HITACHI
Inspire the Next

PMI analyzers for inspection

Superior alloy analysis, whatever the operation

When getting it right is safety critical - you need an analyzer that quickly and accurately delivers results. Hitachi High-Tech's PMI analyzers give you precise and reliable analysis on the go. Even in the most demanding of environments.

With over 45 years experience in supplying innovative analysis solutions to companies across the world, we know the importance of fast and accurate analysis to our customers. Hitachi High-Tech's range of analyzers offer easy to use, proven and comprehensive solutions that can be used to comply with regulations and even enhance productivity, safety and efficiency.

Inspection doesn't have to be costly or time-consuming. With fast start up times and cloud-based data management, companies across a range of industries can generate, store and share data in real-time across their organisation, for total compliance with total confidence.

When compromise isn't an option

Whether you need a handheld or a mobile analyzer, you need to be sure that you get accurate results fast. If you need a compliance solution or want to add efficiency to your processes, Hitachi High-Tech's analyzers can meet your needs.

Our range of PMI analyzers and technologies can be used for:

- Rapid, reliable material identification – even in the most demanding conditions.
- Meeting standards and avoiding product recalls, lawsuits and loss of reputation.
- Assessing critical process components before and after installation – avoiding delays, extra costs and reworks.
- Keeping sites safe and compliant.
- Powerful data management and reporting.

The Hitachi High-Tech PMI analyzer technologies: at a glance

XRF (X-RAY FLUORESCENCE)

Handheld XRF can be used for measuring a wide range of elements and concentrations in many different materials, including metal alloys. Using an X-ray tube to induce a response from the atoms in the tested sample, XRF is totally non-destructive leaving no mark on the measured surface. It's ideal when you need low limits of detection for accurate grade separation and chemistry.

LIBS (LASER INDUCED BREAKDOWN SPECTROSCOPY)

API 578 has included portable LIBS as a technology for PMI besides OES and handheld XRF. LIBS is a fast, easy to use handheld format, ideal for the identification of different types of alloys. There are no X-rays as it uses a focused laser pulse to hit the sample surface, removing only a very small amount of material for analysis leaving hardly visible burn mark on the measured surface.

OES (OPTICAL EMISSION SPECTROSCOPY)

OES is the only measurement technique that can reliably separate the stainless steel L-grades (L-grade separation e.g. for 316 and 304 grades), and provide highly accurate chemical composition to calculate the carbon equivalent. Beside the precise determination of all main and auxiliary elements, OES is the only method outside a lab to measure phosphorous and carbon to 30 ppm, sulphur to 20ppm and boron down to 5 ppm with high level of confidence. OES is the only technology that can accurately measure the nitrogen content in duplex and austenitic stainless steels.

The largest metals GRADE Database

Pre-installed on all Hitachi High-Tech optical emission spectrometers, and available for other products, 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 PMI inspection products: at a glance

X-MET8000

It's great for the analysis of light elements (Mg to S) for tight control of components and systems.

The X-MET8000 is capable of measuring hot surfaces up to 400° C / 752° F so it can be used to measure components in running processes without the need to shut down and wait for the surfaces to cool.
An optional small-spot collimator (3 mm diameter) can be used to isolate specific features (e.g. welds) from surrounding materials and measure them accurately.

VULCAN

One of the fastest handheld metals analyzers 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 a single second. Great for light elements like Be, Mg, Al and Si.

Vulcan is also extremely rugged and can withstand even the harshest operating conditions. Laser analyzers typically require significantly less hassle with licenses and approvals.

PMI-MASTER SMART AND PRO2

These robust OES analyzers deliver analysis of key elements, with fast start up times. By significantly minimizing the amount of downtime involved in inspection, operators get increased efficiency as well as pinpoint accuracy.

The PMI-MASTER Smart is the only truly portable high performance spark spectrometer on the market. It's been optimized for use in tough environments with temperature monitoring that protects against overheating.

The PMI-MASTER Pro2 has a powerful battery that allows 750 measurements for eight hours of remote operation. Truly mobile, the Pro2 is capable of analyzing almost any sample, even those with complex shapes and irregular geometries.

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Perfect for your business

Simple
Our analyzers are simple and easy to use.

Durable
Our analyzers have to work where you do, wherever that is – so our designs are tough and durable.

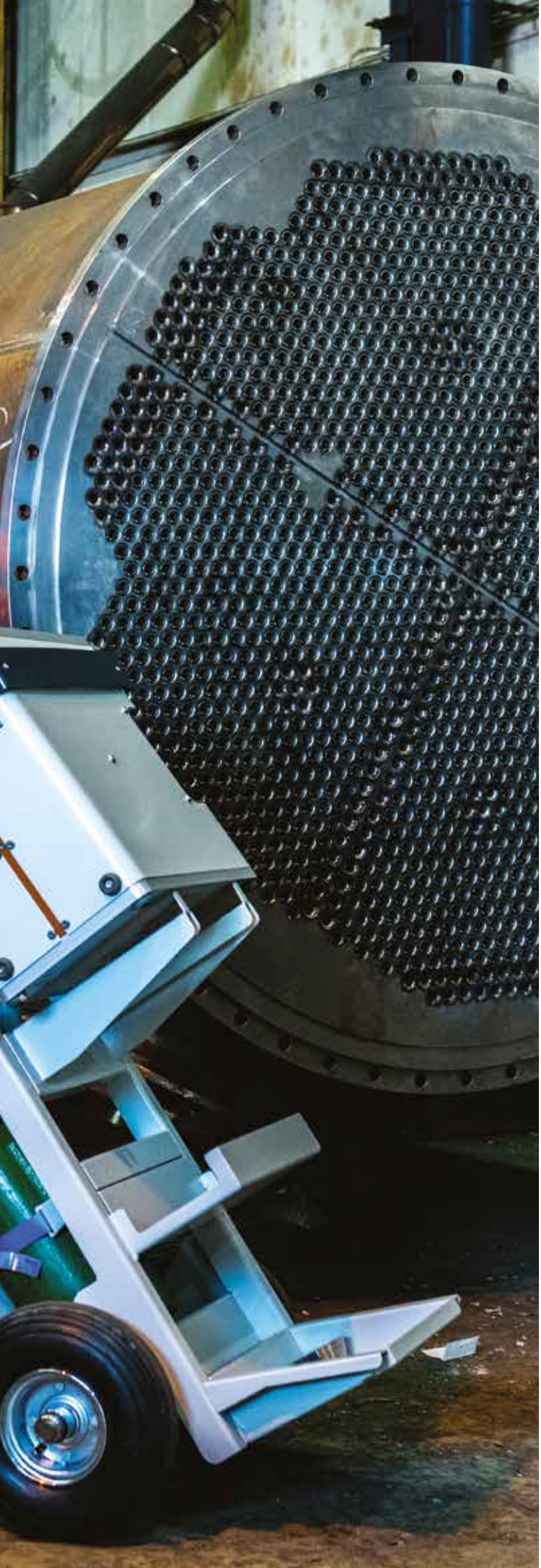
Latest data management
Share results on the spot and store them securely to one safe centralized location.

Affordable
Our analyzers feature reliable, rigorously-tested and efficient technology – to ensure that over time, your overall costs are lower.

Accurate
For the analysis of important elements like carbon, nitrogen, sulphur, phosphorous and boron to grade ID and elemental composition.

Efficient
Minimise downtime and disruption with the fast start up times.

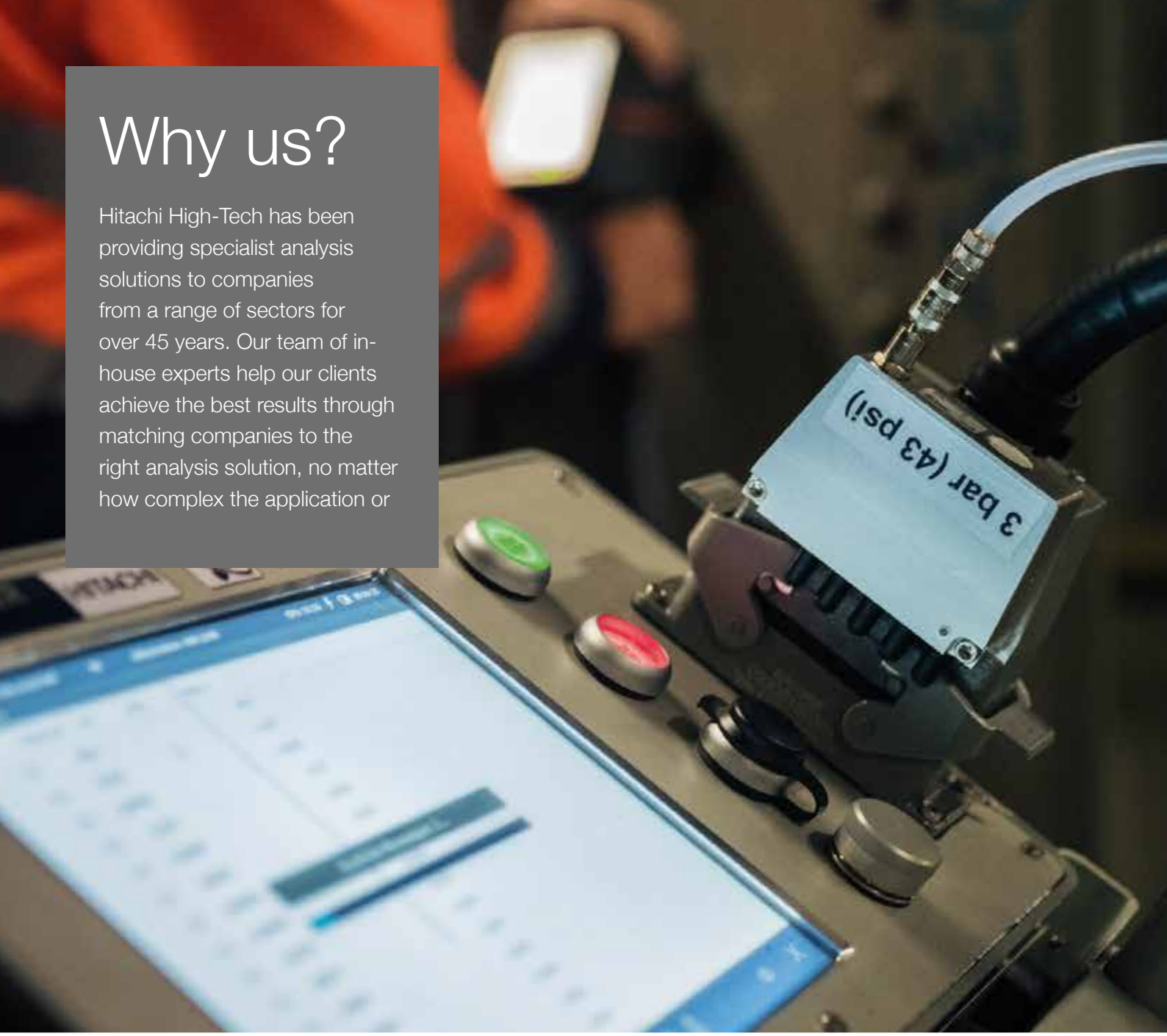
Reliable
Hitachi High-Tech put accuracy first – we know it's vital to be 100% sure.



Our Service

Our global network of service hubs provides complete technical support to keep you up and running:

- 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 analyzer isn't.
- Annual calibration checks and re-certification services to ensure your analyzer produces the right results year on year.
- Training to help you get the most from your analyzer 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?

Hitachi High-Tech has been providing specialist analysis solutions to companies from a range of sectors for over 45 years. Our team of in-house experts help our clients achieve the best results through matching companies to the right analysis solution, no matter how complex the application or

What next?

If you want to talk to a member of our team about our range of PMI analysers and how they can fit into your operations, or to arrange a demo, get in touch today at **contact@hitachi-hightech.com**

MORE INFORMATION

For more information about our PMI products, visit: **hhtas.net/inspection**

Hitachi High-Tech Analytical Science

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Science for a better tomorrow

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