

Exhaust Duct Heat Loss Reduced by 50 Percent

Working temperature near
unit dramatically improved



CASE STUDY

DETAILS

Location: Switzerland
Installation Partner: AGI

CHALLENGES

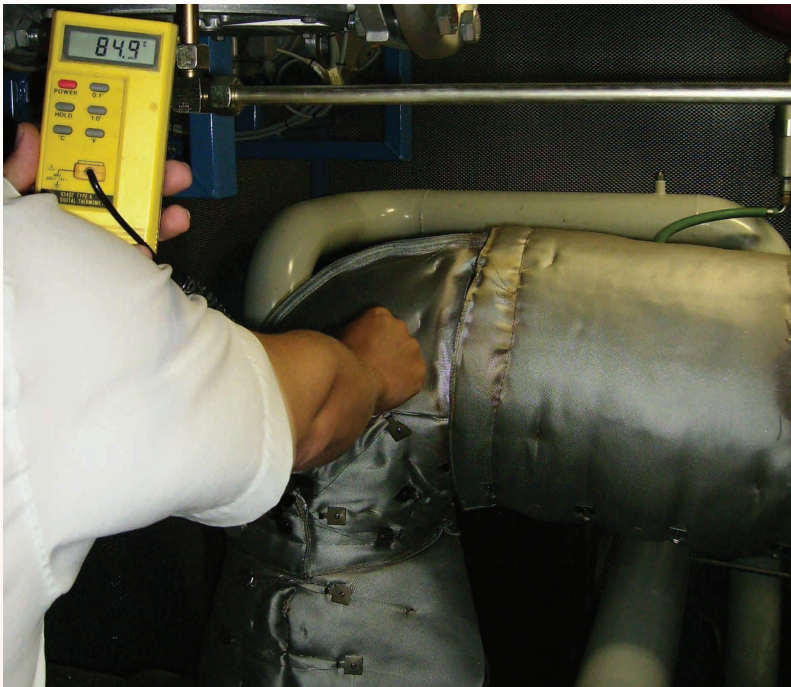
- Insulation of industrial incineration unit's exhaust duct.
- The insulation was used to prevent heat loss and protect personnel. Maximum temperature of the exhaust gas can exceed 500°C (932°F).
- The previous insulation solution was based on encapsulated ceramic fiber blankets. Due to limited space, the heat loss was creating an unacceptably high working temperature in the vicinity of the incineration unit.
- The touch temperature was 85°C (185°F), which was a health and safety risk.

SOLUTIONS

- Aspen Aerogels designed a multi-layer, encapsulated aerogel system that reduced the touch temperature and heat loss to acceptable levels.
- The hot-side temperature was reduced using **Pyrogel® 6670** with reinforcing layers of **Pyrogel® 6350**.
- The encapsulation and installation was carried out by AGI.

BENEFITS

- Heat loss was reduced by 50%.
- Touch temperature was reduced from 85°C (185°F) with ceramic fiber to below 50°C (122°F) with the thinner aerogel solution.
- The client requested that the whole incineration exhaust system be insulated with aerogel.



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