

ZEGA 地下台车

ZEGA Underground Rig



- 产品列入国家火炬计划
· Listed in China National "Torch Program"
- 国家级高新技术企业
· National High Tech Enterprise
- 中国履带式露天钻车行业标准制定单位
· Industry Standard Maker of China Crawler Surface Drill Rig
- “国家专精特新小巨人”企业
· National Level Specialized and Innovative Little Giant Enterprise



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科技创新无限 志高掘进先锋
 ZEGA,drilling pioneer for infinite scientific and technology innovation.



■ 浙江志高机械股份有限公司是一家从事系列空气压缩机和凿岩设备的研究开发、生产销售和应用服务的专业厂家。产品广泛应用于工业气源、各类矿山开采和工程项目建设。企业以技术开发为核心，秉承“重细节、求高效、铸品质、创未来”的行动纲领，以“科技创新无限，志高掘进先锋”为经营理念。放眼全球，用争创世界一流的信心为客户提供产品和服务，为推动行业技术进步和节能环保事业而努力前行！

■ Zhejiang Zhigao Machinery Co., Ltd. is a professional manufacturer engaged in the research and development, production, marketing and application services of full range of air compressors and rock drilling equipment. Products are widely used in industrial compressed air sources, various types of mining and civil engineering construction. With technological innovation as the core, Zhigao establishes its guiding principle of "emphasizing details, seeking efficiency, based on quality, and striving for the brighter future", and adheres to business philosophy of "continuous improvement and pursuit of perfection". Zhigao is serving the global market with world-class products to create value for customers and work hard to promote industry technological progress, energy conservation and environmental protection.

志存高远, 持之以恒!
Aim high and persevere!

21年累计 Accumulated over 21 years

Sales of drilling rigs (in units)
 销售凿岩钻机
26,500
 台

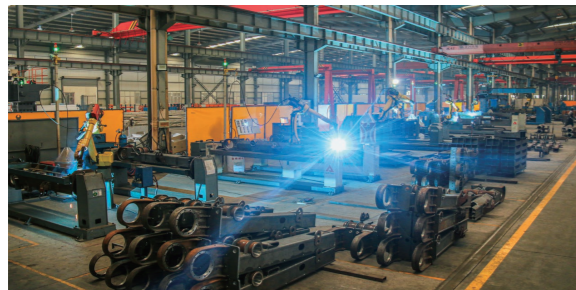
Sales of Air compressor (in units)
 销售空气压缩机
165,500
 台

Effective national patents
 国家有效专利
91
 项

精工制造

LEAN Manufacturing

志高机械**第一工业园**,坐落于百灵北路15号,占地面积14.7万m²,建筑面积达11.1万m²,负责各种凿岩设备、空气压缩机的研发及生产。Zhigao Machinery First Industrial Park is located at No. 15 Bailing North Road, covering an area of 147000 square meters and a building area of 111000 square meters. It's responsible for the research and development and production of various rock drilling equipment and air compressors.



WITH ABUNDANT CASE EXPERIENCE/

WE ENDEAVOR TO CONTINUOUSLY ENHANCE THE QUALITY OF OUR PRODUCTS AND SERVICES TO PROVIDE CUSTOMERS WITH MORE PROFESSIONAL EXPERIENCES.

借助丰富的案例经验

我们不断提升产品和服务质量
为客户带来更专业的体验

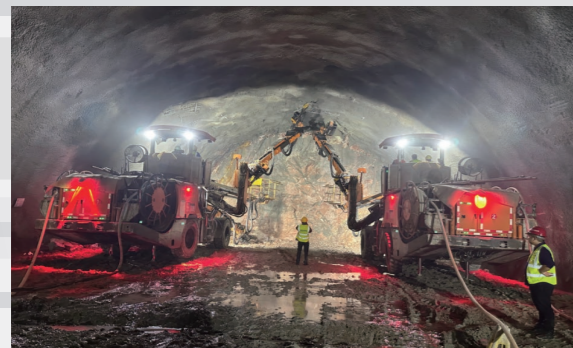


■ 作为中国钻机制造行业的领军企业, 志高机械从2003年8月成立以来, 一直致力于绿色矿山建设、建筑工程、新能源项目, 为保护人类自然环境, 提高资源开发和利用效率, 实现行业绿色长期可持续发展做积极贡献。

■ As a leading enterprise in China's drilling rig manufacturing industry, Zhigao Machinery has been committed to the construction of green mining projects, construction projects, and new energy projects since its establishment in August 2003. It has actively invested in research and development to protect the natural environment, improve resource development and utilization efficiency, and achieve green and long-term sustainable development in the industry.

我们的合作伙伴

Partners of ZEGA



UJ33 安徽·洞库项目
UJ33 Anhui · Cave Depot Project



UJ22 浙江·蓄能电站
UJ22 Zhejiang · Pumped hydropower station



UJ21MG 四川·川藏线项目
UJ21MG Sichuan · Sichuan-Tibet railway



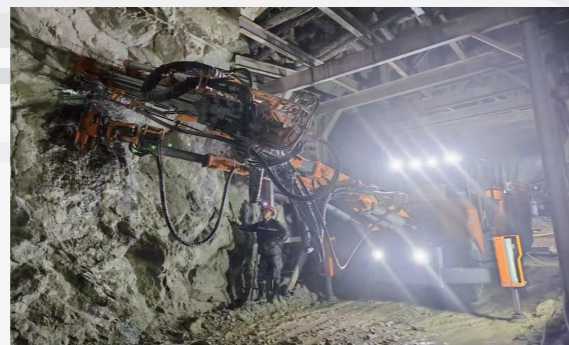
UJ21C 山东·核电站项目
UJ21C Shandong · Nuclear power station



UJ21D 俄罗斯·金矿项目
UJ21D Russian Empire · Gold mine



UJ18 四川·铜矿项目
UJ18 Sichuan · Copper mine



UM21K 湖南·钨矿项目
UM21K Hunan · Tungsten mine



UM18K 河北·磷矿项目
UM18K Hebei · Phosphate mine



UP31B 内蒙·铁矿项目
UP31B Inner Mongolia · Iron Mine



UP31A 江西·铜矿项目
UP31A Jiangxi · Copper mine



精准高效

High Accuracy & High Efficiency

凿岩系统/Drilling System

■ 配套安装自主研发的大功率高频高压+内制双缓冲设计的全液压凿岩机, 在保证钻机获得高效的穿凿效率的同时, 使其钻具寿命更长, 损耗更低。为确保更好的穿孔体验, 配备了发明专利的智能凿岩控制系统, 可根据岩层结构的不同, 自动修正回转, 推进、冲击等压力参数, 以保证凿岩作业始终处于最佳匹配条件下的持续工作。

■ Self-developed high-power, high-frequency, high-pressure + dual-damping mechanism design of full hydraulic rock drill. Features high penetration rate, long service life of rock tools and lower parts consumption. Combined with the intelligent rock drilling control system with invention patents to ensure a better drilling experience for users, it can automatically adjust the pressure values of rotation, feeding and impact according to the different rock formations to ensure that the drilling process is always in the most optimal matching conditions.

推进系统/Feeding System

■ 为确保成孔直线性和使用寿命, 采用高强度铝合金推进梁, 使其具有很高的抗弯、抗扭的刚性及耐腐蚀性, 加上油缸加钢丝绳的推进系统组合, 使其作业时更加轻便和平顺。

■ In order to ensure the linearity of the drilled hole and the service life of the feed beam, the high-strength aluminum alloy feed beam is adopted, which has high bending strength, torsional strength and corrosion resistance, and the combination of hydraulic cylinder + wire rope feeding system makes the feeding movement more reliable and smooth.

■ 同时为进一步提高使用寿命在推进梁导轨表面覆有可更换的不锈钢皮, 运动部件间采用高分子材料耐磨衬垫减少摩擦系数, 寿命更长, 损耗更低。

■ In addition, the feed beam guide rail surface is covered with a replaceable stainless steel cover, and the polymer material wear-resistant pad is used between the moving parts to reduce the coefficient of friction, so that the service life is longer and the consumption is lower.

大臂定位系统/Boom Positioning System

■ 双三角支撑钻臂结构设计复合八向角度操控先导比例补偿系统的配套应用, 在确保柔和高效灵活的角度定位的同时也能在各个方向上的准确平行保持和角度的定位精度。

■ The design of the double triangle support boom structure and the compound eight-way angle control pilot proportional compensation system ensure smooth, efficient and flexible positioning while accurate parallel holding and angular positioning accuracy in all directions.

■ 采用高强度特殊材料和工艺制作的钻臂, 具有强度高、刚性好、重量轻、承载能力强等特点, 可有效降低悬浮凿岩作业时存在的晃动问题, 确保作业时的角度保持和稳定性。

■ The drill boom made of high-strength materials and advanced technology has the characteristics of high strength, good rigidity, light weight and strong bearing capacity, which can effectively reduce the shaking problem during suspension rock drilling and ensure the angle retention and stability.

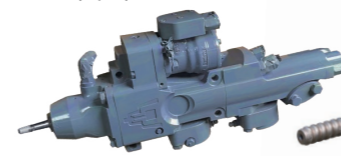
车身稳固系统/Drill Body Stabilizing System

■ 钻机移场到位后, 采用四个独立控制的液压支腿支撑稳固车身, 同时加铰接油缸锁定功能, 确保钻机在作业时的整体车体的稳定性。

■ After the rig is moved to the new drill face in place, four independently controlled hydraulic jacks are used to level and stabilize the drill rig body, as well as the central articulation steering cylinder locking function, to ensure the stability of the overall body of the drill rig while drilling.

钻机的核心部件 CORE COMPONENTS OF drill rig

ZY102(H/M)



ZY103(H)



ZY104(H/M/MZ)



ZY105(H/M)



凿岩机参数 Rock drill parameters	ZY102(H/M)	ZY103(H)	ZY104(H/M/MZ)	ZY105(H/M)
冲击功率最大/Percussion power max.	11 kW	15 kW	20 kW	25 kW
冲击频率/Percussion power frequency	100 Hz	42-60 Hz	46-60 Hz	42-50 Hz
液压系统压力/Hydraulic system pressure	210 bar	210 bar	220 bar	230 bar
最大扭矩/Torque max.	550 N.m	740 N.m	980 N.m	1,810 N.m
回转速度/Rotation speed	0-320 rpm	0-210 rpm	0-140/0-210 rpm	0-110/0-140 rpm
耗水量/Water consumption	65 L/min	40-120 L/min	40-120/100-165 L/min	100-165 L/min
冲洗最大气压/Flushing pressure max.	12 bar	12 bar	12 bar	12 bar
润滑油气量(在2bar时)/Air consumption for lubrication (at 2bar)	3-4 L/S	3-4 L/S	5 L/S	5.5 L/S
润滑油油量/Oil consumption for lubrication	1 mL/min	1-1.5 mL/min	1-1.5 mL/min	1-1.5 mL/min
机顶至回转中心高/Height between top and rotation center	98 mm	88 mm	88 mm	88/123 mm
外形尺寸(长*宽*高)(不含钎尾)/Dimensions (L*W*H) (W/O shank adaptor)	735×290×196 mm	1002×278×220 mm	1143×316×223 /1009×287×223 mm	1340×316×258 mm
机重/Weight	80 kg	165 kg	190/170 kg	258 kg
配套钎尾规格/Shank adaptor	R28/R32	R32/T38/T45	R32/T38/T45/T51	T45/T51
应用范围 Scope of application	露天和地下钻凿Φ33-51mm孔径范围的凿岩作业。 Surface and underground drilling operations for Φ33-51mm holes.	露天和地下钻凿Φ40-102mm孔径范围的凿岩作业。 Surface and underground drilling operations for Φ40-102mm holes.	露天和地下钻凿Φ40-115mm孔径范围的凿岩作业。 Surface and underground drilling operations for Φ40-115mm holes.	露天和地下钻凿Φ76-127mm孔径范围的凿岩作业。 Surface and underground drilling operations for Φ76-127mm holes.

我们拥有领先全球的加工/组装/检测环境、严谨的生产工艺, 保证产品品质!

World-class machining/assembling/measuring facilities and rigorous production process to ensure product quality.



进口加工中心

Imported machining center



进口检测三坐标

Imported 3D measuring instruments



进口磨床

Imported grinding machine



清洗设备

Cleaning Equipment

B 转场灵活 Good Mobility & Easy Transferring

铰接底盘系统/Center-articulated Steering System

- 针对开采方式及地下巷道尺寸的特点,专业化设计具有高通过性的铰接式悬浮底盘,以适应地下复杂的工况条件下的灵活转场作业。
- In view of the various mining methods of underground mines and the limited size of drifts, a central articulated steering chassis with high passing capacity in confined spaces is professionally designed to adapt to the flexible transfer under complex underground working conditions.

单动力轮式行走/Diesel-powered 4WD Trammng

- 单柴油发动机独立驱动四轮行走,多档变速,过载爬坡时,发动机免熄火,自动适应降速及增大输出扭矩,越野能力更强劲。
- Diesel engine powered four-wheel drive trammng, multi-gear transmission, no engine stalling when climbing steep slopes and overloading, automatic adaptation to speed reduction and increase output torque, strong off-road ability.

电缆卷盘/Cable Reel

- 大容量的电缆卷盘配套提高了作业的使用距离,采用液压定扭驱动控制防止了电缆强拉损坏,双工位操作的设计进一步提升了操作的方便快捷性。
- The large-capacity cable reel increases the working distance, the hydraulic constant-torque drive control prevents the cable from being damaged by excessive tension, and the design of the double-station console further improves the convenience and safety of operation.

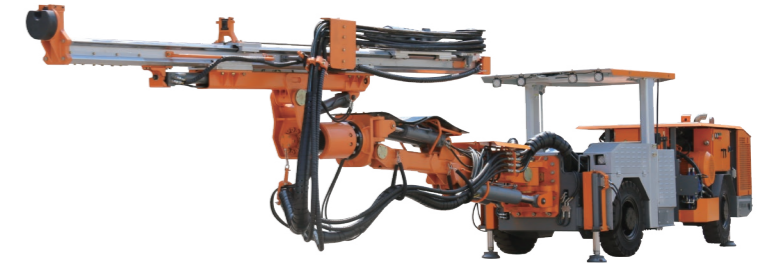
模块化/Modular Structure Design

- 整体设计采用模块化快拆卸连接的组合型设计,方便实现整机分段拆解下井及井下组装工作。
- The modular structure of building blocks allows for quick disassembly and reassembly, which makes it easy to knock down the entire rig and then transport it from the shaft cage to the underground level for reassembly.



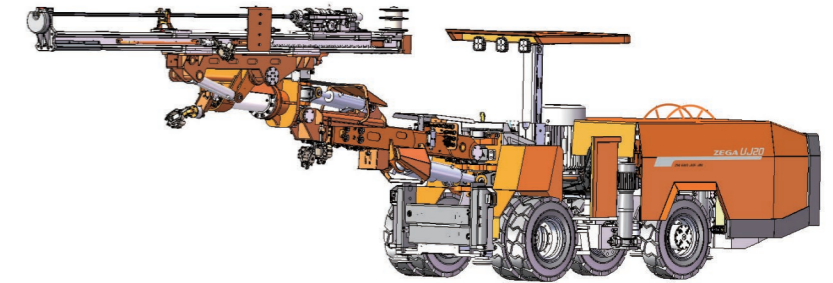
UJ18A 地下矿用掘进系列产品 Underground Face Drilling Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:5.6×4.3 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:11.3×7.3 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):1.8×1.8 m
- 钻孔孔径/Hole range:Φ41-102 mm



UJ20 地下矿用掘进系列产品 Underground Face Drilling Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:5.23×5.8 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:11×7.8 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):1.6×1.9 m
- 钻孔孔径/Hole range:Φ41-102 mm



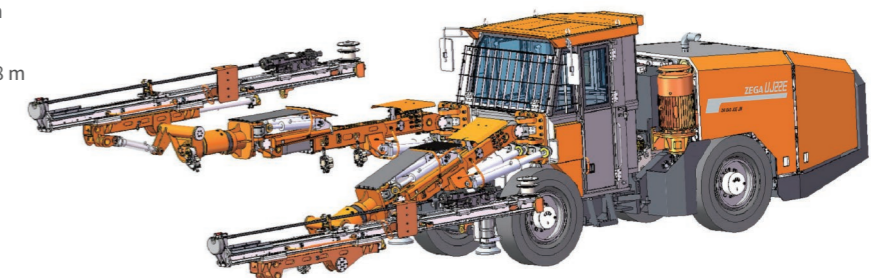
UJ21D 地下矿用掘进系列产品 Underground Face Drilling Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:6.6×6.3 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:12.4×9 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):2.8×2.8 m
- 钻孔孔径/Hole range:Φ41-102 mm



UJ22E 地下矿用掘进系列产品 Underground Face Drilling Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:8.72×6.35 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):3.8×3.8 m
- 钻孔孔径/Hole range:Φ41-102 mm



ZEGA UJ18A

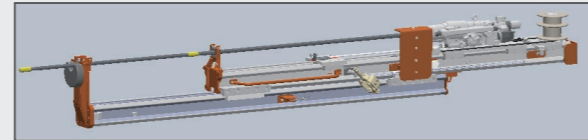
产品特点/Product Features

■ 本型特点: 整机尺寸最小高度1.5m, 宽1.45m四轮驱动铰接式浮动底盘设计, 能够适用于崎岖路面条件, 快速到达与撤离施工断面, 其最小1.8mX1.8m巷道通过性, 可满足2X2m~3.5X3.5m巷道断面掘进及360°锚杆作业, 非常适用于窄小、低矮的老式矿山改造掘进及小型引水洞等建筑施工使用。

■ Features of this model: Compact structure design with height of 1.5m and width of 1.45m; 4WD central articulated steering chassis enables UJ18A to pass drift size of 1.8mX1.8m; Satisfies requirements for 2X2m to 3.5X3.5m drift development and 360°bolting; It will be perfectly suitable for reconstruction drilling of old narrow vein mines, small-sized diversion tunnels and other constructions.

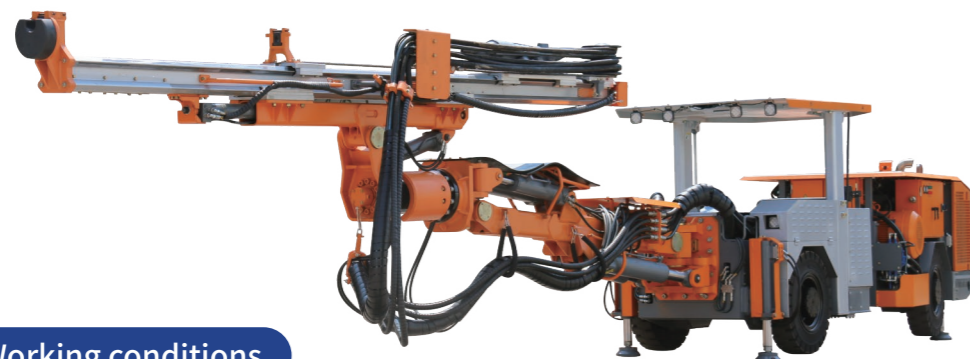
选配应用说明

Optional Configurations



伸缩式推进器配置, 应用于矿山掘进和锚杆孔兼作业场合, 推进器伸展开用于掘进作业, 缩回后可用于锚杆孔的垂直作业, 同时配套后行走尺寸更短, 更灵活。Telescopic feed configuration can be applied to both face drilling and bolting operations: extended feed for face drilling operation, retracted feed for vertical bolting operation;

有两种尺寸供选择 (尺寸为钻杆长度尺寸): 1830/3700伸缩推进器; 2435/4270伸缩推进器。配置覆盖地下矿用掘进系列产品。Available in 2 sizes: telescopic feed for drill rod of 1830/3700mm length and 2435/4270mm length. The optional configurations are available for whole series of underground face drilling rigs.



适用工况/Working conditions

工程建筑 Construction

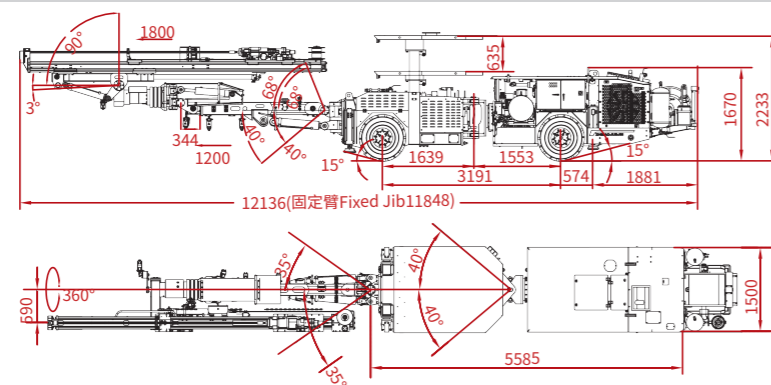
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

绿色矿山 Green Mining

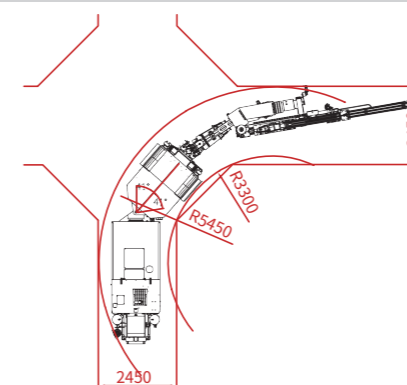
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
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Underground Quarry

技术规格/Technical Specifications

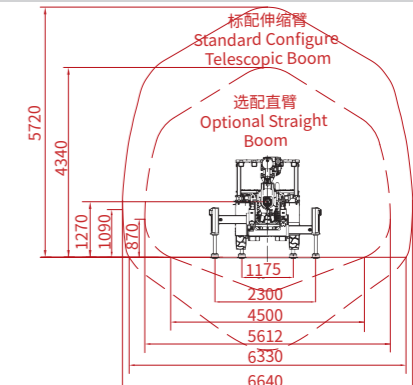
发动机 Engine			
品牌 Manufacturer	玉柴 Yuchai	玉柴 Yuchai	康明斯 Cummins
型号 Model	YC4DK100-T301	YCF36100-T480	F3.8
排放标准 Emission standards	国III China III	国IV China IV	欧V EURO V
额定功率 Rated power	73.5 kW(100 hp)2,400 rpm	74 kW(100 hp)2,200rpm	75 kW(100 hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	30 m ²
一次钻孔孔深 Hole depth (1st drill rod)	3,440/4,050 mm	行驶转弯半径 Turning radius	(内Inner)R3,300/(外Outer)R5,450 mm
钻杆规格 Drill rod size & length	T38-H35-R32 3,700/4,305	外形尺寸 (长*宽*伸缩高) Dimensions (L*W*H)	12,136*1,500 *1,670/2,233 mm
工作端面尺寸 (宽*高) Face size (W*H)	6.64*5.72 m	整机重量 Weight	11 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	5,500/6,100 mm	钻臂平动系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,800 mm	钻臂延伸 Boom extension length	1,200 mm
推进行程 Feed travel length	3,440/4,050 mm	钻臂左右摆动角度 Boom swing angle	35°
最大推进力 Feed force max.	15 kN	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/40°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	17 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
底盘 Chassis			
行走方式 Trammng method	柴驱/电驱+4驱轮式+铰接 Diesel engine / electrical drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Trammng speed	7/4 km/h	离地间隙 Ground clearance	250 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±40°	燃油箱容积 Fuel tank volume	75 L
后桥摆动角度 Rear axle oscillation angle	±15°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	
整机装机功率 Installed power	76 kW	型号 Model	ZEGA
主电动机功率 Main motor power	55 kW	冲击功率 Percussion power	ZY104M
主电动机数量 Number of main motors	1	冲击频率 Percussion frequency	20 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	46-60 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	70 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	2 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	12 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作压力 Nonimal air pressure	8 bar
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling	排风量 Air discharge capacity FAD	1 m ³ /min



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UJ20

产品特点/Product Features

■ 本型特点：整机长度尺寸9m，宽1.22m的短窄型设计，采用四轮驱动铰接式浮动底盘设计，其最小1.6mX1.9m的巷道通过性，可满足2X2.1m~3.5X3.5m巷道断面掘进及360°锚杆作业，非常适用于延着矿脉开采的窄小型矿山掘进作业，降低贫化率。

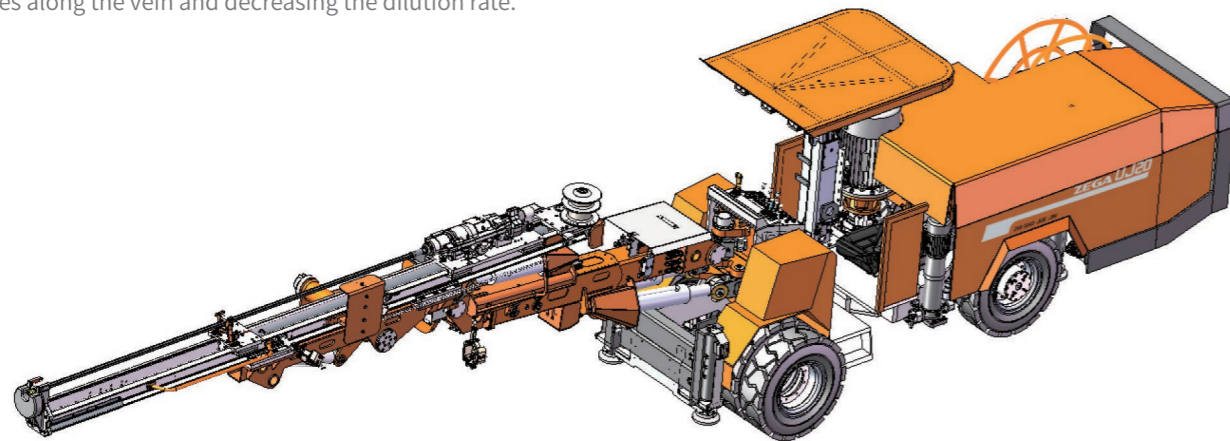
■ Features of this model: Short and narrow type design of 9m length and 1.22m width; 4WD articulated chassis design; Minimum drift pass size: 1.6mX1.9m; Satisfies requirements for 2X2.1m to 3.5X3.5m face drilling and 360° bolting operations; Perfectly suitable for face drilling operations on small-sized mines along the vein and decreasing the dilution rate.

选配应用说明

Optional Configurations



根据法规和项目安全要求，全系列地下钻机都可配套安装自动灭火系统，本系统具有自动触发和手动触发双功能模式，为你的财产安全保驾护航。According to related regulations and safety requirements of the project, the full series underground drill rigs can be equipped with an automatic fire extinguishing system, which has a dual-function mode of automatic and manual triggering to keep your property safe.



适用工况/Working conditions

工程建筑 Construction

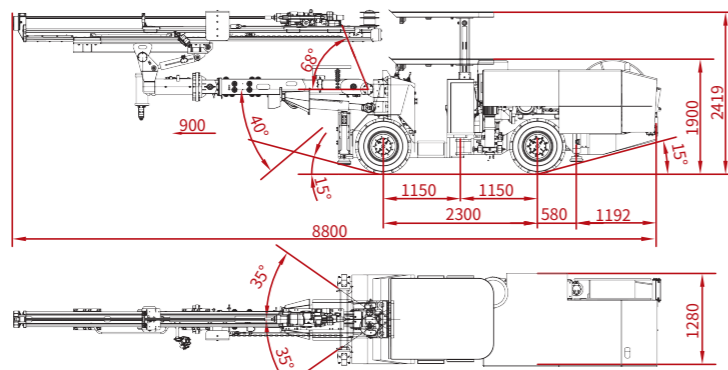
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

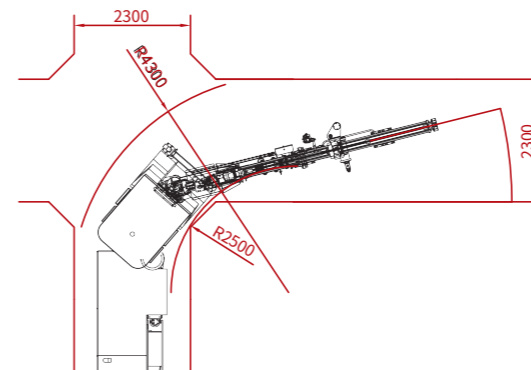
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

技术规格/Technical Specifications

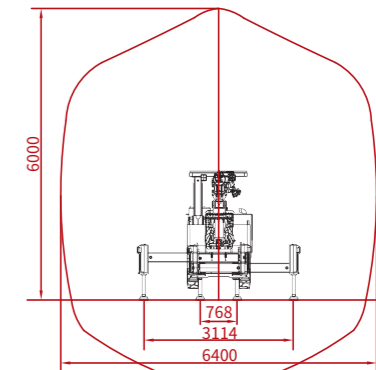
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110
排放标准 Emission standards	国 II China II	国 III China III	国 IV China IV
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81kW(110 hp)2,500rpm
75 kW(100 hp)2,200rpm			
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	25 m ²
一次钻孔深 Hole depth (1st drill rod)	3,440/4,050 mm	行驶转弯半径 Turning radius	(内Inner)R2,500/(外Outer)R4,300 mm
钻杆规格 Drill rod size & length	T38-H35-R32 3,700/4,305	外形尺寸 (长*宽*伸缩高) Dimensions (L*W*H)	9,800*1,280*1,900/2,419 mm
工作端面尺寸 (宽*高) Face size (W*H)	5.8*5.23 m	整机重量 Weight	12 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	5,500/6,100 mm	钻臂平动系统 Parallel holding system	无 No
推进补偿 Feed extension length	1,600 mm	钻臂延伸 Boom extension length	900 mm
推进行程 Feed travel length	3,440/4,050 mm	钻臂左右摆动角度 Boom swing angle	35°
最大推进力 Feed force max.	15 kN	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/40°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	17 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
底盘 Chassis			
行走方式 Traming method	柴驱/电驱+4驱轮式+铰接 Diesel engine / electrical drive + 4WD + articulated		
行走冷却方式 Cooling method for traming	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Traming speed	7/4 km/h	离地间隙 Ground clearance	240 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	65 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	78 kW	型号 Model	ZY104M
主电动机功率 Main motor power	55 kW	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	1	冲击频率 Percussion frequency	46-60 Hz
工作电压 Working voltage	380/660 V	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	80/100 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	4 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	12 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling	排风量 Air discharge capacity FAD	1 m ³ /min



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UJ21D

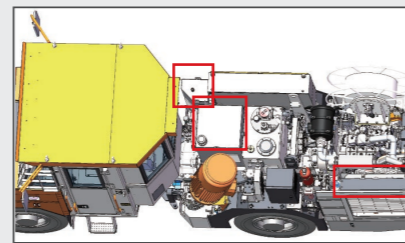
产品特点/Product Features

■ 本型特点: 广泛适用于地下矿山开拓、小型隧道掘进及锚杆孔的加固工程,其最小2.8X2.8m的巷道通过性,可满足3X3m~6x6m断面的矿山掘进、锚杆孔施工。10.00/R20加强型轮胎+液力变速动力的强劲配套,越野能力更强,可实现压顶采矿施工作业。

■ Features of this model: Widely used in underground mine development and small-sized tunnels excavation and rock reinforcement; Minimum drift pass size: 2.8X2.8m; Satisfies requirements for 3X3m to 6x6m face drilling on mines and bolting operations; 10.00/R20 reinforced tires + hydraulic converter-transmission brings superior mobility and achieves roof-drilling production.

选配应用说明

Optional Configurations



针对极寒和沙漠地带,水资源紧缺及存在结冰等痛点问题,我们可以提供采用压缩空气排渣+水雾除尘的特殊应用配置设计方案。本系统方案覆盖掘进、锚杆

和采矿台车。To solve freeze in extremely cold areas and water shortage in deserts and other problems, we provide a special configuration solution of cuttings flushing with compressed air + air-water mist dust suppression, which can be applied to face drilling, bolting and long-hole drilling.



适用工况/Working conditions

工程建筑 Construction

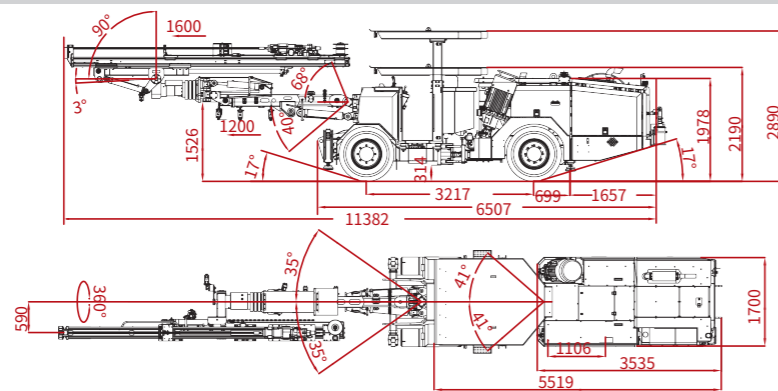
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

绿色矿山 Green Mining

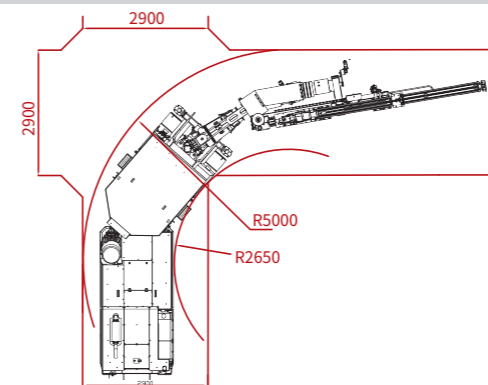
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

技术规格/Technical Specifications

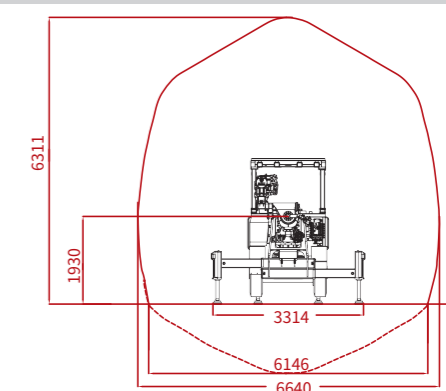
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110
排放标准 Emission standards	国 II China II	国 III China III	国 IV China IV
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81kW(110 hp)2,500rpm
康明斯 Cummins			康明斯 Cummins
			F3.8
			欧 V EURO V
			75 kW(100 hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	36 m ²
一次钻孔孔深 Hole depth (1st drill rod)	3,440/4,050 mm	行驶转弯半径 Turning radius	(Inner)R2,650mm/(外Outer)R,5000mm
钻杆规格 Drill rod size & length	T38-H35-R32 3,700/4,305	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	11,382*1,700* 2,190/2,890 mm
工作端面尺寸(宽*高) Face size (W*H)	6.64*6.31 m	整机重量 Weight	13 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	5,500/6,100 mm	钻臂平动系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,600 mm	钻臂延伸 Boom extension length	1,200 mm
推进行程 Feed travel length	3,440/4,050 mm	钻臂左右摆动角度 Boom swing angle	35°
最大推进力 Feed force max.	15 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/40°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	17 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	17°
行走速度 Trammng speed	7/4 km/h	离地间隙 Ground clearance	314 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	65 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	78 kW	型号 Model	ZY104M
主电动机功率 Main motor power	55 kW	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	1	冲击频率 Percussion frequency	46-60 Hz
工作电压 Working voltage	380/660V	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	80/100 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	4 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	12 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling	排风量 Air discharge capacity FAD	1 m ³ /min



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UJ22E

产品特点/Product Features

■ 本型特点:广泛适用于地下中大型矿山开拓、小型隧道掘进及锚杆孔的加固工程,其最小3.8X3.8m的巷道通过性,可满足4X4m~9x6m断面的矿山掘进、锚杆孔施工。整机采用电比例全电控系统设计,可扩展加装进程及远程的无线遥控智能化操作系统。

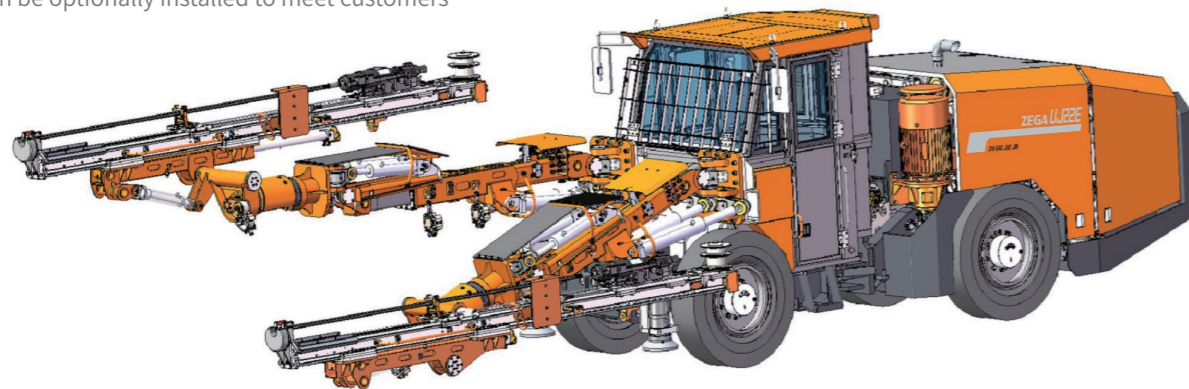
■ Features of this model: Widely used in medium to large-sized underground mine development, and small-sized tunnel excavation and rock reinforcement; Minimum drift pass size: 3.8X3.8m; Satisfies requirements for 4X4m to 9x6m face drilling on mines and bolting operations; UJ22E adopts an electrical proportional fully electronic control system and line-of-sight distance radio remote control and remote intelligent operating systems can be optionally installed to meet customers' demands.

选配应用说明

Optional Configurations



针对一些特殊危险区域作业,我们可以提供扩展加装无线进程遥控操作系统,供于客户进行选择。本系统方案目前只适应于22E矿用两臂掘进钻机,其他机型选配需提前定制。The optional radio remote intelligent operating system for short distance is specially designed for operations in hazardous areas to meet customer's needs. This optional configuration is only available on UJ22E two-boom face drilling rig on mines and the other series drill rigs need to be customized for this configuration.



适用工况/Working conditions

工程建筑 Construction

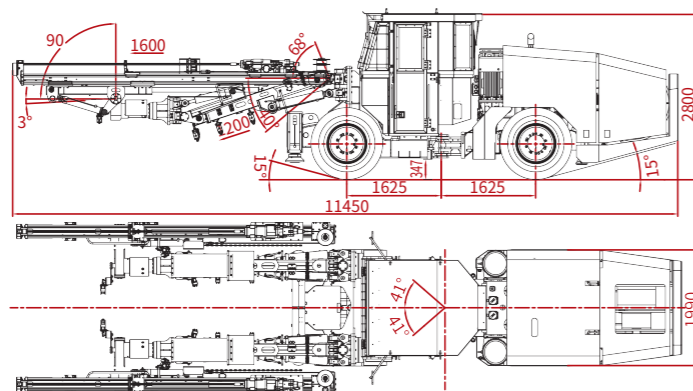
- 隧道工程 Tunneling Construction
- 引水工程 Water-diversion Works
- 洞库工程 Cave Depot Project
- 水电站工程 Hydropower Station
- 地下厂房工程 Underground Powerhouse
- 国防工程 Defense Engineering

绿色矿山 Green Mining

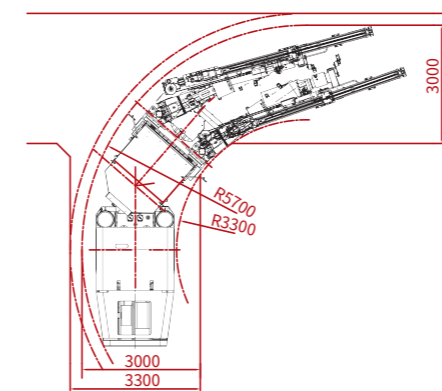
- 铁矿矿山 Iron Mine
- 化学矿山 Chemical Mine
- 有色金属矿山 Nonferrous Mine
- 地下采石场 Underground Quarry

技术规格/Technical Specifications

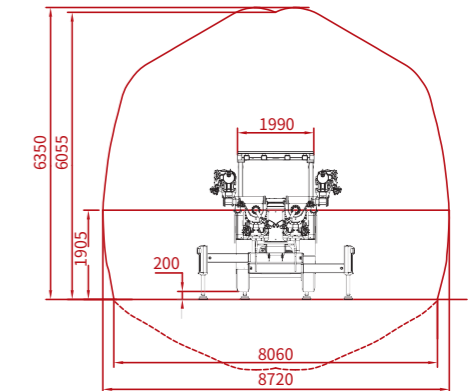
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	道依茨 DEUTZ
型号 Model	QSB3.9-C130-32	B3.9CS4-C130	TCD6.1 L6 St.V
排放标准 Emission standards	国III China III	国IV China IV	欧V EURO V
额定功率 Rated power	97 kW(130 hp)2,500rpm	96 kW(130 hp)2,500rpm	160 kW(220 hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	45 m ²
一次钻孔深 Hole depth (1st drill rod)	3,440/4,050 mm	行驶转弯半径 Turning radius	(内Inner)R2,800/(外Outer)R5,700 mm
钻杆规格 Drill rod size & length	T38-H35-R32 3,700/4,305	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	11,830×1,990×2,800 mm
工作面尺寸(宽*高) Face size (W*H)	8.72×6.35 m	整机重量 Weight	20 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	5,500/6,100 mm	钻臂平动系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,600 mm	钻臂延伸 Boom extension length	1,200 mm
推进行程 Feed travel length	3,440/4,050 mm	钻臂左右摆动角度 Boom swing angle	45°
最大推进力 Feed force max.	15 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/40°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉力 Pullback force max.	17 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Trammng speed	25/11/6.5 km/h	离地间隙 Ground clearance	347 mm
爬坡角度 Gradeability	14°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	90 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	146 kW	型号 Model	ZY104M
主电动机功率 Main motor power	55 kW*2	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	2	冲击频率 Percussion frequency	46-60 Hz
工作电压 Working voltage	380/660 V	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	100 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	8 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	15 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	100 m	排风量 Air discharge capacity FAD	1 m ³ /min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

安全可靠 Safe & Reliable

驾驶室&驾驶顶棚/ Cabin & Canopy

■ 配备了通过国际FOPS安全认证的防落物冲击升降安全顶棚，最大限度的杜绝了人员安全隐患问题，另外还可提供配套安装空调驾驶室，在满足防护要求的同时、冷暖空调，抗噪防尘、宽大舒适。

■ Equipped with an internationally FOPS certified liftable canopy, which eliminates the potential safety hazards of personnel to the greatest extent, and also has an optional air-conditioned closed cabin, featuring cooling and heating air conditioning, noise reduction and dust prevention, safety and comfort.

安全制动/Safety Braking System

■ 轮边独立湿式制动加紧制动组合，同时配套双回路踏板式刹车系统，在其中一路甚至双路油管损坏的前提下，也可安全制动，从而确保了行走时的安全可靠。

■ The combination of independent wheel-end wet disc brake and emergency braking, and the dual-circuit pedal brake system can safely brake when one or even two brake lines are damaged, thus ensuring safety and reliability during tramping.

高防护/High Protection

■ 三相五线制安全供电系统设计和电缆拉力限制保护，为高压供电系统的安全保驾护航；低压控制及照明等电器系统采用直流24V安全电压设计，防护等级高达IP67。

■ Three-phase five-wire system safe power supply and cable tension limit protection to provide the safety of high-voltage power supply system; Low-voltage control and lighting electrical systems are designed with a DC 24V safety voltage and a protection level of up to IP67.

高可靠/High Reliability

■ 整机系统元件均采用成熟可靠验证过的国际/国内一流品牌元件，确保产品在地下恶劣环境中使用的高可靠及操控性。

■ The entire drilling rig components are made of internationally renowned brands/domestic first-class brand components that have been proven by the industry to ensure high reliability and well controlling performance in the harsh underground environment.



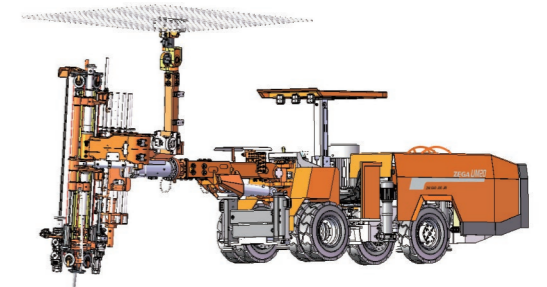
UM18K 地下矿用锚杆系列产品 /Underground Bolting

最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H):MAX:7.2×6.3 m
最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):2×2 m
钻孔孔径/Hole range:Φ32-51 mm



UM20 地下矿用锚杆系列产品 /Underground Bolting

最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H):MAX:6.6×6.5 m
最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):2×2 m
钻孔孔径/Hole range:Φ32-51 mm



UM21K 地下矿用锚杆系列产品 /Underground Bolting

最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H):MAX:7.5×7 m
最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):3×3 m
钻孔孔径/Hole range:Φ32-51 mm



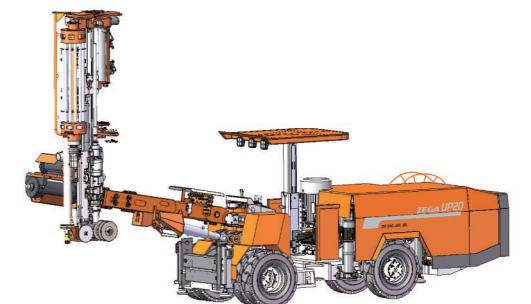
UP31A/B 地下采矿系列产品 /Underground Long-hole Drill Rig

最大采矿工作覆盖范围(宽X高)
/Production drilling coverage area (W x H):MAX:6.1×3.8 m/8.5×5.1 m
最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):2.5×2.8 m/2.5×3.5 m
钻孔孔径/Hole range:Φ64-115 mm



UP20 地下采矿系列产品 /Underground Long-hole Drill Rig

最大采矿工作覆盖范围(宽X高)
/Production drilling coverage area (W x H):MAX:8.7×6.6 m
最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):2×2 m
钻孔孔径/Hole range:Φ64-115 mm



ZEGA UM18K

产品特点/Product Features

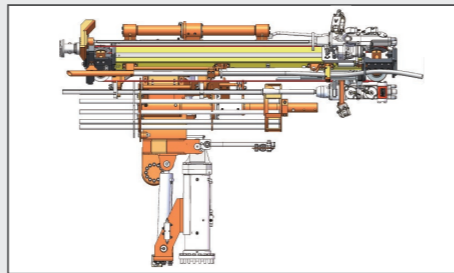
■ 本型特点: 适用于地下中小型矿山锚杆支护施工的多功能全液压锚杆钻机, 其最小2X2m的巷道通过性, 可满足6x6m断面的矿山锚杆施工。双三角悬浮支撑钻臂能够保证在各个方向上准确的360度无死角钻孔锚杆覆盖作业。双工位推进系统加锚杆仓的组合设计, 可实现一体化管缝锚杆和树脂锚杆的钻锚及钻注锚两种施工工艺需求的复合作业。

■ Features of this model: UM18K is a multi-functional fully hydraulic bolting rig for bolting support operations on underground small to medium-sized mines; Minimum drift pass size: 2X2m; Satisfies requirements for bolting construction of 6x6m drift size; Double triangle support boom structure ensures accurate bolting operation in all directions; The combination of two station feeding system and bolt chamber to achieve split tube friction bolting or resin bolting operations of drilling-bolting and drilling-grouting-bolting.



选配应用说明

Optional Configurations



针对不同岩层支护及巷道尺寸的不同, 对应我们可以提供两款不同应用的推进系统, 3200 (2100锚杆支护推进器配置) 和2900 (1800锚杆支护推进器配置), 如有其他不同的特殊需求, 可提前定制。In view of diversified rock support requirements and the limited size of drifts, two configurations of feed system are available: 3200 (2100 feed configuration for bolting support) and 2900 (1800 feed configuration for bolting support). For other operating requirements, the corresponding configurations can be customized.

适用工况/Working conditions

工程建筑 Construction

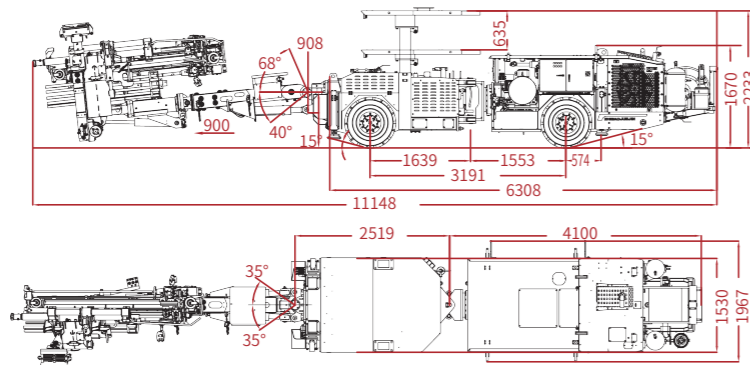
- 隧道工程 Tunneling Construction
- 水电站工程 Hydropower Station
- 引水工程 Water-diversion Works
- 地下厂房工程 Underground Powerhouse
- 洞库工程 Cave Depot Project
- 国防工程 Defense Engineering

绿色矿山 Green Mining

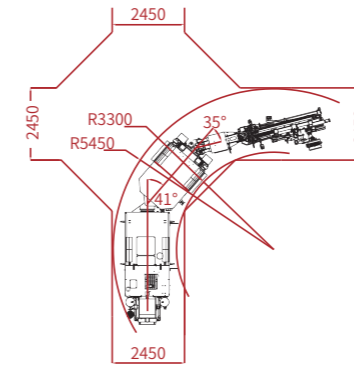
- 铁矿矿山 Iron Mine
- 有色金属矿山 Nonferrous Mine
- 化学矿山 Chemical Mine
- 地下采石场 Underground Quarry

技术规格/Technical Specifications

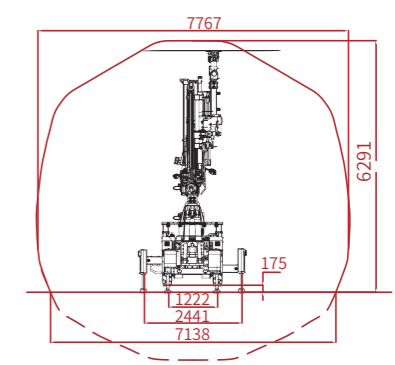
发动机 Engine			
品牌 Manufacturer	玉柴 Yuchai	玉柴 Yuchai	康明斯 Cummins
型号 Model	YC4DK100-T301	YCF36100-T480	F3.8
排放标准 Emission standards	国III China III	国IV China IV	欧V EURO V
额定功率 Rated power	73.5 kW(100 hp)2,400rpm	74 kW(100 hp)2,200rpm	75 kW(100 hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ32-51 mm	钻孔孔深 Hole depth	1,900 mm
工作端面尺寸(宽*高) Face size (W*H)	7.8×6.3 m	整机重量 Weight	12.5T
钻杆规格 Drill rod size & length	R32-H25-R25 2,175	行驶转弯半径 Turning radius	(内Inner)R2,600/(外Outer)R4,600 mm
锚杆长度 Bolt length	1,800 mm	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	11,148×1,530×1,670/2,233 mm
锚杆规格 Bolt type: (管缝 Split tube friction bolt) φ40 mm/ 树脂 Resin bolt: φ16/φ18/φ20/φ22/φ25 mm		锚杆安装数量 Number of bolts:9+1	
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	2,900 mm	钻臂延伸 Boom extension length	900 mm
推进补偿 Feed extension length	380 mm	钻臂左右摆动角度 Boom swing angle	35°
推进行程 Feed travel length	1,900 mm	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/40°
最大推进力 Feed force max.	15 kN	推进器翻转角度 Feed roll-over angle	360°
最大推进速度 Feed speed max.	0.9 m/s	推进器俯仰角度 Feed tilt angle	18°/-75°
最大拉拔力 Pullback force max.	17 kN		
底盘 Chassis			
行走方式 Traming method	柴驱/电驱+4驱轮式+铰接 Diesel engine / electrical drive + 4WD + articulated		
行走冷却方式 Cooling method for traming	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Traming speed	7/4 km/h	离地间隙 Ground clearance	250 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±40°	燃油箱容积 Fuel tank volume	75 L
后桥摆动角度 Rear axle oscillation angle	±15°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	
整机装机功率 Installed power	76 kW	品牌 Manufacturer	ZEGA
主电动机功率 Main motor power	55 kW	型号 Model	ZY102M
主电动机数量 Number of main motors	1	冲击功率 Percussion power	11 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	100 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-320 rpm
装机电缆长度 Cable length	80 m	最大扭矩 Rotation torque max.	430 N.m
		机重 Weight	80 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	2 m³/h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	12 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	无 No	排风量 Air discharge capacity FAD	1 m³/min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UM20

产品特点/Product Features

■ 本型特点: 适用于地下中小型矿山锚杆支护施工的多功能全液压锚杆钻机, 其最小2X2m的巷道通过性, 可满足6x6m断面的矿山锚杆施工。整机总长9m内及前底盘四组轮胎的加强组合式设计, 使得整机重心更稳, 运行转场更加灵活稳定。

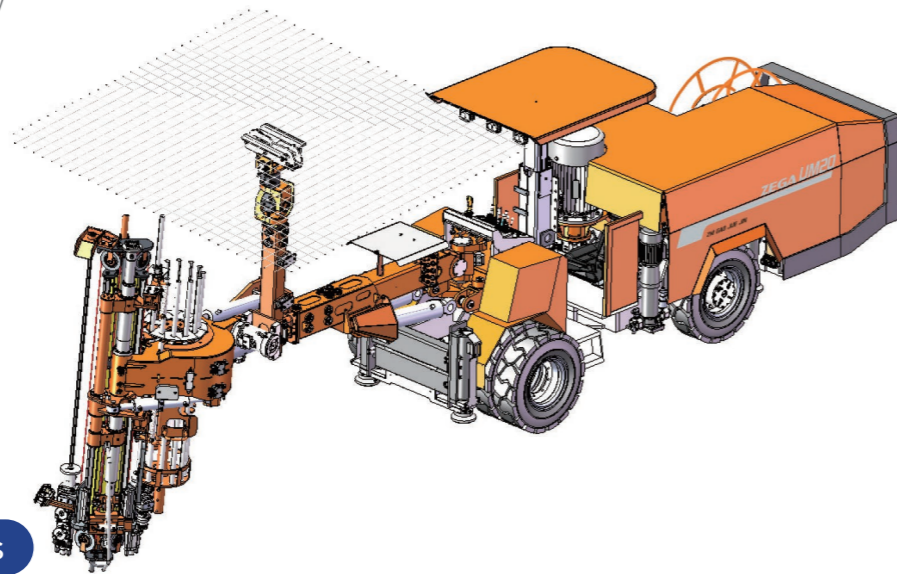
■ Features of this model: UM20 is a multifunctional fully hydraulic bolting rig for small-medium-scale underground mine rock reinforcement; Minimum drift pass size: 2X2m; Satisfies requirements for bolting of 6x6m drift size; It has 9m overall length and its intensified 4-group of tyres front chassis structure design makes the gravity center more stable and achieves good mobility and easy transferring.

选配应用说明

Optional Configurations



针对全球不同地区的工作电压及频率不同问题, 我们可以提供660/1000V及50Hz和60Hz几种高压电配置的方案, 如有其他不同的特殊需求如宽电压设计等, 可提前定制。As the voltage and frequency of power supply vary for different regions worldwide, we provide optional solutions of 660/1000V and 50/60Hz. For any other special requirements (e.g. wide voltage application), please inquire in advance.



适用工况/Working conditions

工程建筑 Construction

- 隧道工程 Tunneling Construction
- 水电站工程 Hydropower Station

- 引水工程 Water-diversion Works
- 地下厂房工程 Underground Powerhouse

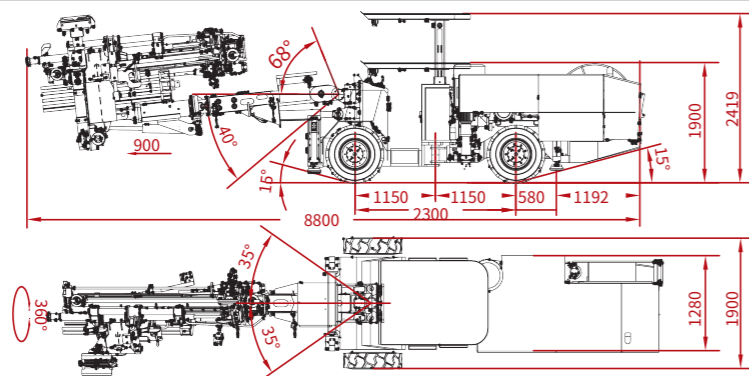
- 洞库工程 Cave Depot Project
- 国防工程 Defense Engineering

绿色矿山 Green Mining

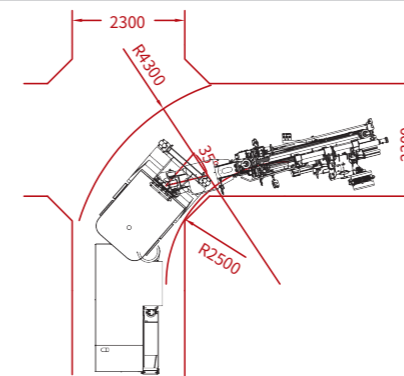
- 铁矿矿山 Iron Mine
- 有色金属矿山 Nonferrous Mine
- 化学矿山 Chemical Mine
- 地下采石场 Underground Quarry

技术规格/Technical Specifications

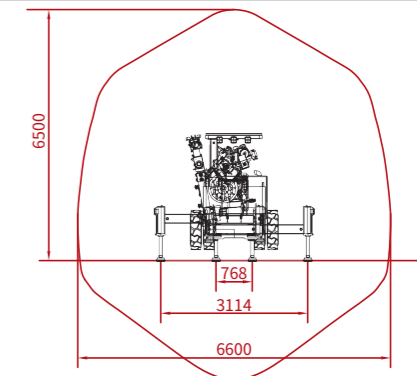
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110
排放标准 Emission standards	国II China II	国III China III	国IV China IV
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81 kW(110 hp)2,500rpm
75 kW(100 hp)2,200rpm			
功能参数 Functional Parameters			
孔径范围 Hole range	Φ32-51 mm	钻孔孔深 Hole depth	1,900/2,200 mm
工作端面尺寸(宽*高) Face size (W*H)	6.6*6.5 m	整机重量 Weight	14 T
钻杆规格 Drill rod size & length	R32-H25-R25 2,175/2,475	行驶转弯半径 Turning radius	(内Inner)R2,500/(外Outer)R4,300 mm
锚杆长度 Bolt length	1,800/2,000/2,100 mm	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	8,800*1,280*1,900/2,419 mm
锚杆规格 Bolt type: (管缝 Split tube friction bolt) φ40 mm/ 树脂 Resin bolt: φ16/φ18/φ20/φ22/φ25 mm		锚杆安装数量 Number of bolts: 9+1	
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	2,900/3,200 mm	钻臂延伸 Boom extension length	900 mm
推进补偿 Feed extension length	480 mm	钻臂左右摆动角度 Boom swing angle	35°
推进行程 Feed travel length	1,900/2,200 mm	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/40°
最大推进力 Feed force max.	15 kN	推进器翻转角度 Feed roll-over angle	360°
最大推进速度 Feed speed max.	0.9 m/s	推进器俯仰角度 Feed tilt angle	18°/-75°
最大拉拔力 Pullback force max.	17 kN		
底盘 Chassis			
行走方式 Trammng method	柴驱/电驱+4驱轮式+铰接 Diesel engine / electrical drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Trammng speed	7/4 km/h	离地间隙 Ground clearance	240 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	65 L
后桥摆动角度 Rear axle oscillation angle	±8°		
电动机系统 Electrical Motor		凿岩机 Rock Drill	
整装机功率 Installed power	66 kW	品牌 Manufacturer	ZEGA
主电动机功率 Main motor power	45 kW	型号 Model	ZY102M
主电动机数量 Number of main motors	1	冲击功率 Percussion power	11 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	100 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-320 rpm
装机电缆长度 Cable length	80/100 m	最大扭矩 Rotation torque max.	550 N.m
		机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	4 m³/h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	12 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机电管长度 Water hose length	无 No	排风量 Air discharge capacity FAD	1 m³/min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UM21K

产品特点/Product Features

■ 本型特点: 适用于地下中大型矿山锚杆支护施工的多功能全液压锚杆钻机,其最小3X3m的巷道通过性,可满足7x8m断面的矿山锚杆施工。可选装3个360度翻转自由度的大覆盖范围挂网机械臂设计,可满足各种挂网需求,配合钻臂作业,实现挂网、钻孔、锚杆安装一体化作业。

■ Features of this model:UM21K is a multifunctional fully hydraulic bolting rig for medium to large-sized underground mine rock reinforcement; Minimum drift pass size: 3X3m; Satisfies requirements for bolting drift size of 7x8m; The optional 3-degree-of-freedom robotic arm design can meet the positioning needs of the protective net hanging under various angle conditions. Together with the drill boom, the whole process of hanging nets, drilling, and bolt installation is completed in one go.



选配应用说明

Optional Configurations



针对客户对舒适性要求的不同,我们可以提供空调驾驶室型的配置方案,注意部分机型无空调驾驶室选项,详见样本后面的选配配置表内容。Taking diversified requirements for operation environment into consideration, we offer option of an air-conditioned cabin. It is worth noting that some models are not equipped with the air-conditioned cabin and please refer to the optional configurations list for details.

适用工况/Working conditions

工程建筑 Construction

- 隧道工程 Tunneling Construction
- 水电站工程 Hydropower Station

- 引水工程 Water-diversion Works
- 地下厂房工程 Underground Powerhouse

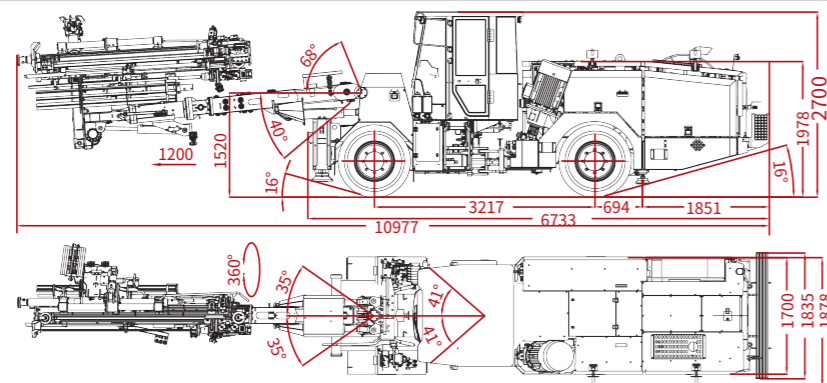
- 洞库工程 Cave Depot Project
- 国防工程 Defense Engineering

绿色矿山 Green Mining

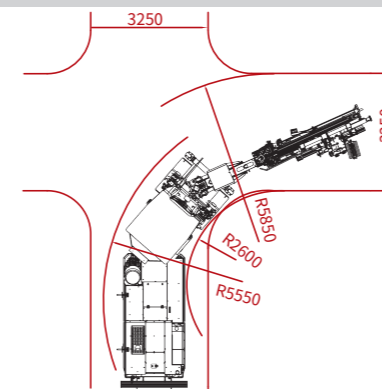
- 铁矿矿山 Iron Mine
- 有色金属矿山 Nonferrous Mine
- 化学矿山 Chemical Mine
- 地下采石场 Underground Quarry

技术规格/Technical Specifications

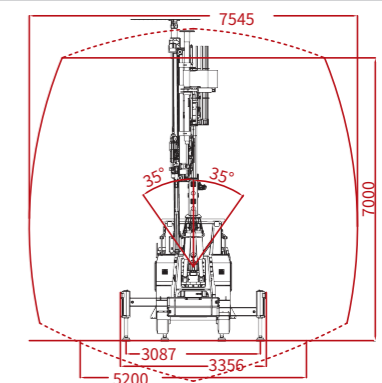
发动机 Engine				
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110	F3.8
排放标准 Emission standards	国 II China II	国 III China III	国 IV China IV	欧 V EURO V
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81 kW(110 hp)2,500rpm	75 kW(100 hp)2,200rpm
功能参数 Functional Parameters				
孔径范围 Hole range	Φ32-51 mm	钻孔孔深 Hole depth	1,900/2,200 m	
工作端面尺寸(宽*高) Face size (W*H)	8.5×7 m	整机重量 Weight	15 T	
锚杆规格 Drill rod size & length	R32-H25-R25 2,175/2,475	行驶转弯半径 Turning radius	(内Inner)R2,890/(外Outer)R6,000 mm	
锚杆长度 Bolt length	1,800/2,000/2,100 mm	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	10,700×1,900×2,700 mm	
锚杆规格 Bolt type: 管缝 Split tube friction bolt: Φ40 mm /树脂 Resin bolt: Φ16/Φ18/Φ20/Φ22/Φ25 mm				锚杆安装数量 Number of bolts: 9+1
钻臂和推进梁 Drill Boom & Feed Beam				
推进器总长度 Feed total length	2,900/3,200 mm	钻臂延伸 Boom extension length	1,200 mm	
推进补偿 Feed extension length	480 mm	钻臂左右摆动角度 Boom swing angle	35°	
推进行程 Feed travel length	1,900/2,200 mm	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/40°	
最大推进力 Feed force max.	15 kN	推进器翻转角度 Feed roll-over angle	360°	
最大推进速度 Feed speed max.	0.9 m/s	推进器俯仰角度 Feed tilt angle	18°/-75°	
最大拉拔力 Pullback force max.	17 kN			
底盘 Chassis				
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated			
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	17°	
行走速度 Trammng speed	12/4.5 km/h	离地间隙 Ground clearance	314 mm	
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4	
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	65 L	
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill		
电动系统 Electrical Motor		凿岩机 Rock Drill		
整机装机功率 Installed power	66 kW	品牌 Manufacturer	ZEGA	
主电动机功率 Main motor power	45 kW	型号 Model	ZY102M	
主电动机数量 Number of main motors	1	冲击功率 Percussion power	11 kW	
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	100 Hz	
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-320 rpm	
装机电缆长度 Cable length	80/100 m	最大扭矩 Rotation torque max.	430 N.m	
水系统 Water System		机重 Weight	80 kg	
最大水流量 Flow rate max.	4 m³/h	螺杆空压机 Screw Air Compressor		
最大排渣压力 Flushing pressure max.	12 bar	品牌 Manufacturer	志高动力 ZHIGAO	
最小需求进水口压力 Water inlet pressure min.	2 bar	型号 Model	ZGHA56II	
装水管长度 Water hose length	无 No	工作风压 Nonimal air pressure	8 bar	
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling	排风量 Air discharge capacity FAD	1 m³/min	



外形尺寸 Dimensions



转弯半径 Turning radius



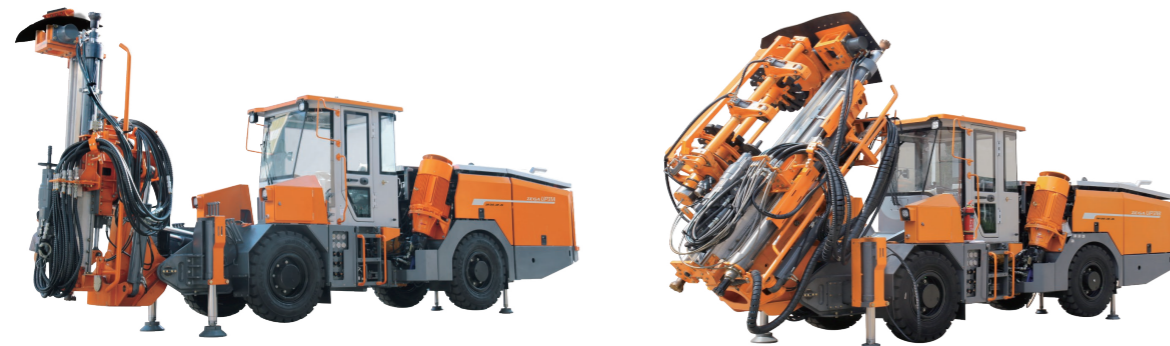
作业覆盖范围 Work Coverage area

ZEGA UP31A/31B

产品特点/Product Features

■ 本型特点:适用于中大型巷道的采矿台车,其最小3X3m的巷道通过性,可满足3.2mx3.5m ~5.1x7.9m断面的中深孔采矿作业施工。采用铝合金推进梁加三个顶尖支撑在巷道的上下顶板之间,确保定位稳固,凿岩期间不移位,保证钻孔的准确度。推进采用多级油缸直联设计,减少了常规链条/钢丝绳传动带来的颤抖受力不持续导致的钻孔偏移,同时也减少了故障源,提升了可靠性。大容量27+1的自动换杆机构系统,满足了一次定位钻凿50米孔深的作业需求,同时有效的避免了人员在凿岩危险区域下工作,提升了安全性。

■ Features of this model:UP31A/B is a long-hole drill rig for medium to large-sized drifts; Minimum drift pass size: 3X3m; Satisfies operation requirements for deep hole mining drifts with 5.1x7.9m size; The aluminium alloy feed beam and 3 spikes support between the upper and lower roofs to ensure secure positioning and drilling accuracy, and avoid position change during drilling; The feeding system adopts the direct connection design of multi-stage hydraulic cylinder to reduce discontinuous stress caused by regular chain / steel wire rope feeding, thereby lowering the possibility of drilling deviation, at the same time, it greatly decreases faults sources and promotes reliability. The large-capacity automatic rod handling system of 27+1 drill rods satisfies one positioning for drilling operations of 50m hole depth, and effectively prevents operators from working in hazardous areas for improving safety level.



适用工况/Working conditions

工程建筑 Construction

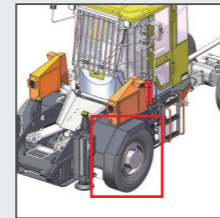
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

选配应用说明

Optional Configurations

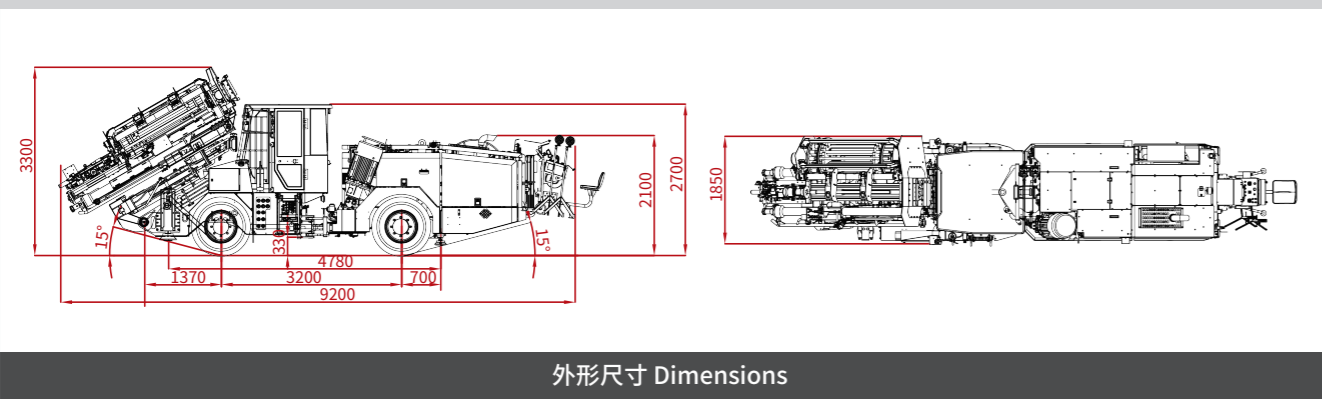


针对一些恶劣的特殊作业环境,可提供前桥加宽配置的选项,用于提升整机的转弯稳定性和可靠性,注意选用本配置,巷道的宽度尺寸要≥4m以上。Regarding to harsh operation environments, there is an option of widened front axle to boost the turning stability and reliability.

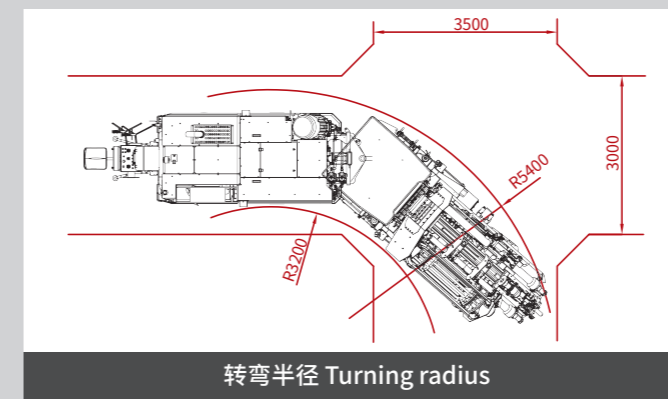
Notice: This configuration is suitable for the drifts width of 4m or above.

技术规格/Technical Specifications “和&”后为UP31B参数 The date behind “和&” is parameters of UP31B

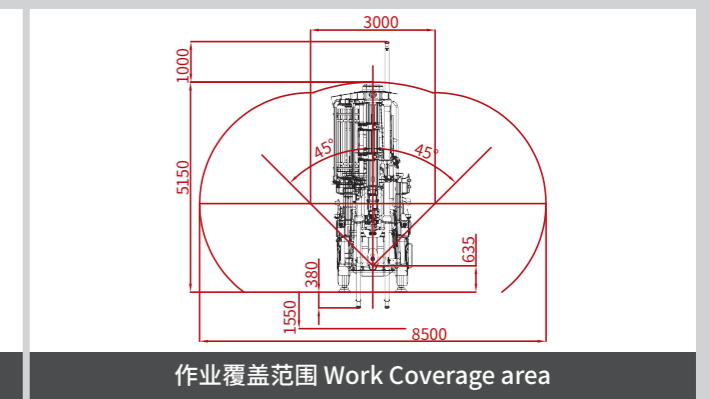
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110
排放标准 Emission standards	国 II China II	国 III China III	国 IV China IV
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81 kW(110 hp)2,500rpm
75 kW(100 hp)2,200rpm			
功能参数 Functional Parameters			
孔径范围 Hole range	Φ64-115mm	自动换杆数量 Number of auto changing rods	无 No 和& 27+1
钻孔孔深 Hole depth	30m和&50m	行驶转弯半径 Turning radius	(内Inner)R,2650/(外Outer)R5,000 mm
钻杆规格 Drill rod size & length	T38/T45/T51 915/1,220/1,525/1,830	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	9,000*1,700*2,700mm和&9,200*1,850*3,300mm
工作端面尺寸(宽*高) Face size (W*H)	6.1*3.8m和&8.5*5.1m	整机重量 Weight	14T 和 &16T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	3,000mm和&3,600mm	后顶尖行程距离 Travel length of rear spike	900mm 和 & 1,800mm
推进补偿 Feed extension length	900mm和&1,200mm	钻臂延伸 Boom extension length	无 No 和 & 460 mm
推进行程 Feed travel length	1,370mm和&1,980mm	钻臂左右摆动角度 Boom swing angle	45°
最大推进力 Feed force max.	30 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	30°/70° 和 & 45°/60°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	30 kN	平行距离 Parallel distance	1,700mm和&3,000mm
前顶尖行程距离 Travel length of front spike	650mm和&1,150mm		
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	17°
行走速度 Trammng speed	12/4.5 km/h	离地间隙 Ground clearance	314 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	65 L
后桥摆动角度 Rear axle oscillation angle	±8°		
电动系统 Electrical Motor		凿岩机 Rock Drill	
整机装机功率 Installed power	81 kW	品牌 Manufacturer	ZEGA
主电动机功率 Main motor power	55 kW	型号 Model	ZY104MZ
主电动机数量 Number of main motors	1	冲击功率 Percussion power	20 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	42-52 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-140 rpm
装机电缆长度 Cable length	80/100 m	最大扭矩 Rotation torque max.	980 N.m
遥控距离 Remote control distance	20 m	机重 Weight	185 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	6 m³/h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	14 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装水管长度 Water hose length	无 No	排风量 Air discharge capacity FAD	1 m³/min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



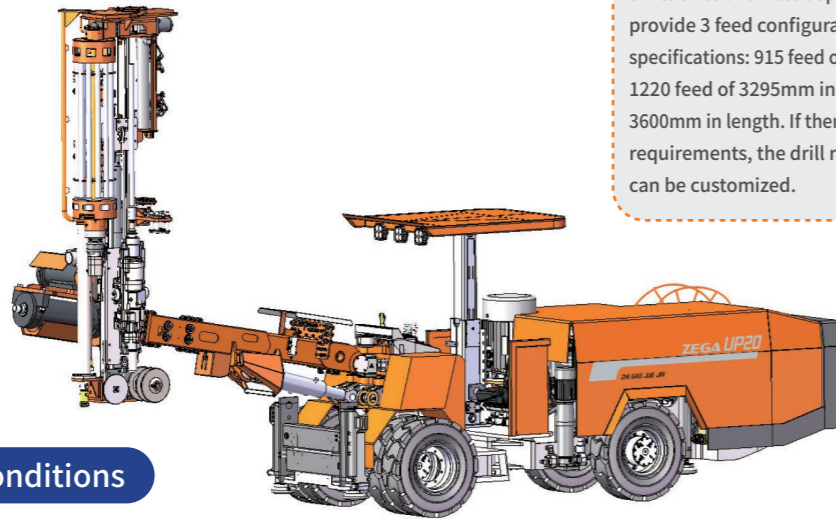
作业覆盖范围 Work Coverage area

ZEGA UP20

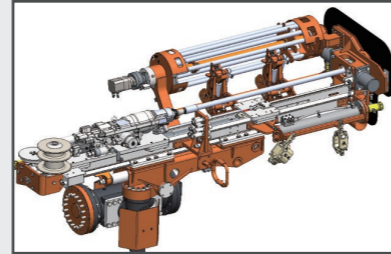
产品特点/Product Features

■ 本型特点:适用于中小型巷道的采矿台车,其最小2X2m的巷道通过性,可满足6x6m断面的中深孔采矿作业施工。钻臂采用双360度翻转缸设计,可实现任意角度的稳固作业,非常适合用于有色金属矿山延着矿脉中深孔开采的施工。人员操作是在有防护的安全顶棚内作业,更安全,更高效。

■ Features of this model:UP20 is a long-hole drill rig for small to medium-sized drifts; Minimum drift pass size: 2X2m; Satisfies requirements deep hole mining operations on 6x6m face size; The drill boom of 2-degree-of-freedom roll-over cylinder design ensures steady operations at all directions, thereby UP20 is perfectly suitable for long-hole drilling on nonferrous mines along the vein; The operation is under the protective safety canopy, which is safer, more reliable and effective.



选配应用说明 Optional Configurations



针对不同的巷道尺寸和孔深要求,对应我们可以提供三款不同尺寸规格的推进器配置;915推进器,总长3100mm。1220推进器,总长3295mm。1525推进器,总长3600mm。如有其他不同的特殊需求,可提前定制。In accordance with various drifts sizes and hole depth requirements, we provide 3 feed configurations of different specifications: 915 feed of 3100mm in length, 1220 feed of 3295mm in length, 1525 feed of 3600mm in length. If there are other special requirements, the drill rig configurations can be customized.

适用工况/Working conditions

工程建筑 Construction

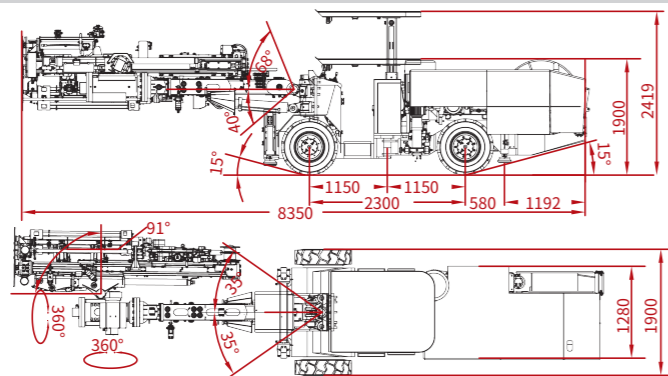
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

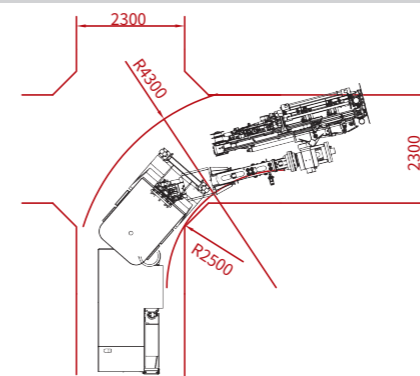
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

技术规格/Technical Specifications

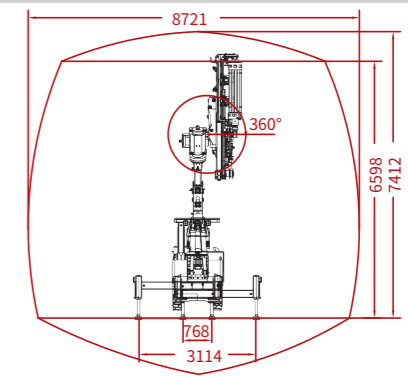
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	康明斯 Cummins
型号 Model	4BTA3.9-C100-II	QSB3.9-C100-30	B3.9CS4-C110
排放标准 Emission standards	国 II China II	国 III China III	国 IV China IV
额定功率 Rated power	74 kW(100 hp)2,200rpm	74 kW(100 hp)2,400rpm	81 kW(110 hp)2,500rpm
75 kW(100 hp)2,200rpm			
功能参数 Functional Parameters			
孔径范围 Hole range	Φ64-115mm	自动换杆数量 Number of auto changing rods	10+1
钻孔孔深 Hole depth	35 m	行驶转弯半径 Turning radius	(内Inner)R2,500mm/(外Outer)R4,300 mm
钻杆规格 Drill rod size & length	T38/T45/T51 1,220/1,525/1,830	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	8,350*1,280*1,900/2,419 mm
工作端面尺寸(宽*高) Face size (W*H)	8.7*6.6 m	整机重量 Weight	14 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	3,350 mm	后顶尖行程距离 Travel length of rear spike	1,000 mm
推进补偿 Feed extension length	800 mm	钻臂延伸 Boom extension length	900 mm
推进行程 Feed travel length	1,600 mm	钻臂左右摆动角度 Boom swing angle	35°
最大推进力 Feed force max.	20 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/40°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°+180°
最大拉拔力 Pullback force max.	20 kN	平行距离 Parallel distance	3,800 mm
前顶尖行程距离 Travel length of front spike	600 mm		
底盘 Chassis			
行走方式 Trammng method	柴驱/电驱+4驱轮式+铰接 Diesel engine / electrical drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Trammng speed	7/4 km/h	离地间隙 Ground clearance	240 mm
爬坡角度 Gradeability	15°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±41°	燃油箱容积 Fuel tank volume	60 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	81 kW	型号 Model	ZY104MZ
主电动机功率 Main motor power	55 kW	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	1	冲击频率 Percussion frequency	42-52Hz
工作电压 Working voltage	380/660 V	回转速度 Rotation speed	0-140 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	980 N.m
装机电缆长度 Cable length	80/100 m	机重 Weight	185 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	6 m³/h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	14 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	无 No	排风量 Air discharge capacity FAD	1 m³/min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

D 个性服务 Customized Service

功能扩展/Optional Configurations

- 采用可嵌入式模块化结构原理设计, 可根据客户不同的应用施工需求, 选装不同配置的功能包。
- It is designed with the principle of embeddable modular structure, and can be equipped with different configuration function packages according to the different application and construction needs of customers.

定制化/Customized Design

- 可根据不同工况、环境以及法规等特殊需求, 为客户提供各项定制化设计。
- According to different working conditions, environments and regulations and other special needs, to provide customers with a variety of customized designs.

适应性/Environmental Adaptability

- 针对极寒、热带沙漠、高原或海底高腐蚀等极端作业环境, 配置对应方案, 满足全球不同区域的需求。
- For extreme operating conditions such as extreme cold, tropical deserts, high altitude or high corrosion under the seabed, we provide customized corresponding technical solutions to meet the needs of different regions around the world.

远程控制/Remote Management

- 操作员和设备管理者可轻松获取设备的运行数据, 从而设备的生产安排、维护保养更加轻松。
- Operators and equipment technicians can easily obtain the operation data of the fleet through the wireless network, which makes the production scheduling and maintenance of the equipment more efficient.



UJ21C/21CH 地下建筑施工系列产品 Underground Construction Drill Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:11.9×9.5 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:19.3×13.2 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):4×4 m
- 钻孔孔径/Hole range:Φ41-102 mm



UJ21MG 地下建筑施工系列产品 Underground Construction Drill Rig

- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:
19.2×13.3 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):
4.5×4.5 m
- 钻孔孔径/Hole range:Φ41-102 mm



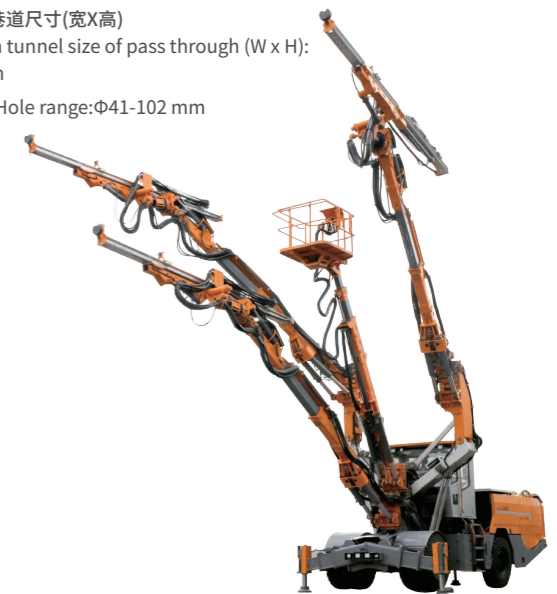
UJ22A 地下建筑施工系列产品 Underground Construction Drill Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:13.8×9.6 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:21×13.4 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):4.5×4.5 m
- 钻孔孔径/Hole range:Φ41-102 mm



UJ33A 地下建筑施工系列产品 Underground Construction Drill Rig

- 最大掘进工作覆盖范围(宽X高)
/Face drilling coverage area (W x H) .MAX:16.2×13.2 m
- 最大锚杆工作覆盖范围(宽X高)
/Bolting drilling coverage area (W x H).MAX:23.2×16.9 m
- 最小通过巷道尺寸(宽X高)
/Minimum tunnel size of pass through (W x H):
6.7×6.7 m
- 钻孔孔径/Hole range:Φ41-102 mm



ZEGA UJ21C

产品特点/Product Features

■ 本型特点: 此掘进、锚杆台车, 广泛应用于地下矿山掘进及大中型隧道施工的锚杆、超前小导管等支护作业。其最小4X4m的通过性, 加上具有20度仰角功能的安全认证空调驾驶室配套设计, 在保证操作人员的舒适性同时, 也满足, 掘进11.9X9.5m(宽X高), 锚杆19.3X13.2m(宽X高), 工作时的全方位视线范围。

■ Features of this model: UJ 21C is a versatile drill rig for face drilling and bolting, which is widely applied in face drilling on underground mines and bolting, advanced pipe sheds and other support operations on medium to large-sized tunnel constructions; The minimum drift pass size of 4X4m and a safety-certified air-conditioned cab with 20° tilt-up function, promote the comfort and meet requirements for face drilling size of 11.9X9.5m (W*H), bolting size of 19.3X13.2m (W*H), and a full-round view during drilling.



适用工况/Working conditions

工程建筑 Construction

- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

选配应用说明

Optional Configurations

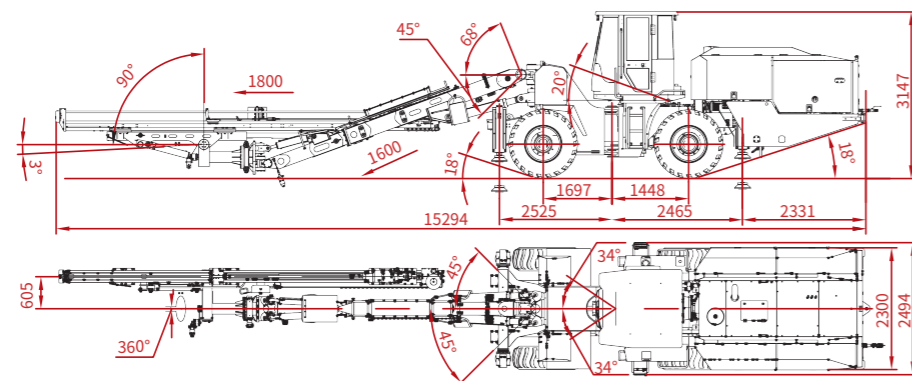


1+1换杆机构的配置主要应用于一次定位自动加装钻杆, 实现≤10m孔深的锚杆及超前小导管等支护类钻孔作业。1+1 rod handling system is mainly used for one positioning automatic rod adding, to achieve bolting with hole depth of 10m or less, advanced pipe sheds and other support operations.

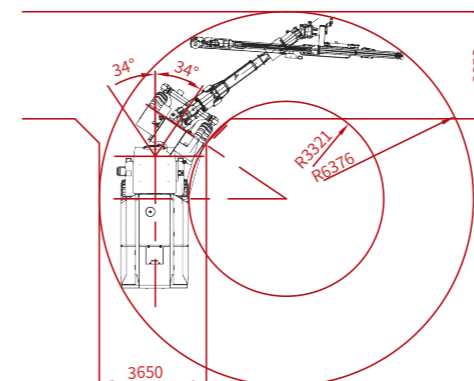
1+3换杆机构的配置主要应用于一次定位自动加装钻杆, 实现≤20m孔深的锚杆及超前小导管等支护类钻孔作业。1+3 rod handling system is mainly used for one positioning automatic rod loading, to achieve bolting with hole depth of 20m or less, advanced pipe sheds and other support operations.

技术规格/Technical Specifications

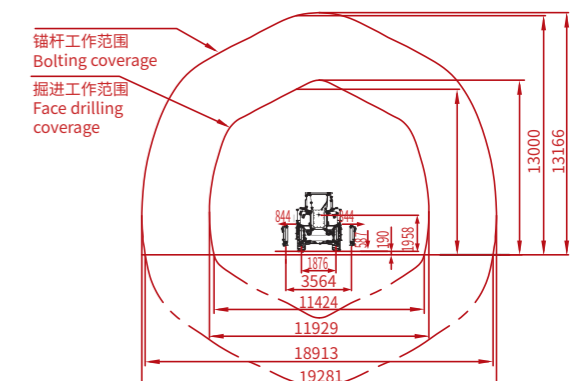
发动机 Engine			
品牌 Manufacturer	潍柴 Weichai	潍柴 Weichai	
型号 Model	WP6G125E332	WP4.6NG125E471	
排放标准 Emission standards	国III China III	国IV China IV	
额定功率 Rated power	92 kW(125 hp)2,200rpm	92 kW(125 hp)2,200rpm	
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	93 m ²
一次钻孔孔深 Hole depth (1st drill rod)	4,050/5,270 mm	行驶转弯半径 Turning radius	(内Inner)R3,321/(外Outer)R6,376 mm
钻杆规格 Drill rod size & length	T38-H35-R32 4,305/5,525	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	15,294×2,494×3,147 mm
工作端面尺寸(宽*高) Face size (W*H)	11.9×9.5 m	整机重量 Weight	18 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	6,100/7,244 mm	钻臂平行系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,800 mm	钻臂延伸 Boom extension length	1,600 mm
推进行程 Feed travel length	4,050/5,270 mm	钻臂左右摆动角度 Boom swing angle	45°
最大推进力 Feed force max.	20 kN	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/45°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉力 Pullback force max.	20 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
底盘 Chassis			
行走方式 Tramming method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for tramming	风冷 Air cooling	接近角和离去角 Approach / departure angle	18°
行走速度 Tramming speed	12/7 km/h	离地间隙 Ground clearance	320 mm
爬坡角度 Gradeability	18°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±34°	燃油箱容积 Fuel tank volume	140 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	78 kW	型号 Model	ZY104M
主电动机功率 Main motor power	55 kW	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	1	冲击频率 Percussion frequency	46-60 Hz
工作电压 Working voltage	380/660 V	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	80/100 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	4 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	15 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装水管长度 Water hose length	无 No	排风量 Air discharge capacity FAD	1 m ³ /min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UM21MG

产品特点/Product Features

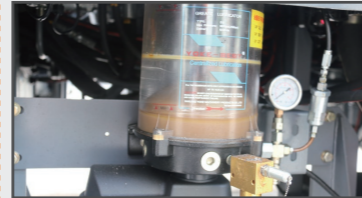
■ 本型特点: 本型特点: 适用于大中型隧道锚杆施工及小导管、超前支护等工程加固。锚杆范围19.2x13.3m, 一次装机可连续施作9根4m锚杆安装及注浆。具有发明专利的三工位推进系统集成注浆搅拌系统, 一次定位可实现两种钻、锚、注和钻、注、锚全自动一体化施工工艺需求, 标配服务平台使钻机具备测量、注浆、挂网等辅助用途。

■ Features: Capable of bolting for medium to large-sized tunneling, advanced pipe sheds and other rock reinforcement; Bolting coverage size: W19.2xH13.3 meters; With one single loading, 9 pieces of 4 meters length bolt installation and grouting can be completed continuously; The patented three station feeding system and the integrated grouting and mixing system enable one positioning to achieve two kinds of fully automatic and integrated bolting processes: Drilling-Bolting-Grouting or Drilling-Grouting-Bolting; The standard service platform facilitates the measuring, grouting and net hanging and other auxiliary functions.



选配应用说明

Optional Configurations



根据客户的需求, 全系列地下钻机都可配套安装自动集中润滑系统, 本系统具有定时自动触发润滑和手动触发润滑双功能模式, 为你的设备保养做好保障。According to customers' requirements, full series of underground drill rigs can be equipped with automatic central lubrication system, which has two modes of timing automatic lubrication triggering and manual lubrication triggering to safeguard the drill rig maintenance.

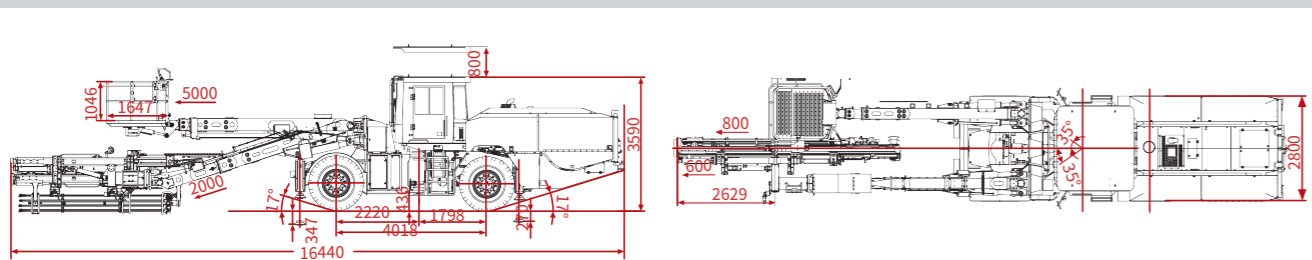
适用工况/Working conditions

工程建设 Construction

- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

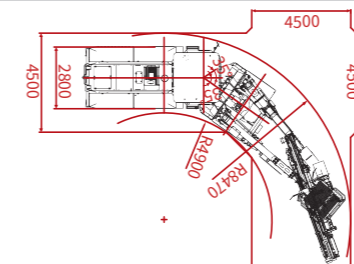
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry



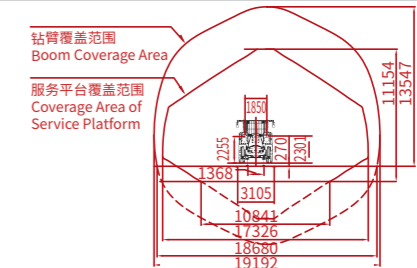
外形尺寸 Dimensions

技术规格/Technical Specifications

发动机 Engine		锚杆系统 Bolting System	
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	锚杆安装数量 Number of bolts
型号 Model	QSB5.9-C170-30	B5.9CS4-C175	8+1
排放标准 Emission standards	国III China III	国IV China IV	注浆压力 Grouting pressure
额定功率 Rated power	125 kW(170 hp)2,200rpm	129 kW(175 hp)2,200rpm	25 bar
			搅拌容量 Mixing capacity
			160 L
			挂网臂额定载荷 Rated capacity of net hanging arm
			无 No
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102 mm	钻孔孔深 Hole depth	3,440/4,050 mm
工作端面尺寸(宽*高) Face size (W*H)	19.2×13.3 m	整机重量 Weight	35 T
锚杆规格 Drill rod size & length	T38-H35-R32 3,700/4,305	行驶转弯半径 Turning radius	(内Inner)R4,900/(外Outer)R8,470 mm
锚杆长度 Bolt length	2,500/3,000/3,500/4,000 mm	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	16,230×2,800×3,590/4,390 mm
锚杆规格 Bolt type	树脂 Resin bolt: φ16/φ18/φ20/φ22/φ25 mm	砂浆 Cement-grouting bolt: φ22/φ25/φ30/φ32 mm	
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	5,500/6,100 mm	钻臂延伸 Boom extension length	2,000 mm
推进补偿 Feed extension length	800 mm	钻臂左右摆动角度 Boom swing angle	45°
推进行程 Feed travel length	3,440/4,050 mm	钻臂举升, 下摆角度 Boom lifting/lowering angle	68°/45°
最大推进力 Feed force max.	15 kN	推进器翻转角度 Feed roll-over angle	360°
最大推进速度 Feed speed max.	0.9m/s	推进器俯仰角度 Feed tilt angle	90°/-3°
最大拉拔力 Pullback force max.	20 kN		
服务平台 Service Platform			
大臂左右摆动角度 Platform arm swing angle	45°	额定载荷 Rated capacity	600 kg
大臂举升/下摆角度 Arm lifting/lowering angle	60°/35°	平台工作端面尺寸(宽*高) Face size (W*H)	17.3×11.2 m
大臂延伸 Arm extension length	5,000 mm	平台最大工作面积 Work coverage area max.	145 m²
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	17°
行走速度 Trammng speed	29/8 km/h	离地间隙 Ground clearance	436 mm
爬坡角度 Gradeability	14°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±35°	燃油箱容积 Fuel tank volume	220 L
后桥摆动角度 Rear axle oscillation angle	±8°		
电动系统 Electrical Motor		凿岩机 Rock Drill	
整机装机功率 Installed power	80 kW	品牌 Manufacturer	ZEGA
主电动机功率 Main motor power	55 kW	型号 Model	ZY104M
主电动机数量 Number of main motors	1	冲击功率 Percussion power	20 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	60 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-388 rpm
装机电缆长度 Cable length	100 m	最大扭矩 Rotation torque max.	752 N.m
		机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	8 m³/h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	15 bar	型号 Model	ZGHA5611
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	100 m	排风量 Air discharge capacity FAD	1 m³/min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UJ22A

产品特点/Product Features

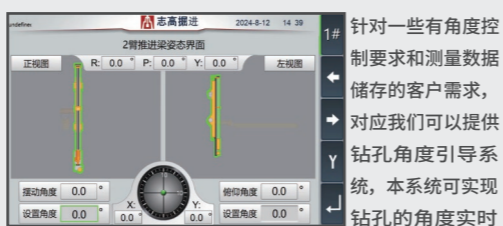
■ 本型特点:适用于公路、铁路、水电及洞库等大中型隧道施工的掘进钻机,该钻机配套两套具有平行保持功能的钻臂系统及一套服务平台系统,在满足13.8X9.6m隧道掘进工作的同时,也可用于钻凿锚杆孔,超前小导管等支护工序作业。整机升降空调驾驶室的设计,使其更具良好的操作视线,提升超开挖的控制精度。

■ Features of this model: UJ22A is a face drilling rig for highways, railways, hydropower, cave storage and other medium to large-sized tunnel constructions. Equipped with two drill booms with parallel holding function and one service platform, UJ22A not only satisfies requirements for face drilling operations on tunnels of 13.8X9.7m, but also bolting, advanced pipe sheds and other support operations. The liftable air-conditioned cab provides the operator with a better view to promote the control accuracy of overbreak.



选配应用说明

Optional Configurations



针对一些有角度控制要求和测量数据储存的客户,对应我们可以提供钻孔角度引导系统,本系统可实现钻孔的角度实时显示及角度数据保存功能,同时可以根据需要,扩展数据上传功能。The drill plan import/export system is designed for satisfying requirements of angle control and storing measured data, which displays real-time drilling angle and stores these data. In addition, the optional function of uploading data can be added as required.

适用工况/Working conditions

工程建筑 Construction

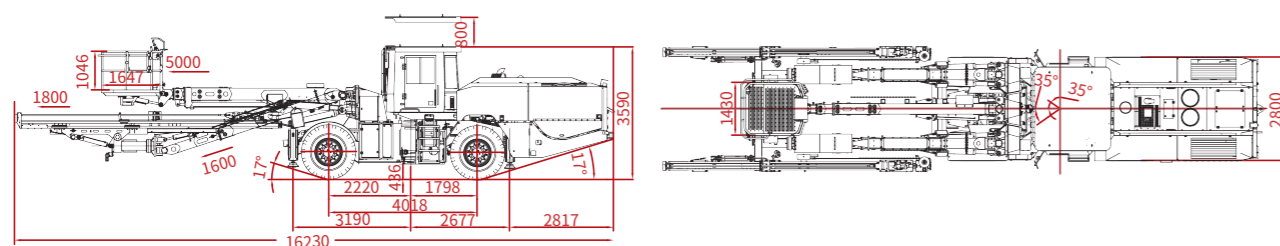
- 隧道工程
Tunneling Construction
- 引水工程
Water-diversion Works
- 洞库工程
Cave Depot Project
- 水电站工程
Hydropower Station
- 地下厂房工程
Underground Powerhouse
- 国防工程
Defense Engineering

绿色矿山 Green Mining

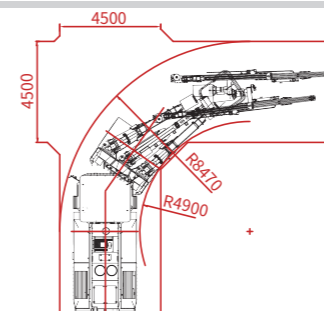
- 铁矿矿山
Iron Mine
- 化学矿山
Chemical Mine
- 有色金属矿山
Nonferrous Mine
- 地下采石场
Underground Quarry

技术规格/Technical Specifications

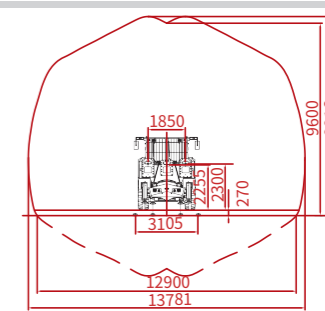
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	道依茨 DEUTZ
型号 Model	QSB5.9-C170-30	B5.9CS4-C175	TCD6.1 L6 st.V
排放标准 Emission standards	国III China III	国IV China IV	欧V EURO V
额定功率 Rated power	125kW(170 hp)2,200rpm	129kW(175 hp)2,200rpm	160kW(220 hp)/120kW(165hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	116 m ²
一次钻孔孔深 Hole depth (1st drill rod)	4,050/5,270 mm	行驶转弯半径 Turning radius	(内Inner)R4,900/(外Outer)R8,470 mm
钻杆规格 Drill rod size & length	T38-H35-R32 4,305/5,525	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	16,230×2,800×3,590/4,390 mm
工作端面尺寸(宽*高) Face size (W*H)	13.8×9.6 m	整机重量 Weight	40 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	6,100/7,244 mm	钻臂平行系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,800 mm	钻臂延伸 Boom extension length	1,600 mm
推进行程 Feed travel length	4,050/5,270 mm	钻臂左右摆动角度 Boom swing angle	45°
最大推进力 Feed force max.	20 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/45°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	20 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
服务平台 Service Platform			
大臂左右摆动角度 Platform arm swing angle	45°	额定载荷 Rated capacity	600 kg
大臂举升/下摆角度 Arm lifting/lowering angle	60°/35°	平台工作端面尺寸(宽*高) Face size (W*H)	17.3×11.2 m
大臂延伸 Arm extension length	5,000 mm	平台最大工作面积 Work coverage area max.	145 m ²
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	17°
行走速度 Trammng speed	29/8 km/h	离地间隙 Ground clearance	436 mm
爬坡角度 Gradeability	14°	液压支腿 Hydraulic jack	4
转向角 Steering angle	±35°	燃油箱容积 Fuel tank volume	220 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	
整机装机功率 Installed power	152 kW	型号 Model	ZEGA
主电动机功率 Main motor power	55 kW*2	冲击功率 Percussion power	ZY104M
主电动机数量 Number of main motors	2	冲击频率 Percussion frequency	20 kW
工作电压 Working voltage	380/660 V	冲击频率 Percussion frequency	46-60 Hz
频率 Working frequency	50/60 Hz	回转速度 Rotation speed	0-210 rpm
装机电缆长度 Cable length	100 m	最大扭矩 Rotation torque max.	752 N.m
机重 Weight		170 kg	
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	16 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	15 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	100 m	排风量 Air discharge capacity FAD	1 m ³ /min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA UJ33

产品特点/Product Features

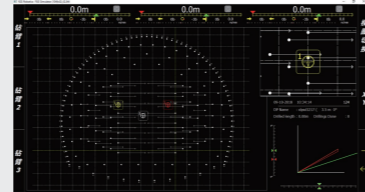
■ 本型特点:适用于公路、铁路、水电、洞库等地下工程和隧道施工。配有三条重型钻臂和一个服务平台,升降式驾驶室、自开式电缆及水管卷筒,使得操作维护更为方便。两个外侧钻臂配有鹰式臂座,可应用于16.3x13.2m的大断面掘进、锚杆、超前小导管等钻孔应用需求。

■ Features of this model: Suitable for highways, railways, hydropower, cave storage and other underground and tunnel constructions. The three heavy-duty booms, one service platform, liftable cab, cable reel and hose reel whose constant cable tensions are automatically controlled, facilitate the operation and maintenance. Two outside booms are equipped with eagle-shaped boom seats, which can be applied in large-scale face drilling, bolting, advanced pipe sheds and other drilling operations.



选配应用说明

Optional Configurations



电脑引导系统核心三大功能

1. 钻孔作业全程数字化智能化监控。
Digital and intelligent monitoring of the whole drilling operation.
2. 实时凿岩参数的监控及记录。The system monitors and records real-time drilling parameters.
3. 提供施工项目管理数据对接支持。The system provides logging support of construction management data.

适用工况/Working conditions

工程建筑 Construction

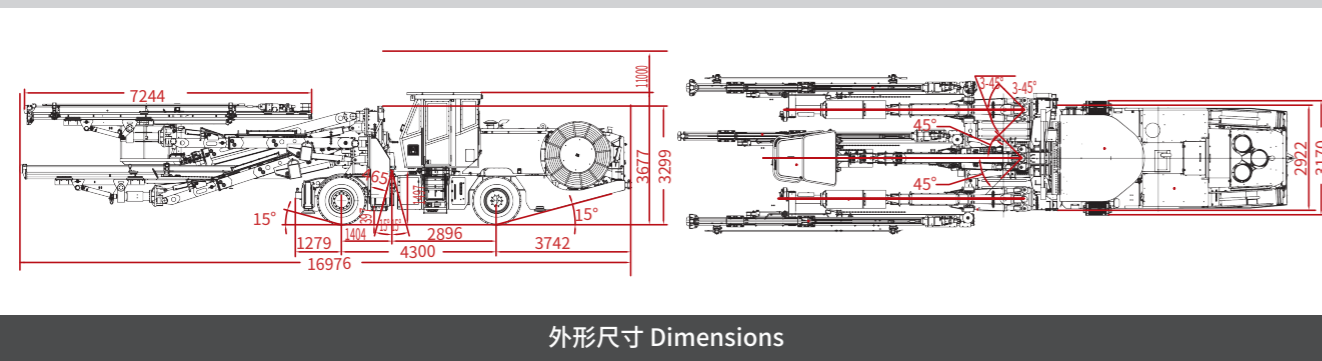
- 隧道工程 Tunneling Construction
- 水电站工程 Hydropower Station
- 引水工程 Water-diversion Works
- 地下厂房工程 Underground Powerhouse
- 洞库工程 Cave Depot Project
- 国防工程 Defense Engineering

绿色矿山 Green Mining

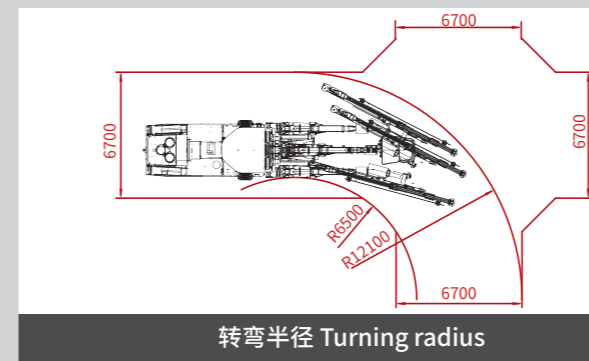
- 铁矿矿山 Iron Mine
- 有色金属矿山 Nonferrous Mine
- 化学矿山 Chemical Mine
- 地下采石场 Underground Quarry

技术规格/Technical Specifications

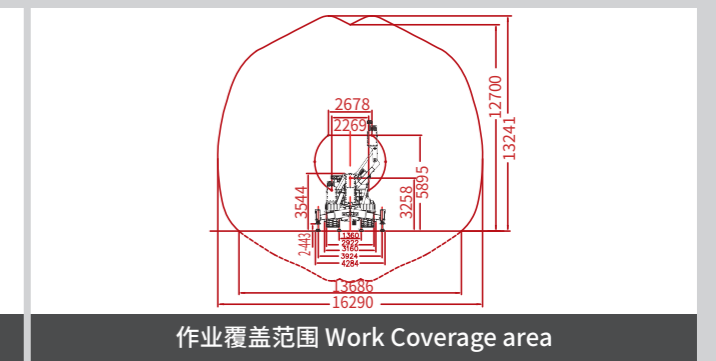
发动机 Engine			
品牌 Manufacturer	康明斯 Cummins	康明斯 Cummins	道依茨 DEUTZ
型号 Model	QSC8.3-C240-III	B6.7CS4-240C	TCD6.1 L6 st.V
排放标准 Emission standards	国III China III	国IV China IV	欧V EURO V
额定功率 Rated power	179 kW(245 hp)2,200rpm	177 kW(240 hp)2,200rpm	160kW(220 hp)/120kW(165hp)2,200rpm
功能参数 Functional Parameters			
孔径范围 Hole range	Φ41-102mm	最大工作面积 Work coverage area max.	184 m ²
一次钻孔孔深 Hole depth (1st drill rod)	4,050/5,270 mm	行驶转弯半径 Turning radius	(内Inner)R6,500/(外Outer)R12,100 mm
钻杆规格 Drill rod size & length	T38-H35-R32 4,305/5,525	外形尺寸(长*宽*伸缩高) Dimensions (L*W*H)	16,970×2,930×3,159/3,859 mm
工作面尺寸(宽*高) Face size (W*H)	16.3×13.2 m	整机重量 Weight	50 T
钻臂和推进梁 Drill Boom & Feed Beam			
推进器总长度 Feed total length	6,100/7,244 mm	钻臂平动系统 Parallel holding system	是 exist
推进补偿 Feed extension length	1,800 mm	钻臂延伸 Boom extension length	1,600 mm
推进行程 Feed travel length	4,050/5,270 mm	钻臂左右摆动角度 Boom swing angle	45°
最大推进力 Feed force max.	20 kN	钻臂举升,下摆角度 Boom lifting/lowering angle	68°/45°
最大推进速度 Feed speed max.	0.9 m/s	推进器翻转角度 Feed roll-over angle	360°
最大拉拔力 Pullback force max.	20 kN	推进器俯仰角度 Feed tilt angle	90°/-3°
服务平台 Service Platform			
大臂左右摆动角度 Platform arm swing angle	45°	额定载荷 Rated capacity	600 kg
大臂举升/下摆角度 Arm lifting/lowering angle	60°/35°	平台工作面尺寸(宽*高) Face size (W*H)	17.3×11.2 m
大臂延伸 Arm extension length	5,000 mm	平台最大工作面积 Work coverage area max.	145 m ²
底盘 Chassis			
行走方式 Trammng method	柴驱+4驱轮式+铰接 Diesel engine drive + 4WD + articulated		
行走冷却方式 Cooling method for trammng	风冷 Air cooling	接近角和离去角 Approach / departure angle	15°
行走速度 Trammng speed	19.8 / 9.6 / 4.3 km/h	离地间隙 Ground clearance	396 mm
爬坡角度 Gradeability	14°	液压支腿 Hydraulic jack	4
转向角 Steering angle	38°/-50°	燃油箱容积 Fuel tank volume	150 L
后桥摆动角度 Rear axle oscillation angle	±8°	凿岩机 Rock Drill	
电动系统 Electrical Motor		品牌 Manufacturer	ZEGA
整机装机功率 Installed power	222 kW	型号 Model	ZY104M
主电动机功率 Main motor power	55 kW*3	冲击功率 Percussion power	20 kW
主电动机数量 Number of main motors	3	冲击频率 Percussion frequency	46-60 Hz
工作电压 Working voltage	380/660 V	回转速度 Rotation speed	0-210 rpm
频率 Working frequency	50/60 Hz	最大扭矩 Rotation torque max.	752 N.m
装机电缆长度 Cable length	100 m	机重 Weight	170 kg
水系统 Water System		螺杆空压机 Screw Air Compressor	
最大水流量 Flow rate max.	20 m ³ /h	品牌 Manufacturer	志高动力 ZHIGAO
最大排渣压力 Flushing pressure max.	17 bar	型号 Model	ZGHA56II
最小需求进水口压力 Water inlet pressure min.	2 bar	工作风压 Nonimal air pressure	8 bar
装机水管长度 Water hose length	100 m	排风量 Air discharge capacity FAD	1 m ³ /min
凿岩冷却方式 Cooling method of rock drilling	水冷 Water cooling		



外形尺寸 Dimensions



转弯半径 Turning radius



作业覆盖范围 Work Coverage area

ZEGA地下台车选配清单

Optional List of ZEGA Underground Rig

“✓”代表 means “是 exist”

型号Model 选配件 Optional	UJ18A	UJ20	UJ21D	UJ22E	UM18K	UM20	UM21K	UP20	UP31A	UP31B	UJ21C	UM21MG	UJ22A	UJ33
3090钻杆推进器总成 Feed Assembly for Drill Rod of 3090mm	✓	✓	✓								✓			
3700钻杆推进器总成 Feed Assembly for Drill Rod of 3700mm	✓	✓	✓	✓							✓			
4305钻杆推进器总成 Feed Assembly for Drill Rod of 4305mm			✓	✓							✓	✓	✓	✓
5525钻杆推进器总成 Feed Assembly for Drill Rod of 5525mm											✓		✓	✓
1830/3700伸缩推进器 1830/3700 Telescopic Feeder		✓	✓	✓										
2435/4270伸缩推进器 2435/4270 Telescopic Feeder			✓	✓										
1+1换钎机构 1+1 Rod Handling System											✓		✓	✓
1+3自动换钎机构 1+3 Rod Handling System											✓		✓	✓
1.8m锚杆推进器 1.8m Bolt Feeder					✓	✓	✓							
2.0m锚杆推进器 2.0m Bolt Feeder					✓	✓	✓							
2.2m锚杆推进器 2.2m Bolt Feeder							✓	✓						
1m钻杆中深孔推进器 1m Drill Rod Long and Medium Hole Feeder								✓	✓					
1.2m钻杆中深孔推进器 1.2m Drill Rod Long and Medium Hole Feeder								✓	✓	✓				
1.5m钻杆中深孔推进器 1.5m Drill Rod Long and Medium Hole Feeder								✓		✓				
发动机缸套预热系统物料包 Engine water jacket preheating kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
自动灭火系统 Automatic Extinguishing System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
自动集中润滑系统 Automatic Centralized Lubrication System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
打孔引导系统 Drilling Pilot System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
近程遥控系统 Line-of-sight radio remote control				✓										
高寒物料包 Cold Weather Package	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
高温物料包 Tropical Climate Package	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
100m电缆线 100m Cable	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
660V电源配置包 600V power supply package	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1000V电源配置包 1000V Power Source Package	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
前车桥加宽配置 Front Axle Widening Configuration	✓	✓	✓		✓	✓	✓	✓	✓	✓				
空调驾驶室 Cab with Air Con			✓	✓			✓		✓	✓				
驾驶室摄像头功能物料包 Cab display for monitoring camera	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

我们为客户持续供应可靠的零配件 同时也致力于为用户提供一流的售后服务

We continue to provide customers with reliable spare parts, we also committed to providing first-class after-sales service.

- 我们的售后服务团队和代理商保持长期稳定的紧密合作, 打造志高掘进全球服务支持体系, 保障客户在产能持续增长的同时, 降低维修及保养成本。
- Our after-sales service team and agents maintain long-term and stable close cooperation, creating a global service support system for Zhigao Tunnelling, ensuring that customers can continuously increase production capacity while reducing repair and maintenance costs.

备件手册 SPARE PARTS MANUAL

- 所有产品均提供符合国际要求和客户定制需求的备件手册, 以及不同阶段的保养维护清单, 以确保用户采购的设备稳定运行。
- All products are supplied with spare parts manuals that meet international standards and are tailored to customers, as well as maintenance kits at different stages to ensure the smooth and reliable operation of the equipment.

正品零件 GENUINE PARTS

- 志高公司客户应使用正宗厂家配件和各种油品以确保机器寿命和使用性能, 并保证机器长期平稳运转;
- Customers should always use authentic or factory approved parts and oils to ensure the life and performance, and the long lasting smooth running of the machine;



钻车服务工作站 SERVICE STATION

- 我们可为用户提供钻车服务工作站, 该服务站运输便捷、配套完善, 让用户享受“矿山及工程设备维护维修、应急配件储备”等一站式服务。
- We can provide users with mobile service workstations, which are convenient in transportation and complete in supporting facilities, allowing users to enjoy one-stop services such as "maintenance and repair of mining and construction equipment, emergency parts reserve".



服务 SERVICE

“不仅在深度, 更在维度!”

Not only in depth, but also in dimensions

服务协议 SERVICE AGREEMENT

志高掘进有不同的协议供客户选择:

- a) 年度服务协议(ASC)
志高的服务人员将按照服务计划, 定期拜访用户, 作检测和服务。
- b) 全程服务和保养协议(FMC)
志高的服务人员将按照固定的保养服务小时, 及时拜访用户, 作检测和服务。
- c) 现场服务合同(SSC)
志高的专业服务工程师将在现场长期跟踪服务, 客户还可以按照实际需求挑选服务方案和时间周期。

Different service plans for customers to choose from:

- a) Annual Service Agreement (ASC)
Zhigao service engineers will visit the users regularly for routine check and service according to the service plan.
- b) Full Service and Maintenance Agreement (FMC)
Zhigao service engineers will visit the users regularly for inspection and service according to the maintenance service hours.
- c) Site Service Contract (SSC)
Zhigao professional service engineers will provide service on site for a long period of time, and customers can also select service plans and time periods according to actual needs.

质保服务 QUALITY ASSURANCE SERVICES

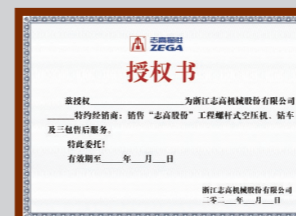
我们提供符合国际行业标准的质保服务;

同时, 我们正谋求开展高于行业标准的“质保期延长”计划: 树立行业标杆, 提升品牌实力!

We provide quality assurance services that meet international industry standards;
At the same time, we are seeking to carry out a "warranty period extension" plan that exceeds industry standards: establish industry benchmarks, and enhance brand strength!

品牌授权 licensing

我们给予具备客户服务能力且满足考核条件的代理商正式授权, 并颁发授权证书。
We grant authorization to eligible agents and issue corresponding authorization letters and certificates.



Parts Accessories & Services

配件与服务



Build Dreams and Achieve the Future Together with Zhigao Digging

与志高股份一起 构筑梦想成就未来