FOUNDRY-MASTER Xpert

The new benchmark for benchtop OES instruments

The new level in OES technology!

OXFORD INSTRUMENTS

The Business of Science®

FOUNDRY-MASTER Xpert

The new benchmark for benchtop OES instruments

With the experience of experts the new FOUNDRY-MASTER Xpert is engineered to set the new 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 levels of detection. 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.

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 800 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 **transparency of low wavelength for the best light transparency of low wavelength**
- **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.

Based on the latest CCD technologies

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

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 on the sample stand is remarkably lower compared to gas purged optical systems. Optimised gas flow ensures minimum argon consumption and fewer deposits, which means:

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

Different sample adaptors are available.

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.

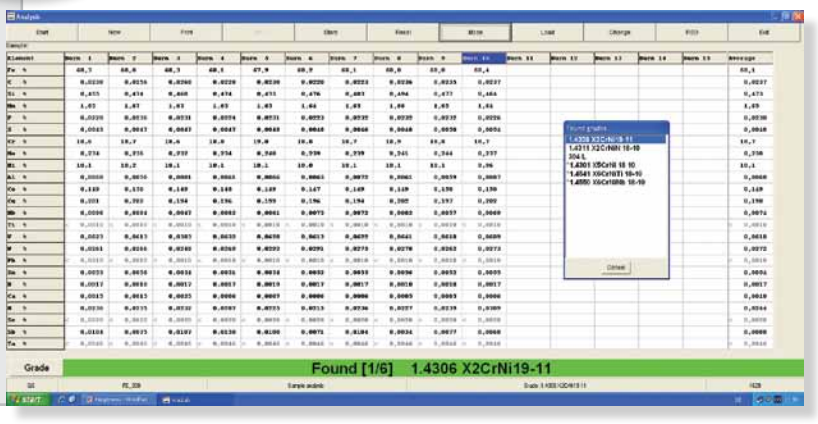
Results, reports and result processing options at your fingertips

- A wide variety of result forms from concentrations and grade ID's to intensity data, SD's and flagging
- Automatic storage and printout of results and transmission to remote devices (new simplified USB connection)
- Direct output of results to productivity tools such as word processors and spreadsheets

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, standardisation, analysis and reporting.



We put the spark in Spectrometry

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

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…

Vacuum optical system

The advantages of a vacuum system are especially proved when measuring on 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.

The new spark generator – lower detection limits

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

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

Vacuum lens assembly

www.oxford-instruments.com/oes for more information

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