



## 3M™ Speedglas™ Welding Helmet G5-03 Pro and G5-03 Pro Air

### Product Description



- Attachment system for additional protective accessories
- TAP function suitable for grinding and cutting
- Task light as an accessory, powered by 3M™ Adflo™ Battery (where applicable) or a separate head band mounted battery
- Adjustable air flow distribution (Pro Air)
- Class TH3 CE, NPF 500 (Pro Air with particle filters)
- Class TH2 CE, NPF 50 (Pro Air) with gas and vapor filters and breathing tube
- Compatible with selected 3M safety helmets (Pro)

### Applications

This product helps protect the wearer's eyes and face from sparks, spatter, harmful ultraviolet radiation (UV) and infrared radiation (IR) resulting from certain arc gas welding processes. The G5-03 Pro Air welding helmet also protects against certain airborne contaminants when used with an approved air delivery unit. The Speedglas welding helmets G5-03 is designed for:

- Most welding processes, such as: MMA (Stick), MIG/MAG, TIG, Low amp TIG
- Cutting
- Grinding

### Approvals

The PPE is marked and in conformity with the applicable National and European Regulations, Directives and Standards as listed in table below, which also contains information about the Authorised Body that has issued the type-Examination certificate for the PPE (Module B) and when applicable, the Authorised Body responsible for the surveillance of the quality system of the manufacturing of the PPE (Module D). The applicable type-examination Certificates and Declaration of Conformity are available at [www.3M.com/welding/certs](http://www.3M.com/welding/certs).

Table 1: Approvals

| Standard/Directive/<br>Regulation                                                                   | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|-----|-----|-----|-----|-----|--|-------|-----|-----|-----|-----|-----|-----|--|---|---|---|--|--|--|
| ISO 16321-1                                                                                         | Eye and face protection for occupational use Part 1: General requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| ISO 16321-2                                                                                         | Eye and face protection for occupational use<br><br>Part 2: Additional requirements for protectors used during welding and related techniques<br><table><tr><td rowspan="3">EN ISO 16321</td><td colspan="7">Tested Headform*</td></tr><tr><td>1-C12</td><td>1-S</td><td>1-M</td><td>1-L</td><td>2-S</td><td>2-M</td><td>2-L</td></tr><tr><td></td><td>←</td><td>✓</td><td colspan="4">→</td></tr></table> <p>*Tête factice testée, Getestete Kopfform, Testa testata, Cabezal probado, Geteste hoofdvorm, Testad huvudform, Testet hovedform, Testet hodeform, Testattu päämuoto, Testa testata, Cabeça testada, Δοκιμασμένο σχήμα κεφαλής, Testowany model głowy, Tesztelt fejforma, Testovaná forma hlavy, Testovaná forma hlavy, Preizkušeni model glave, צורת ראש נבדקת, Testitud peakuju, Pārbaudīta galvas forma, Išbandyta galvos forma, Forma capului testate, Протестированная модель головы, Перевірена модель голови, Testiran model glave, Тестван модел на глава, Testiran model glave, Test Edilmiş Kafa Şekli, Тексерілген бас пішіні, 经过测试的头模</p> | EN ISO 16321 | Tested Headform* |     |     |     |     |     |  | 1-C12 | 1-S | 1-M | 1-L | 2-S | 2-M | 2-L |  | ← | ✓ | → |  |  |  |
| EN ISO 16321                                                                                        | Tested Headform*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
|                                                                                                     | 1-C12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              | 1-S              | 1-M | 1-L | 2-S | 2-M | 2-L |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
|                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ←            | ✓                | →   |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| EN 12941:1998 A2:2008                                                                               | Respiratory protective devices - Powered filtering devices incorporating a helmet or hood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| (EU) 2016-425                                                                                       | Personal Protective Equipment (PPE) Regulation<br><br>Personal Protective Equipment Regulations (Regulation 2016/425 on personal protective equipment, as amended to apply in GB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| Notified Body No. 0196<br>Module B                                                                  | DIN CERTCO Gesellschaft fuer Konformitaetsbewertung mbH, Alboinstrasse 56, 12103 Berlin, Germany                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| Approved Body No. 2571<br>(Module B)                                                                | TUV Rheinland UK, Friars Gate (Third Floor), 1011 Stratford Road, Shirley, Solihull B90 4BN, UK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| Notified Body No. 2797<br>Module B, Module D                                                        | BSI Group, The Netherlands B. V. Say Building, John M. Keynesplein 9, 1066 EP Amsterdam, The Netherlands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| Approved Body No.0086<br>Module B, Module D                                                         | BSI Assurance UK Ltd, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, UK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| Australian/New Zealand<br>Standard                                                                  | Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| AS/NZS 1337.1:2010                                                                                  | Personal eye protection Part 1: Eye and face protectors for occupational applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| AS/NZS 1716:2012                                                                                    | Respiratory protective devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| <br>Manufacturer | 3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| EU Contact Address                                                                                  | 3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |
| UK Contact Address                                                                                  | 3M UK, Cain Rd, RG12 8HT, UK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |                  |     |     |     |     |     |  |       |     |     |     |     |     |     |  |   |   |   |  |  |  |



= Auto darkening welding filters shall be disposed of as electrical and electronic waste.

## Limitations of Use

- Only use with original 3M spare parts and accessories listed in the reference leaflet and within the usage conditions given in the Technical Specification.
- 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.
- The Speedglas welding helmet is not designed for overhead welding/cutting operations when there is a risk of burns from falling molten metal.
- 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.

## Welding Helmet G5-03 Pro 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 head top decreases or stops, breathing becomes difficult, dizziness or other distress occurs, you smell, or taste contaminants or irritation occurs.
- High winds above 2 m/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.
- Do not remove the welding helmet or turn off the air supply until you have vacated the contaminated area.
- Respiratory filters shall only be fitted to the turbo unit and not directly to the helmet/hood.

## Welding Helmet G5-03 Pro

- This product is not a respirator. Welding may produce high levels of welding fume or other airborne contaminants which may exceed the Occupational Exposure Limit (OEL). As a result, users and their employer must determine the expected hazards, and if needed select appropriate respiratory protection. Properly selected, used, and maintained respirators in a full respiratory protection program help protect against certain airborne contaminants by reducing airborne concentrations in the wearer's breathing zone below the OEL. Failure to use respirators or misuse of respirators may result in overexposure to contaminants and lead to sickness or death.

## Materials

|              |                          |
|--------------|--------------------------|
| Helmet       | PPA                      |
| Side windows | PC                       |
| Front frame  | PPA                      |
| Head band    | PA, PP, TPE, PE          |
| Face seal    | Co/Polyester 50/50% + PP |

## Technical Properties

| Specification                                                     | Value                                                                   |
|-------------------------------------------------------------------|-------------------------------------------------------------------------|
| Weight welding helmet (excl. headband and welding filter)         | G5-03 Pro: 280g G5-03 Pro Air: 530 g                                    |
| Weight headband                                                   | 145 g                                                                   |
| Head sizes                                                        | 50-64                                                                   |
| Operating Conditions                                              | -5 °C (23 °F) to +55 °C (131 °F), RH ≤ 90%, non condensing conditions   |
| Storage Conditions                                                | -20 °C (-4 °F) to +55 °C (131 °F), RH ≤ 90%, non-condensing conditions  |
| Short-term storage temperature conditions, non-operating <1 month |                                                                         |
| Welding helmet                                                    | -30 °C (-22 °F) to +60 °C (140 °F), RH ≤ 90%, non-condensing conditions |
| Expected service life                                             | 5 years depending on conditions of use                                  |

## Spare Parts, Accessories, and Consumables

| Part number | Description                                                                                          |
|-------------|------------------------------------------------------------------------------------------------------|
| 16 90 40    | Neck protection rigid                                                                                |
| 16 90 41    | Neck protection in fabric (small)                                                                    |
| 16 90 42    | Neck protection in fabric (large)                                                                    |
| 16 90 43    | Neck protection in leather                                                                           |
| 16 90 20    | Head protection cover in fabric                                                                      |
| 16 90 21    | Head protection cover florescent yellow                                                              |
| 16 90 22    | Head protection cover in leather                                                                     |
| 16 90 23    | Head protection cover in fabric (large)                                                              |
| 16 90 24    | Scrape guard G5-01/03                                                                                |
| 16 90 30    | Shroud                                                                                               |
| 16 90 35    | Extended cover kit (shroud and large head cover in fabric)                                           |
| 16 91 00    | Protective hood in fabric                                                                            |
| 16 92 00    | Task Light, including mounting parts and cables                                                      |
| 16 92 15    | Task Light Kit, (light, cable, holder with cable and battery)                                        |
| 16 92 10    | Long power cable for task light                                                                      |
| 16 92 11    | Short power cable for task light                                                                     |
| 16 92 05    | Protection plate for task light, pkg. of 5                                                           |
| 16 92 16    | Welding helmet task light holder for battery with attachment parts                                   |
| 16 92 17    | Task Light                                                                                           |
| 19 17 70    | Safety helmet adapters type A (X5000)                                                                |
| 19 71 71    | Safety helmet adapters type B (G3000/H700)                                                           |
| 19 80 16    | Sweatband towelling, pkg. of 3                                                                       |
| 19 80 17    | Sweatband fleecy cotton, pkg. of 3                                                                   |
| 19 80 18    | Sweatband leather                                                                                    |
| 53 62 10    | Head rest, small                                                                                     |
| 53 62 11    | Head rest, large                                                                                     |
| 61 05 01    | Front frame                                                                                          |
| 61 32 00    | Headband with assembly parts                                                                         |
| 61 37 00    | Air duct breathing tube (short) incl. holder                                                         |
| 61 37 01    | Holder for breathing tube                                                                            |
| 61 40 00    | Face seal                                                                                            |
| 61 60 00    | Pivot and sliding mechanism, including pivot knobs                                                   |
| 61 60 02    | Pivot knobs                                                                                          |
| 61 60 03    | Headband back part                                                                                   |
| 63 18 95    | Welding Helmet G5-03 Pro, without welding filter, front frame and headband                           |
| 63 20 15    | Side windows cover plates                                                                            |
| 63 28 90    | Welding Helmet G5-03 Pro Air with air duct and airflow controls, without welding filter, front frame |
| 79 01 05    | Carry bag                                                                                            |
| ACK081      | Rechargeable battery                                                                                 |
| AL2AI/SP    | Battery Charging Cable for ACK081                                                                    |
| G3001NVE    | 3M™ Safety Helmet G3001                                                                              |
| G3501       | 3M™ Safety Helmet G3501                                                                              |
| X5500NVE    | 3M™ Safety Helmet X5500NVE (non-vented)                                                              |

## 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.

