

Explorac 235

Reverse circulation drill rig for exploration drilling

Hole range: 150-200 mm (5.9-7.9')



Fast and accurate

Reverse Circulation (RC) drilling represents a fast and economical way to retrieve the high-quality mineral grade samples needed to efficiently plan your mining and quarrying operations.

The RC drilling method prevents cross-contamination and allows for the collection of duplicate sample bags. Analysis of samples yields fast, reliable information about mineral deposits that allows selective pinpointing of drilling and blast zones.

This maximizes ore recovery and leads to greater profit per tonne. Reverse Circulation is quick and efficient. When carried out correctly, Reverse Circulation will reduce dramatically both overall drilling costs and environmental impact.



⊕ Main benefits

Fully radio remote-controlled providing safe and easy operation

35 bar on-board compressor for high productivity

Flexible pipe handling system for safety and efficiency

The tough Explorac 235 drills deeper

The Explorac 235 is designed specifically for reverse circulation drilling. Accurate mineral samples can be taken at depths down to 450 meters. It is available mounted on a crawler or truck chassis to take you easily where you want to sample. Other features include a pipe handling system and a positionable drill pipe rack providing continuous drilling and sampling.



+ Remote-controlled for safety

A user-friendly operator control panel enables precise control of the pipe handler and hydraulic breakout spanners from a safe distance. This keeps the operator safe from dust, debris and other hazards. The radio remote works up to 40 meters from the rig.



+ Remote-controlled pipe handling

For non-stop, hassle free drilling, the remote-controlled pipe handler makes loading, unloading and stacking of drill pipes easy. Drill pipes can even be handled from a truck or trailer parked beside the rig. The magazine that stores drill pipes can be moved in and out from the side of the machine providing easy access.



+ Ready to sample

Explorac 235 is equipped with its own on-board 35-bar air compressor ideally suited to RC drilling. The powerful on-board compressor means you can drill deeper before an extra booster compressor is required. The rig is designed for mobility and can be fitted with a crawler or truck chassis. The Explorac 235 can also be adapted easily for down-the-hole (DTH) drilling.



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



Discover more about the Explorac 235.

Rotation unit

	Metric	US
Spindel thread	114 mm	4.5 in - IF
(Rig is delivered with adapter for the specified drill-string)		
Main spindle speed in serial mode	0-101 r/min, 7 000 Nm at 240 bar, 240l/min	0-101 r/min, 5 163 ft lbf at 3 481 psi, 63.4 gals/min
Main spindle speed in parallel mode	0-50 r/min, 14 000 Nm at 240 bar, 240l/min	0-50 r/min, 10 326 ft lbf at 3 481 psi, 63.4 gals/min

Mast

	Metric	US
Mast dump	1 950 mm	77"
Drilling angle range	45° to 90°	
Total length, including jib boom	11 050 mm	435"
Feed beam with hydraulic rams		
Guide chain for hydraulic hoses		

Feed system

	Metric	US
Pullback	220 kN	49 458 lbf
Feed force (restricted)	75 kN	16 860 lbf
Travel length	7 680 mm	302.4"
Maximum fast down travel	36 m/min	118 ft/min
Maximum fast lift travel	48 m/min	157 ft/min

Slips and breakout

	Metric	US
Slipstable max. opening	296 mm	11.6"
Hydraulically operated upper and lower key spanners	114.3 mm	4.5"
Hydraulically activated slips with integrated holding clamp		

Cooler system

Atlas Copco two-stage compressor	Metric	US
V-cooler with twin 1000 mm fans, computer controlled speed Y 12		
Ambient operational temperature	-15 to +50°C	5 to 122°F

Pipe rack

Rack capacity	Metric	US
Truck mounted rig, holds 15 pipes OD 4½", length	6 m	20 ft
Crawler mounted rig, holds 50 pipes OD 4½", length	6 m	20 ft

Power unit

CAT C-18 Tier III ACERT ATAAC	Metric	US
Torque at 1 800 rpm	2 769 Nm	2 042 lbs
Maximum Torque at 1 400 rpm	3 199 Nm	2 359.5 lbs
Fuel consumption at 1 800 rpm	217.6 g /kWh	5.7 oz/hp
Displacement	18.1 l	4.8 gal
Weight	1 673 kg	2 936.5 lbs
Fuel tank capacity	900 liter	237.7 gal
Power rating at 1 800 - 2 100 rpm	522 kW	700 bhp
Cylinders	6 in-line	

Compressor

Atlas Copco two-stage compressor	Metric	US
Model XRY 12		
Max Pressure	35 bar	510 psi
Max Capacity	555 l/s at 35 bar	1 250 cfm at 510 psi

Hydraulic system

At 1 800 rpm, 240 bar (3 481 psi)	Metric	US
Pump 1	307 l/min	81 gal/min
Pump 2	136 l/min	36 gal/min
Aux pump	78 l/min	20.6 gal/min

Tool-handling hoist-winch

	Metric	US
Cable rope	10 mm x 30 m	0.4" x 98 ft
Pull on 1st layer (inner)	20 kN	4 496 lbf
Pull on 3rd layer (outer)	17 kN	3 821 lbf
Speed on 1st layer (inner)	32 m/min	105 ft/min
Features automatic brake and shut-off when minimum rope on drum level reached		

Technical specifications

Line oiler

HECL	Metric	US
Capacity adjustable	0.72 to 2.8 l/h	0.2 – 0.74 gal

Hydraulic jacks

	Metric	US
Max. extension x2 front hydraulic jacks	1 200 mm	47.2'
Max. extension x2 rear hydraulic jacks	1 200 mm	47.2'

Cyclone

	Metric	US
Capacity	850 l/s	30 cfm

Safety alert system

Three emergency stops fitted on machine plus one on control panel
RH-radio and tramming-radio fitting with machine stops
Horn

Electrical system

Starter motor	24 V
Alternator	24 V, 95 A
Main batteries x2	12 V, 235 Ah, 1 300 CCA each

Rig control system

RCS 4 CANBUS system

Water pump

Hydraulically direct driven 2 cylinder reciprocating foam/water pump with control valves, suction and delivery hose.		
	Metric	US
Rated capacity, 3 m suction lift	75 l/min at 90 bar	19.8 gal/min at 1 305 psi

Weights

	Metric	US
Crawler weight	GMM (Gross Machine Mass) - 46 500 kg OM (Operating Mass) - 36 200 kg Min weight - 35 100 kg Ground pressure @ gmm - 107kPa Ground pressure @ min weight - 83 kPa	GMM (Gross Machine Mass) - 102 515 lbs OM (Operating Mass) - 79 807 lbs Min weight - 77 382 lbs Ground pressure @ gmm - 15.5 psi Ground pressure @ min weight - 12 psi
E235 truck weight (minus truck)	GMM (Gross Machine Mass) - 26 000 kg OM (Operating Mass -) - 23 000 kg	GMM (Gross Machine Mass) - 57 321 lbs OM (Operating Mass) - 50 706 lbs
E235 truck weight (plus truck)	34 500 kg	76 060 lbs

Optional equipment and accessories

Survey winch	Metric	US
Cable rope	5 mm x 500 m	0.2" x 1640 ft
Pull on 1st layer (inner)	8.8 kN	1978 lbf
Pull on outer layer	3.0 kN	674 lbf
Speed on 1st layer (inner)	86 m/min	282 ft/min
Speed on outer layer	250 m/min	820 ft/min

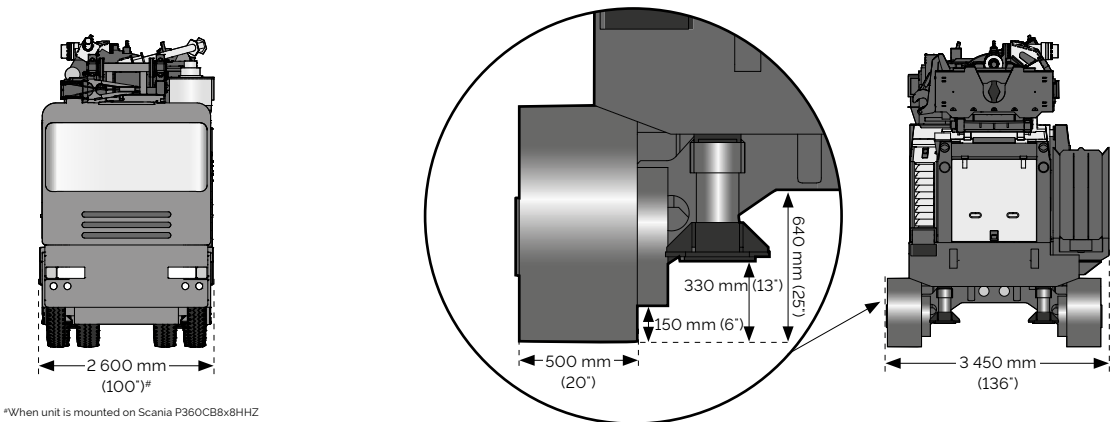
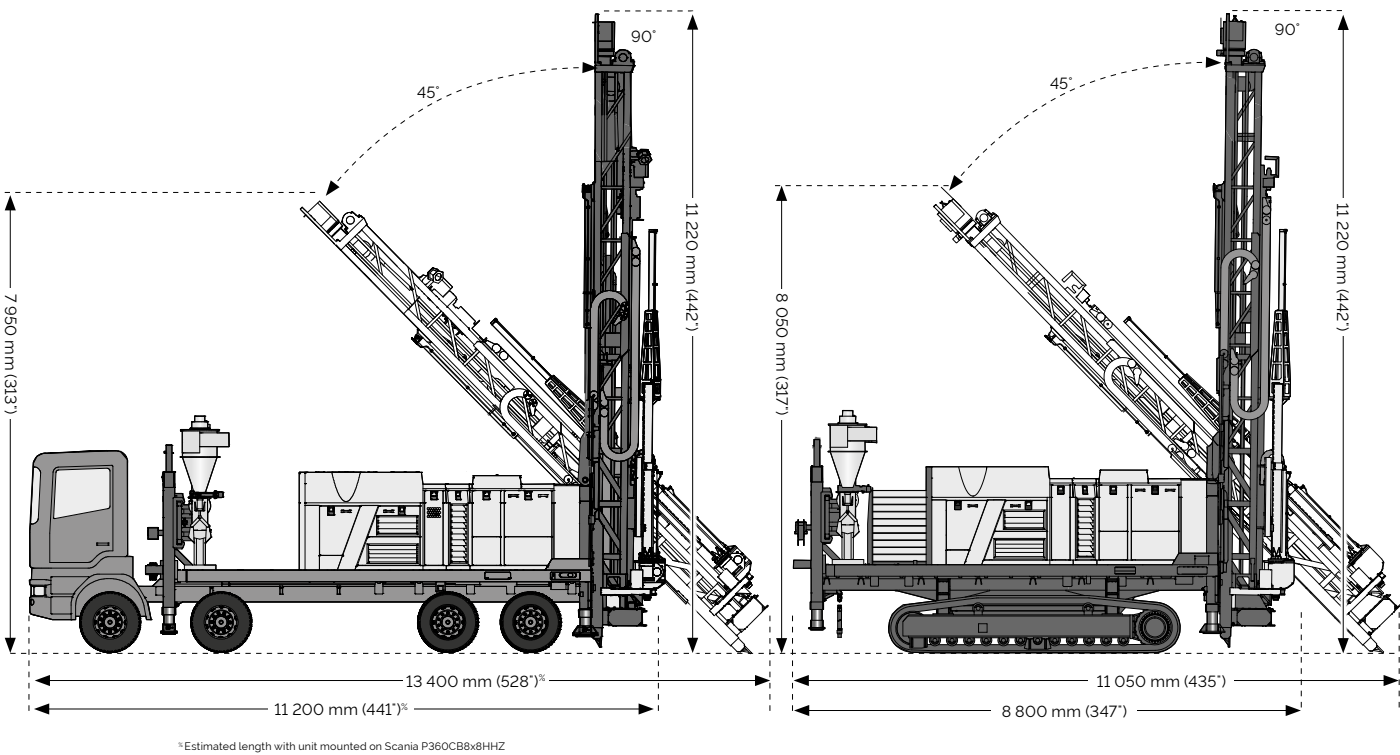
Fire suppression
Thermostatically controlled fire extinguish system puts out fire inside engine and hydraulic system canopy

Splitter
Three tiers splitter fitted as standard
Fixed cone splitter is available as option

Crawler mounted rig tramming speed

	Metric	US
Low gear	1.3 km/h	0.8 mph
High gear	2.1 km/h	1.3 mph

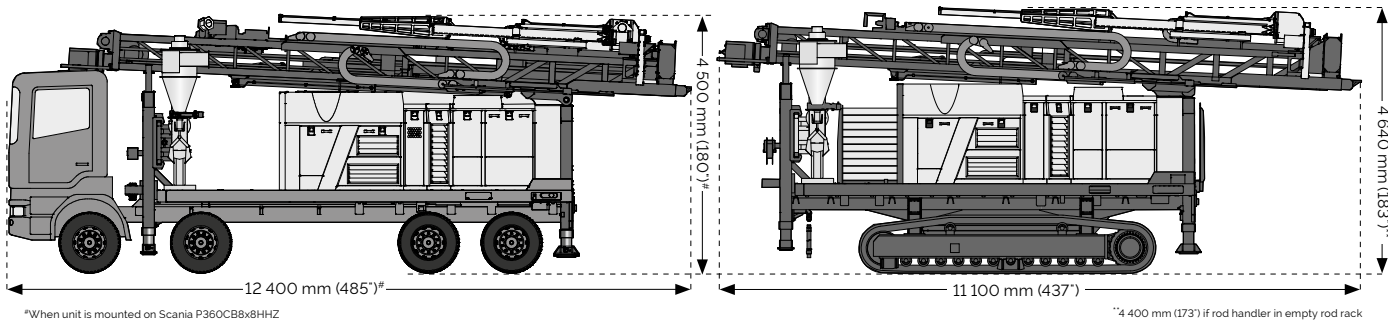
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Sound*

A-weighted Sound Power Level, LwA	125 dB
A-weighted sound pressure level, LpA, calculated	
Distance from rig	Level
4 m	105 dB
10 m	97 dB
20 m	91 dB
40 m	85 dB
80 m	79 dB
160 m	73 dB
320 m	67 dB
640 m	61 dB
1280 m	55 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) and ISO 11203:1995 (for sound pressure calculation at different distances from the rig).



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