

PARTICLE IMAGE PROCESSOR

LPIP-10 Series

Principle

It uses a digital video camera to capture the particle images enlarged by a microscope, analyze the shape and size of the particles by adopting the digital image processing technology.

Features

- Measuring Range: 0.5 μ m-3000 μ m
- Repeatability: 3% (D50 of monodisperse particles)



Specification and General Description of all Models

Model	LPIP 10 A	LPIP 10 B	LPIP 10 C
Uses Olympus microscope, with 1.3 mega pixel CMOS sensor and high resolution	✓	✓	✓
USB2.0 data port	✓	✓	✓
Can save the image of a single particle	✓	✓	✓
Auto scan function results in more representative sampling		✓	✓
Auto illumination intensity adjustment and auto focus functions eliminate the influence of manual factors.		✓	✓
Circularity analysis function			✓
Report Function	Particle size distribution table & graph, Mean diameter, Median diameter, Boundary diameter, Specific surface area, Ratio between maximum and minimum length, PPC, etc.		
Configuration	Microscope olympus Cx21, COMS Video camera Ym130, USB2.0 card [USB2.0], Software		
Catalog No.	29290601	29290602	29290603

Software Function

- Three statistical modes: based on volume, quantity, area.
- Two equivalent principles: equivalent area, equivalent shot diameter.
- Two accumulative directions: small to large, large to small.
- Report items can be set/selected according to customers' requirements.
- Focus indication window.

Application

Suited to observe and analyze particle size, shape of abrasives, coating powders, non-ferrous minerals, chemical reagents, fillings, etc. It can provide particle size distributions of different equivalent principles (equivalent area, equivalent shot diameter) and you can directly observe size distribution range, existence of oversize or small particles, etc.

Analysis Report

Eq. method: Area	St. Base: V%	Mag. Lens: x10
D(1,0): 6.45 μm	D(4,3): 15.78 μm	S.S.A.: 1.34 m^2/cc

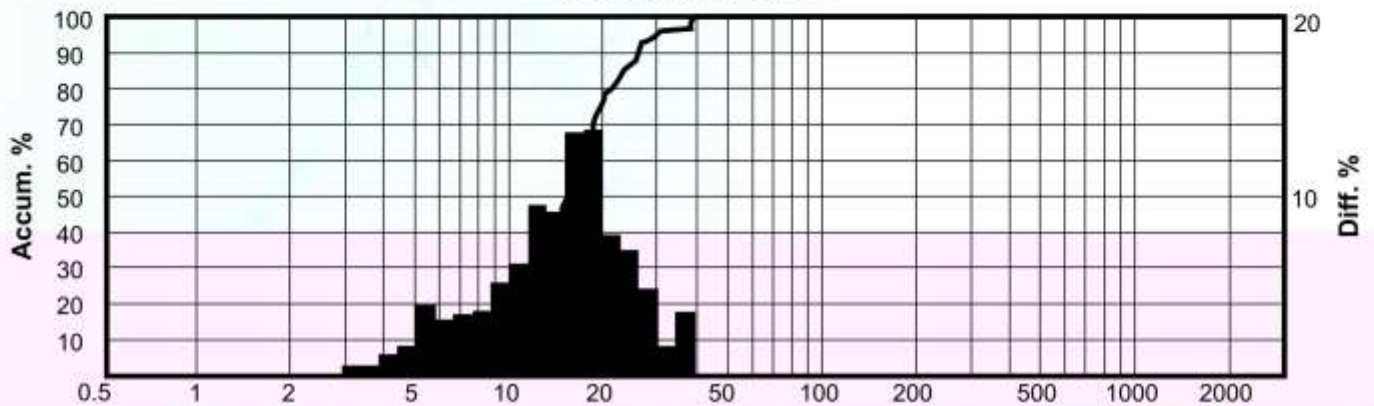
Characteristic Diameters

D10: 6.35 μm	D50: 15.26 μm	D90: 25.61 μm
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Ratio of long diameter to short diameter

>2: 506	>3: 113
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Distribution Chart



Distribution Table

Dia.(μm)	Diff.(%)	Accum.(%)	Diam.(μm)	Diff.(%)	Accum.(%)	Dia.(μm)	Diff.(%)	Accum.(%)
0.50	0.00	0.00	8.59	5.97	17.20	147.56	0.00	100
0.63	0.00	0.00	10.89	9.33	26.54	187.01	0.00	100
0.80	0.00	0.00	13.80	14.22	40.76	237.02	0.00	100
1.02	0.00	0.00	17.49	23.18	63.94	300.40	0.00	100
1.29	0.00	0.00	22.16	17.61	81.54	380.73	0.00	100
1.64	0.00	0.00	28.09	11.87	93.42	482.54	0.00	100
2.07	0.00	0.00	35.60	3.06	96.48	611.58	0.00	100
2.63	0.00	0.00	45.12	3.52	100	775.11	0.00	100
3.33	0.44	0.44	57.19	0.00	100	982.39	0.00	100
4.22	1.39	1.83	72.48	0.00	100	1245.08	0.00	100
5.35	3.36	5.18	91.86	0.00	100	1578.03	0.00	100
6.78	6.06	11.24	116.42	0.00	100	2000	0.00	100

