
3M
Speedglas™
Welding Safety
NEW 3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01
Farewell to compromises
3M Science. Applied to life.™

Adjust your welding helmet, not yourself

Based on extensive input from welders working at high amperages that need to grind frequently, the 3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01 is created to be adaptable to an individual's needs and situation.





Protection against radiation, sparks and spatter, from a high-coverage welding helmet design that also offers expanded coverage options, see pages 8–10.

View your work with 3M™ Speedglas™ Natural Colour Technology – now available with variable colour option in the dark state. See pages 4–5.

Effective respiratory protection, offering the highest safety class for powered air (TH3) systems. See page 7.

No compromises on comfort! Individualize your helmet comfort with different accessory configurations, while you use the new helmet controls to adjust the respiratory airflow to your preferences, see page 6.



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 Colour Technology with great clarity before, during and after welding.

Smoother 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 inermediate shade (5 or 7 depending on filter model).

Speedglas welding filter G5-01VC



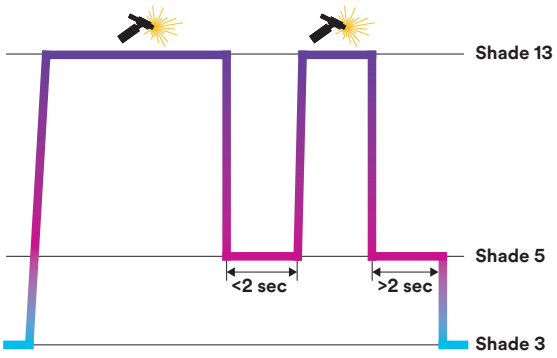
- Adjustable dark shades 5 (cut) and 8 to 14.
- Variable colour technology

Speedglas welding filter G5-01TW



- Adjustable dark shades 5 (cut) and 8 to 13.
- Tack Welding Mode

For technical specification see page 16



Watch our instructional Tack Welding Mode video

When tack welding...

Human eyes aren't designed for handling rapid transitions from dark to light to dark again – which describes tack welding perfectly! The G5-01TW welding filter uses an intermediate shade 5 light state to help minimize eye strain during extended tack welding applications. If an arc is not struck within 2 seconds the welding filter will switch back to its normal light state (shade 3).

For technical specification see page 12

Variable Dark State Colors.



3M™ Speedglas™ Welding Filter G5-01VC

Which colour tone works best for you?

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

Scan this code to see how it works!

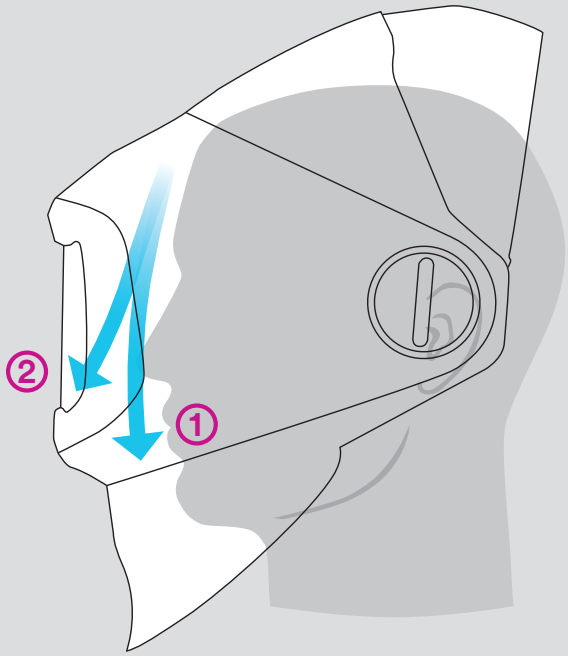
Technical information, see page 12

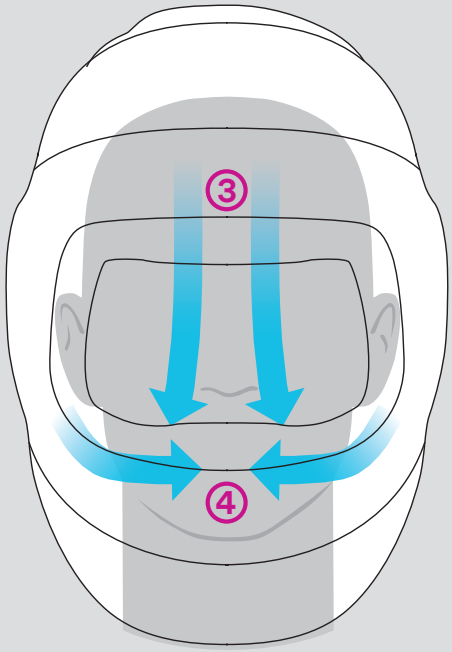
Take control of your flow

For more control over your comfort, the innovative G5-01 helmet duct system lets you direct the airflow to either your face①, your visor②, or some combination of both.

You can even adjust the amount of air coming from the top outlet③ vs. the two side outlets④, or choose a blend of both.

All airflow adjustments can be made while you're wearing the helmet – and continuously maintaining your eye, face and respiratory protection.





Scan this code to see how it works!



Stay protected

This flip-up functionality allows you to seamlessly switch between welding and grinding tasks while maintaining powered air respiratory protection. The clear visor also allows you to set-up, inspect and move around the workplace without the need to remove the face protection or break the positive pressure respiratory seal.

A system for many needs

Designed for heavy-duty, high-amperage welding and grinding, the G5-01 welding helmet connects to the 3M™ Adflo™ Powered Air Respirator to provide TH3-rated respiratory protection (APF 4`0). The robust Adflo respirator provides all of the features you would expect in a premium system, including easy-to-use functionality.

For conditions where supplied air is required we can offer the 3M™ Versaflo™ Series Regulators.



Helmet viewed from below

An all-new face seal features a locking toggle designed for fast, secure adjustments. Two new tabs make it easier to lift the seal over your glasses. And installation channels on the helmet speed the removal and replacement of the seal.

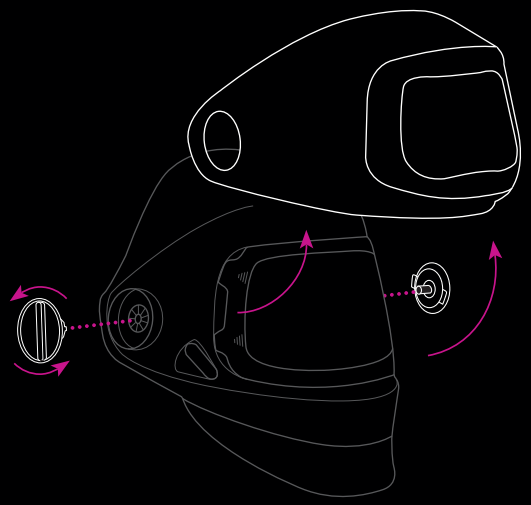
Scan this code to see how easy it is to adjust!

Technical information, see page 12



Designed to be slim, without compromising on heavy-duty coverage

The Speedglas welding helmet G5-01 is designed for rough conditions.



For extended non-welding work, just unscrew the two dials to completely remove the welding visor and re-attach the dials again, reducing the helmet weight by up to 36%.



Easy to access and use controls: all adjustable functions are imprinted on the helmet, and adjustments can be made while wearing the helmet and your gloves.

Light up your workspace

A new, optional helmet-mounted task light provides hours of powerful lighting and runs off the 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 of the workpiece
- Designed for even light distribution at normal welding distance
- Configurable 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 Extra-large back pad

Delivered with an optional, extra-large, back head pad for enhanced comfort



Highly configurable coverage options

With a welding helmet that not only provides the right level of protection, but also increases the comfort of users in heavy-duty environments, we provide a number configurable options, so the user can optimize the helmet to individual needs and preferences.





Helmet in standard configuration with rigid neck protection and the smaller, fabric head protection.



For increased visibility at all times, add the fluorescent yellow extended head protection 16 90 21



To better enable you to weld when looking down, replace the rigid neck protection with , for example, the smaller fabric neck protection 16 90 41



When you need the durability of leather, attach the leather head protector 16 90 22 and the leather neck protector 16 90 43



Increase coverage of your head, neck and chest by adding the larger fabric head cover 16 90 23 and/or the extended fabric neck protection 16 90 42



To maximize coverage from sparks, add the fabric shroud 16 90 30 and the extended, larger fabric head protection 16 90 23. Also available as a kit, 16 90 35

Technical Specification





3M™ Speedglas™ Auto-darkening Welding Filter Series G5-01	G5-01TW	G5-01VC
MMAW (Electrode)	✓	
MIG/MAG	✓	
TIG (>20A)	✓	
TIG (1A-20A)	✓	
Plasma (welding and cutting)	✓	
Risk for hidden arc	✓	
Tack welding	✓	
Grinding	✓	
Viewing area (welding filter)	73 × 109 mm	
Viewing area (grinding visor)	170 × 104 mm	
3M™ Speedglas™ Natural Colour Technology	Yes	
Variable colour modes (A-B-C)	No	Yes
Bluetooth enabled	Yes	
Battery lifetime	1500 hours	
Classification	1/1/1/1	1/1/1/2
Dark state	Shade 8-13	Shade 8-14
CUT mode	Yes shade 5	
Tack welding mode	Yes	No
Light state	Shade 3	
UV/IR Protection	Shade 13 (permanent)	Shade 14 (permanent)
Auto ON	Yes	
Switching time, light -dark	0.1 ms (+23° C)	
Memory mode	Yes, via mobile device app	
Delay (switching time, dark-light)	50 – 1300 ms	
Two step recovery	Yes (shade 5)	Yes (shade 7)
Number of sensors (arc detection)	4	
Approvals Eye and Face protection		
Welding helmet	EN175:B	
Welding filter	EN379	
Protection plates	EN166:B	
Visor plate	EN166:B	
Approval Respiratory Protection / ADF*		
3M™ Adflo™ Powered Air Respirator	EN12941 (TH3) / APF 40	
3M™ Versaflo™ Supplied Air Regulators V-100E, V-200E, V-500E	EN14594 (3B) / APF 20	

* APF = The nominal protection factor based on laboratory-measured performance data according to European standards.



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 Regulators[1)].

	Speedglas welding filter G5-01TW	Speedglas welding filter G5-01VC
Complete powered air system	Helmet G5-01 with welding filter G5-01TW and Adflo high altitude respirator. **Part No 61 78 20**	Helmet G5-01 with welding filter G5-01VC and Adflo high altitude respirator. **Part No 61 78 30**
Incl consumable starter kit	Helmet G5-01 with welding filter G5-01TW, consumable kit (79 20 00) and Adflo high altitude respirator. **Part No 61 78 29**	Helmet G5-01 with welding filter G5-01VC, consumable kit (79 20 00) and Adflo high altitude respirator. **Part No 61 78 39**
Upgrade your old system	Helmet G5-01 with welding filter G5-01TW. **Part No 61 11 20**	Helmet G5-01 with welding filter G5-01VC. **Part No 61 11 30**

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.

Scan this code to see how to unbox your new system

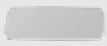


1) The following Adflo systems are our high altitude models with a heavy-duty Li-ion battery which extends operating time to 10–12 hours, at sea level with a fully charged battery and new clean filter. Actual system duration are dependent on configuration and environment.

Increase your comfort

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


16 92 00


16 92 05


16 92 10


16 92 11

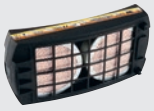

16 90 22


16 90 43


16 90 20


16 90 41


16 90 42


83 72 42
83 75 42


83 71 10


83 71 20


BPK-01


83 50 20


83 40 18


16 90 21


16 90 23

16 90 35


16 90 30


16 91 00

Part No	Description
16 90 20	Head protection in fabric
16 90 21	Head protection fluorescent yellow
16 90 22	Head protection in leather
16 90 23	Head protection in fabric (large)
16 90 24	Scrape guard (not shown)
16 90 30	Shroud
16 90 35	Extended cover kit (shroud and large head cover in fabric)
16 90 41	Neck protection in fabric (small)
16 90 42	Neck protection in fabric (large)
16 90 43	Neck protection in leather
16 92 00	Task light, incl mounting parts and cables
16 92 05	Protection plate for task light, pkg. of 5
16 92 10	Long power cable for task light
16 92 11	Short power cable for task light
16 92 23	Pouch with Adflo battery, for task light when using supplied air regulator (not shown)

Part No	Description
83 40 18	Flame resistant breathing tube cover (recommended when using the task light).
83 50 20	Braces for respirator
83 71 10	Adflo odour filter
83 71 20	Odour filter pad
83 72 42	Adflo gas filter A1B1E1
83 75 42	Adflo gas filter A2
BPK-01	Back pack for respirator

3M™ Versaflo™ Supplied Air Regulators


V-100E

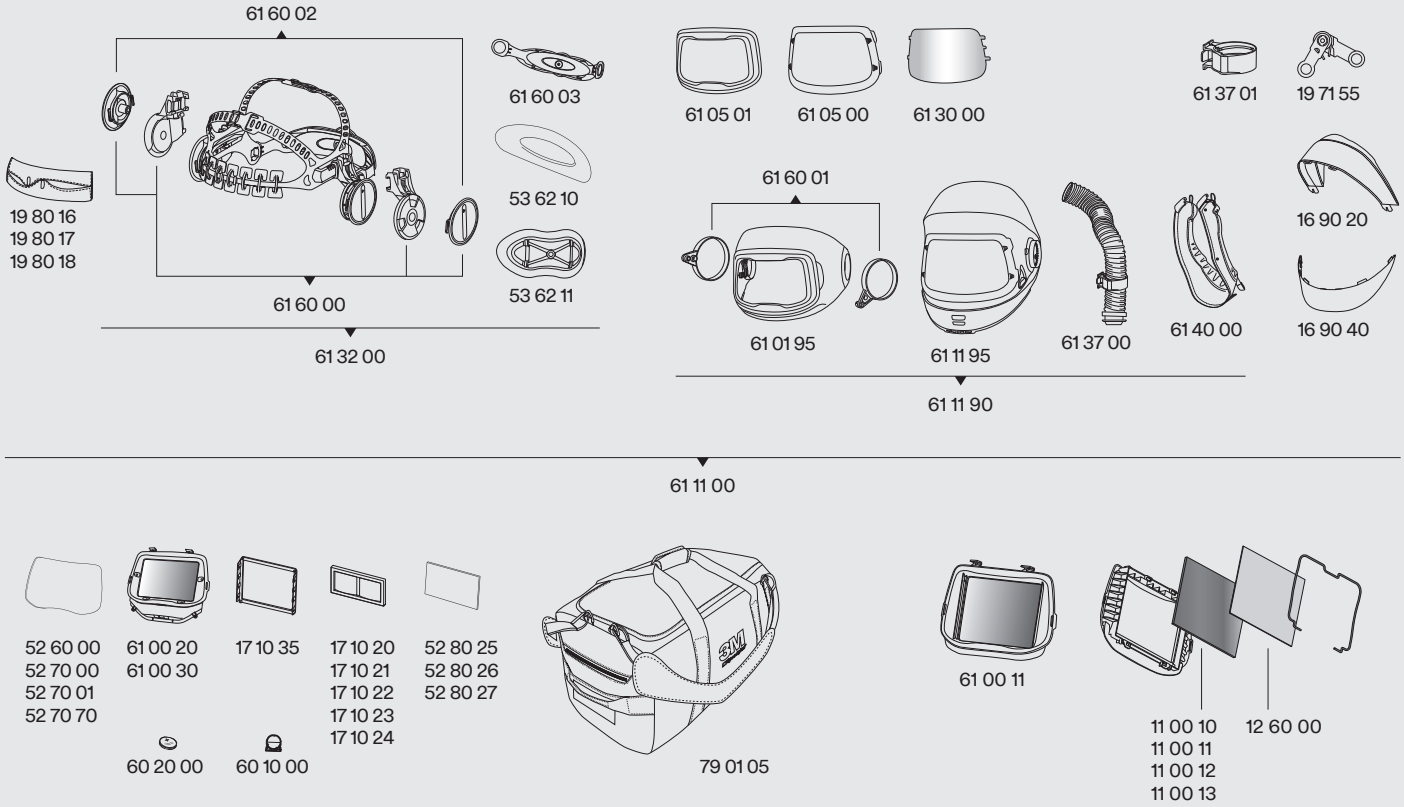

V-200E


V-500E

V-100E Air cooling regulator
V-200E Air heating regulator
V-500E Flow controlled regulator

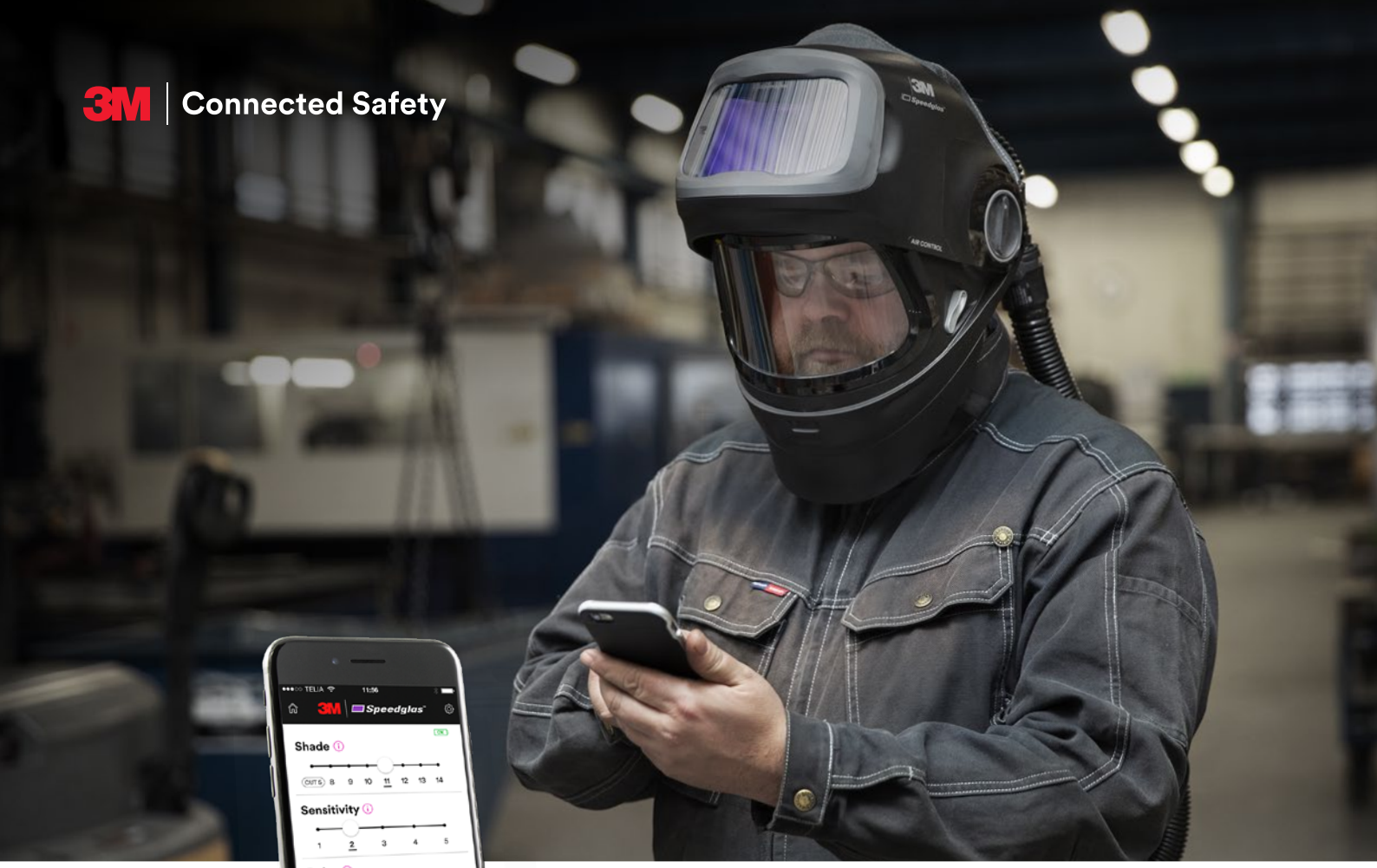
For further details to buy a complete supplied air system please reference the 3M Welding Safety Catalogue.

Spare parts and consumables



Part No	Description
11 00 10	Passive welding filter lens shade 10 (90×110)
11 00 11	Passive welding filter lens shade 11 (90×110)
11 00 12	Passive welding filter lens shade 12 (90×110)
11 00 13	Passive welding filter lens shade 13 (90×110)
12 60 00	Inner cover plate for passive filter
16 90 20	Head protection in fabric (small)
16 90 40	Neck protection rigid
17 10 20	Magnifying lens 1.0X
17 10 21	Magnifying lens 1.5X
17 10 22	Magnifying lens 2.0X
17 10 23	Magnifying lens 2.5X
17 10 24	Magnifying lens 3.0X
17 10 35	Magnifying lens holder
19 71 55	Hinge mechanism, 1 pair
19 80 16	Sweatband (towelling), pkg of 3
19 80 17	Sweatband (fleecy cotton), pkg of 3
19 80 18	Sweatband (leather)
52 60 00	Outer protection plate (standard), pkg of 10
52 70 00	Outer protection plate (scratch), pkg of 10
52 70 01	Outer protection plate (scratch +), pkg of 10
52 70 70	Outer protection plate (heat), pkg of 10
52 80 25	Inner cover plate, pkg of 5
53 62 10	Cushion part for headband G5-01
53 62 11	Large head rest
60 10 00	Battery holder
60 20 00	Battery CR2450
61 00 11	Speedglas passive welding filter kit G5-01 (shade 11)
61 00 20	Speedglas welding filter G5-01TW
61 00 30	Speedglas welding filter G5-01VC
61 01 95	Outer shield
61 05 00	Front cover for inner visor
61 05 01	Front cover for flip-up
61 11 00	Welding helmet G5-01, without welding filter
61 11 90	Welding helmet G5-01, without welding filter, without neck or head protection
61 11 95	Inner shield with airduct and airflow controls (including visor frame)
61 30 00	Visor plate, anti-fog and hardcoated, pkg. of 5
61 32 00	Headband with assembly parts
61 37 00	Airduct breathing tube (short) incl. holder
61 37 01	Holder for breathing tube
61 40 00	Face seal
61 60 00	Pivot and sliding mechanism, including pivot knobs
61 60 01	Pivot rings for outer shield
61 60 02	Pivot knobs
61 60 03	Headband back part
61 78 00	Helmet G5-01, without welding filter, with 3M™ Adflo™ Powered Air Repirator
61 78 09	Helmet G5-01, without welding filter, with 3M™ Adflo™ Powered Air Repirator and consumable starter kit
79 01 05	Carry Bag
79 20 00	Consumable starter kit G5-01, includes 3 different sweatbands, face seal, visor plate, inner and outer cover plates.

3M | Connected Safety



3M Connected Equipment App

- Opt-in by securely pairing your smartphone to your G5-01 welding filter using the 3M Connected Equipment 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

Bluetooth®

Learn more about the G5-01

Go to 3M.co.uk/speedglas or youtube.com/3MSpeedglas

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