M9104 Automated Core Plugging Machine
Grace Instrument’s M9104 Automated Core Plugging Machine uses a heavy diamond-tooled drill press and pressure feed to drill quickly into various rock densities. It also has a uniquely designed coring bit that is specifically engineered to accommodate multiple core samples sizes. The user can control the pressure through an automatic, variable force, constant pressure feed. The constant pressure feed uses a hydraulic (water pump) actuator, which enables the coring bit to drill faster into softer rocks samples but automatically drill slower into harder, or denser, rock samples. However, even at a lower rate of penetration, the coring bit’s operation is still smooth due to a rapid retractable position that removes the coring bit from the rock so that the plug is retrievable.

Coring operations are usually conducted with either water or oil, however, the user has the option to substitute with liquid nitrogen when working with loose materials. A core clamping assembly is mounted onto the pan table where an XY table allows the pan to be properly positioned before plugging.

The drill press is also able to drill vertically due to the head of the drill press being able to move at various angles.

Features

- Coring bit internal diameter 1.5"
- Maximum coring depth 5 inches & 12 inches
- Drip pan dimensions L x W x H is 1340 x 380 x 340 mm
- Coring position is any position from -45° to +45°
- Pan position X: ±1000 mm, Y: ±125 mm
- Compatible coolants vary from water, oil, or liquid nitrogen
- Drill speed is 550, 1120, 1680 RPM
- Electrical 230 VAC 1 phase, 50 or 60 Hz, 11.5 A
- Air 150 psi

Specifications

Core Bit Internal Diameter: 1.5 inches
Maximum Core Depth: 5 inches & 12 inches
Drill Speed: 550 rpm, 1120 rpm, 1680 rpm
Max Air: 150 psi
Pan Positions: X= ±1000 mm; Y= ±125 mm
Compatible Coolants: Water, Oil, Liquid Nitrogen
Electrical Requirements: 230 VAC, 50 or 60 Hz, 11.5 Amp