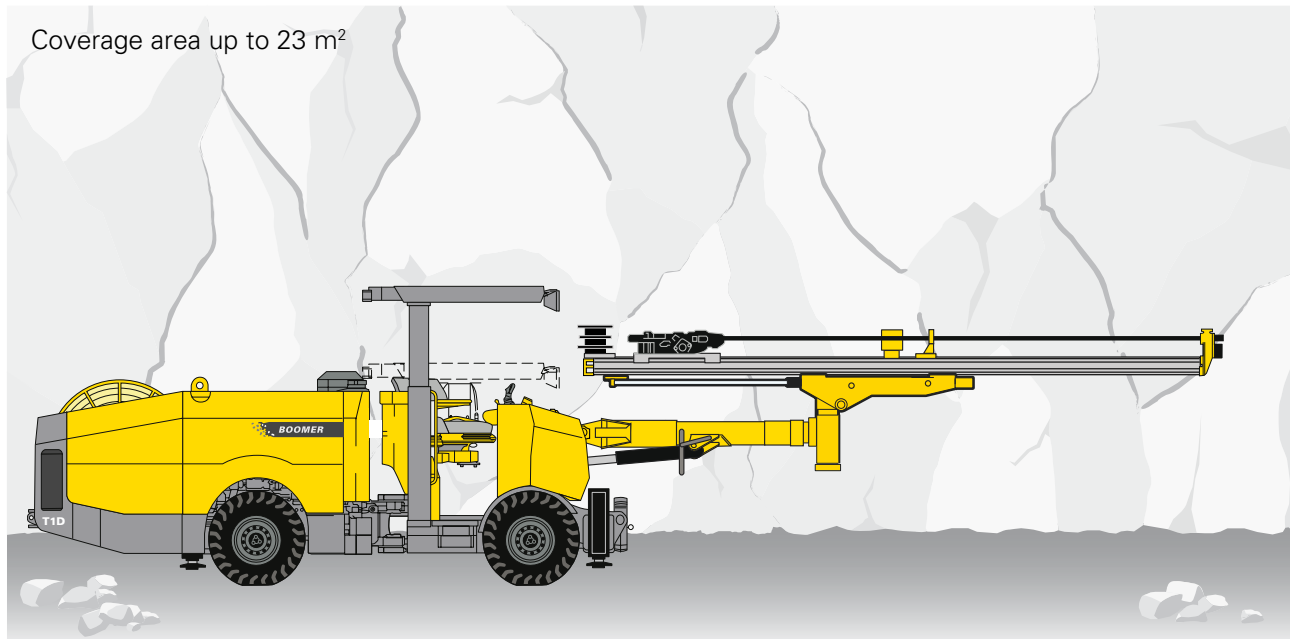


Boomer T1 D

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



Hydraulically controlled mining and tunnelling face drilling rig with one BUT 4B 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 4B heavy-duty boom for fast and flexible positioning between holes

» 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 |

FEED

| BMH 2000 | BMH 2825 | BMH 2831 | BMH 2837 |
|---------------------|----------|----------|----------|
| Total length | 4 087 mm | 4 677 mm | 5 287 mm |
| Drill steel length | 2 500 mm | 3 090 mm | 3 700 mm |
| Hole depth | 2 225 mm | 2 795 mm | 3 405 mm |
| Weight, incl. drill | 455 kg | 485 kg | 505 kg |
| Feed force | 15 kN | 15.0 kN | 15.0 kN |

» Boom

- BUT 4B
- Feed extension 1 500 mm
- Boom extension 900 mm
- Feed rotation $\pm 114^\circ$
- Feed roll-over 360°
- Feed dump cylinder $+18^\circ/-79^\circ$
- Max. swinging angle $\pm 30^\circ$
- Weight, boom only 1 042 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 2 bar
- Water flow guard

ELECTRICAL SYSTEM

| | COP 1638 | COP 1838 | 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 1000 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 $16 \mu\text{m}$
- 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 $\pm 40^\circ$ steering angle
- Fixed seat for tramming
- Four-wheel drive
- Hydrostatic power steering system
- Hydrostatic transmission
- Front axle Dana 111D
- Rear axle Dana 111D, $\pm 7^\circ$ oscillation
- Automatic differential lock on front axle
- Tyres 8.25 x R15
- 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 8x40 W 24 V LED
- Working lights 3 x35 W 24 V HID
- Brake lights
- Fire extinguisher
- Gradeability at max. load on drive wheels 1:4
- Horn, beacon and reverse alarm
- 12 V outlet

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

» Feed

- Telescopic feed BMHT 2000-series (max 12 ft)
- Extension drilling set BSH 110 (BMH feeds only)
- Bulk head style hose tree on feeds

» Boom

- Feed Angle Measurement, FAM T1 (including electronic parallel hold)
- Automatic boom lubrication kit, rear part of boom
- Boom suspension system

» Hydraulic system

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

» Carrier

- Fire suppression system ANSUL (manual or Checkfire)
- Illuminated stairs for platform/cabin

» Protective roof

- Manual spotlight, left and/or right

» Cabin

- FOPS-approved cabin, noise level <80 dB(A), height 2 716 mm including:
 - Air conditioning unit
 - Fixed seat
- Cabin body made of stainless steel
- Electrical heater, 1.2 kW, 230 V (CE)
- Manual spotlights
- CD player

» Electrical system

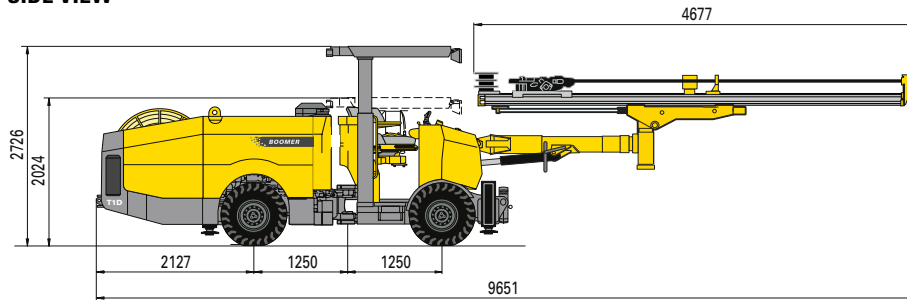
- Stainless steel electrical enclosure
- Electric cable type H07RN-F or Buflex
- Plug for cable
- Switch gear

» Miscellaneous

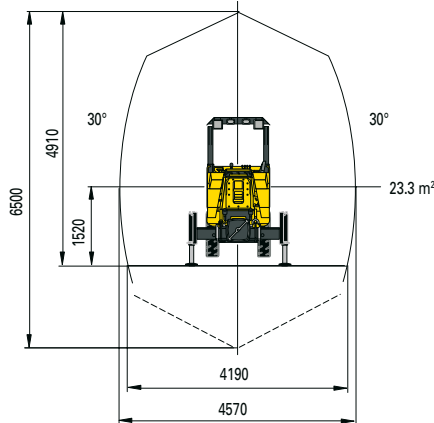
- Manual lubrication system
- Rig washing kit
- Ni-Cr plated piston rods (limitations exist)

Measurements

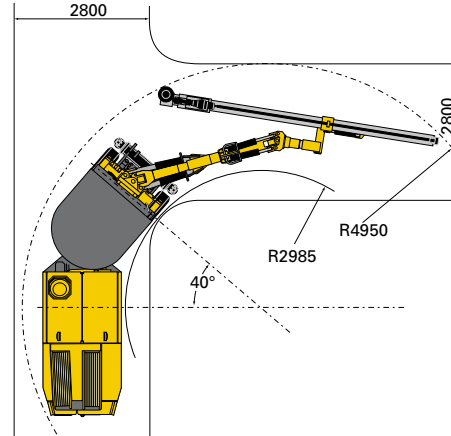
SIDE VIEW



COVERAGE AREA



TURNING RADIUS



DIMENSIONS

| mm | Width | 1 300 |
|----|-----------------------------------|-------|
| | Height roof down | 2 024 |
| | Height roof up | 2 726 |
| | Length with BMH 2837 feed | 9 651 |
| | Ground clearance (with std tires) | 296 |

TRAMMING SPEED

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

WEIGHT

gross weight

| kg | Total | 11 000 |
|----|-------------|--------|
| | Boom side | 7 100 |
| | Engine side | 3 900 |

NOISE AND VIBRATION

| | |
|------------------------------------------------------------------------------|-----------------------------|
| Operator sound pressure level in canopy, drilling, free field (ISO 11201) | 104+6 dB(A) re 20uPa |
| 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 | 128 dB(A) re 1pW |
| 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 |

COP 1838/2238: RECOMMENDED CABLE SIZE AND LENGTH

| Voltage | Type | Dimension, mm ² | 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 ² | 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.