

# Vanta analyzers

Rugged. Revolutionary. Productive.

Olympus is a leader in XRF technology with a reputation for durability, quality, and accuracy. Vanta™ handheld XRF analyzers incorporate Olympus' Axon™ technology to deliver higher X-ray counts per second and fast calculations to identify alloy grades in as little as 1–2 seconds in even the most challenging environments

The Vanta model **VCA** is capable of measuring elements from concentrations as low as several parts per million (ppm) all the way up to 100%.

The limits of detection (LODs) reported here are based on automatically selected beam conditions (kV, μA, and filter settings) and a measurement time of 60 seconds per beam.

- The LODs represent the calculated value using a three sigma 99.7% confidence level. The LOD for each element is a function of the testing time.
- Several certified standards were used for each base material.
- The iron (Fe) category contains both low alloy steels and stainless steels.
- Actual working samples may contain interfering elements, so the actual working LODs for some 'real-world' samples may be higher than those presented here.
- The commonly accepted level for the limit of quantification (LOQ), or ability to quantify the concentration of an element, is 10 times the statistical noise.
- Only commonly occurring elements in each base material are listed. Vanta analyzers are capable of measuring many other elements.
- Chlorine, arsenic, and bromine LODs are not provided for alloy bases since they are commonly found not in those materials.

Alloy bases	
Element	Brass (Cu/Zn)
Cr	60
Hg	80
Pb	10
Cd	10
Sb	14
Element	Solder
Cr	110
Hg	30
Pb	15
Cd	50
Sb	65
Element	Steel
Hg	25
Pb	35
Cd	25
Sb	40

Polymer bases	
Element	PE
Cl	0.05%
Cr	4
Hg	2
As	2
Br	2
Pb	2
Cd	3
Sb	2
Element	PVC
Cr	20
Hg	3
As	3
Br	2
Pb	3
Cd	3
Sb	2