

OES

FOUNDRY-MASTER Smart

High performance metals analysis on your desktop



The Business of Science®



FOUNDRY-MASTER Smart

Accurate and precise identification of materials

Fits on
any desk

Compact size, high performance

Seamless quality control is essential in the metal production industry at multiple stages of production including tramp element analysis for scrap, inspection of in-coming materials, QA/QC in the foundry process and outgoing goods.

The **FOUNDRY-MASTER** Smart is the ideal solution for companies within the metal processing industry who are requiring a cost-effective, reliable metals analyzer. The **FOUNDRY-MASTER** Smart is a new generation optical emission spectrometer (OES). Despite its extremely compact size it offers a high analytical performance at an unbeatable price-performance ratio.



Integrated GRADE Database

The **FOUNDRY-MASTER** Smart is delivered with the largest metals database for fast and easy grade identification is already preinstalled. It offers more than 10 million records for over 320,000 materials from 69 countries and standards. You can update your instrument's grade database with a few clicks – no time consuming research in norms and grade catalogues.



Product highlights

- Very small foot print: 415 x 665 mm
- High analytical performance
- Easy transportation, easy installation
- Very short start-up & measurement time
- Excellent price-performance ratio

Typical applications

- Analytical mode / identification
- Majority of metals and their alloys
- Fe: alloys like cast-iron, stainless steel
- Al: alloys like die-cast alloys
- Cu: bronze, brass, CuNi alloys...
- Ni: hastelloy / inconel / monel,...

Fast and Easy...

...transportation, installation, operation

Quick start

The **FOUNDRY-MASTER** Smart comes in a convenient wheeled transport box, difficult manoeuvring is not necessary. At only one quarter of the size of standard benchtop OES instruments and weighing only 35 kg handling is easy.

A transportation lock is not necessary, so you just need to place it on your desk, connect it to Argon and plug in the laptop via the USB port.

Ease-of-use

The intuitive user interface and numerous features make analysis work easy and simple. Just place the sample on the spark stand, start the measurement and read the results.

- Daily routine functions are easily performed and monitored
- Special protected user levels for untrained personnel ensure integrity of data and results
- Familiar Windows® based user interface
- Fully integrated system self-diagnostics



Unique sample stand

The spark stand is accessible from three sides, making it suitable for samples with complex and irregular shapes and sizes.



Adaptors for wires & small samples

Results at your fingertips

- A wide range of result forms are available: concentration, grade ID, intensity and statistical data
- Automatic storage, print-out, transmission to remote devices
- Direct output of results to productivity tools such as word processors and spreadsheets
- Flagging beyond calibration range or out of material specifications

OIES

Technical specifications

| | | | |
|---------------------------------|---------------------------|--------|--------|
| Height / width / depth | 280 mm | 415 mm | 665 mm |
| Weight | 35 kg | | |
| Power | 90 - 250 V AC, 50 / 60 Hz | | |
| Operating / standby / source on | Max. 700 W | 50 W | 100 W |

Optical System

| | | | |
|------------------|-------------------------------|--|--|
| Multi-CCD | Flat field | | |
| Wavelength range | 172 - 420 nm | | |
| Focal length | 300 mm | | |
| Optic coverage | Up to 671 nm (for Cu, Na, Li) | | |

Excitation source (solid state)

| | | | |
|---|--------------------------------|------------|-------------|
| | Computer controlled parameters | | |
| Max. pulse Current / energy / duration | 180 A | 1.00 Joule | 450 μ s |
| Frequency | 80 - 500 Hz | | |
| Voltage | 250 - 500 V | | |
| | High energy pre spark (HEPS) | | |

Environmental conditions

| | | | |
|-------------|----------------------------|--|--|
| Temperature | 0 - 40 °C / 50 - 104 °F | | |
| Humidity | 10 - 90 %, no condensation | | |

Options

| | |
|------------------|----------------------------|
| Wire adapter set | Sample preparation devices |
| Spare parts kit | Transport box |
| Consumables kit | Notebook |

OiService

Our global network of service hubs provides a full range of technical support:

- Telephone help-desk
- On-line diagnostics
- Rental instruments
- Maintenance
- Training
- Extended warranty
- Consumables and accessories
- Repair service

Please ask about details of our comprehensive range of products or visit our website at:

www.oxford-instruments.com/ia-customerservice

Visit www.oxford-instruments.com/fm-smart for more information or contact industrial@oxinst.com

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