



 **Speedglas™**
Welding Safety

3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01

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 created to be adaptable to your unique needs and working environment.





Protection against radiation, sparks and spatter, from 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 option in the dark state.

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

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

► Learn more at [3M.com/SpeedglasG501](https://www.3M.com/SpeedglasG501)



Light state 3

A more natural light state

There are two options of 3M™ Speedglas™ Auto-Darkening Filter Series G5-01 – both offering the popular 3M™ Speedglas™ Natural Color Technology with great clarity before, during and after welding.

Smother dark-light filter transition

Both G5-01 filters are also designed to minimize eye strain when switching from dark state to light state, by using an intermediate shade (5 or 7 depending on filter model).

Speedglas Welding Filter G5-01VC



- Adjustable dark shades 5 (for torch/plasma cutting) and 8 to 14.
- Variable Color Technology included

Speedglas Welding Filter G5-01



- Adjustable dark shades 5 (for torch/plasma cutting) and 8 to 13.
- Tack Weld Mode included

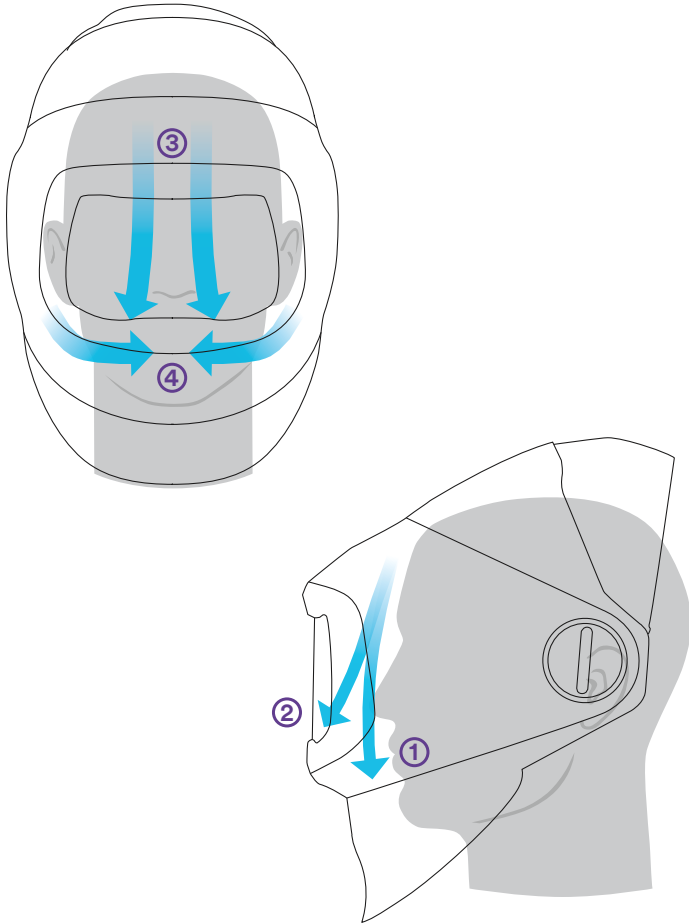
3M™ Speedglas™ Welding Filter G5-01VC

Which color tone works best for you?

To provide even better view and control of your weld puddle, we now introduce the 3M™ Speedglas™ Variable Color Technology: you get to choose between natural (A), cool (B) or warm (C) tones for your dark state. You determine which color tone provides the best viewing contrast for your welds, and the most comfort for your eyes.



Control your comfort with adjustable airflow



The innovative G5-01 helmet duct system lets you direct the airflow to either your face ①, your visor ②, or some combination of both. You can even adjust the amount of air coming from the top outlet ③ vs. the two side outlets ④, or choose a blend of both. Airflow adjustments can be made 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 an OSHA 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 would 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.



Scan this code to see how it works!

Light up your workspace

A new, optional helmet-mounted task light provides hours of powerful lighting and runs off the 3M™ Adflo™ battery pack, enabling welders to enter and work in poorly lit spaces.

- Task light specifically designed for welding
- Light weight – 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

Tailor to fit your preferences

① New headband design

Improved, self-adjusting comfort paddles along your forehead. Also features a rotation stopper, designed to simplify donning of the helmet.

② Adjustment options

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

③ Large comfort head rest

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



 Bluetooth
3M | Connected Safety

Get connected!

- Get started by securely pairing your smartphone to your G5-01 welding filter 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 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



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



For 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
46-0700-67 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

OSHA APF 1000

To maximize cover from sparks and increase the OSHA assigned protection factor (APF) from 25x to 1000x, add the fabric shroud and the extended, larger fabric head cover. 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 specification



3M™ Speedglas™ Auto-darkening Welding Filter Series G5-01	G5-01	G5-01VC
Weight	182 grams	206 grams
Viewing area (welding filter)	73 × 109 mm	
Viewing area (grinding visor)	170 × 104 mm	
Bluetooth enabled	Yes	
Battery lifetime	1500 hours	
Dark state	Shade 8-13	Shade 8-14
CUT mode	Yes - Shade 5	
Light state	Shade 3	
UV/IR Protection	Shade 13 (permanent)	Shade 14 (permanent)
Lens technology	Natural Color	Natural Color, Variable Color

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™ Versaflor™ Supplied Air Respirators.¹



Speedglas Welding Lens G5-01

Speedglas Welding Lens G5-01VC

Complete powered air system

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

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

Complete supplied air system

G5-01 helmet with standard welding lens and V-100 vortex cooling assembly
Part No 46-5702-30i

G5-01 helmet with welding lens G5-01VC and V-100 vortex cooling assembly
Part No 46-5702-30iVC

Upgrade your old helmet and welding filter

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

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



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



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

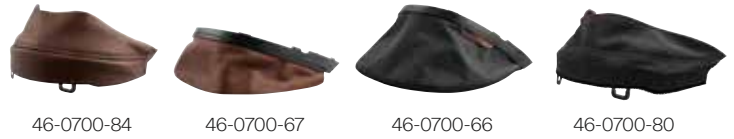
When you order a complete system, it comes with our new storage bag. Featuring a fast, double-zipper opening top and large carry handles, the bag keeps your gear protected and clean when not in use.



¹ 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

We offer numerous accessories so you can configure your Heavy-Duty 3M™ Speedglas™ Welding Helmet G5-01 to meet your individual preferences and application needs.



Part No	Description
Filters	
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 odor filter pad, 10/CS
Additional Accessories	
BPK-01	Backpack
15-0099-17	Suspenders

Part No	Description
Task Light Assembly/Replacement Parts	
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	Protection plate for task light, 5/CS
46-0500-05	Task light, no cables
35-1099-00	Task light battery pouch for use with supplied air regulator (utilizes Adflo battery which is not included)
SG-15	Flame-resistant breathing tube cover (recommended when using the task light)

Part No	Description
Head Cover Options	
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-100¹

3M™ Versaflo™ Vortemp™ Heating Assembly V-200¹

3M™ Versaflo™ Air Regulating Valve Assembly V-300¹

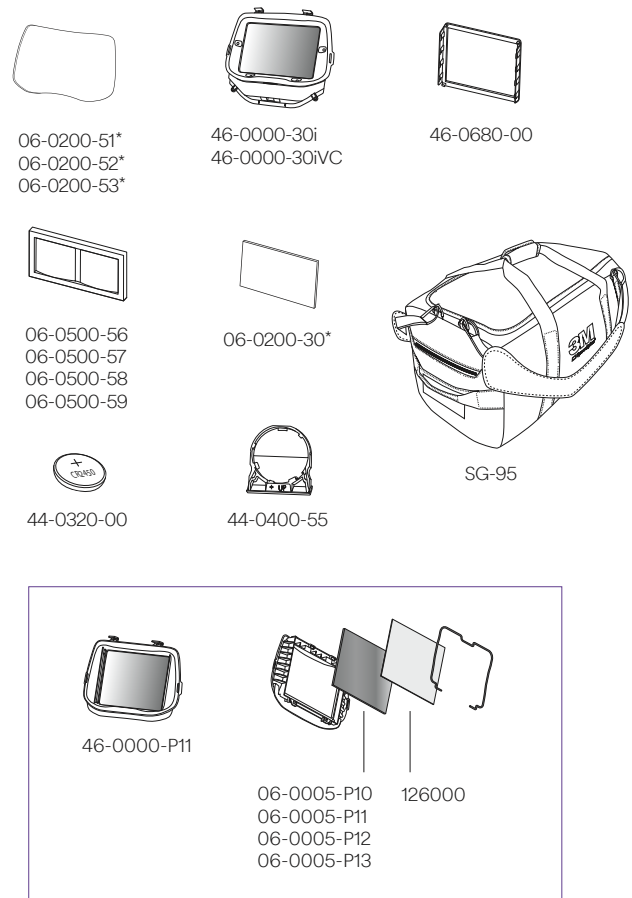
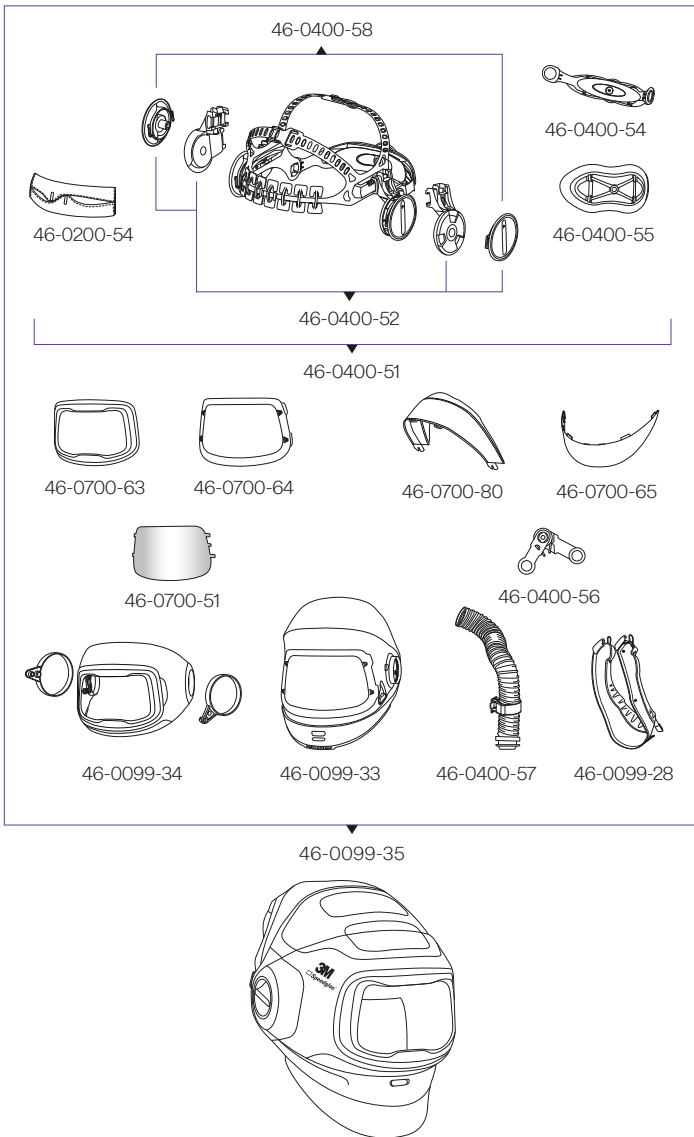
3M™ Supplied Air Respirator Vortex Cooling Assembly V-100¹ with Premium Holder

Part No	Description
Components for V-100 Vortex-Air Cooling Valve with Premium Holder and Leather Belt	
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 to buy a complete supplied air system, please reference the 3M Welding Safety Catalog.

¹ Use with airline hose W-9435 (25, 50, 100') or W-2929 Series (25, 50, 100')

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 mech, pivot ring, and outer welding visor frame
46-0099-33	Inner shield with airduct and airflow controls (including visor frame)
46-0400-57	Airduct breathing tube, with holder
46-0099-28	Face seal

Part No	Description
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
46-0000-30i	Speedglas welding filter G5-01
46-0000-30iVC	Speedglas welding filter G5-01VC
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
06-0200-30*	Inside protection plate, 5/CS
06-0200-30-B	Inside protection plate, 25/CS
44-0320-00	Battery CR2450
44-0400-55	Battery holder
SG-95	G5 Series Carry Bag
46-0000-P11	Passive welding filter assembly, shade 11
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

* Bulk case quantities available



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 to address the ergonomic and safety issues facing you every day. Your thoughts and opinions are the bottom line 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/Speedglas](https://www.facebook.com/Speedglas).

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

- Plastic components including helmet – 90 days
- Adflo belt unit including battery – 1 year
- 9100 Auto-Darkening Filters – 3 years

Visit [3m.com/SGwarranty](https://www.3m.com/SGwarranty) to register your product.

⚠ 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 U.S.A 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



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