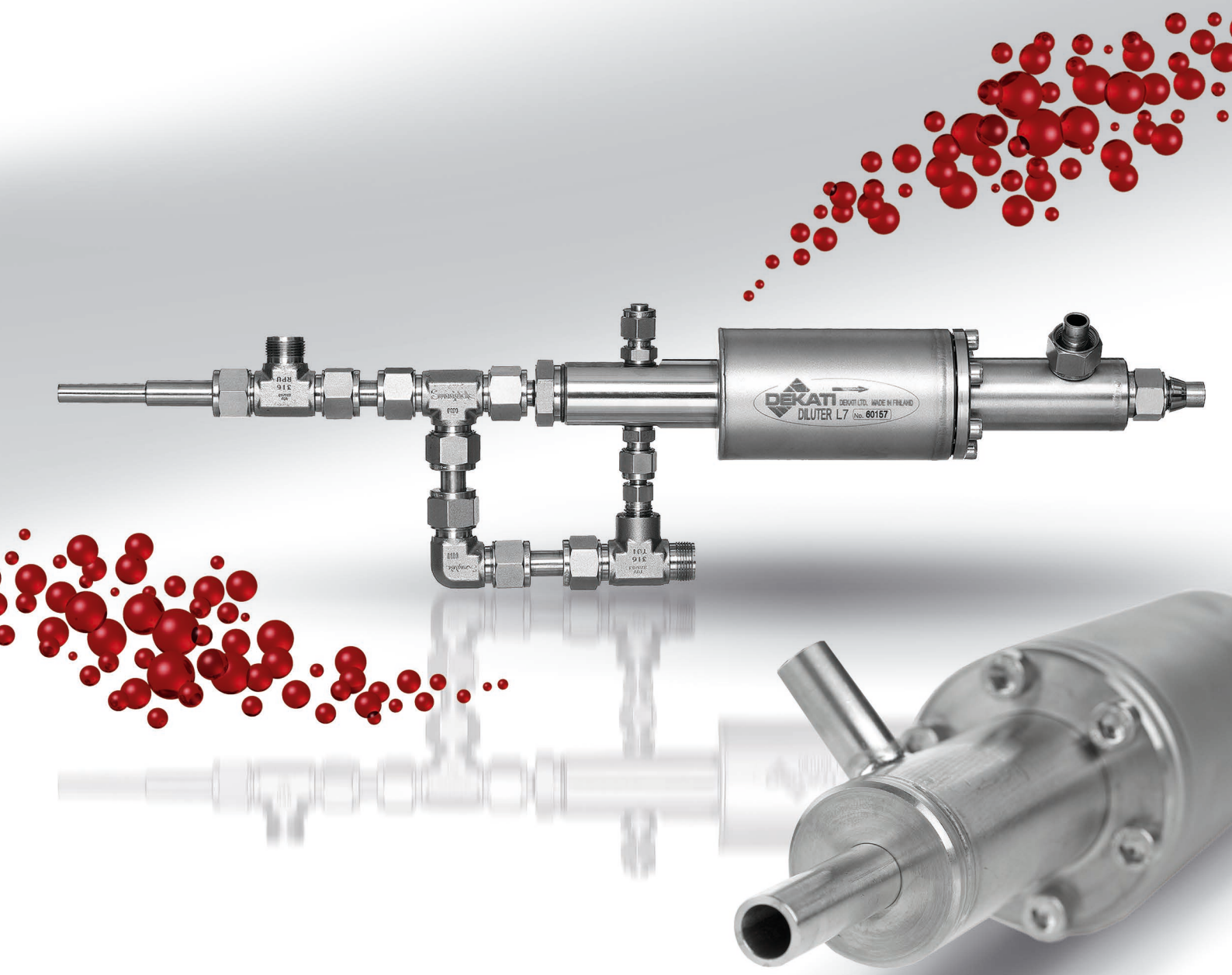
Dekati® High Pressure Diluter DEED-300

- Aerosol dilution from high sample pressure conditions
- Pre-DPF measurements
- Always constant dilution factor



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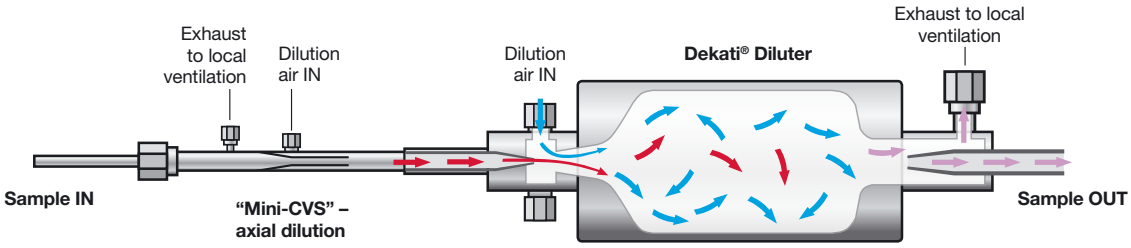
Dekati®
High Pressure Diluter DEED-300

Dekati® High Pressure Diluter DEED-300 operating principle



The Dekati® High Pressure Diluter DEED-300 is a two-stage dilution device for taking aerosol sample from high sample pressure such as pre-DPF conditions. The DEED-300 is designed especially for these conditions, and it always keeps a constant dilution factor regardless of the sample pressure inside the tailpipe. Total dilution factor in the DEED-300 unit is typically between 40 and 60 and it is individually calibrated for each unit for optimal results.

The Dekati® High Pressure Diluter DEED-300 is designed to be used in conditions where sample pressure is above ambient pressure level. The DEED-300 uses a small orifice to extract exhaust sample from the tailpipe. A small part of this sample is led to a mini-CVS axial diluter while the excess raw exhaust is led to a local ventilation channel. After the mini-CVS, the sample enters a Dekati® ejector Diluter DI-1000 where it is further diluted.

The complete DEED-300 unit can be operated at room temperature or alternatively, dilution air for the DEED-300 unit can be heated to minimize sample transformations. In a typical setup, the DEED-300 outlet is connected to an additional dilution device or volatile particle remover (VPR) where the sample is further conditioned. This volatile particle remover can be e.g. the Dekati® Engine Exhaust Diluter DEED-100 where the sample is conditioned according to EURO 6 legislation. If the DEED-300 unit is used together with the DEED-100 system, the dilution air for the DEED-300 can easily be drawn from the DEED-100 main unit.

Features

- Aerosol dilution from high sample pressure conditions
- Stable dilution system for pre-DPF conditions up to 600 °C
- Always constant dilution factor regardless of sample pressure
- Two-stage diluter with the widely used and well characterized Dekati® Diluter as the second dilution stage
- Can be combined with Dekati® Engine Exhaust Diluter that fills EURO 6+ requirements for a VPR
- Robust, stainless steel construction

Accessories

- Pressurised air heater for heating the dilution air
- Dekati® Engine Exhaust Diluter

Specifications

Dilution factor	40 typical, individually calibrated 4000 or 40 000 with the DEED-100 unit
Dilution air:	60 slpm at 4 bar abs Particle free, non condensing at -40 °C
Sample conditions:	
Temperature	0-600 °C
Pressure	30-1000 mbar above ventilation pressure standard Higher sample pressure units available as an option
Dimensions:	H105 x W 552 x D 155 mm
Weight:	2.7 kg
Inlet/Outlet:	12 mm pipe connection

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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.

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