

The Vanta Element[™] vs. the Vanta Element-S Analyzer

Comparing Affordable Handheld XRF

The Vanta Element[™] handheld XRF analyzer series brings the essential features the Vanta[™] series is known for in two cost-effective models. Both analyzers offer our proven Axon Technology[™] for speed and reliability, connect to the Olympus Scientific Cloud[™] with optional wireless connectivity, and perform in challenging environments with rugged features:

- IP54 rated for protection against dust and moisture
- Drop tested (MIL-STD-810G) to protect against falls and reduce the need for repairs
- Stainless-steel faceplate for wear protection
- Rated for continuous testing from -10 °C to 45 °C (14 °F to 113 °F)

While both analyzers are up to the task of all-day testing for alloy and metal analysis, the models have several key differences that set them apart.



Vanta Element Model

Use: Affordable alloy ID

Best for:
Fast, basic analysis of alloys

Window: Thick Kapton[®] window helps protect the analyzer

Detector: PIN detector delivers cost-effective analysis

Excitation source:
2-watt X-ray tube with 35 kV tungsten (W) anode

Speed: Fast



Vanta Element-S Model

Use: Affordable alloy ID, including light element detection

Best for:

- Alloys, including magnesium (Mg), aluminum (Al), silicon (Si), sulfur (S), and phosphorus (P)
- Distinguishing similar alloy grades like 303 stainless steel from 304, and aluminum 6061 or 6063 from 1100

Window: Prolene[®] window with thick Kapton mesh support allows light element X-rays to pass through while protecting the analyzer

Detector: Silicon drift detector (SDD) provides outstanding speed and precision

Excitation source:
4-watt X-ray tube with 50 kV silver (Ag) anode improves the light element excitation

Speed: Faster