

# ARC-MET8000

Mobile Optical Emission Spectrometer for the analysis of metals using AIR and ARGON



*The Business of Science™*



# ARC-MET8000 - instant analysis metals using AIR and ARGON

Oxford Instruments understands the increasing importance of the need to analyze key elements in metals. Materials verification, PMI and scrap sorting are all areas where high standards are demanded by end-users, quality control systems and safety procedures.

Performance and precision has to be second to none. That is why **ARC-MET8000** has been designed to identify all the key elements in metals, including carbon and other light elements. Recognizing that carbon identification is of primary concern in all material verification functions, especially welding, **ARC-MET8000** has the unique capability of measuring carbon in both air and argon modes.

## **ARC-MET probe is the heart of the system - unique to ARC-MET8000**

- All the analysis takes place in the probe, not metres away in the main unit – this gives optimum accuracy, as the signal is not weakened.
- The only probe to have an integral display – so if you are measuring remotely or high up, you don't have to return to the main unit to see your results.
- Optimum contrast properties to view in any lighting conditions.
- The only probe to have an integrated keyboard - another labor saving device.
- 1 probe, 2 noses – unique to **ARC-MET8000**.
- Easy to switch between the airpath nose or the argon nose, so if you are working on an area with irregular shapes you can simply change the nose, not the probe.
- Easier to carry with you to save time.

## **The advantage of a mobile unit like ARC-MET8000 is flexibility**

- Move between the lab and production line or off site
- Save the cost of multiple systems – **ARC-MET8000** can double as a lab/benchttop/mobile system
- Battery operated for easy portability.

## **Accurate and versatile**

- Measure all elements – ideal for light elements like aluminum. The instrument of choice for carbon.
- The only OES analyzer that uses a single probe to measure using either air path or argon.
- Optional sulfur and phosphorus measurement – adds value to the careful separation of steel alloys.
- The equivalent carbon content – used to verify weldability – can be calculated within the software.



of



Optional stand and foot pedal available for lab use



MEASUREMENT		Conc. model: LOW ALLOYS (6-36 Fe)(Argon)				
Measurement name: A1104-1		4 results in average calculations				
Element	Average	StDev	A1104-1.4	A1104-1.3	A1104-1.2	A1104-1.1
Fe	96.96	0.016	96.95	96.94	96.97	96.99
C	0.216	0.006	0.222	0.221	0.210	0.209
Si	0.203	0.003	0.200	0.206	0.208	0.200
Mn	0.944	0.006	0.937	0.953	0.943	0.941
Cr	0.560	0.002	0.557	0.562	0.561	0.560
Ni	0.457	0.001	0.459	0.456	0.456	0.458
Mo	0.134	0.001	0.135	0.135	0.131	0.134
Cu	0.328	0.003	0.328	0.327	0.324	0.333
Al	0.000	0.000	0.000	0.000	0.000	0.000
V	0.000	0.000	0.000	0.000	0.000	0.000
W	0.142	0.010	0.156	0.146	0.138	0.129
Ti	0.005	0.000	0.006	0.005	0.005	0.005
Nb	0.001	0.000	0.001	0.001	0.002	0.001
B	0.000	0.000	0.000	0.000	0.000	0.000
S	0.029	0.002	0.025	0.030	0.031	0.029
P	0.019	0.002	0.021	0.017	0.022	0.016
CE	0.564	0.006	0.569	0.572	0.558	0.558

ARC-MET8000 results display

**Results displayed on both the probe and main unit**

- Automatically stored in a database until transferred by disk, flash card or LAN.
- Print results on either optional internal printer or external printer.

**Maximum performance for all types of analysis:**

**Assay models** for analyzing alloying elements – can be easily modified and customized.

**Commercial grades identification** can be made using our extensive library, which is customizable and user-definable.

**Fingerprint identification** – done by spectral comparison, is possible even without an assay calibration.

**Pass/Fail measurement** provides high sample throughput – needed in sorting applications as well as in production processes.

**Reliable, repeatable, flexible analysis for all segments of the metals inspection industry:**

- Metallurgical manufacturing • Oil refineries
- Petrochemical and chemical • Aviation • Military
- Power plants • Scrap sorting

**Ideal for ferrous and non-ferrous metals**

- Low alloy steels
- Stainless steels
- Tool steels
- Low alloy (white) cast iron
- Aluminum alloys
- Titanium alloys
- Nickel alloys
- Cobalt alloys
- Copper alloys
- Zinc alloys
- Magnesium alloys
- ... ask for others



Quick and easy to change adapters and noses

Available in multiple languages with capability of adding more on request.

**ARC-MET8000**  
**Profit through Accuracy**



## worldwide service and support

Oxford Instruments is completely committed to supporting our customers' success. We recognize that this requires world class products complemented by world class support.

With a comprehensive training agenda for technical engineers and end users, combined with a global service force of Oxford Instruments trained engineers in close to 70 countries and backed by experienced analysts in 10 regional offices and 7 fully equipped applications laboratories, we can offer unrivalled support, wherever you are.

10 metres (33ft)

The only analyzer with an optional 10m (33ft) flexible hose – ideal for hard to reach areas



click onto [www.oxford-instruments.com](http://www.oxford-instruments.com) for more information

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