

BBD 94-DSI & BBC 34-DSI

Pneumatic Rock Drills made for the dimension stone industry.



An ideal rock drill for drilling marble and granite

These light pneumatic rock drills have been designed especially for use in the dimension stone industry, drilling holes of 27 – 41 mm. The BBC/BBD drills are well-proven and come equipped with an H22 chuck and air flushing as standard (water flushing is available as option). The machines can be equipped with cable or chain feeds, subject to the conditions overleaf. Thanks to stringent quality control of materials and the manufacturing process you will get consistently high performance, reliability and long service life.



BBD 94-DSI

- High performance rock drill for soft to hard rock
- Short stroke and high impact rate makes it ideal for soft rock
- Large piston diameter for high efficiency even at low air pressure
- Ratchet wheel rotation mechanism



BBC 34-DSI

- Highly efficient in medium to hard rock
- Long stroke, high impact energy
- Large piston diameter makes it very efficient even at low air pressure
- Powerful rifle bar rotation mechanism



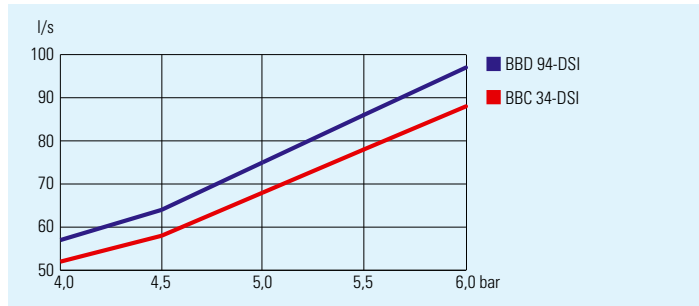
Rock drill data

Model	Part number	Air consumption at 6 bar	Piston bore	Stroke length	Impact rate at 6 bar	Length	Weight
		<i>l/s</i>	<i>mm</i>	<i>mm</i>	<i>Hz</i>	<i>mm</i>	<i>kg</i>
BBD 94-DSI	8311 0206 10	97	90	45	55	670	26
BBC 34-DSI	8311 0408 06	88	80	70	38	775	31

Air supply

In order to produce sufficient impact energy, each rock drill requires a certain flow of air at a given pressure. Atlas Copco rock drills are designed to give optimum performance at an air pressure of 6 bar, unless stated otherwise. Air pressure and flow should be measured dynamically at the intake nipple of the rock drill.

Air consumption



Lubrication

The drill rig must be fitted with an in-line lubricator that's compatible with the air pressure and flow rate to the rock drill(s). The lubricator must be filled with air tool oil with a viscosity that's suitable for the ambient working temperature. When lubrication is effective, a continuous film of oil wets the neck of the shank adapter during operation. (Oil in the exhaust air is no guarantee of effective lubrication.)

Recommended air tool lubricants

Use a mineral-based air tool oil

Ambient temperature °C	Viscosity grade (ISO 3448)
-30 to 0	ISO VG 32-68
-10 to +20	ISO VG 68-100
+10 to +50	ISO VG 100-150



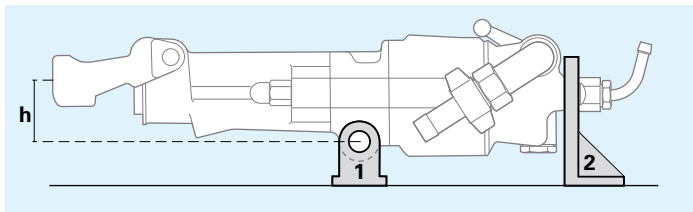
Easy rig mounting

The rock drills can be rig-mounted for use in a number of applications within the dimension stone industry. For good results, however, the following conditions must be met:

Correct mounting

Use the attachment point (1) on the underside of the rock drill as the main means of fixing it to the cradle. To further secure the rock drill, a support (2) must be mounted at the rear end and attached with the side bolts.

To minimize stress and hole deviation, the rock drill chuck and drill steel support must be aligned perfectly. If drill steels longer than 1.8 m are used, an intermediate drill steel support is recommended to improve hole straightness.



Rock drill type	Height to drill center (h)	Attachment bolt diameter (1)	Attachment hole diameter (2)
	mm	mm	mm
BBD 94-DSI	53	23 – 24	18
BBC 34-DSI	75	23 – 24	18

Faster drilling and lower drilling costs

Tapered drilling equipment offers a long list of advantages over integral steel. First and foremost, penetration is faster. Over 50% faster in some rock. Tapered bits are also easier to use: collaring is faster and drilling straight holes is simpler. And in addition to all of this, tapered equipment actually gives you lower total drilling costs. Still not convinced? Do a test run and judge for yourself.

Adequate feed force

To properly utilize the impact energy of a rock drill, the drill bit must be pressed against the rock with a certain force. How much force depends on the impact energy and the hardness of the rock being drilled. Higher air pressure gives higher impact energy. On rigs for light rock drills, a minimum feed force of 1.4 kN (140 kp) is recommended for each rock drill. The feed system must include a pressure regulator for stepless control of the feed force.

If two or more rock drills are to be mounted on the same feed unit, the cradle must be designed to permit variations in the rate of penetration between the individual drills while maintaining the correct feed force on each rock drill.

