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### 2007 Hearing, Eye, Face, Head, Chain Saw Protection



Website: www.elvex.com



### **OSHA's Hearing Conservation Requirements**

Whenever feasible, employers are required to reduce the noise at the source through engineering solutions. When this is not possible or economically feasible it is acceptable to use hearing protection as a temporary solution. The term hearing conservation as defined by OSHA includes the following aspects, which the employer is responsible to carry out:

- Monitoring of the noise environment. If the TWA (Time Weighted Average) noise level is exceeding 85 dB(A), a hearing conservation program is required.
- Selecting hearing protection devices appropriate for the environment or environments at hand. Several different types of hearing protectors are required to be offered to the employees in order to introduce a level of personal choice. The employer is responsible to pay for the original equipment as well as replacements. The employees are required to use the hearing protection, and the employer is responsible for the enforcement.
- Training and educating employees in the proper use of hearing protection and the importance of full time use of hearing protectors when working in a noisy environment. Education and training is considered an essential and ongoing activity.
- Establishing a baseline audiogram for each noise exposed employee, and performing annual hearing tests thereafter in order to monitor the hearing health of the employees. Have the audiograms evaluated by an audiologist or physician.
- Take corrective action when it is concluded that noise induced hearing damage is occurring. Corrective action can entail further education and training in the use and importance of full time use of hearing protection. Seeking the use of hearing protectors better suited to the environment and the individual. Using, what is called administrative controls, which simply means to reduce the exposure time for the employee in question. If these efforts fail, an employee may be transferred to a quieter job.
- The above summary of OSHA's hearing conservation requirements is not intended to be complete. The complete regulation (29CFR-1910.95) is available on the internet. You can access it from Elvex website, by clicking on "Resources" on our home page, www.elvex.com.

### **Some Sound Advice!**

#### **OSHA's Permissible Noise Exposure**

| 90 dB  | 8.0 hours  |
|--------|------------|
| 92 dB  | 6.0 hours  |
| 95 dB  | 4.0 hours  |
| 97 dB  | 3.0 hours  |
| 100 dB | 2.0 hours  |
| 102 dB | 1.5 hours  |
| 105 dB | 1.0 hours  |
| 110 dB | 30 minutes |
| 115 dB | 15 minutes |
|        |            |

#### How to use the NRR

When the dB(C) noise level is known, you don't have to adjust the NRR: Noise level at ear: dB(C) - NRR  $\leq$  90 dB

When the noise level is known in dB(A) the NRR must be reduced by 7 dB: Noise level at ear: dB(A) -  $[NRR -7] \le 90$  dB

#### **Overprotection can be a problem!**

Selecting a high NRR hearing protector for an environment where only good high frequency attenuation is needed, will lead to unnecessary insulation and communication difficulties.

#### **Field Attenuation**

It has been proven in many studies that hearing protectors are not as effective in the field, as the laboratory numbers indicate. In the laboratory the hearing protectors are used correctly, while in many field situations they are not. Employees are either not trained or motivated to make the effort to use the protectors in a correct way. NIOSH recommends a de-rating of 50-70% for earplugs and 25% for earmuffs.

#### Is Your Program Working?

How do you know if your hearing conservation program is working? The answer is in your annual audiograms. If they do not show any new noise induced hearing damage, your program is working.



### Quattro

#### Elvex Quattro™ Ear Plugs

Quattro is a universal size reusable ear plug, designed to be used over and over again, with maintained comfort and effectiveness. Elvex Quattro offers the following features:



CE

**EP-412** 

ANSI

- A four flange design that allows this ear plug to fit almost all ear canals.
- **EP-401**
- An ultra-soft polymer provides a comfortable and effective seal.
- A sturdy and stiff handle that allows an easy grip for insertion and removal.
- Material is resistant to ear wax and body oils, and will outlast PVC ear plugs by many months.
- Polymer is non-allergenic and non-irritating to the sensitive skin in the ear canal.
- Noise Reduction Rating is 25 dB, and the test was performed to ANSI S3.19-1974 at an independent and certified laboratory, NVLAP #0427.
- Quattro has been assigned U.S. Military national stock numbers.

### **Packaging Alternatives**

Elvex Quattro is available in six different versions.

- **EP-401** Standard Quattro ear plugs packaged in individual poly-bags. 100 per dispenser box, 4 boxes per carton.
- EP-411 Corded Quattro ear plugs packaged in individual poly-bags. 100 per dispenser box, 4 boxes per carton.
- PVC-Corded Quattro packaged **EP-413** in individual poly-bags. 100 per dispenser box, 4 boxes per carton.
- **EP-402** Standard Quattro ear plugs, with plastic case and chain, packaged in individual poly-bags. 50 units per box, 4 boxes per carton.
- **EP-412** Corded Quattro ear plugs, with plastic case and chain, packaged in individual poly-bags. 50 units per box and 4 boxes per carton.
- **EP-415** Metal detectable, corded Quattro ear plugs in individual poly-bags. 100 per box, 4 boxes per carton.



| •,                |                  |      |      |      |      |      |      |      | 1    |    |    |    |     |
|-------------------|------------------|------|------|------|------|------|------|------|------|----|----|----|-----|
| CE<br>-352-2:1993 | Frequency, Hz    | 63   | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 | H  | M  | L  | SNR |
| щŅ                | Mean Value, dB   | 25.1 | 26.8 | 25.7 | 26.5 | 25.2 | 32.9 | 33.9 | 39.4 |    |    |    |     |
| 352 C             | Std. Deviation   | 5.7  | 4.7  | 5.7  | 5.7  | 4.2  | 4.8  | 5.2  | 6.7  | 27 | 22 | 21 | 26  |
| Ë                 | Protection Value | 19.4 | 22.1 | 20.0 | 20.8 | 21.0 | 28.1 | 28.7 | 32.7 |    |    |    |     |

### Uni-Fit

#### Elvex Uni-Fit,™

#### Foam Ear Plugs with higher rating and easier insertion

Elvex Uni-Fit foam ear plugs use a slow expansion Polyurethane foam, that makes it easier for inexperienced users to make a good insertion. A correctly inserted plug will allow the user to get the benefit of the excellent attenuation. It is a known fact that laboratory attenuation data often cannot be achieved in the field, as a result of poor user insertion technique. With slow expansion foam, the user gets a better chance of achieving a good fit.

NEW PRODU(

#### **Elvex Uni-Fit Features:**

- Elvex Uni-Fit has a Noise Reduction Rating of 31 dB. Tested to ANSI S3.19-1974 at an independent and certified laboratory.
- Uni-Fit is also CE certified and tested to EN-352 by INSPEC Laboratories in the UK. Single Number Rating (SNR) is 36 dB.
- Elvex Uni-Fit foam ear plugs are easy to insert correctly due to their tapered shape and slow expansion rate.
- The smooth surface and low pressure foam provide the most comfortable fitting foam ear plugs on the market.
- One size fits all! The dimensions of Elvex Uni-Fit allow virtually every ear canal to be correctly fitted.
- Multilingual Packaging; English, Spanish and French, assures that proper usage information is available where the ear plugs are dispensed.
- Available in standard and corded versions.
- **EP-101** Standard, 200 pairs per dispenser box, 5 boxes per carton.
- **EP-113** PVC-corded, 100 pairs per dispenser box, 5 boxes per carton.

Attenuation properties of Elvex Uni-Fit ear plugs:

| I<br>974       | Frequency, Hz    | 125  | 250  | 500  | 1000 | 200  | 0 31 | 50 | 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|----------------|------------------|------|------|------|------|------|------|----|------|------|------|----|----|----|-----|
| ANSI<br>19-19  | Mean Value, dB   | 39.9 | 42.2 | 43.6 | 39.5 | 38.4 | 46.  | 0  | 47.9 | 48.4 | 48.8 | 38 | 27 | 27 | 31  |
| S3             | Std. Deviation   | 5.3  | 5.8  | 5.5  | 4.3  | 3.0  | ) 4. | 9  | 3.7  | 5.0  | 4.1  | 30 | 57 | 57 | JI  |
|                |                  |      |      |      |      |      |      |    |      |      |      |    |    |    |     |
| 002            | Frequency, Hz    | 63   | 125  | 250  | ) 50 |      | 1000 | 20 | 000  | 4000 | 8000 | н  | М  | L  | SNR |
| E<br>-2:2002   | Mean Value, dB   | 33.2 | 35.6 | 35.8 | 3 38 | .8   | 37.4 | 38 | 3.7  | 46.9 | 44.4 |    |    |    |     |
| 352            | Std. Deviation   | 4.5  | 6.2  | 7.0  | ) 6  | .3   | 6.0  | 5  | 5.O  | 4.8  | 5.2  | 35 | 33 | 31 | 36  |
| CE<br>EN-352-2 | Protection Value | 28.7 | 29.4 | 28.8 | 32   | .5   | 31.4 | 33 | 3.7  | 42.1 | 39.2 |    |    |    |     |







# HEARING PROTECTION

### BLUE

### A Plug for Today's Demands

Today's hearing protection users demand a high level of comfort, excellent noise reduction properties as well as ease of insertion. Elvex Blue offers all that and more.

Safety and health professionals demand a foam ear plug which is easy to administer and offers a high level of hygiene. They also require a plug which provides excellent attenuation, is visually easy to monitor as well as meets with employee acceptance. Elvex Blue satisfies all these demands and more.

### **Elvex Blue Features:**

- Elvex Blue has a Noise Reduction Rating of 29 dB. Tested to ANSI S3.19-1974 at an independent and certified laboratory.
- Elvex Blue foam plugs are easy to insert correctly due to their tapered shape and moderately slow expansion rate.
- The smooth surface and low pressure foam provide the most comfortable fitting foam plug on the market.
- One size fits all! The dimensions of Elvex Blue allow virtually every ear canal to be correctly fitted.
- Elvex Blue's intensive color makes it easy to monitor and enforce ear plug usage.
- Multilingual Packaging, English, Spanish and French, assures that proper usage information is available where the plugs are dispensed.
- Available in standard and corded versions.
- **EP-201** Standard, 200 pairs per dispenser box, 5 boxes per carton.
- **EP-211** Corded, 100 pairs per dispenser box, 5 boxes per carton.

| I<br>974    | Frequency, Hz  | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|-------------|----------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
| ANS<br>19-1 | Mean Value, dB | 35.0 | 38.0 | 37.2 | 36.7 | 35.8 | 40.3 | 40.7 | 41.3 | 42.5 | 34 | 21 | ეე | 20  |
| S3-         | Std. Deviation | 4.7  | 4.4  | 3.7  | 3.4  | 2.6  | 3.2  | 4.1  | 4.3  | 4.7  | 34 | 34 | 33 | 29  |









### GelPods

### **Banded Ear Pod for Ultimate Comfort**

### What is the advantage of a Banded Ear Pod versus Ear Plugs or Ear Muffs?

A banded pod is easier to insert than an ear plug, and since it is kept in place by the headband force, it does not have to be as deeply inserted. Since the pod part does not have to stay in the ear canal with friction it can also use softer and more flexible composites, allowing a higher degree of comfort. An ear pod can be cooler than an ear muff, which can be very critical in some environments. Generally ear muffs provide higher noise reduction properties than ear pods or canal caps.

### What is the difference between a Banded Ear Pod and a Banded Canal Cap/Plug?

Our definition of an ear pod is a device that seals the ear canal opening, but applies most of the force of the headband in the outer ear. A banded canal cap/plug on the other hand is a device which enters the ear canal or ear canal opening and the headband force is not applied in the outer ear. An ear pod has the tendency to be more comfortable than a canal cap, but the canal cap generally provides higher attenuation.



#### **Elvex New GelPods and GelCaps**

Our new GelPods and GelCaps are both innovative products, that provide several improvements:

- Pods/Caps are made from a unique composite three times as soft as the softest reusable silicone ear plug.
- Both devices have extraordinary sound reduction properties in the low and high frequencies. Tested to ANSI S3.19-1974 and EN-352-2.
- Attenuation in the speech frequencies is flat in order to allow speech communication in noisy environments. Both GelPods and GelCaps offer this feature, but the GelCaps provide generally higher attenuation.
- **GP-10** GelPods, Banded Ear Pods, 18 dB NRR, 22 dB SNR
- GC-20 GelCaps Banded Ear Canal Caps, 23 dB NRR, 23 dB SNR



| 974    | Frequency, Hz    | 125  | 250  | 500  | 1000 | 2000 | 315  | 0  | 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|--------|------------------|------|------|------|------|------|------|----|------|------|------|----|----|----|-----|
| 19-1   | Mean Value, dB   | 28.5 | 25.2 | 22.3 | 22.1 | 31.8 | 38.  | 1  | 39.3 | 40.8 | 39.1 | 27 | 20 | 20 | 10  |
| S3-    | Std. Deviation   | 4.6  | 4.0  | 3.5  | 3.5  | 3.2  | 2.9  | 9  | 3.8  | 3.0  | 3.8  | 21 | 20 | 20 | 10  |
|        |                  |      |      |      |      |      |      |    |      |      |      |    |    |    |     |
| 2:1993 | Frequency, Hz    | 63   | 125  | 250  | 50   | 10   | 000  | 20 | 000  | 4000 | 8000 | Н  | М  | L  | SNR |
| -2:1   | Mean Value, dB   | 20.8 | 23.3 | 20.4 | 19   | .1 2 | 21.0 | 29 | 9.9  | 34.2 | 36.2 |    |    |    |     |
| 352-   | Std. Deviation   | 6.7  | 6.5  | 4.2  | 5    | .1   | 3.4  | 2  | 2.7  | 3.0  | 7.4  | 25 | 18 | 16 | 22  |
| ËN     | Protection Value | 14.1 | 16.8 | 16.2 | 14.  | .0   | 17.6 | 27 | 7.2  | 31.2 | 28.8 |    |    |    |     |



| I<br>974       | Frequency, Hz    | 125  | 250  | 500  | 1000 | 2000 | 315  | 0 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|----------------|------------------|------|------|------|------|------|------|--------|------|------|----|----|----|-----|
| ANSI<br>-19-19 | Mean Value, dB   | 33.5 | 31.9 | 31.2 | 29.6 | 36.7 | 42.5 | 5 42.5 | 42.2 | 41.8 | 30 | 97 | 27 | 23  |
| S3-            | Std. Deviation   | 4.5  | 4.6  | 4.6  | 4.1  | 4.7  | 4.7  | 7 5.3  | 5.1  | 4.5  | 32 | 21 | 21 | ZJ  |
|                |                  |      |      |      |      |      |      |        |      |      |    |    |    |     |
| 993            | Frequency, Hz    | 63   | 125  | 250  | 50   | 10   | 000  | 2000   | 4000 | 8000 | Н  | М  | L  | SNR |
| E<br>-2:1993   | Mean Value, dB   | 24.1 | 27.1 | 25.7 | 21   | .6 2 | 2.2  | 32.6   | 38.1 | 38.8 |    |    |    |     |
| CI<br>EN-352-  | Std. Deviation   | 5.0  | 5.3  | 4.4  | 5    | .1   | 4.3  | 5.2    | 4.7  | 7.4  | 26 | 19 | 19 | 23  |
| Ë              | Protection Value | 19.1 | 21.8 | 21.3 | 16   | .5 1 | 7.9  | 27.4   | 33.4 | 31.4 |    |    |    |     |



# **HEARING PROTECTION**

## **ValueMuff**

### ValueMuff,<sup>™</sup> Comfort and Protection

Most buyers and users of ear muffs are looking for a product that offers great looks, good comfort and attenuation at a reasonable price. The following features needed and wanted by most buyers are offered by Elvex ValueMuff:

- Soft and pliable SuperSeal™ ear cushions.
- Low headband force and light-weight, 6.8 oz.
- Ease of adjustments with flexible slide clips.
- Capable of multi-position use, support strap available (SS-25).
- Noise Reduction Rating of 25 dB NRR as tested to ANSI S3.19-1974. Single Number Rating of 28 dB as tested to EN-352-1. Tests performed at independent and certified laboratories.
- Dielectric construction.
- A competitive price, well below any corresponding competitive product, with similar NRR.

HB-25 ValueMuff, 25 dB NRR, 28 dB SNR

HK-25 Hygiene Kit, ear cushions & foam pads

### MaxiMuff

#### MaxiMuff,<sup>™</sup> High Performance Economy Ear Muff, 28 dB NRR

With Elvex MaxiMuff you get all the features and performance without paying the price that normally is associated with a high performance product.

- SuperSeal ear cushions for long term comfort.
- A soft cushioned headband.
- Low headband force for great comfort.
- Self-aligning suspension, and easy adjustment.
- Multi-position use with Support Strap (SS-25).
- Noise Reduction Rating of 28 dB as tested to ANSI S3.19-1974. Single Number Rating of 30 dB as tested to EN-352-1. Tests performed at independent and certified laboratories.
- Dielectric construction.
- Sophisticated design and durable materials.
- Best price in its performance class.

| HB-35 | MaxiMuff, 28 dB NRR, 30 dB SNR |  |
|-------|--------------------------------|--|
|       |                                |  |

| HK-35 Hygiene Kit, ear cushions & foam | pads |
|--|------|
|--|------|



| I<br>974       | Frequency, Hz  | 125  | 250  | 500  | 1000  | 2000 | 3150  | 4000 | 6300 | 8000 | H            | М  | L  | NRR |
|----------------|----------------|------|------|------|-------|------|-------|------|------|------|--------------|----|----|-----|
| ANSI<br>19-19  | Mean Value, dB | 13.1 | 19.8 | 29.3 | 37.6  | 36.7 | 33.3  | 36.3 | 36.6 | 35.6 | 32           | 28 | 10 | 25  |
| ŝ              | Std. Deviation | 2.0  | 1.7  | 1.8  | 1.8   | 2.0  | 2.2   | 2.9  | 4.0  | 2.1  | 33           | 20 | 19 | ۲J  |
| ~              |                |      | 1    | _    |       |      |       |      |      |      |              |    |    |     |
| :<br>1:1993    | Frequency, Hz  | 63   | 125  | 250  | ) 50  | 0 10 | 000 2 | 2000 | 4000 | 8000 | H            | М  | L  | SNR |
| <u>.</u>       | Mean Value, dB | 13.6 | 13.4 | 18.3 | 3 26. | 8 3  | 5.5 3 | 3.2  | 32.8 | 33.2 |              |    |    |     |
| шΤ             |                |      |      |      |       |      |       |      |      |      | $\mathbf{n}$ |    | 47 | 00  |
| CE<br>EN-352-1 | Std. Deviation | 3.2  | 3.4  | 2.4  | 2.    | 8 3  | 3.4   | 4.0  | 2.6  | 3.4  | 30           | 25 | 17 | 20  |



| 974   | Frequency, Hz    | 125  | 250  | 500  | 1000 | 200  | 0 315  | 0 400 | 10 | 6300 | 8000 | Н  | М  | L  | NRR |
|-------|------------------|------|------|------|------|------|--------|-------|----|------|------|----|----|----|-----|
| 19-1  | Mean Value, dB   | 17.6 | 24.1 | 32.6 | 39.9 | 37.6 | 6 37.0 | 37.   | 9  | 40.0 | 40.2 | 36 | 31 | ეკ | 28  |
| S3-   | Std. Deviation   | 2.0  | 2.0  | 2.4  | 3.2  | 2.6  | 5 1.9  | 9 2.  | 6  | 2.2  | 2.4  | 30 | 51 | 20 | 20  |
|       |                  |      |      |      |      |      |        |       |    |      |      |    |    |    |     |
| :1993 | Frequency, Hz    | 63   | 125  | 250  | 50   | 0    | 1000   | 2000  | 4  | 000  | 8000 | Н  | М  | L  | SNR |
| 171   | Mean Value, dB   | 14.6 | 14.2 | 22.3 | 32   | .2   | 37.4   | 34.1  | 3  | 33.7 | 36.8 |    |    |    |     |
| 352   | Std. Deviation   | 4.2  | 3.7  | 3.5  | 3.   | .2   | 4.3    | 3.1   |    | 3.2  | 2.7  | 32 | 28 | 18 | 30  |
| ËŅ    | Protection Value | 10.4 | 10.5 | 18.8 | 29   | .0   | 33.1   | 31.0  | 3  | 30.5 | 34.1 |    |    |    |     |

otection Value 10.4 10.0

ANSI

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### <u>UltraSonic</u>

### **UltraSonic**,<sup>™</sup> High Performance Muff

Elvex UltraSonic earmuff is our latest high performance muff with a stainless steel headband. It replaces our model HB-50. This model has been designed to provide excellent full spectrum attenuation, as well

as superb low frequency attenuation. UltraSonic uses a fork type headband for even distribution of pressure, and improved balance required for extra deep ear cups.

- 29 dB NRR from certified US laboratory to ANSI S3.19-1974. and 34 dB SNR tested to CE EN-352-1
- Superb full spectrum attenuation
- Extra wide ear cushions and a soft padded head cushion for the highest comfort
- Low force stainless steel headband, also tolerates temperature extremes
- Lightweight construction: 10.1 oz. or 278 g.
- You get the ultimate performance and comfort with this muff
- **HB-650** UltraSonic high performance muff, 29 dB NRR, 34 dB SNR.
- **HB-550** UltraSonic foldable high performance muff, 27 dB NRR.
- **HK-650** Hygiene kit, ear cushions and foam absorbers.

### Fittliner

#### **Maximum Comfort**

Elvex Flat-Liner was originally designed to provide flat attenuation for 500 Hz and up, but the market has sho

no interest in this concept. That's why we have redesigned this product to offer a medium level of attenuation and absolutely maximum level of comfort. This is how we maximized comfort:

- Low headband force
- · Soft, wide ear cushions in order to distribute the force over a larger surface area
- Steel headband tolerates temperature extremes without losing force
- 26 dB NRR from certified US laboratory to ANSI S3.19-1974, and 32 dB SNR to CE EN-352-1
- This earmuff may just have the right attenuation for most noise environments.
- **HB-640** Flat-Liner Muff, max comfort, 26 dB NRR, 32 dB SNR
- **HK-640** Hygiene kit, ear cushions and foam absorbers
- **SGB-30** Storage bag for muffs



29 Frequency, Hz 63 125 250 500 1000 2000 4000 8000 н М L SNR Mean Value, dB 19.3 19.3 26.1 34.0 39.6 35.1 43.5 38.9 35 32 24 34 Std. Deviation 3.8 2.7 2.8 2.6 3.2 3.0 2.9 5.2 15.5 Protection Value 16.6 23.3 31.4 36.4 32.1 40.6 33.7 1

NRR



| 62    | Frequency, Hz    | 125  | 250  | 500  | 1000 | 2000 | 0 315 | 0 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|-------|------------------|------|------|------|------|------|-------|--------|------|------|----|----|----|-----|
| 19-1  | Mean Value, dB   | 17.8 | 25.0 | 34.0 | 35.8 | 31.9 | 35.9  | 35.2   | 38.3 | 39.2 | 20 | 29 | 23 | 26  |
| S3-   | Std. Deviation   | 2.4  | 2.9  | 2.6  | 2.9  | 1.6  | 6 3.0 | 2.4    | 3.5  | 4.1  | 32 | 29 | 20 | 20  |
|       |                  |      |      |      |      |      |       |        |      |      |    |    |    |     |
| :2002 | Frequency, Hz    | 63   | 125  | 250  | 50   |      | 1000  | 2000   | 4000 | 8000 | Н  | М  | L  | SNR |
| 1771  | Mean Value, dB   | 18.1 | 15.7 | 24.4 | 34   | .8   | 41.1  | 33.0   | 38.4 | 37.4 |    |    |    |     |
| 352-  | Std. Deviation   | 3.1  | 2.8  | 2.3  | 3.   | .3   | 2.8   | 2.2    | 3.0  | 3.4  | 33 | 30 | 21 | 32  |
| Ч.    | Protection Value | 15.0 | 12.9 | 22.1 | 31.  | .5   | 38.3  | 30.8   | 35.4 | 34.0 |    |    |    |     |

Innovative solutions. Always a step ahead.



19-197

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CE 34 SNR





|          | CC 32 SNR |
|----------|-----------|
|          |           |
|          |           |
| t<br>own |           |
|          |           |

### SuperSonic<sup>®</sup>

### **THIRD** GENERATION



Elvex SuperSonic muff is one of only a few ear muffs that have achieved a 29 dB NRR rating at an independent and certified laboratory in accordance with ANSI S3.19-1974. Superior performance has been achieved in these measurable criteria:

- 29 dB Certified NRR to ANSI S3.19-1974
- New generation has improved attenuation over the full frequency range
- The SuperSonic muff has one of the lowest weights in its class, 9.4 oz or 268 g.
- SuperSonic has low headband force, and a pressure equalizing headband provides even fit and seal for a wide variety of facial configurations and sizes
- SuperSeal<sup>™</sup> ear cushions provide outstanding seal and comfort
- A flexible suspension allows muffs to automatically adjust to facial shape
- A dielectric construction for environments with exposure to high voltage situations
- HB-5000 SuperSonic, 29 dB NRR HK-30 Hygiene Kit, ear cushions & foam pads, (manufactured before June 2006)
- HK-5000 Hygiene Kit, ear cushions & foam pads, (manufactured after June 2006)

# Equalizer

THIRD GENERATION



| I<br>974     |                |      |      |      |      |      | 3150 |      |      |      |    | М  | L  | NRR |
|--------------|----------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
| ANSI<br>19-1 | Mean Value, dB | 20.3 | 25.6 | 37.4 | 40.2 | 36.4 | 36.4 | 42.8 | 41.4 | 40.0 | 27 | 21 | າດ | 20  |
| S3           | Std. Deviation | 2.6  | 2.0  | 2.6  | 2.9  | 2.3  | 2.6  | 2.6  | 2.4  | 1.7  | 37 | 54 | 20 | 29  |

### Equalizer™ 26

Elvex Equalizer muff may be the ultimate compromise between comfort and performance. It offers most of the features of the SuperSonic muff, but has a lower profile ear cup, and excellent comfort. Most environments do not require maximum attenuation, and the Equalizer maximizes speech communication in moderate noise environments. Additional features of the Equalizer muff:

- 27 dB Certified NRR to ANSI S3.19-1974
- New generation has improved attenuation and improved NRR
- A flexible inner headband aligns automatically to the shape of the head
- Fully dielectric construction
- Low equalized headband force
- Lightweight construction, 8.0 oz. or 228 g.
- Flexible Polyurethane suspension for automatic alignment, and noise insulation
- HB-2000 Equalizer, 27 dB NRR
- **HK-30** Hygiene Kit, ear cushions & foam pads, (manufactured before June 2006)
- **HK-2000** Hygiene Kit, ear cushions & foam pads, (manufactured after June 2006)

| 974              | Frequency, Hz  | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | н  | М  | L  | NRR |
|------------------|----------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
| ANSI<br>-19-1974 | Mean Value, dB | 18.6 | 21.2 | 34.0 | 36.6 | 36.8 | 36.2 | 37.6 | 38.8 | 38.7 | 26 | 20 | າວ | 97  |
| ŝ                | Std. Deviation | 2.6  | 1.9  | 2.2  | 2.2  | 2.5  | 2.7  | 2.5  | 2.5  | 2.1  | 30 | 30 | 23 | 21  |



### BrushGuard



### Elvex BrushGuard™

When more than one type of protection is required, the solutions can end up being cumbersome. BrushGuard is based on our Equalizer muff family, and a visor attachment, that makes it possible to attach a nylon mesh face shield to the headband. The shield conveniently flips up and out of the way when it is not needed. BrushGuard is recommended for use with outdoor power tools, such as line trimmers, power blowers and lawn mowers. The nylon shield is a convenience shield, and it does not meet ANSI requirements for impact and penetration. Observe that ANSI requires the use of suitable eye protection, in addition to the use of face shields.

HB-7000BrushGuard, Equalizer earmuffs with 27 dB<br/>NRR, and nylon mesh face shield (7"x14")NV-3000Replacement Nylon Visor for all BrushGuard<br/>products







### Elvex CoolGuard™

CoolGuard is based on the product concept described above. Instead of a nylon mesh face shield, the CoolGuard is equipped with a Lexan face shield. This face shield meets the impact and penetration requirements of ANSI Z87.1-1989. CoolGuard is a more lightweight solution than a combination of an earmuff and a separate headgear with face shield.

CoolGuard is recommended for environments where both hearing and face protection is required to be used.

 HB-3000 CoolGuard, Equalizer earmuff with 27 dB NRR, and a Lexan (GE Polycarbonate) face shield (8"x15" x 0.04")
 FS-3000 Replacement Lexan shield for CoolGuard

**FS-3000** Replacement Lexan shield for CoolGuard





# HEARING PROTECTION

### Impulse

#### Mil-Spec, Com-550

Elvex Impulse foldable ear muff is equipped with noise suppression and communications circuitry. Users are getting impulse noise (such as gun fire) suppression, while the electronic circuitry simultaneously enhances weak sounds, such as an instructors voice. Sounds exceeding 82 dB are suppressed by a gain limiter.

- Elvex Impulse is a foldable hearing protector with 25 dB NRR. A heavy duty nylon case is included
- The hearing protector has two external microphones and two independent volume controls, positioned on the two ear cups. Each ear cup is equipped with its own electronic circuitry, thus requiring no wires between the two ear cups. The sound reception is stereophonic, with maintained directional hearing.
- An electronic gain limiter limits the sound produced inside the headset to 82 dB, in order to maintain hearing protector integrity.
- An impulse filter makes Elvex Impulse very effective on the shooting range. The gun shots are eliminated, but the shooting instructor can still be heard.

### Level Dependent, Com-655

Elvex Level Dependent muff uses the same technical components and features (including impulse filter) as Elvex Com-550, but the electronics is tuned for continuous industrial noise, and the muff is a non foldable construction.

- The communications features allow you to have close range communications in select continuous noise environments. The microphones on the outside of the ear muffs "listen to" the environment and can amplify weak sounds, and the gain limiter suppresses sounds exceeding 82 dB. Frequencies below 400 Hz and above 4,000 Hz are not processed and therefore the speech to noise ratio can be improved in many continuous noise environments.
- An audio jack (3.5 mm jack) for connection of radios is standard. This jack will provide listen-only capability (not two way communications). You can hear both the auxiliary device and Com-655.
- Com-655 uses two 1.5 Volt AAA batteries. Batteries are included. The headset will operate for approximately 175 hours on one set of batteries, under normal circumstances. Reception is stereophonic.
- An auto off switch will turn off the headset after four hours of continuous use, in order to conserve battery use.



- An audio jack (3.5 mm jack) for connection of radios is standard. This jack will provide listen-only capability (not two way communications). You can hear both the auxiliary device and Com-550.
- Elvex Com-550 uses four 1.5 Volt AAA batteries, two on each side. Batteries are included. The headset will operate for approximately 200 hours on one set of batteries, under normal circumstances. An auto off switch will turn off the headset after four hours in order to conserve battery use.



| I<br>974        | Frequency, Hz  | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | Н  | М  | L  | NRR |
|-----------------|----------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
| ANSI<br>-19-197 | Mean Value, dB | 15.7 | 21.9 | 31.2 | 34.9 | 34.9 | 37.1 | 39.4 | 39.9 | 39.4 | 25 | 20 | 01 | 25  |
| 23              | Std. Deviation | 2.7  | 2.8  | 3.2  | 1.9  | 2.5  | 3.4  | 2.2  | 3.6  | 3.5  | 30 | 29 | 21 | ZJ  |

| Com-550 | Elvex Impulse, Mil-Spec, carrying case |
|---------|--|
|         | included, 25 dB NRR                    |

- Com-655 Elvex Level Dependent ear muff, 25 dB NRR
- **HK-600** Hygiene Kit consisting of replacement ear cushions and foam absorbers

### DeTune

### **DeTune<sup>™</sup>Communications Earmuffs**

Voice communication in noisy environments has always presented a number of challenges. Workers must wear hearing protectors, and in many cases this adds to their inability to communicate effectively. Standard (passive) hearing protectors attenuate effectively in the high frequencies, and will actually help communication in environments dominated by high frequencies. However, most industrial environments contain a mixture of high, medium and low frequencies, and most users cannot communicate effectively while using a passive hearing protector.

**Elvex DeTune** electronic earmuff uses a new approach, and allows the user to adjust the frequency range that is transmitted through the circuitry and speakers.

- A volume control allows the user to set the sound level inside the headset, up to a maximum of 82 dB.
- Two control knobs allow the user to filter out the high and the low frequencies independently of each other. When the filters are in the neutral (inactive) position the user will hear the environment almost as if no hearing protector was worn, except for the maximum sound limiter.
- The high frequency filter allows an aggressive filtering of the high frequencies, down to about 2,000 Hz. The filter eliminates about 85% of the high frequencies within the adjustment range, and can be considered semi-transparent. If used in an environment dominated by high frequency noise, it can be clearly perceived that the headset filters out a large part of the undesirable noise. When much of the high frequencies are filtered out, the speech perception will also be affected. The most important speech frequencies are in the range of 500-3.000 Hz., and if we filter out most frequencies above 2,000 Hz., this will obviously also affect the speech perception. Elvex **DeTune** does however provide a choice to the user in how much filtering is desirable, and allows an opportunity to seek out the filtering level that is felt to be optimal for the environment.
- The low frequency filter works in a similar fashion, allowing the user to filter out frequencies up to 600 Hz. The effectiveness of the low frequency filter is not as obvious as the high filter, but in certain environments it can clearly help improve the ability to communicate.
- **DeTune** is also equipped with an impact filter. This filter is automatically activated by impact sounds, such as gunfire or rivet operations. The impact filter closes in a few microseconds and reactivates in about two milliseconds. Because of the quick recovery time, it is possible to hear speech even in an impact noise environment.



- **DeTune** is equipped with an automatic 4-hour shutoff in order to conserve batteries.
- **DeTune** uses rechargeable Nickel Metal Hydrate batteries, and a charger is included. Recharge port can be used to connect other devices to DeTune.
- It is important to understand that the electronics in the DeTune hearing protector does not improve the attenuation properties of the passive hearing protector. The electronics simply allow a level, of voice communication and speech understanding, while you continue to protect your hearing.

| Com-240R | NRR of 25 dB, to ANSI S3.19-1974.           |
|----------|---|
| HK-200   | Hygiene Kit, ear cushions & foam absorbers. |



### QuieTunes AM/FM

### QuieTunes 660, AM/FM Radio Ear Muffs

Elvex new QuieTunes AM/FM model is our response to the market's requirements for a high quality, low cost model. QuieTunes 660 offers the following features:

- All components for QuieTunes 660
- electronics have been designed specifically for this model, and this has resulted in a contemporary and functional product. The electronics have been separated from the hearing protection cavities in order to avoid the problems associated with moisture and sweat affecting the life span of the electronics.
- Now with improved sensitivity and station lock with new quality components. The radio offers FM and AM reception so that you may listen to music, your favorite sports team or talk radio show.
- This model uses two AA alkaline batteries and they are replaceable through an external battery compartment. A fresh set of batteries provides about 150 hours of operation.
- Just in case you forget to turn off your radio headset, we have assured that you do not come back to a dead unit, by incorporating an automatic four-hour shutoff.
- A new 3.5 mm input jack has been added in order to make it possible to listen to auxiliary devices such as i-Pods, scanners and Com-radios. The signal is sent through the amplifier of Com-660, and the QuieTunes must be turned on. The auxiliary device will be heard simultaneously with the radio, unless the volume of the radio is turned down.
- The sound generated by the speakers is limited to a safe 82 dB level with the use of a gain limiter.
- Independent testing of the attenuation has established a Noise Reduction Rating in the range of 22 dB NRR and 27 dB SNR to CE, EN-352.
- **Com-660** QuieTunes AM/FM radio earmuffs.
- **Com-661** Kit consisting of one Com-660, one connection wire with 3.5 mm stereo plug at each end, one connection wire with 3.5 mm and 2.5 mm stereo plugs, one microfiber storage bag (SGB-30).

**HK-600** Hygiene Kit, replacement ear cushions and foam absorbers.





| ANSI<br>-19-1974 | Frequency, Hz    | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | н  | М  | L  | NRR |
|------------------|------------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
| ANS<br>19-1      | Mean Value, dB   | 15.7 | 19.3 | 27.1 | 31.7 | 35.2 | 40.6 | 40.4 | 39.3 | 39.2 | 33 | 26 | າບ | 22  |
| ŝ                | Std. Deviation   | 3.3  | 2.4  | 3.3  | 2.8  | 3.1  | 3.9  | 4.8  | 5.6  | 6.1  | 33 | 20 | 20 | 22  |
|                  |                  |      |      |      |      |      |      |      |      |      |    |    |    |     |
| :2002            | Frequency, Hz    | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | Н  | М  | L  | SNR |
| щ÷               | Mean Value, dB   | 12.9 | 17.6 | 28.5 | 29.3 | 31.4 | 36.7 | 40.6 | 40.5 | 39.3 |    |    |    |     |
| 352 C            | Std. Deviation   | 3.3  | 3.3  | 2.9  | 4.0  | 2.7  | 4.0  | 3.6  | 3.6  | 4.0  | 31 | 24 | 16 | 27  |
| CE<br>EN-352-1   | Protection Value | 9.6  | 14.3 | 25.6 | 25.3 | 28.7 | 32.8 | 36.9 | 36.9 | 35.3 |    |    |    |     |

### QuieTunes

### **QuieTunes Rechargeable FM Radio** Earmuffs with 25 dB Noise Reduction Rating

Elvex QuieTunes earmuff with a built-in FM stereo radio offers the following features:

- Hearing protection is the primary objective and QuieTunes provides 25 dB Noise Reduction Rating. Tested to ANSI S3.19-1974 by an independent and certified laboratory.
- An electronic control limits the sound produced inside the headset to 82 dB, keeping the sound level inside the headset at a safe level as mandated by OSHA.
- A sensitive stereo radio covers the wavelengths between 88MHz and 108MHz
- QuieTunes is equipped with a balance control, allowing adjustment of left-right speaker balance
- An auto off switch will turn off the headset after four hours of continuous use, in order to extend the battery life.
- QuieTunes comes with a charger, allowing the unit to recharge overnight for 40+ hours of use. This feature may save a user as much as \$25.00 per year in battery cost.
- The recharge port can also be used to connect other devices to the QuieTunes, such as CD-players and communication radios. The input signal will be heard simultaneously with the FM radio, unless the volume of the radio is turned down.

| Com-260R | QuieTunes FM radio earmuffs, 25 dB NRR      |
|----------|---|
| HK-200   | Hygiene Kit, ear cushions & foam absorbers. |



| I<br>974     | Frequency, Hz  | 125  | 250  | 500  |      |      | 3150 |      |      | 8000 | Н  | М  | L      | NRR |
|--------------|----------------|------|------|------|------|------|------|------|------|------|----|----|--------|-----|
| ANSI<br>19-1 | Mean Value, dB | 17.6 | 22.3 | 29.3 | 34.3 | 32.9 | 33.6 | 36.5 | 39.7 | 39.5 | 22 | 20 | с<br>С | 25  |
| ŝ            | Std. Deviation | 2.6  | 2.2  | 2.6  | 3.1  | 1.8  | 2.2  | 3.2  | 2.9  | 2.1  | 33 | 29 | 22     | ۲J  |



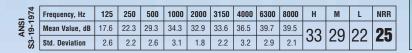
### ComMuffs

### Elvex Plug-in,™ Receiver Muff

Elvex Plug-in Com muff can be connected to Com radios, CD players, FM radios and similar devices, if they are equipped with an output jack for a 3.5 mm plug. The headset is equipped with a coiled cord with a 3.5 mm plug. You will hear the sound from your device, loud and clear, up to the maximum sound level allowed by the specific Plug-in model.

Features of Elvex Plug-in:

- 25 dB NRR from certified U.S. laboratory to ANSI S3.19-1974
- Connects via 3.5 mm plug to Com radios, CD players and more
- The headset is equipped with a volume control knob, allowing the user to easily adjust the volume at the headset.
- Excellent sound quality for both music and voice communications
- Electronic limiter set at 82 dB or 85 dB for compliance with OSHA requirements.
- A model without limiter is available. Observe that this model is not considered a hearing protector, since the internal sound level can be set up to 100 dB.
- The Plug-in headsets uses Hygiene Kit (cushions and foam pads), HK-200
- Com-210 Plug-in headset with 82 dB limiter, 25 dB NRR, 3.5 mm plug
- Com-211 Plug-in headset with 85 dB limiter, 25 dB NRR, 3.5 mm plug
- **Com-212** Plug-in headset w/o limiter, 0 dB NRR, 3.5 mm plug
- **HK-200** Hygiene Kit, replacement cushions and absorbers











### QuickSnap

#### New Generation of Cap Mount Ear Muffs

#### **More than Muffs-Systems Solutions**

Elvex QuickSnap cap mount ear muffs have for many years been the best selling brand. This is probably due to our product's functionality; high noise reduction properties, dielectric construction and the ability to combine our cap mount muffs with a full range of face protection products.

This is our third generation of cap mount muffs. Our product line has been completely re-tooled and reengineered. While we have built on our established product line, we have improved most aspects of the products both functionally and acoustically.

- Four models are available with Noise Reduction Ratings (NRR's) of 24, 25, 27 and 28 dB. Testing was performed at an independent and certified laboratory, NVLAP # 0427.
- Construction is dielectric, certified by independent testing.
- Two integrated rest positions are provided. Flip out muffs for short term break, or flip them up for permanent storage on top of safety cap.
- Most lightweight construction. Product weighs from 7.5 oz 9.4 oz.. Competitive models often weigh substantially more.
- Arm assembly with universal blade (example, HM-6093) mounts to most slotted safety caps. Blade is an integrated part of the muff arm assembly and there are no separate parts to purchase. Remove slot filler for narrower slots (MSA).
- Additional specialty blades are available for certain brands of safety caps (see part number listing).
- Muffs can be mounted onto un-slotted safety caps and bump caps with our QuickSlot<sup>™</sup> adaptor, which creates an accessory slot. System remains dielectric. Why would your company's workers deserve anything less than the best? Safety equipment should be at work, helping productivity without interfering with the job at hand.

| HM-25/93/29/30 | Standard profile cap mount<br>earmuff (212 g) ,24 dB NRR,<br>CE 26 dB SNR |
|----------------|---|
| HM-20/93/29/30 | Medium profile cap mount<br>earmuff (230 g) with 25 dB NRR                |
| HM-60/93/29/30 | Large volume cap mount<br>earmuff (242 g) with 27 dB NRR                  |
| HM-80/93/29/30 | SuperSonic cap mount earmuff<br>(268 g) with 28 dB NRR                    |

HM-\*\*93 This universal blade fits 29 mm and most 33 mm wide accessory slots..
 Remove slot filler for narrower slots. For use with AO Safety, ERB, Willson Alpha/Beta. Can be used with all HM-29 listed caps.

- HM-\*\*29 This 29mm blade can be used with Bullard, Jackson, MSA V-Guard, American All Safe, Fibre Metal (with Elvex Quick-Slot QS-29), and Sellstrom caps.
- HM-\*\*30 This 30mm blade is used with Elvex SC-30, MSA V-Guard Advance, North, Salisbury, and Arcon caps.





HM-2093 with 25 dB NRR





### QuickSnap

### **Integrated System**

All Elvex cap mount muffs are designed to accept our Visor Bracket (VB-10, VB-20 and VB-30). The muffs have an accessory slot that allows the mounting of the Visor Bracket, without the use of any tools. The bracket can be adjusted forward or backward to give a perfect fit with almost every safety cap. The Visor Bracket accepts a full range of Elvex face shields, visors, steel screens, nylon screens, hard coated shields, silver and gold coated shields. Illustrated on this page is Elvex QuickSlot (QS-29), that creates an accessory slot on un-slotted safety caps. Also shown is the Visor Bracket (VB-10/20) and the Slot Adapters (SA-93/29/30), that will make it possible to mount the Visor Bracket and face shields to a safety cap, without the use of hearing protection.

- VB-10 Visor Bracket
- **VB-20** Visor Bracket with a wider top brow, for use with short brim safety caps. VB-20 also allows space for use of respirator when used with a standard brim safety helmet.
- **VB-30** Visor Bracket designed for safety cap models with a sloping brim, or elevated accessory slots.
- **QS-29** Quick Slot, creates an accessory slot.

For Elvex SC-30, MSA V-guard Advance, North A29/A29R and Salisbury caps use SA-30 slot adaptor and VB-30 For AO Safety, ERB, and Willson Alpha/Beta use SA-93 with VB-10 or VB-20.

For American All Safe and MSA V-Guard caps use SA-29 with VB-10 or VB-20.

For Bullard and Jackson caps use SA-29 with VB-10, VB-20 or VB-30.

For Fibre Metal caps use Quick Slot (QS-29) with SA-29 and VB-10, VB-20 or VB-30.

For Arcon, North A59/A69/A79 caps use SA-30 with VB-10, VB-20 or VB-30.

For Balance AC, JSP, Protector, and most European caps use SA-29.



#### HM-2593 muff (24 NRR) with VB-10 + FS-12L

| ANSI S3.<br>19-1974 | Frequency, Hz  | 125  | 250  | 500  | 1000 | 2000 | 3150 | 4000 | 6300 | 8000 | H  | М  | L  | NRR |
|---------------------|----------------|------|------|------|------|------|------|------|------|------|----|----|----|-----|
|                     | Mean Value, dB | 18.5 | 21.2 | 32.1 | 35.3 | 36.6 | 38.1 | 37.9 | 39.1 | 37.8 | 35 | 29 | 22 | 25  |
| HM-20               | Std. Deviation | 3.3  | 2.7  | 3.0  | 2.7  | 3.3  | 2.7  | 2.9  | 4.0  | 2.9  | 30 | 29 | 22 | ZJ  |
|                     | Mean Value, dB | 15.2 | 19.0 | 30.7 | 35.0 | 35.1 | 35.2 | 32.6 | 35.8 | 36.2 | 20 | 07 | 10 | 24  |
| HM-25               | Std. Deviation | 2.0  | 2.4  | 2.5  | 2.7  | 2.8  | 1.6  | 2.2  | 2.7  | 3.5  | 32 | 21 | 19 | 24  |
|                     | Mean Value, dB | 19.4 | 24.5 | 33.7 | 35.7 | 34.5 | 36.0 | 40.9 | 39.3 | 37.9 | 35 | 21 | 01 | 27  |
| HM-60               | Std. Deviation | 3.2  | 2.3  | 2.8  | 3.0  | 2.3  | 1.7  | 2.8  | 2.5  | 3.4  | 30 | 51 | 24 | 21  |
|                     | Mean Value, dB | 20.5 | 24.8 | 32.8 | 36.2 | 35.4 | 37.9 | 41.3 | 36.6 | 37.5 | 35 | 30 | 25 | 28  |
| HM-80               | Std. Deviation | 2.6  | 1.6  | 2.2  | 2.9  | 2.2  | 2.9  | 3.0  | 2.4  | 2.8  | 30 | 32 | 20 | 20  |

Tested to ANSI S3.10-1974

CE





### **Heavy Duty Face Protection**

Elvex proudly introduces an expanded and improved line of face protection products.

Our standard UltiMate<sup>™</sup> headgear, has been improved with new swivel locks and a permanent sweatband is now standard. The brow guard color has been changed to a contemporary aqua (teal) color for a more general appeal. Elvex Heavy Duty headgear offers a larger brow guard and is molded in heat tolerant nylon. Elvex Visor Bracket is designed to permit mounting of our full face shield program to most safety caps, and allows simultaneous use of cap mount ear muffs.

### **Universal Fit**

Elvex face shields have a universal hole pattern, and fit Elvex headgear HG-20, HG-30H and VB-10/20/30 as well as many competitive headgear. The FS-12 series shields fit only the Visor Bracket.

### **Face Shield Materials**

**Lexan** is a GE brand name for their **Polycarbonate**, which is a very impact resistant and heat tolerant material (up to 375°F), with limited scratch resistance. Polycarbonate offers UV absorbtion characteristics, and additional UV absorbers have been added to select Elvex Lexan face shields.

**Propionate** is a good general purpose face shield material which offers good impact resistance and scratch resistance, but limited heat resistance. Propionate is replacing Acetate as the basic material for face shields.

**PC** stands for Polycarbonate, 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.

**Chemical Resistance:** Some chemicals will react with the face shield materials, which is why it is important to select the appropriate material for each application.



FS-16PC on HG-20



FS-16PC on VB-20





#### HG-20 Ratchet headgear pictured (from left) with:

| Molded Propionate                |
|----------------------------------|
| Molded Lexan                     |
| Molded Green Lexan               |
| Hard coated Molded Lexan, not    |
| shown, looks identical to FS-15L |
| Welding Shade 5, similar in      |
| appearance to FS-15LG            |
|                                  |

All FS-15 shield dimensions: 15.5" X 8" X 0.06". All FS-15 models also fit VB-10/20/30.

#### HG-20 Ratchet headgear pictured (from left) with:

- FS-15PC
   Molded Polycarbonate

   FS-15PC-LG
   Molded Light Green Polycarbonate

   New!
- FS-16PC Molded Aspherical Polycarbonate

All FS-15 shield dimensions: 15.5" X 8" X 0.06". All FS-15 models also fit VB-10/20/30.





#### HG-30H Ratchet headgear pictured (from left) with:

| FS-18L  | Molded Polycarbonate             |
|---------|----------------------------------|
| FS-18LG | Molded Green Polycarbonate       |
| FS-18CL | Hard coated Molded Lexan, not    |
|         | shown. looks identical to FS-18L |

All FS-18 shields dimensions: 18.5" X 10" X 0.06". All FS-18 models also fit VB-10/20/30.



#### HG-30H Ratchet headgear pictured (from left) with:

- **FS-18GL** Gold and hard coated Lexan face shield. Heat resistance is approx. 1800 degrees F.
- **FS-18SL** Silver and hard coated Acetate face shield. Heat resistance is approx. 1400 degrees F.

All FS-18 shields dimensions: 18.5" X 10" X 0.06". All FS-18 models also fit VB-10/20/30.





#### HG-20 Ratchet headgear pictured (from left) with:

**FS-15P** Commodity Polycarbonate, die cut from sheet material

**SV-75** Steel visor. Does not fit on VB-10/20/30.

HG-30H and HG-20 Ratchet headgear pictured

Fits also on VB-10/20/30.

Steel mesh visor for heat applications.

Steel visor for applications requiring air

(from left) with:

SV-15H

SV-75





circulation

| FS-12L | 12 ir | nches | wide | Lexan | shield |
|--------|-------|-------|------|-------|--------|
|        |       |       |      |       |        |

- **FS-15L** 15 inches wide Lexan shield **FS-18L** 18 inches wide Lexan shield
- **FS-18L** 18 inches wide Lexan shield

VB-10/20/30 accepts all face shields listed above, except SV-75. FS-12 models fit only the VB-10/20/30.

Elvex Visor Bracket (VB-30) and FS-16PC shown in use on a blue safety cap, in conjunction with HM-6030 cap mounted ear muffs.

Elvex Visor Bracket (VB-30) and FS-15PC shown in use on a safety cap, in conjunction with HM-2030 cap mounted ear muffs.







### **Elvex ARC-Shield<sup>TM</sup> 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. There has long been requirements established for safety clothing to be used by these workers, but from January 1, 2003, it is required that electrical workers use face protection meeting similar requirements. The National Fire Protection Association's standard 70E-2000 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 is 8 cal/cm<sup>2</sup>
- Protection value for Elvex FS-20ARC10 is 10 cal./cm<sup>2</sup>
- Shields are available with and w/o chin protection
- Elvex ARC-Shields now have a lighter shade: 70% visible light transmission
- Shields come with standard anti-fog coating
- Shields fit Elvex Visor Bracket (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-2000

Highlighted area shows Hazard/Risk Categories where NFPA 70E-2000 considers Arc shields as adequate protection. Pending OSHA regulation has similar requirements.



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-10, and cap mount earmuffs, HM-6093.



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

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



### ProGuard

#### **ProGuard<sup>™</sup> Safety Caps**

Elvex new generation of safety caps is designed for general industry, construction as well as utility companies where additional side (lateral) protection is not required.

#### **Features**

Elvex ProGuard safety caps offer the following features and benefits:

- The lightweight shell is made from tough Polyethylene.
- ProGuard is available with pin-lock and two different ratchet suspensions. The standard suspensions are made from flexible Polypropylene and have wide contact areas towards the head. This helps provide long term comfort and durability. A soft brow pad is standard. All models offer easy head size adjustments between 52 and 60 cm (6.5 – 7.75 inches).
- Model SC-30 comes with a standard pin-lock suspension.
- Model SC-30R is equipped with a ratchet suspension, allowing easy size adjustment by turning the adjustment knob, positioned at the back.
- Model SC-30R6 is equipped with our top of the line six point fabric harness and ratchet suspension.
- ProGuard caps have accessory slots (30 mm) that accept hearing and face protection products. Use Elvex blades designated with suffix 30 (such as BR-30 and HM-6030) and visor bracket model VB-30.

#### **Standards Compliance**

- Elvex ProGuard caps comply with ANSI Z89.1-2003, Type I, Class E, G and C. Type I caps are designed to protect against falling objects (top impact) and are not designed for side protection (lateral impact). Class E (Electrical) is intended to reduce the danger of exposure to high voltage. Tested to 20,000 Volts.
- Elvex ProGuard models are CE certified and comply with EN 397, CE 0086.

#### **Competitive pricing**

With Elvex newest generation of safety caps we are entering into this competitive field with a family of safety caps that are priced to compete.

#### **Order Information**

SC-30ProGuard safety cap with pin-lock suspensionSC-30RProGuard safety cap with ratchet suspensionSC-30R6ProGuard safety cap with six point fabric<br/>harness ratchet suspension

Specify color: White, Yellow, Orange, Red or Blue.







### ProGuard

#### **ProGuard**<sup>™</sup> Loggers Safety Caps

Elvex ProGuard Loggers Safety Cap is a uniquely integrated system, which provides protection for head, face and hearing in a workable and practical solution. Elvex offers several different ProGuard systems, based on different configuration of safety helmets, earmuffs and face shields. Observe that appropriate safety glasses are always required in addition to any face protection.

#### ProGuard, CU-25R, our Economy Unit

This is our most economical logger's safety cap, and it is based on an orange four point ratchet suspension safety cap (SC-30R), medium profile ear muffs (HM-2530) with 24 dB NRR, our Visor bracket (VB-30) and a steel visor (SV-70).

#### ProGuard, CU-30R, for the Pro

This system has been the professional's choice for many years. An orange six point ratchet suspension safety cap, with nylon webbing (SC-30R6), that gives an extremely secure fit and balance, is appreciated by the full time user. A black low profile ear muff (HM-2030) with 25 dB NRR gives an aesthetically pleasing contrast to the orange safety cap. This safety helmet comes with Visor Bracket (VB-30) and nylon visor (NV-70).

#### ProGuard<sup>™</sup> CU-30L

This system has the same specifications as CU-30R, but is equipped with a Lexan face shield (FS-12L). This face shield offers impact resistance, and is intended for power tools that may send high velocity objects flying in the direction of the operator.

#### ProGuard, CU-60, Top of the Line

Our top of the line ProGuard System comes equipped with a Bullard six point suspension safety helmet (model 302RT). CU-60 is equipped with Elvex heavy duty capmount ear muffs (HM-6030), which provide a Noise Reduction Rating of 27 dB, and Visor Bracket (VB-10) and nylon visor (NV-70).

#### **Safety Warning**

The nylon and steel visors (NV-70 and SV-70) do not provide high velocity protection. For high velocity protection, choose a Polycarbonate face shield. ANSI Z87 requires separate eye protection, suitable for the situation, in addition to any face shield.



**CU-25R** 





CHAIN SAW PROTECTION Page 23



### **OSHA Standards and Regulations**

Logging, farming and work environments such as grounds maintenance that require the use of chain saws and other power equipment tools are among the occupations with the highest incidents of occupational injuries. Not only is the incidence rate high in these industries, but the severity of the accidents that occur are often very dramatic. The U.S. Consumer Products Safety Commission reported over 37,000 chain saw injuries to both professionals and amateurs during 1989.

OSHA's Logging Operation Safety Rule (29 CFR 1910.266) became effective on February 9, 1995. The logging Rule covers all aspects of logging: work rules and procedures, equipment and equipment maintenance, training, record keeping, safe work practices and the mandatory use of safety equipment. The ruling makes the employer responsible for providing the safety equipment and enforcing its use. The logging standard specifically requires the use of the following equipment by chain saw operators: gloves, boots, leg protection, safety caps, hearing, eye and face protection and first aid kits. All this equipment (except boots) shall be provided by the employer at no cost to the employee.

### **ASTM Leg Protection Standard**

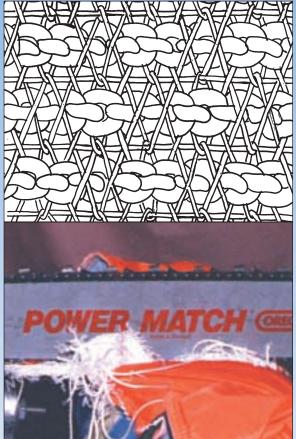
ASTM (American Society for Testing and Materials) F-1897-98 standard has established dimensional and performance requirements for Leg Protection for Chain Saw Users. There are no longer two classes of chain saw protection, which was required by the American Pulpwood Association standard, APA 92-A-12. ASTM dimensional requirements are now the same as the Class A requirements in accordance to APA 92-A-12. The performance requirements remain unchanged at 2,500 feet per minute, tested at both 45 degrees and 90 degrees to the longitudinal axis of the test sample. Compliance tests are done by Underwriters Laboratories (UL) in accordance with ASTM F-1414, Measurement of Cut Resistance to Chain Saw Lower Body Protective Clothing.

Prolar

#### **Prolar<sup>™</sup> Protective Pads**

Prolar is Elvex brand name for our exclusive chain saw protective pad. Prolar is not a static product, but is going through continuous development, in order to improve the compromise between comfort and performance. The Prolar protective pads combine a unique fibre composition with special weaving to create one of the most effective chain saw protective pads on the market. The unique "explosive" action of Prolar works by jamming the chain against the bar and the sprocket. Prolar combines light weight and flexibility for superior user acceptance with highly effective protection.

Elvex Prolar pads have been tested in accordance with the APA and ASTM Standards, by Underwriters Laboratories. The Prolar pads have passed the performance requirements, including the 2,600 feet per minute chain stopping capability. This test establishes a pass or fail and does not establish maximum performance. Separate testing has established a performance threshold of approximately 3,000 feet per minute, which indicates that Prolar (in its current stage of evolution) gives substantial safety margin, as compared to the requirements of the Standard.





### **ProVest**

#### **Elvex ProVest**<sup>™</sup>

Elvex ProVest is the first genuine chain saw resistant upper body protection. It is intended to offer limited protection from chain saw kick back injuries. Arborists, landscapers and utility company employees are the potential beneficiaries of this protection.

- The upper body protection concept has been patented, U.S. Pat. # 5,101,511.
- Prolar protection is provided on the shoulders and the front of the chest. The water resistant sleeveless jacket has extended shoulders and large front and back vents. A longer back panel helps repel water and debris.
- An inside zippered pocket is provided.
- High visibility orange top and blue bottom makes an attractive looking product. The vest is made from 420 denier Nylon.

Available in Medium, Large and Extra Large: JE-50M, JE-50L, JE-50XL

### **ProChaps**<sup>\*\*</sup>

#### 90 Series ProChaps™

Elvex best selling chap model has sold in hundreds of thousands. A long list of unique standard features explains the popularity of this design.

- Patented asymmetric design provides extended protection on the left side of each leg, where most injuries occur (US Pat. #5,095,544).
- The 90 series chaps conform to ASTM requirements as well as APA Class A requirements.
- Lightweight, flexible and strong 420 denier Nylon cover fabric.
- Easy on, easy off apron-style design.
- Quick release buckles for waist and legs.
- A zippered front pocket is a standard feature not found on other brands.

Available in safety orange color in four lengths: JE-9028, JE-9033, JE-9036 and JE-9039, and in navy blue color JE-8833 and JE-8836. The last two digits of the product number indicate the length in inches, waist to bottom, not the inseam.

### 94 Series ProChaps™

Elvex 94 Series ProChaps, are designed for the professional chain saw user. In addition to meeting the requirements of the ASTM Standard, Elvex 94 Series chap maintains the quality and features, which have made the Elvex brand name famous.

- Lightweight Prolar protective pads add comfort and prevent heat buildup.
- Patented asymmetric design
- 1,000 denier Cordura Nylon cover fabric, which is more abrasive resistant.
- Three sets of leg straps and buckles help the stiffer cover fabric conform comfortably to the legs.
- A zippered front pocket is standard.

Elvex 94 Series ProChaps are available in orange safety color in 28, 33, 36 and 39 inches lengths, model numbers JE-9428, JE-9433, JE-9436 and JE-9439. The last two digits of the product number indicate the length in inches, waist to bottom.



## **ProChaps**

#### **ProChaps**<sup>™</sup> with Calf Protection

Certain work conditions may require extra precaution, with regards to lower leg protection. Elvex ProChaps with wrap around calf protection, provide the solution for these situations.

- This model maintains all basic features of Elvex 94 series chaps, while it also maximizes lower leg protection.
- The outer shell is made of high strength nylon, designed for durability even in severe environments.
- Each leg is secured by a total of three sets of buckles. The wrap-around section, below knees, is secured by two sets of buckles.

Available in three sizes: JE-9133, JE-9136 and JE-9139. The last two digits describe the total length of the garment, from waist to bottom.

### ArborChaps<sup>™</sup> One-size-fits-all

Users have long asked us to provide a lower cost chap, and the trade has frequently requested a universal size chap to help control their inventory. The ArborChap may just be the answer to these requests, since it addresses both of these concerns. We stripped the ArborChap of some features such as the zippered pocket, but we maintained all the safety features that really count.





- Patented asymmetric design for better protection where most injuries occur.
- Elvex famous Prolar protective pads, no compromise on safety.
- Universal size, three sets of belt loops allow length adjustment from 33 to 36 inches.
- Easy on, easy off apron style design, with two sets of leg straps and buckles.
- Hunter green 420 denier Nylon cover fabric, with attractive black Nylon edging.

Available in one universal size only: JE-8000, Elvex ArborChaps





### **Performance and Testing**

Much is expected of safety spectacles in the 21st century. Not only do we expect impact resistance, great optics, lightweight and futuristic styling, but we also expect to pay only a few dollars for the latest and trendiest pair of safety glasses.

Complying with the performance requirements of existing standards is just the beginning. Today's safety glasses are about 10 to 20 times stronger than the safety glasses that were an industry standard just over a decade ago.



Elvex safety glasses comply with ANSI Z87.1-2003 and most models meet the requirements of CE - EN166. Required tests include among others high velocity, high mass impact, lens thickness, lens distortion and lens light transmission.

### Lens Technology

Polycarbonate lenses provide some inherent features, and other features can be added to the Polycarbonate through the molding process or coated onto the Polycarbonate after the part is finished.

- Impact resistance: all Elvex safety glasses meet the high velocity impact requirements of ANSI Z87.1-2003.
- **UV-protection** (99.9%) between 180 and 380nm is provided by our Polycarbonate (Lexan) lenses.
- High UV and Blue Light protective characteristics come from special absorbers added during the lens molding process.
- Elvex NCB<sup>™</sup> gray lenses (Natural Color Balance) are made with special absorbers added during the

#### **UV** Light High UV **Blue Light** Infra Red Visible Light **Lens Description** Protection Protection Protection Protection Transmission 180-380nm 380-400nm 400-480nm 780-1100nm (VLT) **Clear hard-coated PC lens** 99.9% 84% 91% 15% 8% Clear SuperCoatTM anti-fog PC lens 99.9% 84% 15% 8% 91% Clear UV-400 hard-coated PC lens 99.9% 99.8% 32% 8% 90% Amber hard-coated PC lens 99.9% 99.9% 83% 14% 85% Ice Blue hard-coated PC lens 99.9% 86% 81% 14% 66% Anti-glare hard-coated PC lens 99.9% 90% 50% 29% 57% Indoor/Outdoor PC lens 100% 100% 66% 28% 50% Grav NCB hard-coated PC lens 99.9% 79% 82% 56% 18% Silver mirror PC lens 99.9% 95% 87% 61% 16% Blue flash mirror PC lens 99.9% 99.8% 85% 60% 20% Gold flash mirror PC lens 99.9% 98% 85% 60% 13%

99.93%

99.9%

99.9%

99.9%

Lens Light Transmission Chart

molding process. NCB lenses provide UV, Blue Light and Infrared protection (see chart above).

Welding Shade 3 PC lens

Welding Shade 5 PC lens

- Shade 3 to 5 ANSI welding lenses have absorbers for the undesirable wavelengths and intensity of UV, Visible and IR light, experienced when gas welding.
- A scratch resistant hard coating is added to all Elvex safety glasses except model SG-10.
- Elvex SuperCoat<sup>™</sup> treatment provides a lens that is anti-fog, anti-scratch, anti-static as well as UV-protective.
- The Indoor/Outdoor lens has additional UV absorbers and a light gold mirror coating, in order to reduce glare and Visible Light Transmission. This lens is a compromise for individuals moving from bright to dark environments.
- All lenses and coatings are not available in all frame styles.



10%

1.3%

EYE PROTECTION Page 27

97.5%

97.5%

99.9%

99.7%

www.elvex.com

### Bifocals

#### The First Mono-lens Safety Reading Glasses!

Until now you have only been able to get traditional style reading safety glasses, or stick on lenses. Elvex RX-100 is the first bifocal safety glass with a dual curvature mono-lens and integrated side shields.

According to the 2000 U.S. Census there are just over 70 million Americans between 40 and 65 years of age. All of these individuals will require reading glasses, and a large proportion of them will need reading glasses in combination with protective safety glasses. Elvex RX-100 is meeting an unfulfilled need!

- Available in the following bifocal powers: 1.0, 1.5, 2.0, 2.5 and 3.0
- Temples adjust to four different lengths.
- Temples have angle adjustment for perfect fit.
- RX-100 is priced below the cost of traditional reading safety glasses or even the stick on reading lenses.
- Industrial buyers report cost savings exceeding \$100.00 per user with RX-100.
- Patents have been applied for this new concept.
- Tested to ANSI Z87.1-2003 (Z87+), CE-EN-166, AS/NZS 1337:1992

| RX-100-1.0 | Reading safety glasses with +1.0 Diopters |
|------------|---|
| RX-100-1.5 | Reading safety glasses with +1.5 Diopters |
| RX-100-2.0 | Reading safety glasses with +2.0 Diopters |
| RX-100-2.5 | Reading safety glasses with +2.5 Diopters |
| RX-100-3.0 | Reading safety glasses with +3.0 Diopters |

RX-100 is also available with gray lenses. To order, specify model number as above, followed by the letter G. Example: RX-100G-2.0

Now available in blister packaging, with micro-fiber protective drawstring bag! Order information for blister packaged version: RX-110-1.0, RX-110-1.5, RX-110-2.0, RX-110-2.5, RX-110-3.0



CE





### **RX-200**

### **Bifocal Safety Glasses**

Elvex RX-200, is our second generation of bifocal safety glasses, and we have combined the requirement for bifocal lenses with the desire for stylish, lightweight and comfortable glasses. RX-200 uses two base six lenses, in a contemporary wrap frame. This allows for both a stylish and protective product. The frame is made from transparent gray Polycarbonate and has a soft rubber nose bridge and rubber tipped temples.

- Available in the following bifocal powers: 1.0, 1.5, 2.0, 2.5 and 3.0
- Complies with ANSI Z87.1-2003 (Z87+)
- Lightweight wrap style frame
- Soft rubber nose bridge and temple tips
- RX-200 is also available with gray lenses. Specify gray lens when ordering



STAINCERS STEEL RULER



### **Bifocal Wraps**

Bifocal safety glasses have become a big

market, and users are asking for more choices in frame styles. Elvex is responding with our third generation bifocal safety glasses. The

RX-300 has a contemporary design and modern flair, but the wraparound lens offers a close fit and comfortable protection. A unique rubber nose bridge and soft rubber tipped temples make this frame style one of our most versatile.

- RX-300 is available in clear and gray lens versions and five bifocal strengths: 1.0, 1.5, 2.0, 2.5 and 3.0. Please specify lens color and bifocal strength when ordering.
- Complies with ANSI Z87.1-2003 (Z87+).
- Stylish design and comfortable to wear.
- Soft rubber nose bridge and temple inserts.



### Elite

### **Elite,<sup>™</sup> For the Style Conscious**

The frame designed for our bifocal safety glasses was so well liked by our test subjects that we decided to also offer it as a standard safety glass. Styling aside, this frame offers a soft rubber nose bridge as well as rubber tipped temples. Tested to ANSI Z87.1-2003 (Z87+).

| SG-200C-gray | Clear hard-coated Polycarbonate lens,<br>transparent gray frame         |
|--------------|---|
| SG-200C-blue | Clear hard-coated Polycarbonate lens,<br>transparent blue frame         |
| SG-200G      | Gray hard-coated Polycarbonate lens,<br>black frame with yellow accents |
| SG-200 I/O   | Indoor/Outdoor hard-coated<br>Polycarbonate lens, transparent gray      |
|              | frame   |





#### **Acer<sup>™</sup> A Unique Reincarnation**

Now and then a really unique frame style is developed. The new generation of Acer offers all the features that users are looking for in a stylish safety glass. Acer has a sophisticated and "classy" look and feel.

- Full coverage lens, with a floating design
- Soft rubber nose bridge
- Meets ANSI Z87+ and complies with CE, EN-166 requirements
- Available in four different lens versions

| SG-12C    | Clear hard-coated polycarbonate lens            |
|-----------|---|
| SG-12 I/O | Indoor/Outdoor hard-coated                      |
|           | Polycarbonate lens                              |
| SG-12G    | NCB gray hard-coated                            |
|           | Polycarbonate lens                              |
| SG-12M    | Silver mirror hard-coated<br>Polycarbonate lens |





Innovative solutions. Always a step ahead.

NEW PRODUCT

### Xenon

C € PENDING

### Xenon, Lightweight Comfort & Style

Elvex Xenon is our most lightweight safety glass, and since it is also quite stylish and comfortable, we know that we have a winner on our hands. In addition to its good looks Xenon offers a soft rubber nose bridge and colorful rubber inserts on the temples.

Tested to ANSI Z87.1-2003 (Z87+).

| SG-14C    | Clear hard-coated Polycarbonate lens             |
|-----------|--|
| SG-14C-AF | Clear Supercoat™ anti-fog hard-coated PC lens    |
| SG-14B    | Ice Blue hard-coated PC lens                     |
| SG-14 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lens |
| SG-14G    | Gray hard-coated Polycarbonate lens              |
| SG-14M    | Flash mirror, hard-coated PC lens                |





### TNT

### TNT, A Dynamite Safety Glass

Two factors are driving the development of new safety glass models. Styles have to be cool and contemporary and prices have to be lower for every new generation. And all this has to be accomplished without sacrificing any of the protective properties of the product. This challenge sounds pretty difficult, if not impossible!

Elvex new TNT (Trinitrotoluene stands for Dynamite) has met this challenge! It is our lowest price safety glass, and it offers style and comfort without any compromises in safety.

TNT Complies with ANSI Z87.1-2003 (Z87+).

| SG-13C    | Clear hard-coated Polycarbonate lens    |
|-----------|---|
| SG-13C-AF | Clear anti-fog hard-coated PC lens      |
| SG-13B    | Ice Blue hard-coated Polycarbonate lens |
| SG-13 I/O | Indoor/Outdoor hard-coated PC lens      |
| SG-13G    | NCB gray hard-coated Polycarbonate lens |
| SG-13M    | Flash mirror, hard-coated PC lens       |







### Trix

### **High Style Combined With Low Cost**

Today's buyers demand style, comfort and economical pricing. The Trix safety glasses meet this bill and provide style at a very affordable price.

- Available in the following lenses: clear, clear anti-fog, gray, indoor/outdoor and silver mirror.
- All lenses provide 99% UV protection
- Universal length temples.
- Complies with ANSI Z87.1-2003 (Z87+) and CE-EN-166.

| SG-17C    | Clear hard-coated Polycarbonate lens             |
|-----------|--|
| SG-17C-AF | Clear Supercoat™ anti-fog<br>Polycarbonate lens  |
| SG-17G    | NCB gray hard-coated<br>Polycarbonate lens       |
| SG-17 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lens |
| SG-17M    | Silver mirror hard-coated<br>Polycarbonate lens  |



### Orbit

### **Orbit**<sup>™</sup> Coolest Style Yet

Some people want to be really cool, and some need help to be cool. Now

Elvex has a safety glass style that will not interfere with your ability to be cool at work or play. Orbit is both hot and cool at the same time, and we are not talking about temperature!

- Cool wrap design with straight temples
- Straight rubber tipped temples
- Tinted lens version have a shiny silver frame
- Complies with ANSI Z87+
- Available in four lens versions

| SG-36C    | Clear hard-coated Polycarbonate lens, graphite frame |
|-----------|--|
| SG-36 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lens     |
| SG-36G    | NCB gray hard-coated Polycarbonate lens              |
| SG-36M    | Cool blue mirror hard-coated<br>Polycarbonate lens   |





## SphereX

### **Extreme Wrap Safety Glasses**

This is one of the boldest safety glass designs to hit the market. Sphere-X offers a unique combination of style, coverage and protection. Dual lens construction (9.75 base curve) allows for excellent optics and extreme coverage.

- Available in the following lenses: clear, clear anti-fog, amber, gray, gray anti-fog, indoor/outdoor, silver mirror
- All lenses provide 99% UV protection
- Temples adjust to four different lengths
- Dual lens construction allows best possible peripheral vision
- Universal non-slip nose bridge provides secure fit
- Complies with ANSI Z87.1-2003 (Z87+) and CE-EN-166 is pending.

| SG-32C    | Clear hard-coated Polycarbonate lens             |
|-----------|--|
| SG-32A    | Amber hard-coated Polycarbonate lens             |
| SG-32C-AF | Clear Supercoat™ anti-fog lens                   |
| SG-32G    | NCB gray hard-coated Polycarbonate lens          |
| SG-32G-AF | NCB gray Supercoat™ anti-fog lens                |
| SG-32 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lens |
| SG-32M    | Silver mirror, hard-coated<br>Polycarbonate lens |





### **XTS<sup>™</sup>** Alien Style Safety

XTS stands for Extraterrestrial and it pretty much explains the style. Unlike several similar styles, our XTS frame is substantial and sturdy. It provides a close fit with the face and therefore can fill the safety requirements of a traditional safety spectacle, including the important side coverage.

Elvex XTS safety glasses comply with ANSI Z87.1-2003 (Z87+) requirements, for safety spectacles.

| SG-24C    | Clear, hard-coated Polycarbonate lens with UV protection   |
|-----------|--|
| SG-24AG   | Anti-glare (light gray), hard-coated<br>Polycarbonate lens |
| SG-24 I/O | Indoor/Outdoor, hard-coated<br>Polycarbonate lens          |
| SG-24G    | NCB gray, hard-coated Polycarbonate lens                   |
| SG-24M    | Silver mirror, hard-coated Polycarbonate lens              |





### Axiom

### Axiom,<sup>™</sup> It's a Natural Winner

Alien style glasses are often designed to fit very close to the face, and that is the most common objection to this style of glasses. With the Axiom we flattened the front curvature just enough to provide some extra space between the glasses and the face. This small design change made a huge difference on the comfort and fit for this safety glass. Axiom has rubber tipped temples. Tested to ANSI Z87.1-2003 (Z87+).

| SG-34C-blue    | Clear hard-coated Polycarbonate lenses, electric blue frame                |
|----------------|--|
| SG-34C-gray    | Clear hard-coated Polycarbonate lenses, metallic gray frame                |
| SG-34 I/O-blue | Indoor/Outdoor hard-coated<br>Polycarbonate lenses, electric blue<br>frame |
| SG-34 I/O-gray | Indoor/Outdoor hard-coated<br>Polycarbonate lenses, metallic gray<br>frame |
| SG-34G-blue    | Gray hard-coated Polycarbonate lenses, electric blue frame                 |
| SG-34G-gray    | Gray hard-coated<br>Polycarbonate lenses,<br>metallic gray frame           |
|                |  |



### Tried

### **Triad,<sup>™</sup> Comfort**, Style and Protection

For those users that require more coverage and more style, the Triad safety glasses provide both. In addition to great style, the Triad offers excellent comfort in part due to the soft rubber nose bridge and soft rubber temple tips. You cannot find a more comfortable pair of glasses than Elvex new Triad. This model complies with ANSI Z87.1-2003 (Z87+).

| SG-35C    | Clear hard-coated Polycarbonate lenses             |
|-----------|--|
| SG-35 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lenses |
| SG-35G    | Gray hard-coated Polycarbonate lenses              |
| SG-35M    | Silver mirror hard-coated Polycarbonate lenses     |
| SG-35PL   | Gray Polarized Polycarbonate lenses.               |





### Summit

### Summit<sup>™</sup> Safety Sports Glasses

If mountain climbers and mountain bikers were to design safety glasses, they would have come up with something like Elvex Summit. This safety spectacle provides the wide wraparound coverage required for full protection.

Adjustable, stylish rubber temples and a mono-lens make it possible to fit these glasses to most faces.

All available lenses provide UV protective properties, and the gray and mirror lenses add blue light protection. This is important to those who work outdoors, and get exposed to too much undesirable UV light. Refer to chart on page 24 for information.

Elvex Summit safety glasses comply with ANSI Z87. 1-2003 (Z87+) and CE-EN-166.

SG-28C Clear, hard-coated Polycarbonate lens
 SG-28 I/O Indoor/Outdoor, hard-coated Polycarbonate lens
 SG-28G NCB gray, hard-coated Polycarbonate lens
 SG-28M Silver mirror, hard-coated Polycarbonate



### Summit II

lens

### Summit II<sup>™</sup> Double Spherical Sports Safety Glasses

Summit II glasses offer the combination of extreme coverage and fashion styling that users are looking for today.

This safety glass has a double spherical lens construction, with a distinctive lens curvature for each eye. The framefree design provides 180 degrees of unobstructed vision. Summit II fits smaller faces without leaving undesirable gaps in coverage. Summit II comes with adjustable rubber temples. This model fits women very well!

Elvex Summit II complies with ANSI Z87.1-2003 (Z87+) and CE-EN-166.

| SG-29C    | Clear hard-coated Polycarbonate lens                   |
|-----------|--|
| SG-29C-AF | Clear SuperCoat™ anti-fog coated<br>Polycarbonate lens |
| SG-29 I/O | Indoor/Outdoor hard-coated Polycarbonate lens          |
| SG-29G    | NCB gray, hard-coated Polycarbonate lens               |
| SG-29M    | Mirror, hard-coated Polycarbonate lens                 |





### Challenger

### Challenger,<sup>™</sup> Most Accepted Style

With the Challenger we have taken an accepted design and worked on perfecting the execution. This safety glass design has become the best selling style, and it has met with worldwide acceptance. Challenger has all the expected features, such as adjustable temples and a universal nose bridge.

Elvex Challenger meets ANSI Z87.1-2003 (Z87+) and CE-EN-166.

| SG-25C    | Clear hard coated Polycarbonate lens.    |  |
|-----------|--|--|
| SG-25G    | NCB gray hard coated Polycarbonate lens. |  |
| SG-25C-AF | Clear SuperCoat anti-fog PC lens.        |  |
| SG-25W3   | Welding shade 3 ANSI, Green PC lens.     |  |
| SG-25W5   | Welding shade 5 ANSI, Green PC lens.     |  |

Specify frame color: All-American or Black! Welding frame color: Black frame only! Clear anti-fog lens now available in All-American and Black frames!

### Challenger<sup>™</sup> S, Small Size

Our small size Challenger will provide good fit for small featured females, who often have to wear safety glasses that are too large to fit well. Children also have a requirement for safety glasses, be it for school shop or mowing the lawn. Meets ANSI Z87.1-2003 (Z87+).

SG-23CClear hard-coated Polycarbonate lens.SG-23GNCB gray hard-coated Polycarbonate lens.

SMAL

### OVR Spees

### **OVR-Spec™ Cover Spectacles**

Elvex OVR-Spectacles are designed especially to be worn over prescription glasses. The frame free lens has a flatter front lens curvature, which helps minimize reflections that tend to occur when dual spectacles are worn. Temples adjust both in length and angle, in order to provide the best possible fit over almost any RX glass. The OVR-Spectacle is an excellent solution for both workers and visitors, and will help put a dent in your prescription safety glass budget.

OVR-Specs meet ANSI Z87.1-2003 (Z87+) and CE-EN-166 requirements.

SG-27C

OVR-Spectacles with clear hard-coated Polycarbonate lens.







### IIS

### **TTS<sup>™</sup> Truly Terrestrial** Spectacle!

Since the Alien style safety glasses has become the most popular style, we felt that adding an economical, but equally protective version would be a smart move.

TTS offers sleek styling, likely to impress today's fashion oriented workers. The close fit and excellent protective features will please employers. TTS is one of our best selling styles and it is also one of our most economical safety glasses.

Elvex TTS meets the requirements of ANSI Z87.1-2003 (Z87+) and CE-EN-166.

- **SG-15C** Clear hard-coated Polycarbonate lens with UV protection.
- SG-15C-small Clear hard-coated Polycarbonate lens with UV protection.
- Clear Supercoat<sup>™</sup> hard-coated PC lens. SG-15C-AF
- **SG-15A** Amber hard-coated Polycarbonate lens with UV and blue light protection.
- SG-15 I/O Indoor/Outdoor hard-coated Polycarbonate lens, with UV protection. **SG-15G** NCB gray hard-coated Polycarbonate lens
- with UV and blue light protection.
- **SG-15M** Blue mirror hard-coated PC lens.







### Ranger<sup>™</sup> Polycarbonate Frame/Lens

Functional safety spectacles never go out of style. Ranger safety glasses offer complete protection at a very economical price. The design incorporates side shields and brow protection. Ranger's lens is made from uncoated Polycarbonate and it provides excellent impact resistance, as well as 99.9% UV protection. Amber lens improves contrast at dusk or in overcast conditions. Fits over many prescription glasses.

Ranger complies with ANSI Z87.1-2003 (Z87+) and CE-EN-166.

- **SG-10C** Ranger, Clear Polycarbonate Lens.
- **SG-10G** Ranger, Gray (NCB) Natural Color Balance Polycarbonate Lens.
- **SG-10A** Ranger, Amber/Yellow Polycarbonate Lens.





CE

## **UniWraps**

### **UniWraps**<sup>™</sup> Most Popular

UniWraps was one of the first wrap style safety glasses to integrate lens and side shield in a seamless design. This wrap design is hard to distinguish from a fashion sunglass, and this has proven attractive to many fashion oriented users. The wrap lens provides unparalleled coverage and protection.

This model has been re-engineered with a new frame and new temples that adjust in angle and length. An improved nose bridge makes this glass very comfortable to wear. Lenses are available to protect against most harmful lighting conditions. Transmission data is shown in lens chart on page 24.

Elvex UniWraps complies with ANSI Z87.1-2003 (Z87+) and CE-EN-166.

| SG-20C     | Clear, hard-coated PC lens                        |
|------------|---|
| SG-20C-AF  | Clear Supercoat <sup>™</sup> anti-fog PC lens     |
| SG-20A     | Amber, hard-coated PC lens                        |
| SG-20 I/O  | Indoor/Outdoor hard-coated<br>PC lens             |
| SG-20G     | NCB gray hard-coated PC lens                      |
| SG-20M     | Gold flash mirror coated PC lens                  |
| SG-20-Kits | See www.elvex.com/tactical-<br>safety-glasses.htm |

Alloy

### Alloy,<sup>™</sup> Wrap Style in **Metal Frame**

Elvex Alloy is our first metal frame safety glass, and in order to join our line it had to meet the same requirements for outstanding design, quality and value that we offer in the rest of products.

NEW

This frame has the same kind of spring temples that you find on prescription frames. The lens has an aggressive 9 base curvature allowing it to provide full front and side coverage.

Complies with ANSI Z87.1-2003 (Z87+).

| SG-40C    | Clear hard-coated Polycarbonate lenses             |
|-----------|--|
| SG-40 I/O | Indoor/Outdoor hard-coated<br>Polycarbonate lenses |
| SG-40G    | Gray hard-coated Polycarbonate lenses              |



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Page 38 EYE PROTECTION

### Visionaire

### Visionaire High Performance Goggles

Visionaire is Elvex premium high performance goggle. It is now available in several different versions for specialized requirements.

- Elvex Visionaire goggles offer a molded Polycarbonate lens or dual lens, all with inside anti-fog treatment.
- Frame is equipped with four indirect ventilation slots for further fog resistance
- Superior comfort, wide contact points between goggle and face for great comfort
- Unique and functional nose bridge provides excellent seal.
- Visionaire complies with ANSI Z87+ and CE EN-166.
- Replacement lenses available.

GG-30-AFSplash/Impact goggle with elastic strapGG-30G-AFSplash/Impact goggle with light gray lensGG-32-AFSplash/Impact goggle with neoprene rubber

- strap
- **GG-35-AF** Splash/Impact goggle with dual lens for superior anti-fog properties. GG-35-AF is not CE certified.

### Legionnaire<sup>™</sup> Goggles, Impact and Splash Goggles

Elvex Legionnaire<sup>™</sup> is Elvex product entry into the more economical goggle market segment. In spite of its lower price, this goggle offers a full range of features and benefits:

- Impact resistant molded lens with SuperCoat™ anti-fog coating.
- 2.0 mm thick Polycarbonate lens with a base 3.5 curvature.
- Eighteen (18) built in, indirect ventilation slots for superior fog resistance.
- Wide contact between goggle and face provides for a very comfortable fit.
- Unique and functional nose bridge provides excellent seal.
- This goggle fits over prescription glasses, with room to spare!
- The Legionnaire is equipped with an adjustable elastic support strap.
- Goggle, GG-25, complies with ANSI Z87+ and CE EN-166 requirements.
- Micro fiber storage bag sold separately: SGB-30
- Goggle body is available in transparent smoke and transparent blue color (see picture below).

| GG-25C-AF Smoke | Clear anti-fog lens, smoke body |
|-----------------|---------------------------------|
| GG-25C-AF Blue  | Clear anti-fog lens, blue body  |
| SGB-30          | Protective micro-fiber bag,     |
|                 | with draw string                |







### Accessories

#### **Safety Glass Cords**

Safety glass cords fill two purposes. They help you to keep your glasses at hand and when they are equipped with a length adjustment, they will also allow you to secure the glasses to the face.

- **SGC-10** is our least expensive safety glass cord, woven from nylon. It is equipped with eyelets that attach to the temples. Available in red and royal blue.
- **SGC-20** is wider and sturdier and comes equipped with a length adjustment, that allows you to hold the glasses securely to your face. Available in red and royal blue.
- **SGC-30** is an elastic construction that slips on the temples and hold them in place comfortably. This model also comes with length adjustment. Available in red and black colors.

### **Safety Glass Bags**

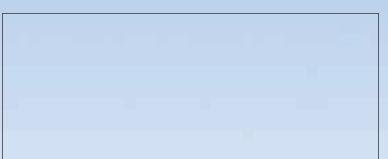
Safety glass bags help you to keep your spectacles conveniently at hand at all times, and also serves to protect the glasses when not in use.

- **SGB-5** Micro fiber bag with a draw string. This bag can also be used as a lens cleaning cloth.
- **SGB-10** Zippered bag for all but the largest safety glass models. It is made from Neoprene and comes with a belt clip.
- **SGB-20** This is a zippered bag designed for oversized and wrap style safety glasses. It is made from heavy duty nylon, and is equipped with a belt loop and a belt clip. SGB-20 can carry a safety glass and one or two replacement lenses, inside micro fiber bags (SGB-5).

### **Other Catalogs from Elvex**

Elvex product offering includes a full line of laser safety glasses, consisting of six different frame styles and over 20 specialized laser filter lenses. We offer wavelength specific protection as well as select broadband filters. A laser safety booklet is available free of charge.

#### Website: www.elvex.com





Innovative solutions. Always a step ahead.

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