

Explorac RC30 Smart

Reverse circulation drill rig for exploration drilling

Hole diameter: 114 mm (4.5")



Built to take on tough challenges

The Explorac RC30 Smart has been designed from the ground up to be a robust and dependable part of an exploration operation. This rig uses the Reverse Circulation (RC) method. RC provides a very rapid, cost-effective way to get high quality, mineral grade samples. These samples form a key part of the planning process in any mining or quarrying operation.

+ Main benefits

Safe thanks to multiple interlocks, guards and systems which protect operators

High availability due to utilizing well-proven technology developed by experts in RC drilling

Scalable as the rig can be easily expanded or upgraded to meet future challenges

Advance rod handling allows drill rods to be added and removed with the push of a single button. The ability to autonomously pick rods from an external magazine further enhances the flexibility of the Explorac RC30 Smart.



The best way to reduce danger is to get completely out of harm's way. Radio remote control coupled with automation means drill crews can conduct normal drilling operations from a safe distance.



Sometimes it's necessary approach the machine. LED safety lights indicate rig-status and whether it's safe to be near the machine or not.



Safety is further enhanced with various interlocks and features all designed to make sure your people and capital investment are protected.

Our most powerful machine to date, with a 30 ton pull-back. The Explorac RC30 Smart has the capacity needed to take on deep work while still maintaining a compact footprint.

The Explorac RC30 Smart has a unique angle package with internal locking cylinder. This means setup can be performed quickly and safely from a distance.

The Explorac RC30 Smart is highly mobile and ready to sample. It can be fitted to different truck models and comes as standard with an on-board 35 bar compressor and cone splitter.

With our most sophisticated control system to date, the Explorac RC30 Smart delivers high capacity with reduced environmental impact.



6th Sense
Smart. Safe. Seamless.

Explorac RC30 Smart is a 6th Sense product.



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6th Sense is the Epiroc way of optimizing your value chain through automation, system integration and information management.

Reveal what's possible.

Every aspect of the Explorac RC30 Smart has been designed by experts in Reverse Circulation drilling. The rig makes it possible to quickly and safely obtain mineral samples down to a depth of 600 meters. The Explorac RC30 Smart is available on robust truck carrier which offers great terrainability and gets you right where you need to be with the minimum of fuss.



+ Safety first — inside and out

Radio Remote Controls allow operators to keep well away from potential danger areas. The rig features a high level of automation in order to minimize the need to go near the drill during normal operation. The machine is equipped with a Rig Control System which includes multiple interlocks, a software-based safety system, and high-visibility rig-mounted status indicator LEDs. These features all combine to boost the advanced safety credentials of this machine.



+ Rock-solid reliability built-in as standard

The Explorac RC30 Smart is the product of close collaboration between experts in the RC drilling method and customers invested in this unique area. This relationship has resulted in a rig which is solid, dependable and keeps workers safe. The Explorac RC30 Smart has the potential to significantly improve operating efficiency.



+ Class-leading automation on a scalable platform

Drill rod handling used to be a two person process. The Explorac RC30 Smart features an advance rod handler which takes care of this. It allows drill crews to perform other tasks during rod running. This boosts productivity and increases safety. It also reduces operator fatigue. Additionally, this rig is designed to be scalable which means it can be expanded or upgraded to meet future challenges — this serves to protect your investment.



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

Rotation unit

	Metric	US
Spindle 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	2 550 mm	100°
Drilling angle range		45° to 90°
Total length, including jib boom	11 550 mm	454'
Feed beam with hydraulic rams		
Guide chain for hydraulic hoses		

Feed system

	Metric	US
Pullback	300 kN	67 442 lbf
Feed force (restricted)	75 kN	16 860 lbf
Travel length	7 670 mm	302"
Maximum fast down travel	36 m/min	118 ft/min
Maximum fast lift travel	48 m/min	157 ft/min

Breakout and centralizer

	Metric	US
Maximum clearance	304.8 mm	12"
Hydraulically operated lower key spanner	Lower - 114.3 mm	Lower - 4.5"

Cooler system

V-cooler with twin 1000 mm fans, computer controlled speed Y 12		
Ambient operational temperature	0 to +50°C	32 to 122°F

Electrical system

Starter motor	24 V, 9 kW
Alternator	24 V, 95 A
Main batteries x2	12 V, 235 Ah, 1 300 CCA each

Pipe rack

Rack capacity	Metric	US
Truck mounted rig, holds 15 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	156 L/min	41.2 gal/min
Pump 3	78 L/min	20.6 gal/min

Winch capacity

	Metric	US
Lifting capacity, outer layer	0.83 kN*	0.186 lbf*
Lifting capacity, inner layer	2.26 kN*	0.508 lbf*
Line speed, outer layer	204.89 m/min	672.21 ft/min
Line speed, inner layer	74.93 m/min	245.83 ft/min

*When pressure is set to 75 bar (1 087.78 psi)

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 (option)
Fixed cone splitter (standard)

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

Six emergency stop release buttons plus rope emergency stop. In addition, one emergency stop button is fitted to each of the two remote control units.

Horn

Rig control system

RCS 4 CANBUS system

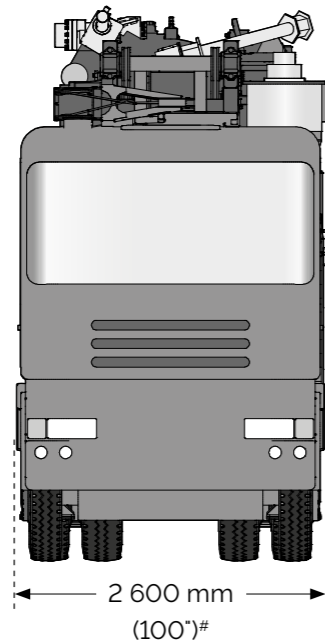
Water pump

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 (provisional)

	Metric	US
Explorac RC30 Smart	GMM (Gross Machine Mass) - 30 000 kg (including full rod rack) OM (Operating Mass -) - 26 000 kg	GMM (Gross Machine Mass) - 66 139 lbs (including full rod rack) OM (Operating Mass) - 57 320 lbs

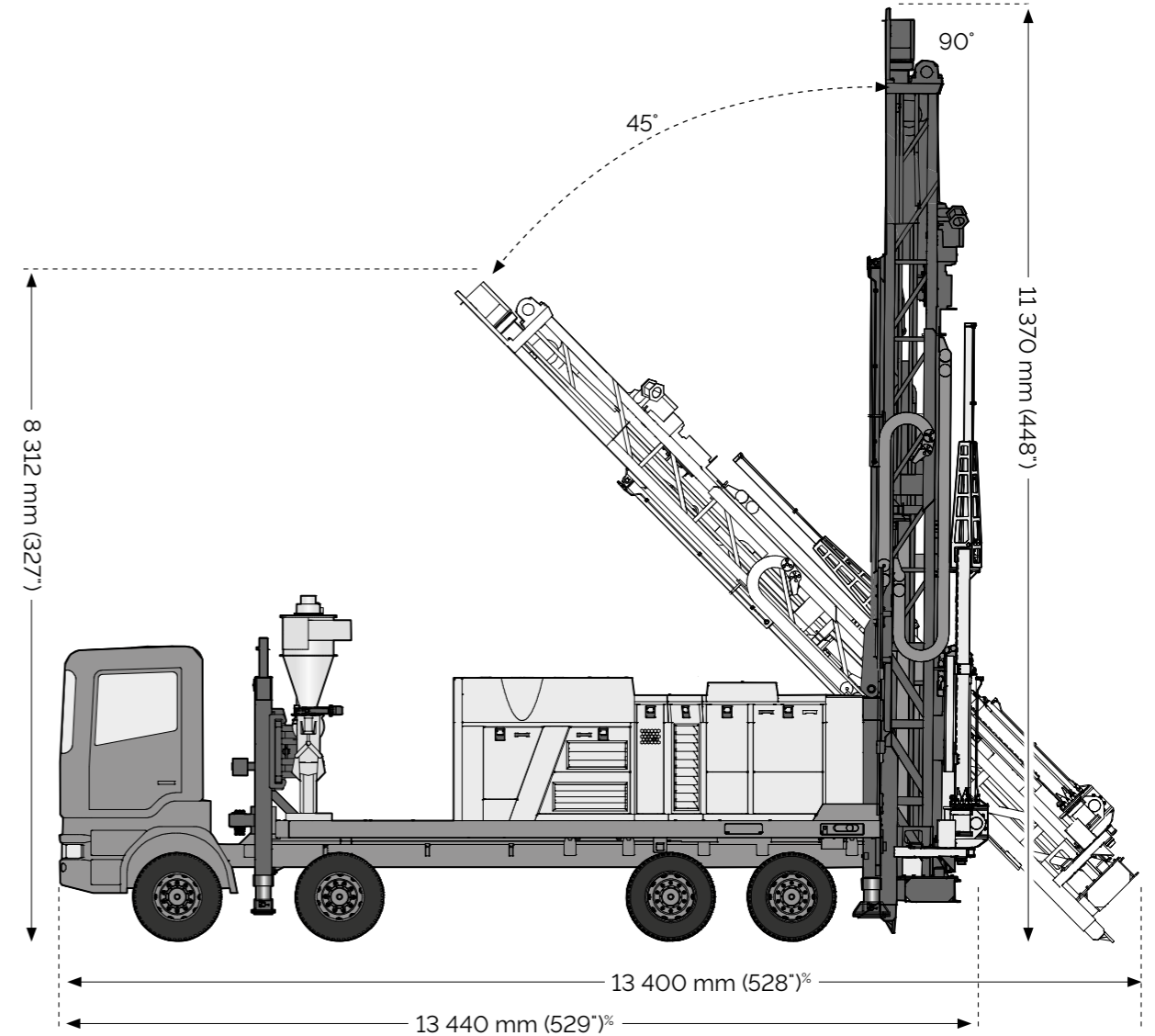


Estimated width when unit is mounted on MAN TGS41.480 8x8

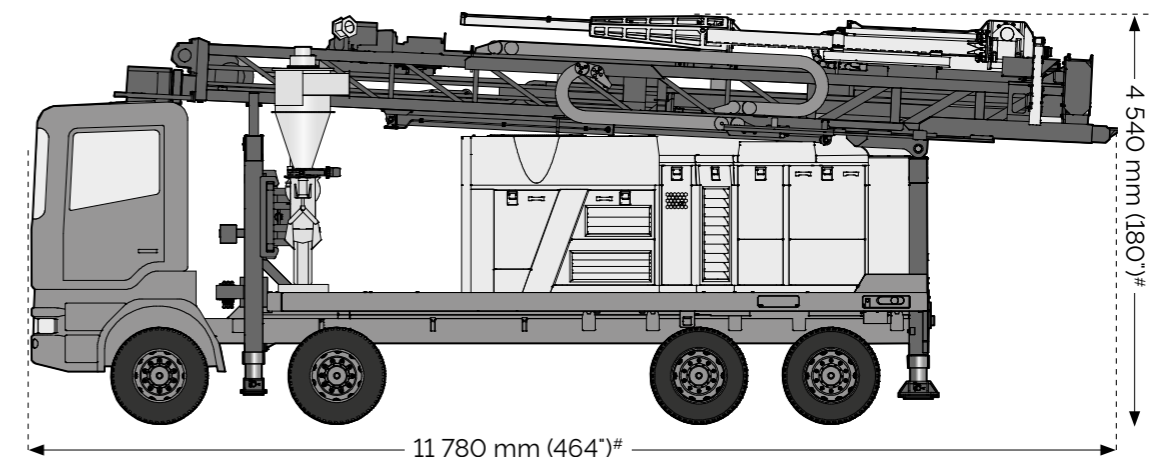


Discover more about the Explorac RC30 Smart

Technical specifications



Estimated length with unit mounted on MAN TGS41.480 8x8



Estimated length with unit mounted on MAN TGS41.480 8x8

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