



## 3M™ Speedglas™ Welding Shield Series 100

### Description

- Easy to operate and maintain.
  - Use with 3M™ Speedglas™ Welding Filter 100V: Five adjustable dark shades 8-12 and a light shade of 3. Three sensitivity settings.
  - Use with 3M™ Speedglas™ Welding Filters 100S-10 and 100S-11 have single dark shades of 10 and 11, respectively, and a light shade of 3.
  - Dark shade can be increased to 13 or 14 using upgrade plates.
- Has three user selectable levels of detector sensitivity to ensure a reliable arc detection.
- Has excellent visibility in light state, shade 3, for easy welding preparation and after treatment.
- Multiple adjustments for highest comfort on helmet and headband.
- Can be used in conjunction with many reusable and maintenance-free respirators for welding.



### Common Applications

When used with recommended filters, are designed for most welding processes such as:

- MMA
- MIG/MAG
- TIG
- Plasma welding

#### **IMPORTANT NOTE**

Always wear ANSI approved safety spectacles as primary eye protection. Welding helmets are considered secondary eye protection.

### Approvals/Standards

- ANSI Z87.1
- ANSI Z89.1 (when used with a hard hat)
- CSA Z94.3

### Equipment Markings

#### Additional Markings



Shall be disposed of as electrical and electronic waste



Read the instructions before use

## Limitations of Use

- Only use with original 3M branded spare parts and accessories listed in the user instructions and within the usage conditions given in the technical specifications.
- The use of substitute components, decals, paint or other modifications not specified in these user instructions might seriously impair protection and may invalidate claims under the warranty or cause the product to be noncompliant with protection classifications and approvals.
- Eye protectors worn over standard ophthalmic spectacles may transmit impacts thus creating a hazard to the wearer.
- Use of this product in applications outside its intended use, such as laser welding/cutting, may result in permanent eye injury and vision loss.
- Severe burn injuries may result if these welding helmets are used for heavy-duty overhead welding applications where there is a potential for falling molten metal.
- Should the product fail to switch to the dark state in response to an arc, stop welding immediately and inspect the welding filter as described in the instructions. Continued use of a welding filter that fails to switch to the dark state may cause temporary vision loss. If the problem cannot be identified and corrected, do not use the welding filter, contact your supervisor, distributor or 3M for assistance.
- Materials which may come into contact with the wearer's skin are not known to cause allergic reactions to the majority of individuals. These products do not contain components made from natural rubber latex.
- Flashing light sources (i.e. flash tube strobe lights, safety warning lights, etc.) can trigger the welding filter causing it to flash even when no welding is occurring. This is inherent with all auto-darkening filter technology. This interference can occur from long distances and/or from reflected light.
- Welding areas must be shielded from such interference, or replace lights with an LED strobe light.

## Technical Specifications

Description	Value
Approximate Weight (including filter)	440 g (15.5 oz)
Viewing Area	100V Filter: 1.73 x 3.66 in (45 x 93 mm) 100S Filter: 1.73 x 3.66 in (45 x 93 mm)
Switching Time (light-dark)	0.1 ms (+23° C)
UV/IR Protection	Shade 12 (permanent)
Light State	Shade 3
Dark State	100V Filter: Shade 8-12 100S Filter: Shade 10 or 11
Fail/Safe State	Shade 5
Battery Type	Lithium 3V Type CR2032 (2)
Battery Lifetime	100V Filter: 1500 hours 100S Filter: 1500 hours
Operating Temperature	23°F to 131°F (-5°C to +55°C)
Head Size	50 – 64 cm (6.25 - 8 in)
Material Shield: Silver front frame: Headband: Faceseal:	PPA PA PA, PP, TPE, PE 50% Polyester, 50% Cotton

## Spare Parts and Accessories

Part Number	Description	Part Number	Description
<b>Spare Parts</b>			
07-0012-10BL	Speedglas welding helmet 100 Black with welding filter 100S-10	07-0012-31RD	Speedglas welding helmet 100 Razor Dragon*
07-0012-11BL	Speedglas welding helmet 100 Black with welding filter 100S-11	07-0012-31RS	Speedglas welding helmet 100 Raging Skull*
07-0012-31AH	Speedglas welding helmet 100 Aces High*	07-0012-31SE	Speedglas welding helmet 100 Steel Eyes*
07-0012-31BL	Speedglas welding helmet 100 Black*	07-0012-31SJ	Speedglas welding helmet 100 Skull Jewels*
07-0012-31BLQR	Speedglas welding helmet 100-QR with 3M hard hat H-701*	07-0012-31SR	Speedglas welding helmet 100 Steel Rose*
07-0012-31BY	Speedglas welding helmet 100 Boneyard*	07-0012-31TB	Speedglas welding helmet 100 Tribute*
07-0012-31BZ	Speedglas welding helmet 100 Blazed*	07-0012-31TW	Speedglas welding helmet 100 Trojan Warrior*
07-0012-31FC	Speedglas welding helmet 100 Future Combatant*	07-0012-31WP	Speedglas welding helmet 100 Wild-N-Pink*
07-0012-31IH	Speedglas welding helmet 100 Ice Hot*	07-0012-31XT	Speedglas welding helmet 100 Xterminator*
<b>Accessories and Consumables</b>			
02-0024-00	Sweatband, cotton fleece with padding	06-0500-57	Magnification plate 20x
02-0024-01	Sweatband, leather	06-0500-58	Magnification plate 25x
02-0690-00	Throat protection, black/grey	06-0500-59	Magnification plate 30x
04-0023-02	3M hard hat H-701R (unvented)	06-0700-83	Full Hood, black/grey
04-0290-00	Inside protection plate, 5/case	07-0000-10	Speedglas welding filter 100S-10, shade 10
04-0290-01	Inside protection plate, +1 shade, 5/case	07-0000-11	Speedglas welding filter 100S-11, shade 11
04-0290-02	Inside protection plate, +2 shade, 5/case	07-0000-31	Speedglas welding filter 100V, shade 8-12
04-0320-00	Batteries, 2/case	07-0012-00BL	Welding helmet black, without welding filter, without headband
05-0370-00	Battery cover	07-0024-02	Sweatband, fleece, 2/case
05-0655-00	Comfort headband with assembly parts	07-0200-51	Outside protection plate, standard, 10/case
05-0660-00	Assembly parts for headband	07-0200-52	Outside protection plate, scratch resistant, 10/case
06-0500-56	Magnification plate 15x	07-0200-53	Outside protection plate, high temperature, 10/case

Part Number	Description	Part Number	Description
07-0212-00SV	Silver front frame 100	06-0114-00QR	Rubber friction pads for quick release rail
07-0680-00	Holder for magnifier, 2/case	07-0112-00BL-QR	Welding helmet 100-QR without quick release rail, without welding filter, without hard hat
18-0099-68	Throat and side protector, leather	07-0114-00BL-QR	Welding helmet 100-QR with quick release rail, without welding filter, without hard hat
06-0014-00QR	Quick release rail for hard hat		

\*With Speedglas welding filter 100V

## IMPORTANT NOTE

Before use, the wearer must read and understand the *User Instructions* provided as part of the product packaging.

### Personal Safety Division

3M Center, Building 235-2W-70  
St. Paul, MN 55144-1000

3M PSD products are  
occupational use only.

### In United States of America

Technical Service: 1-800-243-4630  
Customer Service: 1-800-328-1667  
[3M.com/workersafety](http://3M.com/workersafety)

### In Canada

Technical Service: 1-800-267-4414  
Customer Service: 1-800-364-3577  
[3M.ca/Safety](http://3M.ca/Safety)

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