



We at ARUN Technology understand the importance of your spectrometer's uptime and reliability. Our customers experience exceptional service and support throughout the lifetime of their instrument. To ensure this, ARUN has a global network of service partners with factory trained engineers to provide local support for our installed instruments.

The ARUN ASSIST programme offers various services such as installations, online diagnostics and remote support, but also preventative maintenance contracts and calibration checks. Extended warranties, spares and consumable packages are also available. Educational programs for operators and maintenance staff are available in the classroom or as E-learning modules.

## Technical Features

### A-PLUS Software

- IAPS – Intelligent Automatic Program Selection
- Foreign language menu capability
- Original factory calibrated programs traceable to CRMs
- Automatic inter-element corrections
- Automatic average calculation
- Display of single or multiple analysis
- Display of mean, Standard Deviation or Relative Standard Deviation
- Configurable result screen with elements, decimals, etc
- Formula editor (Carbon Equivalent, Total Trace, etc)
- Quality control & identification functions
- User defined expert functions
- Factory supplied and user configurable grade library
- Pass/Fail option
- Report generator, print or PDF output, selected by sample ID field content
- User standardisation for each program
- User configurable Type Standardisation
- Storage and retrieval of data
- Global matrix standardisation (GMS) and type standardisation

### Technical Data

#### Weight & dimensions

Weight: 70kg  
Instrument size: 650 x 390 x 780mm

#### Electrical requirements

Line input 90 or 260 Volts AC 50-60 Hz  
Automatic voltage stabilisation

#### Environmental requirements

Operating temperature 10 to 30°C  
Storage temperature 10 to 45°C

#### Other requirements Argon

99.998% or 99.999% purity – Argon gas purifier can be used, depending on application  
Sample taking equipment relevant to metal type/s  
Sample preparation equipment relevant to metal type/s



## Technology at work for you

### MERLIN 4 KEY BENEFITS

- Compact benchtop model
- Small in design, large on performance
- Self-purification system
- 3 side open spark stand with XY-sample clamp
- High analytical performance
- Controlled by PC or laptop
- Windows 10 operating system
- No vacuum pump, no Argon purge in optics
- Holographic diffraction grating
- High-resolution CCDs
- Digital spark source
- Ethernet connectivity
- Bespoke A-PLUS software

### MADE TO PERFECTION

The **MERLIN 4** is a mid range CCD spectrometer. Available as a dedicated single-base unit as well as a versatile multi-base system.

## THE ANALYTICAL PERFORMANCE YOU NEED

### APPLICATION PORTFOLIO

The range of factory calibrations is comprehensive with a wide choice of analytical programs for all applications.

- Iron and Steel alloys
- Cast Iron
- Aluminium and its alloys
- Copper and its alloys
- Nickel and its alloys
- Cobalt and its alloys
- Titanium and its alloys
- Magnesium and its alloys
- Lead and its alloys
- Tin and its alloys

No other supplier of optical emission spectrometers for metals analysis can boast over 30 years' experience in the application of CCD technology to spectroscopy, the result of which is ARUN Technology's most advanced yet compact benchtop spectrometer the **MERLIN 4**. Outstanding features on the **MERLIN 4** include single sample standardisation, (3S) which saves time and sample material. Also Intelligent Analytical Programme Selection, (IAPS) which identifies the base metal and most suitable calibration, therefore saving time and avoiding user mistakes.

### ANALYTICAL EFFICIENCY

The **MERLIN 4** treats Argon consumption extremely efficiently due to a self-purification system integrated in its new design. As a result this substantially reduces Argon consumption. But what about time? Labor costs are expensive and longer processing times increase your costs. Luckily the **MERLIN 4** features shortened measurement times thanks to the digital source and new readout regime.

Quality Control and Assurance are essential to making your business successful. QC&A reduces the risks within the production process, helping to avoid costly material mix-ups, and preventing machinery damage. Adapters help to analyse oddly shaped samples and small pieces. The grade library visually displays noncompliance to alloy specs. The **MERLIN 4** is the ideal companion for incoming material, in-process testing and final quality inspection.



- 1) Front panel
- 2) Sample clamp
- 3) Spark Stand
- 4) Spark housing
- 5) Activate button
- 6) Left side panel



- 7) Fan
- 8) Rear panel
- 9) Argon inlet
- 10) Ethernet port
- 11) Power switch
- 12) Power inlet
- 13) Right side panel
- 14) Dust cover

### MADE TO MEASURE

The **MERLIN 4** is designed to perform quick and reliable measurements. ARUN Technology offers a wide portfolio of calibrations to choose from. If you require something special, individually tailor-made calibrations can be created by our application development team. The **MERLIN 4** is "made to perfection"



### A-PLUS Software

Performance at the click of a button.

The performance of a CCD spectrometer largely depends on Spectra Deconvolution Algorithms. It is not only the physical resolution that determines the analytical power of the instrument. ARUN's A-PLUS software is a bespoke software package that has a powerful spectrometric kernel as well as all the needed 'bells & whistles' that help in daily routine work and make the use of the instrument efficient and a pleasure to operate.



### THE DIGITAL AGE

The **MERLIN 4** is prepared for the digital age. When connected to the internet, analyses can be published in a cloud database and online factory support is just a mouse-click away. E-learning programs provide training for new operators. Discover ARUN's online world and become a registered user.