# DM30 II Blasthole Drills

**Multi-pass rotary and down-the-hole (DTH) drilling**

Epiroc

# Compact yet heavy-duty

**High quality at an excellent value sets the DM30 II apart from other drills in its class. A small footprint makes it easy to maneuver on tight benches and simple to transport over the road between pits.**

## Built for the job

The DM30 II is a crawler-mounted, hydraulic tophead-drive rig that's suitable for a variety of multi-pass rotary and DTH drilling applications. It can achieve a clean hole depth of 28 ft (8.5 m) in single-pass applications or 148 ft (45.1 m) in multi-pass applications with a starter rod under the rotary head. It also features a 30 ft (9.1 m) drill pipe change and a standard 4-rod carousel.

## Powerful performance

Designed to handle 4-1/2 to 5-1/2 in drill pipe, the DM30 II has a pulldown of up to 30,000 lbf (133.4 kN) and delivers a hole diameter of 5-1/2 to 7-7/8 in (140-200 mm).

## Options to fit your application

Choose a low- or high-pressure compressor to create the right configuration for your drilling operation. You can also add on-board technology capabilities with the optional Rig Control System Lite (RCS Lite) for added safety and productivity.

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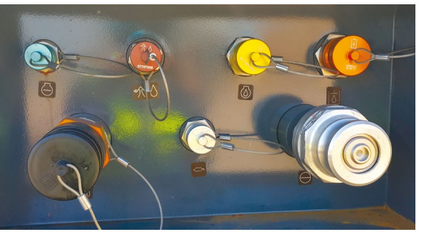
Jerry Murthi, a second-generation owner of Nariki (a drilling contractor in Indonesia), says, "The maneuverability of the DM30 II is great. Having a drill rig that offers more options because its size is a benefit to the mine and also helps with mine planning.".

**For details on how the DM series can enhance your profitability, contact your Epiroc representative or visit epiroc.com.**

# Designed for maximum productivity and value

## + Operator comfort

The DM30 II features an insulated, pressurized cab with tinted glass, a 6-way adjustable swivel seat and excellent visibility. All operational functions are controlled from the driller's console, and the ergonomic layout allows operators to instantly switch from drilling to tramming for increased productivity. In addition, the electric-over-hydraulic controls are common across the DM series, making operation easy for drillers with DM series experience. Plus, with a rating of 80 dBA, the noise inside the cab is kept to a minimum for greater operator comfort.



## + Ease of maintenance

The deck layout on the DM series offers easy access to all major service components. Optional fast fill connections, a tower access ladder, and tower fall restraint are available to complete your DM30 II.


## + Enhanced safety

The DM30 II is equipped with a number of features to help keep operators safe on the job. Features include a FOPS cab, ground-level isolation and an airend safety shutdown system for high-temperature situations. Additional safety features include a back-up alarm, head-up propel interlock, tramming inclinometer, and "jacks up" indicator lights.

## Service and support

Epiroc offers several types of service agreements to meet your operational requirements and maximize your productivity:

**Variable-price repairs**
Service when you need it.

**Fixed-price repairs**
Service with controlled costs.

**Equipment audit**
Scheduled equipment quality control.

**Preventive maintenance programs**
Peace of mind so you can focus on your core business.


Spacious one-piece FOPS (Falling Object Protective Structure)-rated cab is designed for visibility and operator comfort.

Electronic Air Regulation System (EARS) allows you to easily adjust your compressor to save horsepower and fuel consumption for a lower total cost of ownership.

A 230 gal. (871 L) fuel tank allows the rig to run for 11 hours before refill.

Structural components stand up to the heavy-duty cycles required of a mining drill. Frame and tower weldments are designed to last for the life of the machine.

Main frame is verified by dynamic strain gauging and is designed to last over 30,000 hours.

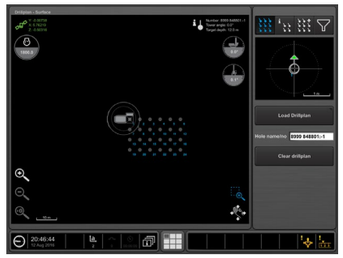
# Flexibility for the future

Add flexibility to your DM Series drill rig with Epiroc's Rig Control System (RCS) Lite. Built on the RCS 5 platform that comes standard on the Pit Viper series, RCS Lite offers a number of safety and interlock features. It also provides a convenient foundation to add more functionality and technology options in the future without a major rebuild of the machine. In addition, RCS Lite allows all Epiroc rotary drills to have the same onboard display and system for consistent operator training and service. It's a modular solution that delivers efficiency now, along with the opportunity to enhance your equipment down the road as your mining requirements grow.


**Home screen:** all selections are done from the main menu.

**Drilling:** shows information about pressures and flows for various systems during drilling.

**Setup and Propel:** shows machine conditions during setup and while propelling.




**Drill Plan:** shows the interactive drill plan.


**User:** sets the control system language. Logs in users to the control system and shows user information.

**Performance:** shows statistics about the machine and drilling consumables.

# Choose from three packages

## RCS Lite | Basic

- RSC 5 touchscreen display and GUI with:
  - Real-time depth and pen rate feedback with histogram.
  - Rotation RPM and pressure (torque).
  - Pulldown/holdback.
  - Air pressure, water tank level.
  - On-screen machine inclinometers.
- Autolevel
- Safety features
  - Pipe-in-hole interlocks.
  - Stability interlock.
- CertIQ capable

## RCS Lite | Connected

Includes all features of RCS Lite | Basic, plus:

- CCI module for data storage and transmission to wireless network
  - Rig events, drilling quality, drill status, etc.
- Surface manager
- Remote desktop viewer
- Measure while drilling
- Onboard storage
- Operator ID and management
- Delay code management and reporting
- Consumable tracking

## RCS Lite | NAV

Includes all features of RCS Lite | Connected, plus:

- GPS-ready with brackets (Option A) OR high-precision GPS installed (Option B)
- Moving map display software
- Geofence capability



# Technical specifications

## Sub structure

| | |
|---|---|
| **Mainframe** 44.35 lb/ft (66 kg/m) | |
| • Weld fabricated I-beam type using wide flange structural steal beam for both rails and crossbeams<br>• Designed by Epiroc, and weld fabricated by certified welders | |
| **Leveling jack** | |
| Type | Hydraulic cylinder |
| Quantity | Three jacks |
| Jack pad diameter | 18 in (457 mm) |
| Position indication | "Jack up" indicator lights on console or RCS screen |
| **Capacities** | |
| Fuel tank | 230 gal (871 L) |
| Water tank | 210 gal (795 L) |
| Hydraulic tank | 105 gal (397 L) |
| **Undercarriage and propel system** | |
| Make | Epiroc or Caterpillar 320L |
| Mounting | Oscillating walking beam: 5° each side, total 10° |
| Total length | 174 in (4.44 m) |
| Ground contact | 143.5 in (3.65 m) |
| Take-up adjustment | Grease slack adjustment; hydraulic recoil |
| Rollers | 8 lower / 2 upper |
| Location | Strategically located for load distribution relative to the tower position (vertical or horizontal) |
| Roller bearings | Sealed for life |
| Track pads | Type: Triple bar grouser — for increased grip and reduced ground pressure<br>Width: 19.69 in (500 mm)<br>Ground pressure: 13 psi (89.6 kPa) |
| Drive | Hydrostatic closed loop through planetary speed reducer |
| Propel motors | Two - Hydraulic, axial piston, fixed displacement rating (each): 147 HP (110 kW) |
| Propel speed range | 0 – 2.0 mph (0 - 3.22 km/hr) |

## Tower, carousel and drill rod handling

| | | |
|---|---|---|
| **Tower** | | |
| Tower construction | Fully welded four main member with open front ASTM A500; rectangular steel tubing | |
| Tower raising | Two hydraulic cylinders; live tower<br>(raise and lower with full carousel and rotary head at top of tower) | |
| Rod support | Hydraulic cylinder clamping and actuation to center drill rod | |
| **Rated capacity** | | |
| Single pass depth | 28 ft (8.5 m) | |
| Maximum hole depth | 148 ft (45.1 m) | |
| **Carousel** (carousel internal to the tower with key-lock retention) | | |
| Rod length | 30 ft (9.1 m) | |
| Capacity | • Four pieces of 4-1/2 in or 5 in rods (114 mm or 127 mm)<br>• Two pieces of 5-1/2 in (140 mm) | |
| Actuation | Two hydraulic cylinders | |
| Safety | • Drill pipe is held securely in carousel by "key lock design" mechanism<br>• No bump system to prevent damage if carousel not stowed | |
| **Drill rods** | | |
| **Drill pipe diameter x 30 ft (9.1 m)** | **Thread** | **Suggested bit diameter** |
| 4-1/2 in (114 mm) | 3-1/2 in API | 5-1/2 in – 6-3/4 in (140 mm – 171 mm) |
| 5 in (127 mm) | 3-1/2 in API or BECO | 6-3/4 in (171 mm) |
| 5-1/2 in (140 mm) | 3-1/2 in BECO | 7-7/8 in (200 mm) |
| **Rotary head** | | |
| Speed range | Variable 0 – 160 RPM (need to adjust displacement) | |
| Torque | Variable 0 – 5,400 lbf-ft (0 – 7,321 Nm) | |
| Number of motors | One | |
| Type of motor | Variable displacement axial piston | |
| Reduction | 15:1 | |
| Horsepower | 148 HP (110 kW) | |
| Travel length | 35 ft 5 in (10.8 m) | |
| **Feed system** | | |
| Pulldown capacity | Up to 30,000 lbf (133.4 kN) | |
| Pullback capacity | 0 – 10,000 lbf (0 – 44.5 kN) | |
| Weight on bit | Variable, 0 – 31,735 lb (0 – 14,395 kg) | |
| Mechanism type | Hydraulic cylinder with sheave block and cable | |
| Number of cables - diameter | Two pulldown, two pullback – 3/4 in (19 mm) | |
| Number of sheaves - outside diameter | Eight – 8.1 in (206 mm) | |
| Feed speed | 100 ft/min (30.5 m/min) | |
| Retract speed | 280 ft/min (85.3 m/min) | |





## Cab and controls

| | |
|---|---|
| **Cab** | |
| • Thermally insulated and pressurized<br>• Adjustable suspension swivel seat with seat belt<br>• Two hinged and lockable doors<br>• Quiet (tested at 80 dBA)<br>• Falling Object Protective Structure (FOPS) certified<br>• Side-mounted air conditioning (easier to service as no roof access required)<br>• Ergonomically designed wrap-around console<br>• Windshield wiper on drilling and rear tramming window | |
| **Controls** | |
| | All drilling and propelling functions are hydraulically powered with ergonomically grouped controls |
| Panels | • Drilling function<br>• Compressor function<br>• Propel, leveling and tower raising function<br>• Gauges for system pressure, temperature, etc.<br>• Engine start and gauges |
| **Hydraulic system** | |
| • Hydraulic pumps mounted on a single three-hole gearbox driven off the engine through a drive shaft<br>• Two variable displacement main pumps for propel, drill feed and rotation functions<br>• One double pump for setup, auxiliary functions and cooling fan | |

## Power package

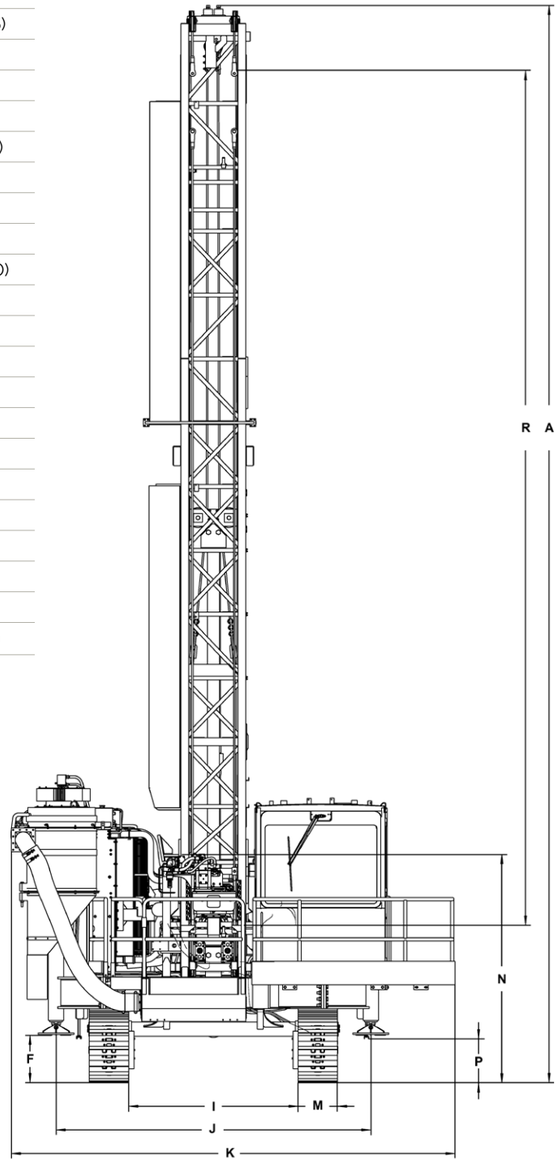
| | |
|---|---|
| **Airend** | |
| Tier 4 engine only | 900 cfm @ 110 psi (25.5 $m^3$/min @ 7.6 bar)<br>1,050 cfm @ 110 psi (29.7 $m^3$/min @ 7.6 bar)<br>900 cfm @ 350 psi (25.5 $m^3$/min @ 24 bar)<br>1,050 cfm @ 350 psi (29.7 $m^3$/min @ 24 bar) |
| **Diesel engine** (1,800 RPM) | |
| Diesel engine – non Tier 4 | CAT C15 – 425 HP (317 kW)<br>CAT C15 – 475 HP (354 kW)<br>CAT C15 – 540 HP (403 kW)<br>Cummins QSX15 – 425 HP (317 kW)<br>Cummins QSK15 – 475 HP (354 kw)<br>Cummins QSK15 – 530 HP (395 kw) |
| Diesel engine – Tier 4 | Cummins QSX15 – 550 HP (410 kW) |

## Dimensions and weight

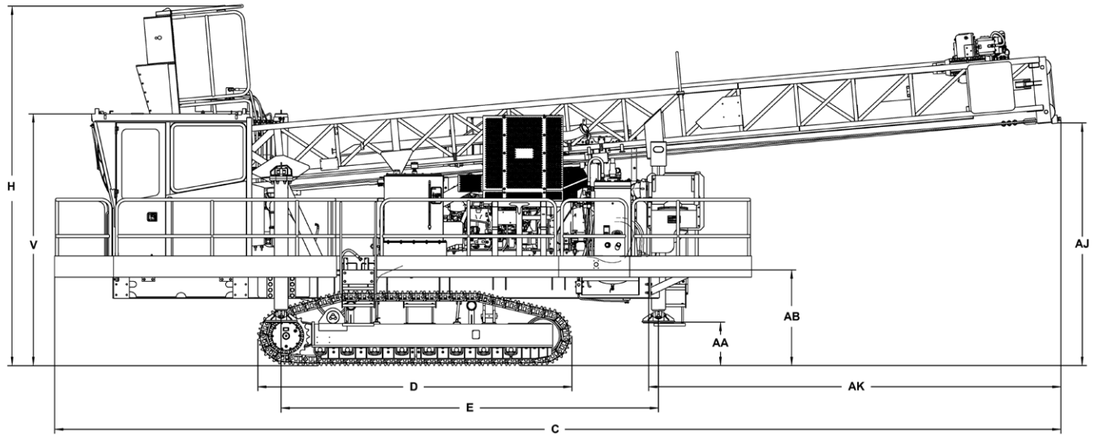
| Operating weight | |
|---|---|
| Estimated weight | 70,000 – 75,000 lb (32 – 34 tonnes) |

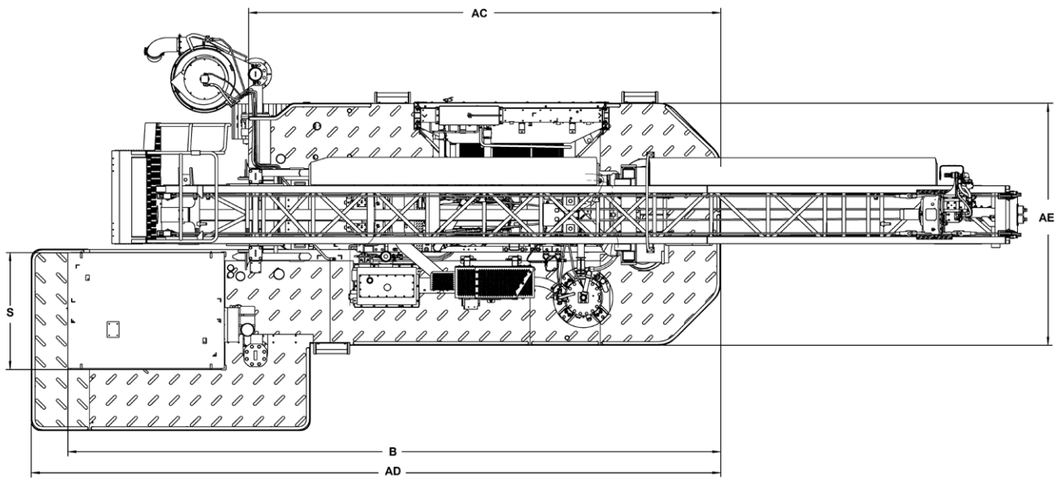
**Operating dimensions**
(Dimensions for DM30 II Tier 4)

| | Description | Dimensions in (m) |
|---|---|---|
| A | Height – tower up | 540 (13.72) |
| B | Distance – cab to decking non drill end | 367 (9.31) |
| C | Length – tower down | 553 (14.05) |
| D | Length – undercarriage | 174 (4.43) |
| E | Length – jack center to jack center | 210 (5.32) |
| F | Height – jack to ground, drill end | 24 (0.61) |
| H | Height – tower down | 200 (5.09) |
| I | Width – track inside to track inside | 85 (2.16) |
| J | Width – jack center to jack center, drill end | 158 (4.01) |
| K | Width – overall | 217 (5.50) |
| M | Width – track | 19.69 (500) |
| N | Height – tower off | 115 (2.91) |
| P | Height – to lowest point | 22 (0.56) |
| R | Rotary head travel | 425 (10.8) |
| S | Cab width | 66 (1.67) |
| V | Height – top of cab to ground | 140 (3.55) |
| AA | Height – jack to ground, non drill end | 24 (0.61) |
| AB | Height – decking to ground | 53 (1.35) |
| AC | Length – DCS decking | 265 (6.74) |
| AD | Length – CS decking | 381 (9.68) |
| AE | Width – decking | 136 (3.45) |
| AJ | Height – tower bottom to ground | 135 (3.42) |
| AK | Distance – frame non drill end to tower end | 229 (5.82) |




Technical specifications



## Optional equipment

**For a comprehensive list, please contact your local Epiroc Customer Center.**

- Angle drill package – 0-30 degrees
- Epiroc dust collector
- Water injection
- Wiggins central service
- Hands free auxiliary wrench
- Cold weather options
- Cushion spindle sub
- Drill monitoring – depth and penetration rate
- Automatic lube system
- Tow hooks on non-drill end
- Tower access ladder
- Maintenance walkways
- Rotational tachometer
- Cab and tower strobe lights



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