1. HT-GF8200 Fully Automatic Industrial Analyzer

HT-GF8200 fully automatic industrial analyzer is suitable for batch determination of moisture, ash content, volatile matter in coal, coke and other substances, calculation of fixed carbon, and estimation of calorific value and hydrogen value based on empirical formulas.

Capabilities: Complete moisture, ash, and volatile matter tests for 20 samples within 90 minutes.

Application Scope:

Determination of moisture, ash, volatile matter, and calculation of fixed carbon, hydrogen content, and calorific value in coal, coke, ores, carbon black, asphalt, and solid biomass fuels.

Analysis of combustible content in fly ash and slag.

Analysis of moisture, ash, and volatile matter in calcined petroleum coke.

Analysis of loss on ignition in cement.

Technical Features:

1. **Standardized Process, Accurate Results:** The testing process, conditions, and results for moisture, ash, and volatile matter meet national standards, requiring no correction, and can be used for arbitration analysis.

2. **Extremely Fast Testing Speed:** Experiments can be conducted immediately after

startup. The multi-furnace, dual-balance structure with a constant-temperature drying device allows for the combination or separate measurement of moisture, ash, and volatile matter. Three indicators for 20 samples can be tested simultaneously within 90 minutes (fast method).

3. **High Automation:** Utilizes advanced computer real-time communication technology and adaptive control technology. High-precision imported electronic balances are integrated into the instrument, combined with automatic weighing mechanisms, and thermogravimetric analysis. Automatic sampling, data processing, result calculation, report printing, and storage enable unattended operation.

4. **Simple and Safe Operation:** No need to handle crucible lids, feed, or retrieve samples during the experiment. Imported cylinders automatically control the opening and closing of the water and ash covers, avoiding high-temperature radiation and burn risks.

5. **Accurate Temperature Control:** The cylindrical high-temperature furnace ensures uniform temperature distribution. The optimized process avoids temperature field disturbances caused by frequent opening of the furnace door in assembly line operations. Advanced PID temperature control algorithms ensure a control accuracy of 1℃.

6. **Patented Insulation Mechanism:** Ensures a stable and interference-free working environment for the built-in balance.

7. **Classic Structural Design:** Patented weighing and feeding mechanisms improve weighing and feeding speed, reducing testing time. The absence of "mechanical arms" or sliding rail translation devices prevents accidents such as crucible dropping, misalignment, or breakage during transfer.

8. **Thermal Balance Weighing Technology**: A single sample tray eliminates the need for frequent sample movement between combustion and weighing trays.

Calibration is performed in the same atmosphere using a blank crucible, avoiding weighing errors caused by inconsistent crucible temperatures in assembly line operations. Multiple weighing methods are available.

9. **Strong Adaptability:** A silent air compressor can be used to provide compressed air for driving pneumatic devices and combustion, eliminating the need for any bottled gas.

Technical Parameters:

1. Sample weight: 0.5~1.5g

2. Maximum working temperature: 1000℃

3. Temperature control accuracy: 1℃

4. Number of samples: 1~20 for moisture and ash, 1~24 for volatile matter

5. Testing temperatures: 105℃ (moisture), 815℃ (ash), 900℃ (volatile matter)

6. Testing time: ≤90 minutes for three indicators of 20 samples

7. Precision: Complies with GB/T212-2008 and ASTM D5142-2009 standards

8. Accuracy: Within the uncertainty range of standard samples

9. Power supply: 220V±22V, 50HZ±1HZ

10. Power: ≤8KW

Standard Configuration:

Dual-furnace type / Lenovo brand computer / Laser printer

2. HT-GF8000 Fully Automatic Industrial Analyzer
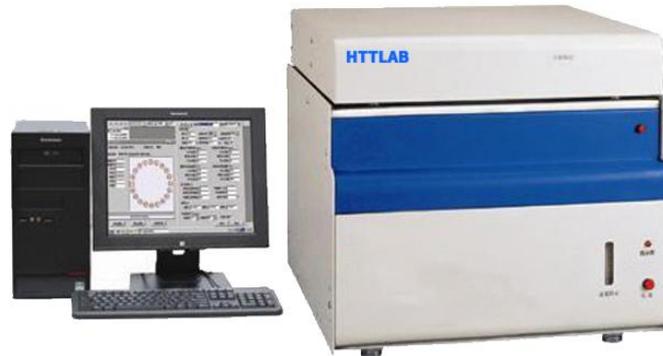
HTGF-8000 Fully Automatic Industrial Analyzer Suitable for industries and departments such as coal, power, metallurgy, commodity inspection, environmental protection, papermaking, chemical industry, scientific research, quality inspection, and schools. It is used for batch determination of moisture, ash, volatile matter in coal, coke, and other substances, calculation of fixed carbon, and estimation of calorific value and hydrogen content based on empirical formulas

Performance Features:

■ High automation: After placing the samples, simply click the mouse to automatically complete the test and print the results, making operation simple.

■ Accurate testing: Tests on more than twenty standard coal samples have shown accurate results; comparative experiments with national standard methods confirm that the testing precision meets requirements.

■ High efficiency:

Fast method: Moisture, ash, and volatile matter for 19 samples ≤ 180min

Classic method: Moisture (drying test) and ash (slow ash + drying test) for 19 samples ≤ 260min

■ The three indicators of moisture, ash, and volatile matter can be measured in any combination or separately.

■ Uses an imported integrated furnace, with fast heating, energy saving, and

short testing time.

■ Uses imported electronic balances and stepper motors to ensure stable testing performance.

Technical Parameters:

■ Power: ≤5kw

■ Gas requirements:

Oxygen: Purity 99.5%, pressure after stress relief 0.1Mpa

Nitrogen: Purity 99.5%, pressure after stress relief 0.1Mpa

Pressure reducer: High end 0-25Mpa, low end 0-0.4Mpa

■ Number of crucibles: Can test 19 samples at once

■ Sample mass: Moisture and ash samples 0.6-1.1g (mass adjustable)

■ Furnace temperature range: Room temperature – 1000℃

■ Meets the requirements of GB/T212-2008 "Proximate Analysis of Coal"

■ Dimensions (mm): 605×605×603

■ Weight: 95kg.

3.HT-SC5500 Fully Automatic Moisture Analyzer

HT-SC5500 Fully Automatic Moisture Analyzer is suitable for the detection of air-dried basis moisture and total moisture in coal, coke, petroleum, biomass fuels, and ores. The fully automatic moisture analyzer features touch screen operation, voice prompts, and a built-in balance. It can test up to 20 samples at a time, making it more suitable for users with a large number of samples.

Compliance Standards:

GB/T212-2008 "Proximate Analysis of Coal"

GB/T211-2007 "Determination of Total Moisture in Coal"

GB/T28731-2012 "Proximate Analysis of Solid Biofuels"

GB/T28733-2012 "Determination of Total Moisture in Solid Biofuels"

Technical Features:

1. Equipped with a 7-inch touch-sensitive LCD screen, offering sensitive response and convenient operation.

2. Fully automated heating, weighing, and data printing throughout the process.

3. Infrared heating method, unaffected by coke, flammable substances, or coal and iron minerals with high metal content.

4. Built-in electronic balance with self-check and automatic zeroing functions,

ensuring fast and accurate data.

5. Automatic sample coding and data storage.

Technical Parameters:

1. Number of test samples: 1-20 per batch

2. Testing time: 10-30 minutes

3. Sample mass:

4. Internal moisture: 0.9～1.1g

5. Total moisture: 10～12g

6. Sample particle size:

7. Internal moisture: ≤0.2mm

8. Total moisture: ≤6mm

9. Testing temperature: 105-110℃

10. Temperature control accuracy: ≤±2.5℃

11. Power: Rated input power ≤3KW

Accessories List:

Tray: 1 piece

Moisture cups: 20 pieces

Electronic balance: 1 unit

Panel printer: 1 unit

4.HT-SC5000 Fully Automatic Moisture Analyzer

The HT-SC5000 fully automatic moisture analyzer adopts a 7-inch touch LCD screen and an integral installation method to ensure the firmness of the touch screen. Infrared technology, using CRT display materials to make the touch screen more durable.

Performance Features:

1.   Equipped with a 7-inch touch-sensitive LCD screen, installed in an integrated manner to ensure the sturdiness of the touch screen. Infrared technology is used, and CRT display materials are selected to make the touch screen more durable. Multi-layer composite film coverage ensures optimal color distortion, reflectivity, and clarity. The touch screen is highly sensitive, with precise positioning, and the effective touch area is up to 90%. It is wear-resistant and has a lifespan of up to 10 years. Chinese character display is supported, and no external computer is needed for direct operation.

2.   Single-chip microcomputer automatic control ensures accurate measurement and stable performance. It can be connected to a computer for operation.

3.   Infrared testing method is used, offering fast analysis speed and simple operation. It is suitable for the analysis of any type of coal, minerals, food, and other materials.

4.   Automatic weighing of samples. Drying time and method can be set arbitrarily, with high drying efficiency, short time, and energy-saving features. It is suitable for coke, flammable substances, and coal or iron minerals with high metal content.

5.   The furnace door is equipped with multiple safety protection devices and has a power-off protection function.

6.   Imported precision electronic analytical balance with self-check and automatic zeroing functions.

7.   Automatic sample coding and data auto-save.

Technical Parameters:

1. Measurement items: Total moisture (Mt) and analysis moisture (Mad).

2. Power supply: AC220±20V, 50Hz.

3. Analysis time: Adjustable.

4. Infrared power: ≤1500W.

5. Balance weighing range: ≤120g.

6. Balance resolution: 0.0001g.

7. Moisture measurement accuracy: The difference between two repeated measurements should not exceed:

1. For total moisture (Mt): <10%, 0.4%; ≥10%, 0.5%.

2. For analysis moisture (Mad): <10%, 0.2%; ≥10%, 0.3%.

8. Number of samples per analysis: ≤9.

9. Environmental requirements:

1. Temperature: 0～40℃.

1. Relative humidity: ≤85%.

10. Total power: 2.5kW.

5.HT-MF3000 Intelligent Integrated Muffle Furnace

HT-MF3000 Intelligent Integrated Muffle Furnace (Ash and Volatile Matter Tester or Box-Type High-Temperature Furnace) is a specialized instrument used for testing ash and volatile matter indicators in coal.

Functional Features:

High-temperature resistant heating liner, which accurately defines the constant temperature zone of the muffle furnace, effectively utilizes the constant temperature zone space, and ensures precise, accurate, and stable results for multiple samples.

Fast heating: High-performance insulation materials with a maximum heating rate of approximately 50℃/min, ensuring faster temperature rise.

Large constant temperature zone: Multiple sample tests with minimal deviation and stable experiments.

Rapid result calculation: Built-in dedicated calculation formulas for quick and accurate experimental results, simplifying requirements.

In addition to dedicated experimental testing functions such as slow ash, fast ash, volatile matter, and caking properties, it also features a powerful self-selection setting function, allowing the setting of 100 heating programs, with each program capable of setting 100 segmented heating programs, offering greater flexibility.

The display window uses a 7.0-inch color LCD touch screen, with intuitive, easy-to-understand, and easy-to-use content, making operation simple and convenient. The control core adopts an ARM9 microprocessor, ensuring fast speed

and strong real-time performance.

Reliable fault self-tuning function, with multiple protection features.

Loaded with national standards, user manuals, and common troubleshooting methods internally.

Technical Parameters:

Power supply voltage: AC220V±10%, 50Hz (supports two single-phase power supplies)

Power: 3.5W

Maximum heating rate: Approximately 50℃/min

Temperature measurement range: 0—1000℃, equipped with a K-type thermocouple

Temperature resolution: 1℃

Temperature control accuracy: ±2℃

Furnace chamber size (mm): 300×200×120

Total weight: 40Kg

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