

Metavision 8i

Laboratory powerhouse



***Comprehensive elemental
analysis with dual-optics
and multi-base capabilities***



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Dual-optics system with
dedicated optics for the
Deep UV spectrum

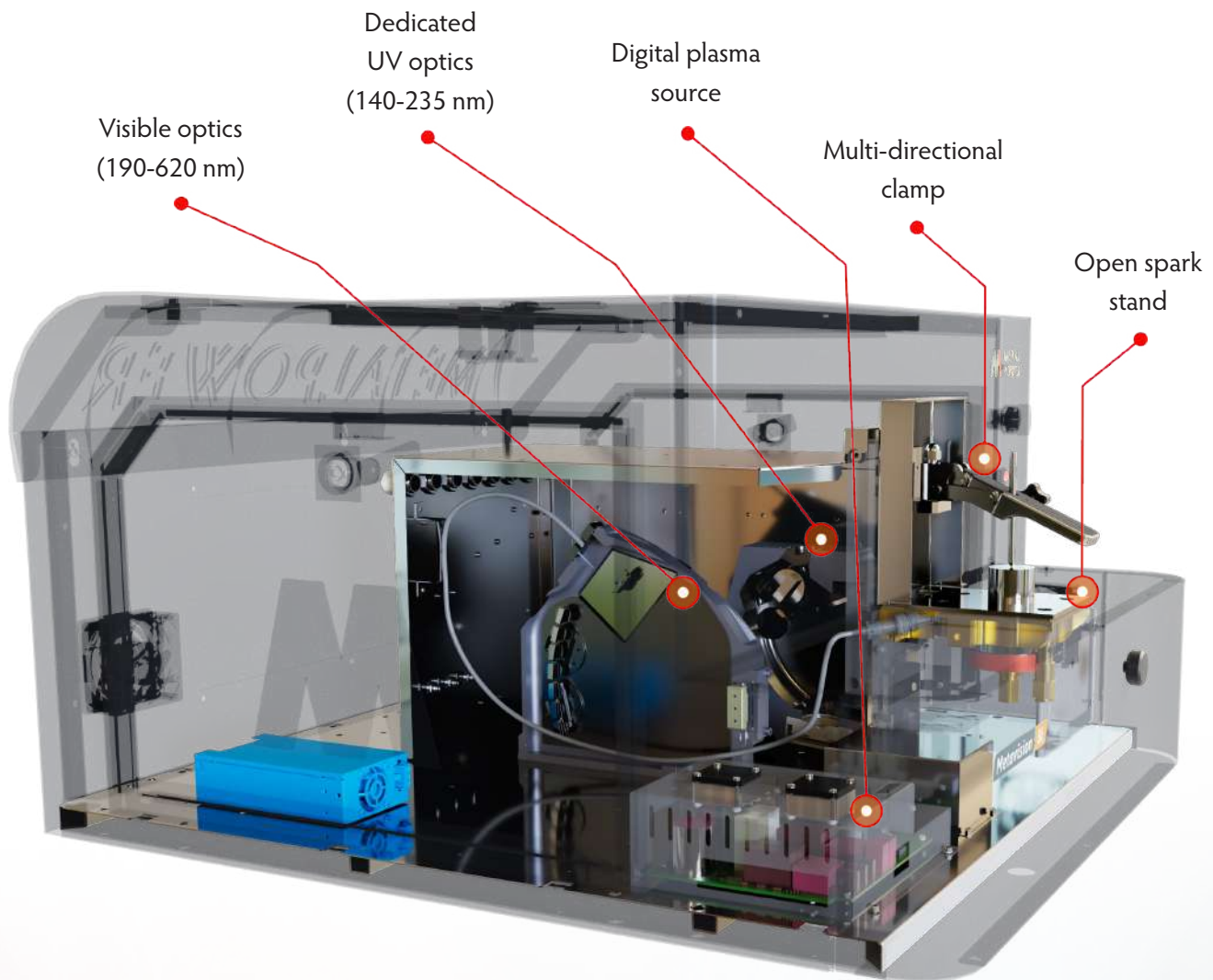
Latest-generation,
high-resolution
CMOS detectors



Thermally stabilised
optics to ensure high
precision and stability

Digital, current-
controlled source for
plasma generation

The **Metavision-8i** is a state-of-the-art stationary OES designed for budget-conscious users with critical, high-productivity applications. Featuring a state-of-the-art dual-optics design and equipped with the latest generation CMOS detector system, the **Metavision-8i** is truly best-in-class and delivers elemental coverage for 55+ elements, low detection limits, high performance and application features typically associated with higher segments.



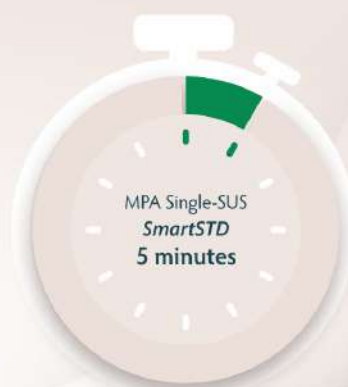
Key Features and Benefits

- **Dual Optics Design:** The *Metavision-8i* is the only OES in its class to feature a thermally stabilised, dual-optics design with a dedicated chamber for the Deep UV span.
- **Cutting-edge CMOS Detectors:** Featuring the latest-generation CMOS detectors, the OES delivers higher sensitivity, faster processing, and virtually no dark noise.
- **Class-leading Efficiency:** Reduced Argon consumption and low energy consumption lower the operational costs for users without compromising accuracy or precision. The *Metavision-8i* is particularly suitable for facilities with high throughput, given its ultra-fast processing speed and low-maintenance design.
- **Enhanced Carbon (C) Analysis in Cast Iron/ Ductile Iron:** The *Metavision-8i* covers the crucial 148 nm wavelength for Carbon, enabling it to automatically assess and account for graphitisation in CI/DI samples and deliver Carbon results at par with combustion analysers.
- **Nitrogen (N) in Steel:** Delivers low-ppm Nitrogen analysis in Steels and CI/DI, with detection limits down to 20 ppm.
- **Aluminium alloys:** It offers analysis down to 1 ppm for Sodium and Lithium and also analyses ROHS elements.
- **Pure Metal Analysis:** Delivers up to 99.98% purity in Copper, Zinc, and Silver with low detection limits for each.

SmartSTD Advantage



Traditional spectrometers require about 30 minutes and multiple samples for standardisation, causing delays and variability in results.



MPA's **SmartSTD** uses just a single SUS for the standardisation process and delivers a productivity upside of ~85%, along with substantial cost savings.

The **SmartSTD** feature by Metal Power Analytical enhances the speed, accuracy, and consistency of the process. This efficient approach minimises handling variability, reduces time and material costs, and optimises resources for greater ROI.

Technical Specifications

Parameter	Specification	Benefit
Wavelength Coverage	140-620 nm	Comprehensive analysis across 55+ elements, including trace elements.
Detector Type	Fully CMOS	Superior precision with high resolution and reduced noise for accurate results.
Resolution (RLD)	1.6 nm/mm	Ultra-high resolution ensures exceptional sensitivity and stability.
Optics Configuration	Dual vacuum-free optics	Provides superior performance without the need for vacuum pumps, reducing operational costs.
Plasma Source	Fully Digital PWM	Stable plasma generation with granular control, delivering consistent results across applications.
Peak Discharge Current	100 A	Ensures high-energy sparks for better analysis and enhanced accuracy, even for complex materials.
Max Discharge Frequency	1,000 Hz	Fast analysis with minimal delay for high throughput testing and productivity.
Argon Consumption	Low, optimised for extended usage	Reduced operational costs through efficient Argon consumption and extended system life.
Spark Stand	Heavy-duty, Low-maintenance design	Minimises downtime, ensuring continuous operation and durability over long-term use.
Standardisation Time	< 5 minutes	Boosts productivity by 85%, significantly reducing setup time and costs.
Size (Benchtop)	810mm (L) x 730mm (W) x 470mm (H)	Compact footprint for space-efficient installation without compromising on performance.
Weight (Benchtop)	Approx. 50 kg	Robust design for high stability and reliable operation even in demanding environments.
Software Compatibility	MetaLib Pro: World's largest library for metal grade identification. MPALabTab: Access your OES data anytime, anywhere. [FP]-LIMS: Advanced data integration and analysis tool. FRP®.melt: Real-time melt process optimisation tool.	



Access your OES
from anywhere and
on any device

3in1

SPM

Prepare sample
surfaces for
quality analysis

Wireless RTDS

Transmit your readings
from lab to melting
platform wirelessly



Access the world's
most comprehensive
library for metal
grade identification

Armour Safe

Protect your OES
against unstable power
and temperature for
optimal performance

FRP[®].melt

Integrated IT solution
for best practice in
melting and furnace
operations

[FP]-LIMS

Digitise and connect
your analysis
instruments to manage
data seamlessly