

**3M™ Speedglas™ Welding Helmet 9100 MP**  
Multi-Protection: Eye & Face, Head, Respiratory and Hearing



 **Speedglas™**



Protection with  
Confidence



# Head Protection without Compromise



# Heavy Industries Requiring Multi-Protection



Construction



Shipbuilding/Marine



Power Generation



Offshore



Heavy Duty Maintenance



Mining

## The New Standard For Multi-Protection Systems

Projects are getting bigger: windmills, ships, skyscrapers, power plants, mines, offshore rigs.

But as those structures get crowded with cranes, beams and fellow workers, overhead hazards multiply, while powerful welding arcs quickly generate clouds of menacing fumes.

A welder's options for head and respiratory protection have been limited, and without much acceptance. Until now.

Introducing our latest addition to the 3M™ Speedglas™ 9100 Series: the 3M™ Speedglas™ Welding Helmet 9100 MP (Multi-Protection). We've seamlessly integrated 5 levels of welder protection: head, eye, face, respiratory and hearing into one comfortable and easy-to-use system.

The Speedglas welding helmet 9100 MP helps provide comfortable, all-in-one, welding protection for highly demanding environments.



## Protection + Precise Vision = Confidence

Can you feel secure in ill-fitting equipment? Of course not. That's why we offer you precise adjustment settings for the headband and face seal. After you've tailored them to precisely profile your head and face, don the helmet and delight in its

balance. Admire the smooth motion as you raise and lower the visor. Feel the comfortable fit and remind yourself you're wearing an ANSI compliant hardhat.



## Look Around... Really Look Around

The clear protective visor is wide (approx. 8.0in x 4.25in), curved and offers great views up, down and side-to-side. It's perfect for prepping and inspecting welds...and just walking around your facility. Then, pull down your welding shield and appreciate the SideWindows views: you can have peripheral vision at all times, even when welding.

## Multiple Features

100% compatible with all of the latest 3M™ Speedglas™ Auto-Darkening Welding Filter Series 9100 including the top-of-the-line 9100XX filter.

A wide (approx. 8 in x 4.25 in), curved, protective visor with excellent views up, down and peripherally. Meets the requirements of CSA Z94.3 and the high impact requirements of ANSI Z87.1-2010.

Two shade 5 passive SideWindows add peripheral welding vision.

The hard hat shell is made from heat resistant polycarbonate and meets the ANSI Z89.1-2009 requirements for Type 1 Class G hard hats. An optional, aluminum fabric reflects radiant welding heat.



Designed from inception to take one of our optional 3M™ Peltor™ Earmuffs: low-profile hearing protection with liquid/foam ear cushions and orange housings.

## Performance made simple

Turn on your 3M™ Adflo™ Powered Air Purifying Respirator and set your airflow preference: either over your visor or face. Dial in your filter settings and enjoy the fast auto-darkening switching of your Speedglas welding filter 9100 as you weld.

The Speedglas welding helmet 9100 MP has an Occupational Safety and Health Administration (OSHA) assigned protection factor (APF) of 25. Also available with the Adflo PAPR is an optional organic vapor/acid gas OV/AG cartridge for removing nuisance odors generated from some welding processes.

Finally, turn down the noise by using our optional, low-profile 3M™ Peltor™ Earmuff Assembly M-985. It's your world of protection — get comfortable in it.



## Fully Mobile, Respiratory Protection



The award-winning 3M™ Adflo™ Powered Air Purifying Respirator is especially designed for you, as a welder. Its slim profile, light weight, and ergonomic design fits into many tight welding spaces. And you can simply add an organic vapor/acid gas OV/AG cartridge to the HE particle filter — and selectively replace either as needed.

The airflow is always a constant nominal rate of approx. 7 CFM (205 liters/minute), regardless of the battery's charge or the particle loading of the filter. The Adflo PAPR, combined with the 3M™ Speedglas™ Welding Helmet 9100 MP's unique air delivery system achieves an OSHA assigned protection factor of 25.

### Ordering Information:

3M™ Speedglas™ Welding Helmet 9100 MP with 3M™ Adflo™ PAPR and HE filter:  
27-1101-10SW with 3M™ Speedglas™ Welding Filter 9100V.  
27-1101-20SW with 3M™ Speedglas™ Welding Filter 9100X.  
27-1101-30SW with 3M™ Speedglas™ Welding Filter 9100XX.  
27-1101-00SW without welding filter

## Light In Weight, Supplied Air Regulator System



For welding environments where supplied air respiratory protection is needed, the 3M™ Speedglas™ Fresh-air III Supplied Air Regulator System can be used with the 3M™ Speedglas™ Welding Helmet 9100 MP. The lightweight, belt-mounted regulator allows you to regulate the airflow from a supplied air source and cool or heat the air entering the headgear by as much as 50°F (28°C), - ideal for extreme temperature work environments.









The Fresh-air III SAR system meets National Institute for Occupational Safety and Health (NIOSH) standards for supplied air respirators, OSHA assigned protection factor of 25 with Speedglas welding helmet 9100 MP, and Fresh-air III SAR regulator (3M™ Valves V-Series). Meets the requirements of CSA Z94.3 for CSA marked products and the high impact requirements of ANSI Z87.1 - 2010.

### Ordering Information:

3M™ Speedglas™ Welding Helmet 9100 MP with 3M™ Speedglas™ Fresh-air III Supplied Air Regulator, V-100 cooling valve:  
27-5702-10SW with 3M™ Speedglas™ Welding Filter 9100V.  
27-5702-20SW with 3M™ Speedglas™ Welding Filter 9100X.  
27-5702-30SW with 3M™ Speedglas™ Welding Filter 9100XX.  
27-5702-00SWSR with V-100SR cooling valve with Schrader Fitting, without welding filter.

3M™ Speedglas™ Welding Helmet 9100 MP with 3M™ Speedglas™ Fresh-air III Supplied Air Regulator, V-300 air-regulating valve:  
27-5902-10SW with 3M™ Speedglas™ Welding Filter 9100V.  
27-5902-20SW with 3M™ Speedglas™ Welding Filter 9100X.  
27-5902-30SW with 3M™ Speedglas™ Welding Filter 9100XX.

# Build Your Own Respirator System with 3M™ Speedglas™ Welding Helmet 9100 MP

<p><b>3M™ Speedglas™ Welding Helmet 9100 MP</b></p>  <hr/> <p><b>Optional Accessories</b></p> <ul style="list-style-type: none"> <li>• 3M™ Peltor™ Earmuff Assembly M-985</li> <li>• Reflective aluminum fabric hardhat cover</li> <li>• Shroud for neck and shoulder coverage</li> </ul>	<p><b>3M™ Speedglas™ Welding Filter Series 9100</b></p>  <p>9100V filter</p>  <p>9100X filter</p>  <p>9100XX filter</p>	<p><b>3M™ Adflo™ Powered Air Purifying Respirator <sup>2)</sup></b></p>  <p><b>3M™ Speedglas™ Fresh-air III Supplied Air Regulator System (V-Series)</b></p> 	<p><b>3M™ Adflo™ Filters and Cartridges</b> HE particle filter, OV/AG cartridge</p>  <p><b>Breathing Tubes (QRS)</b> SG-30W, SG-40W, SG-50W <sup>1)</sup></p> 
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<sup>1)</sup> Breathing tube SG-50W is required when used with Adflo PAPR with HE filter and OV/AG cartridge and welding helmet 9100 MP.

NOT NIOSH approved with 3M™ Speedglas™ Fresh-air III (V-Series) Supplied Air Valves.

<sup>2)</sup> When using PAPR units, users must also choose the right filter/cartridge for the contaminant(s).

## 3M™ Speedglas™ Welding Helmet 9100 MP

Technical Specifications	with 9100XX welding filter	with 9100X welding filter	with 9100V welding filter
Viewing area welding filter (approx.)	2.8 x 4.2 in (73x107 mm)	2.1 x 4.2 in (54x107 mm)	1.8 x 3.7 in (45x93 mm)
Classification per EN 379 std. <sup>4)</sup>	1 / 1 / 1 / 2		
Dark state	Shade 5, 8, 9-13 (variable)		
Light state	Shade 3		
UV/IR protection	Shade 13 (permanent)		
Switching time, light-dark	<0.1 ms (+23 °C)		
Approvals: Eye and Face Protection Head Protection	ANSI Z87.1-2010 '+'; CSA Z94.3 ANSI Z89.1-2009 - Type 1, Class G		
Assigned Protection Factors 3M™ Adflo™ Powered Air Purifying Respirator 3M™ Speedglas™ Fresh-air III Supplied Air Regulator System	APF 25 per OSHA 29CFR1910.134 APF 25 per OSHA 29CFR1910.134		

<sup>4)</sup> Auto-darkening welding filters have a four-part classification: optical class / diffusion of light / variation on luminous transmittance / angle dependence. Classifications range from 1 to 3, with 1 being the best.

# Where Do We Find Our Inspiration? We Learn From the Best.

Based on our extensive know-how and our long experience of welders' working conditions, we constantly emphasize innovation in developing equipment that will increase welding performance.

To give us your comments, and to see our latest developments, visit [www.speedglas.com](http://www.speedglas.com).



VISIT THE WORLD OF THE WELDER AT [WWW.SPEEDGLAS.COM](http://WWW.SPEEDGLAS.COM)

## ⚠️ WARNING

This product is designed to help protect the wearer's eyes and face from harmful radiation including visible light, ultra-violet radiation (UV), infra-red radiation (IR), sparks and spatter resulting from welding processes. These products must be used only by qualified persons who are properly trained in their use and maintenance. Misuse may result in permanent eye injury and vision loss. Always wear ANSI Z87.1 compliant safety spectacles in addition to any welding helmet. For proper use, see supervisor, or User Instructions or call 3M in U.S.A. 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.



## ⚠️ WARNING

These respirators help protect against certain airborne contaminants. Before use, the wearer must read and understand the User Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. Misuse may result in sickness or death. For proper use, see packaging instructions, supervisor, or call 3M OH&ESD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.



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### For More Information

Technical Assistance in US 1-800-243-4630  
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70-0716-2585-2

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