

# FaceGuard™

## Heavy Duty Face Protection

Elvex proudly introduces an expanded and improved line of face protection products. Our product line is made up of standard headgear and visor brackets designed to accommodate the use of face shields on safety helmets, both with and without accessory slots.

## Headgear

We offer a standard UltiMate™ headgear (HG-25) and a heavy duty headgear (HG-35). Both are equipped with ratchet adjustment and a soft fabric sweatband, and have five swivel locks. They can carry all Elvex face shields and screens, and many competitive models. Elvex Heavy Duty headgear offers a brow guard and is molded in heat tolerant nylon.

## Visor Brackets

Elvex Visor Brackets (VB-10, VB-20 and VB-30) are designed to permit mounting of our full face shield program to most safety caps, and allows simultaneous use of cap mount ear muffs. There are four Visor Bracket models, with different configurations, designed to accommodate safety helmets with different beak lengths and angles (see reference on page 17). Our new VB-50 Visor Bracket is designed for high heat environments and for mounting to a safety helmet that lacks accessory slots.

## Universal Fit

Elvex face shields have a universal hole pattern, and fit all Elvex headgear and Visor Brackets as well as many competitive headgear.

## Face Shield Materials

**Lexan** (GE brand name), is a very impact resistant and heat tolerant material (up to 375°F), with limited scratch resistance. Lexan offers UV absorption characteristics (99% between 180-380 nm).

**Polycarbonate** is a material with similar properties to Lexan, described above.

**Hard Coatings** are used to provide improved chemical and abrasive resistance. Hard coatings can multiply the life expectancy of a face shield in some environments.

**Anti-fog coating** is available on select face shields, and may be required for some environments.

Please see fit chart for Visor Brackets to specific safety helmets on our website:  
[www.elvex.com/cap-mount-muffs.htm](http://www.elvex.com/cap-mount-muffs.htm)



FS-16PC on HG-25



FS-15PC on VB-30



FS-18L on VB-10

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HG-25 Ratchet headgear pictured  
(from left) with:

- FS-12PC Molded Aspherical Polycarbonate
- FS-12L Molded Aspherical Lexan
- FS-12LG Molded Aspherical Green Lexan

All FS-12 shield dimensions: 12" X 8" X 0.07"

HG-25 Ratchet headgear pictures  
(from left) with:

- FS-15L Molded Lexan
- FS-15LG Molded Green Lexan
- FS-15WS5 Welding Shade 5
- FS-15PC Molded Polycarbonate, not shown,  
looks like FS-15L
- FS-15CL Hard-coated molded Lexan, not  
shown, looks like FS-15L

All FS-15 shield dimensions: 15.5" X 8" X 0.07"

HG-25 Ratchet headgear pictured  
(from left) with:

- FS-16PC Molded Aspherical Polycarbonate
- FS-16PC-AF Molded Aspherical anti-fog coated  
Polycarbonate

All FS-16 shield dimensions: 16" X 8" X 0.07"

HG-35 Ratchet headgear pictured  
(from left) with:

- FS-18L Molded Lexan
- FS-18LG Molded Green Lexan
- FS-18CL Molded hard-coated Lexan, looks  
identical to FS-18L

All FS-18 shield dimensions: 18.5" X 10" X 0.07"



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**HG-25 Ratchet headgear pictured with:**  
**FS-18L-CP** Molded Lexan with chin protector

**HG-35 Ratchet headgear pictured with:**  
**FS-18GL** Gold and hard coated Lexan shield. Heat resistance is approximately 1800 degrees F.

All FS-18 shield dimensions: 18.5" X 10" X 0.07"



**HG-35 and HG-25 Ratchet headgear pictured (from left) with:**

**SV-15H** Steel mesh visor for heat applications

**SV-75** Steel visor for applications requiring air circulation



**Elvex Visor Brackets** pictured (from left) with:  
**FS-12L** 12" wide Lexan shield  
**FS-15L** 15.5" wide Lexan shield  
**FS-18L** 18.5" wide Lexan shield

**VB-10/20/30** accept all the face shield models shown above.



**Left picture:**

Elvex metal Visor Bracket, VB-50, shown on an MSA helmet, with a FS-15LG face shield.

**Right picture:**

HG-25 shown with our die cut commodity face shield, FS-15P



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## Elvex ARC-Shield™ Face Protection What is an Arc Flash Hazard?

An arc flash hazard is a dangerous condition associated with the release of energy caused by an electric arc. This explosive condition includes a broad spectrum of electromagnetic energy, plasma, fragments and a spray of molten materials.

## Who is exposed to Electric ARC Hazard?

Electrical workers, linesmen and electricians working with high voltage connections are sometimes exposed to the sudden release of energy that occurs during an electrical arc. This is a very dangerous condition, which can result in serious burns and death. It is now required that electrical workers use face protection meeting similar requirements. The National Fire Protection Association's standard NFPA 70E-2008 establishes Hazard or Risk categories, as shown in the table below. Elvex ARC-Shields are suitable for use in hazard/risk categories 1 and 2. The minimum Arc Thermal Performance Value (ATPV) has been established to be 5 cal/cm<sup>2</sup> and 8 cal/cm<sup>2</sup> for these two risk categories. (Cal/cm<sup>2</sup> stands for calories per square centimeter).

## Key Benefits of Elvex ARC-Shield Solution

- Protection value (ATPV) for Elvex FS-18ARC10 and FS-20ARC10 is 8 cal/cm<sup>2</sup>
- Model FS-20ARC is equipped with a chin protection
- Elvex ARC-Shields have excellent visible light transmission (VLT): 60% average VLT and 70% peak VLT.
- Shields come with standard anti-fog coating
- Shields fit Elvex Visor Brackets (VB-10, VB-20 and VB-30) for mounting to safety caps
- Face and hearing protection can be used simultaneously on safety caps
- Elvex system can be adapted to most major brands of slotted safety caps

## Face & Head Protection Matrix adapted from NFPA 70E-2008

Highlighted area shows Hazard/Risk Categories where NFPA 70E-2008 considers Arc shields as adequate protection. OSHA regulation has similar requirements.

Hazard/Risk Category adapted from NFPA 70E-2000	Head and Face Protection adapted from NFPA 70E-2000	Minimum ATPV in cal/cm <sup>2</sup>
0	Safety Glasses ARC Shield optional	N/A
1	Safety Glasses, ARC Shield Safety Helmet	5
2	Safety Glasses, ARC Shield Safety Helmet	8
2*	Safety Glasses, Switch Hood Safety Helmet	8



Elvex ARC-Shield, FS-18ARC10, on Visor Bracket, VB-10, mounted with Slot Adapters, SA-93.



Elvex ARC-Shield, FS-18ARC10, on Visor Bracket, VB-30, and cap mount earmuffs, HM-6030.



Elvex ARC-Shield, FS-20ARC10, on Visor Bracket, VB-10, mounted with Slot Adapters, SA-93.