

# SmartROC CL

Surface drill rig for open pit mining and selective mining

Hole diameter: 115–216 mm (4.5"–8.5")



# The SmartROC CL is built to beat the rock

The fuel-efficient SmartROC CL is one of the most powerful and versatile surface drill rigs we've ever built. Equipped with the hard-wearing COP 5060 CR, your SmartROC CL will perform – whatever the conditions.

The SmartROC CL is designed to give you exactly what you want in a drill rig – higher productivity and profitability. Equipped with advanced COPROD technology for optimal performance, this smart rig is at the head of its class. A higher penetration rate and a lower

fuel consumption combine to provide extraordinary performance. Drill efficiently through any type of rock with a 50% increased penetration rate and more than 45% less fuel consumption compared to traditional DTH drilling.



The quiet, air-conditioned safety cabin is ROPS and FOPS approved. A happy operator means even better productivity.

The SmartROC CL is enhanced with unique Epiroc COPROD technology to more effectively get you through any type of rock with control and accuracy.

## ⊕ Main benefits

**Super-efficient** COPROD drill rig that boosts drilling productivity

**Exceptionally low total cost of ownership** thanks to high penetration rate and low fuel consumption

**Smart high efficiency** thanks to auto drill cycle, Hole Navigation System and BenchREMOTE



# Engineered to give you the lowest possible total cost of ownership

Epiroc automation technology is having a positive impact on mining operations everywhere, and the SmartROC CL is no different. The SmartROC CL ensures an exceptionally low total cost of ownership thanks to its high penetration rate and low fuel consumption.



## + A smart rig is a smart investment

The SmartROC CL is enhanced with COPROD technology to more effectively get you through any type of rock with control and accuracy. Combining the best techniques used in topammer and down-the-hole drilling for power and precision, the COPROD method eliminates jams and results in an exceptionally high penetration rate. COPROD rigs get the job done faster and require less fuel than traditional DTH machines.



## + Safer and faster with remote drilling

A SmartROC CL equipped with the Hole Navigation System eliminates the need to manually mark and survey hole positions prior to drilling. It gets right down to business – producing precise holes. Safety is always a priority, so rely on BenchREMOTE technology to operate your SmartROC CL from a remote location, away from falling rocks and other hazards on site. The BenchREMOTE option allows the rig to be remotely operated from a distance of up to 100 meters.



## + Keep your SmartROC in prime condition

Keep your SmartROC CL in top condition and your productivity at its highest with an economical service plan from Epiroc. Your SmartROC CL comes Certiq-ready. Certiq is a telematics system that gives you remote web access to real-time data regarding your rig and its performance. Certiq generates custom reports at regular intervals and gives immediate notification if a suspected problem should arise.



## 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
- Caterpillar turbo-charged diesel engine
- Atlas Copco screw type compressor
- Hydraulic cooling system for up to 55°C ambient temperature
- Combined warning sound and warning light
- Fixed boom system
- Hydraulic chain feed system with hose guide
- Hydraulic rock drill/COP 5060CR
- Rock drill lubrication system
- Progressive COP Logic
- Carousel type rod handling system
- Hydraulic breakout table with double drill steel support and movable dust collector hood
- Double hose drum
- Dust collection system

Recommended hole range	Metric	US
CR 102, CR 127, CR 140	115–216 mm	4.5"– 8.5"
Hydraulic rod handling system for max hole depth, with 6.1 m (20') COPROD sections		
CR 102	42.5 m	139'
CR 127	36.5 m	120'
CR 140	30.5 m	100'

### Engine

Caterpillar turbo charged, diesel engine, CAT C13, Tier 3 / Stage IIIA and Tier 4 final /stage 5	Metric	US
Power rating at 2000 rpm	328 kW	440 hp

### Carrier

	Metric	US
Tramming speed, max	3.3 km/h	2.0 mph
Track oscillation		±10°
Ground clearance	405 mm	16"

### Hydraulic rock drill

Rock drill	Drill rig	Impact power	Max hydraulic pressure	Max impact rate	Max torque	Approx. weight
COP 5060CR	SmartROC CL	50 kW (67 hp)	230 bar (3 336 psi)	47 hz	4 500 Nm (3 319 lbf/ft)	468 kg (1 032 lb)

### Compressor

Atlas Copco C146-07, screw type compressor	Metric	US
Working pressure, max	14 bar	203 psi
FAD at normal working pressure	254 L/s	538 cfm

### Feed

Hydraulic chain driven aluminium feed with hose guide and double drill steel support with movable lower guide/dust hood	Metric	US
Feed rate, max	0.9 m/s	177 ft/min
Feed force, max	40 kN	8 992 lbf
Tractive pull, max	50 kN	11 240 lbf
Feed extension	1 150 mm	45"
Travel length	7 865 mm	26"
Total length	12 400 mm	488"

### Electrical system

Voltage	24 V
Batteries	2 x 12 V, 235 Ah
Alternator	28 V, 95 Ah
Work lights LED type, front	4 x 3000 Lumen
Work lights LED type, rear	2 x 3000 Lumen
Work lights LED type, feed	2 x 3000 Lumen
Warning lamp and reverse buzzer	

### Dust collector DCT 200

	Metric	US
Filter area	21 m <sup>2</sup>	226 sq.ft
Number of filter elements	20 pcs	20 pcs
Suction capacity at 500 mm	950 L/s	2 013 cfm
Suction hose diam	152 mm	6"
Cleaning air pressure, max	8 bar	109 psi
Cleaning air consumption	2-4 L/pulse	0.06 - 0.12 cu.ft/pulse

### Hydraulic system

Hydraulic oil cooler	Metric	US
Max ambient temperature	55°C	131°F
Pumps at 2000 rpm		
Axial piston pump (1)	250 L/min	66 gal./min
Axial pump (2)	180 L/min	47.5 gal./min
Axial pump (3)	70 L/min	18.5 gal./min
Gear pump (4)	46 L/min	12.1 gal./min
Gear pump (5)	46 L/min	12.1 gal./min
Return and drainage filters		
Filtration rate	10 µm absolute	

### Volumes

	Metric	US
Hydraulic oil tank	100 l	36.4 gal
Hydraulic system, total	500 l	132 gal
Compressor oil	50 l	13.2 gal
Diesel engine oil	44 l	11.6 gal
Diesel engine, cooling water	65 l (Tier 3), 110 l (Tier 4)	17.7 gal, 29 gal
Diesel engine, fuel tank	975 l	257.6 gal
Traction gear	3 l	0.8 gal
Lubrication tank (ECL)	20 l	5.3 gal
DEF tank (Tier 4 final engine only)	34 l	8.9 gal

## Technical specifications



### Safety cabin

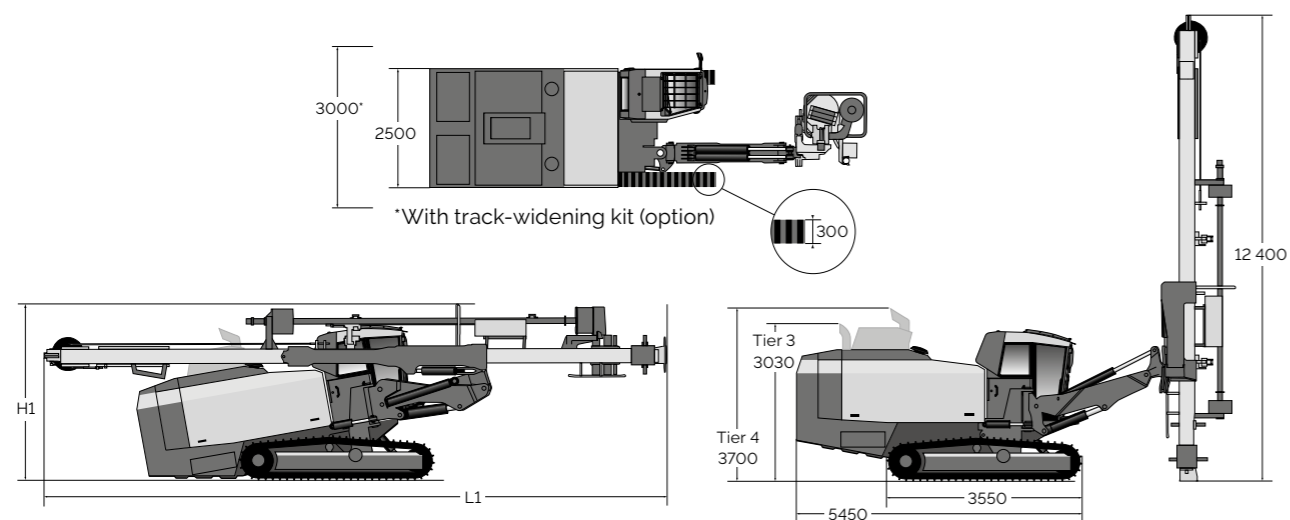
- ROPS and FOPS-approved with rubber vibration dampers
- Rig inclination indicator
- 2 x wipers with washer
- Rear view mirror
- Clear laminated glass (front and roof windows)
- Clear toughened glass (side and rear windows)
- Outlet socket, 24 V
- Fully adjustable operator's seat
- Prepared with speakers for CD-radio or DVD radio
- Adjustable foot rest
- Combined front mounted platform/ tool box
- Cabin light
- Electric combined engine/inclination/ hole depth instrument in main computer display

### Height and length

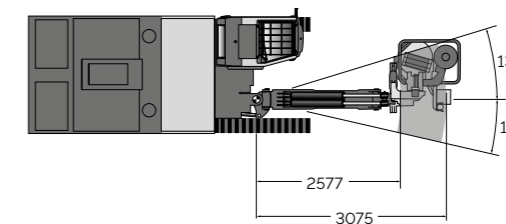
	Metric	US
Height (H1)	3 500 mm	138'
Length (L1)	12 400 mm	488'

### Weight

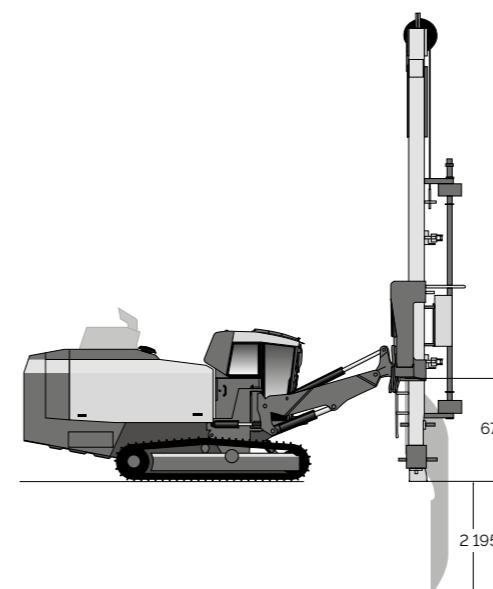
Standard unit excluding all options and drill steel	Metric	US
SmartROC CL (T3)	24 000 kg	52 910 lb
SmartROC CL (T4)	24 400 kg	53 792 lb



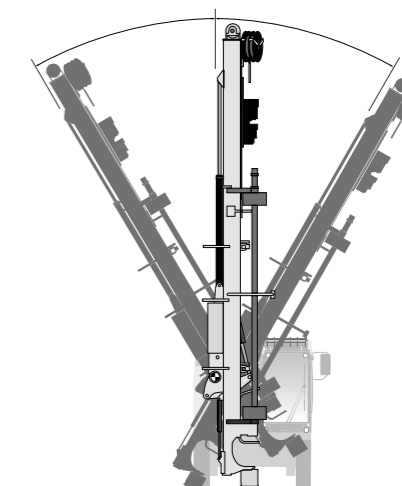
## Technical specifications



Horizontal reach (mm)



Vertical reach (mm)



Feed swing angles  
35°/25°\*

### A selection of options

#### Carrier

- Hydraulic support leg
- Protection hand rail on top of canopy.
- Wide body kit - 3m (9ft 10in) with FL6HD
- Manually or automatic ansul fire extinguisher system
- Heavy duty air intake filters for engine and compressor
- Battery sliding tray
- Fast fuel filling kit
- Electric fuel filling system
- Diesel-driven engine heater
- Insulated and heated compressor regulation system
- Extra side led work lights, two (one on each side)
- Central lubrication system
- AUX power unit
- Fire extinguisher, 6 kg (13 lbs) dry chemical type ABC class III type

#### Safety cabin

- Sun shade kit for rear side window, roof window and rear window
- Boarding light
- Warning light - BEACON type
- Reverse camera with cab mounted display

#### Radio/CD Player

- DVD Player
- Clear laminated glass (front and roof windows)
- Tinted toughened glass (side and rear windows)

#### Feed

- 35° pre-splitting boom system\*
- Pre-splitting suction hood
- Hydraulic adjustable pre-separator
- Wide feed foot
- Screw sampler device
- Service winch with jib boom mounted on the feed
- Thread lubrication, spray system

#### Water mist system

- Water mist system, pump, one or two 400 l water tanks
- Artic-ready water mist system, pump, one or two 400 l water tanks
- Pressure washer

#### Lubrication

- Central lubrication system, type Lincoln
- Arctic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46

#### Hole and inclination systems

- GPS compass aiming unit
- Laser plane receiver for hole depth
- Hole Navigation System

#### Automation & software

- Rig Remote Access (RRA)
- Surface Manager Reporting
- Configurable Safety Software
- Measure While Drilling
- Rig Access Control

#### Parts and Services products

- Certiq with GSM modem (for certified countries only)
- ROC Care
- COP Care

#### Optional accessories

- Gas charging equipment (for rock drill)
- First 50 hours service kit for compressor
- Lubrication kit
- RCS service tool box
- Electrical tool kit



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