

1.HTRF6001X Fluorescence Calcium Iron Analyzer



The HTRF6001 X-ray Fluorescence Calcium Iron Analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. It is used in cement plants and can quickly analyze the percentage content of CaO and Fe₂O₃ in white raw materials, fully black or semi black raw materials, clinker, and cement from rotary kilns, mechanized shaft kilns, and external decomposition rotary kilns within 30 seconds. It provides timely data for ingredient control. Due to its fast analysis speed (30 seconds), it can monitor the changes in composition during the production process in real time, facilitating timely adjustment of raw material ratios and laying a solid foundation for the production of qualified clinker and cement. It can also be used to analyze the percentage content of CaO and Fe₂O₃ in mixed materials such as limestone, clay, iron powder, fly ash, coal gangue, and brick blanks, providing quality data for incoming raw materials. In addition to the building materials industry, it can also be used in various occasions where the percentage content of CaO and Fe₂O₃ needs to be analyzed.

7-inch touch screen display, bilingual Chinese and English menu prompts for operation, intelligent error alarm prompts, extremely convenient to use. 10 minutes of rapid preheating. No need for any chemical reagents, no discharge of three

wastes, no radioactive sources, low power consumption, in line with environmental protection, energy conservation and safety requirements.

It can directly measure the content of calcium carbonate, calcium oxide, and calcium hydroxide.

Main technical indicators:

1. Analysis scope: CaO, Fe₂O₃: 0.01% -100%(The analysis range can be adjusted and selected by calibrating the working curve)

2. Analysis range width: CaO% max CaO% min ≤ 7% Fe₂O₃% max Fe₂O₃% min ≤ 5%;For example, raw materials: CaO: 39%~46%, Fe₂O₃: 0.01~5%.

3. Inherent errors: CaO: ± 0.10%, Fe₂O₃: ± 0.10%.

4. System analysis time: 30 × n seconds (n is a natural number), recommended value is 60 seconds.

5. Analysis accuracy: S_{CaO} ≤ 0.10%, S_{Fe₂O₃} ≤ 0.05%.

6. Temperature stability: Within the range of 5~+40 °C, absolute drift: | Δ CaO% | ≤ 0.10%, | Δ Fe₂O₃% | ≤ 0.10%.

7. Usage conditions: Environmental temperature: 5~+40 °C, relative humidity: ≤ 85% (30 °C), power supply: 220V ± 20V, 50Hz.

8. Power consumption of the whole machine: ≤ 30W.

9. Size and weight: 450mm * 320mm * 230mm, 13 kg.

Remarks: Includes 1 tablet press, 1 set of compression molds, and 15 compression rings.

2.HTRF6000X Fluorescence Calcium Iron Analyzer



The HTRF6000 X-ray Fluorescence Calcium Iron Analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. It is used in cement plants and can quickly analyze the percentage content of CaO and Fe₂O₃ in white raw materials, fully black or semi black raw materials, clinker, and cement from rotary kilns, mechanized shaft kilns, and external decomposition rotary kilns within 30 seconds. It provides timely data for ingredient control. Due to its fast analysis speed (30 seconds), it can monitor the changes in composition during the production process in real time, facilitating timely adjustment of raw material ratios and laying a solid foundation for the production of qualified clinker and cement. It can also be used to analyze the percentage content of CaO and Fe₂O₃ in mixed materials such as limestone, clay, iron powder, fly ash, coal gangue, and brick blanks, providing quality data for incoming raw materials. In addition to the building materials industry, it can also be used in various occasions where the percentage content of CaO and Fe₂O₃ needs to be analyzed.

7-inch touch screen display, bilingual Chinese and English menu prompts for operation, intelligent error alarm prompts, extremely convenient to use. 10 minutes of rapid preheating. No need for any chemical reagents, no discharge of three

wastes, no radioactive sources, low power consumption, in line with environmental protection, energy conservation and safety requirements.

It can directly measure the content of calcium carbonate, calcium oxide, and calcium hydroxide.

Main technical indicators:

1. Analysis scope: CaO, Fe₂O₃: 0.01% -100%(The analysis range can be adjusted and selected by calibrating the working curve)

2. Analysis range width: CaO% max CaO% min ≤ 7% Fe₂O₃% max Fe₂O₃% min ≤ 5%;For example, raw materials: CaO: 39%~46%, Fe₂O₃: 0.01~5%.

3. Inherent errors: CaO: ± 0.10%, Fe₂O₃: ± 0.10%.

4. System analysis time: 30 × n seconds (n is a natural number), recommended value is 60 seconds.

5. Analysis accuracy: S_{CaO} ≤ 0.10%, S_{Fe₂O₃} ≤ 0.05%.

6. Temperature stability: Within the range of 5~+40 °C, absolute drift: | Δ CaO% | ≤ 0.10%, | Δ Fe₂O₃% | ≤ 0.10%.

7. Usage conditions: Environmental temperature: 5~+40 °C, relative humidity: ≤ 85% (30 °C), power supply: 220V ± 20V, 50Hz.

8. Power consumption of the whole machine: ≤ 30W.

9. Size and weight: 450mm * 320mm * 230mm, 13 kg.

Remarks: Includes 1 tablet press, 1 set of compression molds, and 15 compression rings.

3.HT3000 X-ray Fluorescence Calcium Iron Analyzer



The HT3000 X-ray fluorescence calcium iron analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. It is used in cement plants and can quickly analyze the percentage content of CaO and Fe₂O₃ in white raw materials, fully black or semi black raw materials, clinker, and cement from rotary kilns, mechanized vertical kilns, and external decomposition rotary kilns within 30 seconds. It provides timely data for ingredient control. Due to its fast analysis speed (30 seconds), it can monitor the changes in composition during the production process in real time, facilitating timely adjustment of raw material ratios and laying a solid foundation for the production of qualified clinker and cement. It can also be used to analyze the percentage content of CaO and Fe₂O₃ in mixed materials such as limestone, clay, iron powder, fly ash, coal gangue, and brick blanks, providing quality data for incoming raw materials. In addition to the building materials industry, it can also be used in various occasions where the percentage content of CaO and Fe₂O₃ needs to be analyzed.

Large screen LCD display, full Chinese menu prompts for operation, intelligent error alarm prompts, extremely convenient to use. No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power

consumption, in line with environmental protection, energy conservation and safety requirements.

Technical specifications of X-ray fluorescence calcium iron analyzer:

1. Analysis range: The analysis range of CaO and Fe₂O₃ can be adjusted and selected by calibrating the working curve.

2. Analysis range width: CaO% max CaO% min ≤ 7% Fe₂O₃% max Fe₂O₃% min ≤ 5%; For example, raw materials: CaO: 39%~46%, Fe₂O₃: 0.01~5%.

3. Inherent errors: CaO: ± 0.10%, Fe₂O₃: ± 0.10%.

4. System analysis time: 30 × n seconds (n is a natural number), recommended value is 60 seconds.

5. Analysis accuracy: S_{CaO} ≤ 0.10%, S_{Fe₂O₃} ≤ 0.05%.

6. Temperature stability: Within the range of 5~+40 °C, absolute drift: | Δ CaO% | ≤ 0.10%, | Δ Fe₂O₃% | ≤ 0.10%.

7. Usage conditions: Environmental temperature: 5~+40 °C, relative humidity: ≤ 85% (30 °C), power supply: 220V ± 20V, 50Hz.

8. Power consumption of the whole machine: ≤ 30W.

9. Size and weight: 468mm × 368mm × 136mm, 13.8kg.

Remarks: Includes one tablet press, one set of compression molds, and 15 compression rings.

4.HT6800 X-ray Fluorescence Element Analyzer



The HT6800 X-ray fluorescence multi-element analyzer is a new desktop analytical instrument that is computerized. It breaks through the limitations of domestic ordinary multi-element analyzers, which only analyze the composition of four elements: Al_2O_3 , SiO_2 , CaO , and Fe_2O_3 . It can also analyze SO_3 and the amount of mixed material added. It is a five element analyzer that integrates the analysis functions of X-ray fluorescence calcium iron analyzer, silicon aluminum analyzer, and sulfur analyzer; And automatically calculate the three rate values of KH, SM, and IM. Compared with the imported large-scale X-ray fluorescence spectrometer, the analysis results are within the error range. Purchasing an X-ray fluorescence multi-element analyzer can save nearly one million RMB, with low operating and maintenance costs, and convenient maintenance.

The fluorescence multi-element analyzer adopts a large LCD screen display, with Chinese menu prompts for operation, making it easy to use; Integrated design, high degree of integration, good reliability, and easy maintenance. By using a large capacity electronic record book, more than 2000 content analysis data can be browsed, while avoiding printing consumables. Without damaging the sample, the sample can be measured repeatedly. No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power consumption, in

compliance with environmental protection, energy conservation, and radiation safety requirements.

Application of X-ray fluorescence multi-element analyzer:

Mainly used for detecting CaO%, Fe₂O₃%, SiO₂%, Al₂O₃%, SO₃% in raw materials, clinker, cement, limestone, clay, gypsum, etc;

Detect the content of SO₃%, CaO%, and admixture in cement.

In the cement industry, it is directly connected to the raw material ratio value batching control system through an RS232 serial communication port.

Technical specifications of X-ray fluorescence multi-element analyzer:

1. Analysis scope: CaO, Fe₂O₃, SiO₂, Al₂O₃, SO₃: 0.01%~100%;

2. Analysis width: CaO, Fe₂O₃, SiO₂, Al₂O₃, SO₃ components are all $\leq 15\%$, and the working range is selected by calibrating the working curve;

3. Analysis accuracy: Standard deviation $S_{CaO} \leq 0.10\%$; $S_{Fe_2O_3} \leq 0.05\%$; $S_{SiO_2} \leq 0.07\%$; $S_{Al_2O_3} \leq 0.07\%$; $S_{SO_3} \leq 0.05\%$

4. Allowable error: $\Delta CaO\% \leq 0.25\%$; $\Delta Fe_2O_3\% \leq 0.10\%$; $\Delta SiO_2\% \leq 0.20\%$; $\Delta Al_2O_3\% \leq 0.20\%$; $\Delta SO_3\% \leq 0.15\%$

5. Analysis time: $n * 180$ seconds ($n=1, 2, 3$, usually taken as 2);

6. Stability: Absolute drift $\Delta CaO\% \leq 0.15\%$; $\Delta Fe_2O_3\% \leq 0.10\%$; $\Delta SiO_2\% \leq 0.10\%$; $\Delta Al_2O_3\% \leq 0.10\%$; $\Delta SO_3\% \leq 0.10\%$;

7. Usage conditions: Power supply AC 200V~240V, 50Hz; The overall power consumption is $\leq 30W$; the ambient temperature is 5-40 °C; Relative temperature $\leq 85\%$ (30 °C);

8. Size and weight: 468mm * 368mm * 136mm, 13.8Kg.

5.HT3500 X-ray Fluorescence Silicon Aluminum Analyzer



The HT3500 X-ray fluorescence silicon aluminum analyzer adopts a large LCD screen display, with Chinese menu prompts for operation, making it easy to use; Integrated design, high degree of integration, good reliability, and easy maintenance. By using a large capacity electronic record book, more than 2000 content analysis data can be browsed, while avoiding printing consumables. Without damaging the sample, the sample can be measured repeatedly. No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power consumption, in compliance with environmental protection, energy conservation, and radiation safety requirements.

Performance characteristics of X-ray fluorescence silicon aluminum analyzer:

1. Microcomputerization is integrated into one, with a compact structure and beautiful appearance.
2. Large screen LCD display, full Chinese menu prompts for operation, extremely convenient to use.
3. The analysis time is short, and SiO₂% and Al₂O₃% can be measured in 1 minute.

4. The instrument does not damage the sample during testing, and the sample can be reused.

5. No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power consumption, in line with environmental protection and energy conservation requirements.

6. The data storage capacity is large, and the content results and instrument self-test data can be queried, avoiding the need for printing consumables.

7. The instrument shall comply with GB/T19140 "General rules for X-ray fluorescence analysis of cement" .

8. Can be connected to the ingredient system for automatic control.

Technical specifications of X-ray fluorescence silicon aluminum analyzer:

9. Analysis range: SiO₂, Al₂O₃ 0.01% to 100%

10. Analysis accuracy: Standard deviation $SSiO_2 \leq 0.10\%$, $SAI_2O_3 \leq 0.08\%$

11. Analysis width: SiO₂ (Al₂O₃) max – SiO₂ (Al₂O₃) min $\leq 5\%$, for example, SiO₂: 10%~15% in raw materials, selected by calibrating the working curve.

12. Analysis time: n * 60 seconds (n is a natural number from 1 to 5).

13. Usage conditions: Power supply AC 200V~240V; The ambient temperature ranges from 0 to 40 °C; Relative humidity < 85% (30 °C).

14. Whole machine power consumption: < 30W

15. Overall dimensions: 468mm * 368mm * 136mm

16. Whole machine weight: 13.8kg

Remarks: Includes one hydraulic tablet press, one set of compression molds, and 15 compression rings.

6.HT3300 X-ray Fluorescence Sulfur Calcium Iron Analyzer



HT3300 X-ray Fluorescence Sulfur Calcium Iron Analyzer

Our company has launched an updated and upgraded product for calcium and iron analyzers, which includes one top mounted calcium and iron analyzer and two sulfur analyzers, both of which can be used before and after grinding in cement plants.

The HT3300 X-ray fluorescence sulfur calcium iron analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. Used in cement plants, it can quickly measure the percentage content of SO_3 , CaO , Fe_2O_3 in raw materials, clinker, cement, gypsum, etc. within 30 seconds. Due to its fast analysis speed, it can monitor the changes in these three components in real time during the production process, facilitating timely adjustment of raw material ratios and laying a solid foundation for the production of qualified clinker and cement. Especially when the percentage content of CaO in the finished cement is determined to be a certain grade of cement that is qualified for production by the cement manufacturer, it can create considerable economic benefits for cement enterprises by using neither excessive nor excessive clinker. Determining the percentage content of SO_3 and CaO in finished cement can enable cement manufacturers to

predict the strength of cement and the setting time of concrete mixed with this type of cement.

Large screen LCD display, full Chinese menu prompts for operation, intelligent error alarm prompts, extremely convenient to use.

Analysis accuracy: Standard deviation $SSO_3 \leq 0.04\%$, $SCaO \leq 0.10\%$, $SFe_2O_3 \leq 0.05\%$.

Fast analysis speed, providing the percentage content of SO_3 , CaO , and Fe_2O_3 in 30 seconds.

No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power consumption, in line with environmental protection, energy conservation and safety requirements.

Technical specifications of X-ray fluorescence sulfur calcium iron analyzer:

1. Analysis range: SO_3 , CaO , Fe_2O_3 : The analysis range can be adjusted from 0.01% to 100%.

2. Analysis range width: SO_3 (CaO , Fe_2O_3)% $\max \sim SO_3$ (CaO , Fe_2O_3)% $\min \leq 15CaO_{\min}$, selected by determining the working curve method.

3. Allowable errors: SO_3 : $\pm 0.11\%$, CaO : $\pm 0.18\%$, Fe_2O_3 : $\pm 0.10\%$.

4. System analysis time: $30 \times n$ seconds (n is a natural number), recommended value is 60 seconds.

5. Analysis accuracy: $SO_3 \leq 0.04$, $SCaO \leq 0.10$ $SFe_2O_3 \leq 0.05\%$.

6. Temperature stability: Within the range of 5-40 °C, absolute drift: $|\Delta SO_3| \leq 0.10$ $|\Delta CaO| \leq 0.10$ $|\Delta Fe_2O_3\%| \leq 0.10\%$.

7. Usage conditions: Environmental temperature: 5-40 °C, relative humidity: ≤ 85% (30 °C), power supply: 220V ± 20V, 50Hz.

8. Whole machine power consumption: ≤ 50W.

9. Size and weight: 468 × 368 × 136mm, 13.8kg

7.HT3200 X-ray Fluorescence Sulfur Calcium Analyzer



The HT3200 X-ray fluorescence sulfur calcium analyzer is specially tailored for cement plants and cement grinding station enterprises, and is an updated and upgraded product of the sulfur analyzer.

The HT3200 X-ray fluorescence sulfur calcium analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. It can detect the percentage content of SO_3 and CaO in cement, gypsum, etc. within 30 seconds, and also calculate the amount of admixture in cement. By measuring the percentage content of CaO in cement, cement enterprises can predict the strength of cement and produce qualified cement of a certain grade without excessive or excessive use of clinker, which can create considerable economic benefits for cement enterprises. By quickly measuring the percentage content of SO_3 in cement, cement companies can adjust the amount of gypsum added to cement in real time and predict the setting time of concrete produced with this type of cement.

Large screen LCD display, full Chinese menu prompts for operation, intelligent error alarm prompts, extremely convenient to use. No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power

consumption, in line with environmental protection, energy conservation and safety requirements.

Technical indicators:

1. Analysis scope: SO₃, CaO; 0.01%~100%, the analysis range can be adjusted.
2. Analysis range width: SO₃ max CaO Min \leq 15%. Select by calibrating the working curve.
3. Inherent error: SO₃: \pm 0.15%, CaO: \pm 0.25%.
4. System analysis time: 30 \times n seconds (n is a natural number), recommended value is 60 seconds.
5. Analysis accuracy: Standard deviation SO₃ \leq 0.04%, S CaO \leq 0.10%.
6. Temperature stability: Within the range of 5-40 °C, absolute drift: Δ SO₃ \leq 0.10%, Δ CaO \leq 0.10%.
7. Usage conditions: Environmental temperature: 5-40 °C, relative humidity: \leq 85% (30 °C), power supply: 220V \pm 20V, 50Hz.
8. Power consumption of the whole machine: \leq 30W.
9. Size and weight: 468mm \times 368mm \times 136mm, 13.8kg

8.HT3100 X-ray Fluorescence Sulfur Analyzer



The HT3100 X-ray fluorescence sulfur analyzer is a new type of computerized desktop instrument that uses pure physical analysis methods. It can detect the percentage content of SO₃ in cement, gypsum, etc. within 30 seconds,

Compared with cement chemical analysis method and gypsum chemical analysis method, which are fast and accurate, by quickly determining the percentage content of SO₃ in cement, cement enterprises can adjust gypsum in cement in real time. The addition amount and prediction of the setting time of concrete produced with this type of cement can also be applied to other occasions where SO₃ percentage content needs to be analyzed, such as detecting desulfurization ash in power plants. The percentage content of SO₃.

Large screen LCD display, full Chinese menu prompts for operation, intelligent error alarm prompts, extremely convenient to use.

Fast analysis speed, able to detect the percentage content of SO₃ in cement and gypsum in 30 seconds.

No need for any chemical reagents, no discharge of three wastes, no radioactive sources, low power consumption, in line with environmental protection, energy conservation and safety requirements.

Main technical indicators:

1. Analysis range: The SO₃ analysis range can be adjusted and selected by calibrating the working curve.
2. Analysis range width: $SO_3\% \max - SO_3\% \min \leq 5\%$; For example, cement SO₃: 0.1~5%.
3. Inherent error: SO₃: $\pm 0.11\%$.
4. System analysis time: $30 \times n$ seconds (n is a natural number), recommended value is 60 seconds.
5. Analysis accuracy: $SO_3 \leq 0.05\%$.
6. Temperature stability: Within the range of 5~+40 °C, absolute drift: $|\Delta SO_3\%| \leq 0.11\%$.
7. Usage conditions: Environmental temperature: 5~+40 °C, relative humidity: $\leq 85\%$ (30 °C), power supply: 220V \pm 20V, 50Hz.
8. Power consumption of the whole machine: <30Kw
9. Weight: 468 × 368m × 136m, 13.8Kg

9.HTR-1 manual tablet press



The manual tablet press is a supporting product for X-ray fluorescence sulfur, calcium iron, silicon aluminum and other analyzers. It is mainly used to press powdered samples, so that the powdered material becomes block shaped after being compressed in the sample ring, which is easy to put into the instrument for analysis. In addition, it can also be used in various production processes such as bending, punching, riveting, and assembly of parts in instrumentation hardware.

Since the early 1980s, domestic X-ray fluorescence analyzers have been used in the cement industry for more than 20 years, and their supporting products, tablet presses, have also appeared in many varieties. For example, the hydraulic tablet press originally used has gradually been eliminated from the market due to defects such as oil leakage and pressure difference; The mechanical tablet press that later replaced it still suffers from high levels of malfunctions due to structural design and production processes.

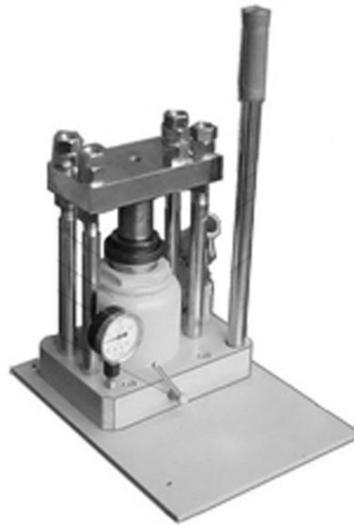
In order to solve the problem of many manufacturers using X-ray fluorescence analyzers unable to operate normally due to tablet press failures, our company has organized a strong technical backbone to develop the SKL-1 linkage manual tablet

press. It has the characteristics of small size, convenient lubrication, adjustable workpiece height, easy operation, and durability. It has been widely praised by users for its “zero” failures since its launch on the market.

Main parameters:

1. Final stroke: 40mm
2. Work pressure: 0.5T
3. Compression mold space: 125mm
4. Workbench: 160mm * 160mm
5. Adjustment range of mold space: 125mm \pm 45mm

10.HTR-2 Hydraulic tablet press



HTR-2 hydraulic tablet press is a small desktop hydraulic press with high pressure, suitable for various occasions that require high pressure:

Adjustment range of mold space height: 68mm \pm 10mm

Various models of X-ray fluorescence analyzers, such as X-ray fluorescence calcium iron, sulfur calcium, sulfur calcium iron, silicon aluminum analyzers, etc.

Powder samples for infrared analysis.

Strength tests for small building materials, refractory materials, etc. in the cement, mining, and metallurgical sectors.

Main technical parameters of hydraulic tablet press:

Lift of large oil cylinder piston platform: 18mm

Working pressure: 78KN (gauge pressure \leq 30MPa)

Work platform surface: \varnothing 70mm

Compression mold space height: 68mm

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