

CASE STUDY

DOPHOU - SHERATON AMSTERDAM AIRPORT HOTEL

OPTIMIZATION OF AIR HANDLING

Importance of Air Quality at the Sheraton Amsterdam Airport Hotel

Dophou from Bodegraven specializes in installing and maintaining cooling and air handling systems, among others. They have been responsible for maintenance work at the Sheraton Hotel in Amsterdam for many years. At this 4-star hotel at Schiphol Airport, ensuring a healthy indoor climate is a high priority. *"In addition to hospitality, we want to offer our guests optimal protection against fine dust and pathogens during their stay in our hotel,"* says Cees Moraal, HTD of the Sheraton Amsterdam Airport Hotel. But how is the air exchange managed, and how could it be further improved in light of the COVID-19 pandemic?

Air Handling Challenge

Erik van Leeuwen, technical manager at Dophou, worked with their regular filter supplier, Interfilter, to find the answer to this question. Together, they examined the air quality within the Sheraton Amsterdam Airport Hotel, looking for possible improvements in this area. The research revealed that the outdoor air around the hotel has a high concentration of fine dust particles (PM0.3, PM1.0, PM2.5). Inside the hotel, both mechanical supply and recirculation air are used. Therefore, it is extremely important to apply air filters that meet the WHO recommendations regarding maximum acceptable concentrations of fine dust, in order to create a healthy environment for all guests and employees at the Sheraton Amsterdam Airport Hotel.

Clean and Safe Air

Based on advice from Interfilter and in consultation with Dophou, bag filters of type NWES98 PLUS were installed in the air handling systems of the Sheraton Hotel. With an ISO ePM1-90% filter class, the NWES98 PLUS bag filters far exceed WHO recommendations. The high filter class also meets the REHVA guidelines for air recirculation within a building. Furthermore, the filter medium is coated with a virucidal layer (citric acid), which inactivates over 99% of any viruses that may be present in the filter. *"The additional costs for these filters were recouped within four months due to savings on our energy costs,"* says Cees Moraal. A Return on Investment (ROI) within four months is a great result for the hotel.

FACTS AND FIGURES



Optimal protection against fine dust with PM1-90% filters



Air recirculation is possible due to the virucidal effect



Energy label A+



The Return on Investment was less than four months



Guests can now be welcomed in clean air