



DPM Cyclone Sampler 225-68

Operating Instructions

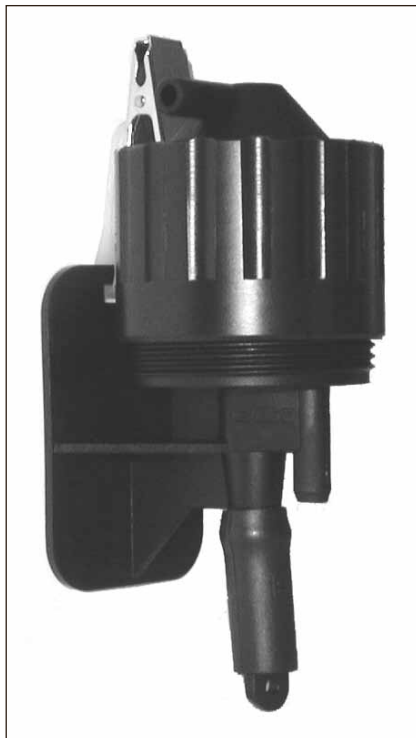
About the DPM Cyclone Sampler

The SKC DPM cyclone is manufactured from conductive plastic which dissipates electrical charges to the surrounding atmosphere and prevents static interference on the collection of dust particles.

An extended retaining ring and special sealing arrangement enables the DPM cassette to be fitted to the cyclone sampler.

In this application the purpose of the cyclone sampler is to remove the larger, non-respirable particles prior to the inlet of the DPM cassette to prevent blockage of the fine impactors built into the DPM cassette.

Design flow rate when sampling with the DPM cyclone and DPM cassette is determined by the performance of the DPM cassette, see below.



About the DPM Cassette

The DPM (diesel particulate matter) cassette, (SKC part number 225-317) is supplied pre-assembled and sealed, and is designed for single use.

The DPM cassette's built in impactor assembly screens out particles $\geq 1.0 \mu\text{m}$ at a design flow rate of 2.0 litre/min. All smaller particles are captured on the sample filter.

The cassette also contains a blank filter.

Please also refer to the instructions supplied with the DPM cassette.



Loading the DPM cassette

As the DPM cassette is pre-assembled, all that is required to prepare it for use is to remove the red plugs from its inlet and outlet ports. Retain the plugs to seal the cassette for transport to the laboratory.

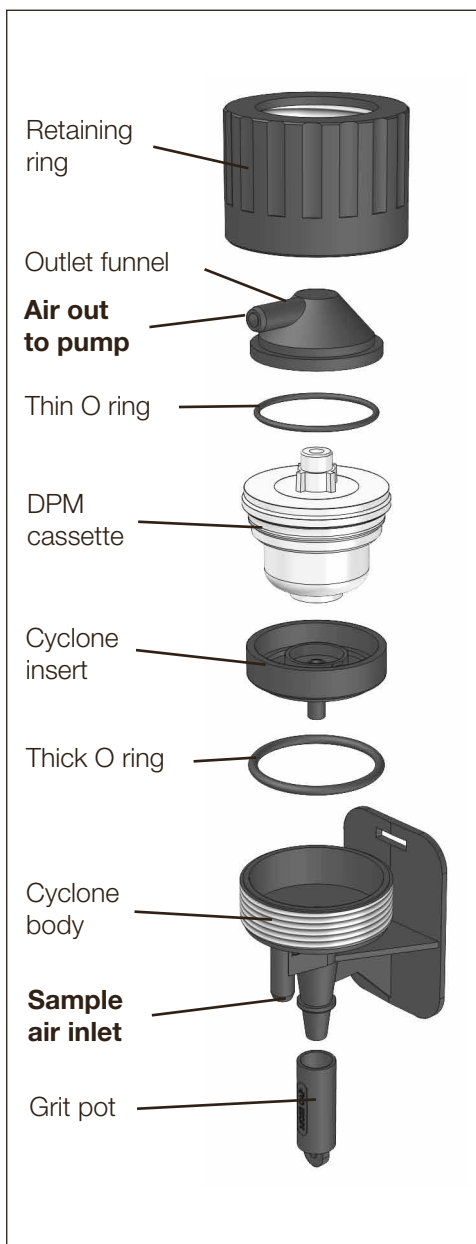
Assemble the grit pot, thick O ring and insert to the cyclone body. Seat the DPM cassette into the red sealing cup in the base of the cyclone insert, as shown to the right. Fit the thin O ring into the recessed channel in the base of the outlet funnel. Place the outlet funnel centrally on top of the DPM cassette and then fit the retaining ring, screwing it down firmly to ensure a good seal of the inlet and outlet of the cassette.

Sampling with the cyclone

Connect the cyclone outlet to the sample pump via a length of flexible tubing. Calibrate the pump flow rate using a rotameter or other suitable calibrator. Connect the rotameter to the sample air inlet on the cyclone body with a length of flexible tubing. The sample flow rate for the DPM cyclone and DPM cassette is 2.0 litre/min. Once the flow is set to the correct rate switch the sample pump off. The sample train is now ready for sampling.

After sampling

Unfasten the retaining ring and remove the cassette. Immediately refit the red plugs to the inlet and outlet ports of the cassette to prevent unwanted ingress or loss of contaminant during transport to the laboratory. It is not necessary to supply a blank to the laboratory as the DPM cassette contains a built in blank.



SKC Limited 11 Sunrise Park, Higher Shaftesbury Road, Blandford Forum, Dorset DT11 8ST **United Kingdom**

T: +44 (0) 1258 480188 F: +44 (0) 1258 480184 E: info@skcltd.com W: www.skcltd.com



A member of the SKC global group of companies