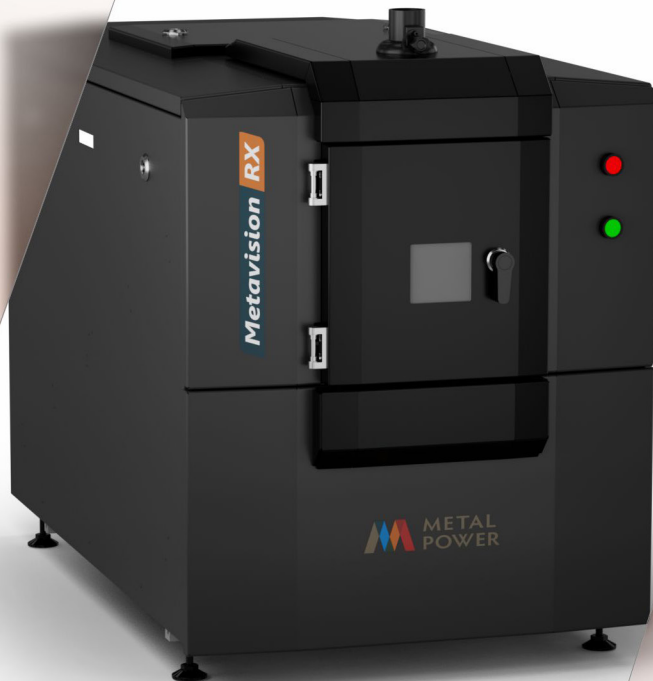


Metavision RX

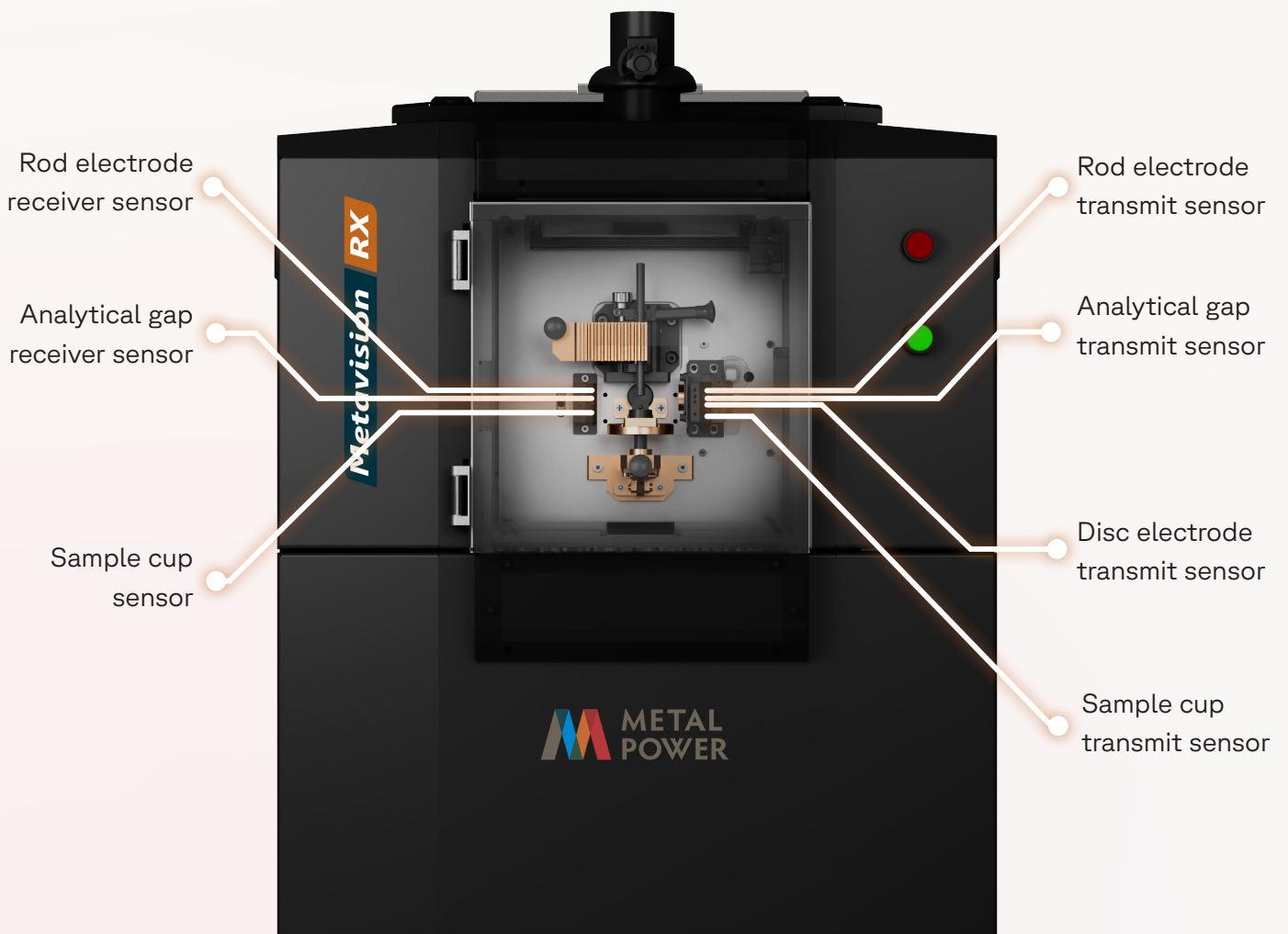
**METAL
POWER**

**Accurate condition monitoring
with ultra-high resolution RDE-OES**



Automatic Sensing Mechanism

The Metavision-RX is equipped with an automatic sensing mechanism that enhances user convenience and operational safety. This system continuously monitors critical parameters, such as the presence of the disc and rod electrodes, analytical gap, and proper placement of the sample cup on the stand. Additionally, it ensures the secure closure of the sample stand door, indicated by a simple LED light signal, minimising errors and ensuring seamless analysis.



The Metavision-RX redefines excellence in oil and lubricant analysis. Leveraging a cutting-edge Rotating Disc Electrode (RDE) mechanism allied with a high-resolution multi-CMOS optical system, it delivers unmatched accuracy and actionable insights through wear metal analysis in lubricants, engine oils and more for applications involving engines, transmissions, hydraulic systems, and gearboxes. Its rapid and reliable elemental analysis provides significant benefits for a wide range of industries such as railways, aviation, automotive, maritime, mining, petrochemicals, heavy machinery, and many others, across areas such as routine maintenance, fault diagnosis, leakage assessment, additive analysis, and many more.

Metavision-RX: Designed for Accurate Oil Analysis

The Metavision-RX features thermally stabilised multi-CMOS optics with a high-resolution holographic grating, ensuring high sensitivity and accurate multi-element analysis across a 165 – 800 nm wavelength span. Its front-mounted excitation chamber excites the oil between the graphite rod and disc electrode while maintaining the analytical gap for consistent plasma generation.

With these meticulously engineered components, the Metavision-RX ensures high-quality, reproducible results, making it a trusted choice for oil and lubricant analysis.



Key Features and Benefits

- **Wide Range of Elements:** Metavision-RX offers coverage for a wide range of elements, simultaneously detecting 33 elements.
- **Sub-ppm Detection Limits:** Provides exceptional accuracy for wear metals, additives, and contaminants down to 0.1 ppm.
- **Global Standards Compliance:** The Metavision-RX is fully compliant with ASTM D6595 (Oil) and ASTM D6728 (Fuel), ensuring reliability and consistency.
- **Comprehensive Applications:** The ideal solution for wear-metal analysis in engine oils, transmission, hydraulic, gearbox lubricants, and more.
- **Rugged Design:** Engineered for durability, ensuring consistent performance in harsh, dusty, and demanding environments.



Technical Specifications

Parameter	Specification
General	
Technology	Rotating Disc Electrode Optical Emission Spectrometry
Optics	
Optics Configuration	Dual vacuum-free optics
Wavelength Coverage	165 – 800 nm
Element Coverage	33 elements Wear metals: Al, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Ag, Sn, Ti, V, Zn Contaminants: B, Ca, K, Si, Na Additives: Ba, B, Ca, Cr, Cu, Mg, Mo, P, Si, Zn Additional elements: As, Bi, Ce, Co, In, W, Zr, Be
Detector Type	CMOS
Resolution (RLD)	≤1 nm/mm
Grating (grooves/mm)	3,600 & 2,400
Applications	
Applications	Determination of additives, wear metals and contaminants in lubricating oils, hydraulic fluids, gas turbine & diesel engine fuel, heavy fuel oil (HFO), crude oil, glycol coolants, etc.
Available Test Methods	ASTM D6595 ASTM D6728
Correlation To	ASTM D5185 (ICP-AES)
General	
Source	Fully Digital PWM
Input Voltage & Frequency	90 – 270 VAC; 50/60 Hz
Argon Consumption	Advanced Argon saver (applicable for optional DUV Optics)
Size (Benchtop)	950 mm (L) × 540 mm (B) × 645 mm (H)
Weight (Benchtop)	≈ 80 kg
Consumables	
Accessories	eSharp (electrode sharpener)
Starter Kit	Graphite discs (1,000 pcs) Graphite electrodes (100 pcs) Sample cups (2 ml) (1,000 pcs)

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METAL POWER

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