

DBC ESD 9

Fully Hydraulic Core Drill



TOTAL CORE DRILLING TECHNOLOGY



ESD 9 Benefits to Improve your Drilling Performance

- **Safe and fast rod handling.** Automatic synchronisation between chuck and rod holder.

- **A rotation unit with optimal torque and speed.** Easy to adapt for different diameters and geological conditions.

- **Simple and reliable chuck.** Very few moving parts, widely adjustable gripping force, easy to service.

89 mm (H-size) core barrels pass through the chuck spindle and the rod holder.

- **Direct acting telescopic feed cylinder.** For quick rod handling at all depths.

- **Drill in any direction**

Standard equipment includes a manually operated turntable and worm gear. For easy positioning an optional hydraulic powered worm gear is available.

- **Electric powered crawler.** Electric powered for drilling operations, but can optionally be equipped with a diesel tramming kit

- **Simple, robust power unit with a double hydraulic pump.** Double pump permits independent regulation of feed and rotation. Equipped with a power take-off for driving a flush pump. Easy access for maintenance.

- **Pressure Filtration** protects the hydraulic circuit and control console from contamination that can enter the circuit when hydraulic hoses are disconnected for moving the drill. Pressure filters and main valves are mounted on the drill unit.

- **Water Flow Meters and RPM gauges** (optional equipment) provide additional information for the driller.



Capacities

Drill rod size	Approx. drilling depth
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B wireline	1000 m
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N wireline	750 m
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H wireline	530 m
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“The above capacity values only serve as a guideline, and refer to vertical, downward drilling in homogeneous rock”.

Rotation Unit

Consists of a hydraulic motor, a gear box, a hollow spindle and a hydraulic chuck.

Rotation is transmitted via the gear box to the chuck that, by hydraulic pressure, grips and rotates the drill rod.

The chuck and the rod holder are synchronized by an integral sequential logic system for safe and easy rod handling.

The rotation unit has an hydraulic system for off-hole clearance. Rotation speed and axial holding force of the chuck are adjustable from the control panel.

The chuck grips the rod by hydraulic pressure which is adjustable. The chuck jaws are quick change type. Both steel jaws and jaws with Tungsten Carbide inserts are available

Rotation characteristics- High torque

Speed range 0-1400 rev/min

Maximal torque 1 850 Nm

Spindle inner Ø 101 mm

Chuck axial holding force 150 kN



Feed Frame

The feed movement is achieved by a telescopic hydraulic cylinder.

Feed force 89 kN

Pull force 89 kN

Rod running speed 0.9 m/sec

Feed length (mm) 1800

Rod Holder

The rod holder is hydraulically opened, and closed by gas pressure. In case of loss of hydraulic pressure, the rod holder closes instantly. The gas pressure can be conveniently monitored.

Max. rod size 89 mm

Bore (without jaws) 102 mm

Bore (without covers) 170 mm

Axial holding force 45 kN

Axial holding force (TC insert jaws) 90 kN

Power unit with double hydraulic pump

The power unit has two variable-flow hydraulic pumps, mounted in tandem. They are integrated in the hydraulic system in such way as to adjust their output to the power requirements of the drill unit in a most efficient way. Connections for an optional hydraulic driven flush pump are standard. Supplied complete with 90 liter oil tank, oil cooler and filters.

The power unit is powered by an asynchronous electric motor.

Motor rating 90 kW at 1450 rpm

Main pump

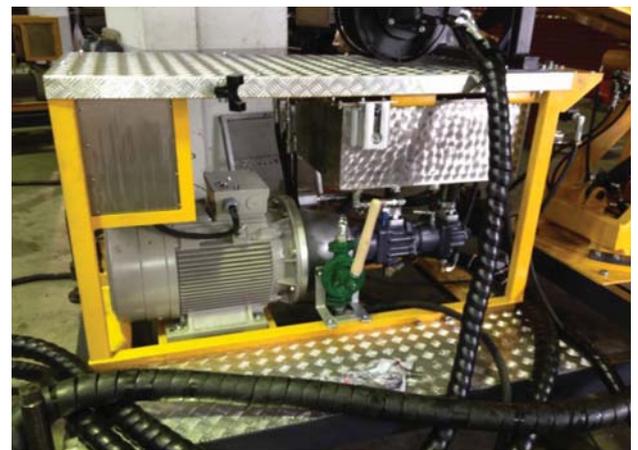
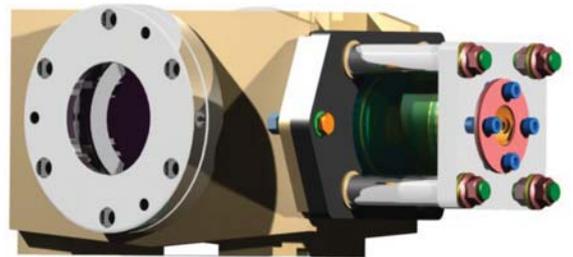
flow 200 l/min

pressure 300 bar

Service pump

flow 65 l/min

pressure 230 bar



Wireline hoist meets all drilling needs

WL-1000 m drum capacity of 5 mm wire diameter mounted underneath the feed frame.

pull force

- minimum (full drum) 3 600 N
- maximum (empty drum) ... 9 700 N

hoisting speed

- minimum 1.8 m/min
- maximum 4.8 m/min

Flush pump

DBC flush pumps are designed for both mud and water flushing. The distribution block is prepared for mounting of accumulator, adjustable steady flow valve and other optional equipment.

DBC 140H

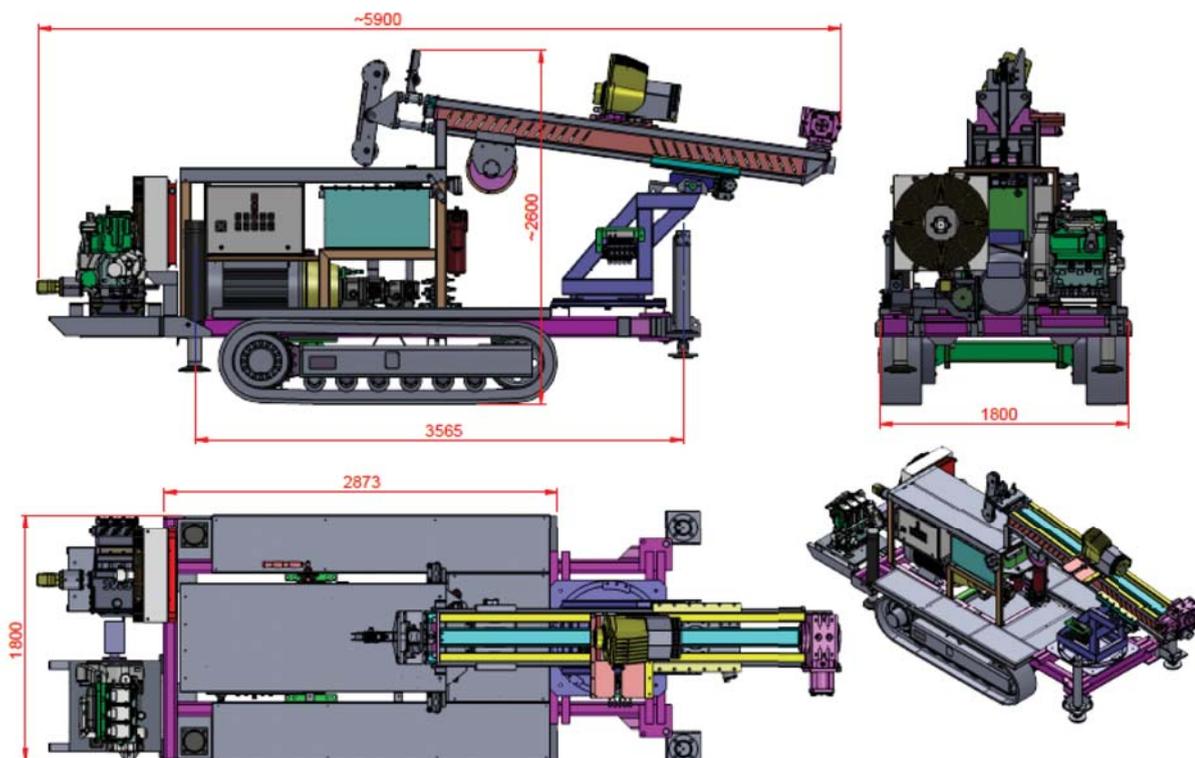
Flow 140 l/min

Pressure 70 bar

Weight 210 kg



Dimension



DBC Drill Rig Product Range

- Surface and underground drill rigs
- Fully hydraulic with rod handling synchronization.
- CE certified
- The most advanced robot arm and rod elevator system



All you need for core drilling

- 
- FASTDRILL drill bits
 - Heat treated wireline rods
 - Friction welded rods
 - Wireline core barrels
 - Adapters, fishing tools
 - Plastic core boxes
 - Full grip wrenches

“total core
drilling technology”



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