

QUALITY

X-MET8000

Trust but verify: Ensure product quality with Oxford Instruments' latest handheld XRF analyser



Fast and reliable grade identification and alloy elemental composition analysis for the:

- Incoming inspection of alloy materials and components before they enter production
- Rapid verification of alloys used in the manufacturing process
- Product material confirmation before shipment



The Business of Science®

X-MET8000

The tool of choice for manufacturing Quality Control and Assurance

To prevent product failures and their costly consequences to the livelihood and reputation of manufacturing companies, quality control and assurance testing at various stages of the production process is essential: from the control of incoming material and components, to the final check of manufactured parts prior to shipment. Handheld X-ray fluorescence (XRF) analysers are often the tool of choice for quality control, because they are easy to use and offer rapid, on-site, non-destructive analysis.

Capitalising on the success of its **X-MET7000** Series, Oxford Instruments has raised the bar with its latest handheld XRF analyser, the **X-MET8000**. The optimised combination of a high performance X-ray tube and Oxford Instruments' large area silicon-drift detector (SDD) delivers the performance required for even the most demanding QA/QC applications

Ultimate performance for reliable material verification

- Superior light elements (Mg to S) analysis for fast and accurate analysis of most commercial alloys, including aluminium alloys, Si and Al bronzes, etc.
- Low limits of detection, for accurate grade separation (e.g. 303-304, 6061-6063)
- Fast analysis and accurate grade identification: get laboratory quality results in seconds, and reduce testing cost and time
- Optimum efficiency: lightweight (1.5kg), small, and ergonomic design, with up to 10-12 hours battery life
- Fast start-up: be up and running in seconds
- Automatic sample size compensation for accurate testing of pipes, rods, wires down to 1mm diameter, welds, fasteners, turnings, chips, etc.



Main menu

GOOD MATCH (1/2)			
ELEMENT	%	+/-	LIMIT
Fe	69.20	0.427	60.00 - 73.00
Cr	16.18	0.201	16.00 - 18.00
Ni	10.20	0.195	10.00 - 14.00
Mo	2.09	0.031	2.00 - 3.00
Mn	1.85	0.153	0.00 - 2.00
Si	0.20	0.051	0.00 - 1.00
Ti	0.16	0.049	0.00 - 0.20
Cu	0.12	0.035	

Results screen

12 24.31 Mg Magnesium Kα 1.25	13 26.98 Al Aluminum Kα 1.49	14 28.09 Si Silicon Kα 1.74	15 30.97 P Phosphorus Kα 2.01	16 32.06 S Sulfur Kα 2.31
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Extensive, customisable grade library for accurate alloy identification

The **X-MET8000** includes the most comprehensive grade library: the pre-installed, user-selectable AISI, DIN, JIS, and GB libraries include a total of over 1600 alloys. Users can modify the existing libraries, add new grades (such as manufacturer or location specific grades), or create their own library (e.g. for specific welding material).

The pre-loaded grade libraries include:

- Nickel alloys
- Low alloy steels
- Stainless steels
- Tool steels
- Copper alloys
- Titanium alloys
- Aluminium alloys
- Zirconium alloys
- Cobalt alloys
- And more...



Trust but verify

100% PMI with 100% confidence

Optimised calibrations for results you can trust

The **X-MET8000** offers the best of both worlds with a robust fundamental parameters (FP) method, and empirical calibrations (traceable to certified reference materials) for superior precision and accuracy. Simply select the application that meets your requirements, and analyse alloys in seconds.



Superior
precision &
accuracy



Powerful data management

- Store up to 100,000 results including spectra and sample image (if camera is fitted)
- Download results and reports directly to a USB memory stick, to a PC or a network share using Wifi or Bluetooth, using a CSV format or tamper-proof PDF for ultimate data integrity
- Create customised, professional looking reports using the **X-MET** report generator (no software installation needed): include company logo, sample image, results, spectra, additional sample information (e.g. description, location, batch number) etc.



CERTIFICATE OF VERIFICATION

Name	Class	Date	Time	Duration
Noname 1	Alloy FP	26/08/2014	15:14:25	5.5 s

Element	Fe %	Cr %	Ni %	Mo %	Mn %	Si %
	66.19	16.94	11.50	2.21	1.83	0.20
±	0.205	0.157	0.170	0.028	0.093	0.054

Grades: S5316 (0.00)

Reference:

Batch No.: 280714-A

Location: Warehouse Unit 24

Part No.: RF12nB

J. Mills



Easy to use

- Intuitive, icon-driven user interface: minimal operator training required
- Large 4.3" colour touchscreen for excellent results visibility, even in direct sunlight. Easy operation, even with gloves on
- Quick-swap analysis window: no tool required to change the analysis window when broken or dirty
- Customisable results screen for fast decision making: display information that is important to you, e.g. alloy grade, elemental composition, pass/fail messages, elements listed in your chosen order
- Compact and balanced design
- Optional integrated camera for accurate measurement positioning



**Compact
and balanced
design**



*Quick-swap
window with
shield*

Rugged for low cost of ownership

- IP54 compliant (equivalent to NEMA 3) for superior protection against dust and water
- Impact-resistant housing with environmental sealing, and rubber bumpers around the screen, nose and battery for protection against shocks
- Large heat sink for optimum robustness and stability, even in hot environments
- Bright orange casing for high visibility in the field
- Optional shield to prevent detector and X-ray tube damage when testing small components and sharp objects

Oxford Instruments: the only instruments supplier to meet all your alloy analysis needs

Handheld LIBS: Latest technology for 1-second alloy identification, including aluminium alloys, with no X-rays.



Handheld XRF: For fast, reliable, non-destructive identification and analysis of alloys.



Mobile and portable OES: For high performance analysis of alloyed and trace elements, nitrogen analysis in Duplex Steels, L grade steel separation; includes Argon JET-STREAM technology.



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.

Oxford Instruments offers a range of support packages that provide you with the level of service you require:

- Technical help desk support
- World class training academy
- Rental analyser scheme on certain products
- Extended warranty contracts
- Genuine approved spare parts
- Service repair at **OiService** centre
- Tailored service plan agreements
- Consumable products Webshop

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/X-MET8000 for more information or email: industrial@oxinst.com

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