



# RGP Fitting Guide

The following guide can be used to fit the 4F/Oxyflex Percon/Aqualine MF RGP lenses. Fluorescein patterns may differ from images. For further help please contact enquiries@cantorbarnard.co.uk

## FITTING PROCEDURE

- Full refraction and eye examination.
- Keratometry or Topography.
- Select a base curve according to the K readings.

Corneal Astigmatism	Difference in K's	Select Base Curve
0.00 – 0.75 DC	0.00 – 0.15mm	On Flattest K
0.75 – 1.00 DC	0.15 – 0.20mm	Between 0.00 - 0.05mm steeper than flattest K
1.00 – 2.50 DC	0.20 – 0.50mm	0.05 – 0.10mm steeper than flattest K
Over 2.50 DC	Over 0.50mm	Back Surface Toric required

If the corneal astigmatism is greater than 2.50D (difference in K readings 0.50mm) a Back Surface Toric lens may be required - please refer to our RGP Toric fitting guide or contact us.

- Select power of lens, adjusting for BVD if power is over +/- 4.00D.
- Adjust power of lens according to the -ve cylinder in the spectacle refraction.

Spectacle Cylinder	Adjustment to Spherical Power
0.00 DC	None
- 0.25 DC	None
- 0.50 DC	None
- 0.75 DC	- 0.25 DS
- 1.00 DC	- 0.50 DS

If the cornea is spherical, but there is refractive astigmatism greater than -1.25DC, a Front Surface Toric may be required – please refer to our RGP Toric fitting guide or contact us.

- Adjust power according to the base curve selected.

For every 0.05mm STEEPER than flattest K	Add -0.25D to spherical power
For every 0.05mm FLATTER than flattest K	Add +0.25D to spherical power

- For a standard Aqualine MF fitting, state the Add required – usually the spectacle refraction Add.
- Select the diameter approximately 2.00mm smaller than HVID.

## Good/Alignment Fit

The following characteristics can be seen.

### Movement & Position

- Good centration.
- Lens should remain on cornea during all positions of gaze – lens should remain within the limbus. Smooth vertical movement 1-1.5mm.
- When lids held apart the lens should slowly decentre downwards.

### Fluorescein Pattern

Fluorescein shows alignment (even faint haze of fluorescein) or very slight apical clearance over the central area, there may be slight mid-peripheral touch.

### Edge

Band of edge clearance approximately 0.40 - 0.60mm.

### Comfort

Reasonable initial comfort – improves during adaptation.

### Vision/Over-refraction

Vision should be stable, although an over-refraction may be found.

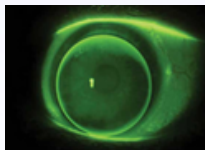


Image to represent a well-fitting lens

## Flat Fit

One or more of the following fitting characteristics can be seen.

### Movement & Position

- Lens unstable and decentres.
- Excessive and rapid movement with blink – this may be uncomfortable.
- Arcuate movement occurs when dropping between blinks.

### Fluorescein Pattern

When the lens is returned to a central position central touch is observed. In its low position inferior arcuate pooling may be seen - this is because the lens is overhanging the lower peripheral cornea and should not be confused with a steep lens. Its shape indicates it is flat.

### Edge

There is usually a wide band of fluorescein. The entire periphery of the lens shows clearance as a wide area of fluorescein.

### Comfort

Lens may be uncomfortable due to excessive movement.

### Vision/Over-refraction

Due to the central touch producing a negative tear layer, a positive over-refraction can be found. The vision can also be unstable with a flat fit due to the excessive movement.

### Action

- Select a steeper BOZR – this will have the greatest effect.
- Increase the diameter – this will tighten the lens and improve stabilization.
- Increase the BOZD – this provides a larger sag and steepens the fit. This will have a greater effect on the fluorescein pattern than increasing the diameter.

Remember to adjust the power according to any changes in the over-refraction and/or base curve.

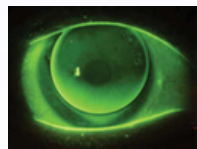


Image to represent a flat-fitting lens

## Lens Too Steep

One or more of the following fitting characteristics can be seen.

### Movement & Position

- Lens is likely to be in a central position.
- There is little movement on blinking. The lens maybe static.

### Fluorescein Pattern

Lens shows central pooling - the smaller the area of central pooling, the greater the steepness. An air bubble may be present with excessive central clearance. Heavy touch may be seen in the mid periphery at the transition, this is seen as an area of dark blue.

### Edge

There will be a narrow band of fluorescein around the lens edge.

### Over-Refraction

Due to the central pooling producing a positive tear layer, a negative over-refraction is sometimes found.

### Comfort

The lens may be uncomfortable due to excessive movement.

### Vision/Over-refraction

Due to the central touch producing a positive tear layer, a negative over-refraction can be found. The vision can also be unstable with a steep fit due to the excessive movement.

### Action

- Select a flatter BOZR – this will have the greatest effect.
- Reduce the diameter – this will loosen the lens and improve mobility.
- Reduce the BOZD – this provides a smaller sag and flattens the fit.

Remember to adjust the power according to any changes in the over-refraction and/or base curve.

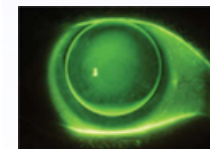


Image to represent a steep-fitting lens