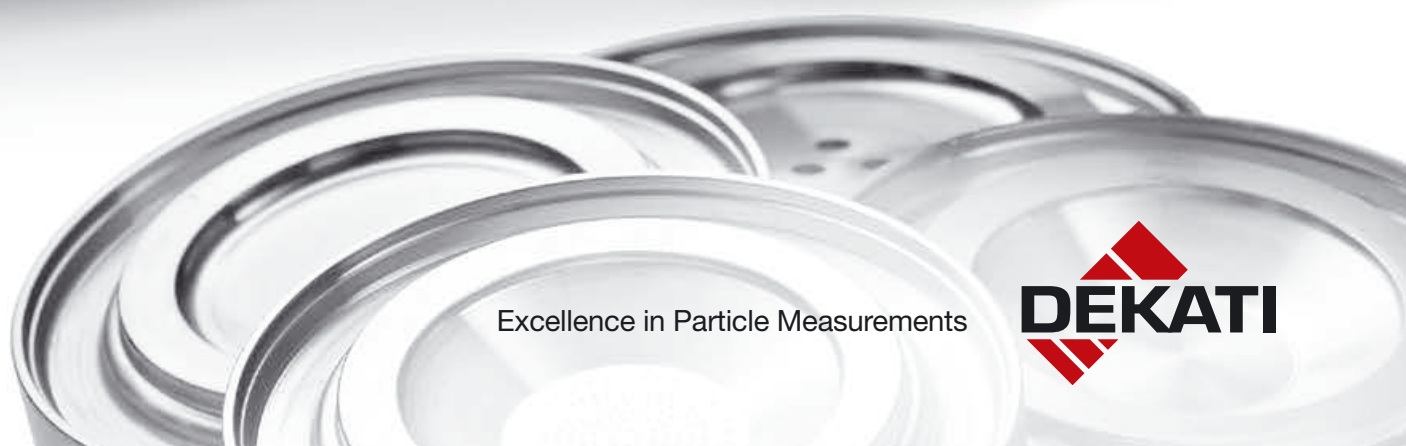


Dekati® Low Pressure Impactor DLPI+

- Particle size distribution measurement
- Wide size range
- Complete sampling setups also for high temperature applications



Excellence in Particle Measurements



Dekati®

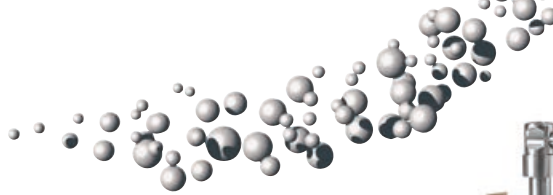
Low Pressure Impactor DLPI+

DLPI+ (Dekati® Low Pressure Impactor) is a cascade impactor to measure airborne particle mass size distribution. The DLPI+ classifies particles into 14 size fractions in the range of 16 nm - 10 µm. The DLPI+ impactor can be used in various particle measurement applications and can also be heated up to 180 °C for high temperature applications.

The operating principle of the DLPI+ is based on inertial size classification and gravimetric or chemical analysis of the collected, size classified particle samples. The size classified particles are collected on Ø25 mm collection substrates and Dekati can offer aluminium and polycarbonate foils for this purpose. Other DLPI+ accessories include vacuum pumps, spare impactor collection plates and sampling inlets and lines for various applications. The DLPI+ design is the same as in the impactor used in the ELPI+™ (Electrical Low Pressure Impactor) enabling an easy upgrade from DLPI+ into a full ELPI+™ system for real-time particle size distribution measurements.

DLPI+ Applications

- Power plant emission measurements
- Air quality measurements
- Occupational health and safety studies
- Automotive exhaust measurements
- Blow-by gas emission measurements
- Nanoparticle measurements



DLPI+ Features

- Particle size distribution in 14 size fractions
- Wide operational range of 16 nm - 10 µm
- Particle collection area Ø25 mm
- 10 lpm sample flow rate
- Integrated impactor low pressure (40 mbar) measurement and adjustment
- Can be upgraded into a full ELPI+™ system for real-time data
- Each unit manufactured and calibrated in Finland
- Provided with a data processing spread sheet
- Stainless steel stages for operation even in harsh environments
- Standard DLPI+ for up to 50 °C measurements
- Sampling from up to 180 °C with the high temperature upgrade kit
- Possibility for sample temperature measurement at the DLPI+ inlet

Stage	D50% [µm]
15	10
14	5.34
13	3.63
12	2.46
11	1.62
10	0.94
9	0.60
8	0.38
7	0.25
6	0.15
5	0.094
4	0.054
3	0.030
2	0.016

Impactor cutpoints

Each DLPI+ unit is individually calibrated before delivery; the calibration includes detailed determination of the exact sample flow rate and D50% values. The values presented in this table are nominal values at 20 °C. Effect of temperature on the impactor calibration values can be calculated with the provided data processing spread sheet.

For more information, please contact: sales@dekati.fi



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Dekati Ltd. is specialized in the design and manufacture of innovative fine particle measuring and sampling devices. Since its founding in 1994, Dekati has become the technological market leader in producing fine particle measurement instrumentation for various applications and thousands of customers. ●