



 **Speedglas**<sup>™</sup>  
Welding Safety

3M<sup>™</sup> Speedglas<sup>™</sup> Heavy-Duty Welding Helmet G5-01

# Say farewell to compromises.

#3MScienceofSafety



# Adjust your welding helmet, not yourself.

Developed with extensive input from welders working at high amperages who need to grind frequently, the 3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01 is adaptable to your unique needs and working environment.



Help protect yourself against radiation from the welding arc, sparks and spatter, with a high-coverage welding helmet design that also offers expanded coverage options.

View your work with 3M™ Speedglas™ Natural Color Technology – now available with variable color options in the dark state.

Benefit from effective respiratory protection, with options to help provide the highest exposure reduction available in a powered air respiratory system (APF 1000).

Individualize your helmet with different accessory configurations, and use the helmet controls to adjust the respiratory airflow to your preferences.

• [Learn more at Speedglas.com](https://www.3m.com/speedglas)



Natural Color Technology.

# Great clarity before, during and after welding.

With 3M™ Speedglas™ Natural Color Technology colors appear brighter and more realistic in both the light and dark states. A more realistic view may enable:

### Accuracy

Recognize color and contrast and see more details when using the welding filter.

### Productivity

Better focus on the welding setup, welding technique and inspection of just-completed welds.

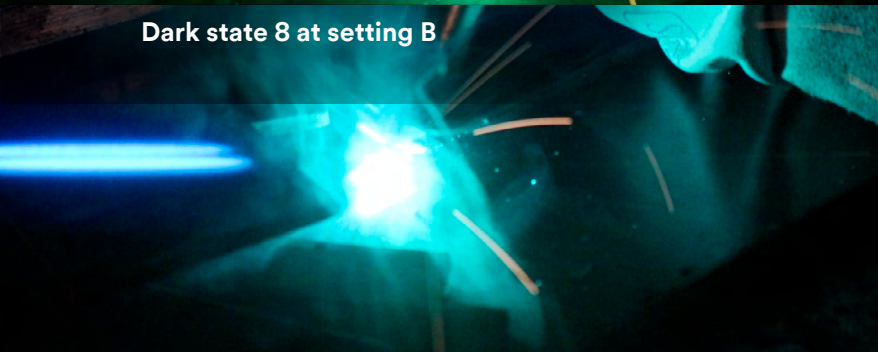
### Quality

May help to increase the quality and precision of the welds.

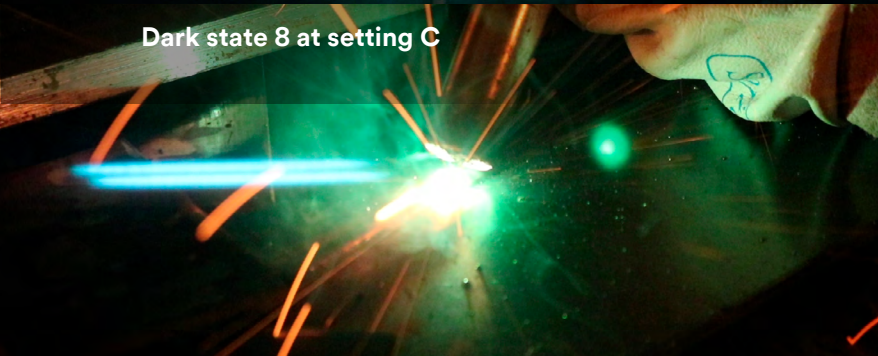
Dark state 8 at setting A



Dark state 8 at setting B



Dark state 8 at setting C



## Customize the filter color.

To provide even better view and control of your weld puddle, joint and arc choose our filter with the 3M™ Speedglas™ Variable Color Technology. It changes the colors seen through the welding filter in the dark state.

When not welding, the filter displays colors as they appear naturally (Natural Color Technology).

You can switch between three different filter colors depending on welding method and work piece material.

## Choose the welding filter most suitable for your work and preference.

3M offers a range of updated\* auto-darkening filters and passive-lens alternatives. For maximum benefit, 3M™ Speedglas™ G5-01 filters also fit the G5-03 helmets and vice versa.



**G5VC (variable color)**  
Part No: 46-0000-30VC

- Variable color technology with three selectable colors in dark state
- TAP function
- Shade 14 settings for higher amp welding
- Four arc-detection sensors
- Bluetooth connection



**G5TW (tack welding)**  
Part No: 46-0000-30TW

- Light state 2.5
- TAP function
- Four arc-detection sensors
- Bluetooth connection



**G5NC**  
Part No: 46-0000-20

- Locks manually in light state for grinding
- Locks manually in shade 5 for cutting
- 3 arc-detection sensors



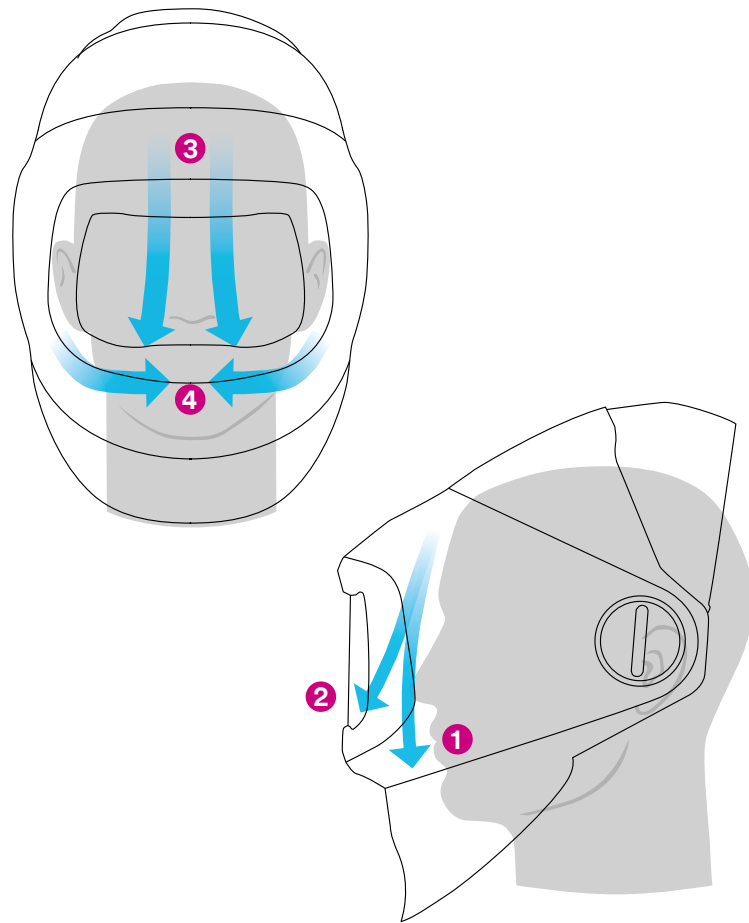
**G5 Passive**  
Part No: 46-0000-P10

- Shade 10 (also available shade 11, 12, 13)

\* Launch date may vary between model and area



# Control your comfort with adjustable airflow.



The innovative G5-01 helmet duct system lets you direct the airflow to either your face ❶, your visor ❷, or some combination of both. You can even adjust the amount of air coming from the top outlet ❸ the two side outlets ❹, or choose a blend of both. You can make airflow adjustments while you're wearing the helmet – maintaining your eye, face and respiratory protection.



## Our lightest APF 1000 helmet ever.

When combined with the large head cover and fabric shroud, the 3M™ Speedglas™ Heavy Duty Welding Helmet G5-01 achieves a NIOSH/CSA Z94.4 assigned protection factor of 1000.



## Powered and supplied air compatibility.

Designed for heavy-duty, high-amperage welding and grinding, the G5-01 welding helmet connects to the 3M™ Adflo™ Powered Air Purifying Respirator (PAPR) to provide APF 25 and APF 1000 (with additional accessories) rated respiratory protection. The robust Adflo respirator provides all of the features you expect in a premium system, including easy-to-use functionality. The G5-01 welding helmet also readily connects to various 3M™ Versaflo™ PAPR and Supplied Air Systems.

# Light up your workspace.

An optional helmet-mounted task light helps provide hours of powerful lighting and runs off the 3M™ Adflo™ G5-01 task light battery pack, enabling welders to enter and work in poorly lit spaces.

- Task light specifically designed for welding
- Lightweight – powered by the Adflo battery
- Positioned to cast a wide light on the workpiece
- Designed for even light distribution at normal welding distance
- Adjustable low, medium and high light intensity

### ❶ Headband design

The improved headband has self-adjusting comfort paddles along your forehead. It also features a rotation stopper, designed to simplify donning of the helmet.

### ❷ Adjustment options

Control the distance and angle from your eyes to the clear visor and welding filter.

### ❸ Extra-large back pad

An extra large comfort head rest comes standard with each helmet for enhanced comfort.



Bluetooth  
3M | Connected Safety

## Get connected!

- Start by securely pairing your smartphone to your 3M™ Speedglas™ Welding Filter G5VC or G5TW using the 3M Connected Safety App
- Program up to ten memory modes (settings for dark shades, sensitivity, delay, etc) with your phone
- Easily record your welding helmet maintenance log to the app
- Instantly know statistics, including when your Auto-Darkening Filter (ADF) was first activated, hours on, hours in the dark state, hours in the light state and the number of on/off cycles
- Have instant access to User Manuals and Parts List



# Highly configurable coverage options.



Use the helmet in standard configuration with rigid neck protection and the fabric head cover.

46-0700-80 Fabric Head Cover  
46-0700-65 Rigid Neck Cover



To increased visibility at all times, add the large high-visibility head cover.

46-0700-83 Large High-Visibility Head Cover



When you need the durability of leather, attach the leather head protector and the leather neck protector.

46-0700-84 Leather Head Cover  
46-0700-66 Leather Neck Cover



Increase coverage of your head, neck and chest by adding the large fabric head cover and/or the large fabric neck protection.

46-0700-81 Large Fabric Head Cover  
46-0700-66 Large Fabric Neck Cover










Help to maximize cover from sparks and increase the CSA Z94.4 assigned protection factor (APF) from 25x to 1000x, add the fabric shroud and the extended, larger fabric head cover, which is also available as a kit.

46-099-87 Large Neck Shroud  
46-0700-81 Large Fabric Head Cover  
46-1000-00 1000 APF Kit

## Technical specifications



3M™ Speedglas™ Auto-darkening Welding Filter Series G5-01	G5NC	G5TW	G5VC
Weight	164 g (0.36 lb)	190 g (0.42 lb)	210 g (0.46 lb)
Viewing area (welding filter)	55 × 107 mm (2.1" × 4.2")	73 × 109 mm (2.8" × 4.3")	
Auto ON	No	Yes	
3M Connected Equipment App Compatible 	No	Yes	
Battery lifetime	2500 hours	1500 hours	
Dark state	Shade 8-12	Shades 8-13	Shades 8-14
Cut mode	Yes, shade 5		
Light state	Shade 3	Shade 2.5	Shade 3
UV/IR Protection	Shade 12 (permanent)	Shade 13 (permanent)	Shade 14 (permanent)
Lens technology		 	  

## A new system or an upgrade?

The 3M™ Speedglas™ Welding Helmet G5-01 fits both your 3M™ Adflo™ Powered Air Respirator as well as the 3M™ Versaflo™ Supplied Air Respirators.<sup>1</sup>

**3M™ Speedglas™ Welding Lens G5TW**    **3M™ Speedglas™ Welding Lens G5VC**



Upgrade your old helmet and welding filter



### Complete powered air system

G5-01 helmet with standard welding lens and Adflo high-altitude respirator assembly  
**Part No 46-1101-30TW**

G5-01 helmet with welding lens G5-01 VC and Adflo high-altitude respirator assembly  
**Part No 46-1101-30VC**

G5-01 helmet without welding filter  
**Part No 46-0099-35**  
Welding filter  
**Part No 46-0000-30TW**

G5-01 helmet without welding filter  
**Part No 46-0099-35**  
Welding filter  
**Part No 46-0000-30VC**

G5-01 helmet without welding lens and Adflo high-altitude respirator assembly  
**Part No 46-1101-00**

G5-01 helmet without welding lens and Versaflo V-100 supplied air assembly  
**Part No 46-5702-00**

Consumable starter kit G5-01 includes 2 sweatbands, 5 outside pro plates (scratch resistant), 1 grinding visor, 1 breathing tube cover, 1 face seal  
**Part No 45-1101-99**

The complete systems comes with our new storage bag. Featuring a fast, double-zipper opening top and large carry handles, the bag helps to keep your gear protected and clean when not in use.



<sup>1</sup>The following Adflo systems are our high-altitude models with a heavy-duty li-ion battery, which extends operating time to 10-12 hours at sea level with a fully charged battery and new clean filter. Actual system duration is dependent on configuration and environment.



# Increase your comfort with accessories.

Choose from numerous accessories to configure your Heavy-Duty 3M™ Speedglas™ Welding Helmet G5-01 to meet your individual preferences and application needs.



Part No	Description
<b>Filters</b>	
15-0009-99X02	Spark Arrestor, 2/Bag
15-0099-99X06	Pre-filter, 6/Bag
15-0099-99X12	Pre-filter, 12/Bag
15-0299-99X02	HEPA Filter, 2/Pack, 16/Case
15-0299-99X20	HEPA Filter, 20/Case
15-0299-99X80	HEPA Filter, 80/Case
15-0499-99x02	Adflo OV/AG Cartridge, 2/CS
15-0499-99x06	Adflo OV/AG Cartridge, 6/CS
36-0699-99x01	Nuisance odor pad assembly
35-0799-99x01	Nuisance odor filter pad, 1/CS
35-0799-99x10	Nuisance odour filter pad, 10/CS
<b>Additional Accessories</b>	
BPK-HD	Backpack, 3/CS
15-0099-17	Suspenders

Part No	Description
<b>Task Light Assembly/Replacement Parts</b>	
46-0500-01	Task light kit, including mounting parts and cables
46-0500-02	Long battery power cable for task light
46-0500-03	Short helmet power cable for task light
46-0500-04	Short helmet power cable for task light
46-0500-05	Task light, no cables
35-1099-00	Task light battery pouch for use with regulator (utilizes Adflo battery, which is not included)
SG-15	Flame-resistant breathing tube cover (recommended when using the task light)

Part No	Description
<b>Head Cover Options</b>	
46-1000-00	1000 APF Kit
46-0700-66	Large fabric neck cover
46-0700-67	Leather neck cover
46-0700-80	Fabric head cover
46-0700-81	Large fabric head cover
46-0700-82	Scrape guard (not shown)
46-0700-83	Large high-visibility head cover
46-0700-84	Leather head cover
46-0099-87	Large neck shroud
06-0700-83	Welding full hood

## 3M™ Fresh-Air III Supplied Air Systems

3M™ Supplied Air Respirator Vortex Cooling Assembly V-100<sup>1</sup>

3M™ VersaFlo™ Heating Assembly V-200<sup>1</sup>

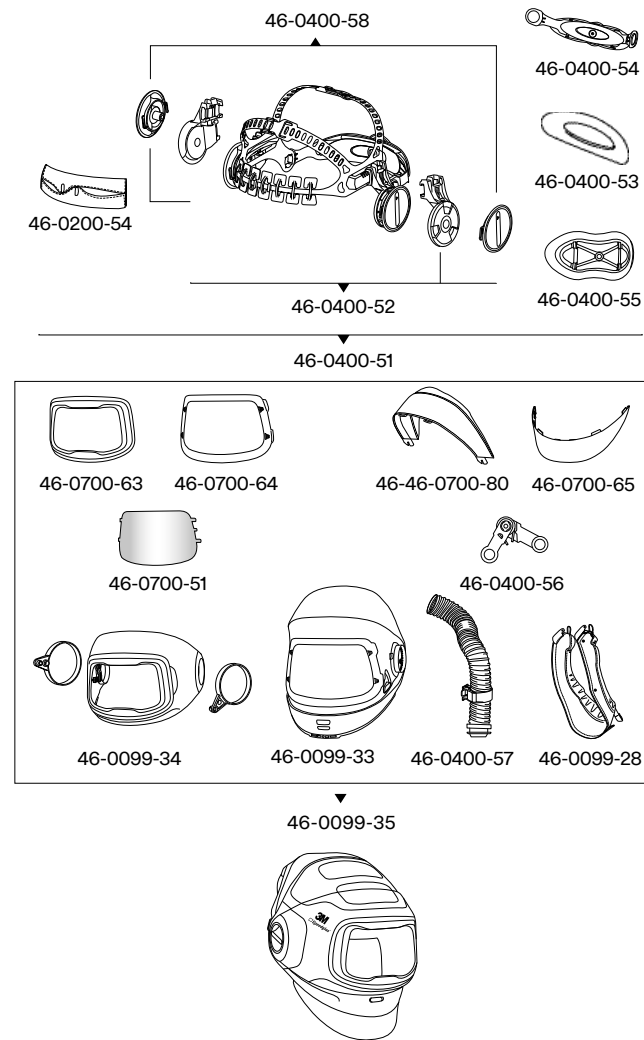
3M™ VersaFlo™ Air Regulating Valve Assembly V-300<sup>1</sup>

3M™ Supplied Air Respirator Vortex Cooling Assembly V-100<sup>1</sup> with Premium Holder

Part No	Description
<b>Components for V-100 Vortex-Air Cooling Valve with Premium Holder and Leather Belt</b>	
V-150	3M™ VersaFlo™ Vortex Cooling Tube, 1/CS
V-112	3M™ VersaFlo™ Premium Holder, 1/CS
TR-326	3M™ High Durability Belt, 1/CS
V-199	3M™ V-199/37069 (AAD) Adapter, 4/CS

**For further details or to buy a complete supplied air system, please reference the 3M Welding Safety Catalogue.**

## Spare parts and consumables



Part No	Description
46-0099-35	Welding helmet G5-01, without welding filter
46-0400-51	Head suspension assembly
46-0400-52	Pivot and sliding mechanism, including pivot knobs
46-0200-54	Sweatband, 3/CS
46-0400-54	Head suspension ratchet assembly
46-0400-55	Large comfort head rest
46-0400-58	Pivot knob, 1/CS
46-0700-63	Outer welding visor frame
46-0700-64	Inner grinding visor frame
46-0700-51	Inner grinding visor, anti-fog and hardcoat, 5/CS
46-0700-80	Fabric head cover
46-0700-65	Rigid neck cover
46-0400-56	Hinge mechanism, 2/CS
46-0099-34	Outer flip-up welding shield with hinge mechanism, pivot ring, and outer welding visor frame
46-0099-33	Inner shield with airduct and airflow controls (including visor frame)
46-0400-57	Air duct breathing tube, with holder
46-0099-28	Face seal

**G5VC and G5TW**

46-0000-30VC  
46-0000-30TW

44-0400-55

**G5NC**

46-0000-20

06-0200-30  
06-0200-40

05-0370-00

06-0200-20  
06-0200-21

04-0320-00

**G5 Passive**

46-0000-P10

06-0005-P10  
06-0005-P11  
06-0005-P12  
06-0005-P13

126000

Part No	Description
04-0320-00	Battery CR2032 Lithium 3V, pkg of 2
05-0370-00	Battery holder
06-0200-51*	Outer protection plate (standard), 10/CS
06-0200-51-B	Outer protection plate (standard), 50/CS
06-0200-52*	Outer protection plate (scratch resistant), 10/CS
06-0200-52-B	Outer protection plate (scratch resistant), 50/CS
06-0200-53*	Outer protection plate (high temp), 10/CS
06-0200-53-B	Outer protection plate (high temp), 50/CS
46-0000-20	3M™ Speedglas™ Welding Filter G5NC
46-0000-30TW	3M™ Speedglas™ Welding Filter G5TW
46-0000-30VC	3M™ Speedglas™ Welding Filter G5VC
46-0680-00	Magnifying lens holder
06-0500-56	Magnifying lens 1.5X
06-0500-57	Magnifying lens 2.0X
06-0500-58	Magnifying lens 2.5X
06-0500-59	Magnifying lens 3.0X
06-0200-20	Inside protection plate, standard, 5/bag
06-0200-21	Inside protection plate, anti-fog, 5/bag
06-0200-30*	Inside protection plate, 5/Bag
06-0200-30-B	Inside protection plate, 25/Bag
06-0200-40	Inside protection plate, antifog, 5/bag
44-0320-00	Battery CR2450
44-0400-55	Battery holder
SG-95	G5 Series Carry Bag
46-0000-P10	Passive welding filter assembly, shade 10
06-0005-P10	Replacement passive welding lens, shade 10, 2/CS
06-0005-P11	Replacement passive welding lens, shade 11, 2/CS
06-0005-P12	Replacement passive welding lens, shade 12, 2/CS
06-0005-P13	Replacement passive welding lens, shade 13, 2/CS
126000	Inner cover plate for passive filter

<sup>1</sup>Use with airline hose W-9435 (25', 50', 100') or W-2929 Series (25', 50', 100').

# Inspired by your reality.

We have a passion for welding, and we know the challenges of your profession. It comes naturally for us to share the pride and concern you put into your work, and to address the ergonomic and safety issues facing you every day. Your thoughts and opinions are the starting point in our continuous search for innovation. Inspired by your reality, we shape the future of welding so you can get on with the job of shaping yours. Join the welding community at [Facebook.com/3MSpeedglas](https://www.facebook.com/3MSpeedglas).

## Warranty, Service and Replacement

Warranty and repair services are available for tune-ups.

**Keep your systems performing at their full potential with our robust warranties and service plans including refurbishment, repairs, replacement parts and advice on how to take care of your safety equipment.**

### ⚠ WARNING

These products meet the requirements of certain industrial eyewear standards and with some models certain industrial head protection standards. They do not provide complete head, eye and face protection from severe impact and penetration and are not a substitute for good safety practices and engineering controls. Misuse may result in serious injury or death. For correct use, see supervisor and User Instructions, or call 3M or call 3M PSD Technical Service

### ⚠ 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 correct use, see supervisor and User Instructions, or call 3M PSD Technical Service in USA at 1-800-243-4630 and in Canada 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, testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. Improper use may result in injury, illness or death. For correct use, see supervisor or User Instructions, or call 3M PSD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414



[www.speedglas.com](http://www.speedglas.com)

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