

# The Formula for Spectacle Lens Blank Size?

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The following formula is used the calculator for *Spectacle Lens Blank Size*:

$$\begin{aligned} \text{Total Decentration} \\ = \text{Frame Eye Size} + \text{Bridge Size} \\ - \text{Patient's PD} \end{aligned}$$

$$\begin{aligned} \text{Monocular Decentration} \\ = \text{Total Decentration} / 2 \end{aligned}$$

$$\begin{aligned} \text{Lens Blank Size} \\ = \text{Longest Meridien} \\ + (2 \times \text{Monocular Decentration}) \end{aligned}$$

? Why does the formula double the monocular decentration?

A: Because the *Lens Blank Size* is expressed as the diameter. To allow a lens to be moved by this amount, the distance must be added to both sides of the lens. Or, in other words, a lens can only ever be decentred by a maximum of half its' diameter. (See example below).

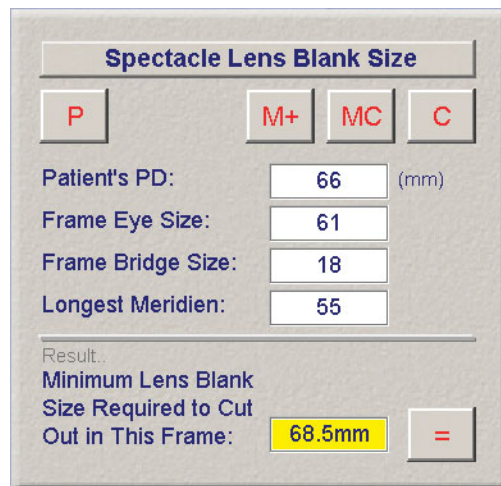


Figure: The calculator for Spectacle Lens Blank Size

**EXAMPLE:**

Frame Size: 50 / 18 Longest Meridien: 50  
 Patient's PD: 58

$$\text{Total Decentration} = 50 + 18 - 58 = 10$$

$$\text{Monocular Decentration} = 10 / 2 = 5$$

$$\text{Min'm Lens Blank Size} = 50 + (2 \times 5) = 60$$

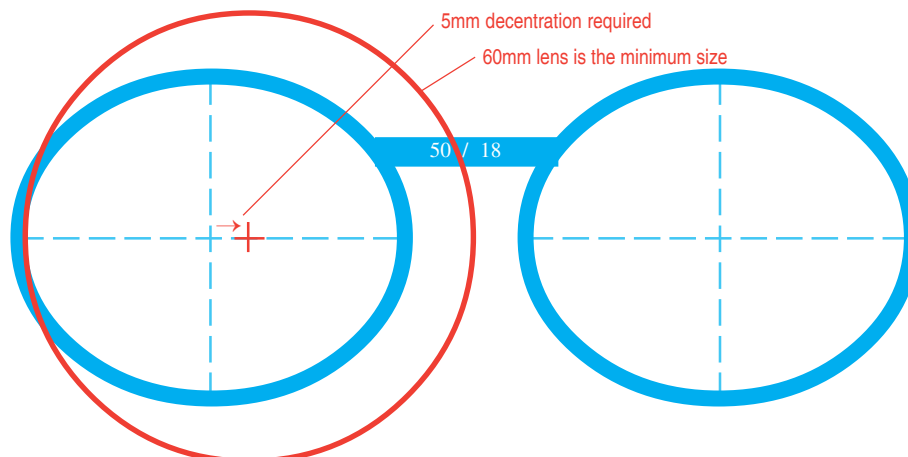


Figure: To allow for 5mm of decentration, this distance must be added to both sides of the lens.