

CASE STUDY

Health Care



Client:
Deventer Hospital

Location:
Deventer, The Netherlands

Date:
June 2020

Sector:
Health care

DEVENTER HOSPITAL REMOVES FUME AND PARTICLES DUE TO FOSSIL FUEL WITH THE HELP OF UNIQUE 2-IN-1 AIR FILTER

FINE PARTICLES ALONG WITH INDEPENDENT VOC'S (ESPECIALLY FUME DUE TO DIESEL) WERE CAUSING BIG PROBLEMS IN THE PATIENT CARE AREAS AND LABORATORIES IN THE HOSPITAL. USING CAMFIL'S MOLECULAR AIR FILTERS, DEVENTER HOSPITAL CAN REMOVE FINE DUST, GASES, ODOURS, FUMES FROM THE INDOOR ENVIRONMENT.

THE PROBLEM

A year back, the technical service department at Deventer hospital received complaints several times a year about unwanted diesel odours in different parts of the hospital building. Headaches was one the key problem among the laboratory staff.

In operating rooms, the problem was significant because the air is circulated directly from the exhaust vent onto the operating table. Despite sufficient filtration of particulate matter, harmful gases were entering the hospital building through the air conditioning system. Hospital's management technician, Tim Schrijver has secured the help and expertise of Dennis Bosscha from the installation firm Kropman Installatietechniek B.V. and Laurens Wolbers from Camfil, The Netherlands.

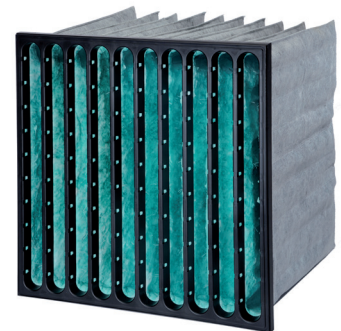
The key factor in consideration is that solving the problem from the root level is impossible as we have no control over traffic/diesel fumes coming from outside. There are many neighboring building under construction or repair and dust and fumes coming from different external sources here is unavoidable.

In addition, the emergency power generator is tested periodically, which then produces diesel fumes.

"During scheduled maintenance, the emergency unit is on all day, that just triggers the first set of complaints" - Tim Schrijver, Deventer Hospital

KROPMAN
INSTALLATIETECHNIEK

Deventer
ziekenhuis



CAMFIL CITY FLO-XL, UNIQUE 2-IN-1 AIR FILTER THAT REMOVES GASES, ODOURS, AND FINE DUST

THE SOLUTION

Capturing gases and molecules is possible by using activated carbon in the air conditioning system. Activated carbon is at the heart of all successful molecular filtration solutions. Camfil has a selection of proven activated carbons to target as wide a range of odours, irritants, toxic and corrosive gases as possible.

In this case, however, there is no space in the system to place an air filter with carbon media and the carbon filters entail extra resistance that is often not calculated with the fans. So, the ideal solution is a 2-in-1 filter installation at sections where the fine dust and fumes are the biggest concerns. This air filtration will save heavy investment in the air conditioning/ventilation system and removes harmful particulate matter from the indoor environment. This 2-in-1 filter doesn't involve extra resistance so there will be no load on the fan unit of the air conditioning system.

A big win for the hospital!

Since the installation of City-flo filters, there have been no complaints or concerns.

The 2-in-1 air filters, called City-Flo, are currently used in three air conditioning cabinets in different departments of the hospital building. After the installation, the technical department at Deventer hospital has received no complaints or concerns related to problems with dust, fumes, and odours.

Hospitals rely heavily on clean indoor air to ensure both the health of the patients and staff are protected. With Camfil, this is achievable as the solutions add an extra layer of protection to fight harmful particles that can cause problems to health and safety in the hospital environment.

City-Flo XL (product information)

- “2-in-1” filtration solution; particulate and molecular
- Low initial pressure drop
- Rapid Adsorption Dynamics (RAD)
- Ideal for filtering low concentration of most external and internal source pollutants
- Moulded, rigid and aerodynamically shaped plastic frame
- Can be used to upgrade existing installations
- ePM1 60% acc. ISO 16890

