Laser Diffraction Particle Sizer - Dual-Laser PSD Analyzer - 0.01-2000 µm - ≤0.5% Repeatability

Model **MSPSA-2L2308ASWISS, MSPSA-LA2800ASWISS, MSPSA-LA2800BSWISS, MSPSA-LD3008ASWISS, MSPSA-LD3008BSWISS** |
Brand **Master Science**









The Master Science Laser Diffraction Particle Sizer is a classic laser diffraction system for reliable particle size distribution measurement in QC and research laboratories. A main red laser and an auxiliary short-wavelength laser, together with side-scatter detection, extend sensitivity toward fine particles while keeping coarse-range performance.

KEY HIGHLIGHTS

- One-key testing
- Better fine-particle detection
- No pipeline settling
- Hands-free alignment
- Choose only what you need

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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www.themsci.com

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Overview

Five versions are offered: an integrated wet-and-dry unit, two wet-only and two dry-only models, each with built-in dispersion and one-key automatic testing.

> For combined modular wet and dry dispersion with a wider 3500 µm range, see the Master Science laser particle size analyzer.

Key Benefits

One-key testing
the whole wet cycle, from water supply to cleaning and report, finishes automatically in about two minutes.

Better fine-particle detection
dual-laser orthogonal optics in the Master Science Laser Diffraction Particle Sizer extend the measuring range.

No pipeline settling
fully built-in dispersion keeps the circulation path short and representative.

Hands-free alignment
motorised optics stay aligned without technician adjustment.

Choose only what you need
wet-only, dry-only or combined models fit different budgets.

Technical Specifications

GENERAL

General	Model overview and specifications of the Master Science Laser Diffraction Particle Sizer:
Brand	Master Science
Model Number	MSPSA-2L2308ASWISS, MSPSA-LA2800ASWISS, MSPSA-LA2800BSWISS, MSPSA-LD3008ASWISS, MSPSA-LD3008BSWISS
SKU	MSPSA-2L2308ASWISS, MSPSA-LA2800ASWISS, MSPSA-LA2800BSWISS, MSPSA-LD3008ASWISS, MSPSA-LD3008BSWISS
MSPSA-2L2308ASWISS	Wet and dry; wet 0.01 to 2000 µm, dry 0.1 to 2000 µm; 127/100 detectors; ≤ 1 % (CRM D50)
MSPSA-LA2800ASWISS	Wet; 0.01 to 2000 µm; 106 detectors; ≤ 0.5 %
MSPSA-LA2800BSWISS	Wet; 0.01 to 1500 µm; 88 detectors; ≤ 0.5 %
MSPSA-LD3008ASWISS	Dry; 0.1 to 2000 µm; 100 detectors; ≤ 1 %
MSPSA-LD3008BSWISS	Dry; 0.1 to 1200 µm; 100 detectors; ≤ 1 %
Principle	Laser diffraction, Mie and Fraunhofer; ISO 13320
Lasers	Main 632.8 or 639 nm; auxiliary 405 or 650 nm (by model); Class 1
Detection Angle	0.015° to 145° (log-spaced array, where fitted)
Alignment	Automatic, 0.1 µm micro-stepping
Test Time	Wet ≤ 2 min; dry ≤ 1 min; typical measurement ≤ 10 s
Wet Dispersion	40 kHz ultrasonic (50 to 60 W), stirrer 0 to 3000 rpm, circulation up to 30 L/min, 550 to 1000 mL tank
Dry Dispersion	Turbulent dispersion with shock-wave shear; compressed air; automatic feeder
Reports	Word, Excel, image, text; PC/LIMS connection
Audit Trail	Optional 21 CFR Part 11 software
Environment	5 to 35 °C, humidity < 85 %
Data Acquisition	10 kHz
Power Supply	220 V, 50/60 Hz
Optical drift	automatic alignment restores the optimum light path.

DIMENSIONS & WEIGHT

Dimensions	1040 × 440 × 540 mm
Net Weight	70 kg (2L2308A); 58 kg (other models)

COMMON LABORATORY PROBLEMS AND HOW THIS PARTICLE SIZER HELPS

Common Laboratory Problems and How This Particle Sizer Helps	How the Master Science Laser Diffraction Particle Sizer helps with common sizing problems:
Operator-dependent dispersion	one-key SOPs standardise every run.
Fine fractions not detected	short-wavelength auxiliary laser improves sub-micron response.
Time-consuming cleaning	automatic rinse cycles are part of each test.
Different instruments for wet and dry	the combined model switches with one key.

Applications

The Master Science Laser Diffraction Particle Sizer is used for: Building materials, cement and fly ash Abrasives, ceramics and metal powders Pharmaceutical and food powders Paints, pigments and fillers Battery materials and research laboratories

Optics

- Convergent-light Fourier transform optical path
- Dual-laser orthogonal illumination
- Side-scatter detection technology
- Automatic four-motor alignment

Dispersion

- Integrated wet system with stirring, ultrasonic and circulation
- Turbulent dry dispersion with shock shear
- One-key SOP operation

Software

- Free-fitting analysis without fixed models
- Free, R-R, log-normal and sieve distributions
- Batch comparison and custom calculations

Optional Accessories

- Micro-sample cuvette (wet models)
- Audit trail software