

GELFLEX LINEAR PLUS BIFOCAL

FITTING GUIDE

The Gelflex Linear Plus Bifocal lens is a rigid contact lens of linear segmented design featuring a 'no jump' image when translocating from the distance to the reading portion of the lens. The lens is lathe turned on a precision computer controlled lathe, resulting in a lens of reproducible optimal design.

The Gelfex Linear Plus Bifocal lens incorporates a controlled prism and lens truncation and can be manufactured from any Rigid Gas Permeable material.

The presence of an optical 'jump' that occurs with some bifocal designs as the eye translates from distance to near over the lens segment line, is the greatest problem for patient visual comfort and bifocal lens acceptability. The development of the Gelflex Linear Plus Bifocal lens with its 'no jump' design, means patients experience no displacement of images when translating from the distance to the reading portion of the lens. This allows patients to immediately adapt to the Gelflex Linear Plus Bifocal lens.

The Gelflex Linear Plus Bifocal lens incorporates a prism and a truncation. The prism is necessary to allow correct lens orientation to occur on the eye. The truncation assists in lens translation and the realignment of the lens after blinking.

SEGMENT

To allow practitioners to readily estimate the correct lens fitting, two marker dots are incorporated into the lens design. The marker dots are positioned at the 3 and 9 o'clock positions, towards the lens periphery and denote the center of the lens.

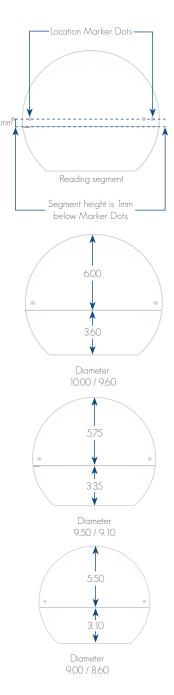
The reading or near power of the Gelflex Linear Plus Bifocal lens is positioned at 1.00mm below the optic center of the lens.

LENS BASE CURVE DETERMINATION

It is important with the fitting of a translating bifocal that the lens is fitted to locate centrally on the cornea. A high riding lens will result in the near or reading segment locating in the line of the patients' vision when looking in the primary distance position.

It is recommended that the Gelflex Linear Plus Bifocal lens be fitted 0.10mm to 0.15mm steeper than the flattest K reading. A lens with apical clearance that centers well is the ideal lens fitting.

To accurately determine the correct lens diameter, it is essential that a diagnostic lens fitting with a Gelflex Linear Plus Bifocal diagnostic lens be done.



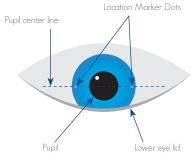
LENS FITTING DIAMETERS

LENS OVERALL DIAMETER

With the Gelflex Linear Plus Bifocal lens, the lower lid is important to determine the position of the lens on the eve and for the lens to engage the lower lid when looking down in order to translocate correctly for the patient to see clearly at near.

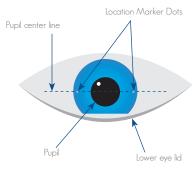
LENS DIAMETER CORRECT

The correct lens diameter is when the position of the marker dots are in line with the center of the patients pupil when looking in the primary position



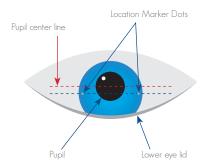
LARGER LENS INDICATED

If the marker dots are in the correct position but the lower lid is below the limbus, a larger diameter lens is indicated for the lid to engage the lens for translation to occur.



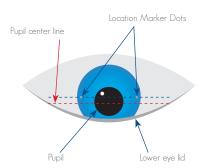
LARGER LENS INDICATED

If the marker dots are below the patients pupil center line, then a larger diameter lens is indicated.



SMALLER LENS INDICATED

If the marker dots are above the center of the pupil (as seen with a narrow aperture patient) a smaller diameter lens is indicated.



LENS POWER

The normal method of establishing the patients contact lens prescription (allowing for the lens being fitted steeper than the flattest K) should be taken

RECOMMENDATION

To give patients the full range of near and intermediate vision, it is recommended that the dominant eye be under corrected by 0.50D in the reading segment of the lens.

CORRECT LENS MOVEMENT

With the patient fixing in the primary position, the lens should have from 1.00mm to 1.50mm vertical movement on normal blinking and then relocate to the desired central locating position.

If the lens locates centrally but is slow to translocate when the patient looks to the reading position, the lens is too tight. All that is needed is to flatten the peripheral curves. Return the lens to Gelflex and the modification can be made to the existing lens.

LENS ROTATION

There should be only minimal lens rotation with immediate relocation and realignment of the lens after the patients normal blink action.

Excessive lens rotation and misalignment may be due to:

- 1. The basic lens fitting is incorrect. Check the base curve calculation. The lens may be too flat.
- 2. The lens is too large, causing lid effect on the lens.
- 3. The lens may need more prism for stabilisation.

SUBJECTIVE VISUAL PROBLEMS AND CORRECTION

LINEAR PLUS BIFOCAL

- A) Satisfactory distance vision but difficulty with reading.
- 1. Ensure patient is orientating their head/eyes and is looking through the reading portion of the bifocal lens correctly.
- 2. The lens' vertical diameter may be too large, restricting lens movement and lens location in downward gaze. A smaller lens may be indicated.
- 3. The lens is too small so the lower lid is not engaging the lens on downward gaze. A larger lens may be indicated.
- 4. Lens fitting is too tight, resulting in the lens not translocating. Blend the peripheral curves of the lens to loosen the lens fitting.
- **B)** Satisfactory close vision but difficulty with distance vision.
- The reading segment may be too high
- 1. Check the lens fitting. The lens may be too loose, resulting in a high riding lens.
- 2. If the lens is locating centrally, the lens overall diameter may be too large.

It is possible to incorporate into the Gelflex Linear Plus Bifocal lens a toric lens to allow for residual astigmatism correction.

MEASUREMENTS NEEDED

Please supply the laboratory with the following details.

- 1. Patients Rx and K readings.
- 2. Trial lens fitting and residual astigmatism.
- 3. The correct Gelflex Linear Plus Bifocal lens diameters.

Gelflex Laboratories will calculate the Gelflex Linear Plus Bifocal Toric lens to compensate for the residual astigmatism.



