



**G30** 

**Grinding Welding Helmet** 

ESAB \*

# SAFETY WARNINGS - READ BEFORE USING

$\wedge$	WARNING	Δ
	Read & Understand All Instructions Before Using	

Welding helmets 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.

### WARNING

• This welding helmet is not suitable for laser welding.

• Never place this helmet on a hot surface.

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- 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 specified in this manual. Unauthorized modifications and replacement 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.

## **INSTRUCTIONS FOR USE**

WARNING! Before using the helmet	for w	elding,	ensure	that	you have read	and understood the safety
			-		-	-
		inst	ructions	s		

Information manual for the G30 welder protective helmets comply with Para 1.4 of Appendix II of the EC Regulations.

G30 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.

#### RANGE OF APPLICATION

WARNING! Before using the helmet for welding, ensure that you have read and understood the safety instructions.

The G30 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.

	Current internally in amperes																			
Walding presses or related	0	.5	2	.5		0	20	D	4(	3 0	30	12	25 1	75	225	27	75	350	4	50
Welding process or related			1		5	1	5	30	)	60	10	00	150	200	) 2	50	30	0	400	500
techniques																				
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	2			13	14
Copper & its alloys etc.																				
MIG / Metal-inert-gas Argon (Ar/He)																				
Aluminium, copper, nickel and other alloys											10		11	1	12		13		14	
TIG / Tungsten-Inert gas Argon (Ar/H <sub>2</sub> ) (Ar/He)																			1	
All weldable metals such as: steels, aluminium,				8				9		10			11 12		12	13		3		
copper, nickel and their alloys																				
MAG / Metal-active gas (Ar/Co2O2) (Ar/Co2/He/H2)																				
Construction steel, hardened & tampered steels										10 11		1	12 13		j		1	14		
Cr-Ni-steel, Cr-steel & other alloyed steels																				
Electric arc compressed air joining																				
(Melt joining) carbon electrodes (O <sub>2</sub> )												10	11		12	13	3	14		
Flame grooving compressed air (O <sub>2</sub> )																				
Plasma cutting (fusion cutting)																				
All weldable metals see WIG											1	1		12			13	3		
Centre and outer gas: Argon (Ar/H <sub>2</sub> ) (Ar/He)																				
Plasma cutting (fusion cutting)																				
Micro-plasma welding		5	6	7	8	9	10	D	1	1	12		1	13			14	1		
Centre and outer gas: Argon (Ar/H <sub>2</sub> ) (Ar/He)													_			_				
			1		5	1	5	30	,	60	10	00	150	200	) 2	50	30	0	400	500
	0	.5		.5	·	0	20		, 4(		30			75	225	27		350		50

Depending upon the application conditions, the next highest or next lowest protection level can be used. The darker fields correspond to those areas in which the corresponding welding process cannot be used.

# **PREOPERATION & OPERATION**

ESAB G30 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 four different ways:

- Push and move to adjust the "head height"
- "Rake adjustment" to limit the upper and lower helmet positioning
- Push and turn to adjust the "Head Size"
- Turn to adjust the "Distance from face"



- 1. Turn "Distance from face"
- 2. Push and move "Head height"
- 3. "Rake adjustment"
- 4. Push and turn "Head size"

Before commencing work please inspect carefully the welding 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.

# SERVICING AND MAINTENANCE

Only clean the G30 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 no damage is evident. Outer and Inner Visors are consumables and must be replaced regularly with genuine certified ESAB spare parts.

# **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.

The Inner Visor is easily removed by pushing it outwards from the inside of the helmet. To insert the lens, it is necessary to locate the bottom tag into the corresponding slot in the helmet, then locate the two side larger lugs and finally snap in the top lug.

The user must always make sure the Visor is fitted properly and that all the lugs are engaged and there are no visible gaps.

See illustration below.



1. Top lug & slot

### **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 in position with two quarter turn lugs. To remove the Visor, open the flip to its widest position and the turn the lugs so that they fall into the slots on the visor itself (See picture 2). The Visor can then be removed.

To replace, locate the visor into the slots inside the flip (see picture 3) and then engage the lugs in the two slots in the visor and quarter turn to secure.



# PARTS LIST & ASSEMBLY



Part List

ITEM	DESCRIPTION	PART NO.
	G30 Shade 10 (3+8-1)	0700 000 430
	G30 Shade 11 (2+10-1)	0700 000 431
1	Main shell	0700 000 515
2	Large Inner Visor G30 Clear (163 x54 x 2.2 mm) Irregular with longest and widest dimension: 163 x 54 mm	0700 000 501
2	Large Inner Visor G30 DIN 2 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 163 x 54 mm	0700 000 502
2	Large Inner Visor G30 DIN 3 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 163 x 54 mm	0700 000 503
2	Large Inner Visor G30 DIN 5 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 163 x 54 mm	0700 000 504
3	Outer Flip Visor G30 DIN 5 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 110 x	0700 000 505
3	Outer Flip Visor G30 DIN 8 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 110 x 149.5 mm	0700 000 506
3	Outer Flip Visor G30 DIN 10 (163 x 54 x 2 mm) Irregular with longest and widest dimension: 110 x 149.5 mm	0700 000 507
4	Flip up G30 holder including screws	0700 000 508
5	Head gear G30	0700 000 415
6	Sweat band head gear Pro	0700 000 414

# HELMET MARKING EXPLANATION

### Example for Helmet Marking Explanation:

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

#### Example for Inner Visor Marking Explanation:

	ESAB	1	В	CE
Producer				
Optical classification				
Mechanical strength at 120 m/sec				
EC conformance mark				

### Example for Outer Visor Marking Explanation:

	ESAB	1	F	CE
Producer Optical classification				
Mechanical strength at 45 m/sec				
EC conformance mark				

Symbols for mechanical strength

Symbol	Mechanical strength requirement
No symbol	Minimum robustness
S	Increased robustness
F	Low energy impact (45 m/s)
B	Medium energy impact (120 m/s)

If the symbols F, B and A are not common to both the ocular and the frame then it is the lower level which shall be assigned to the complete eye-protector.

The eye protector shall only be used against high speed particles at room temperature, not against high speed particles at extremes of temperatures.

# **CERTIFICATION & CONTROL LABELS**

The G30 welding filters are tested for eye protection by the following notified body: DIN Prüfund Zertifizierungsstelle für Augenschutz, Alboinstr.

56, D-12103 Berlin, notified body 0196 that provides approval and continual quality system under the control of the European Commission, the German

Ministry for Work and the Central Office of the Provinces

We are therefore allowed to use the following marks:



# EN 166:2002

European Conformity mark. This confirms that the product fulfils the requirements of the Directive 89/686/ EWG Address from DIN CERTCO Gesellschaft für Konformitätsbewertung mbH Alboinstr. 56, D-12103 Berlin



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