



PureQuest
AIR FILTRATION TECHNOLOGIES

COMPANY PROFILE



Unit 04
Stear Mini Factories
8 Sharland Street
Driehoek
Germiston
Johannesburg
South Africa



+27 10 023 4219



+27 10 449 1791



+27 63 313 4179



info@purequestair.co.za

www.purequestair.co.za



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Aimed at becoming a trusted Global Brand in the Air Filtration, Air Purification and HVAC Industry

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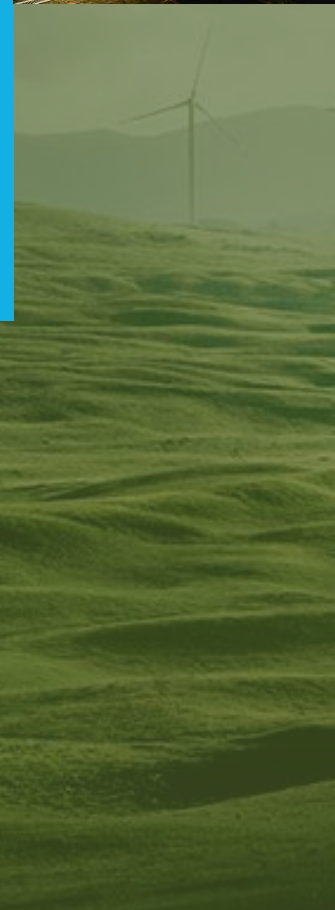
Clients and
End Users

INTRODUCTION AND BACKGROUND

We are a proudly South African Original Equipment Manufacturer, Contractor and Engineering Consulting Firm providing Air Filtration, Purification & HVAC solutions. PureQuest was founded in 2020 inspired by the urgent need of providing Engineering Solutions to help combat the Covid-19 pandemic in South Africa and has been growing into the SADC region. Our mid-term ambition is to expand into the rest of Africa, Middle East and Europe. It is against this background that PureQuest seeks to fulfill the vital need for the provision of safe Indoor Air Quality to Healthcare Facilities, Commercial Buildings, Manufacturing Plants, Food Processing Plants etc. through providing effective Engineering Solutions to upgrade existing Facilities and enhance the design of new ones.

This will benefit our Clients and the Community in limiting Indoor Covid-19 Transmissions through the HVAC systems that are capable of disinfecting and filtering out pathogens such as Coronaviruses and Bacteria which cause Covid-19, SARS, MERS, Tuberculosis, Ebola and Legionnaires Disease.

We utilize similar General-Purpose Technologies for Air Filtration, Purification & HVAC Solutions for other diverse applications and processes in the Medical, Pharmaceutical, Commercial, Industrial, Mining, Power, Petrochemical and FMCG Industries.



COMPANY OWNERSHIP AND ACCREDITATION

PureQuest Air Filtration Technologies is a Private Limited Company registered in South Africa in terms of the Companies Act. We seek to establish ourselves locally, in the SADC Region and Globally. PureQuest complies with the relevant Employment and Industry Statutory and Regulatory establishments.

MISSION STATEMENT

To provide world-class high quality Air Filtration, Purification and HVAC solutions that are innovative, ecologically friendly, locally available and affordable to our Clients and Community.



OUR VISION

To become a trusted Global Brand in the Air Filtration, Purification and HVAC Industry

COMPANY VALUES



Quality Delivery

We promise our Customers High Product and Service Quality, Timely Deliveries and Seamless Operations.



Human Capital Locus

Our Human Resources are our greatest Asset, we endeavor to provide a safe, fulfilling and beneficial Work Environment for our PureQuest Family.



Honesty and Integrity

Our company is committed to upholding integrity in the running of our business, providing professional service to all our Clients.



Collective Success

We cultivate a culture wherein all our internal and external stakeholders grow and succeed together with the Company.



Customer Fulfillment

We are a Customer focused Organization; we encourage and support innovation so as to continuously improve Customer Experience and increase Customer Satisfaction.



Customer Feedback

We appreciate the extent to which communication affects any business operation. We therefore commit to be transparent with our Clients, Suppliers, Advisors, Shareholders, Investors, Public and Private Stakeholders.



Flexibility and Innovation

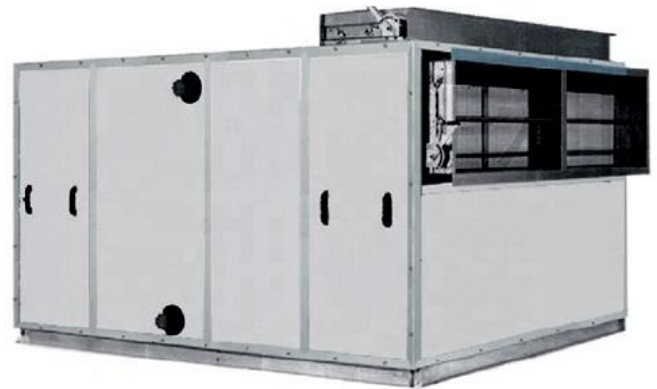
Passionate innovation is at the heart of our company. We are continuously moving forward, innovating, and improving our products and services to provide value to our Clients. We support safe and sustainable operations that reduce environmental degradation, maintain productivity, and support the financial viability of our Customers, Employees and Shareholders.

PRODUCTS SERVICES

PureQuest offers a wide range Air Filtration, Purification and HVAC Solutions to different Markets Segments in South Africa and SADC. To provide a holistic service to the South African socio-economic environment the company continuously develops world-class Products and Services.



PureQuest Air Handlers are designed and manufactured in South Africa by a Team of dedicated professionals through adopting the latest HVAC & R technologies with the aim of expediting manufacturing, easing project constructability, and streamlining maintenance. Our strategy is centered on exploiting every opportunity for cost reduction and as such we pass the realized cost savings to our valued Customers. This is achieved through capitalizing on a cost-efficient supply chain, shortening delivery lead times and cultivating quality from cradle to market to avoid defects. PureQuest air handling units are built for superior air quality distribution from the most rudimentary design right up to the more sophisticated offerings required for high specification environments such as clean rooms, laboratories, pharmaceuticals, food & beverage Industries. Our standard models range from 500L/s to 30,000L/s are, larger sizes can be customized to fit requirements. Some units are modular in construction and the construction methodology is current to the global best practices.



AIR FILTRATION

Our Filters range from panel type coarse filters, bag, cartridge, carbon, high efficiency particulate and ultra-low particulate air filters. The filter frames are offered in galvanized iron, aluminium, stainless steel, and plastic frames depending on the application. Mixing boxes and filter sections can be custom made to conform to project specific requirements. Panel, bag, and rigid filters are constructed for front withdrawal as a standard and side withdrawal as an option.



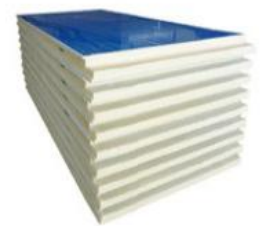
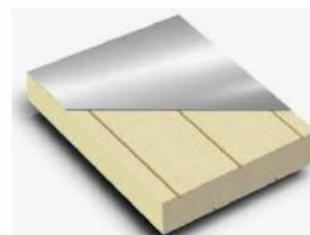
FRAME CONSTRUCTION

PureQuest air handlers are constructed from a sound design of the framework and panels which ensure structural integrity, robust strength, and stability. Frame material selection accounts for risks posed by the operating environment. The standard offerings are stainless steel and galvanized iron. Corrosion resistant extruded aluminium pentapost section rigidly joined by die - cast monobloc corners is offered as an option.



FAN SECTION

Fans are available in forward curved, backward curved or aerofoil bladed as required and housed or unboxed plenum (plug fan) variants, with both belt and direct driven options. As a standard, all fans are mounted on anti-vibration mounts with a flexible connection to the unit casing. Holding down bolts are provided for shipping purposes.



HOUSING PANELS

Double skin insulated panels come as a standard, this enhances insulation efficiencies, increases longevity, curtails air leakage, reduces air fugitive infiltration, and provides superior acoustic performance and noise breakout containment, resulting in less noisy units. Alternative panel options marine grade aluminium, galvanized iron, or stainless steel. Special finishes such as powder coating or epoxy painting are available upon request. There are numerous insulation options depending on the acoustic and heat transfer requirements. Insulation thickness is nominal 50mm as standard, with nominal 25mm, 40mm and 60mm options. All panels are fixed with screws, or external clamps and quick release fasteners. Access doors are double skinned with positive seal latches and can be opened from inside the unit. Door hinges and a selection of locking devices is available and optional accessories such as inspection portholes and bulkhead lights are also available as options.



The purpose of industrial ventilation systems is to achieve suitable air quality by removing odors. Industrial ventilation solutions can provide comfort conditions by maintaining required temperature and humidity. Occupational safety utilizes industrial ventilation to remove flammable vapors. Occupational health requirements can be achieved from the removing toxic particles, gases and vapors, airborne contaminants. Ventilation systems can be categorized as local exhaust or dilution (general) types. A basic dilution (general) ventilation system consists of an exhaust fan extracting air from the contaminated workspace and exhausting it to the outdoors. A general ventilation system may include a replacement air system, replacement-air distribution ducting, and air-cleaning equipment on the exhaust stream. General exhaust ventilation (GEV) is applicable where the contaminants of interest are not highly toxic and if the rate of generation is predictable. This is most practical in situations where multiple contaminant sources are scattered throughout the workspace or where the sources are mobile, such as forklift charging warehouse or battery storage facility. Local exhaust ventilation (LEV) is applicable where contaminants of interest are removed at or near the source, thus minimizing the opportunity for the contaminant to enter the workspace atmosphere. The basic LEV system includes an exhaust hood, ducting, a fan, and an exhaust outlet. LEV systems are used in a wide variety of settings, from laboratory hoods, commercial kitchens, foundries, and welding booths.

Dust And Fume Collectors

Dust and Fume Collection Systems are required to provide a safe working environment by removing hazardous dusts and air contaminants and safely evacuating them to designated locations. Correct potential hazard identification is a critical starting point in providing the proper ventilation solutions. Evaluation of identified hazards is vital to enable the appropriate environmental control measures to be applied right from the design proposal, with the highest impact in the lifecycle of the cost and performance of the Dust and Fume Collection Systems. A systems approach is required to ensure replacement air systems are provided where required and exhaust air is prevented from reentering into the controlled environment.

PureQuest Dust Collection Systems are designed, installed, and maintained with these important factors under consideration to provide economic solutions in terms of both capital and lifecycle costs. PureQuest can offers Reverse-Pulse Dust Collectors, Cyclones and various types of Fume Extractors made to order. PureQuest is a one stop shop for the design, manufacture, construction and maintenance in mining, mineral processing, pharmaceuticals, manufacturing, FMCG, food & beverage industries, of these products and the systems including ducting, extractions canopies, filters. PureQuest offers in-house turnkey solutions from concept to commissioning and offers unparalleled aftersales support to provide convenience for all the valued customers.



MECHANICAL AIR FILTERS

It is particularly important for our Clients to be able to preserve the integrity of Air Quality in their Facilities to ensure the wellbeing of their inhabitants, precision of their processes and the preservation of the environment. To able to meet these requirements our Clients need to clean or replace their filters regularly. The replacement and maintenance intervals depend on the type of application, process, climate, airflow, filter efficiency but is generally every 3-6 months for HVAC Applications.

There are different types of Air filters, effectiveness and different MERV ratings as shown in the table below (NAFA Website). PureQuest custom designs, manufactures, supplies and Mechanical Filters spanning all MERV Ratings.



MINIMUM EFFICIENCY REPORTING VALUE

MERV stands for “Minimum Efficiency Reporting Value” and rates the effectiveness of an air filter’s ability to capture air particles. The MERV scale ranges from 1-16, the higher the number, the smaller the size of particle the air filter can capture and the higher the filtration efficiency. Filtration efficiency can be defined as the fraction of particles removed from air passing through a filter.

MERV Std 52.2	Intended Dust Spot Efficiency Std 52.1 (1)	Average Arrestance	Particle Size Ranges	Typical Applications	Typical Filter Type
1 - 4	<20%	60 to 80%	> 10.0 pm	Residential/Minimum Light Commeccial/ Minimum Minimum Eqipment Protection	Permanent/ Self Charging (passive) Washable/ Metal, Foam/ Synthetics Disposable Panels Fiberglass /Synthetics
5 - 8	<20 to 60%	80 to 95%	3.0-10.0 pm	Industrial Workplaces Commercial Better/ Residential Paint Booth / Fnishing	Pleated Fters Extended Surface Fitters
9-12	40 to 85%	>90 to 98%	1.0-3.0 pm	Superior/Residential BetterAndustrial Workplaces /C Bullrings	Non-Supported / Pocket Filter /Rigid Box Rigid Cell/Cartridge V-Cells
13 -16	70 - 98%	>95 to 99%	0.30-1.0 pm	Smoke Removal General Surgery Hospitals & Health Care Superior/ Commercial Buildings	Rigid Cell / Cartridge Rigid Box/ Non-Supported / Pocket Filter V-Cell

FAN FILTER UNITS

PureQuest custom designs, manufactures, supplies, installs Fan Filter Units and Filter Boxes for Healthcare Facilities where there is need for clean and germ-free air like in Hospitals Theatres, High Care Rooms, Intensive Care Units Laboratories, General Wards and Casualty Rooms etc. The first stage are primary Panel Prefilters which can provide 50% Filtration Efficiency and their function is to protect the secondary filters. The second stage filtration is made up of Pocket Filters with 95% Filtration Efficiency. The purpose of the secondary filters is to protect the tertiary filters which are High Efficiency Particulate Air (HEPA) Filter Types. The function of the HEPA Filter is to capture Aerosols containing microbes such as SARS-CoV-2 which causes Covid-19.



We recommend our Maintenance Services to inspect, clean and to replace Panel, Pocket and HEPA Filters in a safe manner that will prevent contamination risks and dispose of the Filters in a non-hazardous manner. We find it prudent for our Clients to always keep spare Filters in storage on Site. A magnehelic gauge can be installed on the Unit to monitor the pressure drop across the Filters and avert excessive pressure losses.

DUST COLLECTORS

PureQuest custom designs, manufactures, supplies, installs and maintains Dust Collectors that are used for various processes to either recover valuable granular solids from process streams or to remove granular solid pollutants from exhaust gases prior to venting into the atmosphere. Dust collection is an onstream process for collecting any generated dust from process sources on a continuous basis.

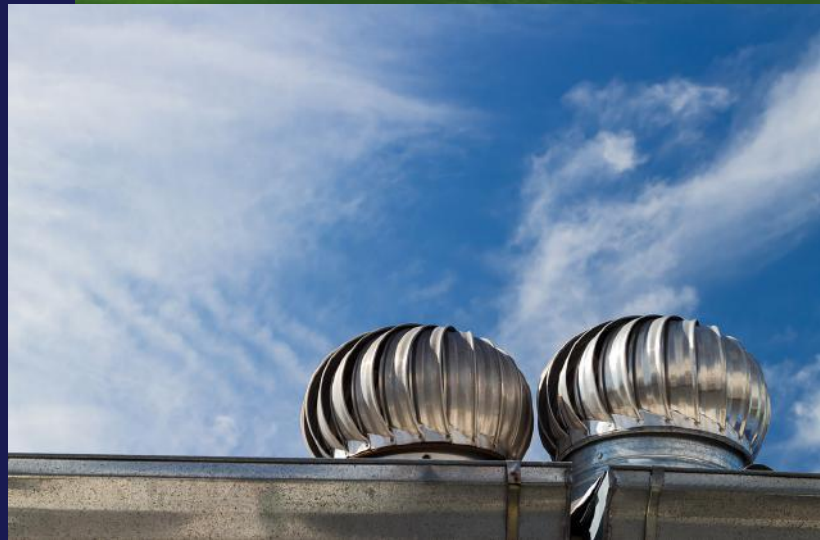


FUME AND SMOKE EXTRACTORS

PureQuest custom designs, manufactures, supplies, installs Fume and Smoke Extractors that are used to capture minute particulate matter generated from various process. They effectively trap and reduce unwanted miniscule particles that are generated from processes such as machining, mineral processing, welding, food processing, packing, material handling and welding etc. In addition, these Units can be designed for odor reduction and elimination applications.

VENTILATION & PRESSURISATION UNITS

PureQuest custom designs, manufactures, supplies, installs and maintains Ventilation and Pressurization Units for HVAC, Power, Battery Charging Facilities, Battery Rooms, Clean Rooms and various Process applications etc. This applies to situations where Lower Exposure Limits (LEL) of Hazardous Chemicals, minimum Ventilation Requirements, Containment and Pressurization Requirements must be strictly maintained to avoid hazardous risks such as Asphyxiation, Explosions, Contamination, Poor Indoor Air Quality and Overheating etc.



DUCTWORK AND PARTS

PureQuest custom designs, manufactures, supplies, installs and maintains Ductwork and Parts for Air Filtration, Purification and HVAC Solutions including Canopies, Filters, Duct Sets and Appurtenances in Steel (Mild, Galvanized & Stainless) and Aluminium. This undergirds the manufacture of our Engineered Products, Solutions, Repair and Maintenance Organizational Capabilities.



TURN-KEY PROJECT SOLUTIONS & ENGINEERING CONSULTING

PureQuest offers to provide Turn-Key Project Solutions to our Clients in the Air Filtration, Purification and HVAC Space. This is based on our Organizational Capabilities and Partnerships that bring together multi-disciplinary perspectives and a wealth of proven experience. We have the Technical and Project Management know-how to help our Clients solve their Technical Problems and meet their Project Objectives with best in class and in a timely manner.

BIPOLAR IONISATION AIR PURIFICATION

As PureQuest, we are introducing Bipolar Ionisation Air Purification Solutions to our Clients in the South African Market in Cinemas, Commercial Buildings and Healthcare Facilities to help Combat Covid-19 in Retrofit Installations. These solutions include Particle Counters to monitor the concentration of Viruses Indoors. This is to actively deactivate spot and space contamination to Healthcare Workers and Movie Goers particularly when people cough, speak, shout, touch or sing. This is a unique Solution to purify the air on the spot before it has passed through the Filters in the HVAC Systems, this will greatly reduce transmission risks for Frontline Workers and people in congested spaces.

We are striving to offer this in cost effective Solution and build trust for more uptake and adoption to Combat Covid-19, TB and Flu Infections. This solution will avoid overhauling the existing HVAC Systems thereby effectively reducing cost and H VAC System Downtime.

CLIENT AND END USERS

PureQuest supplies and services:

- Government Departments
- Health Care Facilities
- Private Companies in all sectors
- State Owned Entities
- Municipalities
- Other Industry Players and Partners



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