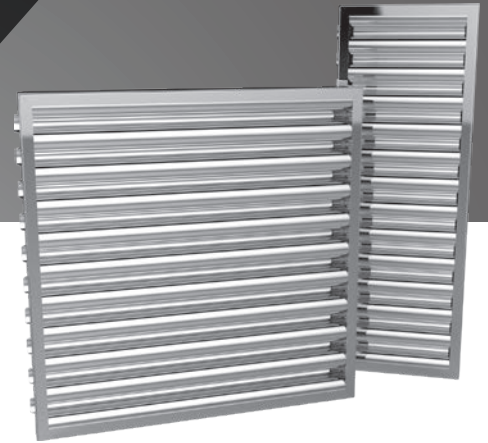


INDUSTRIAL KITCHEN VENTILATION

HIGHLY EFFICIENCY SEPARATORS BY ATREA

for cooker hoods and ventilated ceilings



AEROSOL SEPARATORS BY ATREA

Our primary aims always include high quality, efficiency and maximum benefits for our customers. Our kitchen aerosol separators are no different as they are among top European products in their categories.

ATREA's range has two types of separators:

1. **The louvre-type separator** is featured regularly in our cooked hoods and ventilated ceilings. Although it was launched several years ago, it subsequently complied without any trouble with the strictest requirements of the kitchen ventilation standard (EN 16282).
2. **The cyclone-type separator** with truly cutting-edge parameters is a new product in our range. Its high efficiency and innovative design make sure even the smallest aerosol particles in the air are separated while its clogging with separated aerosols is reduced to a minimum.

Both separator ranges underwent stringent testing at DMT, one of the top laboratories in Europe. They passed both the flame test and the ar-resistance test. This means compliance with the most stringent standards (VDI 2052, EN1 6282, DIN 18869-5 etc.) applied to kitchens. In practice, higher efficiency leads particularly to the increased cleanliness of air ducts and reduced intervals of frequency of replacing filters upstream of the exhaust fan or inside the AHU.

The operator and owner of Q-Burger Bar shared his practical experience:

"We used to have wire mesh filters. Because of the business we specialize in - we're a fast-food place making burgers and chips - they were totally inadequate. We had to clean up every day, the ductwork would get clogged with grease and we had to replace the fabric filter upstream of the motor once a week. Now with ATREA's cyclone separators we only have to clean them once a week, the air ducts don't get clogged and filters need replacing only once a month."



Selection software

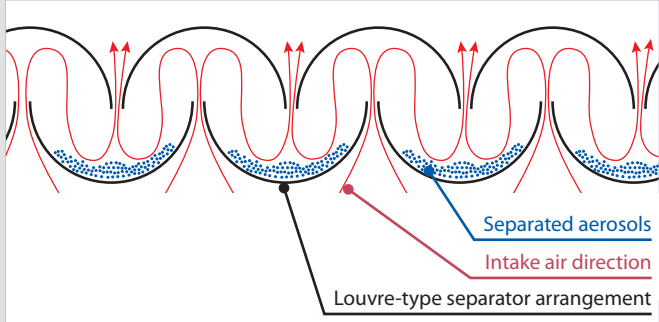
For the detailed design of ventilated ceilings, cooker hoods, accessories and control systems we recommend our specialized selection software.

You will find it on our website www.atrea.com

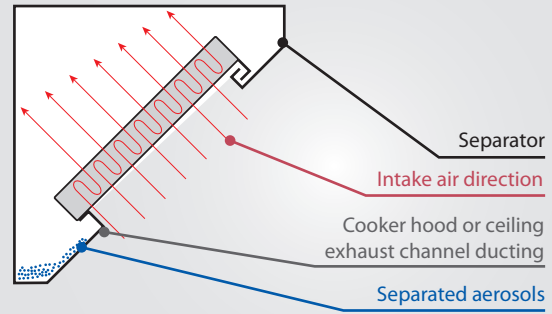
Atrea[®]

AEROSOL SEPARATORS BY ATREA

SCHEMATIC OF OPERATION OF LOUVRE-TYPE SEPARATORS

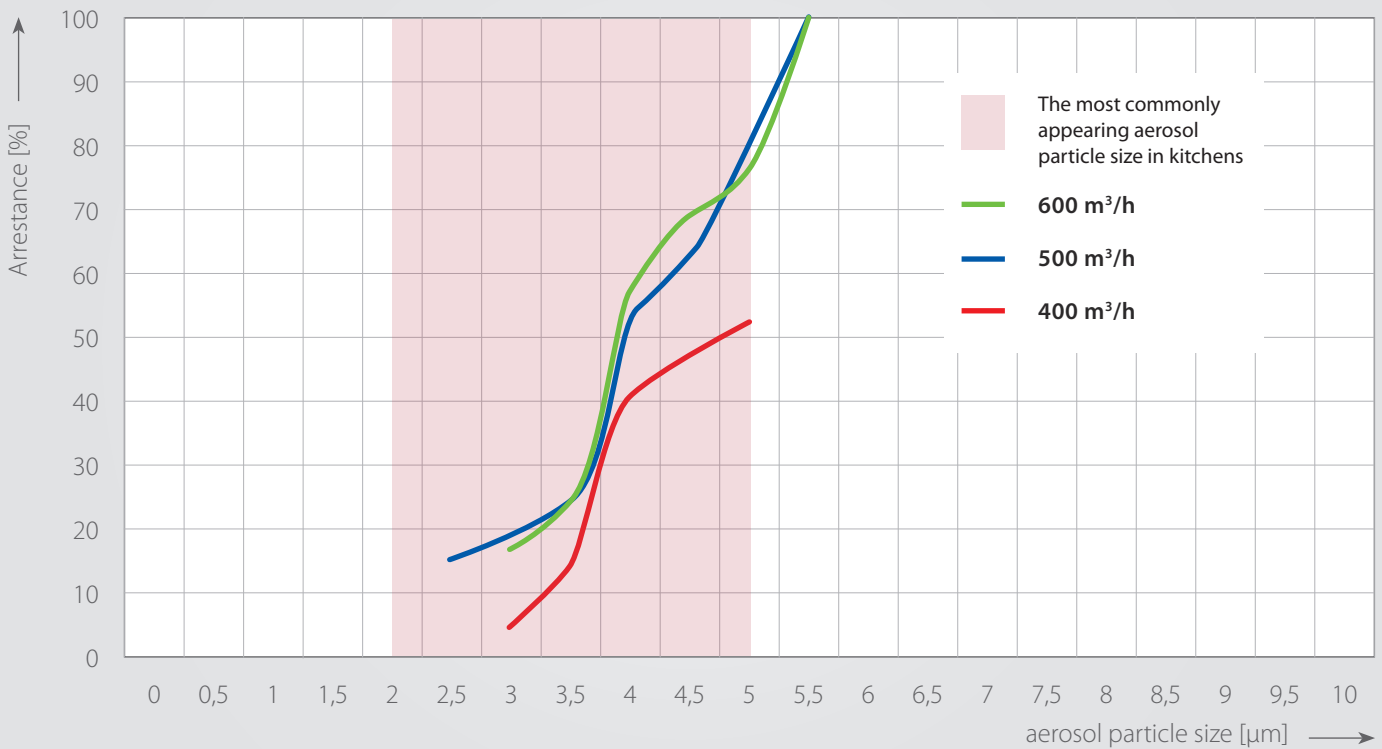


SEPARATOR INSTALLATION

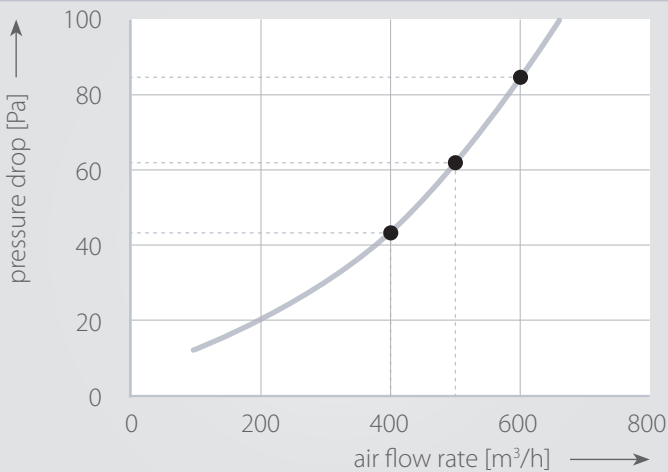


LOUVRE-TYPE SEPARATOR EFFICIENCY

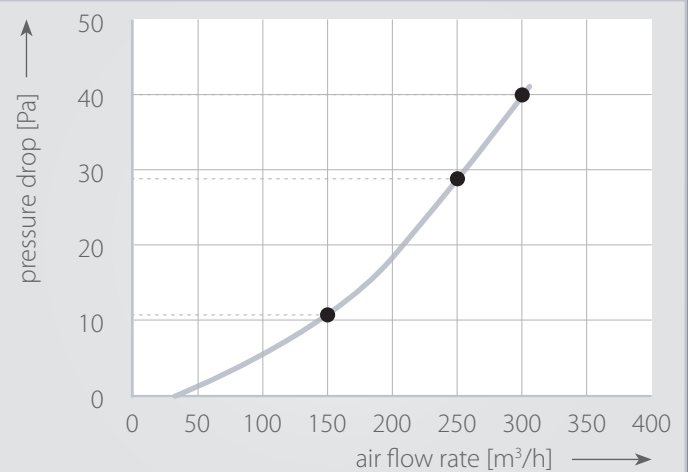
The aerosol particle size in kitchens is assumed to be 0.5–10 μm , most commonly 2–5 μm .



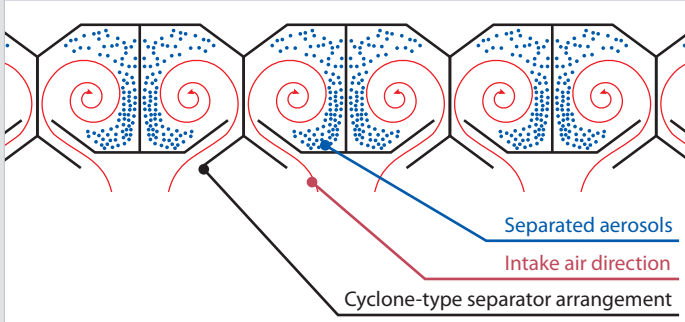
400x400 LOUVRE-TYPE SEPARATOR PRESSURE DROP



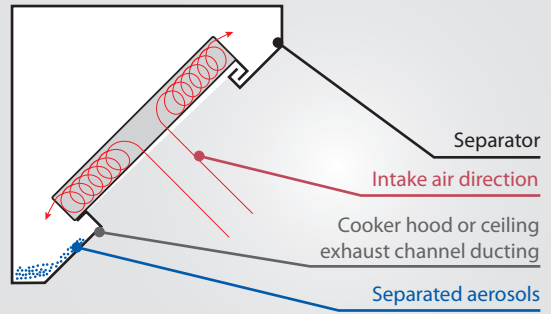
500x175 LOUVRE-TYPE SEPARATOR PRESSURE DROP



SCHEMATIC OF OPERATION OF CYCLONE-TYPE SEPARATORS

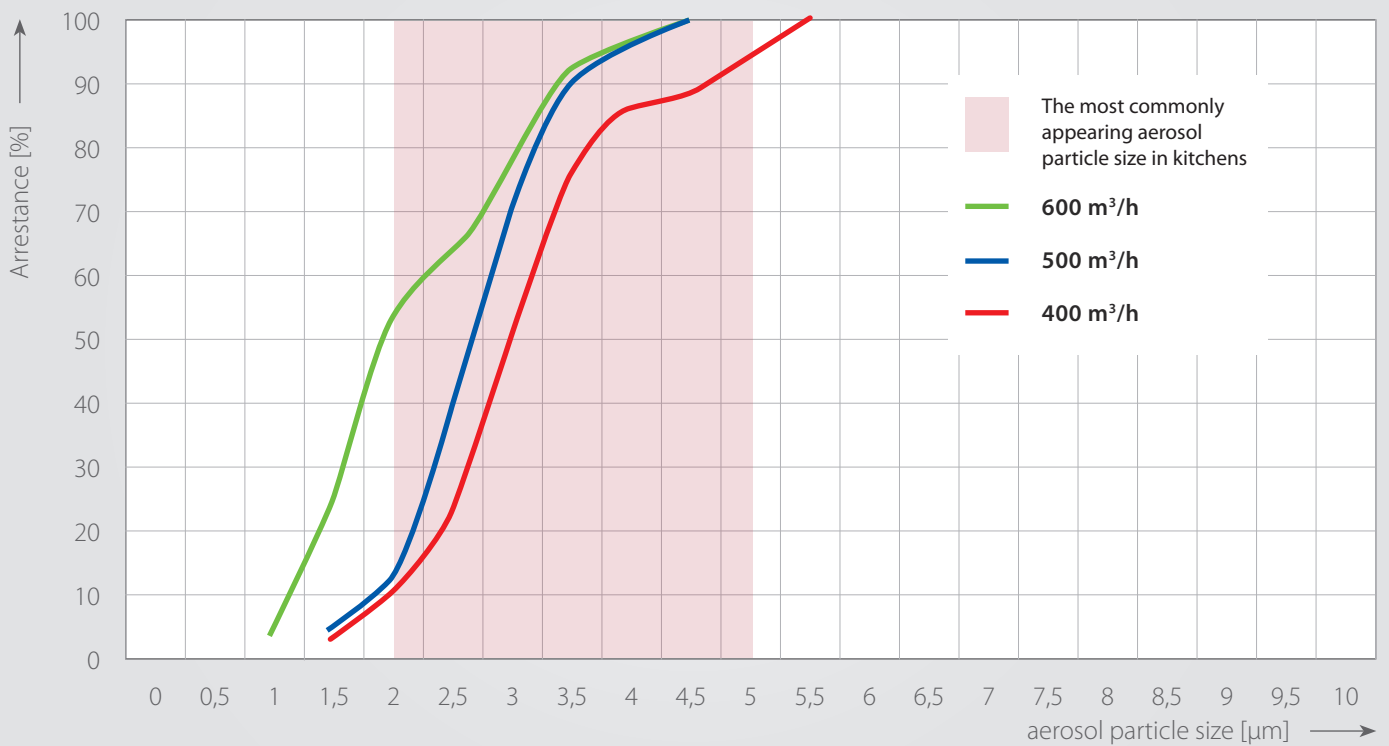


SEPARATOR INSTALLATION

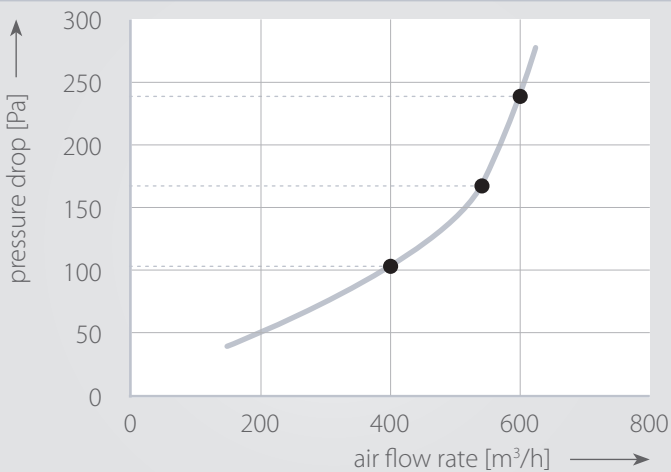


CYCLONE-TYPE SEPARATOR EFFICIENCY

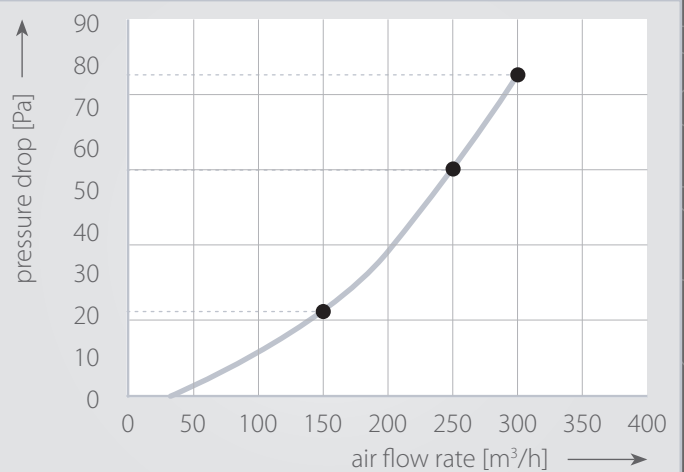
The aerosol particle size in kitchens is assumed to be 0.5–10 μm , most commonly 2–5 μm .



400x400 CYCLONE-TYPE SEPARATOR PRESSURE DROP

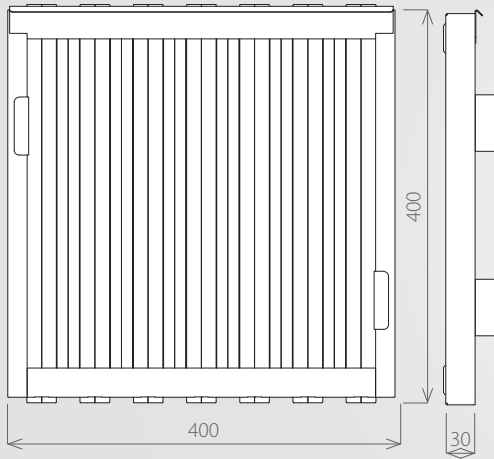


500x175 CYCLONE-TYPE SEPARATOR PRESSURE DROP

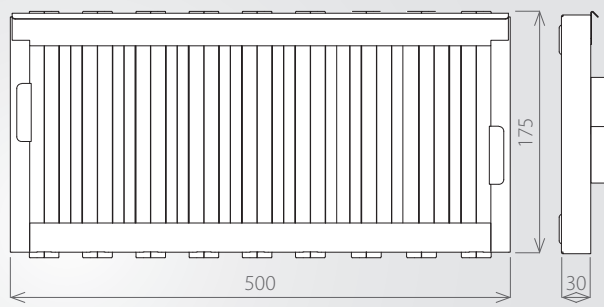


DIMENSIONS AND SIZING

Dimensional drawing of 400×400 mm separators



Dimensional drawing of 500×175 mm separators



Separator sizing

400×400 mm separators for cooker hoods = recommended air flow rate 500 m³/h / 1 piece.

500×175 mm separators for ventilation ceilings = recommended air flow rate 250 m³/h / 1 piece.

COMPARISON OF SEPARATOR EFFICIENCY

The aerosol particle size in kitchens is assumed to be 0.5–10 μm, most commonly 2–5 μm.

