Hydraulically controlled mining and tunnelling face drilling rig with two BUT 28 booms. Available with a variety of rock drills to suit customer requirements.

**Standard features**

**Rock drill**
- COP 1638HD+ or COP 1838HD + 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 28 heavy-duty boom with double tripod suspension for accurate hydraulic parallel holding in all directions

**Hydraulic feed**
- BMH 2800-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
- Electrically driven piston compressor
- Electrically driven water booster pump
- Working lights
Specifications

ROCK DRILL

<table>
<thead>
<tr>
<th>COP 1638HD+</th>
<th>COP 1838HD+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shank adapter</td>
<td>R32/R38/T38</td>
</tr>
<tr>
<td>Height over drill centre</td>
<td>88 mm</td>
</tr>
<tr>
<td>Length without Shank</td>
<td>1,008 mm</td>
</tr>
<tr>
<td>Impact Power</td>
<td>16 kW</td>
</tr>
<tr>
<td>Impact Rate</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Hydraulic Pressure</td>
<td>200 bar</td>
</tr>
<tr>
<td>Rotation System</td>
<td>Separate rotation</td>
</tr>
<tr>
<td>Rotation Speed</td>
<td>0–340 rpm</td>
</tr>
<tr>
<td>Lub. Air Consumption at 2 bar</td>
<td>8 l/s</td>
</tr>
<tr>
<td>Water consumption</td>
<td>1.1 l/s</td>
</tr>
<tr>
<td>Weight</td>
<td>170 kg</td>
</tr>
<tr>
<td>Sound level</td>
<td>&lt;106 dB(A)</td>
</tr>
</tbody>
</table>

FEED

<table>
<thead>
<tr>
<th>BMH 2800</th>
<th>BMH 2831</th>
<th>BMH 2837</th>
<th>BMH 2843</th>
<th>BMH 2849</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total length</td>
<td>4,677 mm</td>
<td>5,287 mm</td>
<td>5,697 mm</td>
<td>6,507 mm</td>
</tr>
<tr>
<td>Drill steel length</td>
<td>3,090 mm</td>
<td>3,700 mm</td>
<td>4,310 mm</td>
<td>4,920 mm</td>
</tr>
<tr>
<td>Hole depth</td>
<td>2,795 mm</td>
<td>3,405 mm</td>
<td>4,015 mm</td>
<td>4,625 mm</td>
</tr>
<tr>
<td>Weight, incl. drill</td>
<td>475 kg</td>
<td>485 kg</td>
<td>525 kg</td>
<td>540 kg</td>
</tr>
<tr>
<td>Feed force</td>
<td>15.0 kN</td>
<td>15.0 kN</td>
<td>15.0 kN</td>
<td>15.0 kN</td>
</tr>
</tbody>
</table>

» Boom

- Boom extension: 1,250 mm
- Feed extension: 1,250 mm
- Parallel holding: complete
- Feed roll-over: 360°
- Max. lifting angle: +65°–30°
- Max. swinging angle: +45°–25°
- Weight, boom only: 1,750 kg

» Air system

- Electronically driven screw compressor
- Capacity: max at 7 bar: 12,5 l/s
- Air pressure gauge

» Water system

- Electronically driven water booster pump
- Water booster pump max capacity at 13.5 bar: 100 l/min
- Min water inlet pressure: 2 bar
- Water flow guard

» Control system

- Direct hydraulic Control System, DCS
- Basic functions such as anti-jamming included

» Electrical system

- Total installed power: 125 kW
- Main motors: 2 x 55 kW
- Voltage: 380–1,000 V
- Frequency: 50–60 Hz
- Starting method: star/delta (1,000 V direct start)
- Thermal overload protection for electric motors
- Percussion hour meter
- Digital voltmeter/amperage meter in electric cabinet
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Transformer: 4 kVA
- Cable reel, diameter: 660/1,395 mm

» Hydraulic system

- Hydraulic pumps: 2 separate units, one for each boom
- Pumps unloaded at start
- System pressure, max: 150–230 bar
- Hydraulic oil tank, volume max/min: 195 l
- Oil temperature gauge on oil tank
- Electrical oil filling pump
- Oil filter indicator
- Water cooled oil
- Filtration: 16 μm
- Mineral hydraulic oil
- Two operator control panels

» Carrier

- Deutz 4-cylinder, D914 L04 2V, EPA III/COM III (Tier 3/Stage IIIA) approved 4-stroke prechamber diesel engine
- Power rating at 2,300 rpm: 55 kW (78 hp)
- Torque at 1,500 rpm: 270 Nm
- Articulated steering: ±41° steering angle
- Fixed seat for tramming
- Four-wheel drive
- Hydrostatic power steering system
- Hydrostatic transmission: Clark 12000
- Front axle: Dana 176
- Rear axle: Dana 176, ±8° oscillation
- Automatic differential lock on rear axle
- Tyres: 2 x 70 Ah
- Clearance outside axles: 12.00 x R20
- 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 catalyster
- Silencer
- Electric system: 24 V
- Batteries: 2 x 70 Ah
- Tramming lights: 8 x 70 W
- Working lights: 3 x 500 W
- Brake lights
- Fire extinguisher
- Central lubrication system
- Spirit level
- Gradeability at max. load on drive wheels: 1:4
- Horn, beacon and reverse alarm
- Rock drill lubrication warning kit
### Optional equipment

**» Rock drill/Drilling system**
- Big hole drilling kit
- Water mist flushing, external water and air supply
  - Hydraulic oil cooled by water
  - Hydraulic oil cooled by air fan
- Hole blowing kit with 2 x 50 l air receiver
- External air supply for hole blowing kit
- Dry drilling system

**» Feed**
- Telescopic feed BMHT 2000-series (max 14 ft)
- Extension drilling set BSH 110 (BMH feeds only)
- Mining (heavy-duty) centralisers

**» Boom**
- Feed Angle Measurement system (FAM 1)
- Feed Angle Measurement system with hole depth measurement (FAM 2)
- Automatic boom lubrication kit, rear part of boom

**» Protective roof**
- Manual spotlight, left and/or right
- Outlet for communication radio, 12 V
- Illuminated stairs

**» Cabin**
- FOPS approved cabin, noise level <85 dB(A), including:
  - Air conditioning unit
  - Fixed seat
- Manual spotlight, left and/or right
- Illuminated stairs for platform
- Media-player
- Outlet for communication radio, 12 V

**» Water system**
- Water hose reel

**» Hydraulic system**
- Hydraulic oil thermostat
- Heater kit for hydraulic oil tank

**» Carrier**
- Fire suppression system ANSUL (manual or Checkfire)

**» Electrical system**
- Electric cable type H07RN-F or Buflex
- Plug for cable
- Switch gear
- Electric outlet for accessories, 16 A (CE and not for 1,000 V)

**» Miscellaneous**
- Hydraulic Swellex pump type H1 for manual installation
- Manual lubrication kit
- Rig washing kit
- Boot washing kit
- Ni-Cr plated piston rods (limitations exist)
Measurements

**SIDE VIEW**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>mm</th>
<th>Width</th>
<th>1 990</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Height with cabin</td>
<td>3 050</td>
</tr>
<tr>
<td></td>
<td>Height roof up/down</td>
<td>3 000/2 300</td>
</tr>
<tr>
<td></td>
<td>Length with BMH 2343 feeds</td>
<td>11 830</td>
</tr>
<tr>
<td></td>
<td>Ground clearance</td>
<td>290</td>
</tr>
</tbody>
</table>

**TRAMMING SPEED**

<table>
<thead>
<tr>
<th>km/h</th>
<th>On flat ground (rolling resistance 0.05)</th>
<th>&gt;13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On incline 1.8</td>
<td>&gt; 4.5</td>
</tr>
</tbody>
</table>

**TURNING RADIUS**

**MEASUREMENTS**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Type</th>
<th>Dimension, mm²</th>
<th>Diameter, mm</th>
<th>Length, m</th>
</tr>
</thead>
<tbody>
<tr>
<td>380–400 V</td>
<td>H07RN-F</td>
<td>4x95</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Buflex</td>
<td>3x120+3G25</td>
<td>46</td>
<td>115</td>
</tr>
<tr>
<td>440–500 V</td>
<td>H07RN-F</td>
<td>4x70</td>
<td>49</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Buflex</td>
<td>3x95+3G16</td>
<td>45</td>
<td>120</td>
</tr>
<tr>
<td>550 V</td>
<td>H07RN-F</td>
<td>4x70</td>
<td>49</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Buflex</td>
<td>3x95+3G16</td>
<td>45</td>
<td>120</td>
</tr>
<tr>
<td>660–690 V</td>
<td>H07RN-F</td>
<td>4x50</td>
<td>44</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Buflex</td>
<td>3x50+3G10</td>
<td>33</td>
<td>200</td>
</tr>
<tr>
<td>1 000 V</td>
<td>H07RN-F</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Buflex</td>
<td>3x50+3G10</td>
<td>33</td>
<td>200</td>
</tr>
</tbody>
</table>

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

**WEIGHT**

<table>
<thead>
<tr>
<th>kg</th>
<th>Total</th>
<th>18 300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom side</td>
<td>12 800</td>
<td></td>
</tr>
<tr>
<td>Engine side</td>
<td>5 500</td>
<td></td>
</tr>
</tbody>
</table>

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