

 **Speedglas™**



A systematic approach  
to total welding protection



# Their sight. Their breathing. Their comfort & safety.



## Did you know

MIG Welding stainless steel can create fume containing particles of nickel and chromium, some of the most common occupational asthmogens and also known carcinogens.

A 3M Adflo particle filter will help protect against this.

Ask any experienced welder about the hazards of the job and eye protection usually comes top of their list.

But here at 3M we've never lost sight of the bigger picture. And nor should you. Here's why...

For more than 30 years some of the welding world's most advanced eye and face protection has been developed and manufactured by 3M.

Yes, like you, we take eye and face protection extremely seriously.

Unfortunately, there are other less obvious hazards that may affect your welders' health and productivity. Respiratory issues resulting from long-term exposure to airborne particles, gases and vapours are becoming increasingly evident, presenting additional responsibilities for welding managers and safety officers.

### Study reveals cause for concern.

A study investigating Occupational Asthma\* suggests that an average-aged 45 year-old stainless steel welder may accumulate 22.4 years of exposure to varying degrees of harmful particles/fumes throughout his working life.

On average, however, it may take up to 18 years before the onset of respiratory symptoms become apparent. Like smoking, inhalation of certain welding contaminants may take years before their effects are revealed.



# Your responsibility.

- Shortness of breath was the most frequently reported work-related problem, whilst
- 62% of workers also had nose and throat symptoms that could be attributed to welding fumes.
- Of those studied only 6% were considered able to continue welding.

### An integrated modular solution.

Thankfully, 3M is able to offer an elegant modular solution that will both protect your welding teams from eye and face injury whilst helping to prevent work-related respiratory problems.

By integrating selected 3M helmets and headtops with our 3M™ Adflo™ Powered Air Respirator, it's easier than ever to configure bespoke eye, face and respiratory protection as well as providing a cooler and more comfortable environment for each welder in your team.

\*Source: Occupational asthma caused by stainless steel welding fumes: a clinical study. Hannu et al, Eur Respir J. 2007

## Our solution

Is over the page...

Did you know  
When welding galvanised steel, zinc oxide particles are produced. These can cause metal fume fever.

A 3M Adflo particle filter will help protect against this.



# Face, cool. Air, fresh. Eyes, protected. Vision, perfect. Let's start welding.

**Our powered air respiratory systems start here...**  
**Introducing the new generation 3M™ Adflo™ Powered Air Respirator**  
Ambient air filtration unit: Connects directly to our selected helmets/headtops



**Or, for when an air fed solution is preferred...**  
**The 3M™ Versaflo™ V-500 Supplied Air Regulator**  
Connects directly to our selected helmets/headtops



When it comes to high-level protection, comfort and versatility 3M™ Speedglas™ Welding Helmets and Headtops have always kept one step ahead of the competition. And a rather big step at that.

But now, hooked up to our latest generation of lighter, more comfortable 3M™ Adflo™ Powered Air Respirators or the 3M™ Versaflo™ V-500 Regulator, they create a complete welding protection system that will keep your team safer and more productive than ever before.



**W R**    **W G R**    **W G R H**    **G R H**

## Key

Optimised for:

- W** Welding
- G** Grinding
- R** Respiratory Protection
- H** Head Protection



## Did you know

Welders without respiratory protection are more prone to a lung infection that can lead to severe and sometimes fatal pneumonia.



## Did you know

Arc eye is caused by UV light emitted when welding. It damages the cornea and conjunctiva and feels like sand has been rubbed into the eyes. It is extremely painful and can last for up to 24 hours.

3M™ Speedglas™ 9100 Series Welding Helmets all have permanent shade 13 UV protection.

## Features + Technical Specifications

### 3M™ Adflo™ Powered Air Turbo

New  
and  
improved!

#### Did you know

Some hazardous fumes and gases cannot be filtered at all, in which case supplied air may be a preferred choice.

The 3M™ Versaflo™ V-500 Supplied Air Regulator provides a constant air flow from a compressor to a 3M helmet or headtop.



Unsure about which gases and vapours can or cannot be filtered?

Simply go to [3m.co.uk/safety](http://3m.co.uk/safety) and download our filter selection guide.

#### Key Features

Lithium ion re-chargeable battery	More than 40% lighter than original NiMH battery.
Stackable filter system	Allows for filters to be combined to provide protection against particles, gases and vapours
Filter indicator	Automatically shows status of installed filters when respirator is turned on
Versatile filter replacement	System allows for individual filters to be replaced while others can remain in place
Variable air flow	User can adjust air supply from approx 170-200 l/min to suit a wide range of working environments and temperatures
Fully adjustable leather belt	Thick, extremely durable belt withstands sparks and other contaminants. Wide profile for extra comfort.

#### Dimensions/Weight/Accessories

Main body (inc. standard / heavy duty battery)	230x179x67 mm / 230x205x67 mm (WxHxD)
Belt	810 mm expanding to 1340 mm maximum length
Filter types	Particle filter, Odour filter, Gas filter ABE1, Gas filter A2



3M™ Versaflo™ V-500 Supplied Air Regulator

For further information please visit [3M.co.uk/speedglas](http://3M.co.uk/speedglas)

Did you know  
Pre-filters can be used to help extend the life of a particle filter – saving you money!

## Features + Technical Specifications

### 3M™ Speedglas™ 9100 Air & 9100FX Air Welding Helmets



#### Did you know

Welding metals with paints and greases on them can create toxic gases, which may require the use of gas and vapour filters as well as particulate filters to protect the welder.

The 3M™ Adflo™ Powered Air Respirator can be fitted with gas and vapour filters

#### Did you know

Metal fume can have a wide variety of particle sizes from 0.001 microns to 100 microns. Most of these particles are too small to be able to be seen by the naked human eye. The average width of the human hair is 100 microns.

### 3M™ Speedglas™ 9100MP Welding & Safety Helmet 3M™ Versaflo™ M-Series Headtops



#### Helmets/Headtops

	9100 Air	9100FX Air	9100MP	M-307	M107
Auto Darkening Welding Filter	■	■	■		
Respiratory Protection (EN12941)	TH2, APF 20	TH3, APF 40	TH3, APF 40	TH2, APF 20	TH2, APF 20
Head Protection (EN 397)			■	■	
Grinding protection (EN166 B T)	■	■	■	■	■
Flip Up Grinding Visor		■	■		
Fully adjustable head suspension	■	■	■	■	■
Ergonomically optimised head suspension system	■	■			

#### Ordering: Part Numbers

Complete Welding Systems	ADF	Welding Helmet
Welding helmet supplied ready to use in a storage bag with a 3M™ Adflo™ Powered Air Respirator, a standard battery, and fitted with a choice of three auto-darkening filters:		9100 Air 9100FX Air 9100MP
	9100V	567705 547705 577705
	9100X	567715 547715 577715
	9100XX	567725 547725 577725
Upgrade Kits	ADF	Welding Helmet
For customers who already have a 3M™ Adflo™ Powered Air Respirator or who need a heavy duty battery*. Welding helmet supplied in a storage bag with a breathing tube and fitted with a choice of three auto-darkening filters:	9100V	9100 Air 9100FX Air
	9100X	569005 549005
	9100XX	569015 549015
		569025 549025

\*If you need a heavy duty battery, please order 837731, 3M™ Adflo™ Powered Air Respirator with heavy duty battery.



Other helmets and headtops in the Speedglas range

From left: 3M™ Speedglas™ 9000 Series Welding Helmet and 3M™ HT-639 Welding Helmet

For further information please visit [3M.co.uk/speedglas](http://3M.co.uk/speedglas)



Speedglas – there's nothing more versatile or comfortable in welding

Each model of 9100 Series Welding Helmet is available fitted with a choice of three

Auto Darkening Filters (ADFs): V (45x93mm), X (54x107mm) and XX (730x107mm)

9100V

9100X

9100XX



# Ongoing customer support



**Did you know**

If using a supplied air regulator the air quality of your compressor must be tested at least every 3 months to ensure it meets the requirements of BS EN 12021.

Please contact 3M on 0845 6013 457 to find out more about 3M Safety Services including air quality testing.



**Did you know**

The maintenance of Personal Protective Equipment (PPE) is a legal requirement under the COSHH Regulations, which states that PPE should be regularly tested, inspected and maintained in accordance with the manufacturer's instructions.

At [3M.co.uk/maintenancepack](http://3M.co.uk/maintenancepack) you'll find lots of material to help keep you on track.

To help keep your systems working just as they should, and to ensure your welders are getting the most from your investment, our support team at 3M is able to offer assistance on several levels:

■ **Care and Maintenance Packs**

Guidance on the appropriate checks is provided in the instruction booklets supplied with all new equipment. Our Care and Maintenance Packs contain information sheets and posters to make this information accessible on a day-to-day basis and are a strong visual reminder.

■ **Record Cards**

As part of the COSHH regulations monthly checks on equipment must be recorded. Template record cards can be downloaded from our website.

■ **Air Quality Testing Service**

For airfed respirators. Our engineers will visit and carry out testing and certification.

■ **Welding Specialists**

Based across the country and supporting our distributor network our welding specialists have a sound understanding of UK health & safety law coupled with years of experience in the welding market.

■ **Helpline**

Call **0870 60 800 60 (UK)** or **1 800 320 500 (Ireland)** for any technical queries. Open 0900-1700hrs Mon-Fri.

All the support material featured on this page can be downloaded and printed.

**Just go to:**  
**[3M.co.uk/maintenancepack](http://3M.co.uk/maintenancepack)**

## Why choose 3M as your welding partner?

**World class innovation:** Innovation is at the core of everything we do. 3M™ Speedglas™ Auto-Darkening Welding Technology is a perfect example in the way we recognised an industry need and then went on to revolutionise welding safety. From personal safety and healthcare, to vehicle graphics and computer security, our inventions provide customers with tools and methods to help them perform more productively and more safely than they could ever have imagined.

**Product excellence:** Imaginative, ergonomic design. Intelligent integration of world-leading proprietary technologies. Dependable performance. All built into everything we do.

**Knowledge and expertise:** Our local technical teams and product specialists are constantly amassing knowledge gained across their chosen industries. They understand 3M products inside out; they're up to speed with working practices and regulations; and, should they not be able to answer a customer question or resolve an issue, then there is always someone in our global organisation who can.

**Committed to service and support:** Many companies look no further than to simply sell. But not 3M. When a customer buys one of our products or systems that's just the beginning. We provide fit and air quality testing, for example. We can offer on-going technical support via our dedicated helpline or personal visits from our welding specialists. We can help you meet mandatory servicing requirements. In fact, we can be with you all the way.

**That's why.**



 @3M\_UK\_Safety

For more information on all our products, call 3M Personal Safety Division  
on **0870 60 800 60** (UK) and **1800 320 500** (Ireland)  
or visit [www.3M.co.uk/safety](http://www.3M.co.uk/safety)



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