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SVEN LECKEL

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PMX INLET WITH OZONE DENUDER FOR SEQUENTIAL SAMPLER SEQ47/50 AND KAR8

X = 10 µm – 4,0 µm – 2,5 µm – 1,0 µm

For sampling of PAHs by means of the **sequential sampler SEQ47/50** or **KAR8** the PMX inlet can be equipped with an **OZONE DENUDER (SCRUBBER)**, which is to be adapted downstream the PMX impactor. The SCRUBBER serves for the protection against reducing the PAHs by ozone, which are sampled on the filter.

For the determination of the BaP concentration the combination of PM10 impactor inlet according to **EN12341**, SCRUBBER and filter is described in the **EN15549** as European standard sampling system.

The use of the SCRUBBER gives clearly higher measurements of the sampled PAHs. However, the SCRUBBER is susceptible to pre-separation of sampled coarse particles. In order to avoid measurement errors caused by losses of coarser particles a PM2,5 pre-impactor can be used. The efficiency of the SCRUBBER will not be affected by relative air humidity up to approximately 80 % r.h.

The SCRUBBER is directly accessible by opening the draw latches of the SCRUBBER housing. The housing is, when closed, sealed by an O-ring and the SCRUBBER itself also by two O-rings.

The SCRUBBER housing consist of hard coated aluminium. The SCRUBBER can be continuously operated over a period of up to 1 month. It can be used several times.



**PMX INLET with SCRUBBER
for sampling of Bap (PAHs)
according to CEN EN 15549 and
Directive 2004/107/EC**

The absorbed ozone is to be removed from the SCRUBBER by treating it at a temperature of 150 °C over approximately 8 hours (overnight).

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PMX INLET FOR SEQUENTIAL SAMPLER SEQ47/50 AND KAR8

X = 10 µm – 4,0 µm – 2,5 µm – 1,0 µm

The fractionating PMX impactor inlet of the sequential sampler **SEQ47/50** or **KAR8** can be equipped with jet sets (8 pieces, each) for **PM10 – PM 4,0 - PM2,5 - PM1,0**. The jets are to be stuck into the jet plate and are sealed by O-rings. The jet plate together with the protection roof and the flow plate can be pulled out of the inlet's outer tube (sealing also by O-rings).

All jet sets are available for flow rates of **4,0 m³/h - 3,5 m³/h - 3,0 m³/h - 2,3m³/h - 1,0 m³/h**.

The impaction plate is exchangeable and can be prepared (cleaning and greasing) e. g. in the laboratory. Under the impaction plate is a deep well for condensation or penetrated rain. Furthermore, the inlet can be equipped with a **drainage bottle** according to the requirements of **CEN EN 14907**.



PM10 INLET
according to CEN EN 12341

PM2,5 STANDARD INLET
(with sheath air)
according to CEN EN 14907



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TSPM INLET FOR SEQUENTIAL SAMPLER SEQ47/50 AND KAR8

The TSPM INLET of the sequential sampler **SEQ47/50** or **KAR8** is an open system, which can sample particles up to an aerodynamic diameter of some 30 μm .

The circumferential opening of the inlet is protected by a mesh against penetration of insects.

The inlet is to be operated with a flow rate of approximately 3 m^3/h .

The flow plate and the protection roof as well are made of polished stainless steel.



TSPM INLET
according to VDI 2463 parts 5 and 8

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