## ROSE K2 XL Special Options

The ROSE K2 XL design is available in several toric and asymmetric options, giving you an array of tools to fit even the most challenging corneas:

- Front Surface Toric (FST) for the correction of residual astigmatism.
- Toric Periphery (TP) for adjusting the fit on the peripheral cornea and sclera.
- Quadrant Specific Edge Lift (QSEL) when different edge lifts are required in one or more quadrants.
- Asymmetric Corneal Technology (ACT) for large changes to the edge lift in one or two quadrants.
- Segment Specific ACT (SSACT) for large changes to the edge lift over a small arc.
- Bifocal for presbyopia or when an addition is required for near work.


## Front Surface Toric (FST)

## Application

For the correction of residual astigmatism.

## Design

Toricity is applied to the front surface of the lens only and prism ballast (extending over the optic zone) is used to ensure correct orientation of the lens.

## Range

Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Sphere: All powers Cylinder: - 0.25 to-12.00D in 0.125D steps
Axis: $0^{\circ}$ to $180^{\circ}$ in $1^{\circ}$ steps
Prism: 0.4D to 2.0D in 0.05D steps. Standard prism $=1.25 \mathrm{D}$
Marker: Dot at base of prism (270 $)$

## Fitting

Inclusion of an FST will not affect the fit or location of the lens.

## Ordering

Specify amount of cylinder power and axis of FST.

## Toric Periphery (TP)

## Application

For toric corneas/scleras where there is reasonable symmetry in the two major meridians, most commonly flatter in the horizontal meridian and steeper in the vertical meridian (with the rule astigmatism). Use when the fit on the peripheral cornea and sclera requires adjustment.

## Design

The BOZR remains spherical but all curves outside the back optic zone are toric, affecting both the fit on the peripheral cornea and sclera. Unless otherwise ordered, the toricity is split equally in both meridians, being steepened in one meridian and flattened in the other.
Note: The toricity can be split unequally in each meridian if required.
ACT (see below) may be added in up to 2 meridians, and/or a front surface toric.

## Range

Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Sphere: All powers Cylinder: - 0.25 to-12.00D in 0.125D steps
Prism: Optional
Markers: 2 lines on the flat meridian - Axis (A) and A $+180^{\circ}$ Dot at base of prism ( $270^{\circ}$ ) if included Toricity: 0.4 mm to 2.0 mm in 0.2 steps. Standard $=1.2$

## Toric Periphery (TP) Cont.

## Fitting

With a spherical ROSE K2 XL trial lens, the fluorescein pattern will show insufficient lift in one major meridian, and excessive lift in the other meridian over the peripheral cornea and extending out to the edge of the lens. Topography can be used to estimate the amount of toricity required, but the standard 1.2 toricity will fit over $50 \%$ of cases where a TP is required. If the fit requires more change in one meridian than the other, an asymmetric split can be used. On insertion, the lens should orientate to the correct position within a few seconds and remain stable, without the inclusion of prism
 ballast. Prism can be added to improve orientation and stability of the TP if required.

## Ordering

The axis of the toric periphery does not need to be specified unless prism, front toric or ACT is included.

## Quadrant Specific Edge Lift (QSEL)

## Application

Where different edge lifts are required in one or more quadrants. Each quadrant is $90^{\circ}$ apart but these may be oblique with the maximum (positive " + " lift/edge out) or minimum (negative "-" lift/edge in) occurring at the centre of each quadrant. For use where the fit outside the limbus requires changing.

## Design

Different lifts are applied to the last 2 mm of the lens, thereby only changing the fit from the limbus out to the edge of the lens. The fit over the cornea remains unaffected. Although optional, 1 D of base down prism at $270^{\circ}$ is standard, to assist with the correct orientation of the lens. ACT (see below) may be added in up to 2 quadrants, and/or a front surface toric.

## Range

Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Sphere: All powers Cylinder: -0.25 to -8.00D in 0.125D steps
Prism: 0.4 D to 2.0D in 0.05 D steps. Standard prism $=1.00 \mathrm{D}$
Marker: Dot at base of prism $\left(270^{\circ}\right)$, Lines at $0^{\circ}$ and $180^{\circ}$
Lifts: -3.00 (edge in) to +4.00 (edge out) in 0.5 steps

## Ordering

State the lift value required in each quadrant. e.g.:

- $0^{\circ}$ to $90^{\circ}$ : standard
- $90^{\circ}$ to $180^{\circ}$ : increased +1.00
- $180^{\circ}$ to $270^{\circ}$ : decreased -0.50
- $270^{\circ}$ to $360^{\circ}$ : standard



## Asymmetric Corneal Technology (ACT)

## Application

Where large changes to the edge lift are required in one or two quadrants, e.g. PMD. For use where the fit over the cornea and the sclera requires changing in one meridian.

## Design

The BOZR is not affected but all curves outside the BOZD are changed in one hemisphere $\left(180^{\circ}\right)$. Fit over the peripheral cornea and sclera will be affected, with the maximum change occurring at the centre of the hemisphere at the edge of the lens.

## Range

Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Bi-directional ACT: -2.00 (edge in) to +4.00 (edge out) in 0.10 steps. Standard ACT $=1.2$
Prism: 0D to 2.5D in 0.1D steps. Standard $=1.25 \mathrm{D}$
Axis: $0^{\circ}$ to $359^{\circ}$ in $1^{\circ}$ steps

## Ordering

- Specify axis of ACT.
- 1.25D of base down prism will be included automatically at $270^{\circ}$ to assist in stabilization unless otherwise requested. Inclusion of prism will not affect the fit of the lens.
- Specify required amount of ACT. Standard ACT = 1.2



## Segment Specific Asymmetric Corneal Technology (SSACT)

## Application

Where large changes in edge lift are required over a small arc, e.g. pterygium.

## Design

ACT is applied to a specific arc/segment rather than the $180^{\circ}$ segment used in standard ACT. Fit over the peripheral cornea and sclera will be affected, with the maximum change occurring at the centre of the segment at the edge of the lens.

## Range

Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Bi-directional ACT: -2.00 to +4.00
Segment width: $50^{\circ}$ to $180^{\circ}$ in $1^{\circ}$ steps
Axis: $0^{\circ}$ to $359^{\circ}$ in $1^{\circ}$ steps
Prism: 0D to 2.5 D in 0.1 D steps. Standard $=1.0 \mathrm{D}$

## Ordering

- Specify axis of ACT.
- Specify width in degrees of the arc/segment.
- Specify required amount of ACT. Standard ACT $=1.2$
- Prism: 1.25D of base down prism will be included automatically at $270^{\circ}$ to assist stabilization unless otherwise requested.

Note: This design has cutting limitations. The smaller the segment and higher the degree of ACT, the more difficult the lens is to cut. Your lab will inform you if your order cannot be cut.

## Bifocal

## Application

Presbyopia or when an addition is required for near work.

## Design

Centre near simultaneous vision design whereby an addition is added to the front surface on the centre of the lens. The back surface is unaffected.

## Range

BC: 5.6 to 9.0 mm in 0.01 mm steps
Diameter: 13.6 to 16.6 mm in 0.1 mm steps
Power: All powers
Front optic addition diameter (FOAD): 0.5 to 5.0 mm
Standard recommended FOAD: Dominant eye 1.8 mm , Non-dominant eye 2.2 mm

## Fitting

1. Establish the dominant eye. In most cases this will be set for the distance vision.
2. Use an intermediate add for the dominant eye and keep the FOAD smaller than for the non-dominant eye by approximately 0.4 mm .
3. Use the full required add power for the non-dominant (close vision) eye.

Note: Depending on the visual results, the FOAD can be varied to enhance either the distance or near vision. ACT, toric, quadrant specific edge lifts and front surface torics can be combined with this design.

## Ordering

Specify FOAD and addition power for the Dominant and Non-Dominant eye.
Example:
Right eye: 1.8 mm FOAD with +1.25 ADD
Left eye: 2.2 mm FOAD with +2.50 ADD


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