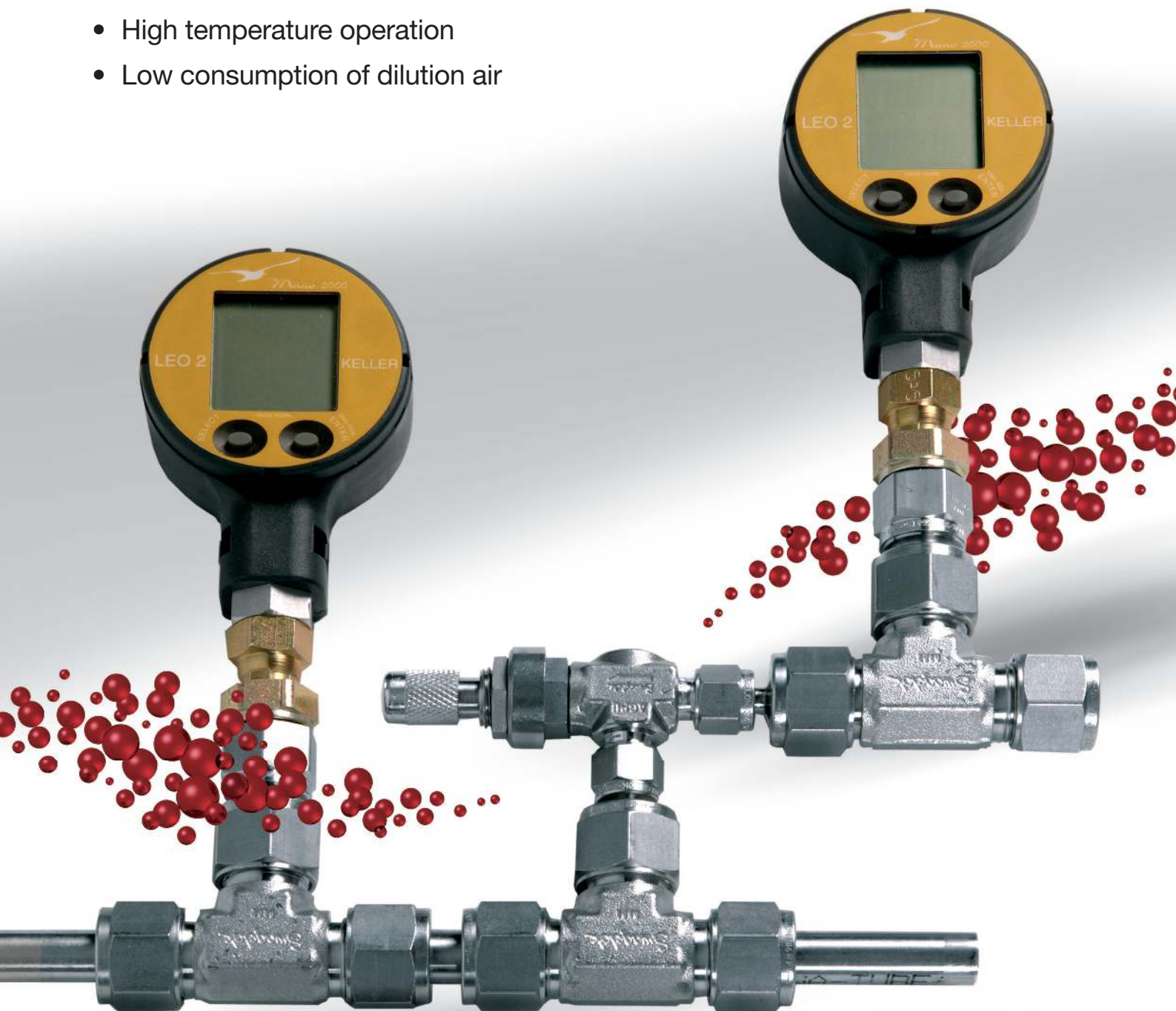


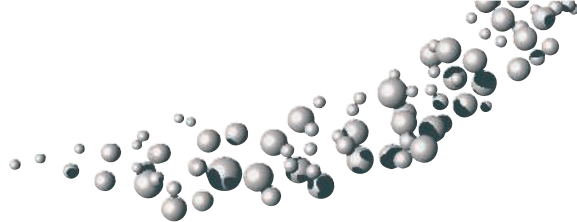
Dekati® Axial Diluter DAD

- Aerosol dilution
- High temperature operation
- Low consumption of dilution air



Excellence in Particle Measurements

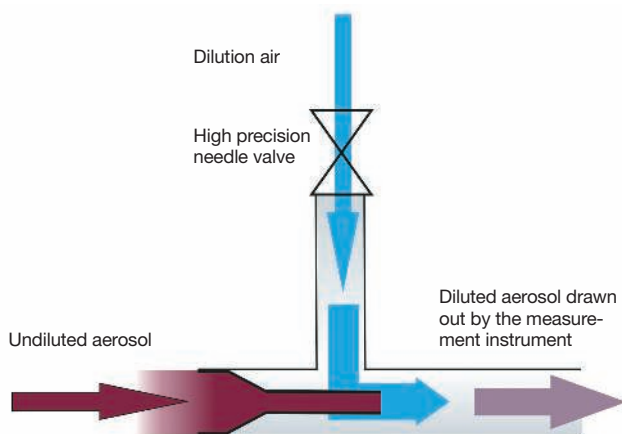
Dekati® Axial Diluter DAD



ENG

The Dekati® Axial Diluter DAD is a simple and cost-effective dilution tool for any aerosol dilution task. The DAD is especially designed for use with Dekati® Fine Particle Measurement Instruments and applications where low consumption of dilution air is a requirement. The Dekati® Axial Diluter is made of stainless steel which allows the use of the DAD also in high temperature applications up to 500 °C.

The operating principle of the Dekati® Axial Diluter 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 factor, the amount of sample drawn by the measurement instruments and the flow of dilution air need to be known accurately. The amount of dilution air is controlled with a high-quality needle valve which is adjusted and locked into place during calibration at Dekati. If the DAD is used together with Dekati® Fine Particle Measurement Instruments, the amount of drawn sample is accurately known and can be found in the instrument specific data sheet. The DAD is always delivered with a calibration certificate and a calculation sheet to calculate the dilution factor in different measurement conditions.



Features

- Up to 1:10 dilution factor
- Available with different sample flows and dilution factors
- Low consumption of dilution medium
- Low losses for all particle sizes from 10 nm to 10 µm.
- Extremely robust, simple and easy to clean.
- Suitable for high temperature applications up to 500 °C

Specifications

Inlet/sample flow	0.1-10 lpm (1-3 lpm typical)
Dilution air flow	1-30 lpm, check instrument datasheet for exact value
Outlet flow	Undiluted sample flow + dilution air flow
Dilution factor	Up to 1:10, fixed setting agreed before delivery
Sample temperature range	Up to 500 °C
Sample pressure range	Check measurement instrument specifications: pressure at the outlet of the DAD = sample pressure
Dilution air pressure	Agreed before delivery
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

- Pressurised air heater for heating dilution air
- Temperature controller for pressurised air heater
- Dekati® Thermodenuder for removal of volatile and semi-volatile hydrocarbons from the exhaust

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. ●