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Maxisafe AirDefenceX1

Powered Air Purifying Respirator



Adjustable airflow. All-day comfort.



FLOWVECTOR™
DUAL AIRFLOW
SYSTEM



SUPERIOR
PROTECTION



ADVANCED
FILTRATION



ALERTS FOR
AIRFLOW,
BATTERY
& FILTERS



BATTERY
TIME
10H / 15H



CERTIFIED TO
AUSTRALIAN
STANDARDS

there's safe
& there's

maxisafe®



Advanced respiratory protection for hazardous environments.

Workplace health hazards are a major concern for both employers and employees. Many environments contain airborne contaminants such as dust, gases, vapours, and mists that can be harmful when inhaled. These substances can cause serious health effects, including lung disease, long-term illness, or even death.

While hazards should always be controlled at the source, this is not always possible. When exposure cannot be fully eliminated, respiratory protection becomes essential to keep workers safe.

This is where Powered Air-Purifying Respirators (PAPR) are required to provide a continuous supply of clean, filtered air and reduce the risk of inhaling harmful contaminants.



12x

A person breathes about **12 times per minute**, taking in roughly 6 litres of air per minute at rest.



During physical work, breathing becomes faster and deeper, **increasing the amount of air** taken into the lungs.



Over a full workday, large volumes of air pass through the lungs, especially during **heavy activity**.



Work safe. Protect yourself. Protect your team.

Every workplace has hazards. Dust. Gases. Vapours. Heat. Noise.

If not controlled, these risks can cause serious injury or long-term health damage.

Health effects of airborne exposure		Health effects of airborne exposure
Breathing in airborne contaminants can have immediate and long-term health impacts.		
<p>Short-term exposure may cause:</p> <ul style="list-style-type: none">+ Eye, nose throat irritation+ Headaches+ Dizziness+ Nausea <p>If symptoms occur leave the area immediately, get fresh air, and seek medical attention.</p>	<p>Long-term exposure can be serious. Airborne hazards are linked to:</p> <ul style="list-style-type: none">+ Chronic lung disease+ Asthma and respiratory damage+ Neurological and organ damage+ Increased risk of cancer <p>In Australia, over 1,400 workers died from lung diseases caused by workplace dust exposure between 2011–2020.*</p>	<p>Fumes Ultrafine particles created when materials are heated are easily inhaled deep into the lungs.</p> <p>Gases Often invisible and odourless can travel undetected and displace oxygen.</p> <p>Vapours Formed when liquids evaporate, especially solvents and chemicals.</p> <p>Mists Tiny liquid droplets generated by spraying or condensation processes.</p> <p>Dust Fine particles from materials like silica, metal, wood, or minerals are a major cause of occupational lung disease.</p>

Control the hazard. Protect your lungs. If you can't eliminate the risk and wear the protection. Airborne hazards are invisible. The damage isn't. Breathe clean. Work safe. Exposure adds up, protect yourself every shift.

Source: *https://www.worksafe.act.gov.au/data/data-snapshots/data-snapshot-occupational-lung-diseases?utm_source=chatgpt.com



The Maxisafe AirDefence X1 – how it works

1



Draws in air

A battery-powered fan pulls in air from the surrounding environment.

2



Filtration

That air passes through high-efficiency filters that remove:

- + Dust
- + Silica particles
- + Airborne contaminants

3



Delivers clean airflow

Filtered air is pushed through the hose and into the helmet environment.

4



Creates positive pressure

Filtered air is pushed through the hose and into the helmet environment.



5

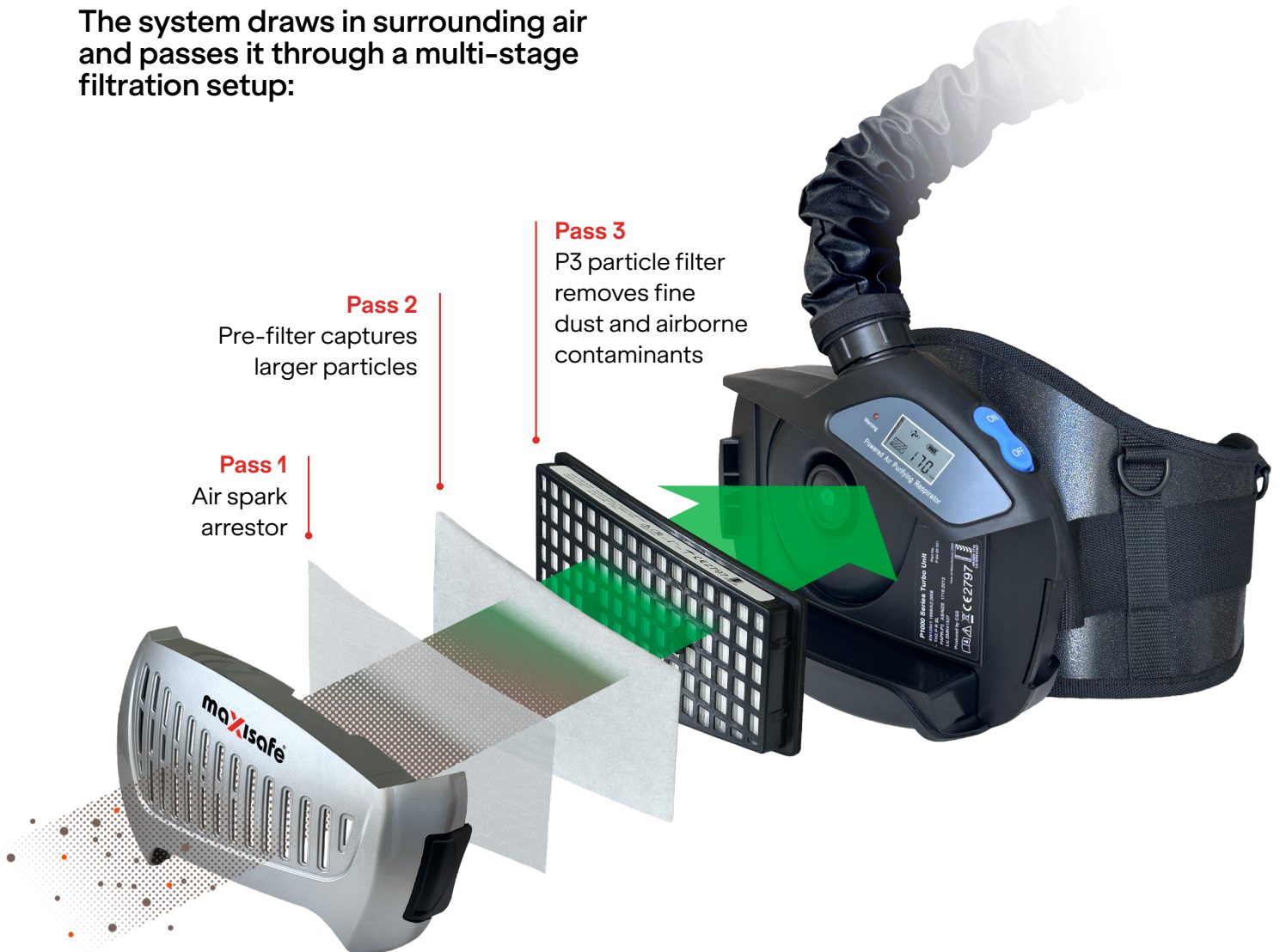
You breathe normally

- + Easier breathing
- + Less fatigue
- + Your health protected



Controlled, consistent airflow to help keep you protected on the job.

The system draws in surrounding air and passes it through a multi-stage filtration setup:



Filtered air is delivered directly into your breathing zone — helping reduce exposure and making protection easier to wear.



State-of-the-art Airflow Technology

Two airflow paths. One system.
Adapt airflow to the job rather than working
around it.

DualStream™ delivers a complete, intelligent airflow system designed for comfort, control, and performance. Powered air systems use a fan to deliver continuous filtered air directly to the user, improving breathing comfort and reducing fatigue.



DualStream™ technology automatically adjusts airflow to maintain consistent performance, even as filters begin to load with dust.

- + Reliable airflow
- + Consistent protection
- + Reduced drop-off in performance

Dual Airflow Control. Built for the Way You Work

Unlike standard systems with fixed airflow, this design allows users to switch between two distinct airflow modes, giving greater control over comfort and protection on site.

Face only airflow mode

Airflow is directed exclusively into the visor (breathing zone), creating positive pressure and a constant sweep across the lens.

This helps:

- + Prevent fogging
- + Maintain clear visibility
- + Deliver consistent respiratory comfort



Head & face airflow mode

Distributes airflow between the top of the head and the visor (breathing zone).

- + Deliver filtered air directly to the breathing zone
- + Reduce visor fogging for clearer visibility
- + Provide balanced cooling and respiratory comfort

Best suited to tasks where protection, visibility and all-day wearability are critical.





Features & benefits


Maxisafe AirDefence X1 with DualStream™ Airflow Technology delivers controlled, consistent airflow to help protect against airborne hazards on site. Designed for comfort and ease of use, it combines head, eye and respiratory protection in one integrated system, supporting reliable performance and helping make protection easier to wear throughout the day.



Feature	Benefit
DualStream™ Airflow System	Provides consistent, controlled airflow
3 fan speeds (170 / 200 / 230 L/min)	Adjustable airflow for task and comfort
Adjustable airflow direction (face only or head and face)	Improves cooling and wear comfort
Auto fan speed adjustment	Maintains minimum airflow automatically
Smart system alerts (blockage, battery, overheating, airflow issues)	Alerts users to issues early
Integrated head, eye & respiratory protection	All-in-one PPE solution
Flip-up visor with unlock button	Secure closure with easy access
Independent lens operation (shroud stays sealed)	Reduces exposure when visor is opened
Secure face shroud design	Maintains secure, stable seal
4-point adjustable harness	Comfortable fit for most head sizes
Ergonomic adjustable harness system	Customisable for long-shift comfort
Durable system design	Built for demanding environments



Assembly & accessories

R1400		Maxisafe AirDefence X1 PAPR Kit	R1408		Replacement Visor
R1401		Belt Unit	R1409		Replacement breathing hose (60cm)
R1402		PAPR Helmet	R1410		Anti-fire hose cover for breathing hose (60cm)
R1403		P3 Particle Filter	R1411		Replacement waist belt
R1404		Pre-filter	R14XX		Airflow Tester
R1405		Air Spark arrestor	<div style="background-color: #00b050; color: white; padding: 10px; display: inline-block;"> <p>Every kit comes with a tough carry bag — easy to store, easy to take on site.</p> </div> 		
R1406		Li-Ion Battery			
R1407		Charger			

Maxisafe AirDefenceX1 PAPR Technical Specifications

Airflow Rate	170L/min 200L/min 230L/min	
System	Automatic detection and control system provides constantly stable air	
Switch	3 Levels of airflow control on-off switch auto turned off after 30 minutes unused	
LCD Display	Airflow level, battery data, filter status and charge status	
Warning	Low battery, saturated filter, airflow blocked, low airflow, and high battery temperature	
Noise Level	MAX.73dB	
High Filter Efficiency	99.996% @ 0.185 um	
Filtration Level	TH3 PR SL	
Dimensions	240 X 165 X 70 MM(L x WxH)	
Weight	Complete unit: 1370G – Excluding battery: 1020G	
Battery Life	Standard battery: Level 1: > 10H, Level 2: > 8H, Level 3: > 6H	Heavy Duty battery: Level 1: > 15H, Level 2: > 12H, Level 3: > 10H
Battery	Standard battery: Li-ion 12V 4400 mAh	Heavy Duty battery (optional): Lirion 12V 6800 mA
Charging Time	Standard battery: 3.5H	Heavy Duty battery: 5H
Charging Frequency	> 500	
Temperature In Use	- 5 °C- +55 °C	
Certifications	AS/NZS 1716:2012; CE EN 12941.1998 + A2:2008; NOSH 42 CFR Part 84 Approval Number: TC-21C-1118, TC-21C-1162	

