
3M
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 with the 3M™ Speedglas™ Welding Helmet G5-02.

Featuring one of the newest innovations from 3M™ Speedglas™ – Curved Glass Technology. The welding filter follows the curved shape of your head and is more in line with the range of your peripheral vision.

<u>Think about it:</u>

The wider a flat filter gets, the wider the helmet must become. Our latest solution uses curved glass to allow a slimmer profile helmet.

Light shade 2.5

•

Natural colour

•

4 arc sensors


3M
Speedglas
CURVED ADF

Create amazing with incredible.

Unleash your welding performance with G5-02.

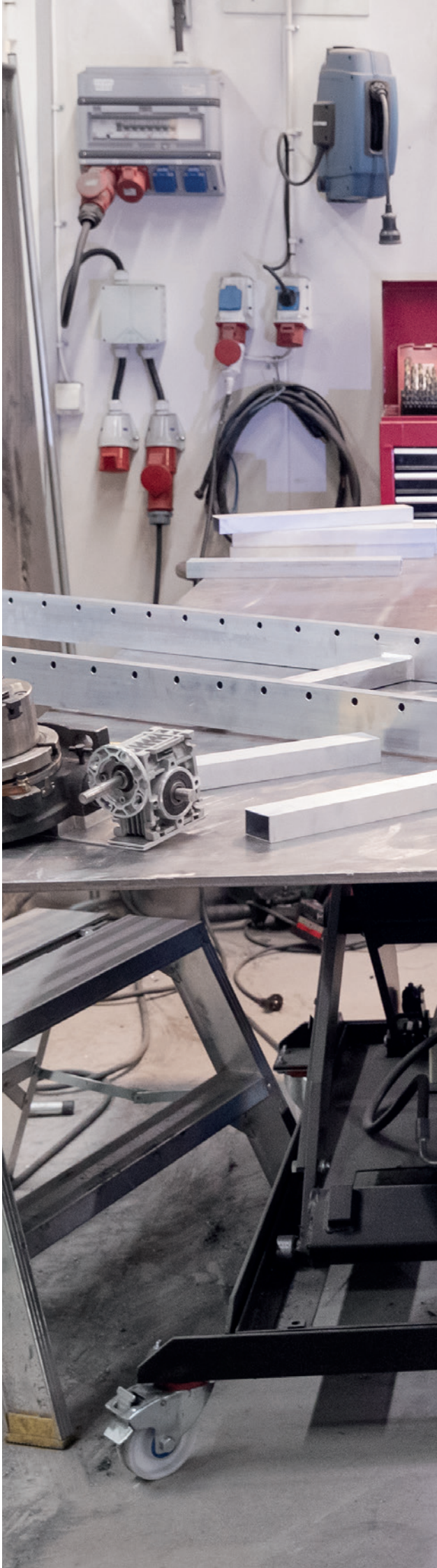
As a TIG welder, we know you value precision, visibility and comfort. At 3M, we listened to the needs of TIG welders and designed 3M™ Speedglas™ Welding Helmet G5-02 especially for you.

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 can concentrate on precision welding tasks when you are focused on the work, not the equipment.

We've made G5-02 as light as possible, with an extremely thin, curved filter glass pack. What's more, you'll notice that the centre of gravity is closer to the centre of your head, giving you better weight distribution.

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

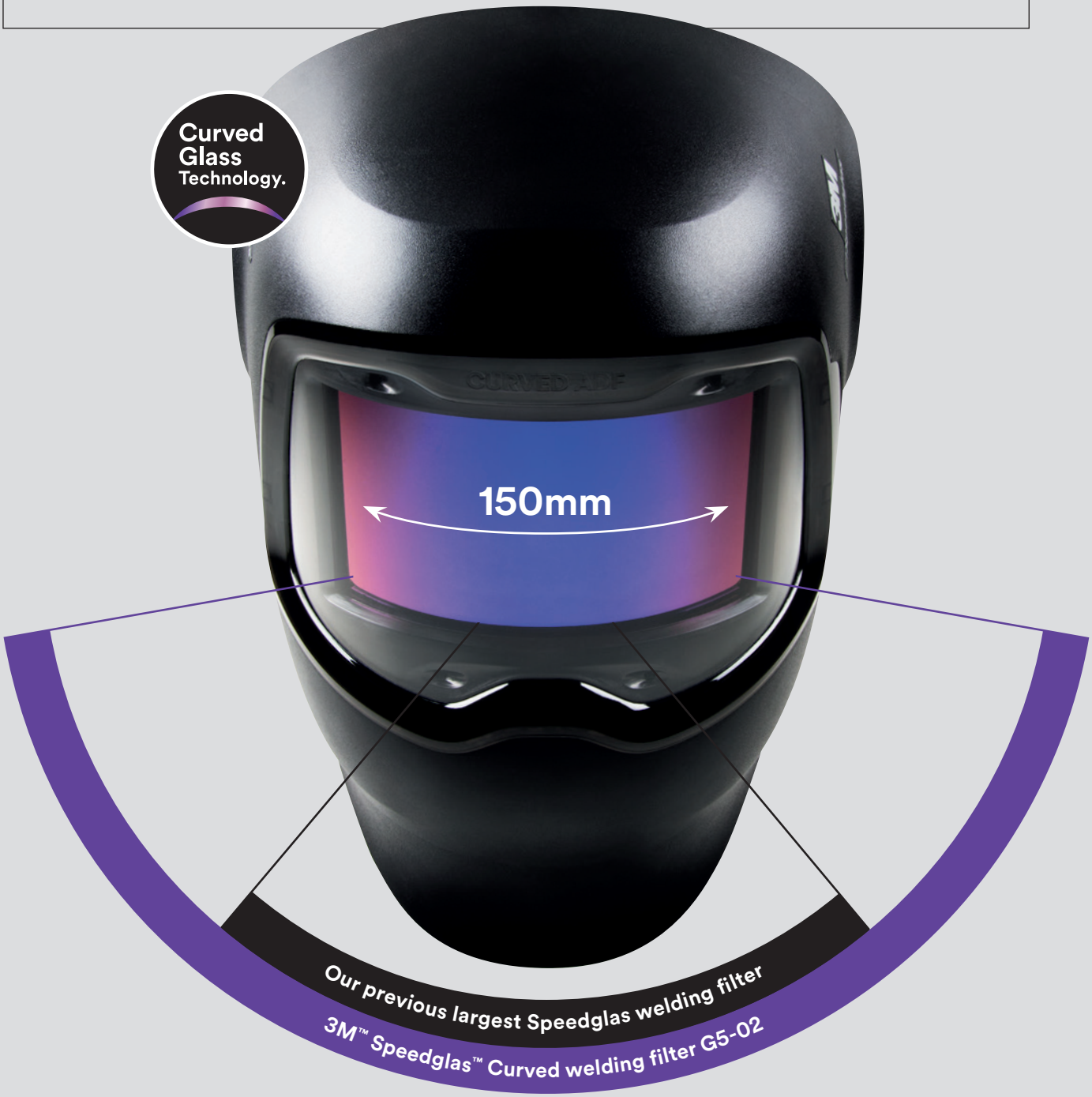



HITACHI
3M
RECOTEC

Why curved?

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

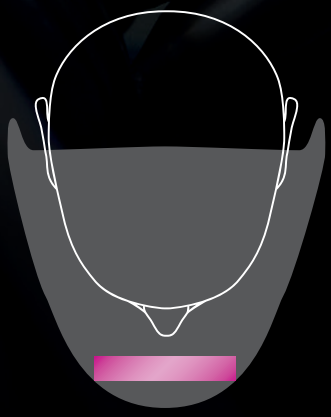
And the only way to get wider views without making the helmet wider is by inventing a curved filter.



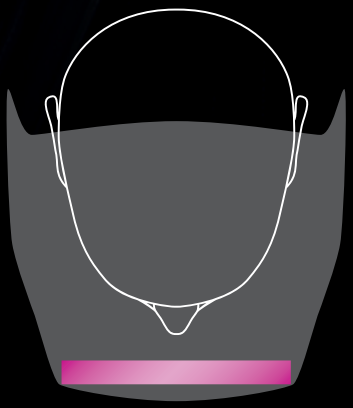
100% wider
Filter field of view

Get wider views in a slimmer helmet.

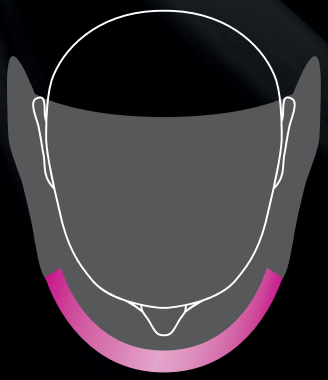
Previously, you had to compromise: either a slim helmet or a wide view. With the curved G5-02 welding filter, there are no compromises.



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



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



A curved filter 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 glare inside the helmet.



A brilliant light state.

Great clarity before with our new 2.5 light state, and during the weld, with our 3M™ Speedglas™ Natural Colour Technology. Colours appear brighter and more realistic in both the light and dark states. And a more realistic view enables better control over your arc.



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

Curved Glass Technology.

Is the curved glass more fragile than flat glass?



The glass we use in the G5-02 filter is actually extremely flexible. And the welding filter is certified using the same, standardised impact resistance tests used for traditional flat filters: the filter and protection plate meet EN 166:F and EN 175:F, meaning resistance to high speed particles at up to 45m/s. 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 welding filter.

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

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

The curved filter is manufactured in Sweden under clean room conditions using one-of-a-kind, custom-engineered machines.




3M

Work hard.
Breathe easy.

Complement your welding experience with Personal Protective Equipment from 3M™.

At 3M, we understand that your environment contains different hazards and risks and no two workplaces are the same. We offer a wide range of Personal Protective Equipment to keep you safe at work. From respiratory protection to eyewear and hearing protection, our solutions allow you to select the level and type of protection, comfort, style and maintenance requirements you need to work safely, comfortably and effectively.



Filtering Facepiece Respirators

Filtering facepiece respirators (FFR) are ideal for use in most applications where wearers require particulate protection e.g. dusts and mists. Filtering facepiece respirators are lightweight and maintenance-free, fitting underneath welding shields. Filtering Facepiece Respirators are available in a choice of cup-shaped or flat fold options, valved or unvalved and also with the option to protect against ozone and nuisance levels of organic vapours and acid gases.



Reusable Respirators

Reusable respirators offer protection against particulates, gases and vapours and combinations of the two. They can be cleaned, stored and reused provided they are in good condition. With a choice of integrated or replaceable filters, certain reusable respirators can be used under G5-02*.



Hearing Protection

Hearing protection must be right for you and your situation. For safety, productivity and comfort, it must reduce noise by the right amount, not too little and not too much. 3M can provide solutions for different individuals with a wide range of earplugs for use with G5-02*.

*Please contact 3M regarding compatibility



Curved consumables for the curved filter.

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

If you can't see the detail you need, try one of our magnifying lenses. For the G5-02 helmet they are curved (of course) and available in x1.5, x2.0 and x2.5 strengths.

Technical specifications

3M™ Speedglas™ Welding Helmet G5-02	
3M™ Speedglas™ Curved Glass Technology	✔
3M™ Speedglas™ Natural Colour Technology	✔
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 (approx.)	150 × 76 mm
Weight, helmet incl. welding filter	535 grams
Auto ON	✔
Bluetooth™ for 3M Connected Equipment App	✔
Battery lifetime (hours)	1500
Number of sensors (arc detection)	4
Classification	CE/ANSI
Approval helmet/welding filter	pr ISO 16321



Ready to experience the curved filter?

Designed for high-end TIG welders, the G5-02 helmet literally sets a new world standard for precision welding filter viewing. Be one of the first to experience 3M™ Speedglas™ Curved Glass Technology; order a complete helmet system:

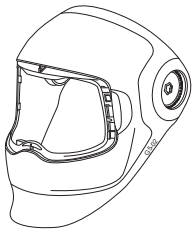


3M™ Speedglas™ Welding Helmet G5-02

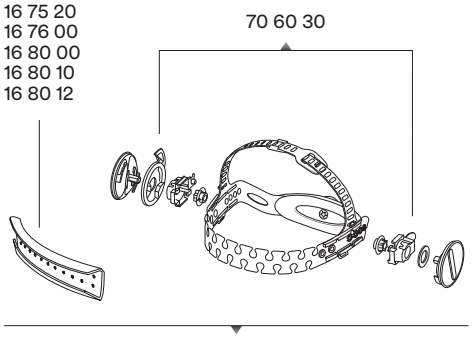
Including curved welding filter, headband, cleaning wipe and storage bag.

Part No 62 11 20

Parts list



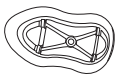
62 11 95



70 50 20



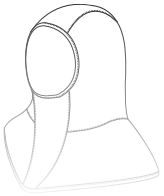
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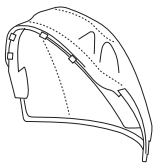
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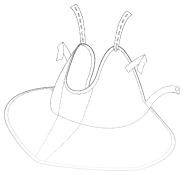
13 01 00



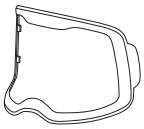
16 91 00



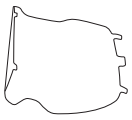
16 90 05



16 90 01



62 20 00



62 60 00







60 10 00

60 20 00

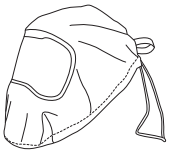


62 40 00

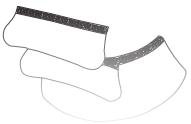
62 00 20



17 20 20
17 20 21
17 20 22



79 01 04



16 40 05

Part No	Description
13 01 00	3M cleaning wipe.
16 40 05	Ear and neck protection in leather (3 parts).
16 90 05	Head protection in fabric.
16 75 20	Sweatband, towelling, purple, pkg of 2.
16 76 00	Sweatband, towelling, pkg of 20.
16 80 00	Sweatband, leather.
16 80 10	Sweatband in fleecy cotton (length 24 cm), pkg of 2.
16 80 12	Sweatband in fleecy cotton (length 21 cm), pkg of 2.
16 90 01	Neck protection.
16 91 00	Hood black/grey.
17 20 20	Magnifying lens x1.5
17 20 21	Magnifying lens x2.0
17 20 22	Magnifying lens x2.5
53 62 10	Cushion part for headband
53 62 11	Large head rest
60 10 00	Battery holder.
60 20 00	Battery CR2450 Lithium 3V.
62 00 20	Curved welding filter G5-02, incl. inner and outer protection plates.
62 11 20	Helmet G5-02 with welding filter, headband, cleaning wipe and bag.
62 11 95	Helmet without welding filter, without headband, without front cover.
62 20 00	Front cover.
62 40 00	Inner protection plates, pkg of 2.
62 60 00	Scratch resistant outer protection plate, pkg of 5.
70 50 20	Headband with assembly parts and sweatband.
70 60 30	Assembly parts (pivots) for headband.
79 01 04	Helmet storage bag.

Ordering information

Thumbnail	Description	Article number
Kits		
	3M™ Speedglas™ Welding Helmet G5-02 Including curved welding filter, headband, cleaning wipe and storage bag	62 11 20
Welding helmet		
	3M™ Speedglas™ Welding Helmet G5-02 Without curved welding filter, headband, or front cover	62 11 95
	Front cover for 3M™ Speedglas™ Welding Helmet G5-02	62 20 00
Magnifying lenses		
	Magnifying lens x1.5	17 20 20
	Magnifying lens x2.0	17 20 21
	Magnifying lens x2.5	17 20 22
Welding filter		
	Curved welding filter G5-02, incl. inner and outer protection plates	62 00 20
Sweatbands and protective capes		
	Ear and neck protection in leather (3 parts)	16 40 05
	Head protection in fabric	16 90 05
	Sweatband, towelling, purple, (pack of 2)	16 75 20
	Sweatband, towelling, pkg of 20	16 76 00
	Sweatband, leather	16 80 00

Thumbnail	Description	Article number
	Sweatband in fleecy cotton (length 24 cm), pkg of 2	16 80 10
	Sweatband in fleecy cotton (length 21 cm), pkg of 2	16 80 12
	Neck protection	16 90 01
	Hood black/grey	16 91 00
Batteries		
	Battery CR2450 Lithium 3V	60 20 00
	Battery holder	60 10 00
Spare parts and accessories		
	3M cleaning wipe	13 01 00
	Cushion part for headband	53 62 10
	Large head rest	53 62 11
	Inner protection plates, pkg of 2	62 40 00
	Scratch resistant outer protection plate, pkg of 5	62 60 00
	Headband with assembly parts and sweatband	70 50 20
	Assembly parts (pivots) for headband	70 60 30
	Helmet storage bag	79 01 04



3M | Connected Safety

3M Connected Equipment App

- Opt-in 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 welding filter 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 G5-02 helmet

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

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