

## In-Line Automated Material Verification

Cost-Effective, Customized XRF Systems



**EVIDENT**

## Automation in the Manufacturing Industry

The demand for automation solutions in manufacturing is growing at a rapid rate as the industry strives to keep pace with increasing quality and productivity requirements while reducing costs. Automation helps optimize the manufacturing process for Industry 4.0, providing higher reproducibility, alleviating dependency on operator skill, and improving data traceability. Implementing robots and other integrated systems raises automation solutions to another level, offering increased flexibility and high precision.

## Custom, Turnkey Solutions for the Production Line

As the manufacturing industry continues its efforts to build stronger yet lighter products, material verification processes have become even more critical. Based on more than 20 years of experience and with installations worldwide, Evident has the expertise, knowledge, and resources to deliver on-time solutions that meet or exceed expected specifications and performances, no matter the challenge.

Integrating our leading-edge X-ray fluorescence (XRF) technology, our material verification solutions provide nondestructive elemental analysis of a wide variety of materials and components. Whether you need to identify raw materials coming into your facility or confirm the product leaving your facility, Evident has the technology and team to deliver a turnkey material verification solution tailored to your manufacturing needs.



## Accuracy You Can Count On

Our turnkey material verification solutions integrate the Vanta™ iX in-line XRF analyzer, an award-winning system that automates material analysis and alloy identification on the manufacturing line. Designed to operate 24/7, the system delivers instant results for real-time process monitoring and 100% inspection.

- **Adaptable:** configured to deliver pass/fail results, accurate grade ID, and material chemistry
- **High resolution:** ID a range of alloy grades—including light and heavy elements
- **Fast, accurate results:** system provides high throughput, stability, and count rate
- **Efficient:** features a silicon drift detector (SDD) and the proven Axon Technology™ found in every Vanta analyzer for reliable, repeatable results



Example of the Vanta iX material verification system testing a fabricated metal pipe on a cross transfer table.

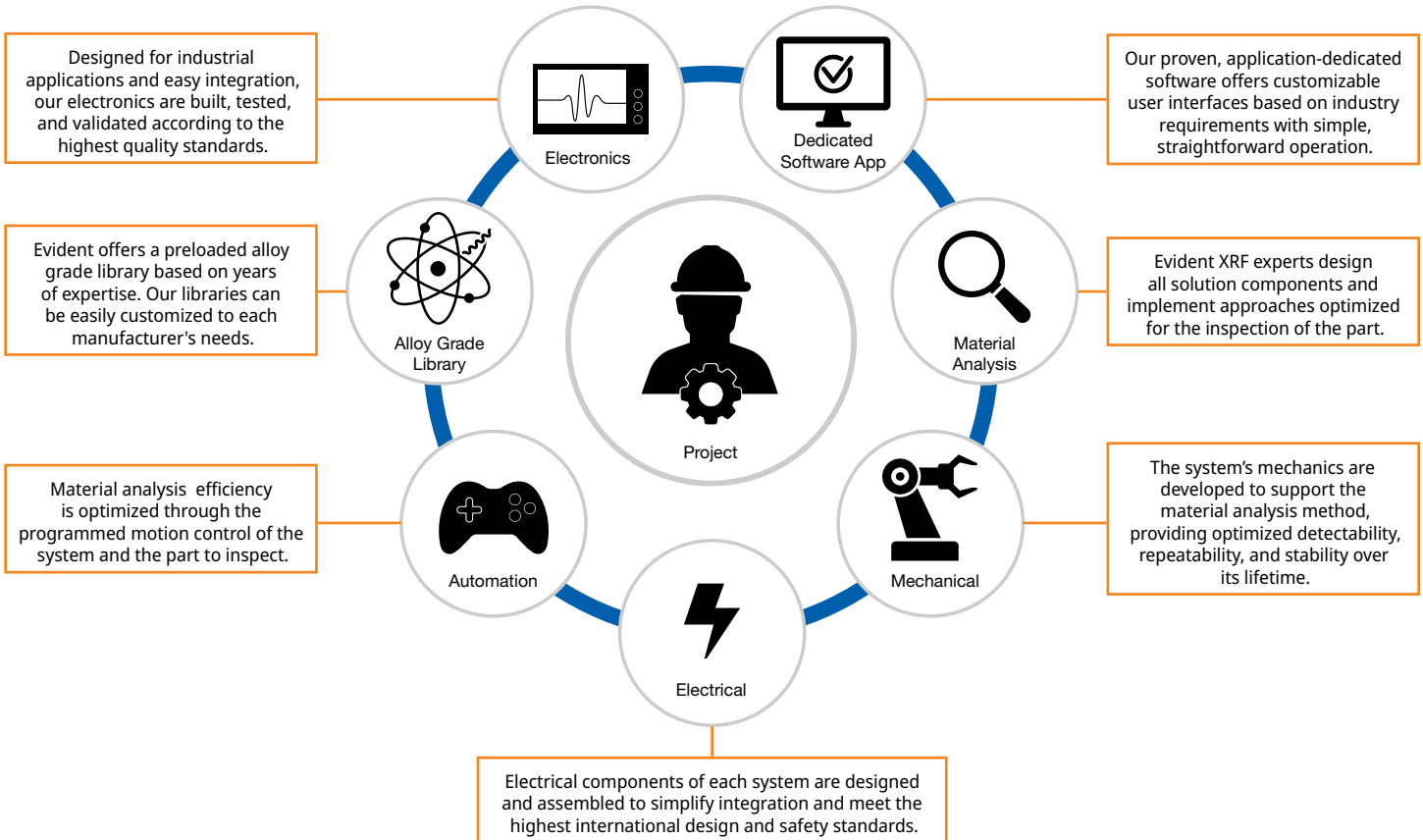
## Material Verification at the Speed of Production

Metal fabrication requires 24/7 process control to verify that products are being manufactured using the correct alloy to avoid costly material mix-ups. Don't settle for solutions that only measure the hardness of the surface or only verify some of the materials in a batch. Our Vanta iX system keeps your process up to speed, delivering 100% material verification and lot/heat control for bar, billet, tube, and rod manufacturing, as well as machined parts and customized components. Testing is done in-line without stopping production to meet the fast-paced demands of today's manufacturing environment. Automating your testing with Vanta iX technology adds value to your finished product since you can demonstrate that materials are 100% tested and verified. The result is greater confidence in your products.

AlloyPlus				Notes	Spectrum	Image
SS 316 15-7 Mo						
<b>SS 316</b>				1/2		
Exact						
<b>PASS: SS 316</b>						
El	%	+/- 2σ	SS 316			
Fe	68.51	0.41				
Cr	16.65	0.28				
Ni	10.24	0.31				
Mo	2.109	0.048				
Mn	1.94	0.19				
Cu	0.465	0.082				
V	0.083	0.042	Resid. 0.2			

# Equipment and Integration Expertise Under One Roof

We coordinate every step of the project in collaboration with our customer, from planning and definition to on-site integration and production start-up.



Scan the QR code to watch a video about our inspection systems and solutions. To start a discussion about your inspection needs, reach out your local sales representative or visit us online at [EvidentScientific.com](https://www.evidentscientific.com).

