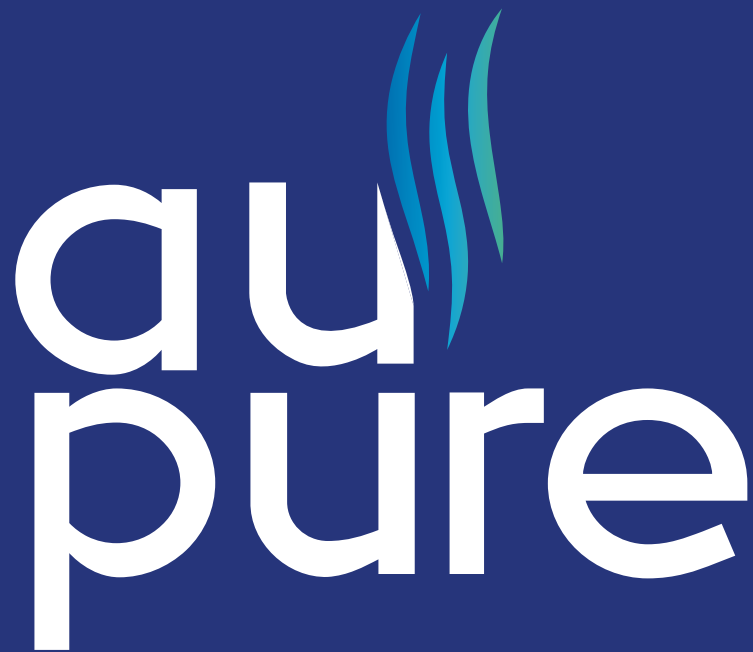
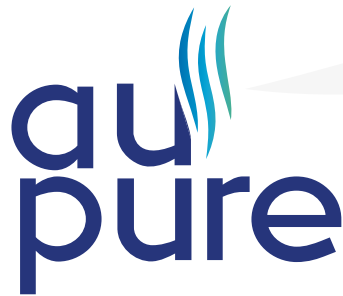




Air Quality Solutions



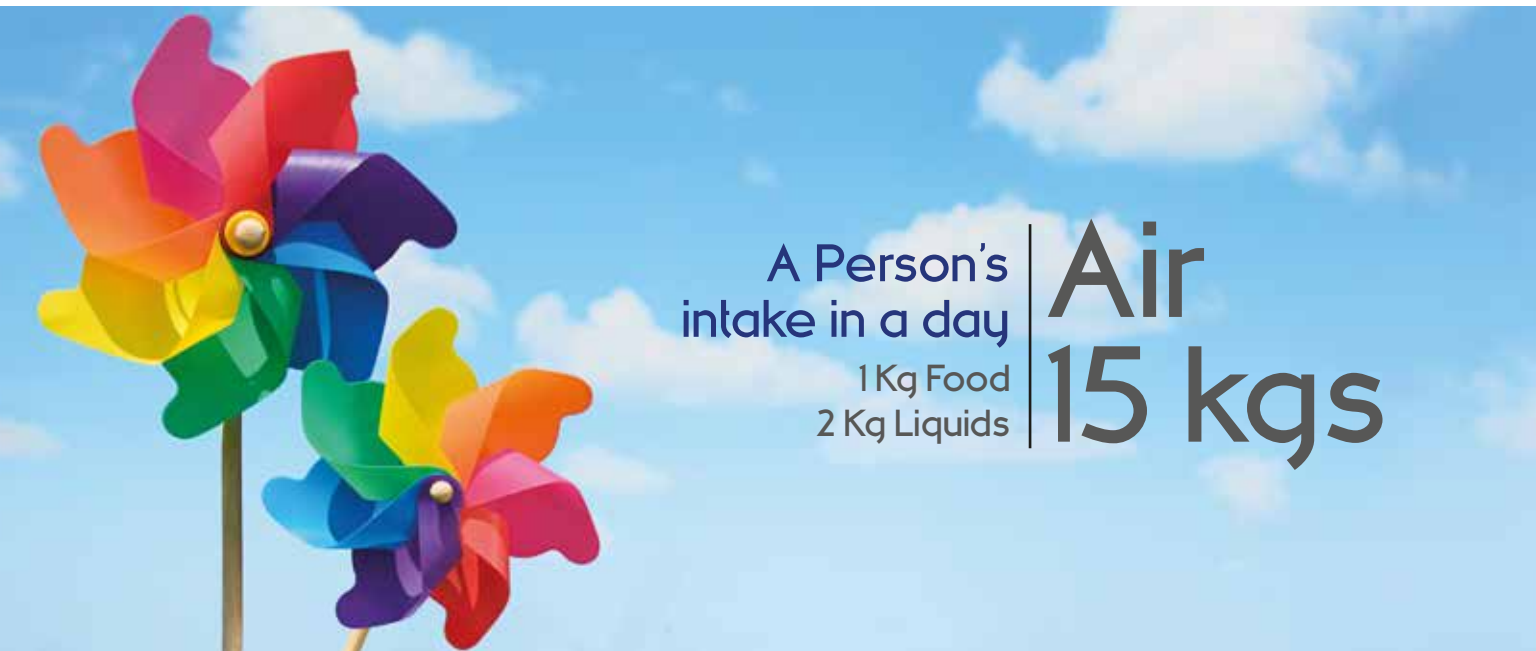
At **Au Pure**, our Solutions are leading-edge and even radical, yet our goal is simple: to continue to provide technologically advanced and integrated solutions, to enhance our clients image, creating financial value and providing best in class support and service, while delivering better indoor environment to work, live & breathe.

Why Indoor Air Quality Matters

Invisible and often ignored, Indoor Air Pollution hides lethal dangers to human health and damages productivity and cognition.

Indoor air is 3 to 5 times, and in some cases unto 100 times, more polluted than outside air. It is filled with Volatile Organic Compounds (VOCs), harmful particulates, various aldehyde and microorganisms like viruses, bacteria, mold, spores and pollens.

Au Pure specializes in improving the Indoor Air Quality, with specific solutions for specific needs to offer a comprehensive improvement in the Indoor environment.



Time
Spent
Indoors

90%

More than 50% of awake time is spent outside homes, in office, schools, malls etc.

Indoor Air Contains

Bacteria
Virus
Mold
Spores

Odors
Pathogens
Contaminants

How Air Quality affects you?

To build your brand loyalty and long-term value, especially, in today's competitive and dynamic business landscape, how can Air Quality play a role? How can **Au Pure** help?

Neuromarketing research provides a correlation between the air quality and the customer experience and positive brand associations in a cleaner and more welcoming indoor air environment.

Commercial Benefits Of Better Indoor Air Quality

Upto 20% savings in energy costs

Optimizes HVAC performance

Cuts maintenance expenses

Enhances customer retention & higher revenues

Reduces customer complaints

Indirect Benefits Of Better Indoor Air Quality

Customers & guests spend more time at outlet / hotel improving revenues

Staff / employees perform better in cleaner indoor environments

Students' cognitive skill improves in higher quality indoor air

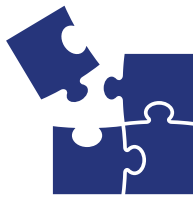
Some of our Customers



Au Pure Solutions for Air Quality

Au Pure is a leading Integrator of Air Quality Solutions.

At **Au Pure**, we employ complimenting technologies and solutions from the world's leading technology providers including specially suited assemblies / modular solutions to suit specific project needs.

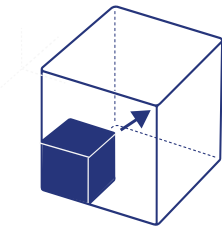


INTEGRATED SOLUTIONS

Technology Neutral approach

360 Degree Cover

Lifecycle & Maintenance Support



SCALABLE

Modular & Integrated Solutions

Retro-fit & New build installations

50 sqm to 50 million sqm solutions



VALUE DRIVEN

International technology collaborations

Extensive technical know how

Sustainable IAQ approach



Smoke Filtration

A Smoke-free environment is a key ingredient in a welcoming ambiance, especially focusing on eliminating passive smoking. **Au Pure's** leading smoke filtration systems are designed to treat Cigarette / Cigar / Sheesha smokes while also purifying the air and removing harmful suspended particulates, odor producing VOCs / gases and microbes.

The systems are designed/customized to work on variable cleaning speeds and are configured based on the layout of the outlet serving its esteemed occupants / guests suitable for different kinds of tobacco smoke.

At **Au Pure**, we help in Eliminating Passive Smoking

Technologies / Solutions employed in Smoke Filtration:



Integrated Smoke Filtration Solutions
Multi-stage, Multi-technology Smoke Filtration
+ Odor Management Systems
Concealed Units / Cassette Type
Wall Mount



Air Treatment
Ionization
UVC / UVC + Oxidation
Oxidation
Ozone



Filtration
Media Filtration
Esp Filtration
Other Specialized Filtration



Odor Management
Odor Abatement Solutions
Aroma Diffusion

Sustainable Solutions

From an option to a necessity, and, now a pre-requisite, Sustainable solutions are the key to long term success of any solution.

At **Au Pure**, we not only focus on leading air quality solutions, we also offer specific solutions to enhance energy efficiency and reduce power consumption for specific solutions.



From Kitchen Extract energy management to highly efficient cooling coils to designing HVAC solutions, using ASHRAE approved IAQ methodology to reduce Outside Air which reduces overall cooling (or heating) load on HVAC systems, we offer a range of solutions to directly and indirectly support the environment while optimizing the overall cost of ownership.

Technologies / Solutions employed in Sustainable Solutions:



**Application based IAQ Procedure
HVAC Design calculation system**



**Sensor based Kitchen extraction
Energy management system**

Odor Management

Odor is a sensory (olfactory) confirmation of foreign elements in air, mostly harmful that can potentially cause infections diseases, nausea, asthma, allergies, headaches and irritation. In addition to regular contaminants, it also contains multiple aldehydes and BTEX (benzene, toluene, ethylbenzene and xylenes).

Odor management, hence, is a critical and integral part of any infrastructure for overall air quality and healthy environment.

Based on the kind of odor to be managed, from general human odor, to food odor to even waste/sewage odor, our approach to odor abatement includes review of sources and solutions include provisions for proactive mitigation and effective treatment of residual odors.

Au Pure offers the clients the peace of mind to provide a cleaner environment and worry-free odor management.

Technologies / Solutions employed in Odor Management:



Air Treatment

Ionization (Both Negative Ionization
& Bi-polar Ionization)
UVC / UVC + Oxidation
Oxidation / Ozone
Aroma Diffusion



Bespoke Units Based On
Specific Project Requirements



Integrated Odor Management Systems

Waste Odor Treatment System

Multi-stage Multi-technology
Odor Management System



Integrated Ionization

Oxidation Systems
UVC + Ozone Systems

Kitchen Extraction Solutions

Food is the essence of survival for human. And, as a business, food is also one of the most diversified and most stable sectors which stands the various ups and downs of business / economic dynamics.

Kitchen, the essential resource for any food related business, then takes precedence in designing an effective solution, especially when it pertains to Extraction systems, Odor Management and effective dissipation of contaminations in Kitchen Exhaust systems and waste disposal systems.

Kitchen exhaust systems can be high-energy consumption units, hence energy efficient solutions is paramount for economical & efficient operations.



Technologies / Solutions employed in Kitchen extraction Solutions:



Kitchen Ecology Units
Kitchen Extraction



Odor Management
Odor Abatement Solutions



Energy Management System
Sensor Controlled Demand -
Operated Vfd Efficiency



Air Treatment
UVC
Ozone

Hotel / Hospitality

Hotel Lobby, Elevators, Guest Floors,
Guest Rooms, Restaurant, Kitchen, Gym, Spa.

One of the oldest industry, hospitality is what enables the business or leisure travel.

One of the critical factors for better customer experience is the Indoor Air Quality of the Hotels where the esteemed guests pay for the services rendered and experiences that either brings them back and recommend your hotel or don't.



	Bipolar Ionization	UVC	media Filtration	UVC + Ozone	Aroma Diffusion	Oxidation	Kitchen Ecology Units	Energy Management Systems	Sensor Controlled / Smart IAQ Systems
Cross Contamination	●				●				
Human Odor Lubricants Odor	●		●		●				
Odor, Contamination, Mold/spores / Bacteria	●	●			●				
Odor, Contamination, Formaldehydes, Smoke (For Smoking Rooms)	●	●	●						●
Smoke Filtration Food Odor Elements Air Flow Control	●	●	●	●		●			●
Kitchen Extraction Energy Mangement	●		●	●			●	●	●

Indoor Smoking

Cigar Lounge, Sheesha Café, Club, Bar, Resto-Bar, Majlis.

Second hand smoke or passive smoking is the major element to be addressed in indoor smoking environments.

To provide compliant, clean and energy efficient solutions, **Au Pure's** modular approach to smoke filtration and odor management compliments existing HVAC setups and reduces overall cost of ownership, while maintaining high IAQ standards within the outlet with specific solutions for cigarettes, cigars, sheesha, vape and its combinations



	Bipolar Ionization	UVC	Media Filtration	UVC + Ozone	Aroma Diffusion	Oxidation	Ecology / Esp Systems	Energy Mgt Systems	Sensor Controlled / Smart IAQ Systems
Smoke Clouds	●		●	●			●		●
Tobacco Odor	●		●	●			●		●
Food & Ethanol Odor	●	●	●			●	●		
Volatile Organic Compounds	●	●					●		●
Air Flow Balancing								●	●
Energy Management								●	●

F&B / Retail Leisure / Public Areas

Food Courts, Restaurants, Resto-bars, Fine Dining, Night Clubs, Lounges / Café, Malls, Lounges, Banquets, Cinema, Theater, Opera, Places Of Worship, Public Areas, Food Halls.



	Bipolar Ionization	UVC	Media Filtration	UVC + Ozone	Aroma Diffusion	Oxidation	Ecology / Esp Systems	Energy Mgt Systems	Sensor Controlled / Smart IAQ Systems
Cross Contamination Human Odor + Formaldehyde	●	●	●						
Air Quality Consistency	●	●	●				●		●
Particulates, VOCs, Microbes, Bacteria	●	●	●				●		●
Smoke, Food & Ethanol Odor	●	●							
Food & Other Waste Odor	●	●	●			●			
Kitchen Extraction, Kitchen Extraction Energy Management, HVAC Efficiency Management	●		●	●			●	●	●

Infrastructure / Education Health care / Corporate Services

Schools , Colleges , Universities, Day Care, Kindergarten, Training Centres, Libraries, Treatment Rooms , Patient Rooms, Operation Theaters, Call Centers, Control Rooms, Army Barracks, Airports, Metro Stations, Offices, Business Center, Fitness/sports Centers



	Bipolar Ionization	UVC	Media Filtration	UVC + Ozone	Aroma Diffusion	Oxidation	Ecology Esp Systems	Energy Mgt Systems	Sensor Controlled / Smart IAQ Systems
Cross Contamination Human Odor + Formaldehyde	●	●	●	●					●
Air Quality Consistency	●	●	●	●				●	●
High Energy / HVAC Expenses	●	●		●				●	
Particulates, VOCs, Microbes, Bacteria	●	●	●	●					●
Waste Odor Management	●		●	●		●	●		●
Heavy Facilities Maintenance Bills	●			●				●	●
Contamination Control	●	●	●	●		●			●

Technology Review

TECHNOLOGY	FUNCTION	MERITS	APPLICATIONS	LIMITATIONS
COLD PLASMA / BIPOLAR (PLASMA)	Capture gaseous and particulate contaminants	- Destroy microorganisms - Can reduce gaseous contaminants, including VOCs & odors - Lower pressure drop relative to gas absorption - Well suited for additional stage in HEPA/Media filtration systems - Low maintenance	- Most versatile 'single-technology' Air Quality solution - High IAQ Focused installation In-line installation - Very effective & safe for High occupancy location - Domestic applications - Integrated in HVAC Design (IAQ Procedure) offering significant Outside Air Reduction (ASHRAE Approved)	- Do not capture gases - Low levels of ozone can be produced depending on mechanism used - May require minor HVAC modifications - Uses electricity, but the power requirement is very low - Hybrid systems are costly
MEDIA FILTRATION	Capture particulates	- Easy Installation	- Basic level / large particulate filtration - Outdoor scenarios - High particulate scenarios (like construction, interiors, carpentry, etc)	- Do not capture gases - Capture efficiency is lower than those of HEPA filters - Air resistance through filter media
HEPA FILTRATION	Capture particulates with efficiency of 99.97% or greater	- Capture particulates with efficiency of 99.97% or greater	- High Indoor Air Quality scenarios - All Clean room applications - High occupancy locations	- Do not capture gases - Substantial air resistance through filter media increases ventilation energy use - Typically require HVAC system modifications - HEPA filters are costly
ELECTRO-STATIC PRECIPITATION (ESP)	Enhance particulate capture efficiency (95% or greater) with electrostatic forces	- Relatively high capture efficiencies (>95%) of particulates - Low pressure drop; thus ventilation energy use is less than for media filters - Can replace existing filters or augment HEPA Filtration	- High occupancy locations Large buildings / HVAC installed setups - High occupancy locations - Kitchen / other contaminant/pollutant intensive locations	- Do not capture gases - Require frequent cleaning / maintenance to stay effective - Electrostatic precipitators require electricity, but the power requirement is very low - More costly than filters
Ultra-Violet UVGI	Capture particulates and irradiate microorganisms	- Destroy microorganisms - Can help keep HVAC systems clean - Well suited for augmenting HEPA filtration systems	- Large buildings / HVAC installed setups - with prevention of direct uv exposure - Domestic filters with low-level UV filters	- Do not capture gases - May necessitate HVAC system modifications - Hybrid systems are costly
PHOTO-CATALYTIC OXIDATION	Capture particulate contaminants and oxidize gaseous contaminants and microorganisms	- Destroy microorganisms - Can reduce gaseous contaminants, including VOCs and odors - Well suited for additional stage in HEPA filtration systems	- High contaminant / pollutant location - Augmenting HEPA systems	- Requires a combination of UV & Photo voltaic chemical - May necessitate HVAC systems modifications - Hybrid systems are costly
OZONE GENERATION	Oxidize gaseous contaminants and microorganisms	- Destroy microorganisms - Can reduce gaseous contaminants, including VOCs and odors - Well suited for additional stage in HEPA filtration systems	- High odor / contaminant locations - Location where human presence can be clear avoided during Ozone operations	- Can only be used without human presence - Higher HSE/Administration expense/process - Can be only used with Ozone-sensor-controller for safe use - Hybrid systems are costly

Approvals / Certifications



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