Key Features of a Great Magnifier

Eschenbach Optik of America, Inc. is pleased to offer you this helpful e-book describing the top features of a good quality magnifier. As a subsidiary of Eschenbach Optik GmbH in Germany, the company knows a thing or two about what it takes to produce a top quality magnification solution. Founded in 1903, Eschenbach Optik GmbH is the world leader in the manufacture and distribution of high quality magnifiers and other low vision aids and the company has had many firsts in the industry and a number of its products have won design awards over the years.

People who need a magnifier often have vision loss that is not fully correctable by prescription eyeglasses, contacts, surgery or pharmaceuticals. They often have an eye disease such as age-related macular degeneration (AMD), diabetic retinopathy, glaucoma or cataracts, among others, that causes the vision loss and in total, they number over 20 million people in the US alone.

Fortunately, most of these people can continue to enjoy daily activities such as reading, writing, watching television or doing crossword puzzles, hobbies or crafts with the help of the correct magnification device, of which hand-held magnifiers and stand magnifiers are options (with the others types of low vision aids being spectacle magnifiers, telescopes, absorptive filters and electronic or video magnifiers).

Many people with low vision find they can remain independent and productive through the help of a quality magnifier, so here are some top features to look for to make sure you get a magnifier that will help you reach your visual goals:

1) **A Distortion-free Lens:** When it’s hard to see to begin with, it doesn’t help when a magnifier’s lens distorts an image making letters appear wavy and difficult to read. Even if the distortion is in the periphery (outer border) of the lens, it renders that portion of the lens unusable, and shrinks the field of view so that only a few letters can be seen clearly at once. This leads to a slower reading speed and makes comprehension that much more difficult. Top quality magnifiers are manufactured to the highest standards (ISO9001) to ensure the lenses do not shrink or change shape in the manufacturing process. When made to these high standards, there are no distortions in the lens so the whole lens can be used, thereby providing a larger field of view (so more letters are seen at one time), faster reading speeds, and higher levels of comprehension! So, be sure to ask for the highest quality magnifier to get the clearest (and largest) field of view!

2) **Protective Lens Coatings:** Most lenses in magnifiers are made of plastic, and over time, they will inevitably scratch due to their rubbing up against objects in bags or pockets or by just by being used roughly. Scratched lenses are difficult to see through and there is no easy way to buff out the scratches, so, the only solution is to discard the scratched magnifier and purchase a new one—and that can get expensive! Top quality magnifies have lenses with strong scratch-resistant coatings on them to minimize scratching - in some cases cutting the
number of scratches by 50%! This means the lens remains clear and usable over a longer period of time eliminating the need to purchase a replacement magnifier! And, that lowers your cost in the long term! When purchasing your next magnifier, be sure to ask for one with anti-scratch coating – you’ll be able to use the magnifier that much longer!

3) **Superior Illumination:** Most people prefer a magnifier that has built-in illumination and the type used most often these days is LED (light emitting diode) illumination. This type is used most often now because the illumination lasts 50,000 hours and there are no bulbs that need replacing. Not all illuminated magnifiers, however, use the LEDs the same way. Poor quality magnifiers don’t use converters to regulate the voltage sent from the battery to the LED, thereby sending too much voltage initially to the LEDs and causing glare which makes the magnifier uncomfortable to use. Low quality magnifiers then may also not send enough voltage later on which leads to a quick drop-off in brightness so batteries need to be replaced sooner which increases your cost in the long run. High quality magnifiers use step-converters to regulate the voltage that enters the LEDs, provide more balanced illumination over a longer period of time and draw less energy from the batteries so they don’t need to be replaced as often, thereby reducing your usage costs! In addition, high quality magnifiers include removable tinted caps that fit over the LEDs that change the color and intensity of the illumination, thereby minimizing glare and making it more comfortable to see. So, be sure to ask for a magnifier that has a step-up converter and tinted caps so you can enjoy the most out of your LED illumination!

4) **Large, Thin Lens:** Everybody would prefer the largest and thinnest magnifying lens possible to enlarge what they see, but the laws of physics and optics dictate that the larger the size of the lens, the thicker and heavier it will be. In addition, as the power of the lens increases, the diameter gets smaller and the thickness gets greater. This holds true for all lens types, but a newer diffractive lens design allows lenses to be thinner and lighter than ordinary refractive lenses. All low quality magnifiers use regular refractive lenses which can be small, thick and heavy. High quality magnifiers use the newer diffractive lens design which makes the lenses up to 25% larger and only ¼ the thickness of comparably powered refractive lenses. This means users can see more letters at one time leading to a faster reading time and greater comprehension. And, the thinner lenses allow the magnifier to be more portable because they are smaller and lighter in weight. And when incorporated into a hand-held magnifier, another added benefit is that a lightweight magnifier can be held for longer periods of time without discomfort. So, when you purchase your next magnifier, ask for one with a high-quality diffractive lens!

5) **Excellent Warranty:** Lower quality hand-held magnifiers may come with a 1 or 2 year warranty against manufacturer’s defects. This means users have to purchase a brand new magnifier if a problem arises after the warranty expires. Manufacturers of higher quality magnifiers stand behind their products due to their superior design and manufacturing processes and offer a life-time warranty against manufacturer’s defects on their products. This means users won’t have to purchase a replacement product if there is a manufacturer’s defect – ever - thereby saving time and money!
Where can I get a high quality magnifier with all these features?

Eschenbach carries such high quality magnifiers and some of them are available for sale direct to consumers on our website (www.eschenbach.com). Other products are available from our network of authorized eye care or vision rehabilitation professionals. To find one in your area, click here or just contact our Customer Service Department at (800) 487-5389.

Please note that one of the main reasons we distribute most of our products through eye care and vision rehab professionals is for your benefit so that you get the correct magnification solution for your particular vision needs and for your specific vision task. With over 1,000 products, it can be a bit overwhelming to figure out which product is best. And there are lots of variables to consider when deciding on a magnifier such as the type and severity of the vision loss being addressed, the distance and duration of the task trying to be accomplished, the environment of where the task is being done, and the presence any other health issues (like tremors) that might compromise the proper use of the product.

Our authorized eye care and vision rehab professionals are trained to be able to help identify the best magnification products for a person, thereby eliminating any frustration that could arise by not knowing what is needed. And they can provide the necessary training on how to properly use the product so that you have the most successful outcome possible!