

**euromarc®**  
So Quick. So Easy



# THE ONLY RESPIRATORY GEAR YOU'LL EVER NEED

Breathe easier, see clearer & work safer with  
TECMEN's all-in-one respiratory protection system

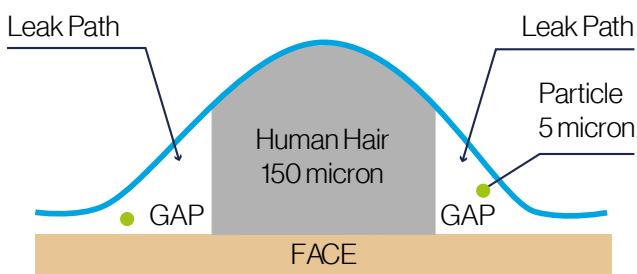


# Beards Look Great, But Make Regular Respirators Ineffective

## Bandanas are NOT the Answer

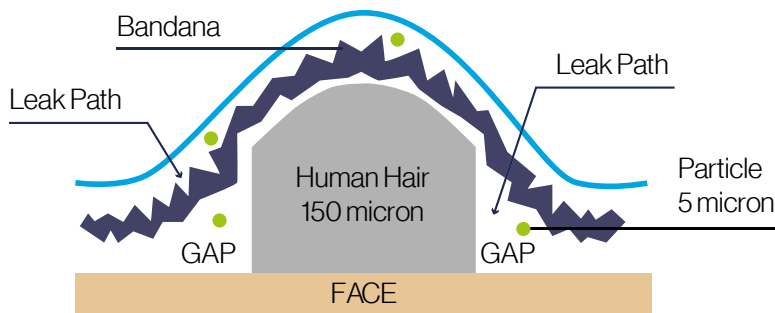
**Respirators rely on a tight seal to be effective.**

Facial hair creates gaps where air can leak in.



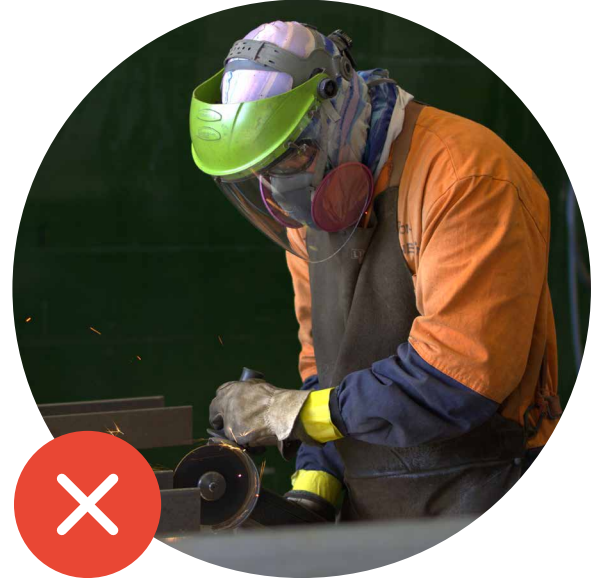
### Bandanas make it worse...

Bandanas are not designed to filter microscopic particles, fumes, or vapours. Wearing a bandana under a respirator adds an additional layer of leak paths, further compromising the seal.



## Standard Welding Helmets Need Extra RPE

If you're using a standard welding helmet without an integrated respirator, you'll need to wear separate respiratory protective equipment (RPE) underneath.



### WorkSafe Compliance

According to WorkSafe New Zealand and international safety standards, any PPE must fit properly and function as intended.

- Modifying or misusing PPE makes it non-compliant.
- Employers must ensure their workers have access to suitable, properly fitting respiratory equipment.





# The Solution?

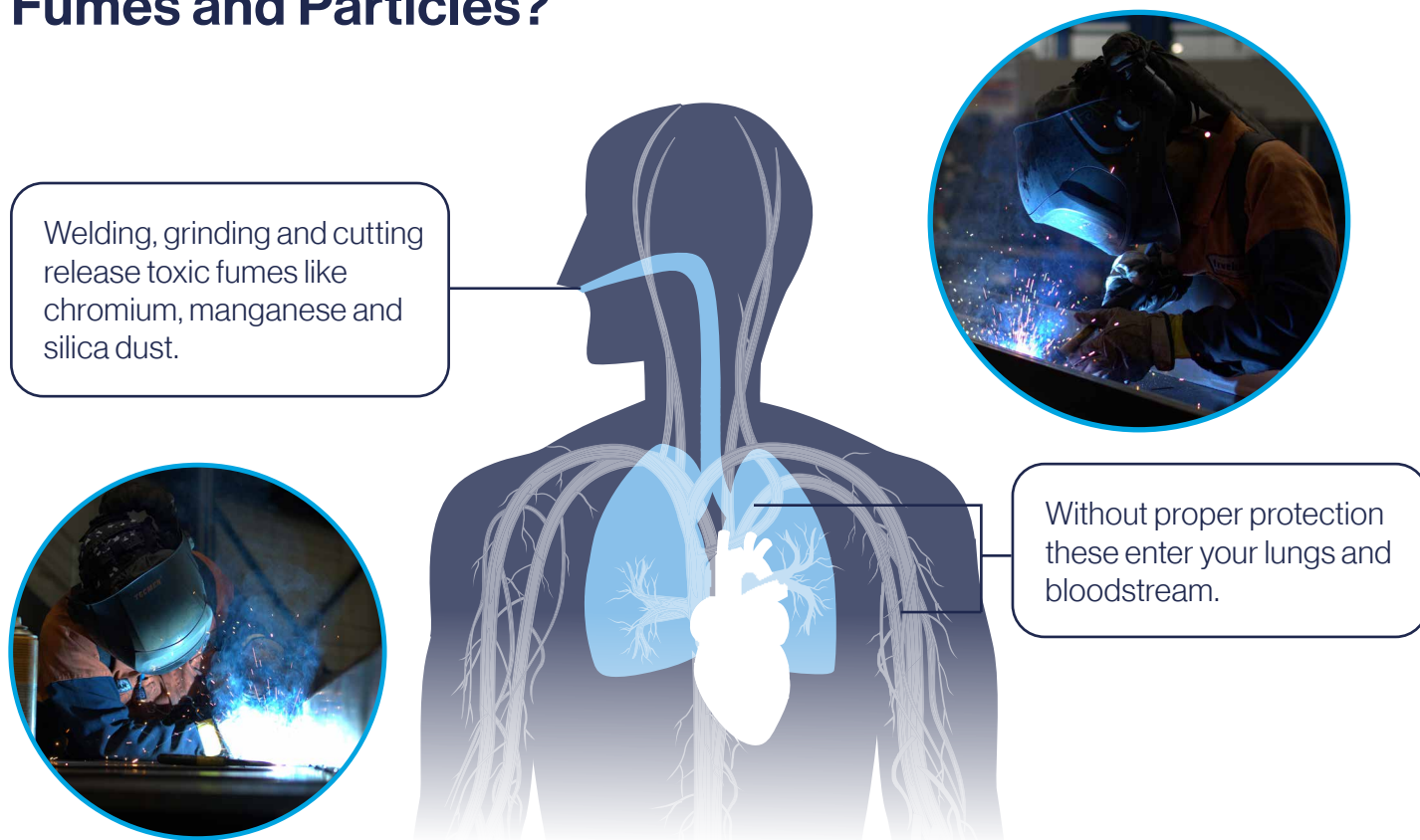
## PAPR.

A Powered Air-Purifying Respirator (PAPR), like TECMEN's range, doesn't require a tight seal against the skin. These systems create a safe, filtered airflow, letting you keep your beard and stay compliant.



# Every Breath Counts

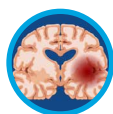
## What Happens When You Breathe in Fumes and Particles?



### Over time, this exposure can lead to



**Lung Cancer:** A direct risk from prolonged exposure to welding fumes.



**Neurological Damage:** Metal fumes like manganese can cause manganism, a condition similar to Parkinson's.



**Chronic Respiratory Illnesses:** From asthma to COPD, these conditions can leave you struggling for every breath.

### Short-Term Risks Are Just as Dangerous



Inhaling high levels of fumes even once can lead to acute respiratory distress, hospitalisation, or worse.

## Stop Breathing in the Problem!

If you're still relying on ill-fitting masks or outdated RPE, you're putting yourself and your team at serious risk. TECMEN's PAPR systems provide full respiratory protection with none of the limitations of standard respirators.



# Non-Compliance Can Cost You

## Ignoring the Problem Hurts Your Business.

If your workplace isn't providing the right respiratory protection, the consequences can be severe:



### Fines and Penalties:

Under the Health and Safety at Work Act 2015, WorkSafe can fine businesses up to \$3 million for failing to provide appropriate PPE. Directors can face personal fines or even jail time.



### ACC Premiums:

Respiratory illnesses caused by workplace exposure lead to costly compensation claims, increasing your ACC levies



### Reputation Damage:

No one wants to work with or for a company that ignores safety.



### Staff Turnover:

Unsafe conditions drive workers away, leaving you struggling to keep skilled staff.



# Workplace Obligations

## Respiratory Protection Under the Law

As an employer, your legal responsibilities for respiratory protection are clear under the **Health and Safety at Work Act 2015**. Failing to meet these obligations can result in significant penalties, but more importantly, it puts your workers' health and safety at serious risk. Here's what you need to know:

### 1. Identify and Assess Risks

You must:

- ☐ Identify hazards such as welding fumes, dust and vapours that could harm your workers.
- ☐ Assess the level of risk to health caused by these hazards.

### 2. Eliminate or Minimise Risks

When elimination isn't practical, you are required to:

- ☐ Provide effective control measures to minimise exposure.
- ☐ Ensure respiratory protective equipment (RPE) is suitable for the task and the individual (e.g., workers with beards need PAPRs, as standard masks cannot provide an effective seal).

### 3. Provide Compliant RPE

- ☐ Ensure the equipment meets AS/NZS 1716:2012 Respiratory Protective Devices standards.
- ☐ Make RPE available at no cost to workers and ensure it is properly maintained and regularly checked.

### 4. Train Your Workers

- ☐ Educate workers on the correct use, maintenance, and limitations of their RPE.
- ☐ Ensure workers understand that non-compliant measures (like using bandanas or ill-fitting masks) are ineffective and against WorkSafe standards.

### 5. Monitor and Review

- ☐ Regularly monitor workplace conditions to ensure risks are being effectively managed.
- ☐ Review and update RPE requirements if tasks, equipment, or environmental conditions change.

## TECMEN: Making Compliance Easy

By choosing TECMEN Powered Air-Purifying Respirators (PAPRs), you can confidently meet your obligations. Our range is designed to protect your team, keep you compliant and provide peace of mind.





# TECMEN TM1000

## The Ultimate Welding Helmet for Maximum Visibility & Versatility

Best-in-class wide lens vision with a flip-front design – perfect for welders moving between welding and grinding jobs. The TM1000 connects easily to the FreFlow blower unit, keeping a cool, filtered airflow throughout the longest shifts.

## Why Choose the TM1000?

The TM1000 maximizes workshop efficiency and safety by combining a flip-up auto-darkening welding lens, a clear 160-degree grinding visor, and PAPR respiratory protection into a single, versatile helmet. This eliminates the need for multiple pieces of equipment, allowing seamless transitions between welding, grinding, and general workshop tasks without removing your helmet. Wide-lens clarity, uninterrupted airflow, and an ergonomic design make it the go-to choice for welders looking for all-day protection and productivity.



### Options:



**TM1000  
with FreFlow**  
Code: WSHWR95002



**TM1000  
for FreFlow**  
Code: WSHWR95001



**TM1000  
Helmet Only**  
Code: WSHWR95000



**TM1000 Hard Hat  
for FreFlow**  
Code: WSHWR95055

# TM1000

## Greater vision with Flip-Up Lens

Opening up a whole new vision to the welder's world!

### Smooth flip-up function

Spring loaded for easy flip-up function and parked position.

### Pivot headgear

Well balanced, and adjustable for max-comfort.

### Side windows

Shade 5 lens on both sides, enhances surround vision for greater safety.

### Superior lens technology

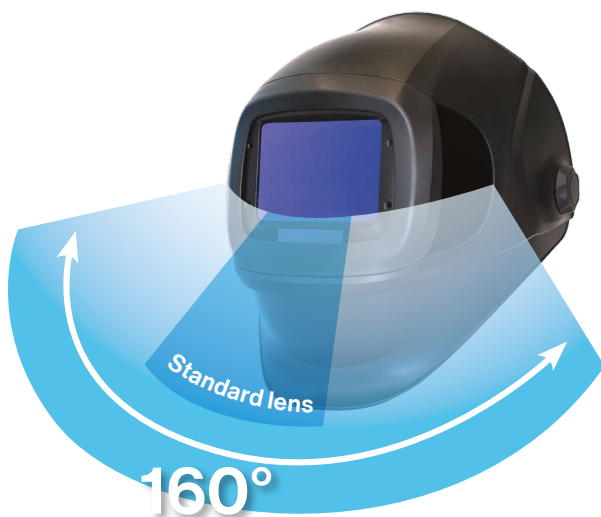
107 x 75mm Best optical class 1/1/1/1 Lens to bring true colour and clear vision to the welder.

### Large grinding view

200x120mm curved and clear anti-fog lens.

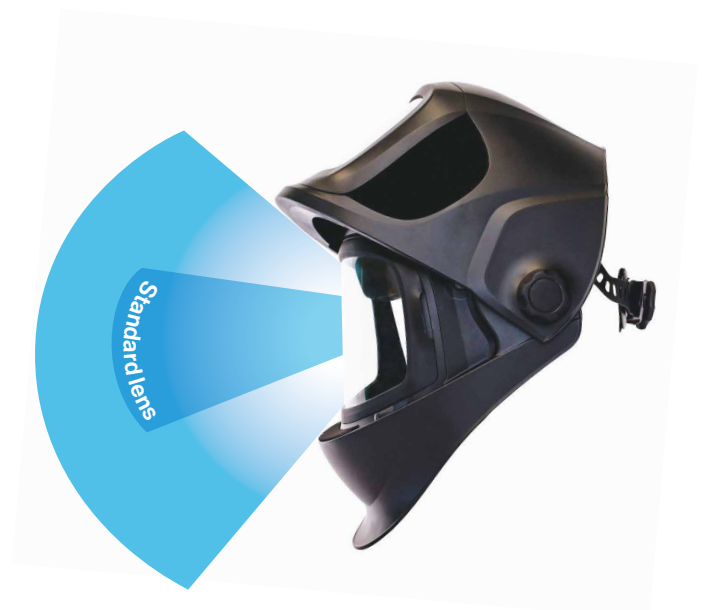
### High impact resistance

Australian and New Zealand standard AS/NZS 1337.1 compliant.



### 160° horizontal field of vision

Increased both safety and efficiency in your workplace, with a better field of vision.



### Grinding mode

Now no time lost changing between welding, grinding, and general workshop tasks. Just one easy flip-up action. No need to remove the helmet between jobs.



# TM1000

True colour lens, all day comfort



Highest clarity of vision when welding

## World's best optical rating 1/1/1/1

- 1 Optical class: No distortion.
- 1 Light diff vision: No double vision.
- 1 Homogeneity: No shade variation.
- 1 Angle dependence: Shade remains consistent when looking at any angle.

## 2 year lens warranty

## Solar powered

with battery backup.  
Automatic on-off so ready to weld at any time.



## True colour lens

Bringing realistic colour to the welder's world. No more green environments with weak colour contrasts.

## 107x75mm

auto-darkening view  
+ side windows

## Easy lens controls

Weld shade adjustment 9-13.  
Cutting shade adjustment 5-8.  
Sensitivity adjustment 1-10.  
Delay adjustment 1-10.

## 3 adjustable cram straps

To distribute weight and balance better.

## Automatic self-adjust sweatband

To fit the head shape perfectly.



## Swivelling padded headband

Self-adjust to any head shape with a smooth ratchet, to allow just the right tension for all day comfort wear.

## Adjustable distance

between the face and helmet.  
Easy to wear it the way you want it, with greater vision



# TM1000 FreFlow PAPR

## Cooler, cleaner, better productivity!

Combining the TM1000's great benefits with the powered air-purifying respirator for the ultimate productivity, safety and comfort.

### Superior lens

Best optical lens 1/1/1/1  
Best true colour and clear vision

### Great field of vision

With side windows and a flip-up front for a large anti-fog grinding lens

### User friendly indicator display

Filter status, airflow rate, battery capacity.

### Intelligent air supply

Self-adjust air-flow rate according to the clogging of the filter or battery level.

### Li-ion 1 hour

### quick charge battery

to give up to 9 hours uninterrupted air-flow.

### Adjustable airflow

170 lpm or 210 lpm airflow rates to provide the user better comfort, and cooling in hot or heavy workload conditions.

### Designed air outlet

To distribute the airflow to the breathing zone, and around the face to keep the user cooler and keeps air away from eyes.

### Flame resistant face seal

to give the welder P3 protection for every shaped face.

### Breathing hose

connected to headgear to give the helmet balance. Keeps the hose secure and out of the way.



### Comes with a large trade backpack

to store and carry helmet and respirator unit. Extra storage department for spare lens and filters.



# TM1000 Specifications, Parts & Accessories



## TM1000 Specifications

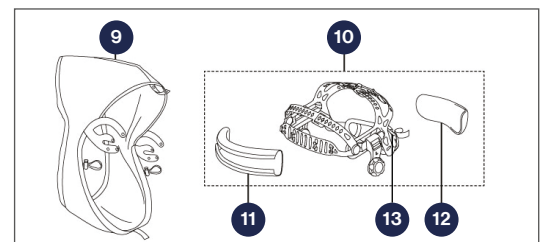
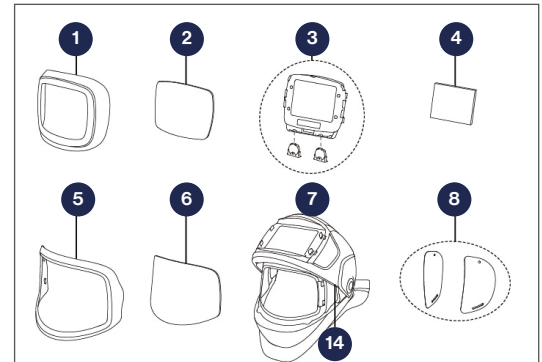
<b>Optical Class</b>	1/1/1/highest optical class with high definition lens technology (EN379)
<b>Viewing Area</b>	107 x 75 mm
<b>Lens Shade</b>	Variable Shade 5 - 8 / 9 - 13
<b>Light Shade</b>	3
<b>Shade Control</b>	Internal, Digital Display Control
<b>Sensors</b>	4
<b>On/Off</b>	Auto-on/off
<b>Power Supply</b>	Solar cell, + Battery replaceable, 2 x CR2450 lithium battery
<b>Switch Time</b>	1/25,000 s. from Light to Dark
<b>Sensitivity Control</b>	Low - High, Digital Display Control
<b>Delay Time (Dark to Light)</b>	0.1 - 1.0 s, Digital Display Control
<b>Low TIG Rated</b>	Down to 2 amps
<b>Grind Mode</b>	Yes
<b>Grind Lens</b>	200x120mm
<b>Side Windows</b>	Shade 5
<b>Helmet Weight</b>	<b>Standard Helmet</b> 760g, <b>Respiratory version</b> 940g
<b>Magnification Lens</b>	Lens holder, to fit standard 108x51 magnification lenses
<b>Operating Temperature</b>	-5 °C to +55 °C
<b>Storing Temperature</b>	-10 °C to +55 °C
<b>Application Range</b>	Stick Welding (DC&AC). TIG (DC,DC Pulse);TIG AC(Pulse), Excellent low amperage TIG response. MIG/MAG; MIG/ MAG Pulse;Plasma Cutting/ Welding. Grinding. Oxyacetylene Welding/Cutting.
<b>Warranty</b>	<b>Auto Darkening Lens:</b> 2 years
<b>Standards</b>	<b>Helmet:</b> AS/NZS1337.1:2010 High impact rated <b>Lens:</b> AS/NZS1338, EN379
<b>FreFlow Connection</b>	Bayonet connection (Can use Quick Connection if small hose is added to the helmet.)

## Spare Parts

Item	Qty	Code
1 Front lens holder	1	WSHWR95007
2 Outside cover lens	1	WSHWR95003
3 Auto darkening filter (ADF950S)	1	WSHWR95012
4 950S Inside cover lens	1	WSHWR95004
5 Grind lens holder	1	WSHWR95008
6 Grind lens (anti-fog)	1	WSHWR95005
7 Helmet shell (non-air)	1	WSHWR95017
7 Helmet shell with airflow	1	WSHWR95018
8 Side lens cover	1	WSHWR95013
9 Face seal	1	WSHWR95016
10 Headgear (non-air)	1	WSHWR95014
10 Headgear for air	1	WSHWR95015
11 12 Sweatbands	1	WSHWR95006
13 Hose Clip (headgear)	1	WSHWR95019
14 Hinge Spring pr	1	WSHWR95011

## Optional

Item	Qty	Code
15 Front Leather Throat Protection	1	WSHWR95040
16 TM1000 Back Hood Cover Protection	1	WSHWR95041



### 15 Front Leather Throat Protection

- Added leather throat protection for TECMEN welding helmets.
- Protects your neck and upper chest/shoulders from molten metal, sparks and flames.

### 16 Back Hood Cover Protection

Extra back of head and neck protection to fit your TECMEN welding helmet and respirator.

- To protect you from molten metal, sparks and flames while you weld.
- Flame resistant material.

# TECMEN TM900

## Lightweight Wide Vision Helmet for All-Day Welding Comfort

Welding requires precision and endurance, and the TM900 is built to deliver both. Featuring the same superior wide-lens visibility as the TM1000 but without the flip front, this helmet provides exceptional clarity while being lighter in weight—ideal for welders who want maximum comfort during long shifts.

## Up to 30% lighter

than other welding helmets in its class with surround view

## Why Choose the TM900?

For welders who spend long hours on the job, the TM900 offers superior wide-lens visibility in a lightweight design that reduces strain and fatigue. Its close fitting, fixed-front construction eliminates extra bulk, making it ideal for precision welding and overhead applications. Crystal-clear optics and an ergonomic fit keeps you focused and comfortable—so you can weld with precision, protection, and ease all day long.



### Options:



**TM900 with FreFlow**  
Code: WSHWR90002



**TM900 for Freflow**  
Code: WSHWR90001



**TM900 Helmet Only**  
Code: WSHWR90000



# TM900

Lightweight, Best optical class  
1/1/1/1 with true colour



## Intelligent arc sensor technology

Not affected by natural/surrounding light,  
stable outdoor performance.

## Wide 107x75mm viewing area

## Superior lens technology

Best optical class 1/1/1/1 to bring true  
colour and clear vision to the welder.

- 1 Optical class: No distortion.
- 1 Light diff vision: No double vision.
- 1 Homogeneity: No shade variation.
- 1 Angle dependence: Shade remains  
consistent when looking at any angle.

## External grinding control

Allows quick switching from welding  
to grinding and back without lifting the  
welding hood or removing gloves.

## Multi point adjustable headgear

Well balanced design,  
maximum comfort level.

## Side windows

Shade 5 lens on both sides,  
enhances surround vision  
for greater safety.

## High impact resistance

Australian and New Zealand  
Standard AS/NZS 1337.1 compliant.

## World's best optical rating 1/1/1/1

- 1 Optical class: No distortion.
- 1 Light diff vision: No double vision.
- 1 Homogeneity: No shade variation.
- 1 Angle dependence: Shade remains consistent  
when looking at any angle.

## 2 year lens warranty

## Solar powered

with battery backup.  
Automatic on-off so ready  
to weld at any time.



## True colour lens

Bringing realistic colour to  
the welder's world. No more  
green environments with  
weak colour contrasts.

## 107x75mm

auto-darkening view  
+ side windows

## Easy lens controls

Weld shade adjustment 9-13.  
Cutting shade adjustment 5-8.  
Sensitivity adjustment 1-10.  
Delay adjustment 1-10.

# TM900 FreFlow PAPR

All the great benefits with the powered air-purifying respirator.



# TM900 Specifications, Parts & Accessories



## TM900 Welding Helmet Specifications

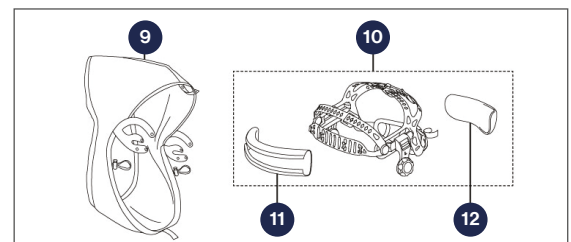
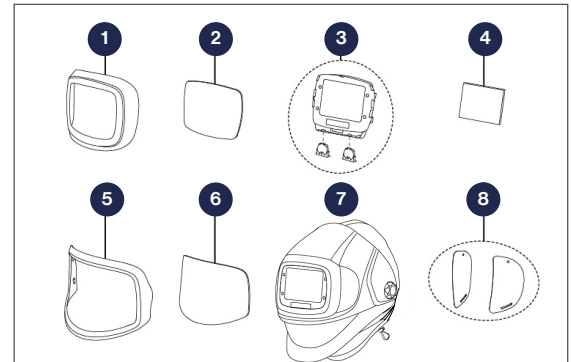
<b>Optical Class</b>	1/1/1/1
<b>Viewing Area</b>	107 x 75 mm
<b>Cartridge Size</b>	156 x 123 x 33 mm
<b>Arc Sensor</b>	4
<b>Light State</b>	DIN 3
<b>Dark State</b>	DIN 5-8/9-13
<b>Shade Control</b>	Internal, Digital Display Control
<b>Sensitivity Control</b>	Low-High, Digital Display Control
<b>On/Off</b>	Auto On/Off
<b>Power Supply</b>	Solar cell, Battery replaceable
<b>Battery Type</b>	2 x CR2450
<b>Switch Time</b>	1/25,000 s. from Light to Dark
<b>Delay Time (Dark to Light)</b>	0.1 ~ 1.0 s, Digital Display Control
<b>Low TIG Amps Rated</b>	≥ 2 amps (DC); ≥ 2 amps (AC)
<b>Grind Mode</b>	External grinding control
<b>Low Battery Indicator</b>	Digital Display
<b>Battery Capacity Test</b>	Digital Display
<b>Helmet Weight</b>	Standard helmet 730g. Respiratory version 890g.
<b>Helmet Material</b>	High-impact Resistance Nylon
<b>Operating Temperature</b>	10°C ~ +55°C (14°F ~ 131°F)
<b>Application Range</b>	Stick Welding (DC&AC). TIG( DC,DC Pulse);TIG AC(Pulse),Excellent low amperage TIG response. MIG/MAG ;MIG/MAG Pulse;Plasma Cutting/ Welding. Grinding. Oxyacetylene Welding/Cutting.
<b>Warranty</b>	<b>Auto darkening lens:</b> 2 years
<b>Standards</b>	<b>Helmet:</b> AS/NZS1337.1:2010 High impact rated <b>Lens:</b> AS/NZS1338, EN379
<b>FreFlow connection</b>	Quick connect hose

## Spare Parts

Item	Qty	Code
1 Front lens holder	1	WSHWR95007
2 Outside cover lens	1	WSHWR95003
3 Auto darkening filter (ADF950S)	1	WSHWR95012
4 950S Inside cover lens	1	WSHWR95004
5 Grind lens holder	1	WSHWR95008
6 Grind lens (anti-fog)	1	WSHWR95005
7 Helmet shell (non-air)	1	WSHWR90017
7 Helmet shell with airflow	1	WSHWR90018
8 Side lens cover	1	WSHWR95013
9 Face seal	1	WSHWR95016
10 Headgear (non-air)	1	WSHWR95014
10 Headgear for air	1	WSHWR95015
11 12 Sweatbands	1	WSHWR95006

## Optional

Item	Qty	Code
13 Front Leather Throat Protection	1	WSHWR95040
14 Back Hood Cover Protection	1	WSHWR95041



### 13 Front Leather Throat Protection

- Added leather throat protection for TECMEN welding helmets.
- Protects your neck and upper chest/shoulders from molten metal, sparks and flames.

### 14 Back Hood Cover Protection

- Extra back of head and neck protection to fit your TECMEN welding helmet and respirator.
- To protect you from molten metal, sparks and flames while you weld.
  - Flame resistant material.



# TECMEN TM820

## The Slimline Welding Helmet for Confined Spaces

Crystal-clear vision in a compact, low-profile design – ideal for welding in tight or hard-to-reach areas. This helmet is built for daily tasks, providing protection without added weight, and integrates seamlessly with the FreFlow blower unit to keep welders breathing safely and easily.

## Why Choose the TM820?

Designed for welders who need a no-fuss, reliable helmet, the TM820 offers crystal-clear vision in a compact, slimline design. Its lightweight build makes it ideal for confined spaces, overhead work, and all-day use, reducing neck strain without compromising protection. A cost-effective choice for welders who need trusted performance and durability, the TM820 delivers clarity, comfort, and ease of use—making it the go-to helmet for everyday welding tasks.



### Options:



**TM820 with FreFlow**  
Code: WSHWR82002



**TM820 for FreFlow**  
Code: WSHWR82001



**TM820 Helmet Only**  
Code: WSHWR82000

# TM820

Lightweight, Best optical class  
1/1/1/1 with true colour



## Intelligent arc sensor technology

Not affected by natural/surrounding light,  
stable outdoor performance.

## Large 95x85mm viewing area

## Aluminium heat shield

Reflects heat away from the welder and  
lens, for continuous high amp welding.

## Superior lens technology

Best optical class 1/1/1/1 to bring true  
colour and clear vision to the welder.  
1 Optical class: No distortion.  
1 Light diff vision: No double vision.  
1 Homogeneity: No shade variation.  
1 Angle dependence: Shade remains  
consistent when looking at any angle.



## External grinding control

Allows quick switching from welding  
to grinding and back without lifting the  
welding hood or removing gloves.

## Multi point adjustable headgear

Well balanced design,  
maximum comfort level.

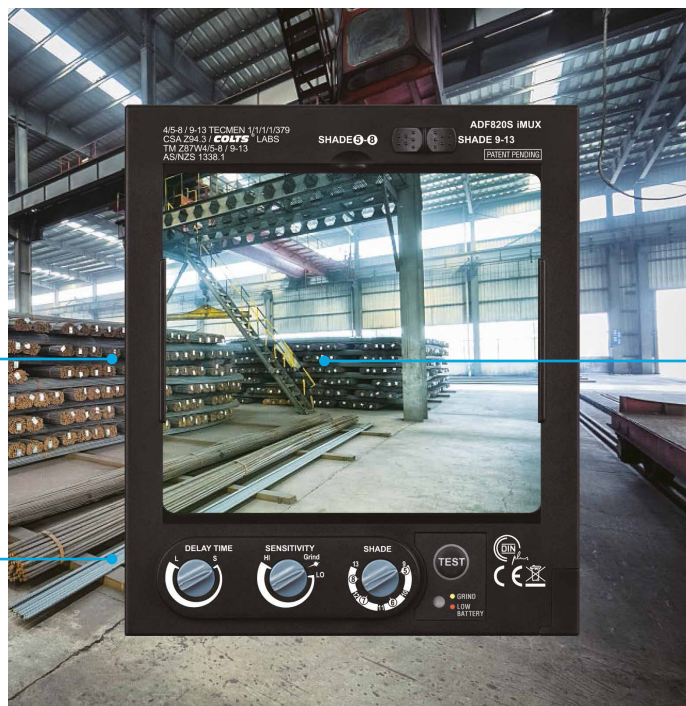
## High impact resistance

Australian and New Zealand  
Standard AS/NZS 1337.1 compliant.

## 2 year auto-darkening lens warranty

Solar powered with battery backup.  
Automatic on/off, so ready to weld at  
any time. Low amperage TIG rated  
down to 2 amps.

Weld shade 9 - 13  
Cutting shade 5 - 8  
Sensitivity adjustment Lo - Hi  
Delay adjustment Long - Short



## True colour lens

Bringing realistic colour  
to the welder's world.  
No more green environment  
with weak colour contrasts.

# TM820 FreFlow PAPR

All the great benefits with the powered air-purifying respirator.





# TM820 Specifications, Parts & Accessories



## TM820 Welding Helmet Specifications

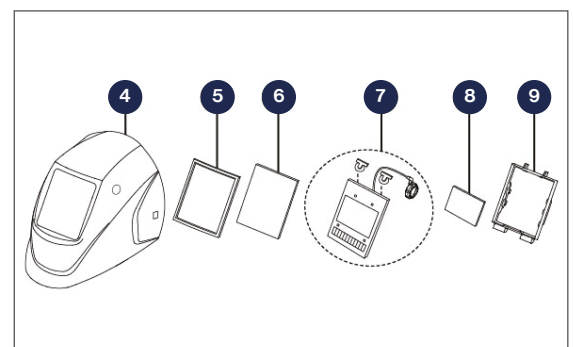
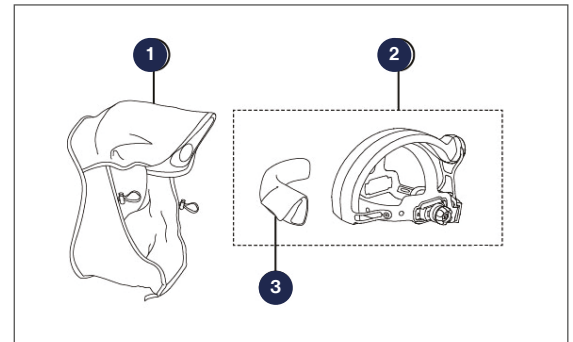
<b>Optical Class</b>	1/1/1 highest optical class with high definition lens technology (EN379)
<b>Viewing Area</b>	95 x 85mm
<b>Lens Shade</b>	Variable Shade 5-8 / 9-13
<b>Light State</b>	DIN 3.5
<b>Shade Control</b>	Internal
<b>Sensors</b>	4
<b>On/Off</b>	Automatic On / Off
<b>Power Supply</b>	Solar cell + Battery replaceable, 1*CR2450 lithium battery
<b>Switch Time</b>	1/25,000 s. from Light to Dark
<b>Sensitivity Control</b>	Low-High, by infinite dial knob
<b>Delay Time (Dark to Light)</b>	0.1-1.0s by infinite dial knob
<b>Low TIG Amps Rated</b>	2 amps
<b>Grind Mode</b>	Yes, External grinding button
<b>Helmet Weight</b>	Standard Helmet 645g, Respiratory version 880g
<b>Magnification Lens</b>	Lens holder, to fit standard 108x51 magnification lenses
<b>Operating Temperature</b>	-10°C to +55°C
<b>Storing Temperature</b>	-20°C to +70°C
<b>Application Range</b>	Stick Welding (DC&AC). TIG( DC,DC Pulse);TIG AC(Pulse),Excellent low amperage TIG response. MIG/MAG; MIG/MAG Pulse. Plasma Cutting/ Welding; Grinding; Oxyacetylene Welding/Cutting;
<b>Warranty</b>	<b>Auto darkening lens:</b> 2 years
<b>Standards</b>	<b>Helmet:</b> AS/NZS1337.1:2010 High impact rated <b>Lens:</b> AS/NZS1338, EN379
<b>FreFlow connection</b>	Bayonet connect hose

## Spare Parts

Item	Qty	Code
1 Face seal	1	WSHWR82016
2 Headgear with air connection	1	WSHWR82015
2 Headgear (non-air)	1	WSHWR82014
3 Sweatbands	1	WSHWR82006
3 Sweatband for Freflow	1	WSHWR82005
4 Helmet Shell	1	WSHWR82017
4 Helmet Shell for FreFlow	1	WSHWR82018
5 Rubber frame	1	WSHWR82007
6 Outside cover lens	1	WSHWR82003
7 Auto darkening filter(ADF820)	1	WSHWR82012
8 Inside cover lens	1	WSHWR82004
9 Lens Holder	1	WSHWR82008

## Optional

Item	Qty	Code
10 Front Leather Throat Protection	1	WSHWR95040
11 Rear Extended Hood able to fit to most Welding Helmets	1	WSLCHX0200
12 Tecmen TM820 Helmet Adapter for Hardhat	1	WSHWR82050



### 10 Front Leather Throat Protection

- Added leather throat protection for TECMEN welding helmets.
- Protects your neck and upper chest/shoulders from molten metal, sparks and flames.

### 12 Helmet Adapter for Hardhat

- Adapter to attach your hardhat to the Tecmen TM820 welding helmet. Designed to fits most hardhats.



# TECMEN G Series Face Shield Helmets

Fresh, Cool Air with Full Face & Head Protection



## Why Choose a G10 or G20?

A standard face shield only protects your face—the TECMEN G-Series protects your face, lungs, and head in one system. Unlike traditional face shields, the G10 Bump Cap and G20 Hard Hat integrate with PAPR technology, providing a constant supply of fresh, filtered air while protecting against dust, sparks, and impact risks. The G10 is lightweight and highly adjustable, perfect for grinding and fabrication, while the G20 includes a built-in hard hat, making it ideal for heavy industrial sites where head protection is required. No fogging, no heat buildup—just all-day comfort and protection.

### Options:



**G10 Bump Cap  
with FreFlow**  
Code: WSHWRG1001



**G10 Bump Cap  
Only**  
Code: WSHWRG1000



**G20 Hard Hat  
with FreFlow**  
Code: WSHWRG2001



**G20 Hard Hat  
Only**  
Code: WSHWRG2000

# When Do You Need a G10 or G20?

If your job exposes you to flying debris, harmful dust, or head protection, a standard face shield won't cut it. The G10 Bump Cap and G20 Hard Hat deliver unmatched protection by combining a high-impact face shield helmet with a Powered Air-Purifying Respirator (PAPR)—keeping your lungs clear and your vision sharp.

## 10 Tasks That Demand G-Series Protection



### Grinding & Surface Prep

Stops sparks, dust, and fine metal particles from reaching your lungs.



### Cutting & Plasma Cutting

Blocks high-speed debris and toxic fumes from metal cutting operations.



### Sanding & Polishing

Protects against fine metal dust that can cause long-term respiratory issues.



### Fabrication & Assembly

Shields your face while preventing exposure to airborne shavings and adhesives.



### Spray Painting & Coating

Works with gas filters to block harmful fumes and overspray.



### Foundry Work & Casting

Offers heat protection and cool, clean air in high-temperature environments.



### Deburring & Finishing

Prevents sharp metal chips from hitting your face while keeping your breathing zone clean.



### CNC Machining & Milling

Blocks ejected debris and airborne coolant mist for a safer, clearer workspace.



### Inspection Work

In-house and on-site inspections where head, face and respiratory protection is required.



### Industrial Maintenance & Repairs

Ideal for cleaning, rust removal, and other high-exposure tasks.



No melting or deformation in high temperature environment up to 135°C

## Different grades to meet a variety of head protection requirements.



**EN812:2012**

**EN166:2001**

G10 bump cap face shield meets EN812 standard, providing comprehensive breathing, head, eye and face protection for users.



**EN397:2012**

**EN166:2001**

G20-V hard hat face shield meets EN397 hard hat standard, integrated one-piece design, protecting the user from mechanical impact and falling objects



# Work Smarter and Safer with TECMEN G10 & G20 Face Shield Helmets

By upgrading to the G10 or G20 with FreFlow, you're not just choosing better gear—you're choosing better health, comfort, and compliance. Keep your team safe, productive, and protected.



**Multipoint buffer**  
to disperse vibrations.

## **Bump cap/Hard hat protection**

Blended engineering plastics with both rigidity and toughness.  
G10 bump cap compliant to EN812:2012.  
G20 hard hat compliant to EN397:2012.

## **Flip-up design**

Easily flip-up the face shield.

## **Large impact resistant face shield**

provides unobstructed vision with no distortion and allows complete transmission of light while protecting the eyes and face from heat and debris.

Face shield impact rating  
Certified to EN166:2001 CE CatII  
3 - Splashes of liquids.  
9 - Molten metals and hot solids.  
High impact rating to AS/NZS1337

## **Comfortable, 6 point adjustable head gear**

Top of the headgear is adjustable in 6 positions, the rear is adjustable to suit a variety of head shapes.

## **Water resistant flame retardant face seal**

with great sealing performance, ensuring that a micro-positive pressure state is formed in the face shield.



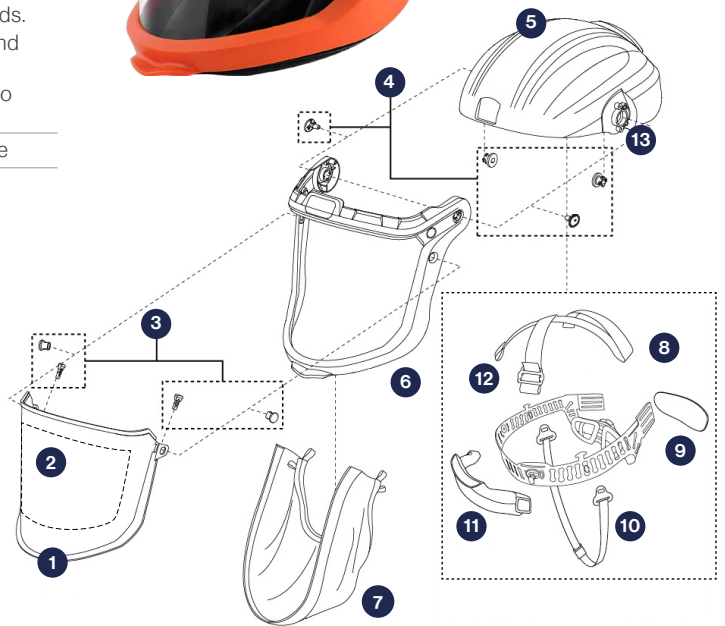
## **Comes with a large trade backpack**

to store and carry helmet and respirator unit.  
Extra storage department for spare lens and filters.

# G10/20 Specifications, Parts & Accessories

## G10/G20 Face Shield Helmet Specification

Model	G10	G20
Helmet with FreFlow	WSHWRG1001	WSHWRG2001
Helmet Only	WSHWRG1000	WSHWRG2000
Head Protection Standard	Bump cap EN812:2012	Hard hat EN397:2012
Weight	660g	792g
Applications	Cutting, Grinding, Sanding, Polishing, Painting, Spraying, Chemical Use	Cutting, Grinding, Sanding, Polishing, Painting, Spraying, Chemical Use
Eye and Face Protection	Certified to EN166:2001 CE CatII 3 - Splashes of liquids. 9 - Molten metals and hot solids. High impact rating to ASNZS1337	Certified to EN166:2001 CE CatII 3 - Splashes of liquids. 9 - Molten metals and hot solids. High impact rating to ASNZS1337
FreFlow connection	Bayonet connect hose	Quick connect hose



## G10/20 Face Shield Spare Parts

Item	Qty	Code
1 Clear Protector Visor	1	WSHWRG1004
2 Peel of Visor Cover	10pk	WSHWRG1003
3 Visor Frame Button Set	1	WSHWRG1009
4 Bump Cap Connection Set	1	WSHWRG1019
5 G10 Bump Cap Top	1	WSHWRG1018
5 G20 Hard Hat Top	1	WSHWRG2018
6 Visor Frame	1	WSHWRG1008
7 Face Seal	1	WSHWRG1016
8 G10 Headgear	1	WSHWRG1014
8 G20 Headgear	1	WSHWRG2014
9 Back Comfort Pad	1	WSHWRG1006
10 Chin Strap	1	WSHWRG1020
11 Front Sweat Band	1	WSHWRG1005
12 G10 Ribbon for Headgear	1	WSHWRG1013
12 G20 Ribbon for Headgear	1	WSHWRG2013
13 Face Shield Flip Up Spring Pair	1	WSHWRG1011



## Optional

Item	Qty	Code
TECMEN G10/20 Face Shield Flip Up Shade 5 Lens	1	WSHWRG1010



This shade 5 lens connects to the G10 or G20 helmet visor to provide effective protection against UV/IR.

- Optical grade PC material delivers high-resolution clear vision.
- The high-intensity visor provides effective protection against UV/IR radiation, particle spatter, liquid spatter, metal melt, and hot solid spatter, ensuring optimal safety.
- Easy flip-up function and parked position when not needed so able to keep the respirator helmet on at all times.

# TECMEN H Series

## Full Hood Protection with Clean, Cool Air

For industries where dust, chemicals, and airborne hazards are a constant risk, standard respirators don't offer enough protection. The FreFlow H-Series is designed for total head and respiratory safety, combining a lightweight, full-coverage hood with Powered Air-Purifying Respirator (PAPR) technology. With a continuous flow of filtered, cool air, workers stay protected, comfortable, and compliant—no matter the environment.

## Why Choose the FreFlow H2 or H3?

For workers facing high levels of dust, chemicals, or airborne contaminants, the FreFlow H-Series provides total head and respiratory protection. Unlike half-masks or tight-fitting respirators, these lightweight hoods completely cover the head, neck, and shoulders, preventing exposure in hazardous work environments. The positive-pressure PAPR system ensures a continuous flow of cool, filtered air, reducing breathing resistance and eliminating heat buildup. Ideal for painting, polishing, pharmaceuticals, industrial maintenance, or chemical handling, the FreFlow H-Series delivers comfort, compliance, and confidence on the job.



Filter efficiency  
**>99.97%**

### Options:



**H2 Spray Hood  
with FreFlow**  
Code: WSHWRH2001



**H2 Spray Hood  
for FreFlow**  
Code: WSHWRH2000



**H3 Chemical Hood  
with FreFlow**  
Code: WSHWRH3001



**H3 Chemical Hood  
for FreFlow**  
Code: WSHWRH3000



# Tecmen H2 Respiratory Spray Hood

## Hood material

Lightweight, breathable, anti-static for dust and liquid proof with neck and shoulder protection. Seams are heat melted with adhesive tape after sewing. Barrier membrane with composite fabric 87g/cm2.

## Extremely comfortable

Positive-pressure air supply, stably convey filtered clean air to head and face of wearer, micro-positive pressure protecting wearer from respiratory resistance, avoiding stuffiness and facilitating respiration.

## Anti-fog, more reliable

Clear vision without fog, ensuring smooth operation and testing.

## Rechargeable Li-ion battery

Rechargeable battery for longer lifetime. Fast-charging option makes charging only 1 hour.

## Respiratory protection

Connects to the Freflow for highest level of respirator protection. Filter efficiency > 99.97%, preventing inhalation of dust, pollutants, fine particles as well as other contaminants.

## Intelligent air supply

Respirator will self-adjust the flow rate according to the blockage of the filter automatically.

## Real-time display indicator

Filter status / airflow rate / battery capacity indicator, real-time monitoring and displaying.

## Auto-alarm system

Flashing indicator, beeping sound, together with vibrating blower to ensure safety.

## H2 Specifications

Model	H2
Code	WSHWRH2000
Product Description	Dust-proof hood with head and neck protection
Weight Helmet only	150 g
Approval	EN 12941 TH3 P R SL
Applications	Dust, mist working conditions with low chemical-resistant. Painting, surface treatment, Polishing. Pharmaceutical, Laboratory. Food processing.
Airflow Rate	Low speed: 170+ipm (6+cfm) High speed: 210+ipm (7.4+cfm)
Freflow connection	Bayonet connect hose

## H2 Optional Extras for Spray Painting



### Peel-Off Face Shield

- Cover fits over the clear shield, designed to protect the shield from scratching or overspray of paint and chemicals.
- Self-adhesive visor covers can be easily applied, and removed.
- 10 pack (1 ordered = 10 peel-off covers).

**Code:** WSHWRG1003

### Freflow White Blower Unit Cover

- Fabric cover to capture and protect the Tecmen Freflow blower unit from paint/mist overspray.
- Clear window cover to see controls and adjust unit.

**Code:** WSHWR95028



# Tecmen H3 Respiratory Chemical Hood

## H3 hood

Lightweight, dust proof, anti-static, and liquid chemical proof material with neck and shoulder front and back protection.

## Extremely comfortable

Positive-pressure air supply, stably convey filtered clean air to head and face of wearer, micro-positive pressure protecting wearer from respiratory resistance, avoiding stuffiness and facilitating respiration.

## Anti-fog, more reliable

Clear vision without fog, ensuring smooth operation and testing.

## Ultrasonic heat-sealing technology for seaming

Seamed with ultrasonic welding and heat-sealing technology, with high intensity feature and longer lifetime.

## Rechargeable Li-ion battery

Rechargeable battery for longer lifetime. Fast-charging option makes charging only 1 hour.

## Respiratory protection

Connects to the Tecmen Freflow unit for highest level of respirator protection (ASNZS1716). Designed to be use with both particle and gas filters to cover dust particles and chemical vapours when needed.

## Intelligent air supply

Respirator will self-adjust the flow rate according to the blockage of the filter automatically.

## Real-time display indicator

Filter status / airflow rate / battery capacity indicator, real-time monitoring and displaying.

## Auto-alarm system

Flashing indicator, beeping sound, together with vibrating blower to ensure safety.

## H3 Specifications

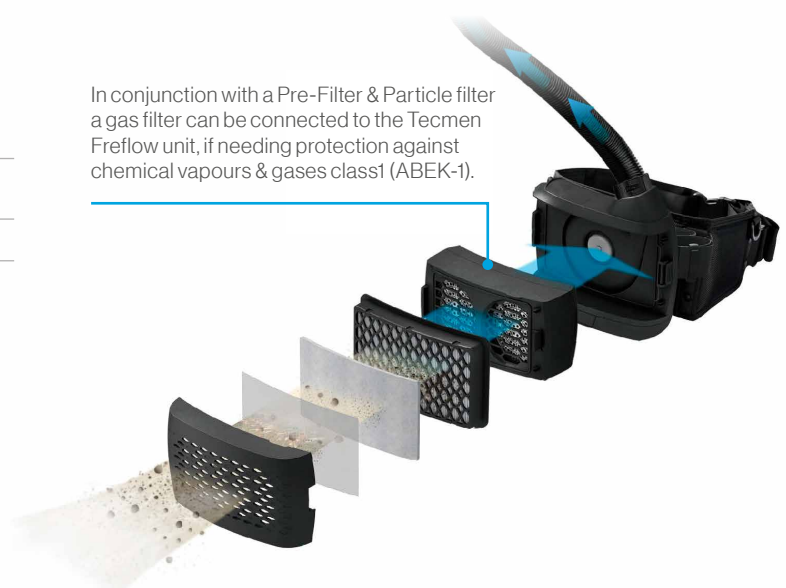
Model	H3
Code	WSHWRH3000
Product Description	Chemical-proof hood
Weight Helmet only	200 g
Approval	EN 12941 PR SL, AS/NZS 1716
Applications	Dust and mist working conditions with liquid chemical. Petrochemical and processing chemical industries. Pharmaceutical, Laboratory. Hazardous, and waste treatment environments.
Airflow Rate	Low speed: 170+ipm (6+cfm) High speed: 210+ipm (7.4+cfm)
Freflow connection	Bayonet connect hose

## H3 Optional Chemical Vapour & Gas Filter

Freflow Gas filter ABEK-1	WSHWR95025
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- Filter type A** = Certain organic vapours such as cyclohexane (boiling point above 65°C) from solvents such as those in paints and thinners.
- Filter type B** = Acid gases such as chlorine, hydrogen sulfide (sulphide) and sulfur dioxide.
- Filter type E** = Vapours from sulfur dioxide.
- Filter type K** = ammonia gas.

In conjunction with a Pre-Filter & Particle filter a gas filter can be connected to the Tecmen Freflow unit, if needing protection against chemical vapours & gases class1 (ABEK-1).



# TECMEN FreFlow Blower Unit

Powered Respiratory Protection for Every Task

The FreFlow blower unit is a powered air-purifying respirator (PAPR) designed to work seamlessly with every TECMEN respirator headpiece. It's lightweight, effective, and highly adaptable to suit a range of workshop environments.

Filter efficiency  
**>99.97%**



## Options:



**FreFlow Respirator Unit  
with Bayonet Connect**  
Code: WSHWR95050



**FreFlow Respirator Unit  
with Quick Connect**  
Code: WSHWR95051

## Why the FreFlow Blower?

The FreFlow blower unit enhances comfort and safety, allowing you to focus on the job without compromise. Combine it with your choice of filters to ensure every breath is a safe one.



# TECMEN FreFlow Blower Unit

## Powered Air Purifying Respirator

High level respirator protection (AS/NZS 1716:2012).  
Compact design with P3 class that provides clear air.

### Simple to operate

One button control on/off and adjust airflow.

### Heavy duty leather belt

Can also be worn with shoulder straps.

### 2 Year Blower Unit Warranty

### Air hose

Connecting to helmet, comes with flame retardant cover.

### Audio-visual and vibrating alarm

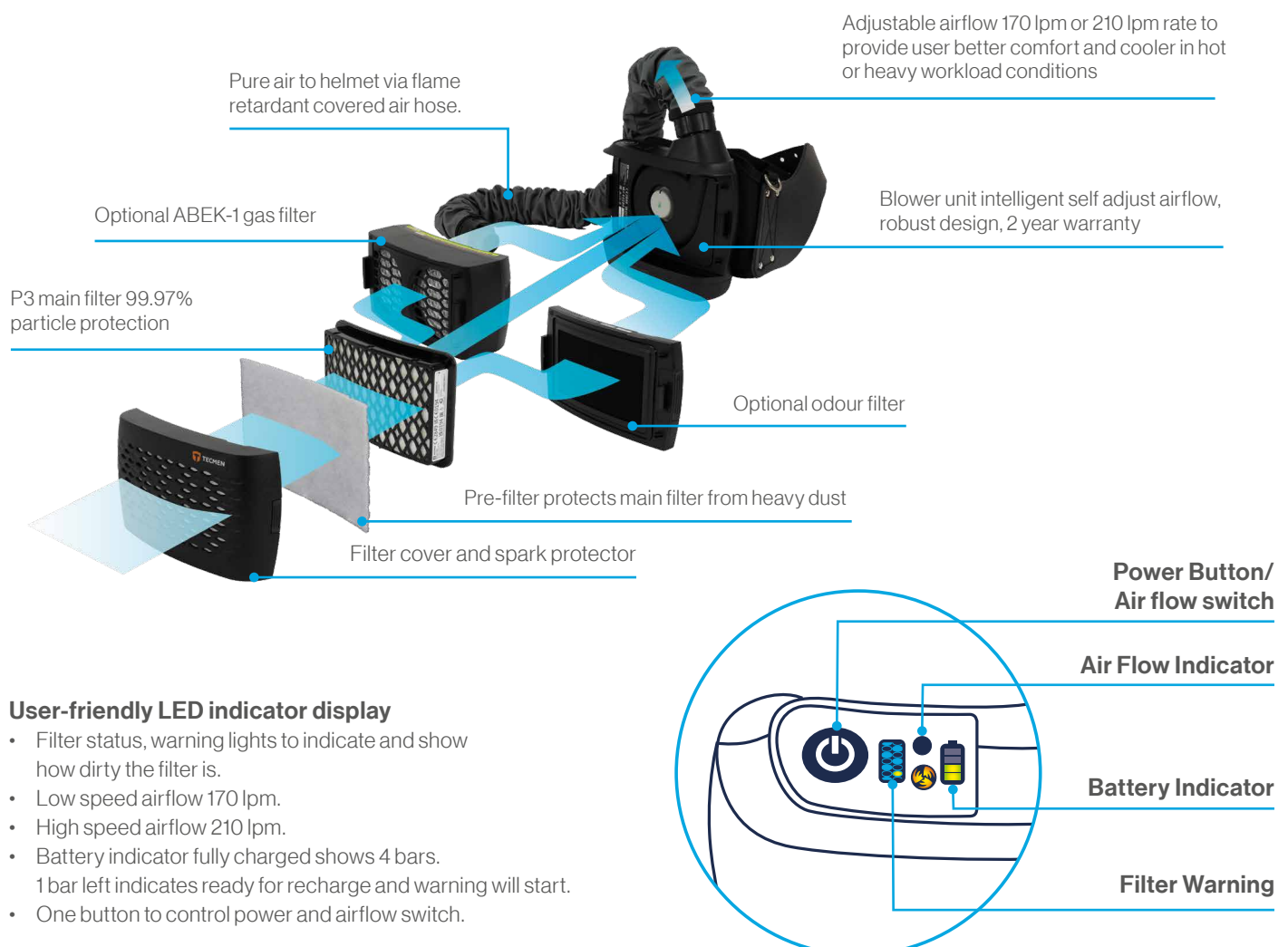
Indicates when battery charge and/or filter replacement is required.

### Intelligent air supply

Self-adjust airflow rate according to the blockage of the filter.

### Rechargeable Li-ion battery

1 hour quick charge gives up to 9 hours of uninterrupted air-flow, with the best warranty in the market. 1 year warranty.



# TECMEN FreFlow PAPR

## Specifications, Parts & Accessories



### TECMEN FreFlow PAPR Specifications

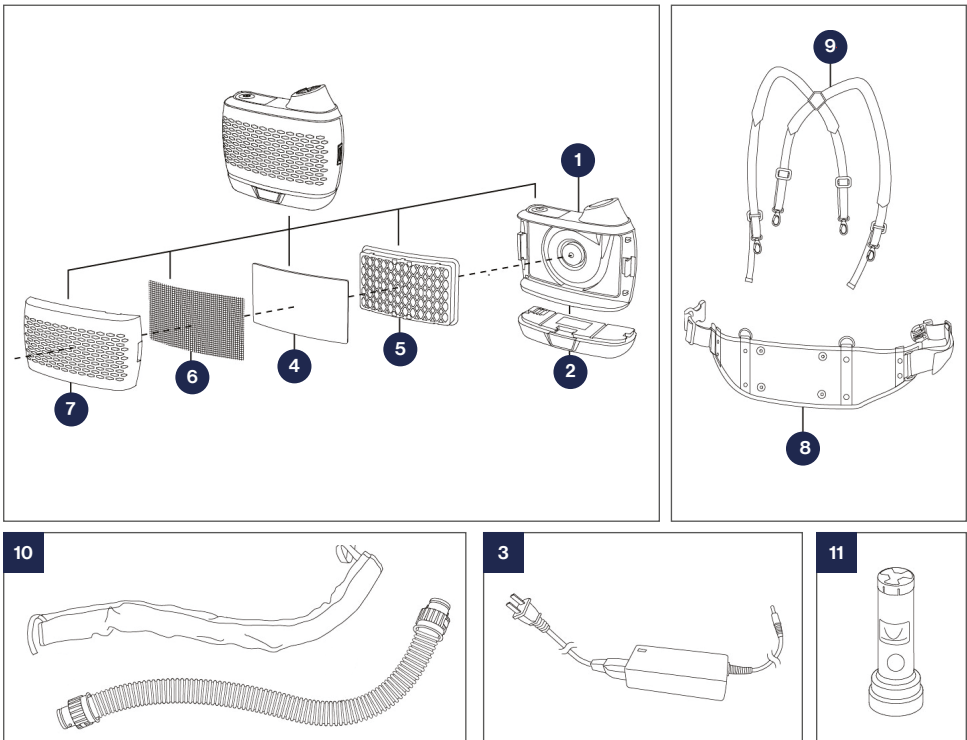
Alarm Function	Visible, Audible and Vibrate alarms, indicate when battery is low, or/and filter replacement is required.
Air Flow Rate	Self-adjusting airflow rate, to ensure constant flow rate regardless of clogging of the filter, or battery level. <div> <div>Low speed: 170+ lpm (6+cfm)</div> <div>High speed: 210+ lpm (7.4+cfm)</div> </div>
Battery	Type: Rechargeable Li-ion Battery <div> <div>Duration: 9 hours (Standard battery, 170 lpm)</div> <div>15 hours ( Extended battery, 170 lpm)</div> <div>5-6 hours (Standard battery, 210 lpm)</div> </div> Charge time: Standard battery 1 hour. (2 hours Extended battery) <div> <div>Life: 550 charges.</div> <div>Warranty: 1 year.</div> </div>
P3 Filter	Efficiency: ≥99.97% <div>Offering particulate protection from dust and welding fume hazards. For use with all welding applications.</div>
Weight	Blower unit = 1020g Blower with belt/strap = 1650.
Warranty	Blower unit 2 year. Battery 1 year.
PAPR Certification	EN 12941 TH2 P R SL; NIOSH 42 CFR Part 84; AS/ NZS 1716: 2012

### Standard FreFlow Parts & Accessories

Item	Qty	Code
1 Blower Body Unit	1	WSHWR95027
2 Fast Charging Standard Li-ion Battery	1	WSHWR95026
3 Fast Charging Battery Charger	1	WSHWR95039
4 Pre-filter	1	WSHWR95020
5 Particle Filter (P3 Filter)	1	WSHWR95022
6 Spark Protection	1	WSHWR95023
7 Filter Cover	1	WSHWR95024
8 Heavy Duty Leather Belt	1	WSHWR95037
9 Shoulder Straps	1	WSHWR95038
10 Hose (Bayonet)	1	WSHWR95034
10 Hose (Quick Connect)	1	WSHWR95047
10 Grey FR Hose Cover	1	WSHWR95033
11 Air Flow Meter	1	WSHWR95035
12 Large Trade Backpack	1	MBTB

### Unit Kit includes:

- FreFlow Respirator unit
- Rechargeable Li-ion Battery
- Battery Charger
- Heavy Duty Belt
- Shoulder Straps
- Pre-filter, and Main P3 Filter
- Air Flow Meter
- Complete Hose connection assembly with flame retardant protection cover.



# TECMEN FreFlow Options



## 1 Filters

You can choose a combination of:

- Pre-filter + Particle P3 filter
- Pre-filter + Particle P3 filter + ABEK-1 filter
- Pre-filter + Particle P3 filter + Odour filter

**Note:** the FreFlow unit can only accommodate 2 large filters.



### Pre-filter

Used to filter large particles & to extend the life of the P3 main filter. (Sold as a pack of 5)

**Code:** WSHWR95020



### Particle filter (P3)

Provides 99.997% filtration against solid and liquid particles, dusts, mists, and fumes from sanding, welding, grinding, cutting, drilling metal, mist droplets from spraying, and organic vapours and gases.

**Code:** WSHWR95022



### Gas Filter (ABEK-1)

Protects against organic and inorganic gases and vapours, sulphur dioxide and other acid gases and vapours, ammonia and organic ammonia derivatives.

**Code:** WSHWR95025

- **Filter type A** = Certain organic vapours such as cyclohexane (boiling point above 65°C) from solvents such as those in paints and thinners.
- **Filter type B** = Acid gases such as chlorine, hydrogen sulfide (sulphide) and sulfur dioxide.
- **Filter type E** = Vapours from sulfur dioxide.
- **Filter type K** = ammonia gas.



### Odour filter

Charcoal filter layer is recommended to help to reduce nuisance odours during cutting, burning, welding applications.

- Available in a complete unit with holder and filter (need to start with this), and replacement ongoing filters.

**Odour Filter Code:** WSHWR95021

**Odour Filter and Holder Code:** WSHWR95031

## 2 Batteries



### Fast-Charging Standard Battery

- Duration: 9h (170 LPM) or 5-6h (210 LPM)
- Charge Time: 1h (90%), 1.5h (100%)
- Battery Life: 550 charge cycles
- Warranty: 1 year

**Code:** WSHWR95026



### Fast-Charging Extended Battery

- Duration: 15h (170 LPM)
- Charge Time: 2h (90%), 2.5h (100%)
- Battery Life: 550 charge cycles
- Warranty: 1 year

**Code:** WSHWR95029

## 3 Belts & Shoulder Straps

Every FreFlow blower unit comes with a heavy duty leather belt and shoulder straps. A lightweight material belt or backpack is available separately.



### Standard Belt

Flexible lightweight material belt.

**Code:** WSHWR95036



### Heavy Duty Leather Belt

Leather belt for long life when welding, grinding, and heat sensitive work.

**Code:** WSHWR95037



### Shoulder Straps

Connects with belt to provide additional support and weight to the shoulders.

**Code:** WSHWR95038



### FreFlow Backpack

- Designed to mount the freflow PAPR unit on your back to evenly distribute weight as an alternative to the standard waistbelt mount.
- Adjustable shoulder straps to optimise comfort and fit for each individual user.
- Positions PAPR system away from the welding fume to access cleaner air.

**Code:** WSHWR95044

## 4 Breathing Tubes



### Bayonet Connection Hose

Compatible with the original FreFlow unit, secures with a simple twist-lock.

**Code:** WSHWR95034



### Quick Connection Hose

Designed to fit with the short quick connection hose on helmet, or direct to G20, allows for fast one-handed attachment.

**Code:** WSHWR95047



### Short Quick Connection Hose

Small hose on helmet designed to easy connect to respirator unit. Adapts a bayonet-style hose to a Quick Connect main hose.

**Code:** WSHWR95048



### Hose covers

- FR cloth to protect your hose.
- Available in standard or short length

**FR Hose Cover Code:** WSHWR95033

**Short Hose Cover Code:** WSHWR95049



### White Blower Unit Cover

Fabric cover to protect the Tecmen Freflow blower unit from paint/mist overspray.

**Code:** WSHWR95028



# The Real Cost of Safety

When it comes to respiratory safety, not all solutions are created equal. While PAPRs like TECMEN's models require a higher initial investment, they offer savings in comfort, efficiency, and replacement costs over time.

## Comparing Costs Over Time

### Initial Investment

Traditional masks may seem cost-effective upfront but require frequent replacements.

### Longevity of PAPRs

PAPRs like TECMEN's range last longer and are more comfortable, reducing worker fatigue and improving focus and productivity.

### Increased Productivity with Quality PPE

Safe, comfortable PPE is an investment that pays off, especially when it enables your team to work without strain or discomfort. TECMEN respirators are designed for comfort, durability, and protection, making them the cost-effective choice in the long run.



Traditional Welding Helmet & Half-Face Respirator



TECMEN PAPR

Product	TECMEN PAPR (Excl. GST)	Traditional Welding Helmet + Half-Face Respirator (Excl. GST)
Welding Helmet / PAPR System	\$1,895.00	\$950.80
Half-Face Respirator	Not Required	\$95.75 (replaced annually)
Pre-Filters (Pack of 5)	\$31.01 (replaced weekly)	Not Required
Particle (P3) Filters	\$47.21 (replaced quarterly)	\$36.66 (replaced weekly)
Initial Setup Cost	\$1,895.00	\$1,083.21
Annual Consumable Cost	\$486.54	\$1,855.43

\*Cost comparison based on pricing as of January 2025. Actual prices may vary over time. Replacement times are only an average used for cost comparison. Always check OEM filter guides and the environmental considerations to determine how long filters last.

# TECMEN

## Where Quality and Comfort Meet Compliance

TECMEN respirators deliver on safety, comfort, and compliance, helping you create a safer, more efficient workshop. Our commitment to quality PPE means that your team can focus on what they do best, without sacrificing safety or comfort.

## Contact Us Today

Reach out for a consultation, product demonstration, or further information on how TECMEN can help protect your team. Visit our website at [Euromarc.co.nz](https://www.euromarc.co.nz) or scan the QR code to explore our full range of respiratory protection.

<https://www.euromarc.co.nz/safety/welding-helmets>



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