

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-separator	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 _w		< 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

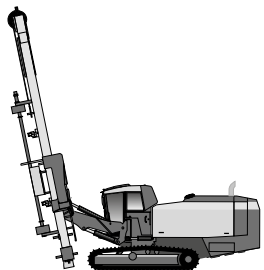
Parts and Services products

- ROC Care
- CERTIQ satellite based drill rig monitoring system (only in combination with a written service agreement)

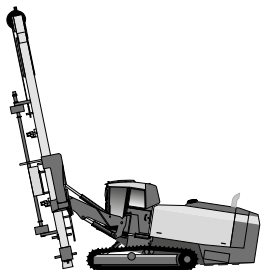
Delivered equipment, not mounted

- 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

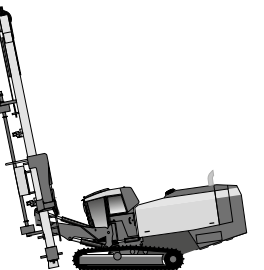
Maximum drilling angles with feed positioned towards cabin



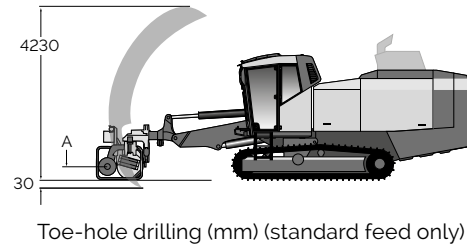
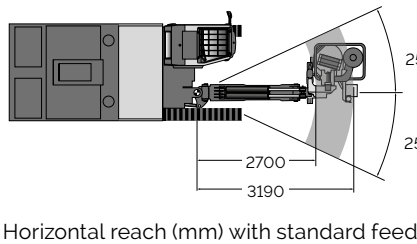
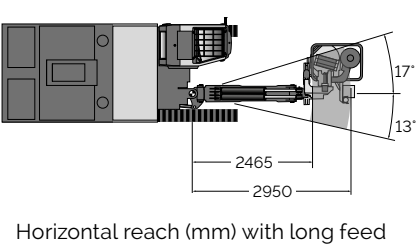
Horizontal body	
FlexiROC D60 LF	15°
FlexiROC D60 SF	22°



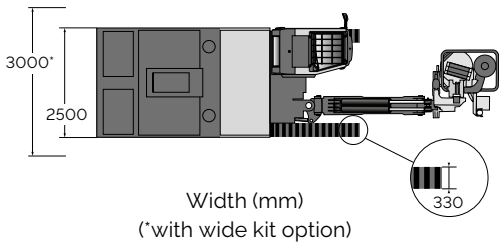
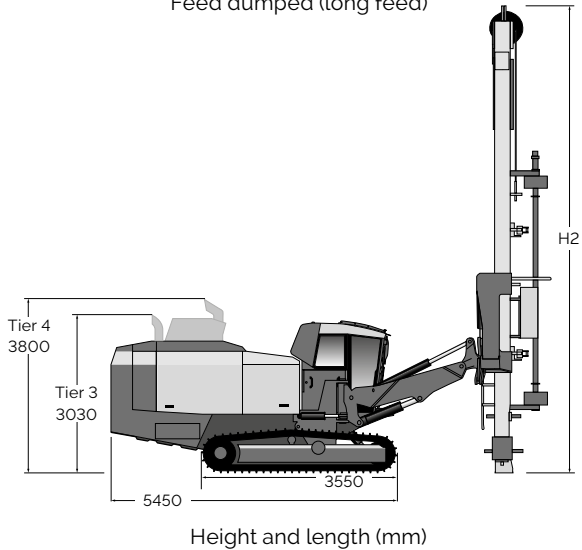
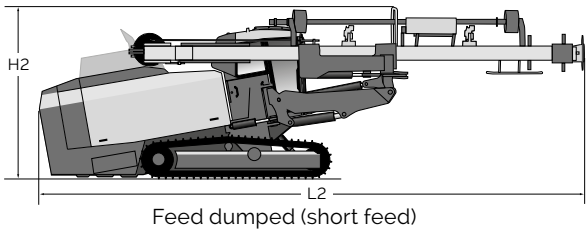
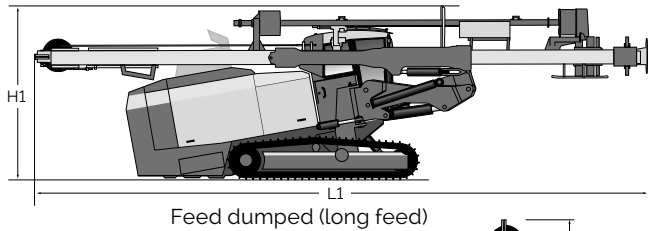
Backwards tilt body: 10°	
FlexiROC D60 LF	18°
FlexiROC D60 SF	25°



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



Technical specifications



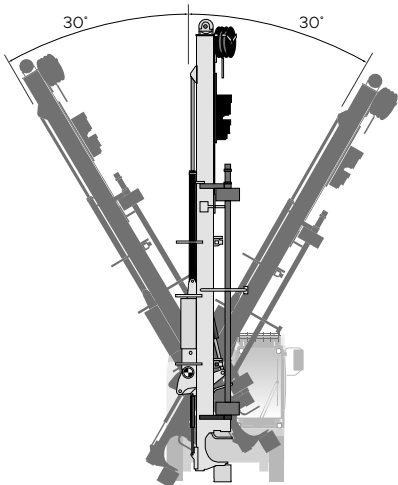
Height and length

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"

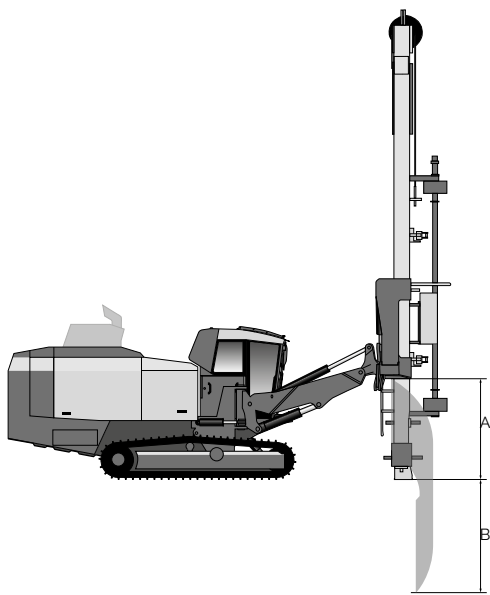
Weight

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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