

Al-Mustaqbal University
Department/ Optical techniques



جامعة المستقبل
كلية التقنيات الصحية والطبية
قسم التقنيات البصرية

Medical glasses

3rd stage

By

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2024/03/04

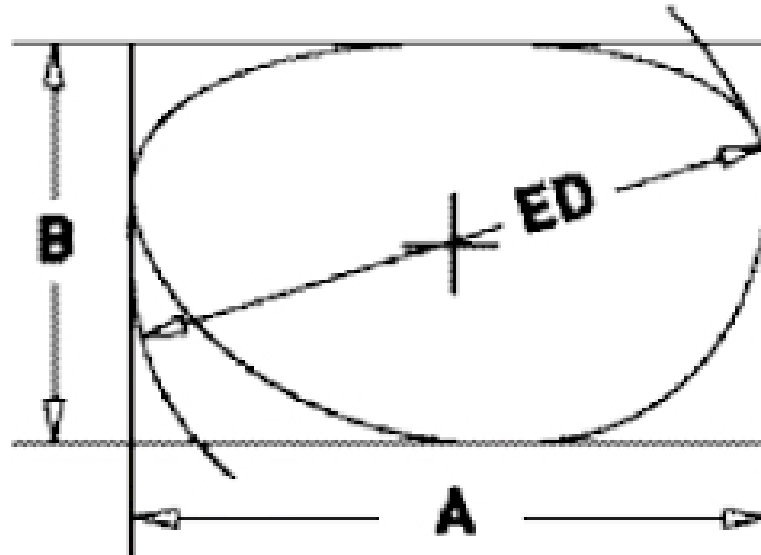
Boxing System

- In 1962 the Optical Manufacturers Association adopted the boxing system to provide a standard for frame and lens measurement that greatly improved upon the accuracy of previous systems.
- The boxing system is based upon the idea of drawing an imaginary box around a lens shape with the box's sides tangent to the outermost edges of the shape.

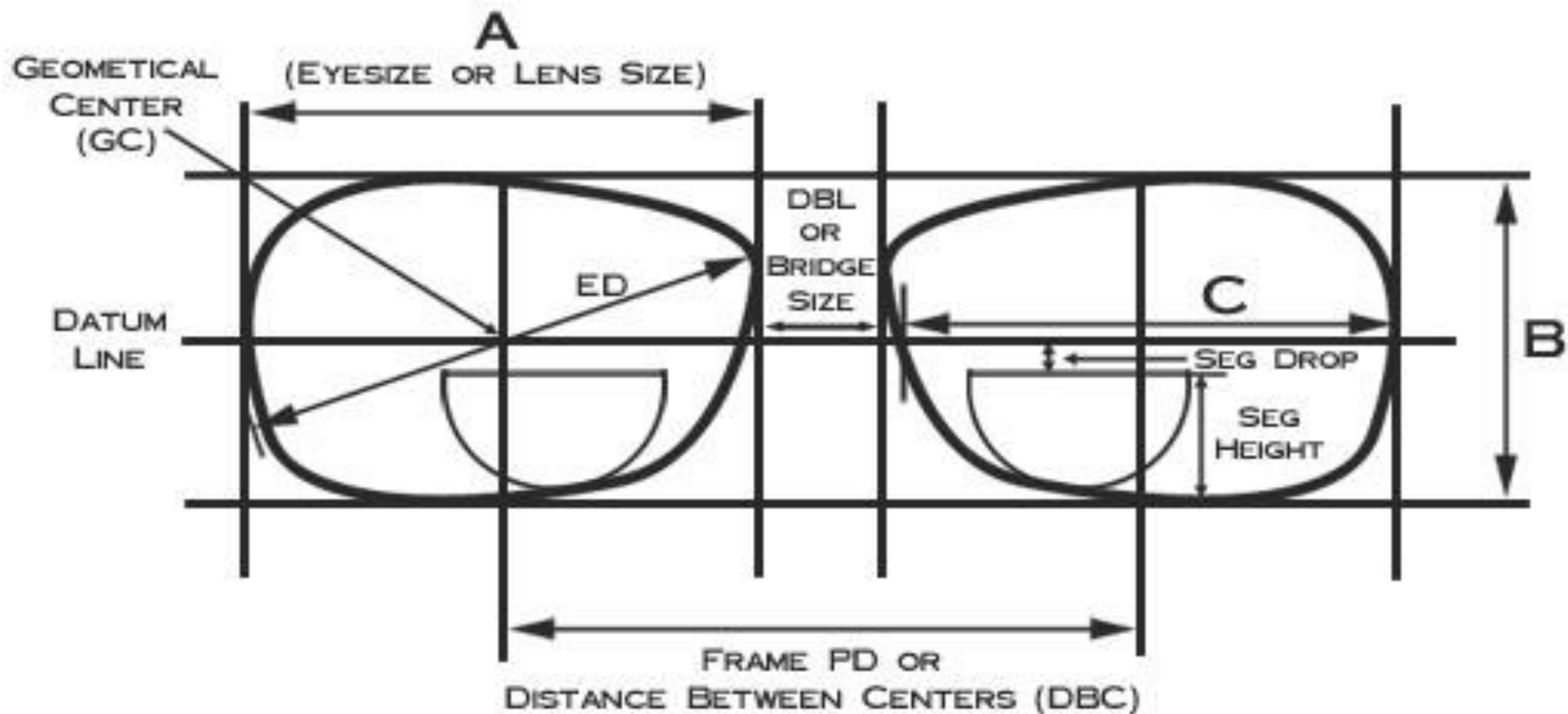
Boxing System

“A” Measurement

- The horizontal distance between the furthest temporal and nasal edges of the lens shape
- The A measurement is also commonly known as the **eye size**.



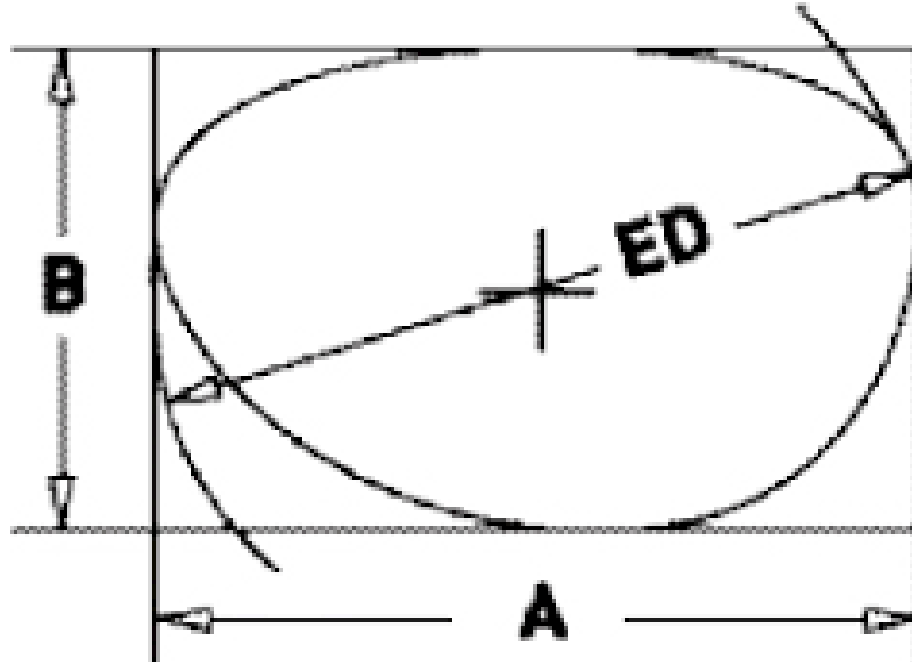
BOXING SYSTEM



Boxing System

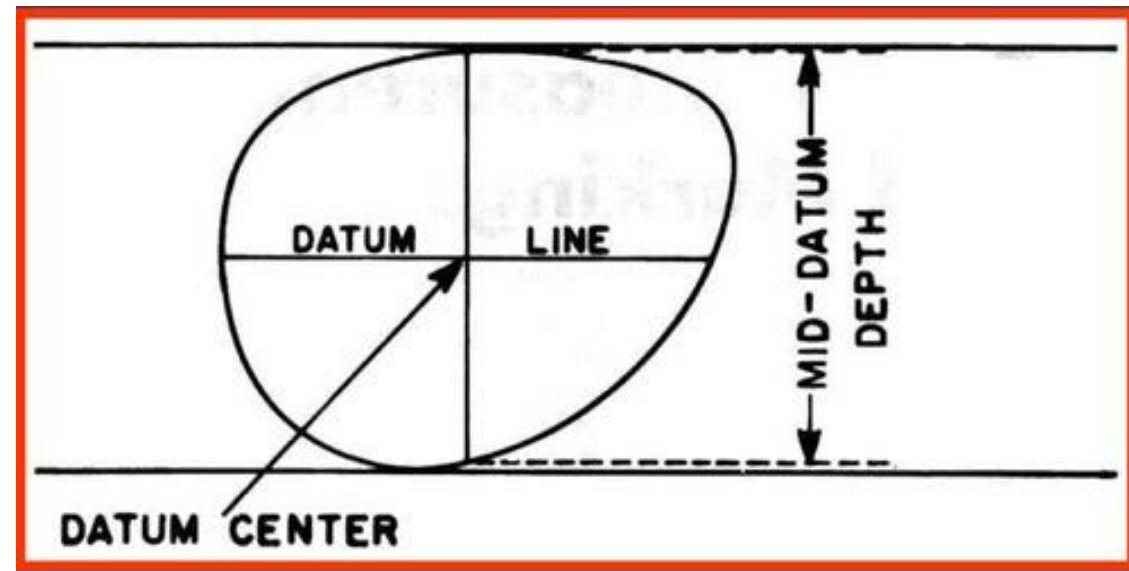
- **B'' Measurement**

The vertical distance between the furthest top and bottom edges of the lens shape or the distance between the horizontal sides of the box.



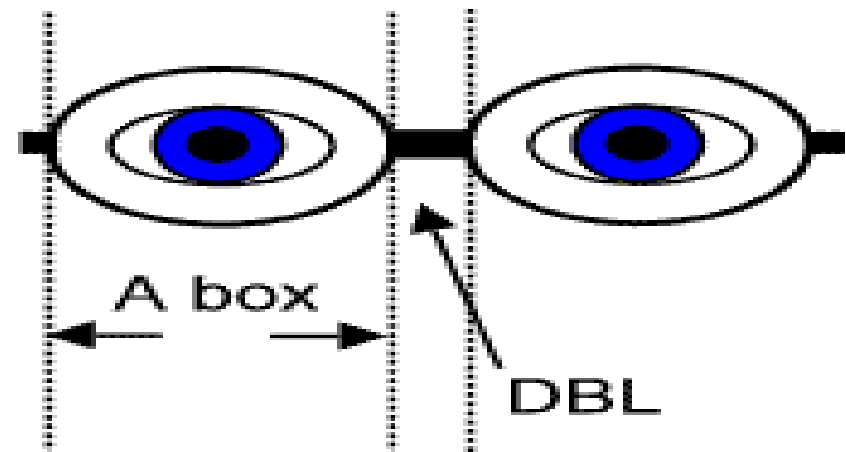
Boxing System

- **Datum Line** - The horizontal line that runs through the vertical center of the frame.
- **Geometric Center (GC)** - The intersection of the Datum Line and horizontal centers of each lens shape.



Boxing System

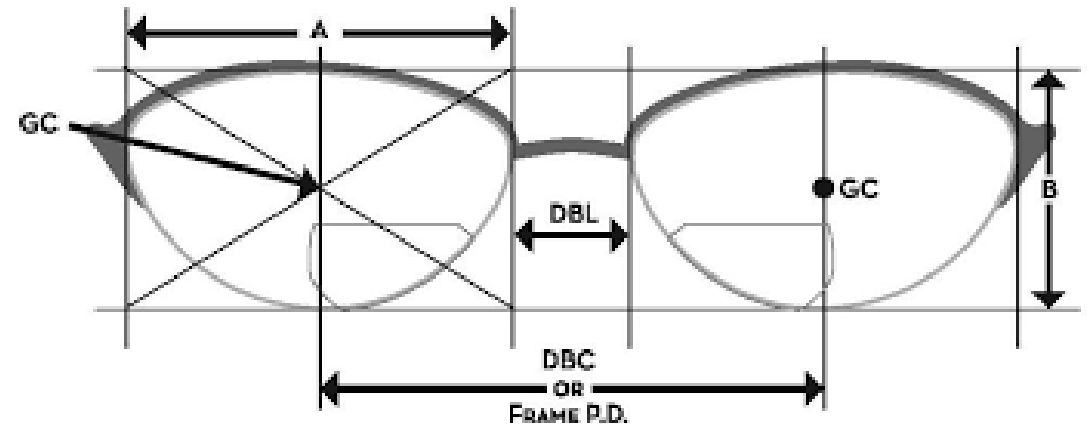
- **Distance Between Lenses (DBL)** - The shortest distance between the nasal edges of each lens
- or the distance between boxes.
- DBL is also commonly referred to as **bridge size**.



Boxing System

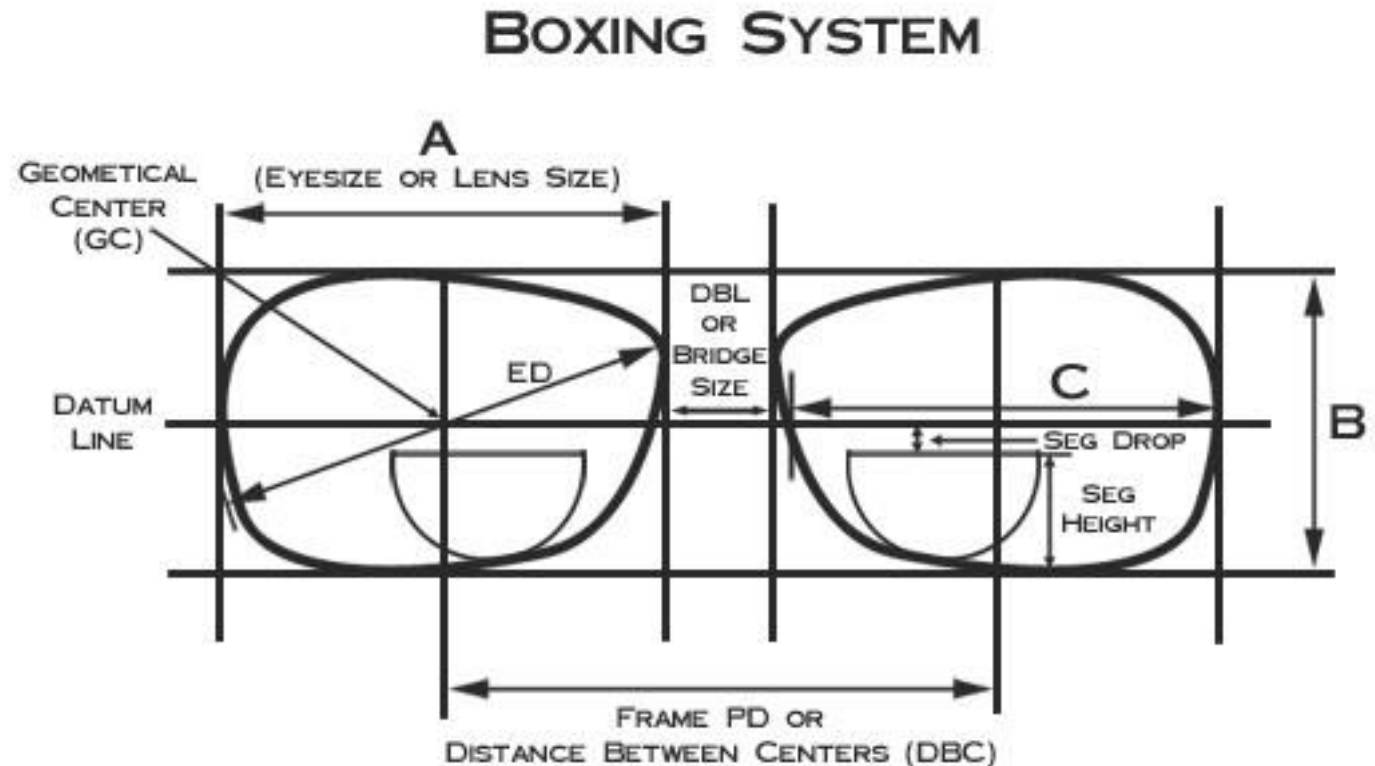
Distance Between Centers (DBC)

- The horizontal distance between the geometric centers of the lenses.
- DBC is also known as the **Geometric Center Distance (GCD)**, but more commonly referred to as the **frame PD**.



Boxing System

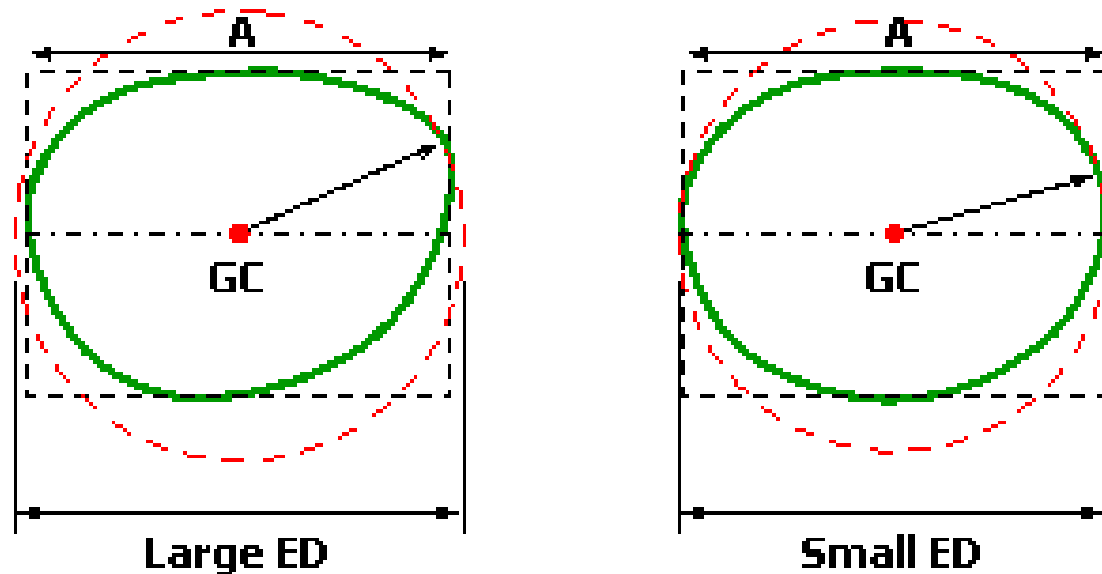
- Note: Frames are typically marked for size, for example:
- 54-18, where 54 is the "A" Measurement
- and 18 is the DBL.



Boxing System

Effective Diameter (ED)

- Twice the distance from the geometric center of the lens furthest edge of the lens shape.



Effective Diameter Versus Frame Shape

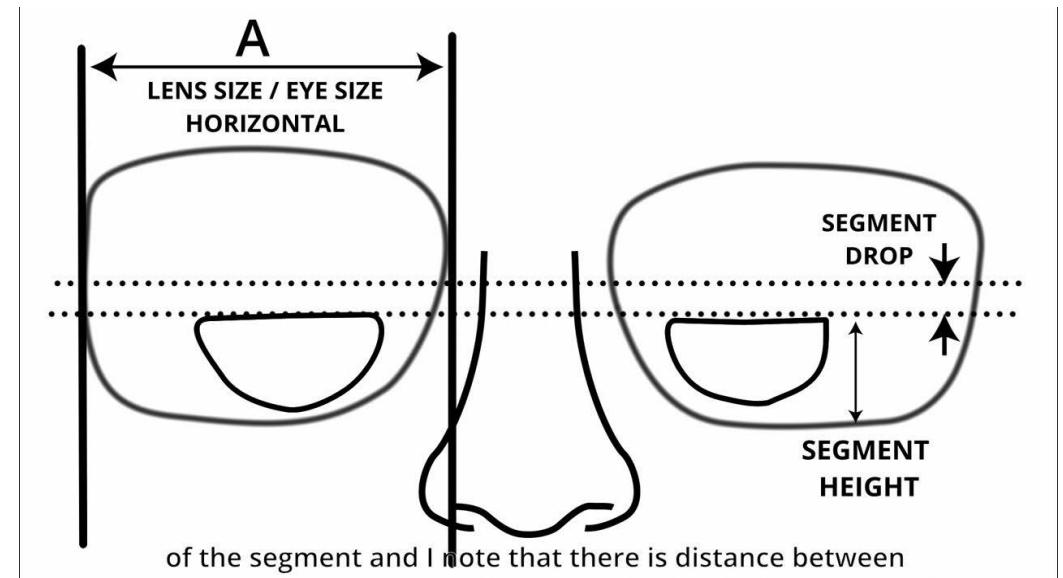
Boxing System

Seg Height

- The vertical distance between the bottom edge of the box and the top of the bifocal or trifocal segment

Seg Drop

- The vertical distance between the Datum line and the top of the bifocal or trifocal segment Overall



Boxing System

Thank you