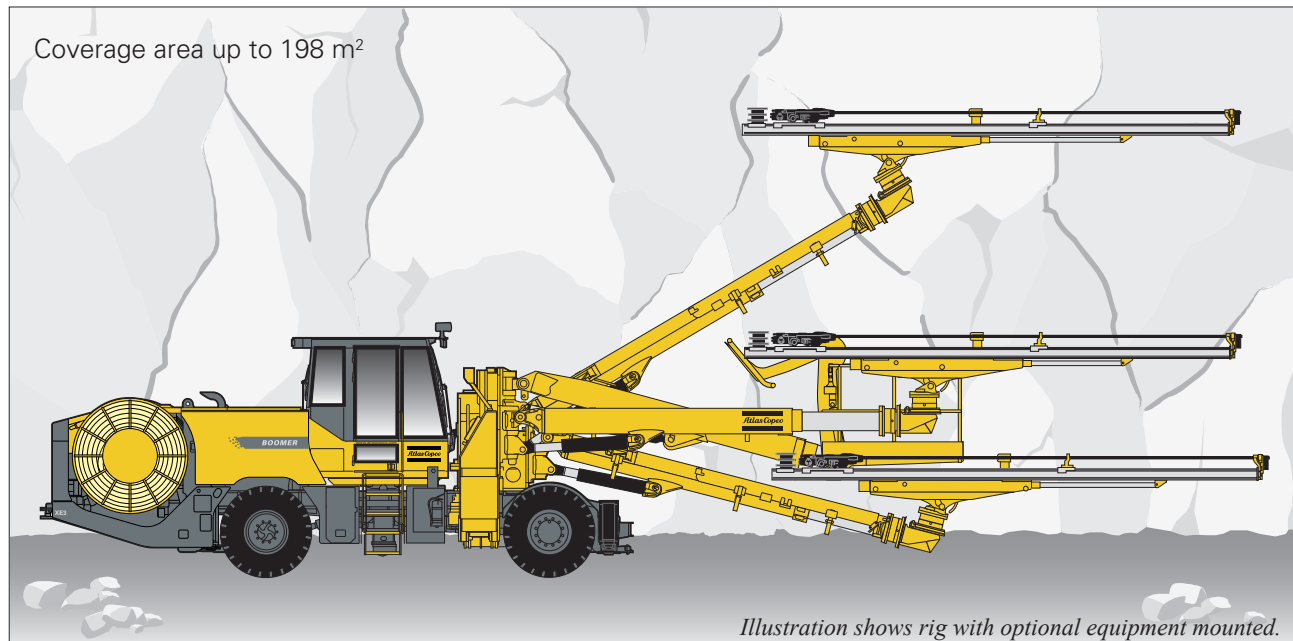


# Boomer XE3 C

Equipped with COP 3038 rock drills



Three boom hydraulic tunnelling rig with high reach console, an advanced Rig Control System, COP 3038 rock drills and heavy-duty BUT 45 booms for superior productivity.

## Standard features

### » Rock drill

- High-frequency COP 3038 rock drills with dual-damping system for optimal 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 6900-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, Tier 4i/Stage IIIB approved diesel engine (Europe/USA/Japan) or a 6-cylinder, (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 3038
Shank adapter	TC42
Height over drill centre	84 mm
Length without shank	970 mm
Impact power	30 kW
Impact rate	102 Hz
Hydraulic pressure	200 bar
Rotation system	Separate rotation
Rotation speed	0–380 rpm
Rotation torque, max	190 Nm
Lub. air consump. at 4 bar	5 l/s
Flushing water	20–30 bar
Water consumption, max	130–190 l/min*
Weight	165 kg
Sound level	<106 dB(A)

\*Depending on drill steel

## FEED

	BMH 6900	BMH 6914	BMH 6916	BMH 6918	BMH 6920	BMH 6921
Total length	5 988 mm	6 598 mm	7 208 mm	7 778 mm	8 078 mm	8 078 mm
Drill steel length	4 310 mm	4 920 mm	5 530 mm	6 100 mm	6 400 mm	6 400 mm
Hole depth	4 043 mm	4 668 mm	5 268 mm	5 843 mm	6 140 mm	6 140 mm
Weight, incl. drill	666 kg	700 kg	731 kg	756 kg	785 kg	785 kg
Feed force	22.0 kN	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 ..... Johnson
- Water booster pump max capacity at 30 bar ..... 750 l/min
- Min water inlet pressure at water cooler at 600 l/min, ..... 3 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 ..... 293 kW
- Main motors, Sf 1.3 ..... 3 x 95 kW
- Voltage ..... 690–1 000 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 6.1 L06 4V Tier 4i/Stage IIIB approved 4-stroke water-cooled diesel engine with catalyser and particle filter
- Power rating at 2 300 rpm ..... 180 kW (241 hp)
- Torque at 1 450 rpm ..... 1 000 Nm
- All-wheel drive
- Hydrostatic power steering system
- Hydrodynamic transmission ..... Dana 32000
- Front axle ..... Dana 37R 116
- Rear axle ..... Dana 213, ±7° 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
- Trimming lights ..... 10 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	SR35-H35-T38	45
	SR35-R39-T38	45

**COUPLINGS**

Thread	Diameter	Length
mm	T38/TC45	57

**SHANK ADAPTERS**

Thread	Diameter	Length
mm	TC42*	45
	TC42	45

\*Intended for RAS and extension drilling with BSH 110

**EXTENSION RODS FOR INJECTION DRILLING/RAS**

Dimension	Min. hole diameter
mm	R39 Speedrod

**GUIDE TUBE FOR INJECTION DRILLING**

Dimension	Min. hole diameter
mm	R46

## Optional equipment

**» 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
- Automatic Rod Handling for RHS E
- 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 max 52 l/s at 10 bar

**» Water system**

- Water hose reel

**» Hydraulic system**

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

**» Carrier**

- Deutz 6-cylinder, TCD 2012 L06, 2V Tier 3/Stage IIIA approved 4-stroke water-cooled diesel engine
- Exhaust catalyser for Tier 3/Stage IIIA engine
- Fire suppression system ANSUL (manual or Checkfire)
- Fire suppression system FORREX (Automatic)

**» Electrical system**

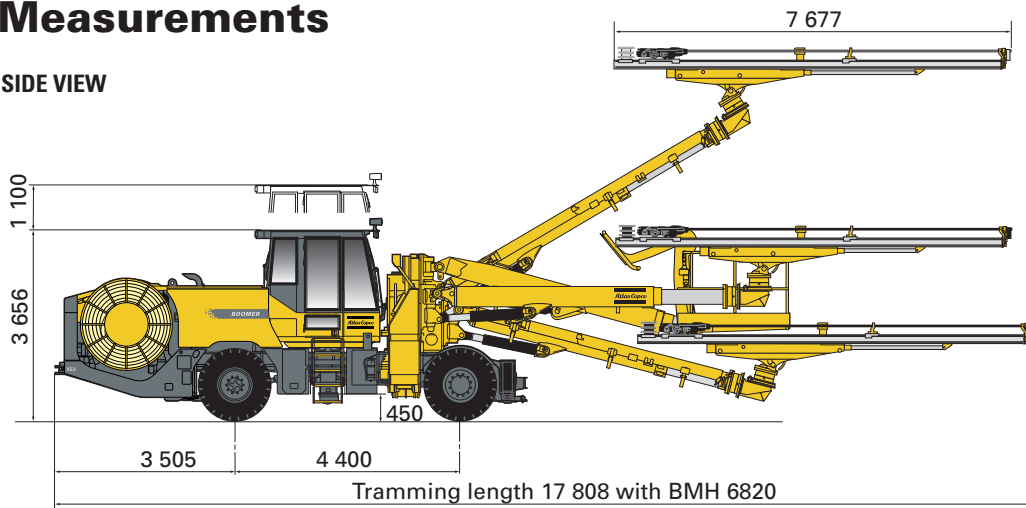
- Electric cable type Buxflex, 690/1 000 V
- Plug for cable
- Switch gear
- Electric outlet for accessories, 16 A and 32 A (CE)
- Extra transformer 3-phase, 15kVA (230/400 V outlet)
- Soft start of electrical motor

**» Miscellaneous**

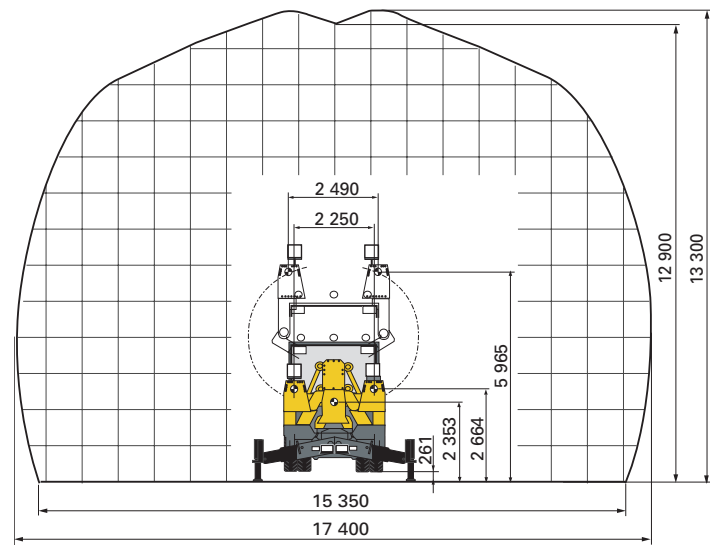
- Service platform, SP 3
- Swingable basket for service platform
- Retractable protective roof for service platform
- Water and air outlet in service platform
- Drainage water pipe through rig
- Hydraulic Swellex pump type H1 for manual installation
- Holder for spare drill rods
- Manual lubrication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

# Measurements

## SIDE VIEW



## COVERAGE AREA



## DIMENSIONS

mm		
Width		2 926
Height with cabin		3 664
Height cabin up		4 756
Length with BMH 6920 feeds		17 808
Ground clearance		438
Turning radius outer/inner		11 900/6 300

## 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	132 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

## RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm <sup>2</sup>	Diameter, mm	Length, m
690 V	Buflex	3x185+3G35	56	125
1 000 V	Buflex	3x120+3G25	46	175

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

## TRAMMING SPEED

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