

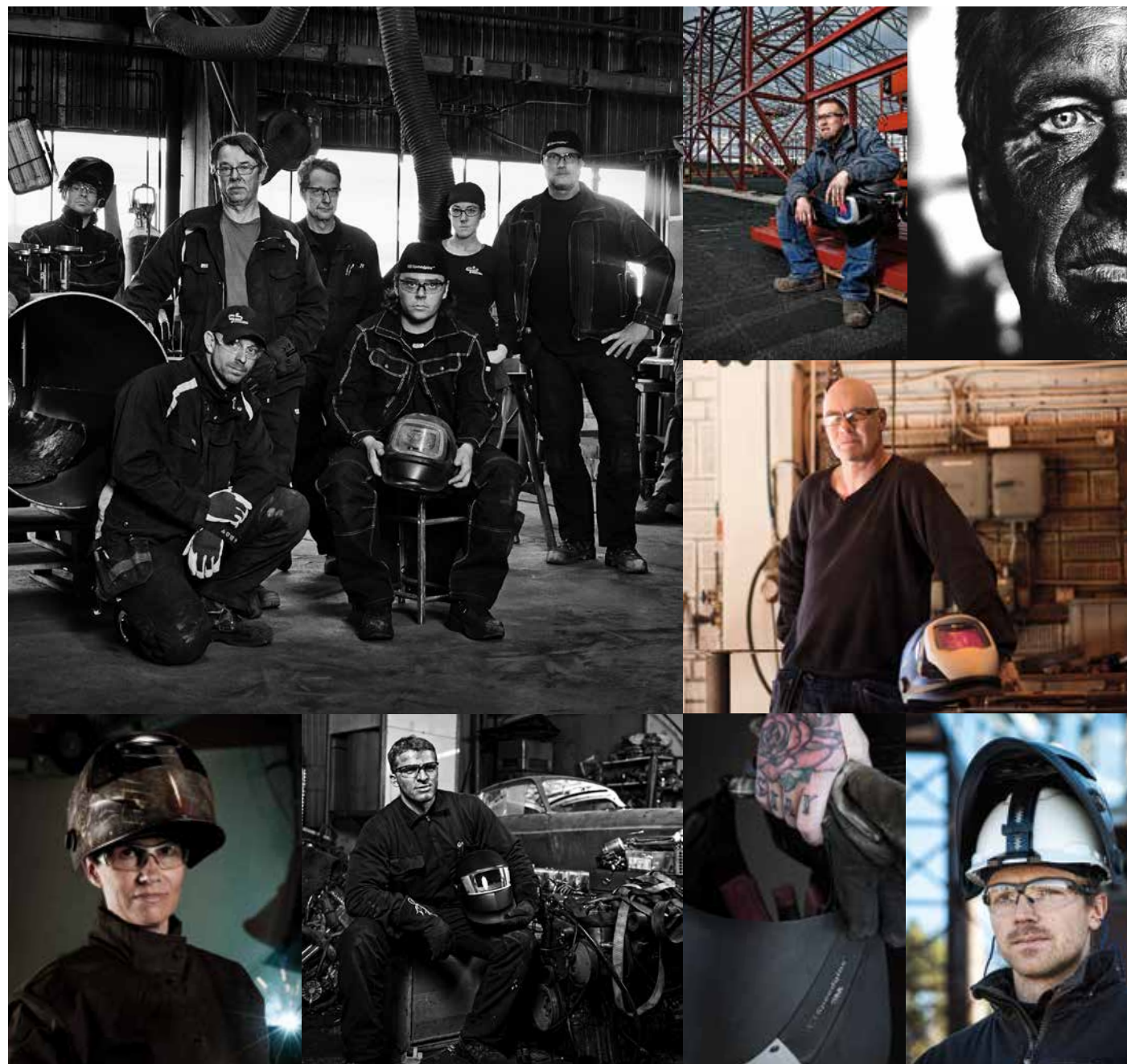


 **Speedglas™**
Welding Safety

3M™ Speedglas™ Welding Safety Catalog 2018

Do your best with our best welding helmets

#3MScienceofSafety



One of the most important lessons we have learned over the last 35 years is that no two welders are the same.

How to find your customized welding helmet combination

We have compiled—into this one, easy-to-reference catalog—much of the information you'll need to select specific welding safety products and/or entire welding PPE systems.

From the choices below, pick your key selecting factor and then go directly to that chapter. Or try our main [selection guide](#) on page 24.

Is welding filter performance your key selecting factor? Then start with [Your eyes](#) on page 6.

If choosing a welding helmet is your most important criteria, see [Your eyes, face and head](#) on page 22.

If choosing respiratory protection, go to [Your respiratory system](#) on page 44.

Too loud may be less than you think, check our solutions for [Your ears](#) on page 58.

Need solutions when welding at heights, see [Fall protection for welders](#) on page 64.



If you are looking for a specific product you can look it up in the [Parts Directory](#), on page 66.

Your responsibility— our solutions...

Typically, professional welders know about the hazards to their eyes and faces. But other hazards—like welding fumes—are sometimes not so well known.

It is the responsibility of the employer to identify any hazards in a work environment, and to provide the workers with adequate protection.

Hazards must be adequately explained. Then ideally the choice of protective equipment can be made after a joint consultation between employers and employees.



1. Identify the hazards

Make a list of all the hazards in your welding environment (radiation, sparks, fumes, noise, trip hazards, falling objects, etc).



2. Assess the risk levels

By evaluating every hazard, you can prioritize their mitigation. See more details in each section of this catalog. If there are any doubts or ambiguities, always consult a professional health and safety engineer.



3. Select the right type of equipment

Determine your protection based on equipment type (e.g., eye, face, head, hearing), the level of protection needed to work in a specific application, and your users' preferences. Personal preferences - a key to user acceptance - covers issues including comfort, style, and ease of maintenance.



4. Training, motivation and maintenance

For maximum benefit from any piece of PPE, it pays to focus on user acceptance and proper use. 3M can help:

- On-site training by 3M personnel or a visit from our Safety Roadshow. We'll show you equipment options based on your needs.
- 3M eAcademy - the flexible way to discover and learn throughout your busy day: www.3m.com/3M/en_US/3m-academy/log-in
- Other techniques, such as Toolbox Talks, educational posters for your facilities, online videos, etc.



For more information please visit www.3M.com/Speedglas or call our helpline 1-800-328-1667 [@3M_US_Safety](https://twitter.com/3M_US_Safety)



I need to weld with greater clarity

Truer colors and contrasts with 3M™ Speedglas™ Natural Color Technology: see [page 14](#)



I want to see around me

We recommend our welding helmets with side windows that widen your field of vision when welding: see [page 26](#)



I want to breathe fresh air

Our powered respirators are a favorite among many welders: see [page 44](#)



I need convenient head protection

Hard hat solutions tailor-made for our welding shields: see [pages 29 and 33](#)



I do precise grinding

Check out our welding helmets with flip-up visors, they have a curved, clear protective visor underneath the welding filter: see [page 31–33](#)



I like lightweight welding helmets

Great! Try our most lightweight auto-darkening welding helmet: Speedglas SL, see [page 36](#)

Your eyes

| | |
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How to beat the statistics

Welding processes typically generate hazardous ultraviolet/ infrared radiation and (intense) visible light that have the potential to cause permanent eye damage. Physical eye hazards include welding spatter and grinding particles.

Controlling exposure

A well-designed welding helmet and filter has a positive influence on the protection of your face and eyes from heat, spatter and radiation.

Put simply, auto-darkening welding filters allow welders to keep their welding helmet in place much more often than passive welding filters.

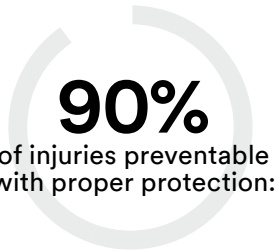
If you can see well, the motivation to constantly lift your shield is significantly reduced, meaning:

- You may reduce the likelihood of exposure to harmful UV/IR radiation by accidentally striking an arc. Or being exposed to the arcs of nearby welders.
- You may reduce the potential for foreign body eye injuries from grinding swarf or weld spatter.



Each year in the US alone, more than \$300 million is spent on costs associated with workplace eye injuries, including medical expenses, workers' compensation, and lost production time.

Source: www.osha.gov/SLTC/eyefaceprotection (01.03.2017)



More than 90% of serious eye injuries at work can be prevented using appropriate protective eyewear.

Source: www.preventblindness.org/eye-safety-work (01.03.2017)



Eye injuries account for one quarter of all welding injuries, making them by far the most common injury for welders.

<https://ohsonline.com/Articles/2007/02/Preventing-Eye-Injuries-When-Welding.aspx> (01.03.2017)



When the helmet is worn properly, the UV/IR bandpass filter is always in place and will provide protection from hazardous light radiation. This protection is maintained throughout the entire welding process.



Improving upon what the welder sees

Your goal is to weld consistently great welds. Our goal is to provide you with eye and face protection and also improved optics for better clarity.

“Because we make many of our own welding filter components, we can readily test and transfer new technologies,” says Kristina Magnusson, Senior Optics Specialists at the 3M Welding Center of Excellence. “And, of course, this allows better control over the entire manufacturing process.”

Kristina is one of the Center’s four full-time optics specialists. Her responsibilities include liquid crystal cells, polarizers, and interference (UV/IR) filters. She also leads an international ISO task group of experts focused on eye and face protection standards for auto-darkening welding filters.

Like many of her co-workers, Kristina is a long-time employee. “I had just got my master’s degree in engineering physics with a focus on optics when I was recruited to develop test instruments to measure the light diffusion of Speedglas welding filters. I’ve been here ever since.



“Of course, safety is the prime consideration when it comes to welding PPE. But the 3M optics team aims to help welders even more by continuously improving the optical experience of our welding filters. “We’re constantly exploring new optical technologies that we can leverage to the welder’s advantage.”

How auto-darkening filters work



Before:

With the helmet in the safe down position, you have a clear view through the welding filter. Both of your hands are free and the electrode can be precisely positioned.



During:

Within a millisecond of the arc strike (for 3M™ Speedglas™ Welding Filters, see page 13), the filter has switched to the dark state.



After:

The filter automatically returns to the clear state after welding is complete, allowing your immediate inspection of the weld pool, as well as preparation for the next weld.

What other equipment pays for itself in two months?

Not only can you weld faster when you can see more clear, but your entire movement around your workpiece can become more efficient when you're not constantly having to raise and lower your shield.

We've studied welders and their increased efficiency when using our auto-darkening filters (ADFs) for almost four decades:

- The shorter the weld, the greater the productivity increase. Not surprising, applications requiring lots of tack welds have the most to gain.
- Where the final appearance of the weld is critical—for example, on high-value items—reduction in scrap alone (e.g., from bad starts) can quickly pay for our helmets.
- Since most welders do a combination of tack and longer welds, we use an estimate of 15% gain in productivity. Of course, results may vary depending on your specific operation.

So, for example, if you're paying a welder \$20 per hour, a 15% improvement in productivity will pay for a \$450 helmet in about two months and result in a year-end increase in savings (new profits) of \$4500 when compared to continuing to use passive filters. Note: USD amounts are approximate and may vary.



\$28,280

Average cost of injuries to the face, including disabling and non-disabling eye injuries.¹⁾

20,300

Lost work days in 2012¹⁾

Ask yourself

Are you doing everything possible to maximize the amount of time your welders have their shield in the safe, down position?

A sample decision tree when selecting a welding filter

- 1

Would you benefit from seeing more natural colors and contrasts?

The 3M™ Speedglas™ Auto-darkening Filters 9100XXi and 9002NC both allow you to more readily recognize colors. The light state is still shade 3, but the filter appears lighter, more detailed, and better able to view contours. More details on page 14–15.
- 2

Do you occasionally change shade numbers?

If yes, you have plenty of models to pick from: all of our auto-darkening filters have variable (selectable) dark shades, as shown in the table on page 13.
- 3

What does your welding process require from your filter?

This is a key decision factor. Using the table on page 13, pick a model that does well in the processes you use frequently.

You might want to also consider your needs for specific dark shade levels, light-to-dark switching sensitivity, and dark-to-light delay options which are features that vary from model to model.
- 4

How important is the size of the welding filter's viewing area?

For many welders, the ability to see more of their workpiece without moving their helmet or head is very important. For these “big picture” people, the 9100XX or 9100XXi models will be most appropriate.
- 5

Do you do a lot of tack welding?

Then our tack welding comfort mode may be for you. The comfort mode setting may help reduce eye fatigue caused by your eye constantly adjusting to differing light levels during tack welding. It's available on 9100XX, 9100X and 9100V filters.

Recommended shade numbers according to ANSI Z49.1:2012

| Welding process | Current in amperes A | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------------------|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1.5 | 6 | 10 | 20 | 30 | 40 | 60 | 80 | 100 | 125 | 150 | 160 | 200 | 225 | 250 | 300 | 350 | 400 | 450 | 500 |
| Shielded Metal Arc | | | | | | | 10 | | | | | 12 | | | | 14 | | | | |
| Gas Metal Arc Welding | | | | | | | 11 | | | | | 12 | | | | 14 | | | | |
| Gas Tungsten Arc Welding | | | 10 | | | | 12 | | | | | 14 | | | | | | | | |
| Air Carbon Arc Cutting | | | | | | | 12 | | | | | | | | | | | | 14 | |
| Plasma Arc Welding | | 6–8 | | | 10 | | | | | | 12 | | | | | | 14 | | | |
| Plasma Arc Cutting | | 4 | | 5 | 6 | 8 | | | | 9 | | | | | 12 | | 14 | | | |
| Carbon Arc Welding | | | | | | | | | | | | | | | | | | | | |
| | 1.5 | 6 | 10 | 15 | 30 | 40 | 60 | 80 | 100 | 125 | 150 | 160 | 200 | 225 | 250 | 300 | 350 | 400 | 450 | 500 |

The table recommends best dark shade of welding filter for various working applications. According to the conditions of use, the next greater or the next smaller scale number can be used.

3M™ Speedglas™ Auto-Darkening Filters

Selector table

| | ● Best ¹⁾ | | | | ● Better ¹⁾ | | ● Good ¹⁾ | | ✕ Not Recommended ¹⁾ | |
|---|-------------------------|-------------|-------------------------|------------------------|--------------------------|---------------------------|--------------------------|-------------------|---------------------------------|--|
| Specification | 9100XXi | 9100XX | 9100X | 9100V | SL | 9002NC | 100V | 10V | | |
| MMAW (electrode) | ● | ● | ● | ● | ● | ● | ● | ● | | |
| MIG/MAG | ● | ● | ● | ● | ● | ● | ● | ● | | |
| TIG (>20A) | ● | ● | ● | ● | ● | ● | ● | ● | | |
| TIG (1A-20A) | ● | ● | ● | ● | ● | ● | ✕ | ✕ | | |
| Plasma (welding and cutting) | ● | ● | ● | ● | ● | ● | ✕ | ✕ | | |
| Risk for hidden arc | ● | ● | ● | ● | ● | ● | ✕ | ✕ | | |
| Tack welding | ● | ● | ● | ● | ● | ● | ● | ● | | |
| Grinding | ● | ● | ● | ● | ✕ | ● | ● | ● | | |
| 3M™ Speedglas™ Natural Color Technology | Yes | No | | | | | Yes | No | | |
| Switching time, dark-light | 40–800 ms | 40–1 300 ms | | | 60–250 ms | 60–400 ms | 40–250 ms | 60–250 ms | | |
| Switching time, light -dark | 0.1 ms (+23° C) | | | | | | | | | |
| Dark state | Shade 5, 8, 9–13 | | | | Shade 8–12 | | | | | |
| Light state | Shade 3 | | | | | | | | | |
| UV/IR Protection (permanent) | Shade 13 | | | | Shade 12 | | | | Shade 13 | |
| Viewing area, approx. | 2.8" x 4.2" (73×107 mm) | | 2.1" x 4.2" (54×107 mm) | 1.8" x 3.7" (45×93 mm) | 1.68" x 3.57" (43×91 mm) | 2.13" x 4.09" (54×107 mm) | 1.73" x 3.66" (44×93 mm) | | | |
| External grinding mode control | Yes ²⁾ | No | | | | | | | | |
| Auto ON | Yes | No | | | Yes | No | | | | |
| Solar cell | No | | Yes | | No | | | | | |
| Battery lifetime (hours) | 1 800 | 2 000 | 2 500 | 2 800 | 1 500 | 2 000 | 1 500 | | | |
| Number of sensors (arc detection) | 3 | | | | 2 | | | | | |
| Classification (perEN 379) | 1/1/1/2 | | | | 1/1/1/2 | 1/1/1/2 | 1/2/2/2 | 1/2/2/2 | | |
| Approval (welding filter) | ANSI Z87.1 - 2010 | | | | ANSI Z87.1 - 2003 | ANSI Z87.1 - 2015 | ANSI Z87.1 - 2003 | ANSI Z87.1 - 2010 | | |

1) The ratings (best - better - good - not recommended) above refer to the products listed in this chart and should be seen as general recommendations based on differences in product comfort features and configuration options when using these selected Speedglas welding helmet series.

2) When used with the front cover 9100XXi and the 3M™ Speedglas™ Welding Helmets 9100, 9100-QR or 9100-Air, see page 28.

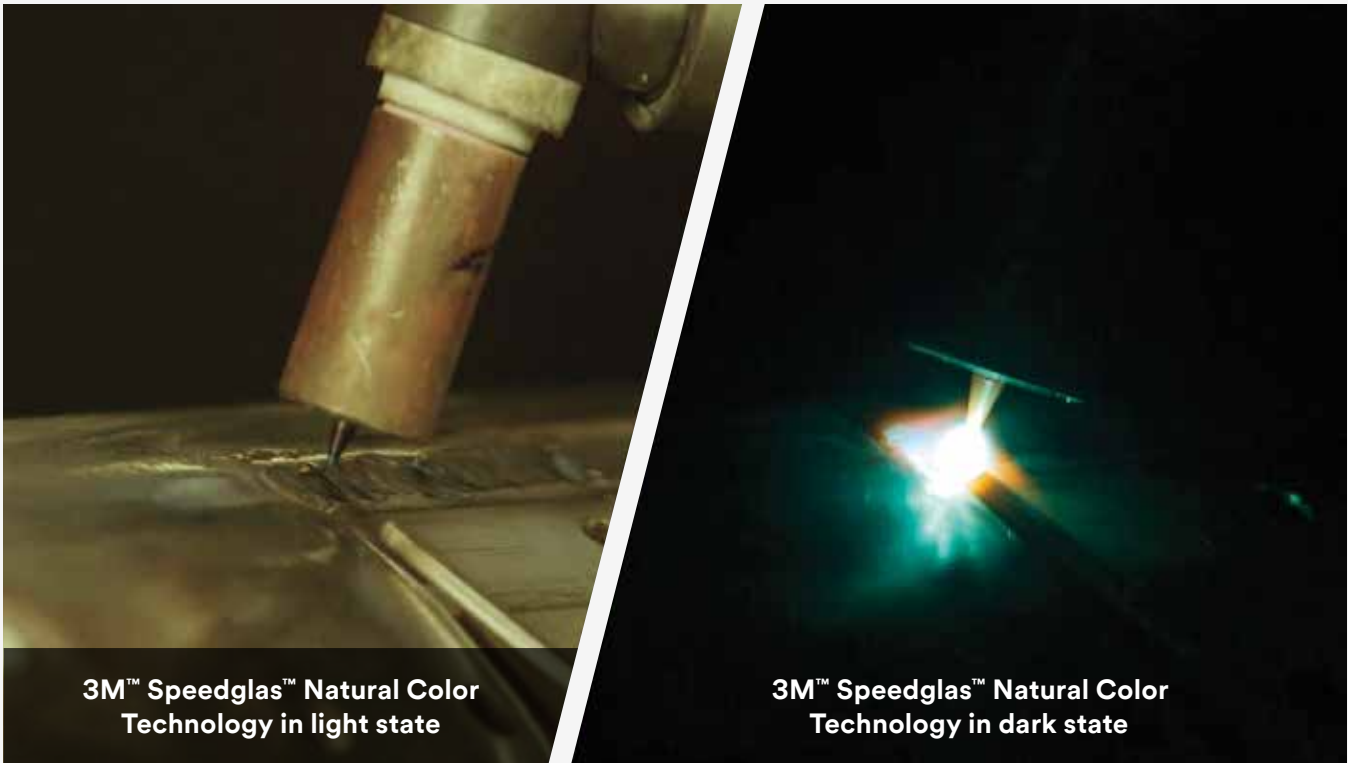
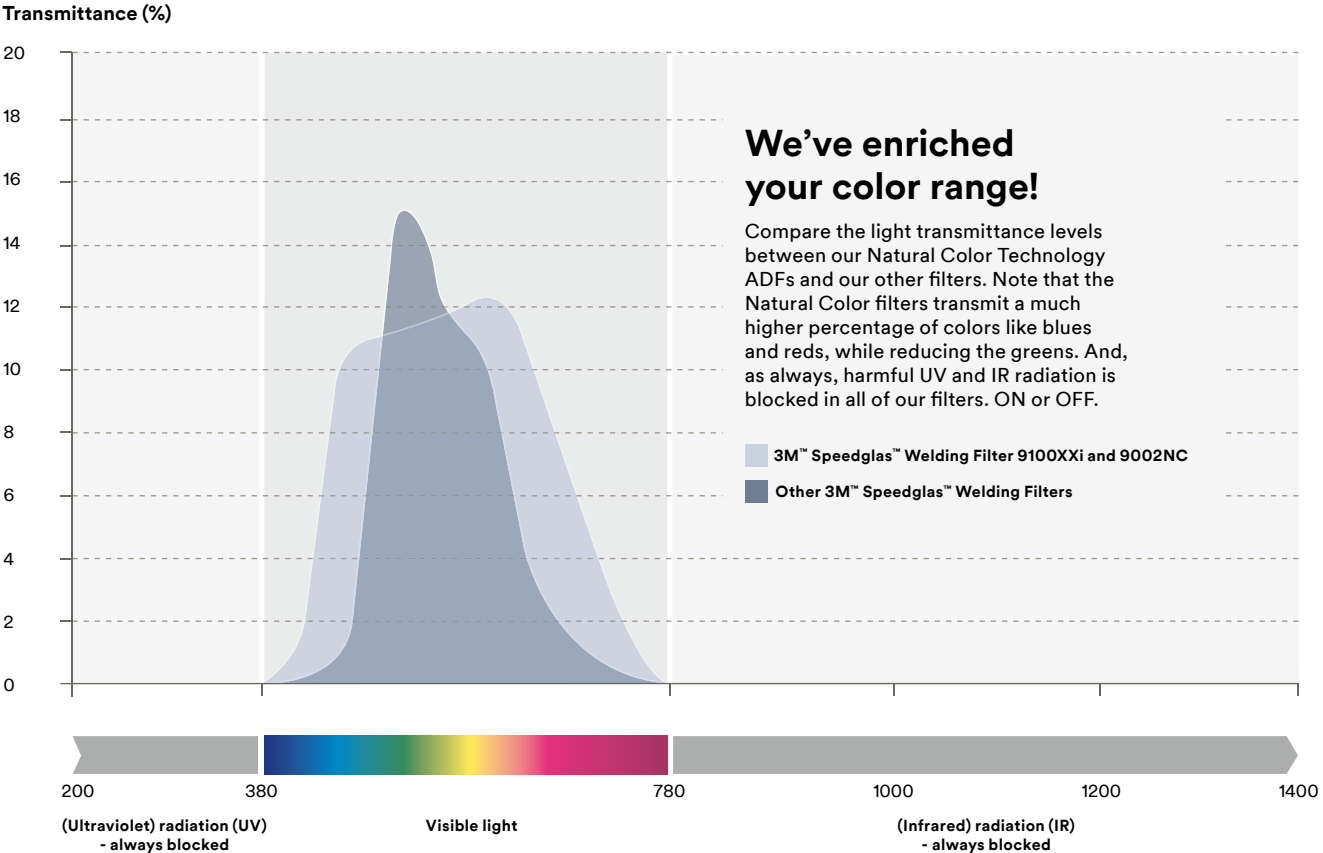


Still seeing green?

Imagine what more realistic-looking colors and details could do for you:

- Provide better control of your weld puddle—with a view that appears lighter, brighter, and more realistic.
- Help you focus on your welding set-up, welding technique, and inspection of just-completed welds.
- Give you a clearer view of colored welding machine controls—even with your helmet in the safe, down position.

See the difference!



Great clarity before, during and after welding when using the 3M™ Speedglas™ Welding Filters 9100XXi or 9002NC. Such clarity can be great for seeing the nuances of curved joints.

Your choice of auto-darkening filters (ADF)

The 3M™ Speedglas™ Welding Filter Series 9100 continues our tradition of outstanding optical quality, including uniform shading and minimal distortion across the entire filter viewing area.

By selecting just the right setting for each task, you can reduce eye strain and improve the quality of every weld.



Our top-of-the-line ADF

3M™ Speedglas™ Auto-Darkening Filter 9100XXi:

- See your welds in a new light, with more contrast and natural-looking colors.
- Grab and go welding with Auto-ON.
- 2.8 × 4.2 in. viewing area.
- Dark shades 5, 8, and 9 through 13.
- Delay settings allow the welder to extend the dark state for when the weld pool is still cooling.
- For all 3M™ Speedglas™ Welding Helmet Series 9100. See page 26-33.
- When used with the special 9100XXi Silver Front Panel and the Speedglas Welding Helmets 9100, 9100-Air and 9100-QR, you'll have access to the external control for both grinding and the memory modes. More details on page 29.



3M™ Speedglas™ Auto-Darkening Filter 9100XX

- 2.8 × 4.2 in. viewing area.
- Dark shades 5, 8, and 9 through 13.
- Any shade can be "locked-in".
- The tack welding comfort mode may help reduce eye fatigue resulting from the eye constantly adjusting to differing light levels during tack welding. Using an intermediate light state (shade 5).
- The delay function allows the welder to set the recovery delay of the welding filter from dark to light according to welding method and current.
- For all 3M™ Speedglas™ Welding Helmet Series 9100. More information on page 26–33.



3M™ Speedglas™ Auto-Darkening Filter 9100X

- 2.1 × 4.2 in. viewing area.
- Dark shades 5, 8, and 9 through 13.
- Any shade can be “locked-in.”
- The tack welding comfort mode may help reduce eye fatigue resulting from the eye constantly adjusting to differing light levels during tack welding. Using an intermediate light state (shade 5).
- The delay function allows the welder to set the recovery delay of the welding filter from dark to light according to welding method and current.
- For all 3M™ Speedglas™ Welding Helmet Series 9100. More information on page 26–33.



3M™ Speedglas™ Auto-Darkening Filter 9100V

- 1.8 × 3.7 in. viewing area.
- Dark shades 5, 8, and 9 through 13.
- Any shade can be “locked-in.”
- The tack welding comfort mode may help reduce eye fatigue resulting from the eye constantly adjusting to differing light levels during tack welding. Using an intermediate light state (shade 5).
- The delay function allows the welder to set the recovery delay of the welding filter from dark to light according to welding method and current.
- For all 3M™ Speedglas™ Welding Helmet Series 9100. More information on page 26–33.

3M™ Speedglas™ Auto-Darkening Filter 9002NC

See your welds in a new light, with more contrast and natural-looking colors.

- 2.1 × 4.2 in. viewing area.
- Dark shades 8 through 12.
- For 3M™ Speedglas™ Welding Helmet series 9002NC" compatible with the old 9000 series welding helmets, more information on page 34–35.



3M™ Speedglas™ Auto-Darkening Filter SL

Our most lightweight auto-darkening filter.

- 1.8 × 3.7 in. viewing area.
- Dark shades 8 through 12.
- For 3M™ Speedglas™ Welding Helmet SL, more information on page 36–37.



3M™ Speedglas™ Auto-Darkening Filter 100V

- 1.7 × 3.7 in. viewing area.
- Dark shades 8 through 12.
- For 3M™ Speedglas™ Welding Helmet Series 100 (incl 100-QR), more information on page 38.



3M™ Auto-Darkening Filter 10V

- 1.7 × 3.7 in. viewing area.
- Dark shades 8–12.
- For 3M™ Welding Helmet 10V and 10QR, more information on page 39.



Secure and snug fit

3M™ Pressure Diffusion Temple (PDT) Technology helps provide a secure and comfortable fit.

Protection with options

You can choose from several lens coating options, including 3M™ Scotchgard™ Anti-fog Coating and multiple lens colors.

Durable lenses

All 3M protective eyewear meet the requirements of ANSI Z87.1 Impact Standard.

Do they really fit?

Making a measured evaluation of eyewear fit

Everyone's face and head are different—so how is one model of eyewear going to fit everybody? You know the problem. Ill-fitting safety glasses cause pressure and pain in some very vulnerable areas: your temples, your ears... even the bridge of your nose. Discomfort and lack of style are often major reasons for not wearing safety eyewear.

To make a meaningful, measured determination of eyewear fit and security on each of your employees, we've developed a 6-step method¹⁾.

The 3M™ Eyewear Fit System uses coverage and gap gauge tools to assess four key elements of protective eyewear fit:

① View

Assessment to ensure the wearer can see in all directions of eye rotation without major obstruction to the field of view that would interfere with the ability to perform work tasks.

② Coverage

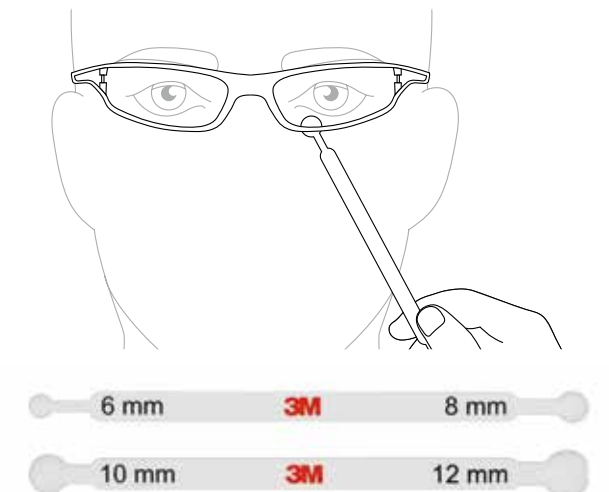
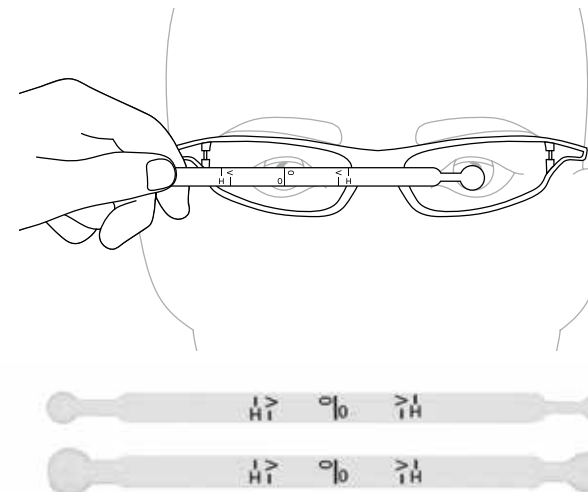
The coverage gauge assesses how well the safety eyewear covers the soft tissue area around the eyes.

③ Security

Assessment to ensure the eyewear stays in place on the wearer's head and does not fall off with head movement.

④ Gaps

The gap gauges help to identify excessive gaps between the eyewear and the face. Large gaps can provide a clear path for flying debris.



¹⁾ The full 6 step method is unique to 3M and is available free of charge (subject to terms and conditions, see website for details). Find out more by contacting your 3M Personal Safety Sales Representative or visit www.3M.com/workersafety

3M™ Solus™ 1000 Series Spectacles

A fogged lens can be frustrating and dangerous

Enjoy reliable, clearer sight longer with Scotchgard™ Anti-Fog Coating. Now available on 3M™ Solus™ 1000 Series safety eyewear in a range of lens colours: clear, grey or amber. All glasses come with polycarbonate lenses, which absorb 99.9% of UV rays.




Stable fit
Inner padding on temples for increased comfort and stability

Lightweight and comfortable
Soft cushioning on nose bridge

Stylish and modern look
Slim frame with colour accented soft temple components

The new removable foam gasket design helps keep out debris while providing comfort and cushioning

3M™ Scotchgard™ Anti-Fog Coating. Long-lasting clarity.



Without coating
In hot and humid environments, tiny droplets form on the lens and scatter incoming light, making it more difficult for you to see clearly.

With 3M™ Scotchgard™ Anti-Fog Coating
Scotchgard™ Anti-fog Lens Coating causes these droplets to flatten out and form a thin film, reducing the scattering of light and allowing you to see clearly longer.

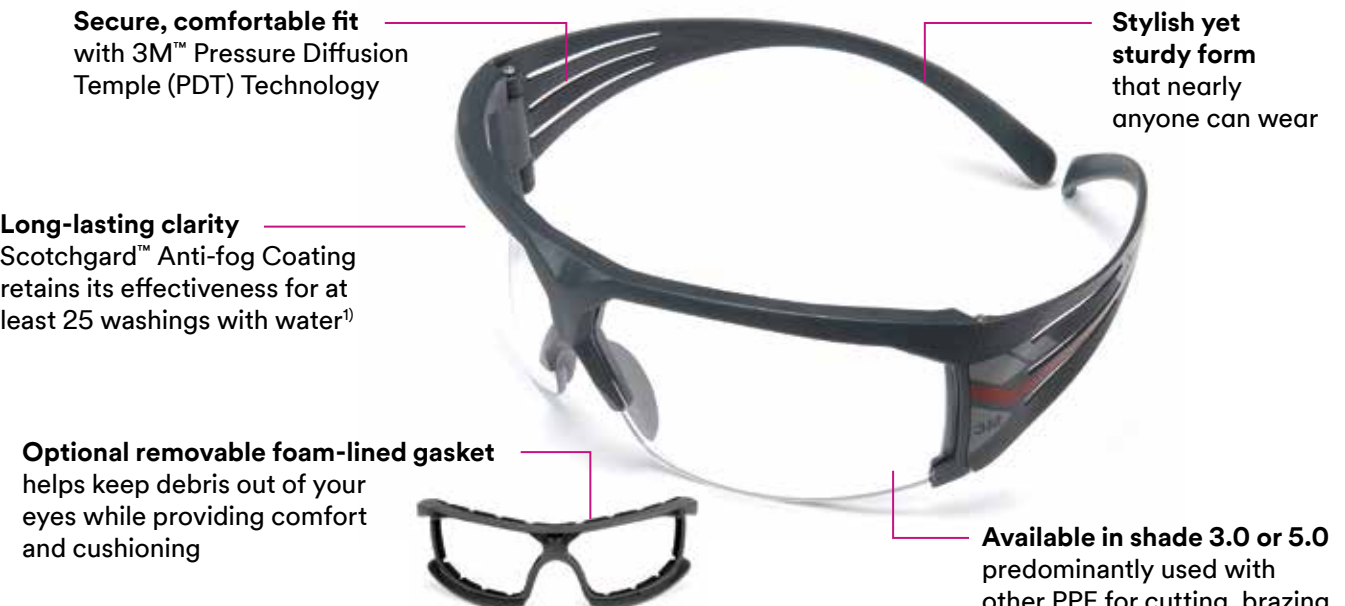
Water droplets Lens Lens plus two-sided anti-fog coating

Water as a transparent film

3M™ SecureFit™ 600 Series Protective Eyewear

Premium quality you can see

The quality, durability and versatility of the 3M™ SecureFit™ 600 Protective Eyewear Series bring higher performance to workplace needs, with a variety of features that include lens options such as Scotchgard™ Anti-fog Coating, lens colors, polarization and reader options.



Secure, comfortable fit
with 3M™ Pressure Diffusion Temple (PDT) Technology

Long-lasting clarity
Scotchgard™ Anti-fog Coating retains its effectiveness for at least 25 washings with water¹⁾

Optional removable foam-lined gasket
helps keep debris out of your eyes while providing comfort and cushioning

Stylish yet sturdy form
that nearly anyone can wear

Available in shade 3.0 or 5.0
predominantly used with other PPE for cutting, brazing and soldering

1) Based on 3M internal testing per EN 168 test method when compared with traditional anti-fog coatings.

Selected 3M™ Protective Eyewear for Welders

| Part No | Lens Type | Coating | Description |
|--------------|---------------------------|----------------------|--|
| SF601SGAF | PC Clear | Scotchgard™ Anti-fog | SecureFit 600 series eyewear with clear lens. |
| SF601SGAF-FM | PC Clear with Foam Gasket | Scotchgard™ Anti-fog | SecureFit 600 series eyewear with clear lens and removable foam-lined gasket. |
| SF617AS | PC Amber Low IR | Anti-scratch | SecureFit 600 series eyewear with amber lens. |
| SF630AS | PC Shade 3.0 | Anti-scratch | SecureFit 600 series eyewear with shade 3.0 lens. |
| SF650AS | PC Shade 5.0 | Anti-scratch | SecureFit 600 series eyewear with shade 5.0 lens. |
| SF600FI | Replacement Foam Gasket | - | For SecureFit 600 series eyewear |
| S1101SGAF | PC Clear | Scotchgard™ Anti-fog | Solus 1000 Series, blue/black eyewear with clear lens. |
| S1101SGAF-KT | PC Clear with Foam Gasket | Scotchgard™ Anti-fog | KIT: Solus 1000 Series, blue/black eyewear with clear lens, removable foam-lined gasket and strap. |
| S1103SGAF | PC Amber | Scotchgard™ Anti-fog | Solus 1000 Series, blue/black eyewear with amber lens. |

To learn more about our complete range of protective eyewear, please use our Eyewear Selection Tool to help you make the best choice. Visit www.3M.com/workersafety

Always read and follow all User Instructions.

Your eyes, face and head

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There is no one perfect welding helmet

We have populated our helmet matrix with carefully considered design blends of protection, features, personal preferences, and performance to address many common application needs.

But for every helmet system we design, we have four driving factors:



Reliability

We know harsh welding environments: We build our products to thrive in them. From creating reliable arc sensing/shade switching to selecting highly durable materials to designing for long-lasting mechanical operation.

Comfort

Comfort means a helmet that vents exhaled air. It means a headband that avoids scientifically determined pressure points around your head. And how a helmet provides eye and face protection while being comfortable for a full shift.



Protection

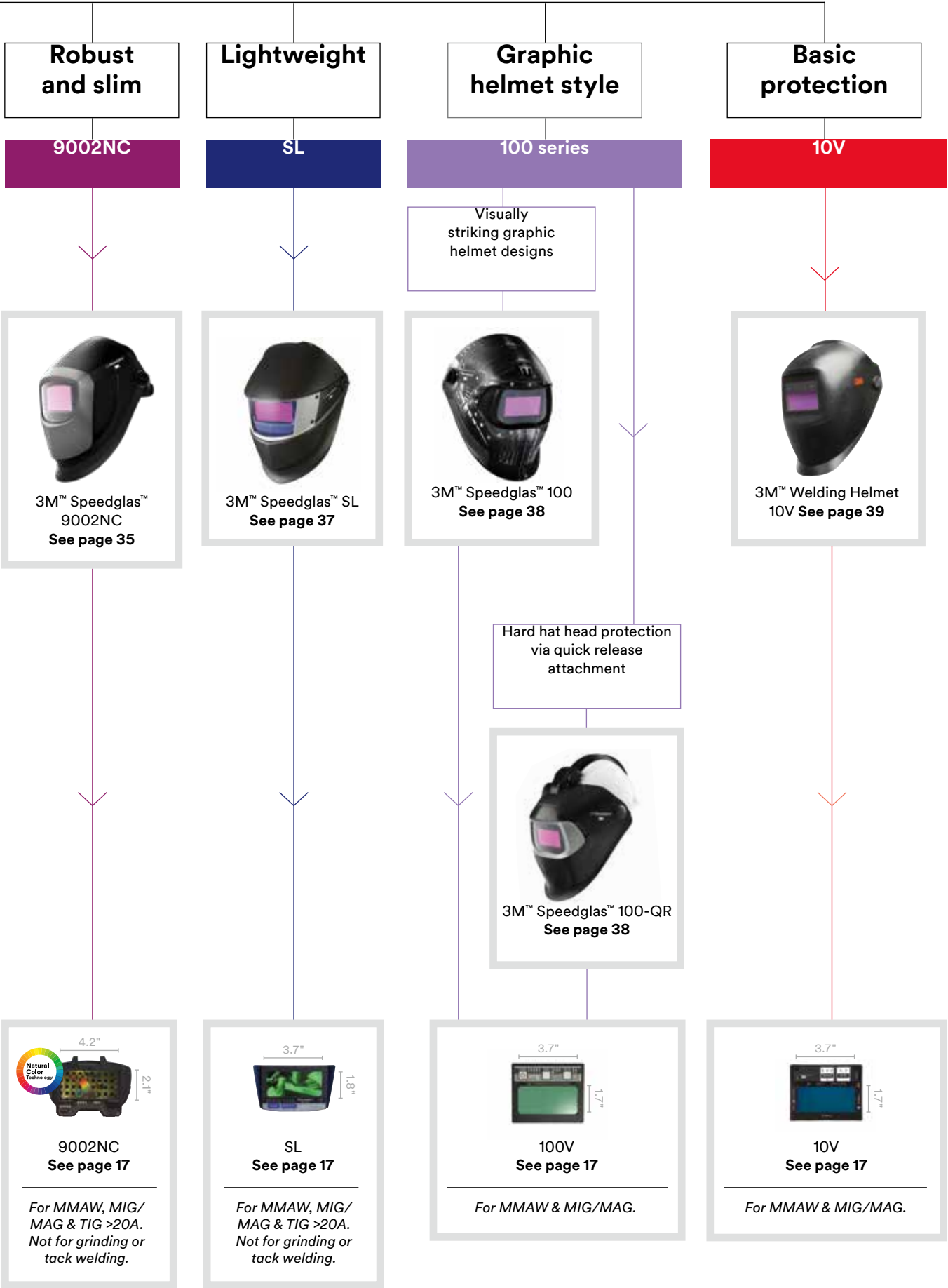
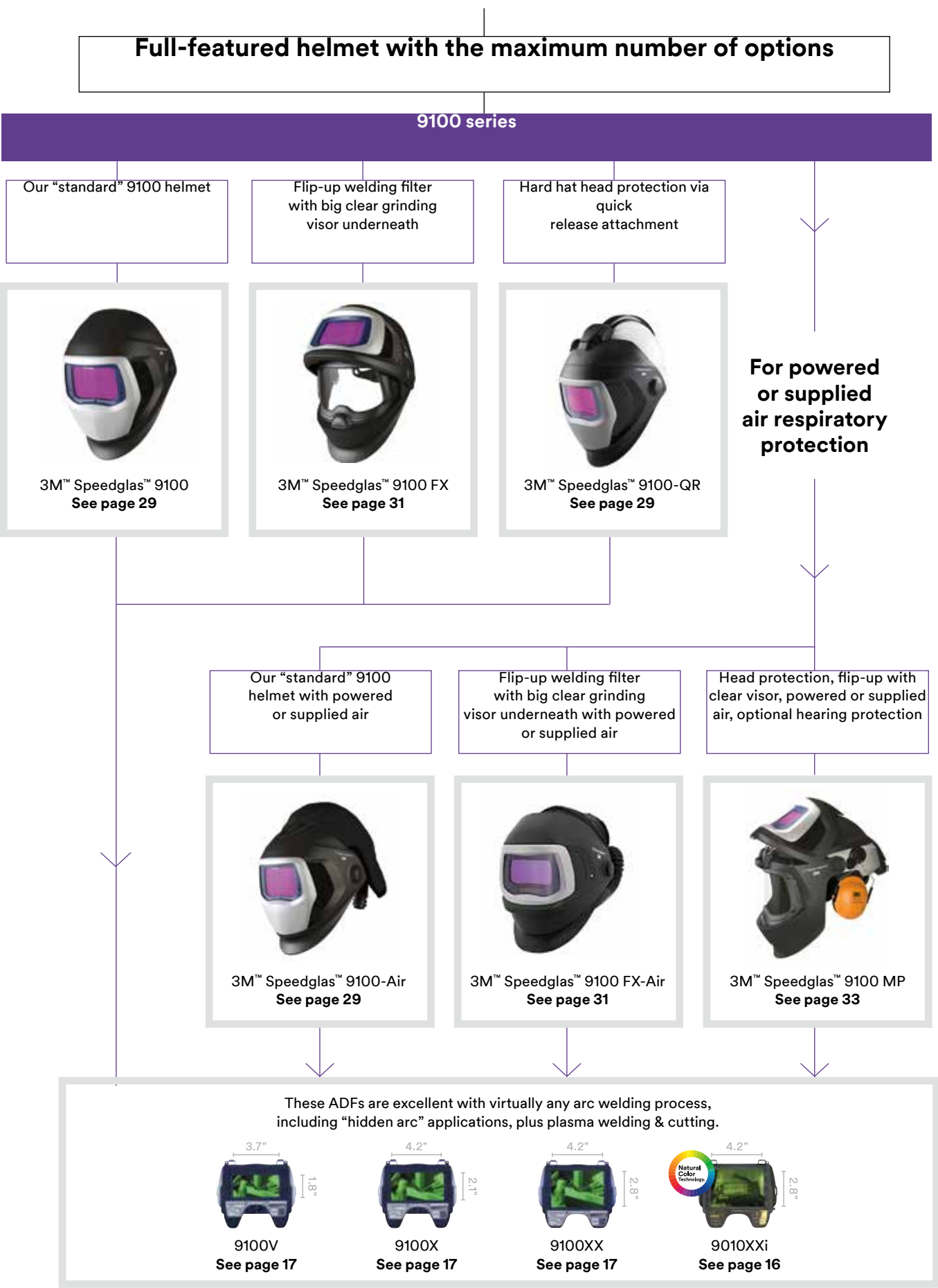
UV/IR radiation. High speed grinding particles. Falling objects. Respiratory hazards. List your workplace hazards—then find the right Speedglas helmet, accessories, and respiratory protection. Have a unique workplace hazard? Contact your local distributor for even more 3M solutions.

View

Every helmet design detail can affect your view. That’s why we provide high-performance auto-darkening welding filters, our side windows lenses, and large, protective clear visors. Each of these, and many more, helmet design elements maximize your ability to see.



What do you need?



When you need coverage, control, and comfort:

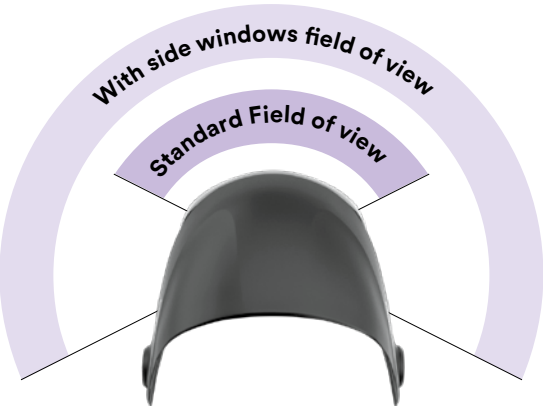
3M™ Speedglas™ Welding Helmet Series 9100



High-performing people need high-performing products

The 3M™ Speedglas™ Welding Helmet Series 9100 includes six welding helmet models offering many options, including flip-up welding shields, safety helmets, and respiratory systems.

If you haven't experienced these innovations in welding protection, call your local 3M distributor for a hands-on demonstration.



Peripheral vision

The first time a welder puts on a Speedglas welding helmet with side windows you can see his startled reaction. Previously hidden peripheral hazards (beams, obstacles, other workers) are now easier to see through the two, shade 5 side filters.

Tailor to fit your personal preferences

With the 9100 headband, we've carefully avoided sensitive areas of the head while designing self-adjusting twin pads for the forehead band. By better contouring it around your head, our headband doesn't need to be overly tight to be comfortably secure.

Ergonomic fit

Adjust the shield's distance to your face. Fits head sizes S-M-L, 6.25" to 8" (50-64 cm) approx.

Stability

Ratchet for precise tightening.

Adapt to your position

Adjust the helmet tilt-angle while wearing the helmet on your head.



Less pressure

Self-adjusting "twin pads" contour to your head.

Low riding comfort

Adjust the helmet's parking position (left side) and friction (right side). Further details below.

We designed the 9100 helmet to "nest" down low, close to the headband, when raised. So you don't need to tighten the headband as much.

The helmet's smooth up-and-down pivot action can be locked in the up position—a light pull lowers the helmet back down again.



DROPS AS YOU LIKE

Drop-friction is adjusted on the wearer's right hand side:

Turn the right-hand knob clockwise to increase (or counterclockwise to decrease) the effort needed to nod down the shield.

STABILITY WHEN RAISED

Helmet parking grip is adjusted on the wearers left hand side:

Turn the left-hand knob clockwise to increase (or counterclockwise to decrease) how tightly the shield is held in the raised "parked" position.



Simplify your workflow

The 9100XXi kit (special front and welding filter) houses external controls—enabling convenient, “gloves-on” switching between welding and grinding.

Transform your hard hat

As you attach and detach the 9100-QR helmet, you don't need to remove your hard hat—so your head is protected at all times.

Extend your coverage

With our flame-retardant headcovers and ear/neck protectors.

3M™ Speedglas™ Welding Helmets
9100, 9100-Air and 9100-QR

High-performance
and comfort

| Features | 9100 | 9100-Air | 9100-QR |
|-------------------------------|-----------------|-----------------|-----------------|
| Approval ANSI Z87.1 - 2010 | ✓ | ✓ | ✓ |
| Side windows | ✓ | ✓ | ✓ |
| Auto-ON | ✓ ¹⁾ | ✓ ¹⁾ | ✓ ¹⁾ |
| Exhaust vents | ✓ | | ✓ |
| Flip-up | | | |
| Graphics option | | | |
| Hard hat | ✓ ²⁾ | | ✓ |
| Natural Color Technology | ✓ ¹⁾ | ✓ ¹⁾ | ✓ ¹⁾ |
| Powered Air APF 25 | | ✓ | |
| Supplied Air APF 25 | | ✓ | |

1) Only in combination with 3M™ Speedglas™ Welding Filter 9100XXi.
2) Hard hat adaptor available, (Part No 06-0014-00NR).



9100



9100-Air



9100-QR



Protecting your eyes and face from radiation, heat and sparks—while providing a precise view of your work—makes your Speedglas welding helmet 9100 one of your most important welding tools.

All of these benefits can be used with powered or supplied air respiratory protection in combination with the Speedglas welding helmet 9100-Air.

If your work situation requires head protection, test out our Speedglas welding helmet 9100-QR. It quickly attaches to many of the industry’s most popular hard hats, including the 3M™ Hard hat H-701.

Comfortable all shift long

Versatile protection and long-lasting comfort. The 9100 FX-Air helmet readily connects to either our powered or supplied air respirators.

Stay protected

Designed to ignite your confidence and productivity all shift long—APF 25.

Expand your view:

A quick lift of the front cover and you get a big, (approx. 8" x 4.25"), clear view—excellent for precision grinding, even in low light conditions.

More natural colors and contrasts

The Speedglas welding filter 9100XXi helps you see your welds in a new light, providing more contrast and natural-looking colors.

3M™ Speedglas™ Welding Helmets
9100 FX and 9100 FX-Air

Flip up to
wider views



9100 FX



9100 FX-Air

| Features | 9100 FX | 9100 FX-Air |
|-------------------------------|-----------------|-----------------|
| Approval ANSI Z87.1 - 2010 | ✓ | ✓ |
| Side windows | ✓ | ✓ |
| Auto-ON | ✓ ¹⁾ | ✓ ¹⁾ |
| Exhaust vents | ✓ | |
| Flip-up | ✓ | ✓ |
| Graphics option | | |
| Hard hat | ✓ ²⁾ | |
| Natural Color Technology | ✓ ¹⁾ | ✓ ¹⁾ |
| Powered Air APF 25 | | ✓ |
| Supplied Air APF 25 | | ✓ |

- 1) Only in combination with 3M™ Speedglas™ Welding Filter 9100XXi.
2) Hard hat adaptor available (Part No 06-0614-00NR).



Wider field of view with flip-up front—a combination welding helmet and protective visor.

A quick lift of the front and you get a big, (approx. 8"x 4.25") clear view—excellent for precision grinding in low-light conditions.

And if you use the 9100 FX-Air model, the clear view from the curved visor lets you keep your respiratory protection in place at all times.

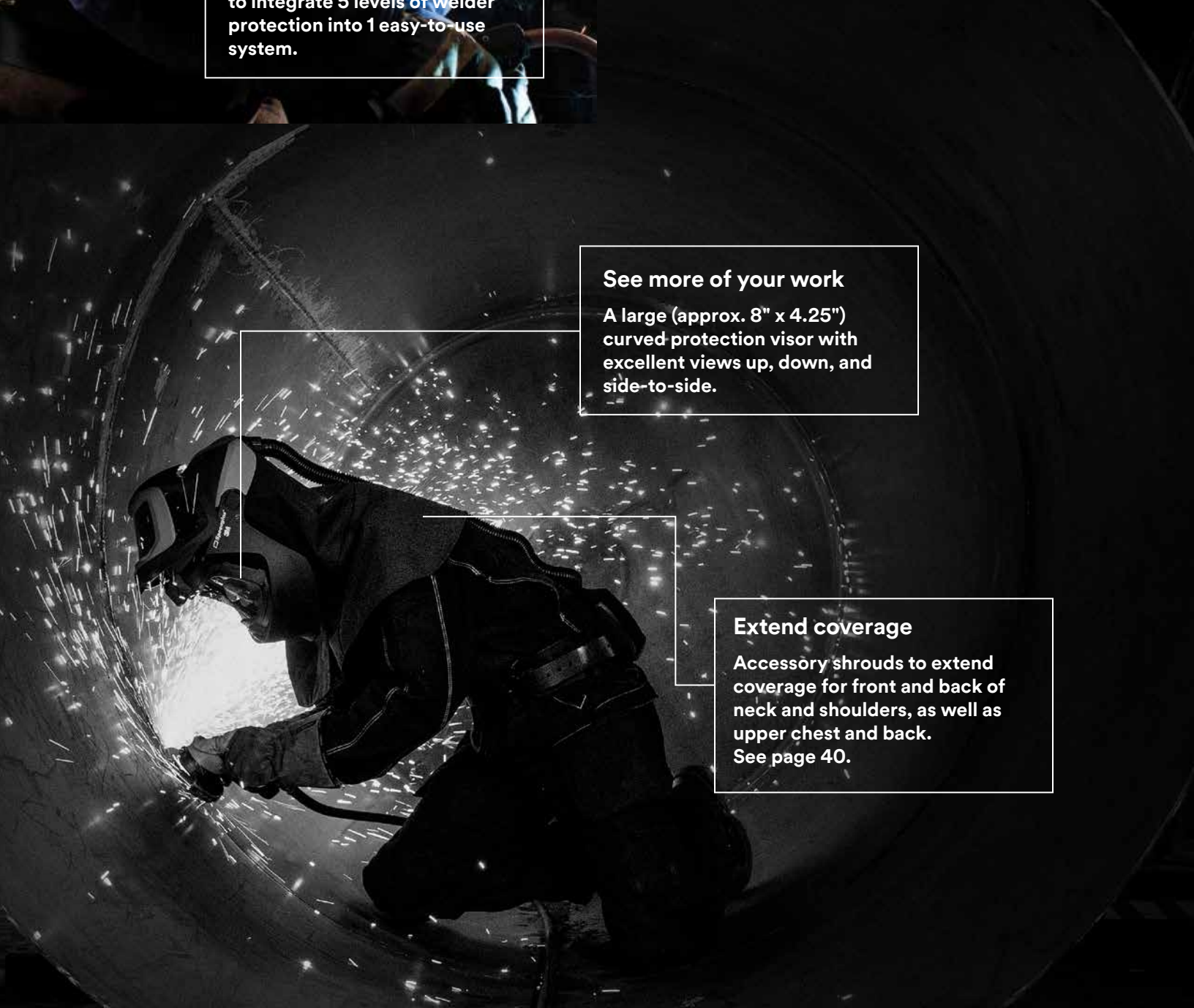


Weld with confidence
Head, eye, face, hearing and respiratory—we have the ability to integrate 5 levels of welder protection into 1 easy-to-use system.



See more of your work
A large (approx. 8" x 4.25") curved protection visor with excellent views up, down, and side-to-side.

Extend coverage
Accessory shrouds to extend coverage for front and back of neck and shoulders, as well as upper chest and back. See page 40.



3M™ Speedglas™ Welding Helmet 9100MP

Multiple levels of protection



| Features | 9100 MP |
|-------------------------------|-----------------|
| Approval ANSI Z87.1 - 2010 | ✓ |
| Side windows | ✓ |
| Auto-ON | ✓ ¹⁾ |
| Exhaust vents | |
| Flip-up | ✓ |
| Graphics option | |
| Hard hat | ✓ |
| Natural Color Technology | ✓ ¹⁾ |
| Powered Air APF 25 | ✓ |
| Supplied Air APF 25 | ✓ |

1) Only in combination with 3M™ Speedglas™ Welding Filter 9100XXi.



Have you tried multi-protection systems where some component seemed to clash with the other components?
That's why we built our 3M™ Speedglas™ Systems 9100 MP (multi-protection) just for welders.

You can now work in a highly integrated, comfortable, protective envelope, with big, wide views as you weld, prep and grind.

3M™ Speedglas™
Welding Helmet 9002NC

Improved comfort

Head suspension features a smooth ratchet for easy tightening—even while wearing gloves!

Award-winning design

More than 20 years ago, the 3M™ Speedglas™ Welding Helmet 9000 set a new standard for rugged, dependable protection.

A helmet loved by many welders and internationally awarded for its ergonomic design.

Better control of the weld puddle

Improved optics in the 3M™ Speedglas™ Welding Filter 9002NC helps you see your welds in a new light, providing more contrast and natural-looking color.

3M™ Speedglas™ Welding Helmet 9002NC

A legend reborn

You asked, and we listened. For over 20 years, the 3M™ Speedglas™ Welding Helmet 9000 set the standard for rugged, dependable protection. Now we've incorporated the best features—giving a new generation of welders excellent performance at a price that won't break the bank.

This helmet incorporates 3M Speedglas' newest natural color technology. Advanced auto-darkening optics are easily adjusted to meet your working conditions for a lighter, brighter and more detailed view of your welds. And a lighter weight, slim profile means less constriction in tight spaces.



| Features | 9002NC |
|-------------------------------|-----------------|
| Approval ANSI Z87.1 - 2015 | ✓ |
| Side windows | |
| Auto-ON | |
| Exhaust vents | ✓ |
| Flip-up | |
| Graphics option | |
| Hard hat | ✓ ¹⁾ |
| Natural Color Technology | ✓ |
| Powered Air | |
| Supplied Air | |

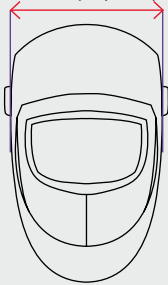
1) Hard hat adaptor available (Part No 07-0014-00NR).



Freedom of movement

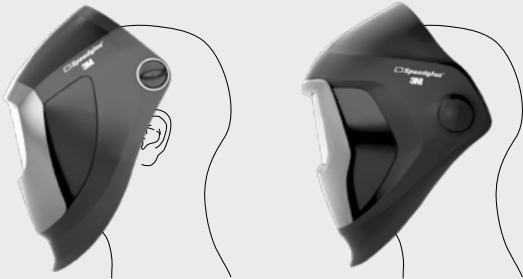
Shield width

9.3 in (23,6 cm)



The slim profile offers increased freedom of movement in tight places.

Coverage



Pick your preference

The 9002NC helmet (left) is slimmer and not as deep as a 9100 helmet (right), making it more maneuverable and lighter in weight. On the other hand, the deeper and wider 9100 series covers more of your ears, neck, and sides of your head.

Easy tightening

The head suspension features a smooth ratchet for easy tightening—even while wearing gloves!

Great for fast tasks

Designed specifically for quick welding tasks, a motion sensor automatically turns ON the welding filter when you pick up the helmet.

Light in weight, strong in performance

A slim and narrow helmet design, with an accompanying lightweight auto-darkening filter that's suitable for most arc welding processes.

3M™ Speedglas™ Welding Helmet SL

Light, narrow and fast



Light weight—only 13 oz
(including auto-darkening welding filter)

Did you know that some lightweight welding helmets can actually absorb moisture and become heavier over time? We took care to avoid that problem by making our SL (super light) helmet from strong, non-absorbent materials (also applicable for the 9100 series helmets).

We also designed a special auto-darkening filter to make both the ADF and the helmet weight a mere 13 oz—25% lighter than any other Speedglas model.

| Features | TS |
|---------------------------|----|
| Approval ANSI Z87-2003 | ✓ |
| Side windows | |
| Auto-ON | ✓ |
| Exhaust vents | |
| Flip-up | |
| Graphics option | |
| Hard hat | |
| Natural Color Technology | |
| Powered Air | |
| Supplied Air | |

3M™ Speedglas™
Welding Helmet Series 100 and 100-QR

Weld with
personality



100 Tribute



100-QR
with hard hat

| Features | 100 | 100-QR |
|-----------------------------|-----------------|--------|
| Approval ANSI Z87-2003 | ✓ | ✓ |
| Side windows | | |
| Auto-ON | | |
| Exhaust vents | | |
| Flip-up | | |
| Graphics option | ✓ | |
| Hard hat | ✓ ¹⁾ | ✓ |
| Natural Color Technology | | |
| Powered Air | | |
| Supplied Air | | |

1) Hard hat adaptor available
(Part No 07-0014-00NR).

Get your career off to a great start with high-performance eye and face protection!

Now with a new option for head protection—the 3M™ Speedglas™ Welding Helmet 100-QR (quick release).

3M™ Welding Helmet 10V

Basic functions
in a robust design



| Features | 10V |
|-------------------------------|-----------------|
| Approval ANSI Z87.1 - 2010 | ✓ |
| Side windows | |
| Auto-ON | |
| Exhaust vents | |
| Flip-up | |
| Graphics option | |
| Hard hat | ✓ ¹⁾ |
| Natural Color Technology | |
| Powered Air | |
| Supplied Air | |

1) Hard hat adaptor available (Part No 07-0014-00NR).

Designed for all-round MIG/MAG and MMAW (electrode or “stick”) welding, with user selectable dark shades of 10, 11 or 12.

Want to stand out?

Make an impactful statement with one of our powerful, distinctive graphic designs. Find them all on page 76.

Variable shades for flexibility

Five adjustable dark shades 8–12. And three sensitivity settings for customized light-to-dark switching, lock-in shade 3 light state.



Confident protection

Robust, industrial helmet design. Complies to the standard ANSI Z87.1 - 2010.

Performance made affordable

Auto-darkening filter performance at a price that won't break the bank.



We got you covered

Every welder is different, and each day your tasks can change. As the owner of a 3M™ Speedglas™ Welding Helmet, you have a variety of accessories available to help you maximize your protection and comfort.

Plus, we now offer a new generation of additional coverage products made in flame-retardant textiles for protection against molten metal, sparks and flames.



06-0500-51

06-0500-52



06-0700-83



18-0099-68



02-0690-00



27-0099-84



06-0700-82

Quick guide to help extend your protection

| 3M™ Speedglas™ Welding Helmet | 9002NC | 100 | SL | 9100 + 9100-Air | 9100FX + 9100 FX-Air | 9100-QR 100-QR 10V | 9100 MP |
|--------------------------------|--------------------------|-----|----|----------------------|--|--------------------|--------------------------|
| Head protection (Part No) | 16-0099-30 | | | 06-0500-51 | 06-0700-82 (large) 06-0700-81 (small) | – | 27-0099-84 |
| Material | Cotton / Para-aramid | | | Cotton / Para-aramid | Cotton / Para-aramid | – | Reflective |
| Neck protection (Part No) | 02-0690-00 ¹⁾ | | | 06-0500-52 | | 18-0099-68 | 27-0099-85 27-0099-87 |
| Material | Cotton / Para-aramid | | | Cotton / Para-aramid | | Leather | Cotton/ Para-aramid |
| Hood (Part No) | 06-0700-83 | | | | | – | – |
| Material | Cotton / Para-aramid | | | | | – | – |
| Breathing tube cover (Part No) | – | | | SG-15 | | – | SG-15 |
| Material | – | | | Flame-retardant | | – | Flame-retardant |

1) Alternative neck protection available in leather (part no 18-0099-68).

Always read and follow all User Instructions.

Time to upgrade your visibility?



Getting too close to your arc?

Start with the easiest solution first: replace your filter’s outer protection plates more frequently!

If you still can’t see the detail you need, try one of our magnifying lenses. They come in x1.5, x2.0, x2.5, and x3.0 strengths. For details, see the Accessories and Spare Parts section for each helmet.



Consumables to get you started

Starter kit of sweatband, inner and outer protection plates to your 3M™ Speedglas™ Welding Helmet Series 9100. For ordering information, see parts list section for each helmet type.

| System | Component | Typically replaced | Notes |
|---------------------------------|------------------------|---|--|
| Welding filters | Outer protection plate | Once a week | Replace anytime the plate becomes deeply pitted, scratched or too dirty to clean with soft cloth or lens paper |
| Welding filters | Inner cover plate | Once a month | Regularly clean with a soft cloth and replace if any pits or scratches occur. |
| Welding helmets | Visor plate | Every two weeks | Replace more often if visibility is reduced. |
| Welding helmets | Sweatband | Once a month | Replace more often if sweatband becomes unhygienic. |
| Welding helmets with respirator | Face seal | At least every 2 months | Replace earlier in dirty environments or whenever the seal becomes unhygienic. |
| Welding helmets with respirator | Breathing tube | If damaged, deformed or leaking any air | To extend the life of breathing tube, use a tube cover or a heavy-duty rubber breathing tube. |

Important information. Note that higher-than-normal levels of pollutants, heat, and sparks will require more frequent replacements of components. Chart assumes minimum 4 hours usage per day. Ordering information for each series of welding helmet can be found in the Parts Directory, **page 66**.

Information summary for quick reference only; always read and follow User Instructions.



Learn more about product maintenance from Speedglas YouTube channel! Scan the QR code or visit youtube.com/3MSpeedglas



Refine your helmet selection based on your preferences



| Specification 3M Welding helmets (non-air) | Speedglas 9100 | Speedglas 9100-QR | Speedglas 9100 FX | Speedglas 9002NC | Speedglas SL | Speedglas 100 | Speedglas 100-QR | 3M 10V |
|--|---|--|--|---------------------|---------------------|---------------------|--------------------------------|---------------------|
| Eye and Face Protection (Approval) Welding helmet, welding filter and protection plates | ANSI Z87.1-2010 | | | ANSI Z87.1 -2015 | ANSI Z87.1 -2003 | ANSI Z87.1 -2010 | ANSI Z87.1 -2010 | ANSI Z87.1 -2010 |
| Head protection (Approval) ANSI Z89.1-2009 Type 1 | | Class C, G, E ²⁾ | | | | | Class C, G, E ²⁾ | |
| Respiratory protection ¹⁾ | All helmets are compatible with 3M disposable or reusable respirators; see page 54-57. See next page for helmets available with powered and supplied air respiratory protection. | | | | | | | |
| Hearing protection —optional (see page 63) | Earmuffs Earplugs | Earmuffs Earplugs | Earmuffs Earplugs | Earplugs | Earplugs | Earplugs | Earplugs | Earplugs |
| 1 Exhaust vents | YES | YES | YES | YES | – | – | – | – |
| 2 Side windows | Optional | YES | YES | – | – | – | – | – |
| 3 High-comfort headband 9100 | YES | – | YES | YES | YES | YES | – | – |
| 4 Flip-up with clear visor | – | – | YES | – | – | – | – | – |
| Graphics option | – | – | – | – | – | YES | – | – |
| Auto-darkening filter options (see page 16-17) | 9100V, 9100X, 9100XX, 9100XXi | 9100V, 9100X, 9100XX, 9100XXi | 9100V, 9100X, 9100XX, 9100XXi | 9002NC | SL | 100-V | 100-V | 10V |

1) This overview shows only our helmets without air delivery connection. Helmets for powered or supplied air respirator systems see page 43.
2) With 3M™ Hard hat H-701.



1 Exhaust vents—
exhaled air is channeled
out via side vents.



2 Side windows—
shade 5 filters that widen
your field of vision.



3 High-comfort
Speedglas headband
9100 with smooth ratchet
for precise tightening.



4 Big, curved
(approx. 8"x 4.25") clear
protective visor, increasing
your peripheral vision.



| Specification 3M Welding helmet systems (air) | Speedglas 9100 FX-Air | Speedglas 9100-Air | Speedglas 9100 MP | Speedglas L-705SG/ L-905SG |
|--|----------------------------------|----------------------------------|------------------------------------|-------------------------------------|
| Eye and Face Protection (Approval) Welding helmet, welding filter and protection plates | ANSI Z87.1-2010 | ANSI Z87.1-2010 | ANSI Z87.1-2010 | ANSI Z87.1-2003 |
| Head protection (Approval) | – | – | ANSI Z89.1-2009 Type 1, Class G | ANSI Z89.1-2003 Type II, Class G |
| Respiratory protection (Approval) ³⁾ Adflo Powered Air Respirator Fresh-air III Supplied Air Regulator | APF 25 APF 25 | APF 25 APF 25 | APF 25 APF 25 | APF 25 APF 1000 ³⁾ |
| Hearing protection —optional (see page 63) | Earmuffs Earplugs | Earmuffs Earplugs | Earmuffs Earplugs | Earmuffs Earplugs |
| 2 Side windows | YES | YES | YES | NO |
| 3 High-comfort headband 9100 | YES | YES | – | – |
| 4 Flip-up with clear visor | YES | – | YES | YES |
| Auto-darkening filter options (see page 16-17) | 9100V, 9100X, 9100XX, 9100XXi | 9100V, 9100X, 9100XX, 9100XXi | 9100V, 9100X, 9100XX, 9100XXi | 9100V, 9100X, 9100XX, 9100XXi |

3) APF 1000 = L-905SG when used in conjunction with Adflo,
TR-300, TR-600, GVP, and Supplied Air.



| Specification 3M™ Faceshields and Helmets (air) | Versaflo M-207 | Versaflo M-307 | Versaflo M-407 |
|--|----------------------------|-----------------------------------|--|
| Eye and Face Protection (Approval) Visor plate | ANSI Z87.1-2010 | ANSI Z87.1-2010 | ANSI Z87.1-2010 |
| Head protection (Approval) | Bumpcap | ANSI Z89.1-2009 Type 1 Class G | ANSI Z89.1-2009 Type 1 Class G |
| Respiratory protection (Approval) Adflo Powered Air Respirator Fresh-air III Supplied Air Regulator | APF 25 APF 25 | APF 25 APF 25 | APF 1000 ⁴⁾ APF 1000 ⁴⁾ |
| Hearing protection —optional (see page 63) | Earmuffs Earplugs | Earmuffs Earplugs | Earmuffs Earplugs |
| Flame-retardant shroud | YES | YES | YES |
| Type of protective visor | Clear-coated polycarbonate | Clear-coated polycarbonate | Clear-coated polycarbonate |

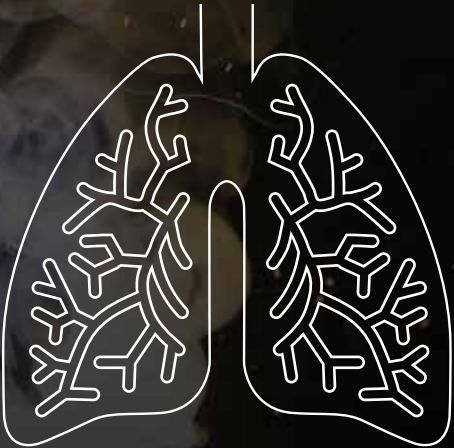
4) APF 1000 = M-407 when used in conjunction with Adflo, TR-300, TR-600, GVP, and Supplied Air. See 3M Technical Data Bulletin 175 for more details.

Your respiratory system

Content

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| Reducing welding fumes & exposure | 46 |
| General guide to respiratory protection for welders | 47 |
| 3M™ Adflo™ Powered Air Respirators | 48 |
| 3M™ Speedglas™ Fresh-air III Supplied Air Regulators | 52 |
| 3M™ Reusable Respirators | 54 |
| 3M™ Disposable Welding Respirators | 56 |

Health effects of welding fumes



The respiratory hazards of metalworking are real. Welding fumes swirling around in your work environment can potentially result in health-related issues. Some exposure limits for welding fumes are set by regulations, and others are advisory. These limits aren't always the same.

When good enough isn't enough...

To help reduce the risk of adverse health effects caused by exposures to airborne materials such as manganese, the United States Occupational Safety and Health Administration (OSHA) has established permissible exposure limits (PELs) which are law. In addition, the American Conference of Governmental Industrial Hygienists (ACGIH) sets threshold limit values (TLVs) which are airborne exposure limit guidelines.

PEL 5.0 mg/m³

Current Federal OSHA PEL for manganese compounds, including manganese fume, is 5 milligram per cubic meter of air.¹⁾

TLV 0.02 mg/m³

Since 2013 ACGIH Threshold Limit Value for Manganese exposure is 0.02 milligram per cubic meter of air.¹⁾



¹⁾ This is a graphical illustration constructed by 3M for the estimated annual dose. The illustration is based on certain important assumptions. Learn more at: [3M.com/resp/manganese](https://www.3m.com/resp/manganese).

Reducing welding fumes & exposure

Welding creates a mixture of respirable gases and/or fumes (particles). To address these hazards and risks, it is best practice to use a hierarchy of controls. The idea is that the highest priority items on the hierarchy not only do the most to reduce

fumes and worker exposure, but that they also put the least burden of responsibility on the welder. However, every welding fume control has its limitations; here are some examples:

1

Modify or substitute your welding process to other processes that generate less fumes and/or reduce exposure to airborne contaminants.

Control Limitations: Substitutions may not be possible. For example, when the end-product requires stainless steel (chromium).

2

Engineering controls include actions such as modifying enclosures around the welder, or the general ventilation of the workshop, or local exhaust controls.

Control Limitations: Ventilation can be difficult to achieve due to conflicting needs, for instance heating/cooling or shielding gases.

3

Work practices include having the welder keep their head out of the plume.

Control Limitations: Space-restricted workpieces or the welding situation may not allow alternative placement of the welder's head.

4

Personal respiratory protection. If steps 1 through 3 do not eliminate the respiratory hazards, respiratory protection for the welder can provide protection and comfort.

Control Limitations: Companies must establish a respiratory protection program in accordance with 29 CFR 1910.134 that includes selection of respirators and their filters, training and maintenance.

FACTS:

Inadequate respiratory protection is the 4th most frequently cited workplace violation.¹⁾

1) Top 10 Most Frequently Cited Standards, OSHA, U.S. Department of Labor, for 2015. Always read and follow all User Instructions.

Which style of respirator best suits you?

The following is an overview of the four general types of 3M respiratory protection found in this catalog. In addition to your application's specific filtration requirements, your selection process

may include factors such as equipment style/configuration, personal preference/comfort, and maintenance considerations.

Read more on page 48



Read more on page 52



Read more on page 54



Read more on page 56



1) APF = Assigned Protection Factor. Always read and follow all User Instructions.

3M™ Adflo™ Powered Air Respirator

- APF¹⁾ of up to 1000 based on headtop configuration.
- Can be used specifically for particle filtration (only), or for the filtration of both particulates and gases, depending on filter selection.
- Four welding helmet and three protective visor configurations to pick from.
- Provides a constant nominal airflow rate of 205 lpm.
- The respirator's slim turbo design allows highly mobile use.

3M™ Speedglas™ Fresh-air III Supplied Air Regulators

- APF¹⁾ of up to 1000 based on headtop configuration.
- Can be used to protect against substances including particle or gas/vapor.
- Four welding helmet and three protective visor configurations to pick from.
- Belt-mounted regulator with user control over airflow: from 170 lpm to 424 lpm.
- Requires Grade D breathable air, filter and regulator panel, and approved 3M supplied air hoses.

3M™ Reusable Respirators

- APF¹⁾ for half facepiece reusable respirators is 10.
- Helps provide respiratory protection against a variety of gases, vapors, and particulate hazards when used with 3M cartridges and filters according to NIOSH approvals.
- Available resilient silicone face seal styles provide comfort, durability, and stability
- Low profile designs enable fit under all 3M™ Speedglas™ Welding Helmet Series 9100.

3M™ Disposable Welding Respirators

- APF¹⁾ 10.
- Lightweight and comfortable.
- No maintenance—disposable.
- Fits under virtually any welding helmet.
- Adjustable noseclips to help provide a custom seal.

Better for backs

The ergonomic leather belt, shaped for maximum freedom, is extra wide around the turbo unit for additional back support.

A system for your needs

System components are designed to work securely together, combining eye, face, respiratory and—in some cases—head protection.

Move around

The slim profile of the turbo design makes it easier to go into tight spaces. The robust 3M™ Adflo™ Powered Air Respirator provides all of the features you would expect in a premium system, including easy-to-use functionality.

Go higher

At higher altitudes, air is less dense. To compensate, we offer the 3M™ Adflo™ High Altitude Powered Air Respirator.



Suitable for up to approx. 10,000 ft (3000 meters) above sea level and up to approx. 5,000 ft (1500 meters) when using the OV/AG cartridge.

3M™ Adflo™ Powered Air Respirator

Your own filtered atmosphere... ...mobile and adaptable



Is there a way to both increase your respiratory protection against harmful welding fumes while increasing the comfort around your face and head? Tackle workplace hazards with a respiratory protection solution workers will want to wear.

As one of the most popular respirators of its kind in the world, the 3M™ Adflo™ Powered Air Respirator is designed to provide welders a constant nominal airflow rate of 205 liters per minute, regardless of the battery's charge or the particle loading of the filter.

Green for go

As soon as you turn on your Adflo powered air respirator, a display indicates the status of the filter. Green light means that the unit is working normally. Red light indicates that the filter is clogging up.

1. Particulate filter is new



2. Three green indicator lights come on as the filter begins to clog



3. Three green and one red light: expect a shorter battery runtime. Particulate filter replacement is recommended.



4. Three green and two red lights: the particulate filter is clogged and must be replaced.



Many helmet options

Achieve an Assigned Protection Factor of 25 when you combine the 3M™ Supplied Air Regulators with the 3M™ Speedglas™ Welding Helmets 9100-Air, 9100 FX-Air or 9100 MP.

APF 1000 with the 3M™ Headgear L-Series.

High quality air

The airline supply must be Grade D breathable air. On page 86 you will find air filter regulator panels from 3M.

3M™ Speedglas™ Fresh-air III Supplied Air Regulators

Light on your belt and maximum airflow



V-200 Air Heating



V-100 Air Cooling

V-300 Regulating Ambient Air
Temperature

The lightweight, belt-mounted regulator allows you to regulate the airflow from a supplied air source. A cost-effective way to provide a high level of respiratory protection - no filters, cartridges, or batteries to maintain. They can operate on pressures ranging from 60–90 psig, depending on hose length.

Two alternative regulators to either cool (V-100) or heat (V-200) the airflow entering the headgear by as much as 50°F (28°C). These regulators are excellent choices for workers exposed to uncomfortable temperature ranges.



Built for rugged environments

The 3M™ Particulate Filters 2200 Series has advanced filter media and more durable netting construction for a new level of performance.

Breathe easier

3M™ Cool Flow™ Exhalation Valve helps reduce heat and moisture inside the facepiece to make breathing easier.

Convenient Quick Latch Drop-Down Mechanism

- Easy on and off as you move in and out of contaminated areas.
- No need to remove hard hats or faceshields when lowering and raising the respirator.



Quick Latch closed



Pull up on latch



Quick Latch open



Pull down on latch

To open Quick Latch: Grasp the latch at chin level and pull up. **To close Quick Latch:** Grasp the facepiece with your thumb on the bottom of the facepiece and your first two fingers on top of the latch. Place the facepiece over your nose and mouth while pushing down on the latch.




**3M™ Rugged Comfort Half Facepiece
Reusable Respirators and Filters**

An easy choice for a tough world

When shifts are long and conditions are challenging, your workers will appreciate the 3M™ Rugged Comfort Half Facepiece Reusable Respirator 6500 Series. With 3M's Quick Latch drop-down mechanism and Cool Flow™ Valve, respirators are easy-on and easy-off for comfortable protection.



- Our lightest silicone facepiece keeps it shape, even in high-heat environments.
- Low-profile, wide field-of-view design.
- Easy on and off with our convenient Quick Latch (QL) Drop-Down Mechanism.
- Easier breathing with 3M™ CoolFlow™ Exhalation Valve.
- Adjustable head harness assembly.
- Compatible with all 3M bayonet-style cartridges and filters.

| 3M™ Reusable Respirators | Model (Size) | Description | Assigned Protection Factor |
|---|--|---|----------------------------|
| 6500 Facepieces  | 6501 (S) 6502 (M) 6503 (L) | 3M™ Rugged Comfort Half Facepiece Reusable Respirator. | APF 10 |
| 6500QL Facepieces  | 6501QL (S) 6502QL (M) 6503QL (L) | 3M™ Rugged Comfort Quick Latch Half Facepiece Reusable Respirator | APF 10 |
| 2297 Filters  | 2297 ¹⁾ | 3M™ Advanced Particulate Filter 2297, P100 Respiratory Protection, with Nuisance Level Organic Vapor Relief ¹⁾ | |

¹⁾ 3M recommended for ozone protection up to 10x OSHA PEL (not NIOSH approved for ozone). Nuisance levels are less than OSHA PEL or applicable government occupational exposure limits, whichever is lower.
Since everyone's head size and shape is different, we recommend that you work with your 3M™ distributor to find the respirator models that are most compatible with your welding helmet(s). The filter option reference is for particle filtration. 3M reusable respirators can be combined with many other types of filters and cartridges for protection against particulates, vapors and/or gases. Please visit www.3M.com to find other options.



Adjustable nose clip
Bendable metal nose clip.

Breathe easier
3M™ Advanced Electret Filter Material combines effective filtration with low resistance.

Welding and metal working respirators all feature the proprietary 3M™ CoolFlow™ Exhalation Valve.

3M™ Disposable Filtering Facepiece Respirators




Light, convenient and comfortable protection



Looking for lightweight, effective and comfortable respiratory protection against dusts, mists, and metal fumes?

Respirators can't give workers full protection unless they are selected and worn correctly during all exposure times. That's why 3M™ Disposable Filtering Facepiece Respirators include features and technology that enhance user comfort and can help increase wear times.

Incorporates layers, designed to be flame resistant as demonstrated per ASTM D2859-96. (Not a substitute for a faceshield.)

| 3M™ Disposable Filtering Facepiece Respirator | Model | Description | Assigned Protection Factor |
|--|-------|---|----------------------------|
| N95 Respirator  | 8515 | Particulate welding respirator. | APF 10 |
| N95 Respirator  | 8212 | Particulate welding respirator with faceseal. | APF 10 |
| N95 Respirator  | 8214 | Particulate welding respirator with faceseal and nuisance level organic vapor relief. ¹⁾ | APF 10 |

¹⁾ 3M recommended for ozone protection up to 10x OSHA PEL (not NIOSH approved for ozone). Nuisance levels are less than OSHA PEL or applicable government occupational exposure limits, whichever is lower.

Always read and follow all User Instructions.

Moving towards 100% usage

Select hearing protection that your workers want to wear

This is an important step in moving towards 100% usage. But, 100% usage isn't the only answer. You need it if you're exposed above 85dB, but wearing protection below that or wearing more protection than is needed, could have an impact on your ability to hear surrounding sounds.

Create a Hearing Conservation Program

Employers who have workers in areas with 8 hour TWA noise exposures of 85 dBA and higher must provide an OSHA Hearing Conservation Program that includes:

- 1. Noise monitoring
- 2. Engineering and administrative controls
- 3. Annual hearing testing
- 4. Providing hearing protectors
- 5. Annual training
- 6. Record keeping
- 7. Evaluate program effectiveness

The following pages offer Hearing Protection Equipment (HPE) options to consider for your needs and preferences.
To learn more, visit 3M Center for Hearing Conservation: www.3m.com/chc.

| OSHA Regulations | | <div>37.5 Million Americans Experience Hearing Loss.¹⁾</div> <div>#1 Reported Manufacturing Health Issue.²⁾</div> |
|---|---|---|
| OSHA Limits | OSHA's permissible exposure limit is 90 decibels (dBA)—time-weighted average (TWA) over eight hours—for workers with no previous work-related hearing loss. | |
| OSHA Requirements | According to OSHA, workers exposed above 90 dB(A) 8 hour time weighted average must wear hearing protection. | |
| Repeated exposure to loud sounds, greater than 85 dBA, can cause permanent hearing loss and tinnitus. Other health effects related to noise can include stress, anxiety, hypertension, sleep disturbance and fatigue. | | |

1) According to the National Institutes of Health, 37.5 million (15%) Americans age 18 and older report some degree of hearing loss, and it is estimated that 26 million Americans between the ages of 20 and 69 have a hearing loss due to noise exposure.
2) The Bureau of Labor Statistics (BLS) has reported that for people working in the Manufacturing Sector, occupational hearing loss is the most commonly recorded occupational health issue. Since 2004, nearly 258,500 workers have suffered significant, permanent hearing loss.

3M™ PELTOR™ Level Dependent Earplug LEP-100

Stay aware and communicate

How can you protect your hearing but still communicate in workplaces with loud noises? The 3M™ PELTOR™ LEP-100 amplifies weak sounds (like voices) when noise levels are low while attenuating loud noises while attenuating loud noises—even sudden loud noises.

Added convenience

Replaceable eartips are available in small, medium, and large sizes and two different designs to accommodate most user's ear canals:

- UltraFit™ Eartips, NRR of 25 dB¹⁾
- Skull screw tips 32 dB¹⁾

Rain or wind

Water resistant microphone port also helps minimize wind noise.

Easy operation

Intuitive one-button operation turns the unit on and off, and selects volume settings.

Long usage time

The rechargeable Li-ion battery provides up to 16 hours of continuous operation.

1) 3M strongly recommends fit testing of hearing protectors. Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in hearing protector fit, fitting skill and motivation of the user. If the NRR is used to estimate typical workplace protection, 3M recommends that the NRR be reduced by 50% or in accordance with applicable regulations.



Maintain situational awareness and communications with noise level dependent earplugs.



3M™ PELTOR™ Earmuffs X-Series

No compromises
Ear cups have a streamlined design that doesn't compromise noise attenuation.

Helmet mounted
Integrated design for more robustness

Comfortable
Lightweight dual molded cups. 3M strongly recommends fit testing of hearing protectors

Stylish and reliable
New ear cushion foam technology for an effective acoustic seal and reliable protection

Specifications and ordering info: page 63.

3M™ PELTOR™ Welding Earmuffs H505B

Good compatibility
Fit nicely under 3M™ Speedglas™ 9100 Series and other welding helmets

Less scratch sound
Semi-soft cup surface helps minimize scratch sound transmission

Reliable noise reduction
Soft ear cushions provide a comfortable seal and help reduce loud noise exposure

Stays in place
Two-point suspension and wire headband to help with a secure, comfortable fit

Always read and follow all User Instructions. | Specifications and ordering info: page 63.

Hearing protection for welders

A selection of 3M™ Earmuffs and Earplugs¹⁾

3M | PELTOR™

| 3M™ PELTOR™ Earmuffs and Level Dependent Earplug | H505B | M-985 Earmuffs | X1 Earmuffs | X1 Earmuffs | X2 Earmuffs | X3 Earmuffs | X4 Earmuffs | X5 Earmuffs | LEP-100 |
|--|----------|----------------|-------------|----------------|----------------|----------------|-----------------------------------|----------------|-------------------------|
| Design | Neckband | Helmet mounted | Neckband | Helmet mounted | Helmet mounted | Helmet mounted | Slim, fluorescent, helmet mounted | Helmet mounted | Level dependent earplug |
| NNR ²⁾ | 17dB | 24dB | 21dB | 21dB | 24dB | 25dB | 25dB | 31dB | 25dB / 32dB |
| Part No | H505B | M-985 | X1B | X1P5E | X2P5E | X3P5E | X4P5E | X5P5E | LEP-100 |
| With 3M™ Welding Helmet | | | | | | | | | |
| Speedglas 9100 | ● | | ● | | | | | | ● |
| Speedglas 9100 Air | ● | | ● | | | | | | ● |
| Speedglas 9100-QR | | | | ● | ● | ● | ● | ● | ● |
| Speedglas 9100 FX | ● | | ● | | | | | | ● |
| Speedglas 9100 FX-Air | | | | | | | | | ● |
| Speedglas 9100 MP | | ● | | | | | | | ● |
| Speedglas 9002NC | ● | | ● | | | | | | ● |
| Speedglas 100 | ● | | ● | | | | | | ● |
| Speedglas 100-QR | | | | | | | | | ● |
| 3M 10V | | | | | | | | | ● |
| Versaflo M-series | | ● | | | | | | | ● |

¹⁾ 3M strongly recommends fit testing of hearing protectors. These recommendations are general and are based on usage with 3M™ Welding Helmets. Your personal preferences may result in different selections: for additional product information and technical specifications, please visit www.3m.com/hearing

3M | E-A-R™
Hearing Protection

| 3M™ Earplug ³⁾ | E-A-R™ Classic™ | E-A-Rsoft™ Yellow Neons™ | E-A-Rflex™ | E-A-R™ Ultrafit | E-A-R™ Ultrafit 27™ | E-A-R™ Skull Screws™ |
|---------------------------|--|---|------------------------------|-------------------------------|-------------------------------|----------------------|
| Design | Classic earplugs with proprietary foams. | Slowly expanding, polyurethane foam material. | Banded, wear Behind-the-Head | Reusable, premolded earplugs. | Resusable, premolded earplugs | Push-To-Fit Earplugs |
| NNR ²⁾ | 29dB | 33dB | 28 dB | 25dB | 27dB | 32dB |
| Part No | 310-1001 | 311-1250 | 320-1000 | 340-4004 | 340-8002 | P1301 |

²⁾ 3M strongly recommends fit testing of hearing protectors. Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in earmuff fit, earmuff fitting skill and motivation of the user. If the NRR is used to estimate typical workplace protection, 3M recommends that the NRR be reduced by 50% or in accordance with applicable regulations

³⁾ The 3M™ E-A-R™ Hearing Protection listed here were selected for use in a typical welding environment. For additional 3M hearing protection selections, and to get more product information and specifications, please visit www.3m.com/hearing.

Always read and follow all User Instructions.

When you're 75 feet (23 meters) off the ground, your harness is more than a piece of safety equipment—it's your life support. Stay safe even when things heat up.

3M™ DBI-SALA® Delta™ Harnesses are specifically designed to resist the potential heat damage experienced in welding applications.

3M™ DBI-SALA® Delta™ Harnesses



Fall Protection for High Heat Environments



1105475



For hot work use

Fire and sparks are a major concern in jobs such as welding, cutting and other high temperature applications. Keeping safe requires special materials to resist these hazards.

1105475 3M™ DBI-SALA® Delta™ Harness for Hot Work Use

Vest-style, with Nomex®/Kevlar® fibre web, back D-ring, with conductivity reducing anti spark hardware, pass-through buckle leg straps, loops for belt (Universal Size). Maximum 700° Fahrenheit char temperature. 310 lbs. (140 Kg) capacity.



3101503

3M™ DBI-SALA® Nano-Lok™ for Hot Work Use Self-Retracting Lifelines (SRL)

This unique SRL is reinforced with Kevlar® fiber to withstand sparks, weld splatter and other heat exposure.

- 6 ft. (1.8 m) working length
- Universal hot work icon to quickly and easily identify hot work products.
- Equipped with RFID.

Just a sample of what fall protection products we have to offer!

Visit [3M.com/FallProtection](https://www.3m.com/FallProtection) or call our Fall Protection Customer service at 800-328-6146 to learn more.

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As the outer protection plate becomes deeply pitted, scratched or too dirty to clean with soft cloth, it’s probably time to replace it. Ensure you order the right plate for your filter:

| Outer protection plate | | For welding filter model | | | | | | |
|------------------------|-------------------|--------------------------|-------|--------|---------|--------|----|------------|
| Part No | Description | 9100V | 9100X | 9100XX | 9100XXi | 9002NC | SL | 100 Series |
| 04-0270-01 | Standard | | | | | ● | | |
| 04-0270-03 | Scratch resistant | | | | | ● | | |
| 04-0270-04 | Heat resistant | | | | | ● | | |
| 06-0200-51 | Standard | ● | ● | ● | ● | | | |
| 06-0200-52 | Scratch resistant | ● | ● | ● | ● | | | |
| 06-0200-53 | Heat resistant | ● | ● | ● | ● | | | |
| 05-0250-00 | Standard | | | | | | ● | |
| 05-0250-01 | Scratch resistant | | | | | | ● | |
| 07-0200-51 | Standard | | | | | | | ● |
| 07-0200-52 | Scratch resistant | | | | | | | ● |
| 07-0200-53 | Heat resistant | | | | | | | ● |

The table shows our current program of welding filters, if you have an older helmet model check page 79 for consumables.

Regularly clean the inner cover plate with a soft cloth and replace if any pits or scratches occur. Ensure you order the right plate for your filter:

| Inner cover plate | | | For welding filter model | | | | | | |
|-------------------|-------------|------------|--------------------------|-------|--------|---------|--------|----|------|
| Part No | Description | L x H | 9100V | 9100X | 9100XX | 9100XXi | 9002NC | SL | 100V |
| 04-0290-00 | Clear | 3.6"x1.7" | | | | | | ● | ● |
| 04-0280-00 | Clear | 4.1"x2.1" | | | | | ● | | |
| 04-0280-01 | +1 Shade | 4.1"x2.1" | | | | | ● | | |
| 04-0280-02 | +2 Shade | 4.1"x2.1" | | | | | ● | | |
| 06-0200-10 | Clear | 4.6"x1.97" | ● | | | | | | |
| 06-0200-20 | Clear | 4.6"x2.4" | | ● | | | | | |
| 06-0200-30 | Clear | 4.6"x3" | | | ● | ● | | | |

The table shows our current program of welding filters, if you have an older helmet model check page 79 for consumables.

3M™ Speedglas™ Welding Helmet 9100



06-0100-30iSW



06-0300-51SW



06-0000-30i



06-0000-10



06-0000-20



06-0000-30

Helmets with side windows – auto-darkening filter

| Part No | Description |
|---------------|---|
| 06-0100-10SW | With Speedglas welding filter 9100X (1.8"x3.7"). |
| 06-0100-20SW | With Speedglas welding filter 9100X (2.1"x 4.2"). |
| 06-0100-30SW | With Speedglas welding filter 9100XX (2.8"x4.2"). |
| 06-0100-30iSW | With Speedglas filter kit 9100XXi, incl welding filter and front cover 9100XXi (2.8"x4.2"). |

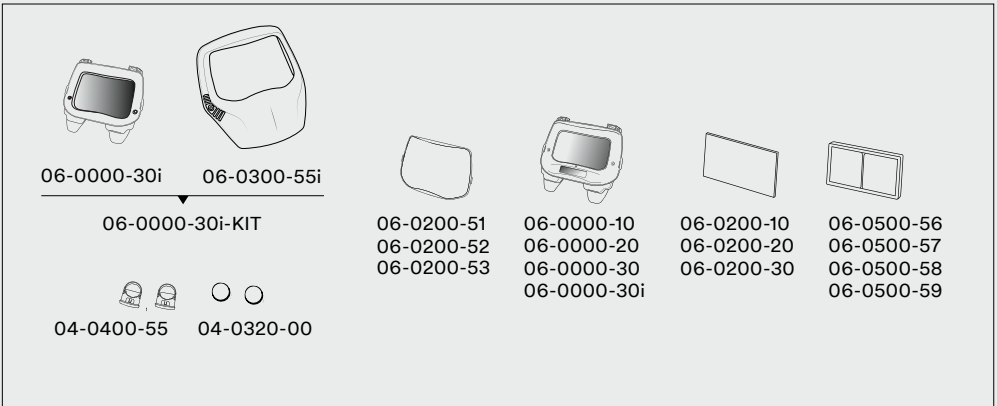
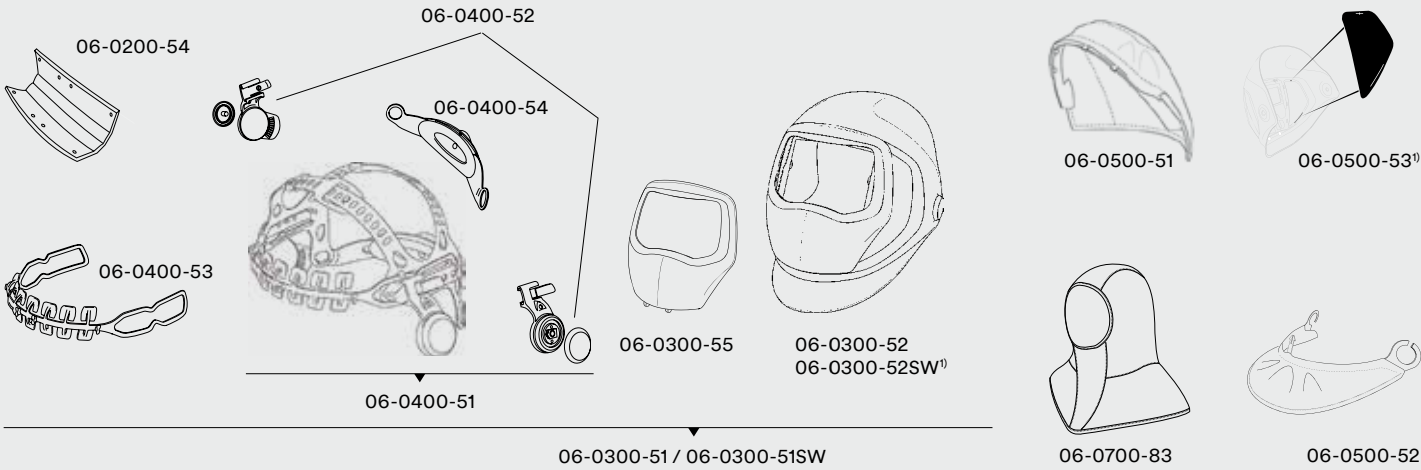
Helmets without welding filter

| Part No | Description |
|--------------|---|
| 06-0300-51 | Welding helmet 9100 without side windows, with headband and silver front. |
| 06-0300-51SW | Welding helmet 9100 with side windows, headband and front cover. |

Welding filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x 4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet 9100



| Part No | Description | Part No | Description | Part No | Description |
|-----------------|---|--------------|---|--------------------------|--------------------------------------|
| 04-0023-02 | 3M™ Hard hat H701, white (unvented). | 06-0200-51 | Outer protection plate, 10/case. | 06-0300-55 | Heat-reflecting front cover 9100. |
| 04-0320-00 | Battery, 2/case. | 06-0200-51B | Outer protection plate, 50/case. | 06-0300-55i | Heat-reflecting front cover 9100XXi. |
| 04-0400-55 | Battery holder, 2/case. | 06-0200-52 | Outer protection plate scratch resistant, 10/case. | 06-0400-51 | Headband with assembly parts. |
| 06-0000-10 | Speedglas welding filter 9100V. | 06-0200-52B | Outer protection plate scratch resistant, 50/case. | 06-0400-52 | Pivot mechanism, left and right. |
| 06-0000-20 | Speedglas welding filter 9100X. | 06-0200-53 | Outer protection plate heat resistant, 10/case. | 06-0400-53 | Headband front part. |
| 06-0000-30 | Speedglas welding filter 9100XX. | 06-0200-53B | Outer protection plate heat resistant, 50/case. | 06-0400-54 | Headband back part. |
| 06-0000-30i | Speedglas welding filter 9100XXi. | 06-0200-54 | Comfort sweatband, 3/case, standard, 10/case. | 06-0500-51 | Head protection. |
| 06-0000-30i-KIT | Speedglas welding filter kit 9100XXi (incl front cover and welding filter). | 06-0300-51 | Welding helmet without side windows, with headband. | 06-0500-52 | Neck protection. |
| 06-0014-00NR | Hard hat adapter 9100, with assembly parts. | 06-0300-51SW | Welding helmet with side windows and headband, with front cover 9100. | 06-0500-53 ¹⁾ | Side windows cover plate, 2 pairs. |
| 06-0200-10 | Inner cover plate for 9100V filter, 5/case. Plate marking 117x50. | 06-0300-52 | Welding helmet without side windows, without headband, with front cover 9100. | 06-0500-56 | Magnifying lens 1.5. |
| 06-0200-20 | Inner cover plate for 9100X filter, 5/case. Plate marking 117x61. | 06-0300-52SW | Welding helmet with side windows, without headband, with front cover. | 06-0500-57 | Magnifying lens 2.0. |
| 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. Plate marking 117x77. | | | 06-0500-58 | Magnifying lens 2.5. |

1) Please use Part No 06-0300-52SW when new side windows are required.
2) Many alternative colors available, see page 95

3M™ Speedglas™ Welding Filter Kit 9100XXi

Our top-of-the-line welding filter with improved optics and a special designed front cover with external controls for grinding and memory modes. This complete kit (front cover and welding filter) is compatible with Speedglas welding helmet models 9100, 9100-Air and 9100-QR.

Read more about the new 9100XXi welding filter on page 16.



Part No: 06-0000-30i-KIT Welding filter and front cover 9100XXi

3M™ Speedglas™ Welding Helmet 9100 FX



Helmets with side windows – and auto-darkening filter

| Part No | Description |
|--------------|---|
| 06-0600-10SW | With Speedglas welding filter 9100X (1.8"x3.7"). |
| 06-0600-20SW | With Speedglas welding filter 9100X (2.1"x 4.2"). |
| 06-0600-30SW | With Speedglas welding filter 9100XX (2.8"x4.2"). |

Helmet without welding filter

| Part No | Description |
|--------------|---|
| 06-0600-00SW | Welding helmet 9100 FX with side windows, headband and front cover. |

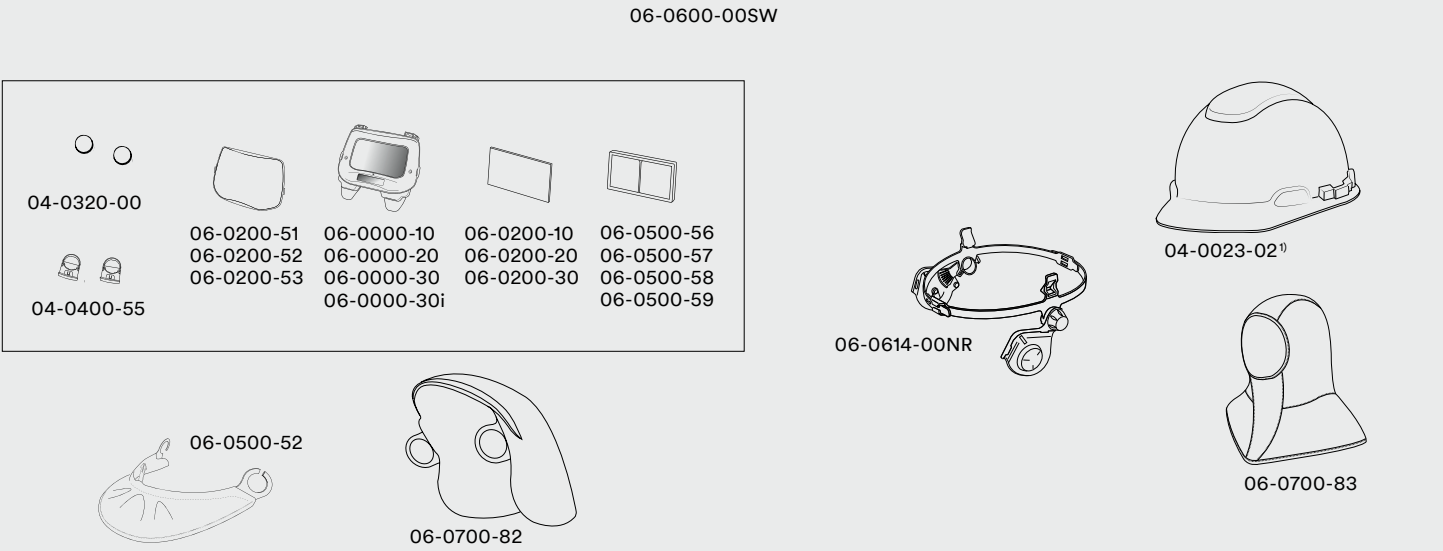
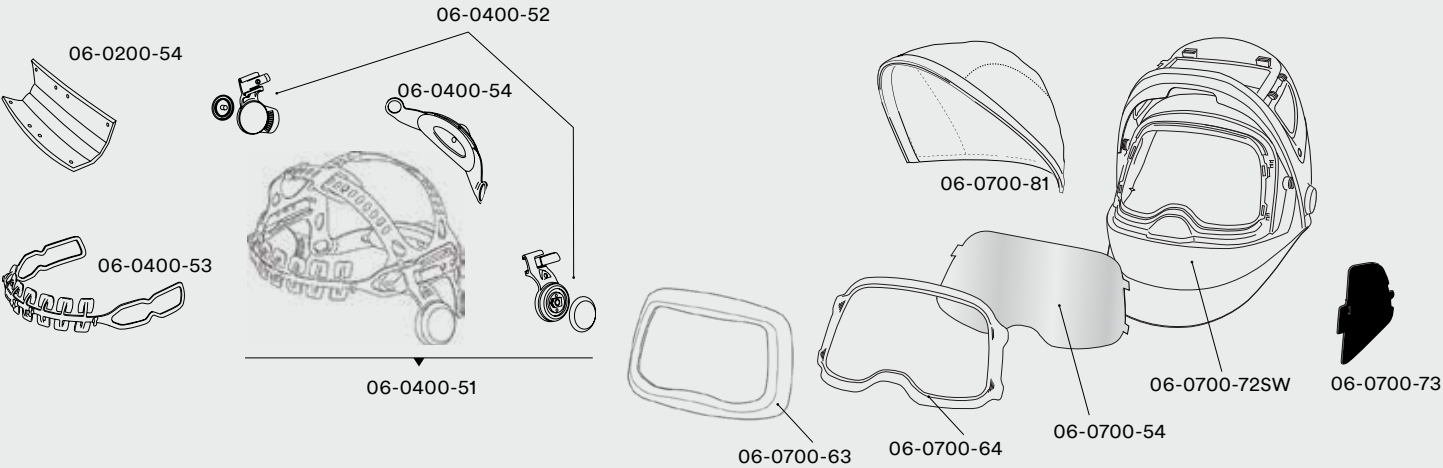
Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |



Using the adapter 06-0614-00NR, you can easily fit many of the industry's hard hats with the Speedglas welding helmet 9100 FX.

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet 9100 FX



| Part No | Description | Part No | Description | Part No | Description |
|-------------|---|-------------|---|--------------|---|
| 04-0023-02 | 3M™ Hard hat H701, white (unvented). | 06-0200-52 | Outer protection plate scratch resistant, 10/case. | 06-0600-00SW | Welding helmet, without welding filter, with headband. |
| 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 06-0200-52B | Outer protection plate scratch resistant, 50/case. | 06-0614-00NR | Hard hat adapter 9100FX, with assembly parts. |
| 04-0400-55 | Battery holder, 2/case. | 06-0200-53 | Outer protection plate heat resistant, 10/case. | 06-0700-54 | Visor plate anti-fog, 5/case. |
| 06-0000-P11 | Speedglas passive welding filter kit 9100 (shade 11). | 06-0200-53B | Outer protection plate heat resistant, 50/case. | 06-0700-81 | Head protection (small). |
| 06-0000-10 | Speedglas welding filter 9100V. | 06-0200-10 | Inner cover plate for 9100V filter, 5/case. Plate marking 117×50. | 06-0700-82 | Head protection (large). |
| 06-0000-20 | Speedglas welding filter 9100X. | 06-0200-54 | Comfort sweatband, 3/case. | 06-0700-83 | Hood, black/grey. |
| 06-0000-30 | Speedglas welding filter 9100XX. | 06-0400-51 | Headband with assembly parts. | 06-0700-73 | Side windows cover plate, 2 pairs. |
| 06-0000-30i | Speedglas welding filter 9100XXi. | 06-0400-52 | Pivot mechanism, left and right. | 06-0700-63 | Front panel, crome. |
| 06-0200-20 | Inner cover plate for 9100X filter, 5/case. Plate marking 117×61. | 06-0400-53 | Headband front part. | 06-0700-64 | Wide-view clear grinding visor frame, black. |
| 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. Plate marking 117×77. | 06-0400-54 | Headband back part. | 06-0700-72SW | Welding helmet, without welding filter, without headband. |
| 06-0200-51 | Outer protection plate, 10/case. | 06-0500-52 | Neck protection, black. | | |
| 06-0200-51B | Outer protection plate, 50/case. | 06-0500-56 | Magnifying lens 1.5. | | |
| | | 06-0500-57 | Magnifying lens 2.0. | | |
| | | 06-0500-58 | Magnifying lens 2.5. | | |
| | | 06-0500-59 | Magnifying lens 3.0. | | |

¹) Many alternative colors available, see page 95

3M™ Speedglas™ Welding Helmet 9100-QR



06-0100-30QR



06-0300-54QR



Welding helmets – with 3M™ Hard hat H-701

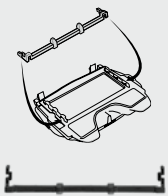
| Part No | Description |
|--------------|--|
| 06-0100-10QR | With Speedglas welding filter 9100X, with rail and hard hat (1.8"x3.7"). |
| 06-0100-20QR | With Speedglas welding filter 9100X, with rail and hard hat (2.1"x4.2"). |
| 06-0100-30QR | With Speedglas welding filter 9100XX (2.8"x4.2"). |

Welding helmets – without hard hat

| Part No | Description |
|--------------|---|
| 06-0300-54QR | With QR rail, without hard hat, without welding filter. |

Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |



Distance bar

To avoid scratches on the larger welding filters (9100X, 9100XX, 9100XXi) when raising the welding helmet, we recommend using this distance bar (included when you buy a complete helmet with these welding filters). Also sold as spare part.

Part No 06-0119-00QR



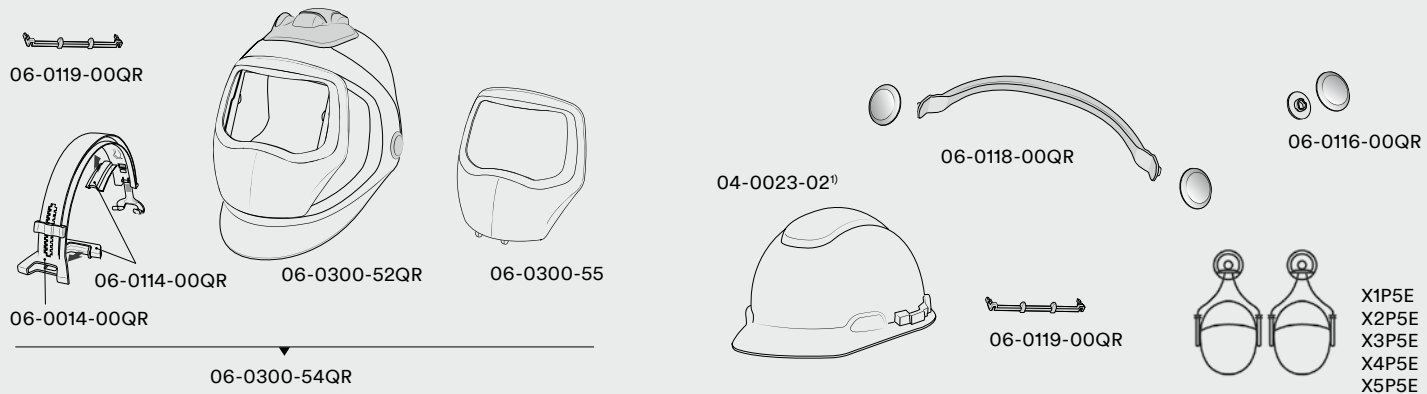
Earmuff bar

When using earmuffs, we recommend you to install this earmuff bar to widen the 9100-QR welding helmet.

Sold as separate accessory.

Part No 06-0118-00QR

Spare parts & accessories for 3M™ Speedglas™ Welding Filters & Helmet 9100-QR parts



| Part No | Description | Part No | Description | Part No | Description |
|--------------------------|---|--------------|--|---------|--|
| 04-0023-02 ¹⁾ | 3M™ Hard hat H-701R, white (unvented). | 06-0200-51B | Outer protection plate, 50/case. | X1P5E | 3M™ Peltor™ Earmuffs X1 helmet attachment. |
| 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 06-0200-52 | Outer protection plate scratch resistant, 10/case. | X2P5E | 3M™ Peltor™ Earmuffs X2 helmet attachment. |
| 04-0400-55 | Battery holder for welding filter series 9100, 2/case. | 06-0200-52B | Outer protection plate scratch resistant, 50/case. | X3P5E | 3M™ Peltor™ EarMuffs X3 helmet attachment. |
| 06-0000-10 | Speedglas welding filter 9100V. | 06-0200-53 | Outer protection plate heat resistant, 10/case. | X4P5E | 3M™ Peltor™ Earmuffs X4 helmet attachment. |
| 06-0000-20 | Speedglas welding filter 9100X. | 06-0200-53B | Outer protection plate heat resistant, 50/case. | X5P5E | 3M™ Peltor™ Earmuffs X5 helmet attachment. |
| 06-0000-30 | Speedglas welding filter 9100XX. | 06-0300-52QR | Welding helmet 9100-QR without rail, without welding filter, without hard hat. | | |
| 06-0000-30i | Speedglas welding filter 9100XXi. | 06-0300-54QR | Welding helmet 9100-QR with rail, without welding filter, without hard hat. | | |
| 06-0000-30i-KIT | Speedglas welding filter kit 9100XXi (incl front cover and welding filter). | 06-0300-55 | Heat-reflecting front cover 9100. | | |
| 06-0014-00QR | Quick release rail for hard hat. | 06-0300-55i | Heat-reflecting front cover 9100XXi. | | |
| 06-0114-00QR | Rubber friction pads for quick release rail. | 06-0500-56 | Magnifying lens 1.5. | | |
| 06-0116-00QR | Pivot cover plate kit for quick release welding helmets, 2/case. | 06-0500-57 | Magnifying lens 2.0. | | |
| 06-0200-10 | Inner cover plate for 9100V filter, 5/case. Plate marking 117×50. | 06-0500-58 | Magnifying lens 2.5. | | |
| 06-0200-20 | Inner cover plate for 9100X filter, 5/case. Plate marking 117×61. | 06-0500-59 | Magnifying lens 3.0. | | |
| 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. Plate marking 117×77. | 06-0119-00QR | Distance bar for welding filters 9100X, 9100XX and 9100XXi. | | |
| 06-0200-51 | Outer protection plate, 10/case. | 06-0118-00QR | Earmuff bar for Speedglas welding helmet 9100-QR. | | |
| | | 18-0099-68 | Ear and neck protection in leather. | | |

¹⁾ Many alternative colors available, see page 95

3M™ Speedglas™ Welding Helmet 9002NC



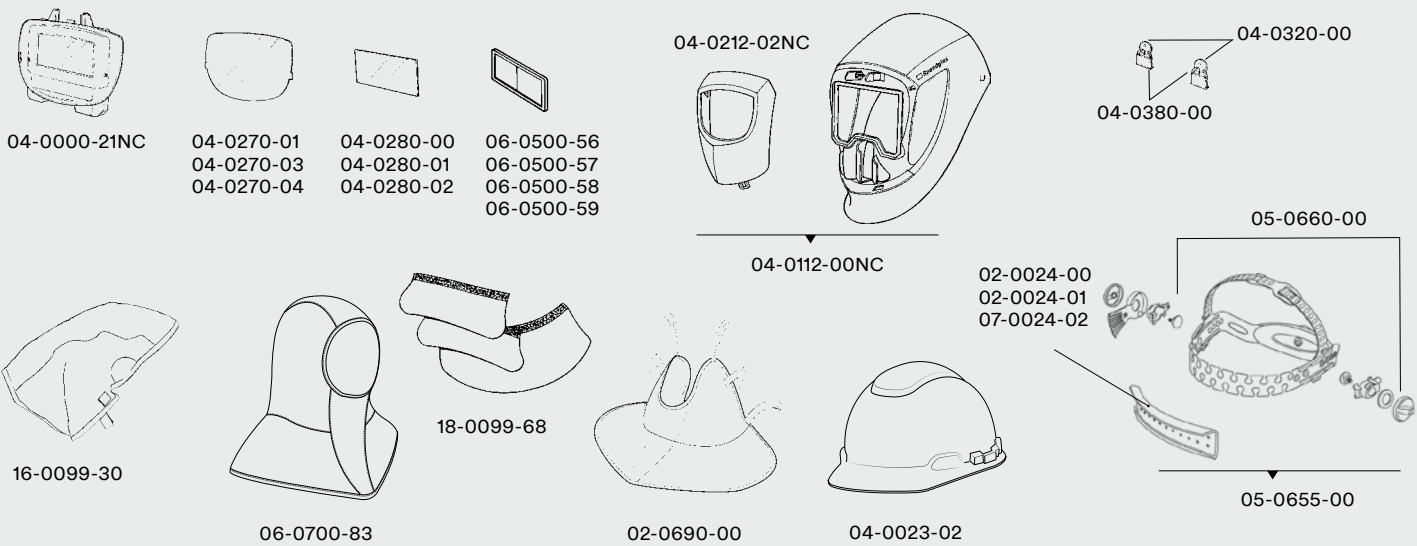
Helmet with auto-darkening filter

| Part No | Description |
|--------------|---|
| 04-0100-20NC | Welding helmet without side windows, with welding filter 9002NC, variable shade 8–12 (2.1"x4.2"). |

Welding filter (only)

| Part No | Description |
|--------------|--|
| 04-0000-21NC | 3M™ Speedglas™ Welding Filter 9002NC, variable shade 8–12 (2.1"x4.2"). |

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet 9002NC



| Part No | Description | Part No | Description | Part No | Description |
|--------------|---|--------------|---|--------------|---|
| 02-0024-01 | Sweatband, leather. | 04-0280-01 | Inner cover plate, +1 Shade, 5/case. | 06-0500-59 | Magnifying lens 3.0. |
| 02-0024-00 | Sweatband, cotton fleece with padding. | 04-0280-02 | Inner cover plate, +2 Shades, 5/case. | 06-0700-83 | Hood. |
| 02-0690-00 | Neck protection. | 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 07-0024-02 | Sweatband, fleece, 2/case. |
| 04-0000-21NC | Speedglas welding filter 9002NC, shade 8–12. | 04-0380-00 | Battery cover, 2/case. | 07-0014-00NR | Hard hat adapter with assembly parts, without hard hat (not shown). |
| 04-0023-02 | 3M™ Hard hat H701, white (unvented). | 04-0112-00NC | Welding Helmet 9000 without ADF welding filter. | 16-0099-30 | Head protection. |
| 04-0270-01 | Outer protection plate, standard, 10/case. | 04-0212-02NC | Front cover | 18-0099-68 | Ear and neck protection in leather. |
| 04-0270-03 | Outer protection plate, scratch resistant, 10/case. | 05-0655-00 | Headband with assembly parts. | | |
| 04-0270-04 | Outer protection plate, heat resistant, 10/case. | 05-0660-00 | Assembly parts for headband. | | |
| 04-0280-00 | Inner cover plate 5/case. | 06-0500-56 | Magnifying lens 1.5. | | |
| | | 06-0500-57 | Magnifying lens 2.0. | | |
| | | 06-0500-58 | Magnifying lens 2.5. | | |

3M™ Speedglas™ Welding Helmet SL



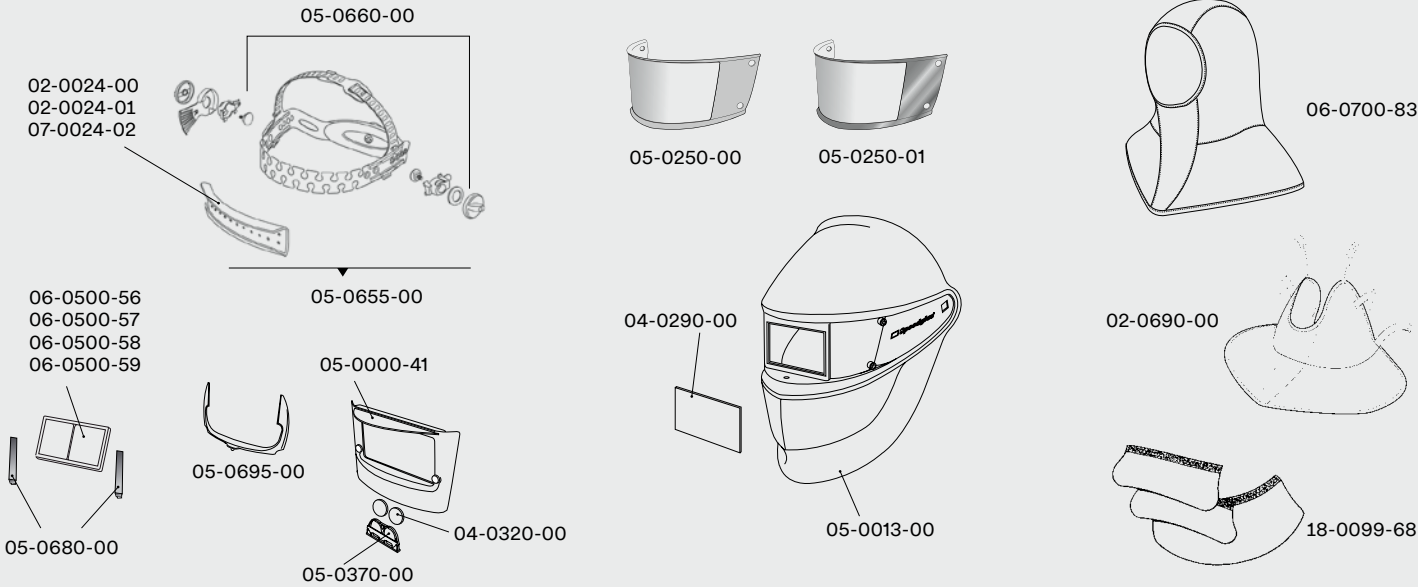
Helmet with auto-darkening filter

| Part No | Description |
|------------|---|
| 05-0013-41 | Welding helmet SL with welding filter, variable shade 8–12 (1.7"x3.7"). |

Welding filter (only)

| Part No | Description |
|------------|--|
| 05-0000-41 | 3M™ Speedglas™ Welding Filter SL, variable shade 8–12 (1.7"x3.7"). |

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet SL



| Part No | Description | Part No | Description | Part No | Description |
|------------|---|------------|---|------------|--|
| 18-0099-68 | Ear and neck protection in leather (3 parts). | 06-0500-59 | Magnifying lens 3.0. | 05-0695-00 | Splatter protector |
| 07-0024-02 | Sweatband, fleece, 2/case. | 05-0680-00 | Holder for magnifying lens. | 05-0250-00 | Outer protection plate, standard, 5/case. Plate marking 030226. |
| 02-0024-01 | Sweatband, leather. | 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 05-0250-01 | Outer protection plate, scratch resistant, 5/case. Plate marking 030248. |
| 02-0024-00 | Sweatband, cotton fleece with padding. | 04-0290-00 | Inner cover plate 5/case. Plate marking 42 02 00. | 05-0370-00 | Battery cover. |
| 02-0690-00 | Neck protection. | 05-0000-41 | Speedglas welding filter SL. | | |
| 06-0700-83 | Hood black/grey. | 05-0013-00 | Welding helmet, without headband. | | |
| 06-0500-56 | Magnifying lens 1.5. | | | | |
| 06-0500-57 | Magnifying lens 2.0. | | | | |
| 06-0500-58 | Magnifying lens 2.5. | | | | |

3M™ Speedglas™ Welding Helmet Series 100/100-QR



07-0012-31BL

3M™ Speedglas™ Welding Helmet 100 (black)

| Part No | Description |
|--------------|--|
| 07-0012-31BL | With Speedglas welding filter 100V, variable shade 8–12 (1.7"×3.7"). |
| 07-0012-00BL | Without welding filter, without headband. |



07-0012-31BLQR

3M™ Speedglas™ Welding Helmet 100-QR

| Part No | Description |
|----------------|---|
| 07-0114-00BLQR | Welding helmet 100-QR without welding filter, without hard hat, with QR rail. |
| 07-0012-31BLQR | Welding helmet 100-QR with 3M hard hat H-701R QR rail and welding filter 100-V (1.7"×3.7"). |



Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|------------|---|
| 07-0001-10 | Auto-darkening filter 100S-10, single shade 10 (1.7"×3.7"). |
| 07-0001-11 | Auto-darkening filter 100S-11, single shade 11 (1.7"×3.7"). |
| 07-0001-31 | Auto-darkening filter 100-V, variable shade 8–12 (1.7"×3.7"). |



Tribute

| Part No | Description |
|--------------|-------------------|
| 07-0012-31TB | With filter 100V. |



Trojan Warrior helmet

| Part No | Description |
|--------------|-------------------|
| 07-0012-31TW | With filter 100V. |



Aces High helmet

| Part No | Description |
|--------------|-------------------|
| 07-0012-31AH | With filter 100V. |



Steel Rose helmet

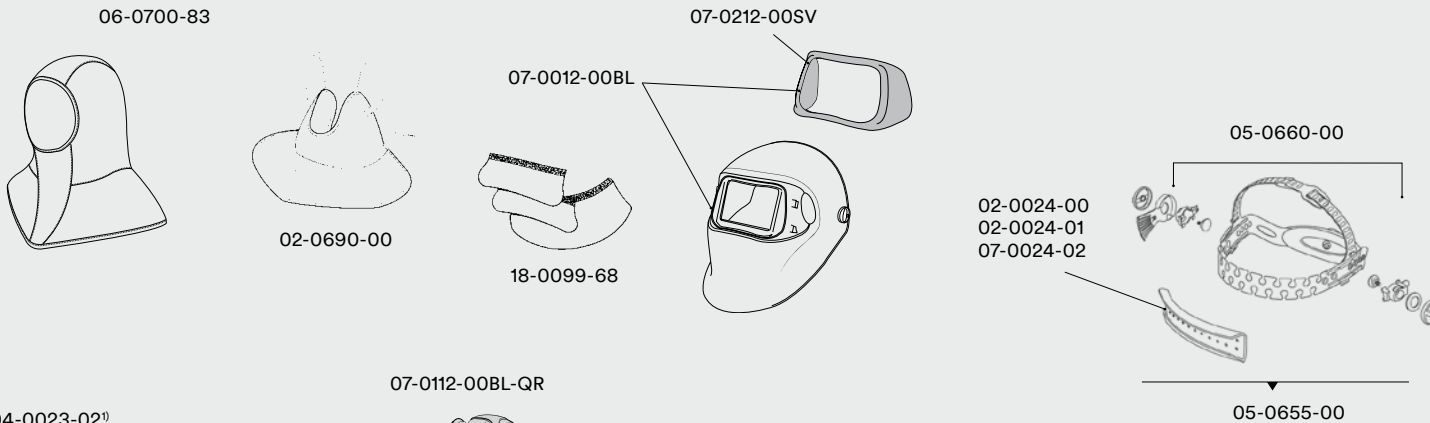
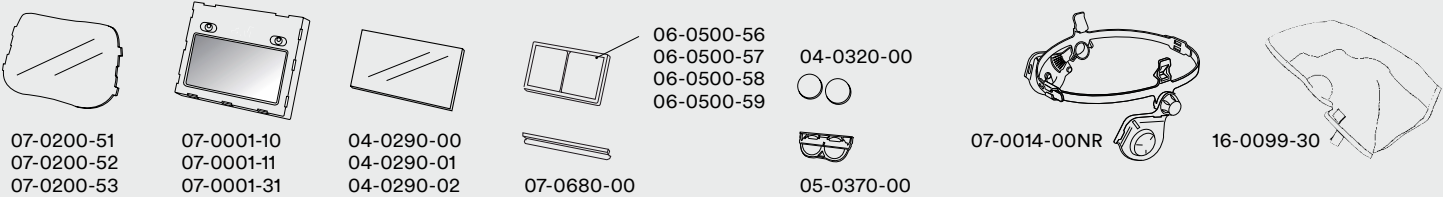
| Part No | Description |
|--------------|-------------------|
| 07-0012-31SR | With filter 100V. |



Blaze helmet

| Part No | Description |
|--------------|-------------------|
| 07-0012-31BZ | With filter 100V. |

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet Series 100/100-QR



| Part No | Description | Part No | Description | Part No | Description |
|--------------------------|--|--------------|---|----------------|--|
| 02-0024-00 | Sweatband, cotton fleece with padding. | 06-0116-00QR | Pivot cover plate kit for quick release welding helmets (QR), 2/case. | 07-0112-00BLQR | Welding helmet 100-QR without rail, without filter, without hard hat. |
| 02-0024-01 | Sweatband, leather. | 06-0500-56 | Magnifying lens 1.5. | 07-0114-00BLQR | Welding helmet 100-QR with rail, without welding filter, without hard hat. |
| 02-0690-00 | Neck protection. | 06-0500-57 | Magnifying lens 2.0. | 07-0200-51 | Outer protection plate, standard, 10/case. |
| 04-0023-02 ¹⁾ | White 3M™ Hard hat H-701R (unvented), with ratchet suspension. | 06-0500-58 | Magnifying lens 2.5. | 07-0200-52 | Outer protection plate, scratch resistant, 10/case. |
| 04-0290-00 | Inner cover plate, 5/case. | 06-0500-59 | Magnifying lens 3.0. | 07-0200-53 | Outer protection plate, heat resistant, 10/case. |
| 04-0290-01 | Inner cover plate, +1 shade, 5/case. | 06-0700-83 | Hood. | 07-0212-00SV | Front frame, silver. |
| 04-0290-02 | Inner cover plate, +2 shade, 5/case. | 07-0001-10 | Speedglas welding filter 100S-10, single shade 10. | 07-0680-00 | Holder for magnifier (older models of welding filters). |
| 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 07-0001-11 | Speedglas welding filter 100S-11, single shade 11. | 16-0099-30 | Head protection. |
| 05-0370-00 | Battery cover. | 07-0001-31 | Speedglas welding filter 100V, variable shade 8–12. | 18-0099-68 | Ear and neck protection in leather. |
| 05-0655-00 | Headband with assembly parts. | 07-0012-00BL | 100 welding helmet black, without filter, without headband. | | |
| 05-0660-00 | Assembly parts for headband. | 07-0014-00NR | Hard hat adapter (loop), with assembly parts. | | |
| 06-0014-00QR | Quick release rail for hard hat. | 07-0024-02 | Sweatband, fleece, 2/case. | | |
| 06-0114-00QR | Rubber friction pads for quick release rail. | | | | |

¹⁾ Many alternative colors available, see page 95

3M™ Welding Helmets 10V



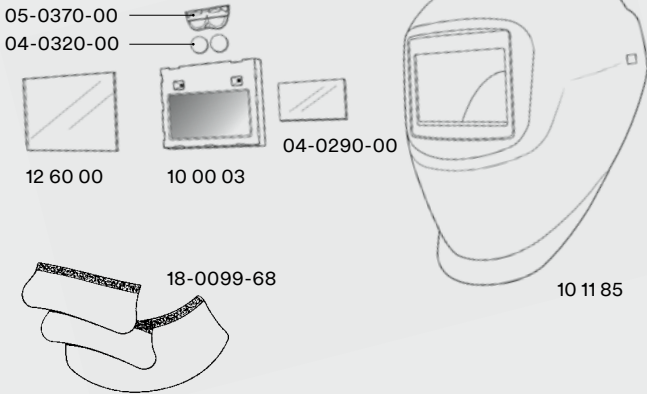
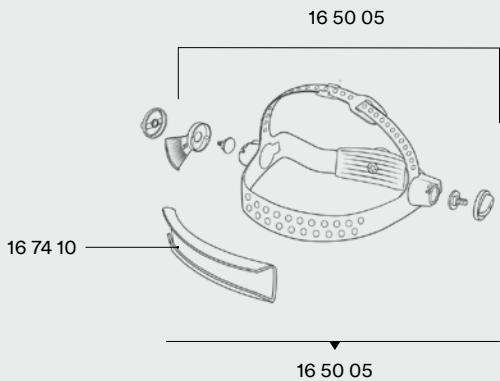
3M™ Welding Helmet 10V

| Part No | Description |
|----------|--|
| 10 11 21 | with welding filter 10V, variable shade 10–12 (1.7"x3.7"). |

3M™ Welding Filter 10V

| Part No | Description |
|----------|---|
| 10 00 03 | Welding filter 10V, variable shade 10–12 (1.7"x3.7"). |

Spare parts & accessories for 3M™ Welding Helmets 10V

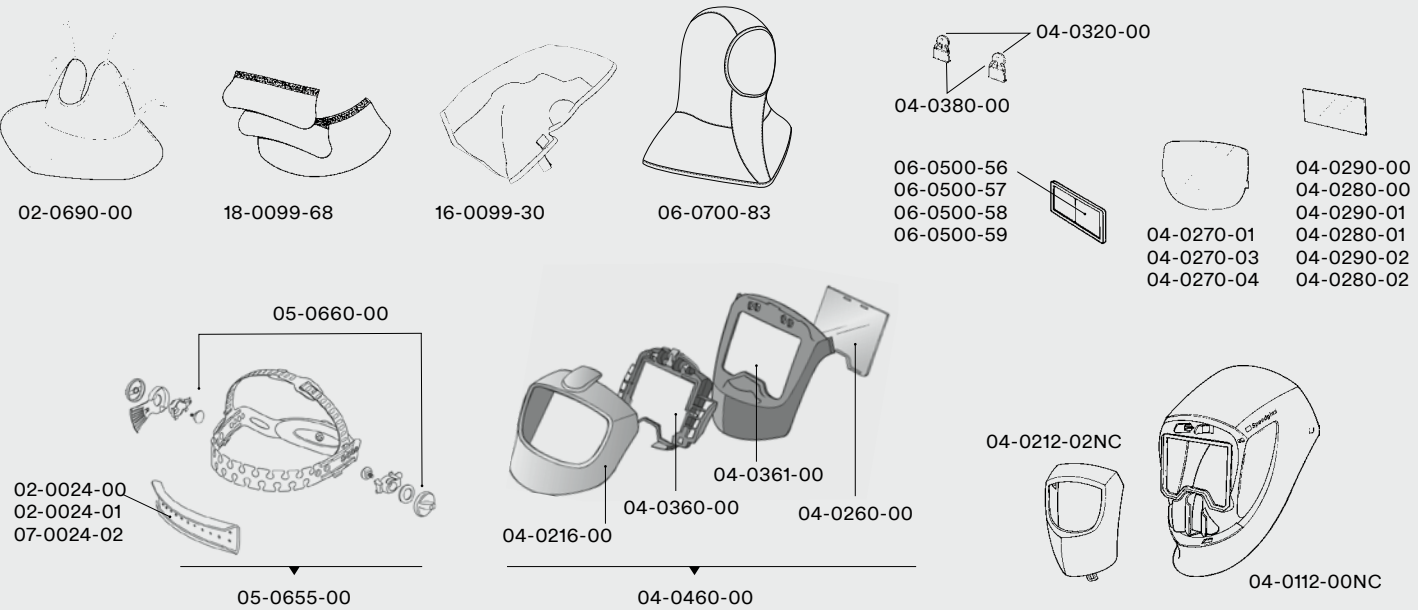


| Part No | Description | Part No | Description |
|----------|--|------------|---|
| 10 00 03 | 3M welding filter 10V, shade 10–12. | 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. |
| 10 11 85 | Welding helmet 10V without headband, without welding filter. | 04-0290-00 | Inner cover plate 5/case. Plate marking 42 02 00. |
| 12 60 00 | Outer protection plate. | 05-0370-00 | Battery cover. |
| 16 50 05 | Headband with assembly parts. | 18-0099-68 | Ear and neck protection in leather (3 parts). |
| 16 60 00 | Assembly parts for headband. | | |
| 16 74 10 | Sweatband. | | |

3M™ Speedglas™ Welding Helmets FlexView / ProTop / Utility




Spare parts for 3M™ Speedglas™ Welding Helmets FlexView / ProTop / Utility




| Part No | Description | Part No | Description | Part No | Description |
|--------------|---|------------|--|------------|-------------------------------------|
| 02-0024-00 | Sweatband, cotton fleece with padding. | 04-0280-02 | Inner cover plate (2.1"x4.1"), +2 Shade, 5/case. | 06-0500-58 | Magnifying lens 2.5. |
| 02-0024-01 | Sweatband, leather. | 04-0290-00 | Inner cover plate (1.7"x3.6") 5/case. Plate marking 42 02 00. | 06-0500-59 | Magnifying lens 3.0. |
| 02-0690-00 | Neck protection. | 04-0290-01 | Inner cover plate (1.7"x3.6"), +1 Shade for 9002D/9002V filters, 5/case. | 06-0700-83 | Hood. |
| 04-0112-00NC | Helmet without side windows, without headband, without welding filter. | 04-0290-02 | Inner cover plate (1.7"x3.6"), +2 Shade 5/case. | 07-0024-02 | Sweatband, fleece, 2/case. |
| 04-0212-02NC | Front cover. | 04-0320-00 | Battery CR2032 Lithium 3V, 2/case. | 16-0099-30 | Head protection. |
| 04-0216-00 | Front cover FlexView, silver. | 04-0360-00 | Holder for welding filter (FlexView). | 18-0099-68 | Ear and neck protection in leather. |
| 04-0260-00 | Protective visor plate FlexView, 10/case. | 04-0361-00 | Middle helmet FlexView, black. | | |
| 04-0270-01 | Outer protection plate, standard, 10/case. Plate marking 42 01 50. | 04-0380-00 | Battery cover, 2/case. | | |
| 04-0270-03 | Outer protection plate, scratch resistant, 10/case. | 04-0460-00 | Speedglas FlexView Conversion Kit. | | |
| 04-0270-04 | Outer protection plate, heat resistant, 10/case. Plate marking 42 01 71 HEAT. | 04-0550-00 | FlexView locking wedge kit, holder welding filter (not shown). | | |
| 04-0280-00 | Inner cover plate (2.1"x4.1") 5/case. Plate marking 42 02 10. | 05-0655-00 | Headband with assembly parts. | | |
| 04-0280-01 | Inner cover plate (2.1"x4.1"), +1 Shade 5/case. | 05-0660-00 | Assembly parts for headband. | | |
| | | 06-0500-56 | Magnifying lens 1.5. | | |
| | | 06-0500-57 | Magnifying lens 2.0. | | |

Welding and grinding respiratory systems




9100 Air
Page 86




9100 FX-Air
Page 88




9100 MP
Page 90




M-207
Page 96




M-307
Page 96



M-407
Page 96




**3M™ Adflo™
Powered Air Respirator**
Page 82



**3M™ Adflo™
High-Altitude Powered Air Respirator²⁾**
Page 82




**V-100
Air Cooling**
Page 84




**V-200
Air Heating**
Page 84




**V-300
Air regulating**
Page 84



Breathing tubes³⁾
The QRS (Quick Release Swivel) breathing tubes allow fast and easy connection. Most systems comes with the self-adjusting length for improved fit, made in polyurethane (SG-30W). As an alternative the high durability rubber tube (SG-40W) is sold separately. Part numbers, see page 82 and 84.




1




2



3



4



5

1. Prefilter¹⁾


2. HE particulate filter¹⁾

3. Nuisance Odor Filter
Not needed when you use OV/AG cartridge.


4. OV/AG cartridge⁴⁾

5. Backpack

More information about Adflo accessories **see page 83.**



1




2

1. 3M™ Air Filtration Units
(wall-mounted or portable)

2. 3/8 in High Pressure Hose (25, 50, or 100 ft)

More information about air supply **see page 84.**



3M™ Adflo™ Battery Charger Organizing Stand

The 6-position battery charger organizing stand for Adflo battery chargers provides the ability to charge six batteries at the same time, saving both time and hassle. Compatible with legacy NiMH batteries and the new Li-ion batteries. Flexible installation: either mount on wall or stand-alone.
Part No: 35-0099-08N6 Batteries and chargers not included




1) Included as standard when you order a complete 3M™ Adflo™ PAPR System with welding helmet; must always be used.
2) For welders working at higher altitudes there is a special respirator version to adjust for changes in air density: 3M™ Adflo™ High Altitude Turbo.
3) The 3M™ Speedglas™ Breathing Tube SG-50W is required when used with 3M™ Adflo™ PAPR with HE filter and OV/AG cartridge and 3M™ Speedglas™ Welding Helmets 9100-Air , 9100MP or 3M™ Versaflor™ Helmet M-407. The SG-50W breathing tube is not NIOSH approved with 3M™ Supplied Air Valves V-Series.
4) OV/AG cartridge must always be used together with HE filter.

Always read and follow all User Instructions.

Still using an older version of our welding respiratory helmets?

Did you know you can easily upgrade to our current premium welding helmets, without buying a new Adflo or Versaflor system? Our 9100 series helmets feature the QRS (Quick Release Swivel) type of breathing tube, which enables one-handed connection and release.

Below you will find ordering information to get a helmet kit, including welding filter and breathing tube. To help protect your new helmet system from scratches, we include a special Speedglas storage bag for free.

| | | |
|--|---|--|
|  |  |  |
| 3M™ Speedglas™ Welding Helmet 9100-Air | 3M™ Speedglas™ Welding Helmet 9100 FX-Air | 3M™ Speedglas™ Welding Helmet 9100MP |
| Part No | Part No | Part No |
| Description | Description | Description |
| 35-1101-00SW | 36-1101-00SW | 37-1101-00SW |
| Welding helmet 9100-Air without welding filter, with self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100 FX-Air without welding filter, with self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag | Welding helmet 9100 MP without welding filter, with self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag |
| 35-1101-10SW | 36-1101-10SW | 37-1101-10SW |
| Welding helmet 9100-Air with welding filter 9100V (1.8"x3.7"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100 FX-Air with welding filter 9100V (1.8"x3.7"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100 MP with welding filter 9100V (1.8"x3.7"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. |
| 35-1101-20SW | 36-1101-20SW | 37-1101-20SW |
| Welding helmet 9100-Air with welding filter 9100X (2.1"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100 FX-Air with welding filter 9100X (2.1"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100MP with welding filter 9100X (2.1"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. |
| 35-1101-30iSW | 36-1101-30iSW | 37-1101-30iSW |
| Welding helmet 9100-Air with welding filter 9100XXi (2.8"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100 FX-Air with welding filter 9100XXi (2.8"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. | Welding helmet 9100MP with welding filter 9100XXi (2.8"x4.2"), self-adjusting QRS breathing tube (20.6" to 33.5") and storage bag. |

Always read and follow all User Instructions.

3M™ Adflo™ Powered Air Respirator



Respirator without headtop
– for use with 9100 Series Headtops

| Part No | Description |
|------------|---|
| 35-5401-01 | Adflo respirator with SG-30W self-adjusting breathing tube, airflow indicator, prefilter, spark arrestor, HE particulate filter, battery, belt and charger. |



Respirator without headtop
– for use with L-Series Headtops

| Part No | Description |
|--------------|---|
| 34-5401-02SG | Adflo respirator with L-122SG breathing tube, airflow indicator, prefilter, spark arrestor, HE particulate filter, battery, belt and charger. |



Respirator without headtop
– for use in High Altitude environments

| Part No | Description |
|------------|---|
| 35-3499-01 | Adflo HA respirator with self adjusting breathing tube QRS, breathing tube adapter, airflow indicator, prefilter, spark arrestor, HE particulate filter, battery, belt and charger. |

See a demo on how to replace your parts and maintain your welding respirator systems

Visit our website:
www.3m.com/Speedglas

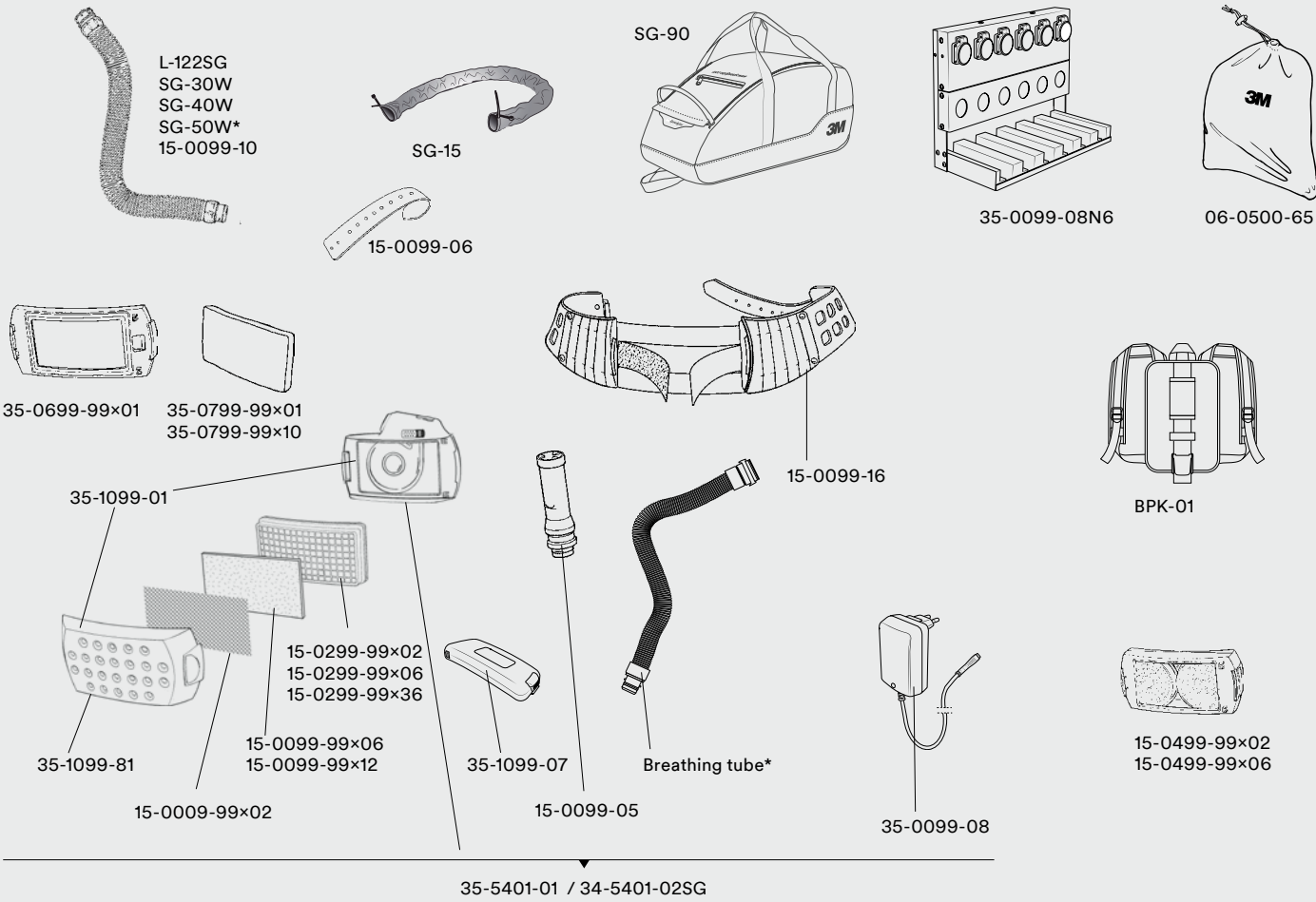
Science.
Applied to Life.™

General charging, specifications, maintenance and storage for Adflo™ Battery

Always read and follow all User Instructions.

0:00 / 3:25

Spare parts & accessories 3M™ Adflo™ Powered Air Respirator



| Part No | Description | Part No | Description | Part No | Description |
|--------------|---|---------------|--|--|--------------------------------|
| BPK-01 | Backpack | 15-0099-12 | O-ring for breathing tube assembly 15-0099-10. (not shown). | 35-0099-08 | Charger for Li-ion battery |
| L-122SG | Breathing tube for L-series headgear. | 15-0099-16 | Belt, leather. | 35-0099-08N6 | Docking station for chargers. |
| SG-15 | Flame resistant breathing tube cover (replaces 17-0099-54). | 15-0099-20 | Flow Indicator rubber adapter (not shown). | 35-0099-14 | Belt connection (not shown) |
| SG-30W | Breathing tube, self-adjusting, with QRS connection. | 15-0099-21 | Flow Indicator. | 35-0699-9901 | Nuisance odor filter |
| SG-40W | Breathing tube, heavy-duty, with QRS connection. | 15-0099-9906 | Prefilter, 6/case. | 35-0699-9901 | Nuisance odor filter pad |
| SG-50W* | Breathing tube, sound-dampening, with QRS connection. | 15-0099-9912 | Prefilter, 12/case. | 35-0699-9901 | Nuisance odor filter pad, 10/c |
| SG-90 | Carry bag, black. | 15-0299-9902 | HE particulate filter, 2/case. | 35-1099-01 | PAPR assembly and filter cover |
| 06-0500-65 | Protective bag | 15-0299-9906 | HE particulate filter, 6/case. | 35-1099-07 | Battery Li-ion |
| 15-0009-9902 | Spark arrestor, 2/c | 15-0299-9936 | HE particulate filter, 36/case. | 35-1099-81 | PAPR filter cover |
| 15-0099-05 | Airflow indicator | 15-0499-9902 | OV/AG cartridge, 2/case | Adflo PAPR with SG-30W | |
| 15-0099-06 | Leather belt front extender | 15-0499-9906 | OV/AG cartridge, 6/case | self-adjusting breathing tube, | |
| 15-0099-08 | Charger for NiMH battery | 15-1101-99 | Battery NiMH | airflow indicator, prefilter, | |
| 15-0099-10 | Breathing tube assembly (including gasket and o-ring) | 15-1101-99 | Adflo service kit: HE particulate filters 2/c, prefilters 6/c, spark arrestor 2/case. | spark arrestor, filter cover, HE | |
| 15-0099-11 | Gasket for non-QRS breathing tubes (not shown). | 34-5401-02SG* | Adflo PAPR with L-122SG breathing tube, airflow indicator, prefilter, spark arrestor, filter cover, HE particulate filter, battery, belt and charger | particulate filter, battery, belt and charger. | |

* The 3M™ Speedglas™ Breathing Tube SG-50W is required when used with 3M™ Adflo™ PAPR with HE filter and OV/AG cartridge and 3M™ Speedglas™ Welding Helmets 9100-Air or 9100 MP.

3M™ Speedglas™ Fresh-air III Supplied Air Regulators



Vortex supplied air regulator V-100

| Part No | Description |
|---------|--|
| V-100 | Vortex cooling assembly, includes valve V-150, belt W-2963 and holder. |



Vortemp supplied air regulator V-200

| Part No | Description |
|---------|---|
| V-200 | Vortemp heating assembly, includes valve V-250, belt W-2963 and holder. |

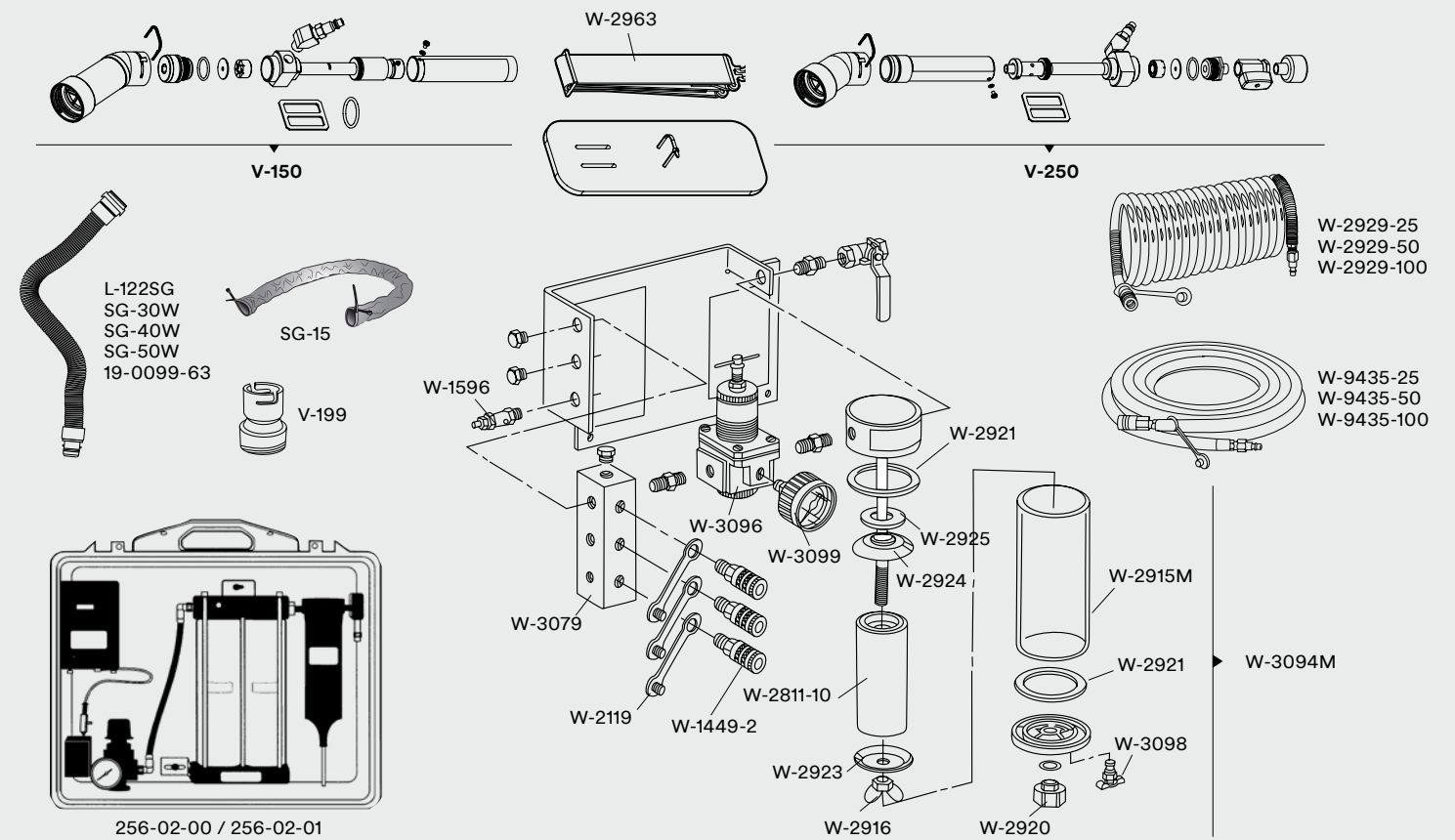


Regulator with air regulating valve V-300

| Part No | Description |
|---------|--|
| V-300 | 3M™ Versaflo™ Air Regulating Valve Assembly. |

| Available Supplied Air Hoses and Panels | 3M™ Supplied Air Hoses | | 3M™ Filter and Regulator Panels | |
|---|---|---|--|--|
| |  |  |  |  |
| Part Numbers | W-9425-25 (25 ft). W-9435-50 (50 ft). W-9435-100 (100 ft). | W-2929-25 (25 ft). W-2929-50 (50 ft). W-2929-100 (100 ft). | W-2806 Filter and Regulator Panel, 50 cfm W-2808 CO Monitor Retrofit Kit. | 256-02-00 Portable Filter and Regulator Panel, 50 cfm. |
| Applications | 3/8 in High Pressure Hose (25, 50, or 100 ft). | | Helps to remove water, oil, particles, odors and vapors. | Removes limited amounts of carbon monoxide and other contaminants without using large desiccant drying towers. |

Spare parts & accessories for 3M™ Speedglas™ Fresh-air III Supplied Air Systems



| Part No | Description | Part No | Description | Part No | Description |
|-----------|---|-----------|---|------------|---|
| L-122SG | Breathing tube for L-series headgear. | W-3079 | Manifold. | W-2929-100 | High pressure air supply hose, 100 ft. |
| SG-15 | Flame resistant breathing tube cover (replaces 17-0099-54). | W-3094M | Filter housing assembly. | W-2963 | Waist belt, cotton. |
| SG-30W | Breathing tube, self-adjusting, with QRS connection. | W-3095 | Filter housing base (part of W-3094M). | W-9435-25 | High pressure air supply hose, 25 ft. |
| SG-40W | Breathing tube, heavy-duty, with QRS connection. | W-3096 | Air pressure regulator. | W-9435-50 | High pressure air supply hose, 50ft. |
| SG-50W | Breathing tube, sound-dampening, with QRS connection. | W-3098 | Drain valve. | W-9435-100 | High pressure air supply hose, 100 ft. |
| W-1449-2 | Socket, 3/8 in. MPT, 1/4 in. body size, industrial interchange, 2/case. | W-3099 | Air pressure gauge. | 19-0099-63 | Fresh-air III breathing tube V-Series. |
| W-1596 | Pressure relief valve. | W-3182-2 | Socket, 3/8 in MPT, 1/4 in body size, schrader, 2/case (not shown). | 256-02-00 | Portable compressed air filter and regulator panel, 50 cfm, 4 outlets, with carbon monoxide filtration and monitor. |
| W-2119 | Socket dust cap. | W-3281-2 | Socket, hansen S23 (3/8 in. Male NPT), 2/case (not shown). | 256-02-01 | Portable compressed air and regulator panel, 100 cfm, 8 outlets, with carbon monoxide monitor. |
| W-2806 | Compressed air filter and regulator panel . | V-111 | Vortex muffler kit (replacement muffler for the cooling assembly V-100). | 529-04-48 | Calibration kit, large (not shown). |
| W-2808 | CO monitor with retrofit kit (not shown). | V-115 | Vortex spare parts kit (for the cooling assembly V-100). | 529-04-49 | Calibration kit, small (not shown). |
| W-2811-10 | Filter cartridge, 10/case. | V-150 | Vortex cooling valve. | 529-04-50 | Adapter, 110-120 Volts AC (not shown). |
| W-2915M | Aluminum filter bowl. | V-199 | Adapter (for use with SG-30W and SG-40W breathing tubes), 4/case. | 529-05-20 | Remote alarm and strobe audible (not shown). |
| W-2916 | Wing nut. | V-211 | Vortemp muffler kit (replacement muffler for the heating assembly V-200). | | |
| W-2920 | Nut base. | V-215 | Vortemp spare parts kit (for the heating assembly V-200). | | |
| W-2921 | Bowl gasket. | V-250 | Vortemp heating valve. | | |
| W-2923 | Cartridge washer. | W-2929-25 | High pressure air supply hose, 25 ft. | | |
| W-2924 | Air deflector. | W-2929-50 | High pressure air supply hose, 50 ft. | | |
| W-2925 | Air deflector gasket. | | | | |
| W-3012 | Coalescing filter assembly. | | | | |
| W-3013-4 | High efficiency filter element for W-3012 (not shown), 4/case. | | | | |

3M™ Speedglas™ Welding Helmet 9100-Air Systems



Helmet with powered air systems - HE particulate filtration

| Part No | Description |
|---------------|--|
| 35-1101-00SW | Without welding filter with Adflo PAPR and HE filter. |
| 35-1101-10SW | With Speedglas welding filter 9100V (1.8"x3.7" and Adflo PAPR with HE filter. |
| 35-1101-20SW | With Speedglas welding filter 9100X (2.1"x4.2") and Adflo PAPR with HE filter. |
| 35-1101-30iSW | With Speedglas welding filter 9100XXi (2.8"x4.2") and Adflo PAPR with HE filter. |

Helmet with supplied air systems - V-100 cooling valve

| Part No | Description |
|---------------|---|
| 25-5702-00SW | Without welding filter with Fresh-air III SAR, V-100 cooling valve (available in 2018). |
| 25-5702-30iSW | With Speedglas welding filter 9100XXi (2.8"x4.2") and Fresh-air III SAR, V-100 cooling valve. |



Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |

Maintenance tips for 3M™ Speedglas™ Welding Helmet 9100-Air

Subscribe to our YouTube channel to learn more about product features and maintenance. A few examples:



Scan QR-code or use this URL:

www.youtube.com/3MSpeedglas



Adjust the air duct length to your personal preferences.

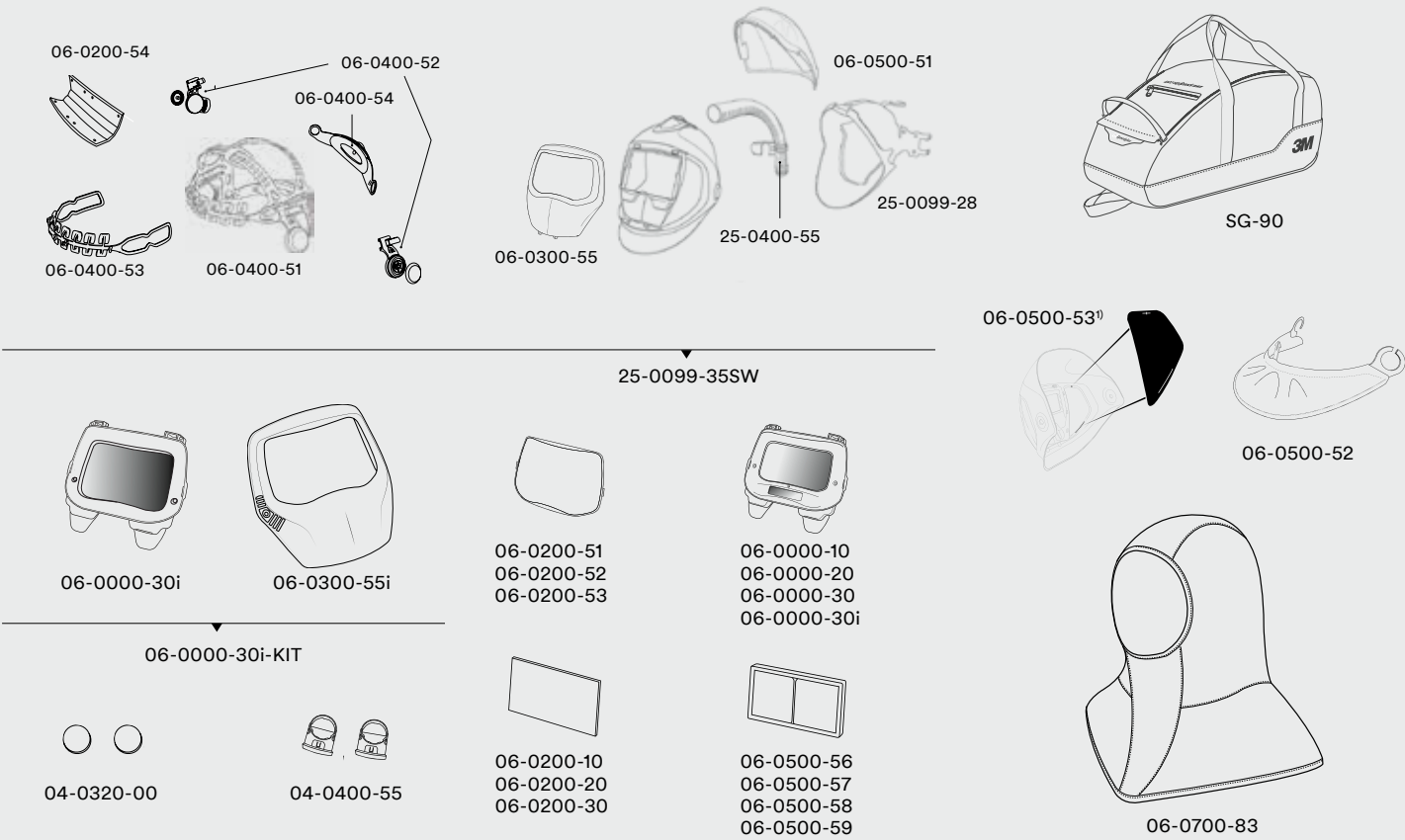


A face seal in good working order is essential at all times. Do you know how to replace it?



For additional protection against sparks or to cover for inside glare the extended head cover might be useful.

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet 9100-Air



| Part No | Description | Part No | Description | Part No | Description |
|---------------|---|-------------|---|--------------|--|
| 04-0320-00 | Battery, 2/case. | 06-0200-52B | Part no 06-0200-52, 50/case | 06-0500-51 | Extended coverage, crown. |
| 06-0000-10 | Welding filter 9100V. | 06-0200-53 | Outside protection plate high temperature,10/case | 06-0500-52 | Extended coverage, ear and neck. |
| 06-0000-20 | Welding filter 9100X. | 06-0200-53B | Part no 06-0200-53, 50/case | 06-0500-53 | SideWindow cover plates, 2/case |
| 06-0000-30 | Welding filter 9100XX. | 06-0200-54 | Comfort sweatband, 3/case | 06-0500-56 | Magnification plate 1.5x. |
| 06-0000-30i | Welding filter 9100XXi | 06-0200-54B | Comfort sweatband, 12/case | 06-0500-57 | Magnification plate 2.0x. |
| 06-000030iKIT | Welding filter kit 9100XXi, (filter and silver front) | 06-0300-55 | Silver front panel. | 06-0500-58 | Magnification plate 2.5x. |
| 06-0200-10 | Inside protection plate 9100V, 5/case | 06-0300-55B | Part no 06-0300-55, 5/case. | 06-0500-59 | Magnification plate 3.0x. |
| 06-0200-10B | Part no 06-0200-10, 25/case | 06-0300-55i | Heat-reflecting front cover 9100XXi. | 06-0700-83 | Full hood, black/grey |
| 06-0200-20 | Inside protection plate 9100X, 5/case | 06-0400-51 | Headband incl assembled parts. | 25-0099-28 | Face seal |
| 06-0200-20B | Part no 06-0200-20, 25/case | 06-0400-51B | Part no 06-0400-51, 5/case | 25-0099-35SW | Welding helmet 9100-Air, without welding filter. |
| 06-0200-30 | Inside protection plate 9100XX/9100XXi, 5/case | 06-0400-52 | Pivot mechanism headband, left and right. | 25-0400-55 | Air duct tube. |
| 06-0200-30B | Part no 06-0200-30, 25/case | 06-0400-52B | Part no 06-0400-52, 5/case | SG-90 | Carry bag, black. |
| 06-0200-51 | Outside protection plate standard, 10/case | 06-0400-53 | Headband front part. | | |
| 06-0200-51B | Part no 06-0200-51, 50/case | 06-0400-53B | Part no 06-0400-53, 5/case | | |
| 06-0200-52 | Outside protection plate scratch resistant, 10/case | 06-0400-54 | Headband back part. | | |
| | | 06-0400-54B | Part no 06-0400-54, 5/case | | |
| | | 06-0400-55 | Battery holder 9100, 2/case | | |
| | | 06-0400-55B | Part no 06-0400-55, 10/case | | |

1) Please use Part No 26-0099-35SW when new side windows are required.

3M™ Speedglas™ Welding Helmet 9100 FX-Air Systems



Helmet with powered air systems - HE particulate filtration

| Part No | Description |
|----------------|--|
| 36-1101-00SW | Without welding filter with Adflo PAPR and HE filter. |
| 36-1101-10SW | With Speedglas welding filter 9100V (1.8"x3.7") and Adflo PAPR with HE filter. |
| 36-1101-20SW | With Speedglas welding filter 9100X (2.1"x4.2") and Adflo PAPR with HE filter. |
| 36-1101-30iSW | With Speedglas welding filter 9100XXi (2.8"x4.2") and Adflo PAPR with HE filter. |
| 36-1101-00SWHA | Without welding filter with Adflo High Altitude PAPR with HE filter. |

Helmet with supplied air system

| Part No | Description |
|---------------|---|
| 26-5702-00SW | Without welding filter, with Fresh-air III SAR, V-100 cooling valve. |
| 26-5702-30iSW | With Speedglas welding filter 9100XXi (2.8"x 4.2") and Fresh-air III SAR, V-100 cooling valve. Available in 2018. |

Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |

Maintenance tips for 3M™ Speedglas™ Welding Helmet 9100 FX-Air

Subscribe to our YouTube channel to learn more about product features and maintenance. A few examples:



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www.youtube.com/3MSpeedglas



It is important that the face seal is correctly mounted and fitted to provide the correct protection factor.

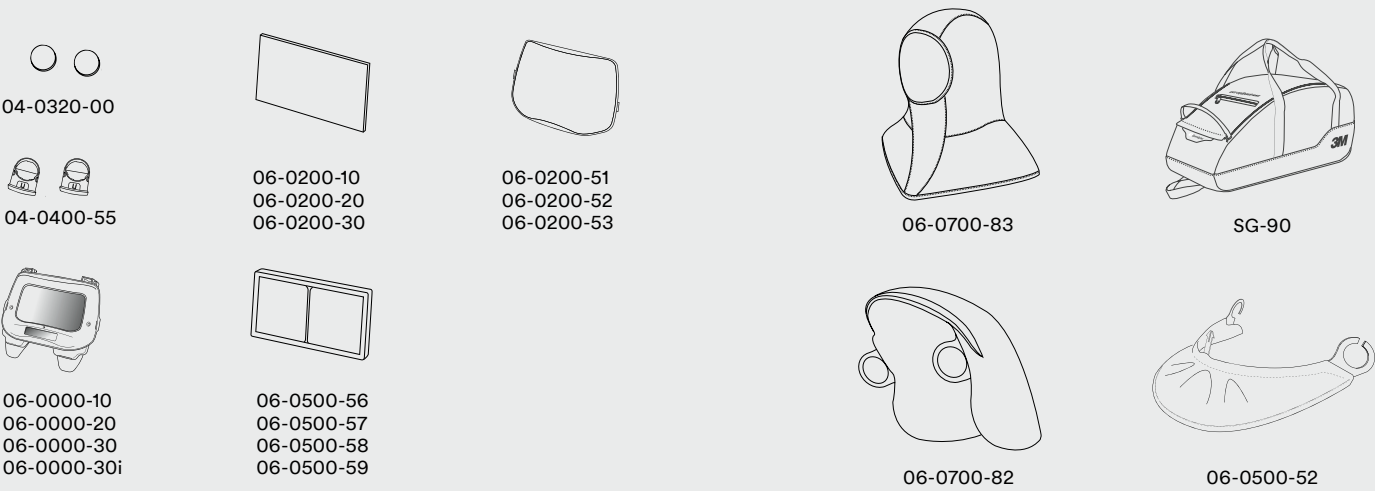
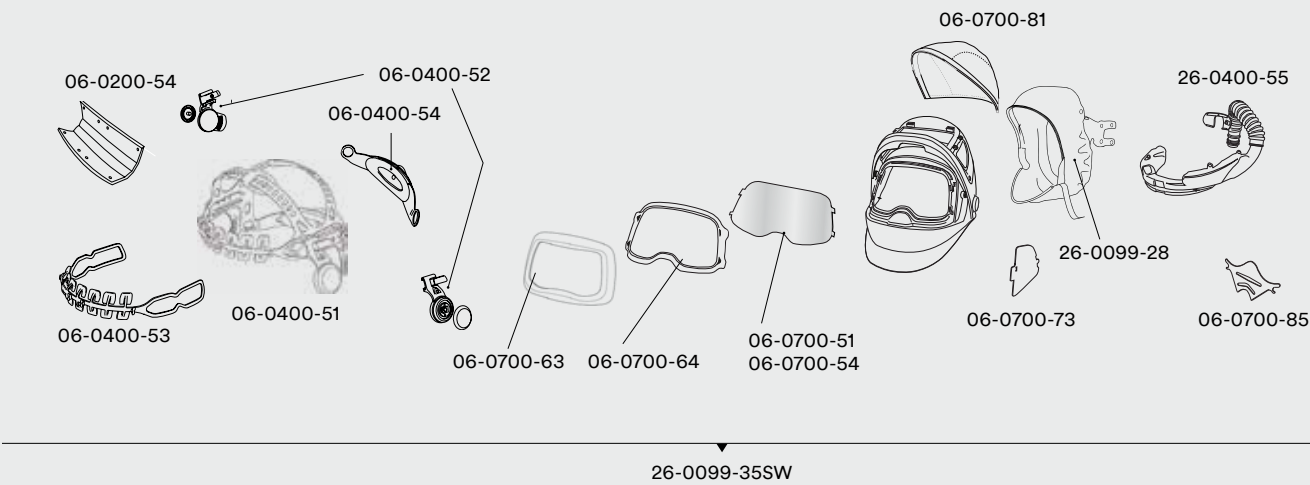


Is your clear visor not so clear anymore, after periods of frequent grinding? From our YouTube channel you will learn how to replace it.



If you need additional protection for your head, see how to assemble the head cover for additional protection against sparks here.

Spare parts & accessories for 3M™ Speedglas™ Welding Helmet 9100 FX-Air



| Part No | Description | Part No | Description | Part No | Description |
|-------------|---|-------------|---|--------------|---|
| 04-0320-00 | Battery, 2/case. | 06-0200-53B | Outer protection plate heat resistant, 50/case. | 06-0500-58 | Magnification plate 2.5x. |
| 06-0000-10 | Welding filter 9100V. | 06-0200-54 | Comfort sweatband, 3/case | 06-0500-59 | Magnification plate 3.0x. |
| 06-0000-20 | Welding filter 9100X. | 06-0200-54B | Comfort sweatband (bulk), 12/case | 06-0700-51 | Wide-view clear grinding visor, standard, 5/case. |
| 06-0000-30 | Welding filter 9100XX. | 06-0400-51 | Headband incl assembled parts. | 06-0700-54 | Wide-view clear grinding visor, anti-fog, 5/case. |
| 06-0000-30i | Welding filter 9100XXi. | 06-0400-51B | Part no 06-0400-51 (bulk), 5/case | 06-0700-63 | Front panel, chrome. |
| 06-0200-10 | Inside protection plate 9100V, 5/case | 06-0400-52 | Pivot mechanism headband, left and right. | 06-0700-64 | Wide-view clear grinding visor frame, black |
| 06-0200-10B | Part no 06-0200-10 (bulk), 25/case | 06-0400-52B | Part no 06-0400-52 (bulk), 5/case | 06-0700-73 | SideWindow cover plates, 2/case |
| 06-0200-20 | Inside protection plate 9100X, 5/case | 06-0400-53 | Headband front part. | 06-0700-82 | Extended head cover, head and neck. |
| 06-0200-20B | Part no 06-0200-20 (bulk), 25/case | 06-0400-53B | Part no 06-0400-53 (bulk), 5/case | 06-0700-83 | Full hood, black/grey. |
| 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. Plate marking 117x77. | 06-0400-54 | Headband back part. | 06-0700-85 | Air diffuser |
| 06-0200-51 | Outer protection plate, 10/case. | 06-0400-54B | Part no 06-0400-54 (bulk), 5/case | 26-0099-28 | Face seal |
| 06-0200-51B | Outer protection plate, 50/case. | 06-0400-55 | Battery holder 9100, 2/case | 26-0099-35SW | Welding helmet 9100 FX-Air without welding filter, with headband. |
| 06-0200-52 | Outer protection plate scratch resistant, 10/case. | 06-0400-55B | Part no 06-0400-55 (bulk), 10/case. | 26-0400-55 | Duct assembly. |
| 06-0200-52B | Outer protection plate scratch resistant, 50/case. | 06-0500-52 | Extended coverage, ear and neck. | SG-90 | Product storage bag. |
| 06-0200-53 | Outer protection plate heat resistant, 10/case. | 06-0500-56 | Magnification plate 1.5x. | | |
| | | 06-0500-57 | Magnification plate 2.0x. | | |

3M™ Speedglas™ Welding Helmet 9100 MP Systems



Helmet with powered air systems - HE particulate filtration

| Part No | Description |
|----------------|--|
| 37-1101-00SW | Without welding filter with Adflo PAPR and HE filter. |
| 37-1101-10SW | With Speedglas welding filter 9100V (1.8"x3.7") and Adflo PAPR with HE filter. |
| 37-1101-20SW | With Speedglas welding filter 9100X (2.1"x4.2") and Adflo PAPR with HE filter. |
| 37-1101-30iSW | With Speedglas welding filter 9100XXi (2.8"x4.2") and Adflo PAPR with HE filter. |
| 37-1101-00SWHA | Without welding filter with Adflo High Altitude PAPR with HE filter. |

Helmet with supplied air systems

| Part No | Description |
|----------------|---|
| 37-5702-00SWSR | Without welding filter with Fresh-air III SAR, V-100 cooling valve and Shrader fitting. |
| 37-5702-00SW | Without welding filter, with Fresh-air III SAR, V-100 cooling valve. |
| 37-5702-30iSW | With Speedglas welding filter 9100XXi (2.8"x 4.2") and Fresh-air III SAR, V-100 cooling valve. Available in 2018. |



Alternative 3M™ Speedglas™ Welding Filters

| Part No | Description |
|-------------|--|
| 06-0000-10 | Auto-darkening filter 9100V, variable shade 5, 8, 9–13 (1.8"x3.7"). |
| 06-0000-20 | Auto-darkening filter 9100X, variable shade 5, 8, 9–13 (2.1"x4.2"). |
| 06-0000-30 | Auto-darkening filter 9100XX, variable shade 5, 8, 9–13 (2.8"x4.2"). |
| 06-0000-30i | Auto-darkening filter 9100XXi variable shade 5, 8, 9–13 (2.8"x4.2"). |

Maintenance tips for 3M™ Speedglas™ Welding Helmet 9100 MP

Subscribe to our YouTube channel to learn more about product features and maintenance. A few examples:



Need to re-refresh the head protection on your 9100MP? See how to remove the hard hat.



See how to install the heat-reflecting, silver-coated helmet cover.

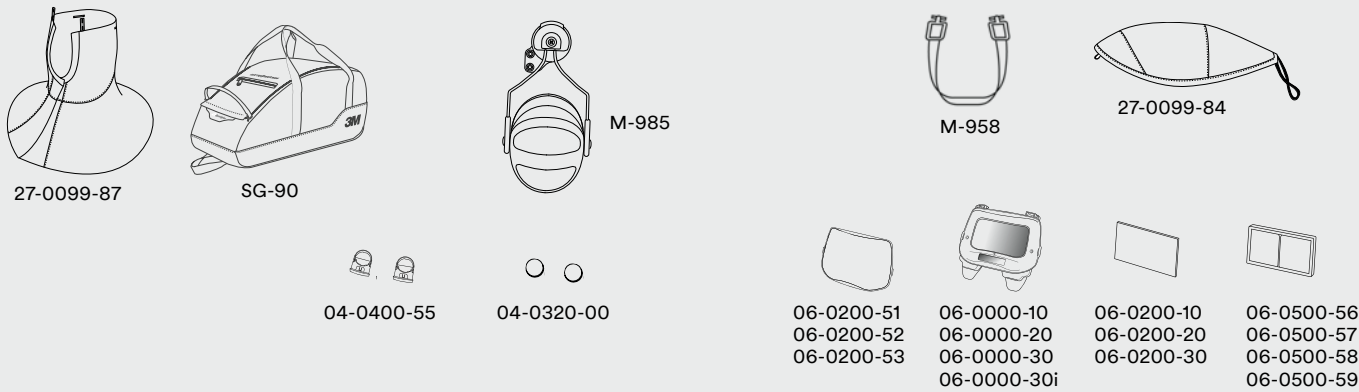
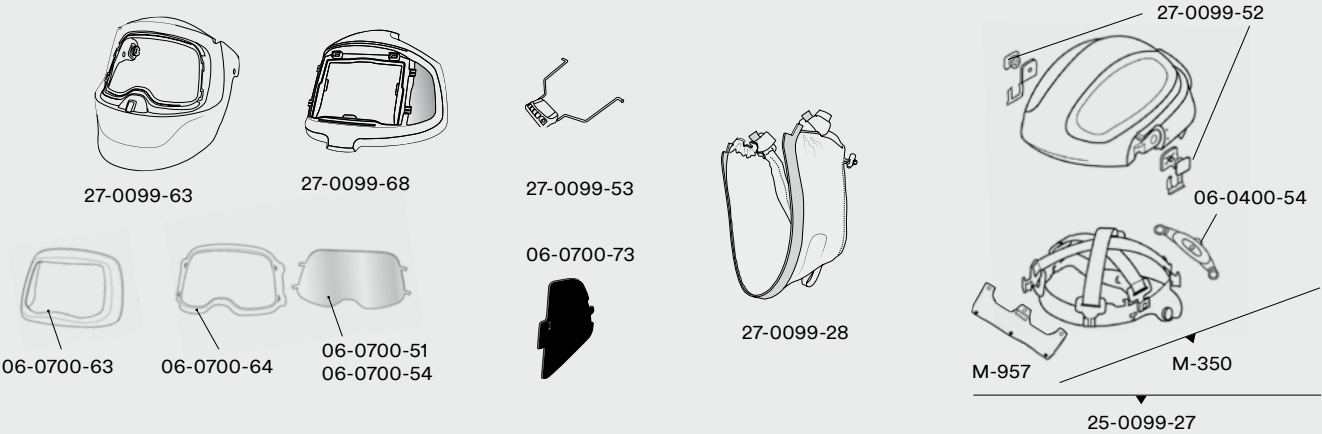


Need higher attenuation for your hearing protection, or is it just time to replace the old ones? See a demo on how to assemble the earmuffs in this video.



Scan QR-code or use this URL:
www.youtube.com/3MSpeedglas

Spare parts & accessories for 3M™ Speedglas™ Welding Helmets 9100 MP



| Part No | Description | Part No | Description | Part No | Description |
|-------------|---|-------------|---|------------|---|
| M-350 | Versaflo replacement head suspension. | 06-0200-52B | Outer protection plate scratch resistant, 50/case. | 06-0700-64 | Wide-view clear grinding visor frame, black |
| M-957 | Versaflo forehead comfort pad/sweat pad, 10/case. | 06-0200-53 | Outer protection plate heat resistant, 10/case. | 06-0700-73 | SideWindow cover plates, 2/case. |
| M-985 | 3M™ Peltor™ Earmuff Assembly Kit | 06-0200-53B | Outer protection plate heat resistant, 50/case. | 27-0099-28 | Face seal |
| SG-90 | Carry bag, black. | 06-0202-10 | Starter kit 9100V (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad | 27-0099-28 | Pivot kit |
| 04-0320-00 | Battery, 2/case. | | | 27-0099-52 | Welding helmet 9100 MP with hard hat, without welding filter. |
| 06-0000-10 | Welding filter 9100V. | | | 27-0099-53 | Pivot kit |
| 06-0000-20 | Welding filter 9100X. | | | 27-0099-63 | Flip-up mechanism |
| 06-0000-30 | Welding filter 9100XX. | 06-0202-20 | Starter kit 9100X (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad | 27-0099-68 | Inner shield |
| 06-0000-30i | Welding filter 9100XXi. | | | 27-0099-72 | Outer shield |
| 06-0200-10 | Inside protection plate 9100V, 5/case | | | 27-0099-84 | Hard hat incl pivot kit |
| 06-0200-10B | Part no 06-0200-10 (bulk), 25/case | 06-0202-30 | Starter kit 9100XX (for 9100 MP), incl 5 outside protection plates, 2 inside protection plates, and 1 sweat pad | 27-0099-72 | Radiant heat hard hat cover for 9100 MP helmet. |
| 06-0200-20 | Inside protection plate 9100X, 5/case | | | 27-0099-85 | Throat and neck coverage. Not shown. |
| 06-0200-20B | Part no 06-0200-20 (bulk), 25/case | 06-0400-54 | Headband back part. | 27-0099-87 | Complete neck coverage for 9100MP |
| 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. Plate marking 117x77. | 06-0400-54B | Part no 06-0400-54 (bulk), 5/case | | |
| 06-0200-51 | Outer protection plate, 10/case. | 06-0400-55 | Battery holder 9100, 2/case | | |
| 06-0200-51B | Outer protection plate, 50/case. | 06-0400-55B | Part no 06-0400-55 (bulk), 10/case. | | |
| 06-0200-52 | Outer protection plate scratch resistant, 10/case. | 06-0700-51 | Wide-view clear grinding visor, standard, 5/case. | | |
| | | 06-0700-54 | Wide-view clear grinding visor, anti-fog, 5/case. | | |
| | | 06-0700-63 | Front panel, chrome. | | |

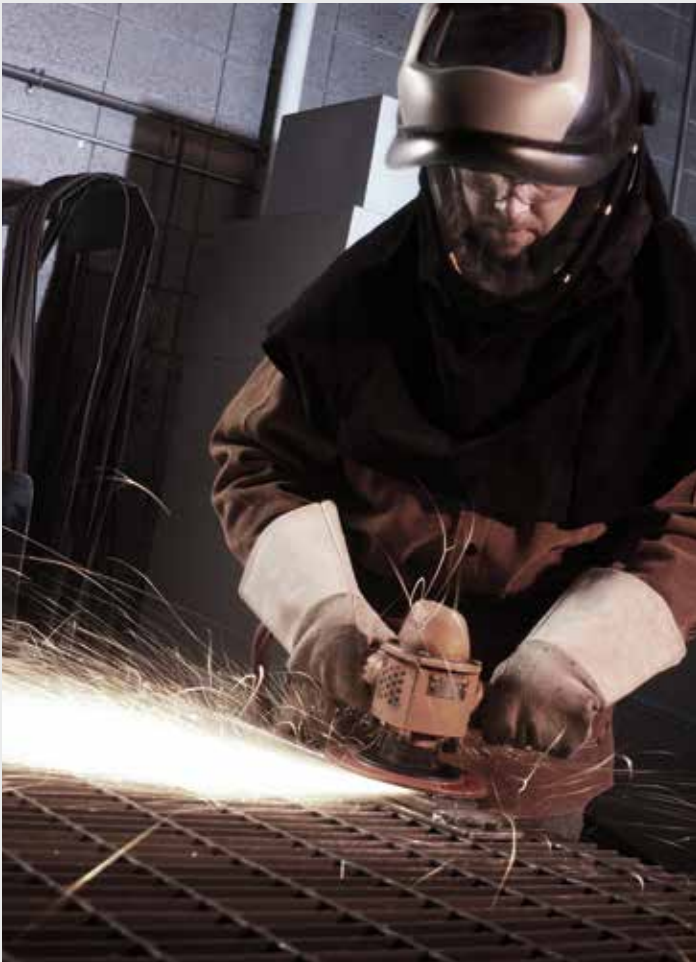
3M™ Speedglas™ Welding Helmet L-Series SG



Headgear with shroud L-905 SG
- with powered air systems

| Part No | Description |
|--------------|--|
| 34-0905-SGV | Helmet L-905SG wideview faceshield with Speedglas welding filter 9100V and Adflo PAPR with HE filter. |
| 34-0905-SGX | Helmet L-905SG wideview faceshield with Speedglas welding filter 9100X and Adflo PAPR with HE filter. |
| 34-0905-SGXX | Helmet L-905SG wideview faceshield with Speedglas welding filter 9100XX and Adflo PAPR with HE filter. |

Spare parts see page 93.



3M™ Protective Visor for respiratory protection

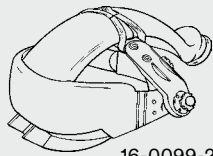


Spare parts

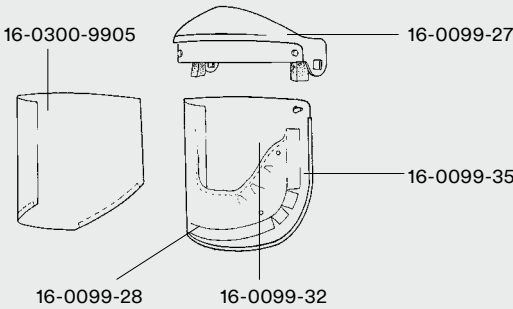
| Part No | Description |
|--------------|--|
| 07-0024-02 | Sweatband, fleece, 2/case |
| 16-0099-27 | Brow guard |
| 16-0099-28 | Face seal |
| 16-0099-29 | Faceseal and headband assembly with air duct. |
| 16-0099-30 | Headcover, FR cotton (not shown). |
| 16-0099-32 | Clear window with fasteners and face seal, without brow guard. |
| 16-0099-35 | ClearVisor polycarbonate |
| 16-0300-9905 | Clear window strip off shielding film, 5/case |



07-0024-02



16-0099-29



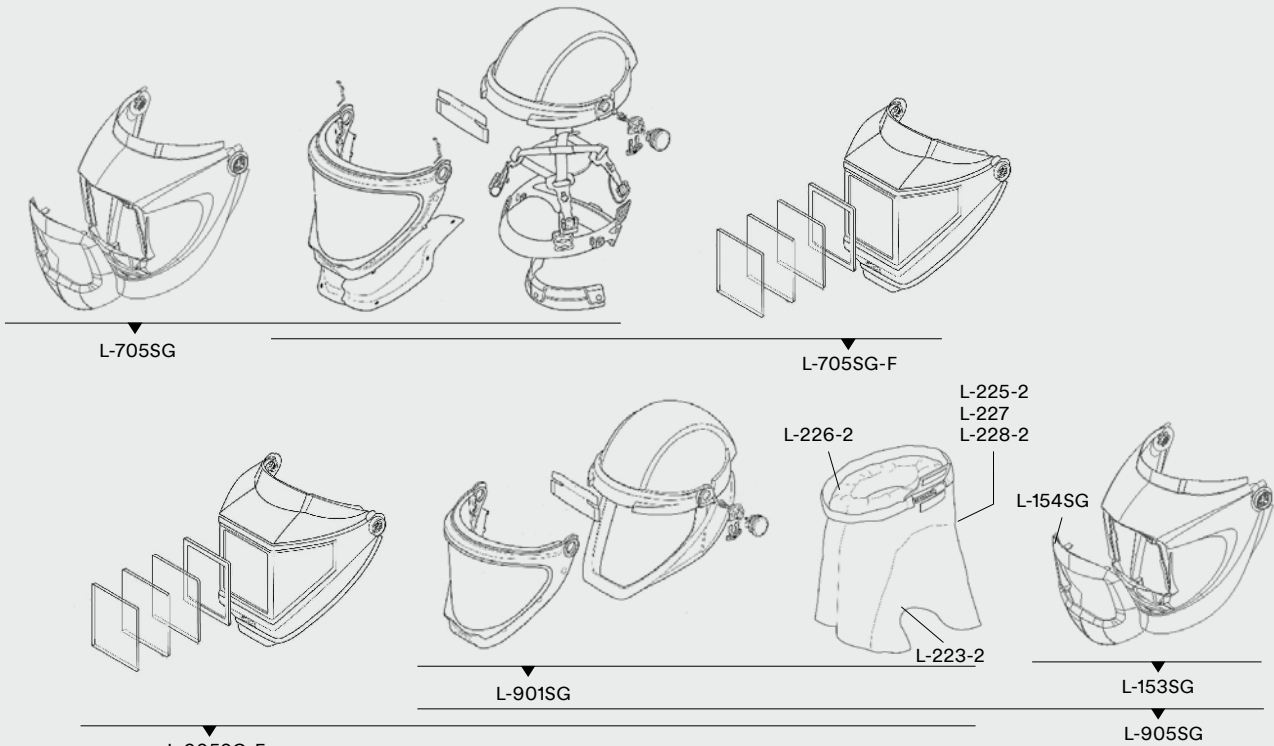
16-0300-9905

16-0099-27

16-0099-28

16-0099-32

Spare parts & accessories for 3M™ Speedglas™ Headgear L-Series SG



L-705SG

L-705SG-F

L-225-2
L-227
L-228-2

L-226-2

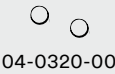
L-154SG

L-901SG

L-153SG

L-905SG-F

L-905SG



04-0320-00



04-0400-55



06-0200-51
06-0200-52
06-0200-53



06-0000-10
06-0000-20
06-0000-30
06-0000-30i



06-0200-10
06-0200-20
06-0200-30



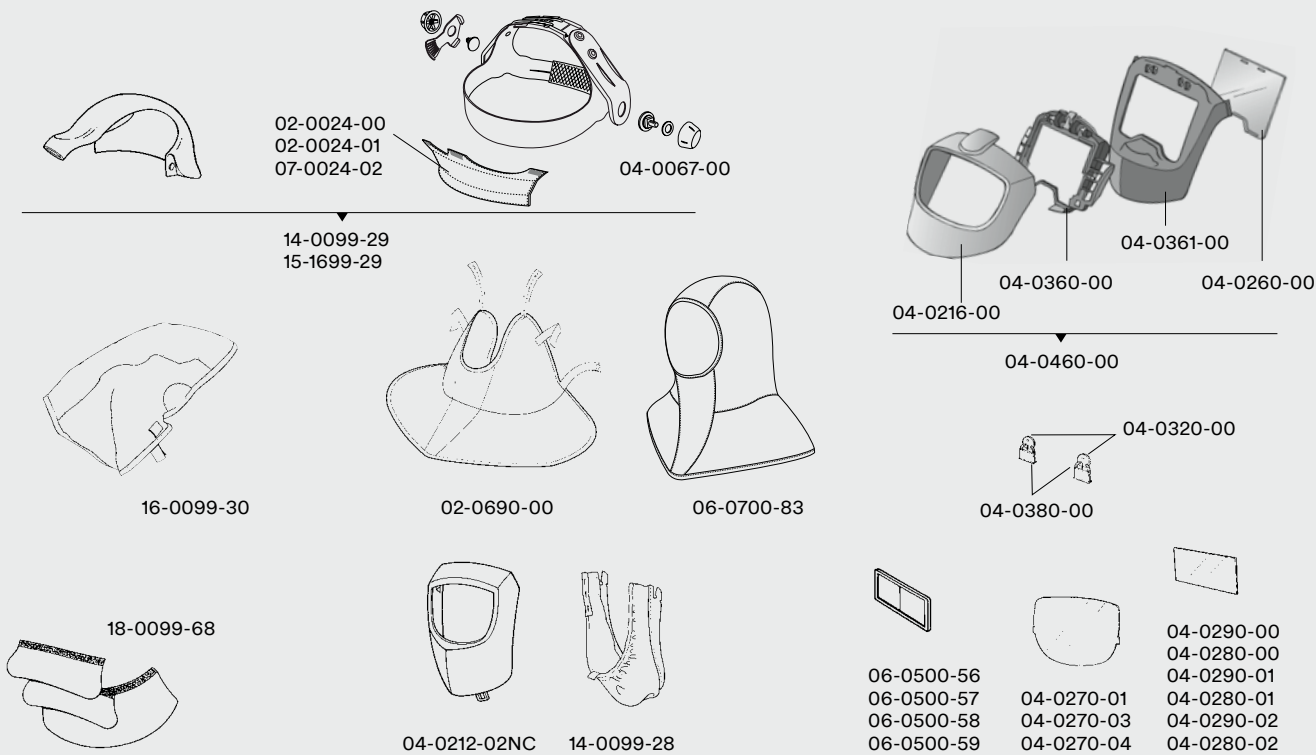
06-0500-56
06-0500-57
06-0500-58
06-0500-59

| Part No | Description | Part No | Description | Part No | Description |
|-----------|---|-------------|---|-------------|--|
| L-153SG | Welding helmet kit | L-905SG-F | Helmet with welding helmet and wideview faceshield. | 06-0200-52 | Outer protection plate scratch resistant, 10/case. |
| L-154SG | Silver front panel | | | 06-0200-52B | Outer protection plate scratch resistant, 50/case. |
| L-199SG | Breathing tube cover, high temperature. | 04-0320-00 | Battery, 2/case. | 06-0200-53 | Outer protection plate heat resistant, 10/case. |
| L-223-2 | Outer shroud standard. | 06-0000-10 | Welding filter 9100V. | 06-0200-53B | Outer protection plate heat resistant, 50/case. |
| L-225-2 | Outer shroud, flame retardant. | 06-0000-20 | Welding filter 9100X. | 06-0500-56 | Magnification plate 1.5x. |
| L-226-2 | Inner shroud | 06-0000-30 | Welding filter 9100XX. | 06-0500-57 | Magnification plate 2.0x. |
| L-227 | Outer shroud, flame retardant, leather | 06-0000-30i | Welding filter 9100XXi. | 06-0500-58 | Magnification plate 2.5x. |
| L-228-2 | Outer shroud, nylon | 06-0200-10 | Inside protection plate 9100V, 5/case | 06-0500-59 | Magnification plate 3.0x. |
| L-705SG | Hard hat with welding helmet and wideview faceshield, without welding filter. | 06-0200-10B | Part no 06-0200-10 (bulk), 25/case | | |
| L-705SG-F | Hard hat with welding helmet and wideview faceshield | 06-0200-20 | Inside protection plate 9100X, 5/case | | |
| L-901SG | Helmet with wideview faceshield | 06-0200-20B | Part no 06-0200-20 (bulk), 25/case | | |
| L-905SG | Helmet with welding helmet and wideview faceshield, without welding filter. | 06-0200-30 | Inner cover plate for 9100XX/9100XXi filters, 5/case. | | |
| | | 06-0200-51 | Outer protection plate, 10/case. | | |
| | | 06-0200-51B | Outer protection plate, 50/case. | | |

3M™ Speedglas™ Welding Helmet 9000 HWR for respiratory protection



Spare parts & accessories



| Part No | Description | Part No | Description | Part No | Description |
|--------------|---|------------|--|------------|--|
| 02-0024-00 | Sweatband, cotton fleece with padding. | 04-0280-00 | Inner cover plate (2.1"x4.1"), 5/case. Plate marking 42 02 10. | 04-0460-00 | FlexView kit. |
| 02-0024-01 | Sweatband, leather. | 04-0280-01 | Inner cover plate (2.1"x4.1"), +1 Shade, 5/case. | 06-0500-56 | Magnifying lens 1.5. |
| 02-0690-00 | Neck protection. | 04-0280-02 | Inner cover plate (2.1"x4.1"), +2 Shade, 5/case. | 06-0500-57 | Magnifying lens 2.0. |
| 04-0067-00 | Assembly parts for headband. | 04-0290-00 | Inner cover plate (1.7" x3.6"), 5/case. | 06-0500-58 | Magnifying lens 2.5. |
| 04-0212-02NC | Front cover. | 04-0290-01 | Inner cover plate (1.7" x3.6"), +1 Shade, 5/case. | 06-0500-59 | Magnifying lens 3.0. |
| 04-0216-00 | Heat-reflecting front cover FlexView, silver. | 04-0290-02 | Inner cover plate (1.7" x3.6"), +2 Shade, 5/case. | 06-0700-83 | Hood. |
| 04-0260-00 | Protective visor plate FlexView, 10/case. | 04-0320-00 | Battery CR 2032 Lithium 3V, 2/case. | 07-0024-02 | Sweatband, fleece, 2/case. |
| 04-0270-01 | Outer protection plate, standard, 10/case. Plate marking 42 01 50. | 04-0360-00 | Holder for welding filter (FlexView). | 14-0099-28 | Face seal 9000 HWR. |
| 04-0270-03 | Outer protection plate, scratch resistant, 10/case. Plate marking 42 01 00. | 04-0361-00 | Middle helmet FlexView, black. | 15-1699-29 | Headband assembly 9000 HWR, with air duct. |
| 04-0270-04 | Outer protection plate, heat resistant, 10/case. Plate marking 42 01 71. | 04-0380-00 | Battery cover, 2/case. | 15-1699-28 | Headband assembly FlexView HWR, with air duct. |
| | | | | 16-0099-30 | Face seal FlexView HWR. |
| | | | | 18-0099-68 | Head protection. |
| | | | | | Ear and neck protection in leather. |

3M™ Hard Hat H-700

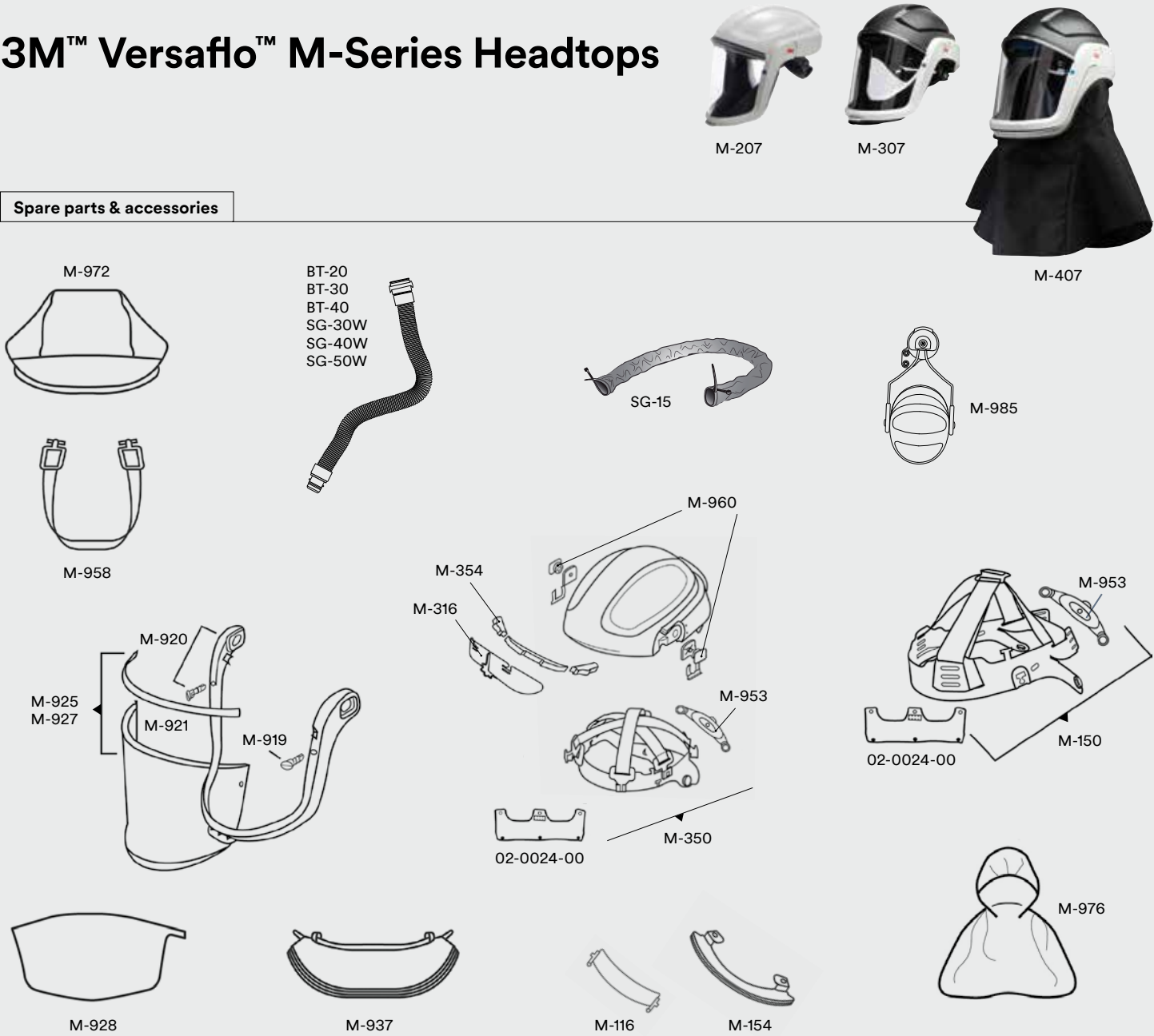
The 3M™ Speedglas™ Quick Release (QR) Rail allows you to attach a Speedglas welding helmet to many of the industry's most popular hard hats. 3M offers a complete QR welding helmet system including the

white, unvented 3M™ Hard Hat H-701. The hard hat is available in 6 colors when you buy it separately, see below.



3M™ Versaflo™ M-Series Headtops

Spare parts & accessories



| Part No | Description | Part No | Description | Part No | Description |
|------------|---|---------|---|---------|---|
| 02-0024-00 | Sweatband, fleecy cotton, 2/case. | M-350 | Head suspension (M-307). | M-960 | Pivot kit. |
| BT-20 | Breathing tube, polyurethane (in two lengths), with QRS connection. | M-354 | Forehead seal (M-307). | M-972 | Flame resistant headtop cover. |
| BT-30 | Breathing tube, self-adjusting (20.7" to 33.5"), with QRS connection. | M-407 | Helmet with shroud M-407. | M-976 | Head, neck and shoulder cover. |
| BT-40 | Breathing tube, heavy-duty rubber, with QRS connection. | M-919 | Visor frame buttons. | SG-15 | Flame resistant breathing tube cover (replaces 17-0099-54). |
| M-116 | Airflow deflector (M-107). | M-920 | Visor frame. | SG-30W | Breathing tube, self-adjusting, with QRS connection. |
| M-150 | Head suspension (M-107). | M-921 | Visor gasket. | SG-40W | Breathing tube, heavy-duty, with QRS connection. |
| M-154 | Forehead seal (M-107). | M-925 | Visor standard (uncoated), molten metal splash protection to EN166. | SG-50W | Breathing tube, sound-dampening, with QRS connection. |
| M-207 | Faceshield M-207 | M-927 | Visor coated. | M-985 | 3M™ Peltor™ Earmuff Assembly Kit |
| M-307 | Helmet M-307 | M-928 | Peel-off visor cover. | | |
| M-316 | Airflow deflector (M-307). | M-937 | Flame resistant faceseal. | | |
| | | M-953 | Ratchet. | | |
| | | M-956 | Ratchet comfort pad. | | |
| | | M-958 | Chin strap. | | |

For powered air respirator options, please see page 48.
For supplied air regulator options, see page 52.



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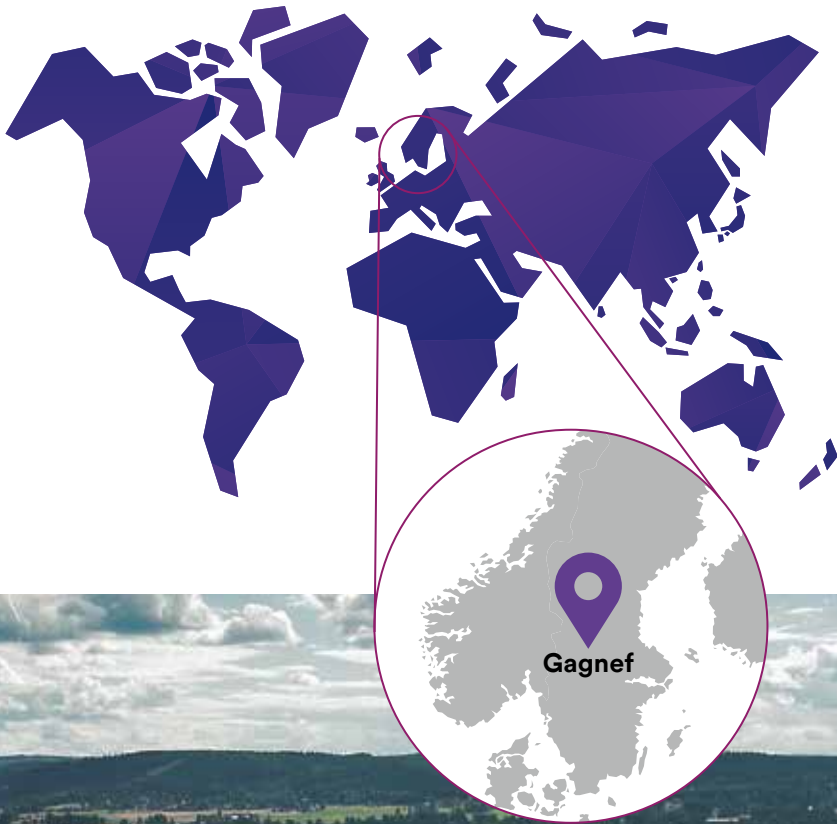
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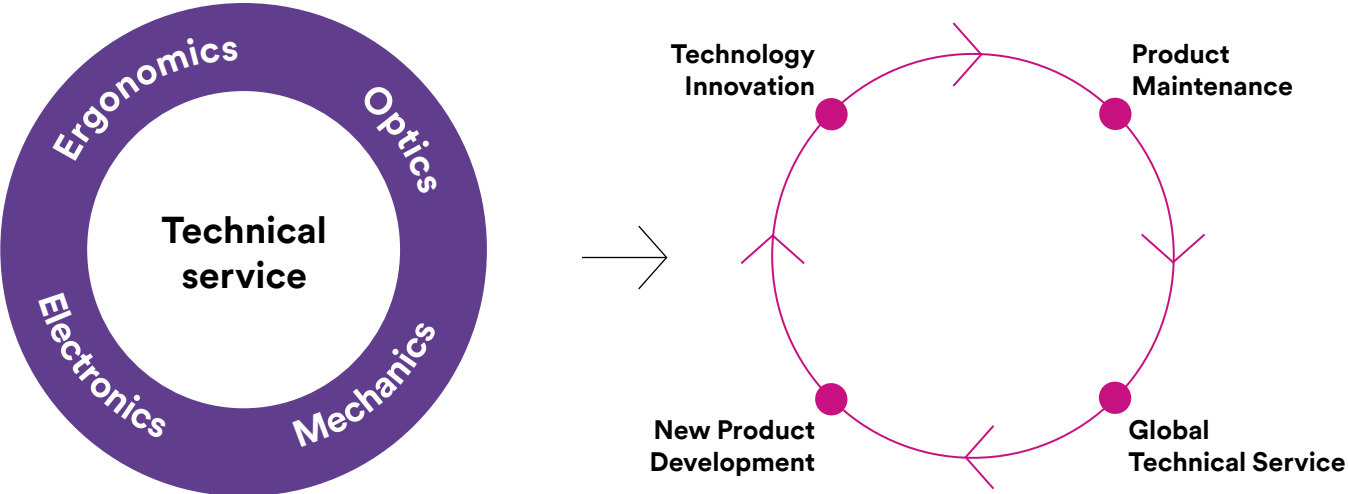
3M Welding Center of Excellence

Hundreds of thousands of times each day, welders all over the world rely on their 3M™ Speedglas™ Products to help them achieve their best welding performance. A result of our close cooperation with welders, safety engineers and ergonomic specialists to constantly improve the performance and comfort of our products.



| | |
|---|---|
| <div>35</div> <div>More than 35 years ago we turned the world of welding on its head by introducing the auto-darkening welding filter.</div> | <div></div> <div>The Welding Lab in Gagnef has currently 25 employees and our business goal is that 3M should become the No 1 supplier of welding PPE to help improve productivity and customers' profitability.</div> |
| <div>12</div> <div>International Design Awards since 1996</div> <div></div> | <div>8</div> <div>3M Program Awards: Circle of Technical Excellence & Innovation x3 Golden Step Award x3 Ace Award x3</div> |

3M Welding Lab Gagnef—Expert Areas



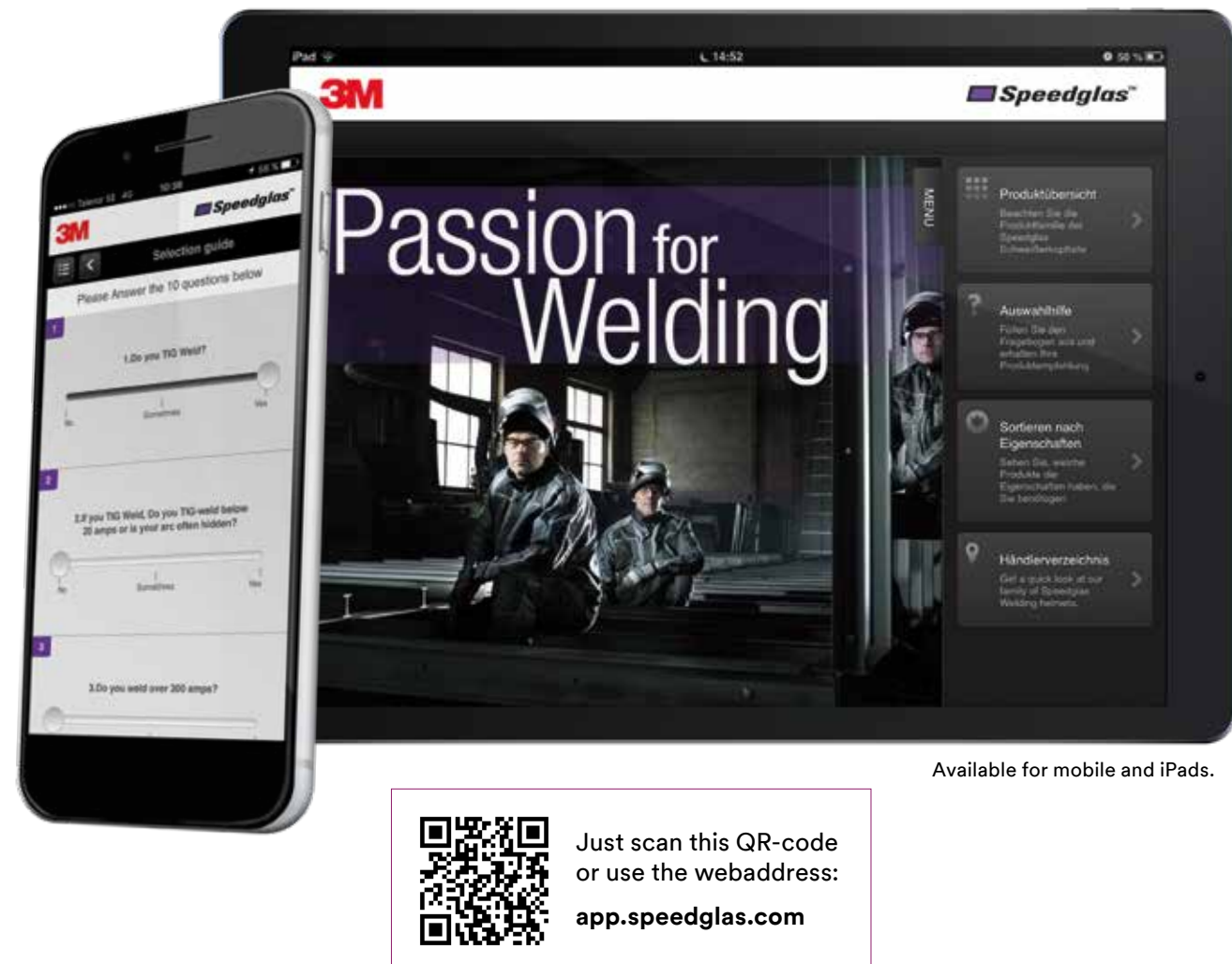
Ground breaking Innovations



Helmet selection guide

Which welding helmet?

Your personal guidance to 3M™ Speedglas™ Welding Helmets.
Answer 10 questions on your mobile device to find welding helmets
that may be well suited for your specific applications.



Available for mobile and iPads.

The selector geotarget your location, see the available country versions listed below:



Notes

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Notes

[illegible]

⚠ WARNING

These products meet the requirements of certain industrial eyewear standards and with some models 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 practices and engineering controls.

Misuse may result in serious injury or death. For correct use, see supervisor and User Instructions, or call 3M PSD Technical Service.

WARNING


Head and Face Protection Products:

This product is designed to help protect the wearer's eyes and face from harmful radiation including visible light, ultra-violet radiation (UV), infra-red radiation (IR), sparks and spatter resulting from welding processes. These products must be used only by qualified persons who are properly trained in their use and maintenance. **Misuse may result in permanent eye injury and vision loss.** Always wear ANSI Z87.1 compliant safety spectacles in addition to any welding helmet. For correct use, see supervisor and User Instructions, or call 3M PSD Technical Service in U.S.A at 1-800-243-4630 and in Canada at 1-800-267-4414.



⚠ WARNING

Respiratory Protection Products:

 These respirators help protect against certain airborne contaminants. Before use, the wearer must read and understand the User Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. **Improper use may result in injury, illness or death.** For correct use, see supervisor or User Instructions, or call 3M PSD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.

⚠ WARNING

Fall Protection Products:

Compliant fall protection and emergency rescue systems help prevent serious injuries associated with fall events. Users must read and understand the User Instructions provided with the product, and must be properly trained by their employers in the safe use of these systems before using them, per OSHA 1910.66 and 1926.503 or applicable local standards. **Misuse or failure to follow warnings and instructions may result in serious personal injury or death.** For proper use, see supervisor, User Instructions, or call 800-328-6146 (Opt. 1).

⚠ WARNING

Hearing Protection Products*

These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury. For proper use, see supervisor, User Instructions, or call 3M™ PSD Technical Service in the USA at 800-243-4630. If there is any drainage from your ear or you have an ear infection, consult with your physician before wearing earplugs. **Failure to do so may result in hearing loss or injury.**

WARNING

Noise Reduction Rating (NRR):

* 3M strongly recommends fit testing of hearing protectors. Research suggests that many users will receive less noise reduction than indicated by the NRR due to variation in hearing protector fit, fitting skill and motivation of the user. If the NRR is used to estimate typical workplace protection, 3M recommends that the NRR be reduced by 50% or in accordance with applicable regulations.

Ongoing customer support

To help keep your equipment working as it should, and to ensure you get the most from your investment, our support team at 3M is able to offer assistance on several levels:

Care & Maintenance Posters

Guidance on the appropriate maintenance checks is provided in the user instructions supplied with all new equipment. Our Care & Maintenance Posters make this information available on a day-to-day basis and are a strong and visual reminder.

Welding Specialists

Based across the country and supporting 3M distributor network, our welding specialists have a sound understanding of national health and safety laws coupled with years of experience in welding safety.

Helpline

Call **1-800-243-4630 (USA)** or **1-800-267-4414 (Canada)** for any technical queries. For other countries please find your local contact information at **www.3M.com**.

 **@3M_US_Safety**

All the support material featured on this page can be downloaded and printed. Just visit: **www.3M.com/Speedglas**



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Every month we select a number of photos under **#3MSpeedglas** to repost to our social platforms. Find us on:



3M Personal Safety Division
3M Center, Building 235-2W-70
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