

# Easer E10 S

Mobile raiseboring machine for  
medium to large size drifts





# Versatile raiseboring rig

Designed to drill opening holes as a part of production drilling operations in block cave, sublevel caving and sublevel stoping mines, this versatile raiseboring rig can also be used for precondition holes, pastefill tube holes and media holes. The rig works in drifts from 5x5 to 6x6 m. When drilling with a 750 mm diameter reamer, the Easer E10 S can drill conventional holes up to 200 m and boxholes and downreaming holes up to 60 m. The Easer E10 S has the capability to drill angled holes in any direction with a minimum range of 90°–60° from horizontal.

## + Main benefits

**High versatility** with both upwards and downwards drilling, without the need of a concrete platform

**High productivity** with significantly less risk of "freezing" the ground thanks to the large diameter of the drill hole

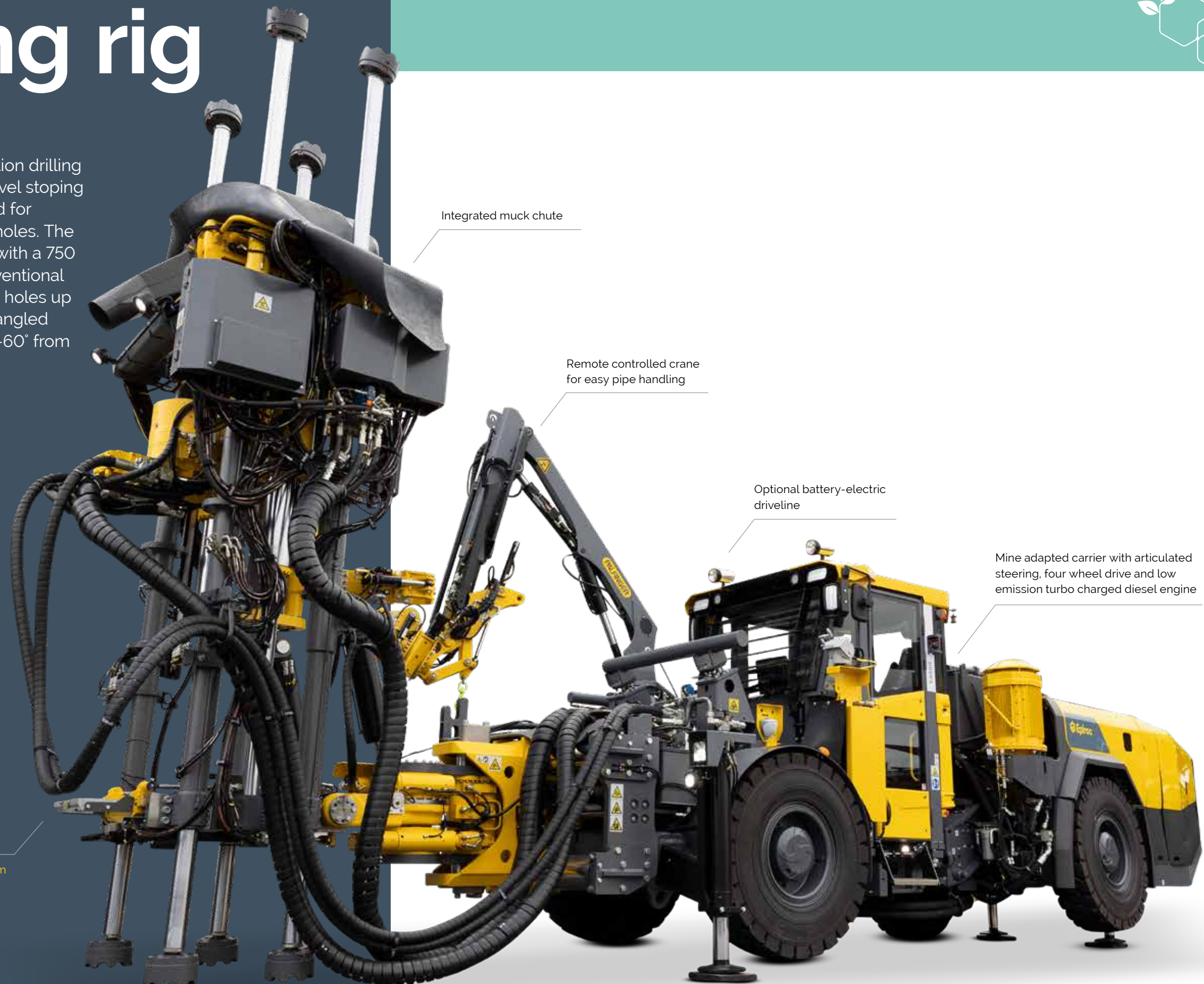
**High accuracy** with less than 1% hole deviation thanks to the mechanical rock excavation method

### S – Smart

Machines within the Smart series are equipped with Epiroc's Rig Control System, RCS, which makes them ready for automation and remote control.

### SG – Smart and Green

Smart and Green means that machines feature both Epiroc's Rig Control System and exhaust-free technologies.



Integrated muck chute

Remote controlled crane for easy pipe handling

Optional battery-electric driveline

Mine adapted carrier with articulated steering, four wheel drive and low emission turbo charged diesel engine

Hydraulic wrenching system



# As easy as that

The name Easer is derived from the expression “ease off”, meaning to take off or release pressure, which is used in reference to the blast hole into which rock expands during blasting.



### + Safety

The Easer E10 S is designed to keep a high level of safety. One example is the radio remote crane installed to handle drill pipes. No manual labor is required with the drill pipes, stabilizers or the reamer. All moving and lifting is done with the crane within an area of 4 meters radius.



### + Epiroc RCS

As early as 1998, Epiroc introduced its Rig Control System (RCS) – a computerized control system for drilling rigs that stunned the market. Several thousands of RCS rigs are currently in operation worldwide. Long experience and an ongoing dialogue with customers have resulted in increasingly sophisticated functions – with expertise that makes Epiroc uniquely qualified to drive development in the industry.



### + Versatility

No site preparation is necessary, and all equipment except the drill rods, are part of the carrier. In addition, and most importantly, Easer E10 S is wheel-bound, making it exceptionally easy to move to wherever it is needed in the mine.



## 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

● - Standard ○ - Option  
A - Easer E10 S B - Easer E10 SG

Features		
Rotation system		
• Radial piston motor		
• Hydrostatic drive system		
• Gear box ratio 3.75:1		
Drive head		
• Floating drive box with DI22 thread		
• Position sensor and gauge		
Gearbox lubrication		
• Standalone lubrication system 55 l		
• Filtration 16 microns		
• Oil cooled via hydraulic system		
Pipeloader		
• Swing in/out		
Crane		
• Lifting capacity 1 300 kg		
• Gripper arm		
• Radio remote control		
• Built in overload protection		
Wrench system		
• Drive head		
- Semi automatic		
• Work table		
- Sliding work table doors		
Stingers		
• Roof stingers Standard/low derrick (1400/1400)		
• Floor stingers Standard/low derrick (1300/1050)		
Muck chute		
• Extension 800 mm		
• Water nozzles		
Control system	A	B
Epiroc Rig Control System (RCS 5)	●	●
Angle reading	●	●
Auto make up log	●	●
Net force control	●	●
Bailing pressure supervision	●	●
Rig Remote Access (RRA)	○	○
Remote controlled camera on tripod with monitor in cabin	○	○
Certiq professional	●	●
Total station navigation	○	○
Area guard	○	○
Additional control panel	○	○
Water system	A	B
Water booster pump on board	●	●
Water pressure gauge	●	●
Water hose reel, including water hose	○	○
High pressure washer	○	○
Low pressure washer	○	○
Water cannon	○	○
Boot washing kit	○	○

Electrical system	A	B
Total installed power 173 kW	●	●
Main motors		
- Rotation 110 kW	●	●
- Aux circuit 55 kW		
Voltage 400-1 000 V	●	●
Frequency 50 or 60 Hz	●	●
Power requirement 227 kVA	●	●
Starting method		
- Rotation motor Star Delta (Y/D) start	●	●
- Aux motor Direct Online (DOL) start		
Transformer 8 kVA	●	●
Extra transformer 3-phase -15kVA (230/400V outlet)	○	○
Electronic overload protection for electric motors	●	●
Digital volt/ampere meter in electrical cabinet	●	●
Stainless steel electrical enclosure (A-cabinet)	○	○
Phase fault indicator	●	●
Earth fault relay	●	●
Battery charger	●	●
Cable reel with limiting switch	●	●
Electrical cable	○	○
Plug	○	○
Connector	○	○
Socket	○	○
Switch gear	○	○
Transformer for charging		●
700V battery		●
Lube tank heater	○	○
Offline hydraulic oil filter	○	○
Carrier	A	B
Deutz TCD 2012 LO6, Stage IIIA/ Tier 3, 155 kW	○	
Deutz TCD 6.1 LO6, Stage V/ Tier 4F, 180 kW	○	
Deutz TCD6.1 LO6, CNIV, 180 kW	○	
Electric traction motor (150 kW)		●
Engine heater	○	
Articulated ±38° steering angle	●	●
Heater for hydraulic oil tank, electrical motors and diesel engine	○	○
Four wheel drive	●	●
Electrical system 24 V	●	●
Batteries 2x125 Ah	●	●
Automatic differential lock on front axle, limited slip	●	●
Tyres, 14.00 R24 (filled with liquid)	●	●
Tramming light	●	●
Working lights + spotlights on crane	●	●
Fuel tank volume 165 l	●	
Central lubrication system	●	●
Fire extinguisher	○	○
Fire suppression system	○	○
Rig alignment laser	●	●

Technical specifications

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Performance

Raise diameter	Boxhole	ø 750 mm
	Down reaming	ø 750 mm
	Conventional drilling	ø 750-1 500 mm
Raise length	Boxhole	60 m
	Down reaming	60 m
	Conventional drilling	250 m (750 mm raise diameter) to 30 m (1 500 mm raise diameter)
Maximum torque	Reaming	40 kNm
	Break out	50 kNm
	Pilot	20 kNm
Traverse rate	2 m/min	
Stroke (Standard/low derrick)	1 724 mm/1 432 mm	
Reaming thrust at 330 bar	750 kN	
Bailing water	400 l/min at 25 bar	
Cooling water	60 l/min at 25° C	
Minimum water inlet pressure	2 bar	

Weight	A	B
Gross weight	37 500 kg	39 200 kg
Operating weight	37 400 kg	39 100 kg
Front shaft	27 200 kg	27 200 kg
Rear shaft	10 400 kg	12 100 kg

Recommended cable sizes and lengths

400 V	185 mm²	90 m
690 V	95 mm²	150 m
1 000 V	70 mm²	180 m

Recommendations are given for surrounding temperature of 40°C.

Cabin	A	B
Cabin body made of stainless steel	○	○
AC unit	●	●
Front window 22 mm	●	●
Heating function for air condition (water transferred)	○	○
Joystick controlled spotlights kit (left and right side)	○	○
Reversing camera with monitor	○	○
Protection bars, front window	○	○
Electrical heater (230 V)	○	○
Swingable seat	○	○
Fixed seat	●	●
Media player	○	○

Dimensions

Width		2 650 mm
Height tramming (Standard/low derrick)		3 630 mm/3 529 mm
Length tramming (Standard/low derrick)		11 701 mm/12 024 mm
Ground clearance		200 mm
Turning radius inner/outer		4 800/8 000 mm
Drill pipe	Diameter	203 mm (8")
	Length (Standard/low derrick)	1 219 mm/914 mm (48"/36")
	Thread	6-3/4" DI22
Pilot hole diameter		229 mm (9")

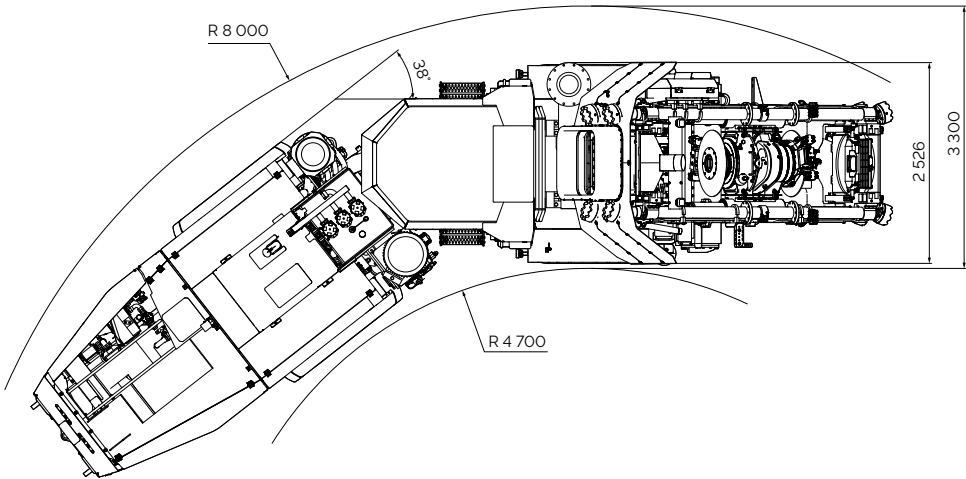
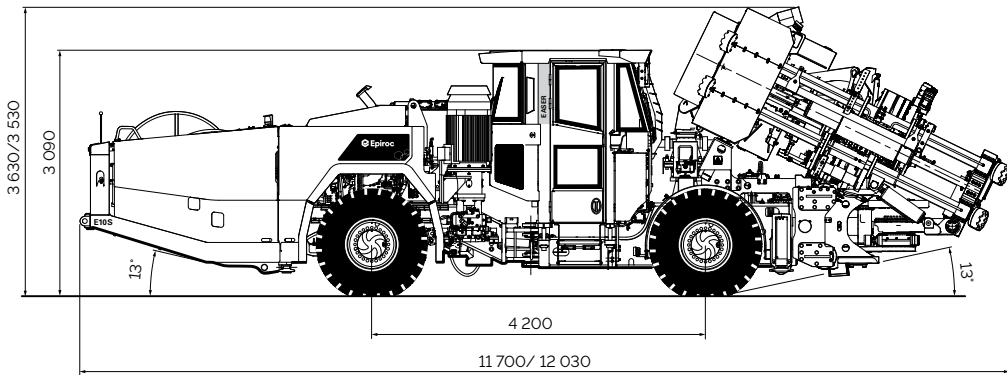
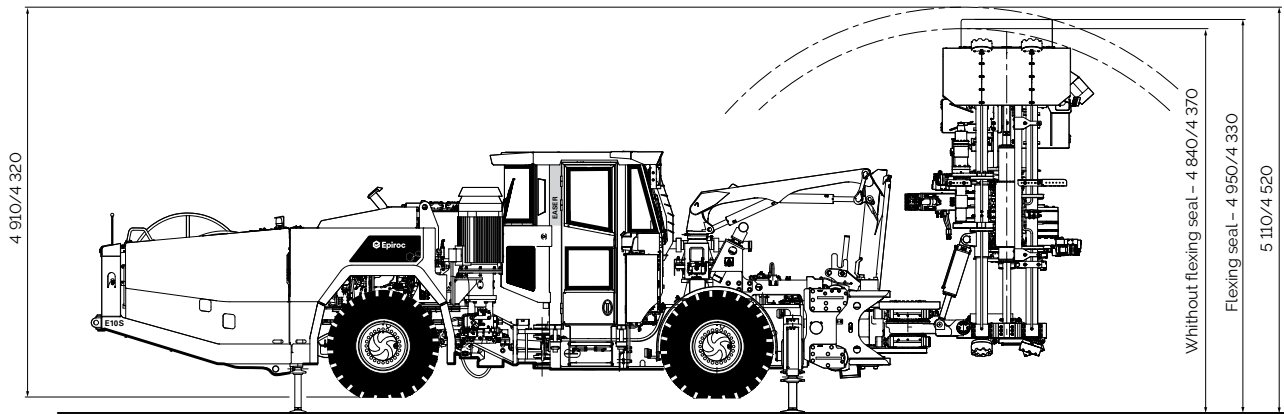
Miscellaneous options	A	B
Bit breaker box 9"	○	○
Starter bushing	○	○
Automatic lubrication for drilling and positioning unit	○	○
Stinger extensions	○	○
Bloolie seal	○	○
Makeup & Breakout Tool (MBT)	○	○

Drift size

Standard derrick	Width	5 m
	Height	5 m
Low derrick	Width	5 m
	Height	4,5 m

Technical specifications

Easer E10 S standard and low configuration



# 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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