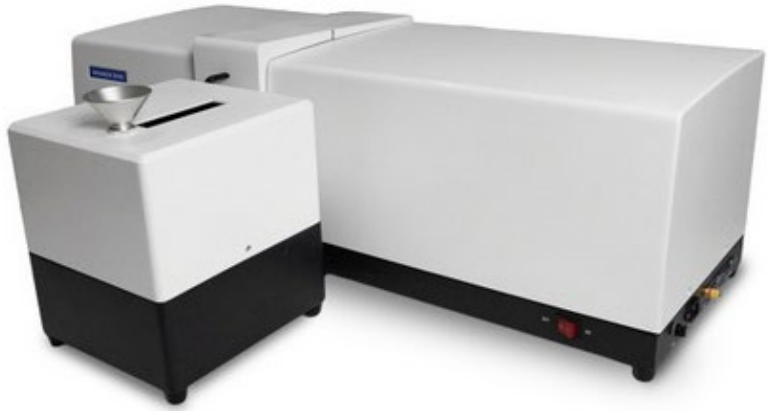
dry laser particle size analyzer for chemical industry

Dry laser particle sizer adopts split structure, using air as the dispersing medium, effectively avoiding the sample reaction or deformation problems caused by liquid dispersion, specially designed for the analysis of dry powder sample particle size analysis of high-precision instruments.

Dry Laser Particle Sizer Core and Features

The core of dry laser particle sizer integrates fiber optic semiconductor laser and high sensitivity ring photodetector, combined with advanced convergent light Fourier transform optical path design, achieving a high degree of repeatability and accuracy of the test, for all kinds of dry powder material particle size analysis provides a reliable guarantee.



Main Features

1. **Multiple dispersion guarantee, the sample is fully dispersed:** Equipped with an improved variable speed intelligent conveying system to ensure that the sample is uniformly discharged. The patented vein flow dispersing technology realizes high efficient dispersion through the surge shear force, which significantly reduces the particle agglomeration. The key components of the dispersing system are made of high wear-resistant ceramic materials, which greatly improves the service life and stability.

2. **High-quality core components, stable and reliable performance:** The choice of imported fiber laser and a first-class brand custom photodetector, to ensure that the laser source is stable, sensitive detection, long-term use is not easy to loss, to protect the accuracy and consistency of the test results.
3. **Advanced optical path design, wide detection range:** Using convergent Fourier transform optical path, effectively improve the upper limit of the test, can accurately detect particles from micron to submicron level, to meet the test requirements of a variety of powder materials.

Working Principle

Dry Laser Particle Sizer measurement is based on the MIE scattering theory: the sample is fully dispersed into single particles in the air stream, and after irradiated by the laser, the particles of different sizes will produce different angles of scattered light. A ring photodetector array collects the scattered signals with high sensitivity, which are analyzed by a Fourier optical circuit system and a data processing algorithm to calculate the particle size distribution. Split structure and air dispersion technology effectively eliminate the influence of liquid on the sample to ensure the authenticity and repeatability of the test.

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Model	**LP502**
Implementation standards	GB/T19077:2016, ISO13320:2020, Q/0100JWN001-2024
Measurement Range	0.1um to 600um
Channel number	49
Accuracy error	⩽ 1%
Repeatability error	⩽ 1%
Laser light source	Laser of high performance, wavelength 639 nm, output power greater than 2 mW
Dispersion Method	Dry turbulent dispersion mode
Operation Mode	SOP can be set; one-click automatic testing, automatic data storage, and automatic alignment functions
Measurement speed	less than 10 seconds

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Model	**LP502**
Dimensions	Host unit: 1030x450x325mm, Dispersion module: 260x285x135mm
Weight	Host unit: 33kg, Dispersion module:7kg
Power Supply	100Vac, 230Vac, 50Hz, 60Hz