THE WORLD LEADER IN CLEAR AIR SOLUTIONS

Protecting Equipment from Corrosion in Data Center Application

CASE STUDY - DATA CENTER

Customer Profile

- Location: **PAN India**
- India's largest Integrated Telecom & Internet Data Center Service Provider
- Leading player in colocation data center business
- Has multiple data centers in operations across India

Air Quality within data centers is more crucial today than ever due to rising air pollution. Data centers have unique requirements and strict regulations on inside air conditions and quality, compared to a typical commercial application. Particulate and corrosive gaseous contaminants have become a serious problem for hardware in data centers and server rooms. Data centers should be protected effectively from the threat of atmospheric and indoor contaminants.

Filtration Situation

The requirement for data center infrastructures is booming in India. One of the leading data center providers was expanding aggressively to set up new centers all over India since 2016. The data center hubs identified in India are Mumbai, Bengaluru, Chennai, Delhi, and Hyderabad. India's vast geographical and weather conditions require different indoor air solutions which becomes the customer's pain point to strategize solutions to maintain G1 condition in each location.

For instance, one of their key facilities built near a refinery was suspected to face the challenge of corrosion due to high gaseous contaminants present in the surroundings. The source of these gas contaminants was from ambient air that can originate from various nearby industries or other sources from reclaimed landfills and gases emerging from the exhaust of vehicles in an urban setup.

Our customer was not new to gas-phase technology. They installed gas-phase filtration products of a competitor in the facility, but they could not be able to solve their corrosion issue. The customer was keen to investigate different filter solutions for their various install base in PAN India region.v

The customer called AAF to analyse the air quality and provide a suitable solution to upgrade their current system to achieve G1 classification as per ISA 71.04 standard.

AAF International Solutions

AAF scheduled an air filtration audit for each location and provided air quality tests for both ambient and indoor air. The test consists of passive and online monitoring for the protection of various gases. This was done by using corrosion coupons and continuous online monitoring devices. The selection of the media was done based on AAF data center application, acidic gases in the ambient air, oxides of Nitrogen and VOCs that emerge from indoor pollutants

After the air quality audit, sales engineers proposed Total Cost of Ownership (TCO) report which read about the solution planned to provide and the financial solution the customer would get by installing a heavy-duty SAAF ™ Deep Bed Scrubbers (DBS) at their premises.

SAAF™ Deep Bed Scrubbers are heavy-duty particulate and gas-phase filtration system, used in mission-critical and industrial applications around the world. It is suitable for the most challenging applications where heavy particulate and Airborne Molecular Contaminant loading is anticipated. These units are made in-house at our facility in Bangalore which makes it convenient for customer allows the customer to see the quality and Factory Acceptance Test (FAT).

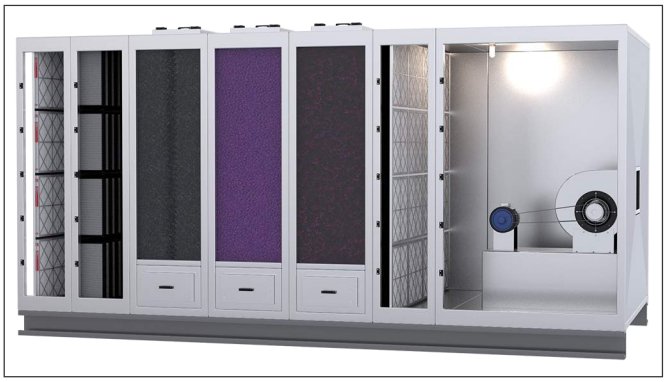

Image 1: SAAF™ Deep Bed Scrubbers (DBS)

For its Delhi facility, AAF proposed SAAF™ Recirculation Air Purification Unit (RU), a stand-alone complete air purification system, because of site conditions and existing HVAC design. The RU unit was proposed to control the gas-phase contaminants in the environment.

SAAF™ Recirculating Unit draws contaminated air from a room, cleans the air and then returns the cleaned air back into the room. It recirculates and cleans the air in a controlled environment. These units were proposed to place in multiple numbers in multiple blocks based on gas analysis report done before the installation.

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Image 2: SAAF™ Recirculating Unit

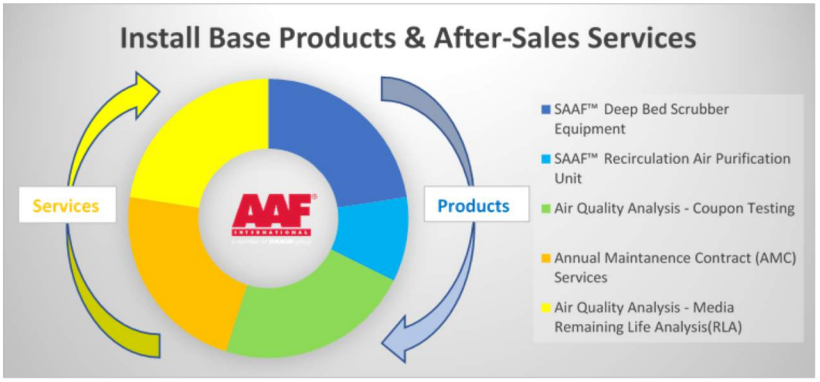

Image 3: Pictorial diagram represents products and services provided to customer

Results

AAF won 7 cities project by proposing different products and solutions to the customer based on the site conditions. The customer was impressed with the air quality analysis generated in each location, PAN India presence, in-house manufacturing facility and TCO report. With the strong network and service across India, AAF becomes their trusted partner for all their current and future projects.

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AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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