Tangent Streak Bifocal Fitting Guide

Lenses>Specialty GP>Bifocal>Buckley>Fitting Guide

Parameter Selection:

1. Select lens diameter based on flattest â€œKâ€ and/or the horizontal visible iris diameter.

Visible Iris Diameter	Flat K Reading	Diameter
Less than 11.3	47.00D to 45.00D	9.1/8.8
11.3 to 11.8	44.75D to 43.00D	9.5/9.1
Greater than 11.8	42.75D to 40.00D	9.9/9.5

- **For every .3mm increase in horizontal diameter, flatten base curve 0.25D.**
- **For every .3mm decrease in horizontal diameter, steepen base curve 0.25D.**

2. Select base curve based on flattest â€œKâ€ and amount of corneal astigmatism.

Flat K Reading	Amount of corneal astigmatism

	0.00D	0.50D	1.00D	<1.00D
47.00D	47.00/7.18	47.50/7.10	48.00/7.03	See Below
46.75D	46.75/7.21	47.25/7.14	47.75/7.06	
46.50D	46.50/7.25	47.00/7.18	47.50/7.10	
46.25D	46.25/7.29	46.75/7.21	47.25/7.14	
46.00D	46.00/7.33	46.50/7.25	47.00/7.18	
45.75D	45.75/7.37	46.25/7.29	46.75/7.21	
45.50D	45.50/7.41	46.00/7.33	46.50/7.25	
45.25D	45.25/7.45	45.75/7.37	46.25/7.29	
45.00D	45.00/7.50	45.50/7.41	46.00/7.33	
44.75D	44.50/7.58	45.25/7.45	45.75/7.37	
44.50D	44,25/7.62	45.00/7.50	45.50/7.41	
44.25D	44.00/7.67	44.75/7.54	45.25/7.45	
44.00D	43.75/7.71	44,50/7.58	45.00/7.50	
43.75D	43.50/7.75	44.25/7.62	44.75/7.54	
43.50D	43.25/7.80	44.00/7.67	44.50/7.58	

43.25D	43.00/7.84	43.75/7.71	44.25/7.62
43.00D	42.75/7.89	43.50/7.75	44.00/7.67
42.75D	42.25/7.98	43.25/7.80	43.75/7.71
42.50D	42.00/8.03	43.00/7.84	43.50/7.75
42.00D	41.50/8.13	42.50/7.94	43.00/7.84
41.75D	41.75/8.08	42.25/7.98	42.75/7.89
41.50D	41.50/8.13	42.00/8.03	42.50/7.94
41.25D	41.25/8.18	41.75/8.08	42.25/7.98
41.00D	41.00/8.23	41.50/8.13	42.00/8.03
40.75D	40.75/8.28	41.25/8.18	41.75/8.13
40.50D	40.50/8.23	41.00/8.23	41.50/8.23
40.25D	40.25/8.38	40.75/8.28	41.25/8.18
40.00D	40.00/8.43	41.00/8.23	41.00/8.38

- **Corneal toricity greater than a diopter, select a base curve steeper than flat K by a Â¼ of the amount of corneal toricity.**

3. Power Calculation

Distance Power

- The distance power is calculated by adding plus or minus to the spherical power of the manifest refraction depending on whether the base curve selection is flatter or steeper than the flattest K reading.
- For best results over refract with hand held lenses in normal lighting over the best fitting diagnostic lens.

Add Power

- Use the spectacle add or for best results, use hand held trial lenses to over refract in adequate room illumination while patient is in the reading position

4. Seg Height

- When visible white exists (< 1.00 mm) between inferior limbus and lower eyelid, choose a 4.4 mm.
- When inferior limbus and lower lid are tangent, choose a 3.9 mm.
- When inferior limbus is above lower eyelid (not > 0.75 mm above), choose 3.5 mm.

Lens Fitting

A good fit exhibits the following:

Intrapapebral fit

In distance gaze, the lens rests on the lower lid.

In near gaze, the lens has good upward translation.

The seg height is located at the lower pupil margin.

The edge lift is adequate.

The seg height is positioned at 180 ï‚° .

The seg height drop is <1.0 second.

A flat fit is determined by the following objective findings:

The lens decenters laterally following the blink.

There is excessive edge lift.

The lens rotates and rocks on the blink.

There is an absence of tears centrally.

The segment height angle fluctuates.

The lens drops extremely fast.

The lens decenters temporally.

A steep fit is determined by the following objective findings:

There is an excessive amount of pooling centrally.

The lens is bearing mid-peripherally.

There is no or very little edge lift.

The lens is decentering either inferiorly or nasally.

The segment drop is slow or not at all.

There is little or no translation.

Vertical movement is limited.

The segment has >15 ï‚° nasal rotation.

Problem Solving Techniques

Objective Findings	Parameter Change
Superior positioning lens with normal edge lift	Steepen the base curve and/or an increase of prism by .50D.
Nasal or temporal dislocation	Larger diameter
The lens doesnâ€™t drop quickly enough.	The base curve may need to be adjusted either flatter or steeper (depending on the fluorescein pattern). Also consider increasing the prism
The patient holds their chin to the chest for distance vision.	Check the distance of the seg height in relationship to the pupil with the aid of the ophthalmoscope in primary gaze. It should be within the lower pupil measure. The seg height may need to be lowered.
The patient holds the reading material to their chest.	Raise the seg height.
The lens is rotating more than 15 ï‚° nasal.	Flatten the base curve by a .50D or/add .50D prism.
The lens is rotating more than 10 ï‚° temporal.	Steepen the base curve by .50D and/or add .50D prism.
The Lens pops out.	Steepen the base curve.
If the lens slips underneath the lower lid.	Increase the prism by .50D.

Subjective Findings	Parameter Change
The patient observes superior flare.	A larger diameter is needed.