



°Catalytic Stripper

SPECIFICATION

- 0.2 - 0.9 L/min (STP) nominal flow rate
- 380 °C operation temperature (recommended)
- Oxidation efficiency: 99.99% for Tetracontane (PMP)
- Solid Particle penetration: compliant to PMP regulations

APPLICATIONS

- Vehicle Emissions
- Marine Emissions
- Smoke measurements: E-cigarette, Tobacco
- Toxicological Assessment
- Aircraft turbine measurement
- Black carbon (BC) measurement
- Drone measurement

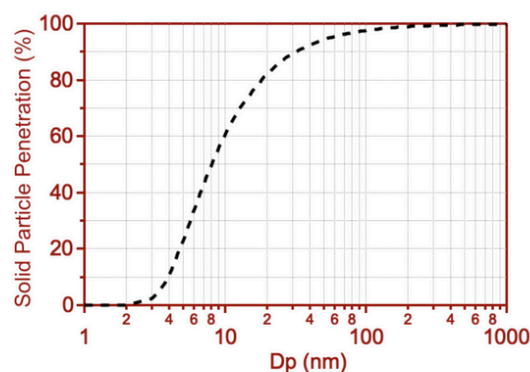
FEATURES & BENEFITS

- Small size & light weight
- Euro 7 compliant
- Low power consumption (7 W) steady state
- Customisable for flow & voltage
- Easy to install

All devices are CE marked and ROHs compliant

The **°Catalytic Stripper (CS)** is a device used in particle number measurement systems to eliminate volatile and semi-volatile particles, ensuring only solid particles are counted. It is required in the PMP protocol (EURO 7, EURO VII) for accurate particle emissions testing to reliably remove all volatile components of the aerosol. The **°Catalytic Stripper** is now required in order to meet these measurement conditions, as the previous technology of a simple evaporation tube is not capable to reliably remove all volatile components from the aerosol, resulting in measurement artefacts and incorrect data and interpretation.

Typical solid particle penetration curve



*No thermospheric losses considered (depends on application)

Specifications

Flow (LPM): 0.2 - 0.9
Inlet/Outlet: 1/4" Swagelok | 6 mm stub
Voltage: 12 V
Weight (g): 140g | 180g
Dimension (LXD): 115 mm x 65 mm
Thermo couple: K-type*

*Customizable on request

References

Swanson, J., Kittelson, D., Giechaskiel, B., Bergmann, A. et al., "A Miniature Catalytic Stripper for Particles Less Than 23 Nanometers," SAE Int. J. Fuels Lubr. 6(2):542-551, 2013, <https://doi.org/10.4271/2013-01-1570>
Giechaskiel, B., Löhde, T., Melas, A. D., Valverde, V., & Clairotte, M. (2021). Uncertainty of laboratory and portable solid particle number systems for regulatory measurements of vehicle emissions. Environmental Research, 197, 111068. <https://doi.org/10.1016/j.envres.2021.111068>
VDI 3491 Blatt 6 - Messen von Partikeln - Entfernen unerwünschter Komponenten

