质量管理体系认证、GJB 9001C-2017武器装备质量管理体系认证、ISO10012-2003测量管理体系AAA认证，完善的质量保证体系、全面严格的管理制度和先进的检测手段，确保产品高质量生产。

向广大用户做出如下质量承诺：

一、全部产品或服务均有生产许可证或资质，决不提供假冒产品或违规服务。

二、树立下工序就是客户的观念，做好本职工作。

三、熟记作业要求及标准，掌握岗位操作技能，严格执行产品工艺纪律，保证按工艺操作规程制造。

四、不制造、不传递、不使用不合格品。

五、保证产品检验器具齐全，完好，严格按要求送检，不使用不合格量具。

六、严格按合同、图纸、工艺对产品的质量进行检查验收，发现问题立即处理，作好质量记录，不合格产品不准出厂。

七、建立完整的产品档案，做到订货有合同，生产有记录，检验有台帐，入库有合格证。

八、出厂产品无磕碰，配件齐全，外观完好，手续完整，用户满意。

Henan Province Mine Crane Co., Ltd. has grade a qualification for manufacturing, installation, repair and transformation of bridge and gantry cranes. The company has successfully passed iso9001:2015 quality management system certification, GJB 9001c-2017 weapon and equipment quality management system certification, ISO10012-2003 measurement management system AAA certification, perfect quality assurance system, comprehensive and strict management system and advanced testing methods to ensure high-quality production of products.

We make the following quality commitments to our customers:

1、 All products or services have production licenses or qualifications. We will never provide fake products or illegal services.

2、 Establish the concept that the next process is the customer and do a good job.

3、Memorize the operation requirements and standards, master the post operation skills, strictly implement the product process discipline, and ensure the manufacturing according to the process operation procedures.

4、 Do not manufacture, transfer or use unqualified products.

5、Ensure that the product inspection instruments are complete and intact, and send them for inspection in strict accordance with the requirements, and do not use unqualified measuring tools.

6、The quality of products shall be inspected and accepted in strict accordance with the contract, drawings and processes. Problems found shall be handled immediately and quality records shall be made. Unqualified products are not allowed to leave the factory.

7、Establish a complete product file to ensure that there is a contract for ordering, a record for production, an account for inspection, and a certificate of conformity for warehousing.

8、 The ex factory products are free of collision, complete in accessories, intact in appearance, complete in formalities and satisfactory to the users.

售 后 服 务 承 诺

After-sales Service Promises

一、凡由本公司生产销售的各种产品所出现的质量问题，本公司均按规定实行“三包”服务，并由售后服务三包队承担此项工作。

二、在接到用户关于产品质量的信息(来电、信函或口头通知)后，立即派出有关人员赶赴现场处理解决问题。

三、售后服务人员要认真、周到、彻底处理好有关质量问题，保证用户及时使用，无后顾之忧。

四、在及时解决好售出产品的质量问题的同时，售后服务人员有义务无偿地向用户提供技术咨询技术培训以及解答其它产品相关联的问题。

五、凡确属本公司产品质量问题的产品，一切费用均由本公司承担。对因用户方所造成的产品质量问题(或超出质保期的产品质量问题)本公司酌情收费，但不高于总支出的费用(或成本费)。

六、牢固树立用户就是上帝，一切为用户着想的思想，及时、认真、善始善终处理好有关质量问题，讲究信誉，处处维护矿源产品的形象，做到公司放心，用户满意。

1、 For the quality problems of various products produced and sold by the company, the company implements "Three Guarantees" service according to the regulations, and the after-sales service three guarantees team is responsible for this work.

2、 After receiving the user's information about product quality (telephone call, letter or oral notice), immediately send relevant personnel to the site to deal with and solve the problem.

3、 The after-sales service personnel should carefully, thoughtfully and thoroughly deal with the quality problems, so as to ensure that the users can use them in time and have no worries.

4、 While solving the quality problems of the sold products in a timely manner, the after-sales service personnel are obliged to provide free technical consultation and training to the users and answer questions related to other products.

5、 The company shall bear all expenses for products with quality problems. For product quality problems (or product quality problems beyond the warranty period) caused by the user, the company will charge at its discretion, but not higher than the total expenditure (or cost).

6、 Firmly establish the idea that the user is God and everything is for the user, deal with relevant quality problems in a timely, serious and complete manner, pay attention to reputation, maintain the image of mineral products everywhere, and ensure that the company is assured and the users are satisfied.

2022年实现产销量100000余台（套）。产品畅销全国各地和一带一路国家和地区，有428家销售服务机构遍及全国各地，服务于7000余家中高端客户，在航空航天、汽车船舶、钢铁冶炼、石油化工、电子信息、电业水利、铁路军工等国内外重点产业50多个行业领域取得骄人业绩。研发制造的远程监控起重机、智能仓储起重机、精准定位起重机、自动化集装箱门式起重机、无人化起重机、核级专用起重机、洁净防爆自动起重机、多支点柔性起重机等高精尖产品服务于宝武、中铁、中冶、中核、中航等大型企业。

In 2022, the production and sales of various single beam and double beam hoisting equipment will be nearly 100000 sets. The company has 428 sales and service agencies all over the country, serving more than 7000 medium - and high-end customers. It has been exported to more than 80 countries and regions such as Kenya, Australia, Vietnam, India, Thailand, Pakistan and Southeast Asia, and has entered the international market of the "the Belt and Road". The products are widely used in machinery, metallurgy, mine, electric power, railway, aerospace, port, petroleum, chemical and other fields.

冶金行业
METALLURGICAL INDUSTRY

- 中冶南方工程技术有限公司
- 中冶京诚工程技术有限公司
- 中冶赛迪工程技术股份有限公司
- 中钢设备有限公司
- 宝山钢铁股份有限公司
- 宝钢湛江钢铁有限公司
- 武汉钢铁有限公司
- 马鞍山钢铁股份有限公司
- 上海梅山钢铁股份有限公司
- 广东韶钢松山股份有限公司
- 重庆钢铁股份有限公司
- 山西太钢不锈钢股份有限公司
- 北京首钢股份有限公司
- 首钢股份公司迁安钢铁公司
- 首钢迁安新能源汽车电工钢有限公司
- 河钢集团石家庄钢铁有限责任公司
- 河北津西钢铁集团股份有限公司
- 河北纵横集团丰南钢铁有限公司
- 河北唐银钢铁有限公司
- 河北天柱钢铁集团有限公司
- 河北太行钢铁集团有限公司
- 唐山港陆钢铁有限公司
- 天津荣程联合钢铁集团有限公司
- 唐山市德龙钢铁有限公司
- 敬业钢铁有限公司
- 德龙钢铁有限公司
- 石家庄钢铁有限责任公司
- 本溪北营钢铁(集团)股份有限公司
- 黑龙江建龙钢铁有限公司
- 建龙阿城钢铁有限公司
- 凌源钢铁股份有限公司
- 山西高义钢铁有限公司
- 山西晋南钢铁集团有限公司
- 晋城福盛钢铁有限公司
- 山西宏达钢铁集团有限公司
- 山东钢铁集团日照有限公司
- 临沂钢铁投资集团特钢有限公司
- 临沂钢铁投资集团不锈钢有限公司
- 陕西龙门钢铁有限责任公司
- 河南济源钢铁（集团）有限公司
- 安钢集团信阳钢铁有限责任公司
- 安徽长江钢铁股份有限公司
- 安徽省郎溪鸿泰钢铁有限公司
- 中新钢铁集团有限公司
- 江苏省镔鑫钢铁集团有限公司
- 连云港兴鑫钢铁有限公司
- 南京钢铁有限公司
- 吉安市钢铁有限责任公司
- 九江萍钢钢铁有限公司
- 萍乡萍钢安源钢铁有限公司
- 江西台鑫钢铁有限公司
- 贵阳闽达钢铁有限公司
- 湖南华菱涟源钢铁有限公司
- 宁夏建龙龙祥钢铁有限公司
- 成都冶金实验厂有限公司
- 四川都钢钢铁集团股份有限公司
- 四川雅安安山钢铁有限公司
- 泸州鑫阳钒钛钢铁有限公司
- 四川德润钢铁集团航达钢铁有限责任公司
- 四川眉雅钒钛钢铁集团有限公司
- 福建三宝钢铁有限公司
- 福建罗源闽光钢铁有限责任公司
- 福建亿鑫钢铁有限公司
- 河源德润钢铁有限公司
- 广东粤北联合钢铁有限公司
- 梧州市永达钢铁有限公司
- 广西翅冀钢铁有限公司
- 云南玉溪玉昆钢铁集团有限公司
- 云南曲靖钢铁集团凤凰钢铁有限公司
- 云南玉溪仙福钢铁（集团）有限公司
- 大理大钢钢铁有限公司
- 云南永钢钢铁集团巨利达钢铁有限公司

首钢集团 · 攀钢集团 · 河北钢铁集团有限公司 · 中冶集团 · 武钢集团 · 邯钢集团

宝钢集团 · 太原钢铁集团 · 包钢集团 · 马钢集团 · 鞍钢集团 · 中国铝业

交通物流
TRANSPORTATION LOGISTICS

- 中国铁路工程总公司
- 中国铁道建筑总公司
- 中国建筑工程总公司
- 中国路桥工程有限责任公司
- 中国隧道集团有限公司
- 中铁科工集团有限公司
- 中交隧道工程局有限公司
- 中铁九桥工程有限公司
- 中铁大桥局集团有限公司
- 中国铁路北京局集团有限公司
- 中国铁路兰州局集团有限公司
- 中国铁路武汉局集团有限公司
- 中国铁路成都局集团有限公司
- 中国铁路广州局集团有限公司
- 中国铁路乌鲁木齐局集团有限公司
- 唐山京唐铁路有限公司
- 中铁宝桥（舟山）有限公司
- 中铁十五局集团路桥建设有限公司
- 中铁九局路桥分公司
- 中铁一局集团城市轨道交通工程有限公司
- 中铁四局集团第一工程有限公司
- 中交第二公路工程局有限公司
- 中国铁路南宁局集团有限公司
- 中建隧道建设有限公司
- 中交第三公路工程局有限公司
- 中铁隧道股份有限公司
- 广东华隧建设集团股份有限公司
- 中交第一航务工程局有限公司
- 中国铁路呼和浩特局集团有限公司
- 河北铁建工程有限公司
- 中交第二航务工程局有限公司
- 浙江交工集团股份有限公司
- 中交路桥华南工程有限公司
- 中交第三航务工程局有限公司
- 北京城建集团有限责任公司
- 北京建工集团有限责任公司
- 中交隧道工程局有限公司
- 河南五建建设集团有限公司
- 靖江港口集团有限公司
- 遵义市贵绳物流有限责任公司
- 一拖（洛阳）物流有限公司
- 新钢（上海）国际物流有限公司

中国中铁 · 中国交通建设 · 中铁隧道集团 · 广东交通集团 · BMRBH

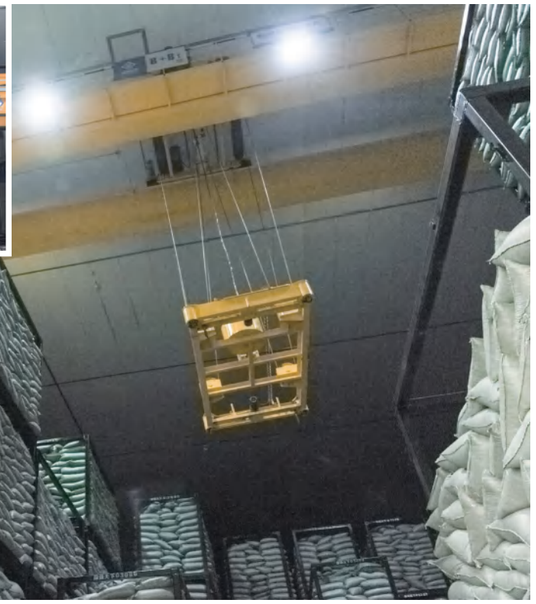
中国建筑 · 上海建工集团 · 北京城建集团 · 北京建工集团 · 浙建集团 · 湖南建工

高端 定制化产品

HIGH-END CUSTOMIZED PRODUCTS

研制开发的智能仓储起重机、精准定位起重机、自动化集装箱门式起重机、核级专用起重机、洁净防爆自动起重机、多支点柔性起重机、模拟海事救援起重机等高端产品服务于宝钢、中铁、中冶、中核、中航等大型企业。

The developed intelligent storage crane, precision positioning crane, automatic container gantry crane, nuclear grade special crane, clean explosion-proof automatic crane, multi fulcrum flexible crane, simulated maritime rescue crane and other high-end products serve large enterprises such as Baosteel, China Railway, MCC, CNNC, AVIC and so on.



为蒜通天下产业园承制的智能仓储起重机，采用了自动化吊具抓放和码垛、自动定位、电气防摇、远程调试、智能管理等功能。

The intelligent storage crane manufactured for liantongtianxia Industrial Park adopts the functions of automatic lifting appliance grasping and stacking, automatic positioning, electrical anti swing, remote debugging, intelligent management and so on.

无人化抓斗起重机助力宝武韶钢“智能制造”

Unmanned grab crane helps Baowu Shaogang "intelligent manufacturing"

太仓港轨道式自动化集装箱门式起重机

Taicang port rail type automatic container gantry crane

山东钢铁集团日照有限公司智能钢板堆垛机

Shandong Iron and Steel Group Rizhao Co., Ltd. Intelligent Steel Plate Stacker

水利电力

WATER CONSERVANCY AND ELECTRIC POWER

- 中国水利水电第四工程局有限公司
- 中国水利水电第五工程局有限公司
- 中国水利水电第六工程局有限公司
- 中国水利水电第七工程局有限公司
- 中国水利水电第八工程局有限公司
- 中国水利水电第九工程局有限公司
- 中国水利水电第十一工程局有限公司
- 中国水利水电第十二工程局有限公司
- 中国水利水电第十四工程局有限公司
- 中建六局水利水电集团有限公司
- 中交水利水电建设有限公司
- 湖北省水利水电规划勘测设计院
- 湖南省水利水电第一工程有限公司
- 云南建投第一水利水电建设有限公司
- 宁夏水利水电工程局有限公司
- 江苏省水利建设工程有限公司
- 中国电建集团江西省水电工程局有限公司
- 福建省水利水电工程局有限公司
- 浙江省第一水电建设集团股份有限公司
- 广东水电二局股份有限公司
- 中国华能集团有限公司
- 中国电力投资集团公司
- 中国大唐集团有限公司
- 中国国电集团有限公司
- 中国华电集团有限公司
- 中机国能电力工程有限公司
- 国网冀北电力有限公司
- 国网上海市电力公司
- 中国能源建设集团安徽电力建设第一工程公司
- 中国能源建设集团东北电力第一工程有限公司
- 中国能源建设集团湖南火电建设有限公司
- 中国能源建设集团山西省电力勘测设计院有限公司
- 中国能源建设集团陕西省电力设计院有限公司
- 中国能源建设集团浙江火电建设有限公司
- 中能建东北电力第一工程有限公司
- 广东火电工程总公司
- 河南第一火电建设有限公司
- 青海火电工程公司
- 山东电力建设第三工程公司

航空航天

AEROSPACE

- 中国航天科技集团公司
- 中国航空规划设计研究总院有限公司
- 中国兵器工业集团航空弹药研究院有限公司
- 中国航空国际建设投资有限公司
- 国防科学技术大学航天科学与工程学院
- 中国航空技术北京有限公司
- 成都飞机工业（集团）有限责任公司
- 西安飞机工业(集团)有限责任公司
- 江西洪都航空工业股份有限公司
- 上海航天精密机械研究所
- 上海航天设备制造总厂有限公司
- 贵州航天精工制造有限公司
- 江西航天经纬化工有限公司
- 西安航天动力机械厂
- 湖北航天化学技术研究所
- 西安航天复合材料研究所
- 西安航天华阳机电装备有限公司
- 西安航天动力机械有限公司
- 内蒙古航天红岗机械有限公司
- 西安航天化学动力有限公司
- 西安航天发动机有限公司
- 西安航天新宇机电装备有限公司
- 山西航天清华装备有限责任公司
- 内蒙古航天红峡化工有限公司
- 四川航天长征装备制造有限公司
- 湖北三江航天江河化工科技有限公司
- 西安向阳航天材料股份有限公司
- 西安航天动力测控技术研究所
- 西安航天源动力工程有限公司
- 西安航天动力研究所
- 辽宁航天神坤装备有限公司
- 西安航空城产业园运营管理有限公司
- 凌云（宜昌）航空装备工程有限公司
- 西安航空制动科技有限公司
- 中国航发贵州黎阳航空动力有限公司
- 汉中航空智慧新城投资集团有限公司
- 陕西直升机股份有限公司
- 中航工业南京轻型航空动力有限公司
- 拓普瑞思航空技术（北京）有限公司
- 贵州安大航空锻造有限责任公司
- 爱生无人机西咸新区发展有限公司
- 中国航空工业集团公司济南特种结构研究所

机械制造

MACHINERY MANUFACTURING

- 徐州工程机械集团有限公司
- 三一重工股份有限公司
- 中联重科股份有限公司
- 洛阳LYC轴承有限公司 郑州煤矿机械集团股份有限公司
- 武昌船舶重工集团有限公司
- 珠海格力电器股份有限公司
- 南京高精齿轮集团有限公司
- 杭萧钢构股份有限公司
- 贵州钢绳股份有限公司
- 沧州中铁装备制造材料有限公司
- 中信重工机械股份有限公司
- 江苏申港特种装备有限公司
- 芜湖久弘重工股份有限公司
- 防城港天地和金属制品有限公司
- 江苏泰隆减速机股份有限公司
- 河南煜德金属材料有限公司
- 张家港中环海陆高端装备股份有限公司
- 甘肃承威专用车制造有限公司
- 安徽唐兴装备科技股份有限公司
- 四川展志智能金属制造有限公司
- 青岛高测科技股份有限公司
- 安徽洪基机械有限公司
- 华都精工（南通）精密机械有限公司
- 神州城轨技术有限公司
- 渤海造船厂集团有限公司
- 金雷科技股份有限公司
- 中煤北京煤矿机械有限责任公司
- 河南幸福河水工机械有限公司
- 陕西紫兆装备制造有限公司
- 中信重工机械股份有限公司
- 山东宏旺实业有限公司
- 山东永安昊宇制管有限公司
- 比塞洛斯（淮南）机械有限公司
- 江联重工集团股份有限公司
- 浙江宏旭智能制造有限公司
- 中航上大高温合金材料有限公司
- 辽宁忠旺机械设备制造有限公司
- 张家港海陆沙洲科技有限公司
- 福建铁拓机械有限公司
- 中地装张家口探矿机械有限公司
- 武汉锅炉集团阀门有限责任公司
- 江苏亚威机床股份有限公司
- 中交世通(重庆)重工有限公司
- 山东华阳中科能源设备有限公司

一汽大众 北京奔驰 SANY 三一重工 中国重汽 SINOTRUK CNR 中国北车 CSR 中国南车 华泰汽车 HAWTAI AUTOMOBILE

国机集团 SINOMACH CIMC 上海电气 SHANGHAI ELECTRIC 潍柴动力 WEICHAI POWER 中信重工

部分客户

SOME CUSTOMERS

能源化工

ENERGY AND CHEMICAL INDUSTRY

- 中国石油天然气集团公司
- 中国石油化工集团公司
- 中国海洋石油总公司
- 国家能源投资集团有限责任公司
- 山西煤炭运销集团有限公司
- 河南煤业化工集团有限责任公司
- 山西焦煤集团有限责任公司
- 中国平煤神马能源化工集团有限责任公司
- 兖矿集团有限公司
- 冀中能源集团有限责任公司
- 山西潞安矿业（集团）有限责任公司
- 阳泉煤业（集团）有限责任公司
- 中石油兰州石化榆林化工有限公司
- 中石化石油工程设计有限公司
- 中海油石化工程有限公司
- 中石油管道有限责任公司北方分公司
- 中国石油化工股份有限公司江苏油田分公司
- 中海油气（泰州）石化有限公司
- 中国石油天然气股份有限公司辽阳分公司
- 中石化宁波工程有限公司
- 中海油宁波大榭石化有限公司
- 中国石油广东石化公司
- 湖北华中石化工程有限公司
- 山东华鲁恒升化工股份有限公司
- 中国石油天然气第一建设有限公司
- 中石化洛阳工程有限公司
- 东营威联化学有限公司
- 中信国安化工有限公司
- 中石化上海工程有限公司
- 山东劲海化工有限公司
- 中国化学工程集团有限公司
- 中石化巴陵石油化工有限公司
- 山东东明石化集团有限公司
- 辽河石油勘探局有限公司石油化工分公司
- 中国石化海南炼油化工有限公司
- 山东国海化工有限公司
- 大庆石化建设有限公司
- 中国石油化工股份有限公司济南分公司
- 山东晋煤明升达化工有限公司
- 襄阳泽东化工集团股份有限公司
- 中国石油化工股份有限公司中原油田分公司
- 安徽八一化工股份有限公司
- 新疆库尔勒中泰石化有限责任公司
- 龙蟒佰利联集团股份有限公司
- 西安北方惠安化学工业有限公司

河南煤业化工集团 晋中能源 神华宁夏煤业集团 山东能源集团有限公司 晋城煤业集团 中国平煤神马能源化工集团 中国石油 兖矿集团 中国石化 SINOPEC CNOOC 伊泰 YiCAi

新能源新材料

NEW ENERGY AND NEW MATERIALS

- 中核霞浦核电有限公司
- 福建福清核电有限公司
- 三门核电有限公司
- 海南核电有限公司
- 大亚湾核电运营管理有限责任公司
- 中国核电工程有限公司郑州分公司
- 上海电气集团股份有限公司
- 东方电气风电(山东)有限公司
- 吉林中车风电装备有限公司
- 远景能源（锡林郭勒）有限公司
- 远景能源（鄂尔多斯）有限公司
- 远景北方（翁牛特旗）能源有限公司
- 哈密远景能源有限公司
- 远景（苍南）新能源有限公司
- 远景能源（舟山）有限公司
- 甘肃远景能源有限公司
- 远景能源河北有限公司
- 远景能源（乳山）有限公司
- 中国船舶重工集团海装风电股份有限公司
- 中船风电（兴城）能源投资有限公司
- 中材科技（锡林郭勒）风电叶片有限公司
- 山东莱芜金雷风电科技股份有限公司
- 大连海装风电设备有限公司
- 新疆海装风电设备有限公司
- 内蒙古海装风电设备有限公司
- 甘肃九鼎风电复合材料有限公司
- 山西昌能风电制造有限公司
- 濮阳天顺风电设备有限公司
- 通辽市天顺风电设备有限公司
- 兰州宝航新能源材料有限公司
- 山西证道新能源科技有限责任公司
- 广西中伟新能源科技有限公司
- 内蒙古紫宸兴丰新能源科技有限公司
- 新疆协鑫新能源材料科技有限公司
- 锡盟明阳新能源有限公司
- 江苏鼎胜新能源材料股份有限公司
- 华友新能源科技（衢州）有限公司
- 衢州华友钴新材料有限公司
- 山西三晋碳素股份有限公司
- 田林百矿田田碳素有限公司
- 宝方炭材料科技有限公司
- 新疆天展新材料科技有限公司
- 重庆市九龙万博新材料科技有限公司
- 浙江交投金属新材料科技有限公司
- 正威华能（山东）新材料科技有限公司
- 内蒙古新太元新材料有限公司
- 方大炭素新材料科技股份有限公司
- 内蒙古杉杉科技有限公司