

# FlexiROC D60

Surface drill rig for quarrying and mining

FlexiROC D60 hole diameter: 110–178 mm (4.3"–7")





# Reliable and productive

The FlexiROC D60 surface drill rig from Epiroc is a perfect balance between productivity and efficiency. It's a proven and dependable rig for DTH drilling in mining and large quarry applications. The FlexiROC D60 is rugged and multifunctional — it is built to take on the toughest drilling tasks.

## + Main benefits

- Productive and efficient** thanks to impressive DTH performance
- Broad utilization** due to flexibility and multi-task capability
- Proven and rugged** to get the job done



The FlexiROC D60 is built for high efficiency mining. Its DTH hammer benefits from a precisely matched compressor.



Whether working in quarries or open pit mines, the FlexiROC D60 will deliver straight and smooth holes.



When equipped with the standard feed option, the FlexiROC D60 is capable of handling an even wider range of drilling angles with ease.



The feed-system ensures smooth and uniform movement

Superior visibility during collaring and tube handling

The cabin is ROPS and FOPS-approved and mounted on a protective plate

Designed to meet the latest emissions regulations with Tier 3 and Tier 4 Final/ Stage 5 engines



Discover more about the FlexiROC D60.



# A flexible and versatile rig which delivers a fast return on investment

The FlexiROC D60 offers a total drilling solution, able to perform in various applications such as production, pre-splitting, de-watering, and in-pit grade control with Reverse Circulation (RC) drilling.



## + Built for high efficiency mining

Whether operating in quarries or open pit mines, the FlexiROC D60 delivers straight and smooth holes. The rig has plenty of air available to keep the hole clean for easy charging. The highly efficient DTH hammer is matched precisely with the compressor to provide optimum performance. The FlexiROC D60 from Epiroc is the result of decades of experience and know-how gained from the toughest mining and quarrying conditions.



## + Designed through evolution

At Epiroc, we never stop learning. We believe it's important to talk to you – our customers. As a result, we are constantly evolving and learning new ways to get the job done better, more efficiently and above all, safely. Continuous customer feedback and our years of experience from all over the world have assisted in developing the FlexiROC D60. This rig is designed to perform shift-after-shift in the most demanding mining applications.



## + Flexible and versatile

Delivering value across a broad spectrum of applications is important for a fast return on investment. The FlexiROC D60 is available with both standard or long feeds and is capable of working at a wide range of drilling angles. This machine is ready for work in any almost any situation and is designed to help ensure your profitability.



# A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.

# Technical specifications

## Main components

- Crawler type two speed undercarriage with track oscillation system
  - Tier 4 Final/Stage 5 or Tier 3 CAT turbo-charged diesel engine
  - Atlas Copco screw-type high pressure compressor
  - ROPS and FOPS-approved operator cabin with rubber vibration dampers
  - Single section boom system
- Aluminum profile feed beam
  - Toe-hole drilling capability (standard feed version)
  - Carousel type tube handling system
  - Break-out table with pressure regulating kit
  - Hydraulic operated rotary head
  - Built for use with 4", 5", and 6" down-the-hole hammers
  - Service hand lights inside canopy

## Hole range & length (recommended)

|   |                                       | Metric     | US       |
|---|---------------------------------------|------------|----------|
| FlexiROC D60  | COP 44 GoldCOP 54 Gold, COP 64 Gold   | 110-178 mm | 4.31'-7' |
| Hydraulic tube handling system for max hole length, with 5 m (16.4') tubes – standard feed                    |                                       |            |          |
| FlexiROC D60  | Ø 89-114 mm (3.5" - 4.5") drill tubes | 45 m       | 148'     |
| FlexiROC D60  | Ø 127-140 mm (5" - 5.5") drill tubes  | 25 m       | 82'      |
| Hydraulic tube handling system for max hole length, with 6 m (20') tubes and a 7.5 m starter tube – long feed |                                       |            |          |
| FlexiROC D60  | Ø 89-114 mm (3.5" - 4.5") drill tubes | 55.5 m     | 182'     |
| FlexiROC D60  | Ø 127-140 mm (5" - 5.5") drill tubes  | 31.5 m     | 103'     |
| Single pass drilling, max hole length   |                                       |            |          |
| FlexiROC D60 standard feed  |                                       | 5.4 m      | 18'      |
| FlexiROC D60 long feed  |                                       | 7.5 m      | 25'      |

RHS 140 is standard on FlexiROC D60. It can handle pipe size 76, 89, 102, 114, 127, 140 mm. On standard feed, RHS 102 is available as option and can handle pipe size 76, 89, 102 mm.

## Engine

| FlexiROC D60   | Metric | US     |
|--|--------|--------|
| CAT C15, turbo-charged, diesel engine, Tier 4 Final /EU Stage 5 (multi-certified for US and EU markets) or Tier 3/ stage IIIA – power rating at 1800 rpm | 354 kW | 475 HP |

## Compressor

| FlexiROC D60                                       | Metric  | US      |
|--|---------|---------|
| Atlas Copco XRX 10 two-stage screw type compressor |         |         |
| Working pressure, max                              | 25 bar  | 363 psi |
| FAD (25 bar)                                       | 405 L/s | 858 cfm |

## Rotary head

|           | Connection thread   | Max (rpm) | Max torque, drilling |          | Suitable for DTH-hammer        |
|-----------|---------------------|-----------|----------------------|----------|--------------------------------|
|           |                     |           | Metric               | US       |                                |
| DHR6 H 45 | API 2 3/8" REG, box | 137       | 1839 Nm              | 1356 lbf | COP 44 Gold (COP 54 Gold)      |
| DHR6 H 56 | API 3 1/2" REG, box | 107       | 2353 Nm              | 1735 lbf | COP 54 Gold COP 64 Gold COP 66 |
| DHR6 H 68 | API 3 1/2" REG, box | 68        | 5800 Nm              | 2712 lbf | COP 64 Gold COP 66             |
| DHR6 H 78 | API 3 1/2" REG, box | 54        | 6600 Nm              | 3417 lbf | COP 64 Gold COP 66             |

## Carrier

|                         | Metric      | US          |
|-------------------------|-------------|-------------|
| Tramming speed, max/min | 3.3/1.8 kph | 2.0/1.1 mph |
| Traction force, max     | 138 kN      | 31 020 lbf  |
| Ground clearance        | 405 mm      | 16"         |
| Track oscillation       | ±10°        |             |

## Hydraulic system

| Hydraulic oil cooler                        | Metric         | US           |
|---|----------------|--------------|
| Max ambient temperature                     | 50 °C          | 122 °F       |
| Pumps                                       |                |              |
| Axial piston pump (1)                       | 240 L/min      | 63 gal/min   |
| Gear pump (2)                               | 111 L/min      | 29 gal/min   |
| Gear pump (3)                               | 63 L/min       | 16.6 gal/min |
| Gear pump (4)                               | 39 L/min       | 10.3 gal/min |
| Gear pump (5)                               | 31 L/min       | 8.2 gal/min  |
| Gear pump (6)                               | 31 L/min       | 8.2 gal/min  |
| Return and drainage filters (2 x 3 filters) |                |              |
| Filtration rate 20 µm absolute              | 20 µm absolute |              |

## Dust collector

| DCT 320 including pre-sepa-rator | Metric      | US                  |
|----------------------------------|-------------|---------------------|
| Filter area                      | 32 m²       | 344 sq.ft           |
| Suction capacity at 500 mm wg    | 1270 L/s    | 2690 cfm            |
| Suction hose diam                | 203 mm      | 8"                  |
| Cleaning air pressure, max       | 8 bar       | 116 psi             |
| Cleaning air consumption         | 2-4 L/pulse | 0.06-0.12 cfm/pulse |
| Number of filter elements        | 32 pcs      |                     |

## Aluminum feed

| Aluminum profile feed with hose guide and double drill tube support with break-out table and movable lower guide/dust hood | Metric   | US         |
|--|----------|------------|
| Feed rate, max   | 0.9 m/s  | 177 ft/min |
| Feed force, max  | 40 kN    | 8992 lbf   |
| Tractive pull, max   | 50 kN    | 11240 lbf  |
| Feed motor size  | 2099 cc  | 0.6        |
| Chain size   | 45 mm    | 1.8"       |
| Long Feed  |          |            |
| Feed extension   | 1150 mm  | 45.3'      |
| Travel length  | 7540 mm  | 296.8'     |
| Total length   | 11600 mm | 456.7'     |
| Standard Feed  |          |            |
| Feed extension   | 1900 mm  | 74.8'      |
| Travel length  | 5400 mm  | 212.6'     |
| Total length   | 9400 mm  | 370"       |

## Sound and vibration\*

|  |       |            |       |
|--|-------|------------|-------|
| Cabin: A-weighted Sound Pressure Level, LpA                          |       | 79 dB      |       |
| Cabin: Weighted whole body vibration level, a <sub>w</sub>           |       | < 0.5 m/s² |       |
| A-weighted Sound Power Level, LwA                                    |       | 124 dB     |       |
| A-weighted sound pressure level, LpA, calculated (distance from rig) |       |            |       |
| 10 m   | 96 dB | 160 m      | 72 dB |
| 20 m   | 90 dB | 320 m      | 66 dB |
| 40 m   | 84 dB | 640 m      | 60 dB |
| 80 m   | 78 dB | 1280 m     | 54 dB |

\* The declared noise emission values should be combined with a measurement uncertainty of KpA-6 dB. The sum of declared measured value and the uncertainty value represent an upper limit of the range, in which measured values are likely to be included. The values were determined in accordance with the standards ISO 3744:2010 (for sound power level estimation), ISO 11203:1995 (for sound pressure calculation at different distances from the rig), ISO 11201:2010 (for operator cabin sound pressure level) and ISO 2631-1 (for whole body vibration).

Technical specifications

Electrical system

|                                 |                 |
|---------------------------------|-----------------|
| Voltage                         | 24 V            |
| Batteries                       | 2 x 12 V 235 Ah |
| Alternator                      | 28 V 95 Ah      |
| Work lights, front              | 4 x 70 W        |
| Work lights, rear               | 2 x 70 W        |
| Work lights, feed               | 2 x 70 W        |
| Warning lamp and reverse buzzer |                 |

Volumes

|                                    | Metric | US          |
|------------------------------------|--------|-------------|
| Hydraulic oil tank                 | 380 l  | 100 US gal  |
| Hydraulic system, total            | 600 l  | 158 US gal  |
| Compressor oil                     | 63 l   | 12 US gal   |
| Diesel engine oil                  | 44 l   | 11.6 US gal |
| Diesel engine, coolant, Tier 3     | 65 l   | 17 US gal   |
| Diesel engine, coolant, Tier 4     | 110 l  | 29 US gal   |
| Diesel engine, fuel tank           | 1050 l | 277 US gal  |
| Traction gear                      | 3 l    | 0.8 US gal  |
| Lubrication tank (HECL)            | 20 l   | 5.3 US gal  |
| DEF fluid tank (Tier 4 final only) | 34 l   | 9 US gal    |

Cabin

- ROPS and FOPS-approved with rubber vibration dampers
  - Rig inclination indicator
  - 2 x wipers with washer
  - Clear laminated glass (front and roof windows)
- Outlet socket, 24 V
  - Clear toughened glass (side and rear windows)
  - Prepared with speakers for audio system
  - Fully adjustable operator seat
- Electric combined engine/inclination hole depth instrument
  - Adjustable foot rest, rear view mirror, cabin light
  - Air conditioning and heating system

A selection of options

Carrier

- Hydraulic support leg
- Protection hand rails on top of canopy
- Wide body kit
- Halogen work light covering feed support, transport position
- LED work lights
- Heavy duty air intake filters for engine and compressor
- Combined warning sound and warning light, beacon type
- ANSUL fire extinguisher system — Check fire 210 auto system LT-A-101 or LT-A-101 manual system
- Tropical kit for 55° ambient temperature
- Electric pump for filling hydraulic oil
- Electric fuel filling pump
- Fast fuel filling system
- Cold weather kit +5° C to -25° C, including diesel engine heater
- Cold weather kit -25° C and below, including diesel engine heater and ether start

Cabin

- Rubber ladder for left hand side
- Clear laminated glass (front and roof windows)
- Tinted toughened glass (side and rear windows)
- Sun shade kit
- Electric heated seat
- Bluetooth audio system
- Reverse camera with cab-mounted monitor

Feed

- Rod Handling System 102 (only short feed)
- Screw sampler
- Service winch with jib boom mounted on the feed
- Wide feed foot
- Protective guard, according to EN16228

Water mist system

- Water mist system, pump, one or two 400 l water tanks
- Arctic-ready water mist system, pump, one or two 400 l water tanks

Lubrication

- Central lubrication system, type Lincoln
- Thread lubrication, spray system
- Artic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46

Hole and Inclination systems

- Aiming unit function to standard instruments
- GPS compass aiming unit
- Laser receiver

Automation and software

- Production log for ROC Manager

Parts and Services products

- ROC Care

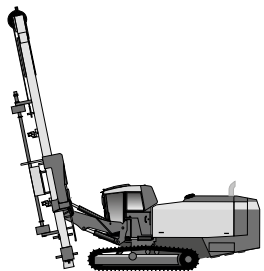
Delivered equipment, not mounted

- First 50 hours service kit for compressor
- Tool kit for rotary head with fixed spindle sub
- Tool kit for rotary head with floating spindle sub

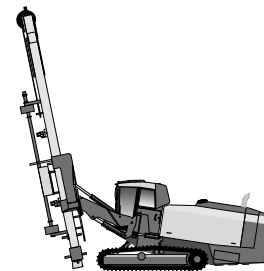
Digital products

- Fleet monitoring with Fleet+ on My Epiroc
- Machine and fleet data via API

Maximum drilling angles with feed positioned towards cabin



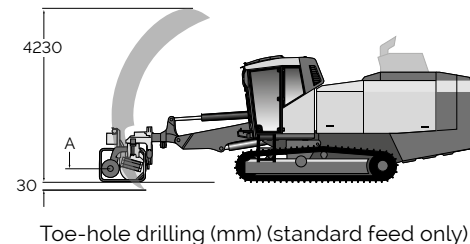
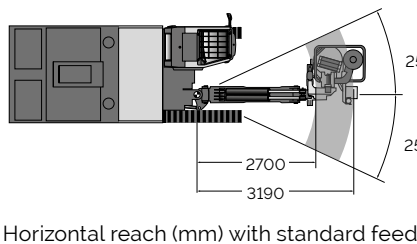
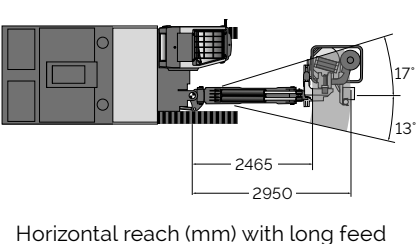
| Horizontal body |     |
|-----------------|-----|
| FlexiROC D60 LF | 15° |
| FlexiROC D60 SF | 22° |



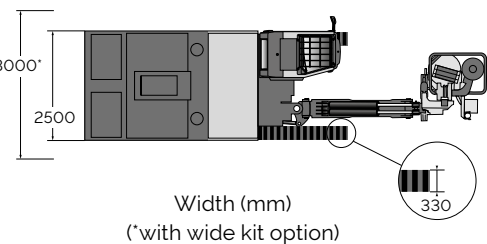
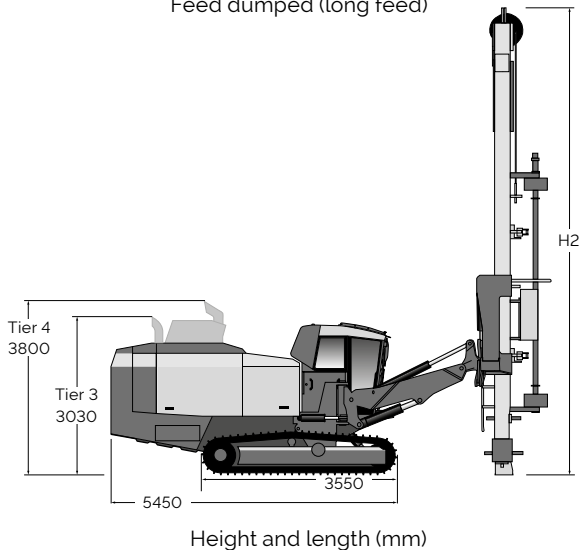
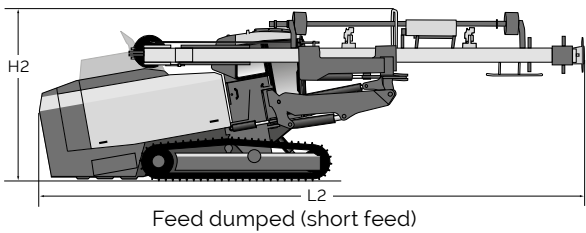
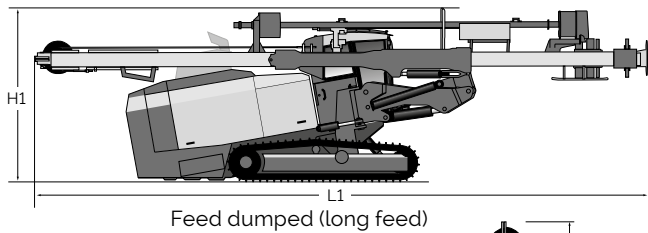
| Backwards tilt body: 10° |     |
|--------------------------|-----|
| FlexiROC D60 LF          | 18° |
| FlexiROC D60 SF          | 25° |



| Front tilt body: 10° |     |
|----------------------|-----|
| FlexiROC D60 LF      | 11° |
| FlexiROC D60 SF      | 20° |



Technical specifications



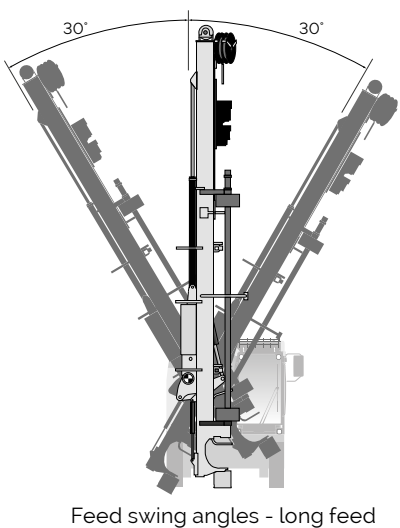
Height and length

| Long Feed (LF) dumped     |  | Metric    | US   |
|---------------------------|--|-----------|------|
| Height (H1)               |  | 3 500 mm  | 138" |
| Length (L1)               |  | 11 600 mm | 457" |
| Standard Feed (SF) dumped |  | Metric    | US   |
| Height (H2)               |  | 3 500 mm  | 138" |
| Length (L2)               |  | 11 350 mm | 447" |
| Feed height               |  | Metric    | US   |
| Long Feed (H3)            |  | 11 600 mm | 457" |
| Standard Feed (H3)        |  | 9 400 mm  | 370" |

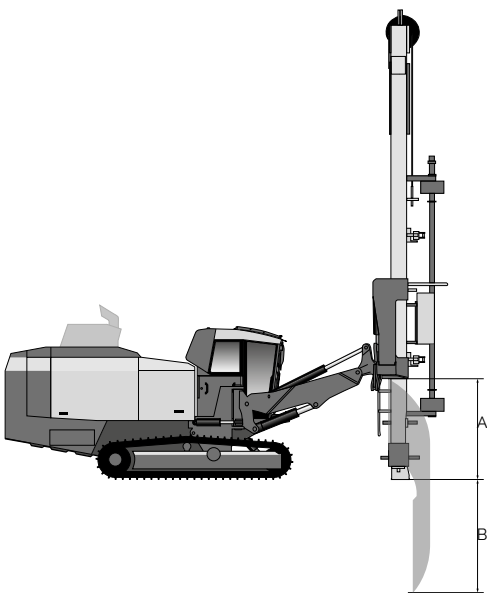
Weight

| Standard unit excluding all options and drill rods | Metric         | US        |
|--|----------------|-----------|
| FlexiROC D60 long feed                             | 23 700 kg (T3) | 52 250 lb |
|  | 24 100 kg (T4) | 53 130 lb |
| FlexiROC D60 standard feed                         | 22 600 kg (T3) | 49 820 lb |
|  | 23 000 kg (T4) | 50 700 lb |

Feed swing angles - standard feed



Feed swing angles - long feed



Vertical reach

|               | A (Metric) | B (Metric) | A (US) | B (US) |
|---------------|------------|------------|--------|--------|
| Long feed     | 582 mm     | 2277 mm    | 23"    | 90"    |
| Standard feed | 1040 mm    | 2659 mm    | 41"    | 105"   |

# United in performance. Inspired by innovation.

Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.  
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