

# Vanta<sup>™</sup> Handheld XRF Analyzer

Rugged. Revolutionary. Productive.



## Durability for Maximum Uptime and Profitability



As the price of recycled metals fluctuates, identifying alloy grades quickly and easily is essential for profitability. Vanta™ handheld XRF analyzers for scrap sorting provide reliable identification in seconds for most alloys and pure metals.

Scrap yards can be tough places for electronic equipment, but Vanta analyzers are up to the challenge. Vanta C and L Series handheld XRF devices are IP55\* rated to withstand rain, dirt, and dust and are drop tested to US Department of Defense standards (MIL-STD-810G) to help prevent breakages and maximize uptime in the toughest testing environments. Vanta models with a silicon drift detector have a detector shutter to help prevent damage, so users can analyze shavings and wires with confidence.

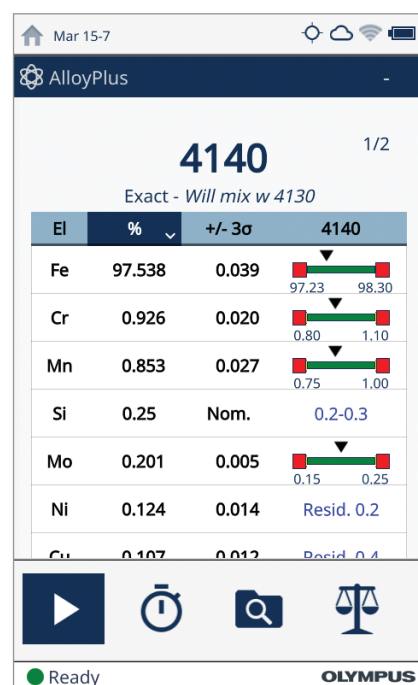
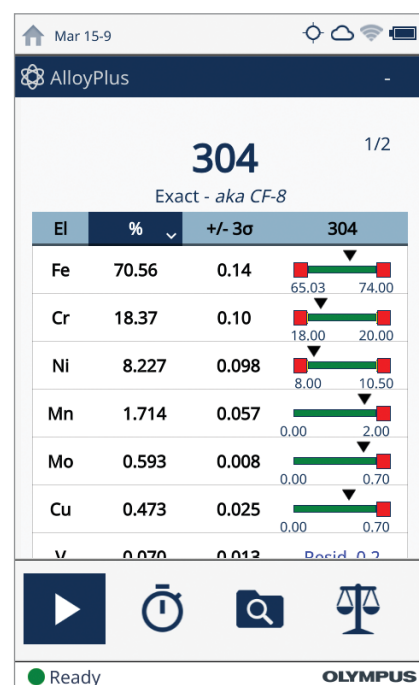
Every Vanta™ analyzer for scrap sorting has software features designed to improve return on investment and help scrap yard owners ensure consistent data capture across their device fleet. With innovative Axon Technology™, you get the right answer fast, no matter the working conditions. Each device comes configured with a standard package of 25 or more elements and accurately identifies alloy chemistry and grade ID in seconds.

Fleet management is easy with Vanta analyzers. Managers can create unique username and password sign-ins for each user. The user interface is customizable so multi-yard and multi-user sorting operations can set up their devices to their specifications and push custom device setups to their entire analyzer fleet. Software features, such as SmartSort and Grade Match Messaging, enable both new hires and experienced professionals to take the shortest path to the correct analysis.

The Vanta analyzer's optimized XRF geometry and Axon Technology enable the lowest limits of detection (LODs) we ever thought possible in a handheld device for the ultimate in light element detection. Analyze a range of alloys with confidence including:

- Non-ferrous alloys: Fast analysis of stainless steels, Ni superalloys, and other alloy materials. Sort heavy alloys based on low levels of Si and Al content.
- Low-alloy steels: Verify residual content in steels and confirm Si, S, P, and Mn.
- Aluminum and light alloys: Confidently measure Mg to assess and sort aluminum alloys.
- Copper: Separate brasses, bronzes, leaded alloys, and aluminum- and silicon-containing alloys in seconds.
- Precious metals: With optional calibration packages, Vanta analyzers provide both nondestructive chemistry analysis and karat determination. Gold, silver, and platinum content can be verified confidently.
- Car catalysts: Olympus worked with industry experts to develop calibrations ideal for analyzing auto catalyst materials for precious metal content including Pd, Pt, and Rh.
- Electronics: With an optional precious metals calibration, sort electronic components with precious metal content (Ag, Au, Pd, etc). Separate and identify poisons and Pb-containing solders. Evaluate copper content in shredded materials.
- Glass: Quickly sort Pb-containing glass and glass-ceramic from recycling streams and detect toxic elements.





## Software Features That Deliver Fast ROI

Vanta™ analyzers for scrap sorting have innovative software features that enable operators to be more effective and efficient. Testing times that once took 5 to 10 seconds with other handheld XRF devices now take just 1 to 2 seconds with even greater accuracy and precision. The new user interface is intuitive and customizable so that operators can begin using the device with minimal training.

### SmartSort

With SmartSort, Vanta analyzers provide aluminum grade results in as little as 1 second. SmartSort automatically lengthens or shortens test times based on material to save time while providing the best possible match. SmartSort knows when to extend testing to find aluminum in red metals or nickel grades so you won't overpay for the wrong grade of alloy. SmartSort enables both new and experienced employees to easily get the right answer fast.

### Grade Match Messaging

Optimize Vanta analyzers to your operation by using the Grade Match Messaging feature to provide instructions to a user when they encounter a specific metal grade or alloy. Grade Match Messaging increases efficiency and throughput while reducing user training. Real-time or pop-up messages containing a familiar trade or grade name or special handling instructions streamline the sorting process by minimizing user decision-making. These messages make it easy for operators to use the analyzer with little training, putting the knowledge of your most experienced person to work for everyone.

## Nominal Value

The nominal value feature automatically identifies the likely presence of elements invisible to XRF based on grade specifications. In just a second, get a warning that a bronze is an 'aluminum bronze' or that a copper is a 'beryllium copper' so that it can be properly separated.

## Residual Value

The presence of contaminant/residual elements in recycled metals can compromise its value and/or downstream processing requirements. The high resolution and count rate of Vanta analyzers bring even very low levels of residuals, or tramp, elements into measurement range. The Vanta handheld XRF for scrap sorting comes loaded with a residual (tramp) library based on industry standards that enables the operator to set a maximum tolerated concentration for residual elements in grade families. Vanta analyzers flag trace level contaminants without compromising or delaying fast, accurate, and conclusive grade matches.

## On-Screen Grade Comparison

Leave your alloy grade book in the office. With on-screen grade comparison, users can compare close grades side-by-side on their Vanta analyzer to know which one is the best match and why.

# Durable and Reliable for Any Job in Any Environment

## Rugged

Scrap yards can be tough on electronic devices, often causing breakdowns that cost time and money. Vanta™ analyzers are durable for increased uptime and a low cost of ownership. Vanta analyzers are designed to withstand 4-foot (1.22 meter) drops to MIL-STD-810G standards and are IP55 rated\* for dust and water resistance in harsh conditions. Able to withstand a temperature range of -10 °C to 50 °C (14 °F to 122 °F), Vanta analyzers ensure you maximize uptime without wasting time waiting for your analyzer to cool, even in hot environments.\*\*

## Revolutionary

Every circuit, contour, and interface of Vanta handhelds is engineered to be the best of its kind. Vanta analyzers incorporate Olympus' Axon Technology™, a breakthrough in XRF signal processing that delivers accurate and repeatable test results. Axon Technology uses ultra-low-noise electronics enabling higher X-ray counts per second and faster results. Coupled with a quad-core processor, Axon Technology makes Vanta analyzers remarkably responsive, pushing the limits of performance so you get the best results in the least amount of time. Axon Technology provides both test-to-test and instrument-to-instrument repeatability. Whether it's your first test on your first analyzer or your thousandth test with your hundredth analyzer, the Vanta handheld XRF gives you the same result every time.

## Productive

Vanta analyzers maximize user throughput and make data archiving easy. Application-specific software features improve user productivity for a fast return on investment.

- A new, intuitive interface enables the user to quickly navigate the device's settings and software functions.
- The UI can be configured based on a customer's specific needs. Users can customize which software features and functions are displayed on the main screen.
- Data are easily exported to a PC, USB flash drive, or the cloud using wireless LAN or Bluetooth®.
- Vanta analyzers feature a clear, bright LCD touch screen that is readable in any light.
- Ergonomic buttons and an industrial-grade, push-button joystick enable users to easily navigate the system with gloved hands.
- Vanta devices are available with an integrated camera and a small spot collimator for detailed analysis of small pieces.
- Olympus' Vanta handheld XRF offers embedded GPS so users can pair results with precise GPS coordinates to document and map the location of elements. With the optional 5-megapixel panoramic camera, combine images with XRF data and GPS coordinates for inclusive archiving and streamlined reporting, which provides unmatched data traceability to the field.

# Vanta™ Analyzers for Scrap Sorting

No matter the model, the rugged, fast, and reliable Vanta™ analyzer features Olympus Axon Technology™ and is rated to pass a 4-foot drop test. C and L Series models are IP55 rated, and the Vanta Element and M Series models are IP54 rated.



## C Series

The C Series combine value with superior speed, limits of detection (LODs), and elemental range. Each C Series analyzer is equipped with a silicon drift detector and your choice of a 40 kV X-ray tube with a rhodium (Rh) or tungsten (W) anode, or a 50 kV X-ray tube with a silver anode.

## L Series

Get the ruggedness, ease of use, and data management features of Vanta analyzers in a cost-effective PIN instrument. The L Series is designed for maximum uptime and a lower cost of ownership for reliability in the field.



## Vanta Element

Featuring advanced Axon Technology™ processing, the rugged Vanta Element handheld analyzer is an affordable alloy ID solution, providing material and grade identification and alloy comparison in seconds. Leverage its connectivity options to streamline your quality control process.

## Olympus

Olympus is a leader in XRF technology with a reputation for quality and accuracy. We are committed to providing the best technical support and after-sales service for our products, applications, training, and technologies through our global network of sales and service teams.

[www.olympus-ims.com](http://www.olympus-ims.com)

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**OLYMPUS SCIENTIFIC SOLUTIONS AMERICAS**  
is certified to **ISO 9001, ISO 14001, and OHSAS 18001.**

\*M Series and Vanta Element analyzers are IP54 rated.

\*\* With optional fan. Operates continuously at 33 °C without the fan.

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