

Mobile OES
High performance on wheels

**TAKE YOUR
LAB TO THE
SAMPLE**

Mobile OES

High performance on wheels

The very best mobile analysis solution;
addresses every conceivable need and
goes well beyond them too!

Mobile OES are required to work in really harsh conditions. From foundry / forging / rolling mill shop-floors to scrapyards, shipbuilding / breaking centres, railways workshops and beyond, mobile OES need to be capable of withstanding conditions no benchtop OES would ever encounter. Reflecting this, the **Metavision-MX** and **Metavision-MX+** address each aspect of mobility without compromising on ruggedness!

Metavision MX

Metavision MX+



Mobile Optical Emission Spectrometers (OES) from Metal Power

Arc-spark Optical Emission Spectrometers (OES) are critical quality tools for all metal industries – offering highly accurate and precise analysis of a plethora of elements within just seconds. Typically, these are key elements of every metal analysis laboratory. But there are situations when an OES is needed, but a Laboratory is infeasible! Examples of such applications include the need for rapid sorting of scrap, grade identification and sorting of materials in a yard – also called Positive Material Identification (PMI), quick testing of materials at the in-gates of plants, validation of large products that one can't take a sample from or the validation joints on large vessels (ships, for example) etc. Such applications demand metal analysis and therefore require an Optical Emission Spectrometer but need the spectrometer to be capable of moving to the item that needs testing rather than the other way around. This creates the need for portable or mobile spectrometers, and this is where mobile OES (also sometimes referred to as Portable OES) come in. As one of the world's leading spectrometer manufacturers, Metal Power offers the best and most optimized portable/mobile OES models in the industry!

The What and Why of Mobile Optical Emission Spectrometers (OES)

Mobile OES take the myriad advantages of arc/spark OES and remove the constraints of needing a Laboratory environment and

carefully prepared sample. The best mobile OES – like Metal Power's *Metavision-MX* and *Metavision-MX+* come with self-contained trolleys that house not just the optics and plasma generation sources, but also with in-built computers and touchscreens, and are equipped with wheels and suspensions designed to enable the unit to be wheeled around over extended distances in rugged conditions like those on a foundry or forge-shop or in scrapyards, shipyards etc. Extremely compact and completely self-contained, these OES can also just be loaded into small vehicles and driven to places where testing is needed (e.g. scrapyards visited for purchasing / sales). This enables users to move the instrument to the point where testing is needed – making the OES both mobile / portable and transportable. For sparking, the mobile OES is equipped with handheld probes at the end of 4m (or longer) conduits. Multiple probe options are provided enabling users to select the mode of testing needed. Users can also select from a variety of sample adaptors, enabling analysis of different types of shapes, including curved surfaces (for inspection of items such as wire rods), angles (for inspection of weld joints, for example) etc. What makes mobile OES far preferable to any other "portable" spectrometer or other handheld models is the ability to test for UV elements including C, S, P, B, As and N. Mobile OES can test for C in all three modes (arc, spark and UV) while the UV probes address the needs for testing all these elements to low levels (down to 20 ppm and lower). This makes mobile OES far preferable to other portable or mobile options – particularly XRF – as these do not analyse UV elements at all.

Key advantages

- Very rapid analysis times across probes
- Pre-loaded library with 350,000+ grades with flexibility to create user-defined libraries for Grades and/or CRMs
- Fully integrated self-contained trolley
- Extremely rapid stabilization period
- Integrated 15" capacitive touchscreen
- Integrated Trackpad and Keyboard
- Single-sample re-standardisation
- Easy-change probe conduits (<10 seconds!)
- Access real-time data, historical analytics, and diagnostic information directly from the MetaCloud app
- Ultra long-life field-swappable batteries (1,000 burns per charge)
- Shock-proof; dust-proof and splash-proof (IP23 compliant) design
- Rugged build – designed for the shopfloor!
- Most advanced applications suite with plethora of unique features
- Touch-optimized, user-friendly, icon-driven operating software suite
- Statistical Process Control (SPC)
- All manner of probes and adaptors available

Metavision MX+

Wheel your Lab to the Sample

Often an application calls for testing of items like a boiler, overhead pipes or specific parts aboard ships. Whether testing for the grade or for signs of stress, fatigue, corrosion or risk of failure, such testing calls for high-precision analysis and is just not suited for the typical process of Lab testing. This is where high-end mobile OES like the *Metavision-MX+* come into their own. The *Metavision-MX+* delivers high quality performance while offering all the flexibility, agility and convenience of mobile OES. The multi-CMOS optics of the *Metavision-MX+* cover the full analytical range up to 671 nm, covering 55+ elements (including Li and Na analysis) and offer very high resolution. The optics are also completely insulated and thermally stabilized with a design that accounts for the unit being

used entirely outdoors and across a wide range of ambient temperatures.

With a wide range of adaptor and probe options, the *Metavision-MX+* is designed to ensure that every single need can be addressed with the minimum of fuss. Indeed, our combined probe options ensure that even the need to change probes on field is minimized. That said, such is the design that changing probes is easier done than said! With minimum fuss, and just 2 clicks, you can swap probes on-field in a matter of seconds. The probes are highly optimized for both elemental coverage as well as speed, with Carbon analysis offered on all probes (including Arc).



Metavision MX

High performance on wheels

The *Metavision-MX* has been designed to be the ultimate PMI solution – on a budget! It addresses each aspect of mobility without compromising on ruggedness, battery life or feature-set! The *Metavision-MX* leverages our patented optics design with the latest CCD technology to deliver high resolution in a delightfully ergonomic and light package. It makes no compromises on any aspect and features the same probe architecture, interfaces and options as the *Metavision-MX+* – losing nothing in terms of features.

The *Metavision-MX* consumes low power – and comes equipped with a light and long-life field-swappable battery! The combination ensures hours of sustained use even in places with no Mains power supply. A single battery charge covers well over half a day of usage (even with the UV probe), contributing to peace of mind and reducing the variables one needs to account for at site. The *Metavision-MX* also comes equipped with the widest range of adaptors including those for curved surfaces, edges, wires and rods, odd shapes etc



Combining cutting-edge OES technology
with user-friendly portability features

Adjustable rear axle for added ease in mobility



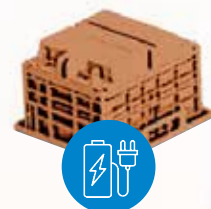
Provision for a second battery within unit,
allowing for doubling of battery capacity and
100% redundancy



Top battery



Bottom battery



Fast-charging battery; 80%
charge in <10 minutes

Tool-free design for detaching / re-attaching modules;
designed to enable transportation even in a small car's boot!



Transform your mobile OES into a table-top
and operate directly via Mains supply



Probe Options

Both Mobile OES models can be paired with any of a range of probes that have been meticulously engineered to deliver high precision and accuracy while also facilitating convenient and rapid analysis of materials on-site for a wide range of ferrous and non-ferrous applications. Engineered to endure demanding conditions, they can be operated at any angle, are accompanied by a range of adaptors for a wide range of shapes, forms and sizes of sample, and are constructed with a sturdy outer casing, that safeguards internal components from external factors such as heat, moisture, and mechanical strain.



Arc Probe

Efficiently categorize metals using an arc in an air atmosphere, eliminating the need for argon.



Spark Probe

Accurate examination of typical elements, including Carbon (C), using spark technique.



UV Smart Probe (with touchscreen)

Analyze critical UV elements like Carbon (C), Sulphur (S), Phosphorus (P), Nitrogen (N) at low levels.



UVis Smart Probe (with touchscreen)

Combination of Spark and UV elements results in a single probe offering comprehensive analysis across all elements in a single test; eliminates the need to swap probes!

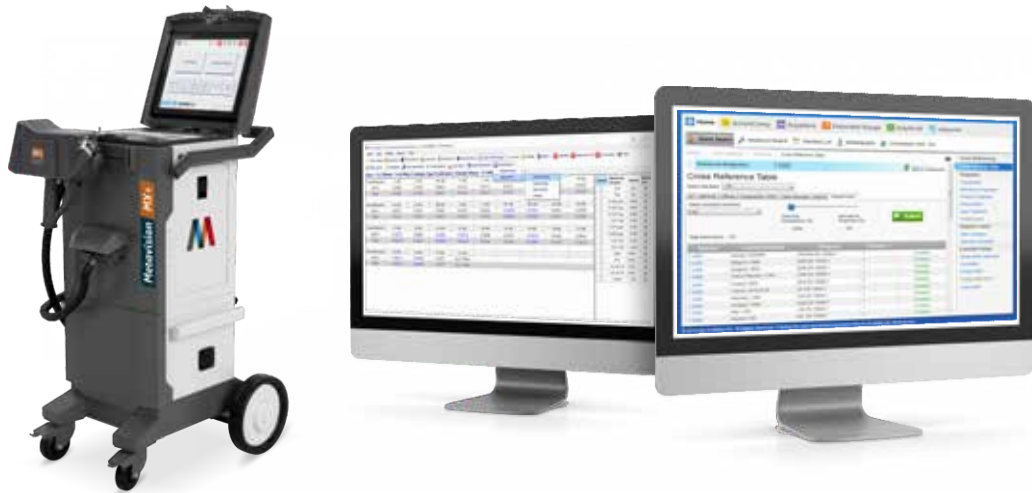


Easy to swap on-field; probes are supplied with carrying cases and can be swapped "online"

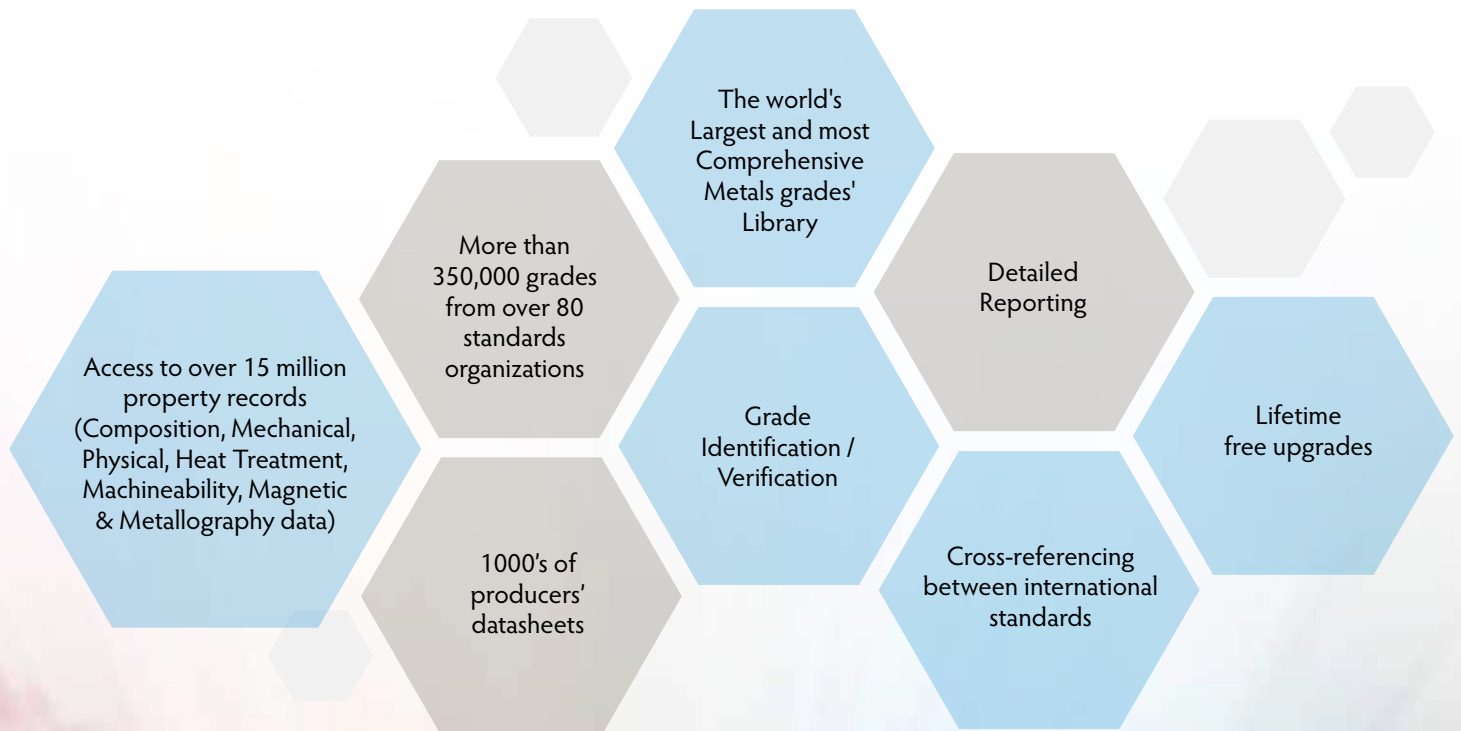


A POWERFUL COMBINATION

Mobile OES + **MetaLib PRO**



Both Mobile OES models are supplied with MetaLib Pro - the world's largest grade library for grade identification. This powerful combination addresses critical requirements in operations and Quality Control - whether validating adherence to customer/internal norms; vendor adherence to specifications; grade identification or the business of buying or selling scrap.



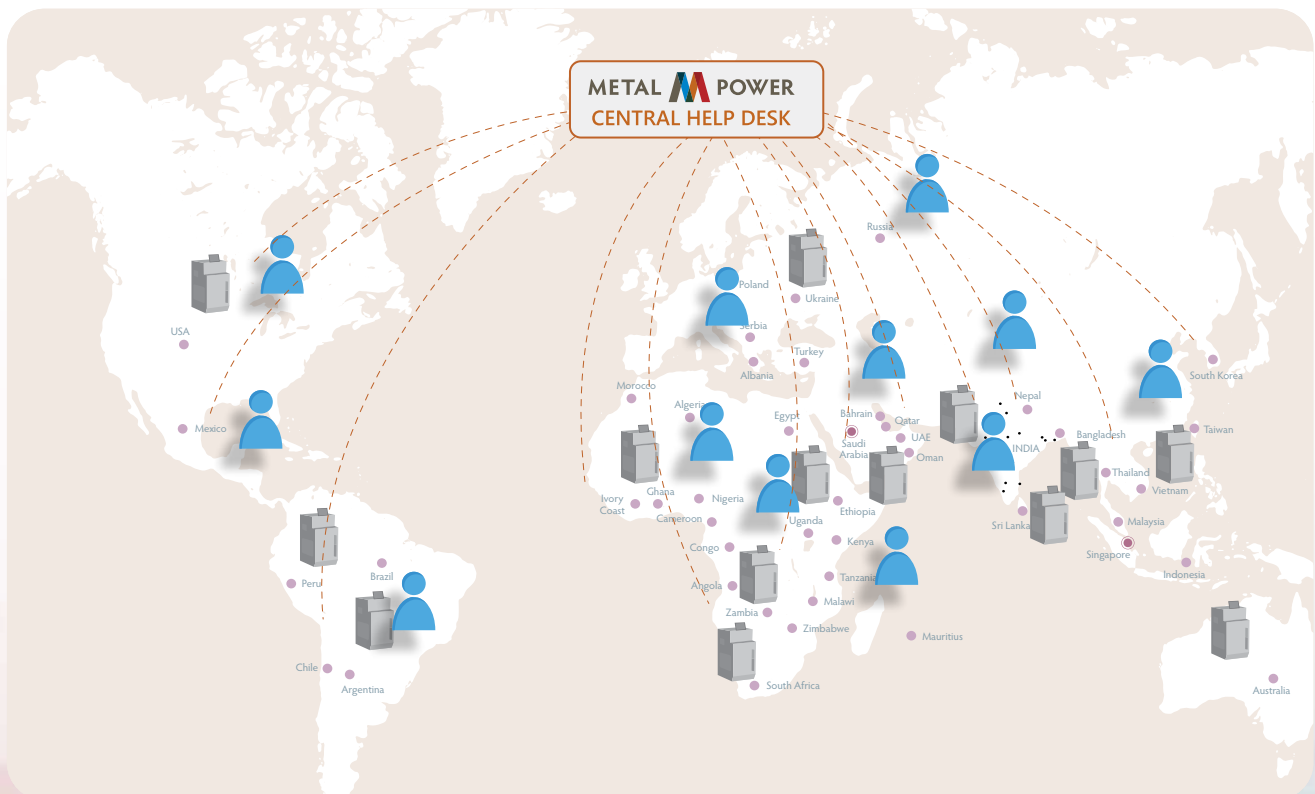
The Metal Power Advantage

Metal Power has designed its portable / mobile Optical Emission Spectrometers (OES) to offer the greatest advantages of mobility along with the best performance – whether for PMI or analysis – and to also offer the best user experience across both hardware and software!

World-wide service support

Metal Power offers multi-modal Service support to all customers globally and prioritizes customer proximity through true omnichannel access. Underpinned by our Salesforce system, all customers get immediate access to Service and call-logging through the MetaCloud mobile app, website forms, telephonic access, email and WhatsApp chat. Each call is logged instantly on the CRM and is tracked against stringent SLAs. Customers too can track the progress and status of any call via MetaCloud which provides them instant updates from the CRM. For addressing calls with immediacy, apart from direct site visits, we ensure that customers always have access to online / remote support as well.

With a team of 35+ in-house engineers and a large and high-quality pool of trained engineers through our partners, we guarantee the highest level of service and delight. Each of our engineers is a highly-skilled professional and we ensure that all possess extensive knowledge and experience in the field, allowing us to address any customer needs promptly and efficiently. All our engineers and partners, and therefore our customers are also supported by our dedicated Central Helpdesk that provides guidance, coordination and also Applications Support based on what each situation demands. Each Service interaction is closely monitored, with internal assessments and customer feedback being used to continuously improve service levels and Customer Delight.



Our other spectrometers



Metavision-10008X

The zenith of sensitivity



Metavision-1008i³

When excellence is not good enough



Metavision-1008i

Laboratory powerhouse



Metavision-RX

Extremely rugged oil analyzer



MOSS

Compact and affordable

Allied equipment



Wireless RTDS

Transmit your readings from lab to melting platform



Argon Purifier+

Purifies your incoming argon gas to get high quality analysis



ArmourSafe

Best possible protection for your OES



Care Programs

A range of comprehensive service programs for maintenance of your spectrometers



3in1

Prepare your samples for analysis

Digital solutions



MetaCloud

Access your OES from anywhere on your mobile / computer



MetaLib Pro

Access the world's largest and most comprehensive metal grades' library for grade identification / verification

Founded in 1987, Metal Power provides a comprehensive range of products, applications and services to meet the analytical needs of Production and Quality Control/Assurance Laboratories. Our product portfolio spans Laboratory (Stationary) as well as Mobile Optical/Atomic Emission Spectrometers (OES/AES) for metals analysis, Rotating Disc Electrode (RDE) Spectrometers for analysis of oil samples, Sample Preparation Machines for spectrometers as well as a wide range of accessories and allied instruments that help optimize the analytical outputs of our spectrometers.

Today the Company boasts over 35 years of experience in spectrometry and has a truly global presence, directly and indirectly supplying and servicing our customer base across 35+ countries spread over 6 continents.

True pioneers in the field of CCD- and CMOS-based Spectrometers, our product philosophy is driven by the focus on offering a range of models, each tailored to meet specific customer needs – both analytical and financial. As an outcome, we offer the world's widest range of spectrometers – with each offering positioned to be best-in-class in terms of features as well as on economic value.

Metal Power Analytical offers both Stationary (Laboratory) as well as Mobile OES for metals analysis. Our stationary spectrometer range spans from the R&D-grade **Metavision-10008X**, that delivers virtually every feature known in spectrometry, through the Laboratory-grade **Metavision-1008i³** and **Metavision-1008i**, to the entry-level **MOSS** – the world's smallest, most economical and first truly scalable OES. In mobile OES too, we offer different models, each with a choice of probes – Arc, Spark, UV and combined probe options – to meet every user need.

The **Metavision-RX** RDE-OES offers the very best option for customers that wish to analyze oil samples for contaminants, additives and/or wear metals. Including the option of Sulphur analysis, the instrument offers the widest elemental coverage, and leverages all our expertise in the field of CMOS/CCD detector-based optics to offer low detection limits with exceptional accuracy and precision.



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