# Technical Datasheet

## 3M™ Speedglas™ 9100 Welding Shield
## 3M™ Speedglas™ 9100 Air Welding Shield

## Description:

3M Speedglas 9100 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 Reusable and Maintenance Free Respirators for welding. (Non air version)
- SideWindows
- Exhaust vent (Non air version)

## Applications:

The Speedglas 9100 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 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. Certificationunder Article 10, EC Type-Examination has been issued by DIN Certco Prüf- und Zertifierungszentru (Notifiedbody number 0196). Speedglas 9100 Air respiratory systems complies with the harmonized standards EN 12941 and EN 14594. 3M Speedglas 9100 Air systems incorporating powered air filterunits or supplied air regulators units marked CE0194 have had certificationunder Article 10, EC-Type Examination and Article 11, EC Quality Control issued by INSPEC International Ltd.3M Speedglas 9100 Air systems incorporating powered air filterunits or supplied air regulators units marked CE0086 have had certificationunder Article 10, EC-Type Examination and Article 11, EC Quality Control issued by BSI.

## Equipment Marking:

3M EN175B (medium energy impact B)
3M EN12941 TH2 (nominal protection factor 50, medium strength requirement for breathing hose and couplings)
3M EN14594 2B (nominal protection factor 50, 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™ 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 Spare Parts and Accessories listed in the reference leaflet 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.

⚠ 3M Speedglas Welding Shields are 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 (see fig I:1)

⚠ 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™ 9100 Air Welding Shield

⚠ 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).



Rev 2013-02-05

⚠ 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.

## Spare parts, accessories and consumables:

| Part no. Spare parts | Description |
|---|---|
| 53 20 00 | SPEEDGLAS 9100 Silver front |
| 53 30 00 | SPEEDGLAS 9100 Headband including assembly parts |
| 53 37 00 | SPEEDGLAS 9100 Air, back part airduct |
| 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 |
| 56 08 90 | SPEEDGLAS 9100 SideWindows Shield without headband, welding filter and faceseal |
| **Consumables** | |
| 16 80 15 | SPEEDGLAS 9100 Sweatband pkg of 3 |
| 53 41 00 | SPEEDGLAS 9100 Air Faceseal |
| **Accessories** | |
| 16 90 05 | SPEEDGLAS 9100 Additional coverage crown |
| 16 90 10 | SPEEDGLAS 9100 Additional coverage neck & ear |
| 16 91 00 | Hood neck/head |
| 53 20 15 | SPEEDGLAS 9100 Coverplate SideWindows |

## Technical specification

| | |
|---|---|
| Weight<br>Welding shield with SideWindows (excl headband and welding filter)<br>Welding shield with airduct, with SideWindows (excl headband and welding filter)<br>Headband | <br>275 g<br><br>470 g<br><br>135 g |
| Operating temperature | -5ºC to +55ºC |
| Head sizes | 50 – 64 |
| Material:<br>Shield:<br>Silver front frame:<br>SideWindows:<br>Headband:<br>Faceseal: | <br>PPA<br>PA<br>PC<br>PA, PP, TPE, PE<br>50%Polyester, 50%Cotton |