

SUNWARD

Rock drilling equipment product

SWDR
SWDR Cutting Drilling Rig

SWD
SWD Down-the-hole Drilling Rig

SWDH
SWDH Full Hydraulic Open-pit Drill Carriage



Company Profile



Professor He Qinghua, the founder of the Company, has devoted himself to researching rock drilling equipment since the 1980s. At the beginning of the establishment of the Company, he, by undertaking national as well as provincial- and ministerial-level projects, created "three firsts" in the rock drilling industry, namely, the first pure homebred full hydraulic drill carriage, the first open-pit hydraulic rock drilling drill carriage and the first domestic tunnel rock drilling robot. He also has accumulated profound rock drilling theories, and formed the only two monographs in the professional field, Tunnel Rock Drilling Robot and Research and Design of Hydraulic Impact Mechanism, leading the development of Chinese rock drilling equipment.



In 2003, the first Chinese integrated down-the-hole drilling rig with independent intellectual property rights rolled off smoothly, filling the domestic gap, and its technical performance reached the international advanced level, thoroughly breaking international giants' monopolizing the high-end rock drilling equipment market and gradually replacing the similar imported products. Moreover, a series of rock drilling equipment of complete categories and adaptable to a wide range of rock strata were developed, opening a way of independent innovation of drilling equipment, forming a perfect R&D and manufacturing system.

SUNWARD Intelligent Series Rock Drilling Equipment consists of integrated down-the-hole drilling rigs, full hydraulic open-pit drill carriages, multifunctional cutting drilling rigs, ground screw drilling rigs, downhole rock drill jumbos, etc. It is widely used in constructing such mining projects as cement, metallurgy, coal mines, quarries, etc., and such new energy projects as railways and highways, water conservancy and hydropower, national defense construction and housing construction.



History of Rock Drilling Equipment

- 1980s** ○ Started to research and develop rock drills, downhole rock jumbos and open-pit drill carriages
- 2000** ○ National 863 Program, the first domestic tunnel rock drilling robot
- 2003** ○ The first domestic electric integrated down-the-hole drilling rig
- 2004** ○ The first domestic diesel-powered integrated down-the-hole drilling rig
- 2007** ○ Channel drilling rig
- 2008** ○ Drill boom down-the-hole drilling rig
- 2009** ○ Cutting drilling rig
- 2010** ○ Diesel-electric down-the-hole drilling rig
- 2012** ○ Spiral drilling rig
- 2013** ○ Open-pit hydraulic drill carriage
- 2016** ○ Serialization of single-engine integrated down-the-hole drilling rig
- 2017** ○ Diesel-electric dual-power dual-arm rock drilling rig
- 2020** ○ Intelligent drilling rig

Honors in Rock Drilling

2004



The integrated down-the-hole drilling rig won the first prize of scientific and technological progress in Changsha Economic and Technological Development Zone

2005



The integrated hydraulic down-the-hole drilling rig series passed the product appraisal and was rated as a New Product in Hunan Province in 2005

2006



The down-the-hole drilling rig passed the review of new high-tech products, and the integrated down-the-hole drilling rig won the first prize of scientific and technological progress in Hunan Province

2009



The channel drilling rig was rated as a Key New Product in Hunan Province

2012



The integrated hydraulic down-the-hole drilling rig has been jointly recognized as a "national key new product" by the Ministry of Science and Technology, State Environmental Protection Administration, Ministry of Commerce and the General Administration of Quality Supervision, Inspection and Quarantine

2011



The key technology and productization of high-performance cutting drilling rigs won the second prize of scientific and technological progress of Changsha City

2019



The SWDH Open-pit Hydraulic Drill Carriages passed the new product identification and acceptance of Hunan Machinery Industry Association, with two key technical indicators up to the international advanced level

2019



SUNWARD Rock Drilling Equipment won the Green Mine Outstanding Contribution Award



Integrated down-the-hole drilling rig

01

Higher reliability

International famous brands of core components ;

The buffering mechanism effectively protects the rotary head and drilling tool;

The threaded surface of the drill pipe is strengthened and lubricated by aerosol, so the drill pipe as a long service life ;

Centralized lubrication is achieved by periodic oil supply through automatic circulation; the oil at the lubricated parts is in an appropriate amount; the working mechanism is reliable.



02

Higher operating efficiency and better economy

Dual mode (work propulsion and rapid propulsion), with auxiliary operation time ;

The slewing rotary head has a large torque, and is featured by integrated DTH cutting, and hard-rock DTH ,

Soft rock cutting, good adaptability to rock strata and low operation cost ;

High pressure, large displacement two-stage screw air compressor with low energy consumption ;

The SWAH Series Drilling Tools have a high drilling speed and less gas consumption.



03

Better adaptability to operating conditions

Universal excavator chassis, large ground clearance, high off-road capability, improved travel stability, Cummins Engine, high adaptability to plateaus and good oil adaptability;

The standard engine low-temperature starting device has good low-temperature adaptability ;

The intelligent temperature control system can adjust heat dissipation capacity according to the ambient temperature, and the environmental adaptability is good.



04

Better comfortability

Spacious and comfortable cab ;

Front big windshield and skylight, open operating vision ;

Pilot operating handle, exquisite layout ;

Large-size LCD screen, clear display of operation parameters and status ;

Luxurious control panel: switch panel, electronic throttle, USB interface... Japanese Denso air conditioner, without fear of the heat.



05

Much safer

- Driver's cab roof guardrail and front guardrail ;
- Emergency stop switches in the driver's cabin and on both sides of the fuselage, one-button shutdown in emergency ;
- Fire extinguisher in the driver's cabin and the fuselage ;
- Equipped with a high-pressure duct protection lock.



06

More eco-friendly

- Equipped with efficient two-stage dry dust removal or high pressure and large-discharge wet dust removal depending on different geological conditions ;
- Simple and reliable anti-top impact device, effectively preventing dust.



07

More intelligent

- New type electronic monitoring system, real-time display of parameters such as fuel level, water temperature, hydraulic oil temperature, exhaust temperature, and prompt on maintenance ;
- Fault self-diagnosis and alarm, providing solutions immediately ;
- Accurate angle detection, timely drilling depth display and accumulation, intelligent common bulkhead control ;
- Self-adaptive drilling of rock stratum reduces the probability of stuck rig and reduces the loss of drilling tools ;
- Sunward Cloud, IoT platform.



Overhead down-the-hole drilling rig/diesel-electric down-the-hole drilling rig

The drilling range is D138~270mm, suitable for blasting drilling in medium and large open-pit mines.



- Four-point hydraulic outrigger, improving the working stability ;
- Unique structure of high drill frame and long drill stem, reducing the times of lengthening and unloading, and reduces the consumption of drilling tools ;
- Original in the industry, diesel-electricity dual power, driven by diesel engine when traveling with flexible mobility, driven by electricity when working, saving cost ;
- Customized special vehicle transformer, more energy-saving, low voltage drop, more stable and safer operation ;
- Protection level of the low-voltage control cabinet up to P65, dust-proof components for more stable running, with humanized design, convenient for daily switching power operations on the ground.

Technical Parameters of Overhead Down-the-hole Drilling Rig

Main parameters		SWDB138	SWDB165A	SWDB200A	SWDB250
Operation parameters					
Drilling range	mm	138-165	138~180	180~255	230~270
Impactor		5"、6"	5"、6"	6"、8"	8"、9"
Drill stem diameter	mm	102	114	146	146
Drill stem length	m	8.5m×3	8.5m×3	10m×3	10m×3
Maximum drilling depth	m	25	25	30	30
Dust removal device		Dry type (standard), wet type (optional)			
Air compressor					
Working pressure	MPa	2.0	2.0	2.07	2.07
Displacement	m ³ /min	18.6	24.1	30.3	34
Power	kW/rpm	194/1800	262.5/1900	328/1800	336/1850
Engine					
Manufacturer		CUMMINS	CUMMINS	CUMMINS	CUMMINS
Model		QSB4.5	QSB4.5	QSB4.5	QSB4.5
Power	kW/rpm	97/2200	97/2200	97/2200	97/2200
Fuel tank	L	1200	1200	1200	1200
Propeller					
Total length of propulsion beam	mm	11500	11500	13200	13200
Compensated stroke	mm	1800	1800	1800	1800
Maximum propulsion	kN	50	50	75	75
Traveling ability					
Traveling speed	km/h	3.2	3.2	2.8	2.8
Max. traction	kN	125	125	175	175
Gradeability	°	25	25	25	25
Ground clearance	mm	480	480	480	480
Slewing					
Slewing speed	rpm	105	105	50	50
Slewing torque	Nm	4500	5500	6000	6620
Dimensions					
Weight	kg	22000	25000	30000	32000
L x W x H (working)	m	7.1×4.18×12	7.5×4.65×12	7.5×4.68×13.8	7.5×4.68×13.8
L x W x H (transportation)	m	12×3.2×3.2	12×3.35×3.4	13.8×3.35×3.45	13.8×3.35×3.45

Drill arm down-the-hole drilling rig

Main parameters		SWDE152	SWDE165B	SWDE138	SWDF138	SWDE165A
Operation parameters						
Drilling range	mm	138~165	138~180	138 ~ 152	115 ~ 152	138 ~ 180
Impactor		5"	5"、6"	5"	4"、5"	5"、6"
Drill stem diameter	mm	102、114	114	102	76、89	114
Drill stem length	m	6m×6	6m×6	6m×6	6n3×6	6m×6
Maximum drilling depth	m	36	36	36	18	36
Dust removal device		Dry type (standard), wet type (optional)				
Air compressor						
Working pressure	Mpa	2.1	2.1	2.0	13.8 ~ 20	2.0
Displacement	m ³ /min	19.3	24	18.6	12 ~ 21.2	24.1
Power	kW/rpm			194/1800		262.5/1900
Engine						
Manufacturer		CUMMINS	CUMMINS	CUMMINS	CUMMINS	CUMMINS
Model		QSL8.9-C360	QSM11-C400-III	QSB4.5	QSB4.5	QSB4.5
Power	kW/rpm	264/2100	298/2100	97/2200	82/2200	97/2200
Fuel tank	L	680	800	800	140	800
Propeller						
Total length of propulsion beam	mm	10070	10070	9230	5920	9230
Compensated stroke	mm	1300	1300	1300	800	1300
Maximum propulsion	kN	35	40	35	32	40
Forwards inclination	°	140	140	140	140	140
Turnover angle	°	-20~90	-20~90	-20~90	-20~90	-20~90
Beam						
Jacking angle	°	50~-30	50~-30	50~-30	50~-30	50~-30
Swing angle	°	L15 R45	L15 R45	L15 R45	L15 R45	L15 R45
Traveling ability						
Traveling speed	km/h	3.2	3.2	3.2	3.2	3.2
Max. traction	kN	125	125	125	100	125
Gradeability	°	25	25	25	25	25
Swing angle of crawler frame	°	±10	±10	±10	±10	±10
Ground clearance	mm	480	480	480	480	480
Slewing						
Slewing speed	rpm	105	105	105	70	105
Slewing torque	Nm	4500	5500	4500	3000	5500
Dimensions						
Weight	kg	22500	23500	22000	12000	25000
L x W x H (working)	m	9.2x2.7x10.45	9.5x2.7x10.45	9.2x4.25x9.96	6.3x2.5x6.2	9.8x4.35x9.96
L x W x H (transportation)	m	11.2x2.7x3.6	11.2x3.32.7x3.6	11.4x3.1x3.6	8.2x2.5x3.2	12x3.3x3.6

Diesel-electric down-the-hole drilling rig

Main parameters		SWDA165C	SWDA200C	SWDA250C
Operation parameters				
Drilling range	mm	138~180	180~255	230~270
Impactor		5"、6"	6"、8"	8"、9"
Drill stem diameter	mm	114	146	146
Drill stem length	m	8.5m×3	10m×3	10m×3
Maximum drilling depth	m	25	30	30
Dust removal device		Dry type (standard), wet type (optional)		
Air compressor				
Working pressure	Mpa	2.07	2.07	2.07
Displacement	m ³ /min	28.3	30.8	32.6
Power	kW/rpm	250	250	280
Engine				
Manufacturer		CUMMINS	CUMMINS	CUMMINS
Model		QSB4.5+Y200-4	QSB4.5+Y2-225S-4	QSB4.5+Y2-225S-4
Power	kW/rpm	82/2200+60	82/2200+74	97/2200+74
Fuel tank	L	200	200	200
Propeller				
Total length of propulsion beam	mm	11500	13200	13200
Compensated stroke	mm	1800	1800	1800
Maximum propulsion	kN	50	75	75
Traveling ability				
Traveling speed	km/h	2.8	2.8	2.8
Max. traction	kN	125	175	175
Gradeability	°	25	25	25
Ground clearance	mm	480	480	480
Slewing				
Slewing speed	rpm	85	50	50
Slewing torque	Nm	5500	6000	6620
Dimensions				
Weight	kg	28000	30000	32000
L x W x H (working)	m	8.4×4.65×12	8.5×4.68×13.8	8.5×4.68×13.9
L x W x H (transportation)	m	12×3.4×3.5	13.8×3.4×3.5	13.9×3.35×3.45

Drill arm down-the-hole drilling rig



- The high strength, multi-degree of freedom drill arm can drill at multi-azimuth. All types of angles, such as horizontal hole and vertical hole, are very flexible;
- The drilling range is D90~180mm, which is suitable for open-pit mines in small, medium, and large sizes, quarry and blasting drilling of all kinds of bench excavations ;
- Floating territory, the swing angle of crawler frame $\pm 10^\circ$, big drive force, fast traveling speed, strong cross-country power, suitable for rugged operating workplace ;
- A compact structure of the complete machine, small transportation size, and easy to transfer.

Technical parameters of drill arm down-the-hole drilling rig

Main parameters		SWDE120B-3	SWDE120C-3	SWDE120S-3	SWDE138B
Operation parameters					
Drilling range	mm	115 ~ 127	90 ~ 127	115 ~ 127	115 ~ 128
Impactor		4"	3.5"、4"	4"	4"、5"
Drill stem diameter	mm	76	76	76	76、89
Drill stem length	m	4m×7	4m×7	4m×7	4m×7
Maximum drilling depth	m	28	28	28	28
Dust removal device		Dry type (standard), wet type (optional)			
Air compressor					
Working pressure	Mpa	1.7	2.0	2.0	2.0
Displacement	m ³ /min	16.2	15.8	16.5	18.6
Power	kW/rpm				
Engine					
Manufacturer		CUMMINS	CUMMINS	CUMMINS	CUMMINS
Model		QSL8.9-C325	QSB8.3-C260	QSB8.3-C260	QSL8.9-C360
Power	kW/rpm	242/2100	194/2200	194/2200	264/2100
Fuel tank	L	450	450	450	520
Propeller					
Total length of propulsion beam	mm	7350	7350	7350	7350
Compensated stroke	mm	1200	1200	1200	1200
Maximum propulsion	kN	30	30	30	30
Forwards inclination	°	140	140	140	140
Turnover angle	°	-20~90	-20~90	-20~90	-20~90
Beam					
Jacking angle	°	50~-30	50~-30	50~-30	50~-30
Swing angle	°	L15 R45	L15 R45	L15 R45	L15 R45
Traveling ability					
Traveling speed	km/h	3.2	3.2	3.2	3.2
Max. traction	kN	100	100	100	100
Gradeability	°	25	25	25	25
	°	±10	±10	±10	±10
Ground clearance	mm	438	438	438	480
Slewing					
Slewing speed	rpm	110	110	110	110
Slewing torque	Nm	3000	2800	3000	3800
Dimensions					
Weight	kg	14500	14200	14200	14800
L x W x H (working)	m	7.9x2.5x7.65	7.9x2.5x7.65	7.9x2.5x7.65	8.2x2.7x7.65
L x W x H (transportation)	m	9.98x2.5x3.42	9.98x2.5x3.42	9.98x2.5x3.42	10.28x2.7x3.42

Cutting drill rig, the powerful drilling tool for coal mines

Combining with the advantages of SUNWARD excavator and rock drilling rig, it not only has functions of high speed cutting and percussive drilling, but also realizes a function of excavator through a configuration of excavator attachment, achieving a multi-purpose machine.



01

Higher operating efficiency and better economy

- The 360° slewing of upper carriage and a large working range of one-time positioning of drill hole reduce the positioning of moving machine, and greatly improve an operation efficiency;
- The original high-speed, large torque cutting slewing rock drilling way in this industry works highly efficient for soft rock;
- The screw air compressor with high air pressure and large air flow provides a strong power for percussive drilling, which easily drill through the hard rock;
- Set propulsion and lifting speeds to operation gear and fast gear so as to reduce the auxiliary operation time;
- SWAH series drilling rigs with faster drilling rate, saving more gas.

02

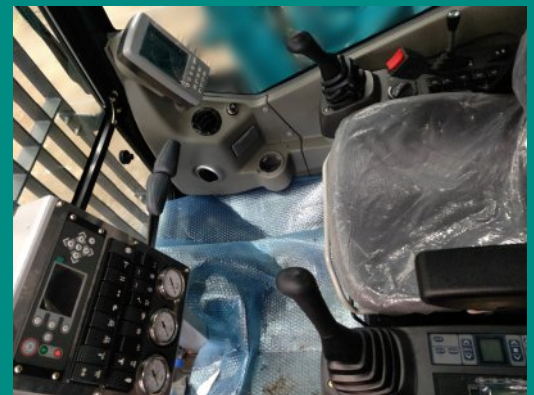
Higher reliability

- The buffering mechanism effectively protects the rotary head and drilling tool;
- The threaded surface of the drill pipe is strengthened and lubricated by aerosol, so the drill pipe as a long service life;
- Core elements are internationally famous brands. Engine-Cummins, primary pump-KYB, slewing motor-KYB;
- Boom support forging improves a stress distribution;
- Enhanced platform has a stronger carrying capability.

03

Better comfortability

- Spacious and comfortable cab; front big glass, skylight, wide view for operation; pilot-operated type handle, delicate layout; 7" LCD, operation parameter and status in plain view; luxury control panel: switch panel, electronic throttle, USB interface.....Japan Denso air conditioner, no fear of the intense heat.



04

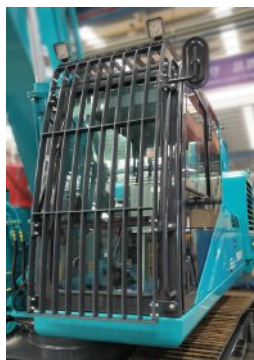
Better adaptability to operating conditions

- Reinforced chassis, a big ground clearance, and a strong cross-country power enhance a travel stability. Cummins engine has a strong plateau adaptability and good fuel adaptability; the standard engine's low temperature starter has a good low temperature adaptability; intelligent temperature controlling system adjusts heat dissipation potential according to environment temperature and has a good environmental suitability.



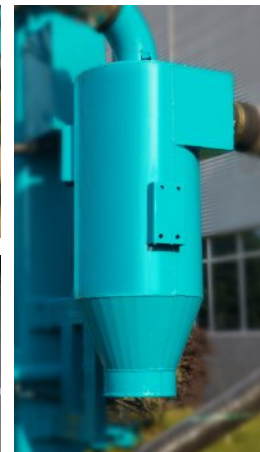
05 Much safer

Driver's cab roof guardrail and front guardrail;
 Emergency stop switch for instant stop in emergency;
 Fire extinguisher in the cab and on the machine;
 It is equipped with a high-pressure air duct protection lock;
 Cylinder is equipped with explosion-proof valve for safety assurance.



06 More eco-friendly

According to different geological conditions, it is equipped with efficient two-pole dry dust removal or high pressure Simple and reliable anti-top impact device, effectively preventing dust.



07 More intelligent

New type electronic monitoring system, real-time display of parameters such as fuel level, water temperature, hydraulic oil temperature, exhaust temperature, and prompt on maintenance;
 Fault self-diagnosis and alarm, providing solutions immediately;
 Accurate angle detection, timely drilling depth display and accumulation, intelligent common bulkhead control;
 Self-adaptive drilling of rock stratum reduces the probability of stuck rig and reduces the loss of drilling tools;
 Sunward Cloud, IoT platform.



Technical parameters of SWDR138 cutting drill rig

Operation parameters			Propeller		
Drilling range	mm	105~165	Total length of propulsion beam	mm	8200
Drill pipe diameter	mm	76、89、102	Maximum propulsion	kN	50
Drill pipe length	m	5	Engine		
Maximum drilling depth	m	35	Model		QSB7~C187
To upper slewing	°	360	Power	kW/rpm	140/2050
Slew rotary head			Fuel tank	L	750
Slewing speed	rpm	200	Air compressor		
Slewing torque	Nm	4000	Working pressure	MPa	2
Traveling ability			Displacement	m ³ /min	18.6
Traveling speed	km/h	34.5/5.6	Power	kW/rpm	194/1800
Max. traction	kN	160	Dimensions		
Gradeability	°	25	Weight	kg	24000
Ground clearance	mm	480	L x w x h (working)	m	12.3x3.4x8.8
Ground pressure	bar	0.5	L x w x h (transportation)	m	14.8x3.4x3.5

Full hydraulic open-pit drill carriage

With the drilling diameter of 64~127mm, it is suitable for rock drilling of small and medium-sized open-pit mines, quarries, civil works and water conservancy and hydropower projects.



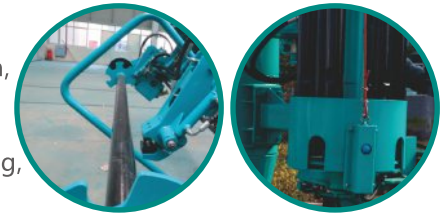
01

Low Operation Cost

High power hydraulic rock drill with built-in reverse drilling function, greatly reducing the risk of stuck rig and saving drilling tools;

The rock drilling adaptive system can intelligently identify rock attributes, prevent the occurrence of rod jamming and empty drilling, and prolong the service life of drilling tools;

Rock drill, air compressor and engine are reasonably matched for power to further reduce fuel consumption.



02

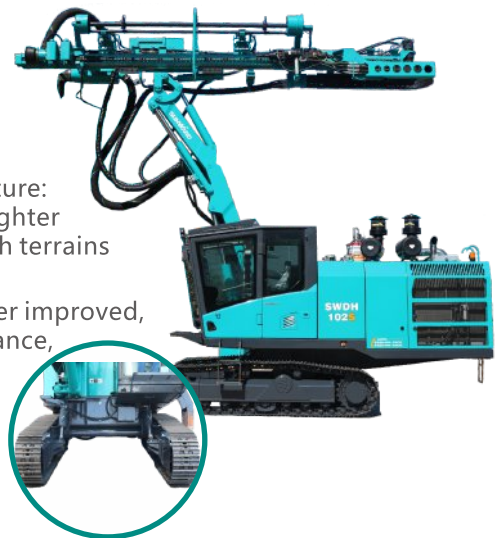
Good Adaptability to Working Condition

① Economic mode and power mode: economic mode selected for normal drilling with low fuel consumption rate; power mode for the poor working conditions, such as high altitude, more fractures, large pore size, highly efficient.

② Machine in small size and flexible, more compact structure: the new generation of open-pit drill platform is shorter, lighter and in a more reasonable center of gravity, handling rough terrains easier.

③ More powerful travel gradeability: gradeability is further improved, traveling faster, in a strong gradeability, big ground clearance, and better topographical adaptability.

④ Remote adjustment in cab: rock drill's operation parameters are adjusted on the display to adapt to the rocks more accurately.



03

Strong Operation Capability

Large air volume, high single impact energy, max. hole size is up to $\phi 115\text{mm}$;

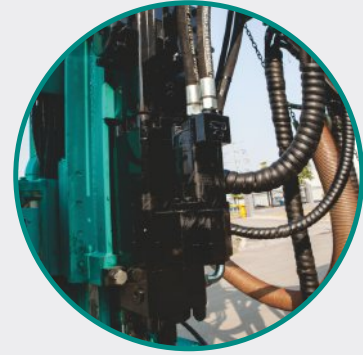
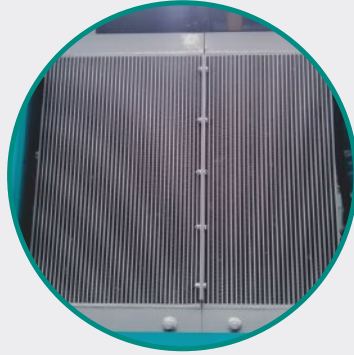
The folding arm structure has large positioning and coverage area at one time;

Drilling at multi-angle hole sites can drill vertical, inclined and horizontal holes.

04

High reliability

Core elements are international famous brands, and system design is reasonably matched;
The products have passed 45°C high temperature test in Laos, 4500 m high altitude in Qinghai and -30°C low temperature test in Inner Mongolia;
The cold drawing molded structure steel propulsion beam with double-sided guide rail adopted has a high strength and good pilot accuracy.



05

Safe and environmentally friendly

Drill pipe warehouse is equipped with anti-falling rod structure, and driver's cab is equipped with protective screen to effectively prevent from rock fall and ensure the safety of operators;
Vortex+laminar flow two-pole high efficiency dust removal system, no dust on the operation surface, more environmentally friendly.



06

More intelligent

Drilling process monitoring and alarming system, large LCD display, real-time control of operation parameters;
Automatically display and record drilling angle, working time of rock drill etc.

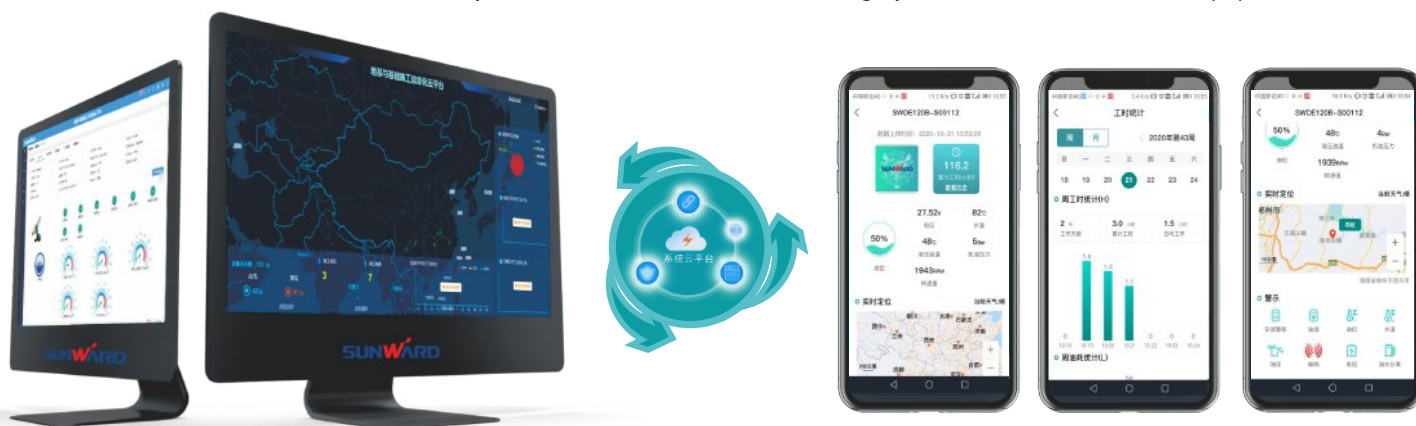


Technical parameters of full hydraulic open-pit drill carriage

Main parameters		SWDH89S	SWDH102S	SWDH115F
Operation parameters				
Drilling range	mm	64-115	76~127	76~127
Drill pipe diameter		T38、T45、T51	T45、T51	T38、T45、T51
Drill pipe length	mm	3660	3660	3050
Drilling depth	m	24	24	21
Hydraulic rock drill				
Impact power	kW	14	18	20
Slewing torque	Nm	700	1000	1300
Slewing speed	Nm	0~180	0~150	0~175
Engine				
Model		CAT C7.1	CAT C7.1	QSB4.5
Power	kW/rpm	168/2200	168/2200	97/2200
Fuel tank	L	450	450	300
Air compressor				
Exhaust pressure	bar	8	10	/
Displacement	m ³ /min	8	10	/
Drill arm				
Type		Folding arm	Folding arm	Single straight arm
Jacking angle	°	+70~-10	+70~-10	-30~+45
Folding angle	°	65~165	65~165	/
Swing angle	°	+20~-30	+20~-30	+30~-30
Propeller				
Total length of propulsion beam	mm	7300	7300	6700
Compensated stroke	mm	1200	1200	1200
Forwards inclination	°	140	140	140
Turnover angle	°	-20~90	-20~90	-20~90
Maximum propulsion speed	m/s	0.8	0.8	0.8
Maximum propulsion	kN	25	25	25
Traveling ability				
Maximum traveling speed	km/h	4.2	4.2	4.2
Max. traction	kN	100	100	80
Gradeability	°	25°	25°	25°
Swing angle of crawler frame	°	-7~+12	-7~+12	±10
Ground clearance of chassis	mm	400	400	400
Dimensions				
Weight	kg	15000	15000	12000
L x w x h (working)	m	9.2×2.6×8.6	9.2×2.6×8.6	6.68×2.42×7.98
L x w x h (transportation)	m	11.2×2.6×3.5	11.2×2.6×3.5	8×2.42×3.4

Sunward Cloud

Mobile phone APP and WEB dual systems are online, data are transmitted synchronously, and construction status is controlled at any time. One device in hand enables highly efficient control of several equipment.



Construction cases

Chisel the stone of five continents and drill the sea floor and high mountains

Sunward Intelligent SWD series rock drilling equipment, with its advanced technology, reliable quality and perfect service system, is deeply trusted by users. The products are exported to Europe, America, Asia, Africa and the Commonwealth of Independent States and other countries and regions, and have played an active role in global blasting and drilling construction projects. The products have withstood the test of various mines and harsh environments, and have earned high recognition from the industry market.





Tibet, China

Metal mine, 200mm hole diameter, 13m hole depth, breaking through the highest construction height of the down-the-hole drilling rig at an altitude of 5300m.



Construction in Qinghai

White sandstone, f8, altitude 4300m, -30°C, hole diameter D115mm, hole forming speed 50-60m/h.



Beijing Daxing Airport

Special drilling equipment SWDE120R by adopting geothermal conduction technology, the futuristic technology of helping geothermal melting snow.



Shanxi Xiwan Coal Mine

Sandstone, hole diameter D165mm, hole depth 17m, hole forming speed 50m/h, wet dust removal.



Yunnan Heqing Beiya

Gold mine f17, hole diameter D152mm, drilling speed 36-42m/h, fuel consumption 48-52L/h, digger of high-hardness gold mine.



TBEA Tianchi Energy

Hole diameter 140, hole depth 17m, high-speed cutting, the highest monthly footage 27000m.

Construction project: Fujian Quanzhou Bay Deepwater Channel Project ;
 Engineering situation: water depth 30m, drilling depth 50m, surge 1.6m, rock type is basalt,
 including adjustment time, forming the hole within 52min.



Aergemin

The biggest open-pit coal mine in southern Xinjiang, SwDE120 down-the-hole drilling rigs in magnificent Sunward green. Hole diameter: D140mm; hole depth: 12m; hole forming speed: 30m/h.



China Coal Pingshuo

Wheel-type down-the-hole drilling rig, sandstone, hole diameter D140mm, hole depth 42m, hole forming speed 42m/h, traveling speed 30km/h, hole exploration expert.



Paksehong Hydropower Station in Laos

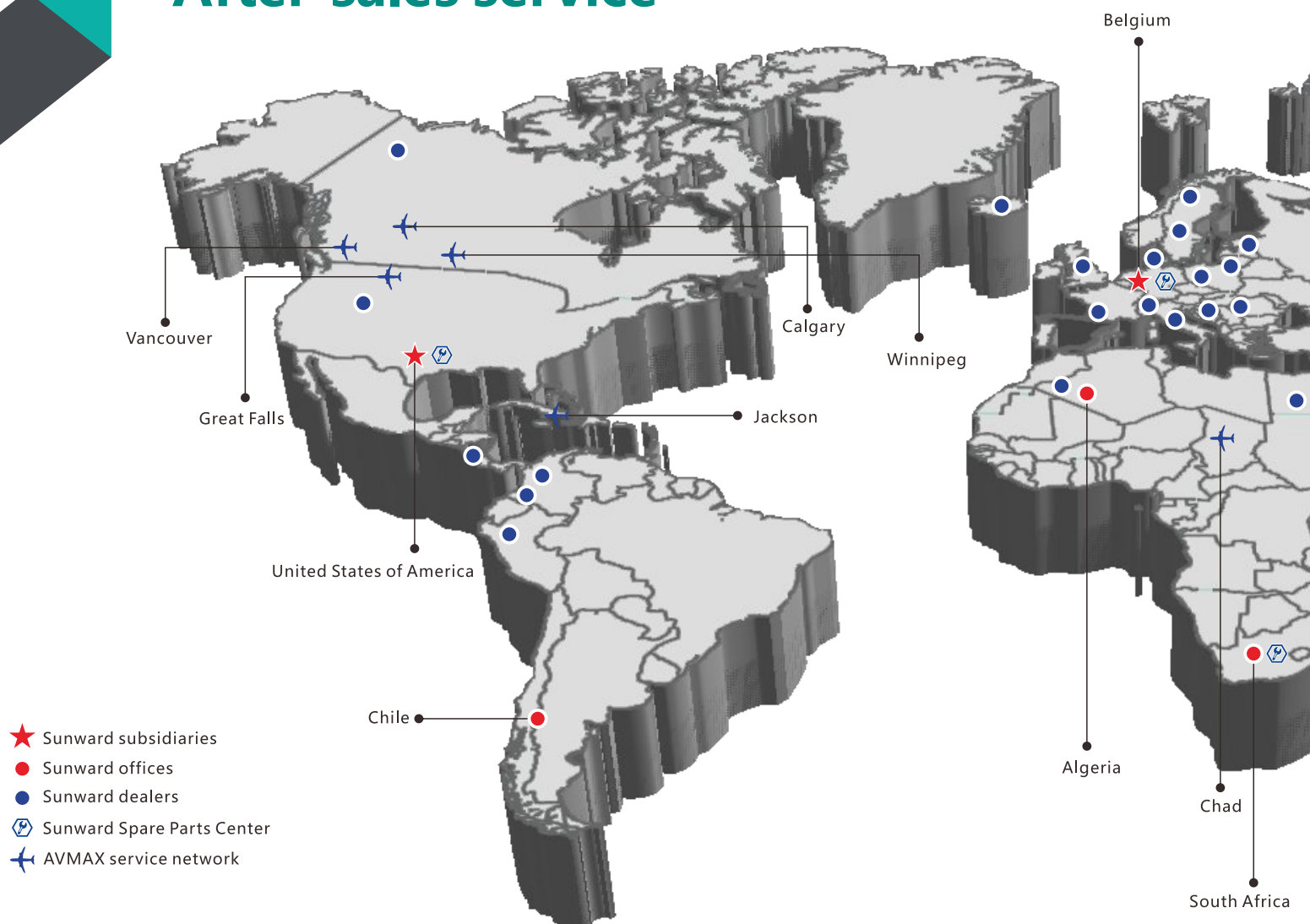
Basalt, 16-18, hole diameter D89mm, hole depth 15m, hole forming speed 13m/min, high temperature above 40°C, 18-24h continuous operation, challenger of high temperature and high strength.



Carolina, South Africa

Coal mine, hole diameter D165mm, hole depth 12m, drilling 1020m within 9h, fuel consumption only 05L/m, Sunward intelligent rock drilling equipment is famous in South Africa.

After-sales service



Efficient and quick after-sales service

Sunward has set up spare parts warehouses all over China, and has formed a four-in-one spare parts supply assurance system of headquarters warehouses, regional central warehouses, provincial warehouses and prefecture-level warehouses, storing more than 20,000 kinds of spare parts worth hundreds of millions of yuan. With 800 front-line Service engineers, 200 service outlets, 300 service vehicles, hundreds of service consultant units, Sunward ensures efficient and fast after-sales service.



24-hour Hotline

If you need any help, please dial the 24-hour after-sales service hotline 400-887-8230.



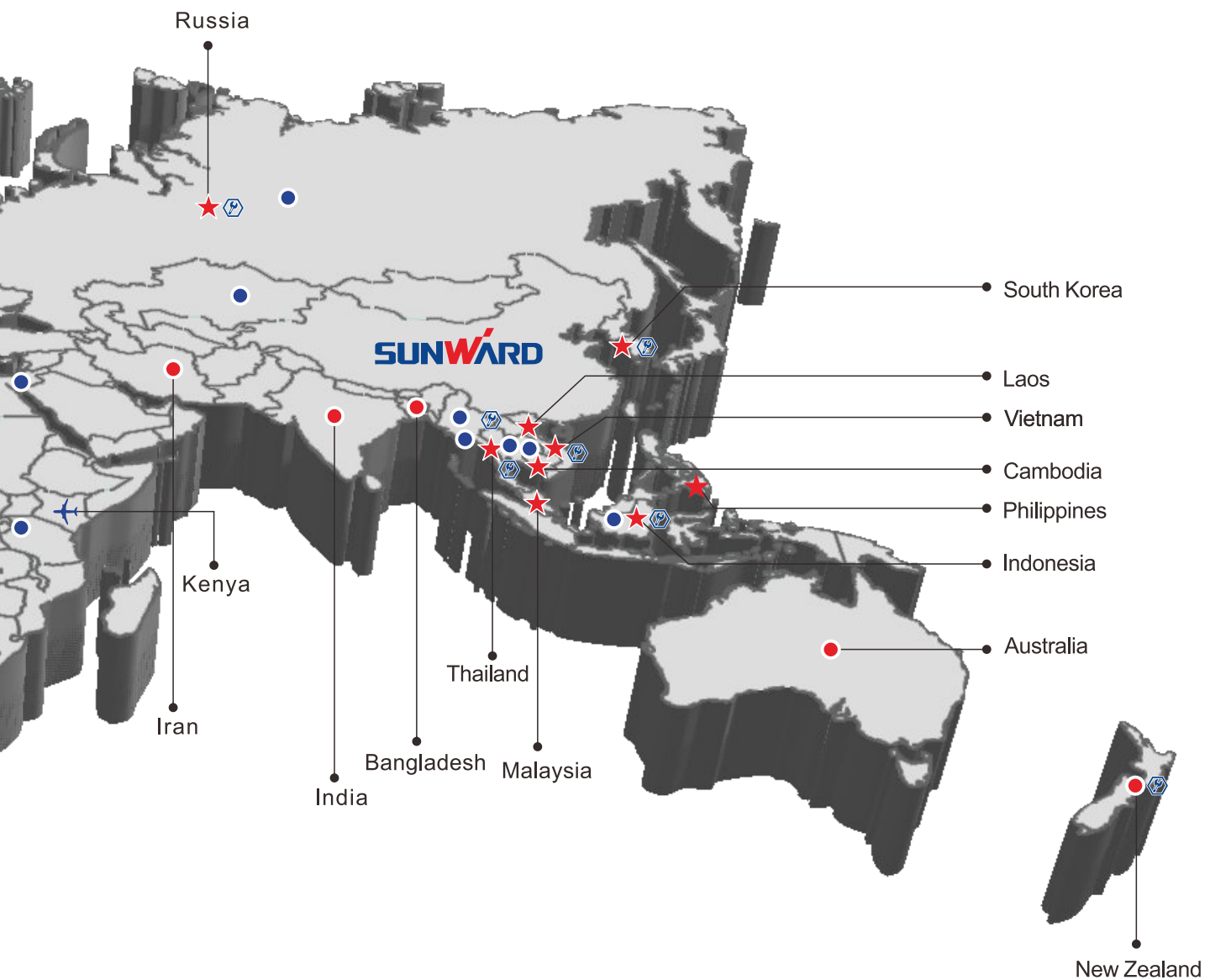
Reply in a quarter

The after-sales service engineer will take the initiative to get in touch with you within 15 minutes, ask you about the equipment and service requirements, and handle the problem through telephone remote guidance.



Departure within 1h

If the telephone guidance fails to handle the fault, the service engineer will take the maintenance tools to the site where the equipment is located for on-site maintenance service within 1 hour.



Arrival within 2h

The service engineer will arrive at the site in the city where the office is located within 2h, 12h in the province and 48h outside the province.



Handling of major situation

For major and special situations, Sunward service system will activate the quick response mechanism, expert support mechanism and green channel for accessories.



Call-back

After the field service, the Call Center of Sunward Headquarters will call back to track the quality and completion of the service, listen to the opinions and suggestions of customers and feed them back to various functional units for implementation and improvement, thus providing better service for customers.



ADD

Sunward Industrial Park, No.1335,
East Liangtang Road, Xingsha,
Changsha, Hunan



TEL

Sales Hotline: 400-887-6230
Service and Complaint Hotline: 400-887-8230



E-MAIL

Sales@sunward.com.cn



WEB

www.sunward.com.cn



Please read the maunal book and maintenance book before operation, changes are periodically added to the information, and Sunward may change the products or services described in this book at any time without announcement. All rights of this manual book reserve to Sunward.
SUNWARD Internal Use Only

SWD CH&EN 2020-12