

# SOLDATECH



**TYPE**  
EWH4



**Read this manual carefully before using  
the auto-darkening welding helmet.**

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## Storing the user manual

- Store the user manual near the auto-darkening welding helmet in an accessible location.
- Keep the user manual in a place where it will not get damp.
- Use the user manual in a normal manner without damaging it.
- The use of the auto-darkening welding helmet by individuals unfamiliar with the instructions and procedures described in this manual is strictly prohibited.

This user manual is part of the auto-darkening welding helmet and must therefore be carefully stored with the helmet. If the auto-darkening welding helmet changes hands, the user manual must be provided with it.

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## **NLD** 1. Symbolen label

## **ENG** 1. Symbols label

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**NLD** Lees voor gebruik de gebruikershandleiding.

**ENG** Read the user manual before use.

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**NLD** Draag altijd een veiligheidsbril bij het gebruik van de lashelm.

**ENG** Always wear safety glasses when using the welding helmet.

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**NLD** Draag veiligheidshandschoenen.

**ENG** Wear safety gloves.

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**NLD** Zorg ervoor dat er voldoende ventilatie is tijdens het lassen.

**ENG** Ensure there is adequate ventilation during welding.

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**NLD** Vervang versleten of beschadigde onderdelen onmiddellijk.

**ENG** Replace worn or damaged parts immediately.

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**NLD** Vervang de laslens onmiddellijk als deze beschadigd is.

**ENG** Replace the welding filter immediately if it is damaged.

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**NLD** Zorg dat de tintinstelling voldoende oogbescherming biedt voor het type werk dat u gaat uitvoeren.

**ENG** Ensure that the shade level provides adequate eye protection for the type of work you are going to perform.

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**NLD** De lashelm is niet geschikt voor laserlassen.

**ENG** The welding helmet is not suitable for laser welding.

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## 2. General

Each Soldatech automatic welding helmet is manufactured in accordance with the European Directive EU-2016/425. A manual and a declaration of conformity are provided with each automatic welding helmet, which must be properly kept and maintained.

As continuous improvements are made to the equipment, the holder of the “Soldatech” brand reserves the right to change the specifications of the equipment described in the manual.

## 3. Safety Regulations

1. This auto-darkening welding helmet is not suitable for laser welding or oxy-fuel welding and cutting processes.
2. Never place the helmet and auto-darkening filter on a hot surface.
3. Do not open or modify the auto-darkening filter.
4. This welding helmet does not provide protection against impact and collision hazards.
5. The helmet does not protect against explosive substances or corrosive liquids.
6. Do not modify the helmet or the filter unless otherwise specified in this manual.
7. Do not use replacement parts other than those specified in this manual.
8. Unauthorized modifications and replacement parts will void the warranty and may cause personal injury.
9. Stop welding immediately if the helmet does not darken when striking an arc and contact your supervisor or dealer.
10. Do not immerse the filter in water.
11. Do not use solvents on the filter screen or other helmet parts.
12. Use the helmet only at temperatures between -10°C and +55°C.
13. Storage temperature: -20°C to +70°C.
14. Store the helmet in a dry, cool, and dark place; remove the battery during long-term storage.
15. Protect the filter from contact with liquids and dirt.
16. Clean the filter surface regularly with a clean, lint-free cloth; do not use strong cleaning agents.
17. Keep the sensors and solar cells clean.
18. Regularly replace cracked, scratched, or damaged outer lenses.
19. Materials in contact with the skin may cause allergic reactions under certain conditions.

## 4. Use

### BATTERY INSTALLATION

Install the battery correctly in the helmet, according to the positive and negative terminals indicated on the battery compartment (see fig.1). Pay close attention to the anode and cathode when inserting the battery.

### POWER SUPPLY

This filter cartridge is powered by a solar cell and one CR2450 lithium battery. When the indicator on the lens turns red (see fig.2), it is a warning that the battery needs to be replaced.

### TEST

Press and hold the test button to check the shade setting before you start welding (see fig.2). Once you release the button, the viewing window will automatically return to the light state (Shade 3.5).

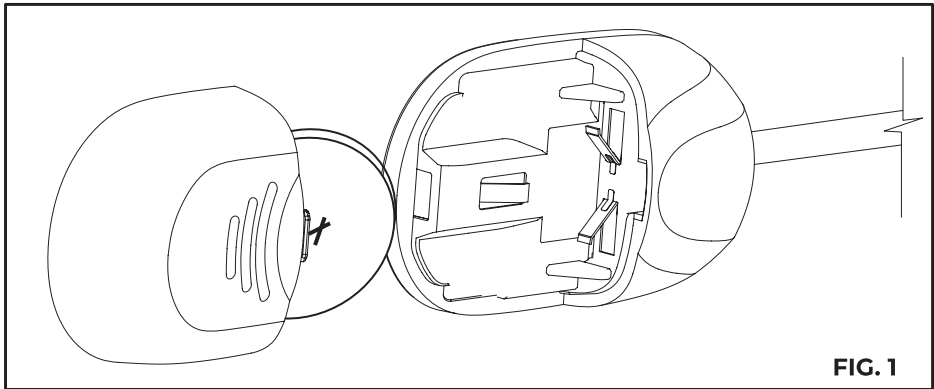


FIG. 1

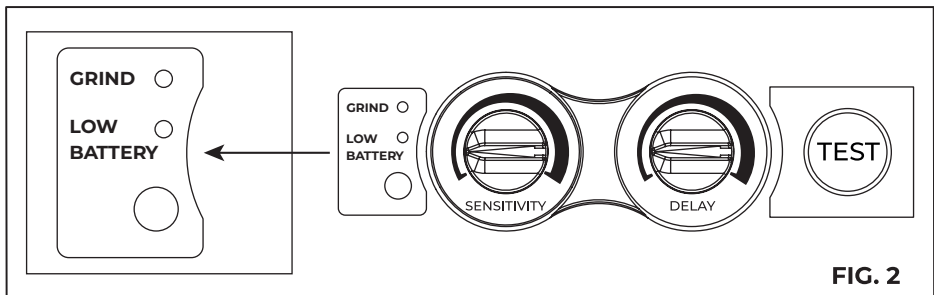


FIG. 2

### SELECT SHADE LEVEL

Select the shade level you need based on the welding process you are going to use by referring to the "Shade Guide Table" below for the settings. Turn the shade adjustment knob to the required shade number.

## SENSITIVITY

- The sensitivity can be adjusted to “HI” (high) or “LO” (low) using the continuously adjustable knob on the back of the shade cartridge.
- The “Medium-High” setting is the standard for daily use.
- The maximum sensitivity level is suitable for low-current welding, TIG welding, or special applications. If the helmet’s performance is disturbed by excessive ambient light or another welding machine nearby, use the “LO” setting (see fig. 3a).
- As a rule of thumb for optimal performance, it is recommended to initially set the sensitivity to maximum and then gradually lower it until the filter only responds to the welding arc light without unwanted false activation from ambient light (direct sunlight, intense artificial light, neighboring welding arcs, etc.).

## CHOOSING THE ADJUSTABLE DELAY TIME

- When welding stops, the viewing window automatically changes from dark to light, but with a preset delay to compensate for the bright afterglow on the workpiece.
- The delay time can be set to “S” (short: 0.1 sec.) or “L” (long: 1.0 sec.) as desired, using the continuously adjustable knob on the back of the shadow cartridge (see fig. 3b).
- It is recommended to use a shorter delay for spot welding and a longer delay for applications with higher currents. Longer delays can also be used for lower current welding, such as TIG welding, and TIG/MIG/MAG pulse.

## SELECTING THE GRINDING FUNCTION

- When the shade knob is turned to the “GRIND” position, the shading function is disabled, allowing clear visibility for grinding a weld with the helmet providing face protection (see fig. 4).
- In this situation, the indicator will turn green and blink every 3 seconds (see fig. 2). Before resuming welding, ensure that the shading function is reactivated.

## ADJUSTING THE FIT OF THE HELMET

- The overall circumference of the headband can be increased or decreased by turning the knob on the back of the headband (see “Y” in Fig.5).
- This can be done while wearing the helmet and ensures the right tension to keep the helmet securely on your head without being too tight.
- If the headband sits too high or too low on your head, you can adjust the band that runs over the top of your head.
- To do this, detach the end of the band by pushing the locking pin out of the hole in the band.
- Slide the two parts of the band to a wider or narrower width as needed and push the locking pin through the nearest hole (see “W” in Fig.5).
- Test the fit of the headband by moving the helmet up and down a few times while wearing it.
- If the headband shifts while tilting, readjust it until it is stable.

**ADJUSTING THE DISTANCE BETWEEN THE HELMET AND THE FACE**

- Step 1: Loosen the locking nut (See "T" in fig.5) to adjust the distance between the helmet and your face in the downward position.
- Step 2: Loosen the locking nuts on both sides of the helmet and slide them closer to or further from your face (See adjustment "Z" in fig.5). It is important that both of your eyes are at an equal distance from the lens. Otherwise, the darkening effect may appear uneven.
- Step 3: Tighten the locking nut again once the adjustment is complete.

**ADJUSTING THE VIEWING ANGLE POSITION**

See fig.6 for instructions.

You are now ready to use the helmet. The shading setting can be adjusted during use by resetting the potentiometer.

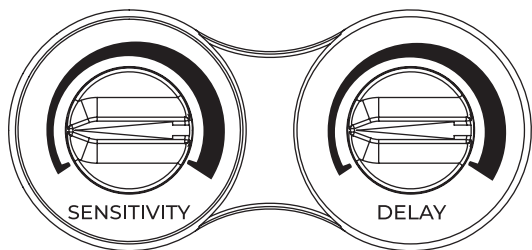


FIG. 3a

FIG. 3b

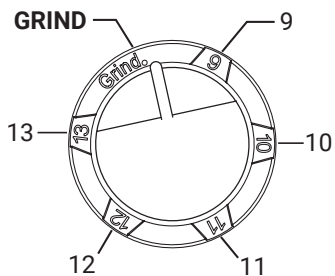


FIG. 4

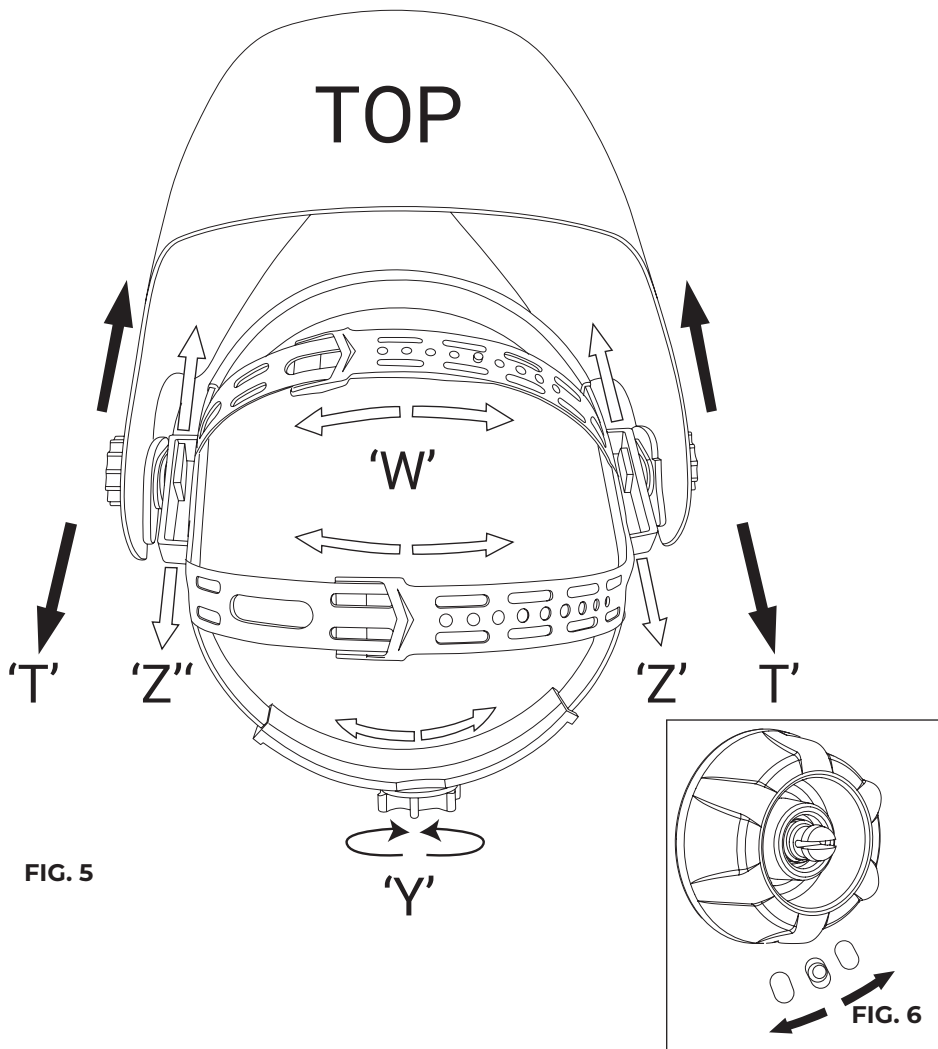


FIG. 5

FIG. 6



**Shadow Guide Table**

	WELDING TECHNIQUE							
	PAW	PAC	SAW	MAG/ CO2	TIG/ GTAW	MIG (light)	MIG (heavy)	SMAW
0.5 —								
1 —								
2.5 —								
5 —								
10 —	8							
15 —	9				9			
20 —	10							
30 —	11				10			9
40 —	12							
60 —				10	11			10
80 —		11				10	10	
100 —				11				
125 —					12	11	11	11
150 —	13		10	12				
175 —		12						
200 —			11			12		
225 —								
250 —				13	13		12	12
275 —	14		12					
300 —						13		
350 —		13	13					
400 —			14	14			13	13
450 —					14	14		
500 —	15		15	15				
						15	14	14

**Meaning of Abbreviations:**

- SMAW: Shielded Metal Arc Welding
- TIG, GTAW: Tungsten Inert Gas
- MIG (heavy): MIG on heavy metals
- MIG (light): MIG on light alloys
- PAW: Plasma Arc Welding
- PAC: Plasma Arc Cutting
- SAW: Submerged Arc Welding
- MAG/CO2: Metal Active Gas

## 5. Maintenance

### REPLACE THE FRONT LENS

To replace the front lens, remove the lens cassette by loosening the locking slot under the cartridge (see fig.7), lift the cartridge to remove/replace the front lens.

### REPLACE THE INNER LENS.

Replace the inner lens if it is damaged. Place your fingernail in the recess below the window of the cartridge and bend the window upward until it comes away from the edges of the window.

### REPLACE THE AUTO-DARKENING FILTER

Remove the holder from the helmet shell. See fig.7 for removal. Bend the top end of the holder to remove the cartridge from the frame. Install the new cartridge in the frame as shown in fig.8. Ensure the cartridge is correctly placed in the holder as shown. Install the holder into the helmet shell.

### CLEANING

Clean the helmet by wiping it with a soft cloth. Regularly clean the surfaces of the auto-darkening filter. Do not use strong cleaning solutions. Clean the sensors and solar cells with denatured alcohol and a clean cloth, and wipe them dry with a lint-free cloth.

### COMMON PROBLEMS AND SOLUTIONS

#### Irregular darkening or dimming:

- The headband may be unevenly adjusted, resulting in an unequal distance between the eyes and the filter lens.
- Adjust the headband again to minimize the difference.

#### The auto-darkening filter does not darken or flickers:

- The front cover of the lens is dirty or damaged (Replace the lens cover).
- The sensors are dirty (Clean the surface of the sensors).
- The welding current is too low (Increase the sensitivity).

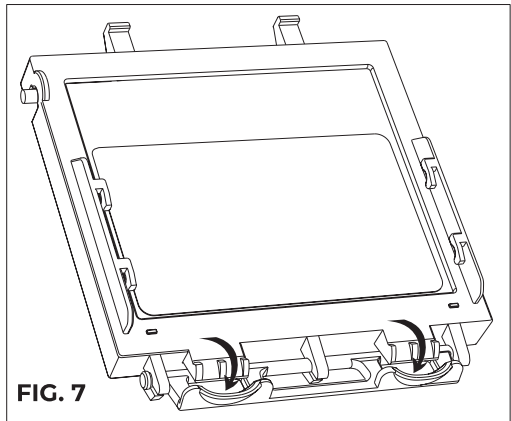


FIG. 7

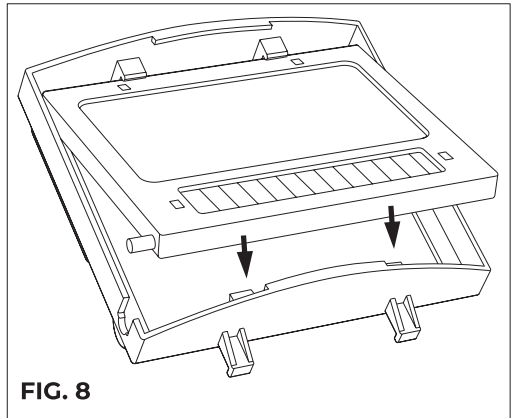


FIG. 8

**Slow response:**

- The operating temperature is too low (Do not use at temperatures below -10°C).

**Poor visibility:**

- The front/inner lens cover and/or filter is dirty (Replace the lens).
- There is insufficient ambient light.
- The shade number is incorrectly set (Adjust the shade number).
- Check if the protective film on the front cover has been removed.

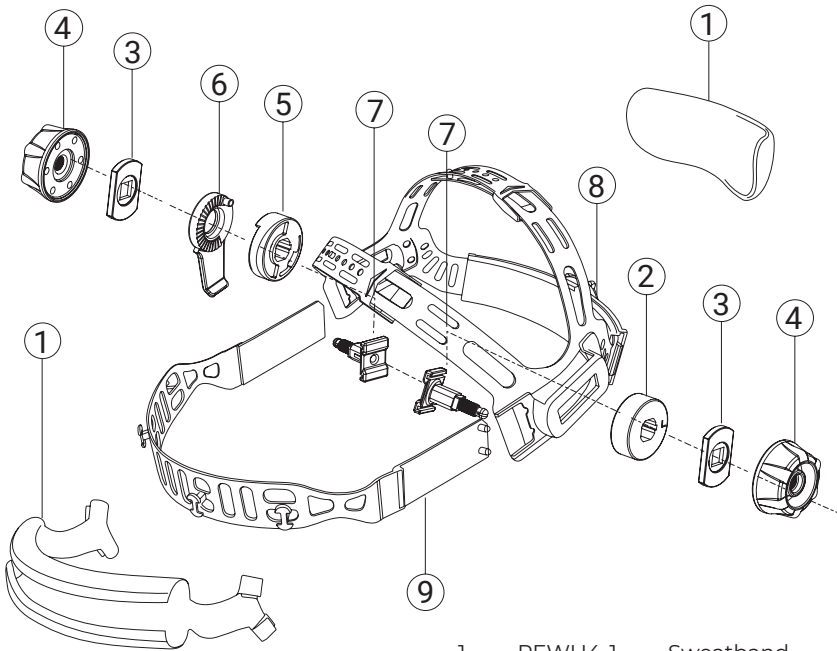
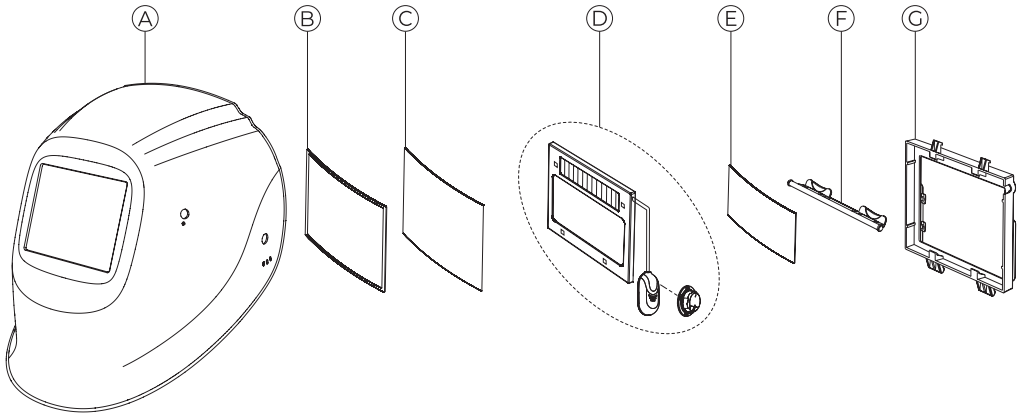
**Welding helmets slips:**

- The headband is not properly adjusted (Readjust the headband).

## 6. Specifications

Optical class	1/1/1/2
Viewing area	96 x 53 mm (3.78" x 2.09")
Cassette size	110 x 90 x 9 mm (4.33" x 3.54" x 0.35")
Arc sensor	4
Light state	DIN 3.5
Dark state	Variable shade 9 ~ 13
Shade adjustment	External, variable shade
On/Off	Automatic On / Off
Sensitivity adjustment	Low ~ High, with adjustment knob
UV/IR protection	Up to shade DIN16 at any time
Power supply	Solar cell. Replaceable battery; 1 x CR2450 lithium battery
Low battery alarm	Yes
Switching time	1/25,000 s from light to dark
From dark to light	0.1 ~ 1.0 s with continuous adjustment knob
Suitable for low current TIG	≥ 5 ampere (DC); ≥ 5 ampere (AC)
Grinding	Yes
Battery capacity test	Yes
Operating temperature	-10 °C ~ +55 °C (14 °F ~ 131 °F)
Storage temperature	-20 °C ~ +70 °C (-4 °F ~ 158 °F)
Helmet material	High impact nylon
Total weight	440 g
Application range	Electrode welding (SMAW); TIG DC&AC; TIG Pulse DC; TIG Pulse AC; MIG/MAG/CO2; MIG/MAG Pulse; Plasma arc cutting (PAC); Plasma arc welding (PAW); Air-cooled arc cutting (CAC-A); Grinding
Approved	CE, ANSI Z87.1, Z94.3, AS/NZS 1338.1

# 7. Parts



- A PEWH4-A Welding helmet
- B PEWH4-B Rubber holder
- C LVE5WH34 Front lens
- D PEWH4-D Darkening filter
- E LVI5WH4 Inner lens
- F PEWH4-F Holder lock
- G PEWH4-G Lens holder

- 1 PEWH4-1 Sweatband
- 2 PEWH4-2 Clamping ring
- 3 PEWH4-3 Clamping ring
- 4 PEWH4-4 Block nut
- 5 PEWH4-5 Locking ring
- 6 PEWH4-6 Angle limiting ring
- 7 PEWH4-7 Screw
- 8 PEWH4-8 Adjustable headband
- 9 PEWH4-9 Front headband

## 8. Warranty

1. The warranty begins on the date specified on the purchase receipt and is valid for 12 months.
2. The warranty is non-transferable without written consent from your supplier.
3. A purchase receipt is required to make any warranty claims.
4. The warranty only applies if the product is used according to the provided instructions and solely for its intended purpose.
5. No modifications may be made to the product.
6. The warranty does not cover misuse.
7. Shipping costs are not covered under the warranty.
8. Repairs must be carried out exclusively by your supplier. Any repairs performed by third parties will void the warranty claim.
9. Repairs during the warranty period do not extend the warranty validity. However, a three-month warranty will be provided for the repair if the original warranty period has expired.
10. Any maintenance tasks described in the user manual must be performed in a timely manner.
11. For warranty claims, you must contact the point of sale where you purchased the item.

**EG-verklaring van overeenstemming - Declaration of conformity – EG- Konformitätserklärung - Declaration de conformite - Dichiarazion di conformita- Declaracion de conformidad**

Wij, We, Wir, Nous, Noi, La empresa,

**Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Nederland,**

verklaren geheel onder eigen verantwoordelijkheid dat het product

declare under our sole responsibility that the product

erklären in alleiniger Verantwortung, dass das Produkt

déclarons sous notre seule responsabilité que le produit

dichiariamo sotto la nostra responsabilità che il prodotto

declaramos bajo nuestra exclusiva responsabilidad que el producto

Type Model Type Type Tipo Tipo	Beschrijving Description Beschreibung Description Descrizione Descripción	Merk Brand Marke Marque Marca Marca
EW44	Auto. verduisterende lashelm Auto-darkening welding	Soldatech

Waarop deze verklaring betrekking heeft, in overeenstemming zijn met de volgende normen:

To which this declaration relates is in conformity with the following document:

Auf welches sich diese Erklärung bezieht, den folgenden Normen entspricht:

Auquel se réfère cette déclaration est conforme à le document suivant:

A cui si riferisce dichiarazione, corrisponde ai seguenti documenti:

Al que se refiere la presente declaración, corresponde a los siguientes documentos:

Europese Verordening, European Regulation, Europäische Verordnung, Règlement Européen, Regulamento Europeo, Reglamento Europeo:

**EU 2016/425**

Nederland, Maasbracht, 26-07-2024

**Directeur Valkenpower**



Serienummer  
Serial number:

Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Nederland

