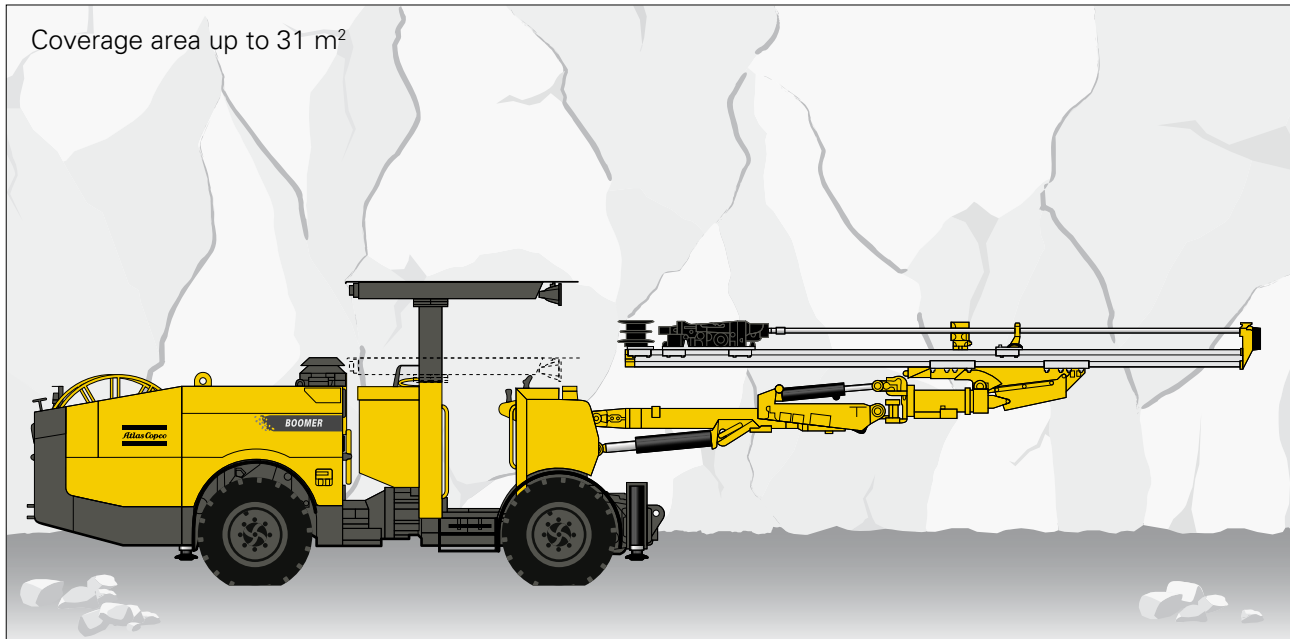


# Boomer S1 D

Equipped with COP 1638, COP 1838 or COP 2238 rock drill



Hydraulically controlled mining and tunnelling face drilling rig with one BUT 29 boom. Available with a variety of rock drills to suit customer requirements.

## Standard features

### » Rock drill

- COP 1638, COP 1838 or COP 2238 rock drill with dual-damping system for optimal consumable life
- Pressurized housing and mating surfaces to reduce internal contamination of the rock drill

### » Hydraulic boom

- BUT 29 heavy-duty boom with double tripod suspension for accurate hydraulic parallel holding in all directions

### » Hydraulic feed

- BMH 2000-series heavy-duty aluminium feed with high bending and torsional resistance for maximum durability
- Snap-on stainless steel sleeves and polymer contacts

### » Control system

- Hydraulically controlled drilling system which incorporates the anti-jamming function Rotation Pressure Controlled Feed (RPCF)

### » Carrier

- Sturdy, articulated carrier with four-wheel drive
- Powered by a 4-cylinder, EPA III/COM III (Tier 3/Stage IIIA) approved diesel engine
- Four jacks for stable set-up

### » General

- FOPS-approved telescopic protective roof
- Cable reel
- Hydraulically driven compressor
- Hydraulically driven water booster pump
- Working lights

# Specifications

## ROCK DRILL

	COP 1638	COP 1838	COP 2238
Shank adapter	R32/R38/T38	R32/R38/T38	R32/R38/T38
Height over drill centre	88 mm	88 mm	88 mm
Length without shank	1 008 mm	1 008 mm	1 008 mm
Impact power	16 kW	18 kW	22 kW
Impact rate	60 Hz	60 Hz	73 Hz
Hydraulic pressure	200 bar	230 bar	250 bar
Rotation system	Separate rotation	Separate rotation	Separate rotation
Rotation speed	0–340 rpm	0–340 rpm	0–340 rpm
Rotation torque, max	640 Nm	640 Nm	640 Nm
Lub. air consump. at 2 bar	6 l/s	6 l/s	6 l/s
Water consumption	1.1 l/s	1.1 l/s	1.1 l/s
Weight	170 kg	170 kg	170 kg
Sound level	<106 dB(A)	<106 dB(A)	<106 dB(A)

## FEED

BMH 2000	BMH 2831	BMH 2837	BMH 2840	BMH 2843	BMH 2849
Total length	4 677 mm	5 287 mm	5 587 mm	5 897 mm	6 507 mm
Drill steel length	3 090 mm	3 700 mm	4 000 mm	4 310 mm	4 920 mm
Hole depth	2 795 mm	3 405 mm	3 705 mm	4 015 mm	4 625 mm
Weight, incl. drill	485 kg	505 kg	525 kg	535 kg	550 kg
Feed force	15.0 kN	15.0 kN	15.0 kN	15.0 kN	15.0 kN

## » Boom

- BUT 29
- Feed extension ..... 1 250 mm
- Boom extension ..... 1 450 mm
- Parallel holding ..... complete
- Feed roll-over ..... 360°
- Max. lifting angle ..... +65°/-30°
- Max. swinging angle ..... ±35°
- Weight, boom only ..... 1 750 kg

## » Air system

- Compressor ..... Atlas Copco LE7
- Capacity at 1,500 rpm ..... 11.7 l/s at 7 bar
- Air pressure gauge

## » Water system

- Water booster pump ..... Flygt PXR411H
- Water booster pump max capacity at 12 bar, l/s ..... 1.1
- Min water inlet pressure, bar ..... 2
- Water flow guard

## ELECTRICAL SYSTEM

	COP 1638	COP 1838ME	COP 2238
Total installed power	59 kW	79 kW	79 kW
Main motor	55 kW	75 kW	75 kW
Voltage	380–1 000 V	380–1 000 V	380–1 000 V
Frequency	50–60 Hz	50–60 Hz	50–60 Hz
Transformer	4 kVA	4 kVA	4 kVA
Cable reel, diameter	1 300 mm	1 300 mm	1 300 mm
Starting method star/delta 380–690 V, direct start 1 000 V			
Thermal overload protection for electric motors			
Percussion hour meters			
Digital volt/ampere meter in electrical cabinet			
Phase sequence indicator			
Earth fault indicator			
Battery charger			
Cable reel			
Dual controls for cable reel			

## » Hydraulic system

- Hydraulic pumps ..... 1 unit
- Pumps unloaded at start
- Hydraulic oil tank, volume, max ..... 145 l
- Low oil level indicator
- Oil temperature meter on oil tank
- Oil filter indicator
- Oil/water cooler in stainless steel
- Filtration ..... 16 µm
- Mineral hydraulic oil
- Electric oil filling pump
- One operator control panel
- Rock drill lubrication warning kit

## » Carrier

- Deutz 4-cylinder, D914 L04, EPA III/COM III (Tier 3/Stage IIIA) approved 4-stroke prechamber diesel engine
- Power rating at 2 300 rpm ..... 58 kW (77.8 hp)
- Torque at 1 500 rpm ..... 270 Nm
- Articulated steering ..... ±40° steering angle
- Fixed seat for tramming
- Four-wheel drive
- Hydrostatic power steering system
- Hydrostatic transmission
- Front axle ..... Dana 112
- Rear axle ..... Dana 112, ±7° oscillation
- Automatic differential lock on front axle
- Tyres ..... 9.00 x R20
- 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 ..... 60 l
- Exhaust catalyser
- Electric system ..... 24 V
- Batteries ..... 2x12 V, 70 Ah
- Tramming lights ... 6x40 W 24 V LED, 2x70 W 24 V halogen
- Working lights ..... 3x35 W 24 V HID
- Brake lights
- Fire extinguisher
- Gradeability at max. load on drive wheels ..... 1:4
- Horn, beacon and reverse alarm

# Specifications

## DRIFTER RODS

Dimension		Min. hole diameter
mm	R38-HEX 35-R32	45
	T38-HEX 35-R32	45
	T38-HEX 35-R32 Speedrod	45
	R38-HEX 35-SR35 Speedrod	45
	T38-HEX 35-SR35	45
	T38-Rnd 39-SR35	45
	T38-HEX 35-R35	48
	T38-HEX 35-R35 Speedrod	48
	T38-Rnd 39-R35	48
	T38-Rnd 39-R35 Speedrod	48

## EXTENSION RODS FOR INJECTION DRILLING/RAS

Dimension		Min. hole diameter
mm	R32 Speedrod	51
	T38 Speedrod	64

## SHANK ADAPTERS

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

*\*Intended for extension drilling with BSH 110*

## COUPLINGS

Thread		Diameter	Length
mm	R38	55	170
	T38	55	190

# Optional equipment

## » Rock drill

- Big hole drilling system
- Water mist flushing, external water and air supply
  - Hydraulic oil cooled by water
  - Hydraulic oil cooled by air fan
- Hole blowing kit with 50 l air receiver
- External air supply for hole blowing kit
- Dry drilling system with dust collector

## » Feed

- Telescopic feed BMHT 2000-series (max 14 ft)
- Extension drilling set BSH 110 (BMH feeds only)
- Bulk head style hose tree on feeds
- Mining (heavy-duty) centralisers

## » Boom

- Feed Angle Measurement, FAM 1
- Feed Angle Measurement with hole depth, FAM 2
- Automatic boom lubrication kit, rear part of boom
- Boom suspension system

## » Water system

- Water hose reel

## » Hydraulic system

- Biodegradable hydraulic oil
- Hydraulic oil thermostat
- Heater kit for hydraulic oil tank

## » Carrier

- Deutz 4-cylinder BF4L 914, 4-stroke turbo diesel engine, Tier II (72 kW, 96 hp at 2500 rpm, 355 Nm at 1600 rpm, 14 km/h on flat ground, 9 km/h on incline 1:8)
- Fire suppression system ANSUL (manual or Checkfire)

- Hand throttle
- Illuminated stairs for platform/cabin

## » Protective roof

- Manual spotlight, left and/or right
- 12 V outlet for communication radio
- Swingable seat for drilling and tramming

## » Cabin

- FOPS-approved cabin, noise level <80 dB(A), height 2,800 mm including:
  - Air conditioning unit
  - Fixed seat
- Cabin body made of stainless steel
- Front window, 24 mm
- Electrical heater, 1.2 kW, 230 V (CE)
- Joystick-controlled spotlights left and/or right
- Swingable seat for drilling and tramming
- CD-player/radio
- 12 V outlet for communication radio

## » Electrical system

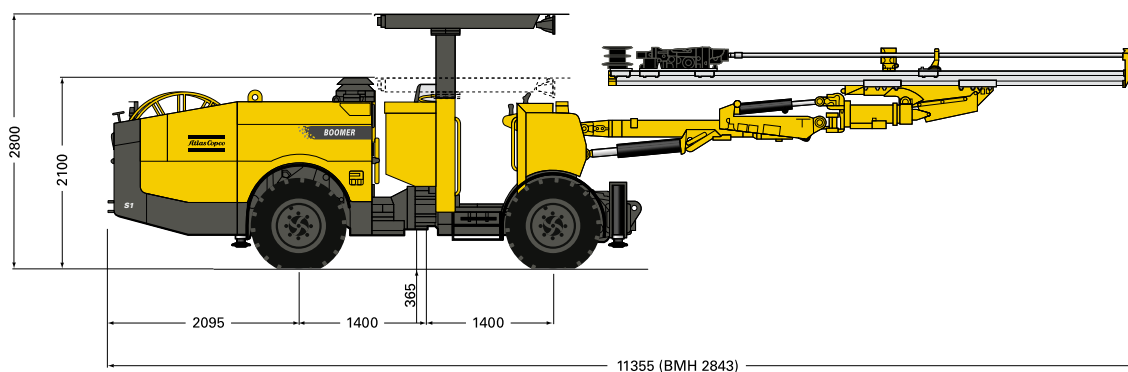
- Stainless steel electrical enclosure
- Electric cable type H07RN-F or Buxflex
- Plug for cable
- Switch gear
- Electric outlet for accessories, 16 A
- Starting method – soft start (not for 1000 V)

## » Miscellaneous

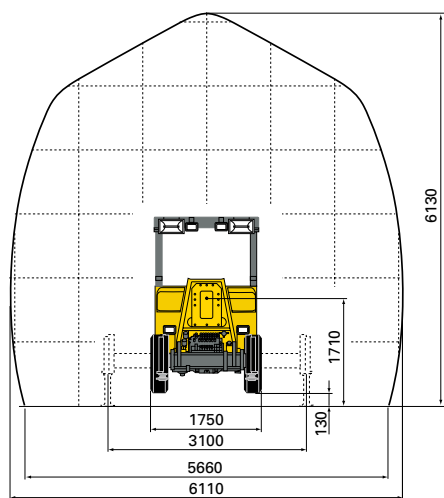
- Manual lubrication system
- Rig washing kit
- Boots washing arrangement
- Ni-Cr plated piston rods (limitations exist)

# Measurements

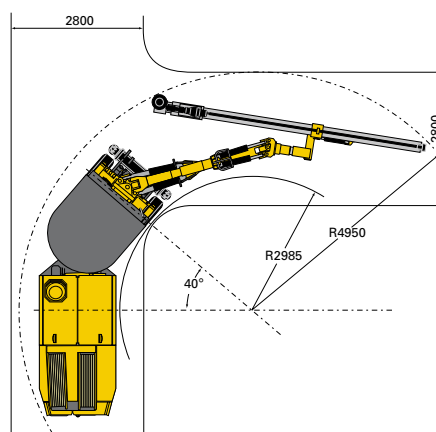
## SIDE VIEW



## COVERAGE AREA



## TURNING RADIUS



## DIMENSIONS

mm		
Width		1 750
Height roof down		2 100
Height roof up		2 800
Length with BMH 2843 feeds		11 355
Ground clearance (with std tires)		365

## TRAMMING SPEED

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

## WEIGHT

gross weight		
kg		
Total		12 000
Boom side		7 100
Engine side		3 900

## COP 1838/2238: RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm <sup>2</sup>	Diameter, mm	Length, m
380–400 V	H07RN-F	4G70	49	70
	Buflex	3x95+3G16	45	100
440 V	H07RN-F	4G70	49	70
	Buflex	3x95+3G16	45	100
500–525 V	H07RN-F	4G50	44	90
	Buflex	3x70+3G16	39	135
550–575 V	H07RN-F	4G50	44	90
	Buflex	3x70+3G16	39	135
660–690 V	H07RN-F	4G35	38	110
	Buflex	3x50+3G10	33	160
1,000 V	H07RN-F	N/A	N/A	N/A
	Buflex	3x35+3G6	29	200

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

## COP 1638: RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm <sup>2</sup>	Diameter, mm	Length, m
380–400 V	H07RN-F	4G50	44	90
	Buflex	3x70+3G16	39	135
440 V	H07RN-F	4G50	44	90
	Buflex	3x70+3G16	39	135
500–525 V	H07RN-F	4G35	38	110
	Buflex	3x50+3G10	33	160
550–575 V	H07RN-F	4G35	38	110
	Buflex	3x50+3G10	33	160
660–690 V	H07RN-F	4G35	38	110
	Buflex	3x50+3G10	33	160
1,000 V	H07RN-F	N/A	N/A	N/A
	Buflex	3x35+3G6	29	200

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