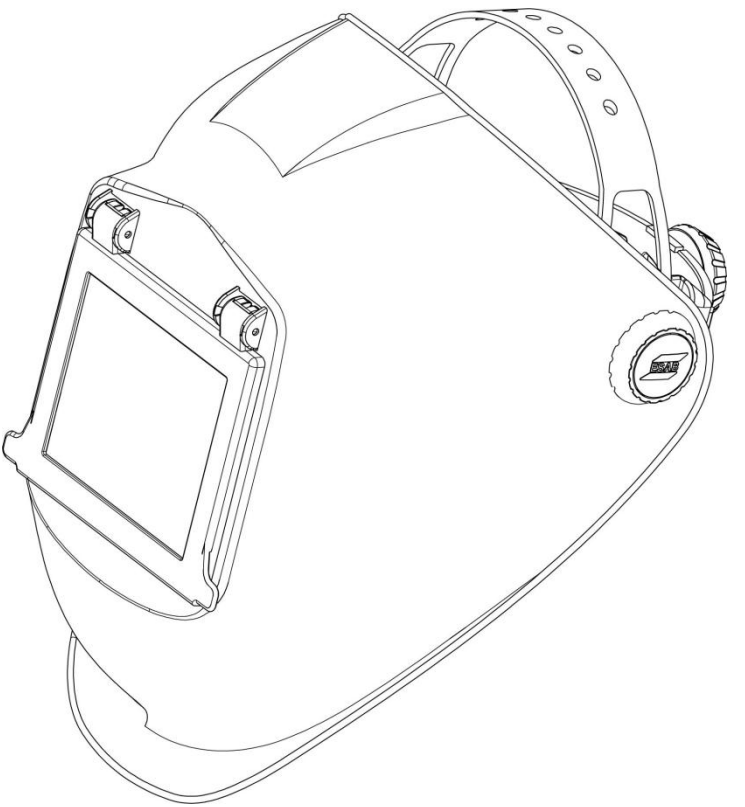
F20



Welding Helmet

Professional Quality Welding Helmet

SAFETY WARNINGS - READ BEFORE USING

WARNING
Read & Understand All Instructions Before Using

The welding helmets are designed to protect the eye and face from sparks, spatter and harmful radiation under normal welding conditions.
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 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.

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.
- 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 welding, ensure that you have read and understood the safety instructions.

Information manual for the F20 welder protective helmets comply with Para 1.4 of Appendix II of the EC Regulations.
F20 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.

ESAB welding helmets can be used for the majority of the arc welding applications and for TIG where stated. The welding lens provide protection against harmful UV- and IR-radiation according to the requirement for shade number marked on each passive glass model; eye protection remains as long as the flip up is in the down position covering the vision.

The following chart is presented as a reference for the selection of the most suitable shade for the welding filter:

<table>
<tr><th rowspan="3">Welding process or related techniques</th><th colspan="25">Current internally in amperes</th></tr>
<tr><th colspan="2">0.5</th><th colspan="2">2.5</th><th colspan="2">10</th><th colspan="2">20</th><th colspan="2">40</th><th colspan="2">80</th><th colspan="2">125</th><th colspan="2">175</th><th colspan="2">225</th><th colspan="2">275</th><th colspan="2">350</th><th colspan="2">450</th><th></th></tr>
<tr><th></th><th colspan="2">1</th><th colspan="2">5</th><th colspan="2">15</th><th colspan="2">30</th><th colspan="2">60</th><th colspan="2">100</th><th colspan="2">150</th><th colspan="2">200</th><th colspan="2">250</th><th colspan="2">300</th><th colspan="2">400</th><th colspan="2">500</th></tr>
<tr><td>E manual
Flux core electrodes
Fluxed stick electrodes</td><td colspan="7">8</td><td colspan="2">9</td><td colspan="2">10</td><td colspan="4">11</td><td colspan="5">12</td><td colspan="4">13</td><td>14</td></tr>
<tr><td>MIG / Metal-inert-gas Argon (Ar/He)
Steels, alloyed steels
Copper & its alloys etc.</td><td colspan="11"></td><td>10</td><td colspan="3">11</td><td colspan="5">12</td><td colspan="4">13</td><td>14</td></tr>
<tr><td>MIG / Metal-inert-gas Argon (Ar/He)
Aluminium, copper, nickel and other alloys</td><td colspan="11"></td><td>10</td><td colspan="3">11</td><td colspan="3">12</td><td colspan="3">13</td><td colspan="3">14</td><td></td></tr>
<tr><td>TIG / Tungsten-Inert gas Argon (Ar/H_2) (Ar/He)
All weldable metals such as: steels, aluminium, copper, nickel and their alloys</td><td colspan="7">8</td><td colspan="2">9</td><td colspan="3">10</td><td colspan="3">11</td><td colspan="3">12</td><td colspan="4">13</td><td colspan="3"></td></tr>
<tr><td>MAG / Metal-active gas (Ar/Co_2O_2) ($Ar/Co_2/He/H_2$)
Construction steel, hardened & tampered steels
Cr-Ni-steel, Cr-steel & other alloyed steels</td><td colspan="9"></td><td colspan="2">10</td><td colspan="2">11</td><td colspan="2">12</td><td colspan="5">13</td><td colspan="3">14</td><td colspan="2"></td></tr>
<tr><td>Electric arc compressed air joining
(Melt joining) carbon electrodes (O_2)
Flame grooving compressed air (O_2)</td><td colspan="13"></td><td colspan="2">10</td><td colspan="2">11</td><td colspan="2">12</td><td colspan="2">13</td><td colspan="2">14</td><td colspan="2"></td></tr>
<tr><td>Plasma cutting (fusion cutting)
All weldable metals see WIG
Centre and outer gas: Argon (Ar/H_2) (Ar/He)</td><td colspan="10"></td><td colspan="4">11</td><td colspan="4">12</td><td colspan="4">13</td><td colspan="3"></td></tr>
<tr><td>Plasma cutting (fusion cutting)
Micro-plasma welding
Centre and outer gas: Argon (Ar/H_2) (Ar/He)</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td colspan="2">10</td><td colspan="2">11</td><td colspan="3">12</td><td colspan="4">13</td><td colspan="6">14</td><td colspan="2"></td></tr>
<tr><td></td><td></td><td colspan="2">1</td><td colspan="2">5</td><td colspan="2">15</td><td colspan="2">30</td><td colspan="2">60</td><td colspan="2">100</td><td colspan="2">150</td><td colspan="2">200</td><td colspan="2">250</td><td colspan="2">300</td><td colspan="2">400</td><td colspan="2">500</td></tr>
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</table>

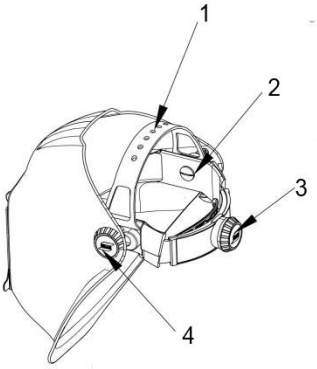
Depending upon the application conditions, the next highest or next lowest protection level can be used.
The darker fields correspond to those areas in which the corresponding welding process cannot be used.

The ESAB F20 welding helmets are suitable, but not limited to the following applications:
AC/DC pulses
Inverters WIG/TIG
Stick welding
Argon/Helium
MIG/MAG protective gas electrodes

PREPARATION & OPERATION

ESAB F20 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. Push and move “Head height”
2. “Rake adjustment”
3. Push and turn “Head size”
4. Turn “Distance from face”

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 passive glass requires no further maintenance during its lifetime.

SERVICING AND MAINTENANCE

Only clean the F20 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 the lens. Scratched or damaged visors must always be replaced.

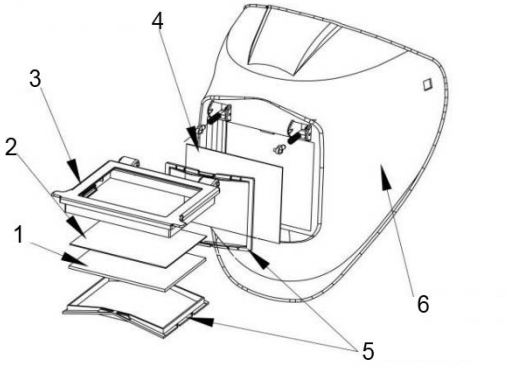
The user must make daily regular checks to ensure no damage is evident. Outer and Inner cover lens are consumables and must be replaced regularly with genuine certified ESAB spare parts.

REPLACING THE OUTER LENS

Lift the flip visor in its upper position, remove the lens buckle that holds the protective lenses and mineral glass replace the component(s) and make sure that you put them back in the same order. Replace the lens buckle if necessary. Make sure that the mineral glass stays within outer and inner protective lenses.

Follow the same procedure to replace the protective lens installed on the welding shell, simply remove the lens buckle that hold the cover lens from the inside part of the shell and replace with a suitable ESAB part.

See Image below

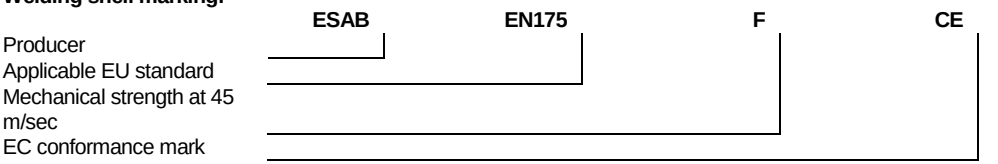


1. Mineral glass
2. Front cover lens
3. Flip
4. Inner protection lens
5. Lens buckle
6. Main shell

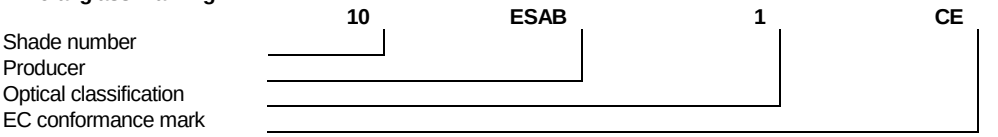
PRODUCT MARKING

Product marking

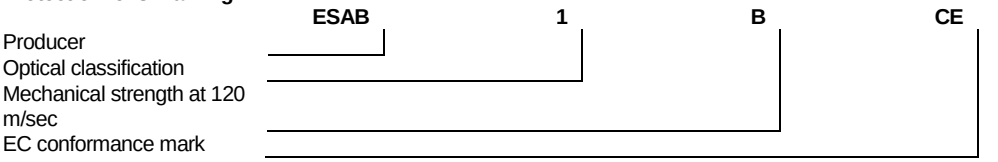
Welding shell marking:



Mineral glass marking:



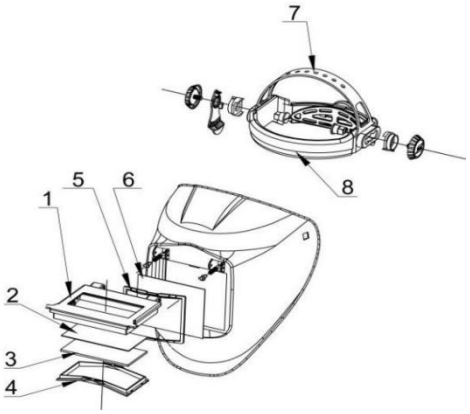
Protection lens marking:



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 temperature.

PARTS LIST & ASSEMBLY F20



ITEM	DESCRIPTION	PART NO.
0	Shell F20	0700 000 509
1	Visor Flip 60x110	0700 000 510
1	Visor Flip 90x110	0700 000 511
2	Front Cover Lens F20 60x110	0160 307 001
2	Front Cover Lens F20 90x110	0160 307 004
3	Mineral Glass 60x110 DIN 8	0160 292 000
3	Mineral Glass 60x110 DIN 9	0160 292 001
3	Mineral Glass 60x110 DIN 10	0160 292 002
3	Mineral Glass 60x110 DIN 11	0160 292 003
3	Mineral Glass 60x110 DIN 12	0160 292 004
3	Mineral Glass 60x110 DIN 13	0160 292 005
3	Mineral Glass 90x110 DIN 9	0760 031 631
3	Mineral Glass 90x110 DIN 10	0760 031 632
3	Mineral Glass 90x110 DIN 11	0760 031 633
3	Mineral Glass 90x110 DIN 12	0760 031 634
3	Mineral Glass 90x110 DIN 13	0760 031 635
4	Lens buckle 90X110	0760 031 633
4	Lens buckle 60X110	0160 292 003
5	Inner lens buckle	0700 000 524
6	Inner Protection Lens F20 90x110	0160 307 004
7	Headgear F20	0700 000 415
8	Sweatband F20	0700 000 414

CERTIFICATION & CONTROL LABELS

The F20 welding helmet are tested for eye protection by the following notified body: DIN Prüf- und 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:

CE

European Conformity mark. This confirms that the product fulfils the requirements of the Directive 89/686/ EWG

EN 166:2002

Address from
DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Alboinstr. 56 ,
D-12103 Berlin

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