



# Welding Safety Product Catalogue

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AWS was established in 1994 and has played a key role in the welding industry ever since.

As an advocate for welders' safety in Australia and New Zealand, AWS has published numerous Welding Safety White Papers, Welding Industry Reports, and Welding Fume Control Frameworks. AWS is a company that specialises in welding safety equipment, and it is our goal to raise awareness on the important issues that welders face.

As the sole agent for the 3M™ Speedglas™ range of welding helmets with integrated respiratory protection, the Translas on-gun welding fume extraction range, the Nederman and Bomaksan range of portable local exhaust ventilation (LEV) fume protection systems, the range of Guide welding gloves, and a 3M personal protective equipment wholesaler, AWS are extremely well placed to help businesses understand the different types of product controls that can be introduced into the workplace to better protect welders and those who work in close proximity to welders.

AWS can assist and support workplaces to navigate and understand every level of the hierarchy of control and understand their responsibilities as an employer of welders, relevant to eye, face, head, hearing, hand, and respiratory protection.

For more information on welding fume monitoring, welding PPE, or welding fume LEV extraction options, please contact AWS.



# The Hierarchy of Control

How AWS can help



## ELIMINATION & SUBSTITUTION

- Occupational Hygienists
- Fume Monitoring
- Practical Guidance



## ENGINEERING CONTROLS

- On Gun Fume Extraction
- Portable Local Exhaust Ventilation
- Fixed Local Exhaust Ventilation



## ADMINISTRATIVE CONTROLS

- Practical Guide to Welding Fume Control
- SPATA: Speedglas Powered Air Training Academy
- Student Powered Air Program



## PERSONAL PROTECTIVE EQUIPMENT

- Welding Helmets: Respiratory & Non-Respiratory
- Eye, Face, Head, Hearing, Respiratory Protection
- Hand Protection

# Contents

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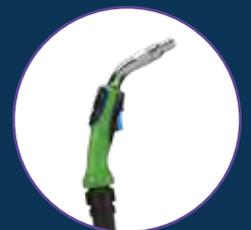
## 3M™ Speedglas™ Welding Helmets

Why 3M Speedglas Welding Helmets?	6
How to Select a Welding Helmet	8
Non-Respiratory Welding Helmets	10
G5-02	12
9100	14
9100 FX	16
9100 QR	18
9002NC	20
100 Series	21
Respiratory Welding Helmets	22
G5-01	26
9100 Air	28
9100 MP Air	30
Adflo Powered Air Purifying Respirator	32
V-500E Supplied Air Regulator	36
Filter Guides	42
Speedglas Care & Maintenance	44
SPATA: Speedglas Powered Air Training Academy	44
Core Spare Parts	46
Spare Part Finder Tool	48
Extra Protection	49
Upgrades Available	50
Technical Specifications	52



## Translas On-Gun Fume Extraction

About Translas On-Gun Fume Extraction	54
250 Air-Cooled	57
400 Air-Cooled	58
500 Water-Cooled	59
Consumables	60
Technical Specifications	62



## Portable Local Exhaust Ventilation (LEV)

About Portable LEV	64
Nederman 150	66
Bomaksan MINI	67
Nederman 900	68
Bomaksan MONO	69
Bomaksan PRO	70
Bomaksan PULSE	71
Nederman 1800	72
Bomaksan PRO2	73
Bomaksan PULSE2	74
Bomaksan BENCH	75
BOA Professional Indoor Air Cleaner	76
Technical Specifications	78



## 3M™ Versaflo™ M-Series Visors with Respiratory Protection

About 3M M-Series Visors	80
M-207	82
M-307	82
M-407	83



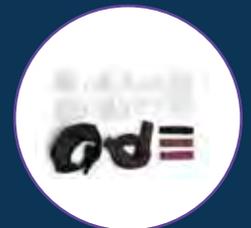
## GUIDE Welding Gloves

About GUIDE	84
Heat Welding Gloves	86
TIG Welding Gloves	88
Standards and Product Markings	90



## Parts Directory

3M™ Speedglas™ Welding Helmets	93
Translas On-Gun Fume Extraction	106
Portable Local Exhaust Ventilation (LEV)	112
3M™ Versaflo™ M-Series Visors	113





**Speedglas™**  
Welding Safety

# Why 3M™ Speedglas™?

## The #1 brand in welders' PPE

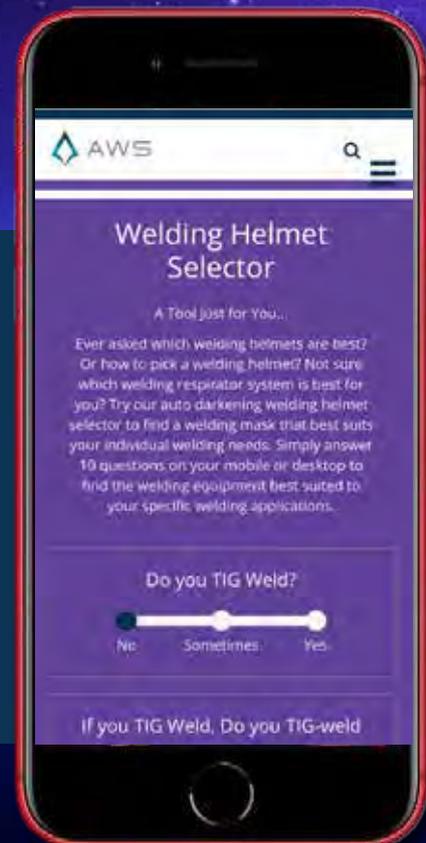
Trust in a brand can't be built overnight. It takes years to become known and even longer to be trusted. In 1981, over 40 years ago, Speedglas™ released the first ever auto-darkening welding helmet and has consistently set the benchmark ever since.

While other products and brands have come and gone, the 3M™ Speedglas™ brand, guided by welders, has continued to drive innovation and lead from the front.

Made in Sweden, Speedglas is the brand of choice for professional welders and remains the world's leading brand of personal protective equipment for welders.

## Welding Helmet Selector Tool

Which welding helmet best suits your needs? Try our **Welding Helmet Selector Tool**:  
Visit [www.apexweldingsafety.com.au/welding-helmet-selector](http://www.apexweldingsafety.com.au/welding-helmet-selector)





# How to select a welding helmet

## Do You Require Respiratory Protection?

**NO**



The 3M™ Speedglas™ range of non-respiratory welding helmets include many world-first innovations. Experience curved auto-darkening technology, Speedglas True-View optics, the largest viewing area available, powerful arc detection, and industry leading comfort.

Pages 10 - 21

**YES**



As one of the most popular PAPR systems in the world, Speedglas Welding Helmets with the Adflo Powered Air Purifying Respirator are designed to provide welders with air at least 50 times cleaner than they would breathe if unprotected.

Pages 22 - 34

# UNSURE



Recognising welding fume as carcinogenic and the other associated health risks should encourage all employers of welders to review their risk assessments and revise their control measures.

*Welding fume is serious.  
Action is required.*

If you are unsure where to start, the Practical Guide to Welding Fume Control has been launched to give workplaces clear and practical advice that can help to keep welding fume exposure to an acceptable level.



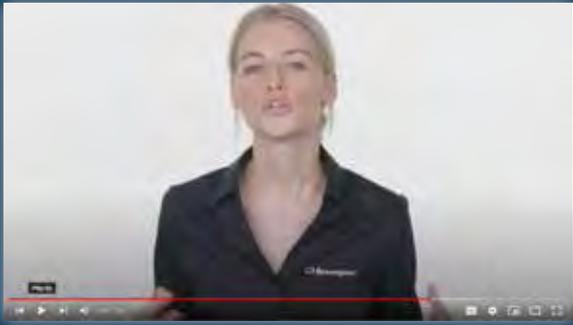
Download the Practical Guide to Welding Fume Control for FREE:

[www.apexweldingsafety.com.au/welding-safety-white-papers](http://www.apexweldingsafety.com.au/welding-safety-white-papers)



## Learn More About Welding Fume

To learn more about welding fume, watch as AWS Occupational Hygienist, Terry Gorman, takes you through a video module on “Welding Fume and Exposure Limits”.



## Learn More About Respiratory Protection

Watch as AWS Online Training Specialist, Sarah Louise, takes you through the 3M Speedglas Respiratory Welding Helmet options.





# 3M™ Speedglas™ Welding Helmets - Non-Respiratory



## 3M™ Speedglas™ Welding Helmet G5-02

- World's first curved auto-darkening welding lens
- Largest ever Speedglas viewing area (100% wider field of view)
- Advanced Speedglas True-View Technology (light state 2.5)
- Slimmer lightweight profile
- Optimised for professional TIG welding



### Shade range

2.5/8-12

### Viewing area

76x150mm + Curved

### Page Number

Pages 12-13



## 3M™ Speedglas™ Welding Helmet 9100

- Professional fixed-front welding helmet with extra-large viewing area
- External grind, memory mode, and SideWindows
- Speedglas True-View Technology
- Optimised for professional welders



### Shade range

3/5, 8-13

### Viewing area

73x107mm + SideWindows

### Page Number

Pages 14-15



### 3M™ Speedglas™ Welding Helmet 9100 FX

- Professional flip-up welding helmet with extra-large viewing area
- Clear grinding visor and SideWindows
- Speedglas True-View Technology
- Optimised for professional welders, heavy-duty grinding applications and low light conditions



Shade range **11**

3/5, 8-13

Viewing area

73x107mm + SideWindows

Page Number

**Pages 16-17**



### 3M™ Speedglas™ Welding Helmet 9100 QR

- Safety helmet with quick-release mechanism
- Professional fixed-front welding helmet with extra-large viewing area
- External grind, memory mode, and SideWindows
- Speedglas True-View Technology
- Optimised for professional welders who require head protection



Shade range

3/5, 8-13

Viewing area

73x107mm + SideWindows

Page Number

**Pages 18-19**



### 3M™ Speedglas™ Welding Helmet 9002NC

- Premium fixed-front welding helmet with large viewing area
- Speedglas True-View Technology
- Slim lightweight profile
- Optimised for welders who prefer a narrow helmet profile



Shade range

3/8-12

Viewing area

55x107mm

Page Number

**Page 20**



### 3M™ Speedglas™ Welding Helmet 100

- Fixed-front welding helmet with standard viewing area
- Suitable for welding and grinding
- Slim lightweight profile featuring six graphic designs
- Optimised for welders who require a reliable all-rounder

Shade range

3/8-12

Viewing area

44x93mm

Page Number

**Page 21**



#### Hazards of Welding Fume

Welding fume is serious. Action is required.

see page 24



#### Technical Data Information

Compare these Non-Respiratory Helmets by feature.

see page 53

**NEW** 3M™ Speedglas™ Welding Helmet G5-02

# The world's first curved auto-darkening lens



150mm

*Our previous largest Speedglas ADL*

*3M™ Speedglas™ curved ADL G5-02*

**100% wider ADL field of view**

# Wider views in a slimmer helmet



**NEW** Brightest ever Speedglas light state (2.5) enhances True-View optics.

Super lightweight design follows the curvature of the head for improved weight distribution.

Optimised for low amp TIG welding, the G5-02 lens has 4 arc sensors which react down to an industry-leading 1 amp.

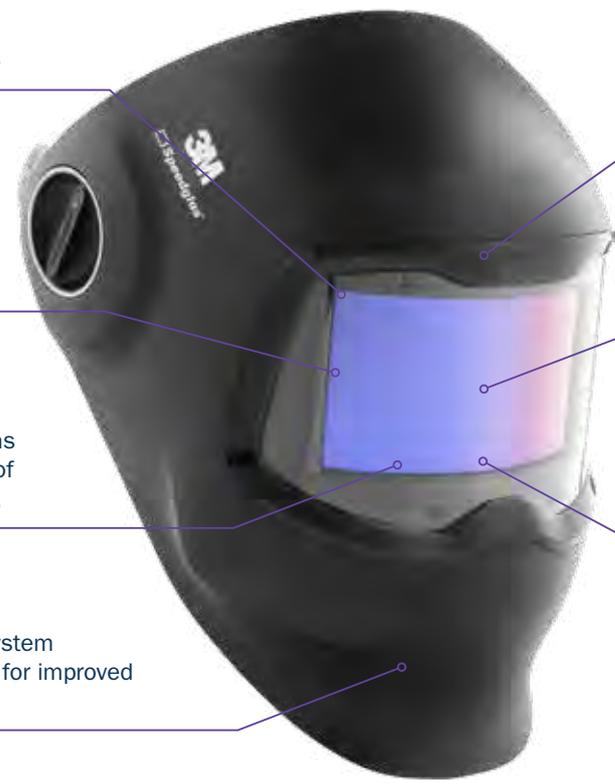
Curved lens and slimmer profile help reduce distracting reflections and glare inside the helmet.

**NEW** Largest Speedglas lens ever with 100% wider field of view with shades 2.5/8-12.

Lens is Bluetooth® enabled to be securely paired with a smartphone, allowing you to select shades, sensitivity and up to 4 pre-set memory modes from the palm of your hand.

**NEW** Exhaled air venting system reduces heat and humidity for improved comfort.

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

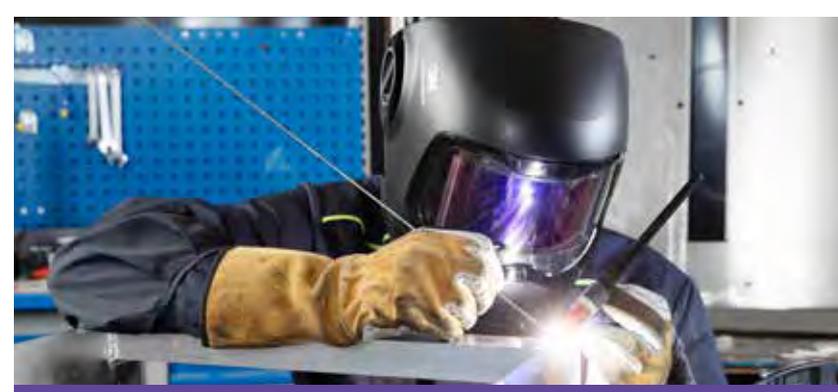


All technical data can be found on page 53

## Why curved?

Feedback from professional TIG welders was unanimous; a wide view was much preferred over a taller view.

The only way to achieve wider views without making the helmet wider was by inventing a curved welding lens: a design that has taken 20 years to perfect!



**3M™ Speedglas™ Welding Helmet G5-02**  
Part Number: 62 11 20

Setting a new world standard for precision viewing, the G5-02 is built for TIG welders doing high-performance, critical work.

## 3M™ Speedglas™ Welding Helmet 9100XXi

3M™ Speedglas™ 9100XXi



### Simplify your workflow

The 9100XXi features external controls – enabling convenient, 'gloves-on' movement between grinding and two customised memory settings with the press of a button.

### Increased range of vision

Peripheral SideWindows offer a wider view, allowing you to see previously hidden peripheral hazards.

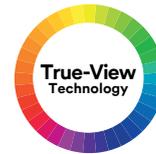
### Versatility at your fingertips

Weld, Cut, Grind, Hidden Arc, Outdoor, Passive and Tack - all with the highest possible optical classification.

### Upgrade your protection for less

The 3M Speedglas 9100XXi welding lens used in this helmet is also compatible with the entire Speedglas 9100 respiratory welding helmet range. This means if you don't currently require a welding helmet with integrated respiratory protection, but feel you may in the future, the 9100XXi lens will allow you to upgrade to powered or supplied air respiratory protection at a fraction of the price when the time comes.

# High performance and comfort



Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

High comfort head harness with two crown straps for optimum balance.

SideWindows: Shade 5 windows enhance your peripheral vision and widen your overall field of view.

Speedglas™ Welding Lens 9100XXi with True-View for crisp colour and contrast.

Heat reflecting silver front with an external button for grind and welding memory settings.

Extra-large viewing area (73 x 107mm + SideWindows) with shades 3/5, 8-13.

Lens reacts down to an industry-leading 1 amp.

Auto-On and equipped with the all-important centre sensor for TIG welding.

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

Increased coverage for ears and neck.

All technical data can be found on page 53

## Easy switching

External grind mode allows you to seamlessly switch between welding and grinding tasks without the need to lift your helmet.

With a press of the external button you have activated grind mode. Press it again and you're back ready to weld.

3M™ Speedglas™ Welding Helmet 9100XXi  
Part Number: 50 18 26



## 3M™ Speedglas™ Welding Helmet 9100XXi FX



### Well-balanced design

The 9100 FX is balanced in both ergonomics and functionality. A welding helmet and grinding visor that sits perfectly balanced for all-day wear.

### Continuous protection

Easy switching between welding and grinding means there is no need to remove your helmet - you're always protected.

### Expand your view

A quick lift of the front cover and you get a big, 170x100mm, clear view – perfect for precision grinding, even in low light conditions.

### More natural colour and contrast

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

## Upgrade your protection for less

The 3M Speedglas 9100XXi welding lens used in this helmet is also compatible with the entire Speedglas 9100 respiratory welding helmet range. This means if you don't currently require a welding helmet with integrated respiratory protection, but feel you may in the future, the 9100XXi lens will allow you to upgrade to powered or supplied air respiratory protection at a fraction of the price when the time comes.

# Flip up to grind with a large clear view



Speedglas™ Welding Lens 9100XXi with Auto-On and True-View for crisp colour and contrast.



High comfort head harness with two crown straps for optimum balance.

Smooth flip-up function with curved 170x100 mm clear grinding visor.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.



Lens reacts down to an industry-leading 1 amp.

Extra-large viewing area (73 x 107mm + SideWindows) with shades 3/5, 8-13.

The entire helmet can also be locked in the perfectly balanced, up, parked position.

SideWindows: Shade 5 windows enhance your peripheral vision and widen your overall field of view.

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

All technical data can be found on page 53

## The perfect combination

A flip-up combination of an auto-darkening welding helmet and clear protective visor gives you a perfectly balanced and highly functional helmet for comfortable, all-day use.

Seamlessly switch between welding and grinding!

3M™ Speedglas™ Welding Helmet 9100XXi FX  
Part Number: 54 18 26



Additional spark and spatter resistant head, neck and ear covers are available as accessories. See page 49

## 3M™ Speedglas™ Welding & Safety Helmet 9100XXi QR



### Adaptable head protection

A Quick-Release rail allows you to easily attach or remove your 9100 QR welding helmet, while keeping your safety helmet on.

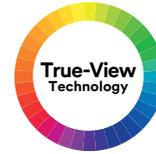
### Your hearing matters

Safety helmet is designed for use with 3M Peltor Class 5 earmuffs - giving you constant, high-level hearing protection.

### Upgrade your protection for less

The 3M Speedglas 9100XXi welding lens used in this helmet is also compatible with the entire Speedglas 9100 respiratory welding helmet range. This means if you don't currently require a welding helmet with integrated respiratory protection, but feel you may in the future, the 9100XXi lens will allow you to upgrade to powered or supplied air respiratory protection at a fraction of the price when the time comes.

# Welding and safety helmet



Even with a gloved hand, you can easily attach or remove the 3M™ Speedglas™ Welding Helmet 9100 QR.

The Quick Release Rail allows you to attach the Speedglas auto-darkening welding helmet 9100 QR to most types of safety helmets.



Designed from inception to accommodate 3M™ Peltor™ Earmuffs (Class 5).

Extra-large viewing area (73 x 107mm + SideWindows) with shades 3/5, 8-13.

Speedglas™ Welding Lens 9100XXi with Auto-On and True-View for crisp colour and contrast.

Lens reacts down to an industry-leading 1 amp.

SideWindows: Shade 5 windows enhance your peripheral vision and widen your overall field of view.

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

All technical data can be found on page 53

## Need head protection?

The 9100XXi QR offers excellent head protection via a Quick-Release safety helmet.

Even with a gloved hand, this welding helmet can be seamlessly attached to or detached from a hard hat for flexible, world class protection!

3M™ Speedglas™ Welding Helmet 9100XXi QR  
Part Number: 50 36 26



Simply squeeze to attach or remove your welding helmet - even with gloved hands.

3M™ Speedglas™ Welding Helmet 9002NC



# Slim and lightweight, with precision optics

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

Lens reacts down to an industry-leading 1 amp and has the highest optical classification (1/1/1).

Large 55 x 107mm viewing area with shades 3/8-12.

Speedglas™ 9002NC lens is compatible with existing Speedglas 9000 Series helmets.

Upgraded welding lens now has True-View for improved colour and contour recognition.

The super-light, slim profile 9000 Series helmet weighs just 485 grams.



New head harness with ratchet mechanism provides a comfortable custom fit.

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

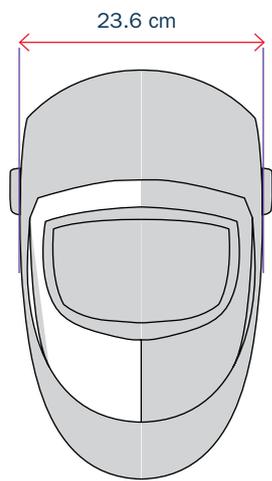


All technical data can be found on page 53

## Freedom of movement

### Shield width

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



## A legend has returned

Many welders think the classic Speedglas helmet 9000 has the ideal blend of shape and balance. The 9002NC welding lens is compatible with all existing Speedglas 9000 series welding helmets!

To see your welds in a new light, upgrade to the 3M™ Speedglas™ 9002NC with elite True-View optics for superior colour and contrast.

3M™ Speedglas™ Welding Helmet 9002NC  
Part Number: 40 13 85

# Image is everything!

Appropriate for most arc welding processes including Stick, MIG and TIG welding.

Now with advanced TST (TIG Sensor Technology).

Shade 3 grind mode.

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

Improved head harness with smooth ratchet mechanism for precise tightening and comfort.

44 x 93mm viewing area with shades 3/8-12.

Built-in holder for magnifying lenses. Attaching the lens is easier and the fit is more accurate.

Choice of six quality Speedglas helmet graphics (pictured: 752820).

Made in Sweden, backed by a revolving 3 + 1 year warranty, on the welding lens.

New delay function allows you to set the dark-to-light opening time.

## High-end performance

The Speedglas™ welding helmet series 100 is equipped with industry-leading features, allowing you to take advantage of Speedglas' optical clarity at a highly-affordable price.

All technical data can be found on page 53

- 3M™ Speedglas™ 100B (3/10-12)**  
Part Number: 75 11 14
- 3M™ Speedglas™ 100V Ninja**  
Part Number: 75 11 20
- 3M™ Speedglas™ 100V Trojan Warrior**  
Part Number: 75 16 20
- 3M™ Speedglas™ 100V Xterminator**  
Part Number: 75 22 20
- 3M™ Speedglas™ 100V Ice Hot**  
Part Number: 75 25 20
- 3M™ Speedglas™ 100V Skull**  
Part Number: 75 28 20
- 3M™ Speedglas™ 100V Motor**  
Part Number: 75 29 20





# 3M™ Speedglas™ Welding Helmets - Respiratory



## 3M™ Speedglas™ Welding Helmet G5-01VC

- Heavy duty flip-up welding helmet with 15% larger grinding visor
- NEW Variable Dark State Colours and True-View Technology
- NEW helmet air duct system for climate control
- NEW Bluetooth® connectivity and optional task light
- Heavy duty Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)



### Shade range

3/5, 8-14

### Viewing area

73x109mm

### Page Number

Pages 26-27



## 3M™ Speedglas™ Welding Helmet G5-01TW

- Heavy duty flip-up welding helmet with 15% larger grinding visor
- Speedglas True-View Technology
- NEW helmet air duct system for climate control
- NEW Bluetooth® connectivity and optional task light
- Heavy duty Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)



**NEW**

### Shade range

3/5, 8-13

### Viewing area

73x109mm

### Page Number

Pages 26-27



## 3M™ Speedglas™ Welding Helmet 9100 Air

- External grind button with memory modes
- Speedglas True-View Technology
- Peripheral SideWindows
- Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)



### Shade range

3/5, 8-13

### Viewing area

73x107mm + SideWindows

### Page Number

Pages 28-29



## 3M™ Speedglas™ Welding & Safety Helmet 9100 MP Air

- Integrated safety helmet offers fully compliant head protection
- Flip-up welding helmet with clear grinding visor
- Speedglas True-View Technology
- Peripheral SideWindows
- Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)



### Shade range

3/5, 8-13

### Viewing area

73x107mm + SideWindows

### Page Number

Pages 30-31



## 3M™ Adflo™ Powered Air Purifying Respirator

The award-winning Adflo is the welder's PAPR of choice.

see page 32



## Supplied Air Respiratory Protection

Also available with the 3M Versaflo Supplied Air Regulator V-500E.

see page 36



## Technical Data Information

Compare the Respiratory Welding Helmets by feature.

see page 52



[Watch a video on Welding Fume here!](#)

# Welding Fume Is Serious. Action Is Required.

The important point to understand is that while the risk posed by welding fume is serious, keeping yourself safe can be straightforward.

The 2017 IARC reclassification of welding fume as ‘carcinogenic to humans’ simply confirmed what was already known – welding fume is extremely bad for health and workplaces must protect their workers. Excessive exposure to welding fume can cause multiple types of cancer, including lung, larynx, and urinary tract.

‘Welders present, on average, a 43% increased risk of lung cancer when compared with those who have never welded or been exposed to welding fume’<sup>1</sup>. ‘This increased risk of lung cancer is regardless of the type of steel welded, the welding process and independent of exposure to smoking’<sup>1</sup>. Precedent for workers’ compensation based on a link between welding fume and cancer was established in the Australian courts back in 2014, opening the door for future compensation claims.

Aside from cancer, welding fume can also cause serious long-term health effects like lung function

**Simple Takeaway**

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**Welding fume is serious, action is required.**

abnormalities, including bronchial asthma, chronic obstructive pulmonary disease (COPD), pneumoconiosis and other pulmonary fibrosis, as well as stomach ulcers, kidney damage and nervous system damage.

Recognising welding fume as carcinogenic and the other associated health risks should encourage all employers of welders to review their risk assessments and revise their control measures.

Welding fume is serious, action is required.

# Exposure limits are just the beginning.

The exposure standards in Australia and New Zealand 'do not identify a dividing line between a healthy or unhealthy working environment'<sup>2</sup>. They simply establish a legal maximum upper limit. 'Therefore, exposure standards should not be considered as representing an acceptable level of exposure to workers'<sup>2</sup>.

Take for example, a welder operating within the workplace exposure standards for general welding fume (5 mg/m<sup>3</sup>). If the welder is wearing no respiratory personal protective equipment (PPE), they could inhale up to 11 grams of a carcinogenic substance (welding fume) every year\*.

Moreover, an Australian or New Zealand welder operating under the legal workplace exposure limits for welding fume in Australia is exposed to 4 times the level of a known carcinogen than that of a German welder working under the TGRS 528 (1.25 mg/m<sup>3</sup>) exposure limits in Germany.

The world has shifted to more of a health and safety focus—the result of court cases and

research. Australian and New Zealand companies are now completely changing their stance on welding fume and welders' PPE.

The 2017 reclassification of welding fume as carcinogenic prompted many to rethink and challenge what was historically considered 'normal'. The 2019 statistical analysis concluding that welders have a '43% increased risk of lung cancer'<sup>1</sup> regardless of the type of steel welded, the welding process or time-period is of serious public health relevance.

Being aware of information like this should act as the trigger at your workplace to introduce PPE with higher protection factors to give exposed workers the protection they deserve.

For a step-by-step summary on how to get started, please contact AWS ([www.apexweldingsafety.com.au](http://www.apexweldingsafety.com.au)) or download the Practical Guide to Welding Fume Control.

## The Practical Guide to Welding Fume Control

For a clear outline of the risks, as well as actionable guidance based specifically on the welding industry, download the Practical Guide to Welding Fume Control.



Download the Practical Guide for FREE here!

[www.apexweldingsafety.com.au/welding-safety-white-papers](http://www.apexweldingsafety.com.au/welding-safety-white-papers)



\*The example is based on a typical respiratory rate of 20 litres of air per minute or 2300 m<sup>3</sup> of air per year. The reference used here is the workplace exposure limit for Australia for welding fume when no specific chemical is identified with a workplace exposure limit lower than the general guideline (5mg/m<sup>3</sup>).



PLUS: Watch a video on Minimising Welding Fume Exposure here!

**NEW** 3M™ Speedglas™ G5-01 with Heavy-Duty Adflo™ PAPR

# Take Control

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

Variable Colour Technology



Heavy-Duty Protection



Climate Control



Configurable Coverage



Optional Task Light



Bluetooth Connectivity



Watch the Speedglas G5-01 product demo video here!

**NEW** 3M™ Speedglas™ G5-01 with Heavy-Duty Adflo™ PAPR



3M™ Speedglas™ G5-01

# Adjust your welding helmet, not yourself

Speedglas™ Welding Lens G5-01VC with Auto-On, True-View and **NEW** Variable Colour Technology.

Extra-large viewing area (73x109 mm) with shades 3/5, 8-14.

Adjust the amount and direction of the airflow inside your helmet with **NEW** Climate Control.

Smooth flip-up function reveals largest ever Speedglas clear grinding visor (170x104 mm).

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.



**NEW** Configurable extra protection options to suit your specific needs.

Lens reacts down to an industry-leading 1 amp.

**NEW** Bluetooth® connectivity enables control of your welding lens settings directly from your smart phone.

**NEW** Removable flip-up component reduces overall helmet weight by 35% for extended non-welding applications.



**NEW** Optional helmet-mounted task light provides hours of powerful lighting for work in poorly lit spaces.

## Choose how you see your weld

To provide better vision and more control of your weld puddle, the Speedglas G5-01VC includes Variable Colour Technology!

Choose between natural (A), cool (B) or warm (C) tones for your dark state, depending on which offers the best viewing contrast for your welds and the most comfort for your eyes.

3M™ Speedglas™ G5-01VC with Heavy Duty Adflo™ PAPR  
Part Number: 61 78 30

Also available with G5-01 TW Lens:  
Shade Range 3/5, 8-13, No Variable Colour Technology

3M™ Speedglas™ G5-01TW with Heavy Duty Adflo™ PAPR  
Part Number: 61 78 20



All technical data can be found on page 52



3M™ Speedglas™ 9100XXi Air with Adflo™ PAPR

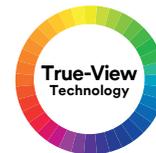
3M™ Speedglas™ 9100XXi Air



Watch the Speedglas 9100 Air product demo video here!

3M™ Speedglas™ 9100XXi Air with Adflo™ PAPR

# Clean, comfortable, and lightweight protection



Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

Speedglas™ Welding Lens 9100XXi (73 x 107mm) with Auto-On and True-View for crisp colour and contrast with shades 3/5, 8-13.

Heat reflecting silver front with an external button for grind and welding memory settings.

The all-new face seal follows the contours of both the helmet and your face.

The air duct is an integral part of the helmet, providing a refreshing flow of air across the entire breathing zone of the helmet.



High comfort head harness with two crown straps for optimum balance.

SideWindows: Shade 5 windows enhance your peripheral vision to widen your overall field of view.

An innovative quick-release attachment enables one-handed breathing tube connection and release.



Middle airflow channel to keep your welding lens fog free.

Two side channels deliver a smooth flow of fresh air directly to the breathing zone.

## Seamless switching

Switch between grind mode and two pre-set welding memory modes with the push of an external button. This allows you to easily move between applications while maintaining your positive pressure respiratory seal.

3M Speedglas Welding Helmet 9100XXi Air with Adflo™ PAPR (8 Hour Battery)  
Part Number: 50 77 26

3M Speedglas Welding Helmet 9100XXi Air with Heavy Duty Adflo™ PAPR (12 Hour Battery)  
Part Number: 507726HD

All technical data can be found on page 52

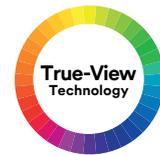
3M™ Speedglas™ 9100XXi MP Air with Adflo™ PAPR



Watch the Speedglas 9100 MP Air product demo video here!

3M™ Speedglas™ 9100XXi MP Air with Adflo™ PAPR

# Five levels of welding protection



Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

Lens reacts down to an industry-leading 1 amp.

Speedglas™ Welding Lens 9100XXi (73 x 107mm) with Auto-On and True-View for crisp colour and contrast with shades 3/5, 8-13.

Smooth flip-up function with curved 170x100 mm clear protective visor, increasing your peripheral vision to 180°.

The safety helmet is made from heat-resistant polycarbonate and conforms to Australian and New Zealand Standard AS/NZS1801 for head protection.



Designed from inception to accept 3M™ Peltor™ H31 Earmuffs (Class 4).

SideWindows: Shade 5 windows enhance your peripheral vision to widen your overall field of view.

An innovative quick-release attachment enables one-handed breathing tube connection and release.



## Weld with confidence

Combining eye, head, face, hearing and respiratory protection, this highly integrated welding and safety helmet will enable you to carry out your welding with absolute comfort and confidence!

3M Speedglas Welding Helmet 9100XXi MP Air with Adflo™ PAPR (8 Hour Battery)  
Part Number: 57 77 26

3M Speedglas Welding Helmet 9100XXi MP Air with Heavy Duty Adflo™ PAPR (12 Hour Battery)  
Part Number: 577726HD



# 3M™ Adflo™ Powered Air Purifying Respiratory Protection

'Welding helmets with integrated powered air purifying respirators (PAPR) are the most widely used form of respiratory protection amongst welders in Australia and New Zealand'<sup>3</sup> and are mandatory within many businesses.

They have a Required Minimum Protection Factor (RMPF) of 50, meaning that they supply breathing air a minimum 50 times cleaner than the welder would otherwise be breathing unprotected and can also protect the welders' eyes and face from radiation and high velocity particles.

With a flip-up welding helmet with powered air respiratory protection, welders can have completely clear and uninhibited views of their workpiece and surroundings while maintaining their desired level of respiratory protection with no breathing resistance. The powered air respirator goes where the welder goes, allowing unrestricted movement around the workplace with clear vision, comfort, and uninterrupted eye, face and respiratory protection.

PAPRs can provide protection to welders using the most common materials (aluminium, steel, stainless steel, galvanised steel etc.) and applications (MMA, TIG, GMAW, FCAW, SAW) where there is an environment with good ventilation and/or extraction.

The 3M Adflo PAPR is suitable for use with the complete Speedglas Respiratory Welding Helmet Range (pages 26-31).

**Watch a video on the Speedglas Powered Air Portfolio here!**



# Mobile and adaptable respiratory protection

## 3M™ Adflo™ Powered Air Purifying Respirator (PAPR)

As one of the most popular respirators of its kind in the world, the Adflo™ Powered Air Purifying Respirator is designed to provide a constant nominal airflow rate of 170/200 litres per minute, regardless of the battery's charge or the particle loading of the filter.

With its slim profile, the Adflo respirator offers excellent lightweight, adaptable and easy-to-use respiratory protection.

**PLUS Heavy Duty Adflo Available**



Technical Data	3M™ Adflo™ Powered Air Respirator
Approvals Respiratory Protection	Conforms to AS/NZS1716
Required Minimum Protection Factor (RMPF) <sup>1)</sup>	50
Airflow Standard Airflow Plus	170 litres/minute 200 litres/minute
Battery: Charging time	Li-ion with rapid charge (0-80% in an hour) <sup>2)</sup> 4.5 hours (standard), 5.5 hours (heavy duty)
<b>Operating hours</b>	<b>8 hours (standard) or 12 hours (heavy duty)</b>
Weight Respirator	960 grams
Noise level dB	Max 75 dB
Belt	Leather 75-115cm

Gas and odour filters are available as an optional extra.  
 1) For mechanically and thermally generated particles.  
 2) Standard battery will be 80% charged (6.4 hours run time) in approximately one hour.  
 Heavy duty battery will be 80% charged (9.6 hours run time) in approximately one hour.

## Award-winning protection

Since its launch, the 3M™ Adflo™ powered air respirator has become synonymous with welders' respiratory protection. The system is designed to meet the specific needs of welders.

## Upgraded features

The new Li-ion Adflo respirator is over 15% lighter<sup>^</sup> and has one-hour rapid charge. A self-adjusting quick-release breathing tube allows for simple one handed connection and release.

## Clean air to breathe

Constant, clean air flows directly into your breathing zone. Choose between 170 litres per minute or 200 litres per minute (for hot, humid jobs) with the push of a button.

## Adaptable filtration

With the right type of filter, the Adflo powered respirator effectively protects against a range of gases, vapours and particles.

## You only have one set of lungs

The Adflo respirator complies with Australian and New Zealand Standard AS/NZS1716 for powered air respirators and offers a Required Minimum Protection Factor (RMPF) of 50 for mechanically and thermally generated particles.

## Built to last

Choose either the standard 8 hour battery or a heavy-duty Adflo battery, which can offer up to 12 hours continuous protection.

<sup>^</sup> When compared to the previous Adflo PAPR system that featured a nickel metal hydride battery.

# Cooler, cleaner and more comfortable welding

With the right type of filter, the Adflo respirator helps effectively protect you against both particles and gases – all in one system. Here's a summary of the composite parts that make up an Adflo PAPR unit:

Shown here: 3M™ Adflo™ Powered Air Respirator connected to a 3M™ Speedglas™ Respiratory Welding Helmet.

- A** **Filter cover:** holds the spark arrestor and filters.
- B** **Spark arrestor.**
- C** **Pre-filter:** increases the service life of the particle filter.
- D** **Particle filter:** high efficiency particulate filtration.
- E\*** **Gas filter:** (A1) captures organic gases and vapours. Gas filters sold separately.
- F\*** **Odour filter:** removes unpleasant smells (not needed if a gas filter is installed); sold separately.
- G** **Li-ion battery:** fully charges in 4.5 hours (standard) or 5.5 hours (heavy-duty). Expected operating time is 8 hours (standard) and 12 hours (heavy-duty) with new particle filter, new fully-charged battery and a standard flow level.
- H** **Brushless motor:** with an average life three times longer than conventional motors.
- I** **Filter indicator:** indicates the status of the particle filter.
- J** **Airflow Plus:** for hot, humid jobs you can increase the airflow from 170 l/min to 200 l/min with the push of a button.
- K** **Breathing tube:** self-adjusting or heavy duty rubber.
- L** **Exclusive airflow pattern:** evenly distributes filtered air throughout the entire breathing zone of the helmet. The intelligent turbo unit keeps the airflow rate at a constant, preset level. A diffuser spreads out the airflow pattern for your maximum comfort.
- M** **Soft, flexible face seal (removed here for clarity):** creates a positive pressure environment within the helmet, keeping the surrounding pollutants at bay.



\* optional

## A Practical Approach to Product Controls

A combination of LEV and respiratory PPE is the most practical and effective 'product control' method to protect welders and surrounding workers from welding fume. Respiratory PPE is an extremely effective control to protect the welder and LEV can prevent fume building up to dangerous levels and prevents the spread of fume throughout the workplace. Respiratory PPE should always be worn by welders to complement the use of LEV. The figure below gives you practical advice on how to select product controls for full-time welders and what is most effective within the welding industry.



*This chart has been provided as an example and is provided as a basic guideline only. Always consult with your Safety Engineer or an Occupational Hygienist. This chart assumes that all efforts to mitigate risk associated with welding fume through elimination and substitution have been carried out. Procedural controls (eg. minimise work conducted in restricted spaces, training, care and maintenance) should be introduced to support PPE and LEV controls. This chart does not address confined spaces as defined by AS2865 or atmospheres Immediately Dangerous to Life or Health (IDLH). If you require advice on these environments please contact AWS ([www.apexweldingsafety.com.au](http://www.apexweldingsafety.com.au)). Consultation with a PPE and extraction expert such as AWS ([www.apexweldingsafety.com.au](http://www.apexweldingsafety.com.au)) and an occupational hygienist is recommended to ensure your specific application, environment, materials, and limitations (space, need for mobility) are considered.*



# 3M™ Versaflo™ Supplied Air Respiratory Protection

The range of 3M™ Speedglas™ Respiratory Welding Helmets are also available with a Supplied Air Regulator.

Breathing air is supplied to the welder via a compressor through a multi-stage filtration system.

Unlike a Powered Air Purifying Respirator that filters air from the surrounding environment, a Supplied Air system delivers clean air from an external source, making it a perfect option for environments without good ventilation\*.

They have a Required Minimum Protection Factor (RMPF) of 100+, meaning that they supply breathing air a minimum 100 times cleaner than the welder would otherwise be breathing unprotected.

The 3M V-500E Supplied Air Regulator is suitable for use with the complete Speedglas Respiratory Welding Helmet Range (pages 26-31).

## Welding Helmets with Supplied Air

Supplied air respiratory protection offers a Required Minimum Protection Factor of 100+, supplying a minimum 100 times cleaner air than the welder would otherwise be breathing unprotected.



Explore the range of Speedglas supplied air respiratory systems!

\*There must be a suitably trained and knowledgeable person doing the assessment and design of a safe system for any confined space entry.

## 3M™ Versaflo™ Supplied Air Regulator V-500E

# Light on your belt and heavy on protection

A constant flow of clean, filtered air makes the 3M™ Versaflo™ Supplied Air Regulator V-500E ideal for working in hot and humid conditions when used in combination with the 3M™ Speedglas™ Respiratory Welding Helmet range:

Lightweight belt-mounted regulator (514g).

NEW Quick-Release mechanism smoothly connects to a breathing air filtration system.

Compliant with Australian and New Zealand Standard AS/NZS1716 for respiratory protection.



Adjustable air flow settings of 170/305 litres per minute.

Maximum noise level of 65dB, the equivalent of a typical conversation.

Required Minimum Protection Factor (RMPF) of 100+.



3M Speedglas Heavy-Duty Welding Helmet G5-01VC with V-500E supplied air regulator.  
Part Number: 61 88 30



3M Speedglas Welding Helmet 9100XXi Air with V-500E supplied air regulator  
Part Number: 50 88 26



3M Speedglas Heavy-Duty Welding Helmet G5-01TW with V-500E supplied air regulator  
Part Number: 61 88 20



3M Speedglas Welding & Safety Helmet 9100XXi MP Air with V-500E supplied air regulator  
Part Number: 57 88 26

# The latest in filtration and drying technology



Pictured: A 3 Person, 4 Stage Alpha Series Portable Breathing Air Filtration System (part no. WBA34PA)

AWS now offers a comprehensive range of the new Alpha Series wall-mounted and portable breathable air systems. These are suitable for use with 3M™ Speedglas™ Welding Helmets with the 3M™ Versaflo™ V-500E supplied air regulator.

Carefully researched and tested to ensure high levels of performance, these breathable air filtration products can be installed where pure breathable compressed air is required.

The filter packages offer filtration and oil removal efficiencies down to 0.01 micron particulate size and maximum oil carryover efficiencies to 0.003 mg/m<sup>3</sup> (0.003 ppm).

The operator is supplied particle and liquid oil free air with the added benefit of taste and odour removal for improved user comfort and performance which exceeds the requirements of AS/NZS1716.

Knowing that each user requires 6cfm/170lpm/2.88lps of breathable air, we have made the following systems in either wall mountable or portable:

1 Person System

Provides 25 cfm\*

3 Person System

Provides 25 cfm\*

5 Person System

Provides 35 cfm\*

The systems are available in 2 stage and 4 stage filtration varieties. When deciding how many stages are required, you need to access the operator's requirement and current quality of compressed air. For more detailed information on stage selection, see page 39.

The breathing air systems should not be used when using air pressure in excess of 10 bar.

\*Please note all flow rates quoted in this document are in scfm at 7 barg

# Breathable Air System Stages Explained

## 4 Stage Breathable Air System

Where no other filtration is in place or high levels of liquid can be seen at the point where the system is to be used.



**1** Comes standard with a water spinner filter that removes any bulk condensate.

**2** 1 micron pre-filter which removes dirt, rust and particulate matter down to 1 micron in size, whilst coalescing liquids and gives a maximum oil carryover of 0.1 ppm (does not include vapour).

**3** 0.01 micron particle filter which removes dirt, rust and particulate matter down to 0.01 micron in size, whilst coalescing liquids and gives a maximum oil carryover of 0.01 ppm (does not include vapour).

**4** An activated carbon filter which adsorbs all smells and odours from the air and gives a maximum oil carryover of 0.003 ppm.

## 2 Stage Breathable Air System

Where the system is being used at a point of use where filtration (generally two filters and refrigeration dryers in many cases) is installed for general plant air.

**1** 0.01 micron particle filter which removes dirt, rust and particulate matter down to 0.01 micron in size, whilst coalescing liquids and gives a maximum oil carryover of 0.01 ppm (does not include vapour).

**2** An activated carbon filter which adsorbs all smells and odours from the air, and gives a maximum oil carryover of 0.003 ppm.

Systems available as portable with a frame or wall mountable



# Breathable Air Systems Selection Chart



When selecting a suitable system, it is important to determine:

1. How many people will run off the system?
2. Filtration stages required? (See page 39)
3. Portable or wall mountable?

Part No.	Description
WBA12WMA	1 Person, 2 Stage, Wall Mounted
WBA12PA	1 Person, 2 Stage, Portable
WBA32WMA	3 Person, 2 Stage, Wall Mounted
WBA32PA	3 Person, 2 Stage, Portable
WBA34WMA	3 Person, 4 Stage, Wall Mounted
WBA34PA	3 Person, 4 Stage, Portable
WBA52WMA	5 Person, 2 Stage, Wall Mounted
WBA52PA	5 Person, 2 Stage, Portable
WBA54WMA	5 Person, 4 Stage, Wall Mounted
WBA54PA	5 Person, 4 Stage, Portable

## Elements & Couplings (to suit Alpha Systems:)

Part No.	Description
WBADAC	BA Element Carbon Filter (Upper) Alpha
WBADXA	BA Element 0.01 Micron (Lower) Alpha
WBAX1	BA Element 1 Micron Pre-filter Alpha
WBASK3A	BA Element Water Spinner

## Breathing Air Hoses (with CEJN fittings:)

Part No.	Description
BAHOSE05M	5 Metre Breathing Air Hose
BAHOSE10M	10 Metre Breathing Air Hose
BAHOSE15M	15 Metre Breathing Air Hose
BAHOSE20M	20 Metre Breathing Air Hose
BAHOSE30M	30 Metre Breathing Air Hose
BAHOSE40M	40 Metre Breathing Air Hose

## Please Note

All 3 person systems come with one coupling part no. C103441152

For a 2 person system order another coupling and for a 3 person system order another 2 couplings.

All 5 person systems come with two couplings part no. C103441152

For a 3 person system order another coupling, for a 4 person system order another 2 couplings and for a 5 person system order another 3 couplings.

# Selecting your Supplied Breathing Air Components

1

Select your preferred Welding Helmet with Supplied Air Regulator



2

Select Breathing Air Filtration System (stages/no. of people)



3

Select Breathing Air Hoses (5/10/15/20/30/40m)



4

Select your Air Compressor



5

Optional: Substitute your Supplied Air Regulator for a Vortex Cooler in hot conditions



Part No.	Product Name
AWS4590	Vortex cooler incl. muffler & belt
	<ul style="list-style-type: none"> <li>• Airflow range 170 - 425 l/min (6 - 15cfm)</li> <li>• Reduces air temperature by up to 25°C</li> <li>• For more information, please contact AWS</li> </ul>

## Flow of Air

Air Compressor



Breathing Air Hose



Breathing Air Filtration System



Breathing Air Hose



Welding Helmet with Supplied Air Regulator



# Respiratory filter guides

A practical guide to respiratory protection based on material, process, and environment.

- P = Powered air purifying respirator.
- P+A = Powered air purifying respirator with a A1 gas filter installed.
- P+ODOUR = Powered air purifying respirator with an odour filter installed.
- S = Supplied air via regulator and filtration unit.

Material to be welded	Welding method	Ventilation conditions of your working environment		
		Environment with good ventilation /extraction.	Environment with limited ventilation /extraction ----- -----> increasing exposure.	Restricted space* <small>Note: this respiratory protection solution may not be suitable for Confined Spaces as defined in AS2865.</small>
Aluminium	GMAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	TIG 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
Stainless steel	GMAW/FCAW/SAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	TIG 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	MMA (stick) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
Steel not coated or painted	GMAW/FCAW/SAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	MMA (stick) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
Steel (lead based paints / oil and grease present)	GMAW/FCAW/SAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px; background-color: #e0e0e0;">ODOUR</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	MMA (stick) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px; background-color: #e0e0e0;">ODOUR</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
Steel galvanised	GMAW/FCAW/SAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px; background-color: #e0e0e0;">ODOUR</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	MMA (stick) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px; background-color: #e0e0e0;">ODOUR</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
Steel coated with 2-component paints or insulated with 2-part polyurethanes (risk of isocyanates)	GMAW/FCAW/SAW 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	MMA (stick) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>
	PLASMA (cutting and gouging) 	<span style="border: 1px solid black; padding: 2px;">P</span>	<span style="border: 1px solid black; padding: 2px;">P</span> + <span style="border: 1px solid black; padding: 2px;">A</span> or <span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>

This chart has only been provided as an example and is provided as a basic guideline. It should not be used as the only means of selecting a respirator. Powered and supplied air respirators must never be used in atmospheres Immediately Dangerous to Life or Health (IDLH) without emergency breathing device capability (AS/NZS1715). Always consult your Safety Engineer or Occupational Hygienist.

\*A 'restricted space' for the purposes of this document refers to a situation where 1) local exhaust ventilation (LEV) fume extraction is not possible due to a limitation of space, 2) general plant air (dilution) can not effectively reach the welder and 3) the space is not a confined space as defined by AS2865.

Code	Type of filter
E	Acid gases.
A	Organic gases, boiling point > 65°C.
AX	Organic gases, boiling point < 65°C.
P	Particle filter.
B	Inorganic gases.

### Remarks

H = The chemical can be absorbed through the skin.  
 K = The chemical can be cancer-inducing.  
 S = The chemical can be a sensitiser.

- Argon and helium are inert gases which are not generally absorbed by canister type filters. These gases are not in themselves hazardous but can displace oxygen from the air when present in confined spaces.
- Ozone is not readily filtered by absorption type filters. However, ozone reverts back to normal oxygen upon contact with solid surfaces. The use of a Speedglas Welding Helmet or Protective Visor with the Adflo Respirator (particle filtration) will reduce ozone exposure. (For further information please contact AWS).
- Chemical constituents of a welding fume with very low Occupational Exposure Limits can pose special hazards and are sometimes best protected against by using a Supplied Air Regulator System. Always ask an appropriately qualified safety professional, such as an Occupational Hygienist for respiratory protection advice if you are unsure.

For information on the Workplace Exposure Limits in Australia or New Zealand, please download the Practical Guide to Welding Fume Control using the QR code below.



Suggested Filter Type				
Chemical			Supplied Air	
Aluminium	P			
Argon			Supplied Air	1
Beryllium	P		Supplied Air	K, S 3
Bromine		B		
Cadmium	P			K
Carbon Dioxide			Supplied Air	
Carbon Monoxide			Supplied Air	
Chlorine		B		H
Chlorine Dioxide		B		
Chromium Hexavalent	P			K
Chromium Trivalent	P			
Copper	P			
Fluorides	P			
Fluorine			Supplied Air	
Helium			Supplied Air	1
Isocyanates			Supplied Air	S
Hydrogen Chloride		B	Supplied Air	3
Hydrogen Cyanide		B	Supplied Air	H3
Hydrogen Fluoride		B	Supplied Air	3
Hydrogen Sulphide		B		
Iron Oxide	P			
Lead	P			
Magnesium	P			
Manganese	P			
Nickel	P			K, S
Nitrogen Dioxide			Supplied Air	
Nitric Oxide			Supplied Air	
Ozone	P	A		2
Phosgene			Supplied Air	3
Phosphine			Supplied Air	
Silicon Dioxide	P			
Sulphur Dioxide		E		
Trichloroethylene		A		K
Vanadium Oxide	P			
White Spirit		A		
Zinc	P			
Zinc Chloride	P			
Zinc Oxide	P			



# SPATA

## Free to all 3M™ Speedglas™ Powered Air Customers

The Speedglas Powered Air Training Academy (SPATA) has been launched in Australia and New Zealand to provide workplaces with a set of online video training modules to educate and train staff in line with the suggested syllabus set out in the Australian and New Zealand Standard 1715 for workers using respiratory protective equipment.



Want to learn more about SPATA?  
**Watch an introductory video  
here!**

For companies that currently rely on 3M™ Speedglas™ Welding Helmets with Powered Air Purifying Respirators, this training package has been made completely free of charge.

As you may know, occupational health and safety legislation requires employers to provide the welder with information, training, and instruction in the proper use of PPE.

The SPATA program has been prepared in combination with occupational hygienists, welders, and industry professionals, to save your business time, hassle, and expense when it comes to training your welders on the proper use of their PPE. Simply use the SPATA program to assist in ticking that box.





The training program includes the following 10 video modules:

Module No.	Module Name
1	Welding Fume and Exposure Limits
2	Set-Up and Initial Checks
3	Your 3M™ Adflo™ Powered Air Purifying Respirator
4	Your 3M™ Speedglas™ Welding Lens
5	Your 3M™ Speedglas™ Welding Helmet and Harness
6	Changing Core Spare Parts and Consumables
7	Extra Protection and Optional Comfort Options
8	Maintenance - Cleaning, Storage and Record Keeping
9	A Practical Guide to Welding Fume Control
10	Limitations of Your Respiratory Protective Equipment

Get the most out of your 3M Speedglas Powered Air Respirator today!

Sign up for **FREE** at [www.apexweldingsafety.com.au/spata](http://www.apexweldingsafety.com.au/spata)



# 3M™ Speedglas™ Core Spare Parts



Spare Part Required	3M™ Speedglas™ 100 Series Welding Helmets	3M™ Speedglas™ Welding Helmet 9002NC	3M™ Speedglas™ Welding Helmet 9100XXi	3M™ Speedglas™ Welding Helmet 9100XXi FX	3M™ Speedglas™ Welding Helmet 9100XXi QR
Outside Cover Lens Standard	77 60 00	42 60 00	52 60 00	52 60 00	52 60 00
Outside Cover Lens Hard Coated	77 70 00	42 70 00	52 70 00	52 70 00	52 70 00
Outside Cover Lens High Heat	77 70 70	42 70 71	52 70 70	52 70 70	52 70 70
Inside Cover Lens	42 80 00	42 80 10	52 80 25	52 80 25	52 80 25
Grinding Plate	NA	42 30 00	NA	52 30 00 (standard) 52 30 01 (anti-fog)	NA
Sweatband (Pack of 2)	16 85 02	16 85 02	16 95 02	16 95 02	16 75 02
Sweatband (Pack of 5)	16 85 05	16 85 05	16 95 05	16 95 05	16 75 05
Replacement Battery for Lens	42 20 00	42 20 00	42 20 00	42 20 00	42 20 00
Replacement Battery Holder	73 10 00	43 10 00	53 10 00	53 10 00	53 10 00
Magnifying Lens 1.0x, 1.5x, 2x, 2.5x, 3.0x	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24
Extra Protection Head	16 40 09	16 40 09	16 90 05	16 90 06 (small) 16 90 07 (large)	NA
Extra Protection Neck	16 90 01	16 90 01	16 90 10	16 90 10	16 40 05
Extra Protection Hood	16 91 00	16 91 00	16 91 00	16 91 00	16 91 00
Head Harness	70 50 15	70 50 15	53 30 00	53 30 00	NA
Head Harness Attachments	70 60 00	70 60 00	53 60 00	53 60 00	NA
Earmuffs	NA	NA	19 70 12	19 70 12	MX4P3EG
Face Seal	NA	NA	NA	NA	NA
Pre-Filter	NA	NA	NA	NA	NA
Particle Filter	NA	NA	NA	NA	NA
Odour Filter	NA	NA	NA	NA	NA
Odour Filter Replacement Pad	NA	NA	NA	NA	NA
Gas Filter - Organic Vapour / Acid Gas	NA	NA	NA	NA	NA
Gas Filter - A1, Organic	NA	NA	NA	NA	NA
Adflo Battery Standard	NA	NA	NA	NA	NA
Adflo Battery Heavy Duty	NA	NA	NA	NA	NA
Adflo Battery Charger	NA	NA	NA	NA	NA

1) Only suitable for use with M-400 Series headtops.

2) Ideal for powder coating, paint spray or similar applications. The 895976 is designed solely to keep the wearer clean and does not provide additional respiratory protection.

3) Lithium-ion (grey) batteries (83 76 30, 83 76 31) are only compatible with the Lithium-ion battery charger (83 31 11).



3M™ Speedglas™ Welding Helmet G5-02	3M™ Speedglas™ Welding Helmet 9100XXi Air	3M™ Speedglas™ Welding Helmet 9100XXi MP Air	3M™ Speedglas™ Welding Helmet 9100XXi FX Air	3M™ Speedglas™ G5-01 Series Welding Helmets	3M™ Versaflo™ Headtop M-207, M-307, M-407
62 60 00	52 60 00	52 60 00	52 60 00	52 60 00	NA
NA	52 70 00	52 70 00	52 70 00	52 70 00	NA
NA	52 70 70	52 70 70	52 70 70	52 70 70	NA
62 40 00	52 80 25	52 80 25	52 80 25	52 80 25	NA
NA	NA	52 30 00 (standard) 52 30 01 (anti-fog)	52 30 00 (standard) 52 30 01 (anti-fog)	61 30 00 (anti-fog)	NA
16 85 02	16 95 02	16 85 02	16 95 02	16 95 02	16 85 02
16 85 05	16 95 05	16 85 05	16 95 05	16 95 05	16 85 05
60 20 00	42 20 00	42 20 00	42 20 00	60 20 00	NA
60 10 00	53 10 00	53 10 00	53 10 00	60 10 00	NA
17 20 20, 17 20 21, 17 20 22	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	17 10 20, 17 10 21, 17 10 22, 17 10 23, 17 10 24	NA
16 90 05	16 90 05	16 90 14	16 90 06 (small) 16 90 07 (large)	16 90 20 (small fabric), 16 90 21 (fluorescent), 16 90 22 (leather), 16 90 23 (large fabric)	89 59 72
16 40 05	16 90 10	16 90 01	16 90 10	16 90 41 (small fabric), 16 90 42 (large fabric), 16 90 43 (leather)	89 54 48 <sup>1)</sup>
16 91 00	16 91 00	NA	16 91 00	16 91 00	89 59 76 <sup>2)</sup>
70 50 20	53 30 00	53 30 01	53 30 00	61 32 00	53 30 01 (M-307, M-407) 89 51 50 (M-207)
70 60 30	53 60 00	NA	53 60 00	61 60 00	NA
NA	19 70 12	19 70 11	19 70 12	NA	19 70 11
NA	53 41 00	53 42 00	53 40 00	61 40 00	89 59 37
NA	83 60 10	83 60 10	83 60 10	83 60 10	83 60 10
NA	83 70 10	83 70 10	83 70 10	83 70 10	83 70 10
NA	83 71 10	83 71 10	83 71 10	83 71 10	83 71 10
NA	83 71 20	83 71 20	83 71 20	83 71 20	83 71 20
NA	83 72 42	83 72 42	83 72 42	83 72 42	83 72 42
NA	83 75 42	83 75 42	83 75 42	83 75 42	83 75 42
NA	83 76 30 <sup>3)</sup>	83 76 30 <sup>3)</sup>	83 76 30 <sup>3)</sup>	NA	83 76 30 <sup>3)</sup>
NA	83 76 31 <sup>3)</sup>	83 76 31 <sup>3)</sup>			
NA	83 31 11 <sup>3)</sup>	83 31 11 <sup>3)</sup>			

## Spare Part Finder Tool

If you're still unsure about which spare part you need, try our Spare Part Finder Tool:

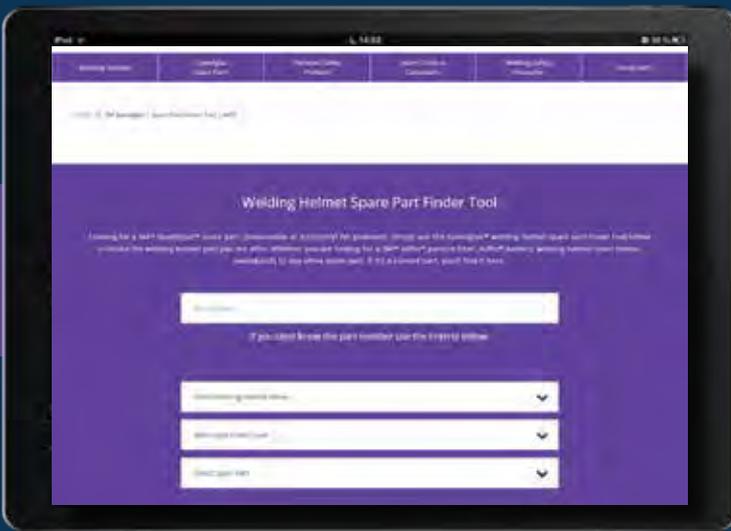


## Spare Part Finder Tool

The key to ensuring your Speedglas welding helmet is performing at its best, is the regular replacement of core consumables and spare parts.

Looking for a 3M™ Speedglas™ spare part, consumable or accessory? No problems. Simply use the Speedglas™ welding helmet spare part finder tool to locate the welding helmet part you are after.

Whether you are looking for a 3M™ Adflo™ particle filter, Adflo™ battery, welding helmet cover lenses, sweatbands or any other spare part, if it's a current part, you'll find it here:



Need help?  
Use the AWS Spare Part  
Finder Tool here!



## Care & Maintenance Guide

For care & maintenance advice based on your specific welding helmet, use the AWS care & maintenance tool. Simply select your welding helmet from the list and we'll send a customised care & maintenance schedule & cleaning guide, including a welding helmet breakdown with all spare parts and recommended change frequencies.

Perfect for the wall at work or home!

Look after your welding helmet!  
Download Care & Maintenance  
Posters FREE here!





## Extra Protection: we have 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 maximise 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.

### For 3M™ Speedglas™ Non-Respiratory Welding Helmets

3M™ Speedglas™ Non-Respiratory Welding Helmet	100	9002NC	9100	9100 FX	9100 QR	G5-02
Head protection	16 40 09		16 90 05	16 90 07 (large) 16 90 06 (small)	N/A	16 90 05
Neck protection	16 90 01 16 40 05 (leather)		16 90 10		16 40 05 (leather)	16 90 01 16 40 05 (leather)
Hood	16 91 00					
Welding jacket	95 42 01 (M), 95 42 02 (L), 95 42 03 (XL), 95 42 04 (XXL), 95 42 05 (XXXL)					

### For 3M™ Speedglas™ Respiratory Welding Helmets

3M™ Speedglas™ Respiratory Welding Helmet	9100 Air	9100 FX Air	9100 MP Air	G5-01
Head protection	16 90 05	16 90 07 (large) 16 90 06 (small)	16 90 14 (reflective)	16 90 20 (small fabric) 16 90 21 (high vis) 16 90 22 (leather) 16 90 23 (large fabric)
Neck protection	16 90 10		16 90 01	16 90 41 (small fabric) 16 90 42 (large fabric) 16 90 43 (leather)
Hood	16 91 00		NA	16 91 00
Breathing tube cover	83 40 18			
Welding jacket	95 42 01 (M), 95 42 02 (L), 95 42 03 (XL), 95 42 04 (XXL), 95 42 05 (XXXL)			

# Time for an upgrade?

## Upgrading your respiratory headtop

If you currently own a Speedglas respiratory welding helmet with Adflo™ PAPR, you may want to experience new features that are exclusive to a specific Speedglas headtop. However, given you already use an Adflo PAPR, you may not see the value in purchasing a new Speedglas powered air system in its entirety. This is where the upgrade kit comes in!

Each upgrade kit is comprised of a new headtop and lens to connect to your existing Adflo PAPR unit.

3M™ Speedglas™ 9100XXi Air Upgrade Kit  
Part No. 50 90 26



3M™ Speedglas™ 9100XXi MP Air Upgrade Kit  
Part No. 57 90 26



3M™ Speedglas™ G5-01TW Upgrade Kit  
Part No. 61 11 20



3M™ Speedglas™ G5-01VC Upgrade Kit  
Part No. 61 11 30



## PLUS: Speedglas battery upgrade kits!

Speedglas battery upgrade kits include a new Lithium-Ion Adflo battery and accompanying new Adflo charger to integrate into your existing PAPR unit. This new battery is not only 40% lighter, but also includes a One Hour Rapid Charge function: meaning it just takes an hour to charge the battery to 80%!

Two Lithium-Ion upgrade kits are available: the standard battery (Part No. 837630C - 8 hours runtime approx.) and the heavy-duty version (Part No. 837631C - 12 hours runtime approx.)



# Upgrade Your Comfort

## Increasing your comfort

A Heavy-Duty PAPR Backpack attachment (part no. 954015HD) is available as an alternative to the standard belt (part no. 83 50 00). This option is geared towards improved wearability, distributing the weight of the Adflo system evenly for extra comfort across your back and shoulders.

Backpack (Part No. 954015HD)



## Introducing the SPATA Welding Jacket

All aspects of the welder's day-to-day have been considered in the development of the SPATA jacket including dual zip and press stud front closure, press studs with multiple sizes on the wrists, Velcro on the neck, two inside pockets, and a pocket for a pencil/chalk on the welder's arm.

See Page 49 for part numbers.



# 3M™ Speedglas™ Welding Helmet Selector Table

● Best<sup>1)</sup> ● Better<sup>1)</sup> ● Good<sup>1)</sup> ✗ Not Recommended<sup>1)</sup>



Specification	3M™ Speedglas™ G5-01VC Heavy-Duty Respiratory Welding Helmet	3M™ Speedglas™ G5-01TW Heavy-Duty Respiratory Welding Helmet	3M™ Speedglas™ 9100 MP Air Respiratory Welding Helmet	3M™ Speedglas™ 9100 Air Respiratory Welding Helmet
MMAW (electrode)	●	●	●	●
MIG/MAG	●	●	●	●
TIG (>10A)	●	●	●	●
TIG (1A-10A)	●	●	●	●
Plasma (Welding and Cutting)	●	●	●	●
Hidden Arc	●	●	●	●
Tack Welding	●	●	●	●
Grinding (Welding Lens)	Clear Visor (170 x 104mm)	Clear Visor (170 x 104mm)	Clear Visor (170 x 100mm)	●
Viewing Area (Welding Lens)	73 x 109 mm	73 x 109 mm	73 x 107 mm	73 x 107 mm
True-View Technology	Yes	Yes	Yes	Yes
Curved Glass Technology	No	No	No	No
Variable Colour Technology	Yes	No	No	No
Auto-On Technology	Yes	Yes	Yes	Yes
Dark State	Shades 5, 8-14	Shades 5, 8-13	Shades 5, 8-13	Shades 5, 8-13
Light State	Shade 3	Shade 3	Shade 3	Shade 3
UV Protection	Shade 14 (permanent)	Shade 13 (permanent)	Shade 13 (permanent)	Shade 13 (permanent)
Battery Lifetime	1 500 hours	1 500 hours	1 800 hours	1 800 hours
Classification <sup>2)</sup>	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)
Switching Time, Light-Dark	0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)
Delay (Switching Time, Dark-Light)	50-1300 ms	50-1300 ms	40-800 ms	40-800 ms
Memory Modes	Yes - 4 (via mobile app)	Yes - 4 (via mobile app)	No	Yes - 2
Bluetooth Connectivity	Yes	Yes	No	No
Standards Compliance Respiratory protection Eye protection Face protection Head protection Hearing protection	AS/NZS1716 AS/NZS1338.1 AS/NZS1337.1	AS/NZS1716 AS/NZS1338.1 AS/NZS1337.1	AS/NZS1716 AS/NZS1338.1 AS/NZS1337.1 AS/NZS1801 AS/NZS1270 (optional)	AS/NZS1716 AS/NZS1338.1 AS/NZS1337.1
Required Minimum Protection Factor (RMPF) <sup>3)</sup> Powered Air - Adflo Supplied Air - V-500E	50 100+	50 100+	50 100+	50 100+

1) The ratings above (best - better - good - not recommended) only refer to the products listed in this chart and should be considered as general recommendations only.

2) Auto-darkening welding lenses have a classification system in European Standard EN379: optical class / diffusion of light / variation on luminous transmittance. Classification range from 1 to 3, with 1 being the best.

3) For mechanically and thermally generated particles.

All Speedglas welding helmets featured in the table above are compliant with the relevant Australian and New Zealand standards (AS/NZS).



3M™ Speedglas™ Curved Welding Helmet G5-02	3M™ Speedglas™ 9100XXi FX Welding Helmet	3M™ Speedglas™ 9100XXi QR Welding & Safety Helmet	3M™ Speedglas™ Welding Helmet 9100XXi	3M™ Speedglas™ Welding Helmet 9002NC	3M™ Speedglas™ 100 Series Welding Helmets
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	×
●	●	●	●	●	×
●	●	●	●	●	×
●	●	●	●	●	●
●	●	●	●	●	●
×	Clear Visor (170 x 100mm)	●	●	×	●
Curved 76 x 150 mm	73 x 107 mm	73 x 107 mm	73 x 107 mm	55 x 107 mm	44 x 93 mm
Yes	Yes	Yes	Yes	Yes	No
Yes	No	No	No	No	No
No	No	No	No	No	No
Yes	Yes	Yes	Yes	No	No
Shades 8-12	Shades 5, 8-13	Shades 5, 8-13	Shades 5, 8-13	Shades 8-12	Shades 8-12 (100B = 10-12)
Shade 2.5	Shade 3	Shade 3	Shade 3	Shade 3	Shade 3
Shade 12 (permanent)	Shade 13 (permanent)	Shade 13 (permanent)	Shade 13 (permanent)	Shade 12 (permanent)	Shade 12 (permanent)
1 500 hours	1 800 hours	1 800 hours	1 800 hours	2 000 hours	1 500 hours
Curved lens surpasses current testing methods	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)	1 / 1 / 1 (with True-View)	1 / 2 / 2
0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)	0.1 ms (+23° C)
50-1000 ms	40-800 ms	40-800 ms	40-800 ms	60-400 ms	40-250 ms
Yes - 4 (via mobile app)	No	Yes - 2	Yes - 2	No	No
Yes	No	No	No	No	No
AS/NZS1337.1	AS/NZS1338.1 AS/NZS1337.1	AS/NZS1338.1 AS/NZS1337.1 AS/NZS1801	AS/NZS1338.1 AS/NZS1337.1	AS/NZS1338.1 AS/NZS1337.1	AS/NZS1338.1 AS/NZS1337
N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A



Try our Welding Helmet Selector Tool here!



**Welding Helmet Selector**

If you're still unsure about which helmet best suits your needs, try our **Welding Helmet Selector Tool**:  
Visit [www.apexweldingsafety.com.au/welding-helmet-selector](http://www.apexweldingsafety.com.au/welding-helmet-selector)

# 2



## On-Gun Fume Extraction

**On-gun fume extraction is too heavy, too bulky,  
and impacts the shielding gas...  
Not anymore.**

On-gun fume extraction is one of the safest and most effective methods of controlling welding fume and is heavily used and relied upon in Europe and North America. However, for the reasons above, on-gun extraction has not been adopted in Australia or New Zealand.

AWS has teamed up with Translas, Dutch on-gun fume extraction specialist, to launch an industry first: a range of lightweight, manoeuvrable, and ergonomic extraction guns that deliver an industry-leading capture rate of up to 98%, all while leaving the shielding gas completely unaffected.

No other welding fume control solution captures welding fume at the source, removes it from the environment, and most importantly, follows the welder as they move. Experience Translas fume extraction technology today.

**UP TO 98% CAPTURE RATE  
AND 100% DUTY CYCLE**





## The safest and most effective method.



Extraction at the source is the safest and most effective solution to control the spread of welding fume in the work environment. Translas on-gun fume extraction captures harmful welding fumes and individual particulates as soon as they are generated, keeping the welder protected and the work environment fume free.

## Up to 98% capture rate and 100% duty cycle.



Translas leads the industry with a fume capture rate up to 98%. However, like the eye of a storm, the cyclonic extraction effect leaves the shielding gas completely unaffected. The Translas range of fume guns are built tough and offer a 100% duty cycle.

## Super lightweight & ergonomic fume gun.



On-gun fume extraction can no longer be considered too heavy and cumbersome, as Translas fume guns are the same weight or lighter than many standard welding guns. Moreover, the small ergonomic handle makes it one of the most comfortable guns to work with for any welder.

## Low maintenance with self-cleaning.



The extraction system has an automatic cleaning function. The moment the pressure in the filter is too high, the units begin to automatically clean the filters. Auto-cleaning and the variable frequency drive motor ensures extraction flow rates are always maintained at a precise level, making this powerful solution suitable for high production welding environments.

## A potential option for confined spaces.



On-gun fume extraction captures welding fume before it can be released into the environment or build up around the welder, making Translas a potential option for confined spaces\*. Due to the powerful variable frequency motor, the extraction unit can be positioned over 20 metres away from the welder and still deliver the same industry leading capture rate of up to 98%.

\* Confined spaces can be deadly and decisions on how to handle a specific confined space must be assessed on the spot and always comes down to the specifics of the individual situation. There should be a suitably trained and knowledgeable person doing the assessment and design of a safe system for any confined space entry.



# 1. SELECT YOUR ON-GUN EXTRACTION PACKAGE



## TRANSLAS 8XE 250 MINI MIG EXTRACTION SYSTEMS

Translas 250 On-Gun Fume Extraction System  
**ONE PERSON/ONE GUN**

Part Number  
**TR250S**

**TRANSLAS**  
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING BELOW 250 AMPS**



**AIR COOLED**



[Learn more](#)

- ✓ 250 amp air cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Ergonomic and super lightweight welding gun
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction

Translas 250 On-Gun Fume Extraction System  
**TWO PERSON/TWO GUN**

Part Number  
**TR250D**

**TRANSLAS**  
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING BELOW 250 AMPS**



**AIR COOLED**



[Learn more](#)

- ✓ Two person 250 amp air cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Two ergonomic and super lightweight welding guns
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction

# 1. SELECT YOUR ON-GUN EXTRACTION PACKAGE



## TRANSLAS 8XE 400 MIG EXTRACTION SYSTEMS

Translas 400 On-Gun Fume Extraction System  
**ONE PERSON/ONE GUN**

Part Number  
**TR400S**

**TRANSLAS**  
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING 250 - 400 AMPS**

 **AIR COOLED**



[Learn more](#)

- ✓ 400 amp air cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Ergonomic and super lightweight welding gun
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction

Translas 400 On-Gun Fume Extraction System  
**TWO PERSON/TWO GUN**

Part Number  
**TR400D**

**TRANSLAS**  
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING 250 - 400 AMPS**

 **AIR COOLED**



[Learn more](#)

- ✓ Two person 400 amp air cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Two ergonomic and super lightweight welding guns
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction



# TRANSLAS 8XE 500 MIG EXTRACTION SYSTEMS

Translas 500 On-Gun Fume Extraction System  
**ONE PERSON/ONE GUN**

Part Number  
**TR500S**

**TRANSLAS**   
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING OVER 400 AMPS**



**WATER COOLED**



[Learn more](#)

- ✓ 500 amp water cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Ergonomic and super lightweight welding gun
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction

Translas 500 On-Gun Fume Extraction System  
**TWO PERSON/TWO GUN**

Part Number  
**TR500D**

**TRANSLAS**   
DUTCH WELDING TECHNOLOGY

**NEW**

**SELECT FOR WELDING OVER 400 AMPS**



**WATER COOLED**



[Learn more](#)

- ✓ Two person 500 amp water cooled on-gun fume extraction system
- ✓ Up to 98% capture rate leaves shielding gas unaffected
- ✓ Two ergonomic and super lightweight welding guns
- ✓ Extraction system self cleans with auto start and stop
- ✓ 100% duty cycle with Euro connection
- ✓ Kit includes everything you need to get started with on-gun extraction

# 2. SELECT YOUR CONSUMABLES

## 250 AMP GUN CONSUMABLE OPTIONS

Item	Part Number	Description	Pack Qty
A	TR3937000	Nozzle conical 12mm	5
	TR3937001	Nozzle conical 14mm tapered	5
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25
	TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25
C	TR39327110	Tip adapter 250	10
D	TR301545	Plastic coated liner blue 4 metre - for 0.8 to 1.0 wire	1
	TR301555	Plastic coated liner blue 5 metre - for 0.8 to 1.0 wire	1
	TR302545	Plastic coated liner red 4 metre - for 0.8 to 1.2 wire	1
	TR302555	Plastic coated liner red 5 metre - for 0.8 to 1.2 wire	1
	TR303645	Plastic coated liner yellow 4 metre - for 1.2 to 1.6 wire	1
	TR303655	Plastic coated liner yellow 5 metre - for 1.2 to 1.6 wire	1
E	TR320300	Ceramic spray 400ml	1

## 250 AMP GUN

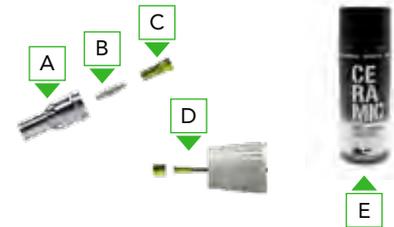
A, B, C, & D are all required

A. Select nozzle size

B. Select contact tip based on wire size

C. Tip adapter required

D. Select a liner based on wire size



## 400 AMP GUN CONSUMABLE OPTIONS

Item	Part Number	Description	Pack Qty
A	TR3937041	Nozzle conical 14mm tapered	5
	TR3937045	Nozzle conical 17mm tapered	5
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25
	TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25
	TR3990161	Contact tip - CuCrZr tri metal nickel plated - for 1.6 wire	25
C	TR39327310	Tip adapter 400	10
D	TR303794	Plastic coated liner black 4 metre - for 0.9 to 1.2 wire	1
	TR303795	Plastic coated liner black 5 metre - for 0.9 to 1.2 wire	1
	TR303764	Plastic coated liner grey 4 metre - for 1.6 wire	1
	TR303765	Plastic coated liner grey 5 metre - for 1.6 wire	1
E	TR320300	Ceramic spray 400ml	1

## 400 AMP GUN

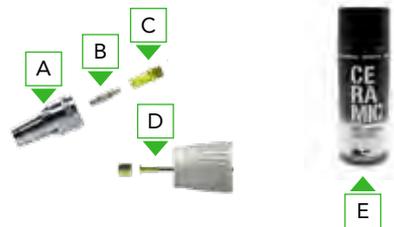
A, B, C, & D are all required

A. Select nozzle size

B. Select contact tip based on wire size

C. Tip adapter required

D. Select a liner based on wire size



## 500 AMP GUN CONSUMABLE OPTIONS

Item	Part Number	Description	Pack Qty
A	TR3937041	Nozzle conical 14mm tapered	5
	TR3937045	Nozzle conical 17mm tapered	5
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25
	TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25
	TR3990161	Contact tip - CuCrZr tri metal nickel plated - for 1.6 wire	25
C	TR39327210	Tip adapter 500	10
D	TR302545	Plastic coated liner red 4 metre - for 0.8 to 1.2 wire	1
	TR302555	Plastic coated liner red 5 metre - for 0.8 to 1.2 wire	1
	TR303645	Plastic coated liner yellow 4 metre - for 1.2 to 1.6 wire	1
E	TR303655	Plastic coated liner yellow 5 metre - for 1.2 to 1.6 wire	1
	TR320300	Ceramic spray 400ml	1

## 500 AMP GUN

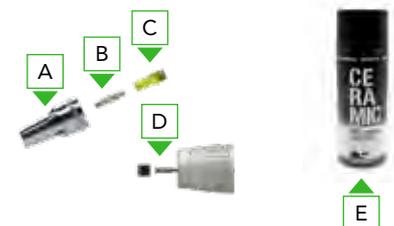
A, B, C, & D are all required

A. Select nozzle size

B. Select contact tip based on wire size

C. Tip adapter required

D. Select a liner based on wire size



# AIR QUALITY IN YOUR WORKSHOP

When you consider a welding fume particle that is 0.5 µm in size can take 2 days to reach the floor when released from a height of 1.5 metres, you begin to understand how long these carcinogenic particles can remain suspended in the air. This is vital to consider when sharing a work environment with welders, as the air could contain respiratory hazards long after welding has been completed.

On-gun fume extraction can assist in reducing exposure to welding fume and other airborne contaminants, not only for the welder, but also for those who work near welding operations. This is the key difference between on-gun fume extraction and Personal Protective Equipment (PPE) used by the welder. PPE can only protect the welder, while on-gun fume extraction can protect the welder and stop the spread of fume throughout the workplace protecting all workers from welding fume exposure.

For this reason, on-gun fume extraction can be the most economical method to protect all workers from welding fume exposure in shared working environments.



**UP TO 98% CAPTURE RATE & 100% DUTY CYCLE**

**REMOVES FUME AND FOLLOWS THE WELDER  
UNLIKE OTHER FORMS OF LEV**



Want to see Translas on-gun fume extraction for yourself?

**Watch a side by side comparison (On vs. Off) here!**



# Translas On-Gun Fume Extraction Kit Selector Table



Specification	Translas 8XE 250 Amp On-Gun Fume Extraction System	Translas 8XE 250 Amp On-Gun Fume Extraction Double System	Translas 8XE 400 Amp On-Gun Fume Extraction System
<b>Part Number</b>	TR250S	TR250D	TR400S
<b>Number of Users</b>	1	2	1
<b>Recommended Amps</b>	250 Amps and below	250 Amps and below	250 - 400 Amps
<b>Air/Water Cooled</b>	Air Cooled	Air Cooled	Air Cooled
<b>CO<sup>2</sup></b>	280 Amp	280 Amp	420 Amp
<b>Mixed Gases</b>	250 Amp	250 Amp	400 Amp
<b>Duty Cycle</b>	100%	100%	100%
<b>Fume Capture Rate</b>	Up to 98%	Up to 98%	Up to 98%
<b>Gun Rotation</b>	360° Swivel	360° Swivel	360° Swivel
<b>Automatic Start/Stop</b>	Yes	Yes	Yes
<b>Auto Filter Cleaning</b>	Yes	Yes	Yes
<b>Dimensions</b>	(L x W x H) 700 x 440 x 585 / 630mm (without / with wheels)	(L x W x H) 700 x 530 x 560 / 630mm (without / with wheels)	(L x W x H) 700 x 440 x 585 / 630mm (without / with wheels)
<b>Implementation</b>	Mobile on 4 wheels - 2 rotating with locks	Mobile on 4 wheels - 2 rotating with locks	Mobile on 4 wheels - 2 rotating with locks
<b>Power Supply</b>	380-480V (3 Phase)	380-480V (3 Phase)	380-480V (3 Phase)
<b>Motor Power</b>	1.5 KW	Maximum 3.0 KW	1.5 KW
<b>Suction Flow (Torch)</b>	Target: 33 CFM / Max: 38 CFM	Target: 33 CFM / Max: 38 CFM	Target: 33 CFM / Max: 38 CFM
<b>Filter Surface</b>	5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%	5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%	5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%
<b>Working Temperature</b>	0 to +50°C	0 to +50°C	0 to +50°C
<b>Weight</b>	45kg	58kg	45kg
<b>Noise Level</b>	Max. dB(A) <65dB(A) (at 100% suction flow)	Max. dB(A) <65dB(A) (at 100% suction flow)	Max. dB(A) <65dB(A) (at 100% suction flow)
<b>Certifications</b>	CE (European), W3 (Germany), and CSA (North America)	CE (European), W3 (Germany), and CSA (North America)	CE (European), W3 (Germany), and CSA (North America)
<b>Compressed Air (Cleaning)</b>	80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline	80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline	80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline

Kits include everything you need to get started with on-gun fume extraction: fume gun(s), extraction unit, hose(s), sensing cable(s), compressed air valve, airflow metre, filters, consumables (tip, tip adapter, nozzle, liner).



Translas 8XE 400 Amp On-Gun Fume Extraction Double System	Translas 8XE 500 Amp On-Gun Fume Extraction System	Translas 8XE 500 Amp On-Gun Fume Extraction Double System
TR400D	TR500S	TR500D
2	1	2
250 - 400 Amps	Over 400 Amps	Over 400 Amps
Air Cooled	Water Cooled	Water Cooled
420 Amp	550 Amp	550 Amp
400 Amp	500 Amp	500 Amp
100%	100%	100%
Up to 98%	Up to 98%	Up to 98%
360° Swivel	360° Swivel	360° Swivel
Yes	Yes	Yes
Yes	Yes	Yes
(L x W x H) 700 x 530 x 560 / 630mm (without / with wheels)	(L x W x H) 700 x 440 x 585 / 630mm (without / with wheels)	(L x W x H) 700 x 530 x 560 / 630mm (without / with wheels)
Mobile on 4 wheels - 2 rotating with locks	Mobile on 4 wheels - 2 rotating with locks	Mobile on 4 wheels - 2 rotating with locks
380-480V (3 Phase)	380-480V (3 Phase)	380-480V (3 Phase)
Maximum 3.0 KW	1.5 KW	Maximum 3.0 KW
Target: 33 CFM / Max: 38 CFM	Target: 33 CFM / Max: 38 CFM	Target: 33 CFM / Max: 38 CFM
5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%	5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%	5m <sup>2</sup> Active filter surface, filter efficiency: IFA >99.8%
0 to +50°C	0 to +50°C	0 to +50°C
58kg	45kg	58kg
Max. dB(A) <65dB(A) (at 100% suction flow)	Max. dB(A) <65dB(A) (at 100% suction flow)	Max. dB(A) <65dB(A) (at 100% suction flow)
CE (European), W3 (Germany), and CSA (North America)	CE (European), W3 (Germany), and CSA (North America)	CE (European), W3 (Germany), and CSA (North America)
80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline	80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline	80 PSI (5.5 Bar), Dry/Clean Air, 20 CFM, Standard Size Airline

# 3



## Portable Local Exhaust Ventilation (LEV)

Portable LEV captures welding fume at the source, protecting the welder, and stopping the spread of fume throughout the workshop.

Portable systems can be manoeuvred around the workplace to provide effective protection from welding fume and are a perfect solution for workplaces where extraction is required across a range of different situations or positions.

Portable systems can be a more economical option when compared to fixed installations and can offer more flexibility as requirements change over time.

### The Leading Brands in Portable LEV Fume Extraction

AWS has teamed up with the world's leading brands in Local Exhaust Ventilation to launch a range of portable LEV systems designed specifically for the welding industry.

The range has been hand-picked to cater for all common welding processes including TIG, MMA, MIG, and FCAW.

Designed and manufactured by **Nederman** and **Bomaksan**, these portable welding fume extractors capture fumes at the source, which is the most effective way to collect and remove fumes.





**NEW RANGE**  
A system to  
cater for all  
common welding  
processes.

# Nederman

## AWS Welding Fume Protection System 150

Part Number: FPS150



The FPS150 is a practical and lightweight LEV system, designed to be carried to and from the working area, and built specifically for welding environments.

Connected to an on-gun welding torch or to an extraction nozzle, the FPS150 extracts the fume directly at the source with an automatic start/stop function.

The FPS150 is built for low to medium welding fume environments and will notify the welder when the filter is full and needs replacing. Suitable for occasional and regular welding across most applications.

- Disposable filter
- Portable and easy to carry (16kg)
- Simple operation with low service costs
- Automatic start/stop function
- Suitable for On-Gun Fume Extraction
- Variety of extraction nozzles available for bench welding.

Extraction nozzles sold separately.



FPSN01

Focused nozzle funnel



FPSN02

Wide nozzle funnel

	FPS 150
Wire Suitability	0.9 - 1.0mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	OK
Continuous MMA	Not Recommended
Occasional MIG	Yes
Regular MIG	OK
Continuous MIG	Not Recommended
Occasional Flux Cored	OK
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	2.5
Filter Efficiency	>99% (E12)
Filter Type	Disposable
Filter Surface (m <sup>2</sup> )	5.3
Airflow (m <sup>3</sup> /h)	150
Number of Filters	1
Fume Tray Volume (l)	N/A
Working Hour Counter	No
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	No
Weight (without arm)	16kg
Dimensions (H x W x D)	410 x 230 x 830 mm
Power Voltage (V) / Phases	230 / 1
Noise Level (dB(A))	73
Warranty	1 year
Compliance	CE Certified

## Bomaksan MINI

Part Number: BMINI13

	MINI
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	OK
Continuous MMA	Not Recommended
Occasional MIG	Yes
Regular MIG	OK
Continuous MIG	Not Recommended
Occasional Flux Cored	OK
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.97% (H13 HEPA)
Filter Type	Disposable
Filter Surface (m <sup>2</sup> )	13
Airflow (m <sup>3</sup> /h)	900
Number of Filters	3
Fume Tray Volume (l)	N/A
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	105.5kg
Dimensions (H x W x D)	1100 x 700 x 600 mm
Power Voltage (V) / Phases	230 / 1
Motor	1,1 kW - 3.000 rpm
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan MINI is a cost-effective, single arm, mobile LEV unit that punches well above its weight.

The MINI is built for low to medium welding fume environments and will notify the welder when the filter is full and needs replacing. Suitable for occasional and regular welding across most applications.

- Disposable 3 stage filtration with an aluminium mesh spark arrestor.
- 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

## AWS Welding Fume Protection System 900

Part Number: FPS900



	FPS 900
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	OK
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	OK
Occasional Flux Cored	OK
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	>99% (E12)
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	12
Airflow (m <sup>3</sup> /h)	500 - 900
Number of Filters	1
Fume Tray Volume (l)	10
Working Hour Counter	No
Filter Sensor & Indicator	No
Fan Rotation Direction Indicator	No
Weight (without arm)	150kg
Dimensions (H x W x D)	1200 x 665 x 780 mm
Power Voltage (V) / Phases	230 / 1
Noise Level (dB(A))	72
Warranty	1 year
Compliance	CE Certified

The FPS900 is a mobile, single-arm welding fume extraction unit, offering easy and trouble-free operation.

Featuring a flexible 3 metre extraction arm that can be swivelled 360 degrees, the unit is easy to position, ensuring there is no impact on the welding process.

Suitable for use across all medium welding fume producing applications, the cleanable long-life cartridge filter ensures running costs are kept to a minimum.

- Cleanable filter ensures low running costs
- 3-metre arm with 360-degree swivel
- Extraction hood provides superior performance
- Easy to move and manoeuvre
- Blow gun included for cleaning.

# Bomaksan MONO

Part Number: BMONO13

	MONO
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	OK
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	OK
Occasional Flux Cored	OK
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	10 or 18*
Airflow (m <sup>3</sup> /h)	1200
Number of Filters	1
Fume Tray Volume (l)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	170kg
Dimensions (H x W x D)	1210 x 660 x 805 mm
Power Voltage (V) / Phases	400 / 3
Motor	0,75 kW - 3.000 rpm
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan MONO is a mobile, single-arm welding fume extraction unit, available with a HEPA class (99.99%) cleanable filter.

Featuring a flexible 3 metre extraction arm that can be swivelled 360 degrees, the unit is easy to position, ensuring there is no impact on the welding process.

Suitable for use across all medium welding fume producing applications, the cleanable long-life cartridge filter ensures running costs are kept to a minimum.

- Cleanable filter ensures low running costs
- 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

\* The Bomaksan MONO can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The MONO system will come standard with the NanoBLEND filter to increase surface area.

## Bomaksan PRO

Part Number: BPR013

	PRO
Wire Suitability	0.9 - 1.6mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	OK
Continuous Flux Cored	OK
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	20 or 24*
Airflow (m <sup>3</sup> /h)	1400
Number of Filters	1
Fume Tray Volume (l)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	183kg
Dimensions (H x W x D)	1320 x 650 x 815 mm
Power Voltage (V) / Phases	400 / 3
Motor	1,1 kW - 3.000 rpm
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan PRO is a professional, mobile, single-arm welding fume extraction unit, available with a HEPA class (99.99%) cleanable filter.

The large 24m<sup>2</sup> filter surface area makes the Bomaksan PRO suitable for use across all medium-to-high welding fume producing applications.

- Cleanable filter ensures low running costs
- Large filter surface area of 24m<sup>2</sup>
- 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

\* The Bomaksan PRO can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PRO systems will come standard with the NanoBLEND filter to increase surface area.

## Bomaksan PULSE

Part Number: BPULSE13

	PULSE
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	Yes
Continuous Flux Cored	Yes
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA)
Filter Type	Auto Pulse Cleaning
Filter Surface (m <sup>2</sup> )	10 x 2 (Auto Cleaning)
Airflow (m <sup>3</sup> /h)	1400
Number of Filters	2
Fume Tray Volume (l)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	242kg
Dimensions (H x W x D)	1760 x 890 x 810 mm
Power Voltage (V) / Phases	400 / 3
Motor	1,1 kW - 3.000 rpm
Noise Level (dB(A))	73
Warranty	2 years
Compliance	CE Certified



The Bomaksan PULSE is an industry leading, HEPA rated, mobile, single arm welding fume extraction unit.

Featuring automatic jet-pulse cleaning (compressed air 80 PSI), this unit is suitable for heavier welding fume environments and is suitable for all common welding applications including TIG, MIG, MMA, and Flux Cored.

The jet-pulse automatic cleaning system allows continuous operation and less frequent maintenance.

- 2 x HEPA class (99.99%) cleanable filters with automatic jet-pulse cleaning
- 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

\* The Bomaksan PULSE can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PULSE systems will come standard with the premium PolyMIGHT PTFE filters as jet-pulse cleaning negates the need for a larger surface area.

## AWS Welding Fume Protection System 1800

Part Number: FPS1800

	FPS 1800
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	OK
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	OK
Occasional Flux Cored	OK
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	>99% (E12 Class)
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	12 x 2
Airflow (m <sup>3</sup> /h)	500 - 900 x 2
Number of Filters	2
Fume Tray Volume (l)	10
Working Hour Counter	No
Filter Sensor & Indicator	No
Fan Rotation Direction Indicator	No
Weight (without arm)	210kg
Dimensions (H x W x D)	1450 x 665 x 780 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	72
Warranty	1 year
Compliance	CE Certified



The FPS1800 is a mobile, twin-arm welding fume extraction unit, offering easy and trouble-free operation.

Featuring two flexible 3 metre extraction arms that can be swivelled 360 degrees, the unit is easy to position, ensuring there is no impact on the welding process.

Suitable for use across all medium welding fume producing applications, the two cleanable long-life cartridge filters ensure running costs are kept to a minimum.

- 2 x cleanable filters ensure low running costs
- 2 x 3-metre arms with 360-degree swivel
- Extraction hood provides superior performance
- Easy to move and manoeuvre
- Blow gun included for cleaning.

## Bomaksan PRO2

Part Number: BPR023

	PRO2
Wire Suitability	0.9 - 1.6mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	OK
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	OK
Occasional Flux Cored	OK
Regular Flux Cored	OK
Continuous Flux Cored	OK
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	20 or 24*
Airflow (m <sup>3</sup> /h)	1100 x 2
Number of Filters	1
Fume Tray Volume (l)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	201kg
Dimensions (H x W x D)	1320 x 650 x 815 mm
Power Voltage (V) / Phases	400 / 3
Motor	1,1 kW - 3.000 rpm
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan PRO2 is a professional, mobile, twin-arm welding fume extraction unit, available with a HEPA class (99.99%) cleanable filter.

The Bomaksan PRO2 is suitable for use across all medium welding fume producing applications.

- Cleanable filter ensures low running costs
- Large filter surface area of 24m<sup>2</sup>
- 2 x 3 metre arms with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

\* The Bomaksan PRO can be used with either the nanoBLEND filter (F9 > 95%) or the polyMIGHT PTFE filter (HEPA Filter 99.99%). The nanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The polyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PRO systems will come standard with the nanoBLEND filter to increase surface area.

## Bomaksan PULSE2

Part Number: BPULSE23

	PULSE2
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	Yes
Continuous Flux Cored	Yes
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA)
Filter Type	Auto Pulse Cleaning
Filter Surface (m <sup>2</sup> )	10 x 2 (Auto Cleaning)
Airflow (m <sup>3</sup> /h)	1100 x 2
Number of Filters	2
Fume Tray Volume (l)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	260kg
Dimensions (H x W x D)	1760 x 890 x 810 mm
Power Voltage (V) / Phases	400 / 3
Motor	1,1 kW - 3.000 rpm
Noise Level (dB(A))	73
Warranty	2 years
Compliance	CE Certified



The Bomaksan PULSE2 is an industry leading, HEPA rated, mobile, twin-arm welding fume extraction unit.

Featuring automatic jet-pulse cleaning (compressed air 80 PSI), this unit is suitable for heavier welding fume environments and is suitable for all common welding applications including TIG, MIG, MMA, and Flux Cored.

The jet-pulse automatic cleaning system allows continuous operation and less frequent maintenance.

- 2 x HEPA class cleanable filters with automatic jet-pulse cleaning
- 2 x 3 metre arms with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

\* The Bomaksan PULSE can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PULSE systems will come standard with the premium PolyMIGHT PTFE filter as jet-pulse cleaning negates the need for a larger surface area.

# Bomaksan BENCH

Part Number: BBENCH

	BENCH
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	OK
Continuous Flux Cored	OK
Number of Nozzles/Arms	-
Length of Arms or Hose (m)	-
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m <sup>2</sup> )	30 or 40*
Airflow (m <sup>3</sup> /h)	2600
Number of Filters	2
Fume Tray Volume (l)	24
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	500kg
Dimensions (H x W x D)	1260 x 1500 x 1600 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	67
Warranty	2 years
Compliance	CE Certified



The Bomaksan BENCH combines all the benefits of a mobile LEV fume extraction system with a downdraft bench and is suitable for use across all medium-to-high welding fume producing applications.

- Equipped with a filter clog display, fan rotation direction display, ON/OFF switch, and working hour counter.
- Includes 2 x 230 V plugs and 1 compressed air plug for operators' hand tools.
- Expandable side panels allow you to expand the work-area.
- HEPA class (99.99%) cleanable cartridge filters extend filter lifetime and lower the cost of ownership.

Once connected to power, the Bomaksan Bench is completely self-sufficient, not requiring any ducting.

\* The Bomaksan BENCH can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The BENCH will come standard with the NanoBLEND filter to increase surface area.



# BOA Professional Indoor Air Cleaner

Part Number: BOAMID or BOAMAX

Many offices and indoor spaces are situated next to or above where welding takes place. If you can smell welding fume, you are being exposed to carcinogenic particles.

Welding fume can obviously build up in indoor settings and indoor air quality can be 7 times more polluted than outdoor environments.

The BOA Professional Air Cleaner silently cleans indoor air with HEPA rated filtration. The same level of filtration used in clean rooms, the medical industry, and aviation.

The BOA Professional Air Cleaner can also filter bushfire smoke, viruses, bacteria, pollen, and odours from the air.

A study by NASA<sup>4</sup> determined that HEPA filters are effective in capturing nanometre diameter particles, such as coronavirus.

The filters in an air conditioning system are only designed to protect the motor. The BOA Indoor Air Cleaner is a professional indoor air cleaner purpose built to handle offices and larger spaces.

Clean your indoor air and help protect your workforce from welding fume and other potentially harmful substances in the workplace air.

	BOA MID	BOA MAX
<b>Filter Stages</b>		
Pre-Filter	G4 class pre-filter	G4 class pre-filter
Carbon Filter (optional)	Active 96 carbon filter	Active 96 carbon filter
HEPA Filter	H14 HEPA filter (99.995%)	H14 HEPA filter (99.995%)
<b>Air Cleaning Capacity (m<sup>3</sup>/h)</b>		
Slow Mode	275	900
Eco Mode	700	2280
Turbo Mode	900	3100
<b>Dimensions (H x W x D)</b>	1200 x 500 x 500 mm	1520 x 780 x 720 mm
<b>Weight (kg)</b>	72	155
<b>Power Supply (V)</b>	220	230
<b>Electrical Consumption (W/H)</b>	28 - 170	55 - 500
<b>Noise Level (dB)</b>		
Slow Mode	23	33
Eco Mode	45	52
Turbo Mode	49	59
<b>Certification</b>	CE Certified	CE Certified
<b>Fan Type</b>	EC Fan	EC Fan
<b>Warranty</b>	5 years	5 years



**booa**  
AIR

# Portable Local Exhaust Ventilation (LEV) Selector Table

● YES ● OK ● Not Recommended



Specification	AWS Welding Fume Protection System 150	Bomaksan MINI	AWS Welding Fume Protection System 900	Bomaksan MONO
Part Number	FPS150	BMINI13	FPS900	BMON013
Wire Suitability	0.9 - 1.0mm wire	0.9 - 1.2mm wire	0.9 - 1.2mm wire	0.9 - 1.2mm wire
Occasional TIG	●	●	●	●
Regular TIG	●	●	●	●
Continuous TIG	●	●	●	●
Occasional MMA	●	●	●	●
Regular MMA	●	●	●	●
Continuous MMA	●	●	●	●
Occasional MIG	●	●	●	●
Regular MIG	●	●	●	●
Continuous MIG	●	●	●	●
Occasional Flux Cored	●	●	●	●
Regular Flux Cored	●	●	●	●
Continuous Flux Cored	●	●	●	●
Number of Nozzles/Arms	1	1	1	1
Length of Arms or Hose (m)	2.5	3	3	3
Filter Efficiency	>99% (E12 Class)	99.97% (H13 HEPA Class)	>99% (E12 Class)	>95% (F9) or 99.99% (H13 HEPA Class) <sup>1</sup>
Filter Type	Disposable	Disposable	Cleanable	Cleanable
Filter Surface (m <sup>2</sup> )	5.3	13	12	18 or 10 <sup>1</sup>
Airflow (m <sup>3</sup> /h)	150	900	500 - 900	1200
Number of Filters	1	3	1	1
Fume Tray Volume (l)	N/A	N/A	10	16
Working Hour Counter	No	Yes	No	Yes
Filter Sensor & Indicator	Yes	Yes	No	Yes
Fan Rotation Direction Indicator	No	Yes	No	Yes
Weight (without arm)	16kg	105.5kg	150kg	170kg
Dimensions (H x W x D)	410 x 230 x 830 mm	1100 x 700 x 600 mm	1200 x 665 x 780 mm	1210 x 660 x 805 mm
Power Voltage (V) / Phases	230 / 1	230 / 1	230 / 1	400 / 3
Noise Level (dB(A))	73	72	72	72
Warranty	1 year	2 years	1 year	2 years
Compliance	CE Certified	CE Certified	CE Certified	CE Certified

<sup>1</sup> The Bomaksan MONO, PRO, PULSE, and BENCH can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The MONO, PRO, and BENCH systems will come standard with the NanoBLEND filter to increase surface area. The PULSE will come standard with the premium PolyMIGHT filter as jet-pulse cleaning negates the need for a larger surface area.



# 4

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## High impact visors with integrated respiratory protection

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The respiratory hazards generated by industrial applications are not only a risk to those conducting these applications, but also to those working in close proximity to them. This is vital to consider when sharing a high production, heavy-duty work environment, as the air may contain respiratory hazards that can remain airborne long after the work has been completed.\*

Lightweight, compact and well balanced, the 3M™ Versaflo™ M-Series Face Shields with the award-winning Adflo™ Powered Air Purifying Respirator (PAPR) combine integrated face and respiratory protection with optional hearing and head protection: all conforming to the relevant Australian and New Zealand standards.



\* For example, a carcinogenic welding fume particle that is 0.5 µm in size can take 2 days to reach the floor when released from a height of 1.5 metres. This in turn puts all surrounding workers at risk long after welding has been completed.

# 3M™ Versaflo™ M-Series Face Shields with Adflo™ PAPR



## 3M™ Versaflo™ Face Shield M-207 with Adflo™ PAPR

- High impact face shield with chemical and scratch-resistant lens
- Excellent peripheral and downward vision
- Flame resistant face seal
- Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)\*

### Face protection

AS/NZS1337.1 (High Impact)

### Respiratory protection

AS/NZS1716

### Optional hearing protection

AS/NZS1270



## 3M™ Versaflo™ Face Shield & Safety Helmet M-307 with Adflo™ PAPR

- Built-in safety helmet
- High impact face shield with chemical and scratch-resistant lens
- Excellent peripheral and downward vision
- Flame resistant face seal
- Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)\*

### Head protection

AS/NZS1801

### Face protection

AS/NZS1337.1 (High Impact)

### Respiratory protection

AS/NZS1716

### Optional hearing protection

AS/NZS1270



## 3M™ Versaflo™ Flip-Up Face Shield & Safety Helmet M-407 with Adflo™ PAPR

- Flip-up high impact face shield with chemical and scratch-resistant lens
- Flame resistant shroud for additional head, shoulder and neck coverage
- Built-in safety helmet
- Excellent peripheral and downward vision
- Adflo PAPR supplies at least 50 times cleaner air (RMPF = 50)\*

### Head protection

AS/NZS1801

### Face protection

AS/NZS1337.1 (High Impact)

### Respiratory protection

AS/NZS1716

\* For more information on the Adflo PAPR, visit pages 32-33.

## 3M™ Versaflo™ Face Shield M-207

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.



Designed from inception to accept 3M™ Peltor™ H31 Earmuffs (Class 3).

Coated visor provides added chemical and scratch resistance.

Fully adjustable head harness that includes straps for an optimal fit and improved weight distribution.

New visor design combines excellent peripheral and downward vision with premium optical quality.

Features a flame-resistant polyester face seal for applications with hot particles.



3M™ Versaflo™ M-207 Face Shield with Adflo™ PAPR (8 hour battery)  
Part Number: 89 02 07

3M™ Versaflo™ M-207 Face Shield with Heavy-Duty Adflo™ PAPR (12 hour battery)  
Part Number: 890207HD

## 3M™ Versaflo™ Face Shield & Safety Helmet M-307

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.



Designed from inception to accept 3M™ Peltor™ H31 Earmuffs (Class 3).

The safety helmet is made from heat-resistant polycarbonate and conforms to Australian and New Zealand Standard AS/NZS1801 for head protection.

Coated visor provides added chemical and scratch resistance.

Fully adjustable head harness that includes straps for an optimal fit and improved weight distribution.

New visor design combines excellent peripheral and downward vision with premium optical quality.

Features a flame-resistant polyester face seal for applications with hot particles.



3M™ Versaflo™ M-307 Face Shield & Safety Helmet with Adflo™ PAPR (8 hour battery)  
Part Number: 89 03 07

3M™ Versaflo™ M-307 Face Shield & Safety Helmet with Heavy-Duty Adflo™ PAPR (12 hour battery)  
Part Number: 890307HD

## 3M™ Versaflo™ Flip-Up Face Shield & Safety Helmet M-407

Compliant with Australian and New Zealand Standard AS/NZS1337.1 for high impact eye and face protection.

Flip-up mechanism to lift visor when necessary.

Coated visor provides added chemical and scratch resistance.

New visor design combines excellent peripheral and downward vision with premium optical quality.

The safety helmet is made from heat-resistant polycarbonate and conforms to Australian and New Zealand Standard AS/NZS1801 for head protection.

Fully adjustable head harness that includes straps for an optimal fit and improved weight distribution.

Flame resistant shroud for additional head, shoulder and neck coverage against hot particles.



3M™ Versaflo™ M-407 Flip-Up Face Shield & Safety Helmet with Adflo™ PAPR (8 hour battery)  
Part Number: 89 04 07

3M™ Versaflo™ M-407 Flip-Up Face Shield & Safety Helmet with Heavy-Duty Adflo™ PAPR (12 hour battery)  
Part Number: 890407HD

### Already use Adflo PAPR on-site?

The M-Series Face Shields with Adflo PAPR use the same respiratory spare parts as the Speedglas powered air welding helmets used by so many welders on-site.

This in turn makes these systems easy to maintain, saving both time and money in the long run.





# WELDING GLOVES

## **THIS IS GUIDE**

AWS have teamed up with Swedish glove powerhouse – GUIDE – to launch a range of welding gloves, boasting the most cutting-edge features found in the welding industry.

AWS have played a key role in the development of this range and as a result, these welding gloves have been built based specifically on what Australian and New Zealand welders want and need in their welding gloves.

# WELDING GLOVES



**GUIDE 3572**

**Pg. 86**

GAME CHANGING GLOVE WITH CUT F



**GUIDE 3571**

**Pg. 87**

SUPERIOR COMFORT WITH CUT C



**GUIDE 3569**

**Pg. 87**

QUALITY WELDING GLOVE

# TIG WELDING GLOVES



**GUIDE 1342**

**Pg. 88**

TIG GLOVE WITH A DIFFERENCE (CUT C)



**GUIDE 1230**

**Pg. 89**

UNRIVALLED DEXTERITY



**GUIDE 1270**

**Pg. 89**

QUALITY TIG WELDING GLOVE



## GUIDE 3572 - "THE RED BACK"

GUIDE 3572, known in the industry as “The Red Back”, raises the bar in professional welding gloves. Lined with Kevlar, glass fibre, and high-performance polyethylene (HPPE), the GUIDE 3572 achieves the highest cut protection level possible – level F. The GUIDE 3572 combines soft goat grain leather on the palm, normally reserved for the dexterity demands of TIG welding, with precisely placed cow split leather reinforcements and padding to deliver extreme ambient heat protection. GUIDE 3572 combines the highest possible cut protection with unrivalled comfort, dexterity, and fit. Put the ‘Red Back’ up against any professional welding glove on the market to experience the next ‘welding glove of choice’ for professional welders.

- ▶ LEGENDARY GUIDE FIT
- ▶ CUT PROTECTION LEVEL F
- ▶ LINED WITH KEVLAR, GLASS FIBRE, & HPPE
- ▶ PRECISE REINFORCEMENTS & PADDING
- ▶ KEVLAR SEAMS
- ▶ SIZE 8-11

 EN 388:2016\*  
3X32F

 EN 407:2020\*  
413243

 EN 12477:2001  
TYPE A



## GUIDE 3571

GUIDE 3571 are welding gloves with a difference - made from full-grain goatskin leather, turned inside out. This inside-out feature provides a hard wearing and durable exterior with a super comfortable interior that delivers a softer feel, greater dexterity, and enhanced flexibility. The GUIDE 3571 is lined with Kevlar with extra lining on the back of the hand made of Nomex, offering excellent durability and protection from heat. Featuring level C cut protection and reinforced palms, the GUIDE 3571 is a seriously unique, comfortable, and durable welding glove.

- ▶ LEGENDARY GUIDE FIT
- ▶ CUT PROTECTION LEVEL C
- ▶ LINED WITH KEVLAR & NOMEX
- ▶ REINFORCED PALM
- ▶ KEVLAR SEAMS
- ▶ SIZE 8-11



EN 388:2016\*  
3X32C



EN 407:2020\*  
413244



EN 12477:2001  
TYPE A

## GUIDE 3569

GUIDE 3569 cow split leather welding gloves are suitable for MIG and MMA welding and other high heat applications. The glove has reinforcement in the palm and a super comfortable cotton lining. The legendary GUIDE resting fit moulds to the shape of your hand and the Kevlar heat-resistant seams mean these gloves will stand up to the toughest jobs.

- ▶ LEGENDARY GUIDE FIT
- ▶ FULLY LINED COW SPLIT LEATHER
- ▶ REINFORCED PALMS
- ▶ KEVLAR SEAMS
- ▶ SIZE 9-11



EN 388:2016\*  
4143X



EN 407:2020\*  
41324X



EN 12477:2001  
TYPE A



\* The Australian and New Zealand standards for welding gloves have been directly adopted from the European glove standards. AS/NZS2161.3:2020 is exactly the same as 388:2016+A1:2018, so the range of GUIDE welding gloves shown are fully compliant with this AS/NZS standard. EN407:2020 was updated in 2020 and includes more rigorous testing methods than the current AS/NZS2161.4:1999 standard (last updated in 1999). GUIDE gloves meet or exceed the test specifications required by the EN407:2020 standard.

## **GUIDE 1342 - "THE HYBRID"**

Game changing GUIDE 1342 is a TIG welding glove with a difference. A super unique 'hybrid' type welding glove that combines premium comfort and feel with added cut protection and heat relief not normally found in TIG welding gloves. Unlike most TIG welding gloves, the GUIDE 1342 features cut protection level C and extra lining to offer added relief from heat. GUIDE 1342 combines these unique features with a super comfortable welding glove with excellent touch and feel that must be tried to be believed.

- ▶ LEGENDARY GUIDE FIT
- ▶ CUT PROTECTION LEVEL C
- ▶ GOAT GRAIN LEATHER
- ▶ LINED
- ▶ KEVLAR SEAMS
- ▶ COW SPLIT LEATHER CUFF
- ▶ SIZE 7-11



EN 388:2016\*  
3X32C



EN 407:2020\*  
412X4X



EN 12477:2001  
TYPE B



## GUIDE 1230

The GUIDE 1230 takes dexterity and comfort to another level. One of the thinnest and softest TIG welding gloves available, the GUIDE 1230 is made from the best possible goat grain leather. If you're looking for the best TIG welding glove on the market from a dexterity, comfort, and performance perspective, you must experience the GUIDE 1230.

- ▶ LEGENDARY GUIDE FIT
- ▶ THIN & COMFORTABLE – HIGHEST LEVEL OF DEXTERITY
- ▶ GOAT GRAIN LEATHER
- ▶ KEVLAR SEAMS
- ▶ COW SPLIT LEATHER CUFF
- ▶ SIZE 7-11



EN 388:2016\*  
2111X



EN 407:2020\*  
411X4X



EN 12477:2001  
TYPE B



## GUIDE 1270

The GUIDE 1270 is a TIG welding glove made from durable and soft goat grain leather. The cuff is made from cow split leather with a comfortable cotton lining. All seams are made from heat-resistant Kevlar. The glove is moulded to the welder's hand offering excellent dexterity and a perfect fit. Comfortable and offering excellent touch and feel, these welding gloves are designed for precision TIG welding.

- ▶ LEGENDARY GUIDE FIT
- ▶ GOAT GRAIN LEATHER
- ▶ KEVLAR SEAMS
- ▶ COW SPLIT LEATHER CUFF
- ▶ SIZE 9-11



EN 388:2016\*  
2111X



EN 407:2020\*  
412X4X



EN 12477:2001  
TYPE B



\* The Australian and New Zealand standards for welding gloves have been directly adopted from the European glove standards. AS/NZS2161.3:2020 is exactly the same as 388:2016+A1:2018, so the range of GUIDE welding gloves shown are fully compliant with this AS/NZS standard. EN407:2020 was updated in 2020 and includes more rigorous testing methods than the current AS/NZS2161.4:1999 standard (last updated in 1999). GUIDE gloves meet or exceed the test specifications required by the EN407:2020 standard.

# KNOWING THE STANDARDS IS KEY

Knowing the standards and what the product markings represent will allow you to tell the difference between each glove. What are the standards and how do we read them?

## AS/NZS2161.3.2020 = (EN388:2016)

Standard for protection against mechanical risks. This standard applies to gloves designed to protect against physical or mechanical risks such as abrasion, blades, punctures, or tears. As an example, the GUIDE 3572 has a rating as follows:

**3X32F**

- 1. Abrasion**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 2. Cut**  
Old testing method: used a blade that was reused over and over and blunted as a result. Not an accurate measure. Marked with an X because this glove is no longer tested using the old method.
- 3. Tear**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 4. Puncture**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 5. Cut**  
New testing method: A new cut test using a fresh blade for every cut. More accurate. Marked with A to F, where F is the best.

## AS/NZS2161.4.1999 ≠ (EN407:2020)\*

Standard for protection against heat and/or fire. As an example, The GUIDE 3572 has a rating as follows:

**413243**

- 1. Flame**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 2. Contact Heat**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 3. Convective Heat**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 4. Radiant Heat**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 5. Small splashes of molten metal**  
Marked with 1-4 where 4 is the best and 1 is the worst.
- 6. Large splashes of molten metal**  
Marked with 1-4 where 4 is the best and 1 is the worst.

## **EN12477 - PROTECTION AGAINST THE RISKS OF WELDING**

No direct Australian/New Zealand standard for this European standard.

This standard certifies gloves designed to provide protection for both the hand and wrist while welding and is really a combination from testing EN388 and EN407. Welding gloves provide resistance to small splashes of molten metal, short exposure to convective heat/radiant heat and blade cuts.

Type A refers to gloves that shall provide a slightly higher level of protection against heat (heat and welding gloves).

Type B refers to gloves that provide lower protection against heat, but they are more flexible and pliable (TIG welding gloves).

### **\*EN vs AS/NZS**

The Australian and New Zealand standards for welding gloves have been directly adopted from the European glove standards. AS/NZS2161.3.2020 is exactly the same as 388:2016+A1:2018, so the range of GUIDE welding gloves shown are fully compliant with this AS/NZS standard. EN407:2020 was updated in 2020 and includes more rigorous testing methods than the current AS/NZS2161.4.1999 standard (last updated in 1999). GUIDE gloves meet or exceed the test specifications required by the EN407:2020 standard.



# Parts Directory

## 3M™ Speedglas™ Non-Respiratory Welding Helmets

3M™ Speedglas™ G5-02 Welding Helmet	93
3M™ Speedglas™ 9100 Welding Helmet	94
3M™ Speedglas™ 9100 FX Welding Helmet	95
3M™ Speedglas™ 9100 QR Welding & Safety Helmet	96
3M™ Speedglas™ 9002NC Welding Helmet	97
3M™ Speedglas™ 100 Series Graphic Welding Helmets	98

## 3M™ Speedglas™ Respiratory Welding Helmets

3M™ Speedglas™ G5-01 Heavy-Duty Welding Helmet	99
3M™ Speedglas™ 9100 MP Air Welding & Safety Helmet	100
3M™ Speedglas™ 9100 FX Air Welding Helmet	101
3M™ Speedglas™ 9100 Air Welding Helmet	102
3M™ Adflo™ Powered Air Purifying Respirator	103
3M™ Versaflo™ Supplied Air Regulators	104
Breathing Air Filtration Systems	105



Looking for a specific Speedglas spare part, consumable, or accessory?

[www.apexweldingsafety.com.au/spare-parts-locator](http://www.apexweldingsafety.com.au/spare-parts-locator)

## Translas On-Gun Fume Extraction Systems

Translas 250 Amp Air Cooled On-Gun Fume Extraction Systems (Single/Double)	106
Translas 400 Amp Air Cooled On-Gun Fume Extraction Systems (Single/Double)	108
Translas 500 Amp Water Cooled On-Gun Fume Extraction Systems (Single/Double)	110

## Nederman/Bomaksan LEV & BOA Air Cleaners

Nederman/Bomaksan LEV & BOA Air Cleaning Systems	112
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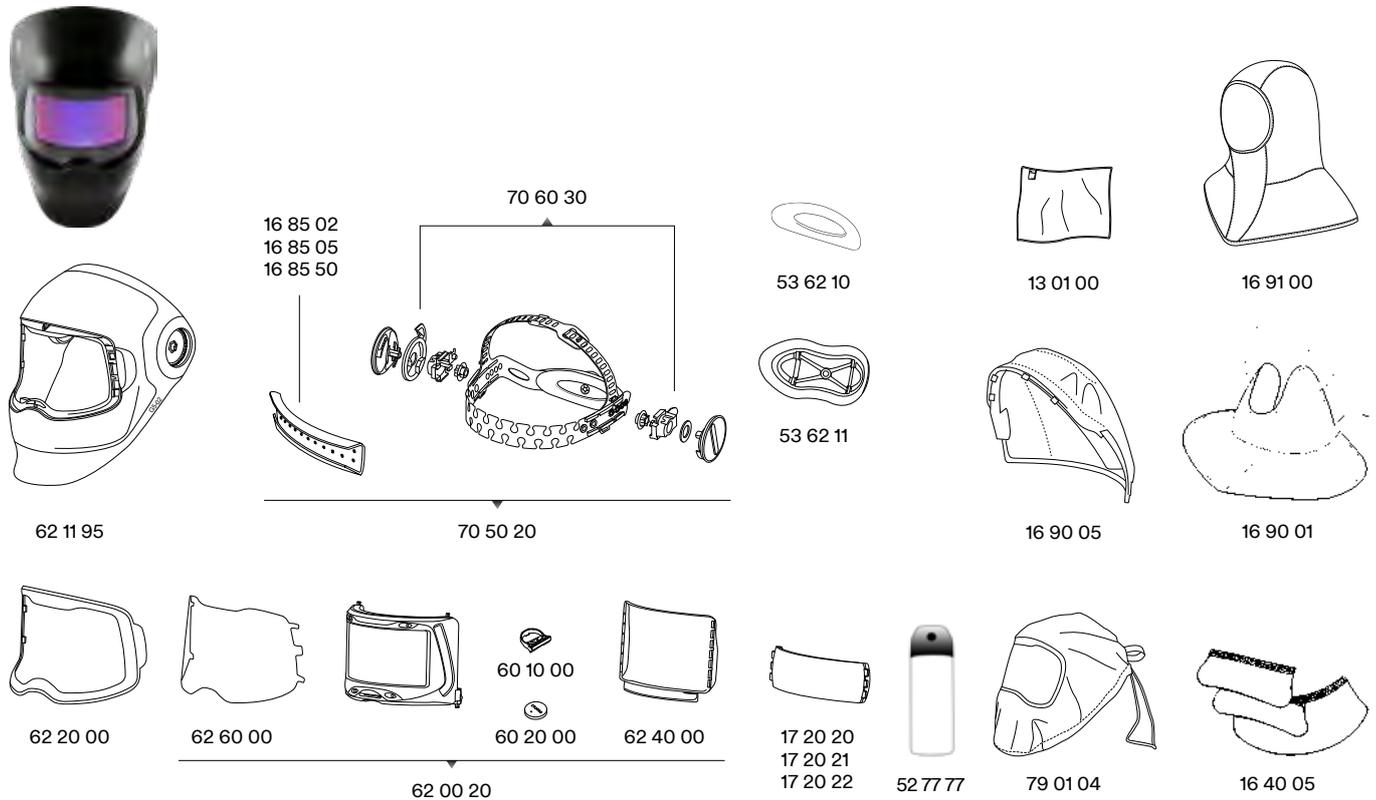
## 3M™ Versaflo™ M-Series Face Shields with Adflo™ PAPR

3M™ Versaflo™ M-Series Headtops	113
---------------------------------	-----



## Speedglas™

### Spare parts & consumables

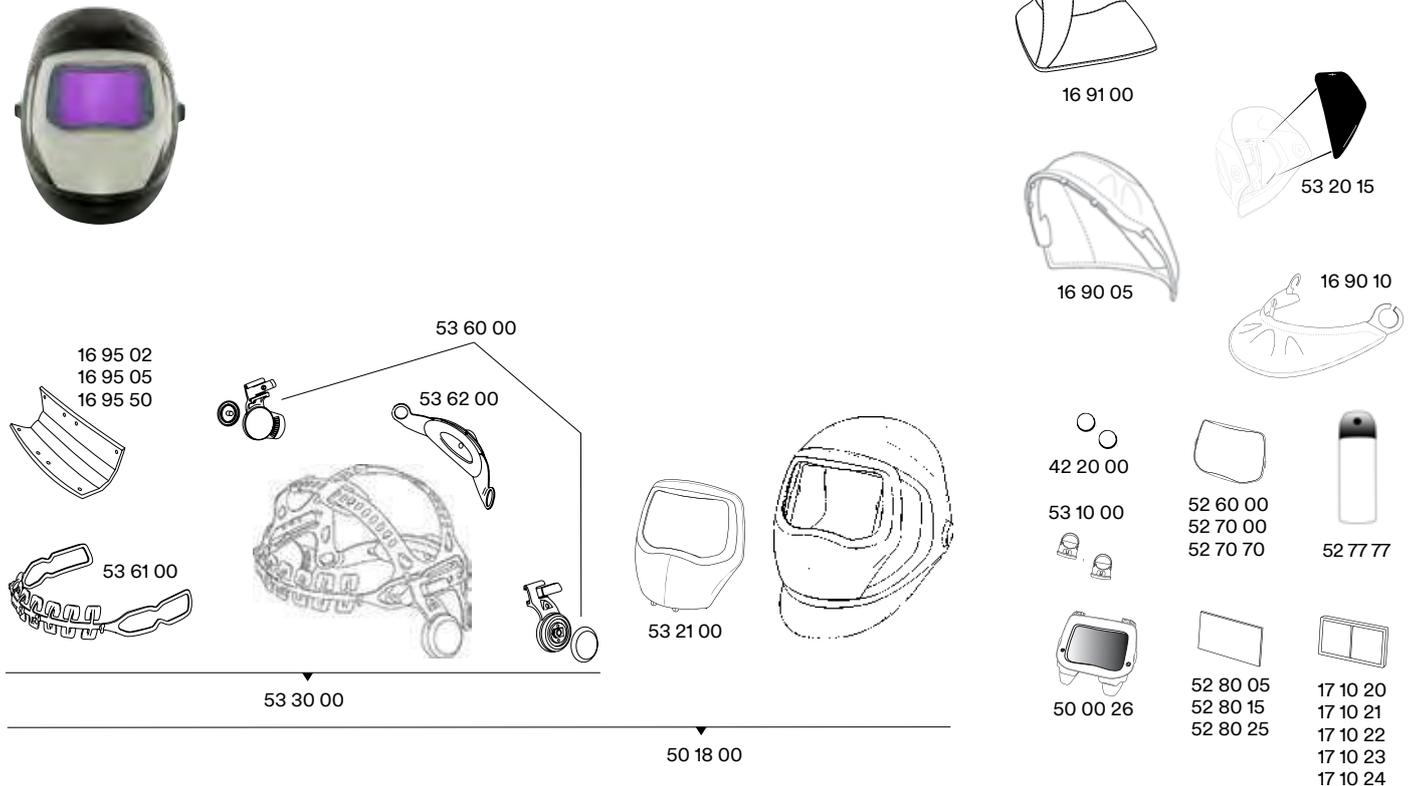


Part No.	Description	Part No.	Description
13 01 00	3M Cleaning Wipe	53 62 11	Head Harness Back Cushion (Large)
16 40 05	Ear/Throat Protection Leather	60 10 00	Battery Holder
16 85 02	Sweatband Pk=2	60 20 00	Battery CR2450
16 85 05	Sweatband Pk=5	62 00 20	Speedglas Curved Welding Lens G5-02
16 85 50	Sweatband Pk=50	62 11 95	Helmet Exc Welding Lens, Head Harness & Front Cover
16 90 01	Throat Protection Tecaweld	62 20 00	Front Cover
16 90 05	Head Cover	62 40 00	Lens Cover Inner Pk=2
16 91 00	Head Cape Tecaweld	62 60 00	Lens Cover Outer Hard Coated Pk=5
17 20 20	Magnifying Lens 1.5X	70 50 20	Head Harness G5-02
17 20 21	Magnifying Lens 2.0X	70 60 30	Head Harness Pivot Mechanisms
17 20 22	Magnifying Lens 2.5X	79 01 04	Helmet Storage Bag G5-02
52 77 77	Mask Cleaning Spray 400ml		
53 62 10	Head Harness Back Cushion (Small)		



## Speedglas™

### Spare parts & consumables

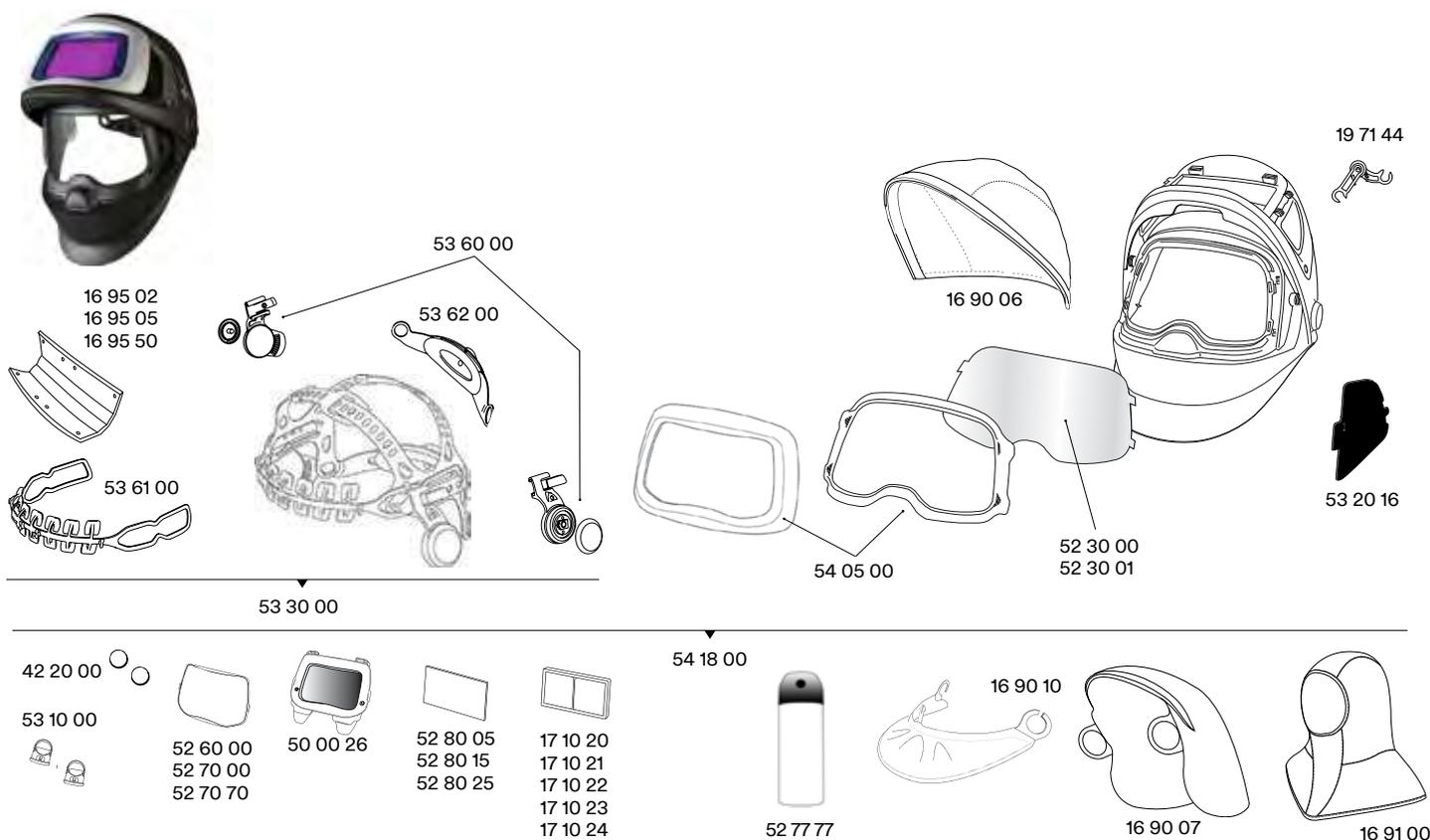


Part No.	Description	Part No.	Description
16 90 05	Head Cover	52 60 00	Lens Cover Outer Standard Pk=10
16 90 10	Throat Protection	52 70 00	Lens Cover Outer Hard Coated Pk=10
16 91 00	Head Cape Tecaweld	52 70 70	Lens Cover Outer High Heat Pk=10
16 95 02	Sweatband Pk=2	52 77 77	Mask Cleaning Spray 400ml
16 95 05	Sweatband Pk=5	52 80 05	Lens Cover Inner 9100V Pk=5
16 95 50	Sweatband Pk=50	52 80 15	Lens Cover Inner 9100X Pk=5
17 10 20	Magnifying Lens 1.0X	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
17 10 21	Magnifying Lens 1.5X	53 10 00	Holder Battery 9100 Pk=2
17 10 22	Magnifying Lens 2.0X	53 20 15	SideWindows Cover Plate Pk=2
17 10 23	Magnifying Lens 2.5X	53 21 00	Front Cover
17 10 24	Magnifying Lens 3.0X	53 30 00	Head Harness 9100
42 20 00	Battery Lithium Pk=2	53 60 00	Head Harness Pivot Mechanism 9100
50 00 26	Speedglas Welding Lens 9100XXi	53 61 00	Head Harness Front Part 9100
50 18 00	Helmet Welding 9100 Exc Lens	53 62 00	Head Harness Back Part 9100



## Speedglas™

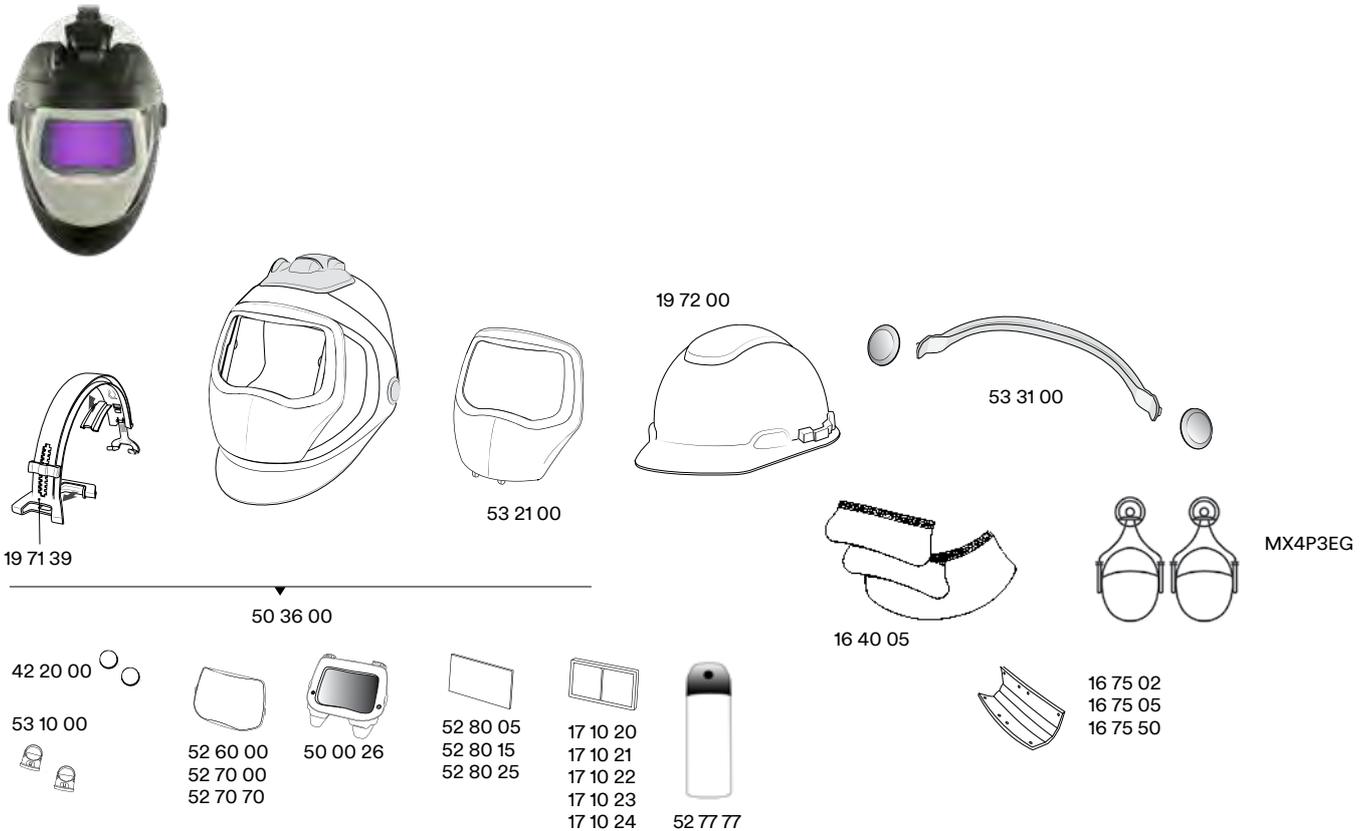
### Spare parts & consumables



Part No.	Description	Part No.	Description
16 90 06	Head Cover Small	52 30 01	Visor Plate Anti-Fog Pk=5
16 90 07	Head Cover Large	52 60 00	Lens Cover Outer Standard Pk=10
16 90 10	Throat Protection	52 70 00	Lens Cover Outer Hard Coated Pk=10
16 91 00	Head Cape Tecaweld	52 70 70	Lens Cover Outer High Heat Pk=10
16 95 02	Sweatband Pk=2	52 77 77	Mask Cleaning Spray 400ml
16 95 05	Sweatband Pk=5	52 80 05	Lens Cover Inner 9100V Pk=5
16 95 50	Sweatband Pk=50	52 80 15	Lens Cover Inner 9100X Pk=5
17 10 20	Magnifying Lens 1.0X	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
17 10 21	Magnifying Lens 1.5X	53 10 00	Holder Battery 9100 Pk=2
17 10 22	Magnifying Lens 2.0X	53 20 16	SideWindows Cover Plate Pk=2
17 10 23	Magnifying Lens 2.5X	53 30 00	Head Harness 9100
17 10 24	Magnifying Lens 3.0X	53 60 00	Head Harness Pivot Mechanism 9100
19 71 44	Flip Up Mechanism Pk=2	53 61 00	Head Harness Front Part 9100
42 20 00	Battery Lithium Pk=2	53 62 00	Head Harness Back Part 9100
50 00 26	Speedglas Welding Lens 9100XXi	54 05 00	Front Cover Kit
52 30 00	Visor Plate Pk=5	54 18 00	Helmet Welding Exc Lens 9100 FX



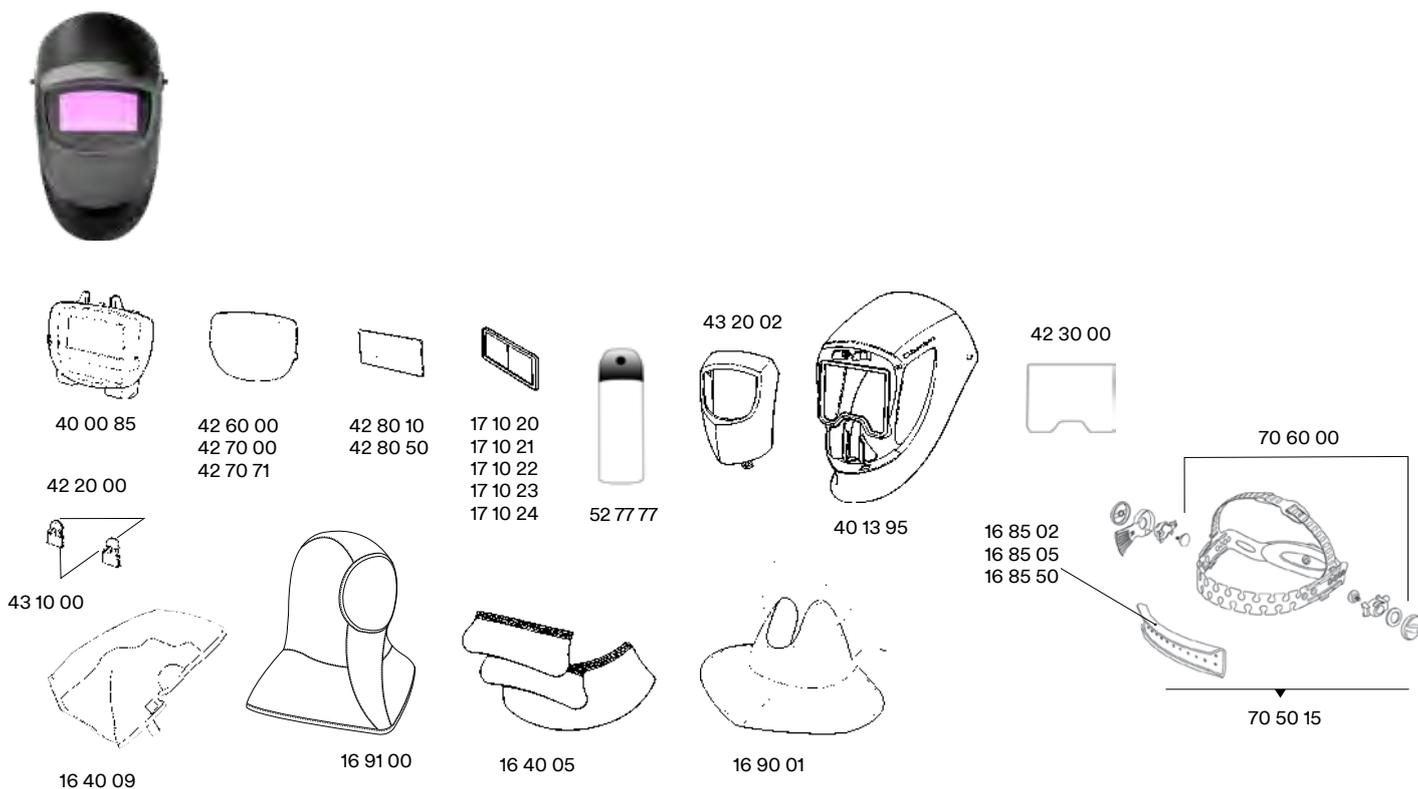
## Spare parts & consumables



Part No.	Description	Part No.	Description
16 40 05	Ear/Throat Protection Leather	52 60 00	Lens Cover Outer Standard Pk=10
16 75 02	Sweatband Pk=2	52 70 00	Lens Cover Outer Hard Coated Pk=10
16 75 05	Sweatband Pk=5	52 70 70	Lens Cover Outer High Heat Pk=10
16 75 50	Sweatband Pk=50	52 77 77	Mask Cleaning Spray 400ml
17 10 20	Magnifying Lens 1.0X	52 80 05	Lens Cover Inner 9100V Pk=5
17 10 21	Magnifying Lens 1.5X	52 80 15	Lens Cover Inner 9100X Pk=5
17 10 22	Magnifying Lens 2.0X	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
17 10 23	Magnifying Lens 2.5X	53 10 00	Holder Battery 9100 Pk=2
17 10 24	Magnifying Lens 3.0X	53 21 00	Front Cover
19 71 39	Rail QR	53 31 00	Bar Ear Muff 9100 QR
19 72 00	White Hard Hat	MX4P3EG	Helmet Mounted Earmuffs
42 20 00	Battery Lithium Pk=2		
50 00 26	Speedglas Welding Lens 9100XXi		
50 36 00	Helmet Welding Exc Lens & Hard Hat 9100 QR		



## Spare parts & consumables



Part No.	Description	Part No.	Description
16 40 05	Ear/Throat Protection Leather	42 20 00	Battery Lithium Pk=2
16 40 09	Head Protection Tecaweld	42 30 00	Grinding Visor Plate Pk=10
16 85 02	Sweatband Pk=2	42 60 00	Lens Cover Outer Standard Pk=10
16 85 05	Sweatband Pk=5	42 70 00	Lens Cover Outer Hard Coated Pk=10
16 85 50	Sweatband Pk=50	42 70 71	Lens Cover Outer High Heat Pk=10
16 90 01	Throat Protection Tecaweld	42 80 10	Lens Cover Inner 9002X/9002NC Pk=5
16 91 00	Head Cape Tecaweld	42 80 50	Lens Cover Inner Shade 2 9002X/9002NC Pk=5
17 10 20	Magnifying Lens 1.0X	43 10 00	Battery Holder Pk=2
17 10 21	Magnifying Lens 1.5X	43 20 02	Silver Front Cover
17 10 22	Magnifying Lens 2.0X	52 77 77	Mask Cleaning Spray 400ml
17 10 23	Magnifying Lens 2.5X	70 50 15	Head Harness
17 10 24	Magnifying Lens 3.0X	70 60 00	Head Harness Attachments
40 00 85	Speedglas 9002NC Welding Lens		
40 13 95	Shield Welding Exc Lens, Harness & Front 9002NC		



## Speedglas™

### Spare parts & consumables

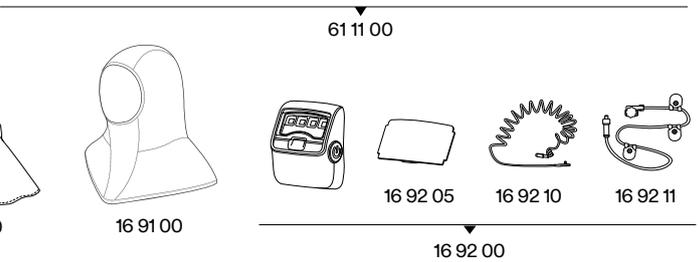
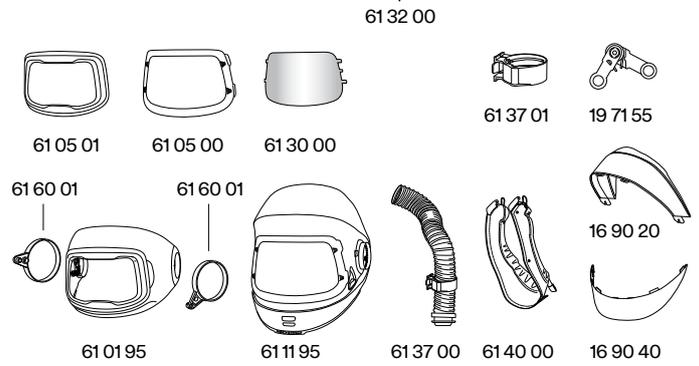
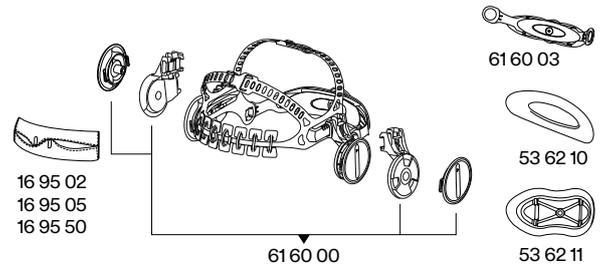
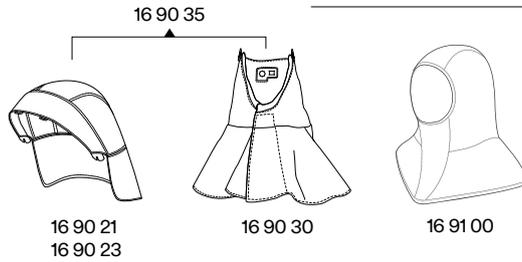
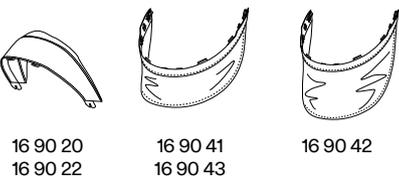
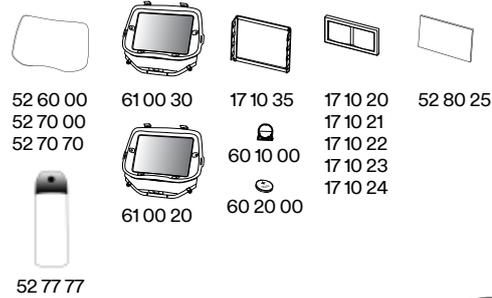


Part No.	Description	Part No.	Description
16 40 05	Ear/Throat Protection Leather	42 80 00	Lens Cover Inner Pk=5
16 40 09	Head Protection Tecaweld	52 77 77	Mask Cleaning Spray 400ml
16 85 02	Sweatband Pk=2	70 50 15	Head Harness
16 85 05	Sweatband Pk=5	70 60 00	Head Harness Attachments
16 85 50	Sweatband Pk=50	73 10 00	Holder Battery
16 90 01	Throat Protection Tecaweld	75 00 14	Speedglas 100B Welding Lens
16 91 00	Head Cape Tecaweld	75 00 20	Speedglas 100V Welding Lens
17 10 20	Magnifying Lens 1.0X	77 20 00	Cover Front Silver
17 10 21	Magnifying Lens 1.5X	77 20 01	Cover Front Black
17 10 22	Magnifying Lens 2.0X	77 60 00	Lens Cover Outer Standard Pk=10
17 10 23	Magnifying Lens 2.5X	77 70 00	Lens Cover Outer Hard Coated Pk=10
17 10 24	Magnifying Lens 3.0X	77 70 70	Lens Cover Outer High Heat Pk=10
42 20 00	Battery Lithium Pk=2		



## Speedglas™

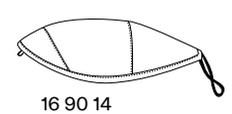
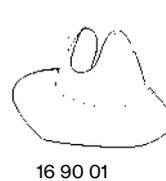
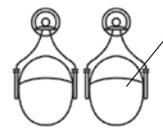
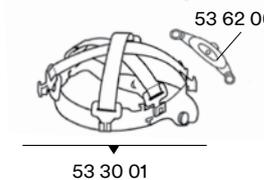
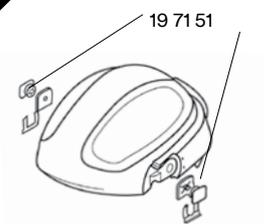
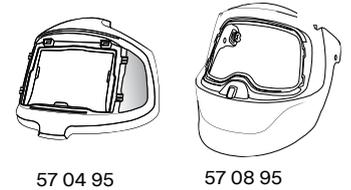
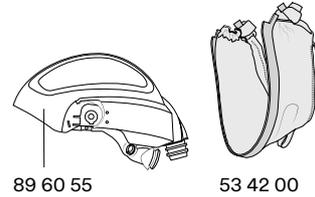
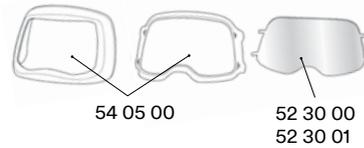
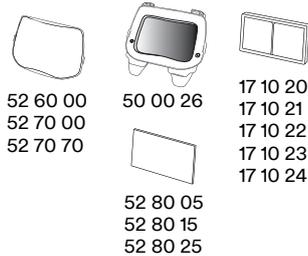
### Spare parts & consumables



Part No.	Description	Part No.	Description
16 90 20	Head Protection Fabric (Small)	52 70 70	Lens Cover Outer High Heat Pk=10
16 90 21	Head Protection Fluorescent Yellow	52 77 77	Mask Cleaning Spray 400ml
16 90 22	Head Protection Leather	52 80 25	Lens Cover Inner Pk=5
16 90 23	Head Protection Fabric (Large)	53 62 10	Head Harness Back Cushion (Small)
16 90 30	Shroud	53 62 11	Head Harness Back Cushion (Large)
16 90 35	Extended Cover Kit (Shroud and Large Head Cover Fabric)	60 10 00	Battery Holder
16 90 40	Neck Protection Rigid	60 20 00	Battery CR2450
16 90 41	Neck Protection Fabric (Small)	61 00 20	Speedglas Welding Lens G5-01TW
16 90 42	Neck Protection Fabric (Large)	61 00 30	Speedglas Welding Lens G5-01VC
16 90 43	Neck Protection Leather	61 01 95	Outer Shield
16 91 00	Head Cape Tecaweld	61 05 00	Front Cover for Inner Visor
16 92 00	Task Light, Inc Mounting Parts & Cables	61 05 01	Front Cover for Flip-up
16 92 05	Lens Cover Task Light Pk=5	61 11 00	Welding Helmet G5-01, Exc Lens
16 92 10	Long Power Cable for Task Light	61 11 20	Speedglas G5-01TW Upgrade Kit, Exc Adflo
16 92 11	Short Power Cable for Task Light	61 11 30	Speedglas G5-01VC Upgrade Kit, Exc Adflo
16 95 02	Sweatband G5-01 Pk=2	61 11 95	Inner Shield with Airduct & Airflow Controls Inc Visor Frame
16 95 05	Sweatband G5-01 Pk=5	61 30 00	Visor Plate Anti-Fog Hard Coated Pk=5
16 95 50	Sweatband G5-01 Pk=50	61 32 00	Head Harness G5-01
17 10 20	Magnifying Lens 1.0X	61 37 00	Airduct Breathing Tube (Short) Inc Holder
17 10 21	Magnifying Lens 1.5X	61 37 01	Breathing Tube Holder
17 10 22	Magnifying Lens 2.0X	61 40 00	Face Seal G5-01
17 10 23	Magnifying Lens 2.5X	61 60 00	Pivot & Sliding Mechanism Inc Pivot Knobs
17 10 24	Magnifying Lens 3.0X	61 60 01	Pivot Ring for Outer Shield Pk=1
17 10 35	Magnifying Lens Holder	61 60 03	Head Harness Back Part G5-01
19 71 55	Hinge Mechanism Pk=2	61 78 00	Speedglas G5-01 with Adflo, Exc Lens & Bag
52 60 00	Lens Cover Outer Standard Pk=10	79 01 05	Carry Bag
52 70 00	Lens Cover Outer Hard Coated Pk=10		



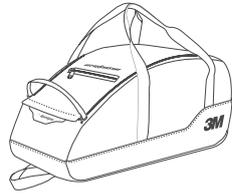
## Spare parts & consumables



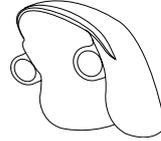
Part No.	Description	Part No.	Description
16 85 02	Sweatband Pk=2	52 77 77	Mask Cleaning Spray 400ml
16 85 05	Sweatband Pk=5	52 80 05	Lens Cover Inner 9100V Pk=5
16 85 50	Sweatband Pk=50	52 80 15	Lens Cover Inner 9100X Pk=5
16 90 01	Throat Protection Tecaweld	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
16 90 14	Cover Hard Hat	53 10 00	Holder Battery 9100 Pk=2
17 10 20	Magnifying Lens 1.0X	53 20 16	SideWindows Cover Plate Pk=2
17 10 21	Magnifying Lens 1.5X	53 30 01	Head Harness 9100 MP
17 10 22	Magnifying Lens 2.0X	53 42 00	Face Seal
17 10 23	Magnifying Lens 2.5X	53 62 00	Head Harness Back Part 9100
17 10 24	Magnifying Lens 3.0X	54 05 00	Front Cover Kit
19 70 11	Earmuffs with Helmet Attachment	57 04 95	Shell Outer
19 71 50	Flip Up Mechanism	57 08 95	Shell Inner
19 71 51	Pivot Kit	57 28 00	Helmet Welding With Hard Hat
42 20 00	Battery Lithium Pk=2	57 77 00	Speedglas 9100 MP Air with Adflo, Exc Welding Lens & Bag
50 00 26	Speedglas Welding Lens 9100XXi	57 90 26	Speedglas 9100XXi MP Air Upgrade Kit, Exc Adflo
52 30 00	Visor Plate Pk=5	79 01 01	Carry Bag
52 30 01	Visor Plate Anti-Fog Pk=5	89 60 55	Hard Hat
52 60 00	Lens Cover Outer Standard Pk=10		
52 70 00	Lens Cover Outer Hard Coated Pk=10		
52 70 70	Lens Cover Outer High Heat Pk=10		



## Spare parts & consumables



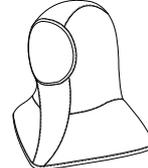
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16 90 07



16 90 10



16 91 00

42 20 00



52 60 00  
52 70 00  
52 70 70



50 00 26



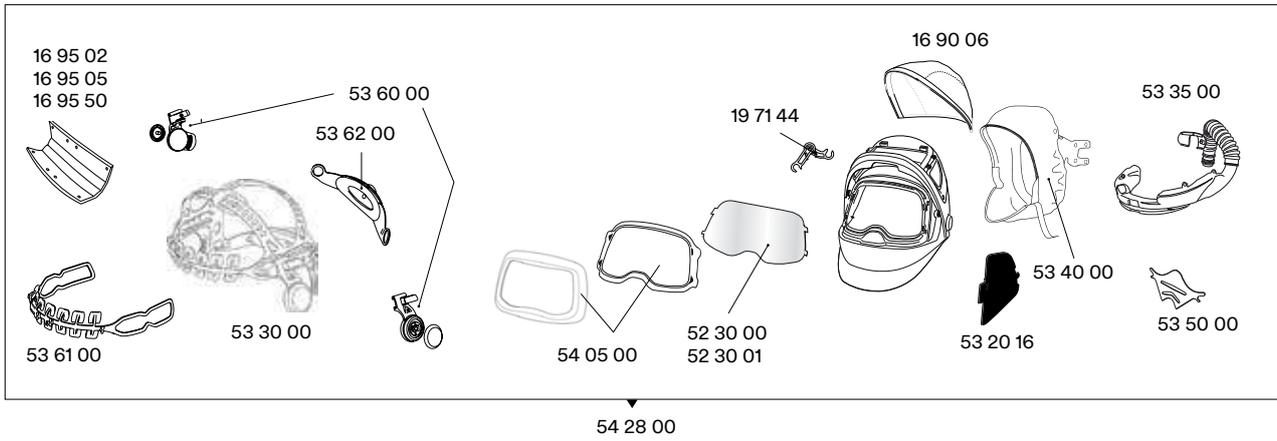
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17 10 24



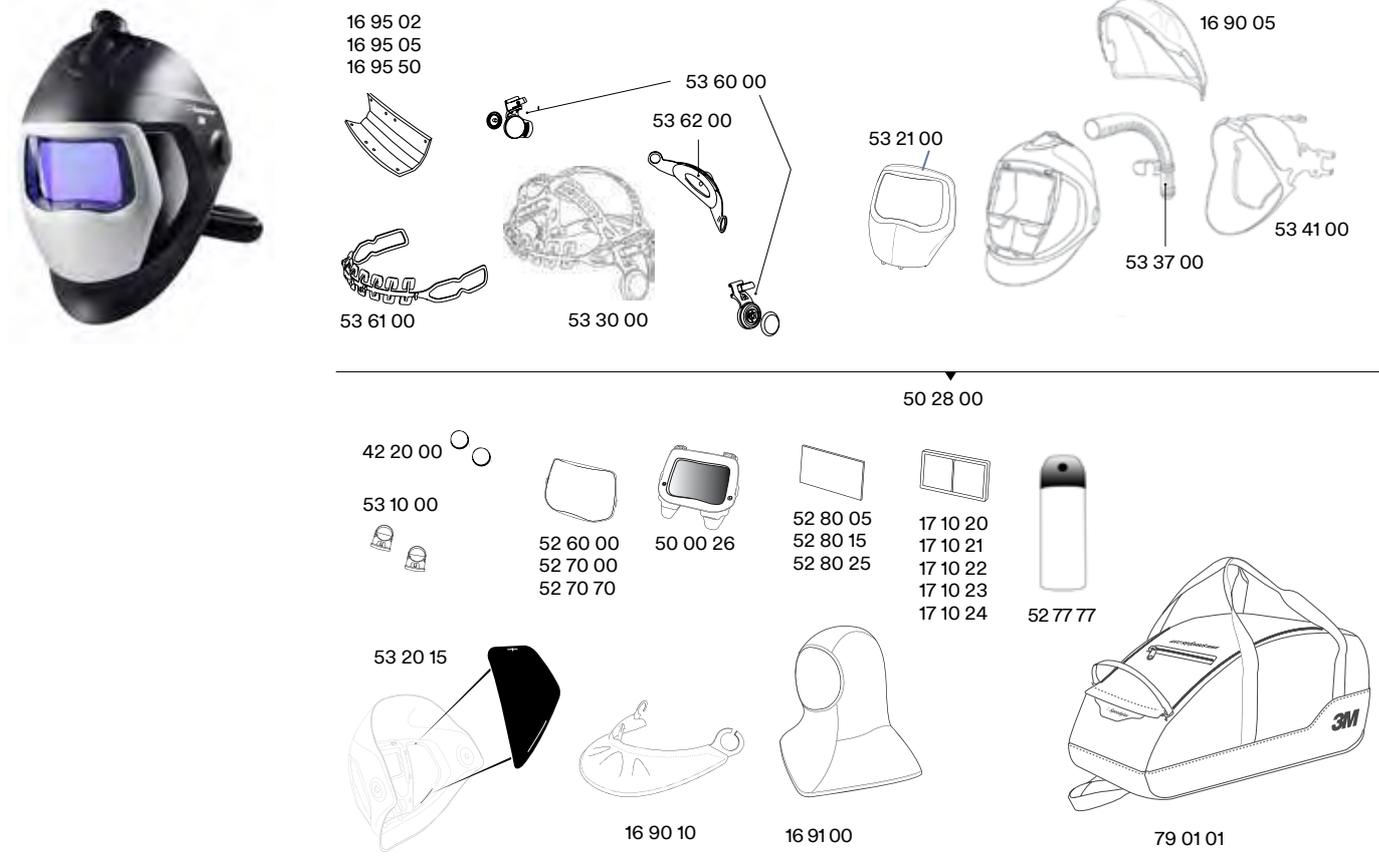
52 77 77



Part No.	Description	Part No.	Description
16 90 06	Head Cover Small	52 70 70	Lens Cover Outer High Heat Pk=10
16 90 07	Head Cover Large	52 77 77	Mask Cleaning Spray 400ml
16 90 10	Throat Protection	52 80 05	Lens Cover Inner 9100V Pk=5
16 91 00	Head Cape Tecaweld	52 80 15	Lens Cover Inner 9100X Pk=5
16 95 02	Sweatband Pk=2	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
16 95 05	Sweatband Pk=5	53 10 00	Holder Battery 9100 Pk=2
16 95 50	Sweatband Pk=50	53 20 16	SideWindows Cover Plate Pk=2
17 10 20	Magnifying Lens 1.0X	53 30 00	Head Harness
17 10 21	Magnifying Lens 1.5X	53 35 00	Air Duct Assembly
17 10 22	Magnifying Lens 2.0X	53 40 00	Face Seal
17 10 23	Magnifying Lens 2.5X	53 50 00	Air Deflector
17 10 24	Magnifying Lens 3.0X	53 60 00	Head Harness Pivot Mechanism 9100
19 71 44	Flip-Up Mechanism Pk=2	53 61 00	Head Harness Front Part 9100
42 20 00	Battery Lithium Pk=2	53 62 00	Head Harness Back Part 9100
50 00 26	Speedglas Welding Lens 9100XXi	54 05 00	Front Cover Kit
52 30 00	Visor Plate Pk=5	54 28 00	Helmet Welding 9100 FX Air Exc Lens
52 30 01	Visor Plate Anti-Fog Pk=5	79 01 01	Carry Bag
52 60 00	Lens Cover Outer Standard Pk=10	83 40 19	Breathing Tube Cover 9100 FX Air
52 70 00	Lens Cover Outer Hard Coated Pk=10		



## Spare parts & consumables

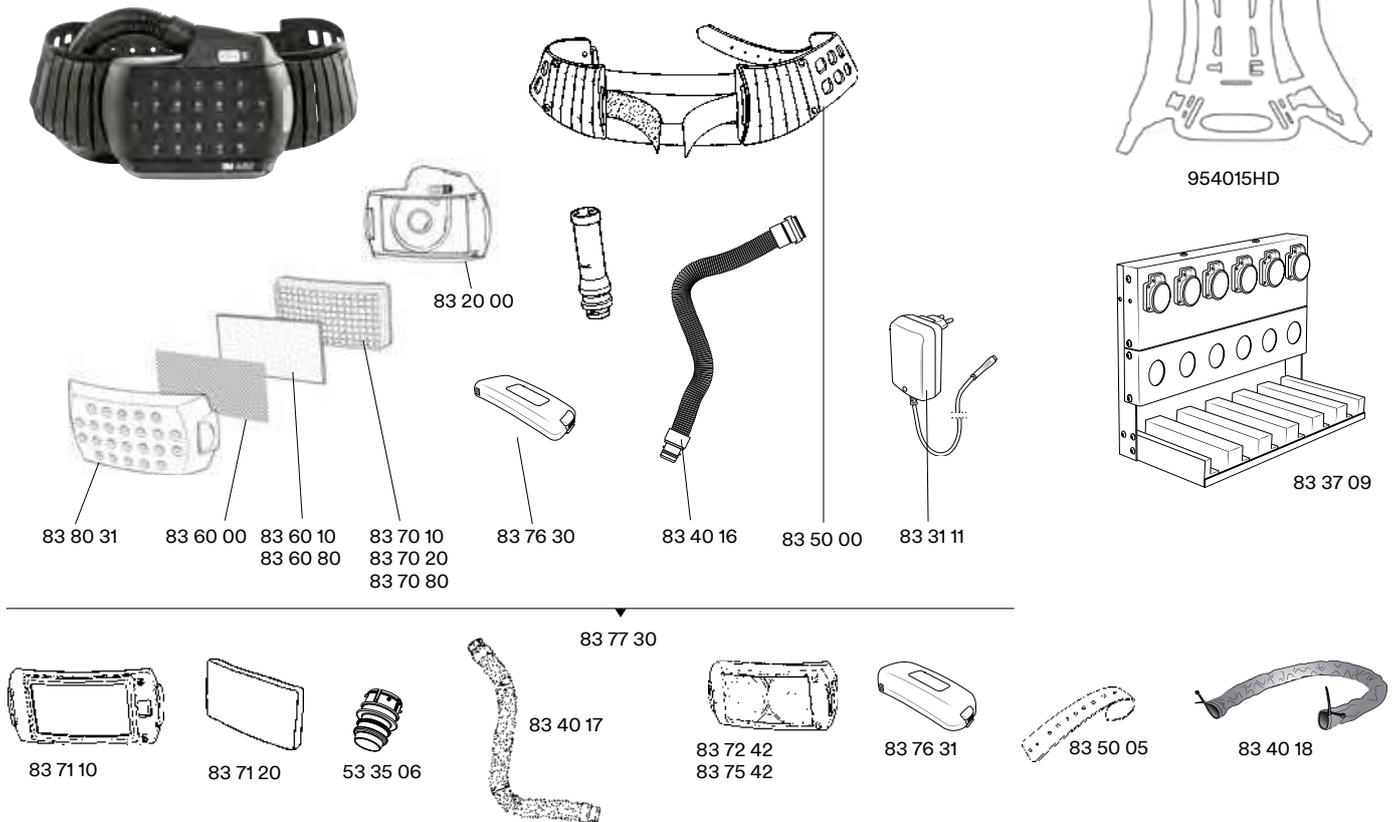


Part No.	Description	Part No.	Description
16 90 05	Head Cover	52 60 00	Lens Cover Outer Standard Pk=10
16 90 10	Throat Protection	52 70 00	Lens Cover Outer Hard Coated Pk=10
16 91 00	Head Cape Tecaweld	52 70 70	Lens Cover Outer High Heat Pk=10
16 95 02	Sweatband Pk=2	52 77 77	Mask Cleaning Spray 400ml
16 95 05	Sweatband Pk=5	52 80 05	Lens Cover Inner 9100V Pk=5
16 95 50	Sweatband Pk=50	52 80 15	Lens Cover Inner 9100X Pk=5
17 10 20	Magnifying Lens 1.0X	52 80 25	Lens Cover Inner 9100XX/XXi Pk=5
17 10 21	Magnifying Lens 1.5X	53 10 00	Holder Battery 9100 Pk=2
17 10 22	Magnifying Lens 2.0X	53 20 15	SideWindows Cover Plate Pk=2
17 10 23	Magnifying Lens 2.5X	53 21 00	Front Cover
17 10 24	Magnifying Lens 3.0X	53 30 00	Head Harness 9100
42 20 00	Battery Lithium Pk=2	53 37 00	Air Duct Back Part
50 00 26	Speedglas Welding Lens 9100XXi	53 41 00	Face Seal
50 28 00	Helmet Welding 9100 Air Exc Lens	53 60 00	Head Harness Pivot Mechanism 9100
50 77 00	Speedglas 9100 Air with Adflo, Exc Welding Lens & Bag	53 61 00	Head Harness Front Part 9100
50 90 26	Speedglas 9100XXi Air Upgrade Kit, Exc Adflo	53 62 00	Head Harness Back Part 9100
		79 01 01	Carry Bag



## **Speedglas™**

### Spare parts & consumables



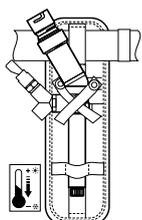
Part No.	Description	Part No.	Description
53 35 06	Adaptor QRS Breathing Tube to 9000	83 71 10	Filter Odour
83 20 00	PAPP Motor with Housing	83 71 20	Filter Odour Replacement Pad
83 31 11*	Charger Battery Li-ion	83 72 42	Filter Nuis Level Organic Vapour/Acid Gas
83 37 09	Battery Multi-Station	83 75 42	Filter Gas A1 Adflo
83 40 16	Tube Breathing Self Adjusting QRS	83 76 30*	Battery Standard Li-ion Adflo
83 40 17	Tube Breathing Heavy Duty Rubber	83 76 30C	Upgrade Kit Standard Li-ion Battery & Charger
83 40 18	Tube Breathing Cover Flame Resistant	83 76 31*	Battery Heavy Duty Li-ion Adflo
83 50 00	Belt Adflo	83 76 31C	Upgrade Kit Heavy Duty Li-ion Battery & Charger
83 50 05	Belt Extension Adflo	83 77 30	Respirator Standard Li-ion Adflo
83 60 00	Spark Arrestor Adflo	83 77 31	Respirator Heavy Duty Li-ion Adflo
83 60 10	Pre-Filter Adflo Pk=5	83 80 31	Filter Cover Li-ion Adflo
83 60 80	Pre-Filter Adflo Pk=80	954015HD	Backpack Adflo Heavy Duty
83 70 10	Filter Particle PSL Adflo		
83 70 20	Filter Particle PSL Adflo Pk=20		
83 70 80	Filter Particle PSL Adflo Pk=80		

\* Lithium-ion (grey) batteries (83 76 30, 83 76 31) are only compatible with the Lithium-ion battery charger (83 31 11).

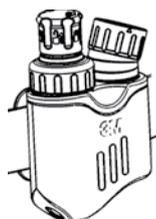


## **Speedglas™**

### Spare parts & consumables



AWS4590



85 20 17

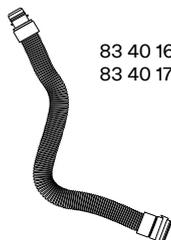
89 51 10



83 40 18



83 40 16  
83 40 17



53 35 06



BAHOSE05M  
BAHOSE10M  
BAHOSE15M  
BAHOSE20M  
BAHOSE30M  
BAHOSE40M

Part No.	Description	Part No.	Description
53 35 06	Adaptor QRS Breathing Tube to 9000	BAHOSE05M	Hose Breathing Air 5M with CEJN Fittings
83 40 16	Tube Breathing Self Adjusting QRS	BAHOSE10M	Hose Breathing Air 10M with CEJN Fittings
83 40 17	Tube Breathing Heavy Duty Rubber	BAHOSE15M	Hose Breathing Air 15M with CEJN Fittings
83 40 18	Tube Breathing Cover Flame Resistant	BAHOSE20M	Hose Breathing Air 20M with CEJN Fittings
85 20 17	Regulator V-500E with Belt	BAHOSE30M	Hose Breathing Air 30M with CEJN Fittings
89 51 10	Carbon Filter and Two O-Rings SAR	BAHOSE40M	Hose Breathing Air 40M with CEJN Fittings
AWS4590	Vortex Cooler Inc Muffler With Belt		



## Supplied Breathing Air Process & Components



Air compressor



Breathing Air Hose



Breathing Air System



Breathing Air Hose



3M Speedglas welding helmet with supplied air regulator



All 3 person systems come with one coupling - part no. C103441152  
 For 2 people order another coupling and for 3 people order another 2 couplings  
 All 5 person systems come with two couplings - part no. C103441152  
 For 3 people order another coupling, 4 people order another 2 couplings & 5 people order another 3 couplings

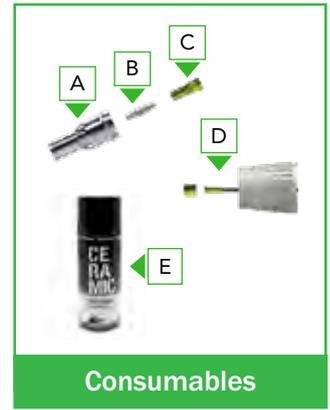
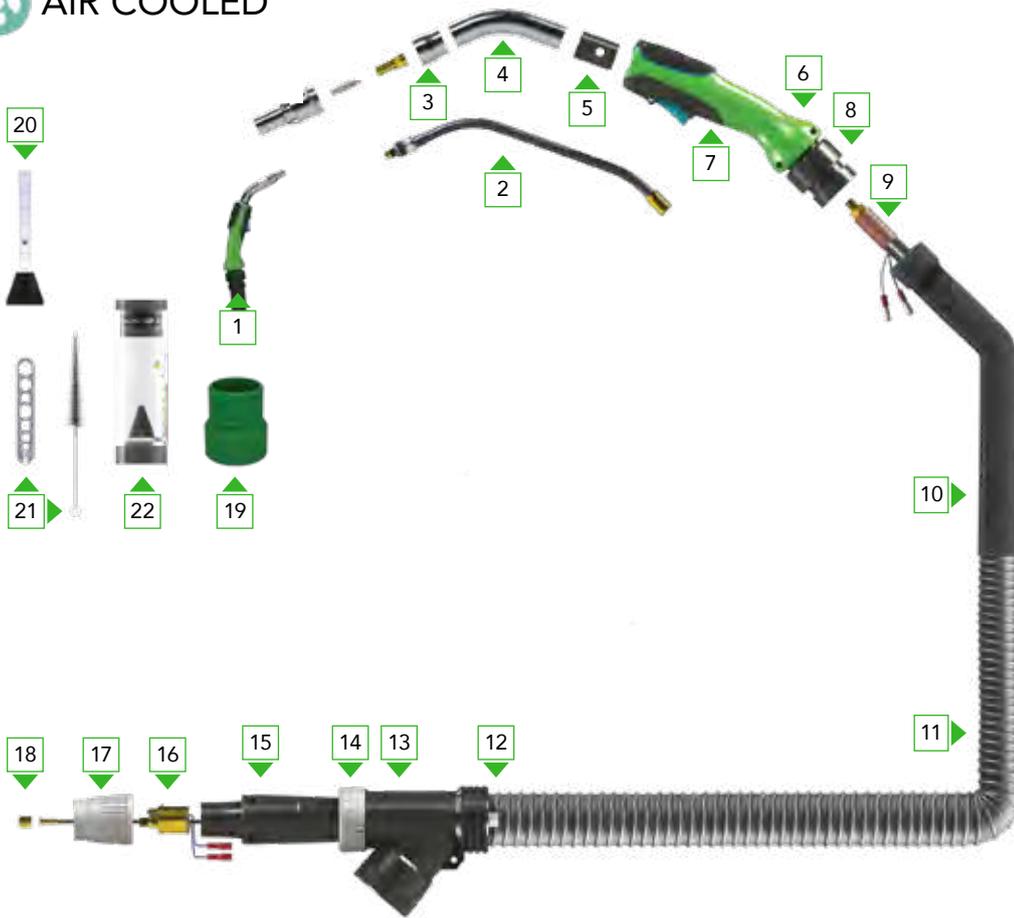


- BAHOSE05M
- BAHOSE10M
- BAHOSE15M
- BAHOSE20M
- BAHOSE30M
- BAHOSE40M

Part No.	Description	Part No.	Description
<b>ALPHA BREATHING AIR SYSTEMS</b>		<b>HOSES</b>	
WBA12WMA	BA System 1 Person 2 Stage Wall Mount Alpha	BAHOSE05M	Hose Breathing Air 5M with CEJN Fittings
WBA12PA	BA System 1 Person 2 Stage Portable Alpha	BAHOSE10M	Hose Breathing Air 10M with CEJN Fittings
WBA32WMA	BA System 3 Person 2 Stage Wall Mount Alpha	BAHOSE15M	Hose Breathing Air 15M with CEJN Fittings
WBA32PA	BA System 3 Person 2 Stage Portable Alpha	BAHOSE20M	Hose Breathing Air 20M with CEJN Fittings
WBA34WMA	BA System 3 Person 4 Stage Wall Mount Alpha	BAHOSE30M	Hose Breathing Air 30M with CEJN Fittings
WBA34PA	BA System 3 Person 4 Stage Portable Alpha	BAHOSE40M	Hose Breathing Air 40M with CEJN Fittings
WBA52WMA	BA System 5 Person 2 Stage Wall Mount Alpha	C103441152	Coupling Male Thread R 1/4 BAS
WBA52PA	BA System 5 Person 2 Stage Portable Alpha	<b>PRE-2018 ELEMENTS</b>	
WBA54WMA	BA System 5 Person 4 Stage Wall Mount Alpha	WBA3AC	BA Element Activated Carbon (Upper) 1&3 Person
WBA54PA	BA System 5 Person 4 Stage Portable Alpha	WBA3XA	BA Element 0.01 Micron (Lower) 1&3 Person
<b>ELEMENTS</b>		WBA3X1	BA Element 1 Micron Pre Filter 1&3 Person
WBASK3A	BA Element Water Spinner Filter Alpha	WBA5AC	BA Element Activated Carbon (Upper) 5 Person
WBAX1	BA Element 1 Micron Pre Filter Alpha	WBA5XA	BA Element 0.01 Micron (Lower) 5 Person
WBADXA	BA Element 0.01 Micron (Lower) Alpha	WBA5X1	BA Element 1 Micron Pre Filter 5 Person
WBADAC	BA Element Activated Carbon (Upper) Alpha		

# Translas 250 Amp On-Gun Extraction System (TR250S/TR250D)

 AIR COOLED



Consumables

Spare Parts - GUN					
Item	Part Number	Description	Item	Part Number	Description
1	TR8X01000401000	8XE MINI extractor Eur 250 amp 4 metre 45°	10	TR260019	Leather-sheathing with velcro 2mtr
	TR8X01000501000	8XE MINI extractor Eur 250 amp 5 metre 45°	11	TR340304	Fume extraction hose 30-38mm 4mtr
2	TR39301045	Swan neck 45°		TR340305	Fume extraction hose 30-38mm 5mtr
	TR3950005	PEEK ring to fix nozzle holder (not shown)	12	TR398031	Hose connection
3	TR3950000	Nozzle holder	13	TR398100	Housing (Y-shape) for fume extraction hose
4	TR3950045	Metal neck 45°	14	TR398015	Connection ring
5	TR3950500	Adapter to fit MINI neck	15	TR398010	Housing set for central connector
6	TR391000	Handle green/black complete with trigger	16	TR305298E	Central connector
7	TR391200	Trigger	17	TR8M9420	Adaptor nut
	TR391245	Spring for trigger (not shown)	18	TR305315	Liner positioner nut
	TR391250	Micro switch complete (not shown)	19	TR398110	Hose adapter
8	TR381900	Cable support set with ball-and-socket joint	20	TR406050	Gasflow metre
9	TR259264X8	Cable assembly 4mtr	21	TR371208	Tool set (brush and multitool)
	TR259265X8	Cable assembly 5mtr	22	TR371350	Airflow metre MINI extractor

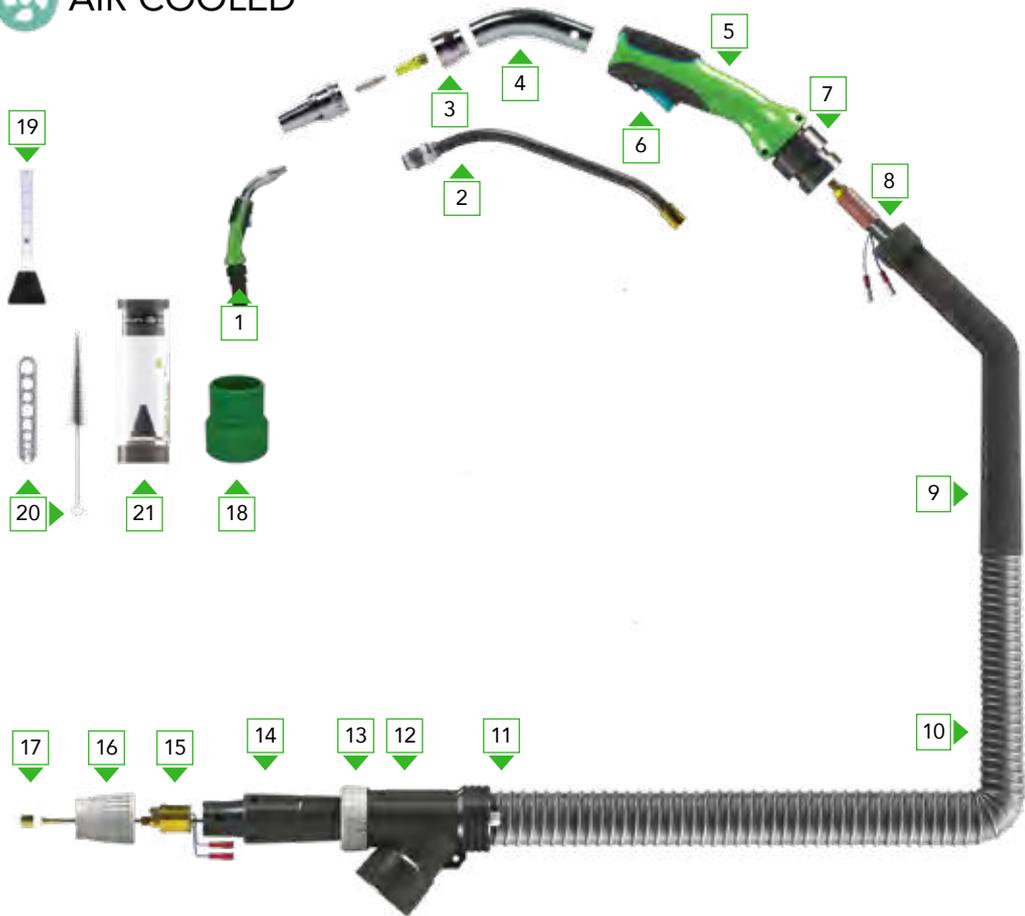
Consumables - GUN							
Item	Part Number	Description	Pack Qty	Item	Part Number	Description	Pack Qty
A	TR3937000	Nozzle conical 12mm	5	D	TR301555	Plastic coated liner blue 5 metre - for 0.8 to 1.0 wire	1
	TR3937001	Nozzle conical 14mm tapered	5		TR302545	Plastic coated liner red 4 metre - for 0.8 to 1.2 wire	1
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25		TR302555	Plastic coated liner red 5 metre - for 0.8 to 1.2 wire	1
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25		TR303645	Plastic coated liner yellow 4 metre - for 1.2 to 1.6 wire	1
	TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25		TR303655	Plastic coated liner yellow 5 metre - for 1.2 to 1.6 wire	1
C	TR39327110	Tip adapter 250	10	E	TR320300	Ceramic spray 400ml	1
D	TR301545	Plastic coated liner blue 4 metre - for 0.8 to 1.0 wire	1				



Spare Parts - EXTRACTION UNIT		
Item	Part Number	Description
A	TR3746150200004	W150 ClearO2 mobile fume unit 3 phase
	TR3746200200004	W200 ClearO2 mobile fume unit 2 welders 3 phase
B	TR374012	Torch holder for automatic start/stop 5 metre 250
C	TR374010	Sensing cable auto start/stop 4 metre
D	TR3740105	Extension 5 metre for sensor cable clamp
E	TR374020	Main Filter
F	TR374025	Filter Mat pk=5
G	TR374099	Ball valve to reduce the suction flow
H	TR3741061	Compressed air regulator with moisture trap
I	TR37422505	ClearO2 suction hose black ø2" 5mt
J	TR398110	Hose adapter
K	TR374130	Coupler to extend the suction hose

# Translas 400 Amp On-Gun Extraction System (TR400S/TR400D)

 AIR COOLED



Consumables

Spare Parts - GUN					
Item	Part Number	Description	Item	Part Number	Description
1	TR8X04028401000	8XE extractor Eur 400 amp 4 metre 45°	10	TR3402042	Fume extraction hose 36-44mm 4mtr
	TR8X04028501000	8XE extractor Eur 400 amp 5 metre 45°		TR3402052	Fume extraction hose 36-44mm 5mtr
2	TR39302145	Swan neck 45°	11	TR398030	Hose connection
	TR3950205	PEEK ring to fix nozzle holder (not shown)	12	TR398100	Housing (Y-shape) for fume extraction hose
3	TR3950200	Nozzle holder	13	TR398015	Connection ring
4	TR3950245	Metal neck 45°	14	TR398010	Housing set for central connector
5	TR391000	Handle green/black complete with trigger	15	TR3052988	Central connector
6	TR391200	Trigger	16	TR8M9420	Adaptor nut
	TR391245	Spring for trigger (not shown)	17	TR305315	Liner positioner nut
	TR391250	Micro switch complete (not shown)	18	TR398110	Hose adapter
7	TR381920	Cable support set with ball-and-socket joint	19	TR406050	Gasflow metre
8	TR259464X8	Cable assembly 4mtr	20	TR371208	Tool set (brush and multitool)
	TR259465X8	Cable assembly 5mtr	21	TR371300	Airflow metre extractor
9	TR260018	Leather-sheathing with velcro 2mtr			

Consumables - GUN							
Item	Part Number	Description	Pack Qty	Item	Part Number	Description	Pack Qty
A	TR3937041	Nozzle conical 14mm tapered	5	C	TR39327310	Tip adapter 400	10
	TR3937045	Nozzle conical 17mm tapered	5	D	TR303794	Plastic coated liner black 4 metre - for 0.9 to 1.2 wire	1
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25		TR303795	Plastic coated liner black 5 metre - for 0.9 to 1.2 wire	1
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25	TR303764	Plastic coated liner grey 4 metre - for 1.6 wire	1	
TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25	TR303765	Plastic coated liner grey 5 metre - for 1.6 wire	1		
TR3990161	Contact tip - CuCrZr tri metal nickel plated - for 1.6 wire	25	E	TR320300	Ceramic spray 400ml	1	



A



B

C

D

E

F

G

H

I

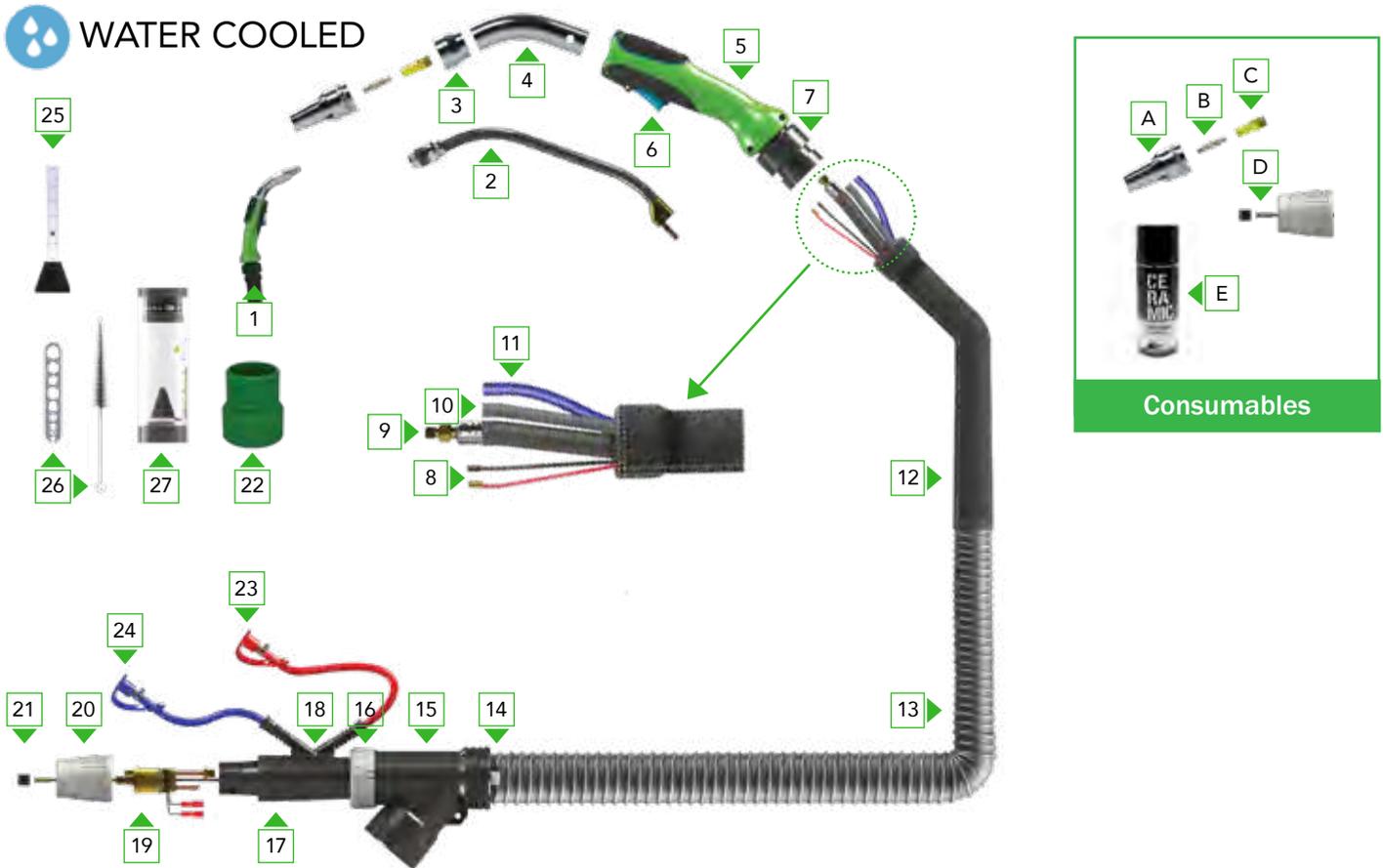
J

K

Spare Parts - EXTRACTION UNIT		
Item	Part Number	Description
A	TR3746150200004	W150 ClearO2 mobile fume unit 3 phase
	TR3746200200004	W200 ClearO2 mobile fume unit 2 welders 3 phase
B	TR374014	Torch holder for automatic start/stop 5 metre 400 & 500
C	TR374010	Sensing cable auto start/stop 4 metre
D	TR3740105	Extension 5 metre for sensor cable clamp
E	TR374020	Main Filter
F	TR374025	Filter Mat pk=5
G	TR374099	Ball valve to reduce the suction flow
H	TR3741061	Compressed air regulator with moisture trap
I	TR37422505	ClearO2 suction hose black ø2" 5mt
J	TR398110	Hose adapter
K	TR374130	Coupler to extend the suction hose

# Translas 500 Amp On-Gun Extraction System (TR500S/TR500D)

 WATER COOLED



Spare Parts - GUN					
Item	Part Number	Description	Item	Part Number	Description
1	TR8X05060401000	8XE extractor Eur 500 amp 4 metre 45°	12	TR260018	Leather-sheathing with velcro 2mtr
	TR8X05060501000	8XE extractor Eur 500 amp 5 metre 45°	13	TR3402042	Fume extraction hose 36-44mm 4mtr
2	TR39303045	Swan neck 45°		TR3402052	Fume extraction hose 36-44mm 5mtr
	TR3950205	PEEK ring to fix nozzle holder (not shown)	14	TR398030	Hose connection
3	TR3950200	Nozzle holder	15	TR398100	Housing (Y-shape) for fume extraction hose
4	TR3950245	Metal neck 45°	16	TR398015	Connection ring
5	TR391000	Handle green/black complete with trigger	17	TR398010	Housing set for central connector
6	TR391200	Trigger	18	TR350881	Water hose guide
	TR391245	Spring for trigger (not shown)	19	TR305304E2	Central connector
	TR391250	Micro switch complete (not shown)	20	TR8M9420	Adapter nut
7	TR381920	Cable support set with ball-and-socket joint	21	TR305315	Liner positioner nut
8	TR306505	Switch cable 1x0.75mm² per mtr	22	TR398110	Hose adapter
9	TR258514X8	Power/water cable 4mtr	23	TR258701	Waterstop red
	TR258515X8	Power/water cable 5mtr	24	TR258702	Waterstop blue
10	TR2585314XE	Outer liner 4mtr	25	TR406050	Gasflow metre
	TR2585315XE	Outer liner 5mtr	26	TR371208	Tool set (brush and multitool)
11	TR258535	Water inlet hose 5x8mm blue per mtr	27	TR371300	Airflow metre extractor
	TR258566	Water outlet hose 5x8mm red per mtr			

Consumables - GUN							
Item	Part Number	Description	Pack Qty	Item	Part Number	Description	Pack Qty
A	TR3937041	Nozzle conical 14mm tapered	5	C	TR39327210	Tip adapter 500	10
	TR3937045	Nozzle conical 17mm tapered	5	D	TR302545	Plastic coated liner red 4 metre - for 0.8 to 1.2 wire	1
B	TR3990091	Contact tip - CuCrZr tri metal nickel plated - for 0.9 wire	25		TR302555	Plastic coated liner red 5 metre - for 0.8 to 1.2 wire	1
	TR3990101	Contact tip - CuCrZr tri metal nickel plated - for 1.0 wire	25		TR303645	Plastic coated liner yellow 4 metre - for 1.2 to 1.6 wire	1
	TR3990121	Contact tip - CuCrZr tri metal nickel plated - for 1.2 wire	25		TR303655	Plastic coated liner yellow 5 metre - for 1.2 to 1.6 wire	1
	TR3990161	Contact tip - CuCrZr tri metal nickel plated - for 1.6 wire	25	E	TR320300	Ceramic spray 400ml	1



Spare Parts - EXTRACTION UNIT		
Item	Part Number	Description
A	TR3746150200004	W150 ClearO2 mobile fume unit 3 phase
	TR3746200200004	W200 ClearO2 mobile fume unit 2 welders 3 phase
B	TR374014	Torch holder for automatic start/stop 5 metre 400 & 500
C	TR374010	Sensing cable auto start/stop 4 metre
D	TR3740105	Extension 5 metre for sensor cable clamp
E	TR374020	Main Filter
F	TR374025	Filter Mat pk=5
G	TR374099	Ball valve to reduce the suction flow
H	TR3741061	Compressed air regulator with moisture trap
I	TR37422505	ClearO2 suction hose black ø2" 5mt
J	TR398110	Hose adapter
K	TR374130	Coupler to extend the suction hose



## Nederman



FPSP02



FPSN01



FPSN02



FPSP01



FPSS01



FPSB01

## bomaksan®



BMINIPRER



BMINIPRE



BMINIMAIN



BMONPULNANO



BMONPULPOLY



BPRONANO



BPROPOLY



BBENCHNANO



BBENCHPOLY

## boa AIR



BBOAMIDG4



BBOAMIDAC



BBOAMIDHP



BBOAMAXG4

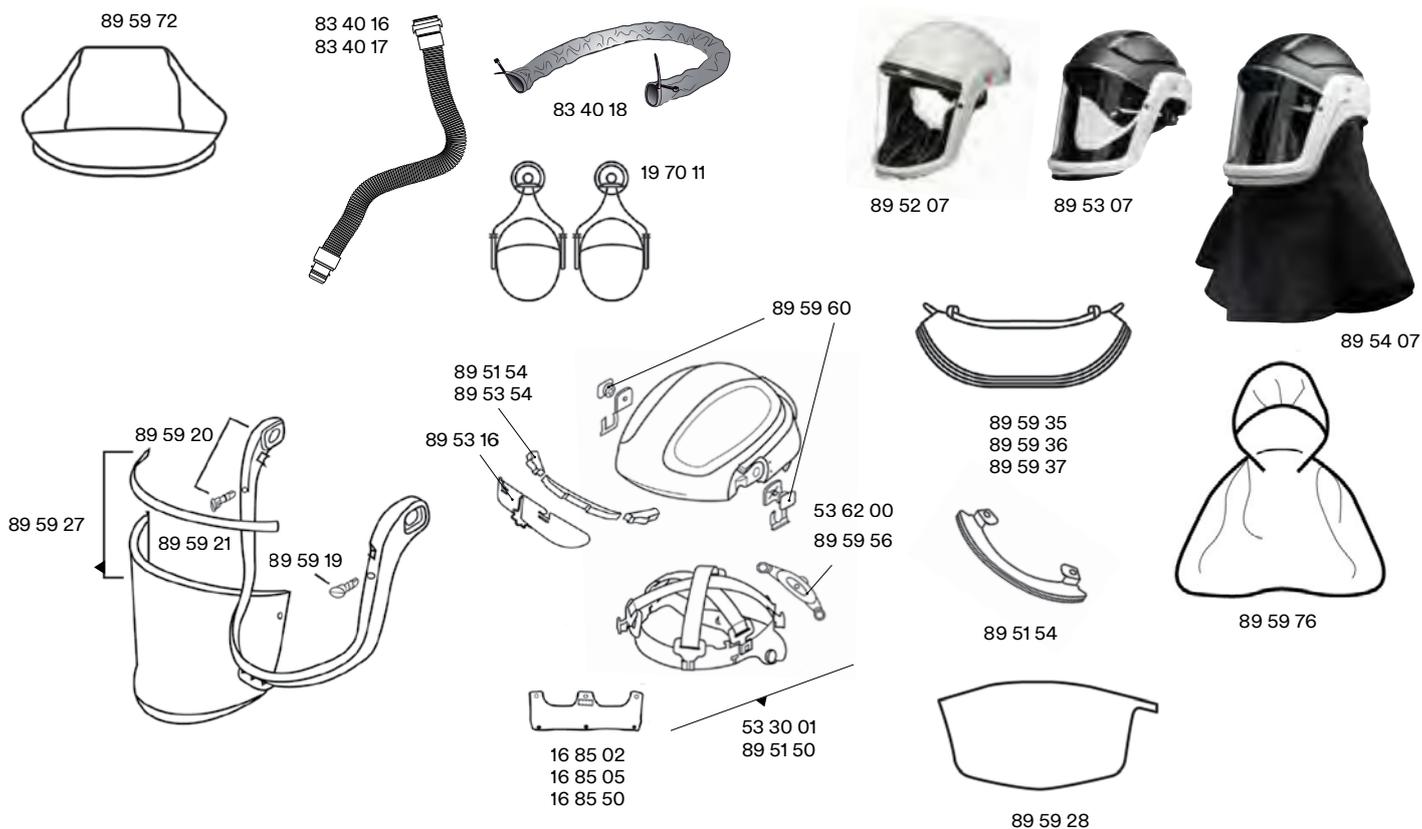


BBOAMAXAC



BBOAMAXHP

Part No.	Description	Part No.	Description
FPSP02	Replacement particle filter for Nederman FPS150	BMONPULNANO	Bomaksan MONO & PULSE Nanoblend filter
FPSN01	Focused nozzle funnel for Nederman FPS150	BMONPULPOLY	Bomaksan MONO & PULSE Polymight PTFE filter
FPSN02	Wide nozzle funnel for Nederman FPS150	BPRONANO	Bomaksan PRO Nanoblend filter
FPSP01	Replacement particle filter for Nederman FPS900 & FPS1800	BPROPOLY	Bomaksan PRO Polymight PTFE filter
FPSS01	Spark protector Nederman FPS900 & FPS1800	BBENCHNANO	Bomaksan BENCH Nanoblend filter Pk=2
FPSB01	Filter Bag Nederman FPS900 & FPS1800 Pk=10	BBENCHPOLY	Bomaksan BENCH Polymight PTFE filter Pk=2
BMINIPRER	Bomaksan MINI pre-filter mat 10Pcs/Set - G4	BBOAMIDG4	BOA MIDI G4 filter
BMINIPRE	Bomaksan MINI pre-filter cassette - M5	BBOAMIDAC	BOA MIDI AC filter
BMINIMAIN	Bomaksan MINI main filter - H13	BBOAMIDHP	BOA MIDI HEPA filter
		BBOAMAXG4	BOA MAXI G4 filter
		BBOAMAXAC	BOA MAXI AC filter
		BBOAMAXHP	BOA MAXI HEPA filter



Part No.	Description	Part No.	Description
16 85 02	Sweatband Pk=2	89 54 41	Gasket Jaw M-400
16 85 05	Sweatband Pk=5	89 54 44	Collar Inner M-400
16 85 50	Sweatband Pk=50	89 54 47	Shroud Outer High Durability M-400
19 70 11	Earmuffs with Helmet Attachment	89 54 48	Shroud Outer FR M-400
53 30 01	Head Harness M-300, M-400	89 59 19	Visor Frame Buttons Pk=10
53 62 00	Head Harness Back Part M-400	89 59 20	Visor Frame
83 40 16	Tube Breathing Self Adjusting QRS	89 59 21	Visor Gasket Pk=5
83 40 17	Tube Breathing Heavy Duty Rubber	89 59 27	Visor Coated Pk=5
83 40 18	Tube Breathing Cover Flame Resistant	89 59 28	Peel-Off Visor Cover Pk=40
89 52 07	M-207 Face Shield with FR Face Seal	89 59 35	Standard Face Seal Pk=5
89 51 50	Head Suspension M-100/M-200	89 59 36	Comfort Face Seal Pk=5
89 51 54	Forehead Seal M-100/M-200	89 59 37	Flame Resistant Face Seal Pk=5
89 53 07	M-307 Face Shield with FR Face Seal	89 59 56	Ratchet Comfort Pad Pk=10
89 53 16	Airflow Deflector M-300	89 59 57	Comfort Pad Forehead Pk=20
89 53 54	Forehead Seal M-300	89 59 60	Pivot Kit
89 54 07	M-407 Hard Hat Face Shield with FR Shroud	89 59 72	Flame Resistant Headtop Cover
		89 59 76	Head, Neck & Shoulder Cover







## About AWS

AWS was established in 1994 and has played a key role in the welding industry ever since.

As an advocate for welders' safety in Australia and New Zealand, AWS has published numerous Welding Safety White Papers, Welding Industry Reports, and Welding Fume Control Frameworks.

As a company that specialises in welding safety equipment, it is our goal to raise awareness on the important issues that welders face.

For more information on welding fume monitoring, welding PPE, or welding fume extraction options, please contact AWS.

[www.apexweldingsafety.com.au](http://www.apexweldingsafety.com.au)

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[youtube.com/awsspeedglas](https://youtube.com/awsspeedglas)

### References

1. 2019 Honaryar MK, Lunn RM, Luce D, et al. Occup Environ Med
2. Guidance on the interpretation of workplace exposure standards for airborne contaminants, Safe Work Australia, April 2013
3. 2020 Welding Fume and Respiratory Protection Survey, AWS
4. J.L. Perry, J.H. Agui and R. Vijayakumar, "Submicron and Nanoparticulate Matter Removal by HEPA-Rated Media Filters and Packed Beds of Granular Materials", May 2016, NASA STI Program.

