

3M™ Speedglas™ Welding Helmet Series 9100

New Upgrades

 **Speedglas™**



# The Ultimate

Series



**3M**



reddot design award  
best of the best 2009



reddot design award  
winner 2012

## 3M™ Speedglas™ Welding Helmet Series 9100

### The Welder's Choice...

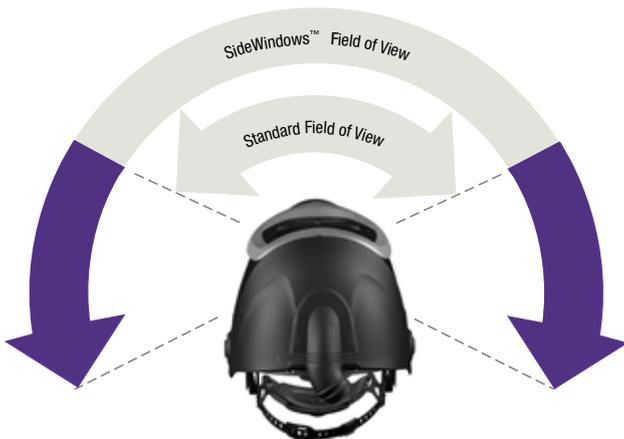
The Speedglas welding helmet series 9100 is built on 30 years of expertise and sets a new benchmark in welding helmet technology. Made in Sweden, the Speedglas series 9100 is designed for professional welders who

require optimum comfort, trusted protection and ultimate performance. Our top-of-the-line Speedglas series 9100 welding helmets are now available with a safety helmet, flip-up functionality and integrated respiratory protection.

### Largest View on the Market

The Speedglas welding helmet series 9100 features the Speedglas auto-darkening welding lens 9100XX. Speedglas 9100XX is our largest lens ever and when combined with the peripheral Speedglas SideWindows gives the largest

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



# Advanced TST & High Comfort Head Harness

The 3M™ Speedglas™ auto-darkening welding lens 9100XX now features advanced TST (TIG Sensor Technology) capable of detecting an arc down to an industry leading 1 amp. Speedglas 9100XX also features the highest possible optical quality rating across three classifications and a three

year warranty\*. The Speedglas series 9100 head harness 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.



Highest possible optical classification rating 1/1/1\*\*.

Advanced TST (TIG Sensor Technology) with centre sensor rated to an industry leading 1 amp.

Compliant with Australian & New Zealand Standard AS/NZS1338.1 with shades 3/5/8/9-13.

Switching time, light-dark	0.1 ms (+23°C)
Delay (Switching time: dark-light)	User-adjustable 40–1300 ms
UV/IR protection	Shade 13 (permanent)
Viewing area	73 x 107 mm + SideWindows
Light state	Shade 3
Dark state	Shade 5, 8, 9–13 (variable)
Fail/Safe state	Shade 5
Battery type	Lithium 3 Volt
Battery lifetime	2 000 hours

Optimised for Stick, MIG, TIG with Cut, Grind, Tack, Hidden Arc and Outdoor settings.

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

Smooth ratchet for precise tightening with swiveling, self-adjusting back strap.

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.



The smooth up-and-down pivot action can be “locked” in the up position - a light pull lowers the helmet back down again. Head harness fits head sizes 500 to 640 mm.

\*3M and Australian Welding Supplies Pty Ltd (AWS) warrants that the Auto-Darkening Welding Lens (ADL) will be free of defects in workmanship and materials for a period of three (3) years from date of purchase. The warranty excludes failure resulting from improper use or modification of the ADL and factors beyond the control of AWS. Except where prohibited by law, AWS and 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted. In the case of a warranty claim, a copy of the receipt with date of purchase, along with a description of the fault must be enclosed. This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be acceptable quality and the failure does not amount to a major failure.

\*\*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.

# 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.



**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.



All the benefits of the Speedglas welding helmet 9100 can now be used in conjunction with head protection (AS/NZS1801) for welders working in areas with overhead hazards.

# 3M™ Speedglas™ Welding Helmet 9100 Air

## 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: 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

## 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.

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

Smooth flip-up function with curved 170x100 mm clear protective visor.

SideWindows: Shade 5 windows that widen your field of vision.

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

Exhaust vents to assist in removing exhaled air.



**NEW**



All the benefits of the Speedglas welding helmet 9100 FX can now be used in conjunction with head protection (AS/NZS1801) for welders working in areas with overhead hazards.

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

## 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.



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 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.

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

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

SideWindows:  
Shade 5 windows that widen your field of vision.

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

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 3M Peltor to deliver AS/NZS1270 compliant hearing protection.

**NEW**

# 3M™ Versaflo™ High Impact Headtop, M-Series

## With Respiratory Protection

The Versaflo M-Series headtops are lightweight, compact and well-balanced and offer integrated eye, face and respiratory protection with optional head and hearing protection.

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

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

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

Coated visor provides added chemical and scratch resistance

Fully adjustable head harness that includes straps for an optimal fit and improved weight distribution.

New visor design combines excellent peripheral and downward vision with premium optical quality

Features a flame resistant polyester faceseal for applications with hot particles.



Available as a respiratory protection faceshield with high impact visor or alternately, respiratory protection faceshield with high impact visor and Type 1 industrial safety helmet.



## New Upgrades

### NEW

Now with one hour Rapid Charge (RC).

### NEW

40% lighter standard and heavy duty battery.

### NEW

Over 15% lighter Adflo powered air respirator system.

### NEW

Self adjusting Quick Release Swivel (QRS) breathing tube for one handed connection and release.

### NEW

Matt black finish on the Adflo filter cover for increased durability.

“Trusted by  
Welders”

**NEW**

# The Upgraded 3M™ Adflo™ Powered Air Respirator

## Super Light & Rapid Charge

The upgraded Adflo™ Powered Air Respirator has been reduced in weight by over 15%. The new Adflo lithium-ion batteries (standard & heavy duty) charge from 0 to 80% of their full capacity in approximately one hour.

## Hot Working Conditions

With its smart, compact design, the award-winning 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.

## An Adaptable System that Saves Money

With the right type of filter, the Adflo respirator effectively protects against both particles and gases. 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.



Full mobility with adaptability.



## 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.

## Constant Flow of Clean Air

The airflow is always a constant nominal rate of 170 litres per 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/NZS1716 for powered air respirators and delivers a Required Minimum Protection Factor (RMPF) of 50 for mechanically and thermally generated particles.

Technical Data	3M™ Adflo™ PAPP
Approvals Respiratory Protection	Conforms to AS/NZS1716
Required Minimum Protection Factor (RMPF)**	50
Airflow Standard Airflow Plus	170 litres/minute 200 litres/minute
Weight Respirator	960 grams
Battery: Charging time Operating hours	Li-ion with rapid charge (0-80% in an hour*) 4.5 hours (standard), 5.5 hours (heavy duty) 8 hours (standard), 12 hours (heavy duty)
Noise level dB	Max 75 dB
Belt	Leather 75-115cm

Gas and odour filters available as an optional extra.

\* Standard battery will be 80% charged (6.4 hours run time) in approximately one hour.

Heavy duty battery will be 80% charged (9.6 hours run time) in approximately one hour.

\*\* For mechanically and thermally generated particles.

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

## Your Welding Environment

The Versaflo™ Supplied Air Regulator V-500E is a lightweight, belt mounted regulator that allows you to adjust the airflow from 170 litres per minute to 305 litres per minute. The high, constant flow rate makes the V-500E regulator ideal for hot and strenuous welding conditions 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.

## 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.



Lightweight with high flow rates.

Technical Data	3M™ Versaflo™ SAR V-500E
Approvals Respiratory Protection	Conforms to AS/NZS1716
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.	

# Part Numbers - Welding Helmets



## 3M™ Speedglas™ Welding Helmet 9100XX

Eye Protection - AS/NZS1338.1, Face Protection - AS/NZS1337.1 (High Impact),  
Optional Head Protection - AS/NZS1801

Part no:

50 18 25 Speedglas™ welding helmet 9100XX

50 38 25 Speedglas™ welding helmet 9100XX with safety helmet



## 3M™ Speedglas™ Welding Helmet 9100XX Air with Respiratory Protection

Eye Protection - AS/NZS1338.1, Face Protection - AS/NZS1337.1 (High Impact),  
Respiratory Protection - AS/NZS1716

Part no:

50 77 25 with 3M™ Adflo™ Powered Air Respirator

50 88 25 with 3M™ Versaflo™ Supplied Air Regulator V-500E



## 3M™ Speedglas™ Flip-Up Welding Helmet 9100XX FX

Eye Protection - AS/NZS1338.1, Face Protection - AS/NZS1337.1 (High Impact),  
Optional Head Protection - AS/NZS1801

Part no:

54 18 25 Speedglas™ welding helmet 9100XX FX

54 38 25 Speedglas™ welding helmet 9100XX FX with safety helmet



## 3M™ Speedglas™ Flip-Up Welding Helmet 9100XX FX Air with Respiratory Protection

Eye Protection - AS/NZS1338.1, Face Protection - AS/NZS1337.1 (High Impact),  
Respiratory Protection - AS/NZS1716

Part no:

54 77 25 with 3M™ Adflo™ Powered Air Respirator

54 88 25 with 3M™ Versaflo™ Supplied Air Regulator V-500E



## Part Numbers - Welding Helmets



### 3M™ Speedglas™ Flip-Up Welding & Safety Helmet 9100XX MP Air with Respiratory Protection

Eye Protection - AS/NZS1338.1, Face Protection - AS/NZS1337.1 (High Impact), Respiratory Protection - AS/NZS1716, Head Protection AS/NZS1801, Optional Hearing Protection - AS/NZS1270

Part no:

57 77 25 with 3M™ Adflo™ Powered Air Respirator

57 88 25 with 3M™ Versaflo™ Supplied Air Regulator V-500E



### 3M™ Speedglas™ Welding Helmet 9100XX Adflo PAPR Upgrade Kits

For existing 3M™ Adflo™ PAPR customers looking to upgrade their headtop. Kit comes complete with the Speedglas™ 9100XX lens, breathing tube, carry bag and the headtop of your choosing -

Part no\*:

50 90 25 Speedglas 9100XX Air Upgrade Kit

54 90 25 Speedglas 9100XX FX Air Upgrade Kit

57 90 25 Speedglas 9100XX MP Air Upgrade Kit



### 3M™ Adflo™ PAPR Upgrade Kits

For existing 3M™ Adflo™ PAPR customers looking to upgrade to Rapid Charge and a 40% lighter battery. Kit comes complete with the new Adflo lithium-ion battery and rapid charger.

Part no\*:

83 76 30C Standard lithium-ion battery with rapid charger

83 76 31C Heavy duty lithium-ion battery with rapid charger



## Part Numbers - Face Shields, Respiratory



### 3M™ Versaflo™ Shield M-107 with Respiratory Protection

Face Protection - AS/NZS1337.1 (High Impact), Respiratory Protection - AS/NZS1716,  
Optional Hearing Protection - AS/NZS1270

Part no:

89 01 07 with 3M™ Adflo™ Powered Air Respirator

89 11 07 with 3M™ Versaflo™ Supplied Air Regulator V-500E



### 3M™ Versaflo™ Shield & Safety Helmet M-307 with Respiratory Protection

Face Protection - AS/NZS1337.1 (High Impact), Respiratory Protection - AS/NZS1716,  
Head Protection AS/NZS1801, Optional Hearing Protection - AS/NZS1270

Part no:

89 03 07 with 3M™ Adflo™ Powered Air Respirator

89 13 07 with 3M™ Versaflo™ Supplied Air Regulator V-500E



### 3M™ Versaflo™ Flip-Up Shield & Safety Helmet M-407 with Respiratory Protection

Face Protection - AS/NZS1337.1 (High Impact), Respiratory Protection - AS/NZS1716,  
Head Protection AS/NZS1801

Part no:

89 04 07 with 3M™ Adflo™ Powered Air Respirator

89 14 07 with 3M™ Versaflo™ Supplied Air Regulator V-500E



# Still ahead of its time...

More than 35 years ago, we went to the shipyards of Sweden to study the welder's working environment. Soon after, Speedglas released the first auto-darkening welding helmet and with its exclusive technology has been the benchmark for welders' personal protection ever since.

 **Speedglas™**



Which welding helmet? Try our welding helmet product selector

Visit [app.speedglas.com](http://app.speedglas.com) on your mobile or scan the QR code above. Compatible with Apple & Android smart phones in Australia.

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