

Technical Datasheet

3M™ Speedglas™ 9100 FX Welding shield
3M™ Speedglas™ 9100 FX Air Welding shield

Description:

3M Speedglas 9100 FX Series Welding Shields:

- Is easy to operate and maintain.
- Has multiple adjustments for highest comfort on Shield and head band.
- Can be used together with many 3M Reusable and Maintenance Free Respirators for welding. (non air version)
- Large Clear Visor
- SideWindows
- Exhaust vent (non air version)

Applications:

The Speedglas 9100 FX Series Welding Shields together with 9100 Series Welding Filters are designed for most welding processes, such as MMA, MIG/MAG, TIG, plasma welding and oxyacetylene welding/cutting.
The Speedglas 9100 FX Welding Shield is excellent for welding preparations such as grinding thanks to the large clear viewing area.
The Speedglas 9100 FX Air Welding Shield is designed to be used with 3M Air Delivery Units. See appropriate reference leaflet for approved combinations.

Approvals:

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and are thus CE marked. The products comply with the harmonized European Standards EN 175 and EN 166. Certification under Article 10, EC Type-Examination has been issued by DIN Certco Prüf- und Zertifierungszentrum (Notified body number 0196). Speedglas 9100 FX air respiratory systems complies with the harmonized standards EN 12941 resp EN 14594. Certification under article 11, EC quality control has been issued by INSPEC International Ltd (Notified body number 0194).

Equipment Marking:

3M 1 BT N (1= optical class, BT=medium energy impact at extremes of temperatures (-5°C and +55°C), N=Resistance to fogging)
3M EN166 BT (medium energy impact at extremes of temperatures (-5°C and +55°C) BT)
3M EN175B (medium energy impact B)
3M EN12941 TH3 (nominal protection factor 500, higher strength requirement for breathing hose and couplings)
3M EN12941 TH2 (nominal protection factor 50, medium strength requirement for breathing hose and couplings)
3M EN14594 3B (nominal protection factor 200, higher strength requirement)
Additional markings on the product refer to other standards.

Mechanical Strength

EN 166, EN 175

No symbol	Minimum robustness
S	Increased robustness
F	Low energy impact (45 m/s)
B	Medium energy impact (120 m/s)
T	Tested at extremes of temperature (-5°C and +55°C)

Operating instructions:

Adjust the welding shield according to your individual requirements to reach the highest comfort and protection.

3M™ Speedglas™ FX air
Adjust and fit the Air Delivery Unit as outlined in the appropriate User Instruction. Adjust the face seal to suit the shape of the face.

⚠ It is important that the face seal is correctly mounted and fitted to provide the correct protection factor. Do not remove the welding shield or turn off the air supply until you have vacated the contaminated area.

Limitations of use:

⚠ Only use with original 3M Speedglas brand spare parts and accessories listed in the reference leaflet and within the usage conditions given in the Technical Specifications.

⚠ The use of substitute components or 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.

⚠ The Speedglas welding shield is not designed for heavy duty overhead welding/cutting operations due to the risk of burns from falling molten metal.

⚠ The SideWindows 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 SideWindows.

⚠ 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.

3M™ Speedglas™ FX air

⚠ 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 headtop 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 headtop 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.

Spare parts, accessories and consumables:

Part no. Spare parts	Description
53 20 16	SPEEDGLAS 9100 FX SideWindow cover plate (2-pairs)
53 30 00	SPEEDGLAS 9100 Headband including assembly parts
53 35 00	SPEEDGLAS 9100 FX Airduct assembly
53 60 00	SPEEDGLAS 9100 Pivot mechanism, left and right for headband
53 61 00	SPEEDGLAS 9100 Headband front part
53 62 00	SPEEDGLAS 9100 Headband back part
54 05 00	SPEEDGLAS 9100 FX Front cover kit
54 18 90	SPEEDGLAS 9100 FX SideWindows Shield without headband, welding filter, faceseal and airduct

Accessories

16 90 06	Head protection, TecaWeld (small)
16 90 07	Head protection, TecaWeld (large)
16 91 00	Hood black/grey TecaWeld
16 90 10	Additional coverage neck & ear TecaWeld
53 35 05	Adaptor when using breathing tube for Adflo PAPR without QRS connection
53 35 06	Adaptor when using SPEEDGLAS 9000 Welding Shields with QRS Breathing tubes
53 50 00	SPEEDGLAS 9100 FX Air, Air Deflector
79 01 01	SPEEDGLAS 9100 Product carry bag

Consumables

16 80 15	SPEEDGLAS 9100 Sweatband pkg of 3
52 30 00	Visor plate (standard), pkg of 5
52 30 01	Visor plate (anti-fog), pkg of 5
53 40 00	Speedglas 9100 FX Face seal

Technical specification

Weight	
Welding shield with SideWindows (excl headband and welding filter)	430 g
Welding shield with airduct, with SideWindows (excl headband and welding filter)	640 g
Headband	135 g
Viewing area	
Visor plate	100 x 170 mm
Operating temperature	-5ºC to +55ºC
Head sizes	50 – 64
Material:	
Shield:	PPA
Silver front frame:	PA
SideWindows:	PC
Headband:	PA, PP, TPE, PE

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