

## DGI-1570 Dekati Gravimetric Impactor

Increases standard filter  
measurement yield

Total mass concentration  
and size distribution  
measurement



# DGI-1570 Dekati Gravimetric Impactor

An easy-to-use gravimetric impactor designed for size selective automotive particulate exhaust measurements. DGI replaces standard filter measurement. DGI is designed to fit to a standard mass filter holder so it is easy to add to an existing measurement system.

DGI can be operated in two modes. Two impactation stage DGI can be used to increase filter measurement yield and accuracy. This is done by size separating large randomly occurring re-entrained particles from sampling system and exhaust pipe onto impactation stages.

In two stage DGI, two lowest impactation stages are replaced with a spacer. In this mode, filter stage collects all particles under 1.0 micrometer in diameter.

Four impactation stage DGI, in addition to increasing measurement yield, provides more detailed information on emitted particle mass size distribution.

Four impactation stage DGI classifies particles to 5 size fractions with aerodynamic cutpoints of 2.5, 1.0, 0.5, 0.2 micrometers and a backup filter. After the impactation stages a backup filter collects all particles under 0.2 micrometers.

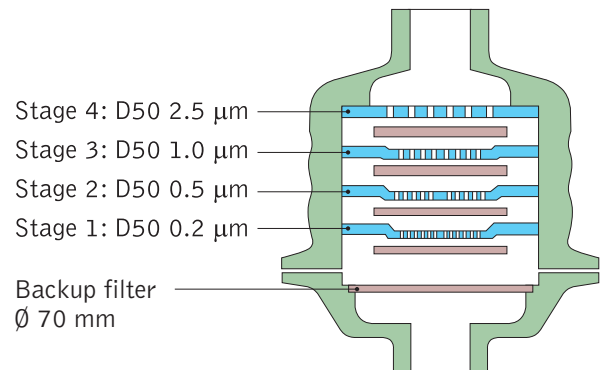
Particles are collected on  $\varnothing$  47 mm substrates allowing easy and reliable size distribution and total mass concentration measurement and chemical / elemental analysis for each size fraction.

Particle size is an important issue with respect to engine performance and health effects.



## Specifications

Inlet	ISO 1/2" female
Outlet	ISO 1/2" female
Collection substrates	Aluminium foils
Backup filter	Teflon / fiberglass
Physical dimensions	110 mm x 100 mm
Weight	1.5 kg
Nominal flow rate	70 liter/min



**REAL-TIME PARTICLE MEASUREMENTS**

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