

Boomer E1/E2 series

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



For power and productivity

The Boomer E1 and Boomer E2 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 helps you easily break ground and achieve desired advance rates in the toughest rock conditions. Inject your rig with computer intelligence and choose from the widest range of hydraulic rock drills available to effectively tackle your rock type. Durable drill steel, high drilling accuracy and reduced overbreak make it easy to calculate a good payback on the rig investment.

+ Main benefits

Versatile and powerful as it fits into a large range of applications with the ability to also go into relatively small tunnels thanks to its optimal and compact design

Economically beneficial thanks to the class leading BUT 45 booms and the largest rock drill range on the market

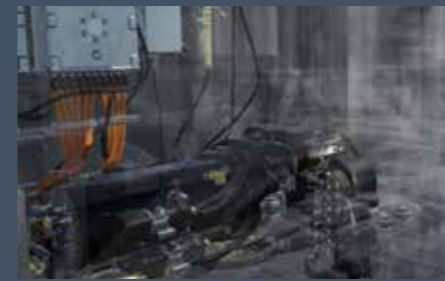
User-friendly with the Rig Control System which allows the operator to easily monitor and control all rig functions and maintain a better focus on drilling



ROPS and FOPS certified cabin

Articulated steering for greater agility in tighter tunnel dimensions

+ Battery driveline benefits



The 150 kW electric drive train of the Boomer E2 Battery 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.

The Boomer E series has the widest selection of rock drills on the market with an output power range from 16 to 40 kW

Higher utilization of the booms with the rod handling system (RHS-E)



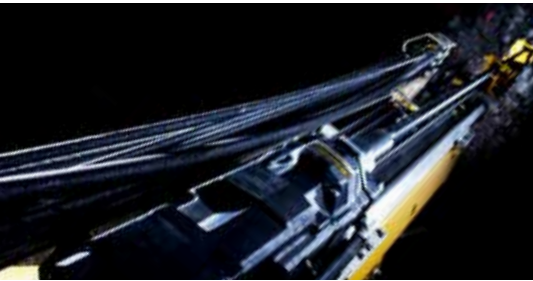
Productive drilling made easy

Enhanced operator guidance, on-board manuals and self-diagnostic capabilities result in an optimal work-flow with organized information and increased usability.



+ BUT 45 for strength and accuracy

Rigs in the Boomer E 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

Boomer E1 and E2 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).



+ Increased productivity and safety

The fully automatic rod handling system, Auto RHS E, can be used to efficiently drill grout holes up to 30 meters deep. This system boosts productivity and safety by eliminating the need for workers to stand on a platform and manually couple and decouple threaded joints to extend drill rods. Ergonomically designed joysticks with all primary functions grouped along the top help the operator to focus on drilling instead of scanning the display and keyboard for functions.



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 E1 C **B** - Boomer E2 C **C** - Boomer E1 C-DH **D** - Boomer E2 Battery

Drilling system	A	B	C	D	Electrical system	A	B	C	D
COP 1800-series	●	●	●	●	Total installed drilling power 83 kW, Main motors, Sf 115 75 kW	●			
COP 2200-series	○	○	○	○	Total installed drilling power 118 kW, Main motors, Sf 115 2x55 kW*				●
COP 3000-series		○	○	○	Total installed drilling power 158 kW, Main motors, Sf 115 2x75 kW		●		
COP 4000-series		○	○	○	Total installed drilling power 198 kW, Main motors, Sf 13 2x95 kW**		○		○
COP MD20-series	○	○	○	○	Total installed drilling power 228 kW, Main motors, Sf 145 2x110 kW***		○		○
Hole blowing kit	●	●	●	●	Voltage 400-1 000 V 50/60 Hz	●	●		●
Water mist flushing, external water, external air supply*	○	○		○	Voltage 690-1 000 V 50/60 Hz**		○		○
Water mist flushing, external water, internal air supply*	○	○		○	Voltage 1 000 V 50 Hz***		○		○
Water mist flushing, internal water, 2x450 L, internal air supply*			●		Starting method, star/delta (380-690 V)	●	●		●
Rock drill lubrication warning kit	●	●	●	●	Starting method, direct start (1 000 V)	●	●		●
* Not in combination with COP 3038/COP 4038					Starting method, Soft start (380-690 V)	○	○		○
Boom	A	B	C	D	Transformer 8 kVA	●	●		●
BUT 45 M	●	●	●	●	Transformer for charging 100 kW				●
Service platform	○	○	○	○	Electronic overload protection for electric motors	●	●		●
Swingable basket for service platform	○	○	○	○	Digital voltmeter/ampere meter in electric cabinet	●	●		●
Automatic boom lubrication	○	○	○	○	Percussion hour meter on operator display	●	●		●
Feed	A	B	C	D	Phase sequence and earth fault indicator	●	●		●
BMH 6800-Series 14 ft, 16 ft, 18 ft, 20 ft, 21 ft	●	●	●	●	Cable reel, diameter 1 600 mm	●	●		●
Telescopic feed BMHT 6000-series (max 18 ft)	○	○	○	○	Electric outlet for accessories, 16 A (CE)/32 A (CE) (380-690 V)	○	○		○
Extension drilling set BSH 110 (BMH feeds only)	○	○	○	○	Extra transformer 3-phase, 15kVA (230/400 V outlet) (690-1 000V)	○	○		○
Rod Handling System E, RHS E (BMH feeds only)	○	○	○	○	PC4 or PC5 Plug	○	○		○
Air/watersystem	A	B	C	D	Battery charger	●	●		●
Hydraulically driven screw compressor Atlas Copco GAR 5	●	●	●	●	Dual controls for cable reel	●	●		●
Hydraulically driven screw compressor Atlas Copco GAR 30*	○	○	●	○	Stainless steel electrical enclosure	○	○		○
Hydraulic water booster pump, max capacity at 15 bar boost 300 L/min. Minimum water inlet, 2 bar at 200 L/min**	●	●	●	○	Electric system 24 V	●	●	●	●
Hydraulic water booster pump, max capacity at 30 bar boost 400 L/min. Minimum water inlet, 2 bar at 400 L/min**		○	○	○	24 V Batteries 2x125 Ah	●	●	●	●
Electric driven water booster pump, max capacity at 15 bar boost 300 L/min. Minimum water inlet, 2 bar at 200 L/min**				○	700 V Battery 280 Ah				●
Water hose (Ø1.5 inch 70 m)	○	○		○	Tramming lights 8x22 W LED	●	●	●	●
Water hose (Ø2.0 inch 70 m)	○	○		○	Working lights 4x150 W, 24 V DC	●	●	●	●
Water tank 2x450 L			●		Illuminated stairs LED	●	●	●	●
* Might require a larger electrical motor					* Depending on selected rock drill				
** Depending on selected rock drill					** When equipped with COP 3038				
					*** When equipped with COP 4038				
Hydraulic system	A	B	C	D	Carrier	A	B	C	D
Low oil level indicator	●	●	●	●	Deutz TCD 4.1L04 Stage IV/Tier 4F (120 kW)	○	○		
Oil temperature gauge on oil tank, electronically supervised	●	●	●	●	Deutz TCD 6.1 L06 Stage IV/ Tier 4F (180 kW std / 160 kW DH)	○	○	○	
Filtration 16 µm	●	●	●	●	Deutz TCD 2013 L04 2V Stage III A Tier 3 (120 kW)	●	●		
Oil filter indicator	●	●	●	●	Deutz TCD 2013 L06 2V Stage III A Tier 3 (155 kW std/173 kW DH)	○	○	○	
Extra filtration package for water- and fine particle removal	○	○	○	○	Traction motor, 150 kW				●
Mineral hydraulic oil	●	●	●	●	Articulated steering ±38° steering angle*	●	●	●	●
Biodegradable hydraulic oil	○	○	○	○	Four-wheel drive	●	●	●	●
Electrical oil filling pump	●	●	●	●	Dana 114 axles	●	●		●
Heater kit for hydraulic oil tank, diesel engine and electric motors	○	○	○	○	Clearance outside axles 16° rear, 23° front	●	●	●	●
Ni-Cr plated piston rods (limitations exist)	○	○	○	○	Automatic differential lock on axles, limited slip	●	●	●	●
Control system	A	B	C	D	Tyres 14.00xR24	●	●	●	●
Epiroc Rig Control System (RCS 5)	●	●	●	●	Tyres 16.00xR25	○	○	○	○
Advanced Boom Control (ABC) Regular	●	●	●	●	Hose/cable guiding at water/cable reel	○	○		○
Advanced Boom Control (ABC) Total	○	○	○	○	Fuel tank, volume 110 L (4 cylinder engines)	●	●		
Automatic Rod Handling (RHS E)	○	○	○	○	Fuel tank, volume 175 L (6 cylinder engines)	●	●		
Measure While Drilling (MWD)	○	○	○	○	Fuel tank, volume 400 l			●	
Underground Manager PRO (PC software)	●	●	●	●	Central lubrication system	○	○	○	○
Underground Manager MWD (PC software) for analysis of drill data	○	○	○	○	Fire suppression system ANSUL (manual or automatic)	○	○	○	○
Bolt view	●	●	●	●	Fire suppression system FORREX (automatic)	○	○	○	○
Water loss measurement instruments installed in service platform	○	○	○	○	Rig washing kit	○	○	○	○
Rig Acces Control	●	●	●	●	Manual lubrication kit	○	○	○	○
Rig Remote Access (RRA), LAN or WLAN connection	○	○	○	○	Boot washing kit	○	○	○	○
Tunnel Profiler	○	○	○	○	Hydraulic outlet for charging with Mini SSE	○	○	○	○
Total Station Navigation	○	○	○	○	* If RHS E or SP2 service platform is equipped the steering angle will be reduced to 30°				
CertiQ Professional	○	○	○	○					
Dynamic tunneling package	○	○	○	○					

Technical specifications

● - Standard ○ - Option
A - Boomer E1 **B** - Boomer E2 **C** - Boomer E1 C-DH **D** - Boomer E2 Battery

Cabin	A	B	C	D
ROPS and FOPS certified cabin, noise level <80 dB(A)	●	●	●	●
Mounting height -140/+250 mm	○	○	○	○
Mediaplayer	○	○	○	○
12 V outlet for communication radio	○	○	○	○
Electrical heater, 1.2 kW, 230 V AC (CE)	○	○	○	○
Electrical heater, 10 kW, 700 V DC (CE)	○	○	○	○
Reversing camera with monitor	○	○	○	○
Air conditioning unit	●	●	●	●
Heating function for air conditioning (water transferred)	○	○	○	○
Swingable seat for drilling and tramping	○	○	○	○
Cabin body made of stainless steel	○	○	○	○
Joystick-controlled spotlights left and/or right, 70 W	○	○	○	○
Front window 22 mm (P8B safety classed)	●	●	●	●
Hydraulic cabin lift system, 0-600 mm	○	○	○	○
Two operator panels (for standing operation only)	○	○	○	○

Protective roof	A	B	C	D
Mounting height -80 mm/+310 mm	○	○	○	○
Manual spotlight, left and/or right	○	○	○	○
Swingable seat for drilling and tramping (one operator panel only)	○	○	○	○

Drifter rods

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

Extension rods for injection drilling/RAS

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

Shank adapters

Rock drill	Rod	Min. hole diameter (mm)
COP 1838	R38	38
COP 2238	T38	38
COP MD20	R32'	38
COP 3038/COP 4038	TC42 (Conical T-thread)	45

* Intended for RAS and extension drilling with BSH 110

Couplings

Rock drill	Rod	Diameter (mm)	Length (mm)
COP 1838	R38	55	170
COP 2238	T38	55	170
COP 3038/COP 4038	TC42/T38	57	175

Recommended cable size and length

Voltage	Type	Dimension (mm ²)	Diameter (mm)	Length (m)
380-400 V	Buflex	3x185+3G35	56	90
440-500 V	Buflex	3x150+3G25	52	100
550 V	Buflex	3x120+3G25	46	120
660-690 V*	Buflex	3x95+3G16	45	150
660-690 V*	Buflex	3x150+3G25	52	100
1 000 V*	Buflex	3x50+3G10	33	200
1 000 V*	Buflex	3x95+3G16	45	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 (EN16228 and ISO 11201)	75±3 dB(A) re 20uPa
Operator sound pressure level working close to machine, drilling, free field (EN16228 and ISO11203) (COP 1838)	103±6 dB(A) re 20uPa
Operator sound pressure level working close to machine, drilling, free field (EN16228 and ISO11203) (COP 3038)	106±6 dB(A) re 20uPa
Operator sound pressure level working close to machine, drilling, free field (EN16228 and ISO11203) (COP 4038)	107±6 dB(A) re 20uPa
Sound power level (ISO 3747), drilling, free field (COP 1838)	123±3 dB(A) re 1pW
Sound power level (ISO 3747), drilling, free field (COP 3038)	126±3 dB(A) re 1pW
Sound power level (ISO 3747), drilling, free field (COP 4038)	127±3 dB(A) re 1pW
Peak C-weighted instantaneous sound pressure level (EN16228)	Less than 130 dB(C) re. 20 uPa
Vibration levels seated, drilling (EN16228 and ISO 2631-1)	0.07±0.07 m/s ²
Vibration levels standing, drilling (EN16228 and ISO 2631-1)	0.07±0.07 m/s ²

Tramping speed

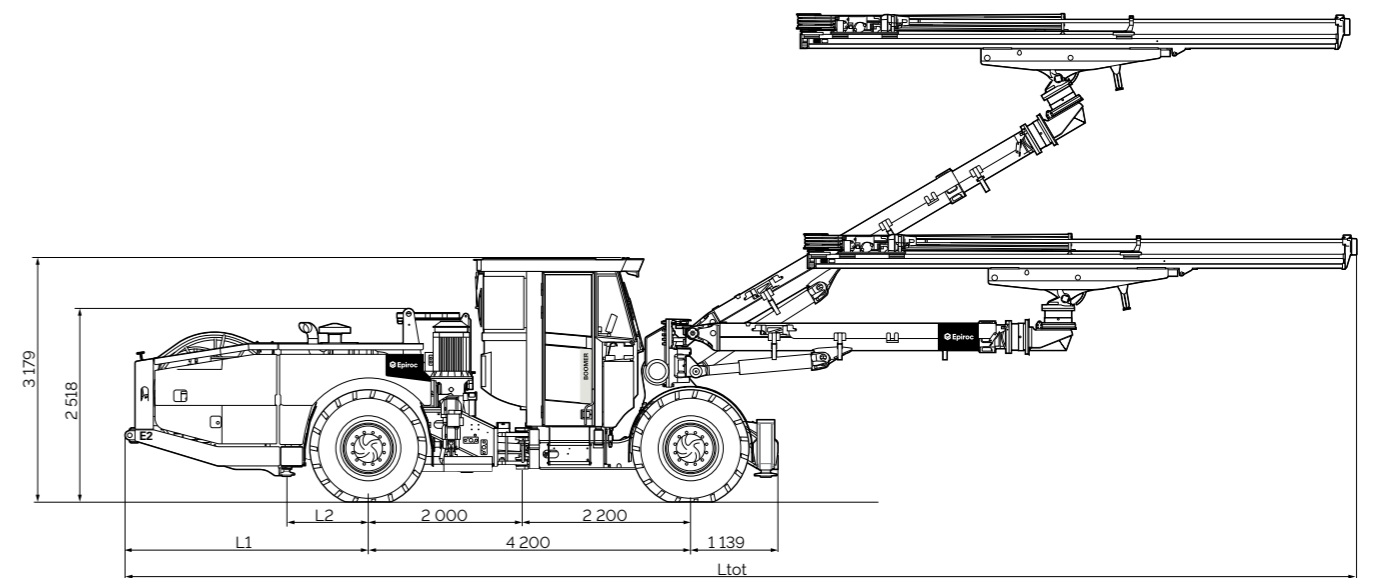
On flat ground (rolling resistance 0.05)*	>15 km/h
On incline 1:8	>5 km/h

* 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

Technical specifications

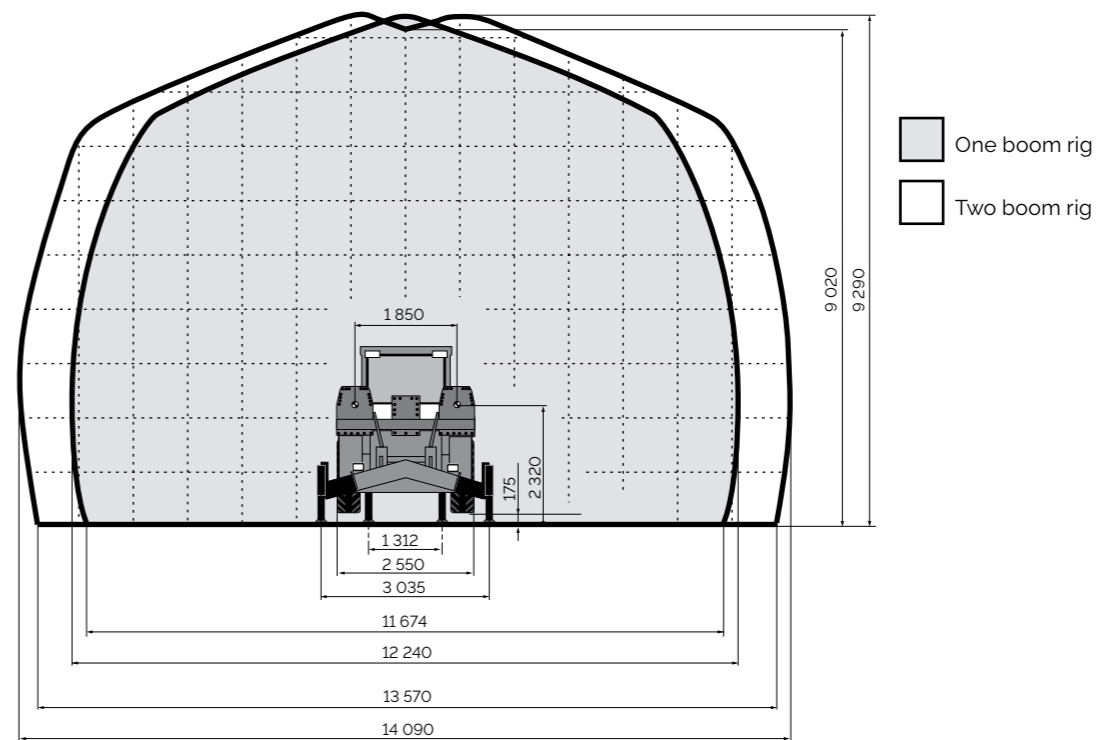


Sideview

Dimensions side view

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
Height roof up/down	3 144/2 518 mm	3 144/2 518 mm	3 144/2 518 mm	3 144/2 518 mm	3 144/2 518 mm	3 144/2 518 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°





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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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