# **LDD 100**





The dilution of large droplets is significant when measuring highly concentrated droplet aerosols. Since large droplets are challenging to dilute, standard systems only work up to a size of 1 - 2  $\mu$ m. The dilution system LDD 100 (dilution factor 100) is the first system to dilute almost loss-free large droplets up to 10  $\mu$ m

#### **MODEL VARIATIONS**



LDD 100 H Version heatable up to 150 °C for large droplets up to 10  $\mu m$ 



### **OPERATION PRINCIPLE**

## Defined dilution system for large droplets up to 10 $\mu$ m

The good dilution factor of large droplets was tested with monodisperse DEHS droplets (oil) of different sizes. The results for the sizes 5  $\mu$ m and 7  $\mu$ m are shown in Table 1.

Particle size	Number count withoutdilution	Number count withdilution	Dilution factor
5 μm	304322	3043	100.01
7 μm	236687	2370	99.87

Table 2: Dilution of monodisperse DEHS droplets with LDD 100

Chart 1: Dilution of monodisperse DEHS droplets with LDD 100

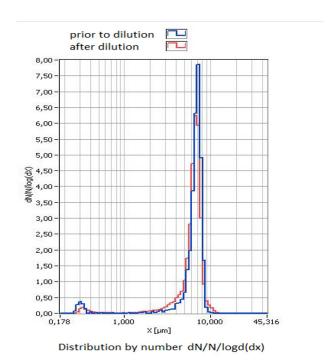


Fig. 1: Distribution of LDD 100 (7  $\mu$ m)

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#### **BENEFITS**

- Defined dilution of large droplets of factor 100
- Proven dilution factor 100 for droplet sizes up to 7  $\mu m$
- Easy connection with Promo® and welas® digital aerosol spectrometers
- Internal pump for autonomous operations
- Resistant to pressure fluctuations of  $\pm$  200 mbar
- Simple handling
- Robust, durable, low maintenance
- Cost effective



## **APPLICATIONS**

- Measurement of blow-by aerosols according to ISO 17536
- Dilution of compressed air
- Measurement of cooling lubricant aerosols



Mehr Informationen: https://www.palas.de/product/ldd100