Boomer M1D and M2D

Face drilling rig for tunneling and mining applications with a coverage area up to 65 m²

Epiroc

Your trusted partner with safety in mind

The durable and robust Boomer M1D and M2D are hydraulically controlled mining and tunneling face drilling rigs. With the strong BUT 36 S boom, this rig is built with safety and performance in mind. With both one and two booms, these rigs are trusted partners with components designed and built to last for your operations.

Main benefits

Operator safety and ergonomics in focus as the rig is equipped with a ROPS and FOPS certified cabin, an intuitive operator panel and safe bolting boom function

High durability and robustness with the strong BUT 36 S boom and heavy duty drilling feed in combination with high-performing rock drills which are designed to last in tough operations

High performance and productivity thanks to high-quality components, long service intervals and great machine availability

The operator panel has adjustable height, and a good and productive working environment with the Direct Control System 2 (DSC 2).

Equipped with optional BUT 29 HD booms, Boomer M2D becomes well-suited for operating in smaller drift sizes.

The lighter BUT 29 HD booms allow for a service platform to be added on the machine (optional).

Safety and productivity in focus

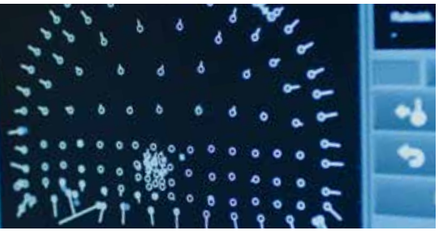
The Boomer M1D and M2D face drilling rig places a strong emphasis on safety and boost productivity across your operations. With a range of standard and optional functions, this rig increases efficiency and reduces operational costs all while giving priority to operator safety and ergonomics.

+ Safe bolting boom function

The Boomer M1D and M2D are unique in the mining and construction world because it offers a safe bolting boom function for the semi-mechanized installation of rock bolts. Thanks to the design of the BUT 36 S booms and the side platforms on both sides of the operator station, it is possible to swing the feed all the way back to a position where the operator can safely load bolts into the feed without having to pass in front of the machine into areas with an unsupported roof.

+ COP MD20 rock drill

The new generation of rock drills are more durable than ever, with improved penetration rate, drill steel economy, up to 30% less RDT consumption, less vibrations, higher hydraulic efficiency, up to 15% faster penetration rate than closest competitor and a recommended service interval of 1000 impact hours. This means more uptime, increased productivity and lower running cost.



+ FAM III digital drill plans

The Boomer M1D and M2D come with a range of control system options, to support High performance development and digital drill plans. A journey towards aligned and straight holes according to your drill plan, avoiding misaligned holes that may lead to overbreak and poor fragmentation. Enabling you to be precise and enjoy a better tunnel profile, optimizing your operations and increases productivity.

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 M1D **B** = Boomer M2D

Drilling system	A	B
COP 1638HD+	●	●
COP 1838HD+	○	○
COP 2238HD+	○	○
COP 3038*		○
COP MD20		○
Hole blowing kit	●	●
Water mist flushing, external water and air supply**	○	○
Water mist flushing, external water, internal air supply**	○	○
Rock drill lubrication warning kit	●	●
Lubrication air filtration system	○	○

* Requires RCS and may require a larger electrical motor
** Not in combination with COP 3038

Boom	A	B
BUT 36 S T	●	●
BUT 29 HD	○	○
Automatic boom lubrication for positioning unit	○	○
Service platform P2*	○	○

* When equipped with BUT 29 HD

Feed	A	B
BMH 6000-series 12 ft, 14 ft, 16 ft, 18 ft	●	●
BMH 2000-series 12 ft, 14 ft, 16 ft**	○	○
Telescopic feed BMHT 6000-series (max 18 ft)	○	○
Telescopic feed BMHT 2000-series (max 14 ft)**	○	○
Extension drilling set BSH 110 (BMH feeds only)	○	○
Rod Adding System, RAS (BMH feeds only)*	○	○
Water spraying kit on cradle	○	○

* Not in combination with COP 3038, Max 14 ft feed
** Only in combination with BUT 29 HD

Air/watersystem	A	B
Hydraulically driven screw compressor Atlas Copco GAR 5	●	●
Hydraulically driven screw compressor Atlas Copco GAR 30*	○	○
Hydraulic water booster pump, max capacity at 15 bar boost 200 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**		○
Water hose reel	○	○
Water hose (Ø1.5 inch 70 m)	○	○

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

Hydraulic system	A	B
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	○	○
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)	○	○

Control system	A	B
Direct Control System 2 (DCS 2)	●	●
Feed Angle Measurement, FAM 1	○	○
Feed Angle Measurement with digital drill plans, FAM 3	○	○
Measure While Drilling (MWD)	○	○
Two operator panels (for standing operation only)	○	○
Total station navigation	○	○
Drill Stop Protection system	○	○

Electrical system	A	B
Total installed power 83 kW, Main motors, Sf 1.15 75 kW	●	
Total installed power 158 kW, Main motors, Sf 1.15 2x75 kW		●
Total installed power 198 kW, Main motors, Sf 1.3 2x95 kW**		○
Voltage 380–1 000 V 50/60 Hz	●	●
Voltage 690–1 000 V 50/60 Hz**	○	○
Starting method, star/delta (400-690 V)	●	●
Starting method, direct start (1 000 V)	●	●
Starting method soft start (not for 1 000 V)	○	○
Transformer 8 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)	○	○
Extra transformer 3-phase, 15 kVA (230/400 V outlet) (690-1 000 V)	○	○
PC4 or PC5 plug	○	○
Battery charger	●	●
Dual controls for cable reel	●	●
Stainless steel electrical enclosure	○	○
Electric system 24 V	●	●
24 V Batteries 2x125 Ah	●	●
Tramming lights 8x22 W LED	●	●
Working lights 4x150 W, 24 V DC	●	●
Illuminated stairs LED	●	●

* Depending on selected rock drill
** When equipped with COP 3038

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Carrier

	A	B
Deutz TCD 2013 L04, Stage IIIA/Tier 3, 120 kW	●	●
Deutz TCD 4.1 L04, Stage V/Tier 4F, 115 kW	○	○
Deutz TCD 6.1 L06, CN4, 129 kW	○	○
Articulated steering ±41° steering angle*	●	●
Four-wheel drive	●	●
Hose/cable guiding at water/cable reel	○	○
Dana 113 (short) axle	●	●
Automatic differential lock on axles, limited slip	●	●
Tires 12.00xR24	●	●
Clearance outside axles 13° rear, 22° front	●	●
Fuel tank, volume 110 l	●	●
Central lubrication system	●	●
Fire suppression system ANSUL (Manual, checkfire or automatic)	○	○
Fire suppression system FORREX (Automatic)	○	○
Rig washing kit	○	○
Manual lubrication kit	○	○
Boot washing kit	○	○
Hydraulic Swellex pump type H1 for manual installation	○	○
Hydraulic outlet for charging with Mini SSE	○	○

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

Protective roof

	A	B
Mounting height -80 mm/+310 mm	○	○
Manual spotlight, left and/or right	○	○
Two operator panels (for standing operation only)	○	○
Swingable seat for drilling and tramming	○	○

Cabin (optional)

	A	B
ROPS and FOPS certified cabin, noise level <80 dB(A)	●	●
Mounting height -140/+250 mm	○	○
Low profile cabin -150 mm	○	○
Air conditioning unit	●	●
Heating function for air conditioning (water transferred)	○	○
12 V outlet for communication radio	○	○
Electrical heater, 1.2 kW, 230 V (CE)	○	○
Reversing camera with monitor	○	○
Fixed seat	●	●
Swingable seat for drilling and tramming	○	○
Cabin body made of stainless steel	○	○
Media player	○	○

Dimensions

Width	2 245 mm
Height with cabin	3 179 mm
Height roof up/down	3 019/2 324 mm
Length with BMH 6814 feed(s) (Ltot)	14 297 mm
Length with BMH 2843/BMH 2743 feed(s) (Ltot**)	13 913 mm
Ground clearence	260 mm
Turning radius outer/inner	7 200/4 400 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

Drifter rods

Rock drill	Rod	Min. hole diameter (mm)
COP 1838 COP 2238 COP MD20	SR35-H35-T38 Speedrod	38
	SR35-H35-T38	38
	SR35-R39-T38	38
COP 3038	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	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	TC42 (conical T-thread)	45

*Intended for RAS and extension drilling with BSH 110

Couplings

Rock drill	Rod	Diameter (mm)	Length (mm)
COP 1838 COP 2238 COP MD20	R38	55	170
	T38	55	170
COP 3038	TC42/T38	57	175

Recommended cable size and length

Voltage	Type	Dimension (mm²)	Diameter (mm)	Length (m)	Rock drill
380-400 V	Buflex	3x185+3G35	56	90	COP 1838/2238
440-500 V	Buflex	3x150+3G25	52	100	COP 1838/2238
550 V	Buflex	3x120+3G25	46	120	COP 1838/2238
660-690 V	Buflex	3x95+3G16	45	150	COP 1838/2238
660-690 V	Buflex	3x150+3G25	52	100	COP 3038
1 000 V	Buflex	3x50+3G10	33	200	COP 1838/2238
1 000 V	Buflex	3x95+3G16	45	150	COP 3038

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 canopy, drilling, free field (ISO 11201)	104±6 dB(A) re 20 uPa
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	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

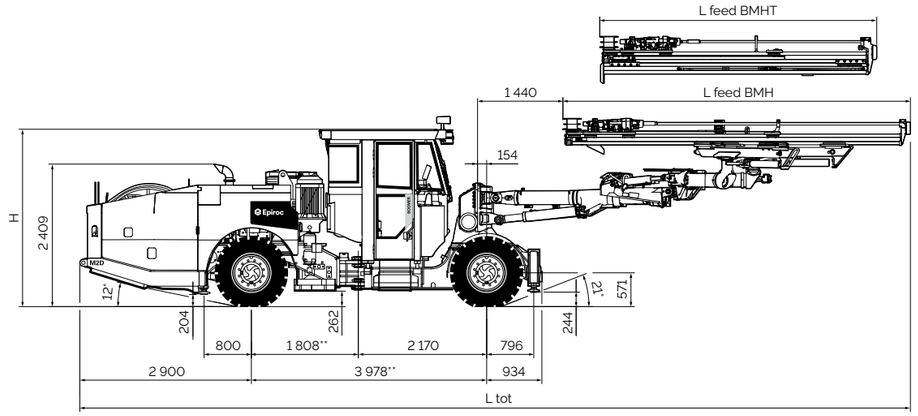
131 dB(A) re 1 pW when equipped with COP 3038

Gross weight (depending on configuration)

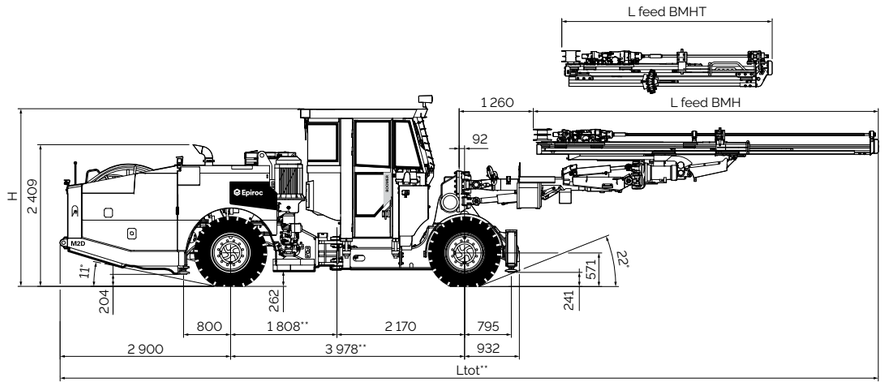
Rig type	Total	Boom side	Engine side
One boom rig	18 000-20 000 kg	9 000-11 000 kg	9 000 kg
Two boom rig	23 000-29 000 kg	17 500-19 000 kg	6 000-10 000 kg

Technical specifications

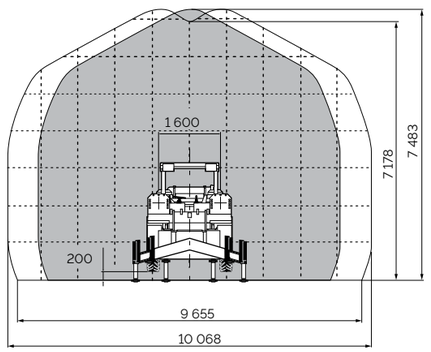
Dimensions in millimeters



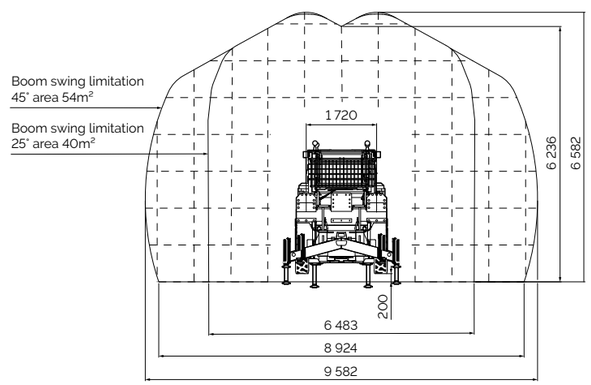
Boomer M2D equipped with BUT 36 S, COP 1838/MD20 and BMH 6814



Boomer M2D equipped with BUT 29 HD



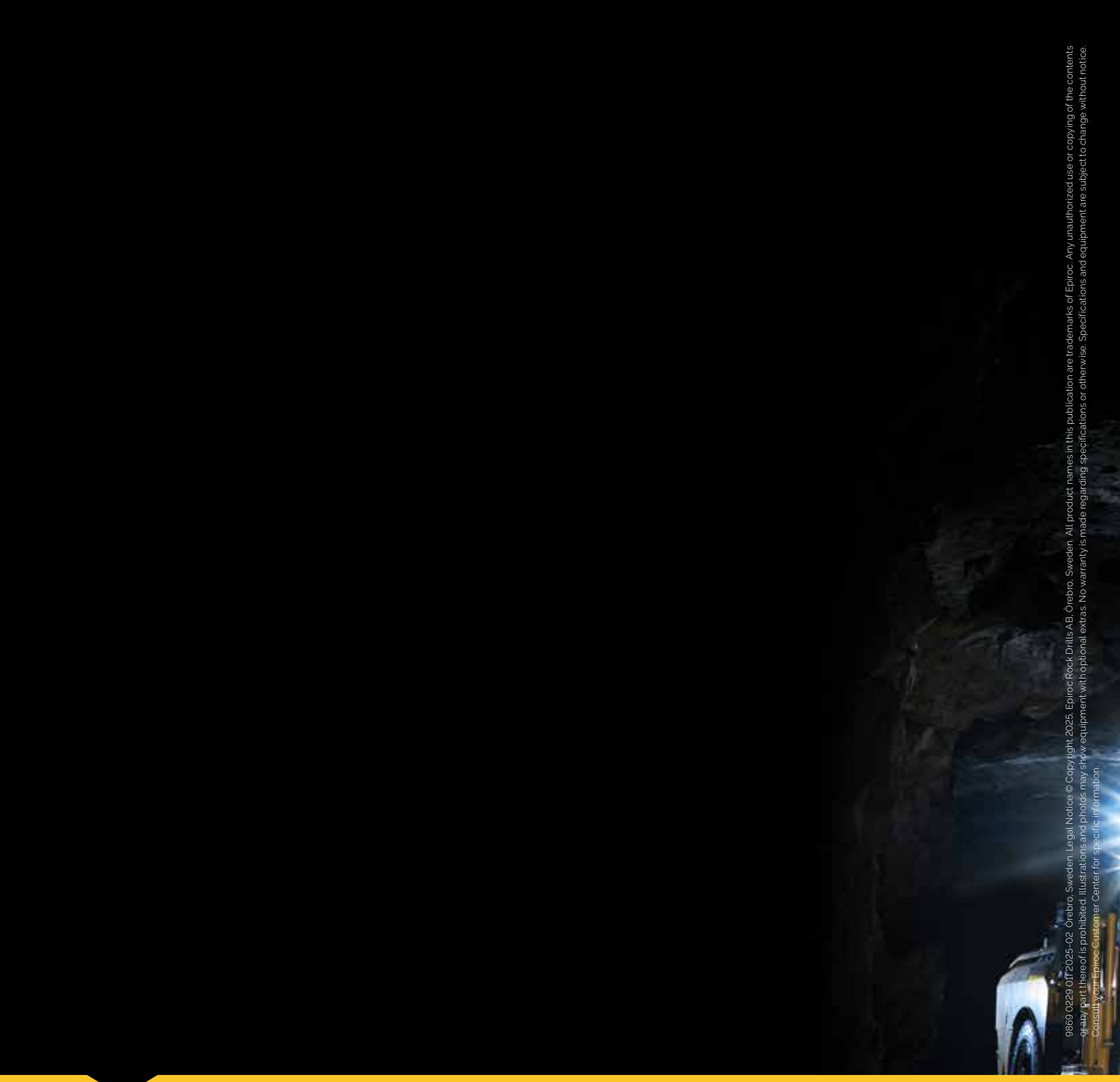
Boomer M2D and Boomer M1D with BUT 36



Boomer M2D with BUT 29 HD

One boom rig

Two boom rig



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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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