

# Vulcan

Read the metal. Reveal the quality.



Our range of laser  
induced breakdown  
spectroscopy (LIBS)  
analyzers for PMI QA/QC

# HITACHI

# This is Vulcan

It's one of the fastest metals analyzers in the world. It will help you to quality control and check large inventories and avoid material mix ups that can have serious consequences. It's an ideal tool to carry out 100% PMI.

Vulcan allows you to identify and analyze a wide range of alloys. It gives results on all common alloys, including aluminum, magnesium, titanium, cobalt, chromium, nickel, and copper alloys as well as stainless steels, tool steels, low alloy steels and more.

It's a light (1.5 kg) and ergonomic laser analyzer, so even when used for long periods it will feel comfortable and easy to operate.

## Why is Vulcan the perfect tool for your business?

### 1. Simple to use

'Point and shoot' operation and intuitive user interface hugely reduces if not almost completely eliminates user error. It's ready to go straight out of the box.

### 2. Built to last

Its measurement optics are protected by sapphire glass, one of the toughest materials available. It's also splash water and dust proof (IP54 certified, NEMA 3 equivalent), and complies with the MIL-STD-810G military grade standard for ruggedness.

### 3. Works almost invisibly

Less than one billionth of a gram of material is consumed during a typical analysis leaving an almost invisible burn mark on the surface of the metal.

### 4. Increased productivity

Vulcan gives results in one second, regardless of the alloy type. A couple of seconds difference in speed can have a huge impact to your operations. When measuring aluminum alloys, Vulcan can be even 10 times faster than XRF analyzers.

### 5. Full day operation

Vulcan's 8-10 hour battery life ensures that there will be no interruptions in your work routine.

### 6. Latest technology

Share and store your results securely, and generate reports with our cloud-based service, EXTOME Connect. You can also connect Vulcan directly to your mobile phone to add pictures and to share results instantly.

# An option to suit your needs

We offer three different models to provide you with an instrument for your needs, all with a one second measurement time.



| Features   | Vulcan Smart+ | Vulcan Optimum+           | Vulcan Expert+ |
|--|---------------|---------------------------|----------------|
| Grade identification and full chemistry                    | ●             | ●                         | ●              |
| Stainless steels, low alloy steels, tool steels, Ni alloys | ●             | ●                         | ●              |
| Co, Cu, Pb, Sn, Ti and Zn alloys                           | Optional      | Cu, Ti                    | ●              |
| Al and Mg alloys   | N/A           | ●<br>Lithium in Al Alloys | ●              |
| Built-in camera  | Optional      | Optional                  | Optional       |
| WiFi   | ●             | ●                         | ●              |
| Pre-burn to clean the sample surface                       | ●             | ●                         | ●              |
| IP54 (NEMA 3 equivalent) dust and splash water protected   | ●             | ●                         | ●              |
| MIL-STD-810G compliant                                     | ●             | ●                         | ●              |
| Full day operation with one battery*                       | ●             | ●                         | ●              |

\*Based on analyzing one sample every five seconds for eight hours.

The instrument comes with up to 1500 pre-installed grades. AISI, DIN, JIS and GB libraries are included as standard. You can also easily modify the existing libraries, as well as add your own custom libraries.



# Our services

Our global network of service hubs can offer a full range of technical support to keep you up and running:

## **Annual calibration checks**

And recertification services.

## **Rental instruments**

So you can keep working if your analyzer isn't.

## **A range of consumables and accessories**

From spare batteries to window cleaners.

## **Extended warranties**

To give you peace of mind and avoid unplanned costs.

## **Training**

To help you get the most from your analyzer and all its features.

## **Telephone help desks**

To guarantee a fast response to any problem.

## **A fast and efficient repair service, recertification and maintenance**

Through our Vulcan service agreements that ensures your analyzer is maintained in excellent condition and avoids any unplanned costs.



Whenever you operate a Class 3b laser device such as Vulcan, we strongly recommend to use laser safety goggles.

## Other Products

We've been providing industrial analysis products for the manufacturing industry for 60 years.

### **Handheld and benchtop XRF**

for fast, reliable, non-destructive identification and analysis of alloys.

### **Mobile and portable OES**

for high performance analysis of alloyed and trace elements; separate L-grade stainless steels by carbon content and analyze nitrogen in duplex steels.

Browse our full range of products online at [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha)

## More information

To find out more about the Vulcan range of laser analyzers, visit [www.hitachi-hightech.com/hha](http://www.hitachi-hightech.com/hha)

Contact one of our experts today at:  
[contact@hitachi-hightech.com](mailto:contact@hitachi-hightech.com)  
to get a quote.

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