

# FULL-SPECTRUM SPARK DIRECT READING SPECTROMETER (PROFESSIONAL TYPE)

PART NO. OES-R420-U



- Can be widely used in industries such as metallurgy, casting, machinery, steel, and non-ferrous metals. It is widely used in the research and development of raw materials, parts, and product processes in fields such as automotive manufacturing, aerospace, shipyard, electromechanical equipment, engineering machinery, electronics and electrical engineering, education, and scientific research.
- Can be used for sample analysis of metals and their alloys such as Fe, Al, Cu, Ni, Co, Mg, Ti, Zn, Pb, Sn, Mn, etc.
- Optimal optical system in a 10,000-class ultra-clean environment, with an all-solid-state digital spark light source. Energy and frequency parameters are continuously adjustable, MTBF (mean time between failure) > 5000 hours, adaptable to a variety of different materials. A massive number of spectral lines make the analysis no longer limited, including elemental content of high and low curve segments. Automatic matching analysis of a wide range of unknown samples to automatically match the best analytical procedures. Automatic deduction of inter-element summing and multiplication of interferences, resulting in more accurate analysis results. Automatic calibration of pixel drift to ensure the stability of the optical system.
- Multilingual versions are available (Chinese, English, Russian, German).

## STANDARD DELIVERY

Main unit	1 pc
Computer	1 set
Printer	1 pc
Voltage regulator	1 pc
Standardised sample	1 set
Analysis and calibration software	1 set
Consumable and spare parts	1 set

## OPTIONAL ACCESSORY

Lathe	OES-R420-LATHE	8.66×11.81", 220V
Electrode brush	OES-R420-BRUSH	/
Small sample fixture	OES-R420-RODLIKE	DIA .13~.27" regular bar sample
	OES-R420-FILIFORM	DIA .02~.11 filament sample
Gasket	OES-R420-GASKET1	Copper, ID.236"
	OES-R420-GASKET2	Copper, ID.314"
	OES-R420-GASKET3	Boron nitride, ID.157"
	OES-R420-GASKET4	Boron nitride, ID.236"

## SPECIFICATION

Optical system	Full-spectrum technology	coverage of the full range of elemental analyses
	Detector	multiple CCD detectors, unlimited maximum number of detection channels
	Optical system construction	paschen-range construction, grating focal length 19.69", roland circle diameter: 19.69"
	Raster scribing	106.3 lines/in
	Spectral range	160~500nm
	Resolution	better than 0.01nm
	Pixel dimension	8μm
	Dispersion	class I: 0.74nm/mm, class II: 0.37nm/mm
Excitation source	Excitation frequency	20~1000Hz
	Excitation current	90A
	Excitation voltage	190V
Spark stand	Discharge parameter	Inductance: 120μH, Resistance: 3.5Ω, Capacitance: 5μF, Voltage: 380V
	Dimension	4.9213x3.7402", max. load 110.23lb
	Lens	One-piece lens isolation valve
	Excitation electrode	tungsten electrode
Gas supply	Argon quality	purity: 99.999%, pressure: ≥0.6MPa
	Flow rate	tidal flushing mode, excitation: 8L/min, standby: 60ml/min
General analysis time		<40s
Data processing		single excitation, slice exposure, simultaneous acquisition, simultaneous counting back, independent control of the integration of different CCD exposure time, to enhance the identification of trace elements, to reduce the detection limit of the instrument, adjust the integration time with the wavelength band, to enhance the stability of the instrument.
Work environment		68~77°F, <70%RH
Power		AC220V, 50Hz, 1Ø, 16A, 2.5KW, ground resistance <4Ω
Dimension (LxWxH)		21.46×14.96×17.13"
Weight		154.32lb