

Dekati[®] Thermodenunder

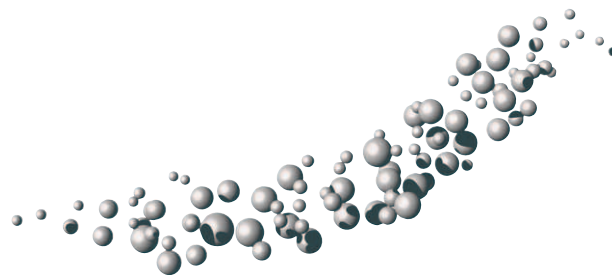
Easy conditioning of automotive exhaust
Optimised removal of volatile hydrocarbons
Increased measurement
repeatability



Excellence in Particle Measurements

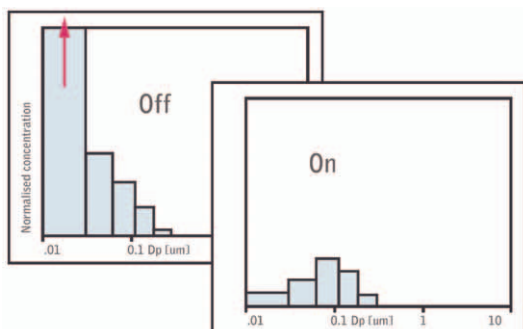


Dekati® Thermodenuder



Dekati Thermodenuder makes detailed studies of soot particles possible by removing volatiles from automotive exhaust. Removal of the volatiles eliminates unwanted sample transformations. The high flow rate of the instrument makes it an ideal tool for use with ELPI™ (Electrical Low Pressure Impactor) and DMM (Dekati Mass Monitor), also manufactured by Dekati Ltd.

Volatile and semi-volatile compounds cause variability in measured particle size and concentration through condensation and nucleation. These effects can be eliminated by using the Dekati Thermodenuder. Volatile compounds are vaporised in an aerosol heater, which heats the sample to over 250 °C. After heating, the sample enters the adsorber section, where the vaporised compounds are adsorbed in active charcoal. The active charcoal is in the form of easily replaceable cartridges, also available from Dekati Ltd.



The effect of Dekati Thermodenuder on a particle size distribution with a nucleation mode consisting of volatile particles.

The procedure for conditioning of the sample consists of three steps:

1. Connect cooling medium
2. Connect measurement instruments and
3. Turn on the heater.

The Dekati Thermodenuder can be effectively used in a combination with any other Dekati dilution or real-time measurement device.

Specifications

Flow rate	10–20 lpm
Maximum operating temperature	300 °C
Cooling medium	Air or water
Weight	7.5 kg without filter cartridges
Dimensions	
Length:	95 cm
Width:	22 cm
Inlet	12/10 mm pipe
Outlet	R 1/2", inner diameter of the connector should be 10 mm
Electric power	230V/350W 110V/350W



Accessories

The active charcoal is in the form of easily replaceable active carbon cartridges, which makes the use and maintenance of the Dekati Thermodenuder very easy.



Active carbon cartridges



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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 hundreds of customers. ●