

Boomer E10 and E20

Smart and Green series

Face drill rigs for medium to large drifts and tunnels with cross sections up to 112 m²



Face drilling with power and flexibility

Powerbit X PCD drill bits offers extremely long life span with less need for bit changes

The Boomer E10 and E20 drill rigs have extensive coverage areas of up to 112 m², making them ideal for large mining applications and construction projects. The heavy-duty BUT 45 boom in combination with a wide range of powerful rock drills helps you easily break ground and achieve desired advance rates in the toughest of rock conditions. Epiroc's Rig Control System enables several productivity increasing and operator assisting automation features.

+ Main benefits

Versatile, powerful and flexible as it fits into a wide range of applications, is compatible with both smaller and larger tunnels while having superior coverage area with a small footprint

Economically beneficial with a great variety of rock drills and robust BUT 45 booms that are able to handle demanding applications and accessories

Improved safety and operator working conditions with eyes on task at all times using multi-functional joysticks, excellent visibility and less cabin noise thanks to the new cabin design

Versatile service basket for added safety in construction applications

+ Battery driveline benefits



The 150 kW electric drive train of the Boomer E20 SG emits 80% less heat during tramming than its diesel-driven counterpart's 120 kW diesel engine.



The complete drive train and battery are based on commercial, well-tested components that enable high performance and efficiency.



Automatic battery management and the industry's safest battery solution make it ideal for optimal production in demanding underground work environments.



Compatible with a wide range of rock drills

Excellent visibility and operator safety with a ROPS and FOPS certified cabin

Robust and sturdy BUT 45 booms for demanding applications

Available with optional zero-emission battery-electric driveline

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. RCS also provides a foundation for additional functionality from our 6th Sense offering.

G – Green

The Green series includes machines that create more sustainable operations thanks to a battery-electric driveline.

SG – Smart and Green

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



Excellent durability and safety

The Boomer E10 and E20 ensure high drilling accuracy and reduced overbreak which makes it easy to calculate a good payback on the rig investment. The Powerbit X drill bits give substantially longer service life than those with standard buttons, which means fewer changes and less exposure to danger for operators.



+ BUT 45 for strength and accuracy

Rigs in the Boomer E10 and E20 series feature the class leading and robust BUT 45 boom system that is easily positioned and steadily stays in place during high-force drilling. It boosts your productivity and helps you to achieve the required advance rates in your local ground conditions. The strong and stiff design also allows carriage of additional options to further increase the flexibility of the machine.



+ Greater intelligence and efficiency

The Boomer E10 and E20 drill rigs can be equipped with a wide range of operator assistance functions to augment their intelligence and efficiency. Options include automatic boom positioning (ABC Total), Total Station Navigation and an automatic rod handling system (Auto RHS E).



+ Protected by diamonds - Powerbit X

Drill bits where the buttons are engineered with diamond protect your people, your productivity and the environment. The technology is called PCD (polycrystalline diamond) and is used in our Powerbit X range. When used in combination with the powerful and versatile range of rock drills compatible with Boomer E10 and E20, it will significantly boost your operation's productivity and safety.



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 - Boomer E10 S **B** - Boomer E10 SG **C** - Boomer E10 S DH¹ **D** - Boomer E20 S **E** - Boomer E20 SG

Drilling system	A	B	C	D	E
COP 1800-series	●	●	●	●	●
COP 2200-series	○	○	○	○	○
COP 3000-series	○	○	○	○	○
COP 4000-series*	○	○	○	○	○
COP MD20-series	○	○	○	○	○
Hole blowing kit	●	●	●	●	●
Water mist flushing, external water, external air supply**	○	○	○	○	○
Water mist flushing, external water, internal air supply**	○	○	○	○	○
Water mist flushing, internal water, internal air supply**			●		
Rock drill lubrication warning kit	●	●	●	●	●

* Only available on special order
 ** Not in combination with COP 3038/COP 4038

Boom	A	B	C	D	E
BUT 45 M	●	●	●	●	●
Service platform	○	○	○	○	○
Swingable basket for service platform	○	○	○	○	○
Automatic boom lubrication	○	○	○	○	○

Feed	A	B	C	D	E
BMH 6800-Series 14 ft, 16 ft, 18 ft, 20 ft, 21 ft ¹	●	●	●	●	●
Telescopic feed BMHT 6000-series (max 18 ft)	○	○	○	○	○
Extension drilling set BSH 110 (BMH feeds only)	○	○	○	○	○
Rod Handling System E, RHS E (BMH feeds only)	○	○	○	○	○

¹ 20 and 21 ft feed might have restrictions depending on application

Air/watersystem	A	B	C	D	E
Hydraulically driven screw compressor Atlas Copco GAR 5	●	●		●	●
Hydraulically driven screw compressor Atlas Copco GAR 30 ¹	○	○	●	○	○
Hydraulic water booster pump, max capacity at 15 bar boost 300 L/min. Minimum water inlet, 2 bar at 200 L/min**	●	○	●	●	○
Hydraulic water booster pump, max capacity at 30 bar boost 400 L/min. Minimum water inlet, 2 bar at 400 L/min**				○	○
Electric driven water booster pump, max capacity at 15 bar boost 300 L/min. Minimum water inlet, 2 bar at 200 L/min**		●			●
Water hose (Ø1.5 inch 70 m)	○	○		○	○
Water hose (Ø2.0 inch 70 m)	○	○		○	○
Water tank 2x450 liter			●		

¹ Might require a larger electrical motor
 ** Depending on selected rock drill

Hydraulic system	A	B	C	D	E
Oil level sensor	●	●	●	●	●
Oil temperature gauge on oil tank, electronically supervised	●	●	●	●	●
Filtration 10 µm	●	●	●	●	●
Oil filter indication	●	●	●	●	●
Extra filtration package for water- and fine particle removal	○	○		○	○
Mineral hydraulic oil	●	●	●	●	●
Biodegradable hydraulic oil	○	○	○	○	○
Electrical oil filling pump	●	●	●	●	●
Heater kit for hydraulic oil tank, diesel engine and electric motors	○	○	○	○	○
Ni-Cr plated piston rods (limitations exist)	○	○	○	○	○

Electrical system	A	B	C	D	E
Total installed drilling power 83 kW, Main motors, Sf 115 75 kW	●				
Total installed drilling power 68.5 kW, Main motors, Sf 115 55 kW		●			
Total installed drilling power 129 kW, Main motors, Sf 115 2x55 kW ¹					●
Total installed drilling power 158 kW, Main motors, Sf 115 2x75 kW				●	○
Total installed drilling power 198 kW, Main motors, Sf 1.3 2x95 kW**				○	○
Total installed drilling power 228 kW, Main motors, Sf 1.45 2x110 kW***				○	○
Voltage 400-1 000 V 50/60 Hz	●	●		●	●
Voltage 690-1 000 V 50/60 Hz**				○	○
Voltage 1 000 V 50 Hz***				○	○
Starting method, star/delta (400-690 V)	●	●		●	●
Starting method, direct start (1 000 V)	●	●		●	●
Starting method, Soft start (400-690 V)	○	○		○	○
Transformer 8 kVA	●	●		●	●
Transformer for charging 100 kVA		●			●
Electronic overload protection for electric motors	●	●		●	●
Digital voltmeter/ampere meter in electric cabinet	●	●		●	●
Percussion hour meter on operator display	●	●		●	●
Phase sequence and earth fault indicator	●	●		●	●
Cable reel, diameter 1 600 mm	●	●		●	●
Electric outlet for accessories, 16 A (CE)/32 A (CE) (400-690 V)	○	○		○	○
Extra transformer 3-phase, 15kVA (230/400 V outlet) (400-1 000 V)	○	○		○	○
PC4 or PC5 plug	○	○		○	○
Battery charger	●	●		●	●
Dual controls for cable reel	●	●		●	●
Stainless steel electrical enclosure	○	○		○	○
Electric system 24 V Carrier Control System (CCS)	●	●	●	●	●
24 V Batteries 2x125 Ah	●	●	●	●	●
700 V Battery 280 Ah		●			●
Tramming lights LED 24 V	●	●	●	●	●
Working lights LED 24 V	●	●	●	●	●
Illuminated stairs LED	●	●	●	●	●

¹ Depending on selected rock drill. Larger powerpacks might be required at high altitude or with certain options.
 ** When equipped with COP 3038
 *** When equipped with COP 4038

Control system	A	B	C	D	E
Epiroc Rig Control System (RCS 5)	●	●	●	●	●
Advanced Boom Control (ABC) Regular	●	●	●	●	●
Advanced Boom Control (ABC) Total	○	○	○	○	○
Automatic Rod Handling (RHS E)	○	○	○	○	○
Measure While Drilling (MWD)	○	○	○	○	○
Underground Manager PRO (PC software)	●	●	●	●	●
Underground Manager MWD (PC software) for analysis of drill data	○	○	○	○	○
Bolt view	●	●	●	●	●
Water loss measurement instruments installed in service platform	○	○	○	○	○
Rig Access Control	●	●	●	●	●
Rig Remote Access (RRA), LAN or WLAN connection	○	○	○	○	○
Tunnel Profiler	○	○	○	○	○
Total Station Navigation	○	○	○	○	○
CertiQ Professional	○	○	○	○	○
Dynamic Tunneling Package	○	○	○	○	○

¹ Diesel-hydraulic power source

Technical specifications

● - Standard ○ - Option
A - Boomer E10 S **B** - Boomer E10 SG **C** - Boomer E10 S DH **D** - Boomer E20 S **E** - Boomer E20 SG

Carrier	A	B	C	D	E
Deutz TCD 4.1 L04, Stage IV/Tier 4F, 120 kW	○			○	
Deutz TCD 6.1 L06, Stage IV/Tier 4F, 180 kW standard, 160 kW diesel hydraulic	○		○	○	
Deutz TCD 2013 L04 2V, Stage IIIA/Tier 3, 120 kW	●			●	
Deutz TCD 2013 L06 2V, Stage IIIA/Tier 3, 155 kW standard, 173 kW diesel hydraulic	○		○	○	
Traction motor, 150 kW		●			●
Articulated steering ±38° steering angle*	●	●	●	●	●
Four-wheel drive	●	●	●	●	●
Dana 114 axles	●	●	●	●	●
Clearance outside axles 16° rear, 23° front	●	●	●	●	●
Automatic differential lock on axles, limited slip	●	●	●	●	●
Tyres 14.00XR24	●	●	●	●	●
Tyres 16.00XR25	○	○	○	○	○
Hose/cable guiding at water/cable reel	○	○		○	○
Fuel tank, volume 110 l (4 cylinder engines)	●			●	
Fuel tank, volume 175 l (6 cylinder engines)	●			●	
Fuel tank, volume 400 l			●		
Central lubrication system	○	○	○	○	○
Fire suppression system ANSUL (manual or automatic)	○	○	○	○	○
Fire suppression system FORREX (automatic)	○	○	○	○	○
Rig washing kit	○	○	○	○	○
Manual lubrication kit	○	○	○	○	○
Boot washing kit	○	○	○	○	○
Hydraulic outlet for charging with Mini SSE	○	○	○	○	○

* If RHS E or SP2 service platform is equipped the steering angle will be reduced to 30°

Cabin	A	B	C	D	E
ROPS and FOPS certified cabin, noise level <65 dB(A)	●	●	●	●	●
Mounting height -140/+250 mm	○	○	○	○	○
Mediaplayer	○	○	○	○	○
USB outlet 5V	○	○	○	○	○
Electrical heater, 1.2 kW, 230 V AC (CE)	○	○	○	○	○
Electrical heater, 10 kW, 700 V DC (CE)		○			○
Reversing camera with monitor	●	●	●	●	●
Air conditioning unit	●	●	●	●	●
HEPA H13 filter	○	○	○	○	○
Heating function for air conditioning (water transferred)	○	○	○	○	○
Swingable seat for drilling and tramming	○	○	○	○	○
Cabin body made of stainless steel	○	○	○	○	○
Joystick-controlled LED spotlights left and/or right	○	○	○	○	○
Front window 22 mm (P8B safety classed)	●	●	●	●	●
Hydraulic cabin lift system, 0-600 mm	○	○	○	○	○
Two operator panels (for standing operation only)	○	○	○	○	○

Recommended cable size and length

Voltage	Type	Dimension (mm ²)	Diameter (mm)	Length (m)
400 V	Rockflex	3x185+3G35	55	90
440-500 V	Rockflex	3x150+3G25	51	100
550 V	Rockflex	3x120+3G25	45	120
690 V*	Rockflex	3x95+3G16	41	150
690 V*	Rockflex	3x150+3G25	51	100
1 000 V*	Rockflex	3x50+3G10	32	200
1 000 V*	Rockflex	3x95+3G16	41	150

Recommendations are given for surrounding temperature of 40°C and up to a height of 2 000 m. Cable dimension for battery version depends on charging cycle.
 * Depending on rock drill

Noise and vibration

Operator sound pressure level in cabin, drilling, free field (ISO 11201)	65±3 dB(A) re 20 uPa
Operator sound pressure level working close to machine, drilling, free field	104±6 dB(A) re 20 uPa
Sound power level (ISO 3744), drilling, free field	128 dB(A) re 1 pW
Vibration levels seated, drilling (ISO 2631-1) cabin	0.07±0.07 m/s ²
Vibration levels standing, drilling (ISO 2631-1) cabin	0.07±0.07 m/s ²

Drifter rods

Rock drill	Rod	Min. hole diameter (mm)
COP 1838 COP 2238 COP MD20	SR35-H35-T38 Speedrod	38
	SR35-R39-T38	38
COP 3038/COP 4038	SR35-R39-T38	38
	SR35-R39-T38	45

Extension rods for injection drilling/RAS

Rock drill	Rod	Min. hole diameter (mm)
COP 1838 COP 2238 COP MD20	Rnd 32 Speedrod	38
	Rnd 39 Speedrod	38
COP 3038/COP 4038	TC42-R39-TC42 Speedrod	64

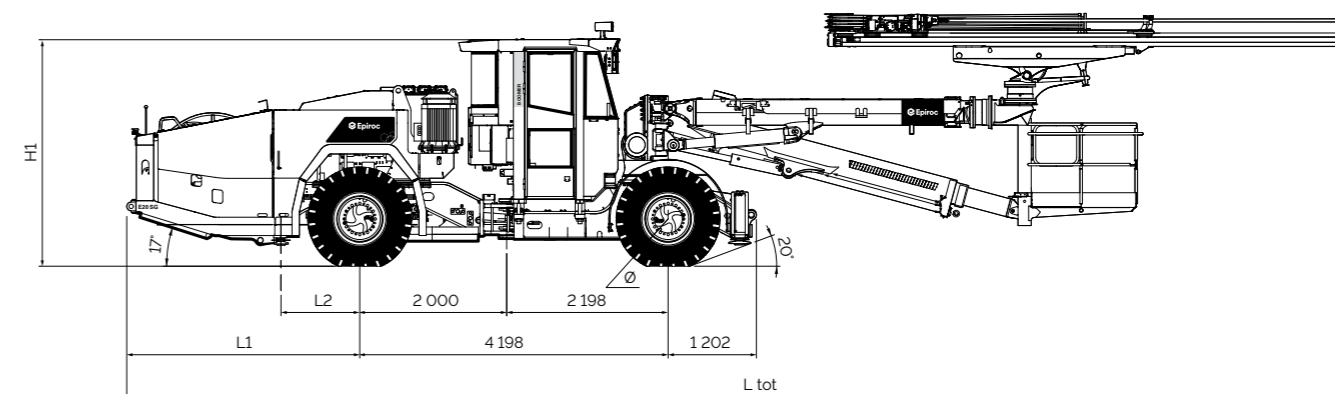
Shank adapters

Rock drill	Rod	Min. hole diameter (mm)
COP 1838 COP 2238 COP MD20	R38	38
	T38	38
	R32*	38
COP 3038/COP 4038	TC42 (Conical T-thread)	45

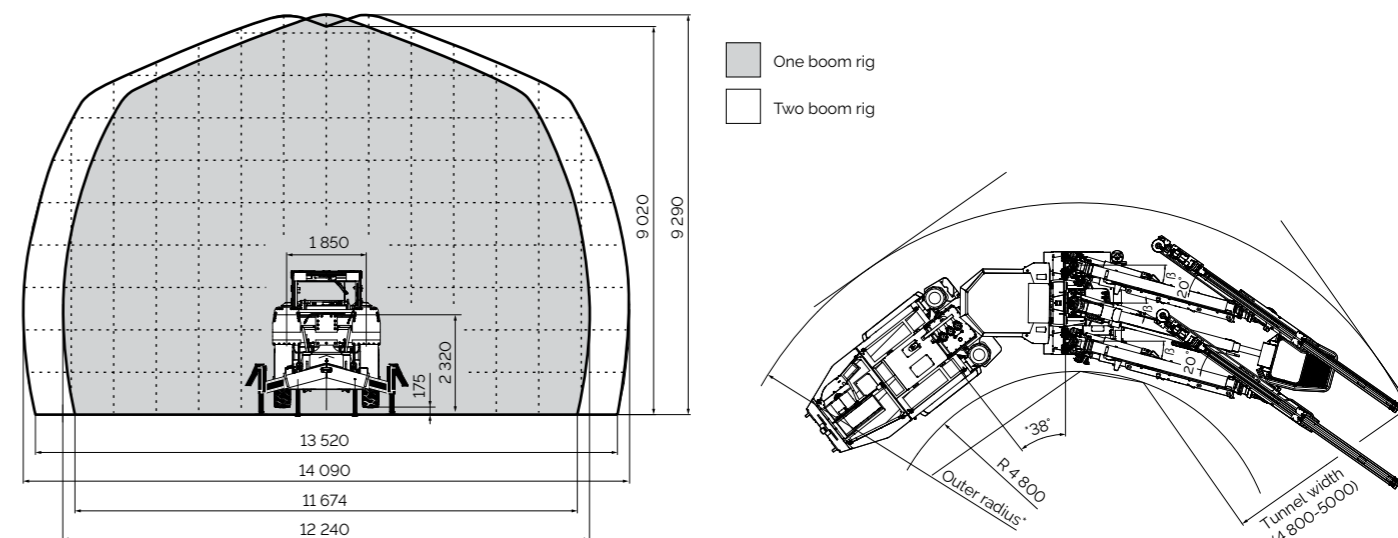
* Intended for RAS and extension drilling with BSH 110

Technical specifications

Dimensions in millimeters



Boomer E20 SG equipped with battery driveline.



Coverage area.

Turning radius.

Dimensions

Reference	4 cylinder engine (COP 1838)	6 cylinder engine and battery version (COP 1838)	4 cylinder engine (COP 3038)	6 cylinder engine and battery version (COP 3038)	4 cylinder engine (COP 4038)	6 cylinder engine and battery version (COP 4038)
L1	2 906 mm	3 170 mm	2 906 mm	3 170 mm	3 408 mm	3 672 mm
L2	801 mm	1 065 mm	801 mm	1 065 mm	801 mm	1 065 mm
Ltot (16 ft feed)	15 069 mm	15 333 mm	15 175 mm	15 439 mm	15 677 mm	15 941 mm
Ltot (18 ft feed)	15 679 mm	15 943 mm	15 694 mm	16 049 mm	16 196 mm	15 551 mm
Width	2 550 mm	2 550 mm	2 550 mm	2 550 mm	2 550 mm	2 550 mm
Ground clearance	341 mm	341 mm	341 mm	341 mm	341 mm	341 mm
Turning radius outer/inner	8 600/4 800 mm	8 600/4 800 mm	8 600/4 800 mm	8 600/4 800 mm	8 600/4 800 mm	8 600/4 800 mm

* If RHS E or SP2 service platform is equipped the steering angle will be reduced to 30°

Height

Wheel size	H1 std	H1 -140	H1 +250
14.00 R24 XZM	3 083 mm	2 943 mm	3 333 mm
16.00 R25 XZM	3 136 mm	2 996 mm	3 386 mm

Tramming speed

On flat ground (rolling resistance 0.05)*	>15 km/h
On incline 1:8	>5 km/h

* Electric driveline >12 km/h

Gross weight (depending on configuration)

Rig type	Total	Boom side	Engine side
One boom rig	22 000-36 000 kg	20 000-24 000 kg	7 000-12 000 kg
Two boom rig	30 000-41 000 kg	24 000-29 000 kg	6 000-12 000 kg



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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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