



NEW

FLEXIBLE SOLUTIONS IN PARTICLE SIZE AND SHAPE ANALYSIS

THE NEW SYNC SERIES

SYNCHRONOUS MEASUREMENTS USING LASER DIFFRACTION AND DYNAMIC IMAGE ANALYSIS

The Microtrac SYNC Series offers the user unparalleled flexibility in particle size and shape characterization. From simple, manual sample dispersers to full autosampling capability the user can choose the size range, measuring technology and software capabilities to suit their unique analytical requirements and budget. Utilizing Microtrac's patented Synchronous measurement technique, users can take advantage of classic Laser Diffraction Analysis while simultaneously making a Dynamic Imaging Measurement of the same sample, in the same sample cell. Large material or small, wet or dry, Microtrac SYNC can offer a solution tailored to the user's needs.

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SYNC GO

PARTICLE SIZE MADE SIMPLE

For users with limited budget and straightforward applications, the **SYNC GO** provides the best cost/benefit ratio in the market.

The **SYNC GO** offers a measurement size range of 0.1 to 2,000 microns. The system uses three red solid-state laser diodes delivering a low cost of ownership through reduced maintenance requirements. The “plug-n-play” feature allows the user to choose between two sample delivery systems - the **FLOWSYNC GO** for wet measurements or the **TURBOSYNC** for dry measurements. Both are manually operated for simplicity.

If required, the **SYNC GO** can also be fitted with the Dynamic Imaging option to provide shape and morphological information about the sample under analysis.



- | 3 Red Lasers
- | Range 0.1 to 2000 microns
- | Manual Sample Dispersion



- | 3 Red Lasers
- | Range 0.02 to 4000 microns
- | Automatic Sample Dispersion

SYNC PLUS

PARTICLE SIZE AND SHAPE IN THE SAME OPTICAL BENCH

The **SYNC PLUS** utilizes Microtrac's patented tri-laser optical arrangement. Using three red solid-state lasers the **SYNC PLUS** measures materials between 0.02 and 4,000 microns when incorporating the Dynamic Image option. The **PLUS** version also measures in wet or dry mode but includes automated measuring with the standard **FLOWSYNC**. The user can configure the system for fill, flow, measure and rinse sequences reducing user interaction to the minimum. The Synchronous measurement technique provides valuable particle/sample data way beyond a simple Laser Diffraction measurement. Particle shape and morphology can be examined as well as dispersion efficiency in the sample delivery systems. Agglomerates or outlier particles are easily determined. This feature covers both wet and dry materials.

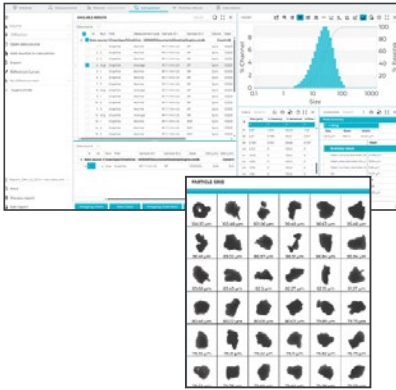
SYNC PRO

PRECISION MEASUREMENT IN THE SUB-MICRON RANGE

The **SYNC PRO** is the ultimate configuration for particle size and shape analysis. Using a multi-wavelength approach incorporating one red and two blue solid-state diode lasers, the **PRO** version measures materials in the range of 0.01 to 4,000 microns. The blue lasers (not blue LEDs) enable unsurpassed detection of materials in the sub-micron range. All the automated features of the sample dispersion units are available on the **PRO**. The **DIMENSIONS LS** software operating system provides the user with a wealth of useful features in terms of instrument operation, data presentations and data processing. **AI** adoption enhances the use of image analysis with capabilities for component differentiation in mixed materials, contamination detection and the creation of customized **AI** models.



- | 1 Red 2 Blue Lasers
- | Range 0.01 to 4000 microns
- | Automatic Sample Dispersion



DIMENSIONS LS

ALL SOFTWARE REQUIREMENTS IN ONE POWERFUL SOLUTION

DIMENSIONS LS Operating Software provides a workspace environment for method development, measuring, saving, recalling, exporting and processing particle size and shape data. Users can switch easily from one workspace to another in real time. Particle viewer provides a detailed description of each individual particle. Full software features are available on **all** versions of the SYNC platform.



FLOWSYNC GO

SAMPLE DISPERSION CONTROLLER

The **FLOWSYNC GO** is a manual wet sample dispersion device with a liquid volume of between 150 to 300 mL. It is fully solvent compatible for aqueous and non-aqueous suspensions. Impeller speeds and drain functions are controlled by the DIMENSIONS OS.



FLOWSYNC

AUTOMATED SAMPLE DISPERSION DEVICE

The **FLOWSYNC** is a fully automated wet sample dispersion device with a liquid volume to 200 mL. The user can program auto-sequences that will execute fill, Pre-Dispersion, Set Zero, Ultrasonic, Sample Loading, Measurement and Rinse functions. It is fully solvent compatible for aqueous and non-aqueous suspensions.



FLOWSYNC MINI

LOW VOLUME AUTOMATED SAMPLE DISPERSION CONTROLLER

The **FLOWSYNC MINI** provides the exact same functionality as the **FLOWSYNC** but with a vessel volume of 50 mL.



TURBOSYNC

AUTOMATIC DRY POWDER DISPERSER

The **TURBOSYNC** is the Dry Dispersion device for the **SYNC** platform. Dry powder is delivered to the tray of the device. As the measurement is initiated, the **TURBOSYNC** tube transfers the powder to the eductor where compressed air controlled by two automatic regulators provide dispersion and suction to fully disperse the powder. The powder is collected by a vacuum device.

SVC (SMALL VOLUME CELL)

SMALL VOLUME FRACTION CELL

In cases where **a)** the sample is extremely valuable **b)** the sample is produced in very small amounts or **c)** the suspending fluid is very valuable – The Small Volume Cell can be used. Fitted with an impeller, the sample is introduced to the SVC which is then replaced in the sample cell holder of the **FLOWSYNC GO** or the **FLOWSYNC**.



AUTOSAMPLER

AUTOMATED SAMPLING PLATFORM

Microtrac's **Autosampler** uses a robotic arm to introduce sample vials containing either dry powders or suspensions to the **FLOWSYNC**. The robotic arm, a sample tray and a SYNC system are fixed in place on a platform. The system incorporates a vial washing facility to ensure complete transfer of sample to the measuring system. **Up to 64 samples** can be loaded in the sample tray. The sequence is fully controlled by the instrument software.

Any of the Sample Dispersion Devices can be exchanged with any SYNC Optical Bench in less than 30 seconds with the platform's Plug'n'Play feature.

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