Fitting protocol for fitting KeraSoft® IC STP peripheries using STD periphery lenses to assess the fit

STP

STP periphery KeraSoft® IC lenses are generally used for "reverse geometry" corneas i.e. those corneas that demonstrate steep peripheral corneal curvature relative to the central area on topography. Examples would be post refractive surgery and post graft cases.

It is very unusual for a Keratoconic cornea to require STP periphery lenses. Exceptions are very steep sided cones.

Goals:
1. Stable and optimal vision between blinks
2. Optimal MoRoCCo fit

Always try STD periphery lenses first, as these can work in many situations. Peripheral changes are made in cases where several lenses have been tried and all satisfy one goal, but not the other.

Often, this strategy will require using multiple fitting lenses until the best VA and fit are achieved. In these situations, you will combine the data for 2 separate lenses to order the lens for the patient.

Examining the type of cornea being fitted can give guidance as to which changes to make to the periphery.

Cases of previous graft or refractive surgery

Generally topography shows a flat centre relative to the periphery i.e. reverse geometry shape

They most likely will require STP periphery lenses

Procedure:

1. Identify the lens that gives the best **VA**
2. The lens will most likely demonstrate decentration and unstable rotation **(FLAT)**
3. Then identify the lens which gives the best fit
4. Go steeper until you find the lens giving the best MoRoCCo fit
5. Expect the **VA** to be clearer after the blink with this lens

Overview

The lens giving the **best stable VA** determines the **base curve**

The lens giving **best fit** determines the **peripheral curve**

Every **0.20 change** in base curve corresponds to **1 step change** in the periphery.

Example:
8.40 STD lens

Mo	2.5 mm	🟠
Ro	Unstable ranges from 5-20 degrees CCW	🔴
C	Decentered inferior temporal	🔴
Co	Aware of lens	🟠
VA	20/25, 6/7.5, 0.8 stable between blink	🟢

In this example, the 8.40 lens is optimal for **VA**, but the other categories indicate the lens is too loose or flat.

This base curve is ideal for this patient.

The next step is to improve the peripheral fit by trialling steeper base curve STD lenses.

8.00 STD lens

Mo	1.5 mm	🟢
Ro	5 degrees CCW stable	🟢
C	Well centered	🟢
Co	Comfortable	🟢
VA	20/50, 6/12, 0.5 Clear after blink and then blurs	🔴

With this Fitting Lens, all the fitting categories are optimal, but the **VA** results suggest that the base curve is too steep.

Using the information that you have from both fitting lenses, you can now determine the best lens to order.

The **8.40 STD** gave best **VA**:

Choose this as the **base curve**

The **8.00 STD** gave best **fit**:

Choose this as the **periphery**

Always try STD periphery lenses first, as these can work in many situations. Peripheral changes are made in cases where several fitting lenses have been tried and all satisfy one goal, but not the other.

Each **0.20** change in the base curve corresponds to **1 step** in the periphery, therefore the final lens to order is:

8.40:STP2

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