OLYMPUS®

Your Vision, Our Future

VANTA

Rugged. Revolutionary. Productive.

Built Tough for Maximum Uptime

You asked for a more rugged Positive Material Identification (PMI) analyzer. Olympus has responded by redefining what toughness means in portable XRF with our Vanta™ series of analyzers.

PMI is important for industrial plant operators and component suppliers. Alloy mix-ups can result in component failure, leading to plant downtime or even loss of life. Handheld XRF has become an essential tool to help prevent such failures through nondestructive alloy identification and is viewed by OSHA as a Recognized and Generally Accepted Engineering Practice (RAGAEP). Vanta handheld XRF analyzers for PMI provide highly specific material chemistry to quickly and accurately identify pure metals and alloy grades. With Vanta analyzers, inspectors can quickly determine correct alloy installation in critical locations.

In modern industrial environments, Vanta™ analyzers are vital for:

- Complying with American Petroleum Institute (API) Recommended Practice (RP) 578 — Material Verification Program for New and Existing Alloy Piping Systems
- Detecting sulfidation corrosion susceptibility (API RP 939-C)
- Evaluating flow accelerated corrosion (FAC) susceptibility
- Discerning residual element corrosion susceptibility in hydrofluoric acid (HF) alkylation units

When inspection professionals need a reliable analytical tool to provide fast and accurate PMI data, they turn to Vanta analyzers. From piping, valves, welds, and components, to pressure vessels, Vanta analyzers provide anywhere, anytime testing with accurate and repeatable results.

Traceability and Rapid Reporting

Pulling the trigger and taking an analysis is only one part of a material verification program. Vanta™ handheld XRF has features such as two optional cameras, integrated GPS, and automatic time/date stamp that make it easy to customize, capture, and export comprehensive shot data for efficient record keeping and traceability. Vanta analyzers enable inspectors to create custom data label templates for each project, job, or vendor. Optional Wi-Fi and Bluetooth® connectivity make it easy to download results for archiving.

Weld Grade Library

The weld grade library is used alongside the standard inspection library for comprehensive PMI work enabling accurate identification of weld materials.

Residual/Tramp Elements

The Vanta handheld XRF for PMI comes loaded with a residual "tramp" element library based on industry standards that set maximum tolerated concentrations for residual elements in grade families. Vanta analyzers measure trace levels of contaminating elements, important for many applications such as RE corrosion in HF alkylation units, sulfidation corrosion, and FAC corrosion without compromising or delaying fast, accurate, and conclusive grade matches.

Essential for Material Verification

Per API, ASME, and AWS codes and recommended practices, Vanta analyzers are important tools in a material verification program for new and existing assets within a plant or refinery. From verifying incoming warehouse material to final confirmation at the point of installation, Vanta analyzers provide essential asset integrity information to help prevent catastrophic or unplanned maintenance events and increase asset life expectancy.

- Confirm the material of construction
- Verify material against mill certificates and material test reports
- Identify non-traceable or improperly marked material

Vanta analyzers are the ideal tools to verify the chemical composition and grade of welds. The optional 3 mm aiming camera enables an inspector to accurately analyze thin weld beads independent of base material as well as other conjoined metals, alloys, and small fixture components, such as wires and solders. An optional panoramic camera saves images along with the analysis results for archiving and reporting.

From simple alloy verification to precise chemistry, Vanta handheld XRF provides highly specific material chemistry to rapidly and accurately identify pure metals and alloy grades including:

- Stainless steels
- Chromium-molybdenum steels
- Nickel and nickel/cobalt alloys
- Low alloy steels
- Copper alloys
- Aluminum and wrought aluminum alloys
- Tool steels
- Zinc alloys
- Zirconium alloys
- Titanium alloys
- Cobalt alloys
- Magnesium alloys
- Exotic alloys

Durable and Reliable for Any Job in Any Environment

Rugged

Working conditions 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 handheld XRF analyzers are IP 65* rated to withstand rain, dirt, and dust, and are drop tested to U.S. Department of Defense standards (MIL-STD-810G) to help prevent breakages and costly repairs. The detector shutter on silicon drift detector models helps prevent punctures so you can analyze rough surfaces with confidence.

Able to withstand a temperature range of -10 °C to 50 °C (14 °F to 122 °F), Vanta analyzers ensure you get 100% testing time without wasting time waiting for it to cool, even in hot environments.** The devices are engineered for in-service inspection of high-temperature systems and hot sample surfaces up to 425 °C (800 °F). Their ruggedness and durability make Vanta analyzers resistant to damage for maximum productivity and uptime with minimal cost of ownership.

Revolutionary

Every circuit, contour, and interface of Vanta handhelds is engineered to be the best of its kind. Vanta analyzers incorporate Olympus' new Axon™ technology, a breakthrough in XRF signal processing that delivers accurate and repeatable test data and ensures inspectors get alloy chemistry and grade ID in 1–2 seconds for typical plant and refinery applications. Axon uses ultra-low-noise electronics that facilitate higher X-ray counts per second and faster results. Coupled with a new quad-core processor, Axon 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 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.

Vanta analyzers accurately and repeatably detect and quantify:

- Residual Elements (RE) in low alloy and carbon steels
- Trace silicon (Si) in carbon steel per API RP 939-C
- Sulfur (S) and phosphorus (P) for in-service stainless steels

Productive

Vanta analyzers for PMI include innovative software features that enable inspectors to make accurate inspections with minimal training. 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 friendly, modern user interface is intuitive and customizable so that operators can begin using the device with minimal training.

Vanta analyzers maximize user throughput and make data archiving easy.

- 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 via a USB flash drive, Wi-Fi, or Bluetooth®. Vanta analyzers are designed to enable powerful cloud applications.
- Vanta analyzers feature a clear, bright LCD touch screen that is readable in any light.
- Unique username and password login for each user.
- Balanced analyzer body and form factor for comfortable daily and extended use.
- Ergonomic buttons and an industrial-grade, push-button joystick enable users to easily navigate the system with gloved hands.


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The Vanta Series

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, and is rated to IP 65.*

M Series

Our most powerful Vanta analyzers feature exceptional performance to handle the most demanding applications. Each M Series analyzer comes equipped a large-area silicon drift detector, your choice of either a tungsten (W) or rhodium (Rh) anode, and a 50 kV X-ray tube.

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 Rh or W anode 40 kV X-ray tube, or a silver (Ag) anode at 50 kV X-ray tube.

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.

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

*M Series analyzers are IP 64 rated
** With optional fan. The fan assembly is IP 54 rated. Operates continuously at 33 °C without the fan.
All specifications are subject to change without notice.

www.olympus-ims.com

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