



## 3M™ Speedglas™ Welding Helmet 9100MP and 9100MP-Lite

### Description

- Multi Protection – 5 levels of protection: eye, face, head (safety helmet), respiratory and optional hearing protection (3M Speedglas Welding Helmet 9100 MP).
- Multi Protection – 5 levels of protection: eye, face, head (bump cap), respiratory and optional hearing protection (3M Speedglas Welding Helmet 9100 MP-Lite).
- Easy to operate and maintain.
- Two shade 5 passive side windows add peripheral welding vision.
- The hard hat shell is made from heat resistant polycarbonate and meets the ANSI Z89.1-2009 requirements for Type 1 Class G hard hats.
- An optional, aluminum fabric reflects radiant welding heat.
- Designed from inception to work in combination with our optional 3M™ PELTOR™ Earmuff Assembly M-985: low-profile hearing protection with liquid/foam ear cushions.
- A large (approx. 8 in. x 4.25 in.), curved, protective visor with excellent views up, down and peripherally.
- Meets the requirements of CSA Z94.3 and the high impact requirements of ANSI Z87.1 – 2010.
- Auto-Darkening Filter not included.
  - Compatible with all 3M™ Speedglas™ Filters 9100 (V, X, XX).
- Flip-up assembly for grinding and prep work.
- Ergonomic, adjustable head suspension for increased comfort, helmet stability and weight distribution.
- Suitable for grinding.



### Common Applications

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

- MMA
- MIG/MAG
- TIG
- Low amp TIG
- Grinding applications

#### **i** 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
- 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 non-compliant with protection classifications and approvals.
- It is important that the face seal is correctly mounted and fitted to provide the correct protection factor. Do not remove the welding helmet or turn off the air supply until you have vacated the contaminated area.
- Head tops used in aggressive environments or outside in direct sunlight may need to be replaced more frequently than head tops used occasionally indoors.
- 3M recommends a maximum life (shelf-life plus in-use life) of 4 years from the date of manufacture when stored in accordance with the recommended storage conditions for the head/bump protection part (helmet). Note: date of manufacture is molded on the helmet plastic part.
- When working in environments with intense light radiation that gives heat, environments with welding spatter or when high visibility is required, 3M Speedglas Safety Helmet Cover shall be used.
- 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.
- The side windows should be covered with the cover plates in situations when other welders are working beside you and in situations where reflected light can pass through the side windows.
- 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.
- Do not use for respiratory protection against unknown atmospheric contaminants or when concentrations of contaminants are unknown or immediately dangerous to life or health (IDLH).
- Do not use in atmospheres containing less than 19.5% oxygen (3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).
- Do not use these products in oxygen or oxygen-enriched atmospheres.
- Leave the contaminated area immediately if: Any part of the system becomes damaged, airflow into the head top decreases or stops, breathing becomes difficult, dizziness or other distress occurs, you smell or taste contaminants or irritation occurs.
- High winds above 2m/s, or very high work rates (where the pressure within the head top can become negative) can reduce protection. Adjust equipment as appropriate or consider an alternative form of respiratory protective device.
- Users must be clean-shaven where the respirator's face seal comes into contact with the face.
- This product meets the requirement of certain industrial eyewear standards and 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 practice and engineering controls.
- The safety helmet is made to absorb the energy of a blow by partial destruction or damage to the shell and the harness, and even though such damage may not be readily apparent, any helmet subjected to severe impact should be replaced.

- When working in cold environments an anti-fog visor plate shall be used due to risk of fogging.
- Do not use in high heat environments above the recommended maximum temperature.

## Technical Specifications

Description	Value
<b>Approximate Weight</b> 9100 MP (excl welding filter): 9100 MP-Lite (excl welding filter):	1000g (35.3oz) 810g (28.6oz)
<b>Viewing area:</b>	3M™ Speedglas™ 9100V Welding Filter: 1.77 x 3.66 in (45 x 93 mm) 3M™ Speedglas™ 9100X Welding Filter: 2.13 x 4.21 in (54 x 107 mm) 3M™ Speedglas™ 9100XX Welding Filter: 2.87 x 4.21 in (73 x 107 mm) 3M™ Speedglas™ 9100XXi Welding Filter: 2.87 x 4.21 in (73 x 107 mm)
<b>Switching Time (light-dark)</b>	0.1 ms (+23° C)
<b>UV/IR Protection</b>	Shade 13 (permanent)
<b>Light State</b>	Shade 3
<b>Dark State</b>	Shade 5, 8–13
<b>Fail/Safe State</b>	Shade 5
<b>Battery Type</b>	Lithium 3V Type CR2032 (2)
<b>Battery Lifetime</b>	3M™ Speedglas™ 9100V Welding Filter: 2800 hours 3M™ Speedglas™ 9100X Welding Filter: 2500 hours 3M™ Speedglas™ 9100XX Welding Filter: 2000 hours 3M™ Speedglas™ 9100XXi Welding Filter: 1800 hours
<b>Operating Temperature</b>	23°F to 131°F (-5°C to +55°C)
<b>Head Size</b>	50 – 64 cm (6.25 - 8 in)
<b>Material</b> Shield: Silver front frame: Side Windows: Head suspension: Safety helmet: Bump cap:	PPA PA PC PA, PP, TPE, PE PC + PBT HDPE

## Spare Parts and Accessories

Part Number	Description	Part Number	Description
<b>Spare Parts</b>			
37-1101-00SW	Welding helmet 9100 MP without welding filter, with Adflo PAPR and HE filter	37-5702-20SW	Welding helmet 9100 MP with welding filter 9100X and Fresh-air III SAR, V-100 valve
37-1101-10SW	Welding helmet 9100 MP with welding filter 9100V and Adflo PAPR with HE filter	37-5702-30SW	Welding helmet 9100 MP with welding filter 9100XX and Freshair III SAR, V-100 valve
37-1101-20SW	Welding helmet 9100 MP with welding filter 9100X and Adflo PAPR with HE filter	37-5902-10SW	Welding helmet 9100 MP with welding filter 9100V and Fresh-air III SAR, V-300 valve
37-1101-30SW	Welding helmet 9100 MP with welding filter 9100XX and Adflo PAPR with HE filter	37-5902-20SW	Welding helmet 9100 MP with welding filter 9100X and Fresh-air III SAR, V-300 valve
37-5702-00SWSR	Welding helmet 9100 MP without welding filter, with Fresh-air III SAR, V-100SR valve and Schrader fitting	37-5902-30SW	Welding helmet 9100 MP with welding filter 9100XX and Freshair III SAR, V-300 valve
37-5702-10SW	Welding helmet 9100 MP with welding filter 9100V and Fresh-air III SAR, V-100 valve		

Part Number	Description	Part Number	Description
<b>Accessories and Consumables</b>			
M-350	Versaflo replacement head suspension (not shown above)	06-0200-52-B	Part no 06-0200-52, 50/case
M-957	Versaflo forehead comfort pad/ sweat pad, 10/case	06-0200-52	Outside protection plate scratch resistant, 10/case
M-985	3M™ PELTOR™ Earmuff Assembly Kit	06-0200-53	Outside protection plate high temperature, 10/case
04-0320-00	Batteries, 2/case	06-0200-53-B	Part no 06-0200-53, 50/case
06-0000-10	Speedglas welding filter 9100V	06-0201-30	Starter kit 9100XX, incl 5 outside protection plates, 2 inside protection plates and 1 sweatband
06-0000-20	Speedglas welding filter 9100X	06-0202-10	Starter kit 9100V (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad
06-0000-30	Speedglas welding filter 9100XX	06-0202-20	Starter kit 9100X (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad
06-0000-30i	Speedglas welding filter 9100XXi	06-0202-30	Starter kit 9100XX (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad
06-0200-10	Inside protection plate 9100V, 5/case	06-0400-54	Headband back part
06-0200-10-B	Part no 06-0200-10, 25/case	06-0400-54-B	Part no 06-0400-54, 5/case
06-0200-20	Inside protection plate 9100X, 5/case	06-0400-55	Battery holder 9100, 2/case
06-0200-20-B	Part no 06-0200-20, 25/case	06-0400-55-B	Part no 06-0400-55, 10/case
06-0200-30	Inside protection plate 9100XX, 5/case	06-0700-51	Wide-view clear grinding visor, standard, 5/case
06-0200-30-B	Part no 06-0200-30, 25/case	06-0700-54	Wide-view clear grinding visor, anti-fog, 5/case
06-0200-51	Outside protection plate standard, 10/case	06-0700-63	Front panel, chrome
06-0200-51-B	Part no 06-0200-51, 50/case	06-0700-64	Wide-view clear grinding visor frame, black

Part Number	Description	Part Number	Description
06-0700-73	SideWindow cover plates, 2/case	27-0099-68	Outer shield
27-0099-28	Face seal	27-0099-72	Hard hat incl pivot kit
27-0099-35SW	Welding helmet 9100 MP with hard hat, without welding filter	27-0099-84	Radiant heat hard hat cover for 9100 MP helmet
27-0099-52	Pivot kit	27-0099-85	Throat and neck coverage
27-0099-53	Flip-up mechanism	27-0099-87	Complete neck coverage for 9100MP
27-0099-63	Inner shield		

## IMPORTANT NOTE

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

## WARNING

Filtering facepiece particulate respirators are intended to help reduce breathing in airborne particles such as dust. If you do not follow all instructions and limitations on the use of the respirator and/or do not wear the respirator during all times of exposure to the airborne particles the respirator may not be as effective. The respirator cannot stop the breathing in of all particles in the air and does not eliminate the risk of symptoms or sickness. **Misuse may result in sickness or death.** For correct use of a respirator, consult the supervisor and *User Instructions*, or call 3M in the U.S.A. at 1-800-247-3941.



### 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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