



Energy savings clearly in the picture

Systems: 50 Air Handling Units
Building: Museum and Art Gallery
Environment: City Centre Environment

This establishment is a prestigious city centre public building housing works of art. The building managers requested an Opportunities Assessment to identify any energy saving opportunities that are available in order that they can not only reduce operating costs, but also establish a framework to approach the forthcoming mandatory legislation on The European Energy Directive from Jan 2009.

The agreed objectives of the Assessment were to identify and prioritise actions that can be taken by the site to save energy, money and carbon. Estimates are based on surveying a typical Air handling Unit (AHU) and projecting the consumption across 50 AHU's.

The site is keen to be regarded by customers and their peers as applying the best practice in energy management.

Based upon an estimated 8760 hours running time per year @ 14,400 m³/hour with a fan efficiency of 60% and a period of 5 years (estimated installation life), Camfil undertook a Life Cycle Costing (LCC) analysis of the current filter installation in order to establish if any saving would be generated by a filtration upgrade.

The LCC also takes into account disposal costs (based upon € 1.4 per filter) and other factors such as potential cleaning costs, and Minimum Lifetime Efficiency (MLE), however labour costs for installation have not been included at this stage.

The current installation utilises two stage and some three stage air filter systems. We have based this calculation on the first two stages which are pre filter panel filters and secondary bag filters.



Projected savings

Based on 50 Air Handling Units over 5 years

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|---|---------|
| Cost saving per system (€) * | 1,894 |
| Cost saving for all systems (€) * | 94,679 |
| Energy saving per system (kWh) | 11,880 |
| Energy saving for all systems (kWh) | 594,000 |
| CO ₂ saving per system (tonnes) | 5 |
| CO ₂ saving for all systems (tonnes) | 250 |

* calculations based on € 0.062 / kWh

For further information regarding this service, please contact your local Camfil Farr office

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Camfil Farr Case Study
Opportunity Assessment Survey