

The Epitome of PERFORMANCE



VAS
SPECTROMETERS

PLATINUM Z SERIES METAL ANALYZER

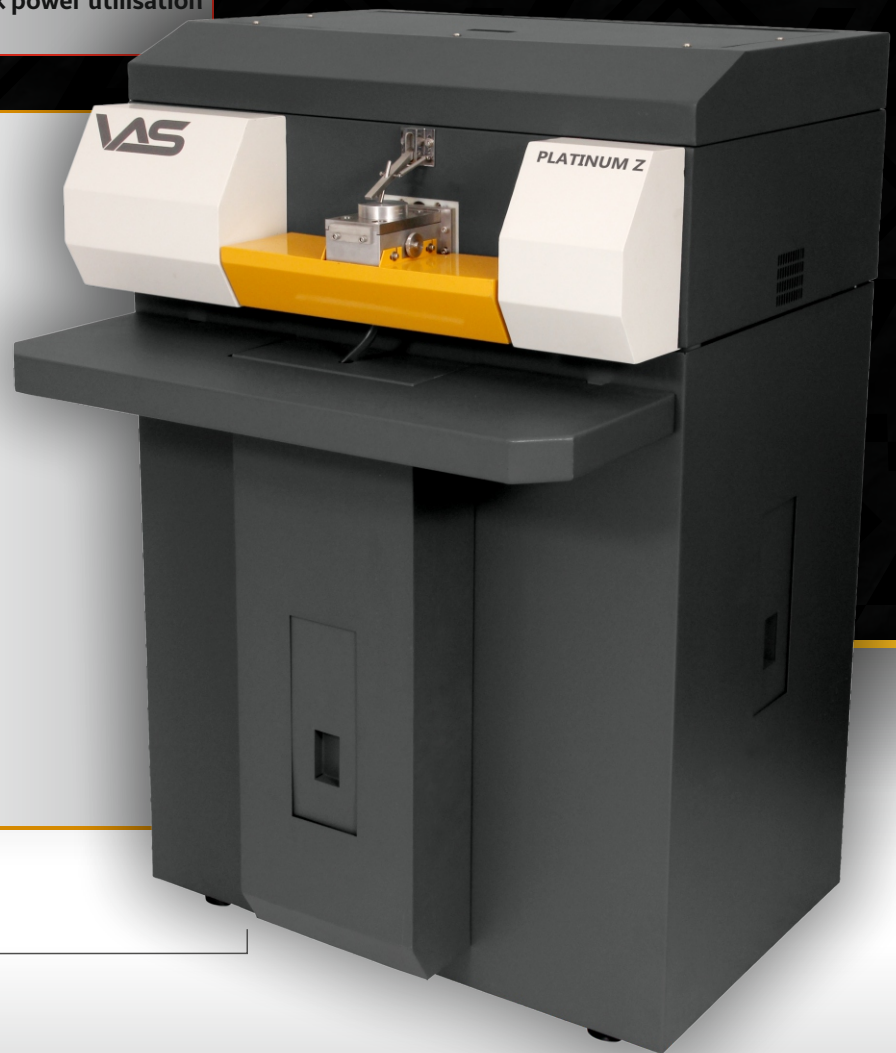
INTRODUCING
NEW PLATINUM
Z SERIES

Upgrades in Z SERIES

- Refined Calibration for improved accuracy
- Hassle-free, simplified standardization technique
- State of the Art Digital Spark Source
- Realtime Spectral Analysis and Correction Algorithm
- Optimized Argon Consumption for higher throughput
- Improved Spark chamber Design for Improved Precision
- Channelized Argon Jet Flow for better Spark power utilisation

**REINFORCED
WITH ADVANCE
FEATURES**

- Upto 32+ elements in each alloy program as per alloy chemistry
- Overall 56+ elements in all bases including N2 and O2 elements
- Standard 12+1 CCDs can be extended upto 32 CCDs truly customizable...
- Analysis down upto 10PPM and in some cases can go upto 1PPM
- V-MAP current controlled source
- Unique highly advanced optics
- Dependable results
- Extremely accurate & super stable
- Quick start-up technology



PLATINUM Z +

N2 Analysis Available

PLATINUM Z

www.spectrometers.in
www.vasbharat.net
www.vas-spectrometers.com



PLATINUM SERIES
Metal Analyzer

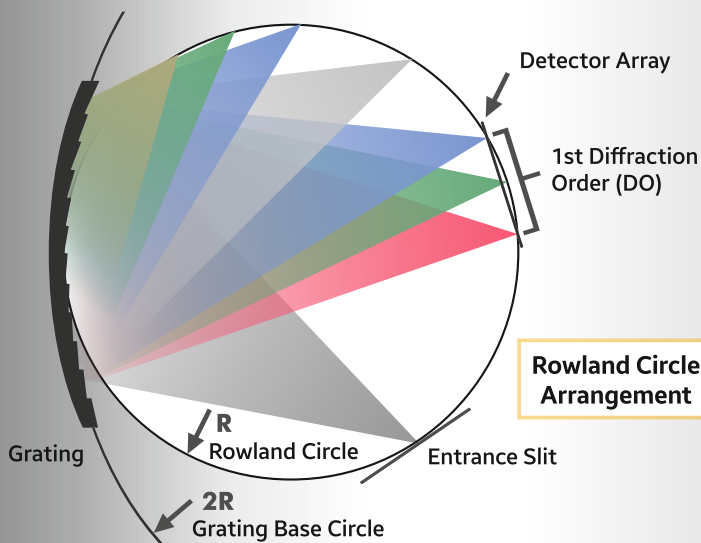
The PLATINUM Series

- The PLATINUM Series is born out of our desire to have an ultimate spectrometer capable of extreme accuracy, extreme detection limits, extreme analytical performance, extreme dependability and achieve what no other Indian spectrometer has ever achieved, EXCELLENCE.
- Designed using knowledge and expertise spread over 15 years by pioneering spectrometer designers in India, the PLATINUM Series is a no-holds-barred instrument achieving the zenith of performance, dependability, adaptability and flexibility.

The Epitome of Analytical Performance

- The PLATINUM Series is a truly customizable instrument, capable of delivering excellent performance for the most demanding metals analysis needs.
- The optical configuration can be customized depending on the required resolution and detection limits for the elements to be analyzed.
- The focal length of the optics, groove density of the diffraction grating, wavelength range and no. of CCDs are selectable which allows for accurately achieving analytical requirements for specific applications.

The Heart of PLATINUM Series Spectrometer (The Optics)



The optics is built around a rowland circle arrangement and is designed such that the optics forms the optical spectrometer itself. The CCDs are placed in a brick-like configuration allowing seamless wavelength range coverage.

The optics employed is a flexible design in which different resolutions can be achieved depending on complexity of the application.

The focal length can be 300/400/500mm as per the Variant/Model selection.

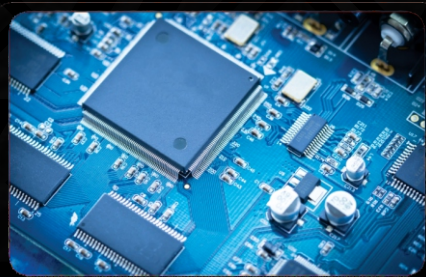
The Groove density of the grating can be selected from 2400 grooves/mm to 3600 grooves/mm.

The total no of CCDs is selectable from 8 to 32

CCDs depending upon the elements to be analyzed which in turn dictates the wavelength range and resolution required.

The optical system is closely temperature controlled for better short term and long term stability..

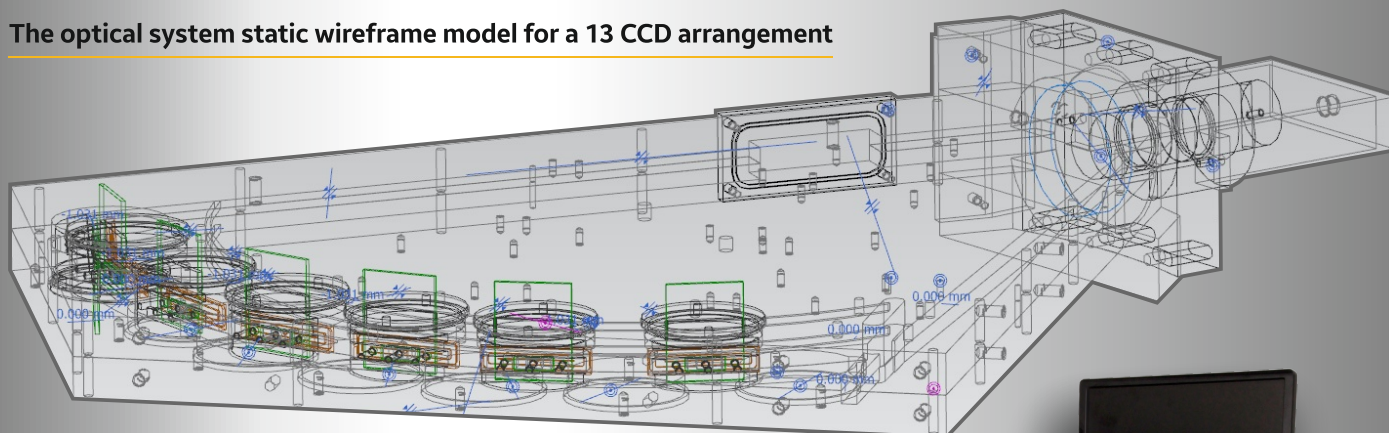
Superior Spark Source



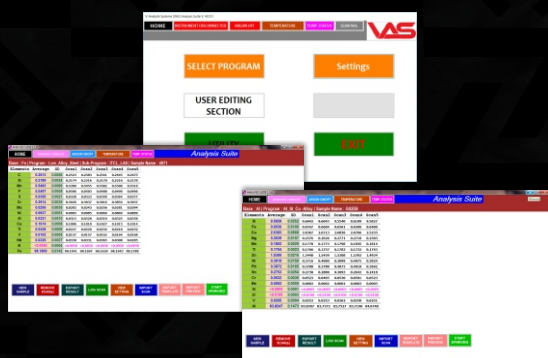
V-MAP current controlled source with true real time 100KHz linear regulated power source.

- The PLATINUM Series is equipped with a unique and revolutionary spark plasma source.
- The spark circuitry is powered by a V-MAP current controlled source design which besides employing a cutting edge active, true real time linear regulated power, also provides the flexibility of source parameter optimizations for different elements.
- This enables the spark source to operate over a wide input voltage range without compromising on reliability and stability.
- The spark source has a built-in high voltage protection as an added feature.
- Moreover the high power circuitry is carefully over-designed providing extra headroom for operations. This helps in preventing failure due to un-anticipated power fluctuations commonly found in India.

The optical system static wireframe model for a 13 CCD arrangement



Super-Intuitive Software Design



4th Generation Analysis Suite Software

- The Platinum Series analysis software called 'Analysis Suite 4' is arguably the most user-friendly software ever designed for an optical emission spectrometer.
- Now in its 4th generation, the software is the result of our expansive knowledge of user interface and user experience.
- The analysis software interface is 'control panel-like' which enables a layman to operate the machine with minimal training. Very little computer literacy is required to operate the instrument.



PLATINUM SERIES
with Arc-Chamber



PLATINUM Z SERIES Metal Analyzer

Technical Specifications

Excitation Source

- V-MAP current controlled source with true 100KHz real-time regulation system
- Fully software controlled excitation source
- Multi-frequency spark source, up-to 1KHz
- High energy micro-melt for better precision (internally software controlled)
- High precision spark condensed spark source
- Analytical program parameter selected automatically by software
- Maintenance free

Software & Analysis

- Extremely user friendly operation
- Factory calibrated
- Automatic inter element interface corrections
- Single sample standardization for specific grade analysis – Grade Standardization
- Check Sample library for Primary / Secondary Standard
- User defined alloy library for various alloy range (check range) for non-technical operators
- Single click comparison for check sample and check range
- User friendly report generation
- Option to transfer data to Excel spreadsheet

Optical System

- Rowland circle arrangement
- Focal length: As per the Variant/Model selection
- Resolution: >3pm
- Wavelength range 126-800nm
- Temperature stabilized and sealed against dust and contamination
- High performance holographic diffraction grating

- High resolution CCD detector (upto 32 CCDs) array with 3694pixels each
- Profiling - automatic & real time, software controlled

Spark Source

- Specially designed C shaped sample plate to prevent warping and deformations over long periods of usage
- Argon flashed with automatic adjusted low flow in standby and analytical modes
- Tungsten electrode
- Mechanical quick-engage sample clamp - Flexible for large and small sample size
- Easily removable sample base for chamber cleaning and maintenance

Control & Data Processing

- Ethernet and USB connectivity
- Windows® based software, works with Win 7 and above
- Complete and accurate control of instrument through a high performance 32bit Atmel ATxMega based data acquisition system
- Work with standard desktop personal computer (connected externally)

Weight & Dimensions

- Instrument Weight 80kg approx. (without utility base)
- Instrument size 1000 x 700 x 380mm (W x Dx H)

Environmental Requirements

- Operating temperature 24 to 32°C
- Storage temperature -10 to 50°C

Environmental Requirements

- 230V AC, 50Hz (±5%)



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