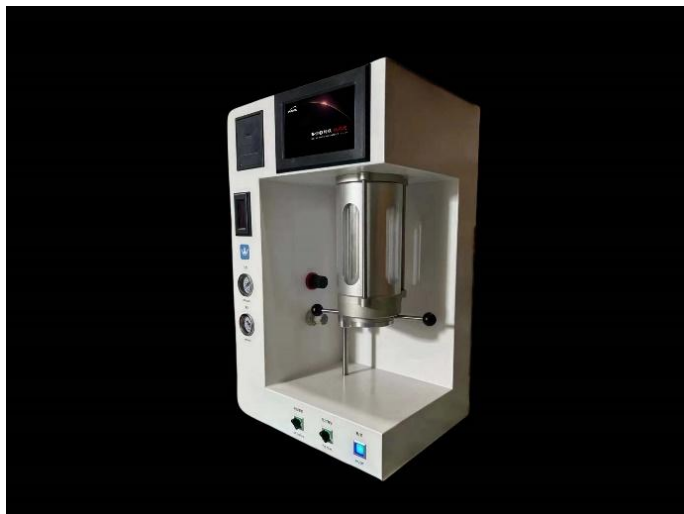


MF150

Benchtop Particle Counter



Laboratory-grade cleanliness analysis

The MF150 is a benchtop laser particle counter for laboratory and rapid-sampling cleanliness analysis of transparent oils, water-based solutions, pharmaceuticals and chemical reagents. A viscosity-independent plunger metering pump, a Mie-theory laser-diode sensor and selectable 8–32 channel configurations deliver highly accurate, repeatable counts — reported to all major international and military standards.

0.8 – 600 μm

PARTICLE SIZE RANGE

8 – 32

SELECTABLE CHANNELS

RSD < 2 %

COUNT REPEATABILITY

01 KEY FEATURES

Broad sample compatibility

Measures cleanliness of transparent oils, water-based solutions (including water), pharmaceuticals and chemical reagents.

Customizable channels

Selectable 8–32 channel internal configuration delivers high measurement accuracy and excellent repeatability.

Viscosity-independent metering

A new plunger metering-pump system keeps flow stable regardless of viscosity or pressure — handling fluids up to 350 cSt.

Mie-theory laser sensor

A semiconductor-laser diode sensor engineered on Mie optical theory ensures accurate counts across every size range.

Accuracy safeguards

Optional per-run sensor pre-flush plus a built-in self-calibration program protect measurement accuracy.

Flexible sampling & storage

Unpressurized-bottle sampling, single or multi-run modes, 0.2–1000 mL volumes and 2 GB on-board data storage.

02 STANDARDS & REPORTING

REPORTING STANDARDS

- ISO 4406:1999 & ISO 4406:1991
- ISO 4402:1991
- NAS 1638B
- SAE AS4059 Rev.D
- GJB 420A-96 · GJB 420B-96
- GB/T 14039

CALIBRATION · GRADES · OPTIONS

- Calibration: ACFTD dust (ISO 4402)
- Calibration: ISO MTD dust (ISO 11171)
- ISO 4406 grade range: classes 1–24 ★
- NAS 1638 grade range: classes 0–12 ★
- Optional on request: GB 10594-2002, GOST 17216-71
- Other standards customizable / upgradeable

PARTICLE-SIZE REPORTING FORMATS
 NAS 1638: 5-15 · 15-25 · 25-50 · 50-100 · >100 µm
 ISO 4406:1999: >4 · >6 · >14 µm
 ISO 4406:1991: >2 · >5 · >15 µm

03 TECHNICAL SPECIFICATIONS

Specifications marked ★ indicate cleanliness-classification ranges.

Measurement range	0.8 – 600 µm
Sensitivity	0.8 µm (ISO 4402) or 3 µm (c)
Number of channels	8 – 32 selectable
Light source	Semiconductor laser
Sensor	Laser-diode sensor
Sampling volume	0.2 – 1000 mL
Sampling accuracy	better than ±1 %
Sensor flow	0 – 200 mL, adjustable
Flush flow	0 – 200 mL/min, adjustable
Flush volume	0 – 200 mL, adjustable
Viscosity range	up to 350 cSt
Coincidence limit	10,000 particles / mL
Count repeatability	RSD < 2 %
Counting accuracy	±7.8 %
Resolution	better than 10 % (GB/T 18854-2002, ISO 11171)
Sampling-chamber pressure	0 ~ 4 bar (positive) · 0 ~ -0.75 bar (negative)
Pneumatic chamber	max vacuum 0.08 MPa · max positive 0.8 MPa
Oil outlet	M10 quick-connect
Compatible media	Hydraulic oil, fuel oil, kerosene, water & other transparent liquids
Temperature range	Ambient -20 ~ 50 °C · Media 0 ~ 80 °C
Display	7-inch color touchscreen
Printer	Built-in thermal printer
Calibration	ACFTD / ISO MTD dust + built-in self-calibration
Data storage	2 GB
Power supply	AC 220 V ±10 %, 50 Hz
Power consumption	≤ 370 W
Dimensions	620 × 320 × 300 mm
Weight	approx. 12 kg

TYPICAL APPLICATIONS

Hydraulic systems · Fuel & kerosene · Water & aqueous solutions · Pharmaceuticals · Chemical reagents