

OES

FOUNDRY-MASTER Xpert

The benchmark for benchtop OES instruments



Analysis
of critical
elements Pb,
Se, La



OXFORD
INSTRUMENTS

The Business of Science®



FOUNDRY-MASTER Xpert

The benchmark for benchtop OES instruments

Based on the latest CCD technologies

The **FOUNDRY-MASTER Xpert** performs at the highest level with an unbeatable and outstanding price-performance ratio

With the experience of experts the **FOUNDRY-MASTER Xpert** has been engineered to set the benchmark for benchtop OES metal analysers.

It delivers high accuracy in analytical results, assures precise identification of materials and covers even critical elements like Pb, Se and La with low detection limits. There is no need to make any compromises between element selection and wavelength range.

The **FOUNDRY-MASTER Xpert** is the ideal cost-effective solution for all metal processing industries. There is virtually no restriction on the element selection. The highest levels of accuracy and precision of the analytical results and a powerful yet easy-to-use software package mean that almost every application is covered. As a result, the cost of ownership is the lowest available on the market.



Unbeatably low ownership costs!

Product highlights

Highest analytical performance using robust yet reliable technology

- New CCD readout design allows the use of OI's Dynamic Integration Algorithm (DIA) providing **superior precision** of the results
- High-resolution Multi-CCD optics for **the best spectral line separation**
- Widest spectral range from 130 to 780 nm covering nearly **all interesting elements for any metal material including nitrogen in steel**
- New digital spark generator with optimised discharge parameters for atomic lines, **lowering detection limits** of a wide range of elements
- Excellent **long-term stability** ensured by peak position alignment (PPA)
- Vacuum optical system for the best **low wavelength transparency**
- **Contamination free** due to oil trap and oil mist filter
- External PC workstation incorporating the latest technology



Solid, robust technology and compact design allow continuous use in any location, in the lab or on-site, even in rugged conditions.



Ease-of-use and simplicity

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

- Daily routine functions are very easy both to perform and to monitor
- Special, protected user levels for untrained personnel ensure necessary integrity of data and results
- Windows®-based user interface is familiar and intuitive yet flexible
- System's self-diagnostics is fully integrated

Thanks to our unique Jet-Stream-Technology, the argon consumption is remarkably lower compared to gas purged optical systems. Optimised gas flow ensures minimum argon consumption and less deposits, which means:

- Lowest cost of ownership in its class
- Easy cleaning of the work surface



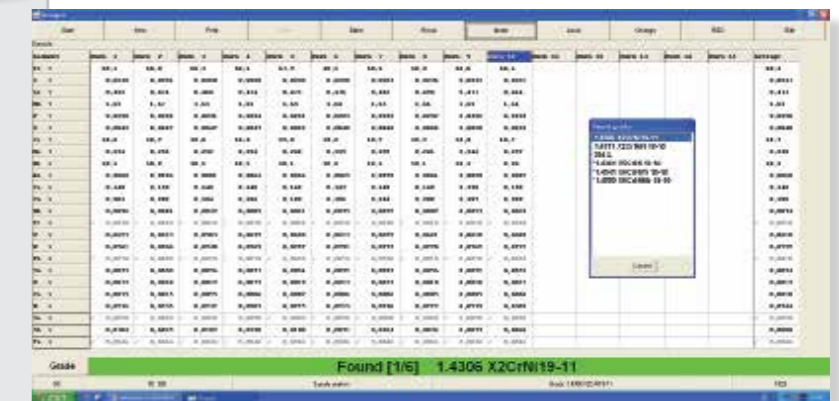
Different sample adaptors are available.



Advanced **FOUNDRY-MASTER Xpert** software

Thanks to a unique WASLab and familiar Windows®-based software, any operator can routinely produce stable, reliable measurement results with the **FOUNDRY-MASTER Xpert**.

The software is specifically designed to run on CCD spectrometers and provides all of the functions required for calibration, recalibration, analysis and reporting.



Unique sample stand

Equipped with an open spark stand and our unique proven Jet-Stream-Technology, the **FOUNDRY-MASTER Xpert** ensures the straightforward and precise measurement of samples even with complex and irregular shapes and sizes.

The stand is easily accessible from three sides; no need to speculate about sample dimensions.



Results, reports and result processing options at your fingertips

- A wide variety of result forms from concentrations and grade ID's to intensity data and SD's
- Automatic storage and printout of results and transmission to remote devices
- Direct output of results to productivity tools such as word processors and spreadsheets
- Flagging of results beyond calibration range or out of material specs

OES

We put the spark in Spectrometry

Reliable, repeatable, flexible analysis for spark foundries and metal producers



Vacuum optical system

The advantages of a vacuum system are especially proven when measuring wavelengths below 200 nm:

- We obtain highest transparency for the UV light
- Thanks to stable conditions, there are no peak shifts caused by possible ambient pressure changes
- We avoid both extra argon consumption purged to the optical system and contamination caused by the impurities in the purge gas

The **FOUNDRY-MASTER** Xpert has our proven and robust vacuum OES technology. This enables low maintenance needs: lens and window assembly can be accessed and cleaned easily. There is no oil contamination.

Typical Applications

- Analytical mode / identification
- Majority of metals and their alloys
- Fe: alloys, Cast-iron alloys
- Al: alloys, cast alloys...
- Cu: bronze, brass, Cu – Ni,...
- Ni: hastelloy ~ inconel ~ monel,...
- Ti: Ti pure, Ti.6-4 ~ Ti.8-Mn...
- Mg-, Zn alloys, solders and more...

The spark generator – lower detection limits

Beside the optical system, the digitally controlled spark generator is a masterpiece of power electronics which enhances the **FOUNDRY-MASTER** Xpert to the next level of stationary OES metal analysers.

Its stability and wide selection of different excitation parameters ensure the emission of spectral lines with the best signal-to-noise ratio, leading to lowest detection limits.



Vacuum lens assembly

OiService worldwide service and support

Oxford Instruments Customer Service recognises there are many decisions to make when choosing the right product and company with which to partner. It is not just about superb instrument functionality or the rugged design of the analyser. The OiService teams are aware of the necessity to demonstrate our depth of knowledge, skills, experience and expertise with regard to supporting our customers.

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- Extended warranty contracts
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- Technical help desk support
- Genuine approved Oxford Instruments spare parts
- Consumable products
- Service repair at OiService facility

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