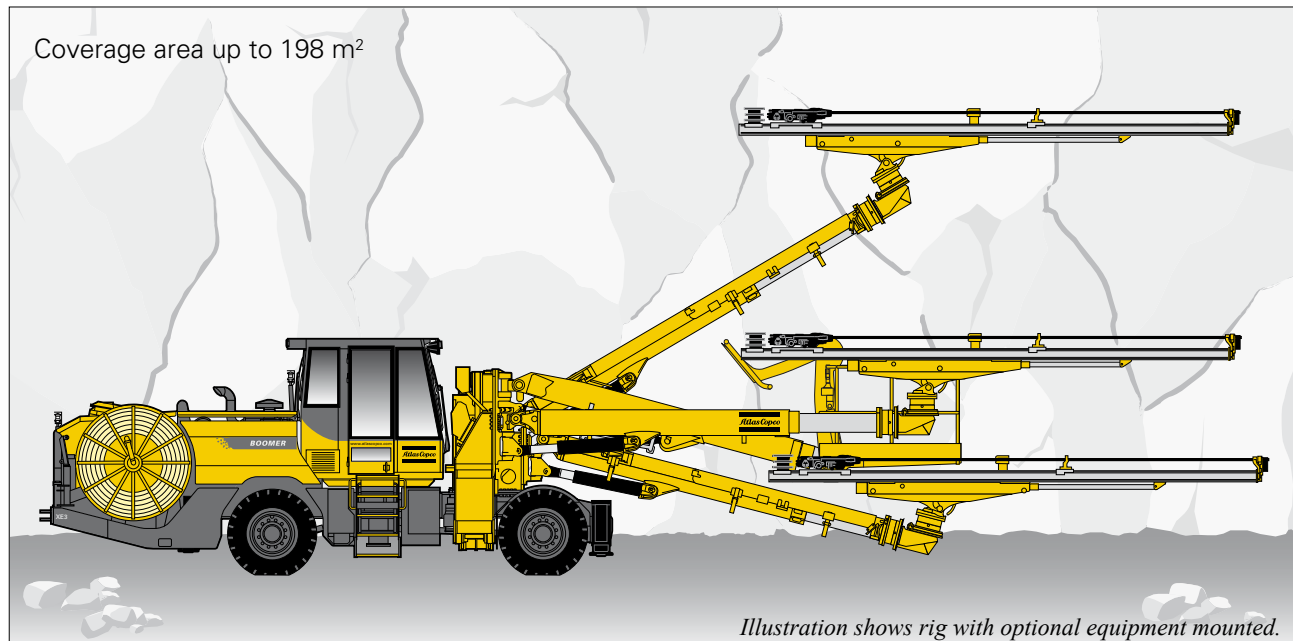


# Boomer XE3 C

Equipped with COP 1838 or COP 2238 rock drills



Three boom hydraulic tunnelling rig with high reach console, an advanced Rig Control System, COP 1838 or COP 2238 rock drills and heavy-duty BUT 45 booms for superior productivity.

## Standard features

### » Rock drill

- COP 1838 or COP 2238 rock drills with dual-damping system for optimal drill consumable life
- Pressurized housing and mating surfaces to reduce internal contamination of the rock drill

### » Hydraulic boom

- BUT 45 heavy-duty booms for direct, fast and accurate positioning between holes
- Double rotation unit for  $\pm 190$  degrees feed roll-over and  $\pm 135$  degrees feed rotation

### » Hydraulic feed

- BMH 6800-series heavy-duty aluminium feed with high bending and torsional resistance for maximum durability
- Snap-on stainless steel sleeves and polymer contacts

### » Control system

- Advanced Rig Control System (RCS) allowing several levels of automation to suit customer requirements
- Standard functions include soft collaring and the anti-jamming function Rotation Pressure Controlled Feed (RPCF)
- Integrated diagnostic and event logging system to assist in equipment maintenance
- Interactive operator panel with full-colour display

### » Carrier

- Sturdy carrier with all-wheel drive
- Powered by a 6-cylinder, EPA III/COM III (Tier 3/Stage IIIA) approved diesel engine
- Four jacks for stable set-up

### » General

- FOPS-approved cabin
- Hydraulically driven water booster pump
- Hydraulically driven compressor
- Cable reel
- Working lights

# Specifications

## ROCK DRILL

	COP 1838	COP 2238
Shank adapter	R32/R38/T38	R32/R38/T38
Height over drill centre	88 mm	88 mm
Length without shank	1 008 mm	1 008 mm
Impact power	18 kW	22 kW
Impact rate	60 Hz	73 Hz
Hydraulic pressure	230 bar	250 bar
Rotation system	Separate rotation	Separate rotation
Rotation speed	0–340 rpm	0–340 rpm
Rotation torque, max	640 Nm	640 Nm
Lub. air consump. at 2 bar	6 l/s	6 l/s
Water consumption	70 l/min	70 l/min
Weight	170 kg	170 kg
Sound level	<106 dB(A)	<106 dB(A)

## FEED

	BMH 6800	BMH 6814	BMH 6816	BMH 6818	BMH 6820	BMH 6821
Total length	5 882 mm	6 502 mm	7 102 mm	7 677 mm	7 977 mm	
Drill steel length	4 310 mm	4 920 mm	5 530 mm	6 100 mm	6 400 mm	
Hole depth	4 043 mm	4 668 mm	5 268 mm	5 843 mm	6 140 mm	
Weight, incl. drill	631 kg	665 kg	696 kg	721 kg	751 kg	
Feed force	22.0 kN	22.0 kN	22.0 kN	22.0 kN	22.0 kN	

## » Boom

- Boom ..... BUT 45 L
- Feed extension ..... 1 800 mm
- Boom extension ..... 2 500 mm
- Parallel holding ..... complete
- Feed roll-over ..... ±190°
- Feed cross-cut ..... ±135°
- Max. lifting angle ..... +55°/-42°
- Max. swinging angle ..... ±42°
- Weight, boom only ..... 3 200 kg

## » Air system

- Hydraulically driven screw compressor... Atlas Copco GAR 5
- Capacity, max at 9 bar ..... 26 l/s
- Adjustable speed
- Air pressure gauge
- Hole blowing kit with 80 l air receiver

## » Water system

- Hydraulic water booster pump ..... Flygt
- Water booster pump max capacity at 15 bar boost... 300 l/min
- Min water inlet pressure at water cooler at 300 l/min, ..... 2 bar
- Water pressure gauge
- Water flow guard
- Pressure compensated water pump

## » Control system

- Rig Control System (RCS) – versatile and upgradeable to a higher degree of automation
- One adjustable, electronic control panel with colour display
- Transfer of data and backup settings
- Integrated diagnostic system
- Separate battery for electronic system

## » Electrical system

- Total installed power ..... 233 kW
- Main motors, Sf 1.15 ..... 3 x 75 kW
- Voltage ..... 400–1 000 V
- Frequency ..... 50–60 Hz
- Starting method ..... star/delta (1 000 V direct start only)
- Electronic overload protection for electric motors
- Percussion hour meter on operator display
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Power supply ..... 24 V DC
- Transformer ..... 8 kVA
- Cable reel, diameter ..... 1 800 mm
- Dual controls for cable reel

## » Hydraulic system

- Hydraulic pumps ..... 3 separate units, one for each boom
- Pumps unloaded at start
- System pressure, max ..... 250 bar
- Hydraulic oil tank, volume max/min ..... 755/470 l
- Low oil level indicator
- Oil temperature gauge on oil tank
- Electrical oil filling pump
- Oil filter indicator
- Water cooled oil
- Filtration ..... 16 µm
- Mineral hydraulic oil

## » Carrier

- Deutz 6-cylinder, TCD 2013 L06, 2V EPA III/COM III (Tier 3/Stage IIIA) approved 4-stroke water-cooled diesel engine
- Power rating at 2 300 rpm ..... 173 kW (235 hp)
- Torque at 1 500 rpm ..... 907 Nm
- All-wheel drive
- Hydrostatic power steering system
- Hydrodynamic transmission ..... Dana 32000
- Front axle ..... Dana 37R 116
- Rear axle ..... Dana 276, ±8° oscillation
- Manual differential lock on front axle, Hydralock
- Tyres ..... 14.00 x R24
- Clearance outside axles ..... 15°
- Hydraulic jacks, front ..... 2 extendable
- Hydraulic jacks, rear ..... 2
- Service brakes ..... 2 separate circuits
- Emergency and parking brakes ..... SAHR
- Fuel tank, volume ..... 150 l
- Silencer
- Electric system ..... 24 V
- Batteries ..... 2 x 125 Ah
- Tramming lights ..... 6 x 40 W LED + 2 x 70 W
- Working lights ..... 6 x 80 W LED
- Illuminated stairs for platform ..... 2 x 70 W
- Fire extinguisher
- Spirit level ..... one for longitudinal, one for sideways
- Gradeability at max. load on drive wheels ..... 1:4
- Horn, beacon and reverse alarm

## » Cabin

- FOPS-approved cabin, noise level <80 dB(A) including fixed seat and air conditioning unit with heating function
- Hydraulic cabin lift system, 0–1 100 mm

**DRIFTER RODS**

Dimension		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

**SHANK ADAPTERS**

Thread		Diameter	Length
mm	R38	38	435
	T38	38	435
	R32	38	435
	T38*	38	525

\*Intended for RAS and extension drilling with BSH 110

**COUPLINGS**

Thread		Diameter	Length
mm	R38	55	170
	T38	55	190

**EXTENSION RODS FOR INJECTION DRILLING/RAS**

Dimension		Min. hole diameter
mm	Rnd 32 Speedrod	51
	Rnd 38 Speedrod	64

## Optional equipment

**» Rock drill/Drilling system**

- Water mist flushing, external water and air supply

**» Feed**

- Feed prepared for Rod Adding System (RAS) and Rod Handling System (RHS E), 10' extension rods
- Rod Adding System, RAS
- Rod Handling System E, RHS E
- Water spraying kit on cradle
- Hole depth sensor, hydraulic flow meter in place of standard fishing line sensor

**» Boom**

- Automatic boom lubrication

**» Automation**

- Advanced Boom Control, ABC Regular
- Advanced Boom Control, ABC Total
- Tunnel Manager software
- Rig hydraulically prepared for ABC Total
- Boom equipped for Measure While Drilling, MWD
- Measure While Drilling logging and analyzing drill data
- Bolt view
- Atlas Copco Tunnel Profiler
- Water loss measurement instruments installed in service platform
- Rig Remote Access (RRA)
- RRA server
- Total Station Navigation

**» Cabin**

- Front window, 24 mm
- Joystick-controlled spotlights left and/or right, 70 W
- Two operator panels (one sitting and one standing)
- Lifiable operator seat

**» Air system**

- Compressor, GAR 30

**» Water system**

- Water hose reel

**» Hydraulic system**

- Biodegradable hydraulic oil
- Heater kit for hydraulic oil tank, diesel engine and electric motors and cabin

**» Carrier**

- Exhaust catalyser
- Particle filter
- Fire suppression system ANSUL (manual or Checkfire)
- Fire suppression system FORREX (manual or automatic)

**» Electrical system**

- Electric cable type H07RN-F or Buxflex, 400/1 000 V
- Plug for cable
- Switch gear
- Electric outlet for accessories, 16 A and 32 A (CE)
- Extra transformer 3-phase, 15kVA (230/400 V outlet)
- Soft start of electrical motor

**» Miscellaneous**

- Service platform, SP 3
- Swingable basket for service platform
- Retractable protective roof for service platform
- Water and air outlet in service platform
- Drainage water pipe through rig
- Hydraulic Swellex pump type H1 for manual installation
- Holder for spare drill rods
- Manual lubrication kit
- Rig washing kit
- Ni-Cr plated piston rods (limitations exist)
- Boot washing kit
- Hydraulic outlet for charging with Mini SSE

# Measurements

## SIDE VIEW

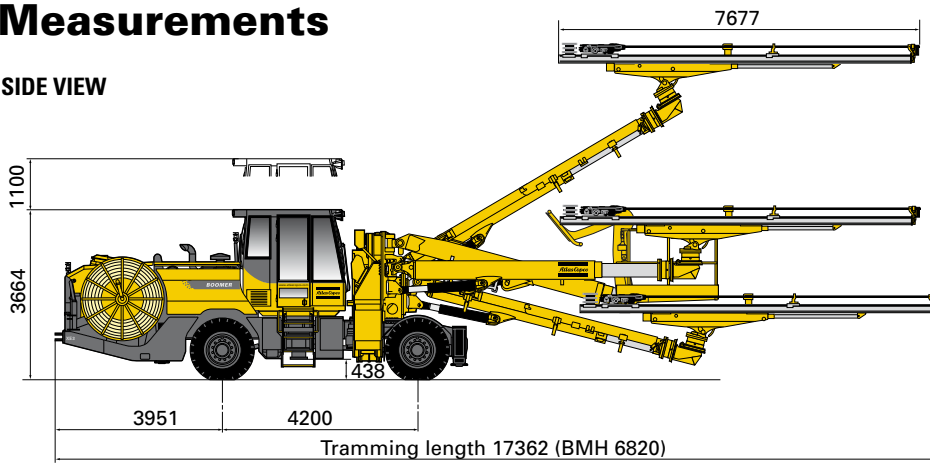
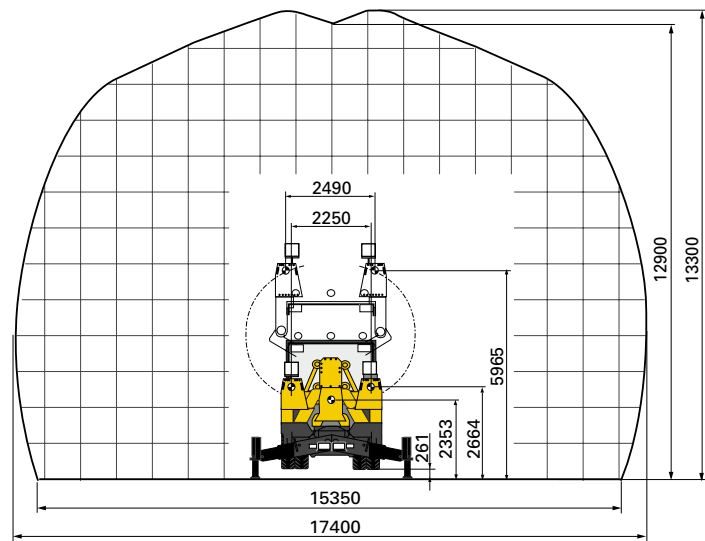


Illustration shows rig with optional equipment mounted.

## COVERAGE AREA



Parallel coverage BUT 45 L.

### DIMENSIONS

mm		
Width		2 926
Height with cabin		3 664
Height cabin up		4 764
Length with BMH 6820 feeds		17 362
Ground clearance		438
Turning radius outer/inner		11 450/5 900

### NOISE AND VIBRATION

Operator sound pressure level in cabin, drilling, free field (ISO 11201)	75± 3 dB(A) re 20uPa
Operator sound pressure level working close to machine, drilling, free field	104±6 dB(A) re 20uPa
Sound power level (ISO 3744), drilling, free field	130 dB(A) re 1pW
Vibration levels seated, drilling (ISO 2631-1)	0.07± 0.07 m/s <sup>2</sup>
Vibration levels standing, drilling (ISO 2631-1)	0.07± 0.07 m/s <sup>2</sup>

### WEIGHT

gross weight, depending on configuration		
kg	Total	43 100
	Boom side	29 900
	Engine side	13 200

### TRAMMING SPEED

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

### RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm <sup>2</sup>	Diameter, mm	Length, m
400–440 V	Buflex	3x240+3x50	64	100
500–550 V	H07RN-F	4x150	67	85
	Buflex	3x185+3x35	56	125
660-690 V	H07RN-F	4x95	55	115
	Buflex	3x120+3x25	46	175
1 000 V	Buflex	3x95+3x16	42	200

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