

X-RAY FLUORESCENCE SPECTROMETERS

SILICON - PIN XRF DETECTOR CGX-102

XRF is used to detect and analyze noble metals like Gold (Au), Silver (Ag), Platinum (Pt), Iridium (Ir), Osmium (Os), Palladium (Pd), Rhodium (Rh), Ruthenium (Ru), Copper (Cu), Zinc (Zn), Nickel (Ni), Cadmium (Cd), Iron (Fe), Cobalt (Co), Indium (In), Tin (Sn), in the Jewellery Industry.

Energy Dispersive X-ray Fluorescence (EDXRF) technique relies on the detector and the detection circuit capability to resolve spectral peaks due to different energy X-Rays emitted when a primary X-Ray beam strikes a metal alloy corresponding to different elements in the sample, intensity of the spectrum radiation proportional to the concentration of element. The spectrum is then processed through the powerful computer software which calculates and reports the various elements & their composition in the sample.

XRF Gold Purity Tester consists of X-Ray tube, high voltage power supply for X-Ray source, X-Ray tube filters, X-Ray fluorescence Detector, processing electronics and system interface & an external computer. A camera is incorporated in the system to view the sample on the computer screen.



for Hall marking centers,
Testing centers, Gold Refineries,
Manufacturing Units, etc.

Specifications :

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|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detectable elements | : Titanium to Uranium |
| Measurement Results | : Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Ruthenium (Ru), Rhodium (Rh), Palladium (Pd), Silver (Ag), Cadmium (Cd), Indium (In), Tin (Sn), Osmium (Os), Iridium (Ir), Platinum (Pt), Gold (Au) -all metals separately. |
| Accuracy of measurement | : $\pm 0.15\%$ (Molten Metal above 90% Au) $\pm 0.3\%$ (Molten Metal below 90% Au) $\pm 0.5\%$ (Molten Metal below 50% Au) |
| Sensor | : Silicon-Pin Diode (Silicon Drift Semiconductor or CGX-103) |
| Cooling for Detector | : Thermoelectric |
| Detection Range | : 0.1%-----99.99% |
| Testing Time | : 30-----200 secs |
| Test Spot Area | : 0.5mm |
| Power Supply | : 90-240 V AC, 50/60HZ |
| Power Rating | : 30 Watt |
| Working Temperature | : 15-25°C |
| Relative humidity | : <70% |
| Operation atmosphere | : Vibration free surface and air conditioned room |
| Interface for Computer | : Inbuilt (External Monitor, Keyboard required) |
| Software for Operation | : Menu Driven User Friendly Operating System |
| Dimensions of Instrument | : Length : 335mm Width : 225mm Height : 210mm (with test compartment cover in: closed position) & 565mm (in open position). |
| Dimensions of Sample Chamber | : Length : 235mm Width : 195mm: Height : 80mm |
| Net Weight | : 12kg |

