

Backpack Type Core Drill



I . Application

KD portable drill is used for the prospectors engaged in mineral investigation, oil field survey and geological research. With experiences accumulated in past several decades and field practices in a dozen of countries and regions around the world, we have constantly improved and promoted the product quality. So we firmly believe this set of tools will be of great benefit.

The Portable Drill is mainly used in those regions with high mountains, inconvenient transportation and scarce water. It is a kind of small, well-designed and portable sampling and drilling equipment. It can replace traditional trenching, exploratory shaft sinking and physicochemical exploration abnormal verification. Meanwhile, it can greatly reduce the destroy of vegetation and preserve the ecological environment. It is a necessary technological means to carry out areal geological mapping, physicochemical exploration sampling, paleomagnetic sampling and geological disaster prevention in shallow geological survey.

II. Feature

- 1, Convenient to carry--a set of 3m drill in standard configuration and its accessories can be put into a backpack, whose total weight would not exceed 18kg;
- 2, Complete accessories--all tools, spare fuel, potable water and personal belongings can be put in one backpack;
- 3, Flexible operation--easy to carry out assembly and disassembly, and rapid coring;
- 4, Rapid drilling hole--the working efficiency is unparalleled to save both time and labor, and the service life is long;
- 5, Well-adapted--the drill can complete coring in various complex terrain to provide reference for later detailed exploration;
- 6, Economize on manpower-- the efficiency produced by oil consumption per liter using the drill is 10 times of that using hand excavation.

III. Main Specifications

Comparison table on work efficiency drilling different layers of rock: (full-speed operation, in normal working condition)

Quartzite	69 mm/minute
Killas	119 mm/minute
Basalt	127 mm/minute
Sandstone	130mm/minute
Dolomite	226 mm/minute
Limestone	241 mm/minute

Other important technical parameters

Water consumption	15 L/hr
Oil consumption	0.58 L/hr
Coring diameter	20.5 mm/36mm
Drilling diameter	26.4 mm/42.5mm
Rotate speed of drill	1920rpm
Drill power	1.81 horsepower full-speed operation



IV. Drill Components

Item	Description
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Gasoline engine

It adopts German engine with reliable performance and stable quality. After our improvement, it is equipped with handle all around for convenient operation with both hands. The drill is equipped with safety arrestment system, which can protect the operators. Its side radiating system is of humanization design.

26 specification: 45 cm *38 cm *37 cm Weight: 8.8kg

42 specification: 45 cm *38 cm *37 cm Weight: 8.8kg



Water supply system

This system is mainly composed of two pressure cylinders, power and water supply interface, and water pipe in 1.5m length to ensure the water can reach the drill timely and rapidly.

26 specification: 67.31 cm *33.28 cm Weight: 4.34kg

42 specification: 67.31 cm *33.28 cm Weight: 4.34kg



Backpack

The designed backpack adopts the solid materials processing to meet the requirement of the harsh work environment. The sufficient space can not only easily contain the whole set of Kaidy portable drill tools, but meet other demands.

26 specification: 38 cm *39 cm *85 cm

42 specification: 38 cm *39 cm *85 cm



Drilling rod (stainless steel extension tube)

The drill rod is made of solid stainless steel with high quality and special type. Its extension part has bayonet coupling with special designing, therefore, its assembly and disassembly does not need any tool.



26 specification: Length: 67.3cm Outer diameter: 2.54cm

Inner diameter: 2.03cm Weight: 0.84kg

42 specification: Length: 69.1cm Outer diameter: 4.1cm

Inner diameter: 3.6cm Weight: 1.42kg

Drilling tool

The drilling tool is used for connecting with drilling rod and drilling bit.



26 specification: Length: 53.00cm Outer diameter:
2.54cm Weight: 0.88kg

42 specification: Length: 54.10cm Outer diameter:
4.1cm Weight: 1.04kg

Diamond drilling bit

We can provide impregnated diamond bit with different matrix performances to adapt the drilling for stratum with different rigidity.

The diamond drilling bit can be polished by the abrasive substance with great density and soft texture to make it sharp. If the working lining is worn out, screw off the old bit from the port and replace it with new one.



26 specification: Length: 2.54cm Inner diameter:
2.05cm Outer diameter: 2.54cm

42 specification: Length: 6.20cm Inner diameter:
3.59cm Outer diameter: 4.20cm

Reducing of drilling tool

It is used for connecting with drilling rod and drilling tool.

26 specification: Length: 13.34cm Outer diameter: 2.54cm
Weight: 0.23kg



Drilling bit for loose soil (overburden layer)

It is specially used for measuring the overburden layer thickness of rock core or rapidly sampling the soft superficial layer.

26 specification: Length: 30.50cm Outer diameter:
2.54cm Weight: 0.56kg
42 specification: Length: 35.50cm Outer diameter:
4.20cm Weight: 1.70kg



Corer

The design of corer for rock core is simple and efficient. The solid ledge beside the point can cut rock core and then hold it tight and take it out. It is practical to grab the debris of soft rock core.

26 specification: Length: 53.98cm Weight: 0.45kg Outer
diameter: 2.54cm Inner diameter: 2.11cm
42 specification: Length: 55.40cm Weight: 1.10kg Outer
diameter: 4.10cm Inner diameter: 3.65cm



Stainless steel handle

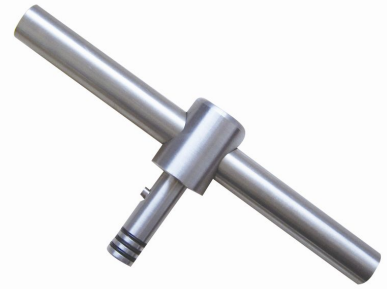
T-shaped spanner is solid, and easy to use and clean (used for rotating of rock core cutter and taking the corer and drilling rod out).

26 specification: Length: 30.48cm Width: 10.99cm

Height: 3.86cm Weight: 0.86kg

42 specification: Length: 30.8cm Width: 10.99cm

Height: 3.96cm Weight: 1.30kg



Stainless steel drill rod



It is used for taking the rock core out of drilling tool or the corer.

26 specification: Length: 65.00cm Outer diameter: 1.20cm Weight: 0.60kg

42 specification: Length: 65.00cm Outer diameter: 1.20cm Weight: 0.60kg

Rock core cutter

After connecting with the drilling rod, it is used for cutting the rock core remaining in the drilling hole (when the cutter gets to the rock core, press the handle and clockwise rotate it a cycle; squeeze and cut the rock core by the bevel of the cutter).

26 specification: Length: 13.00cm Outer diameter: 2.54cm Weight: 0.36kg

42 specification: Length: 15.00cm Outer diameter: 4.10cm Weight: 0.66kg

