Thermo Scientific ARL easySpark
Optical Emission Spectrometers

Spark easily

Maximize productivity with reliable metals analysis

Iron and steel • Non-ferrous metals and alloys

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ARL easySpark

Quality is our standard in OES

For over 80 years, our company has set the standards for Optical Emission Spectrometry (OES) spectrometers. Performance, stability, reliability and robustness have been the key attributes of our instruments, designed typically for metals producers and labs with high analytical needs. The Thermo Scientific™ ARL easySpark™ bench-top metals analyzer continues this tradition of quality, bringing a simple, reliable and affordable analytical solution that fulfills the needs of foundries, metal processors and other metallurgical industries and laboratories.

Reliability, your guarantee for quality and productivity

The reliability of an OES instrument is essential for quality and productivity improvements in a metallurgical operation, because of its most efficient and critical use in different types of analyses along the workflow, e.g:

- Quality control or sorting of incoming materials
- In-process production control
- Quality control of finished or semi-finished products

Element coverage, accuracy, precision and stability are the foundations of a reliable OES analyzer. Wide element coverage allows the determination of all the elements that one needs. Accuracy provides the assurance that materials comply with the norms and quality standards. Precision signifies trust-worthy and dependable results with minimal number of measurements.

Finally, stability ensures lifetime performance with minimal maintenance and recalibration operations. These key figures of merit of an OES instrument are as important as the overall cost of ownership in order to produce reliable analyses and to reach the ultimate objectives of quality and productivity, e.g:

- Minimize cost of non-quality (customer complaints, scrapping…)
- Reduce expensive over-quality (minimize costly elements, optimize sourced materials…)
- Avoid costly outsourced analyses

Easy, safe and economic, yet powerful

The optics and the main modules of the ARL easySpark have been designed to achieve the same level of quality, performance, reliability and robustness generally obtained with bigger OES instruments.

ARL easySpark

The ARL easySpark has all the features and attributes to make it a reliable OES instrument. It is delivered as a turn-key solution, fully calibrated in our factory and thoroughly tested for performance, accuracy and quality before delivery. It also has all the tools necessary to guarantee an easy installation, easy operation and easy maintenance.
The ARL easySpark provides the enhanced benefits needed for the determination of all elements in all types of metals, such as iron and steel, aluminum and its alloys, bronze, brass and more. It brings all the advantages of the CCD technology without compromise on analytical performance.

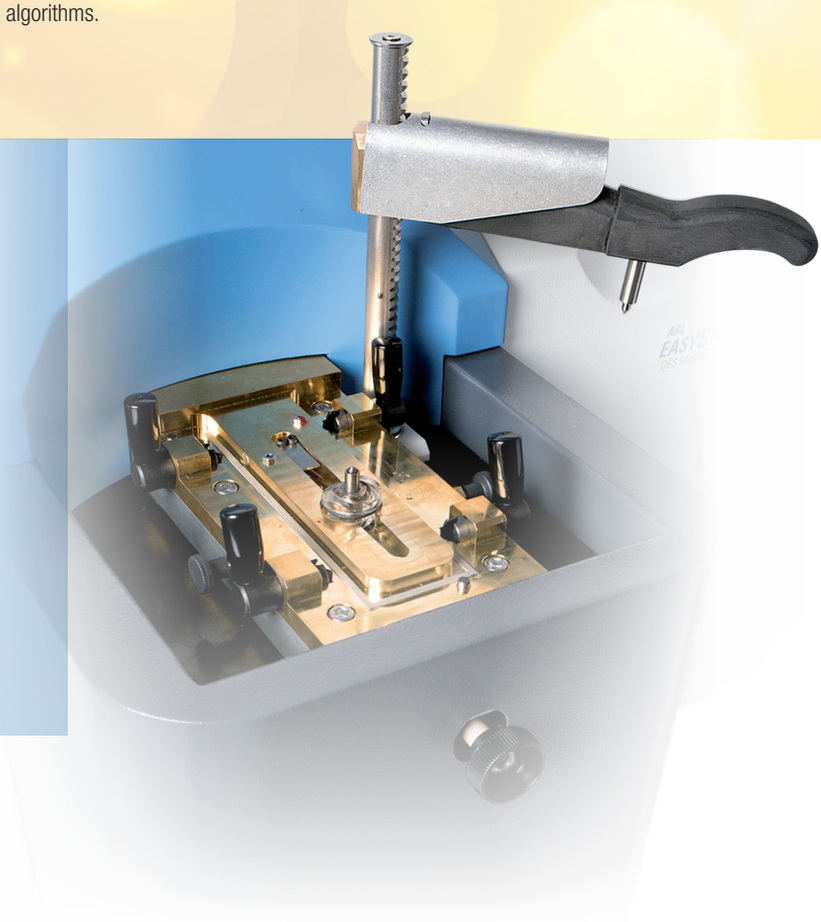
The ARL easySpark helps the end user to be more competitive. This latest generation instrument benefits from decades of analytical expertise in achieving uncompromising calibrations and reliable quantitative analysis. In addition, the ARL easySpark helps to solve specific process or quality related issues or to develop newer alloy compositions for particular applications. Finally, it reinforces the positioning of your company as a modern company with analytical credibility.

- The optic is carefully isolated from the surrounding environment and controlled in temperature to ensure optimum stability.
- The compact version of the Thermo Scientific™ patented intelliSource is a current controlled spark source (CCS). It generates highly repeatable and perfectly tailored sparks which allow the most efficient and repeatable sample surface preparation, material ablation, atomic excitation and the resulting light emission, in order to ensure superior performance and accuracy in any metal matrix.
- The spark stand brings important benefits:
  > Unique Safe Open Stand to guarantee high user security
  > Low argon consumption thanks to optimized design and advanced Smart Argon Management (SAM) software module
  > Minimum maintenance and tool free stand dismantling
  > Robust, wear-resistant analysis table.
- The unique and exclusive optical design provides optimal full element coverage, high spectral resolution and performance, as well as unparallel stability even in the harsh conditions of a production floor thanks to e.g.:
  > Patented entrance optics for superior light collection and grating illumination
  > High-performance spectrometer based on multi grating / CCD technology for high dispersion
  > Exclusive UV resistant Peltier cooled CCD detector data acquisition and processing algorithms.

Spark optical emission spectrometry (OES)

OES is the most widely used and well established technique for elemental analysis of solid metal samples. Our spectrometers excel in every aspect of this type of analysis:

- Fast elemental analysis of most metals and alloys
- Determination of all necessary elements from ppm to percent
- Outstanding accuracy, precision and stability
- Simple installation, operation and maintenance
- Low capital investment and overall operating costs.



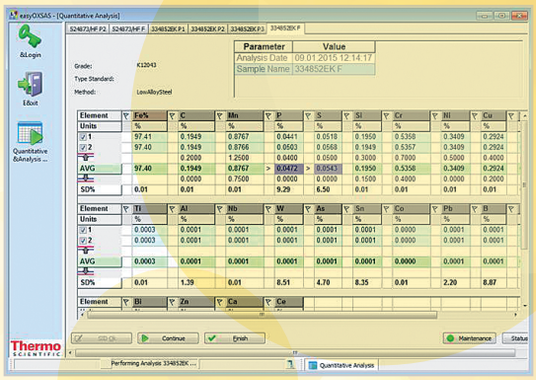
easyOXSAS, simply what you need

EasyOXSAS makes analysis so easy and natural, that training of operators and managers is quick and intuitive.

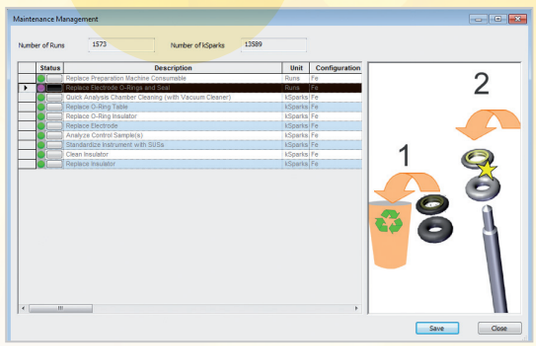
The manager can configure the software and allow the operator to perform only the operations needed for routine analysis, e.g. select the analysis program. The manager can also access to the OXSAS analytical software with full capabilities anytime. This is useful for laboratories that want to create their own calibrations and analytical methods. Thanks to regular free web-based software updates, easyOXSAS will meet your requirements throughout the lifetime of your instrument.

All details can be found in the separate easyOXSAS and OXSAS software product specification sheets such as:

- Grade check on results
- Customized results display and certificate print-out
- Direct output of results into different formats
- Maintenance Management module for optimal though minimal maintenance
- Quick diagnostic with the Synoptic Panel
- Efficient support through remote access to instrument parameters and software



Typical operator analysis results screen with grade check



Maintenance Management module

Worldwide customer support

Excelling in optical emission spectrometry since 1934, we provide you the support of a major international corporation:

- A comprehensive worldwide after-sales service network assists with resolution of day to day queries and ensures that the ARL easySpark spectrometer achieves the very high standards of reliability and durability it is designed for
- Operational performance validation and possible online support with diagnostic help
- Application product teams can advise on analytical tasks from sample preparation to delivering the accurate result
- Dedicated training allows you to exploit the full capabilities of your ARL easySpark spectrometer

www.thermoscientific.com/easyspark

Certified System ISO 9001 QMI-SAI Global

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