

THE SPECTACLE STORY – HOW GLASSES ARE MADE

Your eye-care practitioner does not just test your vision for your prescription, he also gives your eyes a full health check. Every pair of glasses purchased through an eye-care practitioner is made individually for the wearer. Although they have been called glasses for many years, in fact these days spectacle lenses start out as a liquid polymer in a barrel, which is then injected into a high-precision lens mold. From there, the lens goes through a range of manufacturing processes and quality checking to make sure it's flawless and crystal clear before it's sent to the laboratory. After the optometrist tests your eyes, he phones or electronically sends your unique prescription to the laboratory. Believe it or not, all of these people will be involved in making up your individual prescription. Once your order is received, the warehouse staff select the appropriate stock to match your prescription and send it to the lab. The lab then starts to select the appropriate tools to grind and polish the lens to your personal prescription. Your individual measurements need to be marked on the lens. Then it's ground and polished on one side to those specifications. Special new technology called the free form is now also applied to many lenses to further enhance your vision. The improvements this process offers could be compared to the difference in viewing an old-fashioned tube TV to one with flat-screen technology. This new technology improves the optical performance of your lenses so you can see more of the page when reading. And your computer screen has a wider field of view. Most lenses in Australia are then dipped in a special hard coat which adds UV protection and helps eliminate scratching. This has to be literally begged on. Living in Australia it is almost a necessity to have a UV coating on your spectacles to protect your eyes from the harmful rays of the sun. You should also ask for an anti-reflective coating which removes annoying reflections. If you have chosen to have a brown, blue or pink tint, the lens needs to be dipped in a tinting bath to achieve the correct color. At this stage, the large round lens has to be cut down to fit the individual spectacle frame. Each frame outline is traced to within a hundredth of a millimeter to ensure exact fitting of the lens into the frame. The technician then double checks that the lens' shape will fit the frame precisely. For rimless frames, a highly-trained fitter has to drill tiny holes into the lens to fit the frame. One small mistake by this technician and these lenses have to be discarded and the entire process starts again. Finally, depending on whether you have chosen a frame or a rimless spectacle the lens needs to be accurately positioned and attached firmly to the frame. Throughout all of these processes, quality checking continues to ensure that the best vision correction is achieved for every customer. This is the final inspection where the technician is making absolutely certain that it's your prescription in your frame. Your unique spectacles are then carefully packed and returned to your eye-care practitioner. When you collect your glasses, it is important that they are checked and adjusted to ensure maximum comfort and best possible vision. This is just a brief overview of the people, skills and technology, which go into making every pair of prescription spectacles ordered from your eye-care practitioner.