

X-MET8000

HITACHI
Inspire the Next



MANUFACTURING QA/QC

The X-MET8000 is a handheld X-ray fluorescence (XRF) analyser that delivers fast, non-destructive analysis and accurate grade identification for manufacturing quality control and assurance.

The combination of a high performance X-ray tube and large area silicon-drift detector (SDD) delivers the performance required for even the most demanding QA/QC applications.

With X-MET8000 you get laboratory quality results in seconds, reducing testing costs and time.





Why the X-MET8000 is the perfect tool for your business



RESULTS YOU CAN TRUST

X-MET8000 offers the best of both worlds, with versatile fundamental parameters (FP) method and empirical calibrations (traceable to certified reference materials) for superior precision and accuracy.



ULTIMATE PERFORMANCE

It's great for the analysis of light elements (Mg to S) for fast testing of most commercial alloys, including aluminium alloys, Si and Al bronzes. It provides low limits of detection for accurate grade separation (e.g. 303-304, 6061-6063) with laboratory quality results in seconds.



EASY TO USE

The intuitive, icon-driven user display means that minimal operator training is required. It has a customisable results screen for fast decision making, displaying the information that is important to you.

It's light (1.5 kg) and ergonomic, making it comfortable for daily use. The screen is easy to read, even in direct sunlight and can be used while wearing gloves.



ACCURATE

Automatic sample size compensation for accurate testing of pipes, rods, wires down to 1 mm diameter, welds, fasteners, turnings, chips, etc.

BUILT TO LAST

The X-MET8000 is IP54 compliant (equivalent to NEMA3) for superior protection against dust and water. It has an impact-resistant housing with environmental sealing, and rubber bumpers around the screen, nose and battery to protect against shocks. A large heat sink provides optimum robustness and stability, even in hot environments. The shield window (optional for Expert and Optimum models) prevents detector and X-ray tube damage when testing small components and sharp objects.

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 stick, to a PC or a network share using WiFi or Bluetooth, using CSV format or tamper-proof PDF for ultimate data integrity. Create your own reports using X-MET report generator (no software installation needed). This can include company logo, sample image, results, spectra and additional sample information. You can share results on-the-go with suppliers, customers or colleagues with our app.

EXTENSIVE, CUSTOMISABLE GRADE LIBRARY

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 libraries include:

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

A screenshot of the X-MET8000 app interface. At the top, it shows '1 Alloy LE 10s.' and a battery icon. Below that, it says 'TEST 81' and 'SS316'. A status bar indicates 'GOOD MATCH (1/1)'. Below this is a table with columns: ELEMENT, %, +/-, and LIMIT. The table lists various elements and their corresponding values and limits.

ELEMENT	%	+/-	LIMIT
Al	<0.00	0.050	
Si	0.43	0.046	0.00 - 1.00
P	0.05	0.008	
S	0.11	0.013	
Ti	0.03	0.024	0.00 - 0.20
V	0.09	0.020	
Cr	16.95	0.150	16.00 - 18.00
Mn	1.58	0.086	0.00 - 2.00

At the bottom of the screen, there are three buttons: 'CAMERA', 'TOOLS', and 'MENU'.A screenshot of the X-MET8000 app interface showing the 'AVAILABLE GRADE LIBRARIES' screen. It lists several libraries: Au Karat, DIN, GB, JIS, and AISI. The AISI library is currently selected, indicated by a checkmark in a blue triangle on the right side of the row. At the bottom, there are three buttons: 'DONE', 'TOOLS', and 'MENU'.

AVAILABLE GRADE LIBRARIES	
	Au Karat
	DIN
	GB
	JIS
	AISI

CONFIGURATION OPTIONS



	X-MET8000 Smart	X-MET8000 Optimum	X-MET8000 Expert
Description	The smart choice for the routine identification and analysis of common alloys	Optimised for the high speed grade identification and analysis, from aluminums to bronzes and brasses to steels etc	Our top performer provides the ultimate performance for the testing of the widest variety of alloys; with superior light elements (Mg, Al, Si, P, S) and tramp elements analysis
X-ray tube	40 kV	40 kV or 50 kV (depending on application)	50 kV
X-ray tube filters	Single filter	6-position filter wheel for the optimised analysis of all elements from Mg to U	
Detector	Large area SDD	Large area SDD	Large area SDD
Element range	K – U	Mg – U	
Max. sample temperature	100°C	100°C 400°C with HERO™ (heat resistant) window (optional)	
IP54 rating	Yes	Yes	Yes
Weight	1.5 kg	1.5 kg	1.5 kg
Battery life	10 – 12 hours	10 – 12 hours	10 – 12 hours
Protection against detector window damage	Shield window	Optional window shield	
Calibrations	Standardless	Standardless (includes light elements analysis)	Standardless + automatic selection of empirical calibrations (traceable to certified reference materials) for superior precision and accuracy

HARDWARE AND SOFTWARE OPTIONS

FEATURE	X-MET8000 Smart	X-MET8000 Optimum	X-MET8000 Expert
Bluetooth	Included	Included	Included
WiFi	Included	Included	Included
Integrated camera	Optional	Optional	Included
Small-spot collimator	Not Included	Optional	Optional
Report generator	Included	Included	Included

Optional accessories for maximised productivity and operator safety

PORTABLE BLUETOOTH PRINTER:

print results on paper or sticky labels, and attach them to test pieces; convenient and mix-up free.

HOLSTER AND BELT:

for hands-free on-site transportation of the analyser.

BENCHTOP STAND:

transform the X-MET8000 into a benchtop analyser in seconds to increase productivity and operator safety when measuring irregular shape pieces. The large chamber enables the measurement of a wide variety of sample shapes and sizes.

LIGHT STAND AND SAFETY SHIELD:

for the on-the-go analysis of small samples (e.g. screws, fasteners). It fits in the X-MET case for total portability.

LIGHT RADIATION SHIELD:

to minimise scattered radiation when analysing light alloys (e.g. Al alloys).

BLUETOOTH BARCODE SCANNER:

prevent typing errors when entering sample labels or additional information in the X-MET user interface. Simply scan the sample barcode to fill in the information in your chosen field on the X-MET screen.



Our Service

Our global network of service hubs offers a full range of technical support to keep you up and running.



Telephone help-desks

For a fast response to your problem.



Online diagnostics

In-depth support over the internet.



Rental instruments

To keep you working if your analyser is not.



Recertification and maintenance

Ensures your analyser produces the right result year after year.



Training

Understand your analyser and its features.



Extended warranties

Avoid unplanned costs.



Consumables and accessories

From spare batteries to benchtop stands.



Repairs

Fast and efficient turnaround.

What next?

Contact one of our experts today at contact@hitachi-hightech-as.com to arrange a demo.

MORE INFORMATION

To find out more about the X-MET8000 range of analysers, visit www.hitachi-hightech.com/hha



Other products

We have been providing industrial analysis products for over 40 years.

- | **Vulcan:** latest technology for 1-second alloy identification with no X-rays.
- | **Mobile and portable OES:** for high performance analysis of alloyed and trace elements; nitrogen analysis in duplex steels.

Browse our full range of products online at www.hitachi-hightech.com/hha

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Science for
a better tomorrow