



 **Speedglas**™

Welding Safety

3M™ Speedglas™ G5-03 Pro Welding Helmet Series

**Versatility to
upgrade your
performance.**

3M Science. Applied to life.™

Farewell to compromises.

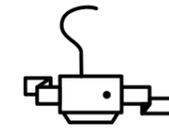
Are you a professional welder who performs a variety of welding and grinding tasks?

You need a welding helmet versatile enough so that you do not have to compromise on function, performance OR safety.

That's why we have designed the 3M™ Speedglas™ G5-03 Pro Welding Helmet Series.

Versatility to upgrade your performance!

This welding helmet series is designed for the welder who may need...



...filtered air¹⁾



...an excellent view



...protection against arc welding radiation²⁾



...to perform grinding tasks



...a comfortable and well-balanced helmet



...safety helmet compatibility⁴⁾

The helmet features an option of three different auto darkening filters and 4 shade options in a passive welding filter⁴⁾:



Variable color



Light state 2.5 + Tack welding



Natural color



Passive

1) G5-03 Pro Air only

2) Protection against radiation caused by welding light (UV, IR and visible radiation)

3) G5-03 Pro only

4) Availability may vary between model and area

One great design...

Designed for the professional welder, 3M™ Speedglas™ G5-03 Pro welding helmet series offers modularity through multiple accessories.

...two versatile helmets.





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

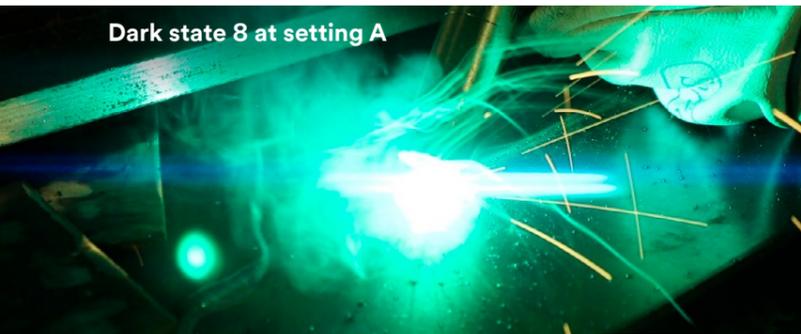
Recognize color and contrast and see more details when using the welding filter.

Productivity

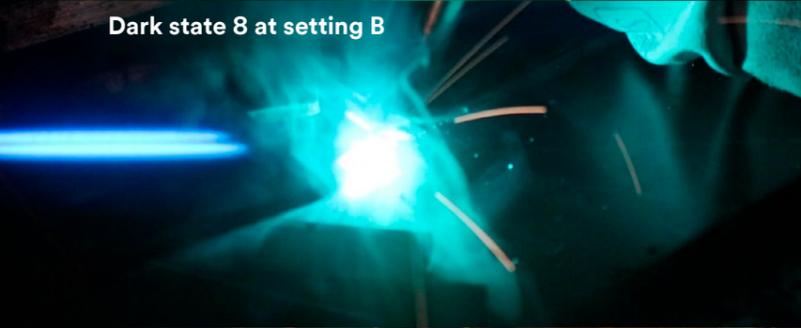
Better focus on the welding setup, welding technique and inspection of just-completed welds.

Quality

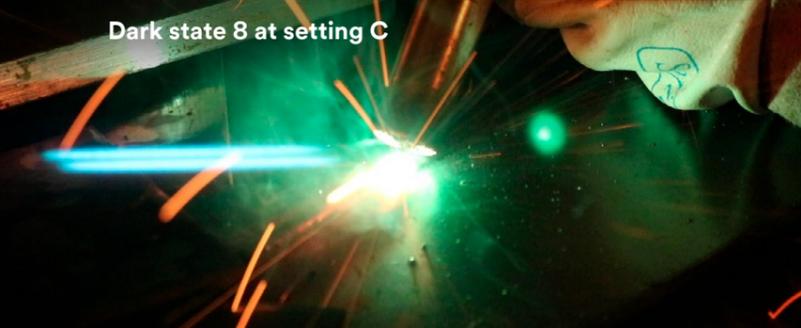
May help to increase the quality and precision of the welds.



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 helmet and vice versa.



G5VC (variable color)

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)

Light state 2.5

TAP function

Four arc-detection sensors

Bluetooth connection



G5NC

Locks manually in light state for grinding

Locks manually in shade 5 for cutting

3 arc-detection sensors



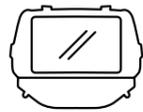
G5 Passive

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

* Launch date may vary between model and area

Enhance your grinding.

The 2.5* light state in combination with an optional task light will allow you to grind with increased visibility. The TAP function allows for quick and easy switching between welding and GRIND (or CUT) mode.



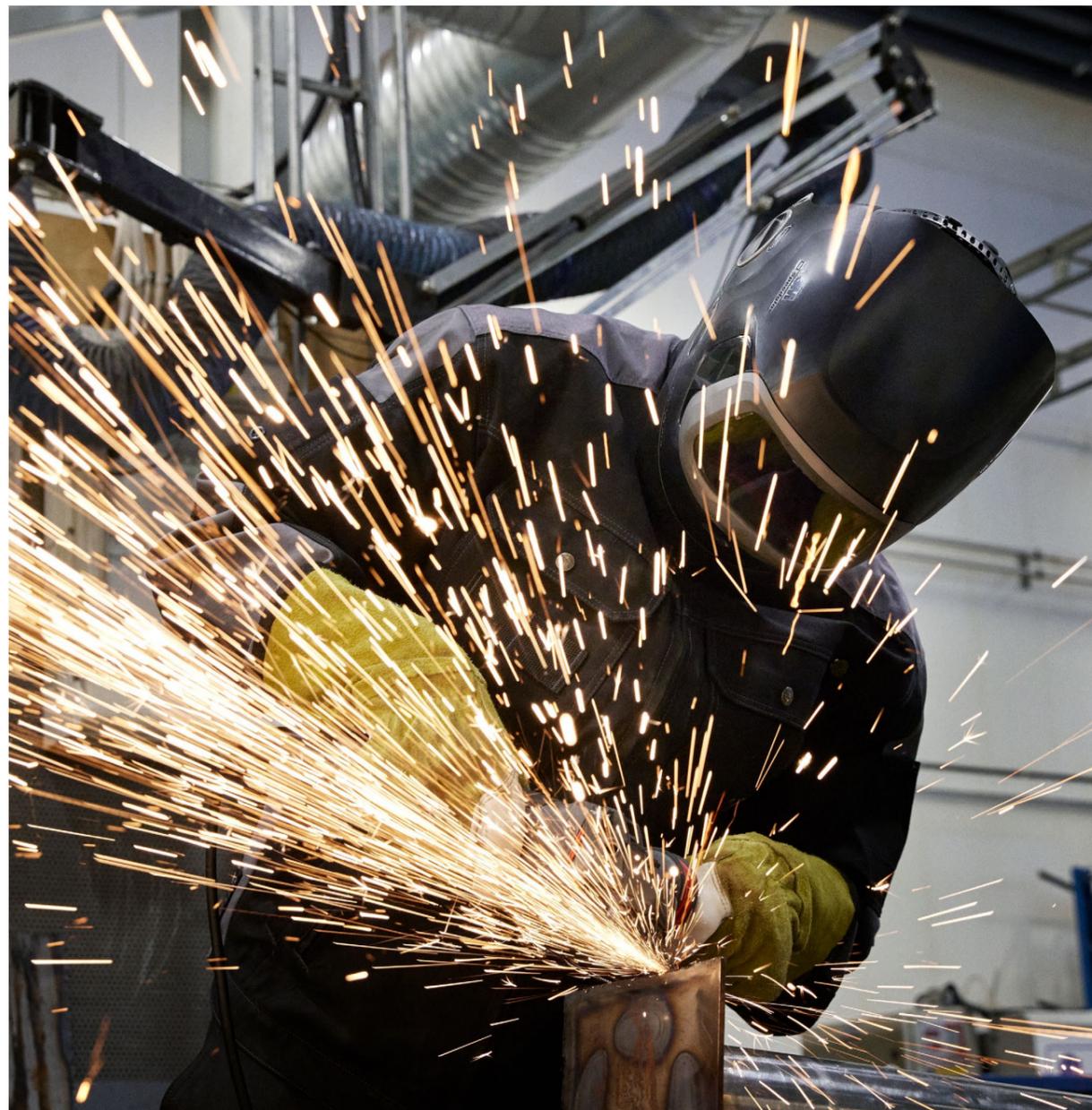
Light state 2.5



TAP function



Task light



*2.5 state is only on the TW ADF

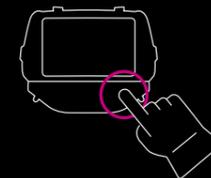
Tap on the side of the welding helmet, with or without a glove, to easily switch between grind (or cut) mode and weld mode.

Easy switching is just a tap away.

Switch quickly between modes (GRIND/CUT and WELD) by simply tapping the side of the helmet with your hand – even when wearing gloves.

The TAP function is robust and intuitive, and can be inactivated whenever needed by simply pressing the ADF buttons.

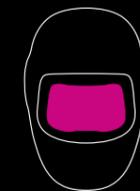
Built into the G5TW and G5VC welding filters, the TAP function may help to improve productivity with button-less control.



1
Use the interface on the filter to set if you want to use TAP function with grind or cut mode.



2
TAP on the side of the welding helmet to switch between GRIND and WELD mode or CUT and WELD mode.



3
The filter will switch to desired setting.

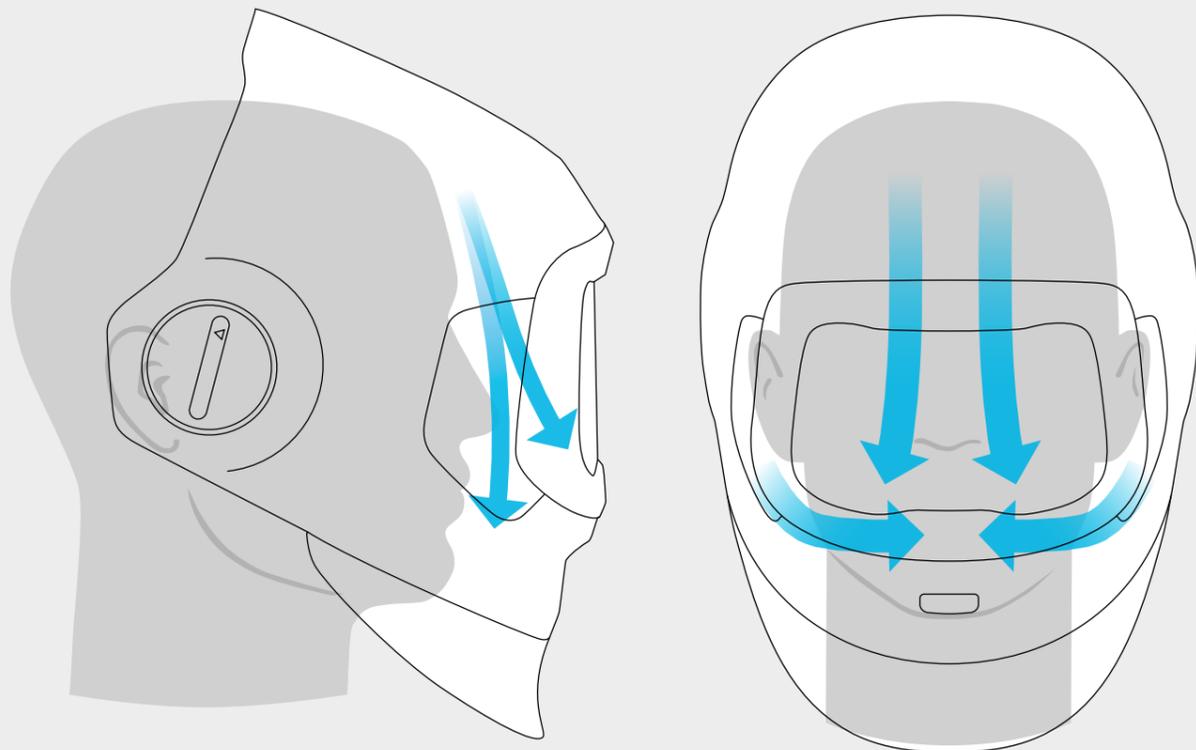


4
Tap again and the filter switches back to welding mode.

3M™ Speedglas™ G5-03 Pro Welding Helmet Series Pro Air

Adjustable air distribution and air flow control.

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



Right side control

Direct the airflow to either your face, your visor, or some combination of both.

Left side control

Adjust the amount of air coming from the top outlet vs. the two side outlets, or choose a blend of both.

Your choice of powered or supplied air.

3M offers a range of powered and supplied air respirators that both provide protection against harmful welding fumes while increasing the comfort around your face and head.

> Learn more about powered and supplied air choices on page 18



3M™ Speedglas™ G5-03 Pro Welding Helmet Series Pro

We have you covered.

Sometimes you weld in a location that requires you to wear a safety helmet. Using a quick release system, the G5-03 Pro helmet must be utilized with an adaptor to securely and easily attach the welding helmet to various 3M safety helmets.



The adjustable adaptors let you attach your welding helmet to 3M selected safety helmets.

> Learn more about safety helmet choices on page 18.

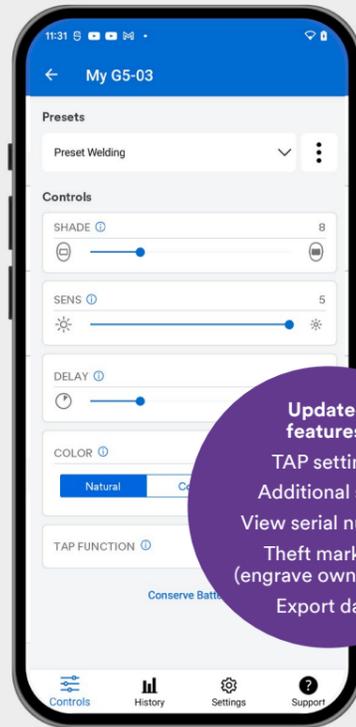
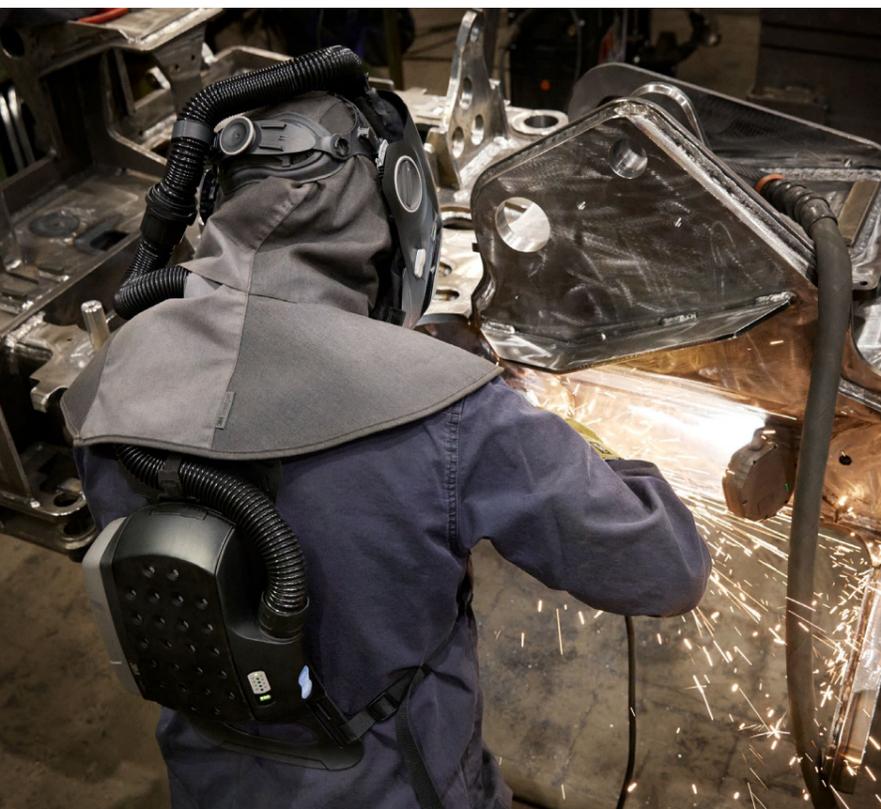


3M™ Speedglas™ Heavy Duty Backpack

Helping to improve performance and life for welders.

Some welders prefer to wear a heavy duty PAPR Backpack, which holds the Powered Air Purifying Respirator (PAPR) flat against your back and can make it easier to move around some workspaces.

The heavy duty backpack is designed for welding applications and the 3M™ Adflo PAPR and aims to provide comfort, light weight, robustness, stability and good perceived balance.



Updated features:
 TAP settings
 Additional stats
 View serial number
 Theft marking (engrave owner info)
 Export data

3M™ Connected Equipment App

Get the most from your G5-03 welding helmet by connecting it to the 3M equipment app.

- Set up your equipment
- Get reminders for maintenance
- Have instant access to user manuals
- Program memory modes for dark shades, sensitivity, delay and more
- Log ADF activity like hours on, hours in dark state, or number of on/off cycles

Bluetooth®

The Bluetooth connection to the welding helmet gives you the ability to:

- Extract usage data
- Update firmware
- Review helmet maintenance logs

Designed to provide a uniform light at welding working distance.



Light up your workspace.

The optional helmet-mounted task light may help welders stay productive in poorly lit areas. It delivers a better view of the work area before and after welding, which may help to reduce fatigue.

3M™ Speedglas™ Task Light is designed to be low profile and lightweight, helping welders in low light environments.

For welders requiring air delivery, the task light can be connected to 3M™ G5-03 Pro Air and is powered by the 3M™ Adflo™ powered air respirator, reducing the need for an additional battery and enabling extended run times.

For welders using the G5-03 Pro or the G5-03 Pro Air with an approved 3M PAPR or Supplied Air respirator, a battery pack is available which connects to the rear of the welding helmet for a balanced fit.

Powered by the Adflo

Separate rechargeable battery





Welding safety in focus.

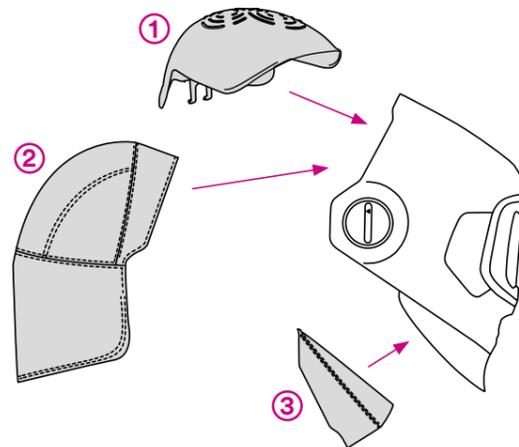
3M™ Speedglas™ Welding Helmet G5-03 Pro Air is NIOSH certified with options to provide the highest exposure reduction available in a powered air purifying respiratory protection system (APF 1000). This level of protection significantly reduces exposure to welding respiratory hazards when the helmet is used full time.

3M Speedglas Welding helmet G5-03 Pro with Safety helmet adaptors is designed and tested to be used with selected 3M Safety helmets series X5000 and H700.

Feel the safety of a certified protection system!

Extend your protection.

Do you require additional protection from heat, radiation, spatter and sparks? There is a range of extended coverage options available to give you a more comfortable and protective environment.



① Scrape guard*

Helps to protect the welder against head scrapes.

② Head cover

Increase coverage of your head by adding a fabric head cover.

③ Neck Protection

Interchangeable lower part of the welding helmet (plow) allows welders to customize neck protection according to their welding situation depending on head size, working position, and working application.

Spark Protection

Flame-retardant fabrics protect the welder from sparks and spatter.



Learn more about our range of extended head and neck protection on page 17.

To maximize coverage from sparks, add the fabric shroud and the extended, larger fabric head protection.



Technical Properties

			
3M™ Speedglas™ Auto-darkening Welding Filter Series G5-01/03	G5VC	G5TW	G5NC+
MMAW (Electrode)	✓	✓	✓
MIG/MAG	✓	✓	✓
TIG (>20A)	✓	✓	✓
TIG (1A-20A)	✓	✓	✓
Plasma (welding and cutting)	✓	✓	✓
Risk for hidden arc	✓	✓	✓
Tack welding		✓	
Grinding	✓	✓	✓
Viewing area (welding filter)	2.9" x 4.3" (109 x 73 mm)	2.9" x 4.3" (109 x 73 mm)	2.1" x 4.3" (109 x 54 mm)
3M™ Speedglas™ Natural Color Technology	✓	✓	✓
Variable color modes (A-B-C)	✓		
TAP function	✓	✓	
Bluetooth enabled	✓	✓	
Battery lifetime	1500–2000 hours	1500–2000 hours	2000 hours
Classification (ISO)	V2	V2	V2
Dark state	Shade 8–14	Shade 8–13	Shade 8–12
CUT mode	Yes shade 5	Yes shade 5	Yes shade 5
Tack welding mode		✓	
Light state	Shade 3	Shade 2.5	Shade 3
UV/IR Protection	Shade 14 (permanent)	Shade 13 (permanent)	Shade 12 (permanent)
Auto ON	✓	✓	
Switching time, light-dark	0.1 ms (+73°F; +23°C)	0.1 ms (+73°F; +23°C)	0.1 ms (+73°F; +23°C)
Memory mode	Yes, via mobile device app	Yes, via mobile device app	
Delay (switching time, dark-light)	50 – 1300 ms	50 – 1300 ms	40–470 ms
Number of sensors (arc detection)	4	4	3

3M™ Speedglas™ Passive Filter G5-01/03	
Size	2.9" x 4.3" 110 x 90 mm
Shade	10, 11, 12, 13

Common parts between G5-01 and G5-03



For ease of flexibility on-site, many G5-01 spare parts are also compatible with G5-03. This allows you to hold less spare inventory, while retaining the flexibility you need to customize your equipment.

All parts common with G5-01 are marked with a dot (•) after the parts number.

Example: **46-0099-87** • large neck shroud

* Launch date may vary between model and area.



3M™ Speedglas™ Welding Helmet G5-03 Pro

G5-03 Pro helmet with no welding filter
Part No 10-0100-00

G5-03 Pro helmet with welding filter G5TW
Part No 10-0100-30TW

G5-03 Pro helmet with welding filter G5VC
Part No 10-0100-30VC



3M™ Speedglas™ Welding Helmet G5-03 Pro Air

G5-03 Pro Air helmet with no welding filter
Part No 45-0099-35

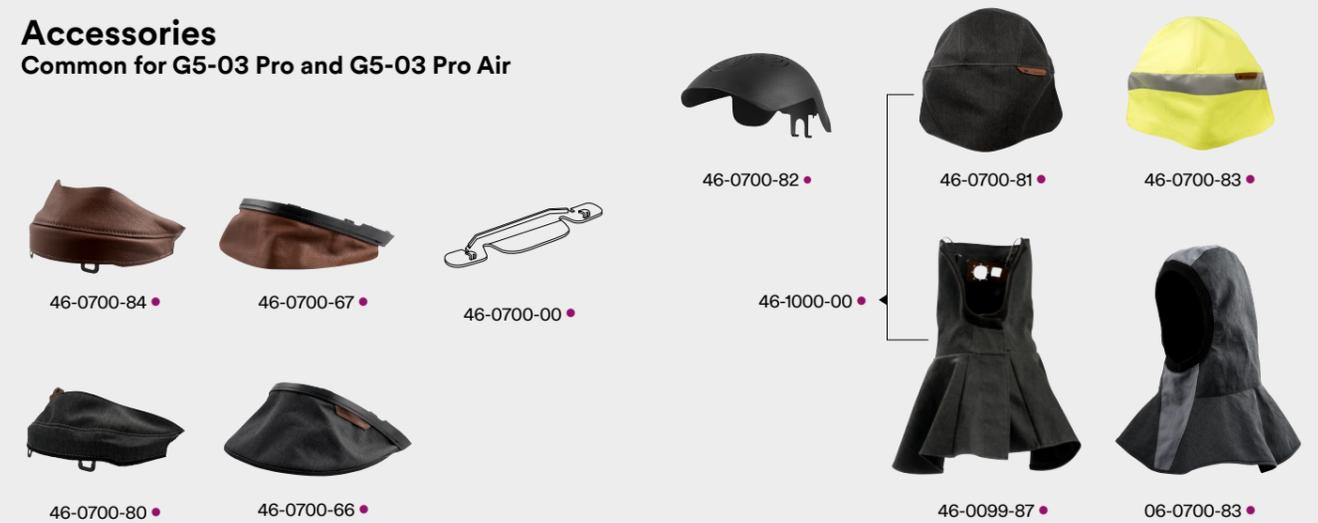
G5-03 Pro Air helmet with no welding filter, 3M™ Adflo™ Powered air Respirator and carry bag
Part No 45-1101-00

G5-03 Pro Air helmet with welding filter G5TW, 3M™ Adflo™ Powered air Respirator and carry bag
Part No 45-1101-30TW

G5-03 Pro Air helmet with welding filter G5VC, 3M™ Adflo™ Powered air Respirator and carry bag
Part No 45-1101-30VC

Accessories

Common for G5-03 Pro and G5-03 Pro Air



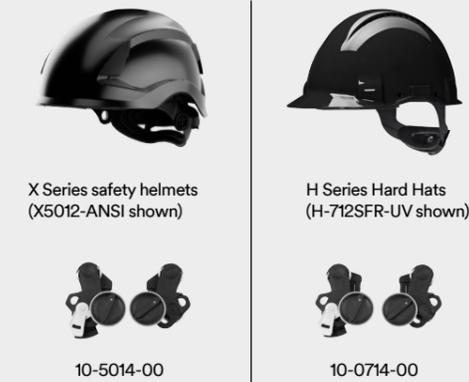
Part No	Description	Part No	Description	Part No	Description
06-0700-83	Welding full hood	46-0700-66	Large fabric neck cover	46-0700-82	Scrape guard G5-01/03
46-0099-87	Large neck shroud	46-0700-67	Leather neck cover	46-0700-83	Large high-visibility head cover
46-0700-00	Head cover holder	46-0700-80	Fabric head cover	46-0700-84	Leather head cover
46-0700-65	Rigid neck cover (not shown)	46-0700-81	Large fabric head cover	46-1000-00	1000 APF kit

• A purple dot marks common parts with G5-01.

Accessories Common for G5-03 Pro and G5-03 Pro Air



Accessories G5-03 Pro only



Accessories G5-03 Pro Air only



3M™ Speedglas™ Vortex Cooling Assembly



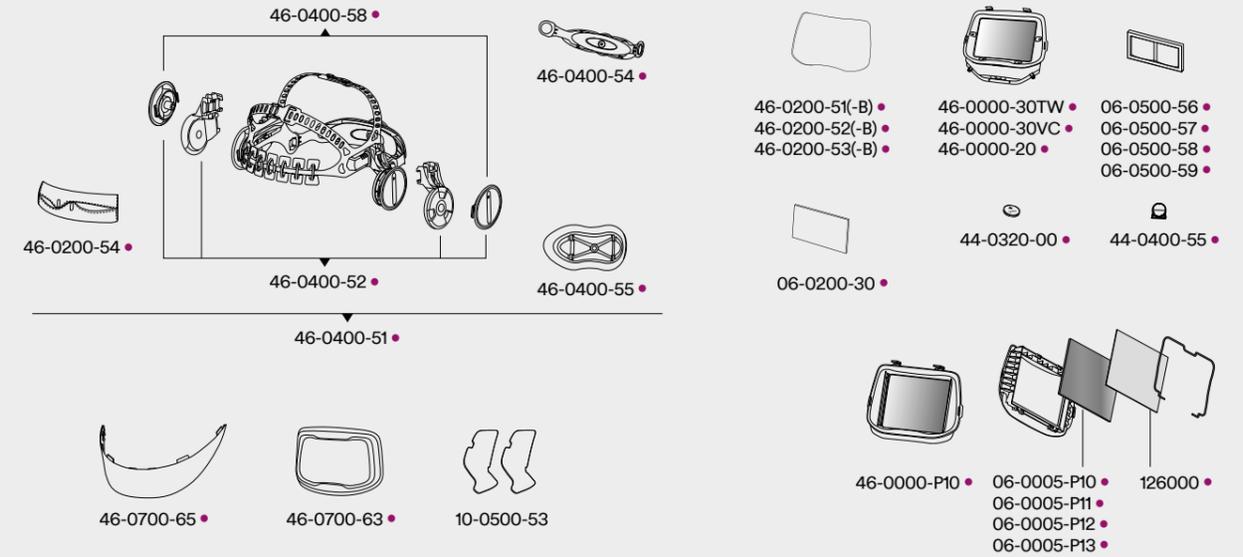
V-100 Vortex cooling assembly, includes valve V-150, belt W-2963 and holder.
V-200 Vortemp heating assembly, includes valve V-250, belt W-2963 and holder.
V-300 Air Regulating Valve Assembly

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

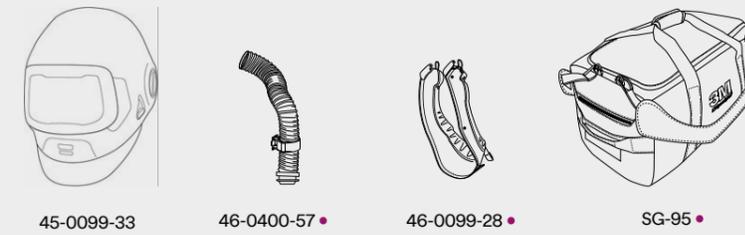
Part No	Description	Part No	Description
10-0500-01	Task light kit (light, cable, holder with cable & battery)	46-0500-02	Task light long replacement cable for Adflo systems
10-0500-03	Welding Helmet Task light holder for battery with attachment parts	46-0500-03	Task light short replacement cable for Adflo systems
10-5014-00	Hard Hat Adaptor G5-03 Pro for X series helmets	46-0500-04	Protection plate for task light, pkg. of 5
10-0714-00	Hard Hat Adaptor G5-03 Pro for H series hard hats	46-0500-06	Replacement task light ACK081
15-0099-17	Suspenders for Adflo belt		Rechargeable Battery
15-0499-99X02	Adflo OV/AG cartridge, 2/CS	AL2AI/S	Battery Charging cable for ACK081
15-0499-99X06	Adflo OV/AG cartridge, 6/CS	BPK-HD	High durability PAPR backpack
35-0699-99x01	Nuisance odour pad assembly	SG-15	Flame resistant breathing tube cover (recommended when using the task light).
35-0799-99x01	Nuisance odour pad, pkg. of 1		
35-0799-99x10	Nuisance odour pad, pkg. of 10		
46-0500-01	Task light kit for Adflo systems		

(*) A purple dot marks common parts with G5-01.

Spare parts and consumables Common for G5-03 Pro and G5-03 Pro Air



Spare parts and consumables G5-03 Pro Air only



Spare parts and consumables G5-03 Pro only



Part No	Description	Part No	Description
06-0005-P10	Passive welding filter lens shade 10 2/CS	126000	Inner cover plate for passive filter
06-0005-P11	Passive welding filter lens shade 11 2/CS	44-0320-00	Battery CR2450
06-0005-P12	Passive welding filter lens shade 12 2/CS	44-0400-55	Battery holder
06-0005-P13	Passive welding filter lens shade 13 2/CS	46-0000-P10	Speedglas passive welding filter kit G5 (shade 10)
06-0200-30	Inner protection plate, standard	46-0000-20	Speedglas welding filter G5NC
06-0200-40	Inner protection plate, anti fog	46-0000-30TW	Speedglas welding filter G5TW
06-0200-51	Outer protection plate (standard), pkg of 10	46-0000-30VC	Speedglas welding filter G5VC
06-0200-51-B	Outer protection plates (standard), pkg of 50	46-0099-28	Face seal
06-0200-52	Outer protection plate (scratch), pkg of 10	46-0400-51	Head suspension assembly
06-0200-52-B	Outer protection plates (scratch), pkg of 50	46-0400-52	Pivot and sliding mechanism
06-0200-53	Outer protection plate (heat), pkg of 10	46-0400-54	Head suspension ratchet assembly
06-0200-53-B	Outer protection plates (heat), pkg of 50	46-0400-55	Large head rest
06-0500-56	Magnifying lens 1.0X	46-0400-57	Air duct breathing tube (short) incl. holder
06-0500-57	Magnifying lens 1.5X	46-0400-58	Pivot knobs
06-0500-58	Magnifying lens 2.0X	46-0700-00	Head cover holder
06-0500-59	Magnifying lens 2.5X	46-0700-63	Front frame G5
10-0300-52	Helmet Bag	46-0700-65	Neck protection rigid
10-0500-53	Side window cover plates	48-0200-54	Sweatband pkg of 3
		SG-95	Carry Bag

(*) A purple dot marks common parts with G5-01.

Speedglas generation 5 welding helmets

The right equipment for each job.



3M™ Speedglas™
Welding Helmet G5-01

3M™ Speedglas™
Welding Helmet G5-02

3M™ Speedglas™
G5-03 Pro Series Welding Helmets

Heavy duty welding and grinding

Tig welding

Welding and grinding



Learn more about the 3M™ Speedglas™
G5-03 Pro Series Welding Helmets.

Scan this QR-code or go to youtube.com/3MSpeedglas

⚠ WARNING

These products meet the requirements of certain industrial eye wear 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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