

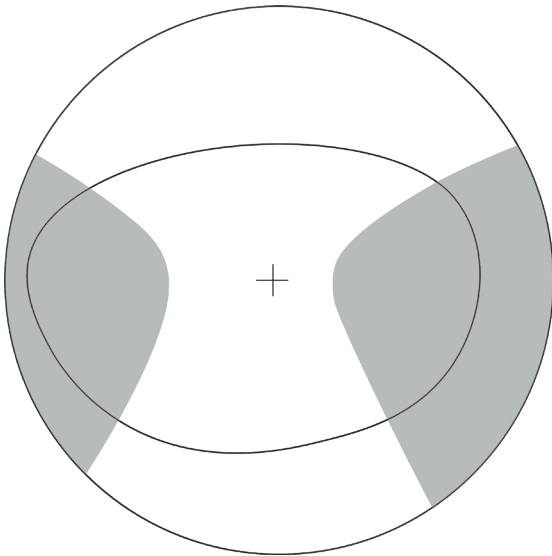
[iO]



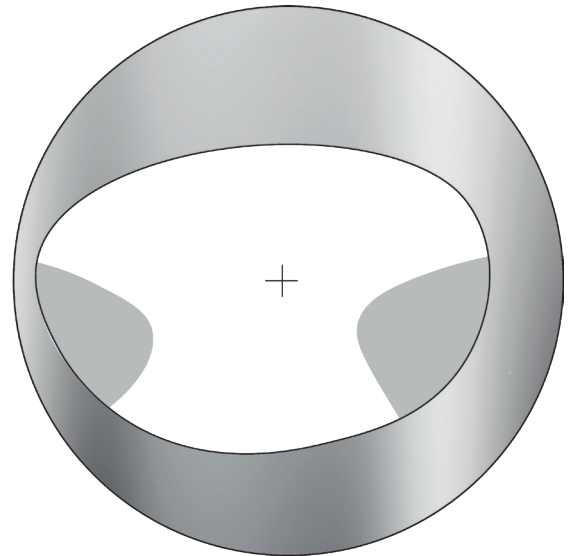
A design  
that knows where it belongs

The iO series uses our flagship technology for rear and double-sided varifocals. It represents the next step in manufacturing technology. Available for orders exclusively with tracers, the exact shape of the glass is used together with the new Clear View calculation method to intentionally shift distortions into the edge area that is to be removed later. This creates an

unprecedented level of stability in the field of view across the entire lens. The rim is thinned accordingly, meaning that even thinner lenses become possible, even with stronger lenses. The new progression across the lens, known as “responsive vision design”, also ensures even better adaptation to modern everyday needs.



*Conventional varifocal lens design*



*iO varifocal lens design*

- The design is optimised for the round or oval raw lens
- Areas in the periphery which are actually optimal and distortion-free are ground away during the edging process
- What if the distortions in these areas were outside the finished shape of the lens?

- The design is optimised and applied only to the area of the lens that will remain on the finished pair of glasses
- During the calculation, the distortions are deliberately shifted to the area of the glass that is ground away during the edging process



## Clear View Design - a very special surface

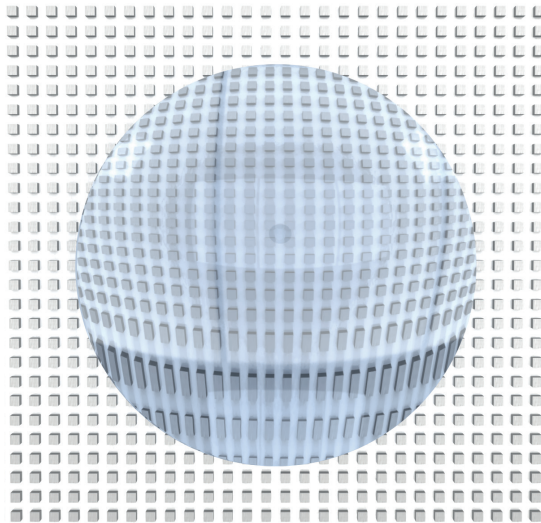
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The surface of the iO series is applied in a highly complex free-form process, similar to that used for creating lenticular lenses, in which a supporting rim, extending from the later spectacle lens to the edge, is left in place. This way, it is no longer necessary to have an unnecessarily large diameter for the anti-reflective lens coatings or for the bevel, for example.

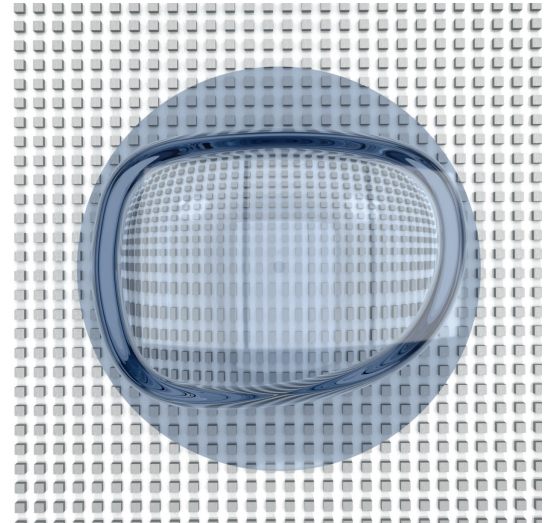


*Schematic representation of the Clear View Design*

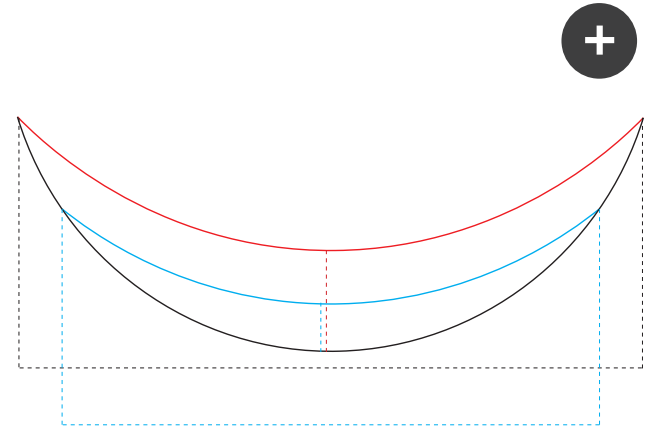
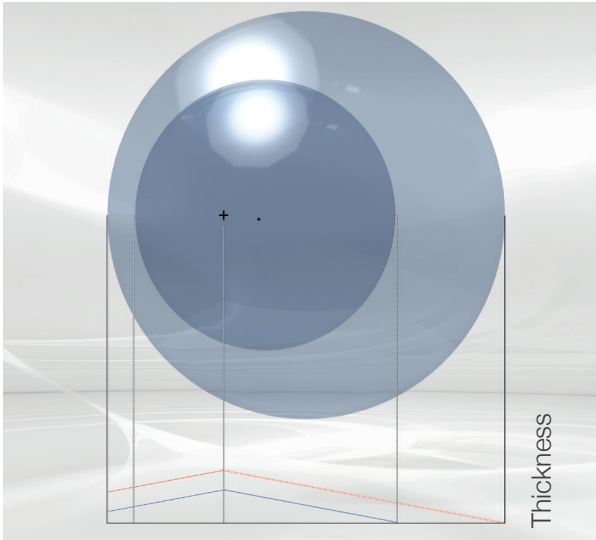
The later shape of the glass is applied to the front with the die so that when you receive the lenses you will notice a visible difference to a normal varifocal lens.



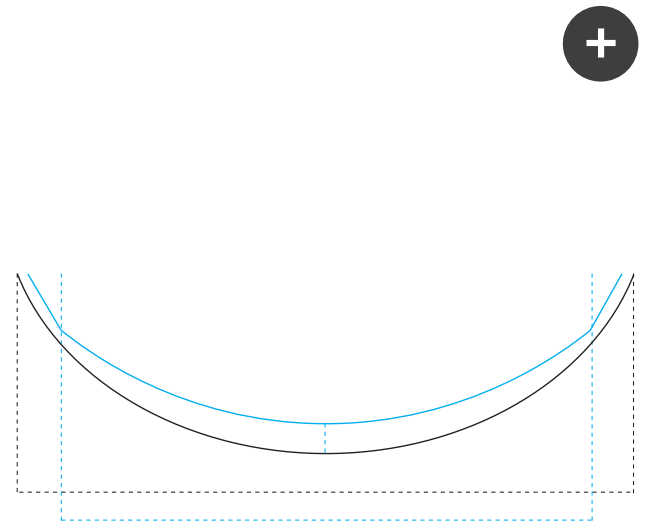
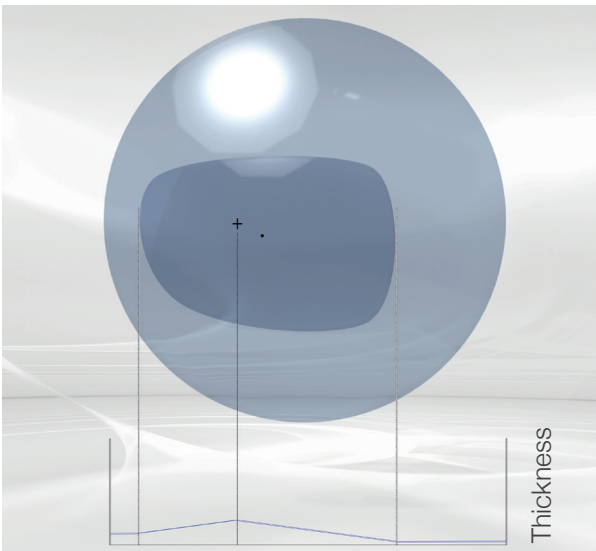
*Conventional varifocal lens design*



*iO varifocal lens design*



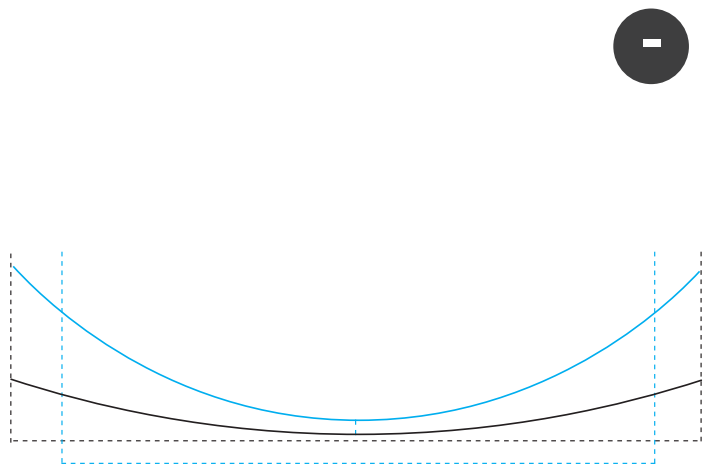
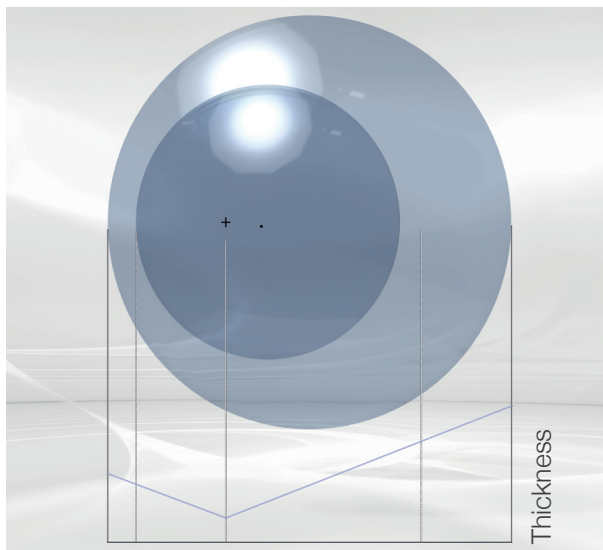
*Conventional decentered plus lens*  
*Decentered plus lens with optimised thickness and diameter*



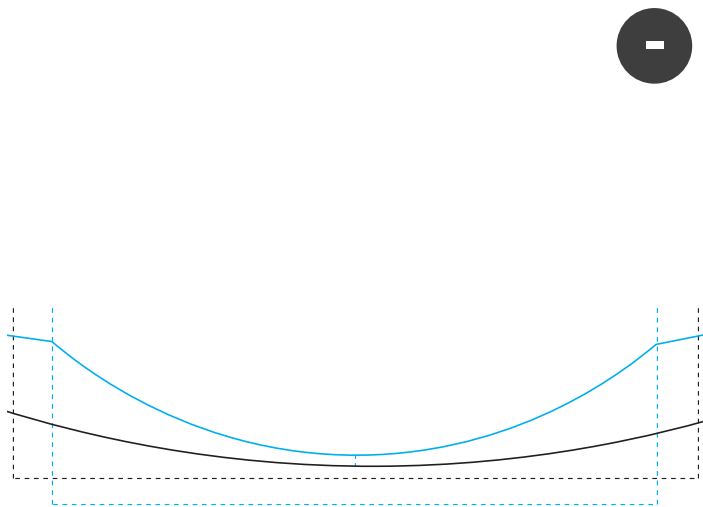
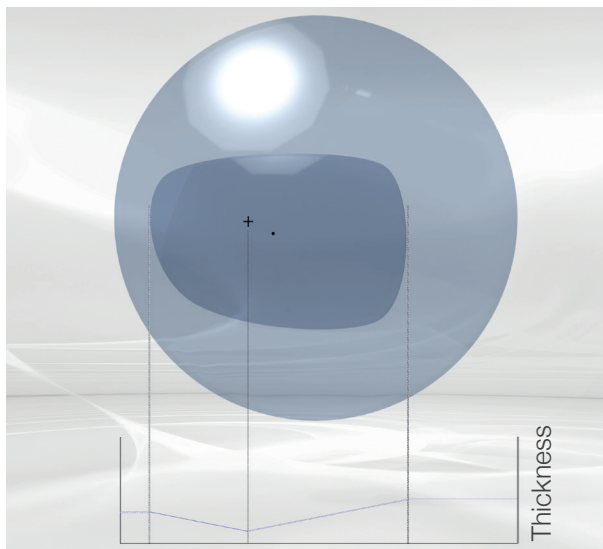
*iO ThinMax design plus lens*

In addition, the ThinMax process used here always guarantees the thinnest possible lenses, as the lenses are always manufactured such that decentring is optimised. This can, for example, result in 52/70 decentration data instead of just 65/70. These are hardly comparable to conventional decentration and

thickness optimisation since, in combination with the iO design, the round or oval basic shape no longer sets the limit for the selected diameters of the lenses. The calculation of the theoretical edge thickness would then extend well into negative numbers if the design were to be continued.



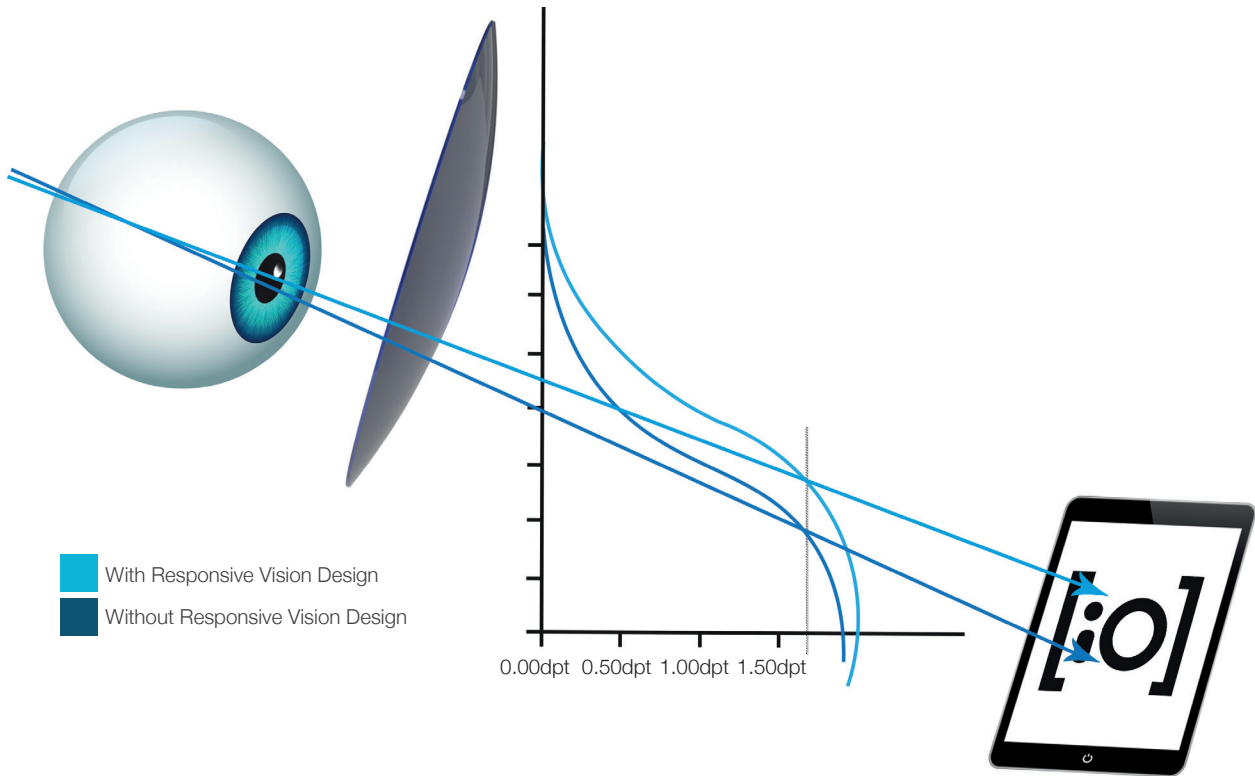
*Conventional minus lens with optimised thickness*



*iO ThinMax design minus lens*



Responsive Vision  
Design



The requirements for the progression across the lens have changed considerably over the last few years. Whilst medium ranges used to play a more important role, today the nearer ranges often dominate, due to the intensive use of smartphones.

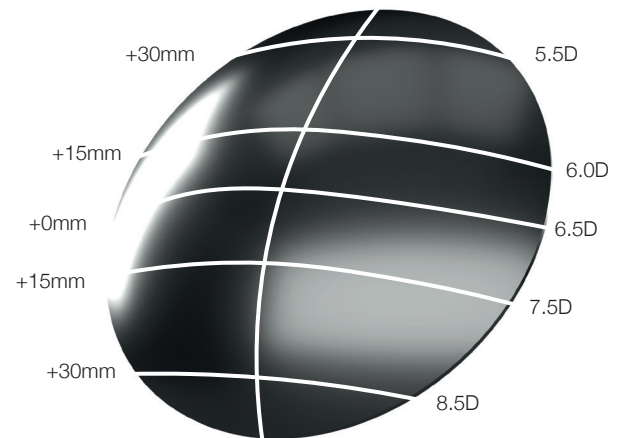
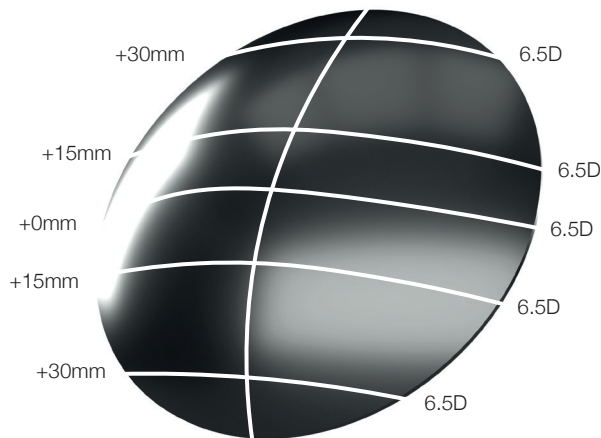
Responsive Vision Design represents a completely revised concept of progression and increase, which on the one hand provides for comfortable intermediate ranges, but on the other hand also provides for a very stable, balanced and distortion-free near range.



Both-side-progressive

**The iO is also available as a both-side progressive design in the form of the iO HD.**

In the case of a both-side progressive lens design, the design is not just on the front or the rear of the lens, but on both sides. The advantage of this technology is that both the near and the distant ranges of the base curve can be optimised. There are known problems when getting used to lenses, particularly in the case of those who are severely long-sighted, who criticise a lack of magnification in varifocals with a rear progression. These are now a thing of the past.



The iO can be ordered only if a tracer is used – the exact shape is absolutely necessary for manufacture.  
Custom parameters are an absolute must in order to enjoy all the advantages of the product.



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