ZEGA D440A

一体式潜孔钻机 Integrated Down The Hole Drill Rigs

技术参数 Technical specifications

推荐孔径范围 Recommended Hole size range

孔径范围/Hole range：φ 90 – 130 mm

适用潜孔冲击器/Recommended DTH hammer size：3.5” / 4”

换杆系统能力 Drill rod (pipe) handling system (RHS)

储杆数量/Pipe handling system： 6+1

钻管外径/Drill pipe OD：68/76 mm

钻管长度/Drill pipe length：4 m

自动换杆最大孔深/Maximum hole depth with Auto handling：28 m

液压回转头 Hydraulic motor driven rotary head

回转速度/Rotation speed：0 - 110 rpm

最大工作扭矩/Maximum torque：2,800 N.m

发动机 Diesel engine：康明斯 Cummins B6.7CS4-260

额定功率/Rated power：191 kW (255 hp)

排放等级/Emission standard：国四 Tier 4

燃油箱 Fuel tank

容量/Capacity：480 L

空压机 Air compressor: 志高股份 ZHIGAO ZGDA138IIIK-H

最大工作压力/Maximum working pressure：20 bar

排量/Capacity FAD：16 m^3/ min

钻臂型式 Boom type

高强度单直臂/Heavy duty single straight boom

推进梁 Feed beam

马达链条方式/Hydraulic motor-chain feeding system

总长/Total length：7,475 mm

推进行程/Travel length：4,585 mm

推进补偿/Feed extension：1,200 mm

最大推进速度/Feeding rate：0.85 m/s

最大推进力/Maximum feeding force：18 kN

最大拉拔力/Maximum pull up force：24.8 kN

底盘 Track frame

最大行走速度/Maximum Tramming speed：3 km / h

最大驱动力/Maximum Traction force：115.4 kN

爬坡能力/Slope climbing ability：25°

履带架摆角/Track frame oscillation angle：± 10°

离地间隙/Ground clearance：450 mm

运输尺寸（不含选配件），约 Transport dimensions（w/o options），approx.

重量/Weight：14,800 kg

长度/Length：9,980 mm

宽度/Width：2,360 mm

高度/Height：3,200 mm

标准配置 Standard configuration

- 康明斯发动机 Cummins / B6.7CS4-260 / 191 kW
- 螺杆式两级压缩空压机 Dual Stage Screw Compressor / 16 m^3/min , 20 bar
- 适应50°C环境的冷却系统 Cooling system up to 50 °C ambient temperature
- 自动换杆系统 Automatic drill pipe handling system
- 可移动式捕尘罩，便于观察开孔准确性 Retractable dust hood to observe hole collaring accuracy
- 粉尘预分离器 Dust pre-separator
- 干式集尘器，可自动连续清洗滤芯 Dry dust collector with filter element automatic continuous cleaning
- 液压回转头 Hydraulic motor driven rotary head
- 推进梁延伸补偿机构 Feed beam extension compensation mechanism
- 高强度铝合金推进梁 Aluminum alloy feed beam
- 冲击器润滑装置 Hammer lubrication system
- 钻管螺纹润滑装置 Pipe thread lubrication system
- 浮动式液压油管跟管器 Floating hose reel and follower
- 安全驾驶室，带冷暖空调，后视镜和可多角度调整的座椅等设施
  Safety cab with air conditioning / heating, rear view mirrors and multi-angle adjustable operator seat
- 噪音等级≤80dB，操作手柄置于座椅扶手上，符合人体工程学
  Noise level ≤ 80 dB (A), ergonomic designed operating joystick on the armrest of the seat
- 双速液压行走马达 Dual speed hydraulic tramming motor
- 配备三齿履带板的重型履带架 Heavy duty track frame with 3 tooth shoes
- 液压钻管导向装置及钻管拆卸机械手
  Hydraulic drill pipe guiding device and drill pipe handling platform
- 燃油节省装置（冲击风压闲时自动卸载、发动机自动调速功能等）
  Fuel saving system (auto unloading at percussion idle time, engine auto speed adjustment)
- 倒车报警器 Back up alarm
- 工作灯 Work lights
- 自动紧急安全停车装置 Emergency Auto shutdown
- 带过滤装置的电动液压油加油泵 Filtered manual hydraulic oil pump
- 液压卡钎器 Hydraulic rod / pipe clamping system

可选装部件 Optional equipment

- 自动防卡系统 Auto anti-jamming system
- 湿式除尘系统 Water-mist dust suppressing system
- 智能远程管理系统 Remote intelligent management system
- 高海拔套装 High altitude package
- 寒区装置 Cold weather kit
- 电动燃油加油泵 Electrical pump for fuel refill



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小身材，大能量。适用于露天矿山采石场及各种台阶开挖中软岩、中硬岩石的爆破钻孔，满足生产率需求。
Compact size but powerful drilling capability. Applicable in surfacequarry mining and varieties of bench blast hole drilling for mid softand mid hard rocks,meeting production efficiency needs.

推荐孔径范围 Hole range： 90-130 mm

志高掘进 ZEGA

更强的钻孔能力 更高的成孔质量
Better drilling capabilities, higher quality holes

■ 在成熟技术的基础上，志高掘进不断提高钻机产能和作业适应能力。D440A 在应用灵活性以及可靠性方面臻于完善 , 产能更高，适应性更强，成孔质量更好。On the basis of proven technology, Zhigao has been continuously improving the productivity and adaptability of drilling rigs. D440A is perfect in terms of mobility and reliability, higher productivity, stronger adaptability, and better drilling quality.

■ 可以依赖一台钻机进行生产钻孔，通过并段和预裂钻孔加快剥离速度，并控制贫化率。较轻的重量和紧凑的尺寸，D440A 在工地间、台阶间的转移十分方便。由于其优异的灵活性和强大的作业能力，D440A 钻机广泛适应各种钻孔应用，如露天采石场和矿山的生产爆破孔，预裂孔、减震孔、边坡减压孔和超深孔作业。One drilling rig is for production drilling, by merging bench and pre-splitting drilling to speed up the stripping speed, and control the dilution rate. With lighter overall weight and compact sizes, D440A is very convenient to transfer between work sites and benches. Due to its excellent maneuverability and strong working ability, D440A drilling rig is widely adapted to various drilling applications, such as production blast holes in quarries and open-pit mines, pre-split holes, shock-absorbing holes, slope relief holes and deep hole drilling .

ZEGA D440A 带来以下好处
ZEGA D440A Features

■ 精确的直孔可以改善爆破效果；Precise straight hole for better blast result control.
■ 通过并段和预裂爆破，加快剥离速度；Increasing stripping speed by combining and pre-splitting holes.
■ 通过加大边坡角度，减少废石的开挖；Reducing waste by increasing slope angle.
■ 灵活性大大优于传统的露天矿和采石场用钻机；Much better flexibility than the traditional drill rigs.

优良的投资回报率
Excellent return on investment

■ D440A 钻机的工作风压达到 20 bar，钻管长度 4 m，并且有两种直径钻管可供选择，能够用于钻底脚孔，钻孔速度明显快于同型其他产品。D440A working pressure up to 20 bars with 4 m drill pipe and choices of 2 dia. sizes to choose from, good for foot hole drilling and drilling speed much faster than the competitive products.



适用于 3.5/4 英寸潜孔锤的回转头，扭矩可达 2800Nm。Hydraulic rotary head,torque up to 2,800 Nm.

箱型大臂，坚固灵活。Box design feed beam, strong and flexible.

满足防落石 FOPS 和防翻滚 ROPS 要求的全视角空调驾驶室，抗噪防震。Rock falling protected FOPS and rolloverproof ROPS, all view AC cab with noise and shock proof.

全封闭结构机身，气弹簧防护门，方便维护保养。All enclosed structural rig, pneumatic spring protection doors for easier maintenance and service.

圆盘式换杆系统，钻深孔能力强。Rod (pipe) Handling system (RHS), excellent for deep hole drilling.

重型马达链条推进梁，稳定可靠。Heavy duty motor andchain feed beam, stableand reliable.

高效 / 节能 / 环保 / 安全
High efficiency / energy saving /environment friendly / safety

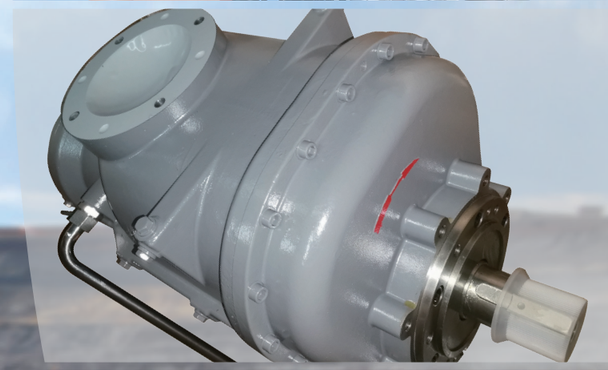


■ 采用能效比极佳的两级压缩空压机，实现高风压凿岩，具有优异的燃油经济性表现，更节能，更环保。Dual stage air compressor for excellent energy performance ratio and high air pressure drilling. Excellent Fuel economy better for energy saving and environment.
■ 大扭矩回转头，克服大多数岩层的卡钻现象。High torque rotary head to conquer jamming in most rock formations.
■ 两级干式除尘系统，满足环保要求。Two stage dust collection system to meet environment requirement.
■ 全封闭空调驾驶室，视线良好，操作舒适安全。All closed AC Cab for better view, comfortable and safe operation.
■ 新式推进梁，导向性、稳定性极佳，实现高精度钻孔。New style feed beam, excellent for direction control and stability to achieve high precision drilling.



灵活性和机动性
Flexibility and maneuverability

■ D440A 钻机有极佳的行走性能，在工作面转移快速而安全。因为重量分配均衡、重心低、适宜的底盘离地间隙充分，且重型履带架有 ±10°的摆动角，因此越野能力十分突出。在倾斜的坡面上也能出色地完成垂直或各种角度钻孔。D440A with excellent tramming ability for fast and safe moving between job sites. With adequate ground clearance and 10° oscillation on heavy duty track frame, great off road capabilities due to low gravity and balanced weight distribution. Excellent vertical and various inclined drilling even on slopes.



维修维护更方便
Convenient maintenance and service access

■ 与志高掘进其它钻机一样，D440A 在设计时，就充分考虑到维护保养的方便。机仓内维修空间宽敞，所有保养点触手可及。油管和电缆的两端都有标记圈，检修更方便。As with other ZEGA drills, D440A design in mind with maintenance and service convenience at the beginning. With spacious service room, all maintenance access points easy to reach. Marked and labeled at both ends of hoses & pipes and electrical wires & cables with ring labels for easier service access.



边坡越直经济性越好用
The more vertical of the bench slope, the better production economy

■ ZEGA D440A 做潜孔式预裂钻孔，可以使台阶更高、更窄。这使得边坡变陡，减少废石开挖量。这样的好处是降低了贫化率，意味着产量更高，矿山整体经济性更好。Pre-splitting by ZEGA D440A or higher and narrower benches and sharper slope to reduce waste and less excavation, in turn to reduce dilution rate for higher production rate and better profits for the mines.