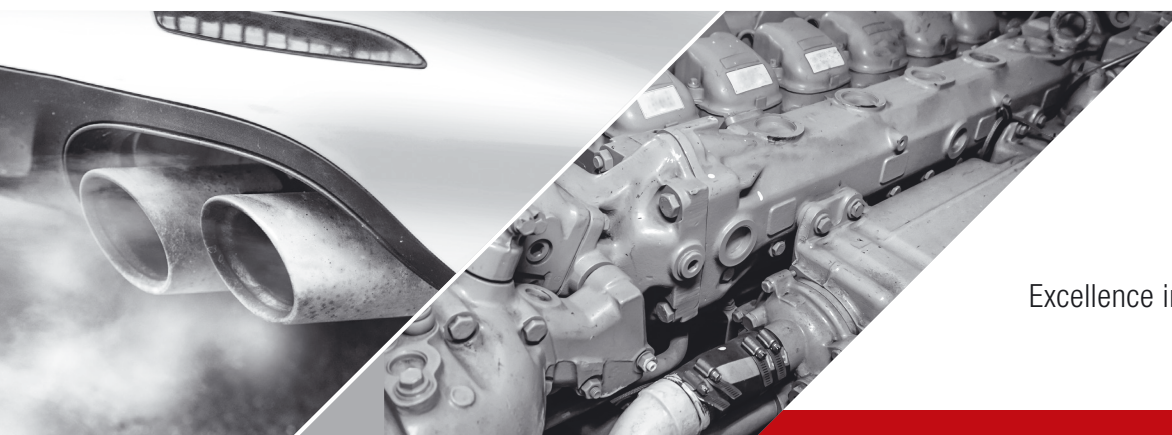
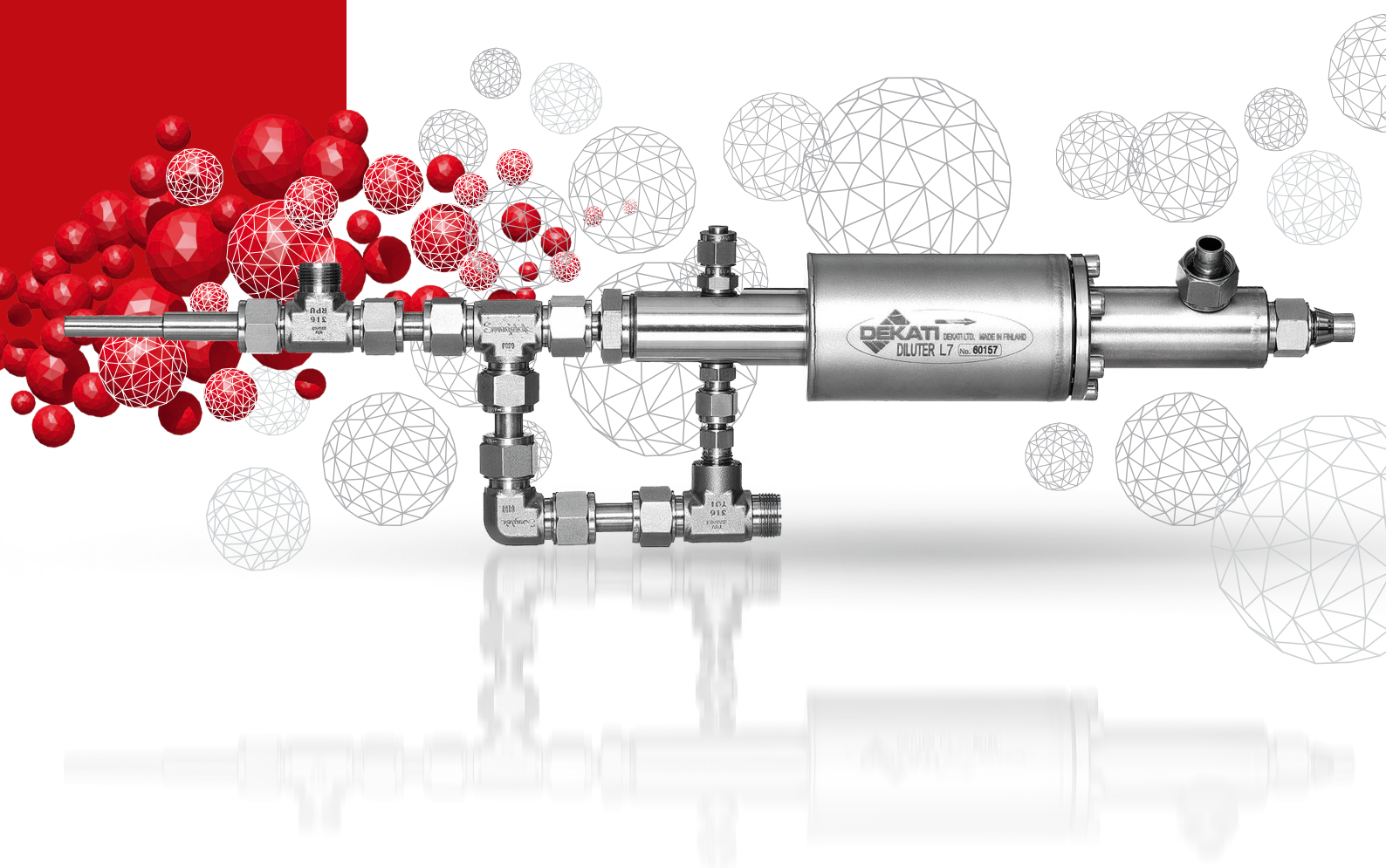


Dekati®

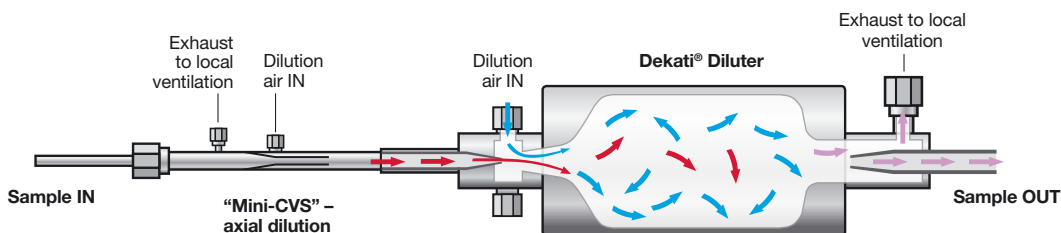
# High Pressure Diluter DEED-300

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



Excellence in Particle Measurements

# Dekati® High Pressure Diluter DEED-300



Dekati® High Pressure Diluter DEED-300 operating principle

## Description

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

## Operating Principle

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 and ISO8178:2017 standards. 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.

For more information, please contact: [sales@dekati.com](mailto:sales@dekati.com)

## Specifications

Dilution factor	40 typical, individually calibrated 4000 or 40 000 with the DEED-100 unit
Dilution air	~60 slpm at 3 bar gauge Particle free, non-condensing at -40 °C
<b>Sample conditions:</b>	
Temperature	0-600 °C
Pressure	30-1000 mbar above ventilation pressure standard. Higher sample pressure units available as an option
Dimensions	H 105 x W 552 x D 155 mm
Weight	2.7 kg
Inlet/Outlet	12 mm pipe connection

## 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 fulfills EURO 6 and ISO8178:2017 requirements for a VPR
- Robust, stainless steel construction

## Accessories

- Pressurised air heater for heating the dilution air
- Pressurised air cleaning and drying unit
- Dekati® Engine Exhaust Diluter



► Dekati Ltd. is a world leader in designing and manufacturing innovative fine particle measurement solutions. We have over 25 years of experience in providing measurement instruments and complete measurement solutions to a wide variety of environments and sample conditions. All Dekati® Products are developed and manufactured in Finland and are available with up to five-year warranty.

