



AMETEK
MATERIALS ANALYSIS DIVISION

SPECTROPORT PXC01
PORTABLE ARC/SPARK OES METALS ANALYZER

The easy choice when you can't
afford to make metal mistakes

SPECTROPORT

The powerful, portable OES analyzer
with all the ease of handheld

Inspecting the metals makeup of incoming and outgoing components is a critical task for countless companies. It's a quality control necessity in metal producing, processing, recycling, service contracting, and more. Metal alloys must be accurately tested, identified, and verified based on defined chemical composition.

Mistakes matter. An alloy mixup at the shipping dock or on the factory floor can cause an inconvenient batch rework — or a lost contract.

Many firms use a handheld X-ray fluorescence (XRF) analyzer for these jobs. However, this can cause problems. For instance, a handheld XRF can't determine precise levels of carbon content: the only way to distinguish among many low-alloy steels. It also has trouble handling elements like phosphorus or sulfur at critical levels.



SPECTROPORT PORTABLE ARC/SPARK OPTICAL EMISSION SPECTROMETRY (OES) METALS ANALYZER

When handhelds aren't enough, the amazing new SPECTROPORT applies more advanced OES technology — in a unit as easy to use as a handheld analyzer. Sparking a revolution in mobile metals analysis, SPECTROPORT delivers many advantages of SPECTRO's mobile OES flagship, SPECTROTEST, in a smaller, lighter package. It is as fast as a handheld XRF, with many analyses taking only a few seconds. But unlike handheld XRF, it accurately analyzes elements such as carbon, sulfur, phosphorus, boron, lithium, beryllium, calcium, silicon, magnesium, and aluminum at low and critical levels. And it enables effortless point-and-shoot performance, to minimize operator intervention and decision-making.

EXCELLENT EASE OF USE

Some arc/spark spectrometers can be complicated to operate. Not SPECTROPORT. It adds the convenience and simplicity of the best handheld analyzers to the accuracy and wide analytical range of SPECTRO's renowned OES technology. You get fast, ready response; flexible portability; intuitive ease of use; and minimal standardization efforts.

MAXIMUM MOBILITY

SPECTROPORT offers flexible options to maximize mobility, including large and small transport trolleys plus portable batteries. For testing in difficult-to-reach places — such as analysis of installed or small parts, thin wires, curved surfaces, or concealed welding seams, or for infrastructure control tasks — you can use SPECTROPORT cordlessly, with a rechargeable battery pack.

COST-EFFECTIVENESS AND CONFIDENCE

Despite its power and convenience, SPECTROPORT is surprisingly affordable — offering a purchase price comparable to some handheld XRFs. Plus a continued low cost of ownership. And you can have confidence that you'll never miss a metal. SPECTROPORT is designed with all the recognized reliability that's made SPECTRO the leader in metals analysis, with more than 40,000 spectrometers worldwide.

SPECTROPORT

Advanced technology made easy

IMPROVED SOFTWARE: SIMPLICITY FIRST

With our Spark Analyzer Pro software, users can quickly and easily define different testing modes, sample identification fields, etc. Also, new preset applets can do much of the work — and eliminate most errors. Example: an automatic program finder (APF) plug-in selects the best matching calibration for the relevant alloy group.

SPECTROPORT maximizes ease of use. Simplified, predefined operator views eliminate unnecessary selections. Users get clear choices for tasks such as pass/fail sorting and grade identification, via dedicated toolbar buttons.

Protective cover / screen shade

Breakthrough new self-adjusting optical system

Simplified software with new plug-in extensibility

Same field-proven, low-power-consumption eco-plasma generator as high-end SPECTROTEST metals analyzer

3 Li Lithium 6.941	4 Be Beryllium 9.0122	5 B Boron 10.811	6 C Carbon 12.011
12 Mg Magnesium 24.305	13 Al Aluminium 26.982	14 Si Silicon 28.086	15 P Phosphorus 30.974
16 S Sulfur 32.065	20 Ca Calcium 40.078		

For all these elements, SPECTROPORT delivers analysis that's clearly superior to handheld XRF



Unique iCAL 2.0 one-sample standardization of the entire system

Fast performance: 2-3 seconds in arc, 10 seconds in spark

Choice of rechargeable batteries: lower-cost, heavier lead-acid, or lighter lithium-ion polymer



Stable, lightweight, highly ergonomic transport trolley or minimum-weight mini-trolley

INNOVATIVE OPTICS: RESILIENT TO TEMPERATURE CHANGES

The new SPECTROPORT optical system covers a wide range of elemental wavelengths, displaying excellent precision, stability, and robustness without additional heating. One breakthrough: in combination with the new iCAL 2.0 standardization, the self-adjusting system requires minimum operator intervention — and provides an unprecedented degree of resilience to ambient temperature changes.

DEFINITIVE DATA MANAGEMENT

With SPECTROPORT, you get flexible, comprehensive control of metals data management. The system provides advanced tools to accurately and definitively verify, record, and document complete testing results for each incoming shipment, and every outgoing product.

GET RESULTS ANYWHERE

Receive the information you need, anywhere you need it. Via WebApp and PC connections from WLAN/LAN to USB, SPECTROPORT offers wide options for data availability on devices throughout the plant.

SPECTROPORT



TWO PROBES: MEASURE A WIDE RANGE OF ELEMENTS

The instrument's standard light, thin probe is quickly converted between arc excitation and spark excitation (spark mode utilizes a protective argon atmosphere). Another slightly larger probe with an integrated ultraviolet (UV) optic measures carbon levels in steels, or handles sulfur, phosphorus, boron, or tin; it performs either arc or spark analysis as well.



RECEIVE GLOBAL SUPPORT

Incoming/outgoing materials inspection depends on the availability of accurate metals analysis. To ensure that SPECTROPORT analyzers can keep delivering critical verification of specified alloys, SPECTRO offers the industry-leading AMECARE Performance Services program.

With coverage that makes other suppliers envious, more than 200 AMECARE service engineers in 50 countries help ensure peak performance and extended life for every SPECTROPORT instrument. AMECARE's high-value, customized services include proactive maintenance programs; application solutions; performance upgrades; access to specialists; and instrument-specific training. Exclusive 24/7, global machine-to-machine (M2M) support allows proactive alerts, backed up by direct connection with a remote SPECTRO service expert's PC.

UNLIKE XRF: HANDLE CARBON IN STEEL

In addition to using spark discharge in argon to determine carbon, SPECTROPORT can apply patented (US 7,227,636) carbon in arc technology that's unprecedented in its class. So versus XRF handhelds, SPECTROPORT can rapidly (average: 3 seconds) identify low-alloy steels using the carbon content with arc (open-air) testing.

SEE THE LEADING LINE OF METALS ANALYZERS

SPECTROPORT represents a valuable addition to SPECTRO'S comprehensive suite of metals analysis instruments.

Our mobile product line also includes the flagship SPECTROTEST OES analyzer and the SPECTRO xSORT XRF handheld. These are backed up by a trio of advanced stationary metal spectrometers: our flagship SPECTROLAB; powerful SPECTROMAXx; and affordable, entry-level SPECTROCHECK analyzers.

Whatever your choice, you can rely on quality analyzers from SPECTRO: the recognized global leader in metals analysis.

www.spectro.com



GERMANY
SPECTRO Analytical
Instruments GmbH

Boschstrasse 10, D-47533 Kleve
Tel: +49.2821.892.0
Fax: +49.2821.892.2202
spectro.sales@ametek.com

U.S.A.
SPECTRO Analytical Instruments Inc.
91 McKee Drive
Mahwah, NJ 07430
Tel: +1.800.548.5809
+1.201.642.3000
Fax: +1.201.642.3091
spectro-usa.sales@ametek.com

AMETEK®
MATERIALS ANALYSIS DIVISION

CHINA
AMETEK Commercial
Enterprise (Shanghai) CO., LTD.
Part A1, A4 2nd Floor Building No.1 Plot Section
No.526 Fute 3rd Road East; Pilot Free Trade Zone
200131 Shanghai
Tel.: +86.21.586.851.11
Fax: +86.21.586.609.69
spectro-china.sales@ametek.com

Subsidiaries: ▶ HONG KONG: Tel. +852.2976.9162, Fax +852.2976.9132, spectro-ap.sales@ametek.com, ▶ FRANCE: Tel +33.1.3068.8970, Fax +33.1.3068.8999, spectro-france.sales@ametek.com, ▶ GREAT BRITAIN: Tel +44.1162.462.950, Fax +44.1162.740.160, spectro-uk.sales@ametek.com, ▶ INDIA: Tel +91.22.6196.8200, Fax +91.22.2836.3613, sales.spectroindia@ametek.com, ▶ ITALY: Tel +39.02.94693.1, Fax +39.02.94693.650, spectro-italy.sales@ametek.com, ▶ JAPAN: Tel +81.3.6809.2405, Fax +81.3.6809.2410, spectro-japan.info@ametek.co.jp, ▶ SOUTH AFRICA: Tel +27.11.979.4241, Fax +27.11.979.3564, spectro-za.sales@ametek.com, ▶ SWEDEN: Tel +46.8.5190.6031, Fax +46.8.5190.6034, spectro-nordic.info@ametek.com.

▶ SPECTRO operates worldwide and is present in more than 50 countries. For SPECTRO near you, please visit www.spectro.com/worldwide

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