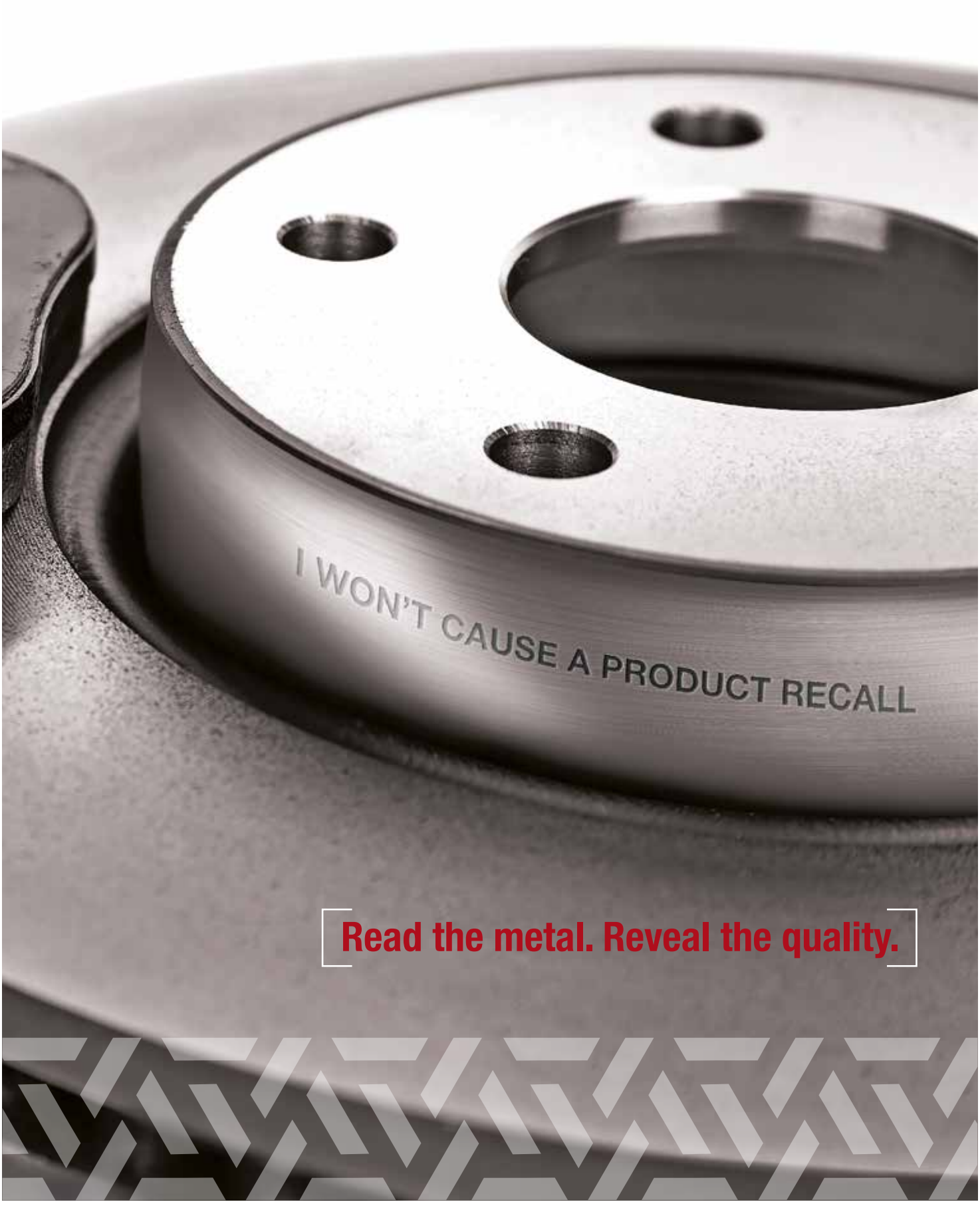
HITACHI
Inspire the Next

A complete range of metals analysers for QA/QC



When product failure isn't an option

For over 45 years, Hitachi High-Tech has developed metal analysers essential for Positive Material Identification (PMI) during quality assurance and control (QA/QC) processes.

When it comes to metal production and fabrication, we know end-to-end quality assurance and control has never been more critical. That's why, with Hitachi High-Tech, you can simply and accurately test the elemental structure of virtually any metal at any stage of the production process – whether raw materials or finished products – in the pursuit of 100% quality.

Hitachi High-Tech's product range includes handheld, mobile and stationary equipment across the three key analysis technologies – OES, LIBS and XRF – to meet your specific needs.

We've also designed our smart analyzers with connectivity in mind, not just for today but for smart manufacturing of the future.You'll benefit from our cloud-based data management solution ExTOPE Connect and connectivity which enables remote, realtime decision making.

So whatever the metal, at whatever stage of the process, Hitachi High-Tech analysers could prove to be your most valuable tools.

100% Positive Material Identification is here

With compliance and cost pressures throughout the production and manufacturing process, the need for 100% positive material identification is here to stay. This puts more and more demands on your instrumentation. That's why you need a trusted partner – one that can deliver accurate results fast.

Our range of metals analysers and technologies ensures:

- Rapid, reliable material verification – even in the most demanding QA/QC applications.
- Meeting of standards, avoiding potentially devastating results for your customers, your company and even your reputation.
- Avoidance of costly reworks through incoming inspection of alloy material before the production phase.
- Avoidance of costly recalls by confirming chemical composition and material verification prior to shipment.
- Production lines kept running at optimum efficiency.
- Access to powerful data management and reporting.

The Hitachi High-Tech range of technologies: at a glance

XRF (X-RAY FLUORESCENCE)

Handheld XRF is ideal for measuring a wide range of elements and concentrations in many different materials, including metal alloys. XRF technology uses an X-ray tube to induce a response from the atoms in the tested sample. The technique is non-destructive, and ideal when you need low limits of detection for accurate grade separation and chemistry.

LIBS (LASER INDUCED BREAKDOWN SPECTROSCOPY)

LIBS is a fast, handheld format, ideal for the identification of different types of alloys. With a LIBS analyzer, there are no X-rays as it uses a focused laser pulse to hit the sample surface, removing a very small amount of material for analysis. This means the LIBS burn mark is so small that it can often be used even for finished goods.

OES (OPTICAL EMISSION SPECTROSCOPY)

Spark OES technology is available in mobile and stationary formats. OES can analyse elements at low limits of detection, like phosphorous, sulphur, boron– and carbon, starting at levels of less than 30 ppm. Nitrogen in duplex steels, and trace and tramp elements can also be detected with precision and accuracy. A small but visible burn spot is left on the surface after testing, which is often seen as proof of a quality stamp.

The largest metals GRADE Database

Pre-installed on all Hitachi High-Tech optical emission spectrometers, and available for other products, the GRADE Database is an extensive metals database for fast and easy grade identification. More than 15 million records for over 350,000 materials from 74 countries and standards are included. For users, this means no more time-consuming research in norms and grade catalogues. In just a few easy steps you can search for metals, worldwide, by specific chemical composition or mechanical properties. You can decipher metal specifications and find the correct grade for a specific application. Plus, you can more easily follow the ever-increasing pace of changes to national and international standards, such as AISI/ASDM, DIN, EN, BS, JIS, GOST and many more.

Hitachi High-Tech QA/QC products at a glance

VULCAN+

One of the fastest handheld metals analysers in the world, the Vulcan allows you to identify a wide range of alloys including stainless steels, low alloy steels, nickel and aluminium alloys (and more) in one second. It's great for light elements like Be, Mg, Al and Si. Weighing just 1.5kg, this ergonomic laser analyser is comfortable to use even over long periods.

X-MET8000

This handheld XRF analyser offers quick, non-destructive analysis and accurate chemistry and grade identification. It's great for the analysis of light elements (Mg to S) and testing of most commercial alloys including aluminium alloys, silicon and bronzes. By combining a high-performance X-ray tube with a large area silicon drifter detector (SDD), it can handle even the most demanding QA/QC applications in seconds – reducing testing costs and time.

PMI-MASTER SMART & PRO2

These robust OES analysers deliver analysis of key elements, rapid material verification, PMI and metal sorting. The PMI-MASTER Smart is a portable high performance OES analyser on the market. Meanwhile, the PMI-MASTER Pro2 delivers easy on-site operation thanks to a powerful battery that allows 750 measurements in eight hours of remote operation.

STATIONARY OES PRODUCT RANGE

Our range of stationary optical emission spectrometers offers the highest levels of accuracy and precision of analytical results.

The OE series delivers high performance metals analysis for verifying incoming material specifications. Go beyond grade information, verify tramp and trace elements content before allowing them into production. The fast start-up time, ready in less than an hour, aids high throughput production where 100% of material supplied is checked.

The FM EXPERT is ideal for the analysis of all relevant elements including reliable nitrogen analysis down to a detection limit of just 30 ppm.

FOUNDRY-MASTER Smart is a reliable entry level spectrometer for precise detection of all relevant elements in iron with an extremely compact design.


DÖRRIES
OE750

Perfect for your business

Simple to use
From handheld through mobile to stationary formats, we have made all our analysers as simple and intuitive to use as possible.

Built to last
We understand that our analysers have to work where the metal is – so we have designed our products to be tough and durable.

Latest technology
Our entire range allows you to store results securely and generate reports with our cloud-based service.

Low cost of ownership
More than just accurate and easy to use, our analysers feature reliable, rigorously-tested and efficient technology – to ensure that over time, your overall costs are lower.

Results you can trust
Hitachi High-Tech put accuracy first – because we know how vital it is to be 100% sure.

Our Service

To keep you up and running, our global network of service hubs offers a complete range of technical support:

- Telephone help desks for a fast response to any problem.
- In-depth support over the internet with online diagnostics.
- Rental instruments, so you can keep working if your analyser isn't.
- Annual calibration checks and re-certification services to ensure your analyser produces the right results year on year.
- Training to help you get the most from your analyser and its features.
- Extended warranties for peace of mind and avoiding unplanned costs.
- A range of consumables and accessories – from spare batteries to benchtop sample preparation.
- A fast and efficient repair service.

Why us?

Based in Oxford in the UK, Hitachi High-Tech has over 45 years' experience as a specialist in analysis solutions. As the industrial sector rapidly evolves, so do the challenges facing the industry. That's why we work in close collaboration with you. Our in-house experts develop bespoke testing methodologies that deliver simplicity of operation – no matter how complex the application. The result is a range of high performance laboratory and in-field testing instruments for materials – robust and reliable devices that utilise the latest technological advances – to help you drive your business forward.

What next?

Contact one of our experts today at **contact@hitachi-hightech.com** to arrange a demo.

MORE INFORMATION

To find out more about our complete range of metals analysers, visit **hhtas.net/readthemetal**

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Hitachi High-Tech Analytical Science

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