



## **NovaKone**

***A new solution  
for keratoconus  
with the comfort  
of a soft contact  
lens.***

### **SOFT CONTACT LENS FOR KERATOCONUS**

If you are looking for a new solution to keratoconus with the comfort of a soft contact lens, including cylinder correction to -10.00, along with a simple fitting method, then this Novakone is the contact lens. While Novakone contact lenses are a good solution for all types of KS, this contact lens is especially suitable for advanced stages of KC and for those who have an intolerance to shape stability or have unsuccessfully tried hybrid or scleral contact lenses.

- + A higher level of comfort than most rigid gas permeable (RGP) lenses or hybrid contact lenses can provide
- + Excellent visual results
- + A simple fitting method
- + The option for 3 monthly replacements

**NOVAKONE®**



**UCO**  
CONTACTLENZEN  
HOLLANDS AMBACHT

# Parameters

<b>BCR</b>	Standard : 5.40, 5.80, 6.20, 6.60, 7.00, 7.40, 7.80, 8.20 and 8.60, other available in steps of 0.1 mm.
<b>POWER</b>	+30.00 to -30.00 in steps of 0.25 dpt.
<b>LENS DIAMETER</b>	Standard 15.00, other available in steps of 0.1 mm.
<b>AXIS</b>	1° - 180° in steps of 1°
<b>CYLINDER POWER</b>	Up to -15.00 in steps of 0.25 dpt.
<b>MATERIAL</b>	Benz G4X 54%, Hioxifilcon D
<b>IT FACTOR (Index of thickness)</b>	Standard: 0(0.35mm). Options: 1, 2, 3 or 4

## DESIGNED FOR SUCCESS

**Novakone is specially designed for keratoconus, with advanced options and flexible parameters that allow you to an incredibly accurate control of the fit.**

A central base curve optimized for an accurate optical fit over the steeper central cornea.

- ▶ Variable center thickness (IT factor) to neutralize almost any irregular astigmatism.
- ▶ Our own dual elliptical stabilization™ and cylinder corrections down to -15.00 dpt are there to precisely correct the residual astigmatism.
- ▶ Because the central and peripheral fitting are specified separately from each other, there is excellent movement and fit of the lens.

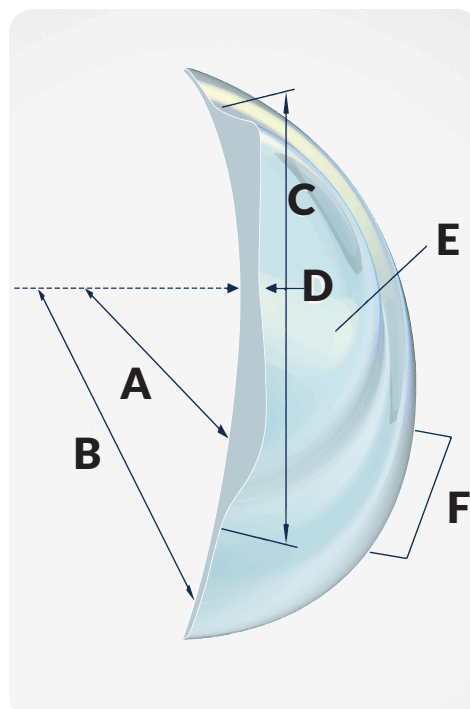
## INDICATIES

Novakone soft contact lenses for keratoconus are indicated for visual correction for all stages of keratoconus and Pellucid marginal degeneration (PMD). - Novakone can be particularly successful in cases where RGP, hybrid and scleral contact lenses were not. - Novakone offers exceptional comfort and can be an excellent addition to other forms of correction.

The rear face of the contact lens **(A)** has a steep central base curve that is intended to match the average K.

The fitting curve **(B)** corresponds to the base curve of a standard soft permeability.

The front side has an aspherical surface in the central part **(C)** in order to reduce the spherical aberration. to correct for a thinner lenticular taper and to maximize oxygen permeability.



The IT (Index of Thickness) factor describes the central thickness of the contact lens **(D)** and effectively controls and neutralizes the different levels of the corneal irregularities.

Residual astigmatism to -15.00 dpt is corrected by the front cylinder **(E)**.

Dual elliptical stabilization™ **(F)** serves to ensure excellent orientation and rotation stability

## DIAGNOSTIC SET

All lenses are equipped with Dual Elliptical Stabilization (with diagnostic markings and without cylinder).

### PREMIUM 18-Lens DIAGNOSTIC Set

Basic	Peripheral curve	Power CURVE	IT Factor
8.6	8.6	-4.00	0, 1, & 2
8.2	8.6	-5.00	0, 1, & 2
7.8	8.4	-6.00	0, 1, & 2
7.4	8.4	-7.00	1, 2, & 3
7.0	8.2	-8.00	1, 2, & 3
6.6	8.2	-9.00	1, 2, & 3



## ADAPTATION MANUAL

When measuring a Novakone, the goal is to optically correct the centrally affected cornea as much as possible using the base curve and the most “normal” peripheral curve and sclera fitting - similar to the way you adjust a soft contact lens. The contact lens specialist should determine whether a correction to the peripheral fitting is necessary, because only one fitting lens per BCR is present in the trialset.

The use of fitting-lenses is absolutely necessary. By following the guidelines and using the trialset, you are able to select the correct base curve and IT factor, assessing the actual fit, perform the over-refraction and ordering the correct contact lens.

### Step 1: Determining the central Basic Curve (Optical System)

The fitting of the central base curve will have a significant impact on the quality of the optical system and must therefore be checked using optical controls. The central radius should not be adjusted to obtain an improved peripheral fit - do this by adjusting the peripheral curve as described below in step 4.

Use the measurement chart on the right as a basis for the BCR determination of the first fitting lens based on the average central K central or at 3 mm measured at the topography.

Check the central cornea fit with the slit lamp and use large molecular fluorescein strips.

1. The ideal central base curve fit will produce a thin teardrop film with a light central touch.
2. Refer to the “Troubleshooting” section for help with a poor central base curve fit.

Average central K	BCR
41.00 - 42.99	7.84 - 8.23   8.6
43.00 - 46.99	7.18 - 7.83   8.2
47.00 - 49.99	6.75 - 7.17   7.8
50.00 - 52.99	6.37 - 6.74   7.4
53.00 - 55.99	6.03 - 6.36   7.0
56.00 - 58.99	5.72 - 6.02   6.6
59.00 - 61.99	5.44 - 5.71*   6.2
62.00 - 64.99	5.19 - 5.43*   5.8
65.00 - 67.99	4.97 - 5.18*   5.4

\* Not present in the diagnostic set

### Step 2: Determining the IT Factor

If irregularities are observed in the assessment of the best fit of the fitting lens, increase the IT Factor. This will improve the optical fit and stability. Evaluate the keratometry or topography on the lowest IT card lens. Increase the IT factor until the lines are clear (see section “Troubleshooting” for more guidance on IT selection).

**Step 3: Calculating the final lens power**

- ▶ Assess the refraction for the best fit lens. Fitting lenses do not have a cylinder correction.
- ▶ Compensate for all observed rotations.
- ▶ All fitting lenses have dual elliptical stabilisation to assess the rotation and orientation markings at 3 and 9 o'clock.

**Step 4: Assessing the peripheral curve**

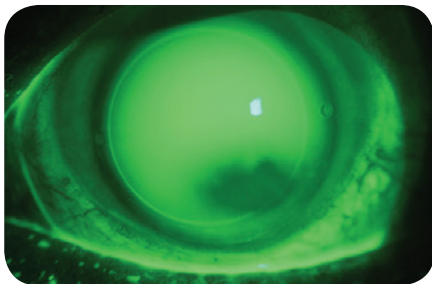
- ▶ Assess the fit with the help of a slitlamp
- ▶ The peripheral curve must have the usual characteristics of a standard soft lens fit.
- ▶ With an ideal fit, this will result in a movement of 0.5 to 1.0 mm during flashing.
- ▶ Refer to the “Troubleshooting” section if the movement of the lens is not ideal.

**Step 5: Ordering the final lens**

Perform an overrefraction and compensate for corneal distance and rotation if necessary. Combine the overrefraction with the power of the fitting lens to determine the final power. Specify the BCR.

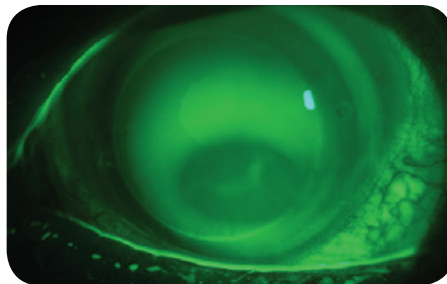
**TROUBLESHOOT**

**STEEP**



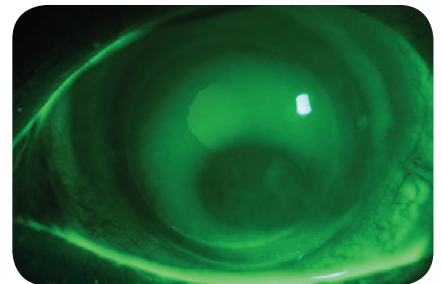
*Excessive tears (pooling).*

**ACCEPTABLE**

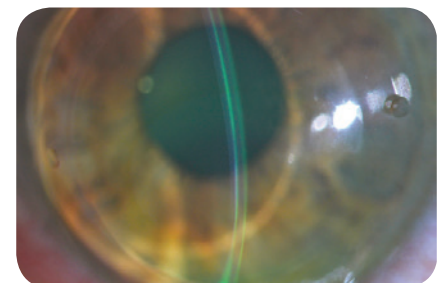
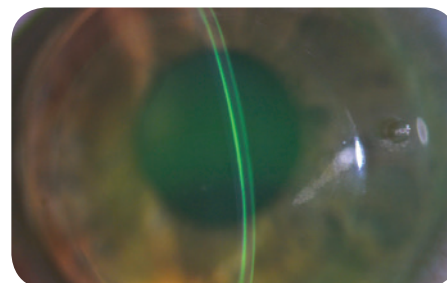
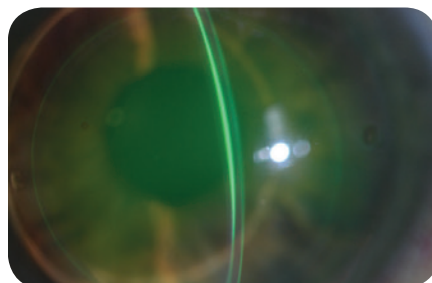


*Sufficient tears with a light inferior touch.*

**FLAT**



*Lack of tears over the cone.*



OBSERVATION	SOLUTION
Excessive central touch	Evaluate the next steeper BCR fitting lens
Fluctuating visual acuity	Re-evaluate the central BCR fitting lens, and the peripheral fitting in case of lens movement
Excessive pooling	Evaluate the next flatter BCR card lens
Stable but not an even fit	Increase to the next IT factor
Poor visual acuity	Re-evaluate the BCR and check the overrefraction
No movement of the lens/too tight fit	Apply a 0.20 mm flatter peripheral curve
Excessive movement and/or edge lift	Apply a 0.20 mm steeper peripheral curve apply lens

## TIPS FOR FITTING

- 1 The BCR gives an optical fit and shall not be adjusted to optimize the peripheral fit of the lens.
- 2 Shape-stable lens wearers should not wear contact lenses for at least 1-2 weeks before fitting with the Novakone.
- 3 Consider adjusting one eye at a time in situations where adjusting the regular correction method was not practical.
- 4 The more the cone is central, the lower the IT factor is.
- 5 Conversely, the more decentrated the cone, the higher the IT factor normally is/will be.
- 6 When the IT factor or BCR changes, the visuality usually changes and therefore the overrefraction has to be adjusted. So be careful when ordering other IT factors than those observed with the pass-lens fitting!
- 7 A very effective overrefraction can often be obtained by using an auto refractor.
- 8 Skiascopy (mirroring) can provide an assessment of the optical quality and centralized BCR. It can also be an alternative to the conventional method when subjectivity is a concern in patients.
- 9 In the exceptional case that Novakone does not provide adequate visual acuity, consider the use of Novakone as a supplement to provide wearers with relief from their visual impairment.
- 10 Novakone is designed with a standard diameter of 15.00 mm for excellent stability. Patients with an HVID of less than 11 or greater than 13 mm may require a different diameter. Determine the diameter by adding 3 mm to the HVID to determine the Novakone diameter.

