

Benchtop and handheld XRF



**ANALYSERS FOR
PRECIOUS METALS**

Quality assurance where it matters most

Jewelry and ornamental objects may be designed to be attractive, but the true value of these items is set by what lies beneath the surface. Price is largely determined by precious metal composition. Fast, accurate and reliable testing ensures the true value of a piece is uncovered. Hallmarkers can confidently place the correct stamp, and consumers get what they pay for.

Hitachi's XRF analyzers for precious metals make determining gold, silver, platinum and palladium content fast and easy. They can also verify rarer precious metals, such as osmium, and can detect low levels of restricted substances, like lead or cadmium, to ensure all pieces meet current regulations. As well as determining precise composition, these instruments also measure plating thickness, such as gold coatings on copper alloys and rhodium coatings on gold alloys. With a minute measurement area and high accuracy, checking the composition, plating and integrity of each piece is simple.

You can choose between three non-destructive XRF analyzers. There are two coatings-dedicated benchtop XRF analyzers - the FT230 and the X-Strata920 microspot analyzers or the lightweight and convenient handheld X-MET8000 depending on your verification process.





Accurate analysis, piece by piece



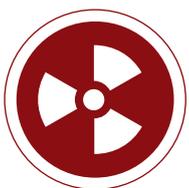
VERIFY COMPOSITION

Measure elements from aluminum to uranium on the periodic table, including gold, silver, platinum, osmium, iridium and ruthenium.



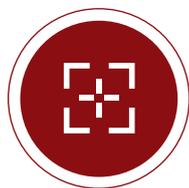
NON-DESTRUCTIVE TESTING

XRF analysis is a non-destructive testing method, ideal for the analysis of jewelry and precious metals as it leaves no scratch or damage to the tested item and no loss of material.



DETECT HAZARDOUS SUBSTANCES

Check that all pieces meet the requirements for regulated substances like lead, nickel and cadmium, and highlight those that do not before they hit the market.



PRECISION TECHNOLOGY

Get accurate results when analyzing delicate and intricate pieces with a high-precision silicon drift detector and powerful X-ray optics focused to a tiny measurement area.



DURABILITY AND RELIABILITY

Built to withstand round-the-clock use in a busy environment, Hitachi analyzers include advanced software that ensures the reliability of the results between calibrations.



EASY TO USE

Intuitive software, simple operation and automated focusing features make these analyzers easy to use by anyone with only a little training.



EXTENSIVE SUPPORT SERVICES

Our network of global support centers ensure help is at hand when you need it – from routine maintenance to emergency repairs.

FT230: Simply smarter precious metals analysis.

Designed to simplify and accelerate testing of components and assemblies, the FT230 makes it easier to measure more parts in less time.

Analysis is fast, enabling you to test pieces in seconds for instant quality feedback. And a range of collimators ensure your measurements are focused down to the size of the piece you are verifying. The FT230 is ideal for hallmarking centers, gold refiners, smelters and test labs alike.

AUTOMATED FEATURES

The laser-focus feature ensures the measurement head is always at the optimum height above the sample – essential for measurement accuracy. And the optional motorized sample stage makes it easy to measure multiple pieces or several features across a single item.

INTUITIVE SOFTWARE OPERATION

The FT230 is the first product to run Hitachi's new FT Connect software, building on over four decades of experience and user feedback on established software including SmartLink and X-ray Station.

FT Connect gets you results faster. The most notable difference is the interface. Instead of a screen full of controls and options that the user needs to navigate, the FT Connect screen prioritizes the sample view and



clear presentation of the analysis results. This makes it much easier to position parts correctly and act quickly on the results.

MULTI-COLLIMATOR DESIGN

You can choose to include up to six collimators in the FT230's advanced optical path. The best collimator for each measurement can be selected via the software for each measurement, with the smallest collimator only 0.01 x 0.25 mm in size.

X-Strata920: Reliable assurance you can trust

The X-Strata920 is a high-precision benchtop XRF analyzer that's designed to measure small features on a wide variety of pieces.

The X-Strata920 offers:

- | A high resolution SDD option for complex coatings analysis
- | Four configurations to fit samples of any shape
- | A slotted chamber for small or long and skinny samples
- | An optional mini-well chamber for taller parts
- | An optional automated motorized stage for measuring several locations on a single component



X-MET8000: Precious metals testing on the move

The X-MET8000 is a handheld XRF analyzer that delivers fast and accurate precious metals analysis.

The X-MET is about the size and weight of an electric drill; to use you simply point the analyzer at the sample and press the trigger. This analyzer is perfect if you need to travel to do your testing, or your items are too large to fit into a benchtop instrument.

POINT AND SHOOT TECHNOLOGY

Place the analyzer on the sample, press the trigger and the results appear on the easy to read screen in seconds. The X-MET includes a large icon-driven touchscreen that you can customize to display karat value or full composition / thickness.

ROBUST FOR EVERYDAY USE

The X-MET is IP54 compliant (equivalent to NEMA 3), splash water and dust proof, and is safe to use indoors and out. It has been tested to the MIL-STD-810G military standard for robustness and you can choose optional protective components, such as a shield or Kapton window, to prevent damage when testing small or sharp objects.

FULLY PORTABLE

With a rechargeable battery that will last for up to 12 hours between charging, the X-MET is compact and lightweight. It only weighs 1.5kg (including the battery) and all accessories fit in the small and robust transport case.

ADVANCED DATA MANAGEMENT

You can store up to 100,000 results on the instrument itself, export reports on a USB memory stick, or automatically store results securely in the Hitachi High-Tech LiveData cloud. You can also print results on labels, using a portable Bluetooth printer, to attach to measured pieces to avoid mix-ups.



About Hitachi High-Tech

We have been producing high-end analytical equipment for a range of global markets for over 45 years. Our focus is on designing accurate, fast, practical and reliable products that meet the specific needs of the precious metals market today – and tomorrow.

Backed by a global network of service hubs, we work to ensure you get the very best from your Hitachi instrument.



Our Service

Hitachi High-Tech's global network of service hubs offers a full range of technical support to keep you up and running:



TELEPHONE HELP DESKS

Whenever you have a problem, we're ready to help.



ONLINE DIAGNOSTICS

In-depth and rapid support via our website.



TRAINING

To help you get the most out of your analyzer and its full range of features.



EXTENDED WARRANTIES

To give you extra peace of mind and avoid unplanned costs.



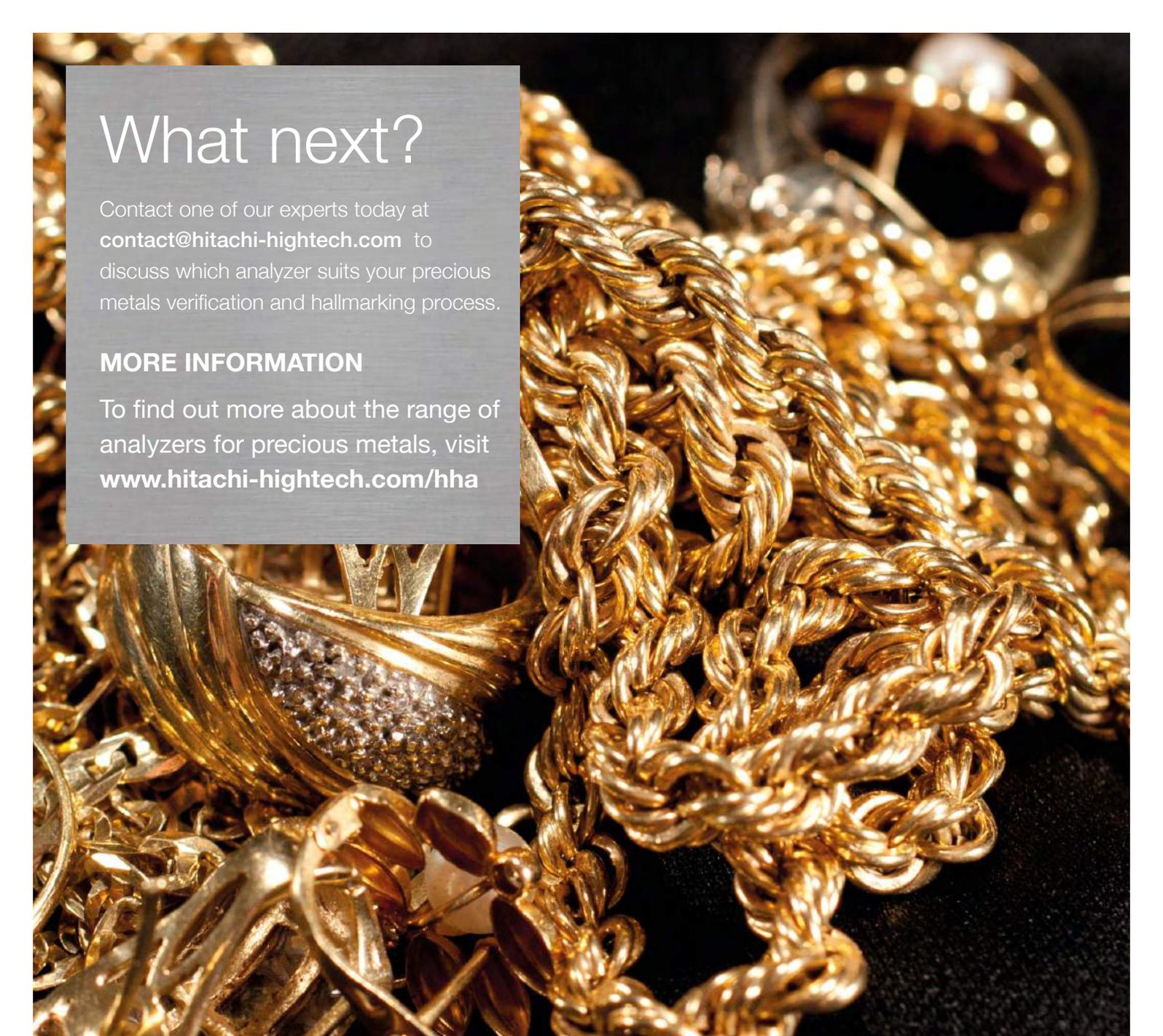
REPAIR SERVICE

We offer a fast and efficient repair service, recertification and maintenance through our service agreements to ensure your analyzer is maintained in excellent condition and avoids any unplanned costs.



Basic safety training in the use of X-ray based devices may be required in your country or territory.





What next?

Contact one of our experts today at contact@hitachi-hightech.com to discuss which analyzer suits your precious metals verification and hallmarking process.

MORE INFORMATION

To find out more about the range of analyzers for precious metals, visit www.hitachi-hightech.com/hha

Other products

We have been providing production analysis products to a wide range of industries for over 45 years.

- | **Micro spot XRF:** for precise analysis of the smallest samples and features.
- | **Handheld XRF:** for portable analysis of parts too large or heavy to fit in a benchtop system.
- | **RoHS Screening:** dedicated solutions for ensuring you meet current RoHS directives, including phthalates.

Browse our full range of products online at www.hitachi-hightech.com/hha

Hitachi High-Tech Analytical Science

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