

SPECTRO xSORT_{XHH03}

HANDHELD EDXRF SPECTROMETER



Fastest scrap analysis
and sorting

The key to profitable
metals recycling:

SPECTRO xSORT

Over 400 million tons of metal is recycled each year. Recycling conserves precious natural resources, and the benefits to the environment in saved energy and reduced greenhouse gas emissions are also well recognized. Scrap metal in a raw, unsorted, form has low monetary value, is bulky and expensive to handle and transport, and attracts low margins as a trade commodity. Manual sorting based on appearance, magnetic behavior and similar physical properties to identify higher value metals is labor intensive, inaccurate and unreliable. The SPECTRO xSORT handheld metals analyzer can take the uncertainty out of scrap sorting and positively identify alloy grades in seconds.



THE DESIGN, PERFORMANCE AND SIMPLE OPERATION OF THE SPECTRO xSORT

handheld X-ray fluorescence spectrometer make it ideal for scrap sorting. XRF spectrometry is a proven technique for metals analysis, popular since its introduction in the 1950's. XRF spectrometers are a standard tool for quality control analysis in most major metal processing facilities.



ADD VALUE WITH ANALYSIS

SPECTRO xSORT delivers metal analysis and grade identification in only 2 seconds for most alloys! Just 10 additional seconds are necessary for the sorting of various alloys containing light elements, such as Al, Mg, Si, P and S.

EASY SCRAP METAL SORTING

With SPECTRO xSORT, operators don't have to switch methods between metals or bother with flushes or vacuum systems. Its compact, one-piece 1.64 kg (3.62 lb) design is optimized for easy use in the field, even in less accessible or tight spots.

DESIGNED FOR PERFORMANCE

A shutter that securely closes the measurement window between analyses to protect the technology behind it from dirt and damage is also the sample for ICAL-control measurements that the instrument independently conducts. Thus, all of the calibrations available on the instrument are always ready for use.

SPECTRO xSORT

advantages for scrap sorting and analysis

FEATURES

Radiation safety gasket to prevent backscatter radiation

Allows safe testing of samples up to 500° C (932° F) while in use — without process shutdowns

Small spot collimation - always just 3mm

Optional integrated video camera for precise spot testing of welds, screws, pins, etc.

Interface bezel with operator-defined hot keys to maximize speed of common tasks

Simplified software featuring touchscreen interface with only two menu levels - intuitive ease for highest productivity

High resolution, high sensitivity SDD detector

Preinstalled grade libraries covering common alloys used for petrochemicals, refining, power, recycling and more

One-click triggering to deliver high-reliability grade ID and elemental chemistry analysis in 2 seconds for most metal alloys

Quick-change battery

Exclusive SPECTRO ICAL one-sample, one-time easy calibration system

Exclusive optional SPECTRO Metal Database to create customized grade libraries

Element	Value	Element	Value
Mn	0.96	Cr	10.0
Me	0.31	Ni	10.4
Co	0.69	Cu	0.31
Ti	0.70	V	0.11
Fe	99.1		

SPECTRO xSORT SERVICE AND SUPPORT

Organizations with high volumes of work must keep their fleets of instruments operating at the highest possible levels of availability. To ensure that SPECTRO xSORT spectrometers meet and exceed these goals, SPECTRO offers the AMECARE Performance Services program.

More than 100 AMECARE service engineers based in 20 countries help to ensure peak performance and extended useful equipment life via high-value, customized services. These can include proactive maintenance programs; application solutions; access to relevant experts; and training.



SPECTRO xSORT Specifications



Detector	High resolution silicon drift detector (SDD)
Excitation	X-ray tube, Rh anode, 50 kV max.
Dimensions and weight (including battery pack)	Height: 270 mm (10.7") Width: 93 mm (3.7") Depth: 230 mm (9.1") Weight: 1.64 kg (3.62 lb)
Spectrometer control	Integrated PC with Touch Screen, Windows Mobile 6.0, Interfaces: Bluetooth, Wireless LAN, USB Host/Client
Software	SPECTRO XRF Analyzer CE ICAL (Intelligent Calibration Logic) Analysis mode with grade ID/grade verification option, Sorting mode (Fast pass/fail assessment) Result manager for post-processing of testing results
Accessories (Included)	Transport case Instrument/battery Holster 2 nd battery pack Charger USB-Cable Consumables (films)
Accessories (Not included)	Docking station Small parts/wire adapter Printer Barcode reader
Options	Video camera Internal GPS receiver

AISI 304			
Element	Measurement time: 2 Sec		
	Certified Value [%]	Average Value [%]	2*SD [%]
Mn	1.48	1.3	0.1
Cr	18.37	18.5	0.2
Mo	0.20	0.21	0.02
Ni	8.09	8.1	0.2
Cu	0.40	0.4	0.1

AISI 316			
Element	Measurement time: 2 Sec		
	Certified Value [%]	Average Value [%]	2*SD [%]
Mn	1.78	1.64	0.07
Cr	16.56	16.70	0.05
Mo	2.11	2.17	0.08
Ni	10.38	10.50	0.3
Cu	0.17	0.11	0.03

AISI 321			
Element	Measurement time: 2 Sec		
	Certified Value [%]	Average Value [%]	2*SD [%]
Mn	1.52	1.2	0.2
Cr	17.45	17.6	0.1
Mo	0.36	0.38	0.03
Ni	9.42	9.5	0.1
Ti	0.63	0.67	0.04
V	0.13	0.11	0.02
Cu	0.30	0.20	0.08

SPECTRO: The industry's most comprehensive analytical line

The SPECTRO xSORT handheld EDXRF analyzer is an easy to use, highly reliable and accurate tool for sorting metal scrap, and presents the opportunity to add value and increase profitability at all stages of the recycling process. The SPECTRO xSORT is able to handle many scrap sorting tasks encountered in the aluminum recycling industry. When better precision is needed on the "light" elements like Mg and Si, or if Al/Li alloys are likely to be encountered, then the SPECTROTEST comes into its own. The SPECTROTEST is a mobile metal analyzer using the principle of Optical Emission Spectrometry (OES).

Whatever the choice, SPECTRO's more than 30 years of experience in element analysis and record of technological innovation ensure the best results in the business.



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AMETEK[®]
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