

PMI

X-MET® for PMI

Fast Grade ID, even aluminium!

PMI • QC/QA • FAC • AEROSPACE • AUTOMOTIVE



FASTER ANALYSIS... LOWER DETECTION LIMITS
Oxford Instruments' SDD45 Measuring Technology
INSIDE
Superior Light Element analysis



The Business of Science®



X-MET5000 and X-MET5100

Unparalleled speed and measurement capability

X-MET5000 and X-MET5100 energy dispersive X-ray fluorescence (XRF) analyzers, with traceable Empirical Calibration assure real-time results that can be trusted. Both instruments are highly productive mobile testing tools for Positive Material Identification (PMI) and material quality assurance testing.



All alloy IDs in seconds!

The **X-MET5100**, with its powerful Light Element capability combined with the non-destructive nature of the XRF technique, is an invaluable tool for the aerospace industry where finished or sensitive samples need to be analyzed and Light Elements such as Mg, Al, Si & P need to be determined. Challenging trace element analysis, such as FAC inspection in the nuclear power industry and the QC of microalloyed steels in automotive manufacture, can be performed in seconds!

Silicon Drift Detector technology improves productivity!

Top of the range **X-MET5100** combines Oxford Instruments' groundbreaking Silicon Drift Detector (SDD) with a powerful 45kV X-ray tube. This cutting edge technology delivers a five times faster measurement speed, much better detection limits and significant accuracy improvement over conventional systems. Isn't it time you used **X-MET** to improve your productivity?



X-MET5000 – Reliable material verification

- Reliable identification of a wide range of alloy grades
- Identification of close grades such as 304/321 or Grade CPTi/Ti-7 in less than 5 seconds
- Traceable Empirical Calibration to certified reference materials
- Withstands test piece surface temperatures up to 400°C
- Totally non-destructive testing

What's more, X-MET5100 provides:

- Unparalleled speed: complete alloy analysis and grade ID in seconds
- Revolutionary Light Element analysis (Mg, Al, Si, P, S) without awkward vacuum pumps or helium bottles
- Invaluable tool for aluminium measurement and analysis of alloys which may contain large amounts of light elements (Mg, Al, Si, P, S)

High speed PMI

Quality Control/Assurance with the X-MET series



Rugged and reliable tool for fast, reliable Grade ID

- Withstands all weather conditions and rough treatment
- IP54 (NEMA 3) approved. Superior dust and moisture protection
- High-strength environmentally sealed housing
- Long battery operating time, charge indicator on battery and user interface

Just point and shoot

- Analyze known and unknown samples
- Inspect pipes and welds for corrosion resistance conformity and pressure equipment for alloy composition
- Wires down to 1mm diameter can be identified in seconds



Analyze large or small sample structures like bolts, thin tubes or honeycomb in seconds – just point and shoot!

- The **X-MET** series compensates for shapes, sizes and forms of a sample
- Inspect pipes and welds for corrosion resistance conformity and pressure equipment for alloy composition
- Wire less than 1mm diameter can be identified in seconds

Extensive and open grade library

The **X-MET** allows easy editing of the grade libraries, including the addition of new alloys and naming of alloys. The grade library contains:

- Nickel Alloys
- Stainless Steels
- Cobalt Alloys
- Low Alloy Steel
- Tool Steels
- Copper Alloys
- Titanium Alloys
- Zirconium Alloys
- Aluminium Alloys

The **X-MET** is capable of storing thousands of different grades and it is easy to add new elements or to create a custom library.



PIM

Proven design based on over 35 years experience in the field of portable hand-held XRF analyzers

Three modes of operation

Choice of analysis modes

- Traceable Empirical Calibrations for optimized accuracy
 - Additional custom calibrations can be created with optional PC software package
- Fundamental Parameter Calibrations when standards are not available
 - Universal calibration that can measure over 30 elements between CH-U (**X-MET5000**) and between Mg-U (**X-MET5100**)
- Pass / fail mode when only a small range of materials need to be identified
 - User programmable pass /fail and alarm



Easy and reliable

- Short learning curve
- User interface in >10 languages
- Easy data storage and reporting
- PDA based technology for flexibility and simplicity
- CE, cCSAus certified



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