



KUVARS Inc.



ZEGA

ZEGA Surface Integrated Drill Rig



KUVARS MAKİNA

Dudullu OSB Mahallesi Des-119. Sokak C31 No:5 Ümraniye-İstanbul/Türkiye
Tel: +90 0216 508 27 27 / Fax: +90 0216 508 27 28
E-mail: sales@kuvarsmakina.com
www.kuvarsmakina.com

11.04.2024



- National High Tech Enterprise
- National Level Specialized and Innovative Little Giant Enterprise

ZEGA,drilling pioneer for infinite scientific and technology innovation.

Precision Manufacturing

。ZEGA 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.

Accumulated over 21 years

Sales of drilling rigs (in units)

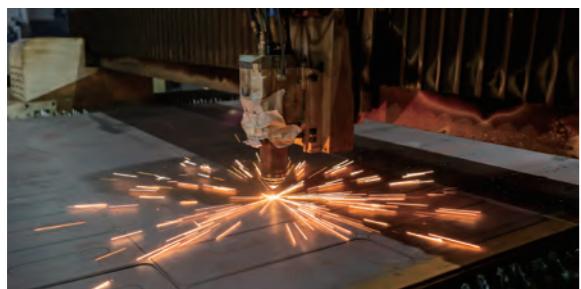
26,500

Sales of Air compressor (in units)

165,500

Effective national patents

91



1st Industrial Park



WITH ABUNDANT CASE EXPERIENCE/

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



■ As a leading enterprise in drilling rig manufacturing industry, ZEGA 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.



D490A Russia Iron Ore Project



D470A Yunnan, Phosphate Ore Project



D460A Russia, Quarry



D480A Sichuan, Lithium Ore



T640 Saudi Arabia, Construction project



D435 Guinea, Iron Ore Project



D535 Indonesia, Quarry



D440A Laos, Coal Mine



D450D Anhui, Cement



D545 Ethiopia, Road Construction



POLYMETAL



中国电力建设集团有限公司
POWER CONSTRUCTION CORPORATION OF CHINA
中国电力建设股份有限公司
POWERCHINA LIMITED



中国能建
ENERGY CHINA
CGGC



中国葛洲坝集团有限公司
CHINA GEZHOUBA GROUP COMPANY LTD.



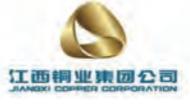
TCC
THE FUTURE IS WORTH IT



中国神华
CHINA SHENHUA



ANEKA



江西铜业集团公司
JIANGXI COPPER CORPORATION



EBPA3



LafargeHolcim



BBMG



太平洋セメント
TOA CEMENT



中国交通建设
CHINA COMMUNICATION CONSTRUCTION



中国中铁
CNR



中国铁建
CRCC



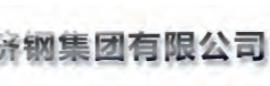
首钢集团
SHOUGANG GROUP



华新水泥股份有限公司
HUAXIN CEMENT CO., LTD.



山钢集团
SO STEEL



济钢集团有限公司
JIANGANG GROUP



华润水泥
CR CEMENT



中国建材
CHINA BUILDING MATERIALS



云天化集团
YUNTIANHUA GROUP



SUNNSY



中材矿山建设有限公司
Sinoma Mining Construction Co.,Ltd.



亚洲水泥控股公司
Asia Cement (China) Holdings Corporation

ZEGA Surface Drill Naming Principle

1 2 3 4 5

The first digit represents the product category series

- 3 Crawler Installed Separated DTH Drill
- 4 Auto Integrated DTH Drill
- 5 Small Integrated Drilling Rig
- 6 Auto Integrated Tophammer Drill
- 7 "Reserved" for new products
- 8 Auto Rotary Drill

ZEGA International Standard Product Series

ZEGA

The letter stands the drilling method

- A = Anchor;
- D = Down the hole hammer;
- P = Photovoltaic Panel Foundation;

- R = Rotary;
- T = Top hammer;
- W = Water Well;

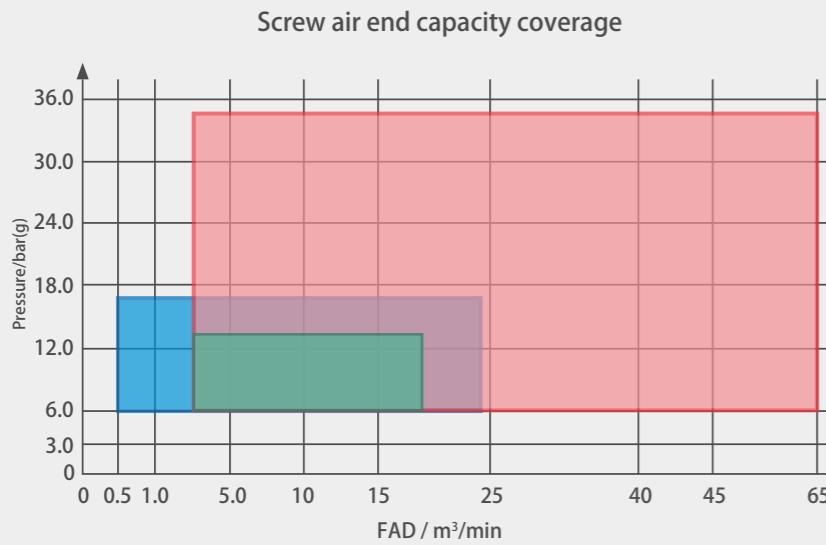
The product upgrading principles are as follows:

- The 1st generation of products has no suffix letters;
- The 2nd generation of products has suffix letters of "A" ;
- The 3rd generation of products has suffix letters of "B" ;
- The 5th generation of products has suffix letters of "D" .

The 2nd and 3rd digits stand 10 times the inch value of the optimum hole diameter

D480A

"Screw Air End" through 100% independent research and development



Horizontal two-stage



Single stage

High-efficiency screw rotor profile

- The self-developed rotor profile has a more reasonable leakage triangle, shorter contact line, and smaller discharge contained volume, and with better CNC machining characteristics, excellent volumetric efficiency and thermal insulation efficiency.



Two stage

CORE COMPONENTS OF drill rig-with best manufacture process and fabrication technology.



Imported processing center

- Housing machining adopts machining center imported from Japan, the accuracy can reach $\pm 0.005\text{mm}$.



Imported grinder

- The rotor machining adopts German KAPP and British Holroyd grinding machine, with the machining precision to be $\pm 0.001\text{mm}$.



Import inspection 3 coordinates

- The rotor and housing inspection adopts Leitz coordinate measuring instrument imported from Germany.



Dust free constant temperature workshop

- Thorough workmanship and specialized tooling ensure the assembly quality of the screw air end.



Safe & Reliable

- Cab: A spacious and comfortable safe cab which is ROPS and FOPS approved, meets ergonomic requirements and delivers a scientific and comfortable driving experience; The seat with adjustable position is equipped with air-cushion shock absorption; Low noise and good visibility for drilling and collaring activities.
- Guardrail: The drill rig top is equipped with guardrail and anti-slip stickers ensuring the safety of maintenance and service personnel; Meanwhile, the drill boom is also equipped with guardrails against drill rod fall-prevention.
- Remote control: The product can be optionally equipped with a short-range remote control function, allowing operators to flexibly control drilling operations within a range of 100 meters, reducing risks during highwall mining or while getting on/off transportation vehicles.



High Productivity and flexible

- Single engine: A single power unit simultaneously drives the operations of hydraulic system and screw air end, improving the space utilization of the equipment while reducing energy consumption and maintenance costs.
- Long drill rod: drill rod configurations vary from 3m, 4m, 5m, 6m, 7m, 9m and 10.7m, maximumly reducing the time of rod changing and enhancing the productivity.
- Multi hole size: The heavy-duty reinforcement design within the functional range enables the equipment to simultaneously meet the rock drilling applications under different working conditions and with different hole size.



Energy-saving and environment friendly

- Dust collection capability: Based on different environmental conditions and customer needs, we provide such different solutions as dry dust collection, wet dust collection, and dry and wet mixed dust collection to meet the highest environmental requirements.
- Efficient air end: Excellent design and manufacturing technology of screw air end ensures drill rigs to obtain more energy-efficient high-pressure air power.
- Control system: The self-sensitive adjustment system meets the power requirements of drill rigs in various operating states at all times, while consuming the lowest energy during auxiliary operations of drill rigs.



Personalization

- Remote control: Operators and equipment managers can easily access operational data of the equipment, making production scheduling and maintenance easier.
- Customization: We can provide customized designs for customers based on different working conditions, environments, regulations and other special requirements.
- Adaptability: Offer corresponding solutions such as extreme cold climate kit, tropical desert kit, high altitude kit or high humidity kit for extreme working environments to meet the needs of different regions around the world.

Optimal hole range: Φ 90-115 mm



ZEGA D535H



ZEGA T640/T645



ZEGA D435

Optimal hole range: Φ 115-138 mm



ZEGA D545H



ZEGA D440A



ZEGA D450D

Optimal hole range: Φ 138-152 mm



ZEGA D460A



ZEGA D470D/D470C



ZEGA R8100

Optimal hole range: Φ 152-203 mm



ZEGA D480A



ZEGA D490A

Optimal hole range:
For Rotary Drill: Φ 149-270 mm
For DTH Drill: Φ 149-300 mm

ZEGA D535H/D535TA

Product Features

■ Features of this model: This model are equipped with larger screw air end to meet the requirements of the optimum aperture of 90-115mm. When drilling with a hole diameter of 90 mm, the engine speed is 1450 RPM, and the optimal economic speed can ensure extremely low fuel consumption; It is light weight and flexible models with excellent off-road capabilities, capable of adapting to operations in narrow spaces and crude terrain conditions; It can fit into a 20-foot container, reducing transportation costs.

Features of the entire product series. NO.01



The entire product line is equipped with international brand engines such as Cummins, CAT and Deutz, with options for China National II, National III, and National IV, as well as Euro V to meet the needs of global users.

ZEGA D535H (Rod Changing)



ZEGA D535TA



Technical Specifications ZEGA D535TA (The data inside is parameters of ZEGA D353TA.)

Engine					Screw Compressor	
Manufacturer	Cummins	Cummins	Cummins	DEUTZ	Manufacturer	ZEGA
Model	6BTAA5.9-C205	QSB5.9-C210-30	B5.9CS4 210C	TCD6.1L6	Model	ZGCA117 II 2L-H
Emission standards	II China II	III China III	IV China IV	V EURO V	Nominal pressure, max	18 bar
Rated power	153kW(210hp)2,000rpm	154kW(210hp)2,200rpm	154kW(210hp)2,200rpm	160kW(220hp)2,200rpm	Air flow FAD	12 m ³ / min
Boom & Feed					Weight & Dimensions	
Feed type:	Hydraulic cylinder + Rope/ Hydraulic cylinder- Chain				Length	7,480 mm
Feed length	6,100 (5,500) mm	Feed force max.	13 (10) kN		Width	2,300 mm
Feed extension	970 mm	Feed rate max.	0.88 (0.8) m/s		Height	2,750 mm
Feed travel length	3,488 (3,680) mm	Pullup force max.	16.5 (22.5) kN		Weight (w/o option)	8,630 (7,250) kg
Functional Specifications					Chassis	
Drill pipe handling capacity: 7					Tramming speed.Max	3.2 km/h
Hole range	Φ90 - 127 mm	DTH hammer	3.5 "		Max Gradeability	25°
Drill pipe diameter	Φ60 mm	Rotation torque	1,500 Nm		Carrier ground clearance	340 mm
Drill pipe length	3,000 mm	Rotation rpm	0-135 rpm		Track frame oscillation angle	±10°
Hole depth.Max	21 m	Fuel tank capacity	250 L		Traction force.Max	96 kN

Working conditions



Construction

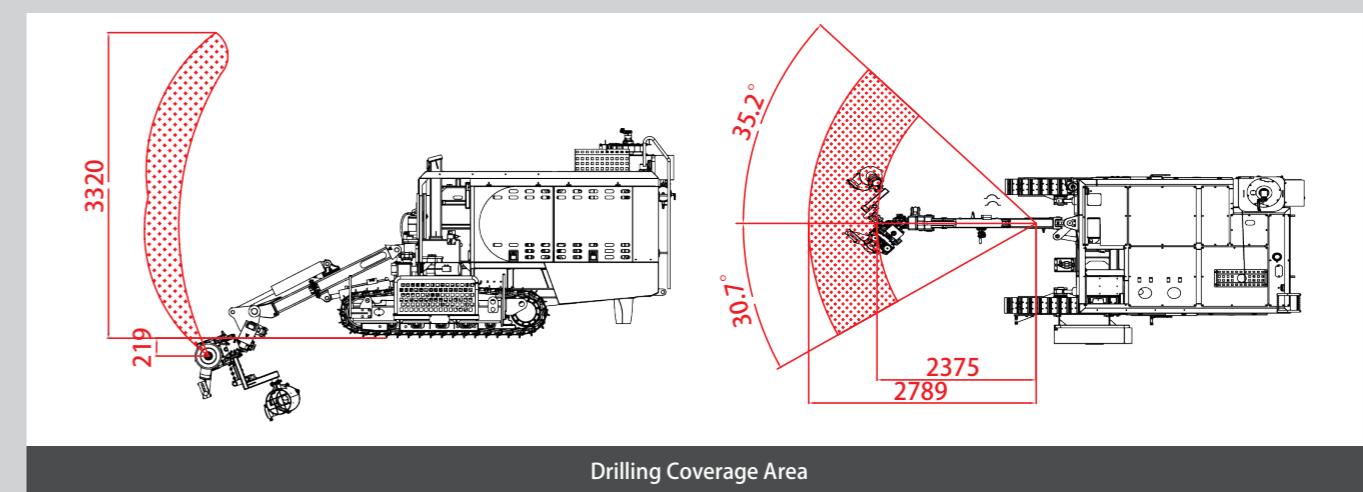
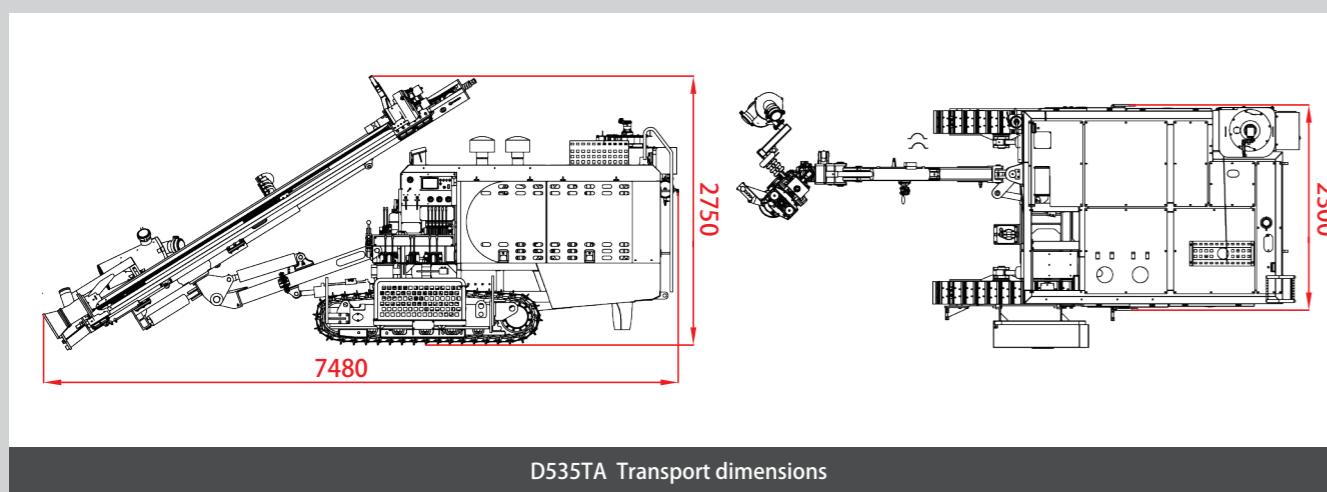
- Highway
- Hydropower
- Airport
- Wharf

Green Mining

- Cement
- Coal mine
- Quarrying
- Iron mine

Non-blasting Industry

- Photovoltaic
- Well geothermal
- Real estate
- Slope treatment



ZEGA D545H/D545T

Product Features

■ Features of this model: While maintaining high efficiency and low consumption, it meets the rock drilling needs of hole diameters of 115mm and 138mm, showing a high cost performance; In soft rock operations such as coal mining, there are high-speed rotary feed solutions, achieving a rock drilling speed of 3m/min in coal mining operations in Inner Mongolia.

Features of the entire product series. NO.02



The entire series of DTH drill rigs use two-stage compression air ends with optimal energy efficiency ratios to achieve high air pressure rock drilling, which has excellent fuel economy performance and is more environment friendly.

ZEGA D545H

ZEGA D545T



Technical Specifications ZEGA D545T (The data inside is parameters of ZEGA D545T.)

Engine			Screw Compressor	
Manufacturer	Cummins	Cummins	Cummins	Manufacturer
Model	6CTAC8.3-C260	QSB6.7-C260-33	B6.7CS4 260C	Model
Emission standards	II China II	III China III	IV China IV	Nominal pressure, max
Rated power	194kW(260hp)2,200rpm	194kW(260hp)2,400rpm	194kW(260hp)2,200rpm	18 bar
Boom & Feed			Air flow FAD	17 m3/min
Feed type: Hydraulic cylinder + Rope/Hydraulic cylinder- Chain	Length	9,000 mm		
Feed length	6,100 (5,530) mm	Feed force max.	13 (15) kN	Width
Feed extension	1,200 mm	Feed rate max.	0.88 (0.8) m/s	Height
Feed travel length	3,400 (3,880) mm	Pullup force max.	16.5 (42) kN	Weight (w/o option)
Weight & Dimensions				
Length	9,000 mm			
Width	2,360 mm			
Height	3,000 mm			
Weight (w/o option)	10,000 (8,900) kg			
Functional Specifications			Chassis	
Drill pipe handling capacity: 7	Tramming speed.Max	3.3 km/h		
Hole range	Φ90 - 130 (Φ90-138) mm	DTH hammer	3.5" / 4"	Max Gradeability
Drill pipe diameter	Φ68 /76 (Φ76) mm	Rotation torque	1,900 (2,200) Nm	Carrier ground clearance
Drill pipe length	3,000 mm	Rotation rpm	0-115 rpm	Track frame oscillation angle
Hole depth.Max	24 m	Fuel tank capacity	300L	Traction force.Max
				119 kN

Working conditions



Construction

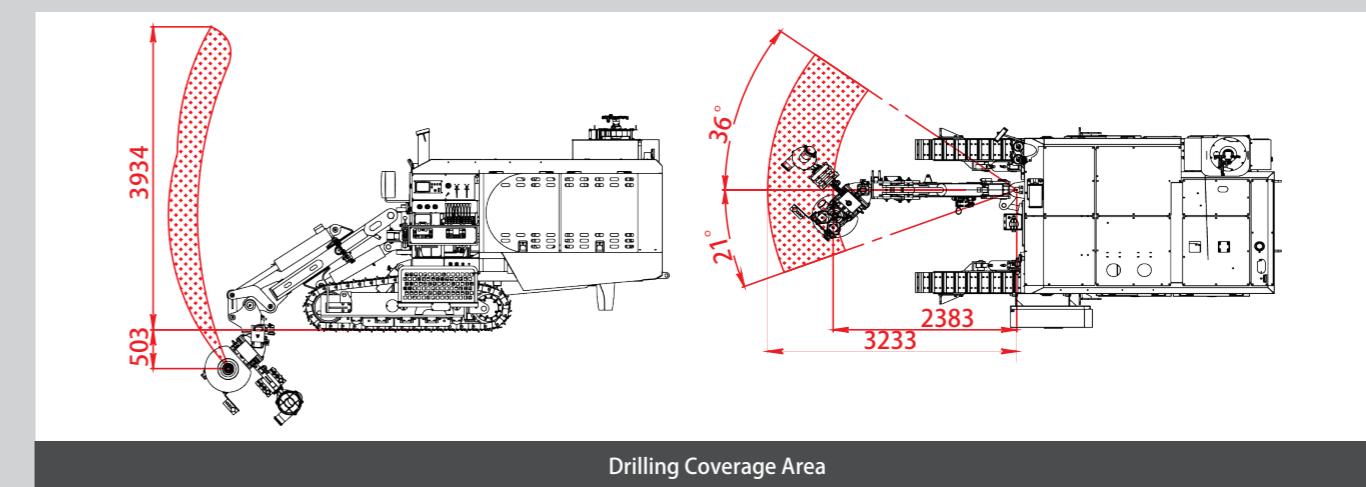
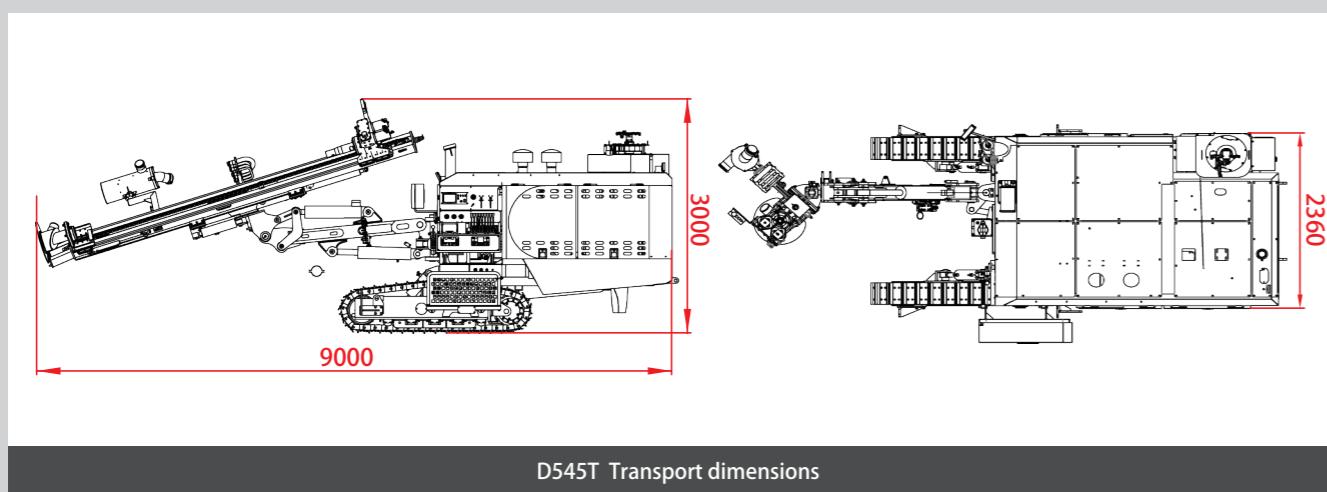
- Highway
- Airport
- Hydropower
- Wharf

Green Mining

- Cement
- Quarrying
- Coal mine
- Iron mine

Non-blasting Industry

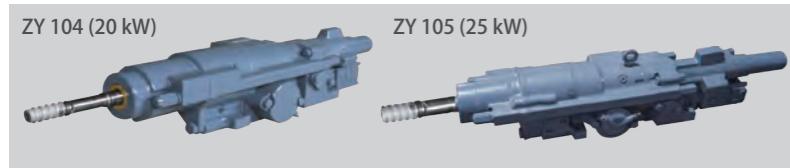
- Photovoltaic
- Real estate
- Well geothermal
- Slope treatment



ZEGA T640/T645

Product Features

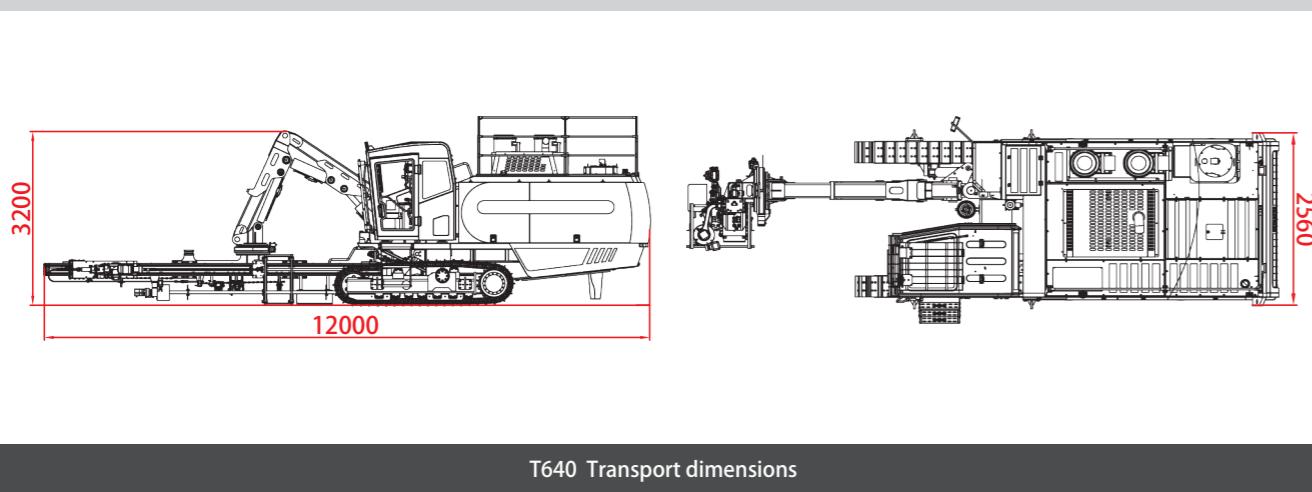
■ Features: ZEGA T640 and T645 drill rigs are respectively equipped with a 20kW and a 25kW high-frequency high-pressure full-hydraulic rock drills that are independently developed and manufactured by ZEGA. Besides, the folding booms and high-performance off-road design promote the efficiency in drilling small and medium-sized holes.



Features of the entire product series. NO.03



The ROPS and FOPS certified air-conditioning with cooling and heating functions, conforms to principles of ergonomics, providing a broaden view, safe and comfortable experience for the operator.



T640 Transport dimensions

Technical Specifications ZEGA T645 (The data inside is parameters of ZEGA T645.)

Engine					Screw Compressor	
Manufacturer	Cummins	Cummins	Cummins	DEUTZ	Manufacturer	ZEGA
Model	QSC8.3-C240-30	B6.7CS4 240C	B6.7	TCD7.8L6	Model	ZGAA138 II
Emission standards	III China III	IV China IV	V EURO V	V EURO V	Nominal pressure, max	10 bar
Rated power	179kW(240hp)2,200rpm	177kW(240hp)2,200rpm	194kW(260hp)2,500rpm	200kW(270hp)2,500rpm	Air flow FAD	10 m ³ / min
Boom & Feed					Weight & Dimensions	
Feed type: Hydraulic cylinder +Rope					Length	12,000 mm
Feed length	7,320 (7,520) mm	Feed force max.	20 kN		Width	2,550 mm
Feed extension	1,200 mm	Feed rate max.	0.9 m/s		Height	3,200 mm
Feed travel length	4,420 mm	Pull up force max.	20 kN		Weight (w/o option)	14,500 kg
Functional Specifications					Chassis	
Drill pipe handling capacity: 6+1 (Auto rod changer)					Tramming speed.Max	3.6 km/h
Hole range	Φ76 - 115 mm	Rock drill	ZY-104HE (ZY-105H)		Max Gradeability	25°
Drill pipe diameter	Φ38/45/51 (Φ45/51) mm	Percussion power	20 (25) kW		Carrier ground clearance	380 mm
Drill pipe length	3,660 mm	Percussion per minute	2,600~3,600 (2,520~3,000)		Track frame oscillation angle	±10°
Hole depth.Max	25 m	Rotation torque	1,180 Nm		Traction force.Max	138 kN
Fuel tank capacity	440 L	Rotation rpm	0-135 r/min			

Working conditions



Construction



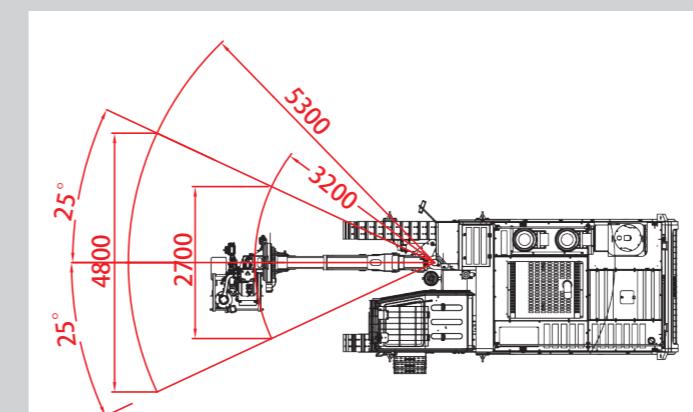
Green Mining



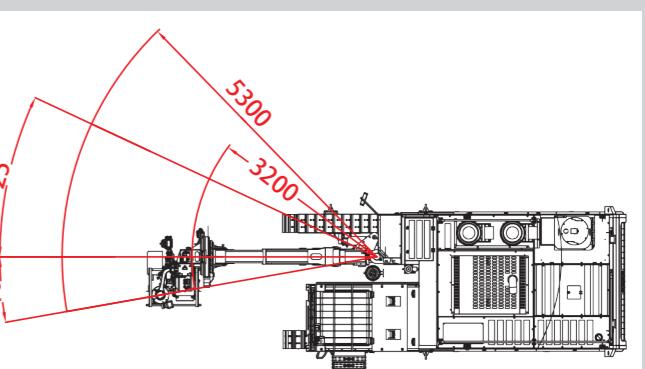
Non-blasting Industry



Photovoltaic Well geothermal
 Airport Wharf Cement Coal mine
 Hydropower Quarrying Iron mine
 Real estate Slope treatment



T640 Drilling Coverage Area



T645 Drilling Coverage Area

ZEGA D435

Product Features

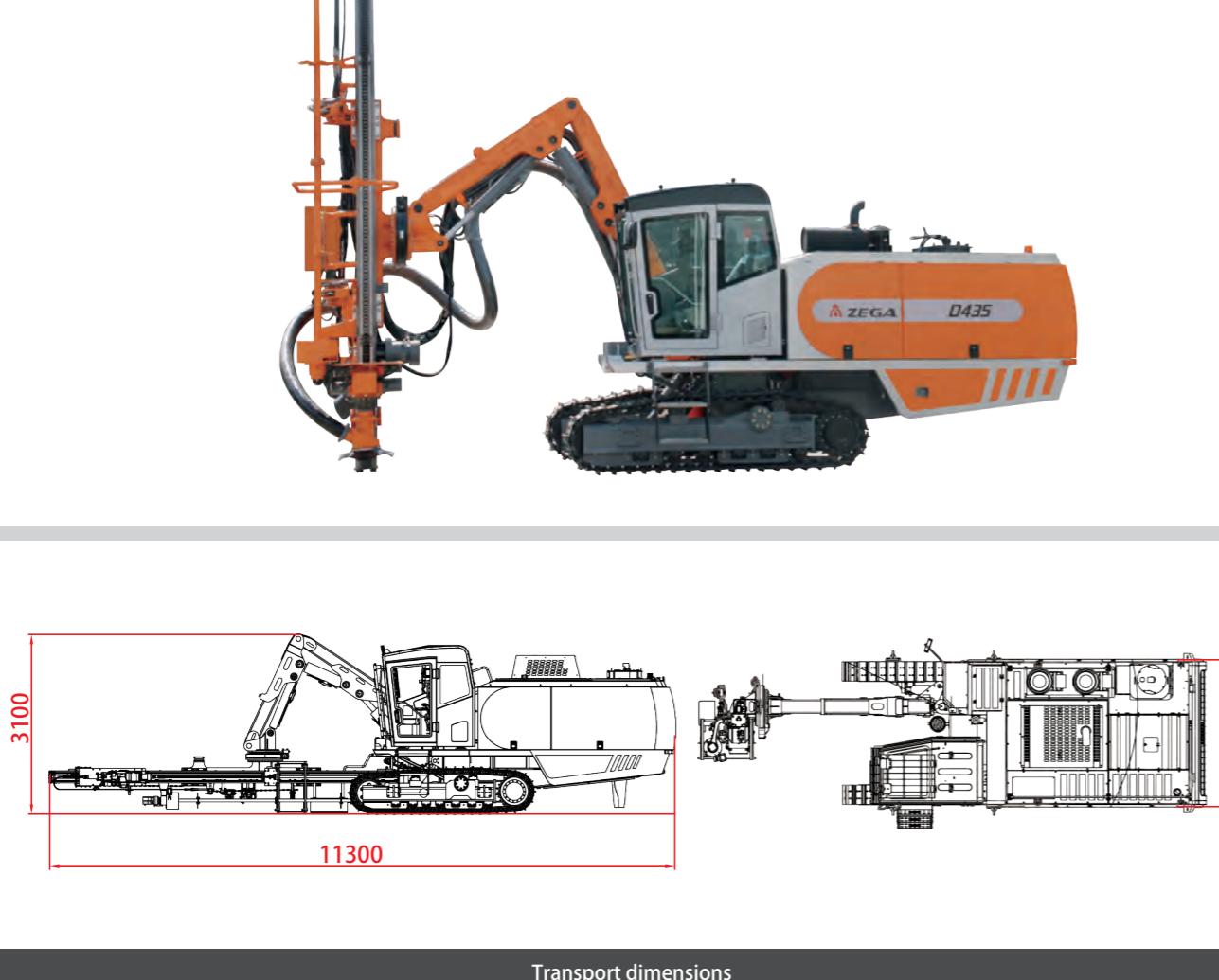
■ Features: Equipped with 360° rotating mechanism of foldable booms, ZEGA D435 not only satisfies the demands for mining, but also fits for construction requirements of side slopes and special working conditions.



Features of the entire product series. NO.04



The dual-speed tramping motor and the oscillation cylinder of -10° to +10° oscillation angle ensure stable and smooth high-speed movement on flat areas and off-road performance on pristine landform.



Technical Specifications

Engine			Screw Compressor	
Manufacturer	Cummins	Cummins	Cummins	Manufacturer
Model	6CTAC8.3-C260	QSB6.7-C260-33/ QSC8.3-C260-30	B6.7CS4 260C	Model
Emission standards	II China II	III China III	IV China IV	Nominal pressure, max
Rated power	194kW(260hp)2,200rpm	194 kW(260hp)2,400 rpm	194kW(210hp)2,200rpm	Air flow FAD
Boom & Feed			Weight & Dimensions	
Feed type:	Hydraulic motor + Chain		Length	11,300 mm
Feed length	7,475 mm	Feed force max.	18 kN	Width
Feed extension	1,200 mm	Feed rate max.	0.88 m/s	Height
Feed travel length	4,585 mm	Pull up force max.	24.8 kN	Weight (w/o option)
Functional Specifications			Chassis	
Drill pipe handling capacity: 7			Tramming speed.Max	3.1 km/h
Hole range	Φ90 - 138 mm	DTH hammer	3.5" / 4"	Max Gradeability
Drill pipe diameter	Φ68 / 76 mm	Rotation torque	2,800 Nm	Carrier ground clearance
Drill pipe length	4,000 mm	Rotation rpm	0-110 rpm	Track frame oscillation angle
Hole depth.Max	28 m	Fuel tank capacity	340 L	Traction force.Max
				165 kN

Working conditions



Construction

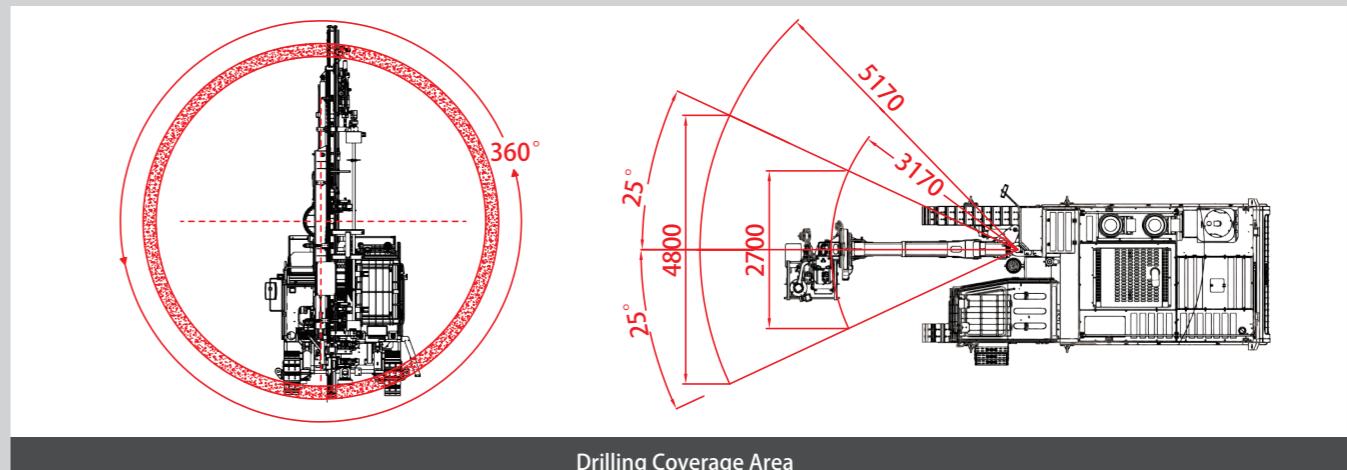
■ Highway
■ Airport

Green Mining

■ Hydropower
■ Wharf

Non-blasting Industry

□ Cement
□ Quarrying
□ Photovoltaic
□ Real estate
□ 水井地热 Well geothermal
■ Coal mine
■ Iron mine
■ 边坡治理 Slope treatment



ZEGA D440A

Product Features

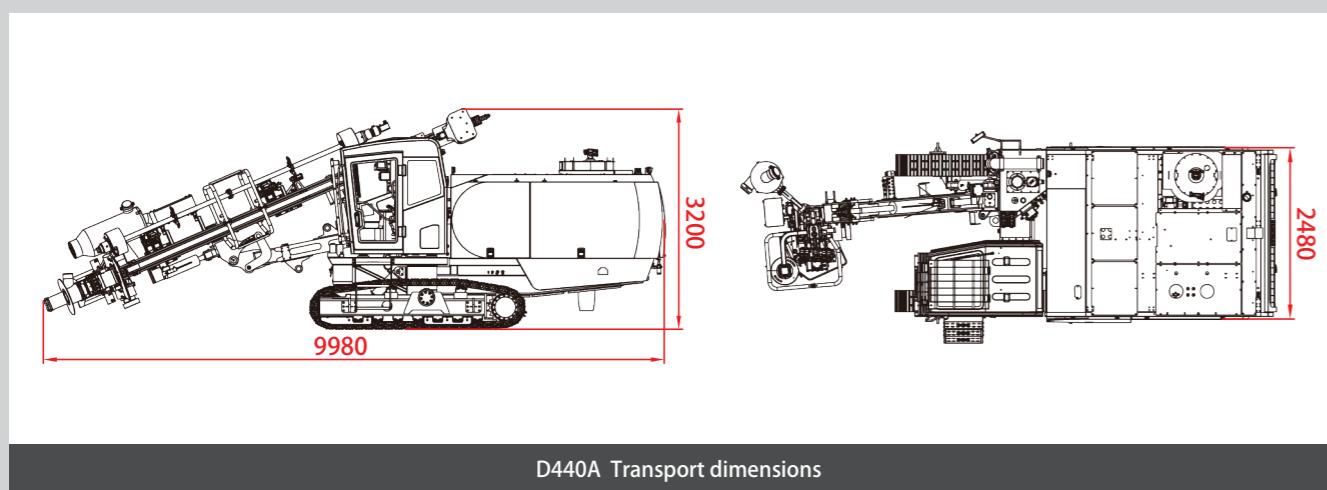
■ Features: In addition to high efficiency and reliability, ZEGA D440A is characterized by outstanding adaptive capacity to environment and super-high value with competitive price, therefore it can be considered as an optimum choice to replace separated drill rigs.



Features of the entire product series. NO.05



The enlarged air filter and oil filter guarantee the long service life of such functional components as the engine, the screw air end and oil pumps; In line with actual working conditions, an additional pre-separator at the front end can be assembled to satisfy the requirements of a more demanding environment.



D440A Transport dimensions

Technical Specifications									
Engine			Screw Compressor						
Manufacturer	Cummins	Cummins	Cummins	Manufacturer	ZEGA				
Model	6CTAC8.3-C260	QSC8.3-C260-30	B6.7CS4 260C	Model	ZGDD160 III				
Emission standards	II China II	III China III	IV China IV	Nominal pressure, max	20 bar				
Rated power	194kW(260hp)2,000rpm	194kW(260hp)2,000rpm	194kW(260hp)2,000rpm	Air flow FAD	16 m ³ / min				
Boom & Feed									
Feed type: Hydraulic motor + Chain									
Feed length	7,475 mm	Feed force max.	18 kN	Length	9,980 mm				
Feed extension	1,200 mm	Feed rate max.	0.85 m/s	Width	2,480 mm				
Feed travel length	4,585 mm	Pull up force max.	24.8 kN	Height	3,200 mm				
Weight & Dimensions									
Weight (w/o option)			14,800 kg						
Functional Specifications									
Drill pipe handling capacity: 6+1									
Hole range	Φ 90 - 138 mm	DTH hammer	4" / 3.5"	Tramming speed.Max	3.0 km/h				
Drill pipe diameter	Φ 76/68 mm	Rotation torque	2,800 Nm	Max Gradeability	25°				
Drill pipe length	4,000 mm	Rotation rpm	0-110 rpm	Carrier ground clearance	450 mm				
Hole depth.Max	28 m	Fuel tank capacity	480 L	Track frame oscillation angle	±10°				
Chassis									

Working conditions



Construction

■ Highway
■ Airport

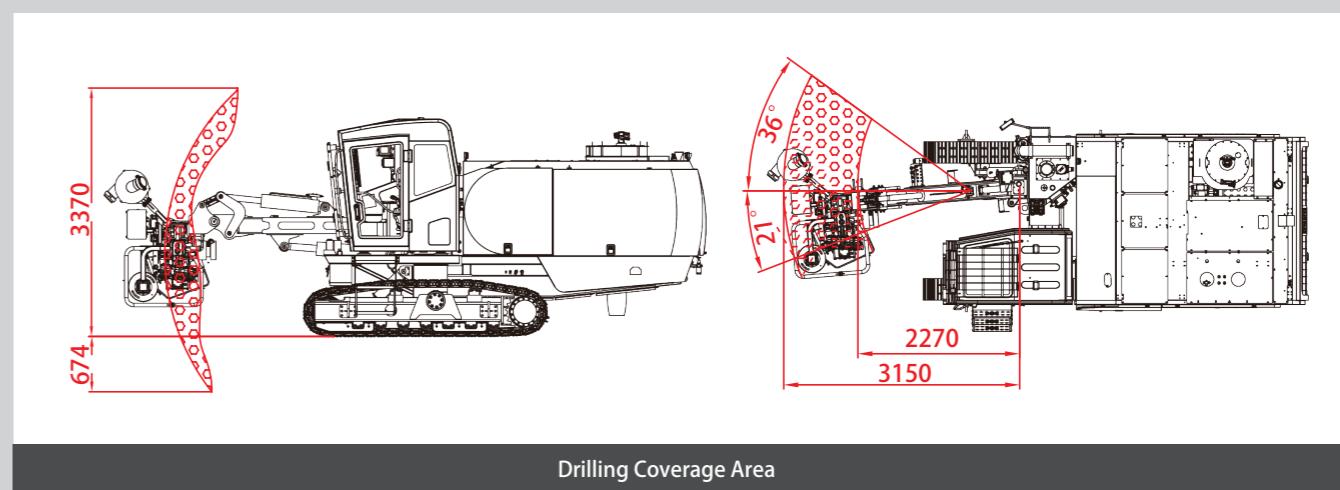
Green Mining

■ Cement
■ Quarrying

Non-blasting Industry

□ Photovoltaic
□ Real estate

□ Well geothermal
□ Slope treatment



Drilling Coverage Area

ZEGA D450D

Product Features

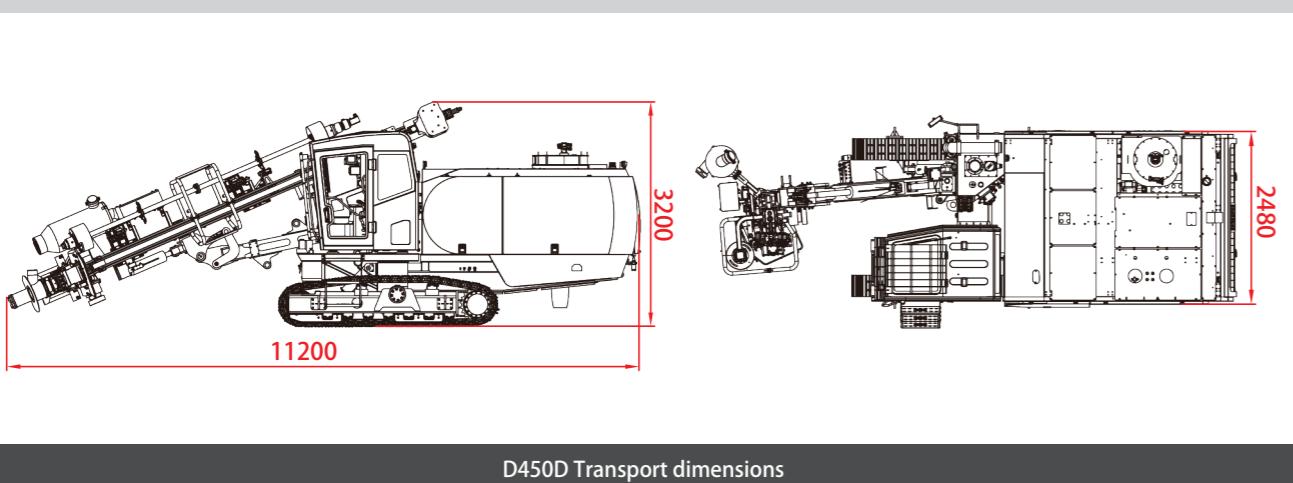
■ Features: As a predominant drill rig in medium-sized mining, the working pressure can be maintained at 20bar when drilling holes of $\varphi 138\text{mm}$ on hard rocks. No matter in terms of output or oil consumption per foot, ZEGA D450D ranks among the best.



Features of the entire product series. NO.06



Equipped with a high-strength aluminium alloy feed beam and a stainless steel protective cover; The distinguished guidance quality and stability contribute to the achievement of high-precision drilling; The feeding system consists of hydraulic cylinder + steel wire rope or motor + chain and hose follower, realizing feeding in fast or slow speed.



D450D Transport dimensions

Technical Specifications					
Engine				Screw Compressor	
Manufacturer	Cummins	Cummins	Cummins	Manufacturer	ZEGA
Model	6LTAA8.9-C360	QSL8.9-C360-30	L9CS4 360C	Model	ZGDD160III
Emission standards	II China II	III China III	IV China IV	Nominal pressure, max	21 bar
Rated power	264kW(360hp)2,000rpm	264kW(360hp)1,900rpm	264kW(360hp)1,900rpm	Air flow FAD	21.5 m ³ / min
Boom & Feed				Weight & Dimensions	
Feed type: Hydraulic motor + Chain				Length	11,200 mm
Feed length	8,570 mm	Feed force max.	18 kN	Width	2,480 mm
Feed extension	1,200 mm	Feed rate max.	0.85 m/s	Height	3,200 mm
Feed travel length	5,300 mm	Pull up force max.	31 kN	Weight (w/o option)	15,500 kg
Functional Specifications				Chassis	
Drill pipe handling capacity: 4+1				Tramming speed.Max	3.0 km/h
Hole range	$\varnothing 115\text{--}152\text{ mm}$	DTH hammer	5" / 4"	Max Gradeability	25°
Drill pipe diameter	$\varnothing 89\text{--}76\text{ mm}$	Rotation torque	4,000 Nm	Carrier ground clearance	450 mm
Drill pipe length	5,000 mm	Rotation rpm	0-105 rpm	Track frame oscillation angle	±10°
Hole depth.Max	25 m	Fuel tank capacity	480 L	Traction force.Max	115.4 kN

Working conditions



Construction

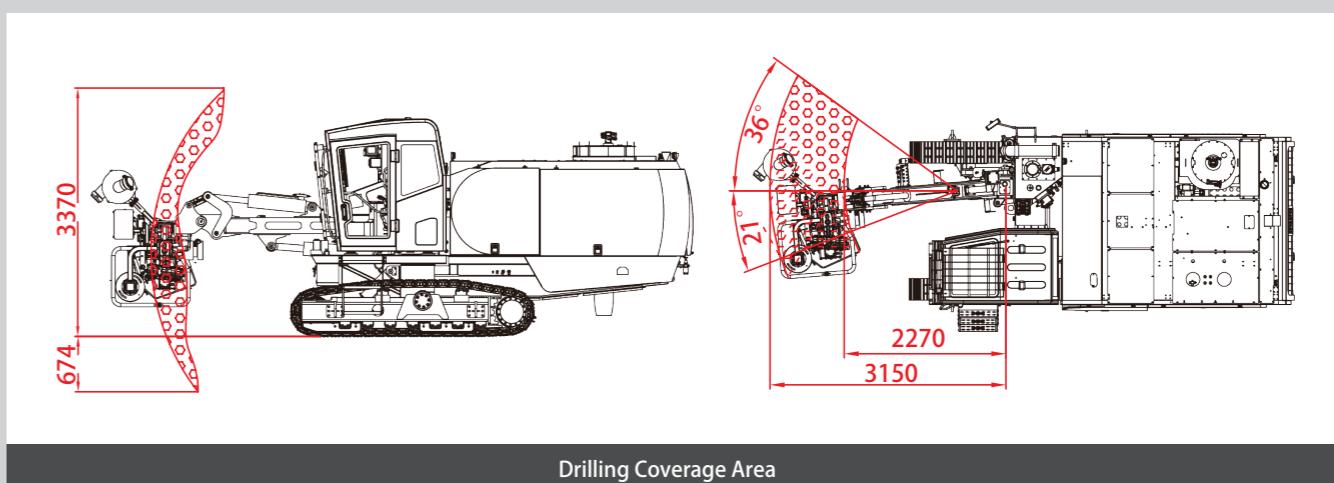
Highway
 Airport

Green Mining

Hydropower
 Wharf

Non-blasting Industry

Cement
 Quarrying
 Coal mine
 Iron mine
 Photovoltaic
 Real estate
 Well geothermal
 Slope treatment



Drilling Coverage Area

ZEGA D460A

Product Features

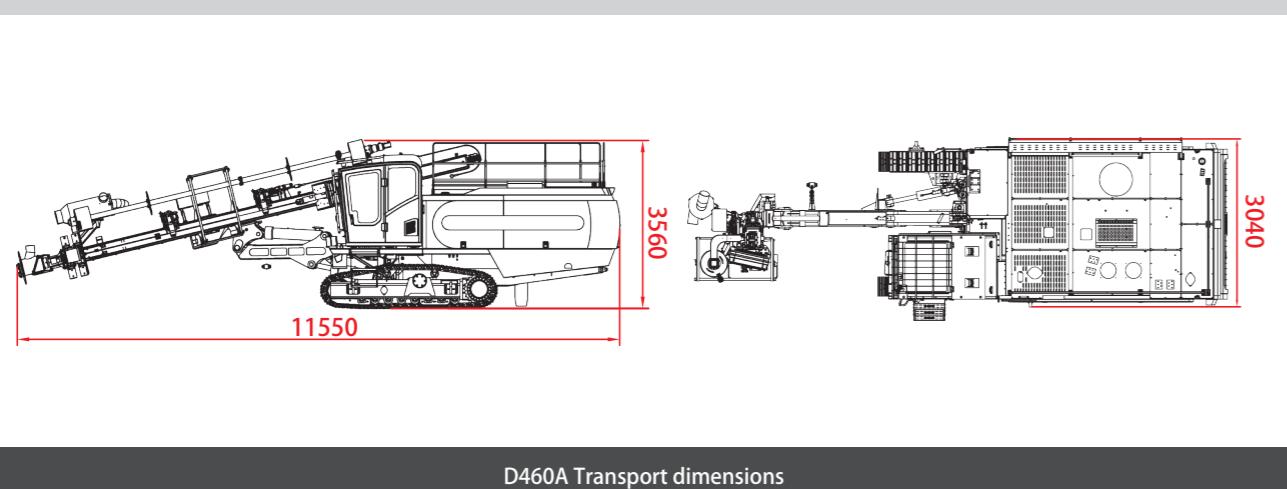
■ Features: The heavy-duty design enables ZEGA D460A to have a proud performance in cement, coal, mining and other industries. Hundreds of ZEGA D460A drill rigs manufactured by ZHIGAO have been exported to more than ten countries.



Features of the entire product series. NO.07



A combination of the hydraulic motor or high-power rotary head driven by the hydraulic cylinder and the patented absorber, greatly lowers the possibility of jamming and prolongs the service life of the rotary head and drilling tools.



D460A Transport dimensions

Technical Specifications					
Engine			Screw Compressor		
Manufacturer	Cummins	Cummins	Cummins	Manufacturer	ZEGA
Model	6LTA8.9-C360	QSL8.9-C360-30	L9CS4-400C	Model	ZGDB 160 III
Emission standards	II China II	III China III	IV China IV	Nominal pressure, max	21 bar
Rated power	264kW(360hp)2,000rpm	264kW(360hp)1,900rpm	294kW(400hp)1,900rpm	Air flow FAD	22.5 m3 / min
Boom & Feed <small>The data inside are parameters of drill rigs with "Hydraulic cylinder +Rope"</small>					
Feed type: Hydraulic motor + Chain (Hydraulic cylinder +Rope)	Length	11,550 mm			
Feed length	10,500 (9,000) mm	Feed force max.	40 (34.5) kN	Width	2,700 mm
Feed extension	1,300 mm	Feed rate max.	0.9 (0.88) m/s	Height	3,560 mm
Feed travel length	6,600 mm	Pull up force max.	50 (67.6) kN	Weight (w/o option)	22,000 kg
Weight & Dimensions					
Feed type: Hydraulic motor + Chain (Hydraulic cylinder +Rope)	Length	11,550 mm			
Feed length	10,500 (9,000) mm	Feed force max.	40 (34.5) kN	Width	2,700 mm
Feed extension	1,300 mm	Feed rate max.	0.9 (0.88) m/s	Height	3,560 mm
Feed travel length	6,600 mm	Pull up force max.	50 (67.6) kN	Weight (w/o option)	22,000 kg
Functional Specifications					
Drill pipe handling capacity: 6+1	Tramming speed.Max	3.0 km/h			
Hole range	Φ115 - 152 mm	DTH hammer	5" / 4"	Max Gradeability	25°
Drill pipe diameter	Φ102 mm	Rotation torque	4,435 Nm	Carrier ground clearance	420 mm
Drill pipe length	6,000 / 5,000 / 7,000 mm	Rotation rpm	0-105 rpm	Track frame oscillation angle	±10°
Hole depth.Max	42 m	Fuel tank capacity	750 L	Traction force.Max	156.2 kN
Chassis					

Working conditions



Construction

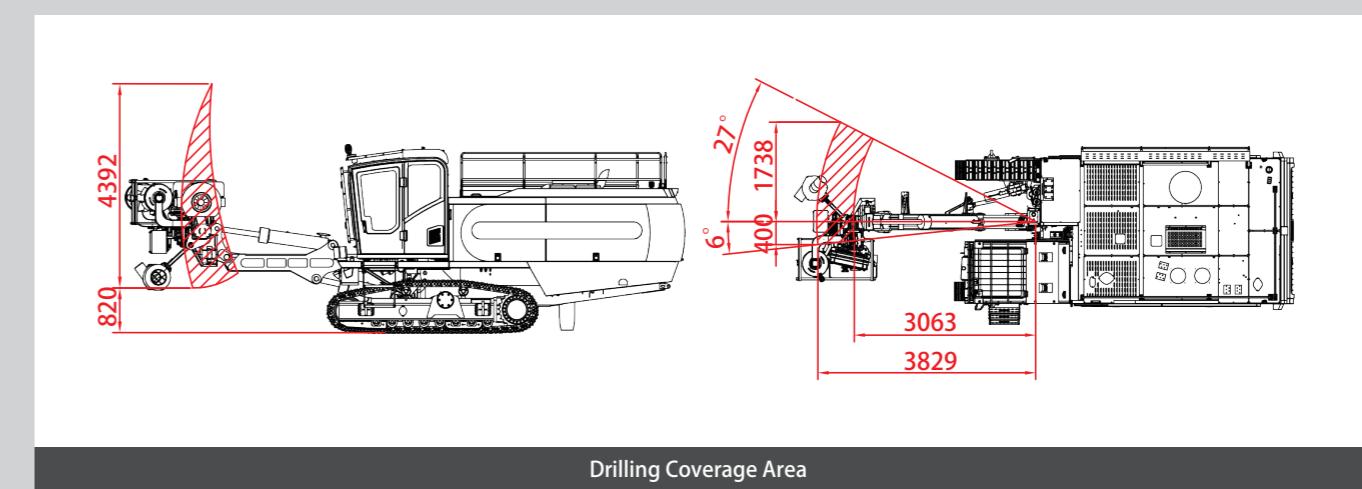
Highway
 Airport

Green Mining

Cement
 Quarrying

Non-blasting Industry

Photovoltaic
 Real estate
 Well geothermal
 Slope treatment



Drilling Coverage Area

ZEGA D470C/470D

Product Features

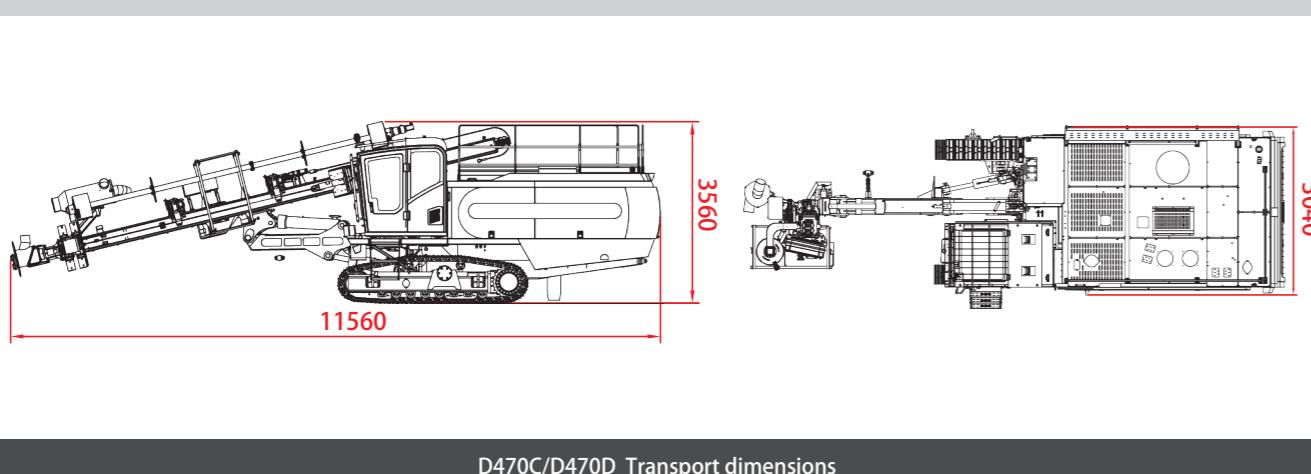
■ Features: The choice of up to 7-meter drill pipe greatly enhance the drilling efficiency. Benchmarking against word-class brands, ZEGA D470C/470D has over 10-year market application and has been highly praised by users.



Features of the entire product series. NO.08



The special-designed efficient dry type dust collection system has a large filtration area; Equipped with an optional mature wet type dust collection system; A combination of dry and wet types dust collection system solves the problem of flying dust during hole collaring, meeting the highest level of environmental protection requirements.



Technical Specifications					
Engine				Screw Compressor	
Manufacturer	Caterpillar (D470C)	Cummins (D470D)	Cummins (D470D)	Manufacturer	ZEGA
Model	C11	QSM11	L9CS4-430C	Model	ZGDA 184III
Emission standards	III China III	IV China IV	Nominal pressure, max	24 bar	
Rated power	287kW(385hp)1,800rpm	306kW(415hp)1,800rpm	316kW(430hp)1,900rpm	Air flow FAD	21 m ³ / min
Boom & Feed <small>The data inside are parameters of drill rigs with "Hydraulic cylinder +Rope"</small>				Weight & Dimensions	
Feed type: Hydraulic motor + Chain (Hydraulic cylinder +Rope)				Length	11,560 mm
Feed length	10,500 (10,000) mm	Feed force max.	40 (34.5) kN	Width	2,700 mm
Feed extension	1,300 mm	Feed rate max.	0.9 (0.88) m/s	Height	3,560 mm
Feed travel length	6,600 mm	Pull up force max.	50 (67.6) kN	Weight (w/o option)	23,500 kg
Functional Specifications				Chassis	
Drill pipe handling capacity: 4+1				Tramming speed.Max	3.0 km/h
Hole range	Φ138 - 165 mm	DTH hammer	5" / 6"	Max Gradeability	25°
Drill pipe diameter	Φ114 / 102 mm	Rotation torque	5,600 Nm	Carrier ground clearance	420 mm
Drill pipe length	6,000 / 5,000 / 7,000 mm	Rotation rpm	0-80 rpm	Track frame oscillation angle	±10°
Hole depth.Max	35 m	Fuel tank capacity	750 L	Traction force.Max	156.2 kN

Working conditions



Construction

- Highway
- Airport

- Hydropower
- Wharf

Green Mining

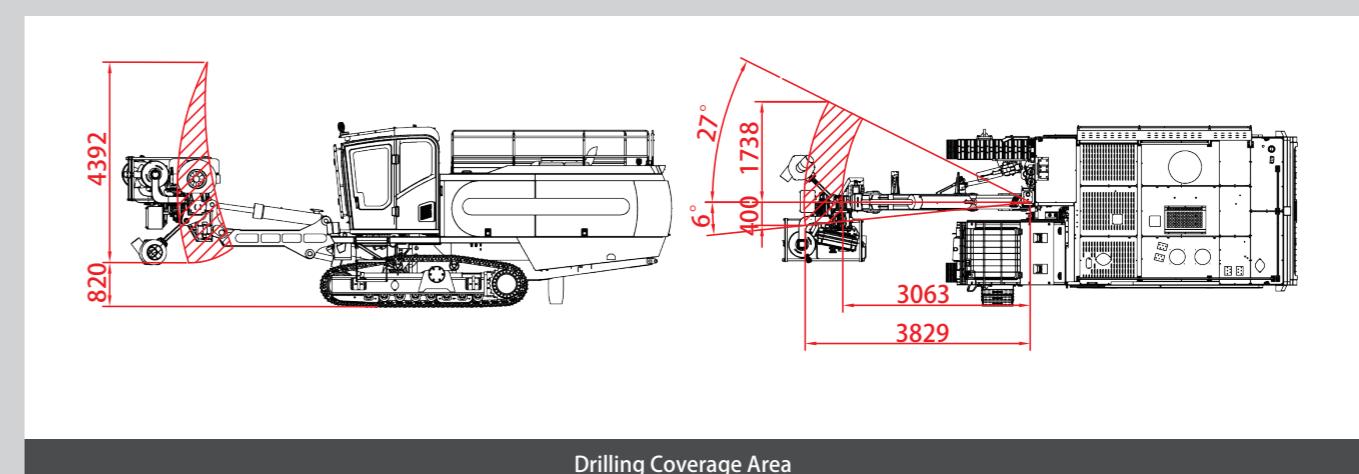
- Cement
- Quarrying

- Coal mine
- Iron mine

Non-blasting Industry

- Photovoltaic
- Real estate

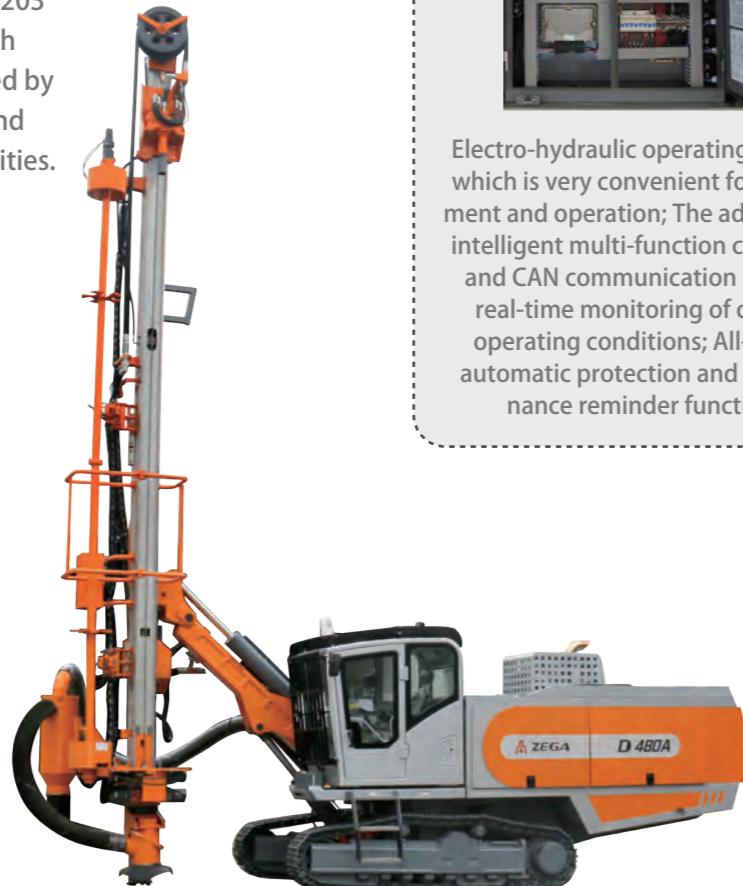
- Well geothermal
- Slope treatment



ZEGA D480A

Product Features

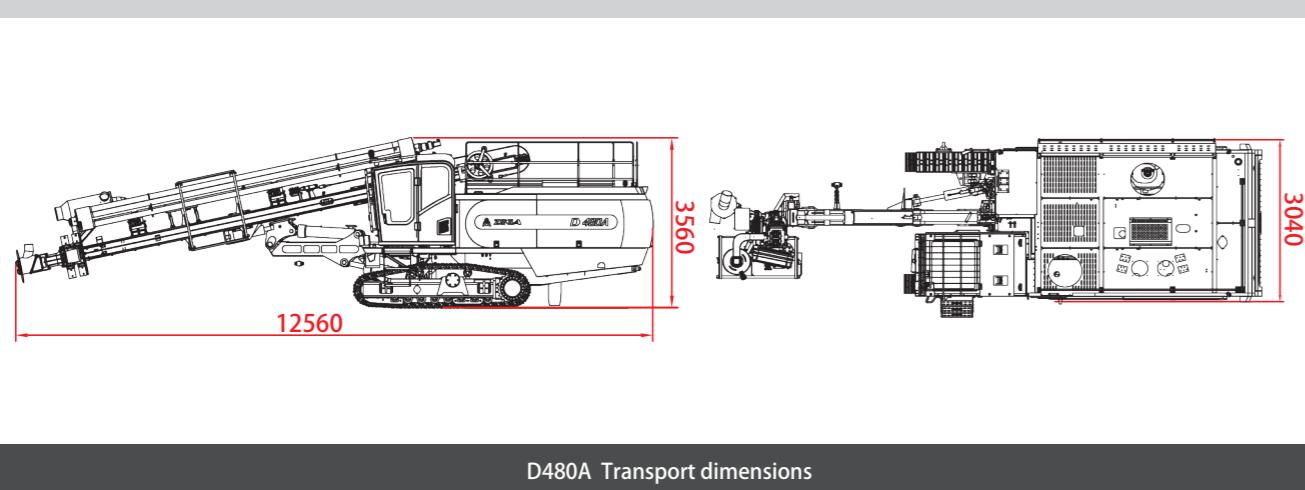
■ Features: ZEGA D480A's powerful powerpack makes it successfully applied in the maximum blasthole diameter of $\Phi 203$ mm, and its drilling operation is smooth and reliable, which has been recognized by many users in global open-pit mines and quarries, and purchased in large quantities.



Features of the entire product series. NO.09



Electro-hydraulic operating system, which is very convenient for adjustment and operation; The adoption of intelligent multi-function controller and CAN communication realizes real-time monitoring of drilling operating conditions; All-round automatic protection and maintenance reminder function.



Technical Specifications

Engine			Screw Compressor	
Manufacturer	Cummins	Cummins	Manufacturer	ZEGA
Model	QSZ13	M14CS4IV41C	Model	ZGDA 184III
Emission standards	III China III	IV China IV	Nominal pressure, max	25 bar
Rated power	410kW(552hp)1,900rpm	412kW(552hp)2,100rpm	Air flow FAD	33 m ³ / min
Boom & Feed			Weight & Dimensions	
Feed type: Hydraulic motor + Chain (Hydraulic cylinder +Rope)			Length	12,560 mm
Feed length	11,500 (11,000) mm	Feed force max.	40 (34.5) kN	Width
Feed extension	1,300 mm	Feed rate max.	0.9 (0.88) m/s	Height
Feed travel length	7,600 mm	Pull up force max.	50 (67.6) kN	Weight (w/o option)
Functional Specifications				
Drill pipe handling capacity: 4+1				
Hole range	$\Phi 138 - 203$ mm	DTH hammer	6" / 7"	Tramming speed.Max
Drill pipe diameter	$\Phi 114 / 102 / 127$ mm	Rotation torque	5,600 Nm	Max Gradeability
Drill pipe length	7,000 / 6,000 mm	Rotation rpm	0-80 rpm	Carrier ground clearance
Hole depth.Max	35 m	Fuel tank capacity	1000 L	Track frame oscillation angle
Chassis				
Drill pipe handling capacity: 4+1				
Hole range	$\Phi 138 - 203$ mm	DTH hammer	6" / 7"	Tramming speed.Max
Drill pipe diameter	$\Phi 114 / 102 / 127$ mm	Rotation torque	5,600 Nm	Max Gradeability
Drill pipe length	7,000 / 6,000 mm	Rotation rpm	0-80 rpm	Carrier ground clearance
Hole depth.Max	35 m	Fuel tank capacity	1000 L	Track frame oscillation angle
Functional Specifications				
Drill pipe handling capacity: 4+1				
Hole range	$\Phi 138 - 203$ mm	DTH hammer	6" / 7"	Tramming speed.Max
Drill pipe diameter	$\Phi 114 / 102 / 127$ mm	Rotation torque	5,600 Nm	Max Gradeability
Drill pipe length	7,000 / 6,000 mm	Rotation rpm	0-80 rpm	Carrier ground clearance
Hole depth.Max	35 m	Fuel tank capacity	1000 L	Track frame oscillation angle

Working conditions



Construction

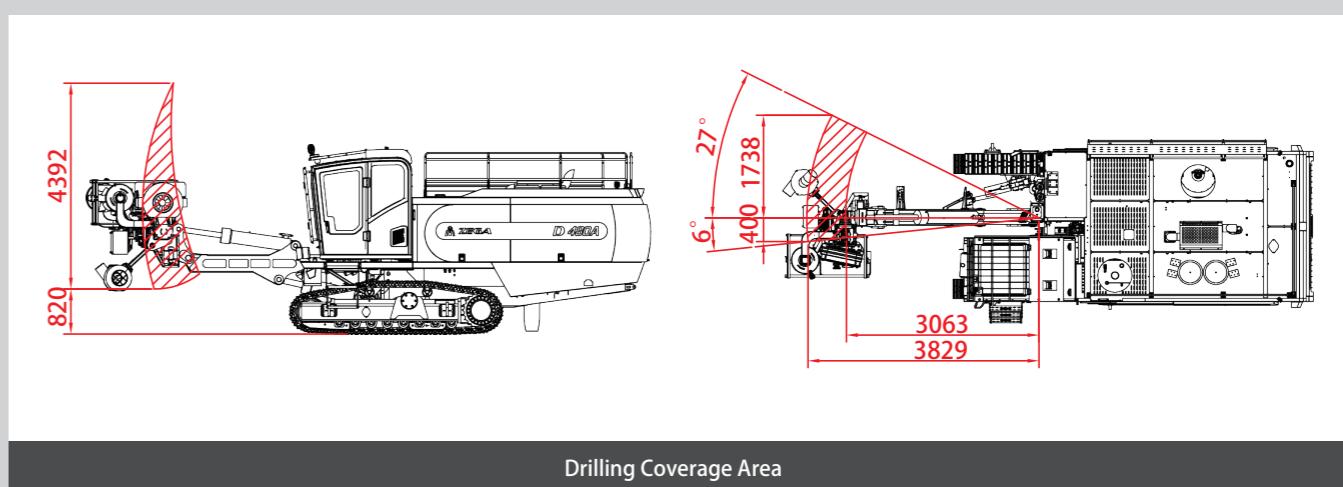
- Highway
- Airport

Green Mining

- Hydropower
- Wharf

Non-blasting Industry

- Cement
- Quarrying
- Coal mine
- Iron mine
- Photovoltaic
- Real estate
- Well geothermal
- Slope treatment



ZEGA D480RC

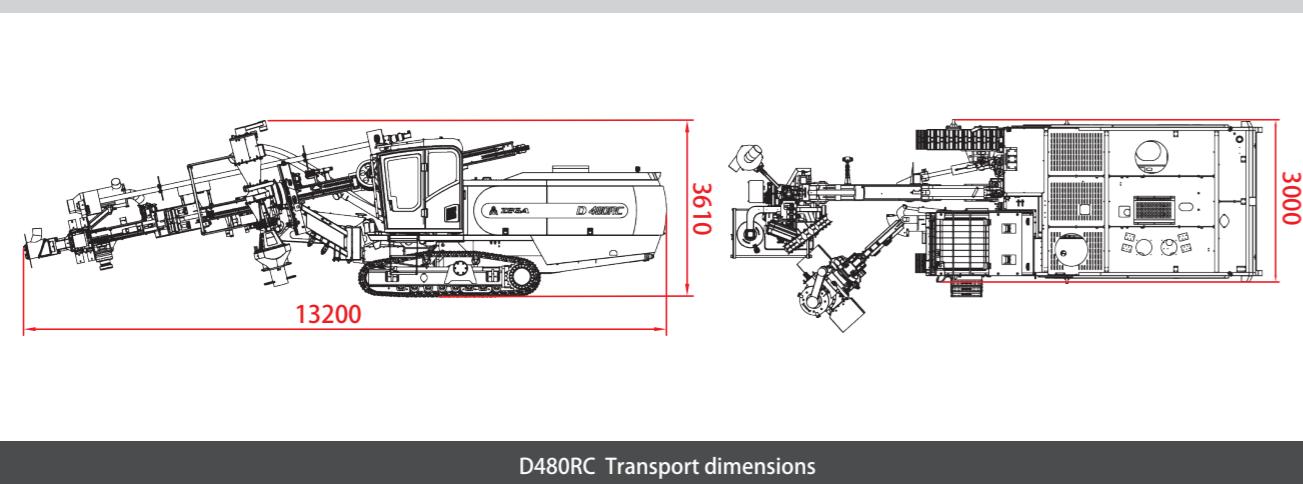
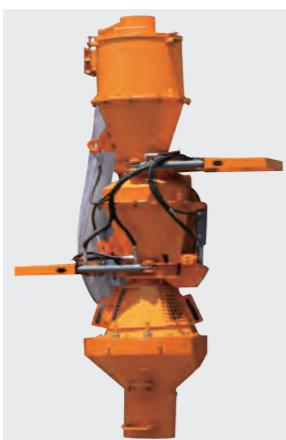
ZEGA D480RC Reverse-Circulation Sampling Drill Rig

Product Features

■ Features: Reverse Circulation Sampling Exploration is a cost-effective approach to geological exploration that enables efficient planning of mining and quarrying operations through high-quality sampling. Reverse circulation drilling not only avoids or reduces dilution caused by ore and waste rock mixing, but also provides a large number of samples in a short period of time, and in-depth analysis can quickly derive reliable geological information related to the deposit, which helps to select appropriate drilling and blasting boundaries, maximizes ore recovery and yield per ton, and reduces environmental impact.

■ The RC frame is a multi-angle drill stand, which can meet various complex working conditions;

■ The independent remote control system can accurately control the reverse circulation device from a distance, so that the operator can keep away from dust, debris and other hazards.



Features of the entire product series. NO.10



To meet customer demands, the series products are designed with various options: high altitude, high ambient temperature, extremely cold areas, automatic lubrication system, automatic fire extinguishing system, hydraulic rear support leg and other functions.

Technical Specifications

Engine			Screw Compressor		
Manufacturer	Cummins	Cummins	Manufacturer	ZEGA	
Model	QSZ13	M14CS4IV41C	Model	ZGDA 184III	
Emission standards	III China III	IV China IV	Nominal pressure, max	25 bar	
Rated power	410kW(552hp)1,900rpm	412kW(552hp)2,100rpm	Air flow FAD	33 m ³ / min	
Boom & Feed			Weight & Dimensions		
Feed type: Hydraulic motor + Chain (Hydraulic cylinder +Rope)			Length	13,200 mm	
Feed length	11,500 (11,000) mm	Feed force max.	40 (34.5) kN	Width	3,000 mm
Feed extension	1,300 mm	Feed rate max.	0.9 (0.88) m/s	Height	3,610 mm
Feed travel length	7,600 mm	Pull up force max.	50 (67.6) kN	Weight (w/o option)	27,000 kg
Functional Specifications					
Drill pipe handling capacity: 6+1					
Hole range	Φ120 - 150 mm	DTH hammer	4"	Tramming speed.Max	3.0 km/h
Drill pipe diameter	Φ102 mm	Rotation torque	5,600 Nm	Max Gradeability	25°
Drill pipe length	6,000 mm	Rotation rpm	0-80 rpm	Carrier ground clearance	420 mm
Hole depth.Max	42 m	Fuel tank capacity	1000 L	Track frame oscillation angle	±10°
Chassis					
Drill pipe handling capacity: 6+1					
Hole range	Φ120 - 150 mm	DTH hammer	4"	Tramming speed.Max	3.0 km/h
Drill pipe diameter	Φ102 mm	Rotation torque	5,600 Nm	Max Gradeability	25°
Drill pipe length	6,000 mm	Rotation rpm	0-80 rpm	Carrier ground clearance	420 mm
Hole depth.Max	42 m	Fuel tank capacity	1000 L	Track frame oscillation angle	±10°

Working conditions

Reverse circulation sampling is preferred for initial exploration, orebody development and grade control. It is widely used in open-pit ore grade control, exploration of dispersed ore bodies (such as gold mines), sampling of large drilling holes (such as diamond mines), etc

Construction

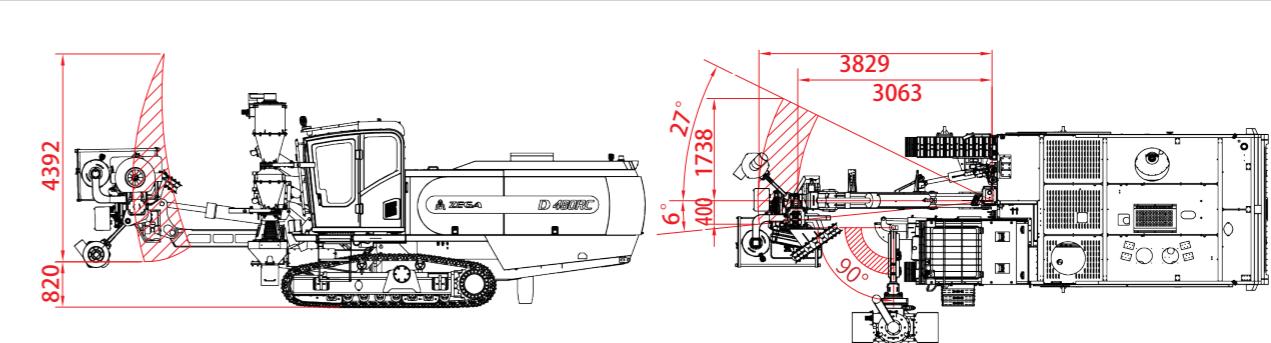
Highway
 Airport

Green Mining

Hydropower
 Wharf

Non-blasting Industry

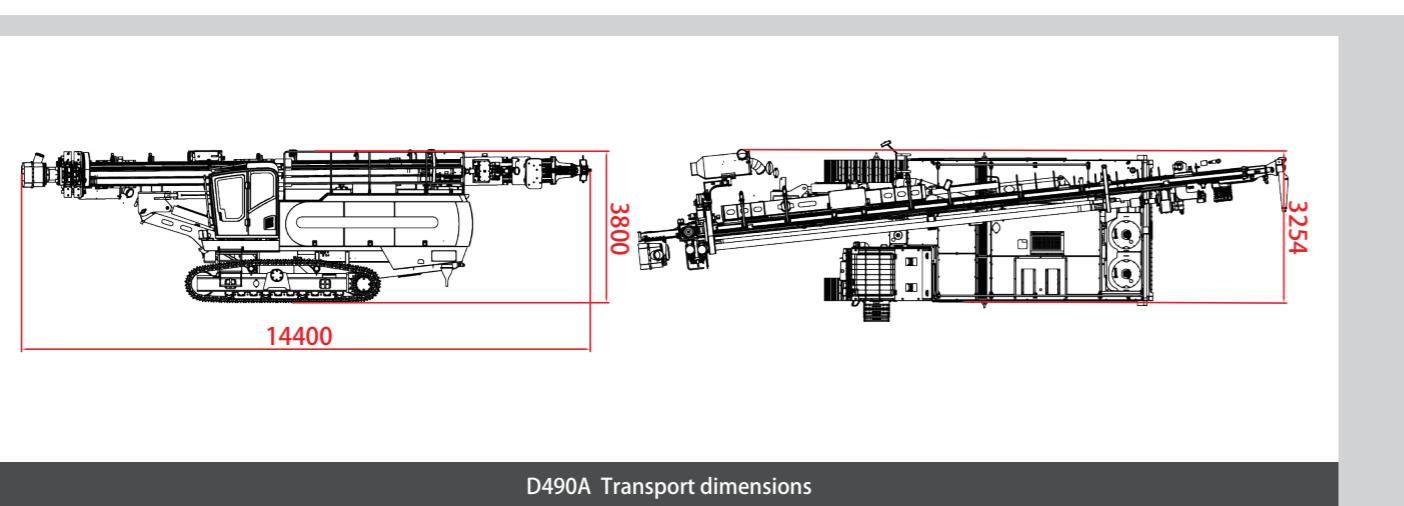
Photovoltaic
 Real estate
 Well geothermal
 Slope treatment



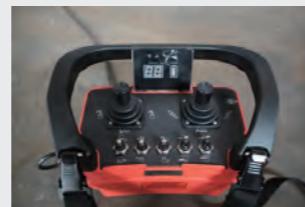
ZEGA D490A

Product Features

■ Powerful Structure and High Performance: with a unique double-boom and dual-feed beam design and the overall weight of 38 tons, a high-power engine and 9m long drill pipe configuration, the ZEGA D490A has the ability to drill holes with a diameter of more than $\Phi 200$ mm, which has a good flexibility advantage compared to tower drilling rigs, and a jib boom and hydraulic winch are installed on the top of the feed beam for safe handling of drilling tools.



Features of the entire product series. NO.11



Many models offer the option of remote control within line-of-sight distance, eliminating safety hazards when drilling on steep slopes or loading and unloading trailers, meeting the requirements of certain regional regulations, and providing user-friendly designs such as camera monitoring and rig body lighting.

Technical Specifications

Engine		Screw Compressor	
Manufacturer	Cummins	Manufacturer	ZEGA
Model	QSM15-77C	Model	ZGDA 184 III
Emission standards	III China III	Nominal pressure, max	25/23 bar
Rated power	563kW(765hp)2,000rpm	Air flow FAD	38/40 m ³ / min
Boom & Feed		Weight & Dimensions	
Feed type: Hydraulic motor + Chain		Length	14,400 mm
Feed length	14,400 mm	Feed force max.	75 kN
Feed extension	1,300 mm	Feed rate max.	0.83 m/s
Feed travel length	9,674 mm	Pull up force max.	75 kN
		Weight (w/o option)	38,940 kg
Functional Specifications		Chassis	
Drill pipe handling capacity: 2+1		Tramming speed.Max	2.5 km/h
Hole range	$\Phi 190$ - 220 mm	DTH hammer	8" / 7"
Drill pipe diameter	$\Phi 140$ / 127 mm	Rotation torque	6,500 Nm
Drill pipe length	9,000 mm	Rotation rpm	0-70 rpm
Hole depth.Max	27 m	Fuel tank capacity	1300 L
		Traction force.Max	220 kN

Working conditions



Construction

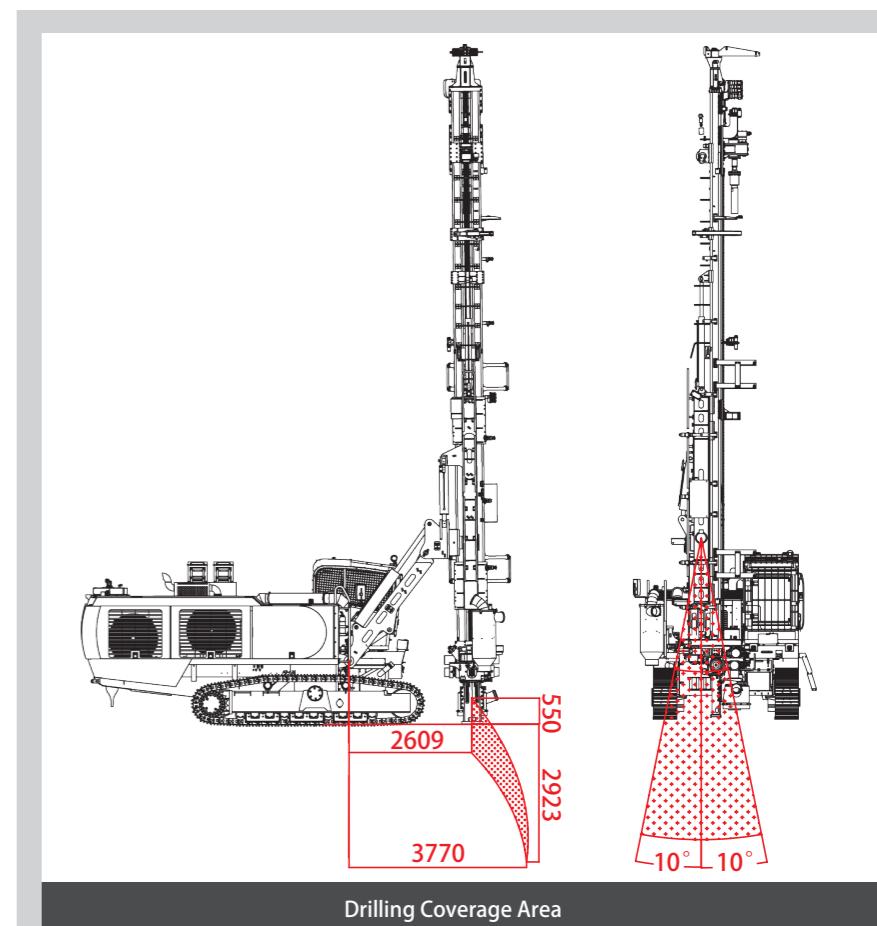
- Highway
- Railway
- Airport
- Wharf

Green Mining

- Cement
- Coal mine
- Quarrying
- Iron mine
- Big scale surface mine

Non-blasting Industry

- Photovoltaic
- Well geothermal
- Real estate
- Slope treatment



ZEGA R8100H/R8100L

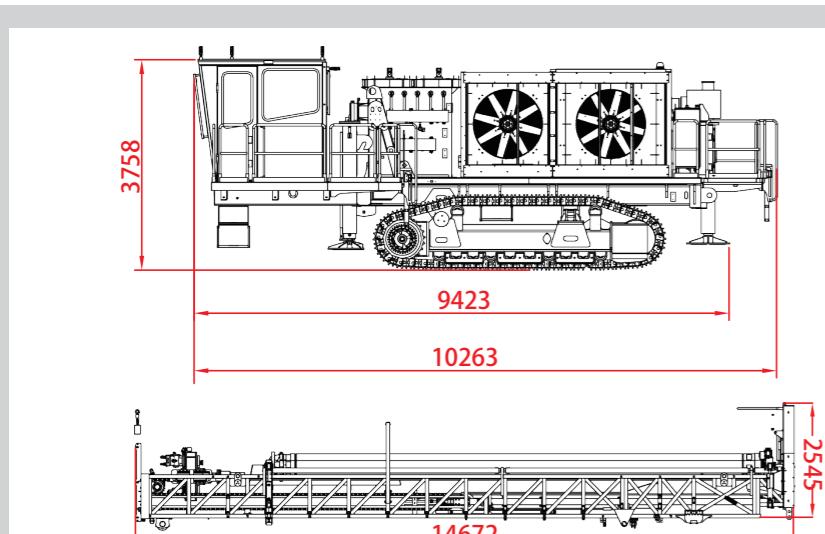
Product Features

■ ZEGA R8100 series drilling rigs are designed with two drilling methods: rotary and down-the-hole hammer, to meet the drilling requirements of Φ 149-270 mm diameter, and are equipped with 10.7 meters long drill pipe with a maximum hole depth of 62.5 meters.



Rotary Drill rig configured advanced functions as below

- Drill mast positioning and tramping and lowering position detection interlock functions
- 4-zone split-screen video display
- Automatic compressed air back-flush cleaning air filter
- Leveling jack position indication and alarm
- Rig body Inclination angle display and tramping out-of-range alarm/prompt
- Drill mast drill angle display + when not lowered tramping alarm/prompt
- Ambient temperature detection and alarm
- Wind speed detection and alarm
- Automatic lubrication
- Pneumatic anti-jam system
- Hole depth measurement and display control



R8100 Transport dimensions

Technical Specifications

Engine		Type	(R8100H)	(R8100L)	
Manufacturer	Cummins	Screw Compressor	Manufacturer	ZEGA	
Model	QSK19-C800		Model	ZGDA 225 III	
Emission standards	III China III		Nominal pressure, max	24 bar	
Rated power	597kW(800hp)1,800rpm		Air flow FAD	54 m ³ / min	
Functional Specifications		Boom & Feed	Feed type: Hydraulic cylinder +Rope		
Drill pipe handling capacity: 5+1			Feed length	14,672 mm	
Hole range	Φ 149 - 270 mm		Feed travel length	1,2059 mm	
Drill pipe diameter	Φ 178 / 159 / 140 mm		Feed force max.	270 kN	
Drill pipe length	10,700 mm		Feed rate max.	0.81 m/s	
Hole depth.Max	62.5 m	Weight & Dimensions	Pull up force max.	93.8 kN	
DTH hammer	10"		Length	15,600 mm	
Rotation torque	11,800 Nm		Width	5,443 mm	
Rotation rpm	0-160 rpm		Height	5,962 mm	
Fuel tank capacity	2,700 L	Weight (w/o option: 60,000 kg)			
Chassis					
Tramping speed.Max	2.0 km/h	Track frame oscillation angle		5° each side, total 10°	
Max Gradeability	20°				
Carrier ground clearance	326 mm	Traction force Max.			
		156.2 kN			

Working conditions



Construction

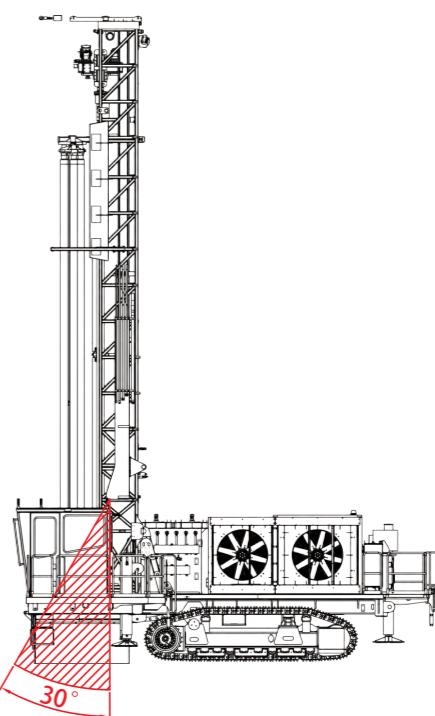
- Highway
- Railway
- Airport
- Wharf

Green Mining

- Cement
- Coal mine
- Quarrying
- Iron mine
- Big scale surface mine

Non-blasting Industry

- Photovoltaic
- Well geothermal
- Real estate
- Slope treatment



Drilling Coverage Area

Optional List of ZEGA Surface Integrated Drill Rig

✓ means exist

Optional	Model	D535H	D535TA	D545H	D545T	T640	T645	D435	D440A	D450D	D460A	D470C	D470D	D480A	D480RC	D490A	R8100
(<3500N · m) A-type floating-sub	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							
(≥3500N · m) B-type floating-sub											✓	✓	✓	✓	✓	✓	
Engine water jacket preheating system kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cooling system low temperature kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oil-bath air filter package	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reverse-flow cleaning air filter kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drill body top protection guardrail						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Hole depth measurement kit						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Dry dust collection and water-mist dust removal combined kit						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Water-mist dust removal system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Automatic fire extinguishing system						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Line-of-sight distance remote control system											✓	✓	✓	✓	✓	✓	✓
High altitude kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cab video monitoring display and camera system kit						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Automatic centralized lubrication system						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Hydraulic rear support leg						✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Drill body shape indicator light									✓	✓	✓	✓	✓	✓	✓	✓	

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

- Our after-sales service team and agents maintain long-term and stable close cooperation, creating a global service support system for ZEGA Tunnelling, ensuring that customers can continuously increase production capacity while reducing repair and maintenance costs.

SPARE PARTS MANUAL

- 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.

GENUINE PARTS

- 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;



SERVICE STATION

- 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".



SERVICE AGREEMENT

Different service plans for customers to choose from:

a) Annual Service Agreement (ASC)

ZEGA service engineers will visit the users regularly for routine check and service according to the service plan.

b) Full Service and Maintenance Agreement (FMC)

ZEGA service engineers will visit the users regularly for inspection and service according to the maintenance service hours.

c) Site Service Contract (SSC)

ZEGA 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.



QUALITY ASSURANCE SERVICES

We provide quality assurance services that meet international industry standards;

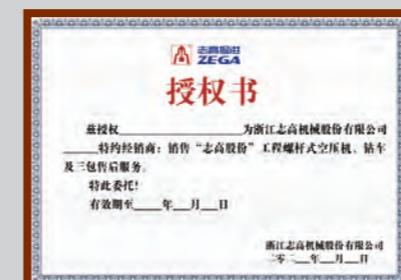
At the same time, we are seeking to carry out a "warranty period extension" plan that exceeds industry standards:

establish industry benchmarks, and enhance brand strength!



LICENSING

We grant authorization to eligible agents and issue corresponding authorization letters and certificates.



Parts Accessories & Services