



Automatic Core Grinding Machine For Sample Preparation – CoreGrind 3000



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Description

CoreGrind 3000 is a **fully automatic rock core grinding machine** used for sample preparation before laboratory testing. It grinds core specimens under electronic control, with a 7-inch touchscreen for setup and process monitoring.

Grinding parameters can be set through recipe-based operation, and the pneumatic sample locking system secures specimens during the grinding cycle. An automatic recirculating water spray system is used during grinding to reduce dust and support a cleaner working process.

CoreGrind 3000 is typically used ahead of rock mechanics and geotechnical test programs where consistent specimen preparation is required. It is commonly paired with the [CoreTrim 3000](#) fully automatic core trimmer and cutting machine as part of a complete sample preparation workflow.

Main Features and Capabilities

CoreGrind 3000 includes control, handling, and monitoring features for fully automatic core grinding in rock sample preparation workflows. Key features and capabilities include:

- **7-Inch Touchscreen Control:** Sets parameters, runs programs, and monitors the grinding process from the operator interface.
- **Automatic Electronic Control System:** Executes the grinding cycle automatically based on the selected settings.
- **Pneumatic Sample Locking System:** Holds core specimens securely during grinding.
- **Recipe-Based Operation:** Saves and runs grinding recipes based on sample characteristics.
- **Adjustable Grinding Steps (0.5 To 1.5 mm):** Controls material removal per step to match



specimen requirements.

- **Recirculating Water Spray Against Dust:** Applies water during grinding to reduce dust and support a cleaner process.
- **Multi-Language Interface:** Supports operation in multiple languages.
- **Process Memory And Tracking:** Records the number of samples and total grinding completed.
- **Diamond Grinding Blade Life Monitoring:** Tracks grinding wheel condition to support planned maintenance.
- **Optional Surface Flatness Control (0.01 Degree):** Checks surface flatness via touchscreen when the optional device is installed.
- **Ethernet Remote Connection:** Enables remote diagnostics and device data tracking via Ethernet.

How It Works

CoreGrind 3000 follows a simple operating sequence for fully automatic core grinding during rock sample preparation:

1. Load the core specimens into position.
2. Lock the specimens using the pneumatic sample locking system.
3. Select a saved recipe or set grinding parameters on the 7-inch touchscreen.
4. Start the cycle and monitor the grinding process while the unit runs automatically with recirculating water spray for dust control.

Applications

CoreGrind 3000 is used for rock core sample preparation where specimens must be ground before laboratory testing.

- Rock Mechanics Testing Laboratories
- Core Specimen Preparation For Routine Testing
- Geological And Research Sample Preparation Workflows



Technical Specifications and Versions

CoreGrind 3000 is available in two versions. V1 covers standard core diameters and includes a published throughput reference for common specimen sizes, while V2 expands the diameter range for larger cores and references sample abrasion strength up to 200 MPa.

Specification	CoreGrind 3000 V1	CoreGrind 3000 V2
Machine Type	Fully Automatic Core Grinding Machine For Sample Preparation	
Control System	7-Inch Touchscreen Electronic Control	
Sample Locking	Pneumatic Sample Locking System	
Recipe-Based Operation	Yes	
Grinding Step Setting	0.5 To 1.5 mm	
Dust Control	Recirculating Water Spray Against Dust	
Multi-Language Support	Yes	
Data Recording	Number Of Samples And Grinding Amount Stored In Memory	
Diamond Grinding Blade Life Monitoring	Yes	
Optional Flatness Control	0.01 Degree Precision (Optional)	
Remote Connection	Ethernet Remote Connection	
Core Diameter Range	1.50 To 3.94 in (38 To 100 mm)	1.97 To 6.30 in (50 To 160 mm)
Throughput Reference	3 × 100 × 200 mm + 2 × 150 × 300 mm In 62 s	Depends On Specimen Size And Setup
Sample Strength Reference	Depends On Sample Material And Abrasion Conditions	Up To 200 MPa
Power Supply	220 V, 50 To 60 Hz	



Optional Accessories and Add-Ons

CoreGrind 3000 can be supplied with optional accessories to support the grinding process and site setup:

- **Water Tank With Filtration And Circulation:** Optional tank and recirculation system for CoreGrind 3000 (V1 and V2).
- **Grinding Wheel:** Optional grinding wheel for CoreGrind 3000 (V1 and V2).

Request A Quote for CoreGrind 3000

For pricing, lead time, and configuration details, [request a quote](#) or [contact us](#) directly. Please include the required version (V1 or V2), core diameter range, specimen sizes, target throughput, and local power standard, or get the catalogue for full product information.

*** Request a [formal quotation](#) or send an e-mail to sales@nextgentest.com for the most up-to-date pricing and applicable discounts and incentives.**