

OptoTech Minimal Distortion

*Innovative calculation technology with the world's
best relation between distortion and addition*



OMD Technology

OptoTech Minimal Distortion



Aberrations: The challenge of all progressive lenses

The optical performance of all progressive lenses is subjective and depends on the wearer's needs and personal visual system. However, there is one universal key factor that has a major effect on the lens performance: the amount and placement of unwanted aberrations. In general, aberrations cause the image formed by a lens to be blurry or unsharp. Those aberration zones are located at the lateral region of the lens close to the progression corridor and near visual zone, which compromise peripheral vision. Wearers usually experience aberrations as levels of blur or swim effect which can cause feeling nauseous or dizzy and negatively affects the wearer's adaptation.

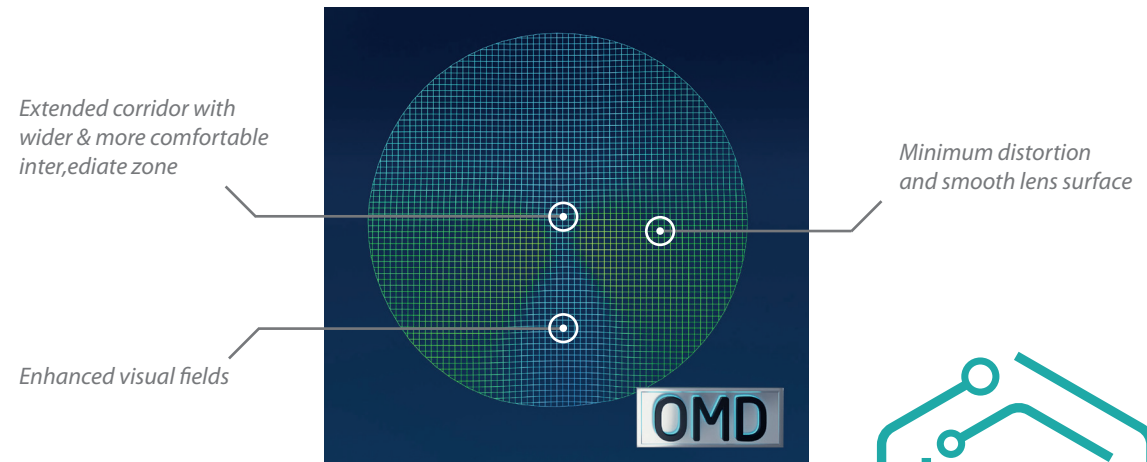
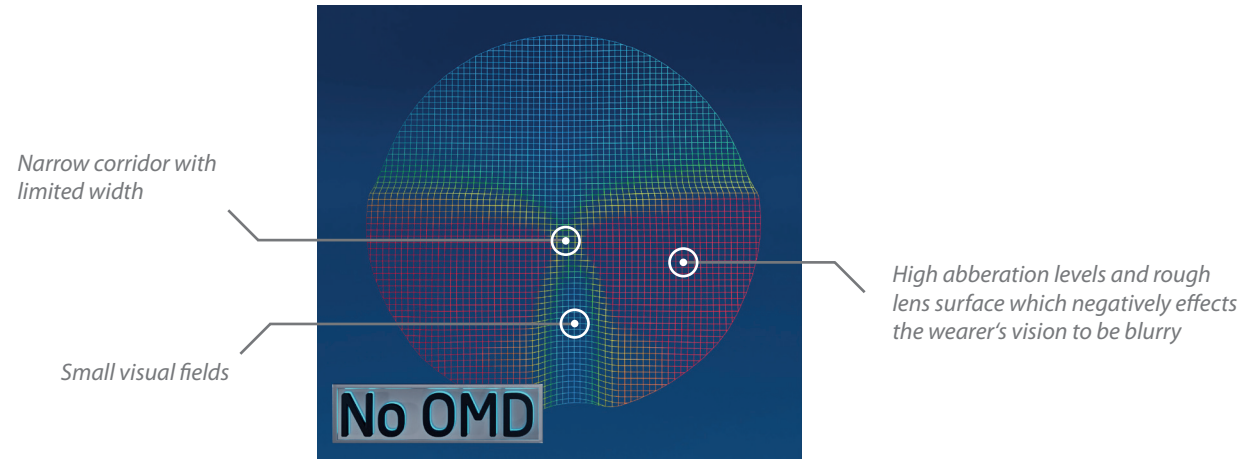
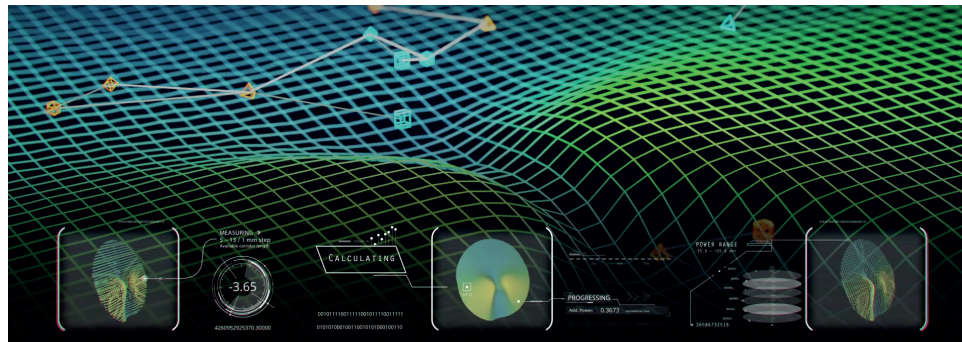
Unfortunately, these image distortions are general properties of progressive lenses and are inevitable. Correlation between the wearer's prescribed addition power and aberrations is defined by physics and elaborated by Minkwitz Theorem. According to Günter Minkwitz, aberrations, also called surface astigmatism, change twice as quickly as the rate of change of power progression. Therefore, modern technology can only find ways to optimize this ratio.



What makes OMD so special?

Traditional methods and approaches to improve aberrations have coherently led to diminishing quality of other lens properties. The usual result of those optimizing techniques were the reduction of surface astigmatism, but only at the expense of a smaller progression channel and near visual field. The aberration zones were optimized and improved, but the main attributes of the progressive lens were compromised.

After meticulous research and testing, OptoTech developed an innovative technology based on a unique mathematical algorithm that unlocks the full potential of progressive lenses. For the first time, the lens surface can be fully optimized. OMD is OptoTech's latest high-end calculation technology for optimizing aberrations and the overall lens structure to significantly enhance the optical performance of progressive lenses.



OMD improves the entire lens and creates a harmonic and soft lens surface for highest visual comfort

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OMD Technology creates better lenses by:

Ideal harmonic lens layout

OMD Technology evaluates and analyzes the distinctive design patterns and the characteristic traits of a lens design. This allows it to then define the ideal lens surface. It determines the unbalanced zones and will smooth out those errors in order to achieve a lens surface that is extremely harmonic and has a smooth layout to enable soft power transition between optical zones.

Widest optical fields

The optimization technology incorporates a special mathematical algorithm that reduces the unwanted cylinder in the aberration and expands the fields of clear vision. The result: wide visual zones with improved peripheral vision for an enhanced visual experience.

Minimal distortion

The new calculation algorithm reduces the lens design unwanted astigmatism up to 40%, which makes OMD the most advanced technology currently available in the industry with the world's best relation between addition and distortion. With extraordinarily low levels of distortion the wearer will immediately notice the improvement of optical quality and experience the full potential of progressive lenses.

Characteristics:

- + Aberrations reduced up to 30-40%
- + Widest optical fields
- + Ideal and harmonized lens surface
- + Superior image stability

Benefits:

- + Almost immediate wearer adaptation
- + Minimal levels of blur
- + Greater visual comfort
- + Outstanding visual performance
- + Excellent vision quality
- + Enhanced visual experience

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Date: 09-03-2021, subject to change



OptoCalc 4.0

Next Generation Lens Designs

