

Boomer L20

Hydraulically controlled face drilling
rig with a coverage area up to 104 m²

 **Epiroc**



Precise productivity

The Boomer L20 features the BUT MD boom, which has outstanding torsional rigidity and stiffness. This means improved drilling precision, less overbreak and underbreak, better crosscut and roof drilling as well as faster positioning. Pair these hardware upgrades with quality enhancing High Performance Development with digital drill plans and you get the Boomer L20 - a productivity boosting face drill rig.

Main benefits

Maximized productivity powered by the upgraded BUT MD boom, delivering higher torsional rigidity and pinpoint drilling accuracy

Lower TCO and longer service intervals enabled by heavy-duty cylinders, smarter hose routing as well as improved feed holder and front knuckle

Unmatched precision and quality achieved with High Performance Development features such as digital drill plans, Measure While Drilling and Total station navigation



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The BUT MD boom's upgraded telescope enables a drill rig running cost reduction of up to 30%. This is based on 3.4x vertical stiffness, 2.4x horizontal stiffness, 70% vertical stiffness reduction, 60% horizontal deflection reduction and 3x torsional stiffness compared to its predecessor.

The top-mounted feed improves the coverage area and reduces the dead zone. Weighing in at 36 kg lighter than before, the feed holder design has been optimized for weight reduction and improved robustness. The result is lower TCO thanks to easier maintenance and less wear on the cylinders.

The new hose drum for the COP1800 series rock drill features separate tracks for each hose with stronger bearings, easier lubrication and larger bending radius. With up to 50% reduction of hose wear, this results in higher rig availability, improved productivity and lower TCO.



Quality boosting features and options

Packed with smart features and productivity-increasing options, the Boomer L20 is designed to deliver superior drill quality and performance. From digital drill plans to high-accuracy navigation and data-driven drilling, every detail works together to optimize your operation. The result? Faster cycles, consistent quality and maximum productivity in every round.

• Feed Angle Measurement with digital drill plans

Feed Angle Measurement (FAM III) is an operator assist function that enables the use of digital drill plans with the help of positioning and angle data from sensors on the boom and feed joints. Digital drill plans are the basis for utilizing **High Performance Development** – a mining and tunneling cycle optimization method by Epiroc that makes the entire operation more time and cost efficient and ensures quality-approved results by implementing proven and value adding options and ways of working.

• Total station navigation

Navigating a drill rig with the Total station provides a positional accuracy of 1 cm in all axes (x, y, and z), ensuring high drilling precision according to the digital drilling plan and accurate alignment with the tunnel line. This enables longer drill rounds, improves blasting efficiency and increases advance rate and overall productivity.

• Measure While Drilling

Drill parameters are collected to give information about rock conditions. Collecting MWD data is even mandatory in certain cases. These parameters are used to calculate, predict and evaluate rock conditions such as rock hardness and fracturing. MWD data can also be used as a decision making tool regarding needs for rock reinforcement and number of injection holes.

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

Drilling system

COP 1838HD+	●
COP 2238HD+	○
COP MD20	○
Water mist flushing: External water and air supply	○
Water mist flushing: External water, internal air supply	○
Air fan cooled hydraulics	○
Rock drill lubrication air filtration system	○
Rock drill lubrication warning system	●
Big hole drilling system	●

Electrical system

Total installed power: 158 kW, main motors: Sf115 2x75 kW	●
Voltage: 380-1000 V, 50/60 Hz	●
Starting method: star/delta (380-690 V)	●
Starting method: DOL (1 000 V)	○
Starting method: soft start (380-690 V)	○
Electronic overload protection for electric motors	●
Percussion hour meter on electrical cabinet	●
Digital voltmeter/amperage meter in electrical cabinet	●
Phase sequence indicator	●
Earth fault indicator	●
Battery charger	●
Battery jump start receptacles	●
Transformer: 8 kVA	●
Cable reel, diameter: 1 600 mm	●
Dual controls for cable reel	●
Cable auto spooling kit	○
Stainless steel electrical enclosure	○
Electric outlet for accessories, 16 A (CE and not for 1 000 V)	○
Extra transformer 3-phase, 15 kVA, 230/400 V	○
Electric system: 24 V	●
Batteries: 2x12 V, 125 Ah	●
Tramming lights: 6x40 W 24 V LED, 2x70 W halogen	●
Working lights: 4x80 W LED, 24 V DC	●
Brake lights	●
Illuminated stairs	●

Boom

BUT MD M (7 384 mm)	●
BUT MD L (8 084 mm)	○
Service platform P2*	○
Automatic boom lubrication kit, rear part of boom	○

*With BUT MD M booms

Feed

BMH 6000-series 14 ft, 16 ft, 18 ft, 21 ft	●
Telescopic feed BMHT 6000-series	○
Extension drilling set BSH 110 (BMH feeds only)	○
Rod Adding System, RAS (BMH feeds only)	○
Mining (heavy duty) drilling centraliser	○

Air/water system

GAR 5 hydraulically driven screw compressor	●
GAR 30 hydraulically driven screw compressor	○
Hole blowing kit with 80 l air receiver	○
Water booster pump capacity at 15 bar: 250 l/min	●
Min. water inlet: 200 l/min at preferred pressure of 2 bar	●
Water hose reel	○
Manual lubrication kit	○
Low pressure rig washing kit	○
High pressure rig washing kit	○

Hydraulic system

Low oil level indicator	●
Oil temperature gauge on oil tank	●
Electrical oil filling pump	●
Oil filter indicator	●
Water cooled oil	●
Ni-Cr plated piston rods	○
Extra filtration package for water and fine particle removal	○
Air fan oil cooler	○
Hydraulic tuning kit	○

Control system

Direct Control System (DCS)	●
Direct Control System (DCS 2, pilot controlled)	○
Feed Angle Measurement system, FAM I	○
Feed angle measurement system with drill plan handling and navigation, FAM III	○
Measure While Drilling (MWD)	○
Underground Manager Pro (PC software)	○
Underground Manager MWD (software) for analysis of data	○
Fleet+ telematics system	●
Drill stop protection system (CE certified)	○
Boom isolation switch	○
Total station navigation	○

Technical specifications

● = Standard ○ = Option

Protective roof (standard)

Manual spotlight, left and right	○
Mounting height, -80 mm/+310 mm	○
Fixed seat	●
Swingable seat	○
FOPS certified	●

Couplings

Rock drill	Rod	Diameter (mm)	Length (mm)
COP MD20	R38	55	170
COP 1838HD+			
COP 2238HD+	T38	55	190

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	135
660–690 V	Buflex	3x95+3G16	45	155
1 000 V	Buflex	3x50+3G10	33	200

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)	0.07±0.07 m/s ²
Vibration levels standing, drilling (ISO 2631-1)	0.07±0.07 m/s ²

Drifter rods

Rock drill	Rod	Min. hole diameter (mm)
R32-H35-R38	45	
R32-H35-T38	45	
R32-H35-T38 Speedrod	45	
SR35-H35-R38 Speedrod	45	
SR35-H35-T38 Speedrod	45	
SR35-H35-T38	45	
SR35-R39-T38	45	
R32-R39-T38	45	
SR35-R39-T38	45	
SR35-R39-T38 Speedrod	45	

* Intended for RAS and extension drilling with BSH 110

Tramming speed

On flat ground (rolling resistance 0.05)	>14 km/h
On incline 1:8	>6 km/h

Gross weight (depending on configuration)

Total, min/max	27 000/35 500 kg
Boom side, min/max	20 000/25 000 kg
Engine side, min/max	7 000/10 500 kg

Extension rods for injection drilling/RAS

Rock drill	Rod	Min. hole diameter (mm)
COP MD20	Rnd 32 Speedrod	51
COP 1838HD+		
COP 2238HD+	Rnd 38 Speedrod	64

Dimensions

Width	2 550 mm
Height with cabin	3 098 mm
Height roof up/down	3 057/2 582 mm
Length with BMH 6814 feed(s)	14 500 mm
Ground clearance	289 mm
Turning radius outer/inner	8 200/4 800 mm

Technical specifications

Dimensions in millimeters

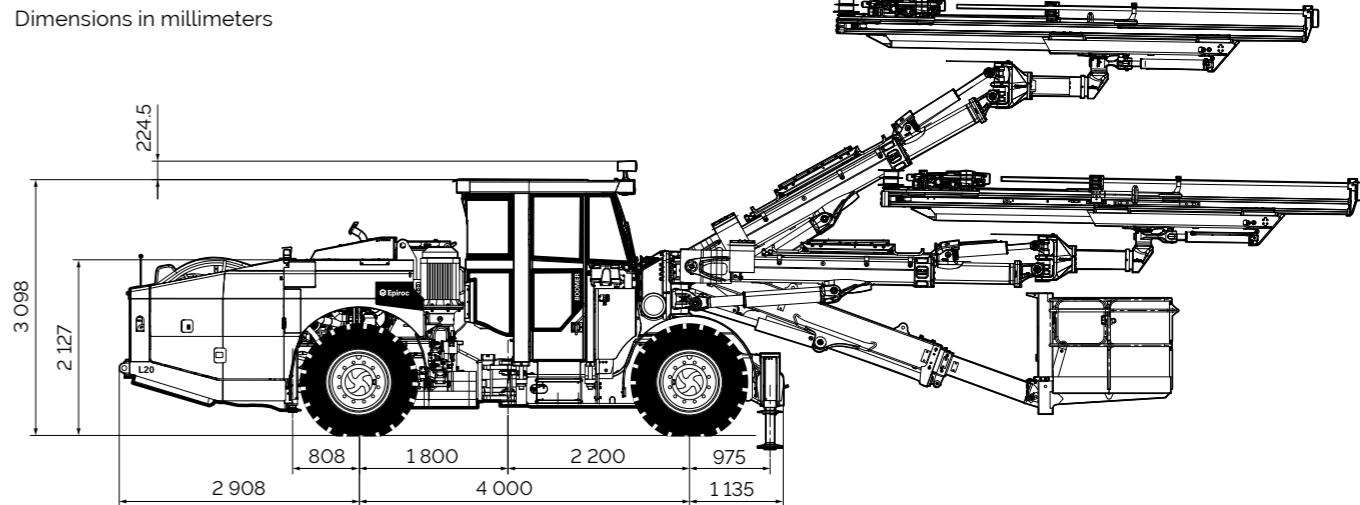
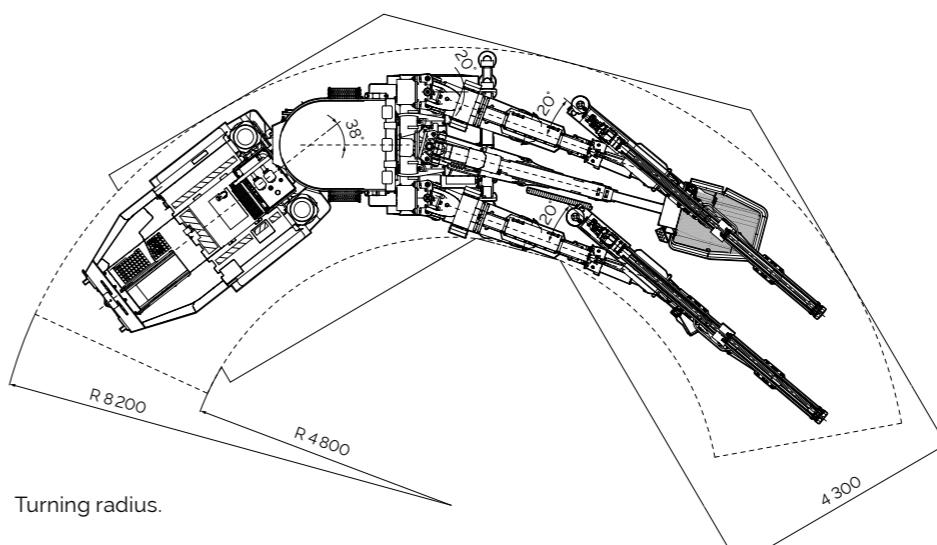
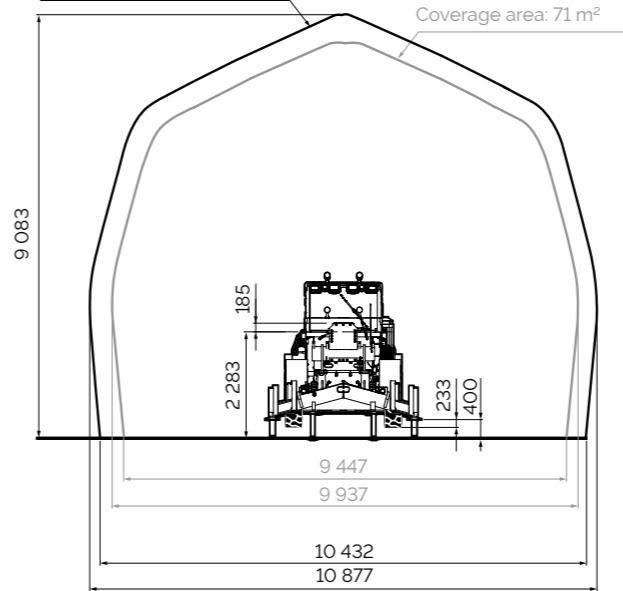


Illustration shows rig with optional equipment mounted.



BUT MD L
8 084 mm boom length
42° boom swing
500 mm from face
Coverage area: 83 m²

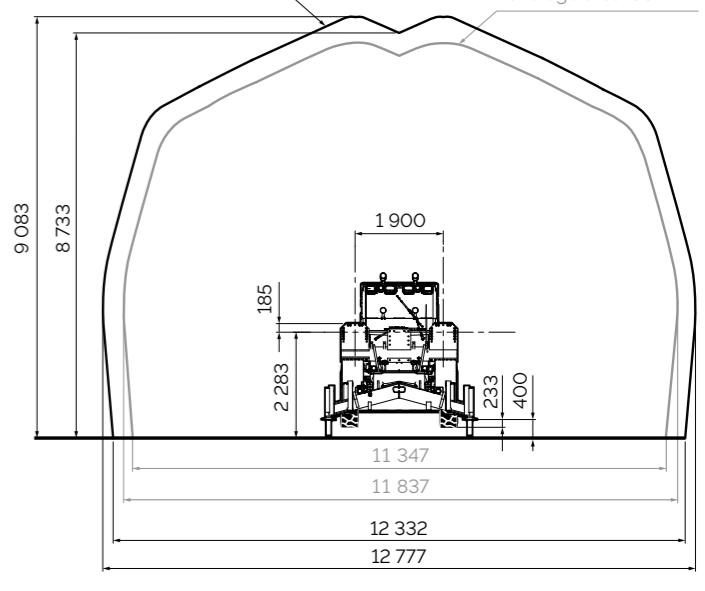
BUT MD M
7 384 mm boom length
42° boom swing
500 mm from face
Coverage area: 71 m²



Coverage areas for one-boom rig.
Dimensions in millimeters.

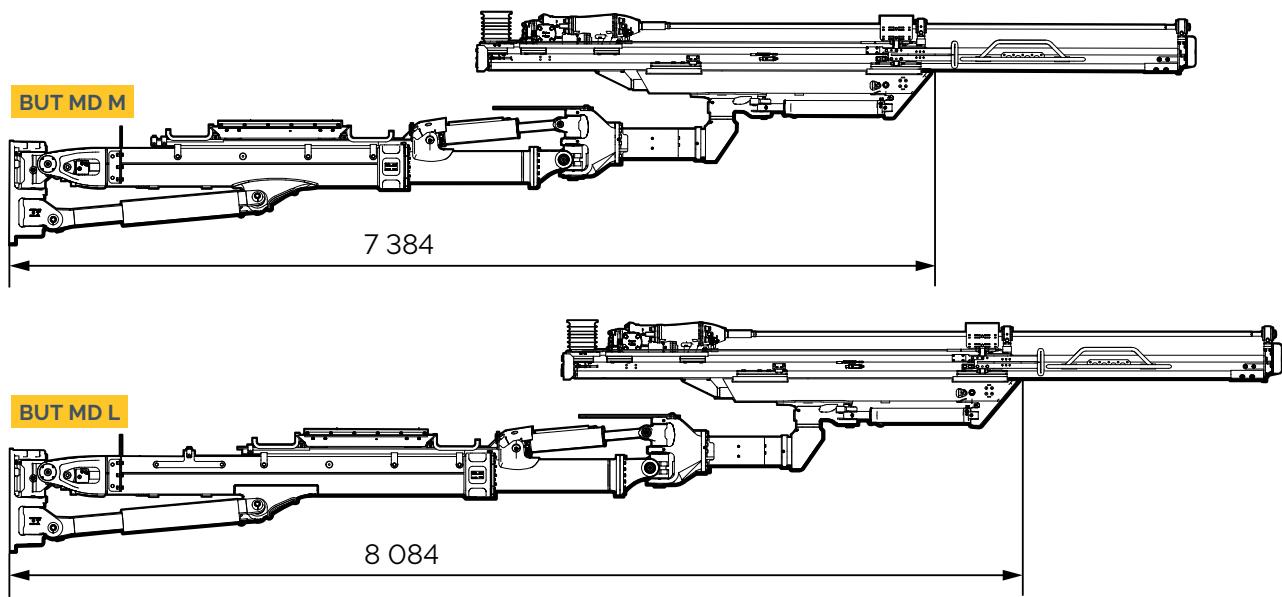
BUT MD M
7 384 mm boom length
42° boom swing
500 mm from face
Coverage area: 104 m²

BUT MD L
8 084 mm boom length
42° boom swing
500 mm from face
Coverage area: 86 m²



Coverage areas for two-boom rig.
Dimensions in millimeters.

The BUT MD boom for Boomer L20 is available in two different lengths.
Dimensions in millimeters.



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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