

# Safety Solutions for the Metal Industry.

The latest  
innovations from 3M.  
2019

# Safety Solutions for the Metal Industry.

You can rely on personal protective equipment from 3M: for more than 40 years, we have been developing effective and individual PPE solutions for the metalworking industry.

From steel works to aluminium smelters, from welding works to lead recycling: we understand user requirements and work together with them to create a safer working environment. Through innovations, we ensure a high level of both safety and comfort in demanding work environments. The metal industries are faced with a multitude of dangers, identifying those hazards and the best protection solution is not always easy. 3M can help to support you through this process and help you make correct decisions based on your needs.

## Metal Production

Things are really hot here: from blast furnaces, to smelting pots, to refining recycled metals – extreme working conditions prevail so it is essential to completely protect your employees. 3M offers you optimal integrated respiratory, head, face and radiant heat protection solutions so your employees can work safely and productively.

## Metal Fabrication

### (semi-finished products)

In metal processing, the liquid metal may be further smelted, refined or alloyed or directly cast as pigs, ingots, billets, bloom or slabs. Further processing such as metal casting, hot and cold roll milling and forging operations processes can result in a variety of hazards, including extreme heat and IR radiation, metal fumes, gases, flying sparks and noise: personal protective equipment, which can consistently cope with the high demands and provides full protection, is indispensable.

## Metal Fabrication

### (finished products)

From metal to finished products: the basic material then undergoes further processing in all kinds of industries. These processes all involve typical metalworking tasks, such as welding, cutting, turning, drilling, milling, planing. At 3M, we provide suitable, reliable PPE for each of these applications and workplaces – so that your staff can focus on their tasks.

## Most common hazards in metal working



Airborne Hazards



Exposure to Noise



Eye Injuries



Heat



Falling Objects / Head Protection



Working at Heights



More information ...  
[www.3M.co.uk/safety/metal](http://www.3M.co.uk/safety/metal)



# Science of Safety.

3M's new Science of Safety approach can support you with guidance on:



**Selection**



**Training**



**Fit validation**

3M delivers consistent quality around the world helping you select the correct PPE for your workers, helping to ensure your workers are educated on the correct use of PPE and raising awareness of how important fit and comfort are to the health and wellbeing of your workforce.

For more information visit [www.3M.co.uk/safety/SOScentre](http://www.3M.co.uk/safety/SOScentre)

## 3M Science of Safety webinars.

Health and safety officials and employers have a duty to provide the correct safety equipment and training. Maintaining consistency in this area can prove difficult, hindering the health and safety process.

The Science of Safety webinar programme from 3M has been developed to help provide you with the latest facts, practical tips and more from 3M's industry-leading expert speakers. Each webinar lasts approximately 45 minutes and includes an opportunity to ask your questions direct to our experts.



**This is our timetable for 2019, more webinars to come for 2020**

Webinar	Month
How to implement a respiratory protection programme that really works	January
Managing a respiratory fit testing programme	February
The role of PPE and detection equipment in the control of confined space operations	March
PPE regulation and impact for hearing protection products	April
Welding – understanding respiratory hazards	June
Working at height: personal fall protection systems, PPE and communications	September
Implementing an effective head, eye and face protection programme	October
Development of an effective hearing conservation programme and the growing importance of situational awareness and communication	November

Visit [www.3M.co.uk/SOSwebinars](http://www.3M.co.uk/SOSwebinars) for more information and to register for upcoming events. If you have missed a topic or would like to revisit a session, all our webinars are available on demand after broadcast.



# Making great things possible. Comfortably.

**NEW**

**3M™ Aura™ Particulate Respirators 9300+Gen3 Series**

Safety and comfort are a top priority at 3M. The third generation of Aura™ respirator brings a number of improvements, combining impressive new technology with ergonomic design.

The new Cool Flow™ Comfort Valve opens easier to help reduce heat inside the respirator, delivering a more comfortable wearer experience.

# Features and Benefits

## Convenience of use

- › New upper and lower tabs
- › Simplified positioning and adjustment on the face with new 'grip' feature on the valve

## Cooler breathing – 3M™ Advanced Electret (Filter) Media (AEM)

- › High charge on filter fibres attracts particles from a wider capture area, enabling less filter media to be needed
- › Low initial breathing resistance

## New 3M™ Cool Flow™ Comfort Valve

- › Updated, modern and stylish design with clear cover lets you see new technology in action
- › Allows more hot air out to reduce heat buildup and increase comfort
- › Helps to minimise the risk of eyewear fogging from heat exiting through the media (certain models only)

## Clear vision

- › Embossed top panel helps re-direct exhaled air, reducing fogging of eyewear
- › Curved, low profile design conforms well to nose and eye contours – helps provide a good field of vision
- › Designed to be compatible with safety eyewear from 3M



## Engineered for comfort

- › New braided headbands for enhanced durability
- › Colour coded for easy identification (yellow for FFP1, blue for FFP2, red for FFP3)
- › 3-panel flat-fold design

## New 3M™ Safe Guard™ Product Authentication Process

- › Check online that your product is a genuine 3M manufactured product
- › Visit [3M.com/SafeGuard](https://www.3m.com/SafeGuard) for more information



**More information ...**  
**[www.3m.co.uk/auragen3](https://www.3m.co.uk/auragen3)**

## Applications

- |               |            |
|---------------|------------|
| › Crushing    | › Blasting |
| › Sanding     | › Cleaning |
| › Maintenance | › Forging  |





# Compact Hearing Protection for Improved Situational Awareness.

**NEW**

**3M™ PELTOR™ Electronic  
Earplug, EEP-100 EU**

3M™ PELTOR™ Electronic Earplug helps protect against harmful noise, whilst allowing ambient sounds to be heard at a level below 82dB.

It increases your ability to communicate with nearby colleagues, as well as hearing warning signals, approaching vehicles, or sounds in machines and processes.

# Features and Benefits

## Button

- › Intuitive one-button operation turns unit on, off, and selects volume settings (3)

## Hearing Protection

- › Replaceable communications eartip helps provide hearing protection in noisy environments. Multiple sizes and types designed to fit most ear canals

## Microphone Port

- › Helps minimize wind noise. Additional windscreen accessory also available

## Rechargeable

- › Charging contacts recharge the unit while in the case. Li-ion battery provides up to 16 hours of continuous operation

## Design

- › Corner radius designed to help soften contact zone and increase comfort

## Sealing Ring

- › Rubber sealing ring helps protect earplugs in wet and dirty environments

## Clear lid

- › Enables easy visibility of charging status when closed

## Charging Case

- › Pocket-sized storage and charging container. Including charging status indicator

## Micro B USB Charging Port

- › USB port enables the charging of the earplugs when plugged into a computer or wall socket (USB cable included)



**More information ...**

**[www.3M.co.uk/safety/EEP-100](http://www.3M.co.uk/safety/EEP-100)**

## Applications

- › Metal working
- › Welding
- › Construction & Maintenance
- › Ship Construction & Maintenance



# Designed to perform.

**NEW**

**3M™ SecureFit™ 400X with  
3M™ Scotchgard™ Anti-Fog Coating**

Modern, stylish design combined with comfortable coverage? Believe it. The 3M™ SecureFit™ 400X Series features a wide range of temple and lens colour options and a contoured brow guard to help provide additional protection from flying particles.

With 3M™ Pressure Diffusion Temple Technology for a comfortable fit and Scotchgard™ Anti-Fog Coating (available in select models) for superior anti-fog protection, it's safety eyewear your workers will want to wear.



# Features and Benefits

## Scotchgard™ Anti-Fog Coating (select models)

- › Resists fogging longer than traditional anti-fog coatings, even after washing 25+ times with water\*
- › Helps workers see clearly for longer

## Contoured brow guard

- › Rests comfortably against forehead
- › Non removable brow guard helps provide additional protection from flying particles



## Soft nosepiece

- › Helps reduce slippage

## Polycarbonate lenses

- › Absorb 99.9% UVA & UVB rays
- › Meets the requirements of EN 166:2001

## 3M™ Pressure Diffusion Temple Technology

- › Helps diffuse pressure over the ear for a secure, comfortable fit



SF401XSGAF-GRN



SF401XSGAF-BLU



SF402XSGAF-BLU



SF407XSGAF-BLU



SF403XSGAF-YEL



SF422XSGAF-BLK



SF401XRAS-GRN



SF416XAS-BLK

\* 3M internal testing per EN 168 test method when compared with traditional anti-fog coatings.



**More information ...**  
**[www.3M.co.uk/safety/SF400x](http://www.3M.co.uk/safety/SF400x)**

## Applications

- |                        |                      |
|------------------------|----------------------|
| › Assembly             | › Machining          |
| › Drilling             | › Masonry            |
| › Facility maintenance | › Metal fabrication  |
| › Manufacturing        | › Pouring/casting    |
| › Machine operations   | › Primary metals     |
|                        | › Quality inspection |



# Breathing made easier.

**NEW**

## **3M™ Maintenance-Free Reusable Half Mask, 4000+ Series**

Engineered for improved breathing ease, this evolution of 3M's most popular maintenance-free reusable half mask is convenient to use, reassuringly reliable and now offers measurable improvements in comfort.

4 versions available, each offering effective protection against differing hazards in the workplace: FFA1P2 R D, FFA2P3 R D, FFABE1P3 R D, FFABEK1P3 R D



# Features and Benefits

## Breathing comfort

- › New enhanced exhalation valve assembly reduces breathing resistance by over 30%\*
- › Proven to consistently exceed CE standard requirements for breathing ease

## Convenient to use

- › Ready-to-use, maintenance-free construction with integrated filters
- › Designed to suit many eyewear and hearing protection models from 3M
- › Resealable bag provides convenient and clean storage between uses



## Wear comfort

- › Soft and flexible face seal
- › Lightweight and well-balanced mask
- › Low-profile and ergonomic design for optimal field of vision
- › Easily adjustable straps for secure, comfortable fit

## Proven reliability

- › First choice of 3M reusable respirator across Europe since its introduction over 25 years ago
- › Proven to consistently exceed minimum standards for filter service life

## Overspray Guard

- › 3M™ Overspray Guard 400+ is available to help prolong the life of the particulate filters



\* Exhalation breathing resistance of 3M™ 4000+ reduced by >30% for 120 lpm peak exhalation flow and >35 % for 160 lpm compared to 3M™ 4000 Series. Results measured by 3M in 2017 under laboratory conditions. Breathing rates shown as an example only.



**More information ...**  
**[www.3M.co.uk/4000plus](http://www.3M.co.uk/4000plus)**

## Applications

- |                 |               |             |
|-----------------|---------------|-------------|
| › Grinding      | › Maintenance | › Cutting   |
| › Sanding       | › Blasting    | › Polishing |
| › Light Welding | › Cleaning    | › Painting  |
| › Spraying      | › Forging     |             |



# Next-generation comfort, breathability and simplicity.

**NEW**

**3M™ Secure Click™ Reusable  
Half Mask HF-800 Series**



**Hear it.**

Work with the confidence, provided by the all new Secure Click connection, that filters/cartridges are installed properly. Simply align the connections and push to hear a click.



**Feel it.**

Experience the greater breathability and comfort provided by the world's first quad-flow gas and vapour filter/combination filter system.



**Check it.**

Increase worker confidence that the respirator is being worn properly with the easy, one-touch, user seal check.



**Say it.**

Utilise the speaking diaphragm designed to help provide easier communication while working.



# Features and Benefits

## Speaking Diaphragm

- › Designed to help provide easier communication while working

## Unique Filter & Cartridge Connection

- › Align the connections and push to hear a click

## Patented Silicone Flex-Joint Faceseal

- › Provides a softer feel for more comfort on the wearer's face

## Easy-Adjust Buckle

- › Simple two-way adjustability: pull straps to tighten, squeeze wings to loosen

## Push Button Seal Check

- › Provides increased worker confidence that the respirator is being worn properly

## Exhalation Valve

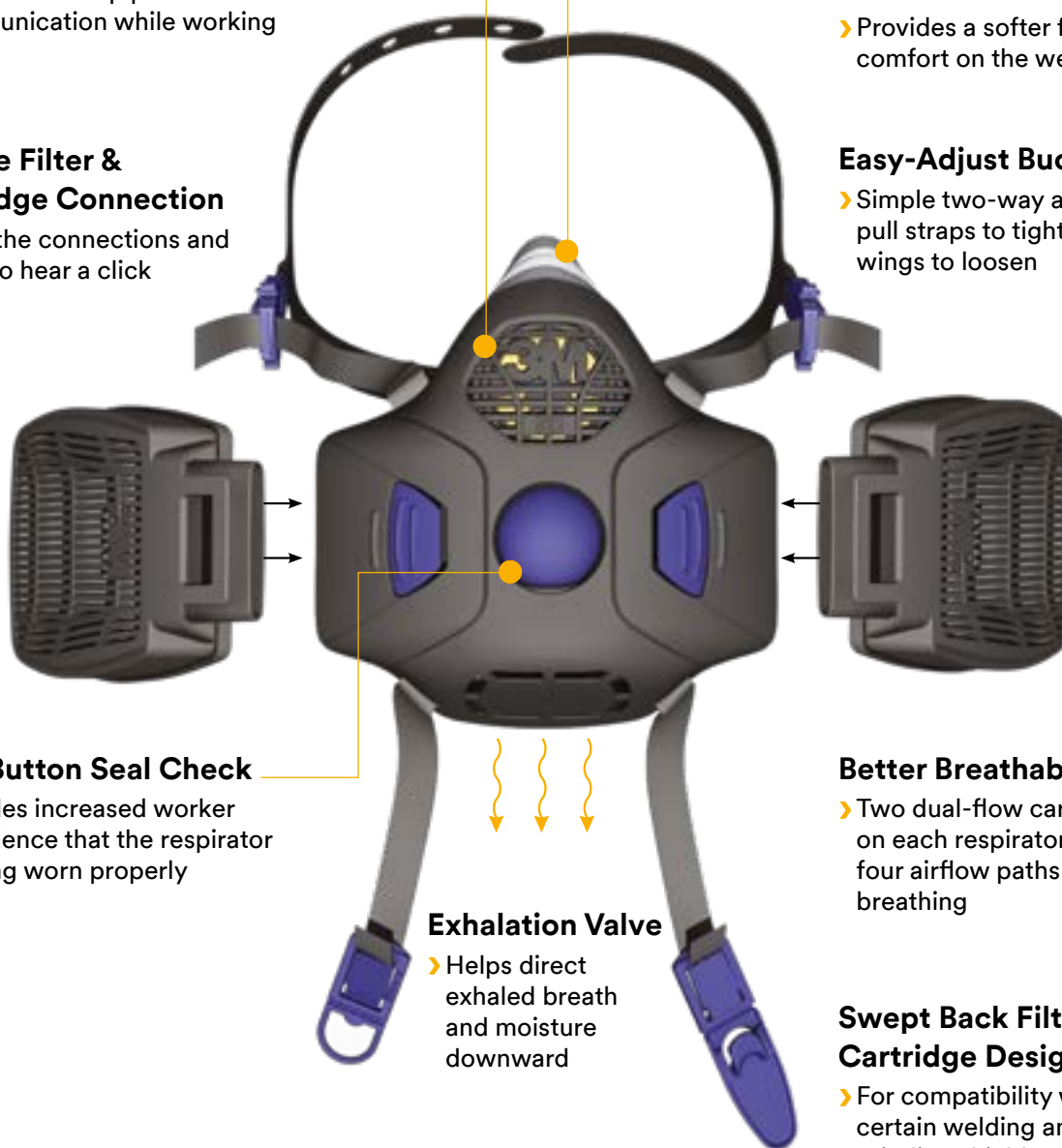
- › Helps direct exhaled breath and moisture downward

## Better Breathability

- › Two dual-flow cartridges on each respirator combine four airflow paths for easier breathing

## Swept Back Filter & Cartridge Design

- › For compatibility with certain welding and grinding shields



**More information ...**  
**[www.3M.co.uk/secureclick](http://www.3M.co.uk/secureclick)**

## Applications

- |                 |               |             |
|-----------------|---------------|-------------|
| › Grinding      | › Maintenance | › Cutting   |
| › Sanding       | › Blasting    | › Polishing |
| › Light Welding | › Cleaning    | › Painting  |
| › Spraying      | › Forging     |             |



# Comfort without compromise.

**NEW**

**3M™ SecureFit™  
Safety Helmet**

The new 3M™ SecureFit™ Safety Helmet is a climbing-style helmet that delivers all-day comfort without sacrificing security. From our proprietary design to our industry-leading innovations, the 3M™ SecureFit™ Safety Helmet is engineered by safety experts with workers in mind. The result is a revolutionary helmet design that delivers what workers need. Comfort without compromise.



# Features and Benefits

## Design

- › Climbing helmet-inspired design

## UV indicator

- › Proprietary UV indicator that lets wearer know when to replace helmet due to UV exposure

## Optional vents

- › Vented helmets are certified to either EN 12492 or EN 397 (depending on chin strap configuration), as well as EN 50365 1000 V standard

## Comfort

- › Suspension system incorporates exclusive patented Pressure Diffusion Technology
- › 4-point or 6-point ratchet suspension allows wearer to customise height and fit

## Individualization

- › Customise your fit with multiple levels of vertical adjustment

## Compatibility

- › Works with a variety of 3M faceshields, earmuffs, and other accessories



**More information ...**  
**[www.3M.co.uk/SecureFitX5000](http://www.3M.co.uk/SecureFitX5000)**

## Applications

- › Industrial workplaces



# The New Standard in Intrinsically Safe Respiratory Protection.

**NEW**

## **3M™ Versaflo™ Intrinsically Safe Powered Air Respirator TR-800 Series**

Intrinsically Safe (IS) Powered Air Turbo and Battery TR-800 Series are ATEX Certified for use in potentially explosive atmospheres whilst offering the comfort, modularity, control and ease of use expected from the 3M™ Versaflo™ platform.

The IS TR-800 Series is approved to Zone 0 requirements and so may be suitable for areas where potentially explosive atmospheres are expected and permanent in normal operations. As part of the 3M Versaflo family, when the IS TR-800 Series is combined with Versaflo headtops, belts, and other accessories, it becomes part of a CE-approved respirator system featuring: multiple speeds, audible and visual alarms and the ability to work with a wide variety of gas, vapour and particulate filters.



# Features and Benefits

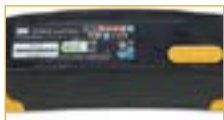


## Comfortable airflow

- › Three user selectable flow rates to maximise comfort
- › Controlled airflow delivers steady flow as battery discharges or filter loads with particulates

## Ease of use

- › IS TR-800 Series display shows battery charge status and particulate filter loading status during use
- › Battery charge indicator
- › Charge status is also indicated by a useful LED display on the battery



- › No user calibration of turbo required
- › Electronic audible and visual alarm in case of low battery and/or low air flow



## Easy identification

- › Bright yellow touchpoints to differentiate from non-IS versions of Versaflo Product Family



## Secure battery attachment

- › Mechanical attachment of battery to help prevent battery removal and spark risk during use per EN 60079-11

## Battery Protection

- › Battery features bumpers to help absorb impacts

## Motor/Blower Safety

- › Non-Mining Gas atmospheres (Group II)  
EN 60079-11 Ex ia IIB T4 Ga
  - ia – intrinsic safety for Equipment protection level Ga
  - IIB – Gas apparatus group
  - T4 – Max. surface temperature 135°C (-20°C ≤ Ta ≤ 55°C)
- › Non-Mining Dust atmospheres (Group III)  
EN 60079-11 Ex ia IIIC 135°C Da
  - ia – intrinsic safety for Equipment protection level Da
  - IIIC – Dust apparatus group
  - 135°C – Max surface temperature 135°C (-20°C ≤ Ta ≤ 55°C)

## Applications

- › Application of solvent based coatings, primers and paints\*, e.g. vehicle or aircraft paint spraying
- › Use of solvent based degreasers, cleaning liquids, etc.
- › Handling of fine organic or readily oxidised dusts, e.g. coking plants and blast furnaces
- › Gas and vapour emissions from primary metal production

\* May not be suitable for use in confined spaces. Check national regulations regarding suitability of spray painting isocyanate paints



**More information ...**  
**[www.3M.co.uk/versaflo800](http://www.3M.co.uk/versaflo800)**



# Farewell to Compromises.

**NEW**

## **3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01**

Based on extensive input from welders working at high amperages that need to grind frequently, the 3M™ Speedglas™ Heavy-Duty Welding Helmet G5-01 is created to be adaptable to an individual's needs and situation.

Designed for heavy-duty, high-amperage welding and grinding, the G5-01 welding helmet connects to the 3M™ Adflo™ Powered Air Respirator to provide TH3-rated respiratory protection (NPF 500). The robust Adflo respirator provides all of the features you would expect in a premium system, including easy-to-use functionality.

# Features and Benefits

## Comfort

- › New headband design (1)
- › Adjustment options (2)
- › Extra-large back pad (3)



## Easy to access and use controls

- › While wearing the helmet and your gloves

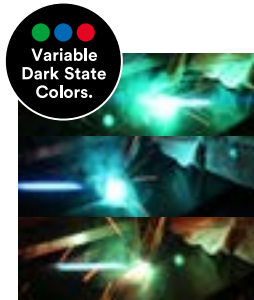


## Protection

- › Against radiation, sparks and spatter
- › Highest respiratory safety classifications for powered and supplied air respirators (TH3, B3)

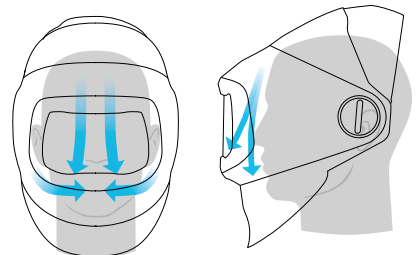
## Task light

- › Optional helmet-mounted task light



## Variable color technology

- › To provide even better view and control of your weld puddle
- › Choose between natural, cool or warm tones for your dark state



## Adjustable air flow

- › New duct system allows individual adjustment of airflow

## Natural Color Technology

- › 3M™ Speedglas™ Welding Filter G5-01TW
  - Adjustable dark shades 5 (cut) and 8-13
  - Tack Welding Mode
- › 3M™ Speedglas™ Welding Filter G5-01VC
  - Adjustable dark shades 5 (cut) and 8 to 14
  - Variable colour technology



## Configurable coverage options



## Applications

- › Heavy Duty Welding
- › Most welding processes: MMA (Stick), MIG/MAG, TIG, Low amp Tig
- › Cutting
- › Grinding



More information ...

[www.3M.co.uk/safety/speedglasG5-01](http://www.3M.co.uk/safety/speedglasG5-01)





**Come and visit  
us in Düsseldorf.  
Hall 6 | E27**

---

**Personal Safety Division**  
**3M United Kingdom plc**  
3M Centre  
Cain Road, Bracknell  
Berkshire RG12 8HT  
Tel: 0870 60 800 60  
[www.3M.co.uk/safety](http://www.3M.co.uk/safety)

**3M Ireland Limited**  
The Iveagh Building  
The Park, Carrickmines  
Dublin 18  
T: 1 800 320 500

Please recycle. Printed in the UK. © 3M 2019.  
3M and Aura are trademarks of the 3M company.  
All rights reserved.

