



**Speedglas™**

Welding Safety

3M Speedglas™ Welding Helmet G5-02

# World's first curved auto-darkening filter

3M Science. Applied to life.™

# Your world is curved, not flat

Introducing the world's first curved auto-darkening filter (ADF) with the 3M™ Speedglas™ Welding Helmet G5-02.

Utilizing the new 3M™ Speedglas™ Curved Glass Technology, its shape follows your head's curvature and the range of your peripheral vision.

Light shade 2.5



Natural Color



4 arc sensors



Wider view





# Unleash your welding performance

Designed for TIG welders, the G5-02 helmet creates a new standard for precision ADF viewing. This is a helmet for welders doing high-performance, critical work.

The latest, high-end, inverter-based TIG machines offer incredibly stable arcs. With our most advanced electronics ever and four arc sensors, the G5-02 welding filter reliably switches even at very low (e.g., 1 amp) TIG settings, meeting the new pr ISO 16321 “TIG+” standards.

You'll also benefit from a light helmet weight, due to a thin ADF glass pack. What's more, you'll notice that the center of gravity is close to the center of your head, giving you better weight distribution.

And for the slim helmet, we created a new venting design to help reduce heat and humidity, to help you feel more comfortable.

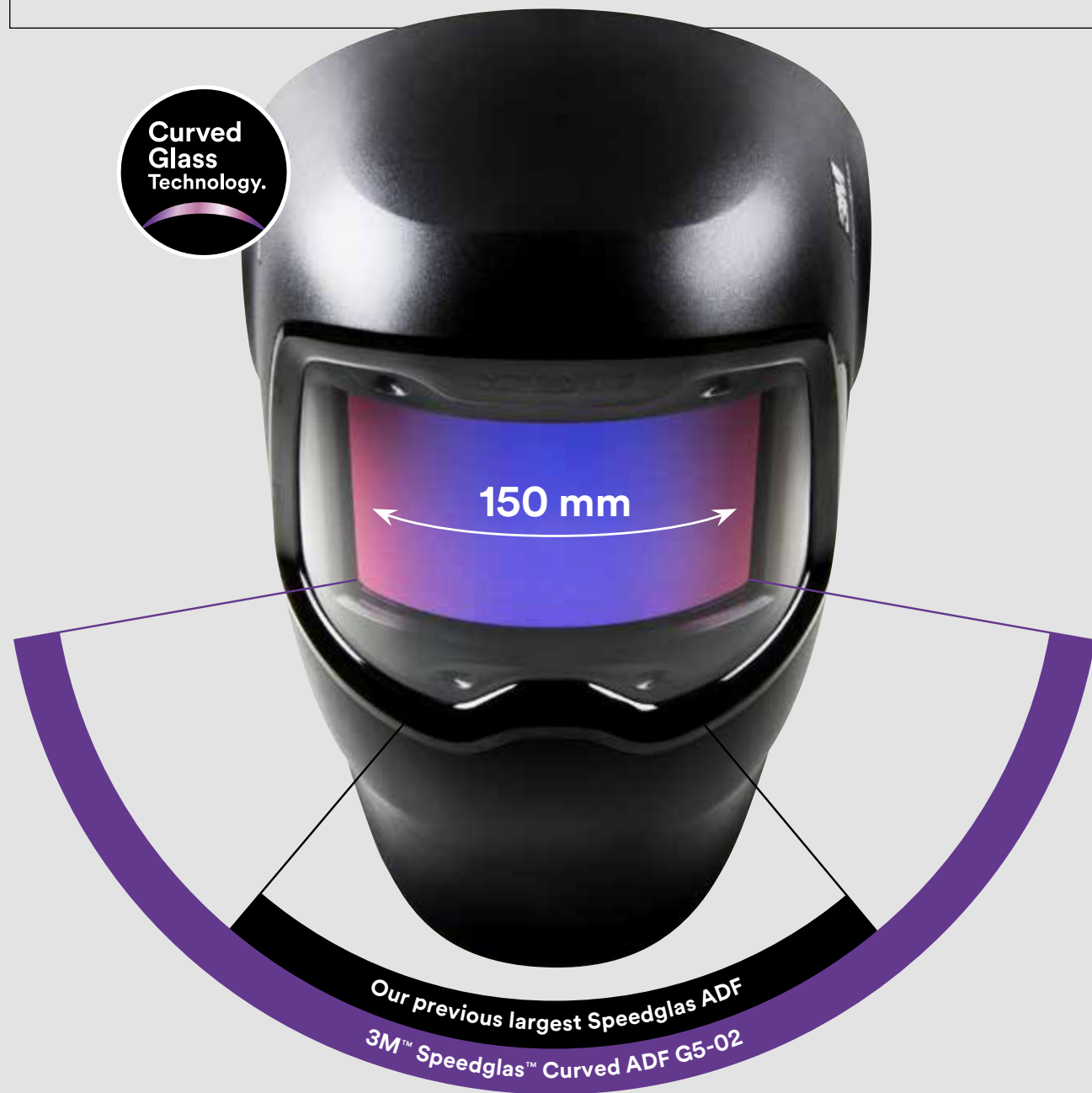




# Why curved?

We gave professional TIG welders prototypes of helmets with different lens sizes. Their favorite aperture size was the curved, 2-to-1 aspect ratio we used for designing the G5-02 ADF. A wider view was much higher rated than a taller view.

And the only way to get wider views without making the helmet wider is by inventing the first ever curved filter.



**100% wider ADF field of view**

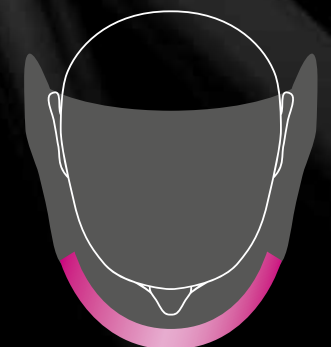
# Get wider views in a slimmer helmet



Flat ADF in a slim helmet means the ADF can't be wide.



Expanded field of view with a flat ADF requires a wider helmet.



A curved ADF can give you a wider total field of view in a slim helmet.



## Greatly reduce distracting reflections

The combination of the curved welding filter and a slimmer helmet can help reduce reflections and other distracting glares inside the helmet.





The curved ADF is manufactured in Sweden under clean room conditions using custom-engineered machines.

# A brilliant light state

Great clarity before the weld with our new 2.5 light state, and during the weld with our 3M™ Speedglas™ Natural Color Technology. Colors appear brighter and more realistic in both the light and dark states.



Designed to be more intuitive, you'll love our new control panel: controls are located on both sides of your viewing area.

The most frequently used controls (SHADE and SENSITIVITY) are in the most accessible locations: the lower left and right corners.



# 3M™ Speedglas™ Curved Glass Technology

“We’ve challenged ourselves to find an appropriate solution for a curved ADF,” says Stefan Henriksson, 3M Welding Eye & Face Product Manager.

“We tested – and rejected – curved ADFs made with plastic substrates. We have found that plastic has low heat resistance and is permeable, absorbing contaminants that reduce filter visibility and longevity. Of all the materials we tested, we could not find anything that outperformed glass.”

### Is the curved glass more fragile than flat glass?

The glass we use in the G5-02 ADF is actually extremely flexible. And the ADF is certified using the same standardized impact resistance tests used for traditional flat ADFs: The welding filter and protection plate meet ANSI Z87.1-2015, meaning resistance to high speed particles at up to 150 ft/sec.

More importantly, you’re benefitting from our finest optics ever, due in part to a “glass pack” that’s 1/3 as thick as our thinnest flat ADF.





# Curved consumables for the curved ADF

For the slimmer helmet, we created specific consumables to optimize the view and comfort.

If you can't see the detail you need, try one of our curved magnifying lenses, available in x1.5, x2.0 and x2.5 strengths.



## Technical specifications

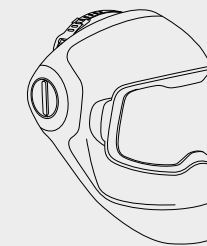
3M™ Speedglas™ Welding Helmet G5-02	
3M™ Speedglas™ Curved Glass Technology	Yes
3M™ Speedglas™ Natural Color Technology	Yes
Switching time, dark-light	50–1000 ms
Switching time, light-dark	0.1 ms (+23°C)
Dark state	Shade 8–12
Light state	Shade 2.5
UV/IR Protection (permanent)	Shade 12
Viewing area, (approximately)	150×76 mm 5.9×3.0 in
Weight, helmet incl welding filter	535 grams 18.9 oz.
Auto ON	Yes
Bluetooth™ for 3M Connected Equipment App	Yes
Battery lifetime (hours)	1500
Number of sensors (arc detection)	4
Classification	CE/ANSI
Approval helmet / welding filter	ANSI Z87



Compatible with most 3M filtering facepieces and reusable respirators

# Ready to experience the curved ADF?

Designed for professional and high-end TIG welders, the G5-02 helmet literally sets a new world standard for precision ADF viewing as it has never been done before.

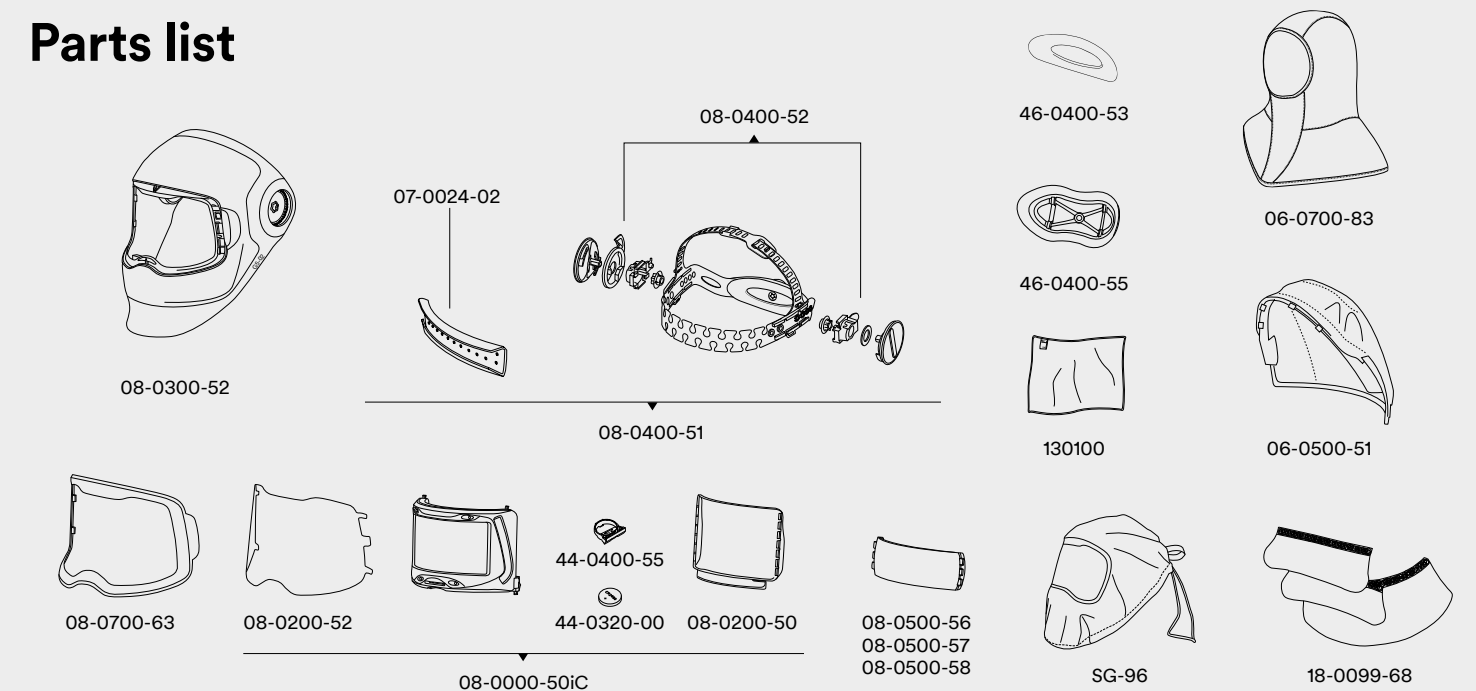


## 3M™ Speedglas™ Welding Helmet G5-02 Complete Helmet Assembly

Including curved welding filter, headband, cleaning wipe and storage bag.

Part No 08-0100-50iC

## Parts list



Part No	Description	Part No	Description	Part No	Description
130100	3M helmet cleaning wipe	08-0200-50	Inner protection plates, pkg of 2	18-0099-68	Ear and neck protection in leather (3 parts)
08-0400-51	Headband with assembly parts and sweatband	08-0200-52	Scratch resistant outer protection plate, pkg of 5	44-0320-00	Battery CR2450 Lithium 3V
06-0500-51	Fabric head cover	08-0300-52	Helmet without welding filter, without headband, without front cover	44-0400-55	Battery holder
06-0700-83	Hood black/grey	08-0400-52	Assembly parts (pivots) for headband	46-0400-53	Cushion part for headband
07-0024-02	Sweatband, fleece, 2/case	08-0500-56	Magnifying lens 1.5X	46-0400-55	Large comfort head rest
08-0700-63	Front cover	08-0500-57	Magnifying lens 2.0X	SG-96	Helmet storage bag
08-0000-50iC	Curved welding filter G5-02, including inner and outer protection plates	08-0500-58	Magnifying lens 2.5X		

# Get connected!

- Get started by securely pairing your smartphone to your G5-02 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



Learn more about the G5-02 helmet at [3M.com/SpeedglasG502](https://3M.com/SpeedglasG502)

## 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
- G5-02 Auto-Darkening Filters – 3 years

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



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