



Energy savings, the best medicine

Systems: 300 Complex Air Handling Systems
Building: Pharmaceutical manufacturing and research facility
Environment: Rural location

This facility is a major centre for the manufacturing of pharmaceutical products and it includes an integrated research and development capability. 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 300 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, typical rated air flows, with a fan efficiency of 65% 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 waste disposal costs 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 low grade synthetic panel filters with secondary bag filters (this could not be established for all systems and has therefore been assumed for the purpose of the following calculation).



Projected savings

Based on 300 Air Handling Units over 5 years

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|---|------------|
| Cost saving per system (€) * | 15,403 |
| Cost saving for all systems (€) * | 4,621,101 |
| Energy saving per system (kWh) | 33,650 |
| Energy saving all systems (kWh) | 10,095,000 |
| CO ₂ saving per system (tonnes) | 72 |
| CO ₂ saving for all systems (tonnes) | 21,600 |

* calculations based on € 0.061 / 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