SINTAVIA POWDER ANALYSIS

SINTAVIA

PARTICLE SIZE DISTRIBUTION (PSD)

Particle Size Distribution is a laser light scattering technique for determination of particle size distribution from a light scattering pattern using a wet dispersion module. The particle sizes range from 0.02um to 2000um, per ASTM B822.

EDS - CHEMICAL ANALYSIS & ELEMENTAL MAPPING

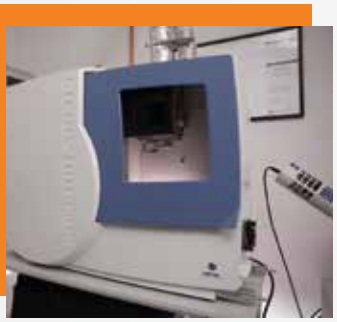
Scanning Electron Microscopy - EDS Semi Qualitative Chemical Analysis & Elemental Mapping.

TAP DENSITY / BULK DENSITY

Tap Density / Bulk Density is measured by using a graduated cylinder to determine the packed volume of the powder, followed by a series of automated taps to compress the sample per ASTM B527.

OXYGEN, HYDROGEN, NITROGEN GAS ANALYZER

Determination of the single elements O, H, N, plus combined solutions for analyzing ON, OH or OHN per ASTM E1019 (Steel), E1587 (Nickel), E1409 (Titanium), E1569 (Tantalum), E1447 (Titanium) plus ISO applicable standards.

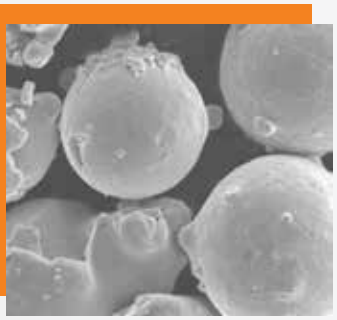


ICP / OES

Inductively Coupled Plasma (ICP) mass spectrometer determines chemical composition of powder using sub-ppm elemental analysis.

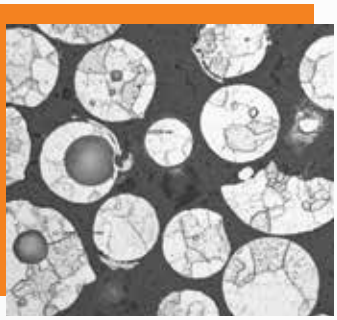
CARBON & SULFUR GAS ANALYZER

The carbon / sulfur analyzer with induction furnace for analyzing inorganic sample materials per ASTM E1019 (Steel, Iron, Nickel, Cobalt) and ASTM E1587 (Nickel) ASTM E1941 (Refractory Metals).



SEM – PARTICLE MORPHOLOGY

Scanning Electron Microscopy inspection for powder particle morphology.



POWDER POROSITY CROSS SECTIONAL ANALYSIS

Sintavia Procedure # WI-54.4, Internal Porosity Cross Sectional Analysis.

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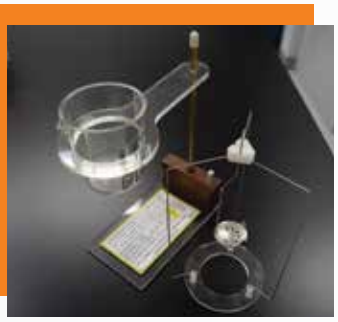
CARNEY FLOW TEST

The determination of a flow ratethrough the use of a Carney funnel of metal powders per ASTM B964.



SPECIFIC GRAVITY (DENSITY)

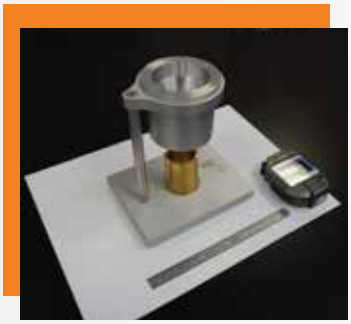
The determination of density (specific gravity) for powder metallurgy materials containing less than two percent porosity. This test method is based on the water displacement method per ASTM B311.

APPARENT DENSITY - HALL FLOW

The determination of the apparent density of free-flowing metal powders through the use of a Hall Flow Meter per ASTM B212.

APPARENT DENSITY - SCOTT VOLUMETER

The determination of the apparent density of metal powders and related compounds using a Scott Volumeter per ASTM B329.



HALL FLOW TEST

The determination of a flow rate through the use of a Hall Flow Meter funnel of metal powders per ASTM B213.

TRUE (SKELETAL) DENSITY

The determination of True (Skeletal) Density and Volume of metal powders by Helium pycnometer per ASTM B923.

SINTAVIA

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