Al-*Mustaqbal University*

Department/ Optical techniques

جامعة المستقبل
كلية التقنيات الصحية والطبية
قسم التقنيات البصرية

Medical glasses 2

4th stage

By

PhD. Candidate.

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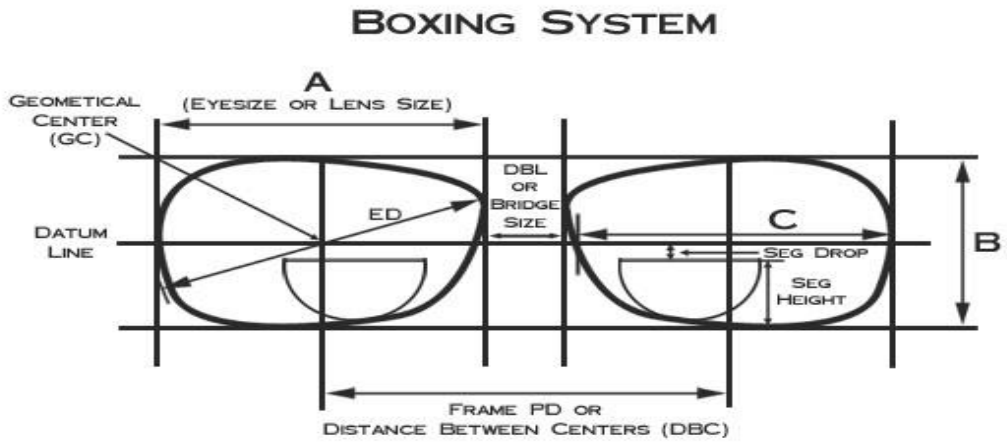
Lecture 8

Boxing System



Boxing System

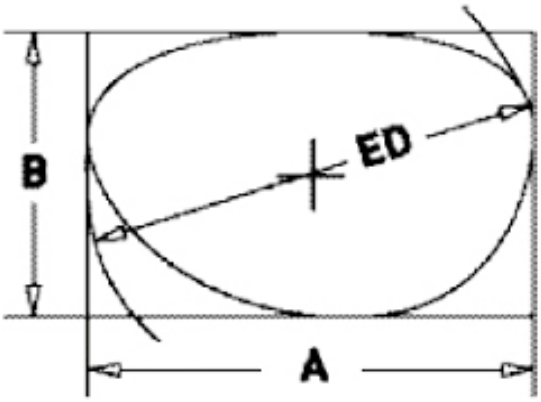
In 1962 the Optical Manufacturers Association adopted the boxing system to provide a standard frame and lens measurement that greatly improved the accuracy of previous systems.

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.

“A" Measurement

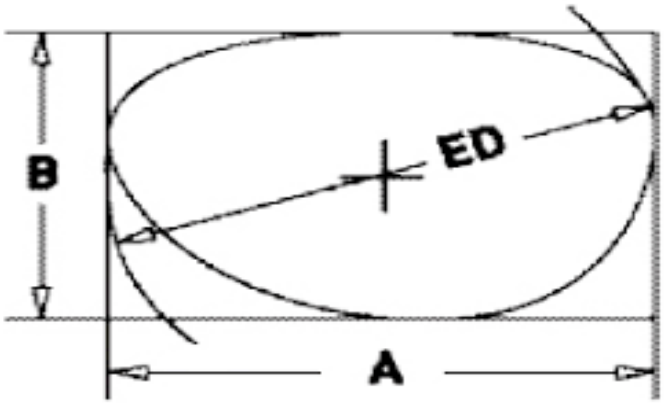
The horizontal distance between the furthest temporal and nasal edges of the lens shape

The A measurement is also commonly known as the eye size.



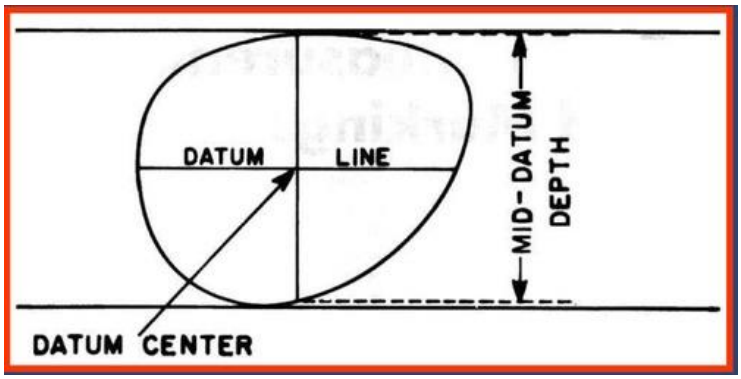
B" Measurement

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

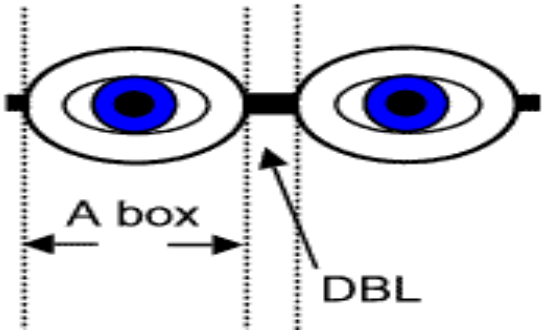


Datum Line - The horizontal line that runs through the vertical center of the frame.

Geometric Center (GC) - The intersection of the Datum Line and horizontal centres of each lens shape.

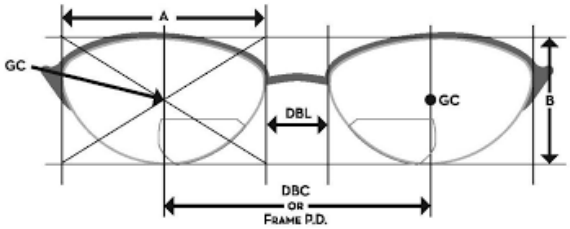


Distance Between Lenses (DBL) - The shortest distance between the nasal edges of each lens or the distance between boxes. DBL is also commonly referred to as **bridge size**



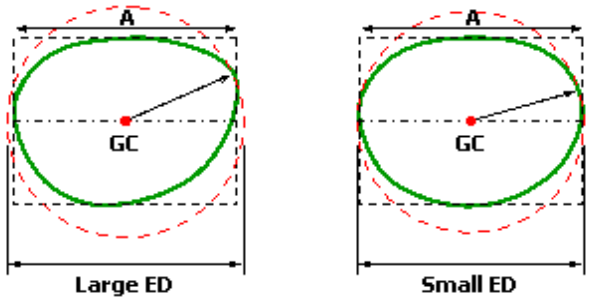
Distance Between Centers (DBC)

- 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**.



Effective Diameter (ED)

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



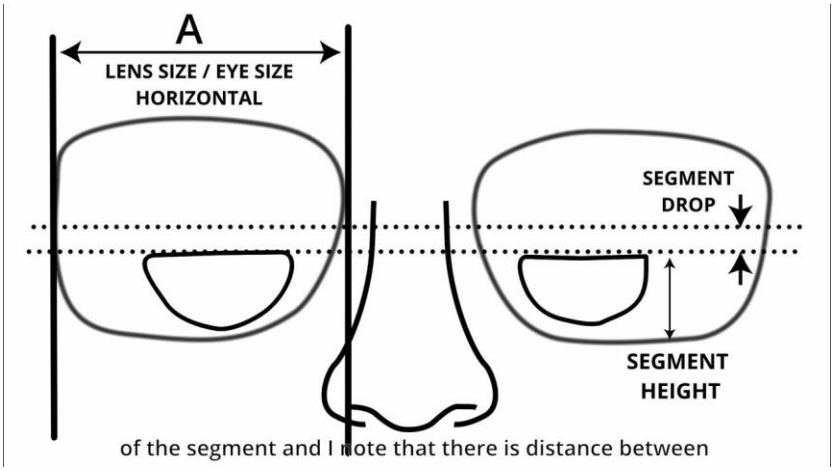
Effective Diameter Versus Frame Shape

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



of the segment and I note that there is distance between