FITTING GUIDE: AquaFlow

Lens Design

AquaFlow is our newest spherical lens design that incorporates our revolutionary design system "Fluid Edge Technology". Fluid Edge Technology combines our dual aspheric posterior design with our proprietary thin harmonic profile design and Aqua Wet Plasma Treatment. Fluid Edge Technology allows for exceptional tear flow on and around a lens edge surface for unsurpassed corneal health and patient comfort.

Pre-Fitting Examination

Assuming there are no contraindications, begin by taking the Keratometer readings. Determine the flatter K reading ("FlatK") and amount of corneal astigmatism. In addition you want to observe the limbal size of the cornea.

Selecting Lens Size

The first parameter you should select is lens size or diameter. Using the Flat K and the palpebral fissure size as references, select a trial lens according to the following table listed below.

TRIAL LENS SIZE

Flat K,D	Diameter
41.00 and flatter	10.8 mm
41.25 to 45.75	10.3 mm
46.00 and steeper	9. 8mm

Note: In clinical trials, 10.3 mm was the initial diameter selected for the majority of the patients.

Choosing Base Curve

Using lens size and the amount of corneal cylinder, the initial base curve may be determined by the following table. (suggestions in relationship to FLAT "K")

LENS SIZE

CORNEAL CYL, D	9.8mm	10.3mm	10.8mm
0.00	On K	On K	On K – 0.25 Flatter
0.25-0.75	On K – 0.25 Steeper	On K – 0.25 Steeper	On K
1.00-1.75	0.25 to 0.50 Steeper	0.25 to 0.50 Steeper	0.25 Steeper
2.00-2.50	0.50 to 0.75 Steeper	0.50 to 0.75 Steeper	0.25 to 0.50 Steeper

Calculating Lens Power

Lens power is best determined by over-refraction with a trial lens in place. The spherical value of the over-refraction is simply added to the trial lens power to determine the power prescribed. To calculate power without a trial lens, convert the spectacle Rx to minus cylinder form and adjust for vertex if the sphere power is 5.00 D or greater. When working without a trial lens, remember that the tear lens created by the difference between the Flat K and the base curve must be considered. Apply the principal of SAM-FAP (Steeper add minus; Flatter add plus). Thus, if the base curve is steeper than Flat K, a plus tear lens is created and minus power equal to the difference in the two curvatures must be added algebraically to the prescription. Conversely, if the base curve is flatter than Flat K, a minus tear lens must be offset with additional plus power.

WITH TRIAL LENS	
Trial Lens	-3.00
Over-refraction	-1.50
Rx Lens power	-4.50

WITHOUT TRIAL LENS	
Spectacle Rx	-4.50 +1.00 x 90
Transposition	-3.50 -1.00 x 180
Vertex	0.00
Tear Effect	-0.25
Rx Lens	-3.75

Center Thickness

Center thickness is a function of lens design and should be calculated by the laboratory.

The Ideal Fit

The lens should ideally move freely with the blink. However, there will be less movement with a AquaFlow lens than a conventional lens design. A minimum of 1 mm of movement is required for good tear exchange. The ideal fluorescein pattern should show an alignment pattern with pooling in the periphery of the lens.