

# Dekati® DAD-100 Axial Diluter

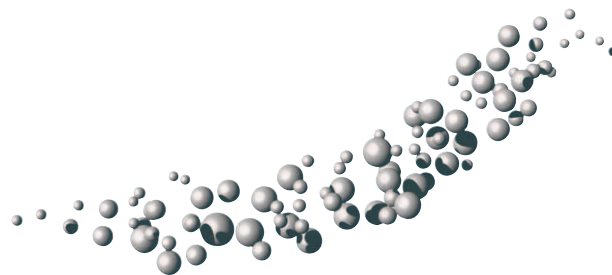


Suitable for wide range  
of applications  
On-board sample conditioning  
High temperature operation

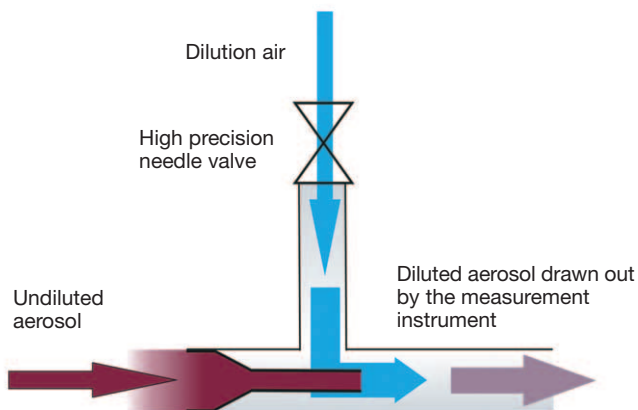


Excellence in Particle Measurements

# Dekati® DAD-100 Axial Diluter



Dekati® Axial Diluter DAD-100 is a simple and cost-effective dilution tool for any dilution task. Especially designed for use with Dekati® instruments, the DAD-100 is very simple to install in any sampling or measurement system. An all-stainless steel design also makes it possible to heat the diluter up to 500°C.



The operation principle of the DAD-100 is based on axial dilution of the sample in which the dilution air is introduced as 'sheath flow' around the raw sample. This type of dilution is beneficial due to very low losses for all particle sizes. In order to calculate the dilution ratio, the amount of sample drawn by the measurement instruments and the flow of dilution air needs to be known accurately. The amount of dilution air is controlled accurately in the DAD-100 with a high-quality needle valve which is adjusted and locked into place during calibration at Dekati. If the DAD-100 is used with Dekati® instruments, the amount of drawn sample is very accurately known and can be found in the instrument specific data sheet. The DAD-100 is delivered with a calibration certificate and an easy-to-use Excel sheet which can be used to calculate the dilution ratio in any conditions.

## Specifications

Undiluted sample flow	0.1-10 lpm (1-3 lpm typical)
Dilution air flow	1-30 lpm typical. Check instrument datasheet for exact value
Outlet flow	Undiluted sample flow + Dilution air flow
Dilution ratio	Delivered with fixed setting as agreed with customer
Undiluted sample temperature range	Up to 500°C
Undiluted sample pressure range	Check measurement instrument specifications
Operation pressure	Check instrument datasheet
Material	AISI 316 (Stainless Steel)
Inlet pipe	12 mm
Outlet pipe	12 mm
Pressurised air inlet	12 mm female Swagelok
Pressure sensor range	0-4000 mbar abs

## Accessories

DH-1723 Pressurised air heater  
DR-1823 Temperature controller for pressurised air heater  
For heated dilution

ELA-230 Dekati® Thermodenuder  
For removal of volatile and semi-volatile hydrocarbons from automotive exhaust



For more information, please contact: [sales@dekati.fi](mailto: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 hundreds of customers. ●