Systematic Approach to Fitting

		Rose K2 / Rose K	Rose K2 IC	Rose K2 Post Graft
	INDICATIONS	Nipple Keratoconus, Oval Keratoconus	Pellucid Marginal Degeneration, Keratoglobus, LASIK-induced Ectasia and Post Graft	For patients who have undergone penetrating keratoplasty
1	**INITIAL BASE CURVE SELECTION**	0.2 mm steeper than **average K** reading.	**PMD AND GLOBUS,** 0.3 mm flatter than **steepest corneal** meridian. **POST LASIK AND GRAFT,** refer to Rose K Post Graft section.	0.3 mm steeper than **average K** reading.
2	**CENTRAL FIT**	**Ignore peripheral fit at this stage.** **A** Evaluate central fit immediately after blink when lens is centered. **B** A light, feather touch at the apex of the cone is desired. *(See fluorescein images section).*	**Ignore peripheral fit at this stage.** **A** Evaluate central fit immediately after blink when lens is centered. **B** **FOR PMD AND GLOBUS,** a light feather touch is desired. **FOR POST LASIK,** look for central pooling of 0.2 mm to 0.3 mm. **FOR POST GRAFT,** refer to Rose K Post Graft section. *(See fluorescein images section).*	**Ignore peripheral fit at this stage.** **A** Evaluate central fit immediately after blink when lens is centered. **B** Look for central pooling of 0.2 mm to 0.3 mm in early flatter grafts; alignment to 0.1 mm flatter in more mature grafts. *(See fluorescein images section).*
3	**PERIPHERAL FIT**	Once good central fit is achieved, assess edge lift. Look for an even fluorescein band of 0.5 mm to 0.7 mm in width. Order increased (flat) or decreased (steep) edge lift accordingly. For asymmetric edge lift where the lift is excessive at 12 and 6 o'clock and insufficient at 3 and 9 o'clock, consider toric PCs (TP design). For significant edge stand off / lift off, at or around 6 o'clock, consider ACT.		
4	**ASSESS THE DIAMETER**	The standard diameter is 8.7 mm. Smaller diameters (8.3 mm) work well on very steep nipple cones. A larger diameter is often required for early cones and will also tend to make the lens ride higher. The lens should hang off the top lid and be well clear of the lower limbus.	The standard diameter is 11.4 mm. Increasing the diameter will help lens location/centration. Make sure the lens is not impinging onto the upper sclera.	The standard diameter is 10.4 mm. Increasing the diameter will help lens location/centration. Make sure the lens is not impinging onto the upper sclera.
5	**ASSESS POWER LAST**	Perform over refraction in well-lit room. Over refract using ± 1.00D steps initially and refine with 0.50D and 0.25D steps.		
6	**RESIDUAL ASTIGMATISM (R.A.)**	It is usual to leave low amounts of R.A. uncorrected, or to compensate spherically for it (see table). It is rare to see R.A. amounts over this level; when it is, toric lenses (front, back or bi-toric) are usually needed.	**Spherical compensation of R.A.** R.A. -0.25 to -0.50, add -0.25D R.A. -0.75 to -1.00, add -0.50D	

Practitioner's Fitting Guide

R O S E   K2 ™
post graft lens

ROSE K

Menicon

Menicon

Rose K™ Post Graft Lens

Lens Design by: Dr Paul Rose, Optometrist.

Primary indication for penetrating keratoplasty, post lasik and post intra corneal rings. Secondary indications for large decentred oval cones.

Fig. 1
Optimum Fit

Fitting Set

1. The Rose K™ Post Graft Lens is available in a fitting set up to 22 lenses. (Fitting set lenses are supplied in Boston Material non-UV).

2. Prescription lenses are supplied in Menicon Z material with a DK 163 ISO/Fatt or Boston XO material DK 100 ISO/Fatt method, offering increased oxygen permeability and exceptional stability.
The high DK also helps to minimise any insult to the graft.

3. Base Curve range from 5.70mm to 9.30mm. Standard diameter 10.4mm. (A diameter range from 9.4mm to 12.0mm is available). Five peripheral systems (edge lifts) are available in standard, decreased, double decreased, increased or double increased lifts.

Fig. 2
Early graft -good location and central fit -excessive edge lift

Rose K™ Post Graft Fitting Procedure

— STEP 1
Pre Fitting Examination

As with normal RGP fits assess the patients history and suitability and carry out a full pre-fitting examination.

— STEP 2
The Rose K™ Post Graft Diagnostic Fitting Set

The use of the Rose K™ post graft fitting set is the only way to assess the correct Rose K™ Post Graft Lens fit.

— STEP 3
Topical Anaesthetic

Topical corneal anaesthetic is recommended for new fits to reduce tearing for more accurate fitting assessment.

Fig. 3
Diameter too small. Central Fit Flat

— STEP 4
Initial Base Curve Selection

If the patient is already wearing RGP lenses then choose a base curve similar to their present lens. If the patient is not wearing an RGP lens then take the K readings and or corneal topographies. From these choose the first 10.4mm trial lens 0.3mm steeper then the average of the two K readings.

NB: This is only an initial guide for the first trial lens.
Accurate fluorescein assessment is the only method of correctly fitting the Rose K™ Post Graft Lens.
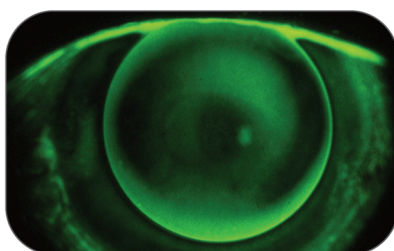

Fig. 4
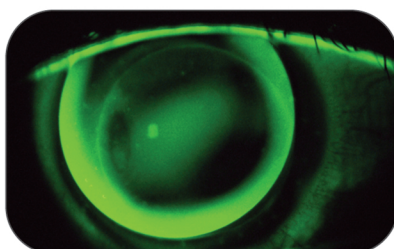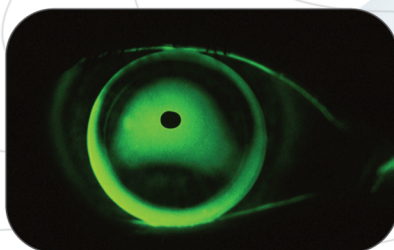Early Graft -steep centrally -loose periphery

— STEP 5
Initial Lens Evaluation

Central Fit

Allow sufficient time for the lens to equilibrate on the eye then install a small quantity of fluorescein. Be careful not to instill too much fluorescein, as this will give a false picture. Before evaluating allow sufficient time for any fluorescein on the front of the lens to dissipate. Evaluate the lens fit immediately after a blink and with the lens centralised. Look for central pooling of 0.2mm to 0.3mm in early flatter grafts where the donor tissue is still flatter than the host tissue, but alignment to 0.1 steeper for more mature grafts. Try lenses 0.2mm steeper and 0.2mm flatter then your original trial lens selection to evaluate whether centration or the overall lens and cornea relationship is optimised.

NB: The early graft will nearly always be flatter than the donor/host interface, which often has raised areas of scar tissue significantly steeper than the central area. This will cause the lens to decentrate towards the steepest cornea. This can be overcome by trying steeper and larger lenses.

Peripheral Fit

Once good central fit is achieved, assess edge lift. Look for an even fluorescein band of 0.5mm to 0.7mm in width. Order increased (flat) or decreased (steep) edge lift accordingly. For asymmetric edge lift where the lift is excessive at 12 and 6 o'clock and insufficient at 3 and 9 o'clock, consider toric PCs (TP design). For significant edge stand off / lift off, at or around 6 o'clock, consider ACT.

Fig. 5
Good central fit. Tight periphery

Location

— STEP 6
Size is the predominate factor in achieving good central location. If a lens decenters in any direction, then increasing the diameter will nearly always improve location. An increase of 0.5mm will often have a significant effect on lens location. If centration is good but the lens is riding too high impinging onto the upper sclera then reduce the diameter.

Fig. 6
Astigmatism with the rule -fit toric optic

Lens Power Evaluation

— STEP 7
Once the base curve has been determined, over refract to determine the correct power. For over-refractions greater then 4.0D BVD must be taken into account. Add this result to the trial lens power to order the final lens power.

If a full back surface toric lens is required but you only have spherical trial lenses, then over-refract using a spherical lens of the flatter toric base to determine the correct power.

Astigmatism

Residual Astigmatism (R.A)

It is usual to leave low amounts of R.A. uncorrected, or to compensate spherically for it (see table). It is rare to see R.A. amounts over this level; when it is, toric lenses (front, back or bi-toric) are usually needed. Please consult the Web site at www.davidthomas.com or call +44(0)1604 646216 for more information on toric lenses.

Fig. 7
Astigmatism against the rule -fit toric optic

The graft will often have significant toricity. Try to ignore this initially and always try a spherical lens first. Should a toric lens be required because of poor centration or a very astigmatic fitting pattern, then ascertain from the fluorescein pattern whether the toricity needs to be across the entire lens or just over the graft. Frequently a toric lens, which has the last 1mm spherical, gives the best fit. In this case order a Toric optic lens only.

To improve tear circulation to pooling zones within the graft, it may occasionally be necessary to fenestrate the lens at the edge of the pooled zone.
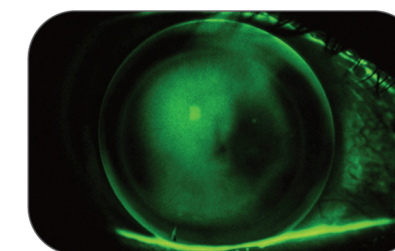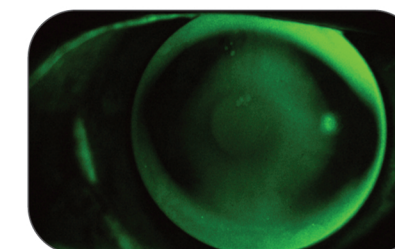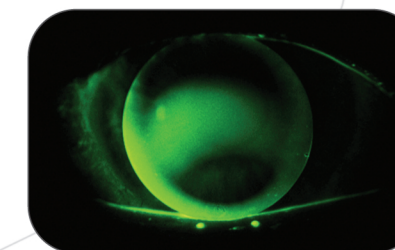
Spherical Compensation of R.A.

R.A. -0.25 to -0.50, add -0.25D

R.A. -0.75 to -1.00, add - 0.50D