



## **High Definition Free-form Bifocals Now Available**

**Increase Your  
Bottom Line**

*Offer Your Bifocal  
Patients an Upgrade to  
High Definition!*

Nova Optical Labs is proud to announce our brand new offering of free-form surfacing on flat-top bifocal and trifocal lenses. With this new application of free-form technology, we're able to give the precision and quality of free-form lenses to bifocal wearers. Not only that, but this option gives the ECP another tool to use when offering lens choices to their patient.

## **How Does it Work?**

**Free-Form  
Technology  
on  
a Flat Top**

This works very similarly to how all other free-form lenses work, but in this case we start with a flat-top bifocal instead of a single vision lens. We've developed our own software to interface with the IOT free-form calculation engine to allow us to process bifocals. We follow the same processing that is used for other free form lenses. The benefits that you see are the same as those found in the jump from a traditional single vision to a free-form single vision lens. The add power is still on the front, like a regular flat top, but the back side becomes an aspheric surface, tailored to suit the specific prescription and frame of the patient. It is necessary to compensate the prescription for these measurements to ensure that the patient is getting their prescribed power, regardless of which part of the lens they are looking through. Traditional methods of lens surfacing focus on checking the lens with a lensometer, which is different than the way in which the patient will be looking through the lens. A lensometer looks straight ahead through any give point on the lens, but this isn't the way that the patient is going to be looking through the lens. Once the patient is wearing the lenses, the lenses don't move, and the patient simply rotates their eye to look through a different portion of the lens.

**Developed by  
and Exclusively  
Available from  
Nova**

## How can the ECP use this?

There's nothing that people like more than being able to upgrade. This offers them exactly that option for their flat top. This is going to be a great product for the ECP in terms of being able to increase their sales. There's still quite a number of patients out there that wear flat-tops. Either they don't like progressives, can't adapt to them, or don't want to pay for them. With progressives, there's multitudes of different brands and quality levels, but a flat top is pretty much the same, no matter who makes it. There also isn't really much of an option for an 'upgrade' when it comes to flat-tops. Now, the ECP is able to offer their patient the option to upgrade to High Definition flat tops. It's about time that the industry was able to offer a flat top lens that can be aimed at a higher level of patient. Just because a patient is wearing a bifocal doesn't mean that they don't want the latest technology.

## What's the Benefit?

Traditional lens surfacing has a single optical center, which can vary according to the patient's specific fitting height. There is only ever this single optimal optical point in these lenses. As the patient moves their eye away from this single point, the optics of the lens get worse the closer the patient's eye moves to the peripheral of the lens. Free-form is the tool that we use to correct this. This technology allows us to use computer-controlled precision cutting to create hundreds of different power variations on the back side of a lens. This results in an aspheric back side that is optimized for the patient's prescription in the frame that they're wearing. This is referred to as a compensated lens, where the power is adjusted based on advanced frame dimensions

These frame dimensions include the pantoscopic tilt, wrap angle, and vertex distance. Computer models can take this frame information with the patient's prescription and model how the human eye moves. This allows the optimal power for every point along the back side of the lens to be calculated, based on the angle at which the patient will actually be looking out of the lens. This results in much better peripheral vision for the patient, because the software understands how the human eye moves.

### High Definition Availability

#### Bifocals

- √ Flat Top 28
- √ Flat Top 35

Bifocals—1.50, 1.50 Trans., 1.53, 1.53 Trans, 1.59, 1.60, 1.67



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