

PAUL GOTHE BOCHUM

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Manufacturer of Emissions Control Technology



Product info: Droplet Probe according to VDI 3679, Part 3

The droplet probe can use for the measurement of the droplet diameter behind wet separators.



Impaction plate drawn back

This is a probe for the impactor method according to VDI 3679, part 3, section 5.3.2.1 to measure the sizes from water droplets and the liquid water content in a gas flow.

The impaction plate is exposed to the droplet-laden gas stream for a defined period of time in such a way that the gas flow is orthogonal to the impaction plate, i.e. they make use of the droplet velocity for sampling.

The impactor plate is coated with fine particulate layer from MgO or soot so that the droplets are visualized as craters.

The impactors are then microscopically evaluated by a classifying count of the droplet traces. This method can use for droplets bigger as 5 - 15 µm.

Previous studies showed the following relationship between crater and droplet diameter:

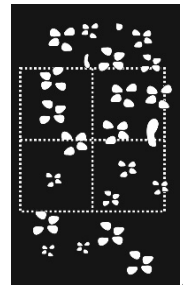
$$F = \frac{Q_j}{D_j} = 0,55$$

With:

F: factor,

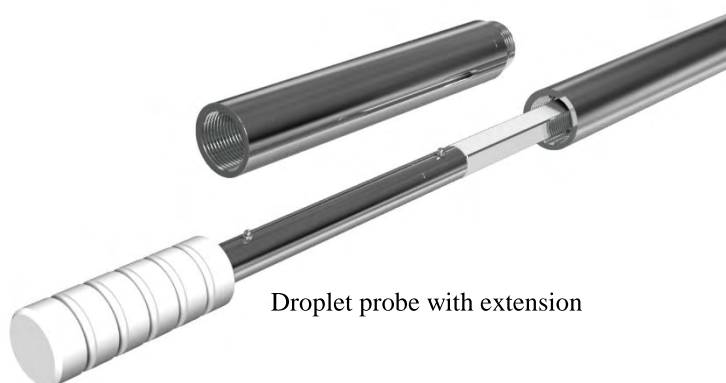
Q_j : diameter real droplet,

D_j : diameter crater droplet



The flow velocities must be above approximately 2 m/s and the impaction plate must heat up with a hot fan above dew point.

It is important to have specific expertise. A short manual is in the delivery package.



Droplet probe with extension



Connection of the extension with locking springs



Slider at the probe exit