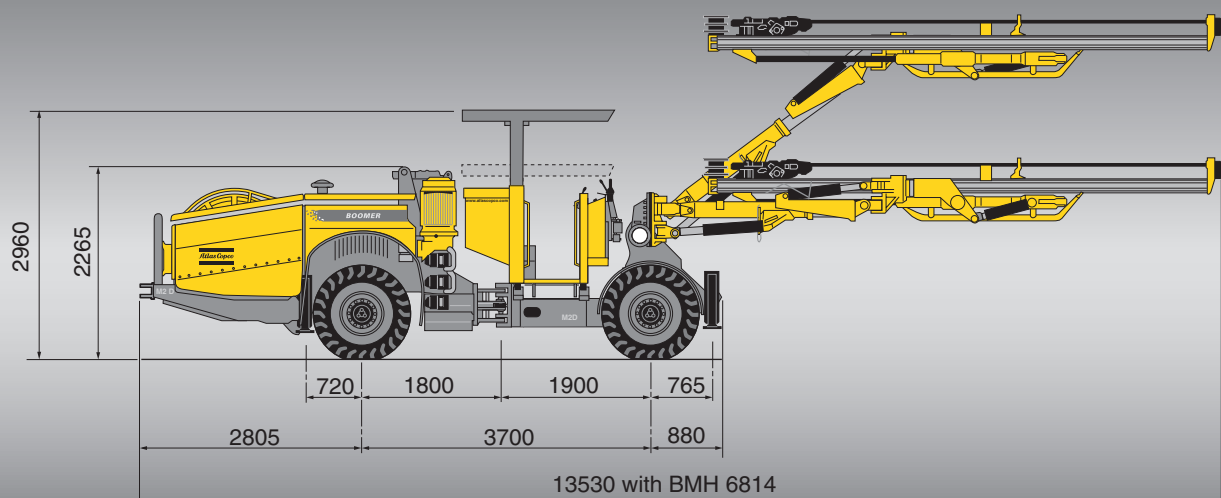


Boomer M2D

Direct controlled hydraulic tunnelling and mining rig with COP 1238 rock drills. Designed for power and productivity.

For cross sections up to 45 m²



Rig with optional equipment mounted. All dimensions in mm.

Features

- Direct controlled drilling system which incorporates excellent anti-jamming function RPCF (Rotation Pressure Controlled Feed force). Separate pumps for percussion, dampening/positioning and rotation for independent control and maximum output.
- COP 1238 rock drill with modern reflex dampening giving genuine high speed drilling and good drill steel economy. Lubrication system with separate lubrication of driver and gear gives reliable operation, low maintenance cost and long intervals between overhauls.
- BMH 6300 heavy-duty aluminium hydraulic feeds with double bottom for high torsional resistance. Snap-on stainless steel sleeves and polymer contact pads for long life and low maintenance cost.
- BUT 32 heavy-duty booms for direct, fast and accurate positioning between holes. Improved linkage bearings in main boom joints and new axial bearings in all boom joints
- Sturdy, articulated carrier with four wheel drive for easy manoeuvring in narrow tunnels and drifts. Powered by a turbocharged, water-cooled 4-cylinder, low emission diesel engine for high mobility. Four jacks for stable set up.
- Basic rig includes FOPS-approved protective roof, fixed seat for tramming, cable reel, water booster pump, screw compressor and work lights.

Main components

Rock drill	2 x COP 1238ME
Feed	2 x BMH 6300-series
Boom	2 x BUT 32E
Drilling system	DCS1200

Rock drill COP 1238ME-05

Shank adapter	R32, R38 or T38
Height over drill centre	86 mm
Impact power	15kW
Impact rate	40-60 Hz
Hydraulic pressure, max.	250 bar
Rotation system	separate rotation
Rotation speed	0-300 rpm
Rotation torque, max.	500 Nm
Lub. air consump. (at 3 bar)	5 l/s
Water consumption	0.8 l/s
Weight	151 kg
Sound level	<106 dB(A)

Feeds BMH 6300

	BMH 6312	BMH 6314	BMH 6316	BMH 6318
Total length (mm)	5287	5882	6502	7102
Drill steel length (mm)	3700	4310	4920	5530
Hole depth (mm)	3443	4043	4668	5268
Weight,incl.rock drill (kg)	601	631	665	696
Feed force, max. (kN)	20.0	20.0	20.0	20.0

Boom BUT 32E

Feed extension	1800 mm
Boom extension	1250 mm
Parallel holding	Complete
Feed roll-over	360 degrees
Max. lifting angle	+65 degrees -30 degrees
Max. swinging angle	±45 degrees
Weight, boom only	2075 kg

Hydraulic system

- Hydraulic pumps: 2 separate units, one for each boom. Each unit consists of two variable pumps for percussion and dampening/positioning, and one constant flow pump for rotation.
- Pumps unloaded at start
- System pressure 150-240 bar
- Hydraulic oil tank, volume max 250 l, min 200 l
- Low oil lever indicator (incl.shut down when power supply is connected)
- Oil temperature meter on oil tank
- Filtration, 20 µm absolute
- Oil filter indicator
- Water cooled oil cooler, stainless steel
- Mineral hydraulic oil

Air system

- Atlas Copco GA 5 screw compressor
- Capacity, max 20 l/s at 7 bar and 5400 rpm
- Hydraulic drive, axial piston motor 10 cc
- Adjustable speed
- Air pressure gauge

Water system

- Water booster pump CR 4-100
- Capacity, max 125 l/min at 9 bar boost
- Min water inlet pressure 2 bar
- Hydraulic drive, axial piston motor 5 cc
- Water pressure gauge

Carrier

- Deutz BF4M 1013C diesel engine, water-cooled turbocharged 115 kW (156 hp) at 2300 rpm, 572 Nm at 1400 rpm
- Articulated steering with +/- 38 degree steering angle
- Four wheel drive
- Hydrostatic power steering system
- Hydrodynamic Clark 24000 transmission
- Hurth 176 front axle
- Hurth 176 rear axle with +/- 8 degree oscillation
- Automatic differential lock on front axle, limited slip
- Tyres front and rear 14.00 x R24 Michelin XKA
- Clearance outside axles 15 degree
- Hydraulic jacks; 2 extensible with large plates at front and 2 at rear
- Service brakes: Two separate circuits, hydraulically applied, fully enclosed wet disc brakes
- Emergency and parking brakes: SAHR (Spring Applied Hydraulic Released) fully enclosed wet disc brakes
- Fuel tank, volume 100 l
- Electric system 24 V
- Batteries 2 x 125 Ah
- Trimming lights 8 x 70 W
- Illuminated stairs for platform, 2 x 70 W
- Central lubrication system
- Silencer
- Fire extinguisher
- Spirit levels one for longitudinal and one for sideways
- Horn
- Shelf for drill bits and tools
- Gradeability 1:4 at max. load on drive wheels
- Trimming speed on flat ground >15 km/hr (at rolling resistance 0,05); on incline 1:8 > 5 km/hr

Electrical system

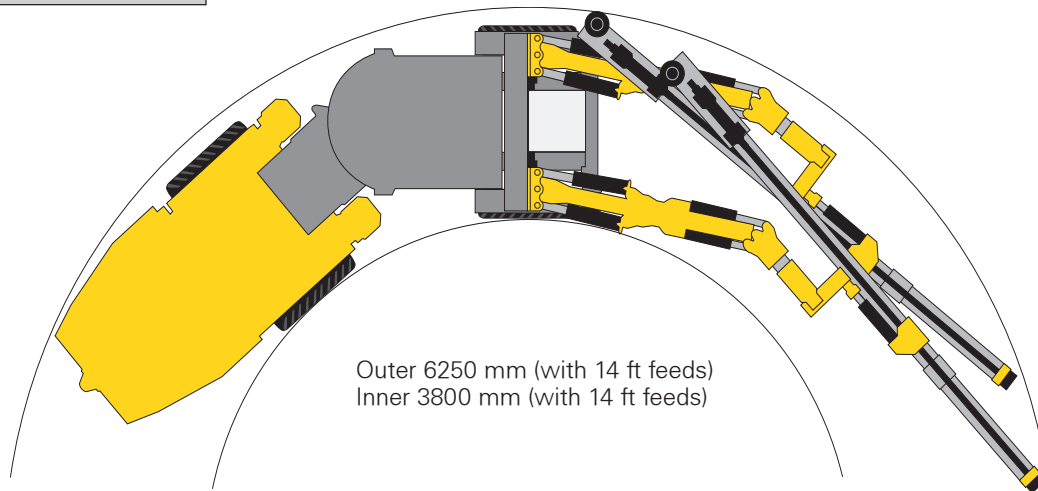
- Total installed power 118 kW
- Main motors 2 x 55 kW
- Voltage (as per customer specification) 400-690 V
- Frequency (as per customer specification) 50-60 Hz
- Starting method - star/delta (400 - 690 V)
- Electronic overload protection for electric motors
- Percussion hour meters on A-panel
- Digital volt/ampere meter in electric cabinet
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Transformer 8 kVA
- 2 x 1000 W working lights, halogen
- Cable reel, diameter 1600 mm

Recommended cable size and length

Voltage	Type	Dimension	Diameter	Length
400 V	RDOT	4x95 mm ²	55 mm	90 m
400 V	Buflex	3x150+3x25 mm ²	52 mm	100 m
440 V	RDOT	4x95 mm ²	55 mm	90 m
440 V	Buflex	3x120+3x25 mm ²	46 mm	135 m
460-500 V	RDOT	4x70 mm ²	49 mm	110 m
460-500 V	Buflex	3x95+3x16 mm ²	42 mm	155 m
500-550 V	RDOT	4x70 mm ²	49 mm	110 m
500-550 V	Buflex	3x95+3x16 mm ²	42 mm	155 m
660-700 V	RDOT	4x50 mm ²	44 mm	140 m
660-700 V	Buflex	3x70+3x16 mm ²	37 mm	205 m
1000 V	Buflex	3x35+3x6 mm ²	28 mm	365 m

Surrounding temperature < 40 degrees C.

Turning radius



Dimensions and weights

Width	2210 mm	Ground clearance	280 mm
Height roof down	2265 mm	Gross weight (basic rig)	19600 kg
roof up	2960 mm	Axle load boom side	14100 kg
Mounting height platform, standard	+140 mm	engine side	5500 kg
Length (with 14 ft feeds)	13530 mm		

Optional equipment

Rock drill/Drill system

- High torque rotation motor on rock drill
- Hole blowing kit, with 80 l air receiver
- Water mist flushing with external water and air supply (incl. extra hydraulic driven fan for oil cooling or water-oil cooling)
- Rock drill lubrication warning kit for three booms
- Big hole drilling kit

Feed

- Telescopic feed BMHT 6300-series for left/right handed booms, max 16 ft.
- Hydraulic drill steel gripper BSH 110 for extension drilling
- Rod Adding System RAS, max 14+10 ft rods

Boom

- Boom lubrication system, rear part of boom
- Ni-Cr plated piston rods (limited selection) on request

Software

- FAM 1, Electronic lookout indicator
- FAM 2, Electronic lookout indicator, with hole depth measuring (only for BMH and BMHS feeds)

Operator's platform

- Protective roof mounting height lowered 140 mm (rig height roof up 2820 mm/down 2265 mm) or increased 60 mm (rig height roof up 3020 mm/down 2325 mm) 310 mm (rig height roof up 3270 mm/down 2575mm)
- Safety belt
- Manual spot lights, 2 x 70 W

Water system

- Water hose reel (diam. 1100 mm) for hose diam. 1½", length 60 m at 70% filling rate (not in combination with extra transformer or extra air compressor)
- Dual controls for hose reel
- Water hose diam. 1½"
- Water flow gauge

Hydraulic system

- Electric oil filling pump
- Heater kit for hydraulic oil tank, electric motor and diesel engine, 1.0 kW

Carrier

- Exhaust water scrubber 95 or 150 l
- Exhaust catalyser
- Ansul fire suppression system, dry or wet
- Spare wheel
- High altitude setting of diesel engine
- Large plates for front hydraulic jacks

Electrical system

- Soft start for electrical motors, for 400 - 700 V (not for CSA approved rigs)
- 1000 V electric system, direct start only
- Electric cable, type RDOT or Buflex see recommendations
- Dual controls for cable reel
- Limit switch for cable reel
- Plug for cable (with wire hose mesh)
- Power supply (incl. male plug)
- Electric outlet for accessories, 32 Amp (Voltage = main supply voltage if no extra transformer is chosen. Not for 1000 V.)
- Extra transformer, 15 kVA (not in combination with water hose reel and not CSA)
- CSA approved electrics (Canadian regulations)
- Australian electrics according to AUS 3000

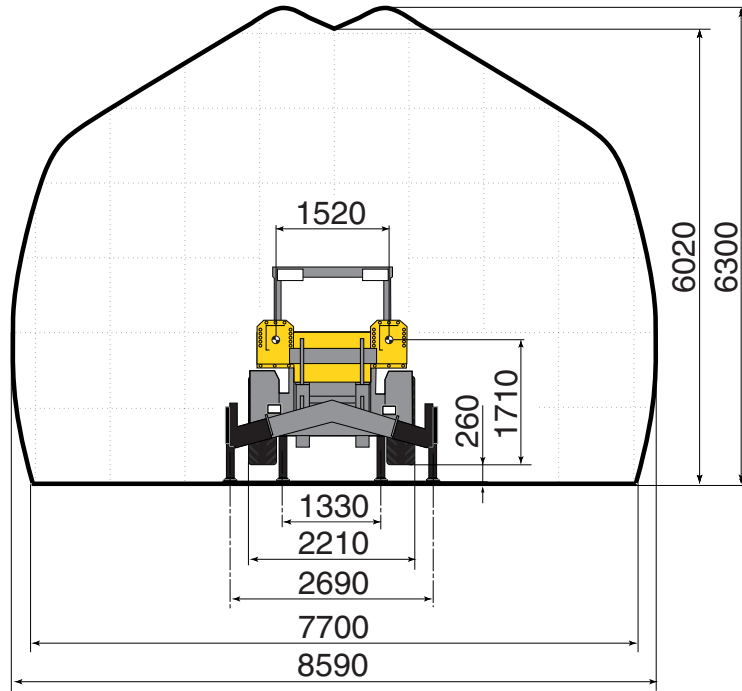
Miscellaneous

- Hydraulic Swellex pump
- Rig washing kit, with water hose and reel (water supplied from booster pump)
- Manual lubrication system, grease-gun with hose and reel (incl. 18 kg grease barrel)

Boomer M2D

Coverage area

(with 2° look-out angle)



Scale 1:100

Rock Drilling Tools

Drifter rods

Dimension	Min. hole dia, mm
R38-Hex 32-R32	41
R38-Hex 32-R28	41
R38-Hex 35-R32	45
R38-Hex 35-SR35	45
T38-Hex 35-R32	45
T38-Hex 35-R32 Speedrod	45
T38-Hex 35-SR35	45
T38-Hex 35-R35	48
T38-Hex 35-R35 Speedrod	48
T38-Rnd 39-R35	48
T38-Rnd 39-R35 Speedrod	48

Shank adapters

Thread	Dia, mm	Length, mm	Part No.
R38	38	485	404-03004,00
T38	38	485	435-03004,00
R32	38	575	403-03003,00*
T38	38	575	435-03003,00*

*= Intended for rod adding system, RAS, and extension drilling with BSH 110.

Extension rods for injection drilling/RAS

Dimension	Min. hole dia, mm
R32 Speedrod	51
T38 Speedrod	64

Couplings

Thread	Dia, mm	Length, mm	Part No.
R38	55	170	304-0055,00
T38	55	190	335-0055,00
T38	52	190	335-0052,00

For other dimensions and more information please see Secoroc General Catalogue, printed matter No. 9851 2156 01.