

# FOUNDRY-MASTER Smart 2

Precision made practical.



Our range of optical emissions  
spectrometers for QA/AC  
and process control

**HITACHI**

**Engineered for value, ease of use, and  
backed by application-driven support**



The FOUNDRY-MASTER Smart 2 delivers lab-grade precision in a compact, durable format built for the realities of industrial QA/QC.

At its core is Hitachi High-Tech's precision engine: a pairing of CMOS sensors and ultra-stable spark source that ensures consistent, repeatable results for critical elements like carbon and nitrogen.

The rugged housing stands up to harsh environments and reduces downtime.

Whether verifying incoming materials or controlling melt quality, this instrument keeps your workflows moving with confidence. This makes it ideal for ferrous and non-ferrous foundries, manufacturing QA/QC, and specialized applications such as electronics (lead-free solders), die casting, and light alloy production.

With thousands of units installed globally, Hitachi's stationary OES systems have a well-established presence in demanding industrial environments. This model builds on that foundation with targeted improvements in performance and usability.

# Why choose FOUNDRY-MASTER Smart 2?

## 1. Engineered for everyday QA/QC

Built to meet the practical demands of foundries and metals inspection workflows.

## 2. Compact, robust, and ready to work

Small footprint and durable housing make it ideal for busy labs and production environments.

## 3. Consistent results, minimal effort

Delivers repeatable accuracy with low maintenance and minimal recalibration.

## 4. Smart software. Smarter grade ID

SpArcfire's intuitive interface paired with the world's largest metals database makes grade matching fast, easy, and accurate.

## 5. Exceptional price- performance ratio

Advanced analytical capabilities and long-term reliability at a competitive cost.

## 6. Application-focused support

Backed by expert guidance and tailored calibrations to help you meet specs with confidence.



# Technical specifications

## FOUNDRY-MASTER Smart 2

<b>Purpose</b>	Cost-efficient, reliable analyzer for metal production
<b>Applications</b>	<ul style="list-style-type: none"><li>- Metals and alloys: Fe, Al, Cu, Ni, Ti, Mg, Co, Sn (incl. Solders), Zn (incl. Galvalume), Pb</li><li>- Includes alloys, such as cast iron, bronze, brass, Cu-Ni, Hastelloy, Inconel, monel, and more</li></ul>
<b>Matrices/Elements</b>	Extendable
<b>GRADE Database</b>	Included
<b>Grade Search Plus</b>	Optional
<b>Charge Correction Software</b>	Optional
<b>Wavelength Range</b>	172 – 420 nm Up to 671 nm for Cu, Na, Li
<b>Height x Width x Depth</b>	280 x 415 x 665 mm
<b>Weight</b>	35 kg
<b>Notebook</b>	Optional



## Software innovation to support quality control

The FOUNDRY-MASTER Smart 2 comes with software that makes analysis faster, more accurate and easier to interpret. This offers analysis that helps with process control, and data management functionality allows full traceability of results and helps when it comes to audit time.



### SpArcfire

The modern operating software for the FOUNDRY-MASTER Smart 2 with a state-of-the-art user interface is designed to meet the requirements of metallurgical experts but is intuitive enough to be operated by inexperienced users.



### GRADE Database

The largest metals database on the market for fast and easy grade identification is pre-installed on the FOUNDRY-MASTER Smart 2. The Hitachi GRADE Database offers more than 15 million records across 420,000+ materials and 82 standards and countries. You can update your instrument's grade database with a few clicks – no time-consuming research in norms and grade catalogues.



### ExTOPE Connect

ExTOPE Connect is an advanced data management and storage service that allows you to store your results safely, share data instantly and access data in real time from any computer. It includes unlimited free and secure data storage and you can manage a fleet of instruments across several sites from one centralized location.

# Hitachi OES:

## Confidence in every spark.

**Engineered for precision.**  
**Trusted in production.**

From melt control to final inspection, Hitachi's stationary and mobile optical emission spectrometers deliver fast, repeatable metals analysis across the full spectrum of QA/QC workflows – backed by decades of experience and expert support tailored to your application.



**OE Series** – High-performance analysis for demanding applications

**FOUNDRY-MASTER Smart 2** – Compact, cost-effective solution for everyday QA/QC



**PMI-MASTER Smart+** – Portable lab for high-precision PMI and sorting

**PMI-MASTER Pro 2** – Rugged, mobile solution for on-the-go metals verification

# Our services

Our global network of service hubs offers a full range of technical support to keep you up and running.

## Telephone help desks

For a fast response to your problem.

## Consumables and accessories

From electrodes to spare part kits.

## Recertification and maintenance

Ensures your analyzer produces the right result year after year.

## Training

Understand your analyzer and its features.

## Extended warranties

Avoid unplanned costs.

## Repairs

Fast and efficient turnaround.



## Other Products

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

### Handheld XRF

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

### Handheld LIBS

latest technology for 1-second alloy identification with no X-rays.

## More information

To find out more, visit: <https://hhtas.net/fms>

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