

**Visionary
Optics**

uniquely **specialized** contact lenses

FITTING GUIDE

EUROPA
SCLERAL
UNIVERSAL FIT TECHNOLOGY

(877) 533-1509 | www.Visionary-Optics.com | 1325 Progress Drive | Front Royal, VA 22630

PATIENT INDICATIONS

1. Managing corneal irregularity resulting from keratoconus, corneal transplant, trauma, or surgery.
2. Managing ocular surface disease resulting from severe dry eye, ocular graft versus host disease, and Stevens-Johnson syndrome.
3. An alternative for patients who do not achieve acceptable vision with soft lenses.

DESCRIPTION

The EUROPA SCLERAL contact lens is available in a 16mm and 18 mm diameter lens. EUROPA SCLERAL lenses rest on the sclera and completely vault the cornea allowing it to hold a fluid reservoir. The EUROPA SCLERA is intended to be a 2nd generation Jupiter Scleral™ lens that has been uniquely designed so that it is able to successfully fit a wide variety of corneal and scleral geometries. Multiple fitting sets are not necessary to fit oblate and prolate corneas, as is often the case with other available scleral lens designs. The EUROPA SCLERAL contact lens is designed to manage mild to severe levels of corneal irregularity and ocular surface disease.

PARAMETERS

EUROPA SCLERAL PARAMETERS

Base Curves	Any
Diameter	16.0, 18.0 & 20.0mm
BV Powers	Made to order
Cylinder (toric)	-0.25D to -15.00D in 0.25D steps
Axis (toric)	1° to 180° in 1° steps
Toric haptic	0.50D to 8.00D in 0.50 steps
Add power	+1.00, +1.50, +2.00, +2.50, +3.00, +3.50

OPTIMUM
 by **Contamac**

BAUSCH+LOMB

Boston[®]
 Materials

All lenses are plasma treated to ensure surface wetting.

Available in Optimum GP materials by Contamac; also available in Boston XO™ and Boston XO2™ materials.

VISIONARY OPTICS WARRANTY + GUARANTEE

- 90 Day Risk Free Warranty with Unlimited Exchanges.
- All lenses are manufactured to specification and designed to be free from defects.



DIAGNOSTIC FITTING SET

7 Base Curves	42.00D	44.00D	46.00D	48.00D	50.00D	52.00D	54.00D	
	14 Base Curves	42.00D	43.00D	44.00D	45.00D	46.00D	47.00D	48.00D
		49.00D	50.00D	51.00D	52.00D	53.00D	54.00D	55.00D

Each Fitting Set Includes:

- 7 or 14 Europa Diagnostic Set Lenses
- 1 8GB Thumb drive with Fitting Guide, Videos, Patient Care Brochure, and more!
- 1 Small DMV
- 1 Large DMV
- 1 Pen Light with Cobalt Blue Filter



Diagnostic lenses are used to fit the Europa Scleral lens. Fitting sets include diagnostic lenses that vary in sagittal depth and offer a laser marked base curve for easy identification.

CUSTOMIZATIONS

Fitting the Europa Scleral is a straightforward and efficient process, making it one of the easiest and most forgiving scleral lenses on the market. Changes to the standard parameters are unnecessary for most cases. However, Visionary Optics is able to customize any parameter including:

- Front Surface Toric (Double slab off ballasted design)
- Toric Haptics
- Bi-Toric (Front Toric & Toric Haptics)
- Complete Parameter Customization (Center Thickness, Optic Zone, Peripheral Curves)
- Lens Notching

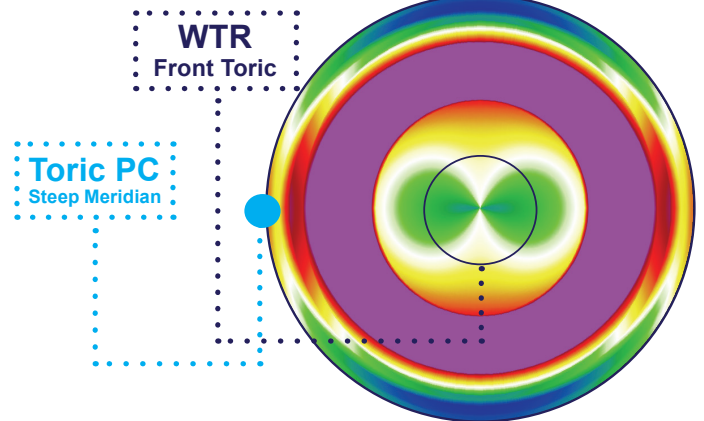
BI-TORIC (Front Toric & Toric Haptics)

PARAMETERS

Front Toric: 0.25D TO - 15.00D IN 0.25D STEPS

Axis: 1° TO 180° IN 1° STEPS

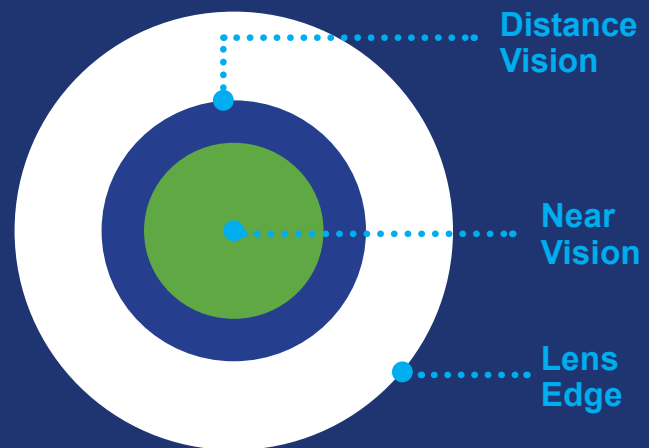
Toric Haptic: 0.50D to 8.0D in 0.50D STEPS



EUROPA
SCLERAL
 FOR PRESBYOPIA

For fitting of the Europa for Presbyopia, follow these fitting principles. The Europa for Presbyopia is a concentric bifocal with a near center front surface and the back surface is that of the Europa Scleral lens. With Europa for Presbyopia, the goal is to live focused...with distance and near vision.

Use the fitting principles listed in this fitting guide. Over refract the patient with a spherical component only. Attempt to achieve good visual acuity without over-minusing the patient. Simply record dominate eye, add power and the basic elements of the Europa fitting: central clearance, limbal clearance, and scleral alignment. For absolute presbyopes, it is recommended to start with a +2.00 add OU, and modify if necessary to a +2.00 dominate eye and +2.50 non-dominate eye.



PARAMETERS

Add Powers: +1.00D, +1.50D, +2.00D, +2.50D, +3.00D, +3.50D

2mm Near center zone: 1.0 to 3.5mm in increments of 0.5mm

Center distance available upon request



INITIAL LENS SELECTION

When utilizing the diagnostic set to fit the Europa Scleral lens, there are 3 ways to select the initial lens:

RECOMMENDED (regardless of K readings):

Start by placing the diagnostic lens with a 46 diopter base curve on the eye (see application and removal technique at the end of the guide), unless the patient has keratoconus, then start with the 50 diopter base curve.

USING TOPOGRAPHER DATA:

Simply add the corneal sagittal height measurement at the 10.0mm chord to 2,000 microns (which represents the average depth of the cornea from the 10.0mm chord to the 15.0mm chord) plus the 400 microns of desired clearance. 400 microns of initial clearance will result in 200 microns of clearance after 200 microns of lens settling.

Use this result to choose the fit set lens with closest sagittal height.

USING OCT (Optical Coherence Tomography):

Use the sagittal depth measurement of the cornea at the 15.0mm chord and add 400 microns. 400 microns of initial clearance will result in 200 microns of clearance after 200 microns of lens settling

Use this result to choose the fit set lens with the closest sagittal height.

FITTING & EVALUATION PROCESS

The fitting philosophy of the EUROPA SCLERAL lens is to vault the cornea by 100 to 300 microns with the lens haptic aligning the sclera. A well fit lens should semi-seal to the eye without movement.

1. Before application, fill the lens with non-preserved saline and stain it with a fluorescein strip for diagnostic purposes.
2. Assess the amount of vault of the diagnostic lens by comparing the thickness of the stained reservoir with the thickness of the lens by turning the slit lamp beam at a 45-degree angle to view the lens/reservoir/cornea in cross-section (Figure 1). Alternatively, you can use optical coherence tomography (OCT) to measure central corneal clearance. Ideally, the central reservoir thickness should be equal to the lens thickness. Scleral lenses settle by approximately 200 microns which will reduce overall vault to achieve an ideal amount of fluid reservoir.
3. If the initial diagnostic lens is too steep or too flat, then choose another diagnostic lens – either steeper or flatter – until you achieve a vault that matches the lens thickness. It's more efficient to choose additional diagnostic lenses in 2 to 4 dioptic steps when bracketing the lens fit.
4. Next, observe the lens fit with a diffuse cobalt light and Wratten filter. The lens should completely clear the cornea, including the limbus (Figure 2).
5. Next, use a diffuse white light to observe the haptic portion of the lens, which is resting on the sclera. The weight of the lens should be evenly distributed and should not blanch the blood vessels of the bulbar conjunctiva (Figure 3); however, intermittent areas of blanching are usually acceptable. Contact Visionary Optics' consultation for assistance if the best diagnostic lens is inadequately fitting the eye.
6. The final step of the fitting process is to perform a sphere-cylindrical over-refraction to determine power.
7. Consider utilizing a toric scleral haptic if you observe edge lift or fluorescein bleeding. A toric scleral haptic may also be considered in cases of decentration when you are unable to decrease the overall diameter.



FIGURE 1.

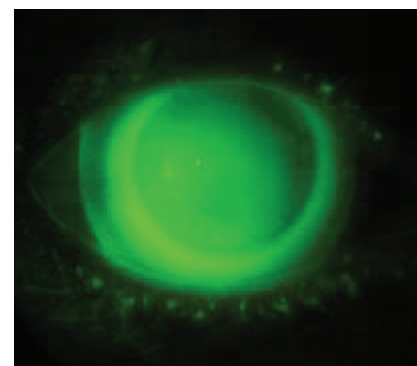


FIGURE 2.

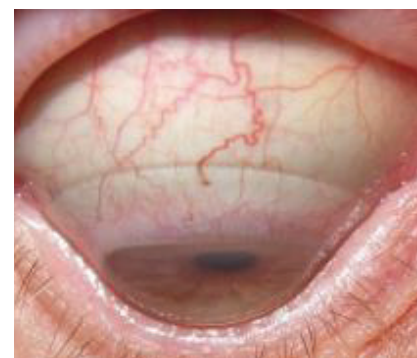


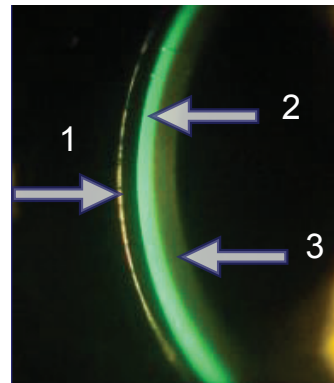
FIGURE 3.

VAULT REFERENCE

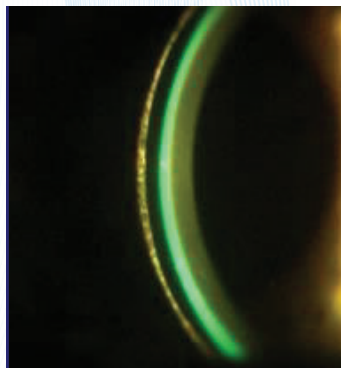
A point of reference is necessary to accurately estimate the vault or clearance of a scleral lens.

Use the center thickness of the scleral lens and the reference images (below) to estimate the amount of vault.

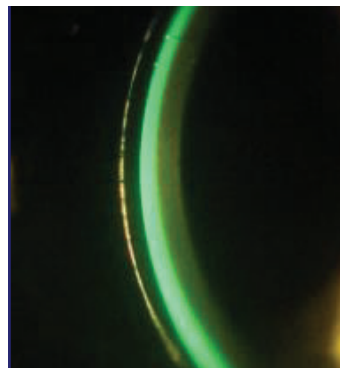
We recommend that you vault the cornea by 300 to 500 microns to accommodate for initial and long term settling of the scleral lens into the bulbar conjunctiva.



1. EUROPA SCLERAL lens (0.40 mm (400 microns) CT)
2. Clearance 300 microns (approximately 2/3 CT)
3. Cornea



150

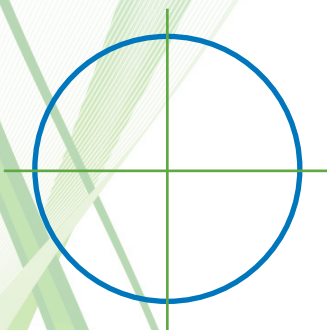


300

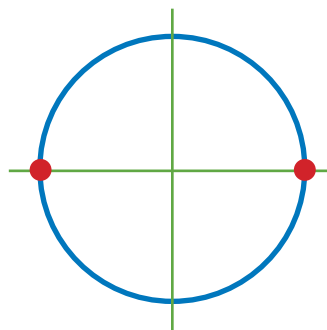


500

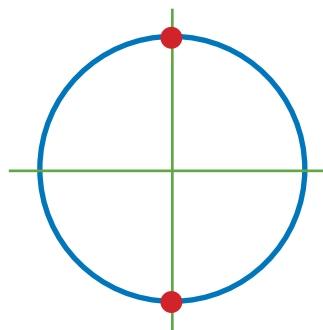
LENS MARKINGS



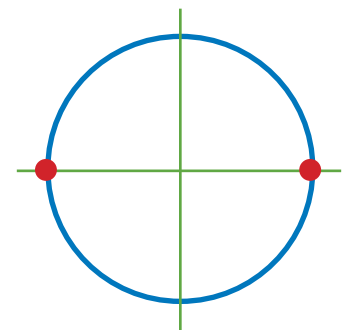
Diagnostic Lenses
 Laser-etched base curve for easy ID



Front Toric
 Drill Dots at the 3 & 9 o'clock position



Toric PC's
 Drill Dots at the steep meridian usually 6 & 12 o'clock position*



Bi-Toric
 Drill Dots at the 3 & 9 o'clock position

*When assessing the alignment of the toric haptic, the dots may rotate as the lens is finding its best fit position. The toricity is not always exactly at 6 & 12 o'clock.

EVALUATION & TROUBLESHOOTING

DECENTRATION	<ul style="list-style-type: none"> • IF THE LENS IS DECENTERING • IF YOU CAN'T REDUCE THE DIAMETER 	<ul style="list-style-type: none"> • REDUCE DIAMETER • CONSIDER A TORIC HAPTIC
LARGE BUBBLE	<ul style="list-style-type: none"> • TOO MUCH SALINE WAS LOST DURING INSERTION 	<ul style="list-style-type: none"> • REINSERT THE LENS
LIMBAL BEARING	<ul style="list-style-type: none"> • IF YOU SEE SLIGHT BEARING IN THE SUPERIOR NASAL QUADRANT • FOR EXTRA LARGE DIAMETER CORNEAS • IF YOU CAN'T INCREASE THE DIAMETER 	<ul style="list-style-type: none"> • THAT IS NORMAL AND NO CHANGE IS NECESSARY • INCREASE DIAMETER • INCREASE THE OPTIC ZONE AND WIDTH OF PC 1 AND STEEPEN REVERSE CURVE
COMPRESSION AND BLANCHING	<ul style="list-style-type: none"> • IF YOU HAVE SLIGHT COMPRESSION IN SUPERIOR QUADRANT ONLY AND NOT AFFECTING THE CORNEA • IF YOU HAVE COMPRESSION 360° 	<ul style="list-style-type: none"> • THAT IS NORMAL AND NO CHANGE IS NECESSARY • FLATTEN PC 2 & PC 3 AND STEEPEN BC-CHANGE POWER ACCORDINGLY
EDGE LIFT	<ul style="list-style-type: none"> • IF YOU HAVE EDGE LIFT 360° • IF YOU HAVE EDGE LIFT AT 12 & 6 	<ul style="list-style-type: none"> • STEEPEN PC 3 AND PC 4 • TORIC HAPTIC
FOGGY/DEBRIS BUILDUP	<ul style="list-style-type: none"> • EVALUATE HAPTIC ALIGNMENT WITH FLUORESCEIN • IF IT DOESN'T BLEED IN AT 12 & 6 	<ul style="list-style-type: none"> • IF BLEEDS IN AT 12/6 THEN CONSIDER TORIC HAPTIC • CHECK FOR EXCESSIVE CENTRAL OR LIMBAL CLEARANCE
CONSISTENT BLUR	<ul style="list-style-type: none"> • IF THE PATIENT HAS STRONG LID INTERACTION, THE LENS COULD BE FLEXING • IF THE LENS IS NOT FLEXING, PERFORM SPHERICAL CYLINDER OVER REFRACTION 	<ul style="list-style-type: none"> • INCREASE CT BY 0.1MM • CONSIDER FRONT SURFACE TORIC
FLUCTUATING VISION	<ul style="list-style-type: none"> • CHECK FOR BUBBLES IN THE CENTRAL ZONE • IF BUBBLES ARE NOT PRESENT, THE LENS COULD BE FLEXING 	<ul style="list-style-type: none"> • IF BUBBLES PRESENT, REINSERT THE LENS • INCREASE CT BY 0.1MM

POST FIT EVALUATION

1. Have the patient come to appointment wearing the lenses at least 4 hours.
2. Ask the patient about comfort, vision, and any concerns they have with the lens(es).
3. Check the patient's vision to determine the visual acuity and determine if you need to change the Rx.
4. Complete an evaluation of the lenses with your slit lamp and/or OCT to determine the fit of the lens.
5. Remove the lens and do a comprehensive check of the patient's cornea.

APPLICATION & REMOVAL TIPS

Application

1. Center the lens on a large scleral plunger. Alternatively; form a "tripod" with the thumb, index, and middle finger, with the lens positioned in the center.
2. Fill the lens with non-preserved saline solution.
3. The patient should lean forward with their head down, while opening the eyelids as widely as needed.
4. Apply the lens to the eye surface.

Removal

1. Moisten a contact lens plunger with a few drops of saline.
2. Position the plunger on the lens near the edge so that the plunger is just inside the lens. Do not position the plunger on the center of the scleral lens, as the suction from the lens will cause difficulty with removal.
3. Lift the edge of the lens and remove the lens from the eye.

Please visit the [Scleral Lens Education Society \(www.sclerallens.org\)](http://www.sclerallens.org) for a link to a 10-minute video on application, removal, and care of scleral contact lenses.