FOUNDRY-MASTER UV

Metal Analysis – fast, easy and precise

The **FOUNDRY-MASTER** is a reliable, precise laboratory spectrometer for the qualitative and quantitative element analysis of metallic samples. The instrument is designed for stationary use as a bench-top-unit. The instrument is well established with hundreds of customers worldwide opting for its high performance qualities and practical features.

The instrument is based Optical Emission Spectroscopy (OES), the analysing method favoured by most metal producing and processing companies. The digital source (spark generator) is controlled via the external Windows™ PC and offers ideal excitation parameters for the most diverse alloys.

The high-resolution Multi-CCD-Optic utilises a traditional, robust, vacuum technology chamber, rather than economical and eccentric ways of removing harmful atmosphere from the optic. The optic range covers the complete wavelength range of 160 nm to 800 nm.

The rugged and approved vacuum technology is essentially maintenance-free and has significantly lower operating costs than alternative inert gas purged systems. The sample stand, open on three sides, offers the ability to measure almost any size or shape of sample, particularly large sample geometries. The unique design needs less cleaning than comparable systems, giving much longer operational time.

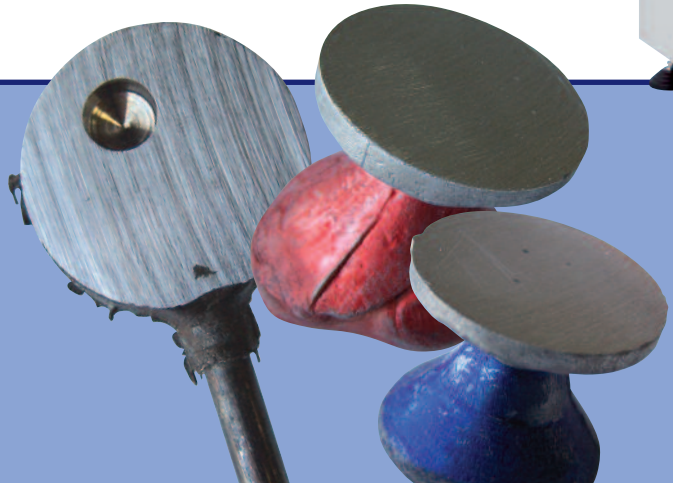
The cleaning process is fast and instrument recovery efficient due to pre-aligned parts and quick connectors. The **FOUNDRY-MASTER** is equipped with the unique WAS Jet- Stream Technology within the sample stand. The electrode is encapsulated in a flow of argon, providing two key benefits compared to previously available systems.

Argon consumption is reduced to a minimum, saving a considerable amount of operating expenses. Additionally, the sample does not need to completely seal the spark stand opening. Tubes, bars and even wires can be directly analysed, using only one universal adapter. This is a major operational advantage and strongly reduces the sample preparation time.

The **FOUNDRY-MASTER** can be upgraded with new calibration modules at any time and without expensive and time-consuming modifications. Low argon consumption thanks to optimisation of argon flush and use of vacuum technology. Analysis of all common metals and their alloys.

Three side open spark stand for measuring large sample geometries. Jet-Stream Technology for the precise analysis of curved and irregular surfaces, including wires.

- **Analysis of all metals and alloys**
- **Jet-Stream Technology**
- **Low argon consumption**
- **Precise analysis including material identification**
- **Easy-access spark stand**



OXFORD INSTRUMENTS
The Business of Science®

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- Jet-Stream Technology
- Low argon consumption
- Precise analysis including material identification
- Easy-access spark stand

Technical Data

Height	368 mm (14,5”)
Width	889 mm (35,0”)
Depth	635 mm (25,0”)
Weight	70 kg (154,3 lbs)
Mains Power	230-110 VAC (50/60 Hz)
Operating Mode	600 W
Standby Mode	50 W

Solid State Source

Computer controlled parameters

Frequency	100 – 400 Hz
Voltage	300 – 500 V

High Energy Pre Spark HEPS

Readout System

External PC-Workstation incorporating up-to-date technology

Vacuum System

Direct-path optical spark-stand
Low-noise vacuum pump
Shut-off-valve for easy replacement of the optical window

Options

Wire-adapter set
Sample preparation devices
Spare parts kit
Consumables kit

Optical System

Multi CCD optical-system with Paschen-runge Mount

Resolution CCD	6 Pico-meter
Reciprocal dispersion	0,9 nm/mm (1st order)
Focal length	350 mm
Holographic grating	3000 g/mm
Wavelength	160 – 800 nm

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 many more…

We put the spark in Spectrometry

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Part no: OIIA/029/B/0509