ZEN™ RC *scleral contact lenses*

A perfect mini-scleral contact lens for normal corneal shapes

Zenlens
the enlightened scleral

THE UNSURPASSED ZEN LENS™ IN A SMALLER DIAMETER

The Zen™ RC contact lens is a mini-scleral contact lens designed specifically for the normal cornea. The Zen™ RC contact lens has the minimum diameter and thickness required and is therefore easy to insert and remove.

These are the benefits of the Zen™ RC scleral contact lens:

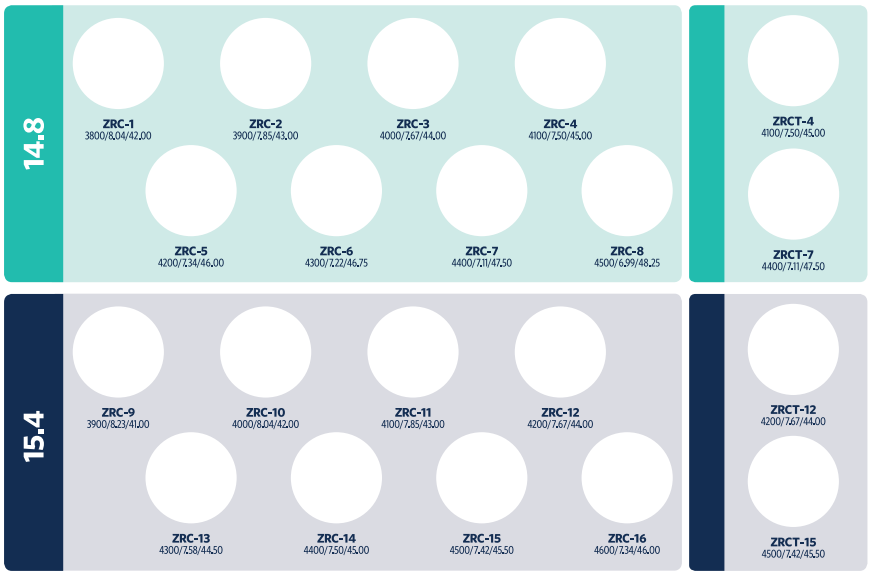
- ✚ The available diameters of 14.8 mm and 15.4 mm offer you a wide range of applications.
- ✚ There is only one type of lens profile.
- ✚ The reduced thickness (250 micron) guarantees better oxygen transmission.
- ✚ The SmartCurve™ technology allows for an easy customisation process.
- ✚ MicroVault

UCO
CONTACTLENZEN
HOLLANDS AMBACHT

Bausch&Lomb
Boston

Parameters

SAG	3500 - 5000, in steps of 10 micrometers, fully customized
BCR	5.00 - 15.00, per 0.05 ascending
LCC	-300/+300 in steps of 50 per quadrant
EDGE PROFILE	Spherical APS -10/+20. Toric APS steep and flat -10/+20 Each step is 30 microns
DIAMETER	14.80 or 15.40. Through the dots on the fitting lens you can see if you have the correct diameter *(dots must be at the corneal/ scleral junction).*
POWER	± 30.00, per 0.25 ascending
FLEX CONTROL FACTOR	-1/+2
MATERIAL	Boston XO/XO2
OPTIONS	MicroVault

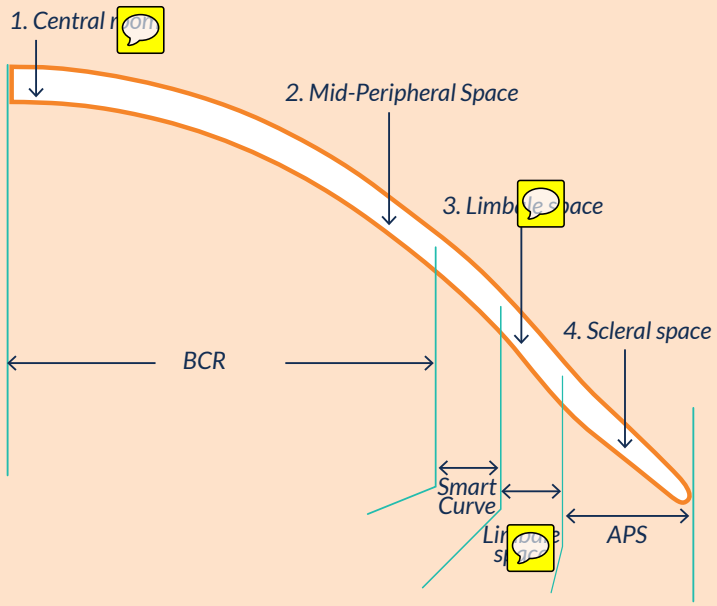


ZENLENS INSTRUCTIONS

Fill the contact lens with saline and fluorescein. Bend your client's head forward, nose to the ground. Then apply the contact lens to the eye.

For a cornea with a maximum diameter of 11.70 mm, we recommend a Zen™ RC fitting lens with a diameter of 14.80 mm. For larger diameters, choose a Zen™ RC fitting lens with a diameter of 15.40 mm.

Furthermore, choose the Zen™ RC lens with a BCR closest to the average of the K values you have measured.



ZEN™ RC ADJUSTMENT

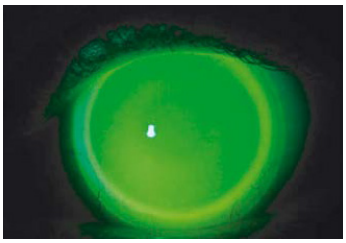
When fitting a Zen™ RC lens, follow these steps:

1) Adjust the sagitta until a sufficient central space is reached.
2) Adjust the BCR until the mid peripheral space is sufficient (± 250 mu).
3) Adjust the limbic curve until a sufficient limbal space is reached.
4) Adjust the peripheral curve. If necessary, use a toric periphery.

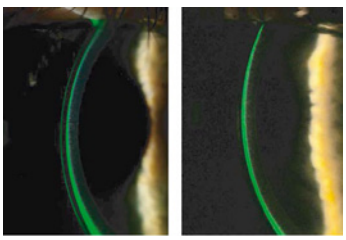
1) THE CENTRAL SPACE

The central tear thickness must be approximately 250 to 350 micrometers. Is this space not present or do you even see a central interface? Then select a higher sag from the trialset.

Check the central area with a slit lamp with an optical magnifying glass. Use the thickness of the adapter lens (250 micrometer) as a guide.



This adjustment looks good. The lens does not touch the cornea.



Left: not enough central space.

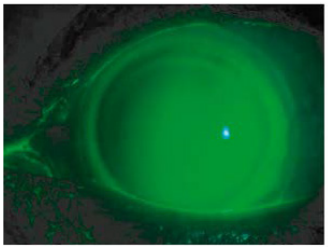
Right: centrally the right space, about 250 à 300 micro-meters.

2) PERIPHERAL SPACE

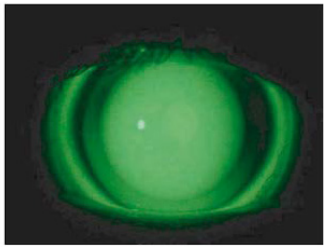
Review as described in the Troubleshooting section" on the last page.

3) LIMBAL SPACE

The lens has to bridge the entire limbal zone. If there is no full limbal space, take a larger diameter. If this is not possible, an elevated limbal space (LCC) can also be ordered when ordering the lens. Each quadrant represents 50 LCC, so 2 quadrants is 100 etc.



Adequate limbal space



Inadequate limbal space. Order a larger diameter or order a lens with an elevated limbal space (LCC).

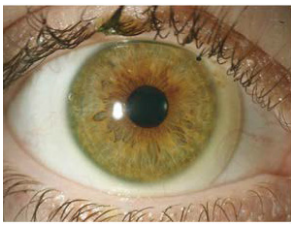
The limbal reach of a Zen™ RC lens may be somewhat less than the limbal reach of a Zen™ lens. With this knowledge you might be able to achieve a better centering.

4) PERIPHERY

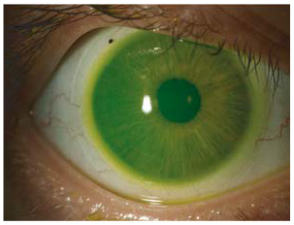
The peripheral curve determines the quality of the connection of the lens to the sclera and therefore the comfort of the lens. It is therefore important to choose the right peripheral curve.

The fitting-lenses have a standard spherical peripheral curve. If there is too much lift, you can choose for 'APS steep' factor -1 to -10. If the lens is too tight (blanching), start with APS flat 3.

If you notice a significant lift or compression in one meridian, assess the periphery with a toric fitting lens. (Standard +3/-3). Note the position of the markings on the lens. Rate APS flat and steep and adjust it in steps of 3 if necessary. Flat and steep can be changed individually to +/- in the desired meridian.



The edge lift is nasal in 1 quadrant too large. In this case, choose a toric APS.



A good adjustment; the edge lift is all around fine.

Advanced Peripheral System (APS) " From -10 to +20, in 30 micron increments.
If required, the periphery can be designed torically.

If the power, sag and LCC are correct and there is still clearly too much pressure or lift over one meridian, use a toric APS fitting lens at random to measure the inclination. Be sure to use a lens with the same diameter and sufficient sagittal depth. The fit of this lens is not important for determining the inclination.

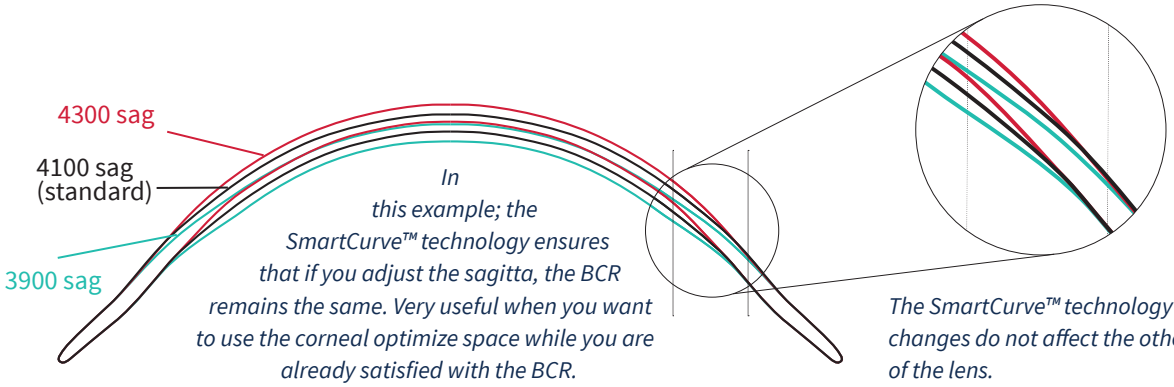
On the toric APS fitting-lens are the engraving marks on the flattest meridian. On the deepest meridian is a black dot. It is not necessary for the flattest meridian to stand horizontally on the sclera or cornea.

Let the lens rest for at least five minutes and then judge the lift on both meridians. With this information you can order the final lens.

EASILY DETERMINE THE RIGHT FIT

When you change one parameter of the lens, SmartCurve™ technology ensures that the overall fit remains correct.

For example, if you only adjust the sagittal depth, SmartCurve™ technology ensures that the fit is adjusted so that the BCR, limbal space and periphery do not change.



In this example; the SmartCurve™ technology ensures that if you adjust the sagitta, the BCR remains the same. Very useful when you want to use the corneal optimize space while you are already satisfied with the BCR.

The SmartCurve™ technology ensures that changes do not affect the other specifications of the lens.

POWER DETERMINATION

First you need to select a fitting lens with the right fit. Then you can determine the overrefraction and check if the lens is flexing. See below Flexure Control.

FLEXURE CONTROL

A toric overrefraction can be an indication of the deflection of the lens. This deflection can be determined by keratometry or topography. With a thicker lens (a higher flex control factor) you can reduce bending.

TORIC PERIPHERY

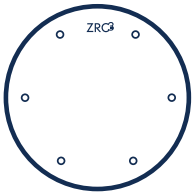
If the lens is found to show significant compression or lift in one meridian, consider a toric periphery.

TORIC OVERREFRACTION

In case of toric overrefraction, always check the periphery first. If the fit is not uniform for the landing areas indicated on the fitting lens, use a toric periphery. After this, check that the toric overrefraction has disappeared.

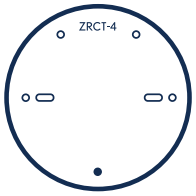
If there is a toric overrefraction and if the fit is uniform at the landing zones indicated on the a fitting lens, check whether the lens is deflected. If so, apply flex control factor 1 and check again for toric overrefraction.

If the lens is peripheral, does not bend and there is still a significant toric overrefraction, then the lens must be performed fronttoric. If the lens has no toric periphery, the lens must be stabilized dynamically.



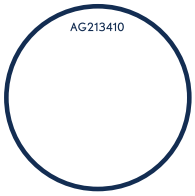
TRIAL LENSES
• Six equal apportioned markings at the beginning of the landing zone.

Laser engraving trial lens identification.



TORIC TRIAL LENSES
• Six equal distributed markings.
• 2 horizontal markings.
• Black dot at 270°.

Laser engraving trial lens identification.

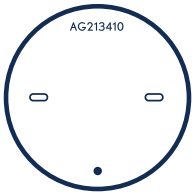


STANDARD
• R in the right lens.

Laser engraving in ID number.

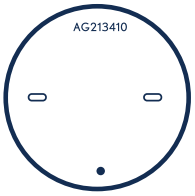
TO L APS
• Tw rkings at 0-180°.
• Black dot at 270°

Laser engraving ID number.



FRON RIC
• Two ings at 0-180°.
• Black dot at 270°

Laser engraving ID number.



TORIC PC WITH FRONT TORIC
• Two markings at 0-180°.
• Black dot at 270°

Laser engraving ID number.

TORIC APPLICATIONS

Cylinder in the overrefraction?	Compression or lift in the periphery?	Bending?	SOLUTION
YES	NO	YES	Switch to Flex Control Factor 1.
YES	NO	NO	Order a front toric Zenlens™ with dynamic stabilization.
NO	YES	Does not need to be measured	The lens must be executed with a toric periphery. Measure the axis orientation of the flat meridian using the trialset and then order a Zenlens™ with toric periphery.
YES	YES	NO	The lens must be executed with a toric periphery. The cylinder may then disappear into the overrefraction.
YES	YES	YES	The lens must be with a toric periphery carried out. Perhaps after that the deflection will disappear, if not a front-torque lens should be chosen.

TROUBLESHOOTING ZEN™ RC

PROBLEM	POSSIBLE SOLUTION
Bubbles under the lens	• The lens may not be used correctly. In that case, re-instruct the wearer. • It is also possible that the bubbles arise because the lens has a considerable lift. Check edgelift in multiple quadrants. In that case, adjust a lens with a steeper periphery. • After all, it is possible that the central space of the lens is too large. In that case, adjust a lens with a smaller central space.
Flakes or cloudiness under the lens.	• This problem usually occurs when the periphery of the lens in the upper quadrant has too much lift. Then adjust a lens with a steeper or perhaps even toric periphery. • If the periphery is in order and this problem does occur, then reducing the central space and/or the mid-peripheral space can sometimes offer a solution.
Vessel constriction and/or redness	• If the phenomenon around the lens occurs more or less equally, the periphery is probably too steep. In that case, adjust a lens with a flatter periphery. • If the phenomenon occurs mainly over one meridian, adjust a lens with a toric periphery.
The mid peripheral space is too large	• Adjust a lens with a steeper BCR.
The mid peripheral space is too small	• Adjust a lens with a flatter BCR.
The lens is limb wearing	• Adjust a lens with elevated limbal space (LCC). If you have a 16mm lens and the limb is carrying 360°, switch to a 17mm lens.