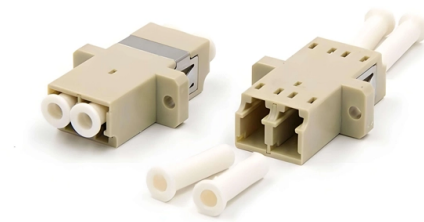


Elemental Composition Spectrometer for Angle Steel



Article Overview

Optical Emission Spectrometers (OES) are the preferred instruments for precise elemental analysis of angle steel, offering rapid, accurate, and comprehensive detection of multiple elements.

Overview of Suitable Spectrometers

For angle steel, Optical Emission Spectroscopy (OES) is widely used to determine elemental composition. OES works by applying an electrical charge to the steel, creating a plasma that emits light at characteristic wavelengths for each element. This allows precise quantification of elements such as Carbon, Nitrogen, Oxygen, Sulphur, Phosphorus, Manganese, Silicon, Chromium, Nickel, Molybdenum, Vanadium, Copper, and rare-earth elements like Cerium for corrosion resistance and microstructure refinement .

Key Features for Angle Steel Analysis

- **High Accuracy and Speed:** Modern OES spectrometers provide rapid results, essential for production environments where throughput and real-time decision-making are critical .
- **Elemental Range:** Capable of analyzing up to 25 elements in ferrous alloys, including trace elements at ultra-low levels such as Boron, Arsenic, and Phosphorus .
- **Adaptability:** Mobile and compact spectrometers, such as the Metavision-MX series or PG Spark OES, allow on-site testing of large or irregularly shaped angle steel com...

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Metal Analysis by Optical Emission Spectroscopy – IspatGuru

Fig 1 Emission spectrum for iron and lithium Optical emission spectroscopy also known as optical emission

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Elemental Analysis of Steel, Iron Ore and Cast Iron

ELTRA GmbH has over 40 years of experience in the construction of elemental analyzers for the determination of the carbon, sulfur,

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Technologies for the Steel Industry

The Thermo Scientific ARL X900 spectrometer is a robust WDXRF analyzer with XRD capabilities

Contact Us

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