1. HTHM-70A Fully Automatic Hardgrove Grindability Index Tester

HTHM-70A Fully Automatic Hardgrove Grindability Index Tester Compliant with GB/T 2565-2014 ("Determination of Hardgrove Grindability Index of Coal"). Designed specifically for testing the grindability of bituminous coal and anthracite, the results are expressed as the Hardgrove Grindability Index (HGI)—higher values indicate easier grindability. The instrument provides accurate data to guide coal mill design and operation.

Features:

1. **Compact & Space-Saving**: Sleek design with small footprint, ideal for laboratory environments.

2. **Fully Automated Operation**:

One-button start for complete grinding process.

Precise automatic counting.

Auto-lifting grinding bowl eliminates manual handling.

Low-maintenance design.

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—higher values indicate easier grindability. The instrument provides accurate data to guide coal mill design and operation.

Upgraded from HM-60G, the HTHM-70A retains all legacy functions while offering enhanced sealed, eco-friendly manufacturing aligned with national environmental standards. Widely used in coal, power, new energy, metallurgy, and chemical industries for grindability analysis.

Structural Highlights

The tester consists of:

Base unit

Electrical control box

Motor

Grinding assembly (straight gears, weights, spindle, grinding ring, steel balls, grinding bowl)

Lifting mechanism

Key Innovations:

1. **Smart Touchscreen Control**:

Real-time status/progress display.

Bilingual (Chinese/English) input with voice prompts.

2. **Automated Functions**:

Auto-lifting grinding bowl.

Auto-loading, auto-counting, and auto-stop at target rotations.

Power-off data retention.

Emergency stop button.

3. **Data Management**:

Storage, query, deletion, and password protection.

Built-in micro-printer for automatic HGI calculation and reporting.

4. **Calibration**:

Embedded linear regression correction program.

Auto-calculation and storage of correction results.

Technical Specifications

Parameter	Specification
Model	HTHM-70A
Spindle Speed (r/min)	20 ± 1
Operating Rotations (r)	60 ± 0.25
Grinding Pressure (N)	284 ± 2
Grinding Bowl Capacity (g)	50
Steel Ball Diameter (mm)	25.4
Noise Level (dB)	≤65
Power Supply (V)	AC 220
Motor Power (W)	200
Weight (kg)	60

2.HTHM-70 Fully Automatic Hardgrove Grindability Index Tester

Based on the grinding law (the energy consumed to grind coal powder is proportional to the new surface area generated), this product has passed ministerial-level technical certification and is manufactured by our company.

Testing Principle:

Based on the grinding law (the energy consumed to grind coal powder is proportional to the new surface area generated), this product has passed ministerial-level technical certification and is manufactured by our company.

Product Features:

1. The Hardgrove Grindability Index Tester is designed in accordance with the principles and methods specified in GB/T 2565-2014.

2. The instrument is equipped with a built-in linear regression correction curve program, enabling automatic calculation of the Hardgrove Grindability Index during calibration.

3. Intelligent control, with real-time display of working status and progress. The benchtop structure is compact, modern, and easy to operate.

4. Automatic grinding bowl lifting and loading, with automatic rotation counting.

5. Data query function, built-in printer, and automatic calculation and printing of test results.

Technical Parameters:

Item	Specification
Spindle Speed (r/min)	20 ± 0.5
Maximum Working Rotations (r)	60 ± 1/4
Load Force (N)	284 ± 2
Total Power (W)	155
Power Supply	220V, 50Hz
Weight (kg)	120

3.HTHM-60G Hardgrove Grindability Index Tester

The HTHM-60G Hardgrove Grindability Index Tester is specifically designed to determine the grindability of bituminous coal and anthracite, expressed as the Hardgrove Grindability Index (HGI). A higher HGI value indicates easier grindability. This instrument provides accurate data to reflect coal' s grinding difficulty, offering essential references for coal mill design and operation. Compact and user-friendly, it is widely used in coal, power, metallurgy, and chemical industries.

Working Principle & Structural Features:

The tester operates based on the grinding law (energy consumed in grinding coal is proportional to the new surface area generated). Prepared coal samples (specific particle size) are ground in the Hardgrove device, followed by sieving, weighing, and referencing calibration charts to determine the HGI.

Key Components:

Grinding Assembly: Includes a grinding bowl with eight 25.4mm steel balls, driven by a motor (20±1 rpm) under a load of 284±2N.

Upper Bowl Mechanism: Comprises a bridge base, spiral cam, bowl shaft, and handle for vertical lifting.

Control System: Features an intelligent rotation counter with LCD display, auto-stop at 60±1/4 rotations, and emergency stop function.

Technical Specifications:

- **Operation**: Mechanical bowl lifting + microcomputer counting.
- **Rotation**: 20±1 rpm (Limit: 60±1/4 rotations).
- **Load Force**: 284±2N.
- **Weight**: 90 kg.
- **Power**: 90W, 380V.
- **Dimensions (L×W×H)**: 360×420×490 mm.

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