

SAAF Deep Bed Scrubber (DBS) Provides Ultimate Solutions for Heavy Airborne Molecular Contaminants

CASE STUDY - DBS

Customer Profile

- Founded in July 1991
- Headquarters located in Singapore
- Production located at Johor, Malaysia

The Filtration Situation

Gaseous pollutants especially those are colorless and odorless always exist as a critical issue to the organization. These type of gaseous contaminants not only will bring negative impacts to the product but also to the personnel who working in that environment.

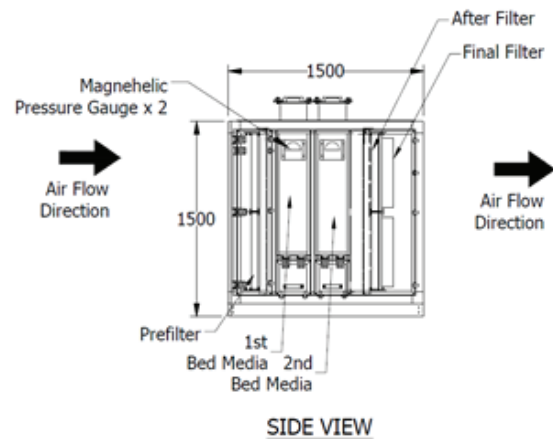
In this case study, high concentration of formaldehyde caused a critical issue to customer not only to their testing but also personnel in that lab. Their requirement of this project is to reduce the initial concentration of parts-per million to parts-per billion with 95 percent removal efficiency. On the other hand, due to there are other activities and testing conducted inside the lab which will also generate some others gases like sulfur dioxide, nitrogen oxides, benzene, ozone, etc. Hence it is also essential that the air been treated before exhaust out form the premise for the safety of nearby residential area.

The AAF Solution

After consider the heavy airborne molecular contaminant loading is anticipated and other relevant conditions at the customer site, AAF International representative proposed SAAF Deep Bed Scrubber (DBS) which provides highest "chemical media-to-air" ratio for heavily polluted environments that require air quality guarantees and optimal cost of ownership for this application.

There are two different solutions provided for air intake and air exhaust application respectively. For air intake, the media we proposed is SAAFOxidant which designed to efficiently remove formaldehyde from airstreams.

For air exhaust, the media used is SAAFBlend GP (an equal volumetric mix of SAAFCarb and SAAFOxidant media) to target for the removal of mixture of Volatile Organic Compounds (VOCs) and other gaseous contaminants.



The filters arrangement for the DBS are prefilter, 2 stages of media bed followed by 2 stages of particle filters as shown below:

2" AmAir300E, G4 → SAAFMEDIA → SAAFMEDIA → 2" AmAir300E, G4 → 4" VariCel II MH, F8

With DBS, not only the concentration of gaseous contaminants successfully bring down to below 10 parts-per billion but also provide optimal cost of ownership due to only media replacement required for this type of equipment.



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