

THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# AstroPure

Self-Contained HEPA Filtration Unit



FY22

**AAF**<sup>®</sup>  
INTERNATIONAL  
a member of **DAIKIN** group

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Self-Contained HEPA Filtration Unit

## Introduction

Most people are aware that outdoor air pollution can impact their health, but indoor air pollution can also have significant and harmful health effects. EPA studies of human exposure to air pollutants indicate that indoor levels of pollutants may be two to five times — and occasionally more than 100 times - higher than outdoor levels. These levels of indoor air pollutants are of particular concern, because most people spend about 90 percent of their time indoors. For the purposes of this guidance, the definition of good **Indoor Air Quality (IAQ)** management includes:

- Control of airborne pollutants.
- Introduction and distribution of adequate outdoor air; and
- Maintenance of acceptable temperature and relative humidity.





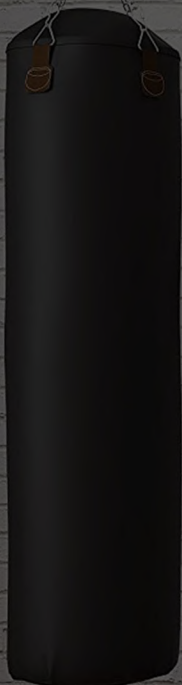
## EDUCATIONAL FACILITIES

Educational facility like schools and universities are the most common places for having a higher density of people in a common space and according to the Organization for **Economic Cooperation and Development (OECD)** research, students will spend an average of 1300 hours a year in an educational facility, and teaching staff, administration staff, and other university personnel will focus on assisting them in learning and growing.

As per **ASHRAE** guidelines for the reopening of schools and Universities the typical air change rates vary between 6~10.t

## APPLICATIONS

- Locker rooms
- Classrooms
- Library
- Auditoriums
- Cafeterias
- Laboratories



## GYMNASIUMS / YOGA / AEROBICS / DANCE CLUBS

People spend time in these facilities to relieve the body and mental strain and improve the wellbeing. Odour and VOC issues are the most common irritant in Gymsnasiums /Yoga / Aerobics and Dance Clubs. People sweat and rate of breath are typically high in these areas which causes the odour and irritant issues. Poor Ventilation is also a cause of the irritation and people with rapid heart rate during the activity may feel claustrophobic.

As per **ASHRAE** guidelines for the gymnasiums, typical air change rates need to be maintained between 8~16.

## APPLICATIONS

- Exercise Theatre
- Lobby
- Lounge
- Locker Rooms

## HOSPITALITY INDUSTRY

The Hospitality industry is a client-centered segment, with the main sub-sector hotel. Hospitality segment provides shelter, food, and refreshment. Having peaceful dinner / stay with family / friends and colleagues are enjoyable only when a clean and safe environment is present. Clean environment is also a consequence of better air quality.

As per **ASHARE** guidelines for the hotel and hospitality Sectors, the typical air quality change rates vary between 4~12.

## APPLICATIONS

- Lounge
- Casino
- Suites
- Meeting Area
- Restaurants
- Indoor Activity Area



## HEALTHCARE FACILITIES

Healthcare facilities are the spaces with fast people movement and a typical air conditioning space with poor filtration pose the threat of infection spread and poor **Indoor Air Quality (IAQ)**. Poor IAQ in the facility, referring to the air breathed by the occupants i.e., patients, caretakers, doctors, nurse and staff. Therefore, it is the mandatory requirement to keep them away from contagious hospital-acquired infections (HAIs). As per the IAQ standards and WHO guidelines higher-grade filtration would control the outbreak.

As per **ASHRAE** recommendation for health care Facilities the typical air change rates vary between 4~20 based on the type of facility.

## APPLICATIONS

- Lobby
- Outpatient Department (OPD)
- Laboratory Services
- Pharmacy
- Patient Room
- Operation Theatres
- Hallway
- Ambulance Services
- Blood Bank
- Food court
- Emergency Department



## COMMERCIAL FACILITIES

Banks, Financial Sectors, IT Sectors and Commercial Workspaces are the power houses for a country's economy. The Indoor Air Quality is becoming the major concern to improve the productivity and business. Controlling the sick building syndrome would be the major concern for the facility managers and improving the air quality will be the only remedy. The Recent guidelines to upgrade the air filtration grades are best complimented to use Air purifiers.

As per ASHRAE Guidelines for the Indoor Air Quality and Ventilation requirements for the commercial buildings the typical air change for banks range from 3 ~ 6 based on the space constrains.

## APPLICATIONS

- Workspaces
- Meeting Rooms
- Transaction Counters
- Lobby
- Waiting Area
- Cafeteria / Pantry



## AIRPORTS / METRO / BUS / TRAIN TERMINALS

Public transportation facilities like airports have movement of people across globe. These spaces are critical to contain the infection spread and travel related sickness are very common. People spend time in Airports on an average of 6 -8 hours during international transfer and 2~3 hours during local transfer. Similarly, lounges of metro and bus stations are severely crowded and poor air quality would affect the health of the passengers and the staff.

As per **ASHRAE** guidelines for the airports and local stations, typical air change rates need to be maintained between 8~16.

## APPLICATIONS

- Lounge
- Shopping Plaza
- Waiting Areas (Closed Space)
- Cafeteria / Restaurants
- Enquiry Area



### SHOPPING MALLS AND LOCAL SUPERMARKETS

Most people gathering spaces are the local super markets and malls where diverse age group people and pets are common. The challenge in keeping the air clean free from dispersed aerosols, pet hair / dander and odour is very high. Air-conditioned spaces are more prone to aerosol dispersion due to the placement of the return air diffusers in the far away spaces with racks and counters as an obstruction.

As per **ASHRAE** guidelines for the **Indoor Air Quality** and ventilation requirements for the commercial buildings, the typical air change for supermarkets range from 3-6 based on the space of filtration chosen.



### RELIGIOUS BUILDINGS

Religious buildings are one of the closely occupied spaces. Poor ventilation and poor air ambience may lead to aerosol dispersion and recirculation of the same. Poor air ventilation with more occupants would lead to nausea and suffocation. Better air circulation in these spaces important to improve the circulation of purified air and thereby to reduce the effect of poor ventilation.

As per **ASHRAE** guidelines for the religious buildings, typical air change rates need to be maintained between 6-12.

### WAREHOUSES

Warehouses are always engaged with the continuous passage of a larger number of occupants and with goods, vehicles (Trucks, Forklifts). All these materials may release volatile organic compounds (VOC's), obnoxious gases & particles into the premises.

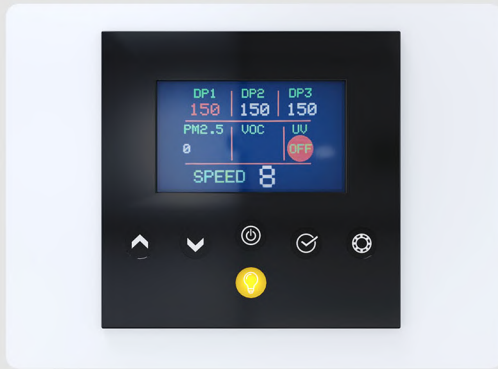
Eventually, the indoor air inside the commercial buildings will lose its quality. Moreover, the most common challenge is the lower concentration on ventilation facilities, indoor air recirculation systems. As a result, occupants in Warehouse environment are more susceptible to poor health.

As per **ASHRAE** guidelines for the warehouses, typical air change rates need to be maintained between 6-18.

# One AstroPure Many Applications!

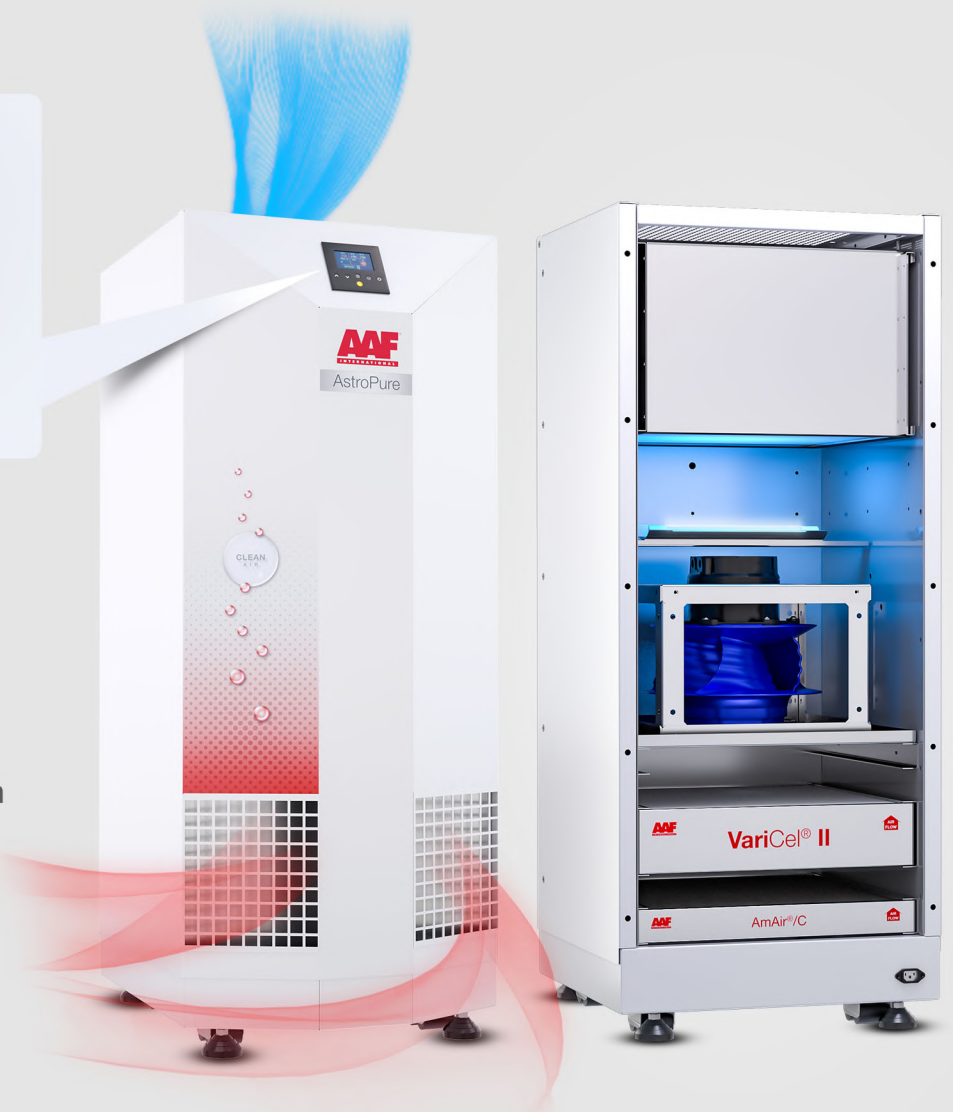
# What's inside?

## Standard Controller



## Features

- Single Skin Housing
- Three Stage Filtration
- Optional UV Light Provision for Disinfection
- Quieter Operation
- Suitable to Most of the Application Space and Areas
- Live Monitoring of Indoor PM 2.5 and VOCI
- Filter Status Monitoring & Changeout Alarm
- BMS Connectivity



AmAir® /C



- Disposable filter for economical, effective, gas-phase and particulate filtration.
- Economical solution to many gaseous contaminant problems including odours.
- Easy to install.

VariCel® II



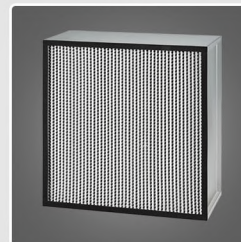
- Fine Efficiency Filter
- Micro glass Fibre Media
- Engineered for High performance application
- Easy to install.

MEGAcel® I



- Lower energy consumption
- AAF ePTEF media delivers ultra-high efficiency with lowest pressure drop
- Negligible off-gassing properties
- More resistant to rough handling in transportation and installation

IndiCel® I



- Lower energy consumption
- Lowest Pressure Drop compared to other filters of same grade
- Synthetic Media with Antimicrobial Layer

UV Light (Optional)



- UVC Germicidal Lamp
- Best suited for surface decontamination
- Programmed to Trap and Kill Function

# Technical Specification

Name of Purification System	AstroPure FY21
Type	Portable/standalone floor standing unit
Overall Dimension	1190 mm (H) x 520 mm (W) x 595 mm (D)
Footprint of the Unit (Sqm)	0.309
Air Flow Capacity (Rated Airflow)	400 ~ 1000 CFM
Coverage Area in Sqft	200 ~ 500
Electric PowerConsumption	230V / 1Phase /50/60Hz / Class B (0.32 ~ 0.8 KW)
Motor Type	EC Centrifugal Fan
FPD (Pre) Pa	250
FPD FINE &HEPA) Pa	450
Construction	Galvanised Steel Powder Coated
Overall Unit Weight	Estimated shipment weight is 120 kgs
Warranty Against Manufacturing Defects	1 Year
Filtration efficiency	99% (integral)
Sound Level	<55 dB
Prefilter	AmAir C: 1.5' x 1.5' x 2"
Fine Filter	VariCel II: 1.5' x 1.5' x 4"
HEPA Filter	MEGAcel I / IndiCel I: 1.5 x 1.5 x 1'
Control	LCD Screen and BMS
Special Features	Filter Status and Alarm, Air Quality measurement of Indoor air with PM2.5 and VOC Index

## Applications\*\*

# IAQ and Covid Protection



\*\* Suitable for all Conditioned buildings





## Proven Expertise of AAF

AAF offers the most comprehensive air filtration portfolio in the industry, including particulate and gas-phase filters, to provide a customized clean air solution. Each product is carefully designed, manufactured, and tested in full compliance with all applicable standards to meet the most challenging demands with the lowest Total Cost of Ownership.

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### India Sales Office

AAF India Pvt Ltd  
Plot No. 117 & 118, Bommasandra – Jigani Link Road  
KIADB Industrial Area, Bandenallasandra Village, Anekal Taluk,  
Bangalore – 560 105, Karnataka, India

AAF India Pvt Ltd (Bangalore) Tel : +91 94487 51680



[www.aaf-india.com](http://www.aaf-india.com)

### For enquiries email us at

India: [info@aafindia.net](mailto:info@aafindia.net)

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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For customer feedback or grievances, please write to: [feedback@aafindia.net](mailto:feedback@aafindia.net)