

Systematic Approach to Fitting

GENERALITY

The use of diagnostic lenses is the only way to properly assess the correct fit and final lens power.

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

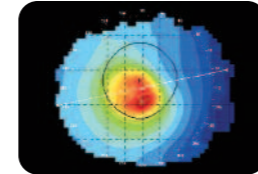
Toric peripheral curves and Asymmetric Corneal Technology (ACT) are available on all lens designs.

	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 $\pm 1.00D$ 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. Please consult the Web site at www.davidthomas.com or call +44(0)1604 646216 for more information on toric lenses.	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	

CORNEAL TOPOGRAPHY

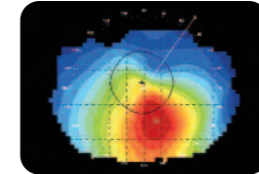
Corneal topography is a very useful and effective tool in determining irregular corneas and different cone shapes and sizes. The images below represent typical cones and irregular corneas encountered in a practice along with the recommended Rose K2 lens design for optimal fit.

NIPPLE CONE



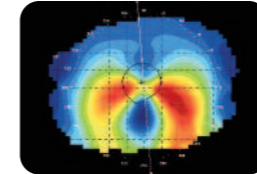
RECOMMENDED DESIGN:
Rose K2
Rose K2 IC

LARGE OVAL CONE



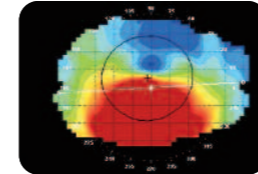
RECOMMENDED DESIGN:
ROSE K2 > 9.5 mm
ROSE K2 IC

PELLUCID MARGINAL DEGENERATION



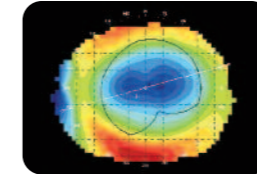
RECOMMENDED DESIGN:
ROSE K2 IC
ROSE K2 POST GRAFT

KERATOGLOBUS



RECOMMENDED DESIGN:
ROSE K2 IC
ROSE K2 POST GRAFT

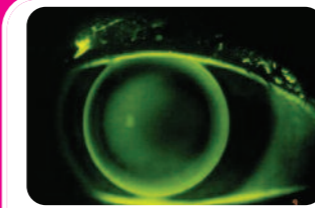
LASIK-INDUCED ECSTASIA



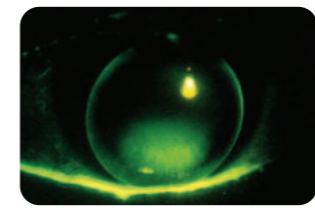
RECOMMENDED DESIGN:
ROSE K2 IC
ROSE K2 POST GRAFT

CORNEAL TOPOGRAPHY

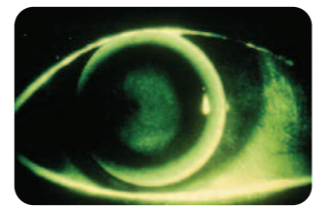
Rose K2



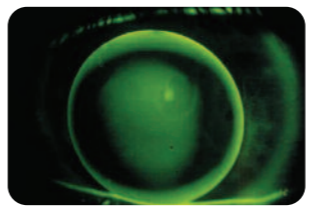
Optimum fit immediately after blink.



Optimum fit a few seconds after blink. Don't judge fit in this downward location.

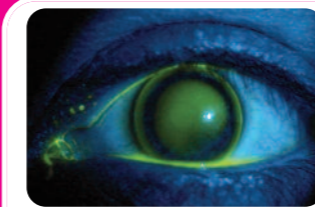


Good fit centrally — loose periphery.



Steep centrally — good fit periphery.

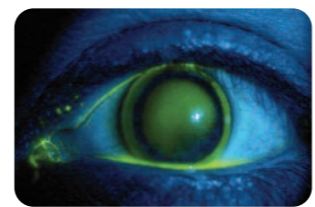
Rose K2 IC



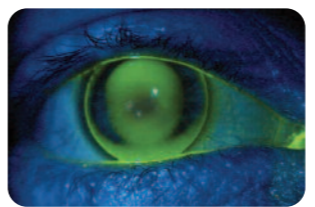
11.4 diameter lens on PMD. Proper central touch and edge lift.



11.4 diameter lens on PMD. Proper central touch, insufficient lift.

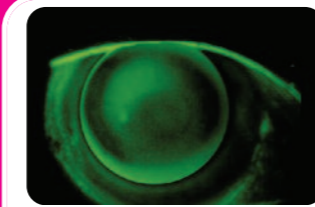


11.4 diameter lens on PMD. Proper central touch, too much edge lift.

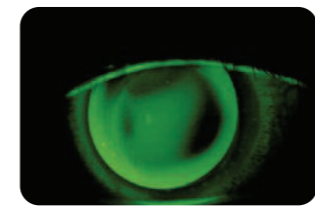


11.4 diameter lens on Nipple cone. Proper central touch, excessive lift at 6 o'clock, ACT grade #1 recommended.

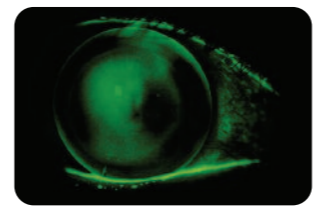
Rose K2 Post Graft



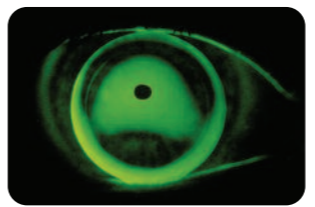
Optimum fit.



Early graft — good location and central fit, excessive edge lift.



Good central fit, tight periphery.



Early Graft — steep centrally, loose periphery.



DAVID THOMAS
"an eye for excellence"



PRACTITIONER'S FITTING GUIDE

ROSE K2™
ABERRATION CONTROL

ROSE K2 IC™
IRREGULAR CORNEA

ROSE K2 Post Graft™



DAVID THOMAS
"an eye for excellence"

Three lens designs

to fit all corneal shapes . . .

One simple systematic approach to fitting

FEATURING

Easy-to-fit using a simple systematic approach for all designs.

Simply to use flexible edge lift system.

Aberration control aspheric optics providing outstanding acuity reduced flare and glare and minimum lens mass. (Rose K2, Rose K2IC, Rose K2 Post Graft).

Advanced fitting options including:

- Toric peripheral curves
- Asymmetric Corneal Technology ACT
- Front, back and bi-toric design

Extensive diameter and base curve range.

Fits all corneal shapes, sizes and stages of keratoconus because of the unique design that change as the base curve steepens.

	Rose K2	Rose K2 IC	Rose K2 Post Graft
PRIMARY APPLICATION	Nipple Keratoconus, Oval Keratoconus	Pellucid Marginal Degeneration, Keratoglobus, LASIK induced Ectasia and Post Graft	For patients who have undergone penetrating keratoplasty
SECONDARY APPLICATION	Early Pellucid Marginal Degeneration	Oval Keratoconus, Nipple Keratoconus	Oval Keratoconus, Nipple Keratoconus
PARAMETERS AVAILABLE	BASE CURVE 4.30 mm to 8.60 mm DIAMETER 7.9 mm to 10.4 mm POWER Any EDGE LIFTS Standard, standard flat, standard steep. More lifts are available - see section on edge lift	BASE CURVE 5.70 mm to 9.30 mm DIAMETER 9.4 mm to 12.0 mm POWER Any EDGE LIFTS Standard, standard flat, standard steep, double flat, double steep	BASE CURVE 5.70 mm to 9.30 mm DIAMETER 9.4 mm to 12.0 mm POWER Any EDGE LIFTS Standard, standard flat, standard steep, double flat, double steep
ADVANCED FITTING OPTIONS	<ol style="list-style-type: none"> 1- Toric Peripheral curves (TP) 2- Asymmetric Corneal 3- Toric: back, front and bi-toric surfaces 		
TRIAL SETS	26 lenses ranging from 5.10 to 7.60 in an 8.7 mm diameter, with powers approximating final lens power	14 lenses ranging from 6.50 to 8.60 in an 11.4 mm diameter, with powers approximating final lens power	22 lenses from 6.00 to 9.00 in an 10.4 mm diameter, with powers approximating the final lens power

FLEXIBLE EDGE LIFT SYSTEM

The peripheral fit is the single most important fitting factor for a successful, comfortable GP fit. Rather than a complicated series of radii and diameters, all **Rose K2** lenses use a simple value referred to as Edge Lift to determine the optimal peripheral configuration. From the trial lens, an edge lift value referred to as standard, increased lift (flat) or decreased lift (steep) can be ordered (see illustrations A, B, C). The final lens is automatically compensated (base curve and power, no calculations are required), so the change in edge lift (which alters the sagittal height) does not affect the central fit!

With **Rose K2** lenses, 85% of all lenses dispensed use either the standard edge, standard flat (increased) or standard steep (decreased) edge lift to achieve the desired peripheral fit. However, other edge lift values can be specified in 0.1 increments ranging from -1.3 steep (decreased) to +3.0 flat (increased) (see illustration D1).

With **Rose K2 IC** and **Rose K2 Post Graft** lenses, the flexible edge lift system is available in 5 different values: standard, standard steep (decreased), standard flat (increased), double steep or double flat edge lift (see illustration D2).

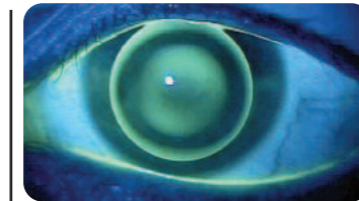


ILLUSTRATION A Optimal edge lift will give a fluorescein band of 0.5 mm to 0.7 mm with no excessive lift or peripheral seal at any point.

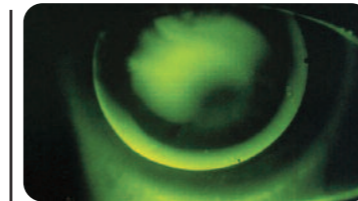


ILLUSTRATION B When the fluorescein pattern indicates edge lift in excess of 0.5 mm to 0.7 mm, a standard steep edge lift value is recommended.

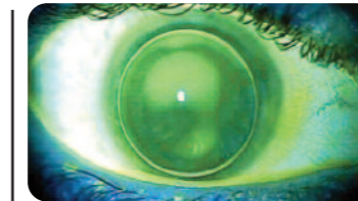
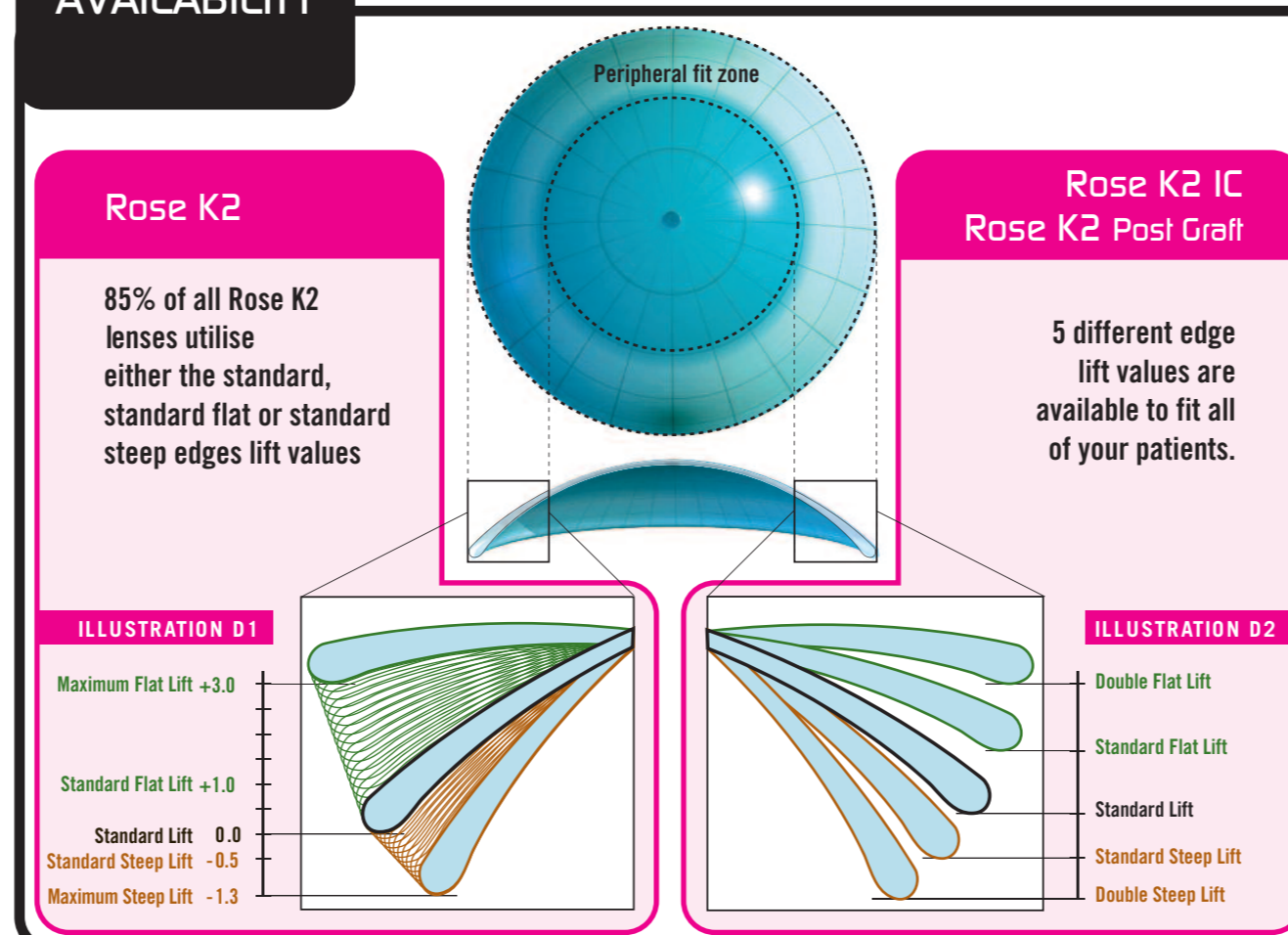


ILLUSTRATION C When the fluorescein pattern indicates an edge lift less than 0.5 mm to 0.7 mm, a standard flat edge lift value is recommended.

AVAILABILITY

ILLUSTRATION D



ACT

Asymmetric
Corneal Technology

By nature, the keratoconic cornea is asymmetric, where the inferior quadrant is frequently significantly steeper than the superior portion, causing the GP lens to lift off at 6 o'clock (see illustration E).

Rose K2 lenses incorporating ACT are designed to accommodate this asymmetry (good edge fit at 3, 9 and 12 o'clock but lift at 6 o'clock). The inferior quadrant of the lens is steeper than the superior quadrants, providing a more accurate fit at 6 o'clock making the lens more comfortable and stable (see illustration F) and often providing superior vision. ACT is independent of the primary base curve and edge lift value and is available for **Rose K2, Rose K2 IC, Rose K2 Post Graft** lens designs.

ACT is quadrant specific and allows the steepening of the inferior quadrant only

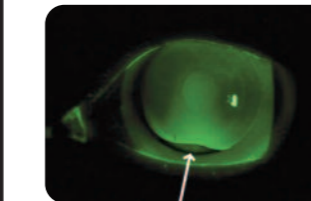


ILLUSTRATION E A spherical Rose K2 lens (symmetric) fitted on this asymmetric keratoconic cornea fits well at 3, 9 and 12 o'clock but causes the lower edge to lift off at 6 o'clock.

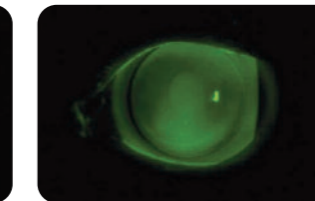
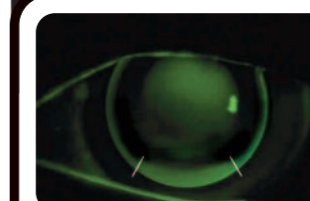
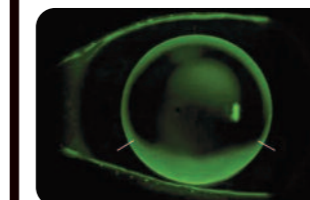


ILLUSTRATION F Incorporating ACT into the design significantly improves the fit at 6 o'clock, making the lens more comfortable and stable and providing superior vision.

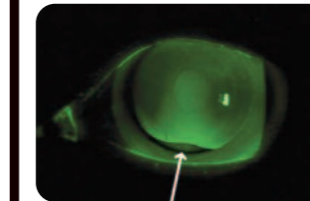
AVAILABILITY



ACT GRADE #1 (0.7 mm)
Slight edge stand off with pooling at or around 6 o'clock (between 5 and 7 o'clock). Specify: ACT grade #1



ACT GRADE #2 (1.0 mm)
Moderate edge stand off with pooling and possible bubble at or around 6 o'clock (between 4 and 8 o'clock). The tear meniscus may also start to break up on blinking. Specify ACT grade #2



ACT GRADE #3 (1.3 mm)
Severe edge stand off or lift off (tear meniscus breaks up) at or around 6 o'clock. Specify: ACT grade #3

Note: Other grades of ACT are available (0.4 mm to 1.5 mm), please call us for further information on +44(0)1604 646216.

TORIC PCs

A toric periphery (TP) is where the optical zone is spherical but the last 1.0 mm of the peripheral curve is toric. With Keratoconus, the tight areas, usually within 20 degrees of 180° (3 and 9 o'clock), will be eliminated with a TP design (see illustrations G and H). In PMD there is often significant against-the-rule astigmatism making the lens tight at 12 and 6 o'clock and loose at 3 and 9 o'clock. A lens that is tight at 12 o'clock causes discomfort, so a TP design is often useful here.

The TP design is available on all **Rose K** lenses (**Rose K2, Rose K2 IC, Rose K2 Post Graft**) and will greatly enhance lens fit, stability, comfort, vision and wearing time.

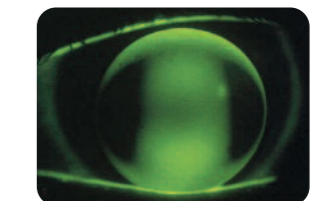


ILLUSTRATION G A spherical Rose K2 lens fitted on a keratoconic cornea with "with-the-rule" astigmatism outside of the cone results in excessive edge lift at 6 and to a lesser degree at 12 o'clock, and peripheral seal at 3 and 9 o'clock. A TP design is recommended.

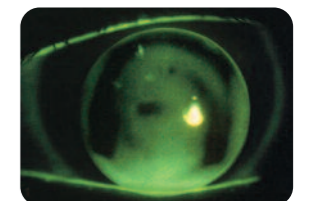


ILLUSTRATION H Same keratoconic cornea as illustration G but this time a TP design was ordered. Note how the tight areas at 3 and 9 o'clock were eliminated.

AVAILABILITY

