


# SPECTRO XEPOS XEP03

*Versatile XRF Spectrometer  
for Demanding Applications.  
An expert for many  
applications.*



*Don't be fooled by its small size: hidden inside are powerful components delivering higher sensitivity and accuracy for the entire element range from Na-U.*



*Optimum excitation using polarization and secondary targets, an autosampler for up to 12 items, pre-installed application packages and intelligent software modules, make the SPECTRO XEPOS one of the most versatile element analyzer available.*

# SPECTRO XEPOS

## Excitation

The SPECTRO XEPOS uses a 50 Watt end-window X-ray tube to excite the samples. The target changer, with up to 8 polarization and secondary targets, offers many different excitation conditions ensuring optimum determination of all elements from Na to U. A shutter improves the stability of the system by enabling the sample to be changed without having to turn off the X-ray tube. Long-term stability and consistent X-ray tube performance are ensured by the uninterruptible power supply (UPS) that compensates for power fluctuations. Measurements can be conducted in a He gas atmosphere or in a vacuum; many applications even in air.

## Detector

The detector is a state-of-the-art silicon drift detector. The resolution remains stable, regardless of the count rate. Internal collimators greatly improve the signal/noise ratio. A spectral

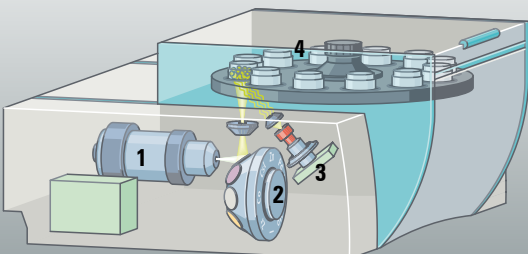
resolution of less than 155 eV at Mn K-alpha is achieved. The high spectral resolution at high count rates results in reduced measuring times and improved measurement accuracy.

## Sample Presentation

Not only powerful analytical components, but also exact sample presentation is critical for exceptional analytical performance. This was a special consideration during development of the SPECTRO XEPOS. The precision of the sample changer and a new generation of sample trays dramatically reduce the effects of mechanical and physical fluctuations; improving analytical results. The analyzer can handle samples with diameters of 32 mm, 40 mm and 52 mm. The sample chamber can be equipped with a sample spinner for 40 mm sample cups to further improve the measurement results for inhomogeneous samples or irregular surfaces.



- 1 - X-ray tube
- 2 - Target changer with up to 8 polarization and secondary targets
- 3 - SDD detection system
- 4 - Sample tray with samples



## SPECTRO XEPOS

- High sensitivity for light, medium and heavy elements
- High precision autosampler with sample trays for various sample diameters
- Fundamental parameters and TurboQuant methods
- Intuitive software

# Software

## Software

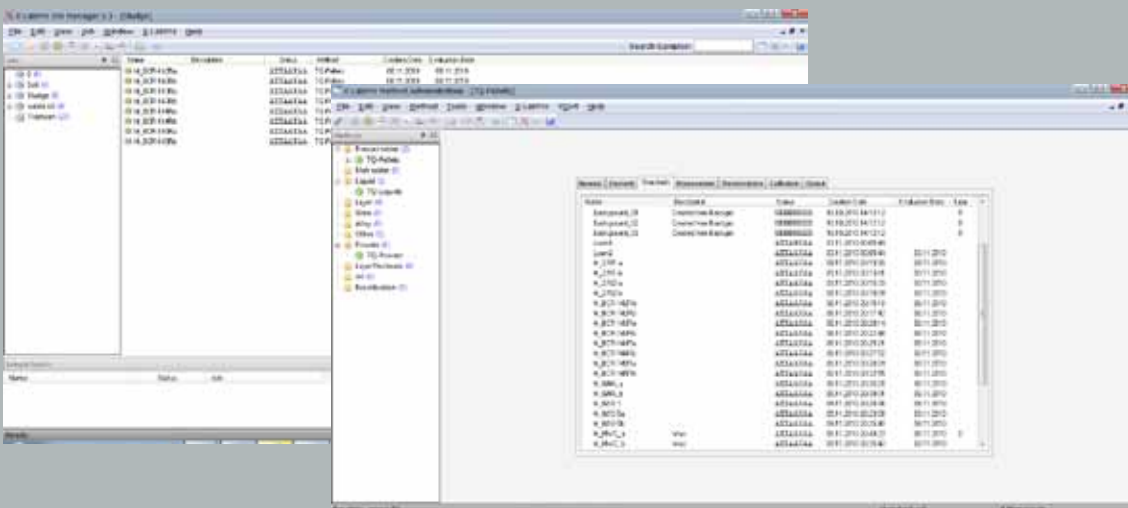
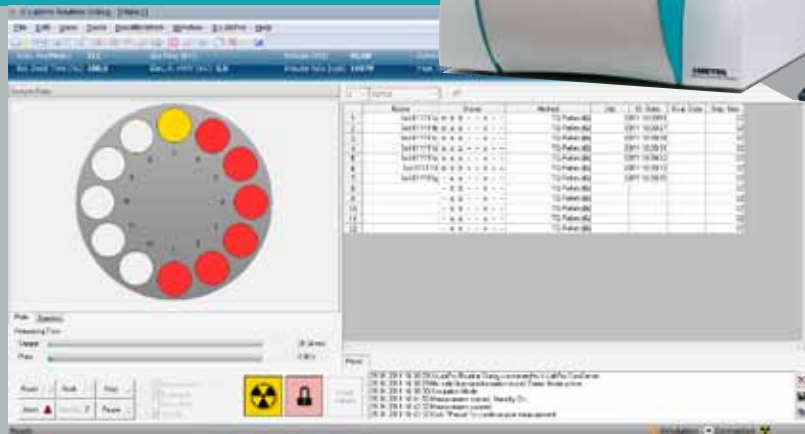
The SPECTRO XEPOS software is clear and easy-to-use. Measurement can begin after selecting the method and entering the sample identification information. The fundamental parameters method – that functions without standards – or one of the special SPECTRO TurboQuant methods is available for the effortless analysis of unknown samples.

The SPECTRO XEPOS can be delivered with pre-installed application packages. These are a combination of hardware and analytical methods; installed in the factory and individually tuned.

The range of applications includes, among others:  
**The analysis of waste, soils, sewage sludge, additives in oil, cement, slag, refractories and electronic components and parts in compliance with RoHS; making the SPECTRO XEPOS a true multi-talent.**

The SPECTRO XEPOS is equipped with a 12 position autosampler.

**Job Manager:** an archive for analysis results and measurement spectra.  
**Method Manager:** Clearly structured administration of analytical methods.



# SPECTRO XEPOS: Technical Specifications

## Excitation

- Optimized especially for the analysis of high to medium atomic numbers
- Depending on the application, up to 8 optimized polarization and secondary targets are used

## Detection system

- 10 mm<sup>2</sup> Si-Drift Detector (SDD) with Peltier cooling
- Spectral resolution (FWHM) at Mn Ka  $\leq$  155 eV

## Sample handling

- Sample tray with 12 positions for samples with diameters of 32 or 40 mm
- Analysis in He atmosphere or optional in vacuum

## Personal computer

- External computer system
- Windows operating system
- Keyboard, Mouse Monitor, Printer

## Software

- Menu-based X-LAB<sup>®</sup> Pro software for control of spectrometer functions and for evaluation of data

## Application packages

- Optional TurboQuant screening methods for solids, powders and liquids
- Optional fundamental parameters method
- Optional packages for various applications

## Spectrometer data

- Nominal input voltage: 120V/230V AC  $\pm$  10%, 50/60 Hz
- Dimensions WxDxH: 650 x 750 x 400 mm (25.6" x 29.5" x 15.7")
- Weight: 80 kg (176 lbs.)
- Optional UPS to achieve optimal operating conditions (also in case of a breakdown in voltage)

## Environment conditions

- Ambient temperature: 10-30°C /50-85°F
- Specified instrument performance at 20-25°C / 68-77°F
- Rel. humidity at 25°C (77°F): 10-80 % not condensed
- Free of corrosive vapour and high dust pollution

## Options

- Sample tray with 8 positions for samples with a diameter of 40 mm in combination with sample spinner
- Sample tray with 8 positions for samples with a diameter of 52 mm
- Vacuum system
- TurboQuant-screening methods for solids, powders and liquids
- Fundamental parameters method
- Packages for various applications
- UPS



## Analytical Characteristics of SPECTRO's XRF Analyzers

		SPECTRO iQ II	SPECTRO XEPOS	SPECTRO XEPOS HE
Performance in the element range	Na-Mg	++	++	+++
Performance in the element range	Al-Cl	+++	+++	++
Performance in the element range	K-Mn	++	++	+++
Performance in the element range	Fe-Zr, Hf-U	+++	+++	+++
Performance in the element range	Nb-Pr	+	++	+++
Excitation flexibility		+	+++	+++
Automatic sample changer		n/a	up to 12 pos	up to 12 pos
TurboQuant screening available		n/a	yes	yes

+ good, ++ very good, +++ excellent

[www.spectro.com/xrf-selector](http://www.spectro.com/xrf-selector)

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**AMETEK**<sup>®</sup>  
MATERIALS ANALYSIS DIVISION

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