Enhance Your Application With Better Particle Characterization Solutions
About Us

Founded in 1995, Bettersize is China’s No. 1 player in particle sizing business. In the most recent years, Bettersize has gained increasing significance at the global market, offering a wide variety of products from basic to advanced research equipment, delivering precise analysis of materials from nanometer to millimeter.

At Bettersize, our mission is to provide best-in-class instruments, comprehensive solutions and exceptional customer services. We are dedicated to assisting scientists, researchers and engineers around the world to understand material properties, facilitate research, improve production efficiency and beyond.

Bettersize instruments and services are trusted by tens of thousands of customers around the world - from fast-growing startups, to global enterprises, distinguished universities and leading research centers.

Bettersize is here to provide you the better particle characterization solutions, and beyond.

Key Figures

- **No.1** Market Share in China
- **15%** Revenue Invested in R&D
- **27+** Years in Business
- **36** Global Labs
- **89** Patents Holds
- **92** Countries Covered
- **95%** In-house Production for Strict Quality Control
- **15,000+** Organizations Using Bettersize’s Technology

Material Characterization Solutions for You

Bettersize offers a wide selection of instruments that are used in leading industrial and research laboratories for the analysis of particle size distribution, particle shape, zeta potential, and powder characteristics.

<table>
<thead>
<tr>
<th>Measuring Range*</th>
<th>0.1 nm</th>
<th>1 nm</th>
<th>10 nm</th>
<th>100 nm</th>
<th>1 μm</th>
<th>10 μm</th>
<th>100 μm</th>
<th>1 mm</th>
<th>3.5 mm</th>
<th>10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser Diffraction</td>
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<tr>
<td>Bettersizer S3 Plus</td>
<td>0.01 μm to 3500 μm</td>
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<tr>
<td>Bettersizer 2600</td>
<td>0.02 μm to 2600 μm</td>
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<tr>
<td>Bettersizer ST</td>
<td>0.1 μm to 1000 μm</td>
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<td>Dynamic Light Scattering</td>
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<tr>
<td>Bettersizer ST</td>
<td>0.1 μm to 1000 μm</td>
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<tr>
<td>Image Analysis</td>
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<tr>
<td>BeNano Series: 0.3 nm to 15 μm</td>
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<tr>
<td>BeVision Series: 1 μm to 10 mm</td>
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</tbody>
</table>

*The measuring range depends on the sample

Applications and Industries

Below are typical applications where our solutions have been successfully employed.

- Abrasives
- Agrochemicals
- Batteries & Fuel Cells
- Cement
- Ceramics
- Chemicals
- Coal
- Cosmetics
- Electronics
- Food & Beverages
- Life Sciences
- Mining & Minerals
- Oil & Petrochemicals
- Paints, Inks & Coatings
- Pharmaceuticals
- Plastics & Polymers
- Soils & Sediments
- Toners
- Universities & Academia
- 3D Printing

For more information about the applications and industries

Our Customers

Trusted by over 15,000 businesses of all sizes in 92 countries around the globe.

- Academia
- Mining & Minerals
- Pharmaceuticals
- Powders
- Chemicals
- Agrochemicals
- Ceramics
- Food & Beverages
BeNano Series

Be the Nanoparticle Expert You Need
Particle size, zeta potential and molecular weight are the important parameters to characterize nanoparticles, which can be measured rapidly and accurately by the BeNano series, the nanoparticle analyzer with most advanced technologies.

Features
- 671 nm solid-state laser with 50 mW output power
- APD (Avalanche Photodiode) detector providing exceptional sensitivity
- Automatic adjustment of laser intensity depending on the scattering ability of samples
- Intelligent algorithm of result evaluation that minimizes the interference of impurities within the samples

Benefits
- Measures nano-sized samples down to 0.3 nm across a wide concentration range up to 40% with the DLS backscattering (173°) detection technology
- A minimum sample volume of 3 μL that saves valuable samples with the capillary sizing cell
- Robust and consistent data even for samples with low electrophoretic mobility with the PALS (Phase Analysis Light Scattering) technology
- Performs tests under different temperatures rapidly and precisely with the programmable temperature control system

Measured Parameters
- Z-average size
- Polydispersity index (PDI)
- Size distributions weighted by intensity, volume, surface area and number
- Diffusion coefficient
- Zeta potential
- Zeta potential distribution
- Electrophoretic mobility
- Conductivity
- Molecular weight
- Second virial coefficient

Typical Applications
- Abrasives
- Food & Beverages
- Nanomaterials
- Pharmaceuticals
- Academia
- Household Chemicals
- Paints, Inks & Coatings
- Proteins & Polypeptides

Application Example
Characterizing a multifunctional nanocomposite to investigate its effect for tumor treatment.

Select the right BeNano for you

<table>
<thead>
<tr>
<th>Model</th>
<th>Measured Parameter</th>
<th>Adopted Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>BeNano 90</td>
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<td>✓</td>
</tr>
<tr>
<td>BeNano 180</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>BeNano 180 Pro</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BeNano Zeta</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BeNano 90 Zeta</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BeNano 180 Zeta</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BeNano 180 Zeta Pro</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

For more information about the BeNano...
The Bettersizer S3 Plus combines laser diffraction and dynamic image analysis in one instrument. It can measure the size and shape of particles from 0.01 \( \mu \text{m} \) to 3500 \( \mu \text{m} \). Its exceptional sensitivity for either ultrafine particles or oversized particles, and unsurpassed resolution, make it the most powerful size and shape analyzer for enthusiastic researchers who conduct top scientific research.

**Features**
- Combining laser diffraction and dynamic image analysis in one instrument
- Patented DLOI (Dual Lenses & Oblique Incidence) system
- Dual-camera imaging technology
- Refractive index measurement

**Benefits**
- Obtains size and shape results simultaneously
- Measures ultrafine particles down to 0.01 \( \mu \text{m} \) precisely by using the DLOI system
- Shows real-time particle images with the dual-camera imaging system
- Detects oversized particles up to 3500 \( \mu \text{m} \)
- Determines the refractive index of unknown samples and improves the reliability of measurement results

**Patented DLOI System**
- Measures ultrafine particles accurately with the large angular range (0.02 - 165°) with 96 detectors
- Robust optical system with superior resolution using the dual lenses design
- Single-laser system (532 nm) offers a continuous scattering spectrum with a consistent wavelength

**Dual-Camera Imaging System**
- Shows images of individual particle and offers authentic number-based distribution
- Suitable for samples with extremely wide size distributions, and identifies overly large particles up to 3500 \( \mu \text{m} \)
- Suitable for measuring heterogeneous samples with unknown optical properties

**Application Example**
Measuring the particle shape and size distribution of the soil sample returned from the Moon.

**Autosampler BT-A60**
- Up to 60 samples in one click
- Reduces labor cost
- Measurement automation
- Ensures higher productivity
- Accurate sample identification
- Identifies sample by scanning barcodes
- Efficient sample identification
- Prevents sample cross-contamination

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Bettersizer S3 Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring Range (Laser System)</td>
<td>0.01 – 3500 ( \mu \text{m} )</td>
</tr>
<tr>
<td>Measuring Range (Image System)</td>
<td>2 – 3500 ( \mu \text{m} )</td>
</tr>
<tr>
<td>Integrated CCD Camera</td>
<td>0.5x, 10x</td>
</tr>
<tr>
<td>Compliance</td>
<td>21 CFR Part 11, ISO 13320, USP &lt;429&gt;, CE</td>
</tr>
</tbody>
</table>

For more information about the Bettersizer S3 Plus
Better Particle Sizing for Every Need

Particle size can be measured by either wet or dry method, using the Bettersizer 2600. A variety of applications have been covered by this versatile, powerful analyzer with its modular design and patented technologies. Users can characterize materials from 0.02 μm to 2600 μm, easily and accurately.

Modular Design

The Bettersizer 2600 is equipped with versatile modules to meet specific measurement requirements, and thereby covers numerous industries and applications.

Dry Measurement

<table>
<thead>
<tr>
<th>Dispersion Module</th>
<th>BT-903</th>
<th>BT-902</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Automation</td>
<td>0.02 - 1 g</td>
<td>0.2 - 10 g</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Powders with only small volume</td>
<td>Powders</td>
</tr>
</tbody>
</table>

Wet Measurement

<table>
<thead>
<tr>
<th>Dispersion Module</th>
<th>BT-802</th>
<th>BT-80N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Automation</td>
<td>600 mL</td>
<td>80 mL</td>
</tr>
<tr>
<td>Fully automated</td>
<td>Semi-automated</td>
<td></td>
</tr>
<tr>
<td>Compatibility</td>
<td>Samples dispersed in aqueous solvents</td>
<td>Samples dispersed in organic solvents</td>
</tr>
<tr>
<td>Wet small volume</td>
<td>8 mL</td>
<td>Semi-automated</td>
</tr>
<tr>
<td></td>
<td>Samples with only small volume</td>
<td></td>
</tr>
</tbody>
</table>

Flexible and Easy Switch Between Modules

- The flexible switch between dry and wet measurements allows users to develop an optimal methodology for each sample.
- The modular switch can be done by one hand in the Bettersizer 2600, easily and quickly.

Features

- Wet and dry method of particle sizing
- Flexible and easy switch between different modules
- Combination technology of Fourier and Inverse Fourier optical design
- Wide detection angle from 0.016° to 165° with 92 detectors
- Refractive index measurement

Benefits

- Suitability for a wide variety of dispersing particle systems
- Measures ultrafine particles down to 0.02 μm with the Inverse Fourier design and the inclined sample cell design
- Outstanding sensitivity to sub-micron particles due to the increased signal-to-noise ratio using the classic Fourier design
- Superior resolution for polydisperse samples with the combined Fourier and Inverse Fourier setup

Application Example

Characterizing different samples by either wet or dry method.


Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Bettersizer 2600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>0.02 – 2600 μm (wet); 0.1 – 2600 μm (dry)</td>
</tr>
<tr>
<td>Wet Dispersion Medium</td>
<td>Water or Organic Solvents</td>
</tr>
<tr>
<td>Dry Dispersion Medium</td>
<td>Air/Nitrogen/Noble Gases</td>
</tr>
<tr>
<td>Compliance</td>
<td>21 CFR Part 11, ISO 13320, USP &lt;429&gt;, CE</td>
</tr>
</tbody>
</table>

For more information about the Bettersizer 2600
Bettersizer ST

Your One-Stop QC Tool

The Bettersizer ST is a fully automated and integrated particle size analyzer with a smart operation system by wet dispersing. Optimized for the industrial QC process, the Bettersizer ST provides stable and reliable testing results with minimum user intervention. The compact footprint saves valuable workspace for factories and laboratories.

Features

- **Dual lenses system** provides accurate test results on particle size
- **Automatic measurement with SOP** (Standard Operating Procedure) offers easy operation
- **Automatic alignment functionality** leads to good reproducibility
- **User-friendly software** offers the best measurement experience
- **Compact design** saves workspace

Benefits

- **Ease-of-Use**
- **Cost-Efficiency**
- **Robustness**
- **Low maintenance**

Application Example

With its great accuracy and repeatability, the Bettersizer ST is a perfect QC tool for various applications and industries.

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Bettersizer ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>0.1 – 1000 μm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 1%</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 1% variation</td>
</tr>
<tr>
<td>Compliance</td>
<td>21 CFR Part 11, ISO 13320, USP &lt;429&gt;, CE</td>
</tr>
</tbody>
</table>

Overview of Bettersizer Series

Select the right Bettersizer for you

<table>
<thead>
<tr>
<th>Model</th>
<th>Size Determination</th>
<th>Shape Determination</th>
<th>Innovative Design</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wet Method</td>
<td>Dry Method</td>
<td>0.5x CCD</td>
</tr>
<tr>
<td>Bettersizer ST</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bettersizer 2600</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bettersizer S3 Plus</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Typical Applications of the Bettersizer Series

- **Abrasives**
- **Battery & Energy**
- **Building Materials**
- **Ceramics**
- **Food & Beverages**
- **Mining & Minerals**
- **Paints, Inks & Coatings**
- **Pharmaceuticals**
- **Agrochemicals**
- **Household Chemicals**
- **3D Printing Materials**
- **Environmental Analysis**
On-line Particle Sizing Solution

Driven by Standard Operating Procedure (SOP) and integrated with different control platforms and protocols, the BT-Online series can provide real-time particle size monitoring and control for both wet and dry production lines 24/7. With the automatic alignment system, uninterruptible power supply (UPS), and abnormal pressure protection, the BT-Online series possesses strong environmental adaptability.

Features & Benefits
- Monitors multiple production lines with one analyzer at the same time
- Runs automatically without operator intervention, ensuring better and real-time quality monitoring
- Automatic control system leads to a much tighter tolerance limit by closing the loop
- Reduced energy consumption and increased sample throughput
- High return on investment

BT-Online1
Dry Dispersion On-line Particle Sizer
- Automatic sampling method
  Venturi negative-pressure sampling and dispersing
- Anti-static sampling pipeline
  Effectively avoids the sample agglomeration due to the buildup of the static electricity
- Multi-stage air filtration system
  Removes impurities, oil, and water to ensure the dryness and cleanliness of the compressed air

BT-Online2
Wet Dispersion On-line Particle Sizer
- Built-in circulation pump and ultrasonic dispersion unit
  Sufficient sample dispersion to ensure stable and reliable results
- Compatible with organic solvents
  Equipped with a waste filtration system to collect organic solvents for recycling, thereby reducing cost and eliminating pollution
- Superior sampling representation
  Continuous sampling of the flowing pipeline ensures representative sampling and accurate results

Application Example
Here is an example of monitoring a cement production line. The monitor window shows key parameters such as % > 45 μm, % > 80 μm and D50, tracking the size changes in real time. And whenever necessary, the PLC provides feedback control to the production equipment to optimize the manufacturing process.

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BT-Online1</th>
<th>BT-Online2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>0.1 – 1000 μm</td>
<td>0.02 – 2000 μm</td>
</tr>
<tr>
<td>Dispersion Medium</td>
<td>Dry</td>
<td>Wet</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 3%</td>
<td>± 0.5%</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 3% variation</td>
<td>≤ 0.5% variation</td>
</tr>
<tr>
<td>Compliance</td>
<td>21 CFR Part 11, ISO 13320, USP &lt;429&gt;, CE</td>
<td></td>
</tr>
</tbody>
</table>

For more information about the BT-Online series...
BeVision S1

Classic Image Analyzer for Particle Size and Shape

The BeVision S1 combines light microscopy and image analysis, providing intuitive, accurate size and shape distributions of either powder or suspensions. At an objective magnification of up to 100x, even particles as fine as 1 μm can be efficiently analyzed and recorded by the BeVision S1.

Features & Benefits

- For both dry and wet samples
  
  Dry powder or liquid samples can be dispersed well and analyzed

- Flexible light sources and wide applications
  
  The default transmittance light source suits most samples, and reflective or polarized light sources are optional to meet more complex needs

- Automatic identification of adhered particles
  
  The user can exclude the adhered particles from the statistics, or split them into separated particles and include them in the statistics

Typical Applications

- Metal Powders
- Pharmaceuticals
- Microfibers
- Pesticides
- Glass & Ceramics
- Abrasives (silicon carbide, diamond, etc.)

Application Example

Analyzing the size and shape of extruded pellets made up of MCC (microcrystalline cellulose) and water.


Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BeVision S1</th>
</tr>
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<tbody>
<tr>
<td>Size Range</td>
<td>1 – 3000 μm</td>
</tr>
<tr>
<td>Testing</td>
<td>Manual</td>
</tr>
<tr>
<td>Total Magnification</td>
<td>160x, 400x, 1600x, 4000x</td>
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<tr>
<td>CMOS Camera</td>
<td>12M Pixels</td>
</tr>
<tr>
<td>Compliance</td>
<td>ISO 13322-1: 2014</td>
</tr>
</tbody>
</table>

For more information about the BeVision S1

BeVision M1

Automated Particle Size and Shape Scanner

The BeVision M1 is an automated image scanning system, particularly suitable for the cleanliness analysis of particulates on filters. Equipped with a metallurgical microscope, programmable motorized stage, auto-focus function, and high-resolution CMOS, the BeVision M1 can capture and recognize each individual particle, automatically stitching the images to a large overview image.

Features & Benefits

- Automated test for both dry and wet samples
  
  Improves measurement efficiency and avoids operator subjectivity

- Automatic cleanliness analysis
  
  Enables the determination and classification of foreign particulates

- Intelligently identification of metal and fiber particles
  
  Identifies metal and fiber particles based on their morphological and optical characteristics

- Measurement of centimeter-sized particles
  
  With the image-stitching mode, even fibers or coarse particles crossing multiple images can be recorded and analyzed without losing any details

Typical Applications

- Automotive Electronics
- Abrasives
- Metal Powders
- Mining & Minerals (sand and gravel/ore powder, etc.)

Application Example

The BeVision M1 complies with ISO 16232, and it is extensively applied in the cleanliness analysis for parts and components used in the automotive and electronics industries. Here shows an example that counts the number of particles and fibers on a filter.

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BeVision M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>1 – 10000 μm</td>
</tr>
<tr>
<td>Testing</td>
<td>Automated</td>
</tr>
<tr>
<td>Total Magnification</td>
<td>160x, 200x, 400x, 800x</td>
</tr>
<tr>
<td>CMOS Camera</td>
<td>12M Pixels</td>
</tr>
<tr>
<td>Compliance</td>
<td>ISO 13322-1: 2014, ISO 16232: 2018</td>
</tr>
</tbody>
</table>

For more information about the BeVision M1
BeVision D2

Dynamic Image Analyzer for Dry Analysis

The BeVision D2 is a high-performance dynamic image particle size and shape analysis system, aiming at the comprehensive characterization of coarse particles and even millimeter-scale powder materials by dry dispersion. The high-speed CCD and multi-threaded software of the BeVision D2 allow rapid identification of more than 10000 particles per minute and obtain reproducible and accurate measurement results.

Features & Benefits

- **Real-time result display** during measurement with multi-threaded processing
- **High-speed CCD camera** - 120 FPS and micro-second exposure time, minimizing the trailing phenomenon of moving particles
- **Automatic identification of adhered particles** - Avoids the interference with authentic results
- **Efficient sampler** - Electromagnetic vibration feeding and gravity-driven dispersion, suitable for coarse particles
- **Simulation feature of sieving results**

Typical Applications

- Abrasives
- 3D Printing Materials
- Soils & Sediments
- Glass & Ceramics
- Chemicals & Catalysts
- Mining & Minerals (ores, coal, etc.)
- Food (grains, salt, sugar, etc.)
- Plastics & Resins (water-absorbing materials, etc.)

Application Example

Measuring the size of graphite ores by a research team of Tsinghua University.


Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BeVision D2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>30 – 10000 μm</td>
</tr>
<tr>
<td>Total Magnification</td>
<td>5x – 80x</td>
</tr>
<tr>
<td>CCD Camera</td>
<td>1.3M Pixels, 120 FPS</td>
</tr>
<tr>
<td>Compliance</td>
<td>ISO 13322-2: 2021</td>
</tr>
</tbody>
</table>

Overview of BeVision Series

Features & Benefits of BeVision Software

- **Diverse evaluation parameters**
  - Include 11 size parameters, 13 shape parameters, and single-particle images
- **Fully automated operation**
  - Automates the analysis including image processing, particle identification, particle analysis, particle information statistics
- **Identification of agglomerates**
  - Avoids the interference of the adhered particles or agglomerates with the results
- **Visualization of every single particle**
  - Helps users to determine whether an irregularly shaped particle is a genuine primary particle or an agglomerate
- **A wealth of result presentations**
  - Offers frequency graphs, cumulative graphs, histograms, scatter plots, distribution tables. And the graphs can be highly customized
- **Calibration functionality**
  - Accurate calibration of magnification and focus with the stage graticules to ensure the authenticity of results
- **Re-analysis functionality**
  - Allows users to re-analyze the saved single-particle gallery, and creates a new record independent of the original one
- **Compliance**
  - The representations of all measurement parameters comply with ISO 9276-6:2008

Select the right BeVision for you

<table>
<thead>
<tr>
<th>Model</th>
<th>Static Image Analysis</th>
<th>Dynamic Image Analysis</th>
<th>Wet Dispersion</th>
<th>Dry Dispersion</th>
<th>Cleanliness Analysis</th>
</tr>
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<tbody>
<tr>
<td>BeVision S1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>BeVision M1</td>
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<tr>
<td>BeVision D2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

For more information about the BeVision D2
The PowderPro A1 integrates many state-of-the-art technologies such as intelligent control via Wi-Fi, image processing technology, and 3D electromagnetic vibration technology. It can measure the physical properties of powders in a fast, simple, and accurate way. As an intelligent powder characteristics tester, it is an essential instrument to help you understand and research powder materials.

**Measured Parameters**
- Angle of Repose
- Sieve Size
- Angle of Fall
- Angle of Spatula
- Voidage
- Cohesion

**Calculated Parameters**
- Bulk Density
- Tapped Density
- Compressibility
- Uniformity
- Flowability
- Floodability

**Features & Benefits**
- **Compact design**
  Provides 14 parameters of powder characteristics in one instrument within a short time
- **Automated imaging technology**
  Capture images of the powder pile with the high-resolution CCD camera
- **Automated control technology**
  Ensures easy usage and fast operation. Accurate and reliable results can be obtained with SOPs
- **Multiple controls**
  Performs tests with a tablet, mobile phone, or computer with 21 CFR Part 11 feature
- **Intelligent data transmission**
  An electronic balance is connected with the instrument to transmit the weight data for analysis
- **Convenient data output**
  A mini-printer is available to print the measurement data timely
- **Available in a manual version**
  Cost-effective PowderPro M1 that performs the same analysis through a manual process

**Application Example**
Evaluating the difference in flowability between whole milk powder and skimmed milk powder of brand M.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Angle of Repose (°)</th>
<th>Angle of Spatula (°)</th>
<th>Compressibility (%)</th>
<th>Uniformity</th>
<th>Flowability Index</th>
<th>Flowability Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (Whole Milk Powder)</td>
<td>52.03</td>
<td>52.09</td>
<td>25.45</td>
<td>2.42</td>
<td>63</td>
<td>Normal</td>
</tr>
<tr>
<td>M (Skimmed Milk Powder)</td>
<td>38.90</td>
<td>36.46</td>
<td>12.28</td>
<td>2.42</td>
<td>78</td>
<td>Good</td>
</tr>
</tbody>
</table>

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>PowderPro A1</th>
<th>PowderPro M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Mode</td>
<td>Automatic</td>
<td>Manual</td>
</tr>
<tr>
<td>Measuring Angle</td>
<td>1 - 90° measured by CCD camera</td>
<td>1 - 90° measured by protractor</td>
</tr>
<tr>
<td>Drop Height</td>
<td>3 or 14 mm</td>
<td>3 or 14 mm</td>
</tr>
<tr>
<td>Tapping Speed</td>
<td>50 to 300 taps/min (user adjustable)</td>
<td>250 taps/min</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 3% variation</td>
<td>≤ 5% variation</td>
</tr>
</tbody>
</table>

For more information about the PowderPro A1...
BeDensi T1/T2/T3 Pro

Tapped Density Tester

The BeDensi T Pro series is a reliable tapped density tester that excels at intuitive operation while complying with the USP, EP, ASTM, and ISO standards. It can measure the bulk density and tapped density with less than 1% repeatability variation to help users to understand the flowability of a wide variety of powder materials.

Features & Benefits

- **Compliance** - Meets the USP, EP, ASTM, and ISO standards to provide reliable results
- **Up to 3 workstations** - Fulfills different needs and scales up the productivity
- **Ease of use**
  - Sets parameters easily with the keypad;
  - Replaces cylinders quickly with the lock holder;
  - One click to print detailed reports by the built-in thermal printer.

Characterizing two LiFePO₄ samples prepared with different grind times.

The tapped densities of two samples are determined, and the 10-cycle measurements show excellent repeatability (< 1%).

Application Example

**Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BeDensi T1 Pro</th>
<th>BeDensi T2 Pro</th>
<th>BeDensi T3 Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Workstations</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tapping Speed</td>
<td>100 to 300 taps/min (user adjustable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 1% variation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

More information about the BeDensi T Pro series.

BeDensi B1-S/B1/HFlow 1

Bulk Density and Metal Powder Flowability Tester

**BeDensi B1-S**

Bulk Density Tester (For Metal Powder)

The BeDensi B1-S bulk density tester uses Scott volumeter method to measure the bulk density of various metal powders and pharmaceutical powders. The manufacturing standard of BeDensi B1-S is in compliance with ISO 3923-2, ASTM B329, USP <616>, and EP 2.9.34.

BeDensi B1

Bulk Density Tester (Except Metal Powder)

The BeDensi B1 bulk density tester adopts the natural deposition method. Fully in compliance with GB/T16913.3-1997-Part III: Determination of bulk density.

**HFlow 1**

Flowability Tester (For Metal Powder)

The HFlow 1 tester evaluates the flow rate of metal powders and powder mixtures by allowing the sample to flow through a standard Hall Flowmeter funnel (2.5 mm orifice) or Carney funnel (5 mm orifice). The HFlow 1 is designed and manufactured based on the ISO 44900, ASTM B213, and ASTM B964.
Bettersizer 2000S

Real-Time Spray Particle Size Analyzer

The Bettersizer 2000S is designed for size analysis of spray droplets or aerosols ranging from 1 μm to 2000 μm. It enables users to optimize the nozzle design, determine the spray pressure and evaluate the spray effect. The Bettersizer 2000S, with the corrosion-resistant, water-proof, and dust-proof design, is an ideal spray analyzer to fulfill the requirements of various applications.

Features & Benefits

- **Classic Fourier design** with automatic alignment functionality
- **High-speed sampling system** with an open measuring zone
- **Low maintenance cost** using the lens-protective cover and stainless-steel housing
- **Adjustable width and height** to flexibly adapt to a variety of applications
- **Water-proof and dust-proof design** that is suitable for industrial sites with the harsh environment

Typical Applications

- Aerosols
- Nozzle Research
- Agrochemicals
- Drone Spraying

Application Example

Measuring spray droplets to evaluate the performance of a mist sprayer.

```
<table>
<thead>
<tr>
<th>Particle Size (μm)</th>
<th>Cumulative Distribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>0.2</td>
<td>1.0</td>
</tr>
<tr>
<td>0.3</td>
<td>1.5</td>
</tr>
<tr>
<td>0.4</td>
<td>2.0</td>
</tr>
<tr>
<td>0.5</td>
<td>2.5</td>
</tr>
<tr>
<td>0.6</td>
<td>3.0</td>
</tr>
<tr>
<td>0.7</td>
<td>3.5</td>
</tr>
<tr>
<td>0.8</td>
<td>4.0</td>
</tr>
<tr>
<td>0.9</td>
<td>4.5</td>
</tr>
<tr>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>1.1</td>
<td>5.5</td>
</tr>
<tr>
<td>1.2</td>
<td>6.0</td>
</tr>
<tr>
<td>1.3</td>
<td>6.5</td>
</tr>
<tr>
<td>1.4</td>
<td>7.0</td>
</tr>
<tr>
<td>1.5</td>
<td>7.5</td>
</tr>
<tr>
<td>1.6</td>
<td>8.0</td>
</tr>
<tr>
<td>1.7</td>
<td>8.5</td>
</tr>
<tr>
<td>1.8</td>
<td>9.0</td>
</tr>
<tr>
<td>1.9</td>
<td>9.5</td>
</tr>
<tr>
<td>2.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>
```

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Bettersizer 2000S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size Range</td>
<td>1 – 2000 μm</td>
</tr>
<tr>
<td>Minimum Duration of Single Test</td>
<td>≤ 10 seconds</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 3%</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤ 3% variation</td>
</tr>
</tbody>
</table>

Global Footprint

- 36 Local Support Centers & Labs
- HQ and R&D Center in China

Compliance

All series of Bettersize instruments are in compliance with ISO9001 and CE certification. The software complies with U.S. FDA 21 CFR Part 11, ensuring the validity and reliability of measurement results and meeting traceability requirements.

Certified Service and Support

We take great pride in our exceptional customer service, providing excellent application technical support and after-sales service throughout the product life cycle.

From product demonstration and installation, to regular product training and workshops, preventive maintenance programs, software and hardware upgrade, trade-in purchase program, to repair coverage and 24/7 emergency service, our certified service team have you covered.
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