



Centennial Optical introduces Rodenstock's B.I.G. VISION™ FOR ALL to Canada

Rodenstock is making their B.I.G. VISION™ FOR ALL philosophy accessible to everyone through a biometric revolution in lens technology – Biometric Intelligent Glasses.

With B.I.G. VISION™ based on DNEye® technology, Rodenstock established a paradigm shift in the calculation of progressive lenses by taking into account the unique shape and size of each eye. All relevant biometric data flows directly into the lens production and, on this basis, Rodenstock can calculate a lens that fits each individual person as perfectly as possible. Spectacle wearers benefit from the sharpest vision for every angle and every gaze, no matter where they look.

The new standard of lens calculation

At the beginning of biometric research, Rodenstock faced a challenge - an old norm where the only input most lens manufacturers use to tailor lenses to the wearer's eyes is a standard calculation based on just four prescription values from the standard eye exam.

If spectacle lenses are manufactured based on only these four values, the standard values from the reduced eye model are used for the biometric data of the individual eye, which precisely match as few as 2% of eyes. These lenses fail to account for the fact that every eye is different – in shape and refractive capabilities.

"We wanted to create a new standard for progressive lenses that would achieve a much higher level of biometric precision in lens calculations. The goal was to be able to offer B.I.G. VISION™ to everyone," says Anders Hedegaard, CEO of the Rodenstock Group.

One of the largest biometric data pools in the industry

With their DNEye® Scanner, Rodenstock has measured the biometric parameters of hundreds of thousands of eyes to develop biometrically accurate lenses. Rodenstock was able to analyze the data obtained from more than 500,000 exact eye measurements and uncover correlations between the biometric parameters of the eye and standard refraction values.

The use of artificial intelligence

By identifying correlations in the data and transferring them into a sophisticated AI algorithm, Rodenstock is able to move away from the old norm. The new standard of lens calculation allows Rodenstock to create an AI-based biometric model of the eye using only the four standard refraction values provided by optometrists as input. This new standard allows Rodenstock to achieve a much higher level of biometric precision even without individual measurements from the DNEye® scanner. Rodenstock calls the new AI-based lenses B.I.G. NORM™.

Better vision with B.I.G. NORM™ lenses

In an external wearer trial with the AI-based B.I.G. NORM™ lenses, Rodenstock researched the benefits of AI technology in collaboration with the University of Applied Sciences in Munich. The benefits to the subjects' vision were clear: 97% of spectacle wearers felt less peripheral aberration and 91% felt a reduced swimming effect. Other study results included a wider progression zone in the lens in 94% of cases and reduced aberrations at far in 97% of cases.

B.I.G. VISION™ FOR ALL

According to Paul-André Desjardins, Vice-President of Centennial Optical's Lens Division, "With the new B.I.G. NORM™ lenses Rodenstock initiates a biometric revolution and creates B.I.G. VISION™ FOR ALL - even when only standard refraction values are available".

For more information on Rodenstock lenses, please contact your Centennial Optical lens representative.

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