



PRECISION SPECTROMETERS

When the passion to excel becomes the driving force, it transcends all barriers.

It holds the power to transform science into sublime art.





Our vision is to be and remain global leaders in analytical instruments and the supplier of choice for companies around the world. We will ceaselessly research and innovate to bring to the market, products and applications of the highest quality and efficiency to meet our customers' needs, enabling them in turn to meet the highest quality standards and achieve more through less – be it on investment, maintenance or time.

A large group of employees, mostly men in light blue shirts, are posed in many rows in what appears to be a factory or industrial setting. The image is overlaid with a grid pattern and a warm, orange glow that fades towards the center. The text "Delivering value to industry" is centered in the upper right area.

*Delivering value
to industry*



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 50+ 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.

The World's Best range of Metal Analysis Spectrometers (Arc/Spark OES)

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 very best RDE-OES for analysis of oil samples

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.



Applications focused on solving every Laboratory's needs

On the applications front, Metal Power offers an industry-leading range – including a number of patented applications. Besides, at our in-house R&D and Applications Laboratories, we routinely develop software and hardware solutions and applications that are customized to meet the specific needs of individual customers, going far beyond any other manufacturer to ensure that every customer has a spectrometer with applications tailored to deliver the highest value for their specific needs.

Service that's truly centered around the Customer

Metal Power Analytical has always focused on building every offering around customer needs – and perhaps the best example of this is our approach to Customer Service delivery. At the front-end, we offer a bouquet of Customer **CARE programs** to all our customers, delivered locally to clients either directly or through our partners, with uniform service levels and benefits globally. In addition, we also ensure service stock availability at various locations globally to ensure the best delivery and turnaround times in the industry, resulting in minimal downtime and/or waiting time for customers. This is supported at the back-end through our integrated CRM that integrates all our partners and also all our customers in a single global system, ensuring complete transparency and visibility both internally and to customers, including case details, service history, diagnostics and a lot more.

Truly Integrated


Through our completely secure and private **MetaCloud** mobile and cloud-based application ecosystem, we ensure that our customers are truly on board with Industry 4.0 and that key personnel always have complete and global, location-agnostic access to their instruments' service histories, real-time as well as historical analysis data, statistical process control charts and access to instrument diagnostics. **MetaCloud** also provides users a host of other benefits including a database backup solution and the ability to integrate their instruments' results with other cross-Plant or cross-Laboratory solutions they may use.

The common denominator across all our offerings – products, applications and services – remains our commitment to delivering the highest level of quality, reliability and uptime, while also offering the lowest cost over the product lifecycle, through low acquisition and maintenance cost, backed by the highest quality of service and after-sales support to our customers – wherever they may be.

Our solutions have helped clients improve the quality of their products while also delivering millions in ongoing cost-savings and revenue enhancements through material cost savings, elimination of rework / rejections, dramatic improvements in productivity and of course, research and development. Today, our instruments power leading companies across industry sectors and geographical markets. With a rapidly expanding base of 3,500+ customers, we are one of the fastest-growing OES companies in the world.




CORE VALUES



Diversity & Cultural Understanding

At Metal Power, we value equity, inclusion and diversity; we pride ourselves on offering equal opportunities and respect for all, irrespective of ethnicity, race, gender, age and orientation. Respect and humility are at the core of everything we do and stand for, and we shall always ensure the highest levels of consideration for our internal and external stakeholders.

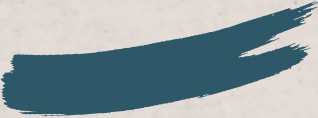
**Differences make us human;
mutual respect makes us a team**



Customer Focus

Earning the trust of our customers is the one true metric to judge ourselves by, as people and as an organisation. We pride ourselves on always going beyond merely the "written word" to deliver value, quality, satisfaction and timely delivery of our products and services to all our customers – both within and outside the organization.


**The only competition worth considering
is the gap to perfection**



Commitment to Excellence

"If a thing is worth doing at all, it is worth doing well." In any field of work, it is the weakest link that defines the strength of the combined output. It is therefore fundamental for us to ensure excellence in each and every activity we undertake, whether within or outside our organization. There is no activity that is so small or insignificant as to merit the slightest compromise on.


Excellence is not an act, but a habit.



Sustainability

We are passionate about making a positive contribution to our ecosystems. Ensuring resource efficiency in everything we do, keeping a minimal carbon and energy footprint, giving back multi-fold to our society and our communities, and ensuring that all our people imbibe and implement sustainable practices is integral to our long-term success.


**Sustainability every day – to ensure
we have tomorrows to look forward to**



Unfettered Original Thinking

Innovation is a part of our DNA. True advancement and innovation can only stem from continuous learning and a focus on what can be, as opposed to what already is. We therefore believe in unconstrained ideation in research, and unrelenting endeavour to develop these ideas into reality.

**The only rules we are constrained by are
those set by science and our imagination**



Integrity & Authenticity

We are honest and transparent in all our dealings. Regardless of circumstance and environment, whether with internal or external stakeholders, our reputation and good name depends on our always being authentic and reliable. We shall therefore always act with integrity, be authentic at all times and take complete accountability for our actions, words and decisions.

**Trust is the hardest thing to earn –
and the easiest to lose**



*Driving Value through
Quality and Innovation*



At the core of every business is a vision that drives all its initiatives. For us, that vision is to ensure that the high quality, productivity and profitability enabled by analytical instruments become affordable for every Production system and Laboratory. Our focus stems from an inherent desire to support the economic growth of our user markets and the knowledge that analytical instruments provide outputs and insights that enable holistic benefits across the value chain.

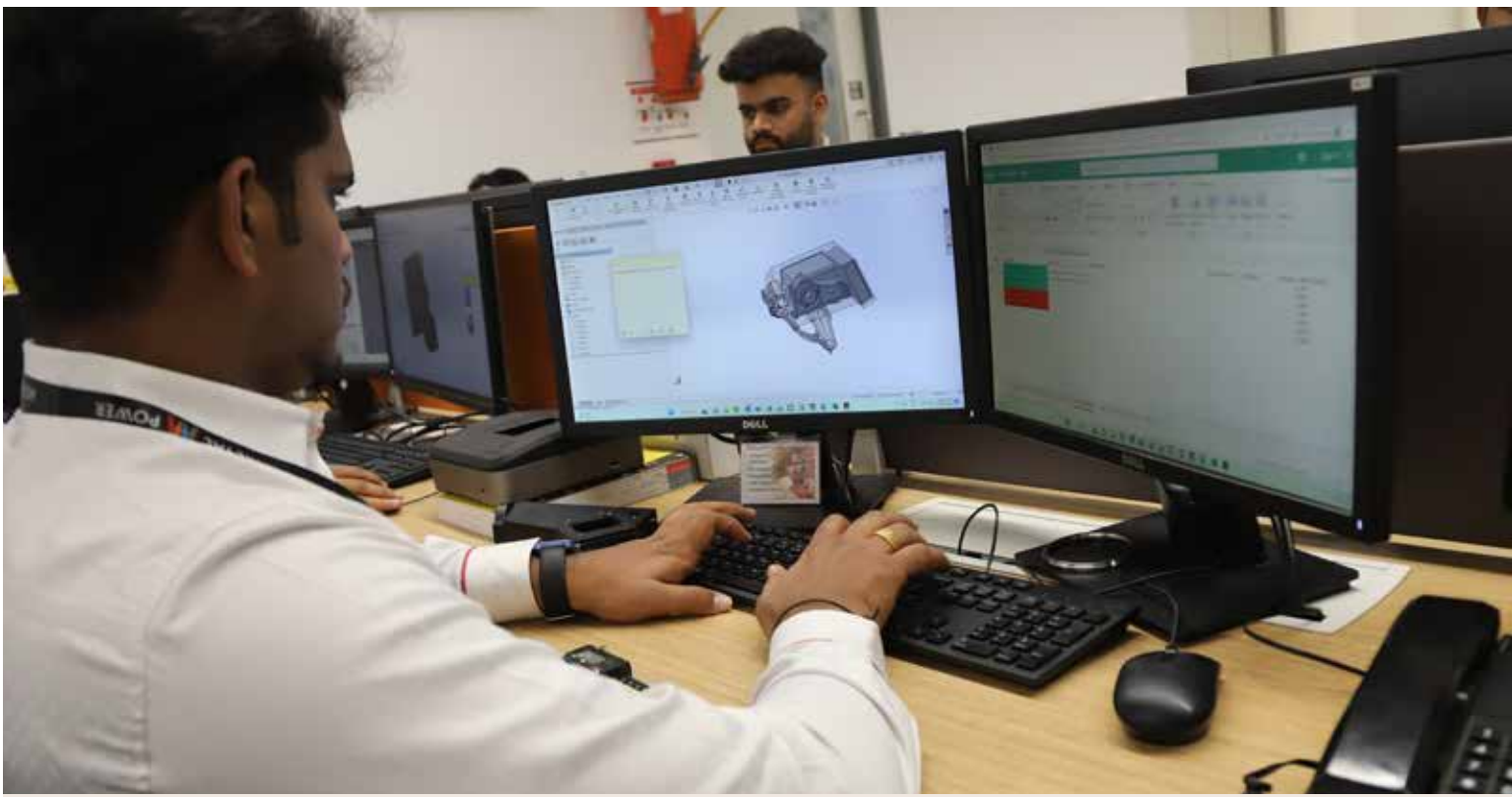
With decades of experience in spectrometry, we know only too well the fact that every sector and sub-sector, small or large, has unique needs and constraints. To be able to offer customers products that could fit all their needs without compromising or constraining them, we have always followed a user-based approach to product conceptualization and design.

Our team focuses on developing solutions that meet user needs in a truly holistic manner and accounting for different stakeholders

too. Our development goes by the principle of "A model for every need – analytical or budgetary". This is why we were the first to break away from the OES industry's erstwhile practice of offering one-size-fits-all products and applications and we are the firm with the widest range today.

Through continual development and enhancement of unique and tailored solutions, we not only strive to stay ahead of the curve but also deliver unmatched and ever-increasing value to our customers. Focusing as we do on the twin aspects of constraints and analytical needs, we have developed entirely new categories of instruments – offering models with features and prices that have been hitherto unheard of, right from the industry-leading *Metavision-10008X* to the unique and patented entry level *MOSS* to our path-breaking *Metavision-RX* RDE OES and class-leading *Mobile OES* models, a range that truly spans end-to-end! Innovation and invention have therefore always been a way of life and a driving force for us.





At the core of all our efforts is our unique, one-of-a-kind and fully in-house R&D and Applications Centre. Spread across various functions – Optics, Electronics, Applications, Software development etc. – our team is staffed by scientists, engineers and technologists working at the cutting edge of technology, carrying some of the richest and deepest reservoirs of expertise available in the field of analytical instruments and spectrometry.

We are the first company in the world to offer

- Low O, N and H on fully-CMOS/CCD OES
- Time-resolved spectroscopy on fully-CMOS/CCD OES
- N analysis in alloy steels on every model in the portfolio
- Current-controlled sources across all models



From the day we launched our first OES, we have consistently redefined the value that money can buy – for every size of customer. We have enabled even the smallest of MSMEs to comfortably afford high-quality OES and enjoy their benefits with complete peace of mind on all manner of costs – from acquisition and maintenance to service and spares.

Today, Metal Power is synonymous with the highest levels of quality, innovation and affordability. Not only do we constantly introduce newer products and upgrades, but we also innovate at a furious pace. With patents across multiple areas of design and applications, we are among the foremost innovators driving technology forward in this age-old, but ever-evolving industry.

Our patented solutions include (among others):

- Fully quantitative fine wire analysis (0.1 mm dia.)
- Design to increase CMOS/CCD resolution in integer multiples
- Fibre optics design to enable scanning solutions
- Analysis of thin foils (20 microns) on OES

We support this effort with truly state-of-the-art manufacturing and calibration processes. ISO:9001-2015 certified and compliant with all best practices of world-class manufacturing, our end-to-end Quality Management System and attention to even the minutest detail, ensures that each Metal Power product comes with the greatest assurance of quality, reliability and longevity, assuring users that their investments are protected and will stand the test of time.





*High quality Spark OES
for Elemental Analysis*



The key to unlocking profits

One of the constant themes across industries remains that the firms that deliver the highest quality of products also generate the highest revenues and profits over time, i.e. sustainably. Be it in consumer goods or infrastructure, this is a truth borne out by evidence over time. In this light, spends on quality should be seen not as expenditure, but as investments. While Quality functions do not, of their own accord, generate revenues or profits booked against their name, their impact on a firm's financials is indelible and undeniable. Indeed, the largest and most profitable firms not only invest more in quality than the rest, they also generate more return on that investment than any other!

Spectrometers – more than most other instruments – deliver tremendous value to users, boosting revenues and helping reduce costs! This twin benefit is the truest win-win imaginable, with most OES users earning back their initial investment and then more, within just months!

Revenue Enhancement

As markets have matured, the focus of each buyer has shifted to how they unlock more value. Suppliers are subjected to more scrutiny than ever and virtually every buyer – public or private – conducts quality audits before as well as during procurement cycles. Towards the top of the audit checklist, are the supplier's quality management system and infrastructure – of which an OES forms a key element! Suppliers with better systems and infrastructure therefore are naturally better-placed to win orders – specially from

higher-end buyers. With tenders and RFQs also now moving to define the quality infrastructure vendors must have in-house, the importance of spectrometers is now moving rapidly from a “nice to have” to a “must-have” as they are increasingly becoming qualifying requirements to win business.

Material Cost Savings

A large part of the cost incurred in metal industries is that on raw materials. Here, a key factor though is that not all elements are equal when it comes to raw material cost! Nickel and Copper for example are far more expensive than the basic ferrous material they're alloying. A manufacturer that is able to control the concentration of these elements closer to the lower end of the grade's range would therefore naturally incur lower material costs – while begetting the same price as another who is forced to aim higher to maintain a sufficient safety margin. Through real-time testing of melts, spectrometers enable users to optimize alloying element levels, driving dramatic material cost savings.

Procurement Cost Savings

A large part of the value chain buys or sells scrap metals. Quite frequently the price of the scrap is determined by the elemental concentration of key, expensive elements. Having the right testing equipment that offers high accuracy ensures that users also drive savings in the procurement (or revenue in sales), leaving no value on the table in these transactions.



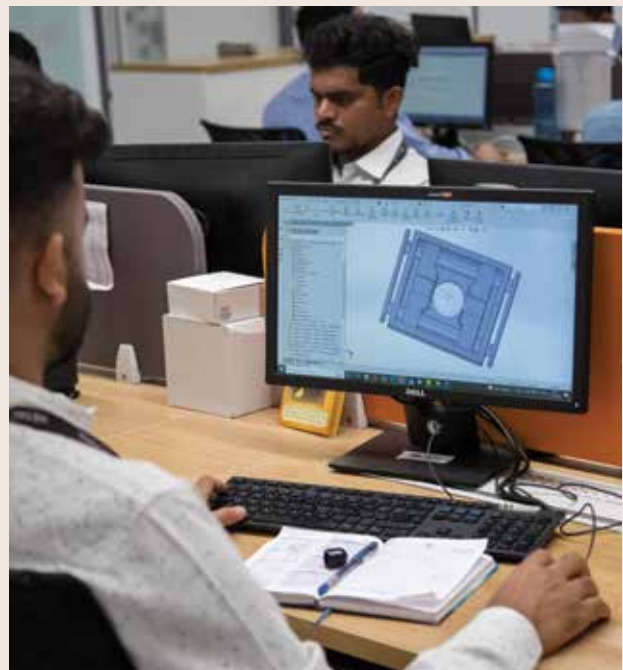
Productivity Enhancements

Margins are thin in most metals industries. This makes improvements in productivity and overhead costs critical to maximize profits. Any time or capital spent in rework is therefore a direct drain on profits – implying as it does, either overtime or lost production runs in lieu of the rework. Using in-house spectrometers, users are assured of the melt meeting requirements even before casting, ensuring that rework and rejections are virtually eliminated.

Another upside, of course is on reputation which is priceless! The savings on cost are real – as is the added benefit of unlocking more production time for fresh production and the unquantifiable benefit of the additional business revenue that a better market reputation attracts. In-house spectrometers also help producers save massive amounts on holding costs that would otherwise be incurred while awaiting the analysis reports from a wet Lab or an external commercial laboratory, apart from the operational cost savings in avoiding the higher per-test costs of these.

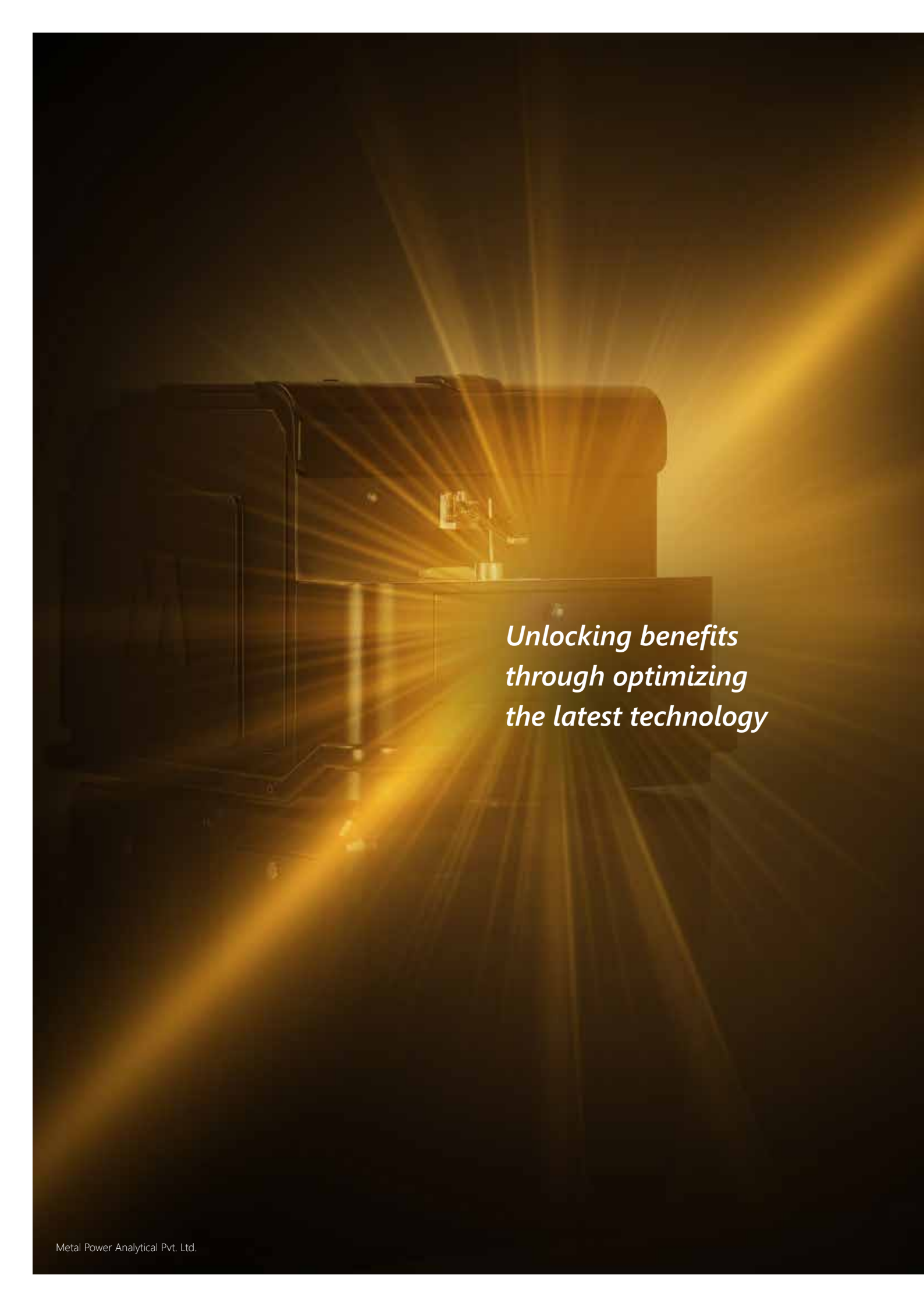
Research and Development

With rapid advances in technology, knowledge base, and the capabilities of analytical equipment coupled with the need to optimize costs without compromising material quality, an increasing body of research is focused on the development and optimization of newer types of alloys and micro-alloys that deliver value.

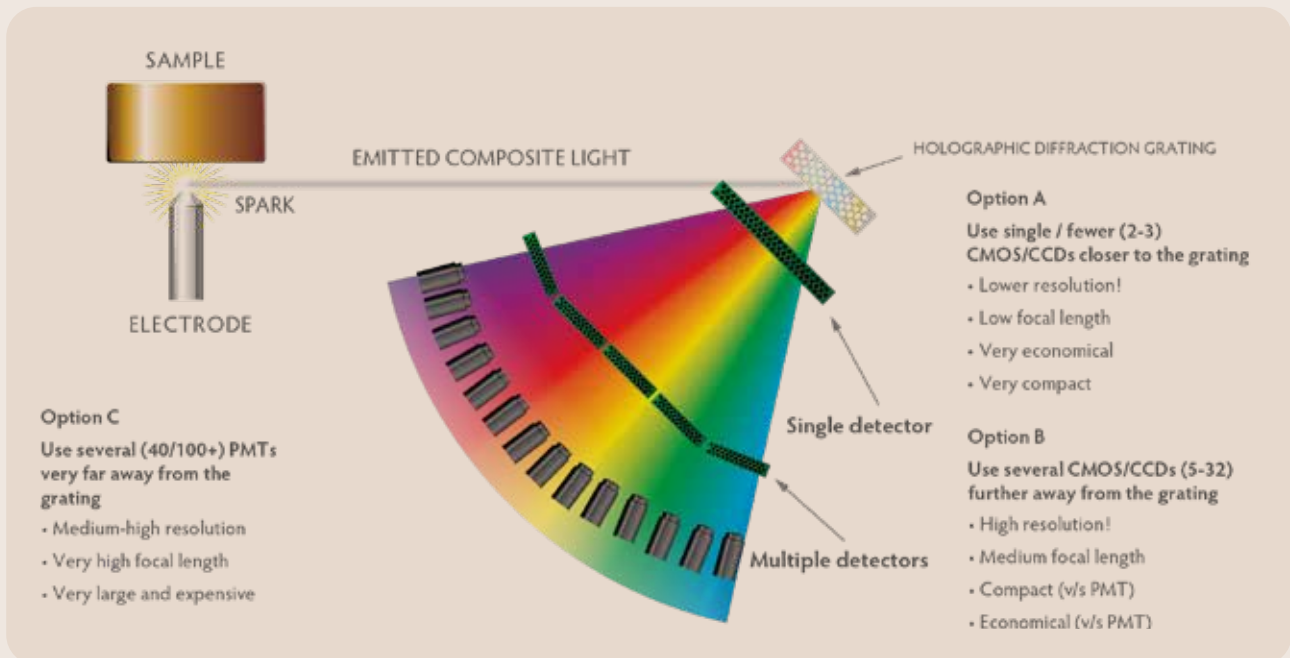


Such development calls for the highest quality of spectrometers, delivering high accuracy with exceptional precision. Analyses on these instruments have helped our clients drive material development programs that unlock tremendous value addition both on quality and of course, on profits.





*Unlocking benefits
through optimizing
the latest technology*



For decades, spectrometers used just Photomultiplier Tubes (PMT) in vacuum optics. While delivering good results, these spectrometers were riven with issues around flexibility, expandability, size and of course, high costs. All of these were resolved with the introduction of CCDs – which addressed most of the downsides of PMTs, while losing very little when it came to the quality of analyses. CCD detectors enabled myriad benefits, making spectrometers more compact and flexible while also enabling the usage of Argon in optics; all the while, reducing capital and maintenance costs while delivering exceptional analyses. And now, with the latest developments in CMOS technology, the latest generation of CMOS (though the term “CCD” remains ubiquitous for these too) detectors offer superior performance to PMTs in literally every single area!

We have therefore built our portfolio solely focusing on latest-generation CMOS/CCD technology rather than the dated and obsolete PMTs. Today, we lead the world in this field and our spectrometers offer the entire range of features and analytical capabilities – including analysis of C, S, P, O, H, N etc. down to low and even single ppm levels and TRS-equipped spectrometers for sub-ppm analysis, soluble-insoluble analysis, inclusion detection and a lot more. From O analysis down to 1 ppm and ultra-thin wires to thin foils, we have contributed to a paradigm shift in the value proposition of an OES.

Today, our range starts with the entry-level *MOSS* – a truly path-breaking OES delivering analysis down to 50 ppm (C, S, P, N) and even lower for elements like B (5 ppm) with unbelievable prices and a footprint that makes laptops appear large! At the other end, our *Metavision-10008X* is a floor-standing powerhouse delivering single and sub-ppm detection limits and TRS-enabled features across elements including Oxygen and Hydrogen – all using the latest and best CMOS/CCD technology.

Some of the advantages of this technology include:

Flexibility – through full spectral coverage:

Unlike in a PMT-based spectrometer, CMOS/CCD OES cover the complete relevant analytical range specified in the optics parameters. This ensures that any element that has an emission line within this range can be analyzed by the spectrometer – and that elements and analytical programs can even be added to the spectrometer at-site after purchase. The *Metavision-10008X* for example, with a span of 118-800 nm, covers the entire usable spectrum of OES and therefore offers the potential to analyze virtually every naturally-occurring element on the periodic table – using the optimal line/s for each. This is a massive change from the PMT-based OES that don't cover a range, but merely offer specific channels (elemental lines) that need to be fixed at time of purchase and offer practically no potential for expansion or change thereafter.



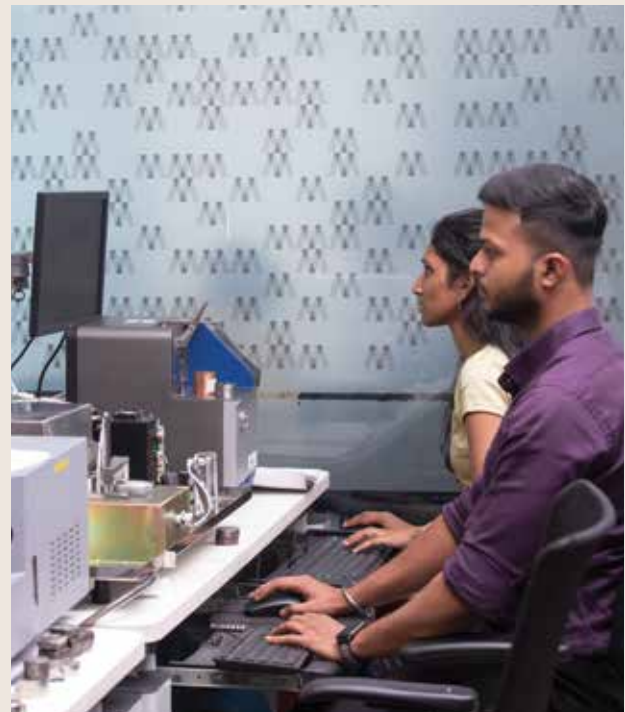
Space-efficiency – through far more compact optics:

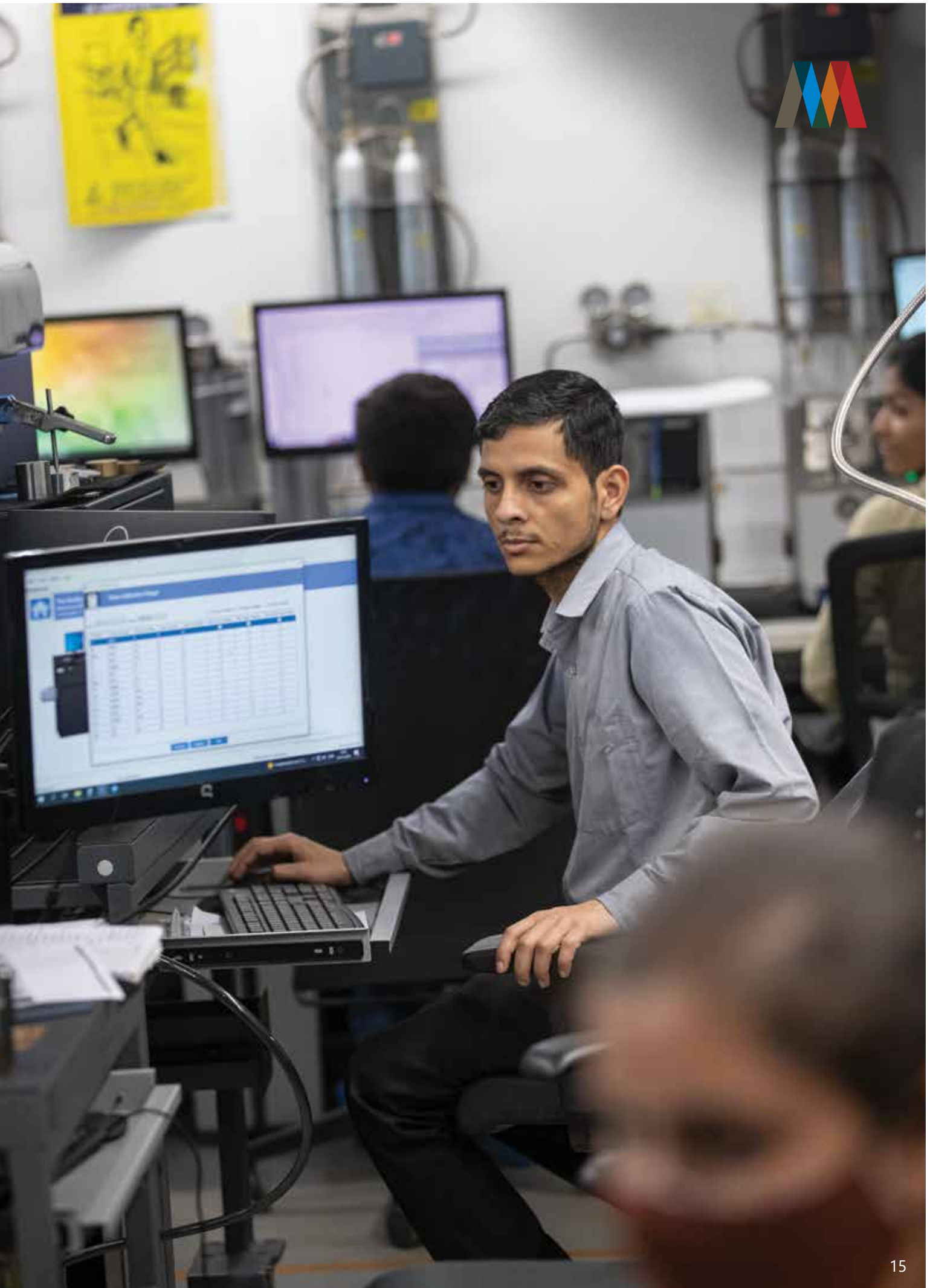
PMTs are effectively large-sized single-pixel detectors. Size constraints and optical imperatives to cover the range in the first order while ensuring there is enough space in the optical chamber to accommodate enough PMTs mandate the usage of a very large single optical chamber with low groove density gratings, combined with large focal lengths of 750 mm and more. CMOS/CCD detectors on the other hand are extremely compact and offer very high pixel densities. As such, this enables the usage of dual optics and far more efficient gratings with high groove-densities which ensure larger dispersion angles and therefore enable equally high, or even higher resolution than PMT systems, even at much shorter focal lengths. This makes instruments far more compact and space-efficient.

Cost-efficiency – both capital and maintenance

The compact optics systems of CMOS/CCD spectrometers enable the usage of multi-optics designs across UV and visible spectra combined with the potential to use Argon in the optics instead of vacuum. Elimination of the vacuum systems firstly reduces the risk of failure of the system. Vacuum optics systems frequently face issues in the vacuum pump itself and much worse, suffer from the risk of back-flow of oil into the optics, which could ruin the spectrometer and, at the very least, necessitates extremely expensive repairs. Moreover, the vacuum system obviously increases the acquisition cost of the spectrometer. With Argon optics, the risk of such failures

is eliminated, and the cost of acquisition is also lower. Further, these systems are far more energy-efficient while also requiring no oil (for the vacuum pump), thereby offering far lower cost per analysis as well.





*Delivering value to industry
for over 35 years*

Inception as a
representation,
trading &
consultation
company

1987

1990

Entered the field
of Optical
Emission
Spectrometry

Entered CCD-
based
spectrometry -
first units sold
in India

1993

2004

Launch of
Metavision
CCD-based OES

Became largest
OES firm in India;
a position that
only gets stronger

2012





Proud recipient of the National Award for Innovation



All-new, upgraded versions of all high-end models



Launched MetaCloud suite; began Singapore operations



Launch of the Metavision-RX RDE-OES and Mobile OES



The journey continues . . .

A large, dark-colored industrial analytical instrument, the Metavision RX, is the central focus. It is set against a background of an industrial refinery or chemical plant at dusk or dawn, with various towers and structures visible. The scene is bathed in a blue and green light, with numerous light rays emanating from behind the instrument, creating a dramatic, futuristic atmosphere. The instrument has a prominent logo on its side that reads "Metavision RX".

Metavision RX

Oil Analysis using RDE-OES

*Analyze wear
metals, additives
and contaminants*



The *Metavision-RX* - Rotating Disc Electrode OES

Elemental analysis using Optical Emission Spectrometry is not limited solely to the analysis of metals. Oil analysis is a key application for OES as well. Conducting oil analysis using OES involves the usage of a Rotating Disc Electrode (RDE) for sample excitation while leveraging high-resolution Rowland Circle optics at the back-end that are similar in design and architecture to those used for Arc/Spark OES.

All systems where oil is used as a lubricant, be it engines, gearboxes, transmissions or hydraulic systems require periodic and extremely accurate and precise elemental analysis. Analysis results, when correlated with the source of the contaminating element help assess the requirements for repairs / replacements and of course, the overall analysis guides decisions on changing the oil.

The *Metavision-RX*

Metal Power has leveraged its deep knowledge and expertise in Opto-Mechanics, Electronics as well as in Application development to design the very best RDE-OES. The *Metavision-RX* features

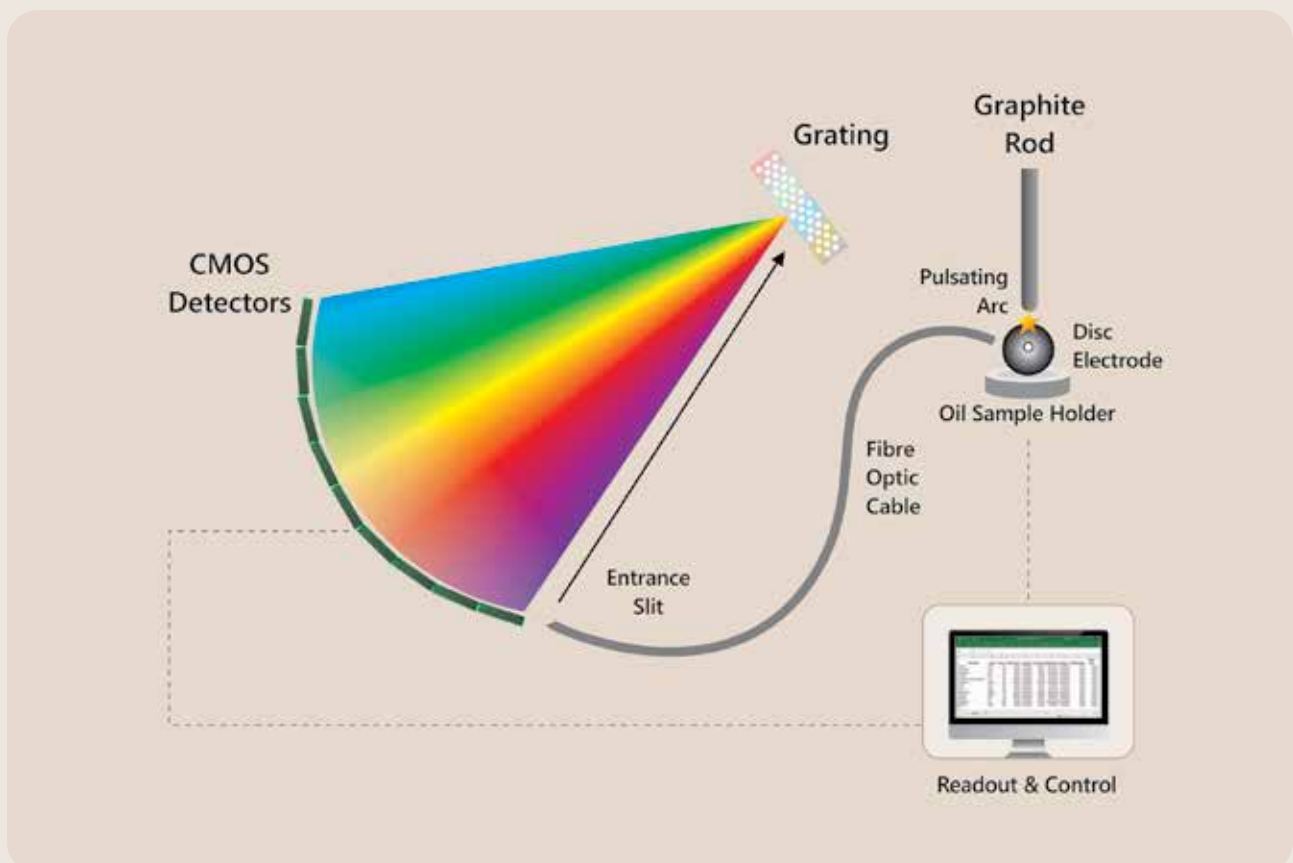
cutting-edge design across each element while serving the needs of a wide range of applications. It is, quite simply, the best RDE-OES one can have.

Latest-generation Optics

The *Metavision-RX* leverages all our expertise from the Arc/Spark arena. The instrument features an all-CMOS optics setup ensuring it delivers exceptional sensitivity, allowing for ultra-low detection and quantification limits. The CMOS architecture ensures that – just as with our arc/spark OES, we cover every single analytical and reference line and can always utilize the best possible line combinations for every element in every matrix and at every concentration level.

Elemental Coverage

The *Metavision-RX* features a full-range visible optics extending up to 800 nm while also offering dedicated Sulphur optics. This ensures that the instrument has the widest possible elemental coverage, with the capability to analyze any and all elements of interest.



Metavision **RX**

Extremely rugged oil analyzer



Key Features

- Ultra high resolution fully CMOS optics
- Simultaneous analysis of 33+ elements
- Complete spectral coverage: 165-800nm (Including optional Sulphur optics)
- User friendly software with quick report generation
- Full ASTM D6595 compliance
- Advanced instrument and user safety features
- No solvents or chemicals required

Excitation System

The excitation system of the instrument has been designed with exceptional care. The system features an electrode pair of a rotating disc and a fixed rod. The disc maintains contact with the oil sample, while having the rod electrode directly above it.

Excitation of the sample occurs between the disc and the rod, with optical paths on either side. The excitation system of the **Metavision-RX** has been designed to ensure minimal oil consumption and to ensure operator safety. Excitation occurs in a closed chamber – with operators able to view the excitation process through a glass panel.

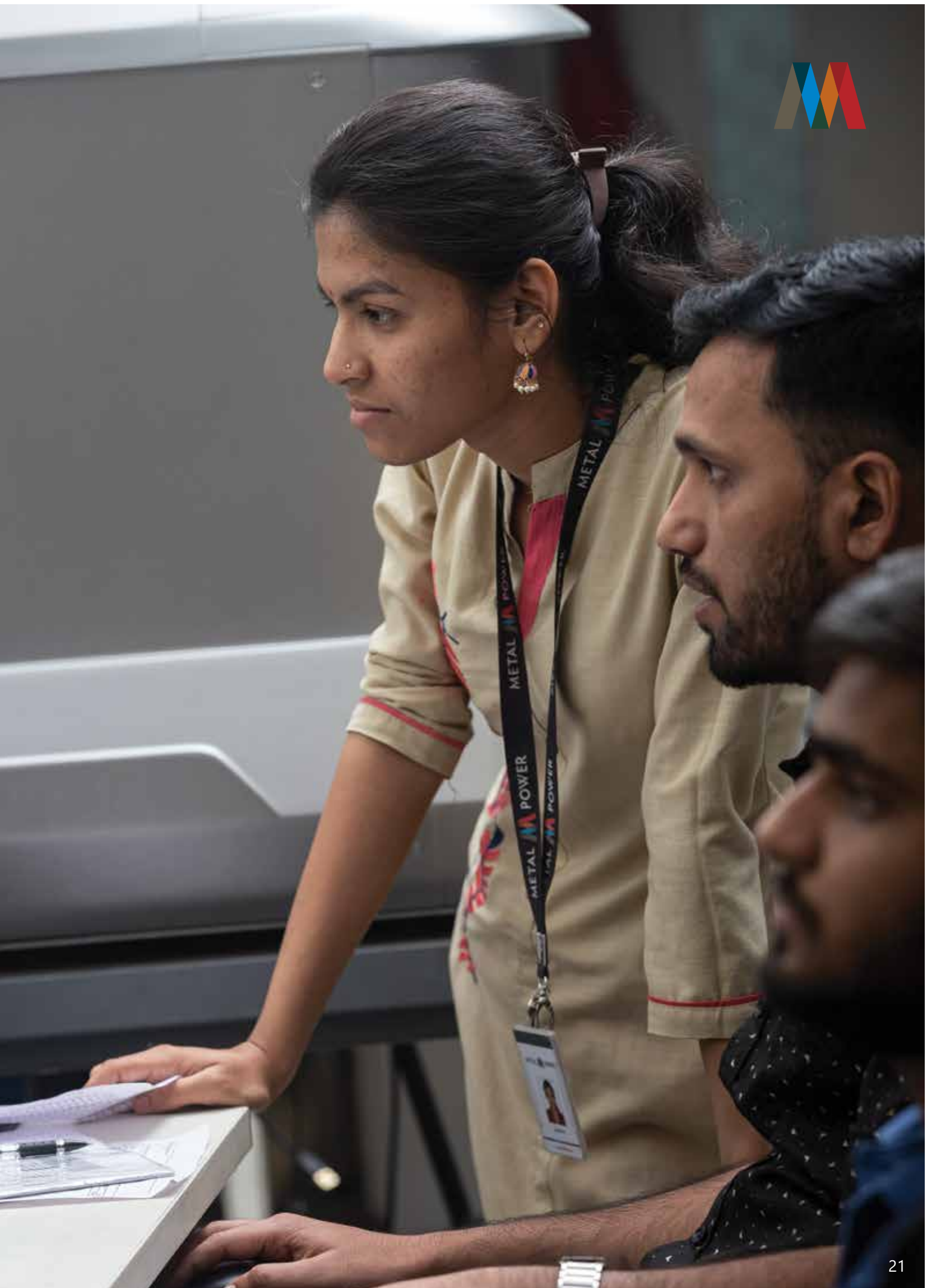
Applications

The **Metavision-RX** caters to a wide range of industry applications including wear element analysis, additive analysis as well as contaminant analysis. With usage across maritime, aviation, Railways, Defence, automotive, petroleum and many more industries, the instrument offers best-in-class applications features allowing users to fully exploit the benefits of RDE-OES.

The **Metavision-RX** is also supported by the **MetaCloud** suite – allowing remote access to analysis and diagnostic outputs as well as all the other benefits of **MetaCloud**.

Applications of the **Metavision-RX** include:

- Aero Engines
- Air and Refrigeration Compressors
- Electric Oil Systems
- Gas Compressors
- Gas Engines
- Gas and Steam Turbines
- Gearboxes and Transmissions
- Heat Transfer and Heat Treatment Systems
- Hydraulic Systems
- Large Grease Lubricated Bearings
- Marine Engines
- Power Generator Engines
- Pumps
- Truck and Bus Engines
- Stern Tubes





*Stationary and
Benchtop Arc/
Spark OES*



Metavision 10008X

The zenith of sensitivity

Designed to meet the highest and most stringent standards of accuracy, precision and reliability, the *Metavision-10008X*, with its path-breaking design, state-of-the-art power source, full spectral coverage and plethora of analytical capabilities, is the most advanced of spectrometers, offering ultra-low trace analysis, high-end features including TRS and covering virtually every element on the periodic table, including O down to 1 ppm and H in Titanium.

Key Features

- 60+ elements incl. O, N, C, S, P, N down to 1 ppm
- Analysis of pure metals (99.997+% purity)!
- Single and sub-ppm limits for all elements
- Time-resolved spectroscopy (TRS) and soluble-insoluble analysis
- Hermetically sealed, cooled, low-temperature dual optics system
- Triple-stage internal argon re-purification for Optics

Special applications

- Master alloys
- Ultra-fine wires (0.1mm)
- Ultra thin foils (0.02mm)

***Empowering Industry Leaders
with Unmatched Performance***

Colour Options

Warm Grey

Cool Grey

Classic Grey

Space Grey

Matte Black



Metavision 1008i³

When excellence is not good enough

Using unique ultra-high resolution optics, the *Metavision-1008i³* spectrometers deliver high resolution and low detection limits with high accuracy and precision making them the go-to solutions for nearly every commercial requirement in metals industries. Featuring low-noise, cooled optics and cutting-edge applications, these spectrometers also offer low-level analysis of all key alloying and trace elements including Hydrogen, Oxygen and Nitrogen.

Key Features

- 55+ elements including O, N, C, S, P to ≤ 10 ppm and H in Ti
- Analysis of pure metals (99.995+% purity)!
- Low and single ppm limits for all elements
- Time-resolved spectroscopy (TRS) and soluble-insoluble analysis
- Hermetically sealed, cooled, low-temperature dual optics system
- Triple-stage internal argon re-purification for Optics

Special applications

- Master alloys
- Ultra-fine wires (0.1mm)
- Ultra thin foils (0.02mm)

Finest mid-range OES, including accurate analyses of all gaseous elements!

Colour Options

Warm Grey

Cool Grey

Classic Grey

Space Grey

Matte Black





Metavision 1008i

Laboratory powerhouse

The *Metavision-1008i* delivers class-leading performance to meet a wide array of needs. The patented D-Scan optics enable low-level analysis across 45+ elements – including N, C, P, S, etc. across any number of bases and matrices. It's combination of high precision and accuracy with low-level analysis make the *Metavision-1008i* the all-round laboratory powerhouse.

Key Features

- Patented D-Scan optics for high resolution across all elements and bases
- C, S, P, N all down to \leq (20 ppm) in all manner of steels
- Detection limits in the 5-20 ppm range for most elements; some down to even 1 ppm!
- 45+ elements analyzed; including ROHS elements and all critical trace and alloying elements
- Unlimited capability across bases and matrices for seamless upgrades over time
- Latest-generation processing software for noise-free clear spectra for low detection limits

**Mid-Range Powerhouse with
Nitrogen Analysis in Steels!**

Colour Options

Warm Grey

Cool Grey

Classic Grey

Space Grey

Matte Black



MOSS

Compact and affordable

MOSS epitomizes our commitment to ensuring that every metals company should be able to afford quality. The path-breaking **MOSS** is smaller than a laptop and the lightest OES ever. Hardware and applications are fully modular, making it the most compact, scalable and yet powerful entry-level OES in the world – by a significant margin.

Key Features

- Fully digital, current-controlled source to ensure high accuracy, precision and stability
- Seamlessly scalable – with modular options on applications
- Multi-base capability without limitation
- 30+ elements across bases including C, S, P, B, N etc.
- 2,000+ burns per cylinder
- Ultra-compact and light, making it easy to store, relocate and even move around
- Most economical OES in the world ever

***Accurate, Reliable & Scalable
and astonishingly Economical!***





Mobile OES

High performance on wheels

The *Metavision-MX* and *Metavision-MX+* have been designed to deliver high-performance with mobility. The *Metavision-MX* is the ideal instrument to meet the needs of Positive Material Identification (PMI) and sorting while also offering high accuracy and precision. The *Metavision-MX+* meanwhile delivers exceptional detection limits and analytical capabilities while retaining an ergonomic form factor and high level of mobility making it a veritable laboratory on wheels and ideal for those with high-end analytical requirements that are constrained by the nature of work, environment or products to look for a mobile unit.

Key Features

- Self-contained trolley; integrated computer, keyboard, and touchpad
- IP23 compliant shock- and splash-proof design
- Large 15" capacitive touchscreen
- Up to 16 hrs on battery; option for redundancy
- Fast-charging battery; 80% charge in <10 minutes
- Powerful combination with Metalib Pro Grades Library
- HDMI output for extended display
- Dual data export interface: Ethernet & USB

A High-end Mobile Lab on Wheels



Probe Options

- Arc (with no argon)
- Spark
- UV Smart
- UVis Smart



A person in a white lab coat is seated at a desk, working with various digital devices. In the foreground, there is a handheld device with a screen and a pen. In the middle ground, a laptop is open, displaying a dashboard with charts and graphs. To the right, a tablet is mounted on a stand, also displaying data. The background is a warm, glowing orange color with light rays emanating from the devices, creating a futuristic and high-tech atmosphere.

*Digital Solutions
& Allied products*



Real-time visualization, logs, analysis and diagnostics of your OES from anywhere

MetaCloud is a cloud-based application and solution designed and developed by Metal Power for its customers, providing users with all manner of benefits. *MetaCloud* provides a host of features including real-time data on your spectrometer's analysis and diagnostic status, ability to search for and retrieve historical data, creating statistical process control (SPC) charts, access to FAQs and the latest software updates, and even retrieving the entire instrument database in case of computer / disk failures. Additionally, *MetaCloud* also provides the user with a direct link to Metal Power's CRM portal, including access to the service history and all service reports as stored in our CRM. The *MetaCloud* mobile application is accessible seamlessly from any part in the world, across all major mobile and tablet Operating Systems and also allows for browser-based access.

Key Features

- Full-screen dashboard across real-time & historical data
- View the status of your OES and its critical systems, enabling better preventive maintenance
- Store/backup your database on a fully secured platform for easy recovery
- Download reports from anywhere, anytime
- Raise service tickets immediately – directly into our Salesforce CRM
- View your instrument's Service History – including every single Service Report through the instrument's lifecycle
- Cross-platform access (Android/iOS/Web)
- Full assurance on privacy and security





The World's largest and most comprehensive metals' grade library

MetaLib Pro powered by Total Materia/Key to Metals AG is by far the world's largest database for metals, providing comprehensive information such as chemical composition, grade IDs (for all manner of standards), mechanical and physical properties. It includes the most comprehensive cross-reference tables with more than 15 million records of equivalent materials worldwide for easy reference and research activities. This Library, accompanied by Key to Metals' patented SmartComp algorithm provides immediate Grade Identification / Positive Material Identification based on the results generated by any Metal Power Stationary or Mobile OES – and further empowers users by providing the capability to look up all manner of properties and application details for the material.

Key Features

- Over 15 million property records for 350,000+ grades from 74 countries/standards
- Access to Composition, Mechanical & Physical Properties, Heat Treatment, Machineability, Magnetic & Metallography data
- Patented algorithms that find similar materials based on properties
- Cross-referencing across international standards
- Instant Grade Identification for unknown samples
- Pass/Fail Verification with colour coding
- Lifetime subscription with free upgrades





Wireless RTDS

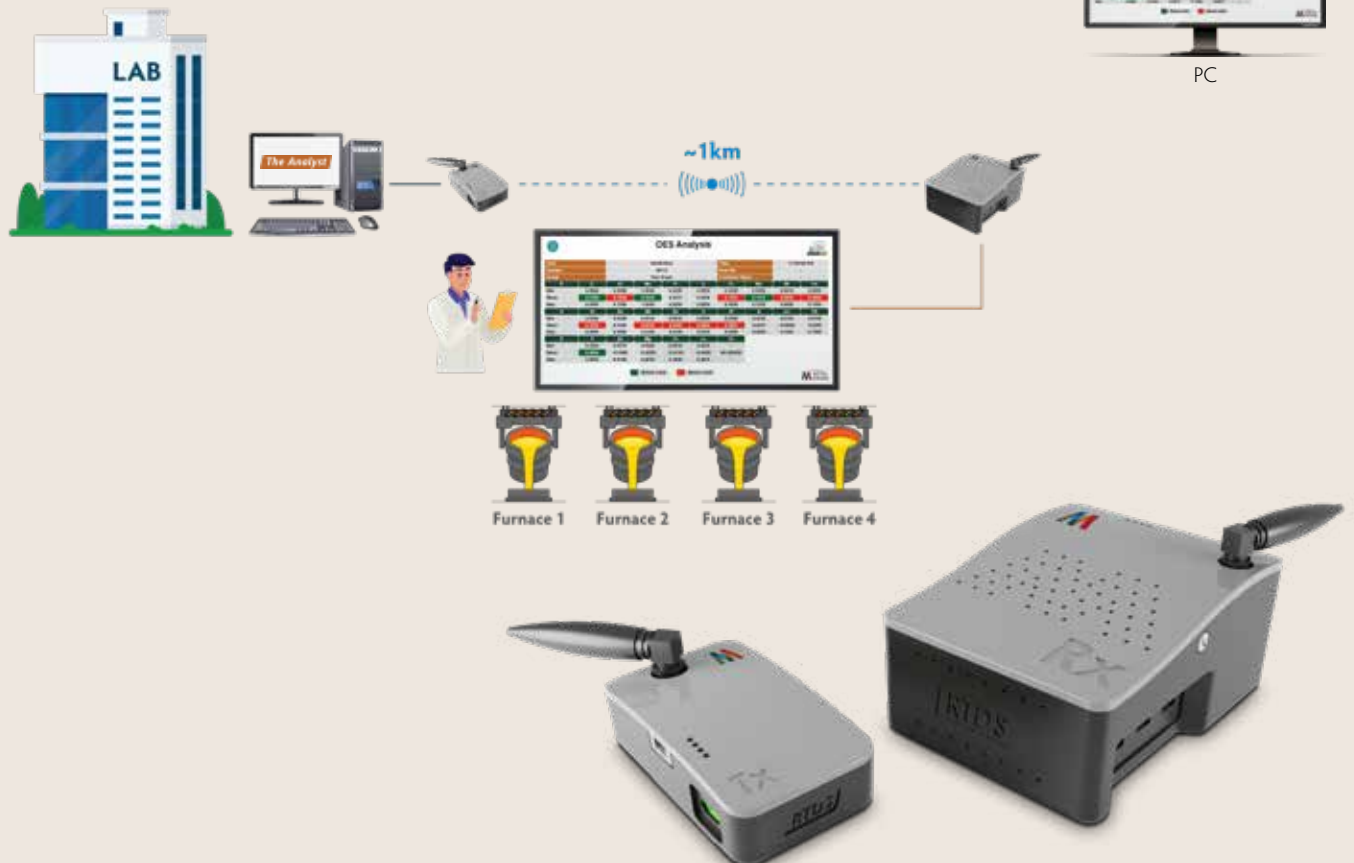
Revolutionary Real-time Full Analysis Remote Display

To enable higher productivity, users typically install a Remote Transmission Display System (RTDS) for display Lab results at the melt platform. A traditional *RTDS* suffers from many limitations, including extensive and expensive wiring from Lab to the screen, small number of elements displayed, no flexibility to the elements displayed, no capability to display the results on a different screen, inability to connect the OES to multiple screens, inability to move the display's location etc.

Metal Power's *RTDS* completely removes all these limitations and adds a lot more features that no *RTDS* can match! This *RTDS* is completely wireless (no cabling required) and is also screen-agnostic. Users can decide what type of screen they want to use, how many they want to connect to the OES and also where they want to place it/them! The software integrates directly into the OES' operating software and is designed to be "single-click" in its working. Further, it offers a completely secure network and unlimited flexibility in templates and reporting.

Salient Features

- Transmit results in seconds with a Single click
- Energy efficient long-range network in a radius up to 1 km
- Truly mirrors your Analysis screen on the melt platform – no loss of data
- Colour Indications for analysis readings within limit/out of limits
- No internet connection required
- Can be connected to multiple displays





Armour Safe

The Best Possible Protection

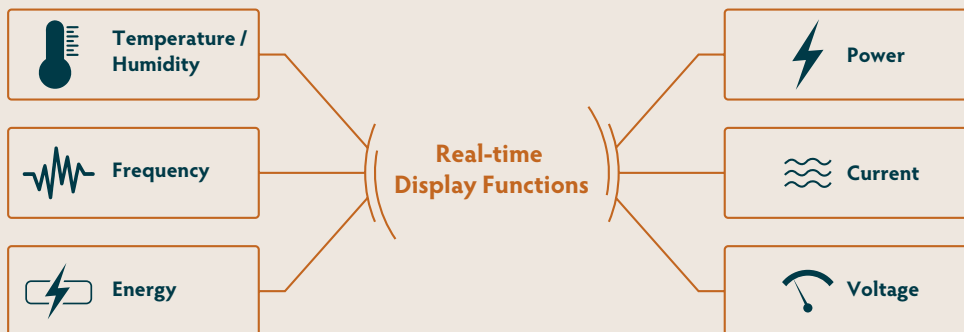
In several markets, the quality of power supply remains poor. We recognize the need to protect our customers from expensive repairs that could result from faults caused by such issues. **ArmourSafe** protects your Spectrometer Systems (and any other connected equipment) from a variety of issues including short circuits, over voltage, high surge, earth leakage etc. **ArmourSafe** offers fault indications as well, ensuring the best possible protection for your expensive equipment.

Salient Features

- Live monitoring of major electrical parameters
- Wide range of safety functions
- Fault indicators
- Smart scheduler for automatic switch-on/off
- Real-time data logging with time stamping
- In-built 5hr battery back-up
- Touch screen operation

Powerful app Interface

ArmourSafe comes with a powerful app-based interface that gives you a complete overview and control of all functions and allows individual configuration of the various machines that are protected by **ArmourSafe**.



Real-time parameters from ArmourSafe





Sample Surface Preparation Machines

Models: 2in1-GP, 2in1-TP, 2in1-TP-AFVS, 3in1 and 3in1-AFVS

Spectrometer sample preparation is a key step towards ensuring good analytical results. With Metal Power's Sample Preparation Machines, at last, sample preparation for spectrometers can be done within your own lab and under your own control.

Aesthetically and ergonomically designed by practising spectrometrists, our instruments are incredibly rugged, robust and reliable and are designed to keep the Lab environment totally clean and keep noise and vibration levels to the minimum while making life simpler and better for spectrometer users.

Our units help ensure the highest quality of sample surface – which directly results in improved analytical results! We offer a range of models to cater to the needs of different customers based on the materials they prepare.

3in1

Ensure the highest quality of sample surface preparation for all your ferrous and non ferrous spectrometer samples

- Grinding / Polishing station for hard samples
- Turning Station for soft samples
- Pointing Station for OES electrode sharpening
- Powerful suction system for dust removal
- Available with AFVS* option



2in1-TP

Ensure the highest quality of sample surface preparation for spectrometer samples of all your non-ferrous metals and alloys

- Turning Station for soft samples
- Pointing Station for OES electrode sharpening
- Available with AFVS* option



2in1-GP

Ensure the highest quality of sample surface preparation for all your ferrous (and similar) spectrometer samples.

- Grinding / Polishing station for hard samples
- Pointing Station for OES electrode sharpening
- Powerful suction system for dust removal



*Auto Feed, Variable Speed (AFVS)

CleanSharp

The Brushless Wonder

Metal Power's *CleanSharp* – the Brushless Electrode Cleaner-Sharpener – helps make electrode tip cleaning and pointing easy and safe. Using *CleanSharp* to clean the unwanted metal residue from the electrode tip is both simple and also extremely effective. The sturdy yet light (375 grams, Length x Dia.: 170 mm x 40 mm) design and stainless steel construction make the Electrode Sharpener extremely robust and safe from external dust, making it the perfect tool to have in heavy industries.

CleanSharp also does not erode the Petrey/Base Plate hole and saves a lot of money. Brushes have been found to be very notorious in this regard.

Key Features

- Robust stainless steel construction
- Easily replaceable sharpening bits
- Also acts as a gap setting tool
- Easy to use and requires zero-maintenance



Adaptors

Wire Adaptors

Metal Power's Standard Wire *Adaptors* are designed to analyze wires and wire rods from 2mm to 13mm in diameter. On the *Metavision-10008X* and *Metavision-1008i³*, we also offer the patented fine wire analysis solution that extends this capability down to as low as 0.1 mm diameter.

Mini Sample Adaptor

To analyze small parts like nuts, bolts, washers, screws, bearings, spanners, tie rod ends, ball joints, blades, strips, couplings etc., with base diameter down to as small as 3mm.

Thin Sheet Adaptor

To analyze thin sheets/foils down to 20 microns on the *Metavision-10008X* and *Metavision-1008i³*.





A comprehensive ecosystem for your spectrometer



A handshaking scene between two people, one in a light blue checkered shirt and the other in a dark suit jacket. The background is a vibrant blue with a radial light burst effect emanating from the center. On the left, a metal part is visible with the word 'METALPOWER' embossed on it.

*Customer
Satisfaction*



Metal Power does all that it takes to ensure the highest level of customer satisfaction. Our primary objective is to provide the industry with reliable and rugged instruments at affordable prices. In each category, Metal Power's spectrometers offer industry-leading performance, coupled with the lowest costs of ownership. We understand the criticality of our instruments to the operations of our customers and are committed to ensuring minimum downtime.

Our extensive team of dedicated and highly trained service engineers is equipped to handle service issues on our products. This is supported by an efficient call-logging system that is accessible to all customers via our phone lines, email or website.

We are committed to supporting our customers in protecting their investment in expensive equipment and in ensuring that their business does not suffer through instrument-related issues. Budgeting for spares and consumables is obviously not easily possible especially when prices are unknown and unpredictable.

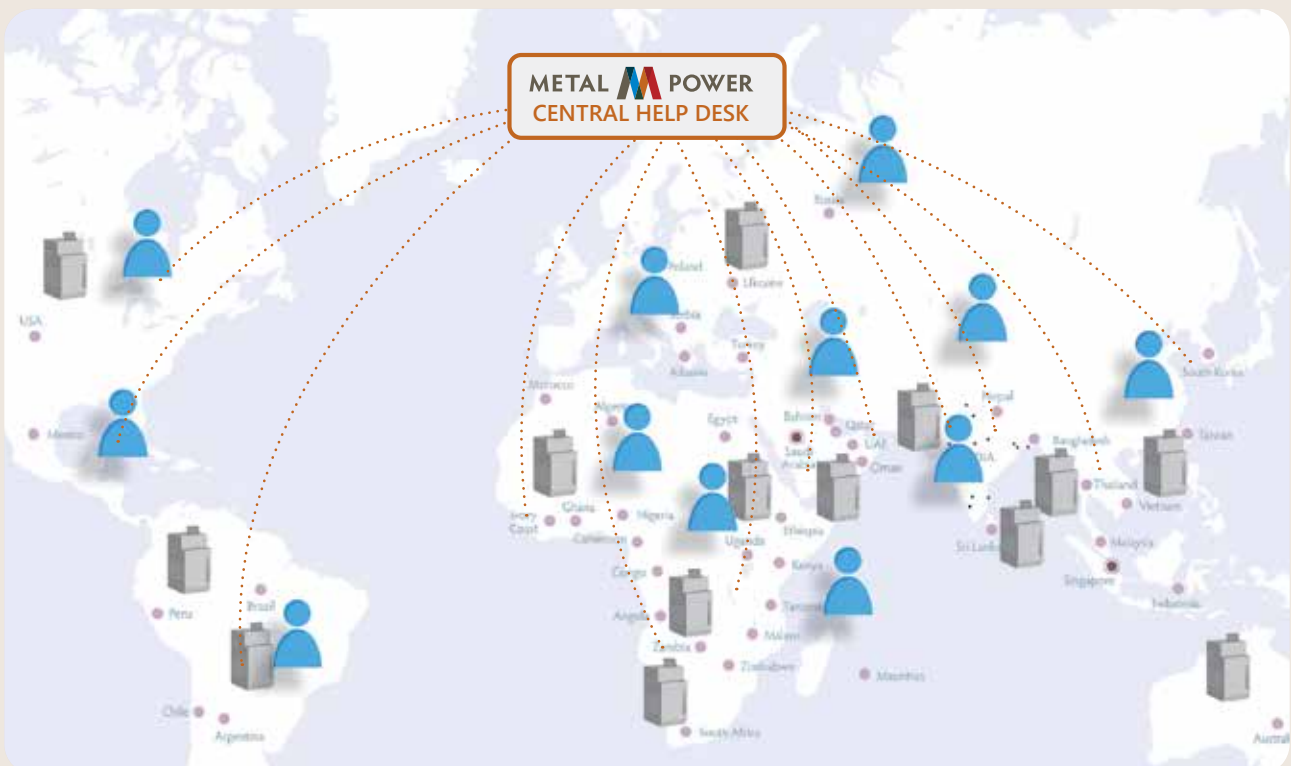
It is our endeavour therefore, that customers should not have to face unpleasant surprises with respect to their maintenance expenditure. We are committed to building instruments of the highest quality and robustness. Indeed, we would be happiest if no spares were ever needed by our customers!

But even if such need arises, Metal Power ensures that spares and consumables are easily available and at economical prices. We also train willing customers to the maximum possible extent so that most of the simple and common issues can be attended to by the operators themselves.

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.

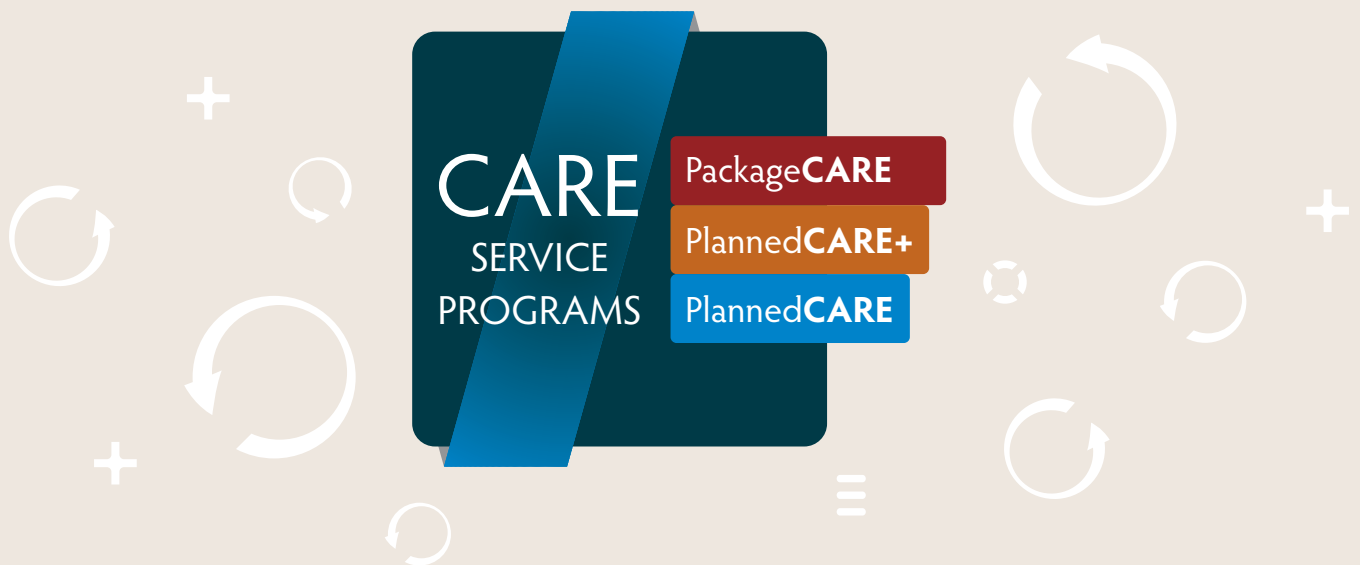
With a team of 35+ in-house engineers and a large and high-quality pool of trained engineers through our partners, we guarantee the highest level of service and delight. Each of our engineers is a highly-skilled professional and we ensure that all possess extensive knowledge and experience in the field, 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.



CARE service programs from Metal Power

Metal Power does all that it takes to ensure the highest level of customer satisfaction.

We understand the criticality of our instruments to the operations of our customers and are committed to ensuring minimum downtime. In order to elevate the customer experience and protect their investment in expensive equipment, Metal Power has launched a range of CARE service programs.



Package
CARE
Preventative,
Predictive and
comprehensive

Comprehensive parts and service coverage provides the greatest value for asset management by transferring operational risk to Metal Power Analytical Pvt. Ltd.

We are responsible for scheduled spectrometer maintenance, as well as using predictive analytics and CRM tools to help prevent unexpected interruptions to your production.

- Assurance of the highest SLAs, coupled with schedule-based preventive maintenance visits, as well as any repairs or spares replacement as may be needed.
- Using real-time data analytics on your assets, we also pre-emptively replace parts when needed to prevent unnecessary downtime.
- PackageCARE also offers the highest levels of discounts on all other MPA offerings.
- **Inclusive of Proficiency Testing registration – 2nos.**



Planned CARE+
Predictable operating costs and preventive maintenance

PlannedCARE+ provides predictable, on-time planned spectrometer maintenance services, including diagnostics to catch potential problems, before they result in larger headaches.

Covers operating costs and provides discounts and a plethora of other benefits.

- Assurance of high SLAs and priority scheduling coupled with supply of a consumable kit along with the maintenance plan.
- Schedule-driven and analytics-based preventive maintenance as well as significant discounts on all MPA offerings.
- **Inclusive of Proficiency Testing registration – 1no.**

Planned CARE
Preventive maintenance and discounts on other offerings

PlannedCARE provides predictable, on-time planned spectrometer maintenance services, including diagnostics to catch potential problems, before they result in larger headaches.

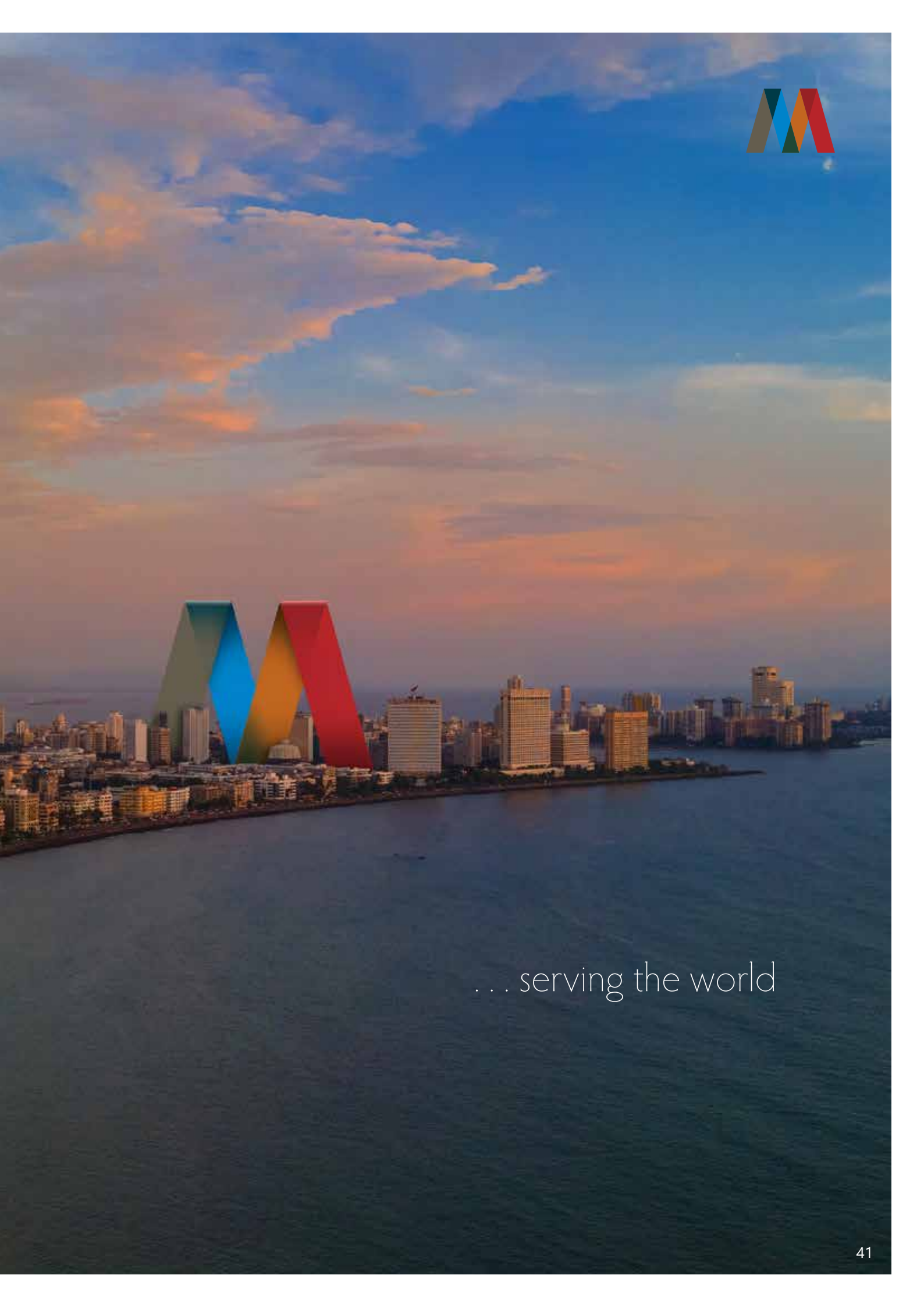
Discounts are also offered on any consumables, spares as well as accessories that MPA offers

- Assurance of high SLAs and priority scheduling under the maintenance plan.
- Schedule-driven and analytics-based preventive maintenance as well as significant discounts on all MPA offerings.

Key benefits	Planned CARE	Planned CARE+	Package CARE
Online / Remote support	✓	✓	✓
Toll-free helpline			
Calibration Certificate			
FREE consumables kits		1	2
FREE Proficiency Tests		1	2
Discount on consumables	5%	20%	20%
Discount on spares	5%	15%	No charge
Discount on repairs		10%	No charge
Discount on MPA accessories	5%	10%	20%



Here since 35 years . . .



... serving the world

Our presence - A global footprint





Our Partners - Enduring relationships

We, at Metal Power, are leaders and pioneers in the field of CMOS/CCD-based spectrometry. We have achieved all we have because of the unstinting support and faith of all our employees, vendors, business associates, and above all, each and every one of our customers.

Domestic - Public



Domestic - Private





Overseas



Awards



The Chandran Memorial Award for Applied Research and Innovative Technology



Proud Recipient of NATIONAL AWARD 2019 for Path-Breaking development in OES



Rail Analysis Innovation & Excellence Summit 2023 award for Excellence in Instrumentation and Testing Equipment

Glimpses of Metal Power



“Excellence is an art won by training and
habituation. We do not act rightly because we have
virtue or excellence, but we rather have those
because we have acted rightly.
We are what we repeatedly do. Excellence, then,
is not an act but a habit.”

- Aristotle



METAL POWER

Metal Power Analytical Pvt. Ltd.
87, Metal Power House, Plot No. 14, Marol Co-operative
Industrial Estate, Andheri (East), Mumbai 400059
sales@metalpower.net | www.metalpower.net
+91 22 4083 0500

Metal Power Analytical Pte. Ltd.
105 Cecil Street, #18-00, The Octagon
Suite 1827, Singapore 069534.
sales@metalpower.sg | www.metalpower.sg
+65-94374601