

3M™ Speedglas™ 9100-Air and Speedglas™ 9100 FX-Air Welding Helmets



The new 3M™ Speedglas™ 9100-Air Welding Helmet Series is specially created to satisfy a wide range of welder's unique welding needs. It combines comfort with enhanced respiratory protection, wider precision viewing and increased flexibility for safer work efficiency. Designed to protect, this radical technology fundamentally changes not only how the user wears the helmet, but also how the welder experiences its fit, stability and balance.

The **9100-Air** and **9100 FX-Air** Welding Helmets with respiratory protection are the newest addition to the trusted family of Speedglas™ products. Each helmet readily connects to the 3M™ Adflo™ PAPR or the 3M™ Fresh-air III Supplied Air Regulators to help provide respiratory protection from welding particulates and certain gases while keeping users comfortable.



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The Experts in Safety... Since 1947



Largest View on the Market*

The 3M™ Speedglas™ Welding Helmet Series 9100 features the top-of-the-line Speedglas auto-darkening welding lens 9100XX. Speedglas 9100XX is our largest lens ever and

continues our legendary tradition of outstanding optical quality. The lens allows you to weld, cut, grind and tack all in one. Experience the power of Speedglas 9100XX.

Hot Spot Analysis

- Compliant with Australian and New Zealand Standard AS/NZS 1338.1
- Highest possible rating across three optical classifications
- Our most sensitive lens ever - rated down to 1 amp
- Increase your viewing area to 73x107mm
- Extreme versatility with shades 3/5/8/9-13

*The Speedglas welding lens 9100XX when combined with the peripheral Speedglas SideWindows gives the largest viewing area amongst auto-darkening welding helmets currently available on the Australian and New Zealand market at the time of printing this brochure.

Technical Data Welding Lens	3M™ Speedglas™ Welding Lens 9100XX
Approvals Eye protection	Conforms to AS/NZS 1338.1
Classification*	1 / 1 / 1
Switching time, light-dark	0,1 ms (+23°C)
Low TIG Rating	≥ 1 amp
Delay (Switching time: dark-light)	User-adjustable 40-1300 ms
UV/IR protection	Shade 13 (permanent)
Viewing area	73 x 107 mm
Light state	Shade 3
Dark state	Shade 5, 8, 9-13 (variable)
Fail/Safe state	Shade 5
Battery type	Lithium 3 Volt
Battery lifetime	2000 hours

* Auto-darkening welding lenses have a classification system in European Standard EN379: optical class / diffusion of light / variation on luminous transmittance. Classifications range from 1 to 3, with 1 being the best.



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High Comfort Head Harness

3M™ Speedglas™ Welding Helmet Series 9100 features a highly adjustable, comfortable head harness*. The outside of the human head is lined with nerve-endings, arteries, and acupressure points; applying pressure to some of these spots actually makes a person feel fatigued. The head harness

specifically avoids these vulnerable areas. It provides multiple adjustment combinations so you can “tailor” the helmet to fit your personal preferences and comfort setting. Less pressure - and a perfectly-adjusted, personal fit - means more comfort, all day long.

Fits head sizes 500 to 640 mm.

Two adjustable crown straps distribute weight for better stability and balance.

Smooth ratchet for precise tightening.

Self-adjusting “twin pads” contour to your head.

Swiveling, self-adjusting back strap accommodates a cap worn backwards.

Snag-resistant knobs for adjusting the helmet’s pivot resistance (right) and parked position (left) - even while wearing gloves.

You can adjust the helmet’s angle while wearing the helmet on your head.

More Comfortable When Raised

In the raised position, the Speedglas 9100 series helmet’s “high point” is comparatively lower than other head harness solutions which means that it is closer to the head delivering superior balance. Improvements in balance means that the head harness does not need to be tightened as much, thereby increasing wearer comfort.

Parked Position

The smooth up-and-down pivot action can be “locked” in the up position - a light pull lowers the helmet back down again.





3M™ Speedglas™ Welding Helmet 9100

Ultimate Performance

Protecting your eyes and face from radiation, heat and sparks while providing unprecedented optical quality, the Speedglas welding helmet 9100 will be one of your most important welding tools.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact protection.

3M™ Speedglas™ Welding Lens 9100XX with superior optical performance for continuous viewing comfort.

Heat reflecting silver front.

Exclusive exhaust vents to assist in removing exhaled air.

High comfort head harness.

Increased coverage for ears and side of neck.

SideWindows: Exclusive shade 5 windows that widen your field of vision.

Extended-length, flame-resistant head, neck and ear protection available as accessories.



New 3M™ Peltor™ Earmuffs MH505B are purpose built for the 9100 series. These earmuffs provide a moderate level of attenuation that meets the needs of most welding industry applications.

Magnifying lens holder: provides precise lens placement.

Exhaust vents: direct your exhaled air out of the helmet, reducing the likelihood of a foggy welding lens.





3M™ Speedglas™ Welding Helmet 9100 Air

Now with Respiratory Protection

All of the benefits of the Speedglas welding helmet 9100 can now be used in combination with the 3M™ Adflo™ Powered Air Respirator or 3M™ Versaflo™ Supplied Air Regulator V-500E.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact protection.

SideWindows: Exclusive shade 5 windows that widen your field of vision.

The all-new face seal, follows the contours of both the helmet and your face.

The airduct is an integral part of the helmet, providing a refreshing flow of air across the entire breathing zone of the helmet.

High-comfort head harness.

An innovative quick release attachment enables one-handed breathing tube connection and release.



Airflow: The middle channel keeps the welding lens fog-free, while two side channels provide smoothly delivered air to your nose and mouth.



Extended protection: A flame-resistant headcover (used in this application) and ear/neck protection are available as accessories to all Speedglas 9100 series welding helmets.



3M™ Speedglas™ Welding Helmet 9100 FX

New Flip-up Helmet Functionality

Introducing the Speedglas welding helmet 9100 FX, a flip-up combination of an auto-darkening welding helmet and a protective visor. Not only is the viewing area larger

compared to previous models, we totally redesigned the geometry of the helmet for a wider field of view in all directions.

3M™ Speedglas™ Welding Lens 9100XX with superior optical performance for continuous viewing comfort.

Smooth flip-up function with curved 170 x 100 mm clear protective visor, increasing your peripheral vision to 170°.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact protection.

The entire helmet can also be 'locked' in the perfectly balanced, up, parked position.

SideWindows: Exclusive shade 5 windows that widen your field of vision.

Exclusive exhaust vents to assist in removing exhaled air.



A spark and spatter-resistant head cover is included as standard in all 9100 FX series welding helmets. An optional extended-length head cover and ear/neck protection are available as accessories.





3M™ Speedglas™ Welding Helmet 9100 FX Air

New Flip-up Helmet with Respiratory Protection

All of the benefits of the Speedglas welding helmet 9100 FX can now be used in combination with the 3M™ Adflo™ Powered Air Respirator or 3M™ Versaflo™ Supplied

Air Regulator V-500E. Workers can have integrated face, eye and respiratory protection - whether they are grinding, welding, or simply walking through a work zone.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact protection.

SideWindows:
Exclusive shade 5 windows that widen your field of vision.

Improved respiratory protection. Reduced inward leakage means better breathing air quality.

High-comfort head harness.

The breathing tube is attached to the head harness instead of the helmet for improved comfort and balance.

An innovative quick release attachment enables one-handed breathing tube connection and release.



To achieve a higher level of respiratory protection, air is supplied directly to the breathing zone. A diffuser broadens and reduces the speed of the airflow for your maximum comfort.



A quick lift of the silver front and you get a clear, big, 170 x 100 mm view — perfect for precision grinding in low light conditions, while maintaining your respiratory protection.



3M™ Speedglas™ Welding Helmet 9100

With Safety Helmet

All the benefits of the Speedglas welding helmet 9100 can now be used in conjunction with head protection for welders working in areas with overhead hazards.

The Speedglas welding helmet 9100 can now be fixed to an Australian and New Zealand Standards compliant Type 2 industrial safety helmet.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact protection.

SideWindows: Exclusive shade 5 windows that widen your field of vision.

Increased coverage for ears and side of neck.

Type 2 industrial safety helmet compliant with Australian and New Zealand Standard AS/NZS1801.

High-comfort ratchet head harness.

Exclusive exhaust vents to assist in removing exhaled air.



The Speedglas welding helmet 9100 can be fitted to a variety of Type 1 or Type 2 industrial safety helmets* compliant with Australian and New Zealand Standard AS/NZS1801.



You never know what could become an overhead hazard on a worksite. The Speedglas welding helmet 9100 with safety helmet provides head protection for locations where overhead hazards may be present.



3M™ Speedglas™ Welding Helmet 9100 MP Air

Multi-Protection: Head, Eye, Face, Respiratory and Hearing

Introducing the Speedglas welding helmet 9100 MP Air, a flip-up combination of an auto-darkening welding helmet, a protective visor and a safety helmet.

The Speedglas welding helmet 9100 MP Air can be used in combination with the 3M™ Adflo™ Powered Air Respirator or the 3M™ Versaflo™ Supplied Air Regulator V-500E.

Compliant with Australian and New Zealand standard AS/NZS1337.1 for high impact protection.

3M™ Speedglas™ Welding Lens 9100XX with superior optical performance for continuous viewing comfort.

Smooth flip-up function with curved 170 x 100 mm clear protective visor, increasing your peripheral vision to 170°.



The safety helmet is made from heat resistant polycarbonate and conforms to Australian and New Zealand standard AS/NZS1801 for head protection.

SideWindows: Exclusive shade 5 windows that widen your field of vision.

The entire helmet can also be 'locked' in the perfectly balanced, up, parked position.



The world's leading brand in personal protective equipment for welders - 3M Speedglas - teams up with the leading name in earmuff protection - 3M Peltor - delivering AS/NZS 1270 compliant hearing protection.



3M™ Adflo™ Powered Air Respirator

A Cool, Refreshing Breeze for Hot Working Conditions

With its smart, compact design, the award-winning 3M™ Adflo™ Powered Air Respirator is specially designed to meet your welding needs when used with the 3M™ Speedglas™ Welding Helmet 9100 Air, 3M™ Speedglas™ Welding Helmet 9100 FX Air and 3M™ Speedglas™ Welding Helmet 9100 MP Air. Its continuous airflow provides filtered air that takes much of the heat and sweat out of welding. By using the Adflo respirator, you get both increased protection and comfort all day long.

Full Mobility

The slim profile is perfect for use in tight spaces. Its ergonomics are based on the welder's need for lightweight, adaptable and easy-to-use respiratory protection.

An Adaptable System that Saves Money

With the right type of filter, the Adflo respirator effectively protects against both particles and gases – all in one system. Because you can selectively replace either the particle or the gas filter as needed: you don't need to change both filters at the same time.



Constant Flow of Clean Air

The airflow is always a constant nominal rate of 170 litres/minute, regardless of the battery's charge or the particle loading of the filter. For hot, humid jobs, you can increase the airflow to 200 litres per minute by simply pushing the ON button a second time. The Adflo complies to Australian and New Zealand standard AS/NZS 1716 for powered air respirators and delivers a Required Minimum Protection Factor (RMPF) of 50.



Full mobility with adaptability.

Technical Data	3M™ Adflo™ PAPR
Approvals Respiratory Protection	Conforms to AS/NZS 1716
Required Minimum Protection Factor (RMPF)	50
Airflow Standard Airflow Plus	170 litres/minute 200 litres/minute
Weight Respirator	1150g
Battery Charging Time	NiMH 4 hours
Noise level dB	Max 75 dB
Belt	Leather 75-115cm
Gas and odour filters available as an optional extra.	

3M™ Versaflo™ Supplied Air Regulator V-500E

Your Welding Environment

The 3M™ Versaflo™ Supplied Air Regulator V-500E is a lightweight, belt mounted regulator that allows you to adjust the airflow from 170 litres/minute to 305 litres/minute. The high, constant flow rate makes the V-500E regulator ideal for hot and strenuous welding conditions when used with the Speedglas 9100 Air, Speedglas 9100 FX Air and Speedglas 9100 MP Air

Connects to Breathable Air Hoses

The belt-mounted regulator connects to an approved breathable air hose with a new quick release connection. The airline supply must be air of breathable quality meeting the performance standards of AS/NZS1716. Oil mist, water vapour or non-toxic, unpleasant odours can be removed with a breathing air filtration system.

Respirator Standards

The Versaflo regulator V-500E complies to Australian and New Zealand standard AS/NZS1716 for supplied air respirators and delivers a Required Minimum Protection Factor (RMPF) of 100+.



Innovative & Quiet

The Versaflo regulator V-500E features an integrated low flow warning whistle and a silencer that reduces the regulator's noise level to less than 65 dBA - the equivalent of a typical conversation. The regulator unit can be positioned on the belt to accommodate right and left handed users and a swiveling bayonet connector allows the breathing tube to move freely to the most comfortable position.



Technical Data	3M™ Versaflo™ SAR V-500E
Approvals Respiratory Protection	Conforms to AS/NZS 1716
Required Minimum Protection Factor (RMPF)	100+
Airflow Nominal Pressure Range Maximum Pressure	170-305 litres/minute 3.5-8 bar 10 bar
Weight	514 grams
Noise Level dB	Max 65 dB
Feeder Hose	Conforming to AS/NZS1716
Inlet and auxiliary port	1/4 inch BSP thread
Carbon filter available to remove odours.	



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