

3M™ Speedglas™ Welding Helmets 9100 MP and 9100 MP-Lite

Technical Data Sheet



Product 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
- Compatible with all 3M™ Speedglas™ 9100 Series Welding Filters and protection plates
- Large (17x10 cm), curved clear protective visor with excellent field of view
- Side windows
- Robust solution
- Suitable for grinding

Applications

The product is excellent for welding preparations such as grinding thanks to the large clear viewing area. It is designed to be used with 3M Air Delivery Units. See appropriate reference leaflet for approved combinations.

The 3M Speedglas welding helmets 9100 MP and 9100 MP-Lite together with 9100 Series Welding Filters are designed for most welding processes, such as:

- MMA (Stick)
- MIG/MAG
- TIG
- Low amp TIG

Approvals

The products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and is thus CE marked. 3M™ Speedglas™ Welding Helmet 9100 MP comply with the harmonized European Standards EN 175, EN 166 and EN 397. 3M™ Speedglas™ Welding Helmet 9100 MP-Lite comply with the harmonized European Standards EN 175, EN 166 and EN 812. The complete 3M™ Speedglas™ 9100 MP/9100 MP-Lite Respiratory Systems complies with the harmonized standards EN 12941 and EN 14594. Speedglas welding helmets 9100 MP and 9100 MP-Lite with powered air respirators or supplied air regulators units marked CE0194 have had certification under Article 10, EC Type Examination and Article 11, EC Quality Control issued by INSPEC international Ltd. Speedglas welding helmets 9100 MP and 9100 MP-Lite with powered air respirators or supplied air regulators units marked CE0086 have had certification under Article 10, EC-Type Examination and Article 11, EC Quality Control issued by BSI.

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.
- 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 moulded 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.
- 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
- 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 should 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.

Materials

Shield:	PPA
Front cover:	PA
Side windows	PC
Head suspension:	PA, PP, TPE, PE
Safety helmet:	PC + PBT
Bump cap:	HDPE

Technical specifications

Weight welding helmet:	
9100 MP (excl welding filter):	1000g
9100 MP-Lite (excl welding filter):	810g
Viewing area visor plate:	100 x 170 mm
Operating temperature:	-5°C to +55°C
Head sizes:	51-64 cm

Spare parts, accessories and consumables

16 10 10	Sweatband 9100 MP, pkg of 2
16 80 11	Sweatband 9100 MP-Lite, for TH3 level of protection pkg of 2 (not included in M-150)
16 90 14	Safety helmet cover
16 90 15	Shroud
19 71 50	Flip-up mechanism
19 71 51	Pivot kit
52 30 00	Visor plate, standard, pkg of 5
52 30 00	Visor plate, anti-fog, pkg of 5
52 20 16	Side window
53 42 00	Face seal
53 50 01	Helmet air flow deflector 9100 MP-Lite
53 62 00	Headband ratchet
54 05 00	Front cover kit
57 04 95	Outer shield
57 08 95	Inner shield
57 28 00	Welding helmet 9100 MP, without welding filter
59 28 00	Welding helmet 9100 MP-Lite, without welding filter
89 60 55	Safety helmet 9100 MP, incl head suspension and sweatband
89 60 56	Bump cap 9100 MP-Lite, incl head suspension and sweatband
79 01 01	Product storage bag
M-150	Head suspension for 9100 MP-Lite
M-350	Head suspension for 9100 MP
M-958	Chin strap
X1P3	3M™ PELTOR™ Ear Muffs X1 (26 dB) ¹⁾
X2P3	3M™ PELTOR™ Ear Muffs X2 (30 dB) ¹⁾
X3P3	3M™ PELTOR™ Ear Muffs X3 (32 dB) ¹⁾
X4P3	3M™ PELTOR™ Ear Muffs X4 (32 dB) ¹⁾
X5P3	3M™ PELTOR™ Ear Muffs X5 (36 dB) ¹⁾
Z3AF/2	Helmet assembly parts for Peltor X-series ear muffs, left and right

1) Add assembly parts Z3AF/2 when ordering ear muffs for 9100 MP and 9100 MP-Lite welding helmets

IMPORTANT NOTICE

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product it is recommended to complete some trials to validate the performance of the product within its expected application.

All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the 3M product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures). Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.