# **Boomer E3/E4 series**

Hydraulic face drilling rigs for medium to large drifts and tunnels with cross sections up to 205 m<sup>2</sup>





# For power and productivity

Face drill rigs in the Boomer E3 and E4 series have extensive coverage areas of up to 205 m², making them the perfect choice for construction projects. Breaking ground is made easy thanks to a heavy-duty BUT 45 boom, which allows you to rapidly advance in the toughest rock conditions. Equipped with our award winning control system and a hydraulic rock drill specially suited to tackle any type of rock. These durable rigs make excellent investments given their long-lasting drill strings, high drilling accuracy and reduced overbreak.

## Main benefits

Flexible and versatile thanks to the modular boom bracket design which aids in achieving the desired tunnel shape and the W/X-consoles for maximum width/height

**Smart investment and long lifecycle** with the robust BUT 45 booms and their ability to take advantage of the largest range of rock drills on the market

**Safe and easy operation** thanks to the Rig Control System RCS 5 which allows the operator to easily monitor and control all rig functions and maintain a better focus on safe drilling FOPS certified cabin with excellent visibility for a safe, quiet and ergonomic working environment





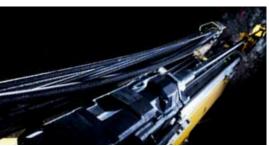
## Intelligent drilling

Boomer E series drill rigs are equipped with RCS 5, the latest generation of our internationally acclaimed rig control system. To optimize workflow, rigs have self-diagnostic capabilities while usability is enhanced by easy access to on-board manuals, organized information and rig controls.



#### + Smart assistance functions

Boomer E3 and E4 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).



#### + BUT 45 for tremendous strength and productivity

Rigs in the Boomer E series feature the market-leading BUT 45 boom system. The boom is easily positioned and steadily stays in place during high-impact drilling to help you to achieve desired advance rates in your local ground conditions to boost your productivity. The robust design also allows carriage of additional options to further increase your rig's versatility.



#### + Automatically safer and more efficient

Eliminate the need for workers to manually couple and decouple threaded joints to extend drill rods with Auto RHS E, our fully automatic rod handling system. Auto RHS E can be used to efficiently drill grout and probe holes up to 30 meters deep.



# 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**

Feed

Water hose (Ø2.0 inch 70 m) Water hose (Ø2.5 inch 90 m)

Drilling system	Α	В	С
COP 1800-series	•	•	•
COP 2200-series	0	0	0
COP 3000-series			
COP 4000-series	0	0	0
COP MD20-series			
Hole blowing kit	•	•	•
Water mist flushing, external water and air supply*	0	0	0
Rock drill lubrication warning kit	•	•	•
* Not in combination with COP 3038/COP 4038	'		

Boom	Α	В	С
BUT 45 L	•	•	•
Service platform	0	0	0
Swingable basket for service platform	0	0	0
Retractable protective roof for service platform	0	0	0
Automatic lubrication for positioning unit	0	0	0

В

0

BMH 6800-series 14 ft, 16 ft, 18 ft, 20 ft, 21 ft			
Telescopic feed BMHT 6000-series (max 18 ft)	0	0	0
Extension drilling set BSH 110 (BMH feeds only)	0	0	0
Rod Handling System E, RHS E (BMH feeds only)	0	0	0
AIR/watersystem	Α	В	С
Hydraulically driven screw compressor Atlas Copco GAR 5	•	•	
Hydraulically driven screw compressor Atlas Copco GAR 30*	0	0	
Electrically driven screw compressor Atlas Copco GAR 30*	0	0	•
	0		_
Hydraulic water booster pump, max capacity at 15 bar boost 300 L/min. Minimum water inlet, 2 bar at 200 L/min**	•	•	

<sup>\*</sup>Might require a larger electrical motor \*\*Depending on selected rock drill

Hydraulic system	Α	В	С
Low oil level indicator	•	•	•
Oil temperature gauge on oil tank, electronically supervised	•	•	•
Filtration 16 µm	•	•	•
Oil filter indicator	•	•	•
Extra filtration package for water- and fine particle removal	0	0	0
Mineral hydraulic oil	•	•	•
Biodegradable hydraulic oil	0	0	0
Electrical oil filling pump	•	•	•
Heater kit for hydraulic oil tank, diesel engine and electric motors	0	0	0
Ni-Cr plated piston rods (limitations exist)	0	0	0
Control system	Α	В	С
Epiroc Rig Control System (RCS 5)	•	•	•
Two operator panels (one sitting and one standing)	0	0	0
Advanced Boom Control (ABC) Regular	•	•	•
Advanced Boom Control (ABC) Total	0	0	0
Automatic Rod Handling (RHS E)	0	0	0
Measure While Drilling (MWD)	0	0	0
Underground Manager PRO (PC software)	•	•	•
Underground Manager MWD (PC software) for analysis of drill data	0	0	0
Bolt view	•	•	•
Water loss measurement instruments installed in service platform	0	0	0
Rig Acces Control	•	•	•
Rig Remote Access (RRA), LAN or WLAN connection	0	0	0
Tunnel Profiler	0	0	0
Total Station Navigation	0	0	0
Certiq Professional	0	0	0
Dynamic tunneling package	0	0	0

Electrical system	Α	В	С
Total installed power 237 kW, Main motors, Sf 1.15 3x75 kW	•	•	
Total installed power 297 kW, Main motors, Sf 1.3 3x95 kW**	0	0	
Total installed power 342 kW, Main motors, Sf 1.45 3x110 kW***	0	0	
Total installed power 422 kW, Main motors, Sf 1.3 4x95 kW**			•
Total installed power 482 kW, Main motors, Sf 1.45 4x110 kW***			0
Voltage 380 -1 000 V 50/60 Hz	•	•	
Voltage 690 -1 000 V 50/60 Hz**	0	0	•
Voltage 1 000 V 50 Hz***	0	0	0
Soft start (380 –1 000 V)	0	0	
Starting method, star/delta (380-690 V)	•	•	
Starting method, direct start (1 000 V)	•	•	•
Transformer 12 kVA	•	•	•
Electronic overload protection for electric motors	•	•	•
Digital voltmeter/amperage meter in electric cabinet	•	•	•
Percussion hour meter on operator display	•	•	•
Phase sequence and eart fault indicator	•	•	•
Cable reel, diameter 1 600 mm	•	•	•
Electric outlet for accessories, 16 A (CE)/32 A (CE) (380-690 V)	0	0	0
Extra transformer 3-phase, 15 kVA (230/400 V outlet) (690-1 000 V)	0	0	0
PC5 Plug	0	0	0
Battery charger 2x60 A	•	•	•
Dual controls for cable reel	•	•	•
Stainless steel electrical enclosure	0	0	0

<sup>&#</sup>x27;Depending on selected rock drill
'' When equipped with COP3038

<sup>\*\*\*</sup> When equipped with COP4038

Carrier	Α	В	С
Deutz TCD 6.1 L06 Stage IV/Tier 4F (180 kW)	0	0	
Deutz TCD 2012 L06 Tier 3/Stage IIIA (155 kW)	•	•	
Deutz TCD 2013 L06 2 V Stage III A/Tier 3 (175 kW)			•
Four-wheel drive	•	•	•
Electric system 24 V	•	•	•
Batteries 2x125 Ah	•	•	•
Jump start receptables	0	0	0
Hose/cable guiding at water/cable reel	•	•	•
Manual differential lock on axles, limited slip on front axels	•	•	•
Tires 14.00xR24	•	•	
Tires 16.00xR25 boom axle/tires 14xR24 steer axle			•
Clearance outside axles 15° rear, 15° front	•	•	•
Tramming lights 8x40 W LED, 24 V DC	•	•	•
Working lights 4x150 W+6x80 W	•	•	•
Illuminated stairs LED	•	•	•
Fuel tank, volume 125 l	•	•	•
Central lubrication system	•	•	•
Fire suppression system ANSUL (manual or automatic)	0	0	0
Fire suppression system FORREX (automatic)	0	0	0
Rig washing kit	0	0	0
Manual lubrication kit	0	0	0
Boot washing kit	0	0	0
Hydraulic outlet for charging with Mini SSE	0	0	0
Holder for spare drill rods	0	0	0

A = Boomer WE3 B = Boomer XE3 C = Boomer XE4

Cabin	Α	В	С
FOPS certified cabin	•	•	•
Mediaplayer	0	0	0
12 V outlet for communication radio	0	0	0
Electrical heater, 1.2 kW, 230 V (CE)	0	0	0
Reversing camera with monitor	0	0	0
Air conditioning unit	•	•	•
Heating function for air conditioning (water transferred)	0	0	0
Joystick-controlled spotlights left and right, 70 W	0	0	0
Front window, 24 mm	0	0	0
Hydraulic cabin lift system, 1100 mm	•	•	•

#### **Drifter rods**

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

#### Extension rods for injection drilling/RAS

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

#### **Shank adapters**

Rock drill	Thread	Min. hole diameter (mm)
COP 1838 COP 2238	R38	38
	T38	38
	R32*	38
COP 3038 COP 4038	TC42	45

<sup>\*</sup> Intended for RAS and extension drilling with BSH 110

#### Couplings

Rock drill	Thread	Diameter (mm)	Length (mm)
COP 1838 COP 2238	R38	55	170
	T38	55	170
COP 3038 COP 4038	TC38	57	175

#### Recommended cable size and length

Voltage	Туре	Dimension (mm²)	Diameter (mm)	Length (m)	Rock drill
380- 500 V	Buflex	3x240+3G35	64	100	COP 1838/2238
550 V	Buflex	3x185+3G25	56	100	COP 1838/2238
660- 690 V	Buflex	3x150+3G16	52	140	COP 1838/2238
660- 690 V	Buflex	3x240+3G25	64	100	COP 3038
1000 V	Buflex	3x70+3G10	40	250	COP 1838/2238
1000 V	Buflex	3x120+3G16	46	195	COP 3038
1000 V	Buflex	3x180+3G16	56	110	COP 4038

Recommendations are given for surrounding temperature of 40° C and up to a height of 2 000 m  $\,$ 

#### Noise and vibration

Operator sound pressure level in cabin, drilling, free field (ISO 11201)	75±3 dB(A) re 20 uPa
Operator sound pressure level working close to machine, drilling, free field	105±6 dB(A) re 20 uPa
Operator sound pressure level working close to machine, drilling, free field*	107±6 dB(A) re 20 uPa
Operator sound pressure level working close to machine, drilling, free field**	109±6 dB(A) re 20 uPa
Sound power level (ISO 3747), drilling, free field	125±3 dB(A) re 1 pW
Sound power level (ISO 3747), drilling, free field*	127±3 dB(A) re 1 pW
Sound power level (ISO 3747), drilling, free field**	129±3 dB(A) re 1 pW
Vibration levels seated, drilling (ISO 2631-1)	0.07±0.07 m/s^2
Vibration levels standing, drilling (ISO 2631-1)	0.07±0.07 m/s^2
* Equipped with COD 2029	·

<sup>\*</sup> Equipped with COP 3038 \*\*Boomer XE4

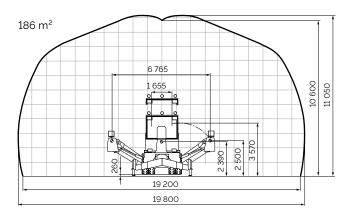
Dimensions	Α	В	С
Width	2 926 mm	2 926 mm	3 136 mm
Height with cabin	3 664 mm	3 656 mm	3 729 mm
Height, cabin up	4 756 mm	4 756 mm	4 760 mm
Length, tramming	17 494 mm BMH 6920	17 544 mm BMH 6820	17 576 mm BMH 6920
Ground clearence	449 mm	450 mm	277 mm
Turning radius outer/inner	11 900/6 300 mm	11 900/6 300 mm	12500/6000 mm

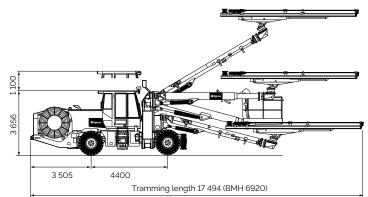
#### **Gross weight (depending on configuration)**

Rig type	Total	Boom side	Engine side
Boomer WE3	47 000 - 53 000 kg	29 600 kg	14 900 kg
Boomer XE3	47 000 - 53 000 kg	32 000 - 40 000 kg	12 000 - 16 500 kg
Boomer XE4	61 000 - 65 000 kg	44 500 - 49 500 kg	15 500 - 16 500 kg

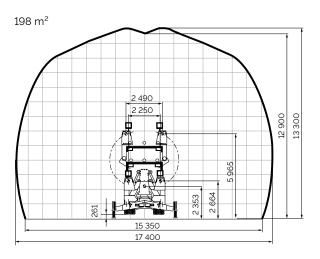
#### **Tramming speed**

On flat ground (rolling resistance 0.05)	>15
On incline 1:8	>5



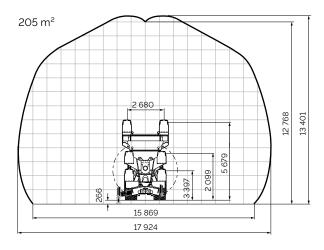


Boomer WE3: Left coverage area, right measeurements.



3 505 4 400 Tramming length 17 544 with BMH 6920

Boomer XE3: Left coverage area, right measeurements.



3 757 4 350 1 140 Tramming length 17 576 (BMH 6920)

Boomer XE4: Left coverage area, right measeurements.



# 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.

epiroc.com

