

AAF Helps Convert Standard Laboratory into Corona Testing Lab

CASE STUDY: LABORATORIES

Customer Profile:

- Location: **Bengaluru, India**
- Founded in 1987, one of the leading diagnostic labs in South India
- First diagnostic laboratory in South India to gain NABL accreditation

Filtration Situation:

As per the health ministry's latest data, Corona Virus cases in India is crossing the 4 lakh mark. WHO has provided the checklist to the testing laboratories that are receiving and processing suspected or confirmed cases infected with novel corona virus. WHO recommended that all diagnostic laboratory work and PCR analysis on clinical specimens taken from suspected corona virus patients should be conducted according to practices and procedures described as per WHO laboratory biosafety manual.

As per the manual, the laboratories must adopt a controlled ventilation system to maintain directional airflow into the laboratory room. Exhaust air from the laboratory room should not be recirculated to other areas within the building. Air should be HEPA filtered if reconditioned and recirculated within the laboratory. When exhaust air from the laboratory is discharged to the outdoors, it must be dispersed away from occupied buildings and air intakes. This air may be discharged through HEPA filters.

The laboratory consulted their solution provider to upgrade its air filtration system to handle suspected or confirmed corona virus cases.

AAF International Solution:

The solution provider consulted the world's largest air filtration expert, AAF for the optimum solution for this emergency issue. AAF recommended the newly launched three-stage high-performance filter equipment with UV light - PurAir 350C ceiling-mounted unit.

PurAir 350C is compact design ceiling mounted unit integrated with three-stage of high-performance filters which can efficiently remove indoor fine particles, harmful gases, bacteria and virus.

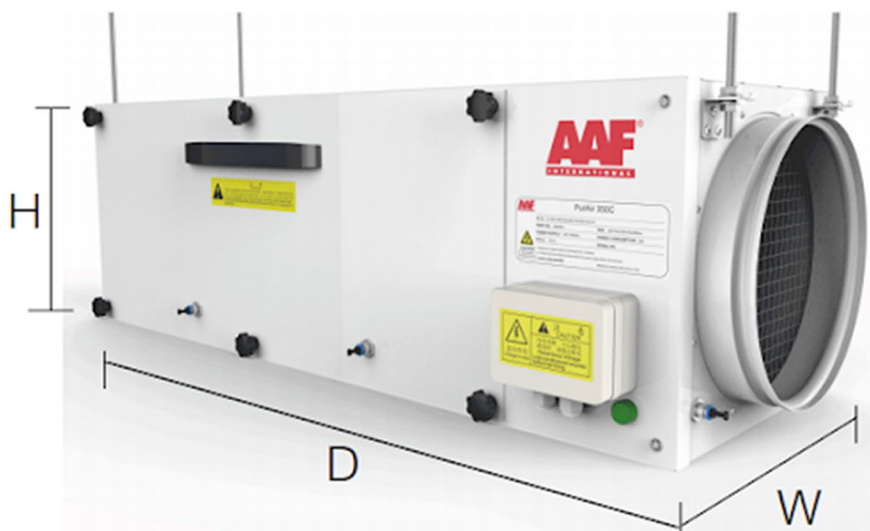
Stage- 1: Coarse panel filter (AmAir) to effectively remove indoor large particles, dust and hair.

Stage- 2: Gas-phase filter (VariCel RFC) to effectively remove indoor TVOC, odor and harmful gases such as formaldehyde.

Stage – 3: H14 HEPA filter (AstroCel - II) to remove indoor fine particles such as PM2.5, PM1 and bacteria and virus.

Stage – 4: UV light

The machine adopts EC fan and a three-speed switch function. The optimized sealing structure can effectively control noise. A quick ceiling mounted structure design is suitable for ducts and surface mounted environments. Its easy-to-access design helps maintenance activity. It also comes with a humanized automatic stop function adopted to open the cover to protect operator safety.



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Real-Time Installation Picture:



Results:

The PurAir 350C is performing as expected and as a supplement to safe exhaust air, it can be connected to an existing fresh air system or mixed (fresh & recirculating) air system. The addition of filters to the existing HVAC system as per ISHRAE / ASHRAE guidelines would have a significant variation in the pressure drop which, the current fan may not be designed to take care of. So, this equipment itself has a fan that will take care of the additional pressure drop due to several filtration stages. The user and the solution provider were highly impressed with the functioning of PurAir 350C as it was a perfect retrofit solution to upgrade the current lab to handle the corona virus tests without impacting the existing HVAC system.

About AAF:

Founded in 1921, AAF is a name recognized globally for quality, expertise, and innovation in Air Filtration. It is headquartered in Louisville, Kentucky, USA and has operations in 23 countries and 6 R&D centers worldwide. It is a Daikin group company which is a diversified international manufacturing company and a global leader in air-conditioning with the group annual revenue of \$23 billion USD.

AAF International entered India in 2006 and has established 2 plants in Bangalore and Noida with its headquarters in Bangalore. AAF has occupied an advantageous position in the Indian market and has maintained the leading position in the filtration industry.

AAF provides solutions for:

- IAQ to protect people at healthcare facilities, airports and commercial complexes
- Cleanroom filtration to protect processes
- Gas-phase products for gaseous contaminants like VOCs and corrosive/toxic gases
- Air Pollution Control – Dust collectors and smoke collectors
- Gas Turbines – Auxiliary equipment, filters, repairs, refurbishment, retrofit and upgrades

AAF is a company with an outstanding industry record. The company has provided clean air for more than 99 years. Superior industry knowledge and an outstanding team of air filtration professionals mean the customers receive top quality products and services at a competitive price. From inexpensive disposable panel filters to high efficiency extended surface filters with antimicrobial media, AAF markets

the widest range of air filters available. AAF has developed and introduced most of the filter designs throughout the industry, including the mini-pleats, extended surface bag filters and Perfectpleat.