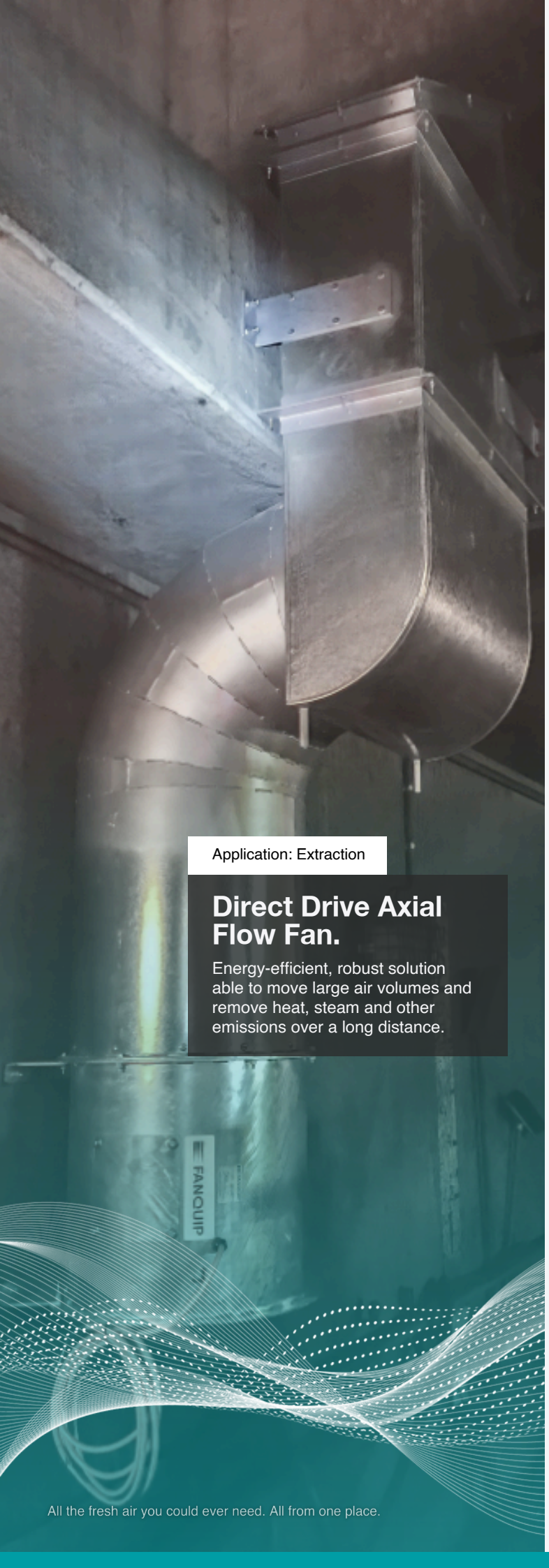


Industry brochure.

Common ventilation challenges & solutions in the construction industry.

All the fresh air you could ever need. All from one place.



Application: Extraction

Direct Drive Axial Flow Fan.

Energy-efficient, robust solution able to move large air volumes and remove heat, steam and other emissions over a long distance.

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Ventilation and air challenges in the construction industry.

Construction sites are dynamic environments where tasks generate heat, dust, fumes, and other hazardous substances. Both indoor and outdoor construction operations need fans to ensure safe and comfortable working conditions by preventing the spread of odours and contaminated air. Through customer analysis, we have identified common ventilation concerns and the requirements for fan selection to address these issues effectively in construction environments.



Application: Extraction

Curb Base Hooded Roof Fan.

Weatherproof roof exhaust or supply air fan for the removal of heat, steam and dust in commercial and industrial applications.



Application: Cooling

Mancooler.

Delivers directional cooling, blowing straight or oscillating to evenly distribute cool air.

Temperature management for outdoor activities.

Outdoor construction work in Australia faces significant temperature management challenges, impacting worker safety, productivity, and overall project efficiency. Extreme heat can lead to heat stress and other heat-related illnesses, while cold conditions can impair manual dexterity and reduce efficiency. Effective temperature management solutions, such as advanced cooling and heating systems, are essential year-round to maintain optimal working conditions. By implementing these systems, construction sites can ensure worker wellbeing, enhance productivity, and keep projects on schedule regardless of the weather.

Recommended airflow fans.



Mancoolers.

Variations: Mobile Mancooler, Mini Mancooler.

Perfect solution for cooling high-traffic areas, with a powerful air flow volume. Fanquip's selection of Mancoolers offer longevity and durability, helping to reduce perceived indoor temperatures. Optional extras include hazardous location rating and hydromisting kits for fast targeted cooling.



Heater Fans.

Variations: Trolley Mount Heater Fan or Wall Mount Heater Fan.

Delivering effective heating and drying without the use of naked flames, these units feature robust construction with a steel galvanised casing coated in industrial enamel. Safety grilles cover both the outlet and inlet for added protection. Trolley-mounted models include wheels for easy mobility and side mount pivot points for adjustable airflow direction.



Air Circulator.

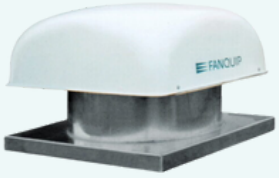
Variations: Utility Air Circulator, Wall Plate Air Circulator, Pedestal Air Circulator.

The range includes three air circulator fans designed for various environments and locations. Pedestal air circulators are particularly popular due to their portability, versatility, and durability. They enhance air circulation, creating a more comfortable and safer working environment for employees. These efficient devices can be used in multiple locations within a facility, saving valuable time, energy, and money.

Temperature, air destratification and humidity management in indoor workplace.

Optimal temperature regulation, effective air mixing, and moisture management are crucial in indoor construction environments. Promoting uniform air distribution ensures consistent temperature throughout the space, while controlling humidity levels prevents excessive moisture buildup. This helps avoid mould growth and material deterioration. These measures collectively enhance worker efficiency, minimise health risks, and protect both equipment and construction materials.

Recommended airflow and exhaust fans.



Roof Fans.

Variations: Profile Base Roof Fan, Curb Base Roof Fan, Vertical Discharge Fan, Filtered Roof Supply Fan

Fanquip offers completely weatherproof, easy-to-install roof exhaust or supply air fans designed to remove heat, steam, and dust in commercial and industrial applications. Combining these systems with cooling solutions like industrial Giant Fans, Air Circulators, or HVAC systems enhances overall effectiveness, ensuring optimal air quality and comfort.



Wall Exhaust Fans.

Variations: Wall Plate Exhaust Fans, End Wall Exhaust Fans, Side Wall Exhaust Fans.

These ventilation systems expel stifling hot, contaminated air, allowing cool air to circulate, reducing humidity levels, and maintaining lower indoor temperatures.



Mancooler.

Variations: Mobile Mancooler, Mini Mancooler.

Whether maintaining employee comfort or dissipating heat from equipment, this fan is the perfect solution. Its unique airflow control allows targeted cooling in confined spaces, while effectively extracting contaminants like dust, steam, and explosive gases. Australian-made, the Mancooler Fan is available in both wall-mounted and ceiling-mounted models for convenient and permanent installation.



Heater Fans.

Variations: Trolley Mount Heater Fan or Wall Mount Heater Fan.

Heater Fans are a safe, robust, and mobile heating option, perfect for warming up your workplace during the cooler winter months. With industrial blow heaters utilising black heat elements and overtemp cut-outs, Fanquip's Heater Fans can be relied upon for temperature regulation within your facility.



Giant Fans.

Variations: Giant Fan.

Fanquip's high-volume, low-speed Giant Fans offer unparalleled ventilation with minimal noise. These fans not only help to cool your facility during warmer months and distribute warm air during the colder season, but also manage moisture, condensation, and unpleasant odours. By enhancing your existing HVAC system, they help reduce energy consumption. Ideal for industries handling strong-scented materials or operating in large open spaces, these fans provide an efficient and effective solution for maintaining optimal air quality.

Fume, gas and dust extraction from construction activities.

Construction processes often generate harmful airborne contaminants, including hazardous dust from materials like asbestos, silica, and lead, which pose serious health risks to workers and compromise air quality. Implementing robust extraction systems removes these pollutants at the source, reducing exposure and preventing respiratory issues and other health hazards. Additionally, proper extraction enhances visibility and overall site safety, contributing to more efficient and compliant operations.

Recommended air control fans.



Mobile Fume Extractor.

Variations: Mobile Fume Extractor.

This extraction fan is the premier solution for capturing welding fumes and airborne particles directly at their source. Featuring a dual-stage filtration system with both a pre-filter and a HEPA filter, it provides unmatched air purification. Built with a durable powder-coated finish, this extractor is designed to withstand the rigorous demands of industrial environments, ensuring sustained performance and reliability.



Portable Blower Extractor.

Variations: Portable Blower Extractor.

This fan finds widespread use in industrial settings, particularly within the metalworking sector, serving both as a source for air supply and extraction. Excelling in confined spaces, it effectively removes dust and various fumes, including those from welding and painting activities.



Wall Exhaust Fans.

Variations: Wall Plate Exhaust Fans, End Wall Exhaust Fans, Side Wall Exhaust Fans.

The range of industrial extraction wall fans, engineered to efficiently eliminate large amounts of heat, odour, dust, and steam from manufacturing plants and production facilities. Boasting exceptional versatility, these fans operate quietly and are durably constructed to endure any weather conditions. .



Roof Fans.

Variations: Profile Base Roof Fan, Curb Base Roof Fan, Vertical Discharge Fan, Filtered Roof Supply Fan

Mounted atop buildings, these ventilation systems leverage the natural convection process to efficiently expel odours, excess heat, and airborne pollutants, thus ensuring the indoor air remains clean and healthful. Depending on the architecture of the roof and specific needs such as air purification and filtration, we recommend a variety of models including Profile-Based Roof Fans, Curb-Based Roof Fans, Vertical Discharge Fans, and Filter Roof Supply Fans.



Axial Fans.

Variations: Direct Drive Axial Flow Fan, Belt Drive Axial Flow Fan.

These fans excel in circulating and venting vast volumes of air, typically installed to eliminate hazardous gases and smells from construction sites or facilities involved in coating and welding processes.

Fume, gas and dust extraction from construction activities.

Recommended air control fans.



Centrifugal Fans.

Variations: Centrifugal Fan.

These fans can be used for filter flushing, gas boosting, and aeration. Centrifugal fans are also very efficient at conveying gas or other materials, which is why they are often used in air conveyor systems or other materials handling processes. Customisable, they can become a part of the existing ducting system in your facility.



Negative Air Units.

Variations: Negative Air Units.

Helpful in workshops, mould or asbestos treatment sessions, and other activities that naturally cause invisible, harmful contaminants to linger in the air. High-volume air filtration is essential to safety and productivity. With its two-stage filtration system, Fanquip's negative air units have been developed to handle the rigours of micro-decontamination operations with a filtration efficiency of 99.97% @ 0.3 micron.

Application: Extraction.

Wall Plate Exhaust Fan..

Remove even the most microscopic of contaminants from the air.

Ventilation for specific requirements.

Some construction sites necessitate specialised ventilation systems to manage hazardous airborne contaminants, influenced by factors such as size, location, or onsite activities. Maintaining safe working conditions and regulatory compliance is crucial in these environments. Such sites often demand ventilation systems with high-efficiency filtration, durable materials, and precise airflow control to meet stringent safety standards and industry-specific requirements. Moreover, construction environments dealing with dust, fumes, and volatile substances require explosion-proof ventilation to mitigate fire and explosion risks. Discover our range of fans tailored for essential areas in the construction industry, ensuring optimal safety and performance.



Application: Extraction.

Vertical Discharge Roof Fans.

Remove heat, humidity, odours, air pollutants and keep the constant airflow.

Tunnel and manholes construction works ventilation system.

Effective ventilation systems are crucial in tunnel construction to ensure a safe and healthy working environment due to the lack of natural airflow. These systems control hazardous fumes, gases, and dust generated during excavation activities, including drill and blast methods and Tunnel Boring Machines. The removal of soil and rock is essential for structural integrity but produces high levels of airborne contaminants, which can lead to health issues such as chronic obstructive pulmonary disease, lung cancer, and aggravated asthma. Proper ventilation supplies fresh air, reduces respiratory risks, and prevents the buildup of harmful substances like carbon monoxide, silica dust, and diesel exhaust. Additionally, efficient ventilation improves visibility and temperature regulation, enhancing worker safety and productivity in the challenging conditions of tunnel construction.

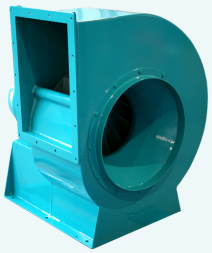
Recommended fans.



Axial Fans.

Variations: Direct Drive Axial Flow Fan, Belt Drive Axial Flow Fan.

Engineered to meet the high airflow requirements of tunnel applications while minimising energy consumption. Axial fans design is particularly beneficial for tunnel ventilation, ensuring optimal air quality over long distances. With advanced airflow control mechanisms and energy-efficient components, these systems provide superior ventilation, contributing to cost savings and environmental sustainability.



Centrifugal Fans.

Variations: Centrifugal Fan.

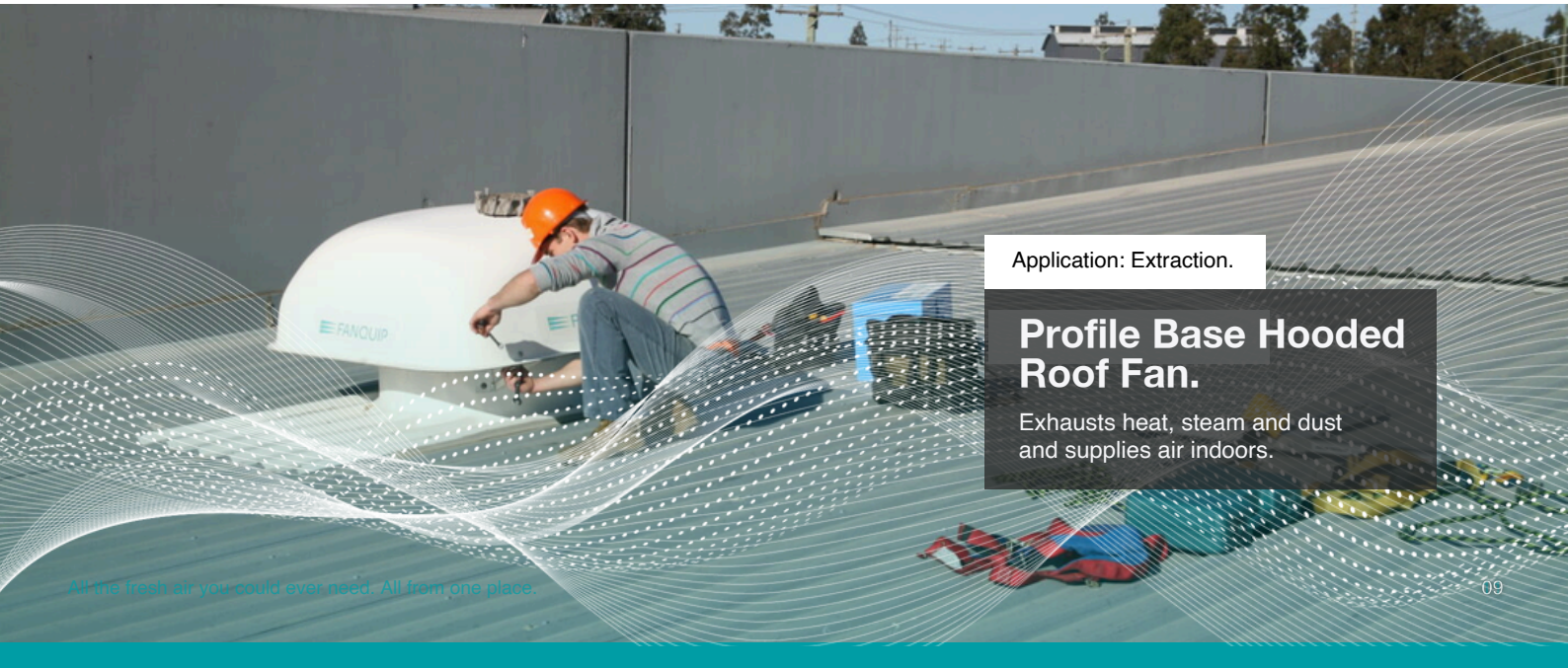
These fans play a crucial role in air circulation, effectively reducing air pockets that can lead to the accumulation of heat, humidity, and dust. Additionally, they provide a steady supply of fresh air, ensuring that underground spaces remain oxygenated for optimal worker health and productivity.



Mancooler.

Variations: Mobile Mancooler, Mini Mancooler.

Available in both mobile and mini versions, are specifically designed for optimal performance in confined spaces such as manholes. These units deliver the necessary airflow to disperse hazardous gases and reduce heat, creating a safer working environment for maintenance and repair teams.



Application: Extraction.

Profile Base Hooded Roof Fan.

Exhausts heat, steam and dust and supplies air indoors.



Ventilation for welding zones.

Safety is paramount in construction zones, particularly in areas designated for welding or hot work, which are tightly regulated due to inherent risks. Welding activities produce sparks and hazardous fumes containing substances like chromium and nickel, posing serious health threats if inhaled. Effective ventilation swiftly removes these fumes, safeguarding workers from respiratory issues and other health complications. It not only ensures compliance with regulations but also enhances productivity by maintaining a safe and comfortable working atmosphere while minimising the risk of fire or explosion.

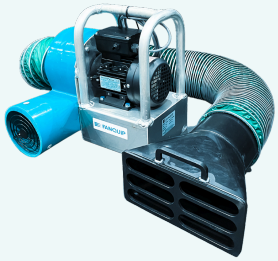
Recommended fans.



Mobile Fume Extractor.

Variations: Mobile Fume Extractor.

This extraction fan is engineered to capture welding fumes and airborne particles directly at their source. It boasts a dual-stage filtration system with a pre-filter and HEPA filter for superior air purification. Crafted with a robust powder-coated finish, it ensures durability in industrial environments, delivering sustained performance and reliability.



Portable Blower Extractor.

Variations: Portable Blower Extractor.

Extensively utilised in industrial settings, especially within the metalworking zones, where they serve as both a source for air supply and extraction. Excelling in confined spaces, these fans effectively remove dust and various fumes, including those generated during welding and painting activities.



Wall Exhaust Fans.

Variations: Wall Plate Exhaust Fans, End Wall Exhaust Fans, Side Wall Exhaust Fans.

In every steelworking facility, installing these fans is essential to maintain a breathable environment. Wall exhaust fans play a vital role in ventilating the space by efficiently removing fumes and hot air, ensuring a safe and comfortable working environment for employees.



Roof Fans.

Variations: Profile Base Roof Fan, Curb Base Roof Fan, Vertical Discharge Fan, Filtered Roof Supply Fan.

These fan systems work in tandem with the natural rise of hot air, expelling contaminated air outside the facility. They create negative pressure, drawing out odours, dust and fumes and replacing them with fresh air from outside. This continuous air exchange maintains a hygienic and comfortable environment, ensuring compliance with safety and regulatory standards.



Application: Filtration.

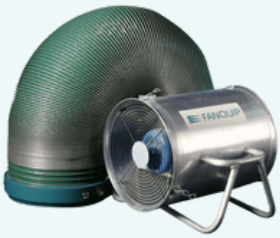
Negative Air Units.

Remove even the most microscopic of contaminants from the air.

Asbestos removal during renovations.

During renovations in construction works, asbestos removal is a critical concern. Asbestos, once a commonly used building material, poses severe health risks when disturbed. Renovation activities can disturb asbestos-containing materials, releasing harmful fibers into the air. Therefore, proper precautions and procedures must be followed to ensure safe asbestos removal. This includes employing trained professionals with appropriate protective gear and using specialised equipment to contain and remove asbestos safely. Failure to handle asbestos removal correctly can lead to serious health complications, including lung diseases such as mesothelioma. Prioritising safe asbestos removal during renovations is essential to protect the health and well-being of workers and occupants alike.

Recommended fans.



Purging Fans.

Variations: Portable Purging Fan, VAT Purging Fan.

Purging fans are crucial for maintaining pure air quality in interior environments, especially in areas where asbestos extraction is a concern. Designed for compact spaces, these fans are highly versatile and excel in evacuating hazardous asbestos particles and fumes.



Portable Blower Extractor.

Variations: Portable Blower Extractor.

Lightweight and portable, they provide an efficient solution for clearing dust and fumes from confined spaces, thereby maintaining a clean and safe environment essential for asbestos extraction activities.



Mobile Fume Extractor.

Variations: Mobile Fume Extractor.

The solution for capturing welding fumes, asbestos particles, and other airborne contaminants right at their source. With a dual-stage filtration system featuring both a pre-filter and a HEPA filter, it ensures unmatched air purification.



Negative Air Units.

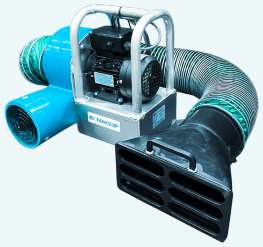
Variations: Negative Air Units.

Placed strategically in confined spaces, these fans excel at eliminating even the tiniest asbestos particles from the air. Utilising negative air-pressure vacuum, they draw air through a filter, effectively removing contaminants. Ideal for workshops, asbestos treatment sessions, and similar activities, they efficiently tackle invisible but harmful pollutants, ensuring a safer and healthier environment for all involved.

Ventilation for concrete cutting and grinding zones.

Ventilation is particularly vital in concrete cutting and grinding zones, where harmful dust, notably silica dust, is generated. Silica, a common component in concrete, becomes airborne during these activities, posing severe health risks upon inhalation. Prolonged exposure to silica dust can lead to debilitating lung diseases such as silicosis, lung cancer, and respiratory issues. Additionally, other harmful dust particles, including those from cement and aggregate materials, are released during these processes, compounding health hazards. Effective ventilation systems are crucial for capturing and removing these harmful particles from the air, protecting workers from respiratory ailments, and ensuring a safe work environment.

Recommended ventilation.



Portable Blower Extractor.

Variations: Portable Blower Extractor.

As mentioned in another section, Portable Blow Extractors play a crucial role in purifying the air within confined spaces. They are designed to efficiently eliminate hazardous dust particles right at their origin, preventing their accumulation in the facility.



Axial Fans.

Variations: Direct Drive Axial Flow Fan, Belt Drive Axial Flow Fan.

These fans offer robust airflow, swiftly removing silica particles and other concrete drilling dusts, thereby enhancing air quality and ensuring worker safety. Their energy-efficient operation and capability to handle high-volume air movement make them well-suited for large spaces.



Centrifugal Fans.

Variations: Centrifugal Fan.

Perfect for applications requiring higher pressures, often used in dust collection systems. It has a high-speed rotating impeller encased in a spiral-shaped casing to accelerate the air and discharge it in a radial direction. These fans handle large volumes of contaminated air, enhancing air quality.



Wall Exhaust Fan.

Variations: Wall Plate Exhaust Fans, End Wall Exhaust Fans, Side Wall Exhaust Fans.

While these fans may not directly extract dust particles at their source, their installation remains crucial for promoting ventilation and air exchange, especially when drilling activities occur indoors. These fans circulate air, preventing stagnation and maintaining a healthier indoor environment by dispersing airborne contaminants.



Roof Fans.

Variations: Profile Base Roof Fan, Curb Base Roof Fan, Vertical Discharge Fan, Filtered Roof Supply Fan.

Similar to wall exhaust fans, despite not targeting dust particles directly, their presence ensures adequate ventilation, contributing to improved air quality and the overall safety of the workspace during drilling operations indoors.

Ventilation for concrete cutting and grinding zones.

Recommended ventilation.



Filter Fans.

Variations: Filter Fan.

Delivering consistent flows of filtered air, they effectively remove dust and tiny pollutants from the environment. This not only maintains air quality but also reduces maintenance needs and operational pauses for delicate machinery in the vicinity.



Negative Air Units.

Variations: Negative Air Units.

To effectively eliminate the tiniest particles contaminating the air, these systems utilize a negative air-pressure vacuum. This innovative mechanism draws in air to be purified through a sequence of filters, ensuring that pollutants are meticulously filtered out of the air.



Application: Cooling

Mancooler.

Solution for cooling high-traffic areas, with a powerful air flow volume.

Painting, coating and finishing rooms ventilation system.

In construction works, the application of paint and surface coatings is a common practice, often involving chemicals that emit hazardous fumes. These chemicals, like volatile organic compounds (VOCs) and solvents, pose substantial health risks to workers when inhaled in high concentrations. Without adequate ventilation, areas with paint fumes can become hazardous, leading to respiratory irritation and headaches. Furthermore, the accumulation of flammable paint vapours in the absence of proper airflow increases the risk of fire or explosion, underscoring the importance of explosion-proof fans for ensuring safety on construction sites.

Recommended fans.



Axial Fans.

Variations: Direct Drive Axial Flow Fan, Belt Drive Axial Flow Fan.

Commonly installed in paint spray booths or areas requiring paint application, these fans operate by drawing air through their blades and expelling it in a straight line parallel to the fan shaft. This directional airflow proves invaluable for establishing a uniform airflow pattern within paint spray booths, ensuring the effective capture and removal of paint fumes and overspray.



Centrifugal Fans.

Variations: Centrifugal Fan.

In applications such as paint spray booths or paint mixing rooms, centrifugal fans, unlike axial fans that generate airflow parallel to the fan shaft, centrifugal fans generate airflow perpendicular to the fan shaft, allowing for greater flexibility in directing airflow within the ventilation system. This characteristic makes centrifugal fans particularly effective in applications where ductwork or airflow redirection is necessary to efficiently capture and exhaust paint fumes.



Wall Exhaust Fans.

Variations: Wall Plate Exhaust Fans, End Wall Exhaust Fans, Side Wall Exhaust Fans.

Installed on walls, these fans efficiently remove contaminated air, improving air quality and minimising fire hazards. Wall exhaust fans can be equipped with filters or other purification systems to further enhance air quality by capturing particulates and neutralising odours before they are expelled.



Roof Fans.

Variations: Profile Base Roof Fan, Curb Base Roof Fan, Vertical Discharge Fan, Filtered Roof Supply Fan

Strategically positioned at the ceiling level, roof fans effectively capture and extract paint fumes and air pollutants, preventing them from lingering in the production environment. Roof fans create negative pressure within the facility, drawing out unwanted odours and fumes and replacing them with fresh, clean air from outside.

Fanquip service.

At Fanquip, we begin our process by arranging a discovery meeting to fully understand your specific system requirements, the layout of your facilities, any existing solutions, and their capabilities, as well as any additional concerns you may have.

Once we have thoroughly discussed your needs, our team of skilled design engineers will create a personalised solution tailored to your short-term and long-term objectives. We carefully select products for your system based on your budget and goals, ensuring a seamless integration that delivers optimal performance levels.

Your custom design will include detailed drawings, a comprehensive list of recommended products, and a clear plan for how they will be interconnected. We firmly believe the most effective solutions are those custom designed to meet your individual requirements.

Once your system design is finalised, we will conduct a thorough review of pricing, capabilities, return on investment (ROI), and make any necessary adjustments. We are more than happy to accommodate any requested modifications, providing you with a final design that awaits your approval.

Installation and maintenance.

Regular maintenance and assessments are crucial to ensure they operate efficiently and safely. Here are some indications that your industrial fan may require assessment and repair:

- Unusual sounds or vibrations - If you detect peculiar noises or vibrations emanating from your fan during operation, it could be a sign that the fan belt or components need to be replaced.
- Reduced performance - If you observe a significant decrease in your fan's efficiency, it may need repairs to restore its optimal functioning.
- Overheating - Inadequate cooling or motor malfunctions can lead to further damage and potentially cause your fan to overheat. It is crucial to have your fan checked by a professional promptly if it is experiencing overheating issues.

At Fanquip, we offer a comprehensive repair and overhaul service for fans, impellers, motors, and related products. Our goal is to minimise downtime and ensure long-lasting performance for your equipment. Our range of services includes:

- Repairs for fan casings
- Repairs or replacements for impellers
- Repairs or replacements for motors
- Blasting, painting, and powder coating services



Application: Extraction

Curb Base Hooded Roof Fan.

Discharges air out through the roof, with a heavy-duty hood in place to stop rain ingress.

Haven’t found a solution for your challenge?

While there may be common issues, certain cases require individual approach. If you are still searching for a solution to your ventilation challenge, reach out to us today to discuss your unique requirements. With our expertise, we can offer tailored recommendations to meet your specific needs and guarantee optimal performance and safety in your facility.

Contact us.

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*To access comprehensive details including size, dimensions, motors, and more for each ventilation solution, kindly inquire about our product datasheets. These datasheets can also be found on the Resource page of fanquip.com.au.



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