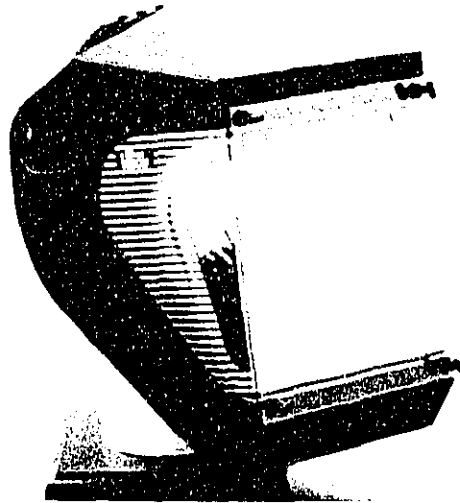


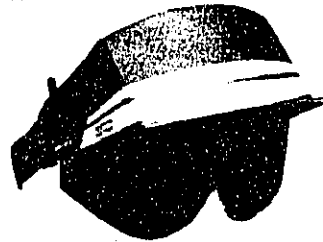
N-96-01  
II-A-539

# SAFETY SOLUTIONS CATALOG

HEARING/HEAD/EYE/FACE PROTECTION PRODUCTS



NEW VISION™ WELDING HOOD



NEW LEG PROTECTION/IMPROVED EYE PROTECTION

**Bilsom**®

Don't settle for a standard protector, when you can have a Bilsom.



Bilsom International, Inc.  
11800 Sunrise Valley Drive, Reston, VA 22091-5358, 703/620-3950

Dear Safety & Health Professional:

Successful New Products . . . .

Last year we introduced several new products via this catalog. Your reception of these innovative products has been most gratifying.

Our Combi™ units with replaceable lenses (page 15) have filled a very important need for many customers. Workers reception has been exceptional to this new concept in eye protection.

Your reception to our 3-way Pro System® units has prompted us to introduce additional designs (page 16).

Compact, our new low profile ear muff, has also allowed many workers to use a quality, lightweight muff with their face and head protection for the first time (page 12).

. . . . Spurs More Innovations!

Again, Bilsom is proud to break tradition with our new Vision™ Welding Hood. In fact, Vision's design varied from current standards, so we had to provide technical documentation to OSHA that Vision offered equal protection to traditional welding hoods.

With this documentation, OSHA issued a letter stating Vision offered equal or better protection (See page 1). So, you can be assured of outstanding protection along with Vision's special benefits (page 2).

We've also brought our innovative Pro Leggings™ from our Outdoor Safety Division. The polyester material used in our leg protectors have received the highest safety rating from the U.S. Forest Service (page 17).

We certainly appreciate your support and hope you'll continue to send us your comments on both our new, as well as our established products.

Sincerely,

BILSOM INTERNATIONAL, INC.



Roland Westerdal  
President

RW/daw

P.S. - See our special offers at back of catalog

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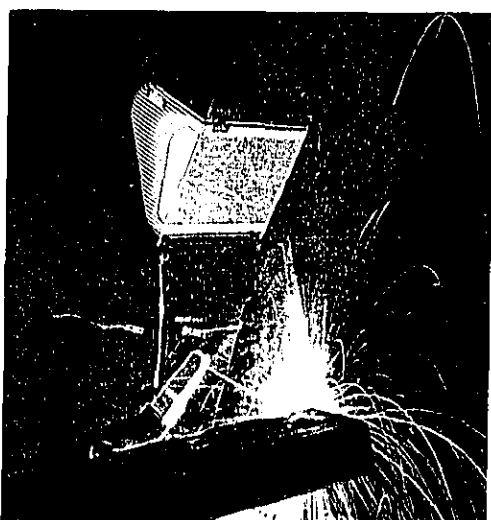
**See our New "Vision of the Future"  
page 1 & 2  
Use Special Reply Card at Back**

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**NEW—UNIQUE—COMFORTABLE**  
**COMBI EYE PROTECTION**  
**See page 15 for details**

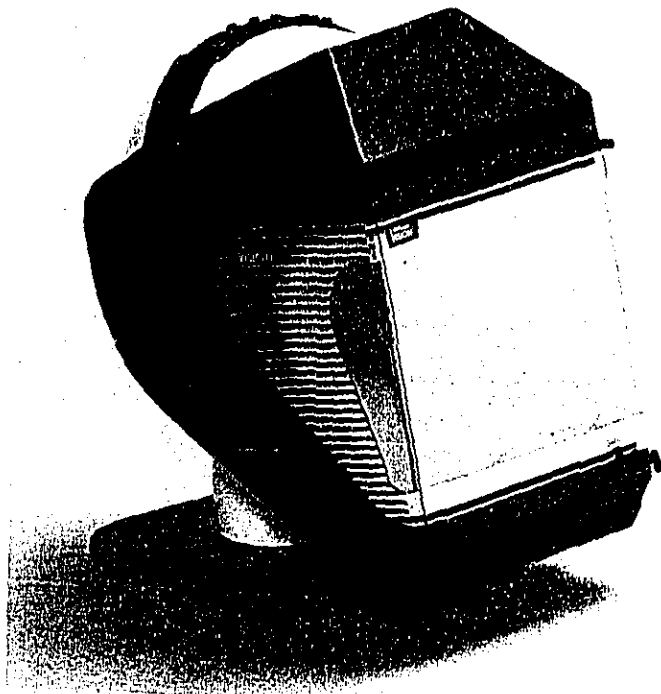
# BILSOM SAFETY PRODUCTS CATALOG

HEARING • EYE • FACE • HEAD PROTECTION



**Bilsom**

Product and  
Price Information



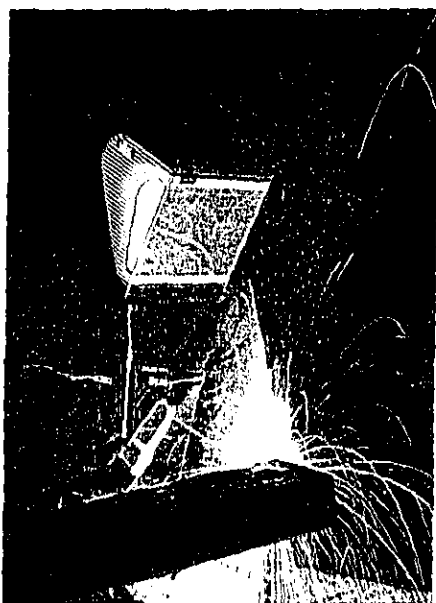
## **Bilsom** Vision™

### **Vision broke the standard so you can see the advantages!**

We thought welders had a very limited vision of their working world, so we opened up a large peripheral viewing area that allows you to see the entire job *before, during and after* lighting your arc. Of course, we had to prove to OSHA that this larger viewing area was safe against UV and IR exposure to the face and eyes. After months of testing, John B. Miles, Jr., OSHA Director of Field Operations, wrote:

*"OSHA has determined that (Vision Weld) can provide protection equivalent to that specified by OSHA standards."*

- Hood is always in "down" position for maximum protection
- Excellent protection against UV and IR light rays
- Foil reflects 80% of light and 85% of heat away from face
- Increased protection from co-workers' flash and slag
- Lightweight and flexible to resist cracking
- Use for chipping, grinding and many other jobs
- More accurate welds to increase production and efficiency

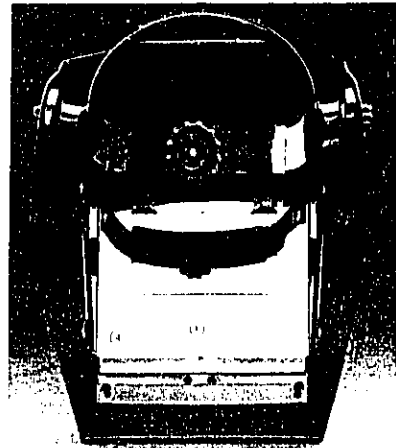


#### **Technical Information**

Weight:	15.5 ozs.
Helmet:	Crack resistant nylon
Panel:	3 layers heat resistant polycarbonate plus laminated reflective foil
Filters:	Optical quality plexiglass
Viewing Area:	Front—6 x 9" Filter—4 1/4 x 2 3/8"

**Protection, Productivity and Efficiency are yours with these unique benefits**

- ① Ability to see entire area *before and after* arc is lit with hood down.
- ② Adjustable filter plates in a variety of shades.
- ③ Increased UV and impact protection from 3 layers of polycarbonate.
- ④ Additional IR protection from aluminum foil reflecting 80% of light.
- ⑤ Unit weighs less than 1 lb.
- ⑥ Personal adjustments on headgear.



**Product No. 3460**

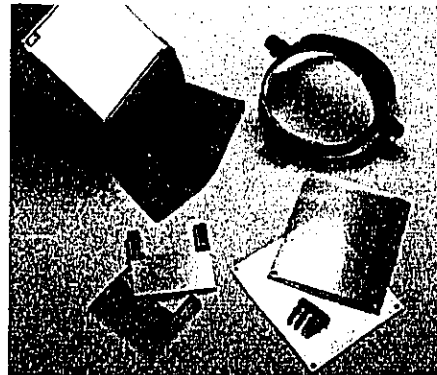
Complete Vision Hood with headgear and filter plate for Shade 10 equivalency.

1-9 units	.....\$41.60 each
10-19 units	.....40.35 each
20 or more units	.....39.55 each

**Product No. 3471**

Optional throat guard with velcro strap

1-9 guards	.....\$ 9.40 each
10-19 guards	.....9.10 each
20 or more guards	.....8.55 each



**Replacement Plexiglass Filter Plates**

Product No. 3462—for Shade 9 equivalency  
 Product No. 3463—for Shade 10 equivalency  
 Product No. 3464—for Shade 11 equivalency  
 Product No. 3465—for Shade 12 equivalency

1-9 filter plates	.....\$3.15 each
10-19 filter plates	.....3.05 each
20 or more filter plates	.....2.95 each

**Product No. 3470**

Replacement nylon headgear with ratchet adjustment

1-9 headgears	.....\$ 7.50 each
10-19 headgears	.....7.30 each
20 or more headgears	.....7.10 each



**Replacement Polycarbonate Front Panels and Pins**

Product No. 3468—Clear Panel

1-9 units	.....\$4.85 each
10-19 units	.....4.75 each
20 or more units	.....4.60 each

Product No. 3469—Tinted for aluminum welding

1-9 units	.....\$11.05 each
10-19 units	.....10.70 each
20 or more units	.....10.45 each

**All prices quoted are suggested resale prices.**

# New and Improved Hearing Protection

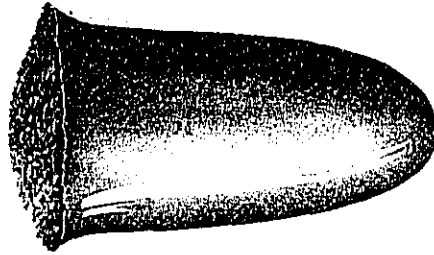
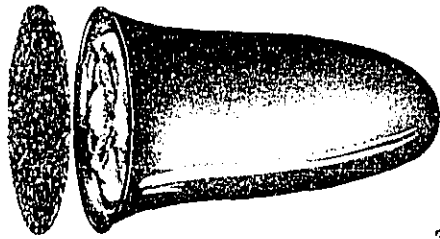
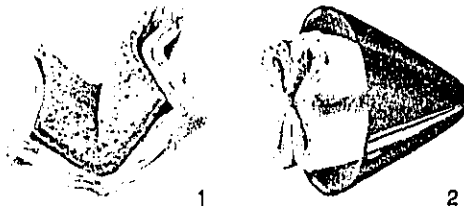
## Bilsom® SOFT

### New Product Features

Bilsom's new SOFT ear plug combines our high-attenuating fibers with a thin layer of foam (figure 1). The plug is then preformed in a smooth, dirt-repellent plastic film (figure 2). And to top it off, we have added a thin foam lid to hold it all in place (figure 3).

### Improved Consumer Benefits

- Easier fitting from resiliency of foam
- More secure fit with deeper insertion
- Better comfort from soft fibers
- Increased worker acceptance in field test
- Pre-shaped requires no rolling or shaping
- Closed top for easier removal
- Better visibility for compliance checks



Noise Reduction **26** DECIBELS  
Rating (WHEN USED AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATES FOR BILSOM SOFT EAR PLUGS IS APPROXIMATELY 20 TO 30 DECIBELS. PLEASE NOTE THE ATTACHED CAUTIONS.

BILSOM INTERNATIONAL, INC. #5046/5036/5056

For more information, contact your local Bilsom distributor or write to Bilsom International, Inc., P.O. Box 211, Dayton, OH 45421.



Complies with EPA requirements for 15% EPA compliance.





# Bilsom SOFT

## Three Packaging Choices! Including NEW Industrial Dispenser!

Soft ear plugs are available in three dispenser formats to meet your every need.

### Industrial Dispenser Refill—NEW

Dispenses one pair of clean, ready-to-use SOFT plugs at the push of the button. Contains 400 pair and works with our economical Proppomat Universal dispenser #0004. This dispensing system adds a high degree of visibility to your hearing conservation program. Protection is always available for employees as well as visitors and occasional users. Dispenser Refill packaging offers you 10% lower prices.

### SOFT Dispenser Refill

Product No. 5056

(Works with Universal Dispenser #0004.

See Page 5).

1-9 Dispenser Refills (400 pair).....	\$ 57.50 ea.
10-29 Dispenser Refills.....	44.75 ea.
30 or more Dispenser Refills.....	38.50 ea.

### Single Pair Pack

Colorful, sturdy dispenser contains 400 pairs of SOFT ear plugs. Swing-out drawer and individual packets offer best hygiene for many industrial areas. Perfect for stationary work situations.

Product No. 5046

1-9 Dispensers (400 pair).....	\$ 62.25 ea.
10-29 Dispensers.....	52.00 ea.
30 or more Dispensers.....	47.50 ea.

### Five Pair Pouch

Resealable pouch contains five pair of SOFT ear plugs. Sturdy dispenser with 80 pouches (400 pair) can be used alone or with special wall shelf #0006. Pouch can be carried in pocket or tool box and is best when personnel are in non-stationary work situations. See #0006 shelf, page 6.

Product No. 5036

1-9 Dispensers (400 Pair).....	\$ 62.25 ea.
10-29 Dispensers.....	52.00 ea.
30 or more Dispensers.....	47.50 ea.



#5056



#5046



#5036

All prices quoted are suggested resale prices.



## **Bilson P.O.P**

### **The Most Hygienic Plug Available.**

These comfortable ear plugs can be worn almost unnoticed by everyone. P.O.P is completely disposable for the best hygiene in any industrial situation. No rolling or molding is necessary.

P.O.P allows air and moisture to pass through into the ear canal, eliminating feelings of pressure and vacuum. Easy insertion is obtained with the polyethylene film wrapper.

#### **P.O.P Dispenser Refill**

Works with Proppomat Universal Dispenser No. 0004 or old style No. 0003. Contains 500 pair of plugs.

#### **Product No. 5521**

1-4 Refills (500 pair).....\$ 72.00 each  
 5-29 Refills..... 56.25 each  
 30 or more Refills..... 47.75 each

#### **Product No. 0004**

Wall-Mounted Universal Dispenser

1-9 Dispensers.....\$40.00 each  
 10 or more Dispensers..... 36.50 each

#### **P.O.P Pocket Pouch Dispenser**

Holds 50 pouches of 10 pair of plugs. Great to carry in tool box or pocket. Keeps plugs hygienically clean. Dispenser is sturdy cardboard and can be hung directly on wall, placed on shelf, or can be used with plastic shelf No. 0006.

#### **Product No. 5026**

1-9 Dispensers (500 pair).....\$ 77.75 each  
 10-29 Dispensers..... 64.50 each  
 30 or more Dispensers..... 59.25 each

#### **Wall Shelf for No. 5026**

Product No. 0006..... \$ 4.50 each

## **Bilson Eardown**

The original disposable used by workers worldwide for over 20 years. Eardown Pocket Pack is still available in both the handy pocket packs (No. 2000) and the refill (No. 3001) with dispenser (No. 0002).

**All prices quoted are suggested resale prices.**

# Bilsom Per-Fit®

## Improved, softer silicone

Per-Fit has been reformulated with a softer silicone formula for even more comfort than ever before. This softer silicone allows easier insertion and more comfortable fit all day long. Per-Fit will outlast PVC plugs by many months and is still non-toxic and non-allergenic for your safety.

## Now in two sizes.

Medium/Large size has unique conical shape which allows it to fit approximately 85% of all ear canals. New Small size has a collapsible air cavity that allows snug, comfortable fit in small canals.

Each pair of Per-Fit plugs comes with its own storage case and handy chain that allows the case to be kept on belt loop or safety cap. For best hygiene and long-lasting protection, daily washing with mild soap and warm water is recommended to remove dirt and contaminants. Packed 40 pair per unit.

## Per-Fit with Safety Cord

Safety neckcord recommended for canning, bottling, and similar processing areas. Cord also helps to prevent lost plugs.

**Product No. 5604—Small (green)**

**Product No. 5603—Medium/Large (blue)**

1-4 units of 40 pair ..... \$ 64.00 each

5-24 units of 40 pair ..... 57.20 each

25-49 units of 40 pair ..... 45.20 each

## Per-Fit without Safety Cord

For most industrial situations.

**Product No. 5602—Small (green)**

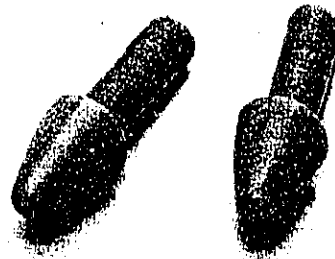
**Product No. 5601—Medium/Large (blue)**

1-4 units of 40 pair ..... \$ 52.80 each

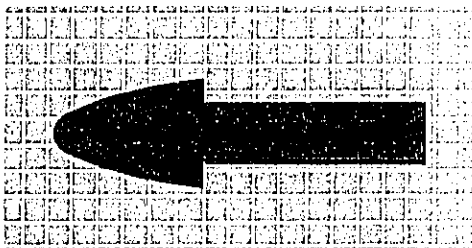
5-24 units of 40 pair ..... 48.80 each

25-49 units of 40 pair ..... 38.40 each

Larger quantities quoted upon request.



**NRR = 26** as tested

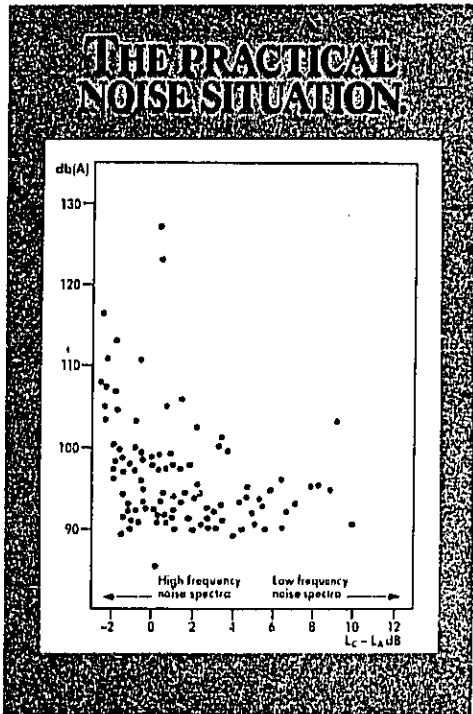


All prices quoted are suggested resale prices.

## What can we learn from NIOSH's Sample of 100 Industrial Noise Spectra?

The following observations can be made from the illustrated chart of the NIOSH Noise Spectra.

1. A full 90% of the noise spectra falls below 105 dB(A).
2. There is no single low frequency noise situation exceeding 105 dB(A). In fact, the vast majority of noise environments are dominated by high frequency noise.
3. Required noise attenuation for a noise environment of 105 dB(A) is a 22 dB Noise Reduction Rating (NRR), after the OSHA required 7 dB safety margin is considered.
4. If your company has access to and uses a noise level meter with C-scale readings, a noise level of 105 dB(C) requires only a 15 dB NRR.
5. We can conclude that the vast majority of industrial noise environments do not need NRR values of 25-30 dB.



The A-weighted sound levels of 100 noise spectra selected by NIOSH as being typical for industry in U.S. have been plotted against the differences between their C-weighted and A-weighted sound levels ( $L_C - L_A$ ).

## How Useful is the NRR?

The NRR values, required by EPA and used by manufacturers, are indeed making the selection of hearing protection easier, but are you aware of what is being sacrificed?

As we have seen above, low frequency noise environments are only a small fraction of the industrial noise environments. The NRR value is, however, a simplification and in order to adequately protect the few individuals exposed to low frequency noise, the majority ends up being over-protected.

Is there anything wrong with over-protection? Yes, in fact over-protection is undesirable if it leads to the choice of a less comfortable protector, or one that prevents communication when in use. A protector with a high NRR inevitably has high attenuation in the low frequencies which will lead to communication problems. If you choose a hearing protector with less low frequency attenuation, but good attenuation in the higher frequencies, you could get both the protection you need and the ability to communicate.

Your choice is, therefore, between simplicity or accuracy. You can achieve simplicity by subtracting published NRR values from readings obtained by using a noise level meter with a dB(C) scale. Accuracy can be achieved by using NIOSH Method #1, which evaluates each noise environment on its own noise frequency distribution, as well as the protector's capabilities.

## What is the Difference between Field Attenuation and the Manufacturer's Data?

Manufacturers' data represents correct fitting in accordance with manufacturers' usage instructions, and a product test as specified in *ANSI S3.19-1974*. These values are usually close to optimal, since the test subjects are required to follow usage instructions to the letter. This practice is necessary in order to make product tests repeatable.

Field data represents hearing protection as it is being used in the field. Proper hearing conservation methods, including training in the proper use and fitting of hearing protection tend to minimize the difference between laboratory and field data. The better organized and implemented your hearing conservation program is, the more you should be able to rely on the published NRR values.

The final judge of your hearing conservation program's effectiveness is your annual audiograms. If no new hearing damage is occurring, your program is working.

# Bilsom Universal Muffs

## Your Best Muff for Value

These lightweight muffs offer excellent protection, comfort, durability and versatility at a very competitive price.

They are both designed for all day comfort in most industrial situations. Excellent protection is provided in all frequencies. Bilsom Universal Muffs are fully dielectric.

Both feature soft, supple foam-filled ear cushions, as well as a fully rotating headband that rotates 360° and allows each individual to choose the most practical and comfortable wearing position. Bilsom Universal Muffs also feature sliding cups and flexible, self-aligning connections to assure a comfortable all-day fit.

### UF-2 Muff

Our lightest weight muff (4.8 oz.) comes with standard headstrap. Bright contour designed yellow cups add to the very attractive appearance of this muff.

#### Product No. 2450 (UF-2)

1-9 Muffs.....	\$ 8.60 each
10-59 Muffs.....	8.20 each
60 or more Muffs.....	7.60 each

### UF-1 Muff

Our most popular muff. Tough glass-fiber reinforced headband assures long life even under worst industrial conditions. Weighs only 6 ozs. Qualified Military Type II Muff.

#### Product No. 2308 (UF-1)

1-9 Muffs.....	\$ 10.50 each
10-59 Muffs.....	10.00 each
60 or more Muffs.....	9.35 each

Now Includes  
Headstrap

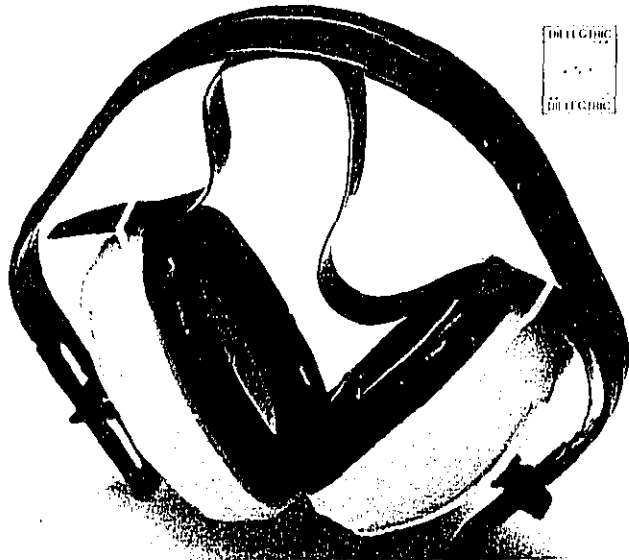
### IMPORTANT

Proper sealing of the ear cushions is critical to ear muff performance. The cushions tend to harden with use and it is recommended that cushions be replaced every three months of routine use.

### RECOMMENDATION

Order one or more pair of hygiene kits (page 11) with your earmuff purchase.

All prices quoted are suggested resale prices.



DIELECTRIC  
DIELECTRIC

UF2                      22dB                      21dB                      20dB

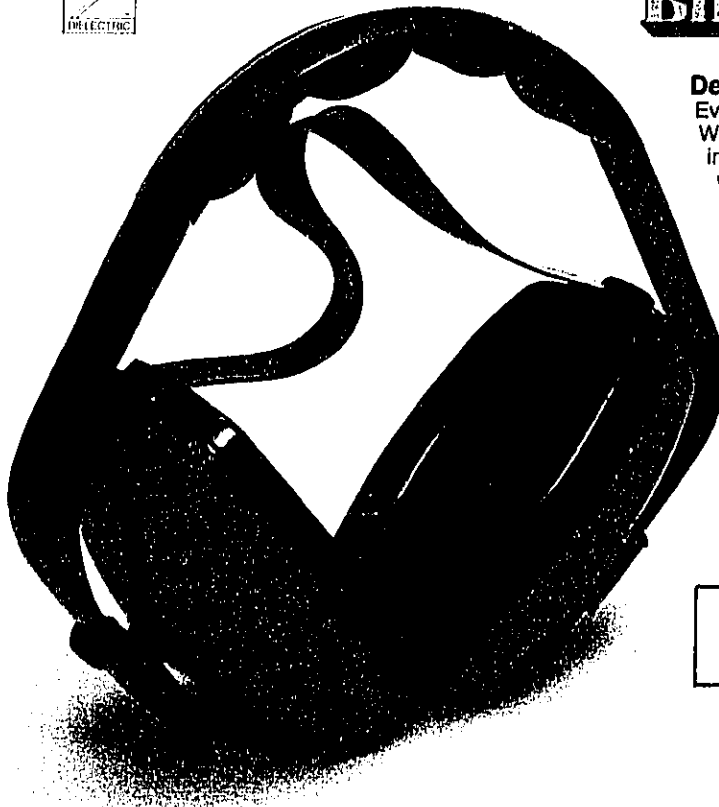
Noise  
Reduction  
Rating



UF1                      25dB                      24dB                      23dB



DIELECTRIC  
DIELECTRIC



## **Bilson** Comfort Muff

### **Designed with Comfort in Mind**

Everything about this muff is for your comfort. Wider cushions allow use of even softer foam in the cushions. Pressure is spread over a wider area for more comfort. Soft foam is also used in the headband pad to cushion top of head.

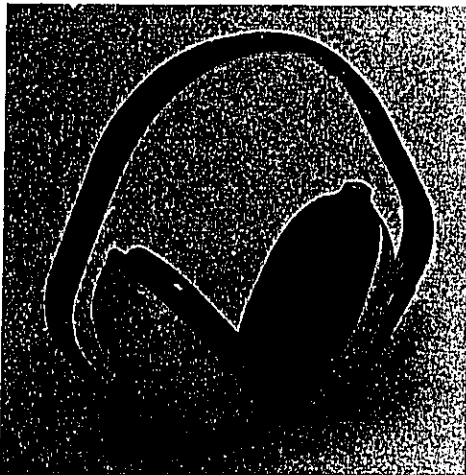
Easy slide adjustment of cups for most comfortable position. Head strap is standard with every muff for extra secure fit when used in all three wearing positions. Comfort is fully dielectric.

Stylish design and attractive red/black coloring combination makes the Comfort muff one of the most attractive muffs on today's market. Weighs 7.5 ozs

#### **Product No. 2315 (MDF-1)**

1-9 Muffs.....	\$ 14.25 each
10-59 Muffs.....	13.50 each
60 or more Muffs.....	12.50 each

**NRR = 25/24/23** as tested



## **Bilson** Universal Liquid Muff

### **Cool and Comfortable.**

Same great benefits as the UF muff, but the ear cushions are filled with a cooling glycerine liquid. Especially useful in high-ambient temperatures or similar conditions. The UL muff weighs 8.6 ozs. and uses Hygiene Kit #2304. Frequent checks for wear of cushions is recommended.

Not recommended for welding or other operations where puncture of seals may occur. Any liquid seal is unsuitable for use in cold temperatures.

**NRR VALUE of 22 dB in overhead position.**

#### **Product No. 2301 (UL-1)**

1-9 Muffs.....	\$ 12.80 each
10-59 Muffs.....	12.00 each
60 or more Muffs.....	11.20 each

All prices quoted are suggested resale prices.

## **Bilsom** Viking Muff

### **Heavy Duty Protection**

Superb attenuation in all frequencies, especially in the troublesome low frequencies. Best heavy duty muff available. New design incorporates several new features to improve attenuation and comfort. Wider ear cushions spread pressure over larger area for more comfort. Headband is equipped with a soft pad for extra comfort and stability, when worn in the overhead position. The extra-deep cups are filled with Bilsom's acoustic fibers. The acetate headband is designed for comfort—initial pressure is high to insure best fit, but gradually relaxes after about 20 minutes to a more comfortable level. As with all Bilsom muffs, personal adjustments are possible by simply sliding the cups up or down. All connections are flexible and self-aligning to help assure correct angle is maintained throughout the entire workday. The included headstrap is designed to give extra stability when the Viking muff is used in the behind-the-head or under-the-chin positions. The Viking muff weighs only 8.8 oz. Uses Hygiene Kit No. 2311. Can be used in 96% of industrial noise situations.

#### **Product No. 2318 (SDF-1)**

1-9 Muffs.....	\$ 19.65 each
10-59 Muffs.....	18.65 each
60 or more Muffs.....	17.30 each

**NRR = 29/28/28** as tested

### **IMPORTANT**

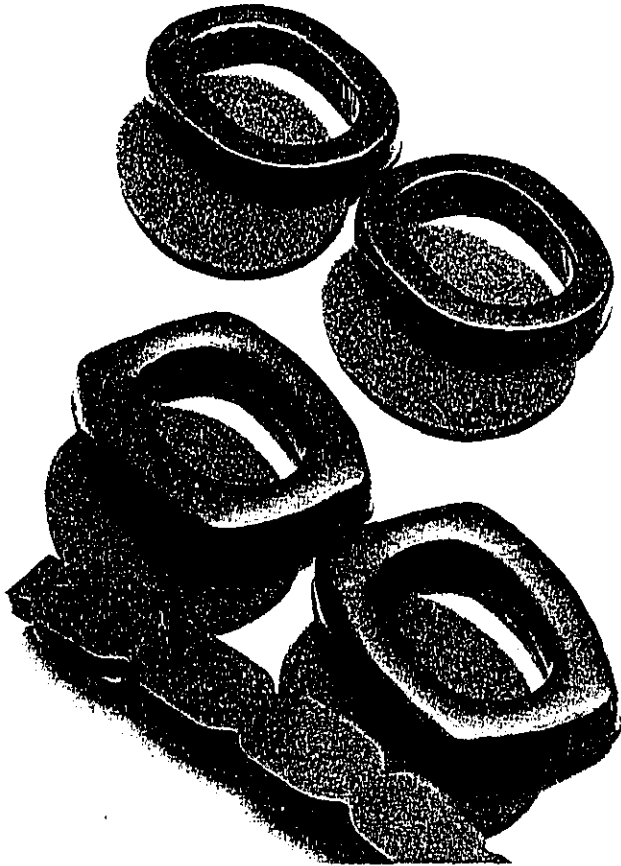
Proper sealing of the ear cushions is critical to ear muff performance. The cushions tend to harden with use and it is recommended that cushions be replaced every three months of routine use.

### **RECOMMENDATION**

Order one or more pair of hygiene kits (page 11) with your earmuff purchase.



All prices quoted are suggested resale prices.



## **Bilsom** Hygiene Kits

### **Economical Replacement Kits for Bilsom Earmuffs**

Two easily replaceable, snap-in cushions and two foam pads for use with product numbers 2450, 2308, 2301, 2454, 2309.

<b>Product No.</b>	<b>2310 (Foam)</b>	<b>2304 (Liquid)</b>
One Kit	\$ 3.45 each	\$ 4.00 each
Carton of 10 Kits	\$ 30.50 each	\$ 36.50 each

For Comfort and Viking model numbers 2315, 2318, 2313, 2314. Each kit contains two snap-in ear cushions, two foam closing pads, and a replacement headband pad. Replacement recommended every three months of normal use.

<b>Product No. 2311 (Foam)</b> .....	\$ 4.60 each
<b>Carton of 10 Kits</b> .....	39.00 each

## **Bilsom** COOL

### **Absorbent Muff Pad**

Multiple layers of super-thin, super-soft absorbent paper that really soaks up perspiration. Keeps you COOL and comfortable all day long.

Perfect for extra-dirty environments (foundry, mining) and chemical processing areas. Economical enough to be used as a disposable, but tough enough to be reused for one week in many work environments.

Each handy dispenser contains 20 resealable pouches of 5 pair, or 100 pair of pads. Sturdy dispenser can be hung on wall or act as a free-standing unit.

<b>Product No. 3451</b>	
1-9 Dispensers (100 Pair).....	\$ 28.00 each
10-59 Dispensers.....	25.00 each

### **Now Available in Single Pair Dispenser**

Easy slide tray dispenses a single pair of pads at a time. Each pair is kept clean and ready to use.

<b>Coolomat Dispenser</b>	
<b>Product No. 0009</b> .....	\$ 10.70 each

### **Coolomat Dispenser Refill**

<b>Product No. 3452</b>	
1-9 Refills (100 pair).....	\$ 24.00 each
10 or more Refills.....	21.00 each



All prices quoted are suggested resale prices.





## Bilsom Helmet Muff

### Lightweight and Economical

The Bilsom HF-6 is a sturdy, extremely lightweight (6.2 ozs) muff that allows you the same personal comfort and versatility of the Bilsom Comfort and Viking muffs for safety caps. Matte black finish on modern contoured cup.

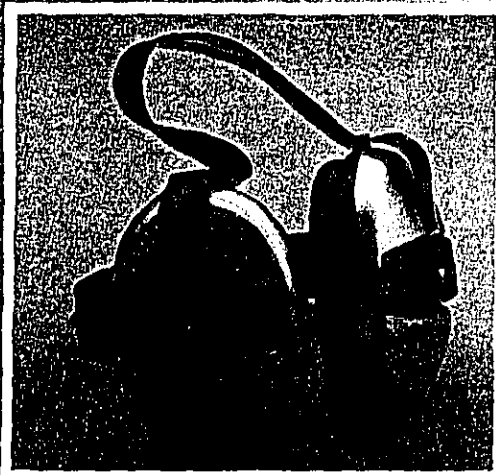
The HF-6 muff works with all the Slotted cap adaptors, Universal cap adaptors and the Screw-On adaptors found on page 14 for a wide variety of safety caps.

#### Product No. 2454 (HF-6)

1-9 Muffs .....	\$14.05 each
10-59 Muffs .....	13.20 each
60 or more Muffs .....	12.25 each

Adaptor required, see page 14.

**NRR = 22** as tested



## Bilsom Compact Muff

### Use with Welding Face Protection

This uniquely designed protector solves an age old problem of combining ear muffs with other required protection. Until now, there had to be a compromise.

Compact, with its recessed neckband, is designed to fit easily under most popular face shields, screens, and welding hoods. Light (5 ozs.) enough to be worn all day. Compact is the answer where normal muffs won't fit.

Uses Hygiene kit No. 2310

#### Product No. 2470

1-9 Muffs .....	\$11.75 each
10-59 Muffs .....	11.00 each
60 or more Muffs .....	10.40 each

All prices quoted are suggested resale prices.



## **Bilsom** Comfort Muff for Safety Caps

### Versatility and Comfort

All the great benefits of the regular Bilsom Comfort Muff are now available in a safety cap attachable model. A wide range of adaptors for all types of safety caps is listed on page 14. Weighs only 8.1 ozs. per pair. The Bilsom Comfort Muff has a convenient "rest" position built into each arm that allows the ears a quick "breather" during quiet periods.

A special "break-away" safety feature is designed to lessen impact force from falling objects (Photo A).

You can also adjust pressure of each arm independently by turning knob at top of arm (Photo B). This adjustment helps compensate for different widths of safety caps and allows you maximum comfort with full attenuation.

### Product No. 2313 (MHF-20)

1-9 muffs.....	\$16.15 each
10-59 muffs.....	15.30 each
60 or more muffs .....	14.25 each

Adapter required, see page 14.



**NEW**



## **Bilsom** Safety Cap

### Head Protection with Bilsom Quality

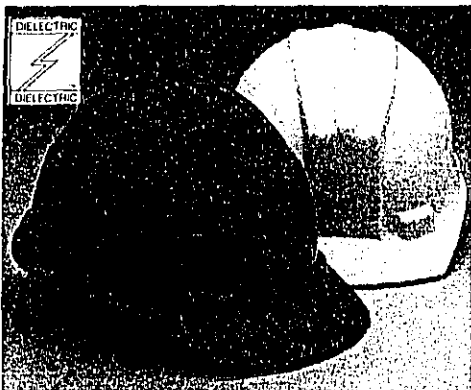
This tough polyethylene cap is designed to protect you against the one accident that we all hope will never happen. The Bilsom 4 point suspension system gives a comfortable, but secure fit for all day use—no matter how hard you work.

Bilsom caps will meet or exceed Class A and B requirements of ANSI Z89.1-1981 standards. You can choose from a variety of colors—White (W), Orange (O), Red (R), Yellow (Y), and Blue (B). Use color code as suffix when ordering.

Bilsom cap uses adaptor No. 3317 and accommodates the three muff models for safety caps and the face shield or face screens featured on page 16.

### Product No. 2604 (Color Code)

1-25 Caps .....	\$4.30 each
26-199 Caps .....	4.05 each
200 or more Caps .....	3.50 each



## **Bilsom** Viking Muff for Safety Caps

### For Extra Protection

All the great benefits described for the Bilsom Comfort safety cap model plus an extra deep ear cup to provide additional protection against low frequency noise—mining, construction, etc. Weighs only 9.4 ozs.

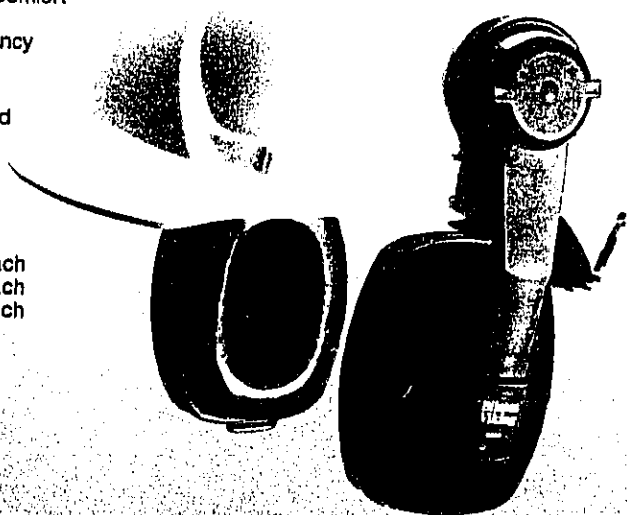
Viking cap muff works with all the adaptors listed below to enable use with all major safety caps.

Allows face shield and screens to be used with or without ear muffs, see page 16.

#### Product No. 2314 (SHF-30)

1-9 muffs .....	\$22.25 each
10-59 muffs .....	21.10 each
60 or more muffs .....	19.55 each

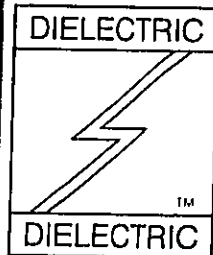
Adaptor required, see below.



## **Bilsom** Slotted Cap Adaptor

Now, one adaptor fits all major slotted safety caps. Easy way to adapt the Bilsom or other leading caps to a complete hearing/head protection system. Also allows use of Bilsom face shields and screens (page 16) for 3-way protection. No tools required. Easy to install. Completely dielectric.

Product No. 3318 ..... \$12.50 pair



## **Bilsom** Universal Cap Adaptor

Simple design, easy to use and looks in on requirements. Works with all Bilsom muffs. No tools required. Easy to install. Completely dielectric.

Product No. 3319 ..... \$12.50 pair

## **Bilsom** Screw-On Adaptor

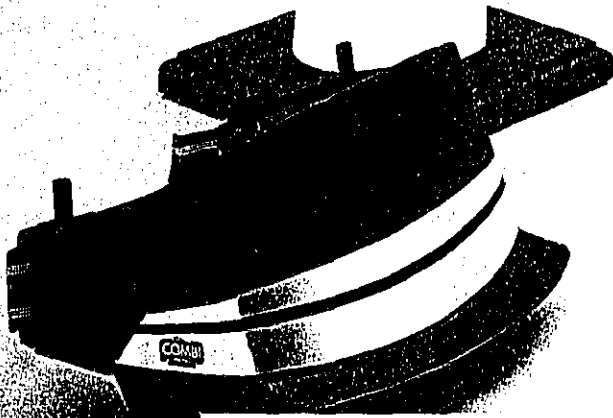
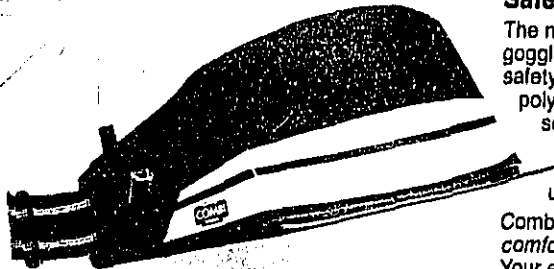
Attaches to Bilsom and other safety caps to become a complete hearing/head protection system. No tools required. Easy to install. Completely dielectric.

Product No. 3320 ..... \$12.50 pair

Also available in a variety of colors and finishes. See page 16 for more information.



NEW



## **Bilson Vision Combi™**

### **The Safety Goggle that Protects like a Safety Glass**

The new Bilson Combi™ offers the protection of a goggle, the impact resistance of a polycarbonate safety glass, the lightweight forehead protection of a polypropylene browguard and the comfortable secure fit of a wide strap with stylish good looks in one convenient unit. You can even flip-up the eye protection into the forehead housing unit when not required.

Combi's eye protection is also adjustable to press comfortably against your cheeks, without pressure. Your eyes are fully protected from all angles against chips, paints, sprays and other flying hazards. This tough polycarbonate protection meets or exceeds all impact and penetration tests of ANSI Z87.1-1979 standard.

The lightweight browguard is also ideal for employees working in confined spaces. The comfortable 1 1/4" wide strap assures the entire unit will stay in place no matter what. Combi weighs only 6 ozs. and fits directly over most prescription eye glasses. Thousands of applications in construction and industry, such as grinding, assembly, maintenance, concrete cutting and use in laboratories.

#### **Product No. 3436**

1-9 Units ..... \$17.95 each  
10-19 Units ..... 16.95 each

#### **Welding Combi**

Can be used for gas welding, assistants, students and others who occasionally need protection. Also great for chipping, and grinding with flip-up convenience for close-up inspection. Eye shield is shaded cellulose propionate. Meets ANSI performance standard.

#### **Product No. 3435**

1-9 Units ..... \$21.00 each  
10-19 Units ..... 19.95 each

#### **Replacement Lens**

Easy snap-in/snap-out lens for above Combi protective units.

Product No. 3430 Clear Coated Lens . . \$3.50 each

Product No. 3431 Clear Uncoated Lens \$2.05 each

Product No. 3432 Shaded Lens . . . . \$4.75 each

#### **Protective Film**

Fits all Combi units. Adds life and value to lens.

Product No. 3429 (Pouch of 5 films) . . \$ 3.10 pouch

#### **Replacement Foam Pads**

Replacement pad for inside of brim

Product No. 3433 (Pkg. of 5 pads) . . . \$ pack

## **Bilsom** 3-Way Pro Systems®

Complete all-in-one systems to give you hearing, head and face protection to meet a variety of needs. See descriptions of shields and screens below, caps on page 13, muffs on page 12-14.

**Product No. 2610**  
MF-6 muff, 4 pt. cap, polycarbonate visor ..... \$33.55 each

**Product No. 2611**  
MF-6 muff, 4 pt. cap, acetate visor..... \$32.85 each

**Product No. 2600**  
MF-6 muff, 4 pt. cap, steel screen ..... \$29.95 each

**Product No. 2601**  
Comfort muff, 6 pt. cap (with Pro System Imprint), steel screen..... \$37.70 each

**Product No. 2602**  
Viking muff, ratchet suspension cap with Pro System imprint, polyester screen ..... \$49.95 each

## **Bilsom** Face Shields

Works with Bilsom Pro System or with other leading caps by use of Bilsom adaptor (page 14). This 8 x 13 x .04" clear shield gives you full face protection. Easy snap-in replacement. Meets or exceeds requirements of ANSI Z87.1-1979. Completely dielectric

**Product No. 3500—Visor Assembly**  
Face Shield (No. 3581/3582) sold separately. Works with 3318 adaptor  
1-9 Assemblies ..... \$4.50 each

**Product No. 3582—Acetate Face Shield**  
1-9 Shields ..... \$4.25 each

**Product No. 3581—Polycarbonate Face Shield**  
1-9 Shields ..... \$4.75 each

## **Bilsom** Face Screens

Sturdy plastic construction for lightweight and durability. Screen can be placed in either "up" or "down" position. Full 8 x 11½ inches of protection. Perfect for chain saw or sawmill personnel. Works with 3318 adaptor.

**Product No. 3410—Steel Mesh** ..... \$ 8.85 each

**Product No. 3412—Polyester (Dielectric)** ..... \$10.10 each

Quantity prices available on all products.  
All prices quoted are suggested resale prices.





## **Bilsom** Pro Leggings™

Two styles of top-quality leg protection to give you that extra few seconds to react to a chain saw type accident. Six layers of lightweight polyester literally "explode" when grabbed by a chain saw, giving you extra time to release the trigger and minimize any damage.

Highest safety rating (3350 ft/sec) by U.S. Forestry Service.

### **Pro Leggings™ Pants**

- ① Full wrap-around protection
- ② 18" zipper for easy slip on/off design
- ③ Easy-to-use "pinch" buckles
- ④ Available in lightweight denim or rain-resistant cordura

### **Product No. 1600**

Pro Leggings—Denim (S, M, L, XL sizes) . . \$62.85 pr.

### **Product No. 1601**

Pro Leggings—Cordura (S, M, L, XL sizes) . \$71.70 pr.

### **Apron Style Chaps**

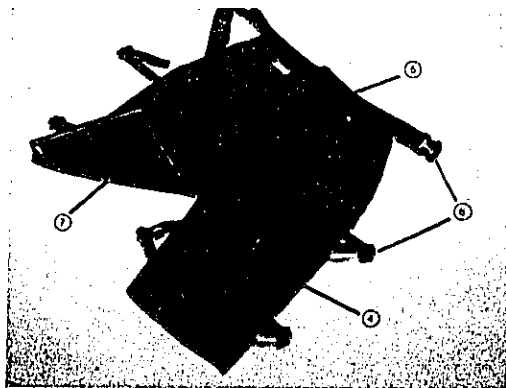
- ① Available in lightweight denim or rain-resistant cordura
- ② Simplest on-off design
- ③ Easy "pinch" buckles for secure fit
- ④ Over 10" of protection width

### **Product No. 1610**

Apron Chaps—Denim (M, L sizes) . . . . . \$62.85 ea.

### **Product No. 1611**

Apron Chaps—Cordura (M, L sizes) . . . . . \$71.70 ea.

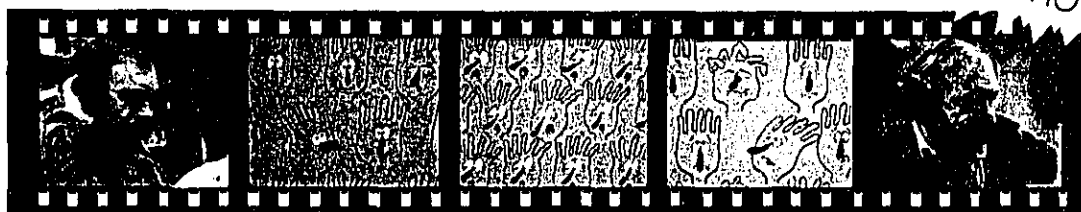


**Caution:** No leg protection product can guarantee to stop a chain saw and thereby eliminate the risk of injury. Leg protection is designed to give extra reaction time only. No extra protection is offered against slashing cuts such as a sharp knife or scissors, or against puncture wounds as from a nail.

All prices quoted are suggested resale prices.

# Bilsom Motivational Materials

IMPROVED

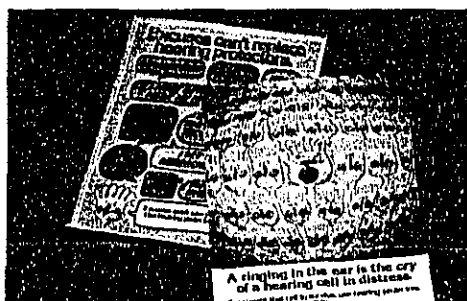


## Audio-Visuals

**Nice to Hear** gives an excellent overview of hearing and noise protection to create a better understanding by employees. A brief discussion of the ear's anatomy, audiometric testing and protection methods are discussed.

**S.O.S.** offers an explanation of hearing cell damage and encourages employees to wear protectors on a full-time basis. Uses animated cell characters for demonstration of damage. Offers brief product wearing and maintenance instructions at end.

Both films are available in 16mm, slide cassette, and video tape for rent or purchase.



## Posters/Signs

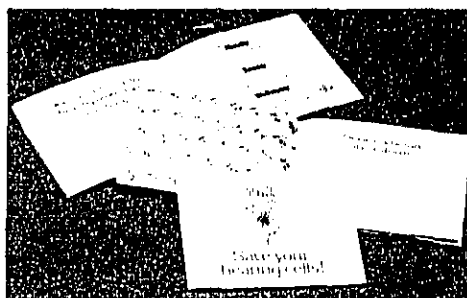
**"Warning Signs"** of bright yellow plastic to hang on wall. Meets OSHA requirements. 11 1/2 x 8"

**"Hands"** poster presents a rather dramatic warning to employees. Color, 16 1/2 x 11 3/4"

**"Anatomy"** poster gives an excellent reproduction of ear's anatomy. Great for teaching and display.

**"Screaming Cell"** poster shows relief for ringing in the ears.

**"Excuses"** commonly used by employees for not wearing hearing protectors are put into perspective.



## Books/Handouts

**In Defense of Hearing**—for the medical and allied health professional. 20 pages, color

**Guidelines for Hearing Conservation Programs**—for safety and personnel managers. 20 pages, color

**Danger of Evaluating Hearing Protectors on their Attenuation Alone**—for the safety and purchasing manager. 16 pages, color

**Some Practical Information on Noise and Hearing Protection**—for safety managers and front line supervisors: 8 pages, color

**Save Your Hearing Cells**—simple review of S.O.S. film for employee. 20 pages, color

**Hear Now and How Much**—simple but powerful reminders for employees. Handout size.



Contact Bilsom directly for ordering information for all education materials.

## Attenuation Data for Bilsom Hearing Protection Products

Bilsom products have been tested in accordance with ANSI S3.19-1974 standards by Dr. Paul Michael and Associates, Inc. Complete test results, including all positions for muffs, are available upon request.

Listed below are two Noise Reduction Ratings (NRR). The first is the actual test results for the most commonly worn position. The second is the "worst" position test results as required by EPA for labeling.

The last column (usable % of NIOSH) represents the percentage of industrial noise situations, as selected by the National Institute of Occupational Safety and Health (NIOSH), that would be safely protected with the corresponding Bilsom product's "labeled" position NRR value. These percentages are presented for the A scale. (7 dB is subtracted from NRR value in accordance with OSHA regulations.)

	Frequency HZ	125	250	500	1000	2000	3000	4000	6000	8000	NRR as tested in most common position	EPA NRR as labeled	Usable % of NIOSH Noise Spectra A-scale
		Mean Value	1 Std. Deviation	Mean Value	1 Std. Deviation	Mean Value	1 Std. Deviation	Mean Value	1 Std. Deviation	Mean Value			
Soft ear plugs	Mean Value	22	25	29	34	37	45	46	41	38	26.0dB	26dB	94%
	1 Std. Deviation	3.5	2.3	2.5	3.1	2.4	3.4	4.2	4.4	3.9			
Propp-O-Plast ear plugs	Mean Value	23	25	26	26	34	39	41	41	38	22.1dB	22dB	89%
	1 Std. Deviation	3.6	2.8	2.5	3.0	3.0	2.2	2.8	3.2	3.6			
Eardown® ear plugs	Mean Value	10	13	16	20	31	36	37	38	34	15.9dB	15dB	65%
	1 Std. Deviation	2.4	1.6	1.9	1.9	1.9	1.8	2.4	2.1	1.4			
Per-Fit* ear plugs	Mean Value	29	29	30	32	37	43	40	39	35	26.0dB	26dB	94%
	1 Std. Deviation	3.7	3.8	3.2	2.1	2.5	3.0	5.1	4.6	3.1			
UF-2 Muff foam seals	Mean Value	12	15	25	35	37	39	37	37	34	22.0dB	20dB	83%
	1 Std. Deviation	2.1	1.4	1.6	2.2	1.9	2.3	1.8	2.3	1.6			
UF-1 Muff foam seals, optional strap	Mean Value	17	20	26	33	40	45	47	45	44	25.3dB	23dB	89%
	1 Std. Deviation	1.9	1.3	2.4	1.7	1.5	1.9	1.4	1.9	2.8			
UL-1 Muff liquid seals, optional strap	Mean Value	15	19	24	33	39	40	39	30	34	21.8dB	21dB	83%
	1 Std. Deviation	2.2	2.9	3.0	2.2	2.3	1.5	3.3	2.7	1.4			
Bilsom Comfort Muff foam seals	Mean Value	17	21	24	36	38	41	42	39	36	24.8dB	23dB	89%
	1 Std. Deviation	2.1	1.9	2.0	1.8	1.8	2.4	1.6	2.5	1.9			
Viking Muff foam seals	Mean Value	23	25	31	36	40	42	42	39	37	28.7dB	28dB	96%
	1 Std. Deviation	2.2	2.0	1.9	2.2	2.0	2.3	3.2	3.2	3.0			
Bilsom Comfort Muff for Safety Cap	Mean Value	14	18	25	34	35	40	41	41	38	23.0dB	23dB	89%
	1 Std. Deviation	2.8	2.0	2.5	2.5	3.0	2.5	2.2	2.7	2.8			
Viking Muff for Safety Cap	Mean Value	15	21	27	37	38	38	42	42	39	25.0dB	25dB	92%
	1 Std. Deviation	1.8	2.0	2.5	2.8	1.5	2.3	3.0	3.7	3.8			
HF-6 Muff foam seals	Mean Value	15	16	21	30	35	39	40	35	35	22.0dB	22dB	89%
	1 Std. Deviation	0.9	1.0	1.6	1.7	1.3	2.5	1.9	4.7	4.8			
Compact Muff foam seals	Mean Value	10	12	19	24	33	35	39	40	38	17.0dB	17dB	81%
	1 Std. Deviation	2.8	1.8	3.0	2.2	3.5	3.5	3.7	4.7	4.9			
Soft plug & Viking Muffs combined	Mean Value	25	34	45	45	41	51	51	49	46	33.0dB	N.A.	97%
	1 Std. Deviation	4.2	2.7	3.1	3.0	3.4	4.5	5.4	4.8	4.1			

All Bilsom products comply with OSHA, NIOSH, EPA and ANSI requirements and standards for their designated product group.



Bilsom International, Inc.  
11800 Sunrise Valley Drive  
Reston, VA 22091  
703/620-3950



**Please have a Bilsom representative call on me to discuss the following new products:**

- |  |  |
|--|--|
| <input type="checkbox"/> Vision™                     | <input type="checkbox"/> Pro-Leggins™        |
| <input type="checkbox"/> Combi™ Eye Protection       | <input type="checkbox"/> Compact Ear Muffs   |
| <input type="checkbox"/> Vision Face Shields/Screens | <input type="checkbox"/> Slotted Safety Caps |

Name: \_\_\_\_\_

Title: \_\_\_\_\_ Phone: \_\_\_\_\_

Company: \_\_\_\_\_

Shipping Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Employee education has proven to be a major part of successful hearing conservation programs. Bilsom's audio-visuals, booklets, posters and other materials can help you get started or improve your existing program with greater understanding and compliance.**

*See page 18 for details.*

**STOP! STOP! STOP!**  
**I'm receiving duplicate or unwanted copies of your catalog. Please delete or change the information below.**

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**BUSINESS REPLY CARD**

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**Bilsom International, Inc.**  
11800 Sunrise Valley Drive,  
Reston, VA 22091-5358,  
703/620-3950

**Save Time, Save Money!**

Order economical hygiene kits with  
your purchase of muffs and save  
reordering time.

Replacing cushions and pads helps keep  
muff at peak performance and comfort  
levels, while giving extra life and more  
value to your Bilsom muffs. See  
opposite order form.



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**BUSINESS REPLY CARD**

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11800 Sunrise Valley Drive,  
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## Product Order Form

Name \_\_\_\_\_  
 Title \_\_\_\_\_ Phone \_\_\_\_\_  
 Firm \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 P.O. # \_\_\_\_\_ Date \_\_\_\_\_

Product	Product #	Price Per Unit	Quantity Ordered	Total Cost
<b>Vision™</b>				
Vision Welding Hood	#3460	41.60 ea.		
Throat Guard	#3471	9.40 ea.		
Filter Plates (Shade # )		3.15 ea.		
Clear Panel Kit	#3468	4.85 ea.		
Tinted Panel Kit	#3469	11.05 ea.		
<b>SOFT ear plugs</b>				
Dispenser Refill (400 pair)	#5056			
(See Proppomat #0004)				
1-9 Dispenser Refills		57.50 ea.		
Single Pair Dispenser (400 pair)	#5046			
1-9 Dispensers		62.25 ea.		
10-29 Dispensers		52.00 ea.		
Five Pair Dispenser (400 pair)	#5036			
1-9 Dispensers		62.25 ea.		
<b>Proppomat Universal</b>	#0004			
(Works with SOFT #5056 P.O.P. #5521)				
1-9 Dispensers		40.00 ea.		
<b>P.O.P. ear plugs</b>				
(See Proppomat #0004)				
Dispenser Refill (500 pair)	#5521			
1-4 Dispenser Refills		72.00 ea.		
<b>Ten Pair Dispenser (500 pair)</b>	#5026			
1-9 Dispensers		77.75 ea.		
<b>Per-Fit* with neckcord</b>	#5603 (medium/large)			
1-4 units of 40 pair		64.00 ea.		
5-24 units of 40 pair		57.20 ea.		
	#5604 (small)			
1-4 units of 40 pair		64.00 ea.		
5-24 units of 40 pair		57.20 ea.		
<b>Per-Fit* without neckcord</b>	#5601 (medium/large)			
1-4 units of 40 pair		52.80 ea.		
5-24 units of 40 pair		48.80 ea.		
	#5602 (small)			
1-4 units of 40 pair		52.80 ea.		
5-24 units of 40 pair		48.80 ea.		
<b>UF-2 Muff</b>	#2450			
1-9 muffs		8.60 ea.		
10-59 muffs		8.20 ea.		
<b>UF-1 Muff</b>	#2308			
1-9 muffs		10.50 ea.		
10-59 muffs		10.00 ea.		
<b>UL-1 Muff</b>	#2301			
1-9 muffs		12.80 ea.		
<b>Bilsom Comfort Muff</b>	#2315			
1-9 muffs		14.25 ea.		
10-59 muffs		13.50 ea.		
<b>Viking Muffs</b>	#2318			
1-9 muffs		19.65 ea.		
10-59 muffs		18.65 ea.		
<b>Compact Muff</b>	#2470			
1-9 muffs		11.75 ea.		
10-59 muffs		11.00 ea.		
Total Column #1				

Product	Product #	Price Per Unit	Quantity Ordered	Total Cost
<b>Bilsom Comfort Cap Muffs</b>	#2313			
1-9 pair		16.15 ea.		
<b>Viking Safety Cap Muffs</b>	#2314			
1-9 pair		22.25 ea.		
<b>Bilsom Safety Cap</b>	#2604			
1-25 caps		4.30 ea.		
<b>Slotted Safety Cap Adaptors for #2313/#2314/#2315 muffs</b>	#3318	2.50 pr.		
<b>Universal Adaptor for #2313/#2314/#2454 muffs</b>	#3301	4.50 pr.		
<b>Screw-On Adaptor for #2313/#2314/#2454 muffs</b>	#3310	1.50 pr.		
<b>HF-6 Muff</b>	#2454			
1-9 pair		14.05 ea.		
10-59 pair		13.20 ea.		
<b>COOL Pads Dispenser Pack</b>	#3451	28.00 ea.		
<b>Coolomat Dispenser</b>	#0009	10.70 ea.		
<b>Coolomat Refill (100 pair)</b>	#3452	24.00 ea.		
<b>Hygiene Kits</b>				
<b>Hygiene Kits—Foam</b>	#2310			
Kit		3.45 ea.		
Carton of 10 kits		30.50 ea.		
<b>Hygiene Kits—Liquid</b>	#2304			
Kit		4.00 ea.		
Carton of 10 kits		36.50 ea.		
<b>Hygiene Kits—Foam</b>	#2311			
Kit		4.60 ea.		
Carton of 10 kits		39.00 ea.		
<b>Combi Eye Protection—Clear</b>	#3436	17.95 ea.		
Welding (Shaded)	#3435	21.00 ea.		
Replacement Films (5 pr.)	#3429	3.10 ea.		
<b>Pro Systems</b>				
HF-6/4 pt. cap/polycarbonate	#2610	33.55 ea.		
HF-6/4 pt. cap/acetate	#2611	32.85 ea.		
HF-6/4 pt. cap/steel	#2600	29.95 ea.		
Comfort/6 pt. cap/steel	#2601	37.70 ea.		
Viking/6 pt. cap/steel	#2602	49.95 ea.		
<b>Face Shields</b>				
Visor Assembly	#3500	4.50 ea.		
Acetate Shield	#3582	4.25 ea.		
Polycarbonate Shield	#3581	4.75 ea.		
<b>Face Screens</b>				
Steel Mesh	#3410	8.85 ea.		
Polyester	#3412	10.10 ea.		
<b>Pro Leggins™</b>				
Leggins—Denim	#1600	62.85 pr.		
Leggins—Cordura	#1601	71.70 pr.		
Apron—Denim	#1610	62.85 pr.		
Apron—Cordura	#1611	71.70 pr.		
<b>Total This Column</b>				
Total Column #1				
Shipping and Handling				
<b>Total This Order</b>				

All prices herein are suggested resale prices only. Local Bilsom distributors who will deliver and invoice this order may vary his prices from those listed. **Please include prepayment for all orders less than \$50.00.** Please include estimated shipping and handling charges. Minimum \$2.50. Send to: **Bilsom International, Inc., 11800 Sunrise Valley Drive, Reston, VA 22091-5358, 703/620-3950, Telex: 82-4458**

# Bilsom

Bilsom International, Inc., 11800 Sunrise Valley Drive  
Reston, VA 22091-5358, 703/620-3950

## Safety Solutions Catalog

New and Innovative Personal Protection  
Products to solve your safety needs.

- HEARING PROTECTION
  - EYE PROTECTION
  - HEAD PROTECTION
  - FACE PROTECTION
- and NOW!*
- WELDING HOODS
  - LEG PROTECTION

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