SPARX SINGLE INSTRUCTION MANUAL

SparX Single
Professional Quality Grinding/Welding Helmet

WARNING **Read and Understand All Instructions Before Using the Equipment.**

SAFETY WARNINGS

This helmet can only resist a certain amount of heat. Please do not place hot electrode holders inside the helmet and please do not place the helmet near naked flames or hot work surfaces. Scratched or damaged visors and lenses must always be replaced if broken, damaged or covered with spatter to the extent that vision is impaired.

The user should conduct daily regular checks to ensure no damage is evident. Materials that may get in contact with the wearers skin could cause Allergic reactions to susceptible individuals. Eye-protectors against high speed particles worn over standard ophthalmic spectacles may transmit impacts, thus creating a hazard to the wearer.

We recommend a use of the helmet and visors for a period of 5 years. The duration of use depends on various factors such as use, cleaning storage and maintenance.
Please check regularly of the consumable components and replace if serviceability or visibility is suspected to be affected, and finally dispose when critical components not offered as spares are suspected to be damaged or if serviceability is affected.

- This helmet is not suitable for laser welding.
- Never place this helmet on a hot surface.
- This helmet will not protect against explosive devices or corrosive liquids.
- Do not make any modifications to either the lens or helmet, unless specified in this manual.
- Do not use replacement parts other than those speci fied in this manual. Unauthorized modifications and re placement parts will void the warranty and expose the operator to the risk of personal injury.
- Do not immerse the helmet in water.
- Do not use any solvents on the filter screen or helmet components.
- Storing temperature: -20 °C ~ +85 °C (- 4 °F ~ +185 °F). The helmet should be stored in dry cool and dark area, when not using it for a long time.
- Clean the lens surface regularly; do not use strong cleaning solutions. Regularly replace the cracked/ scratched/pitted front lens.

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1. INSTRUCTIONS FOR USE

Information manual for the Sparx Single welder protective helmets comply with Paragraph 1.4 of Appendix II of the EC Regulations.

Sparx Single helmets offer permanent protection against UV/IR rays, also face and eye protection from sparks caused by the welding process.

Do not look directly at the welding rays with unprotected eyes when the arc strikes. This can cause painful inflammation of the cornea and irreparable damage to the lens of the eye leading to cataracts.

2. STANDARDS

The SparX single design and manfucaturing process complies with CE EN175B EN166.

3. RANGE OF APPLICATION

The Sparx Single is a universal welding cutting and Grinding face shield. With the flip visor in its upper position, the user can have the protection of either a clear visor suitable for grinding or have the protection of a UV/IR shield for cutting or gas welding depending on the IR rating.

With the flip visor lowered, the user can achieve a potentially high IR rating up to shade 14.

In welding just prior to striking the arc, the user will have to look under the flip visor initially to position the welding rod or nozzle. Providing the main visor is UV/IR rated then the filter protects the user's eyes and skin completely against harmful radiation.
The recommended minimum safe working distance from the arc is 500 mm.

Please note that when adding the upper and lower visor shades together, the actual shade is one unit less i.e. shade 3 main Visor and shade 8 flip visor gives a combined protection at shade 10. For the recommended filter shades see the chart below.

Welding process or related techniques	Current internally in amperes														
	0.5	2.5	10	20	40	80	125	175	225	275	350	450			
	1	5	15	30	60	100	150	200	250	300	400	500			
E manual															
Flux core electrodes	8			9	10	11		12			13		14		
Fluxed stick electrodes															
MIG / Metal-inert-gas Argon (Ar/He)															
Steels, alloyed steels						10	11		12			13		14	
Copper & its alloys etc.															
MIG / Metal-inert-gas Argon (Ar/He)															
Aluminium, copper, nickel and other alloys						10	11		12		13		14		
TIG / Tungsten-inert gas Argon (Ar/H_2) (Ar/He)															
All weldable metals such as: steels, aluminium, copper, nickel and their alloys	8			9	10		11		12		13				
MAG / Metal-active gas (Ar/Co_2O_2) ($Ar/Co_2/He/H_2$)															
Construction steel, hardened & tampered steels					10	11	12		13			14			
Cr-Ni-steel, Cr-steel & other alloyed steels															
Electric arc compressed air joining															
(Melt joining) carbon electrodes (O_2)							10	11	12	13	14				
Flame grooving compressed air (O_2)															
Plasma cutting (fusion cutting)															
All weldable metals see WIG						11		12			13				
Centre and outer gas: Argon (Ar/H_2) (Ar/He)															
Plasma cutting (fusion cutting)															
Micro-plasma welding	4	5	6	7	8	9	10	11	12		13		14		
Centre and outer gas: Argon (Ar/H_2) (Ar/He)															
	1	5	15	30	60	100	150	200	250	300	400	500			
	0.5	2.5	10	20	40	80	125	175	225	275	350	450			

4. PREOPERATION AND OPERATION

Sparx Single grinding/ welding helmets are fully assembled and ready to be used after minor adjustments. All welding helmets are equipped with a comfortable headgear that can be adjusted in three different ways:

1. Push and move to adjust the "head height"
2. "Rake adjustment" to limit the upper and lower helmet positioning
3. Push and turn to adjust the "Head Size"

Before commencing work please inspect carefully the helmet and the passive glass for any visible marks, cracks, pitted or scratched surfaces; damaged surfaces even on protection plates reduce vision impair protection. If protection plates are scratched, damaged or built up with spatter please replace.

Welding helmets should not be dropped. Do not place heavy objects or tools on or inside the helmet as they might damage the components. If used properly, the welding filter requires no further maintenance during its lifetime.

5. SERVICE AND MAINTENANCE

Only clean the Sparx Single with mild soap and water. Dry with a clean cotton cloth.

Please note the use of solvents is strictly prohibited, as they will damage the mask and filters.

Scratched or damaged visors must always be replaced.

The user must make daily regular checks to ensure that there is no evident damage. Outer and Inner Visors are consumables and must be replaced regularly with genuine certified spare parts.

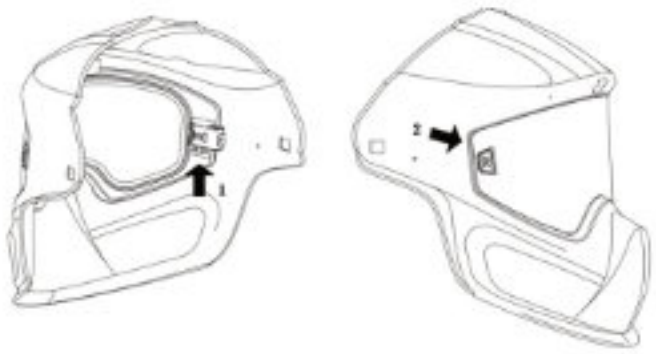
6. REPLACING THE LARGE VISOR

The Large Inner Visor is a protection lens and must be replaced if broken, damaged or covered with welding spatter to the extent that vision is impaired.

Push the plugs inside the helmet up, see position 1, the Inner Visor will be released from the helmet; Then pull the Inner Visor out, see position 2.

Insert the visor, it is necessary to locate the button into the corresponding hole in the helmet, then push the plugs inside the helmet down and lock the visor
The user must always make sure the Visor is fitted properly and is locked well and there are no visible gaps.

See the illustrations.



7. REPLACING THE OUTER FLIP VISOR

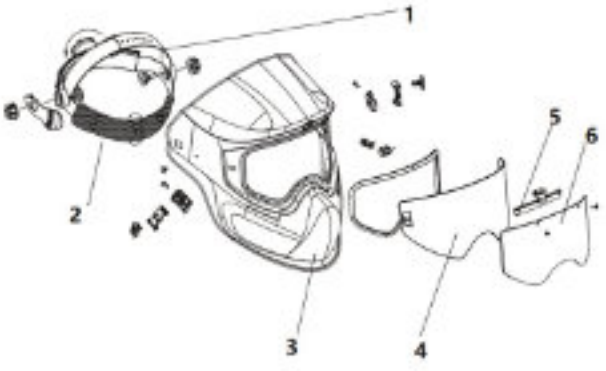
The Outer flip Visor is a protection lens and must be replaced if broken, damaged or covered with welding spatter to the extent that vision is impaired.

The Outer flip Visor is held on a visor holder which is fixed on the shell by two screws. To remove the Visor, loosen the two screws (No.1), The Visor (No.2) can then be removed.

To replace, change a new visor and fit onto the holder (No.3) by tighten the two screws

8. PART LIST AND ASSEMBLY

ITEM	DESCRIPTION	PART NO.
1	Headgear of Sparx Single	13.01.041
2	Sweat band of Headgear of Sparx Single	13.01.042
4	Large Inner Visor Sparx Single DIN 1 (clean)	13.02.411
4	Large Inner Visor Sparx Single DIN 2	13.05.005
4	Large Inner Visor Sparx Single DIN 3	13.05.006
4	Large Inner Visor Sparx Single DIN 5	13.05.007
5	Outer visor holder & screws (flip up clip)	13.05.003
6	Outer Flip Visor Sparx Single DIN 5	13.05.008
6	Outer Flip Visor Sparx Single DIN 8	13.05.009



9. SHADE CALCULATION

Sparx Single have various shade options. To calculate the shade of Sparx Single, plus the inner visor shade with outer visor shade, then minus 1(inner visor +outer visor-1).

Examples: Shade 9,
Inner Visor: Shade 2
Outer Visor: Shade 8
Total shade of the helmet :(8+2-1) =9

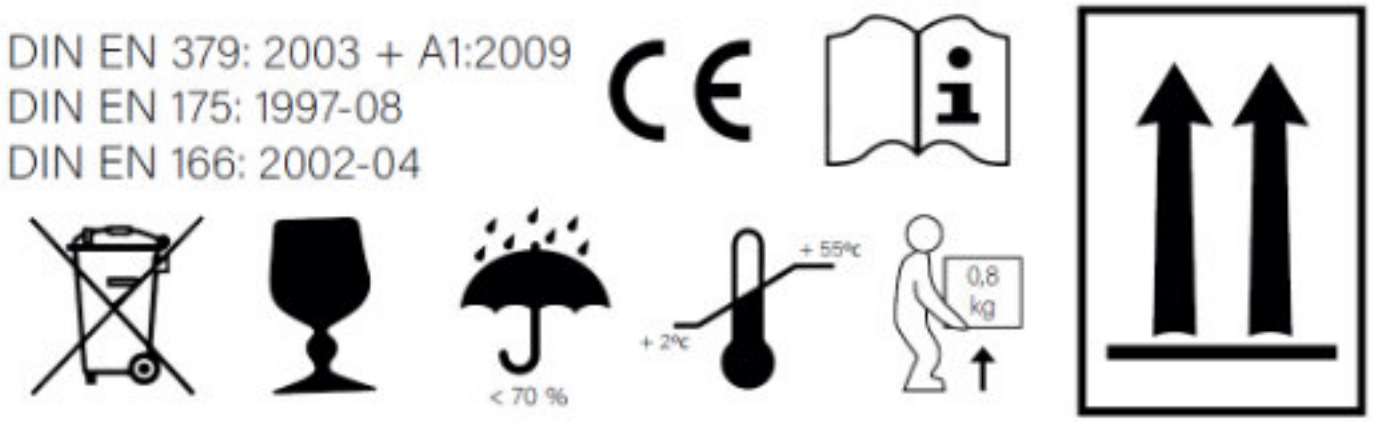
10. HELMET MARKING EXPLANATION

Helmet Marking Explanation:

EN175 B CE	- Manufacturer sign
EN175	- Number of Standard
B	- Symbol of protection against high speed particles (120 m/s)

Helmet Visor Marking Explanation:

CSS	- Producer
1	- Optical Classification
B	- Mechanical strength at 120 m/s
CE	- CE conformance mark



ATTENTION **if any of these conditions is not kept or followed, the warranty is automatically invalid.**