

SCRAP

X-MET8000

Sort scrap metal fast and maximise profits with Oxford Instruments' latest handheld XRF analyser



Maximise productivity and profits with:

- Fastest start-up: ready to analyse in seconds
- Rapid alloy identification and accurate chemistry
- Largest grade libraries, with over 1,600 alloys
- Quantification of tramp and penalty elements
- IP54 rating, allowing you to use the **X-MET** in the toughest environments

OXFORD
INSTRUMENTS

The Business of Science®



METALS

X-MET8000

Maximise sorting throughput and improve profitability

Metals recycling is a multi-billion dollar industry which involves the processing of ferrous and non ferrous metal scrap into secondary raw material for the smelting of new metals. Over 400 million tonnes of scrap are processed each year. Sorting scrap metal through testing adds value at all stages of the metal recycling process, from sorting mixed scrap into low value and high value materials, to determining the composition of the scrap that goes into the melts and the quality of the output. Handheld X-ray fluorescence (XRF) analysers are commonly used in the scrap yards, as they offer rapid, on-site alloy identification and chemistry.

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 speed and performance required in even the most demanding metals applications.

Ultimate performance for reliable alloy identification and chemistry

- Superior light elements (Mg to S) analysis for fast and accurate analysis of most commercial alloys, including aluminium, titanium, bronze, high temperature alloys, etc.
- Low limits of detection, for accurate grading and determination of impurities and penalty elements
- Fast and accurate analysis for high speed sorting
- 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 cables, wires down to 1mm diameter, fasteners, turnings, chips, etc.



Main menu

The image shows the results screen of the X-MET8000 handheld XRF analyser. The screen displays 'SS316' and 'GOOD MATCH (1/2)'. Below this is a table of element percentages. The top status bar shows 'ALLOY', '5s', '13:01', and a battery icon.

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

The image shows a row of five element analysis results cards. Each card displays the element symbol, atomic number, atomic weight, and K α energy.

Element	Atomic No.	Atomic Weight	K α Energy
Mg	12	24.31	1.25
Al	13	26.98	1.49
Si	14	28.09	1.74
P	15	30.97	2.01
S	16	32.06	2.31



RECYCLING



Largest
grade
library



Extensive, customisable grade library for accurate alloy identification

The **X-MET8000** includes the most comprehensive grade library: the pre-installed, user-selectable AISI (>650 grades), DIN, JIS, and GB libraries include a total of over 1600 alloys. Users can modify the existing libraries, add new grades (specialty or exotic alloys) or create their own library.

The pre-loaded grade libraries include:

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



Grade and Trade

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



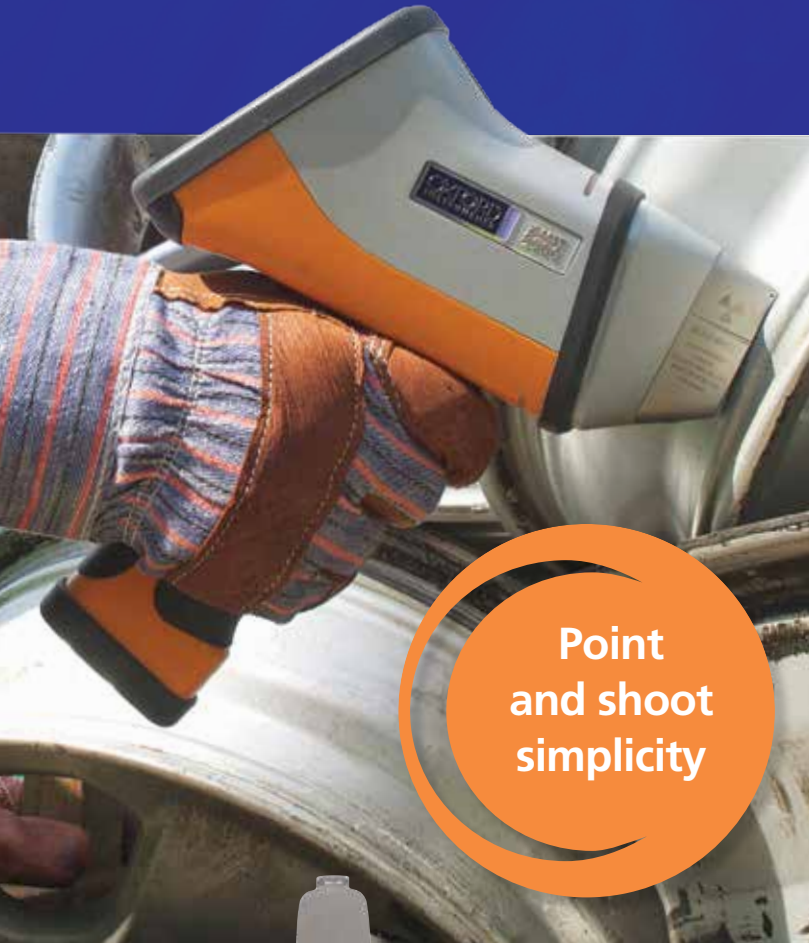
Powerful data management

- 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.
- Use real-time averaging for effortless batch evaluation

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X-MET8000 TEST REPORT						
Name	Class	Date		Time	Duration	
Noname 1	Alloy FP	25/08/2014		15:14:25	15.5 s	
Element	Fe %	Cr %	Ni %	Mn %	Si %	
#	66.19	16.94	11.50	2.21	1.83	0.20
	0.295	0.157	0.170	0.028	0.093	0.054
Grade: S5316 (0.00)						
Reference:						
Name: John Smith						
Registration: K234 XXX						
Weight In: 4.10g						
Weight Out: 2.90g						
j. Mills						



RECYCLING



**Point
and shoot
simplicity**

Easy to use

- Proven "point and shoot" simplicity
- Intuitive, icon-driven user interface: minimal operator training required
- Large 4.3" colour touchscreen for excellent results visibility, even in direct sunlight; easy operation 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



*Quick-swap
window with
shield*

Rugged for low cost of ownership

- IP54 compliant (equivalent to NEMA 3) for superior protection against dust and water
- Optional shield to prevent detector and X-ray tube damage when testing small components and sharp objects
- 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

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

Handheld LIBS: Latest technology for 1-second alloy identification, even of Al alloys, with no X-rays



Handheld XRF: For fast, reliable, non-destructive identification and analysis of alloys, car catalysts, and waste plastics



Mobile and portable OES: For the certification of scrap sold as feed material; provides the highest performance for the analysis of alloyed and trace elements, and the lowest limits of detection for elements such as Mg, Al, Si, P, S, Cu, Pb...



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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